Energy Research and Development Division
FINAL PROJECT REPORT

MT SURVEY FOR RESOURCE ASSESSMENT AND ENVIRONMENTAL MITIGATION AT THE GLASS MOUNTAIN KGRA

APPENDICES R

Prepared for: California Energy Commission – Geothermal Resources Development Account
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PREFACE

The California Legislature created the Geothermal Resources Development Account (GRDA) and the Geothermal Program in 1980. Funding comes from revenues paid to the United States government by geothermal developers for leases on federal land in California. Under the Geothermal Program, the California Energy Commission has assisted numerous eligible private entities and local jurisdictions in geothermal research, development, demonstration, commercialization, planning, mitigations, and environmental enhancement projects related to geothermal energy. The purpose of the program is to enhance and promote geothermal development in California. For more information on the Geothermal Program, please visit the California Energy Commission's Web site at. http://www.energy.ca.gov/geothermal/index.html

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MT Survey for Resource Assessment and Environmental Mitigation in the Glass Mountain KGRA is the final report for the Geothermal Reserouces Development Account contract number GEO-02-007 conducted by GSY-USA, Inc. The information from this project contributes to Energy Research and Development Division's Renewable Program.

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ABSTRACT

The objectives of this project were to use non-invasive methods to indirectly image the permeable geothermal reservoir geometry and mitigate the drilling costs and environmental impact of future geothermal development at Glass Mountain Known Geothermal Resource Area. This was done by more efficiently focusing exploration wells on the most promising target zones. Significant advances were achieved in three dimensional magnetotelluric imaging, allowing three dimensional imaging to be given greater weight than two dimensional imaging in interpreting the data. Magnetotellurics is a geophysical investigation technique that images the earth's subsurface by measuring natural variations of electric and magnetic fields at the surface. Magnetotelluric resistivity patterns were correlated with detailed data on subsurface temperatures, downhole resistivity logging, patterns of rock alteration zones and water entry zones from wells along geologic cross-sections. This confirmed that reservoir interpretation based on correlating magnetotelluric resistivity with temperature sensitive clay alteration was feasible. The magnetotelluric resistivity maps and cross-sections extended these correlations to undrilled areas, revealing the likely geometry of the geothermal system.

Conceptual models based on the resistivity images indicated that major northeast trending structures and the Medicine Lake Volcano rim structure form permeable zones and reservoir boundaries in the Glass Mountain Known Geothermal Resource Area. Several areas that appear to host a relatively shallow permeable reservoir were identified. The magnetotelluric interpretation also indicated that a significant part of the Medicine Lake Volcano was unlikely to host a developable geothermal resource. Depending on the resource development strategy and supporting studies, follow-up magnetotelluric surveys could be justified. The conceptual resource model derived from this study's integrated interpretation illustrates well-targeting strategies that can be reviewed with respect to engineering and environmental issues. By more efficiently directing well targeting, magnetotelluric resistivity imaging can reduce dry hole costs, as well as focus planning efforts and mitigate the environmental impacts of resource development.

Keywords: electromagnetic survey, geothermal exploration, geophysics resistivity, magnetotellurics, petrography, Medicine Lake, Glass Mountain Known Geothermal Resource Area

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APPENDIX R:
MT Stations P01 to P17. Data report to Unocal

Attachment XVIII

CEC-500-2007-XXX-ATXVIII

MT Stations P01 to P17. Data report to Unocal

This document is an attachment to a report funded by the California Energy Commission's Geothermal Resource Development Account (GRDA) Program. The GRDA Program did not fund this document, but the authors of the GRDA funded report have attached it as a supporting document.

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GM 34.076

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-001s/002s/003s/

Operator:STEWART
Date: 17 Aug 1989
Time: 15:32:29

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#205-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 1

Stn Number:MDLK89-001s
Site Desc:T43N R3E SEC13 SW-
41,33,53 N 121,34,-8 W
Elevation:6750ft
Reference:MDLK89-002s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE222
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL430	+0 DEG
Hy	2	COIL431	+90 DEG
Hz	3	LOOP333	
Ex	4	165 M	+0 DEG
Ey	5	184 M	+90 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 21_ K Ohms
Ex Voltage: AC=_9.5 mv, DC=_23_ mv
Ey Pot Resist: _11 K Ohms
Ey Voltage: AC=_2.5 mv, DC=____ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

OPERATOR LOG FOR MDLK89-001E/002s/003s/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, b, and c.
X#2 - SUM OF RUNS: a, b, and c.
X#3 - SUM OF RUNS: a, b, and c.
X#4 - SUM OF RUNS: a, b, and c.
X#5 - SUM OF RUNS: a, b, and c.
X#6 - SUM OF RUNS: a, b, and c.
X#7 - SUM OF RUNS: a, b, and c.
X#8 - SUM OF RUNS: a, b, and c.
X#9 - SUM OF RUNS: a, b, and c.
X#10 - SUM OF RUNS: a, b, and c.
X#11 - SUM OF RUNS: a, b, and c.
X#12 - SUM OF RUNS: a, b, and c.
X#13 - SUM OF RUNS: a, b, and c.
X#14 - SUM OF RUNS: a, b, and c.
X#15 - SUM OF RUNS: a, b, and c.
X#16 - SUM OF RUNS: a, b, and c.
X#17 - SUM OF RUNS: a, b, and c.
X#18 - SUM OF RUNS: a, b, and c.
X#19 - SUM OF RUNS: a, b, and c.
X#20 - SUM OF RUNS: a, b, and c.

Operator:STEWART/WUNDERMAN

Cultural Factors:
NONE
Weather Conditions:
CLEAR DURING RUNS "a & c" LIGHTNING DURING RUN "b"
Other Factors:
NONE

PHOENIX GEOSCIENCE

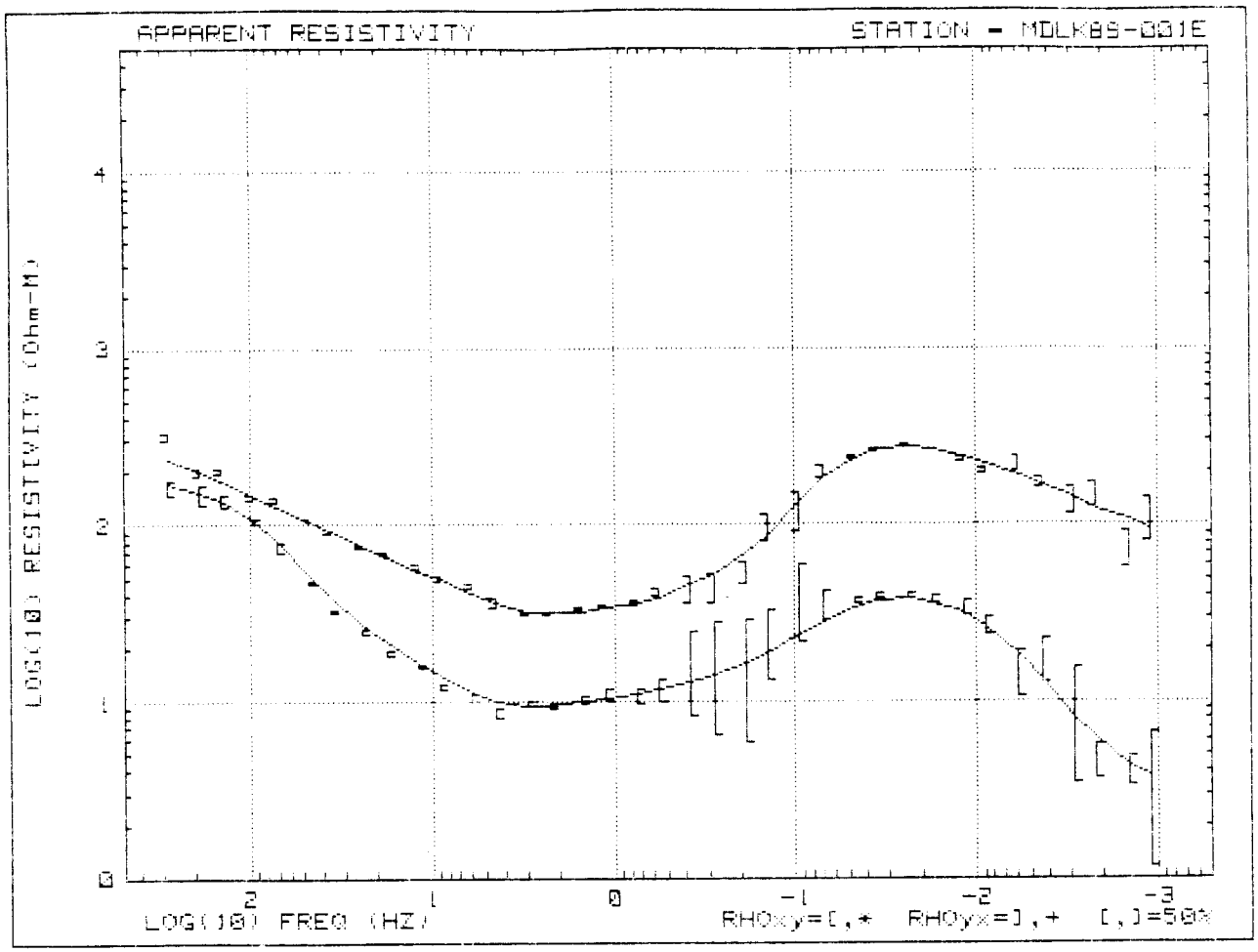
MT Site: MDLK89-001E

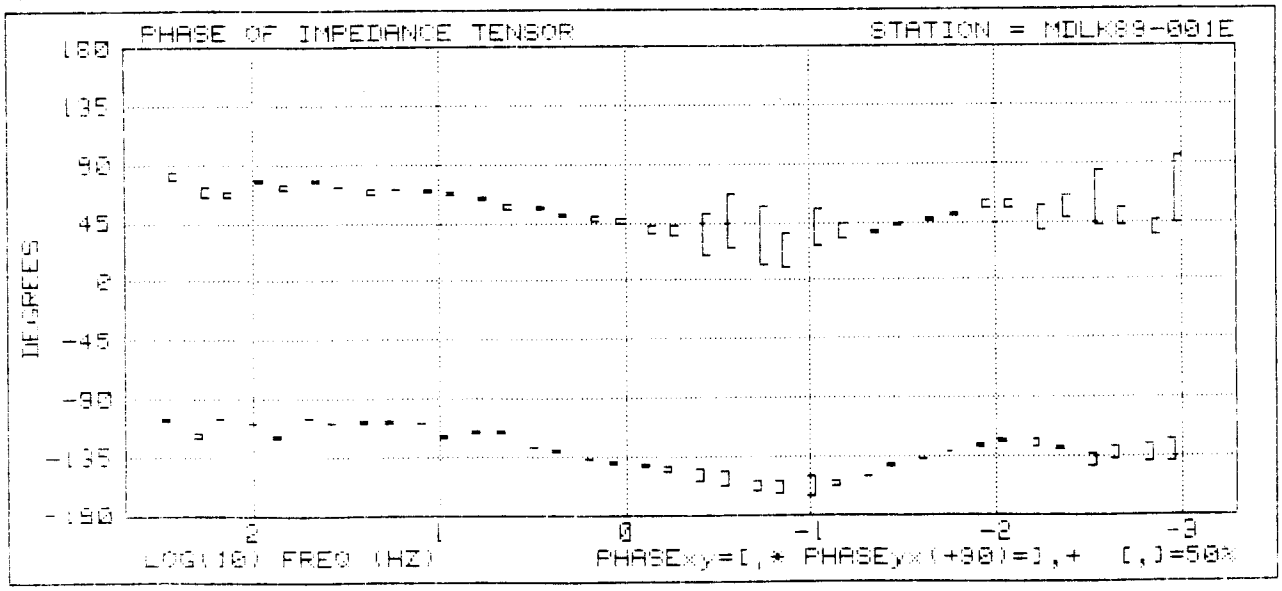
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

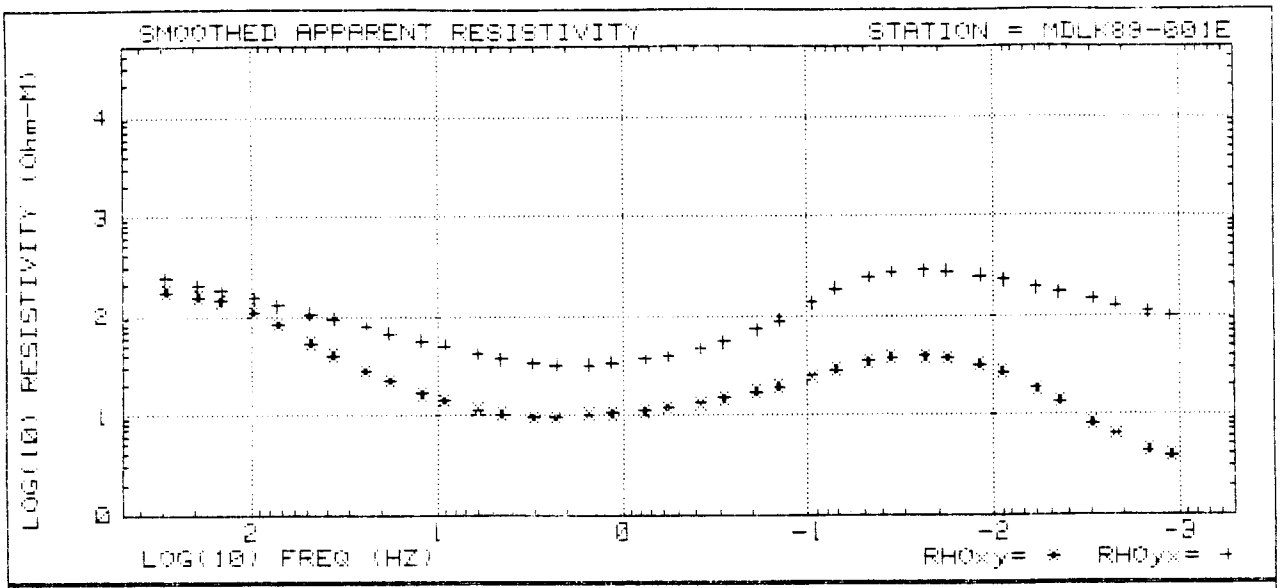
MT Site: MDLK89-001E

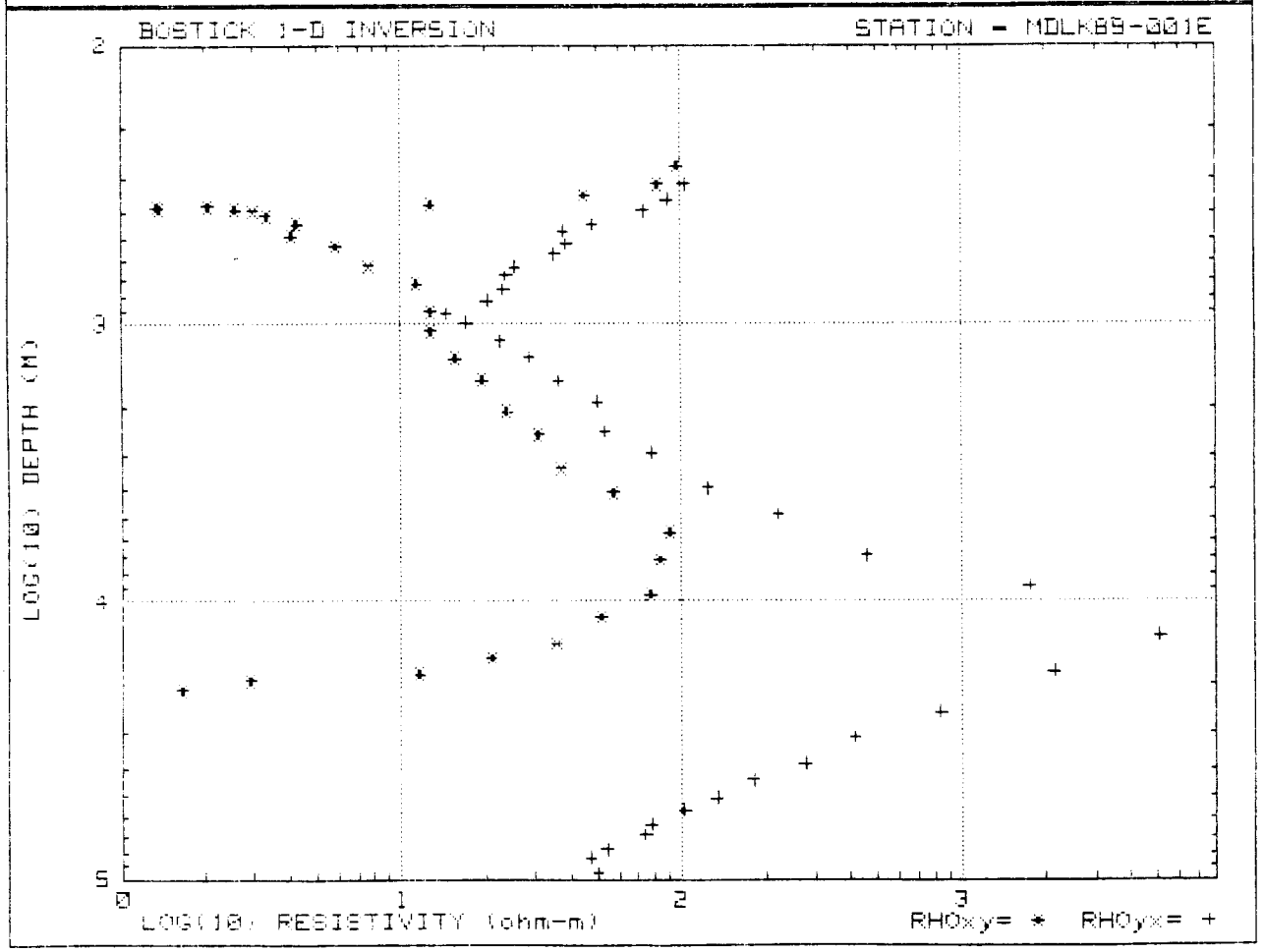




PHOENIX GEOSCIENCE

MT Site: MDLK89-001E





PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	384	162.2	16.1	315.3	7.3	80.6	4.3	-106.0	2.0
3	192.00 Hz	1341	147.9	21.3	197.6	8.2	68.7	5.5	-117.8	2.3
4	144.00 Hz	671	137.3	11.6	203.5	4.0	67.3	3.2	-105.0	1.1
5	96.00 Hz	670	104.9	5.5	143.7	3.3	77.0	1.5	-108.5	.9
6	72.00 Hz	761	73.9	9.9	139.5	4.5	73.1	2.7	-118.3	1.3
7	48.00 Hz	2300	47.4	3.2	108.3	1.7	77.4	.9	-104.9	.5
8	36.00 Hz	2578	32.5	2.6	89.2	1.7	73.0	.7	-108.1	.5
9	24.00 Hz	864	24.7	6.4	75.4	4.1	69.0	1.8	-107.9	1.2
10	18.00 Hz	1824	18.6	4.1	67.9	2.8	70.8	1.2	-107.3	.8
11	12.00 Hz	2689	15.8	3.7	57.6	3.1	70.5	1.1	-108.9	.9
12	9.00 Hz	576	12.1	6.1	49.6	4.1	68.0	1.7	-118.4	1.1
13	6.00 Hz	2013	10.5	6.8	44.6	5.8	63.8	1.9	-115.6	1.6
14	4.50 Hz	2493	8.5	10.9	35.8	8.8	58.2	3.0	-115.1	2.4
15	3.00 Hz	8024	9.7	3.8	31.6	1.3	56.0	1.1	-127.9	.4
16	2.25 Hz	7032	9.5	4.2	31.1	1.3	51.1	1.2	-130.5	.4
17	1.50 Hz	4013	10.1	7.3	33.3	2.1	48.2	2.0	-137.3	.6
18	1.13 Hz	3920	10.3	11.8	34.3	3.1	45.9	3.2	-139.8	.9
19	1.33 Sec	2256	10.7	13.6	35.8	4.1	40.0	3.6	-142.0	1.1
20	1.78 Sec	2256	11.5	24.4	41.3	8.7	38.8	6.3	-145.2	2.4
21	2.67 Sec	1224	14.5	99.9	42.5	29.9	36.3	23.3	-149.5	7.5
22	3.56 Sec	1044	13.4	99.9	43.4	32.7	45.9	31.7	-151.8	8.1
23	5.33 Sec	1044	13.0	99.9	53.2	25.2	35.3	33.8	-157.6	6.4
24	7.11 Sec	492	20.9	99.9	96.6	27.5	23.6	19.9	-158.0	7.0
25	10.67 Sec	83	35.9	99.9	119.9	45.8	41.2	21.8	-157.2	10.8
26	14.22 Sec	149	35.0	30.3	199.0	11.0	38.9	7.6	-156.7	3.0
27	21.33 Sec	102	37.4	6.1	242.3	2.4	38.0	1.7	-150.2	.7
28	28.44 Sec	120	40.0	4.0	263.1	2.6	42.8	1.1	-141.5	.7
29	42.67 Sec	120	39.6	5.5	285.0	1.4	46.8	1.5	-137.0	.4
30	56.89 Sec	102	38.1	6.7	266.6	1.8	50.8	1.9	-131.6	.5
31	85.33 Sec	54	33.8	15.3	235.6	4.6	57.7	4.2	-126.1	1.3
32	113.78 Sec	33	26.7	17.2	201.3	5.4	58.9	4.5	-122.6	1.5
33	170.67 Sec	21	14.4	58.4	222.2	15.5	48.2	13.2	-125.2	4.1
34	227.56 Sec	18	17.0	55.1	172.0	9.2	55.9	12.6	-128.6	2.5
35	341.33 Sec	15	7.3	99.9	135.4	27.5	63.3	31.7	-138.4	7.0
36	455.11 Sec	6	4.6	38.2	145.8	26.7	49.3	9.3	-131.5	6.8
37	682.67 Sec	9	4.1	33.2	73.1	41.1	40.5	8.2	-132.1	9.9
38	910.22 Sec	6	2.8	99.9	109.4	51.9	70.2	37.8	-130.4	12.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	384	171.6	232.8	97.9	275	104.1	320
3	192.00 Hz	1341	153.6	199.4	82.7	318	90.1	363
4	144.00 Hz	671	139.4	179.2	45.8	350	73.6	397
5	96.00 Hz	679	108.2	149.3	12.7	378	48.6	444
6	72.00 Hz	761	80.6	126.0	2.1	382	38.4	471
7	48.00 Hz	2300	52.8	103.2	1.4	385	39.3	522
8	36.00 Hz	2578	39.2	92.3	1.4	389	35.6	570
9	24.00 Hz	864	27.6	75.9	2.6	393	25.6	633
10	18.00 Hz	1824	22.1	65.5	3.0	397	23.9	679
11	12.00 Hz	2688	16.3	54.9	3.3	415	23.4	761
12	9.00 Hz	576	13.9	49.6	4.3	443	20.4	835
13	6.00 Hz	2013	11.3	41.2	4.1	489	14.6	932
14	4.50 Hz	2493	10.1	35.7	5.8	533	17.2	1002
15	3.00 Hz	8024	9.4	32.3	7.7	630	22.8	1169
16	2.25 Hz	7032	9.4	31.6	11.5	728	29.0	1334
17	1.50 Hz	4013	10.1	31.4	12.9	922	36.8	1628
18	1.13 Hz	3920	10.3	33.4	12.8	1074	50.8	1939
19	1.33 Sec	2256	10.9	36.2	15.8	1355	54.1	2473
20	1.78 Sec	2256	11.7	38.3	19.5	1620	78.7	2937
21	2.67 Sec	1224	12.9	46.0	24.1	2091	125.5	3942
22	3.56 Sec	1044	14.4	52.8	31.3	2543	223.7	4877
23	5.33 Sec	1044	16.7	70.6	37.5	3363	461.3	6906
24	7.11 Sec	492	18.7	87.9	58.0	4106	1757.5	8897
25	10.67 Sec	83	23.9	132.2	91.2	5679	5155.0	13363
26	14.22 Sec	149	28.1	181.8	84.8	7113	2150.9	18098
27	21.33 Sec	102	33.8	237.3	77.8	9560	850.5	25320
28	28.44 Sec	120	36.9	268.8	52.0	11531	416.9	31116
29	42.67 Sec	120	38.1	275.6	36.1	14341	277.9	38592
30	56.89 Sec	102	36.2	269.5	21.0	16159	182.1	44068
31	85.33 Sec	54	31.7	241.0	11.7	18497	134.5	51036
32	113.78 Sec	33	26.4	221.4	2.9	19488	103.4	56487
33	170.67 Sec	21	18.2	187.4	.47	19820	78.2	63640
34	227.56 Sec	18	13.3	166.5	.34	20018	74.7	69278
35	341.33 Sec	15	8.1	143.9	.21	20218	54.8	78874
36	455.11 Sec	6	6.3	122.0	.33	20420	47.7	83871
37	682.67 Sec	9	4.3	106.2	.75	20624	50.8	95836
38	910.22 Sec	6	3.8	95.6	1.7	21062	44.2	104964

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	384	-117.90	8.57	999.99	78.60	476.91	999.99
3	192.00 Hz	1341	-19.92	-10.62	401.78	136.60	351.16	999.99
4	144.00 Hz	671	-55.38	-43.73	143.74	121.32	290.04	599.59
5	96.00 Hz	670	-7.44	-35.39	17.30	50.65	218.63	72.23
6	72.00 Hz	761	10.72	-6.06	24.48	47.52	156.07	118.47
7	48.00 Hz	2300	-1.02	-8.37	1.55	23.28	104.04	5.70
8	36.00 Hz	2578	-.60	-8.33	.68	22.38	73.14	1.96
9	24.00 Hz	864	3.01	-6.72	2.17	19.54	50.85	5.70
10	18.00 Hz	1824	3.92	-7.19	.62	13.46	38.62	1.36
11	12.00 Hz	2688	.88	-2.89	.49	10.30	29.02	.64
12	9.00 Hz	576	-.44	-1.10	.59	8.74	21.67	.96
13	6.00 Hz	2013	-1.17	-.81	.61	7.84	15.90	.68
14	4.50 Hz	2493	-.04	-1.14	.87	7.30	11.76	1.02
15	3.00 Hz	8024	-1.37	.75	.06	6.74	10.00	.10
16	2.25 Hz	7032	-.87	.51	.05	6.49	8.04	.09
17	1.50 Hz	4013	-.26	.28	.08	5.81	6.49	.19
18	1.13 Hz	3920	-.02	.23	.16	5.45	5.63	.38
19	1.33 Sec	2256	.077	-.132	.131	4.851	4.073	.325
20	1.78 Sec	2256	-.022	-.608	.312	4.432	3.569	.773
21	2.67 Sec	1224	-.078	-.890	5.055	4.200	3.080	8.382
22	3.56 Sec	1044	.334	-.545	3.845	3.023	3.124	11.601
23	5.33 Sec	1044	.216	-.463	2.862	2.845	2.018	8.457
24	7.11 Sec	492	.292	-.477	1.934	3.513	1.533	3.529
25	10.67 Sec	83	.797	.324	2.290	3.088	2.700	4.864
26	14.22 Sec	149	.036	.096	.201	2.731	2.201	.431
27	21.33 Sec	102	.377	.008	.010	2.332	1.824	.016
28	28.44 Sec	120	.553	.118	.009	1.947	1.803	.005
29	42.67 Sec	120	.335	.215	.001	1.476	1.571	.007
30	56.89 Sec	102	.217	.149	.002	1.155	1.419	.007
31	85.33 Sec	54	.128	.212	.010	.753	1.189	.022
32	113.78 Sec	33	.143	.244	.006	.559	.928	.015
33	170.67 Sec	21	.101	.022	.039	.432	.484	.044
34	227.56 Sec	18	.148	.142	.014	.343	.506	.036
35	341.33 Sec	15	.197	.085	.015	.147	.293	.066
36	455.11 Sec	6	.112	-.011	.018	.146	.169	.003
37	682.67 Sec	9	.038	.034	.003	.131	.112	.001
38	910.22 Sec	6	.109	.018	.048	.042	.116	.013

PHOENIX GEOSCIENCE

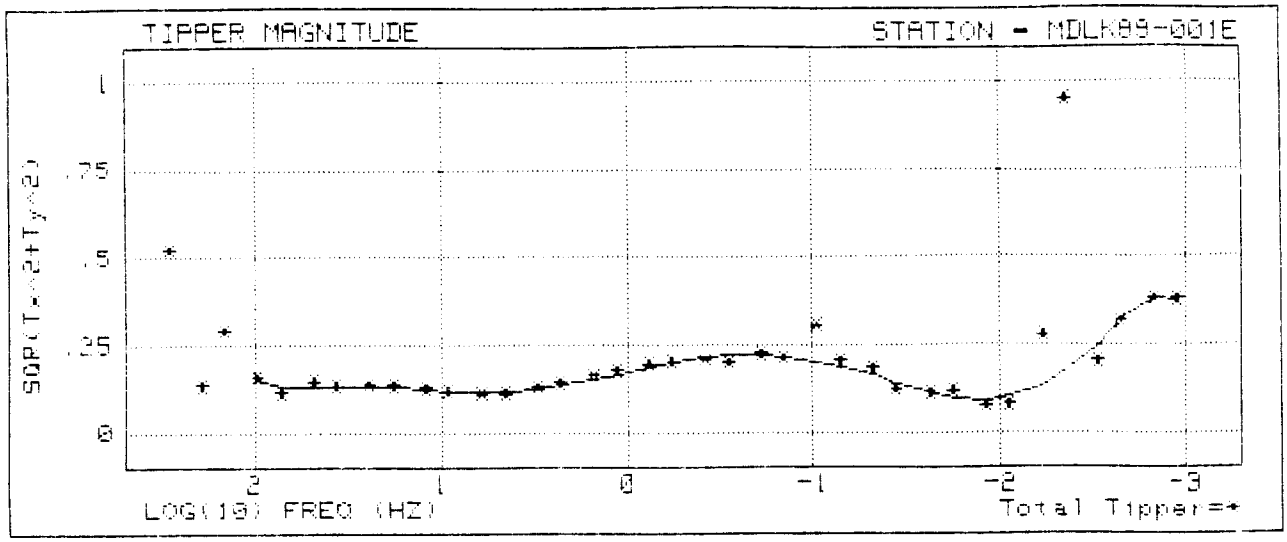
MT Site: MDLK89-001E

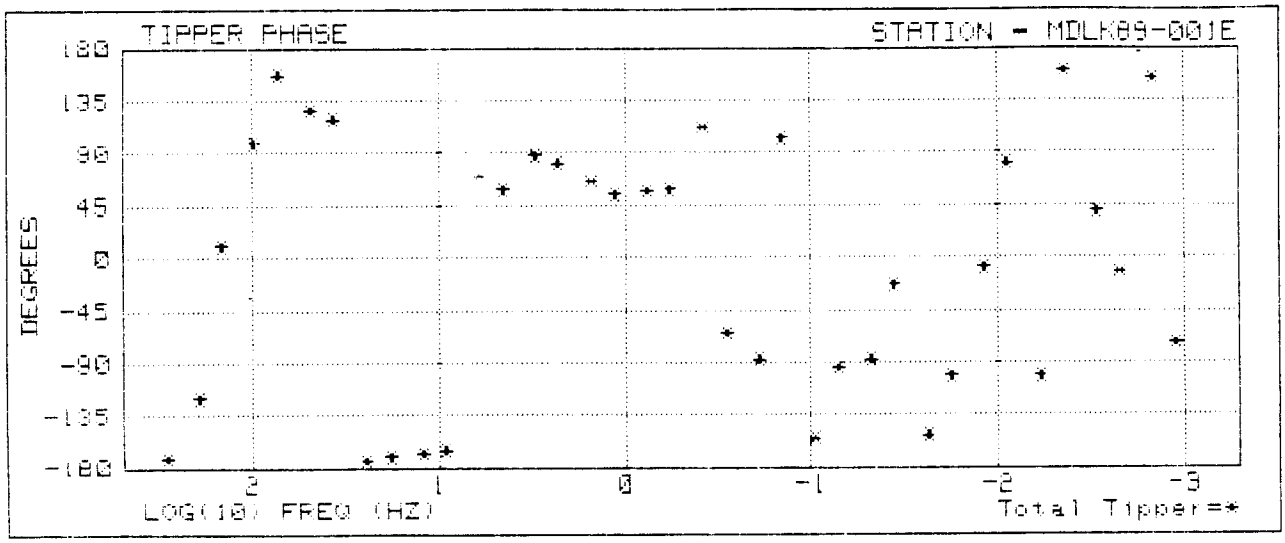
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

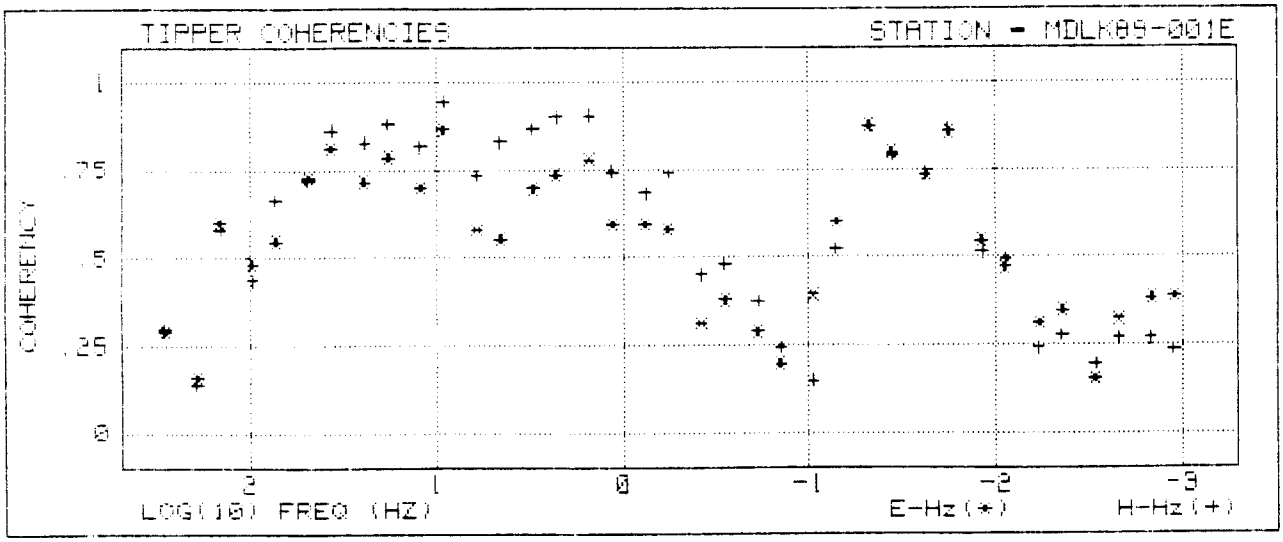
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	384	-185.60	-647.71	999.99	-7.16	-60.81	999.99
3	192.00 Hz	1341	-203.32	-385.15	587.03	-19.11	-12.21	999.99
4	144.00 Hz	671	-99.32	-369.68	114.31	-39.74	-39.41	476.85
5	96.00 Hz	670	-83.53	-248.97	35.45	-25.82	-15.47	148.01
6	72.00 Hz	761	-106.09	-197.38	49.46	24.80	-26.02	239.37
7	48.00 Hz	2300	-41.33	-155.82	3.77	-.32	-8.61	13.86
8	36.00 Hz	2578	-39.36	-120.43	2.39	-2.21	-7.75	6.85
9	24.00 Hz	864	-29.25	-90.49	7.30	2.00	-6.48	19.19
10	18.00 Hz	1824	-23.19	-74.65	2.35	1.44	-6.52	5.16
11	12.00 Hz	2688	-19.07	-55.62	1.59	1.59	-3.13	2.07
12	9.00 Hz	576	-22.44	-41.57	1.80	1.14	-2.18	2.93
13	6.00 Hz	2013	-15.80	-33.01	2.13	.84	-1.74	2.36
14	4.50 Hz	2493	-12.03	-25.71	2.89	2.80	-2.10	3.39
15	3.00 Hz	8024	-13.39	-17.18	.04	1.29	-1.71	.07
16	2.25 Hz	7032	-12.14	-14.23	.03	1.45	-1.60	.06
17	1.50 Hz	4013	-11.61	-10.71	.05	.72	-1.06	.12
18	1.13 Hz	3920	-10.61	-8.97	.09	.61	-.74	.21
19	1.33 Sec	2256	-9.121	-7.136	.106	.223	-.336	.264
20	1.78 Sec	2256	-8.845	-6.155	.402	-.279	-.170	.997
21	2.67 Sec	1224	-7.695	-4.533	2.721	-.165	-.680	4.835
22	3.56 Sec	1044	-6.882	-3.696	2.447	.070	1.237	7.383
23	5.33 Sec	1044	-6.534	-2.687	1.263	.158	-.144	3.732
24	7.11 Sec	492	-7.638	-3.093	1.999	-.012	.327	3.648
25	10.67 Sec	83	-6.908	-2.910	3.989	.817	-.051	8.471
26	14.22 Sec	149	-7.682	-3.309	.380	-.099	.701	.818
27	21.33 Sec	102	-6.541	-3.744	.016	.484	-.226	.026
28	28.44 Sec	120	-5.319	-4.238	.015	.503	.186	.009
29	42.67 Sec	120	-4.223	-3.945	.003	.289	.268	.015
30	56.89 Sec	102	-3.215	-3.619	.004	.343	.032	.012
31	85.33 Sec	54	-2.191	-3.001	.014	.136	.206	.029
32	113.78 Sec	33	-1.603	-2.505	.012	.227	.188	.032
33	170.67 Sec	21	-1.470	-2.086	.067	.092	.029	.077
34	227.56 Sec	18	-1.214	-1.518	.015	.098	.185	.036
35	341.33 Sec	15	-1.053	-.935	.059	.135	.172	.257
36	455.11 Sec	6	-.839	-.948	.045	.206	-.094	.007
37	682.67 Sec	9	-.490	-.543	.032	.110	-.026	.012
38	910.22 Sec	6	-.502	-.590	.053	.045	.081	.014

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E







PHOENIX GEOSCIENCE

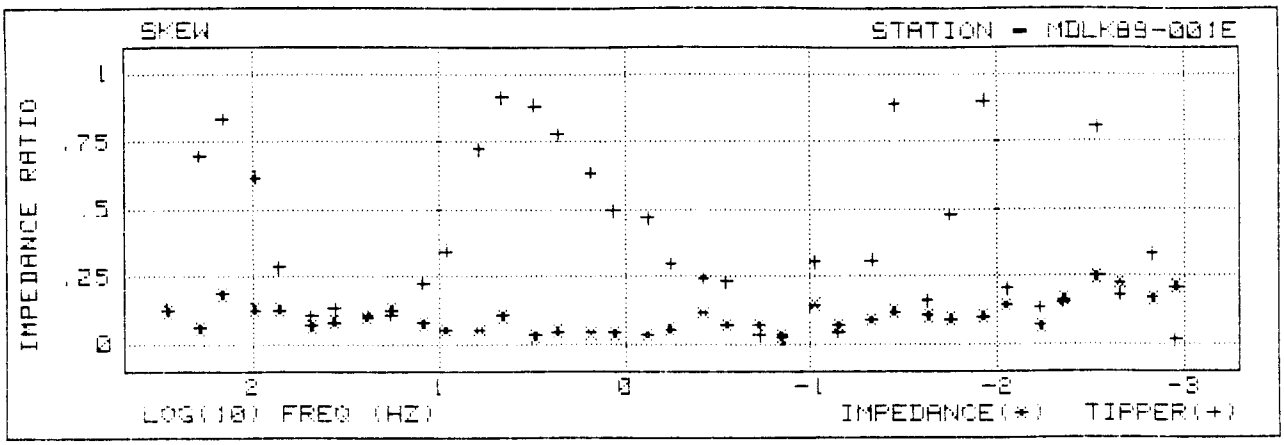
MT Site: MDLK89-001E

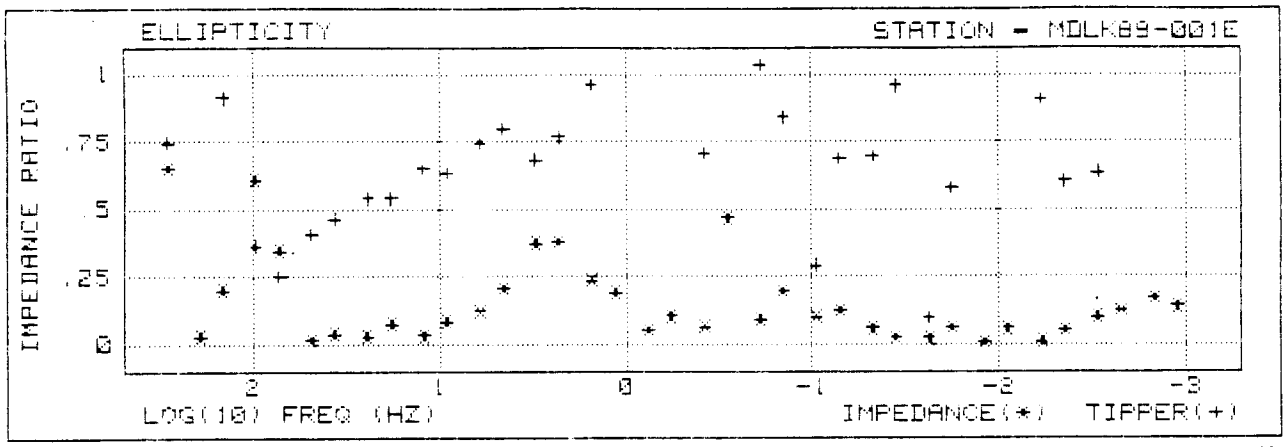
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

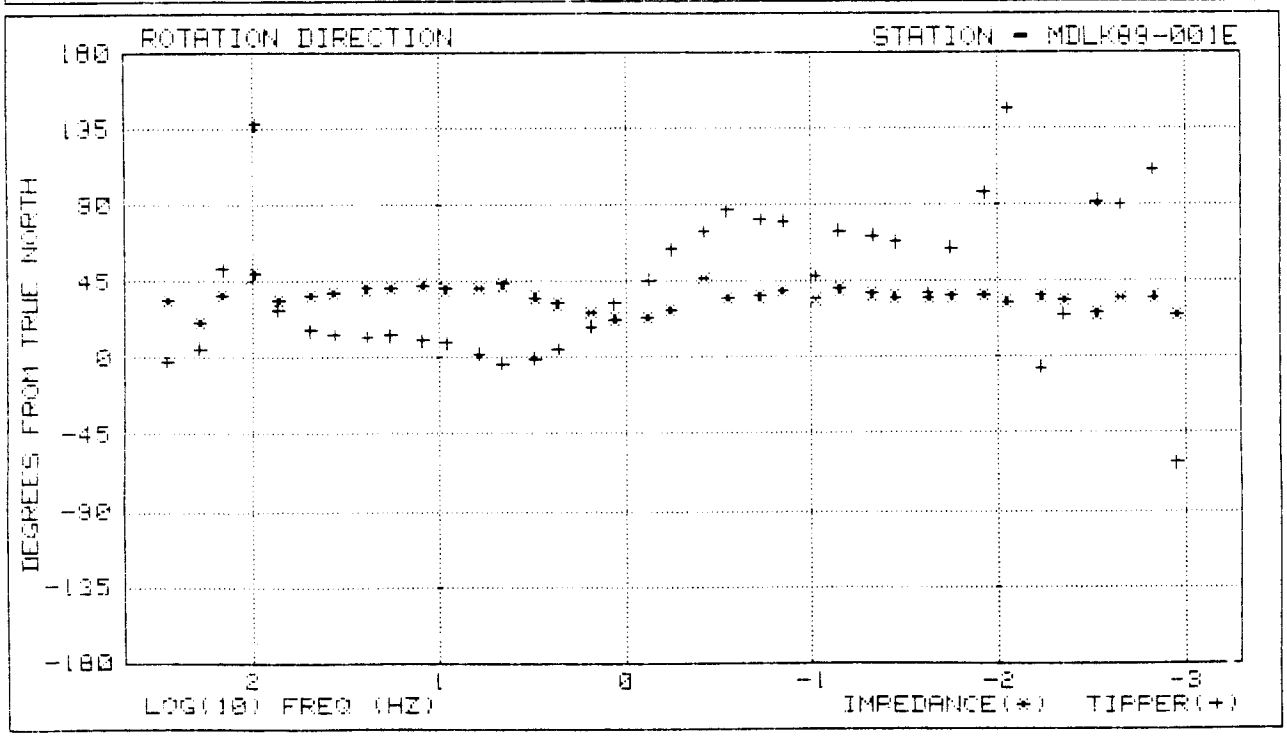
F#	Frq/Frd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	384	.52	-172.90	.29	.29
3	192.00 Hz	1341	.13	-120.72	.15	.14
4	144.00 Hz	671	.29	9.61	.60	.58
5	96.00 Hz	670	.16	98.03	.48	.43
6	72.00 Hz	761	.11	155.81	.54	.66
7	48.00 Hz	2300	.14	125.79	.72	.72
8	36.00 Hz	2578	.13	117.94	.81	.86
9	24.00 Hz	864	.13	-175.03	.71	.82
10	18.00 Hz	1824	.13	-171.61	.78	.88
11	12.00 Hz	2688	.12	-168.75	.70	.81
12	9.00 Hz	576	.11	-166.13	.86	.94
13	6.00 Hz	2013	.11	69.59	.57	.73
14	4.50 Hz	2493	.11	57.52	.55	.83
15	3.00 Hz	8024	.13	87.09	.69	.86
16	2.25 Hz	7032	.14	80.32	.73	.90
17	1.50 Hz	4013	.16	64.82	.77	.90
18	1.13 Hz	3920	.17	53.54	.59	.74
19	1.33 Sec	2256	.19	56.70	.59	.68
20	1.78 Sec	2256	.20	57.91	.57	.74
21	2.67 Sec	1224	.20	111.09	.31	.45
22	3.56 Sec	1044	.20	-65.86	.38	.48
23	5.33 Sec	1044	.22	-87.98	.29	.37
24	7.11 Sec	492	.21	102.00	.19	.24
25	10.67 Sec	83	.30	-155.22	.39	.14
26	14.22 Sec	149	.20	-94.74	.60	.52
27	21.33 Sec	102	.18	-87.91	.87	.87
28	28.44 Sec	120	.12	-23.96	.79	.79
29	42.67 Sec	120	.11	-153.38	.73	.73
30	56.89 Sec	102	.11	-102.27	.85	.86
31	85.33 Sec	54	.07	-9.69	.54	.51
32	113.78 Sec	33	.07	79.97	.47	.49
33	170.67 Sec	21	.28	-101.88	.31	.24
34	227.56 Sec	18	.95	159.73	.35	.27
35	341.33 Sec	15	.20	39.07	.15	.19
36	455.11 Sec	6	.31	-13.20	.32	.26
37	682.67 Sec	9	.38	152.91	.38	.27
38	910.22 Sec	6	.38	-73.84	.39	.23

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E







PHOENIX GEOSCIENCE

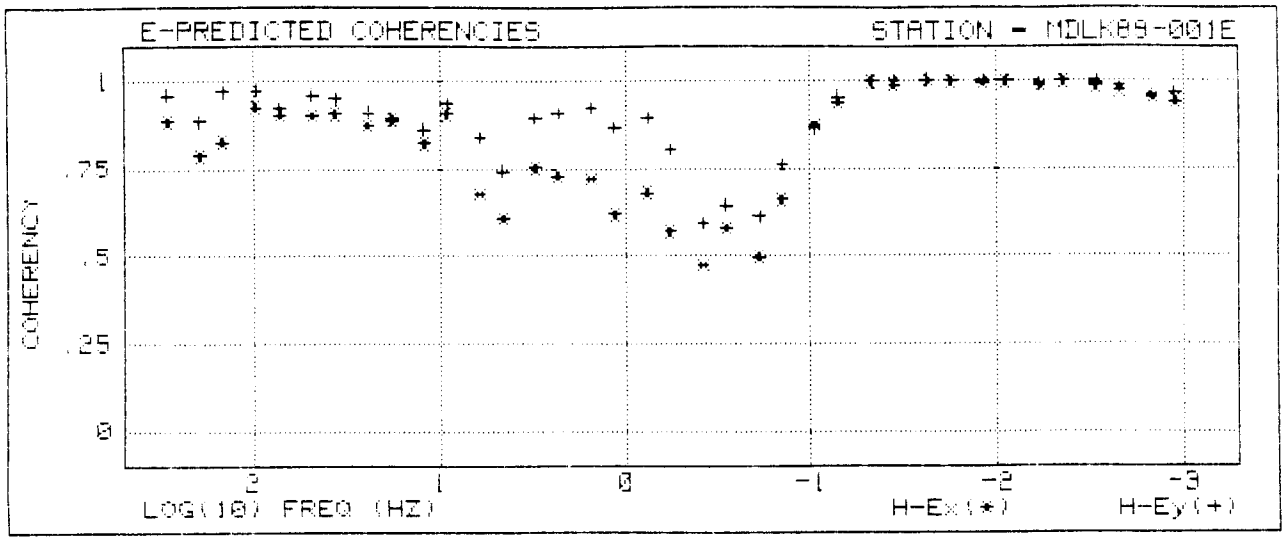
MT Site: MDLK89-001E

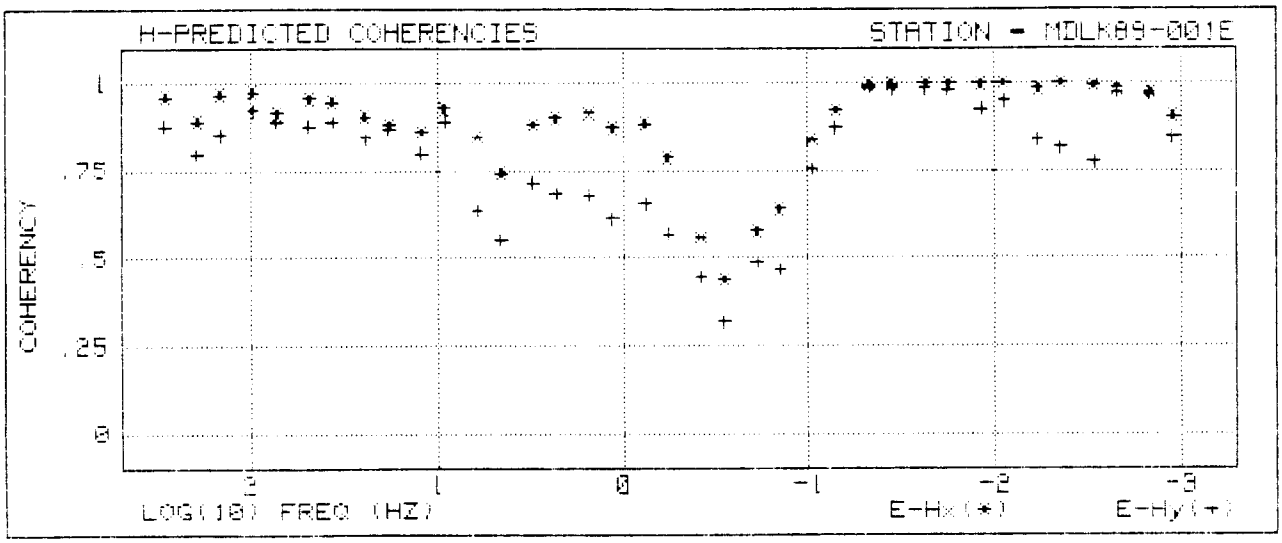
SKEW, ELLIPTICITY AND STRIKE

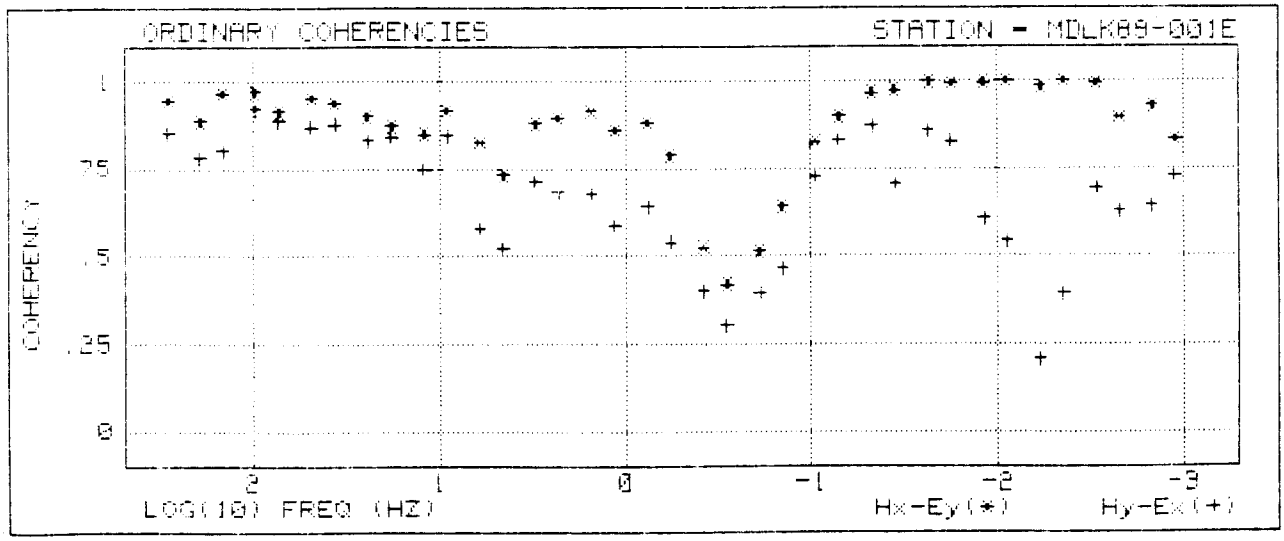
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	384	.12	.65	33.22	.12	.74	-3.24
3	192.00 Hz	1341	.06	.02	20.21	.69	2.45	4.84
4	144.00 Hz	671	.18	.20	36.08	.83	.91	51.55
5	96.00 Hz	670	.12	.61	48.41	.61	.36	136.69
6	72.00 Hz	761	.12	.34	33.25	.28	.25	27.45
7	48.00 Hz	2300	.06	.01	35.89	.10	.40	15.33
8	36.00 Hz	2578	.08	.03	37.48	.13	.46	12.72
9	24.00 Hz	864	.09	.03	39.75	.10	.54	11.63
10	18.00 Hz	1824	.12	.07	40.35	.11	.53	12.31
11	12.00 Hz	2688	.07	.03	42.38	.22	.65	9.53
12	9.00 Hz	576	.05	.08	39.82	.34	.63	7.85
13	6.00 Hz	2013	.05	.12	40.54	.72	.74	1.61
14	4.50 Hz	2493	.10	.20	42.66	.91	.79	-4.67
15	3.00 Hz	8024	.03	.37	35.27	.88	.68	-1.28
16	2.25 Hz	7032	.04	.37	31.28	.77	.76	4.01
17	1.50 Hz	4013	.04	.23	26.12	.63	.95	17.85
18	1.13 Hz	3920	.04	.19	21.96	.49	1.13	31.10
19	1.33 Sec	2256	.03	.05	23.09	.46	1.16	44.98
20	1.78 Sec	2256	.05	.10	27.23	.29	1.21	62.85
21	2.67 Sec	1224	.11	.06	45.95	.24	.70	73.68
22	3.56 Sec	1044	.07	.46	34.65	.23	1.30	86.28
23	5.33 Sec	1044	.07	.09	35.64	.03	1.03	81.40
24	7.11 Sec	492	.03	.19	39.04	.02	.84	79.81
25	10.67 Sec	83	.14	.10	34.10	.30	.29	47.34
26	14.22 Sec	149	.07	.12	39.70	.04	.68	74.07
27	21.33 Sec	102	.08	.06	37.02	.30	.69	71.37
28	28.44 Sec	120	.12	.02	35.11	.88	.95	67.30
29	42.67 Sec	120	.10	.02	34.62	.15	.09	37.61
30	56.89 Sec	102	.09	.06	35.73	.47	.58	63.89
31	85.33 Sec	54	.10	.00	35.76	.89	1.38	96.10
32	113.78 Sec	33	.14	.05	32.07	.20	2.21	146.13
33	170.67 Sec	21	.06	.01	35.33	.13	.90	-6.66
34	227.56 Sec	18	.16	.05	33.13	.15	.60	24.75
35	341.33 Sec	15	.24	.10	25.17	.80	.63	91.43
36	455.11 Sec	6	.23	.12	34.37	.18	4.69	89.38
37	682.67 Sec	9	.16	.17	35.22	.33	5.40	110.43
38	910.22 Sec	6	.21	.14	24.56	.01	7.94	-63.02

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E







PHOENIX GEOSCIENCE

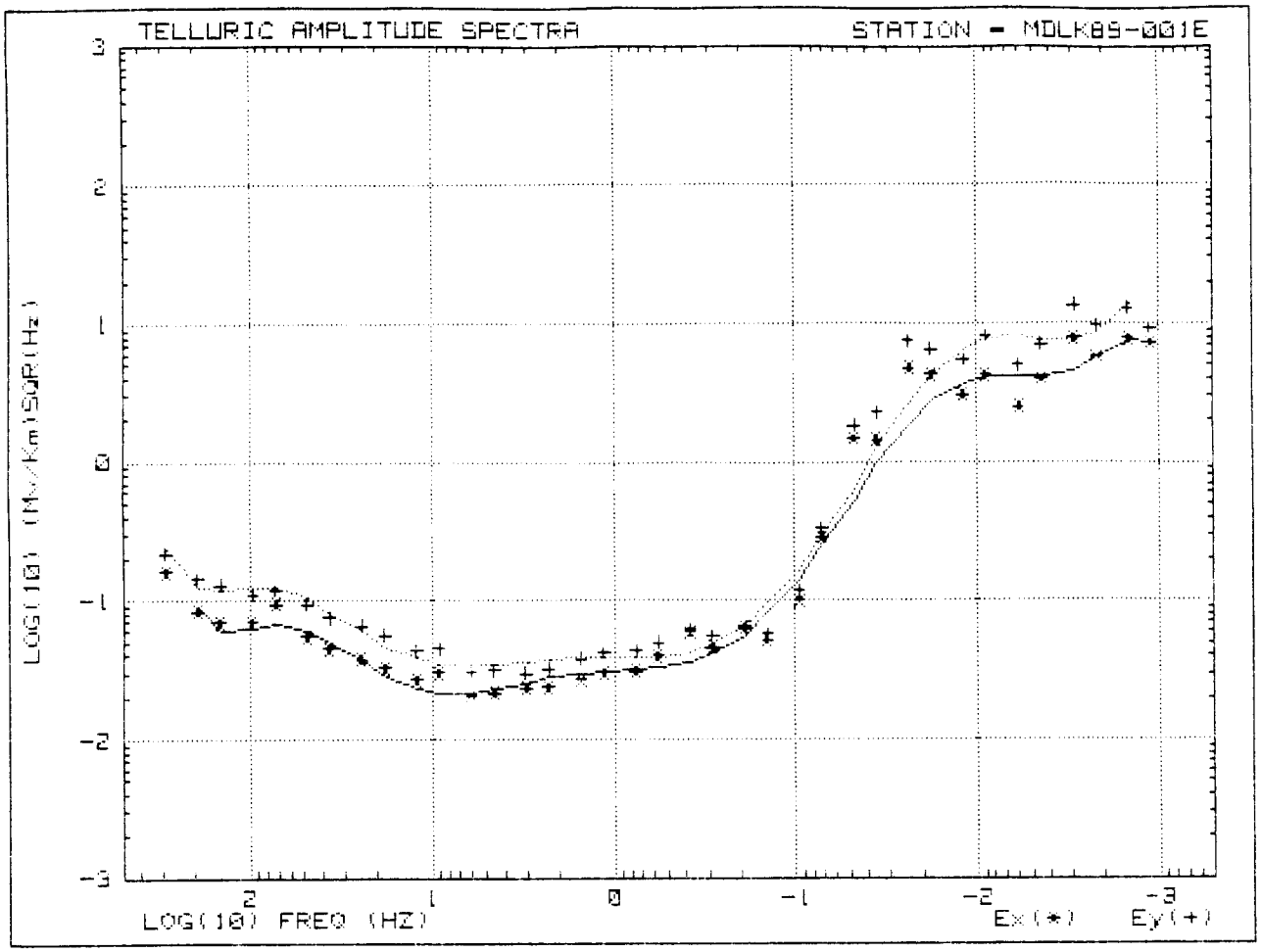
MT Site: MDLK89-001E

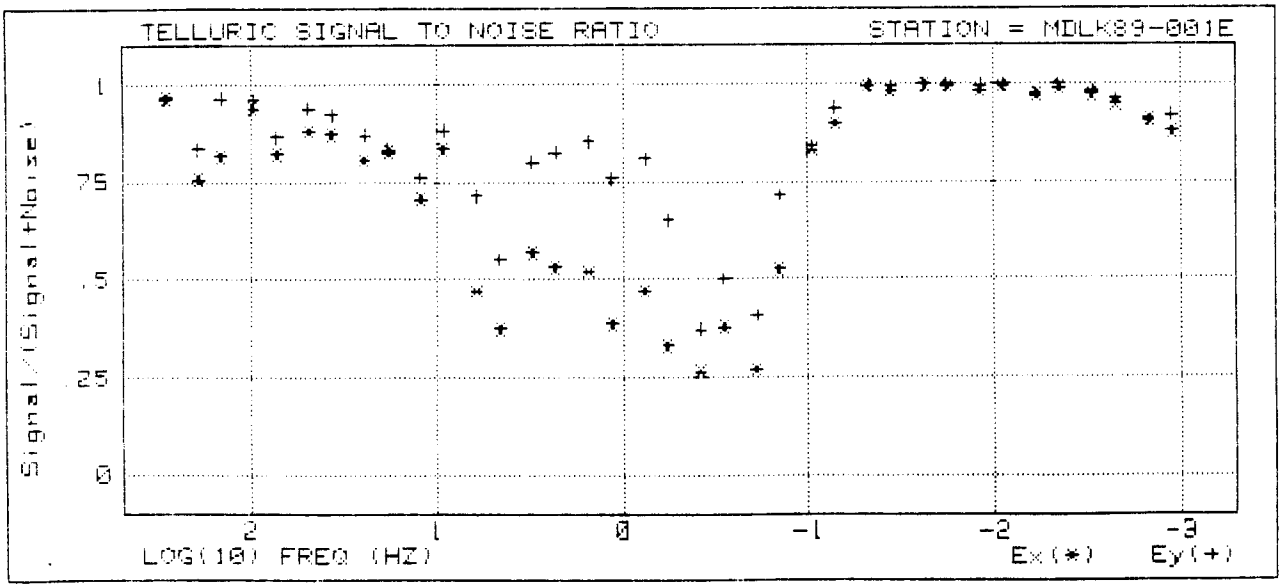
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	384	.88	.96	.96	.87	.94	.85
3	192.00 Hz	1341	.78	.88	.89	.79	.88	.78
4	144.00 Hz	671	.82	.97	.96	.85	.96	.80
5	96.00 Hz	670	.92	.97	.97	.92	.97	.92
6	72.00 Hz	761	.90	.92	.91	.88	.91	.88
7	48.00 Hz	2300	.90	.96	.95	.87	.95	.87
8	36.00 Hz	2578	.90	.95	.94	.88	.93	.87
9	24.00 Hz	864	.87	.91	.90	.84	.90	.83
10	18.00 Hz	1824	.89	.89	.88	.86	.87	.83
11	12.00 Hz	2688	.82	.86	.86	.79	.84	.74
12	9.00 Hz	576	.90	.93	.92	.89	.91	.84
13	6.00 Hz	2013	.67	.84	.84	.64	.82	.58
14	4.50 Hz	2493	.60	.74	.74	.55	.73	.52
15	3.00 Hz	8024	.75	.89	.88	.71	.87	.71
16	2.25 Hz	7032	.72	.91	.90	.68	.89	.68
17	1.50 Hz	4013	.72	.92	.91	.68	.91	.67
18	1.13 Hz	3920	.62	.86	.87	.61	.86	.58
19	1.33 Sec	2256	.68	.89	.88	.65	.88	.64
20	1.78 Sec	2256	.57	.80	.78	.56	.78	.54
21	2.67 Sec	1224	.47	.59	.56	.44	.52	.40
22	3.56 Sec	1044	.57	.64	.44	.31	.42	.30
23	5.33 Sec	1044	.49	.61	.57	.49	.51	.39
24	7.11 Sec	492	.66	.76	.64	.46	.64	.46
25	10.67 Sec	83	.87	.86	.84	.75	.82	.72
26	14.22 Sec	149	.93	.95	.92	.87	.90	.83
27	21.33 Sec	102	.99	.99	.99	.98	.96	.87
28	28.44 Sec	120	.99	.99	.99	.98	.97	.70
29	42.67 Sec	120	1.00	1.00	1.00	.98	.99	.85
30	56.89 Sec	102	1.00	1.00	1.00	.97	.99	.82
31	85.33 Sec	54	.99	1.00	.99	.92	.99	.60
32	113.78 Sec	33	.99	1.00	1.00	.94	1.00	.54
33	170.67 Sec	21	.98	.99	.98	.83	.98	.20
34	227.56 Sec	18	.99	1.00	1.00	.81	1.00	.39
35	341.33 Sec	15	.98	.99	.99	.77	.99	.69
36	455.11 Sec	6	.97	.98	.98	.97	.89	.62
37	682.67 Sec	9	.95	.95	.97	.96	.92	.64
38	910.22 Sec	6	.93	.96	.90	.84	.83	.72

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E





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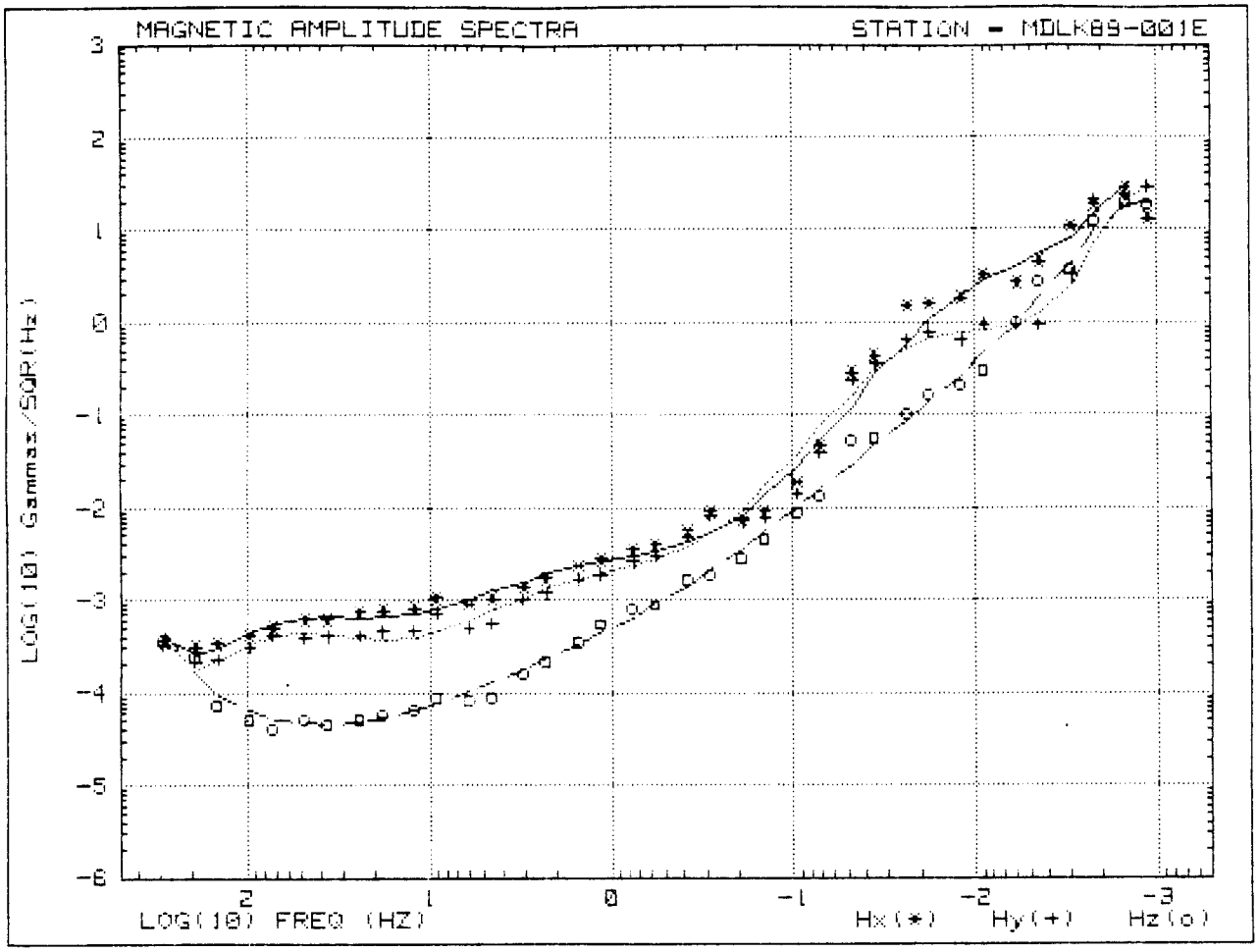
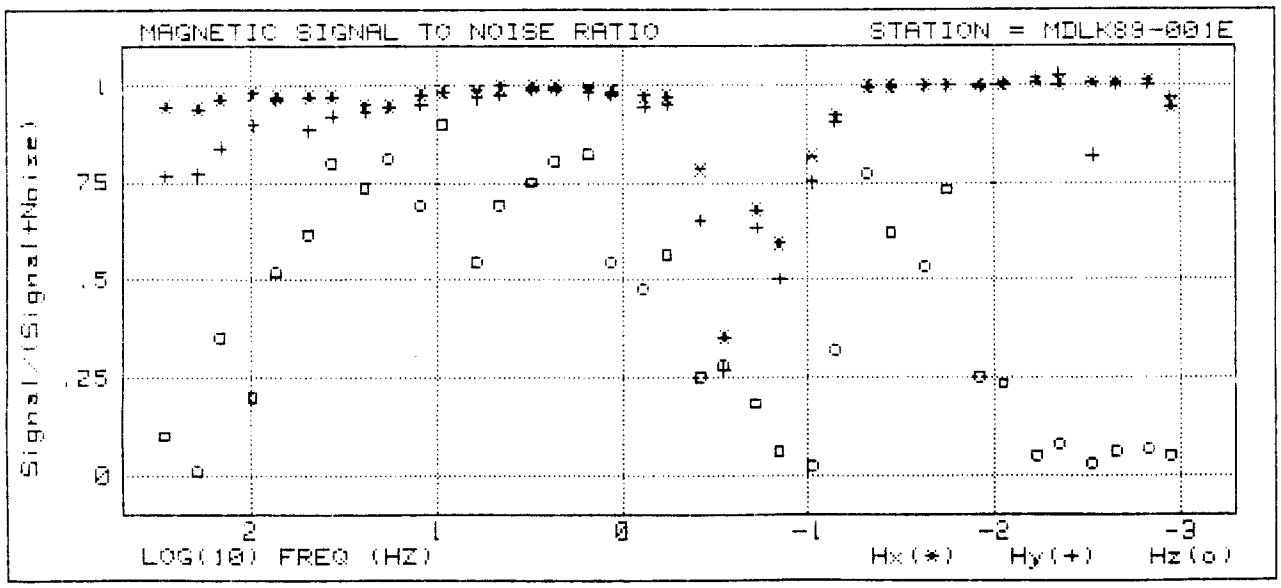
MT Site: MDLK89-001E





PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	384	3.54E-04	3.17E-04	3.82E-04	1.60E-01	2.16E-01
3	192.00 Hz	1341	3.08E-04	2.13E-04	2.57E-04	8.27E-02	1.42E-01
4	144.00 Hz	671	3.32E-04	2.22E-04	7.67E-05	6.88E-02	1.29E-01
5	96.00 Hz	670	4.04E-04	3.03E-04	5.39E-05	6.85E-02	1.10E-01
6	72.00 Hz	761	4.97E-04	4.07E-04	4.18E-05	9.39E-02	1.17E-01
7	48.00 Hz	2300	6.01E-04	3.80E-04	5.42E-05	5.42E-02	9.40E-02
8	36.00 Hz	2578	6.12E-04	3.96E-04	4.82E-05	4.45E-02	7.45E-02
9	24.00 Hz	864	7.29E-04	4.05E-04	5.40E-05	3.74E-02	6.50E-02
10	18.00 Hz	1824	7.61E-04	4.47E-04	5.93E-05	3.22E-02	5.57E-02
11	12.00 Hz	2688	7.99E-04	4.60E-04	6.80E-05	2.66E-02	4.34E-02
12	9.00 Hz	576	1.04E-03	7.16E-04	9.22E-05	2.97E-02	4.43E-02
13	6.00 Hz	2013	8.93E-04	4.92E-04	8.83E-05	2.06E-02	3.04E-02
14	4.50 Hz	2493	1.02E-03	5.46E-04	9.37E-05	2.13E-02	3.08E-02
15	3.00 Hz	8024	1.36E-03	9.92E-04	1.68E-04	2.30E-02	2.94E-02
16	2.25 Hz	7032	1.68E-03	1.18E-03	2.25E-04	2.33E-02	3.16E-02
17	1.50 Hz	4013	2.31E-03	1.63E-03	3.66E-04	2.64E-02	3.74E-02
18	1.13 Hz	3920	2.72E-03	1.86E-03	5.71E-04	2.99E-02	4.17E-02
19	1.33 Sec	2256	3.47E-03	2.57E-03	8.32E-04	3.06E-02	4.31E-02
20	1.78 Sec	2256	3.86E-03	2.92E-03	9.24E-04	3.94E-02	4.93E-02
21	2.67 Sec	1224	5.54E-03	4.80E-03	1.73E-03	5.84E-02	6.10E-02
22	3.56 Sec	1044	8.90E-03	8.26E-03	1.95E-03	4.58E-02	5.42E-02
23	5.33 Sec	1044	7.44E-03	7.09E-03	2.89E-03	6.30E-02	6.34E-02
24	7.11 Sec	492	8.92E-03	7.65E-03	4.87E-03	5.13E-02	5.73E-02
25	10.67 Sec	83	1.86E-02	1.39E-02	9.09E-03	9.83E-02	1.16E-01
26	14.22 Sec	149	4.65E-02	3.94E-02	1.39E-02	2.80E-01	3.27E-01
27	21.33 Sec	102	2.82E-01	2.37E-01	5.48E-02	1.45E+00	1.79E+00
28	28.44 Sec	120	4.30E-01	3.47E-01	6.06E-02	1.42E+00	2.21E+00
29	42.67 Sec	120	1.48E+00	6.22E-01	1.08E-01	4.70E+00	7.39E+00
30	56.89 Sec	102	1.57E+00	7.78E-01	1.75E-01	4.19E+00	6.46E+00
31	85.33 Sec	54	1.80E+00	6.26E-01	2.24E-01	3.03E+00	5.40E+00
32	113.78 Sec	33	3.23E+00	9.29E-01	3.12E-01	4.20E+00	8.01E+00
33	170.67 Sec	21	2.67E+00	9.40E-01	1.04E+00	2.45E+00	4.92E+00
34	227.56 Sec	18	4.46E+00	9.24E-01	2.91E+00	3.91E+00	6.99E+00
35	341.33 Sec	15	1.07E+01	3.17E+00	3.84E+00	7.61E+00	1.32E+01
36	455.11 Sec	6	1.79E+01	2.07E+01	1.29E+01	5.59E+00	9.40E+00
37	682.67 Sec	9	2.81E+01	2.34E+01	2.04E+01	7.59E+00	1.26E+01
38	910.22 Sec	6	1.30E+01	2.83E+01	2.00E+01	7.11E+00	9.11E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	384	.944	.765	.108	.965	.960
3	192.00 Hz	1341	.936	.768	.016	.754	.832
4	144.00 Hz	671	.963	.835	.355	.813	.963
5	96.00 Hz	670	.978	.895	.207	.937	.959
6	72.00 Hz	761	.969	.961	.524	.820	.863
7	48.00 Hz	2300	.969	.883	.623	.879	.938
8	36.00 Hz	2578	.969	.919	.804	.869	.921
9	24.00 Hz	864	.945	.929	.740	.803	.868
10	18.00 Hz	1824	.944	.942	.815	.824	.829
11	12.00 Hz	2688	.975	.950	.697	.704	.759
12	9.00 Hz	576	.982	.980	.903	.832	.881
13	6.00 Hz	2013	.984	.963	.552	.469	.711
14	4.50 Hz	2493	.995	.973	.699	.372	.551
15	3.00 Hz	8024	.993	.987	.757	.568	.798
16	2.25 Hz	7032	.993	.985	.810	.530	.825
17	1.50 Hz	4013	.991	.978	.826	.519	.851
18	1.13 Hz	3920	.980	.974	.551	.386	.756
19	1.33 Sec	2256	.970	.940	.484	.468	.806
20	1.78 Sec	2256	.969	.948	.569	.328	.650
21	2.67 Sec	1224	.781	.651	.258	.264	.370
22	3.56 Sec	1044	.350	.269	.289	.376	.500
23	5.33 Sec	1044	.679	.632	.190	.267	.405
24	7.11 Sec	492	.592	.500	.068	.523	.714
25	10.67 Sec	83	.817	.751	.029	.829	.840
26	14.22 Sec	149	.919	.905	.324	.898	.936
27	21.33 Sec	102	.993	.994	.777	.991	.994
28	28.44 Sec	120	.995	.993	.629	.978	.991
29	42.67 Sec	120	.999	.996	.538	.995	.997
30	56.89 Sec	102	.999	.996	.738	.992	.995
31	85.33 Sec	54	.999	.993	.259	.980	.993
32	113.78 Sec	33	.999	1.000	.240	.991	.996
33	170.67 Sec	21	1.000	1.000	.057	.969	.973
34	227.56 Sec	18	1.000	1.000	.084	.987	.995
35	341.33 Sec	15	1.000	.818	.037	.970	.978
36	455.11 Sec	6	1.000	1.000	.065	.944	.961
37	682.67 Sec	9	1.000	1.000	.074	.907	.904
38	910.22 Sec	6	.943	.963	.057	.875	.918

PHOENIX GEOSCIENCE

MT Site: MDLK89-001E

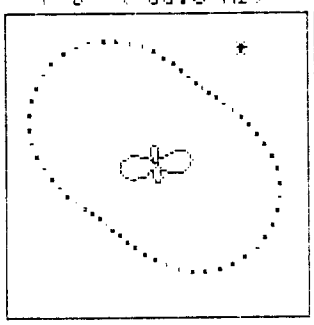
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

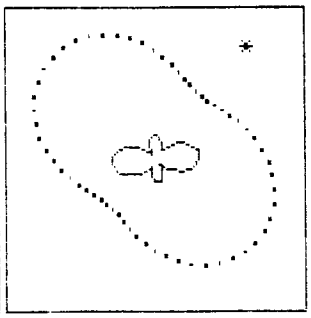
*=Rotation Direction

Zxy = ...
Zxx = ___

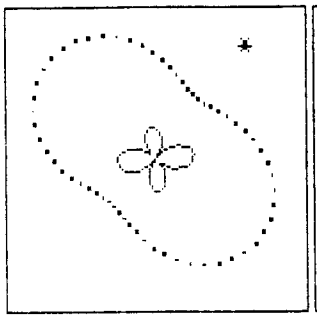
F=8 (36.0 Hz)



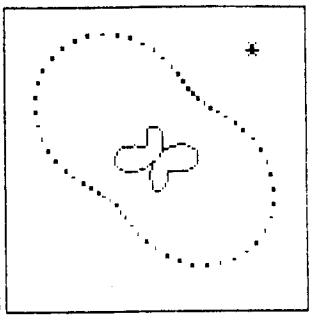
F=10 (18.0 Hz)



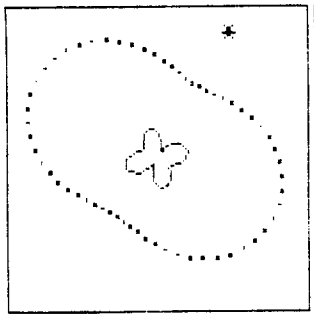
F=12 (9.0 Hz)



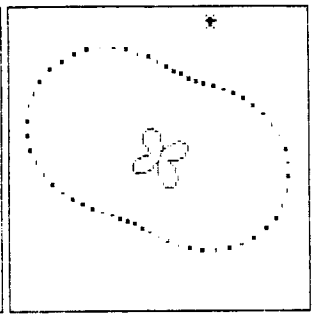
F=14 (4.5 Hz)



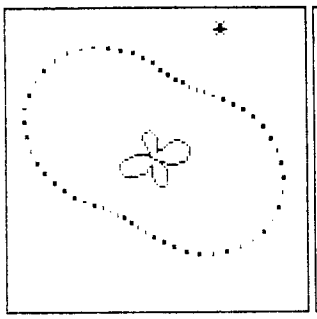
F=16 (2.3 Hz)



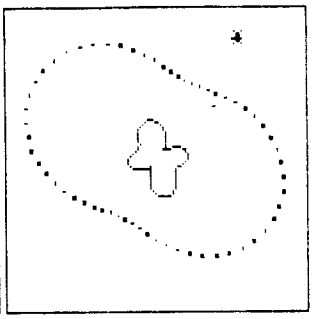
F=18 (1.1 Hz)



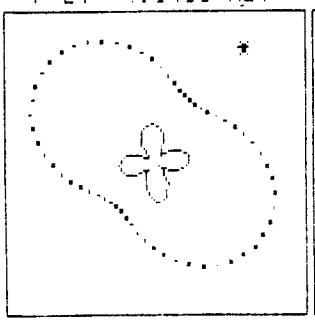
F=20 (.5625 Hz)



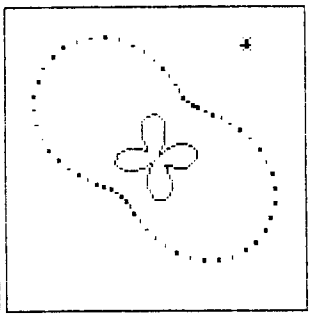
F=22 (.2813 Hz)



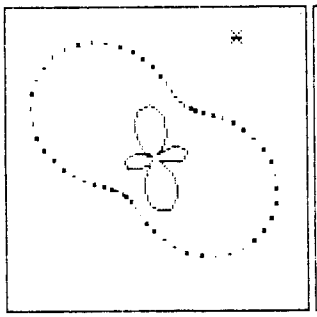
F=24 (.1406 Hz)



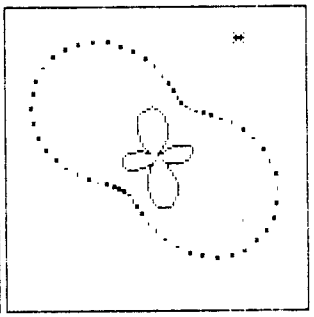
F=26 (0703 Hz)



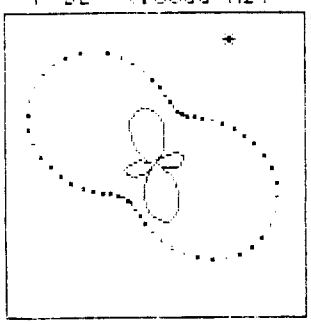
F=28 (.0352 Hz)



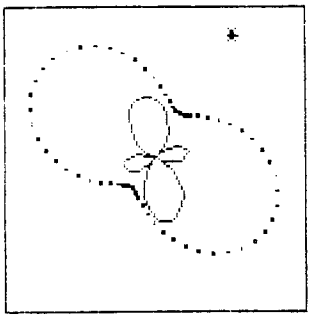
F=30 (.0176 Hz)



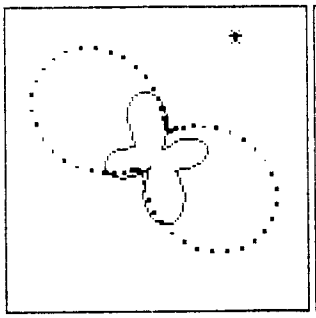
F=32 (.0088 Hz)



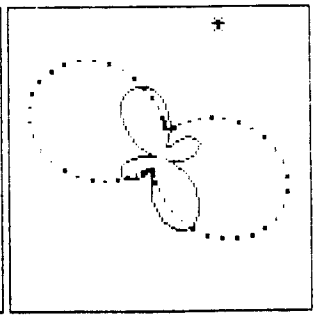
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-001s/002s/003s/

Operator:STEWART
Date: 17 Aug 1989
Time: 15:32:29

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#205-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 2

Stn Number:MDLK89-002s
Site Desc:T43N R3E S13 SE4
41,33,51 N 121,34,07 W
Elevation:6710ft
Reference:MDLK89-001s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL432	+0 DEG
Hy	7	COIL235	+90 DEG
Hz	8	LOOP405	
Ex	9	179 M	+0 DEG
Ey	10	182 M	+90 DEG
Rx	1	COIL430	+0 DEG
Ry	2	COIL431	+90 DEG

Ex Pot Resist: 9.0 K Ohms
Ex Voltage: AC= 5.1 mv, DC= 30 mv
Ey Pot Resist: 14 K Ohms
Ey Voltage: AC= 3.5 mv, DC= 27 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

OPERATOR LOG FOR MDLK89-001s/002E/003s/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, b, and c.
X#2 - SUM OF RUNS: a, b, and c.
X#3 - SUM OF RUNS: a, b, and c.
X#4 - SUM OF RUNS: a, b, and c.
X#5 - SUM OF RUNS: a, b, and c.
X#6 - SUM OF RUNS: a, b, and c.
X#7 - SUM OF RUNS: a, b, and c.
X#8 - SUM OF RUNS: a, b, and c.
X#9 - SUM OF RUNS: a, b, and c.
X#10 - SUM OF RUNS: a, b, and c.
X#11 - SUM OF RUNS: a, b, and c.
X#12 - SUM OF RUNS: a, b, and c.
X#13 - SUM OF RUNS: a, b, and c.
X#14 - SUM OF RUNS: a, b, and c.
X#15 - SUM OF RUNS: a, b, and c.
X#16 - SUM OF RUNS: a, b, and c.
X#17 - SUM OF RUNS: a, b, and c.
X#18 - SUM OF RUNS: a, b, and c.
X#19 - SUM OF RUNS: a, b, and c.
X#20 - SUM OF RUNS: a, b, and c.

Operator:STEWART/WUNDERMAN

Cultural Factors:
NONE
Weather Conditions:
CLEAR DURING RUNS "a & c" LIGHTNING DURING RUN "b"
Other Factors:
NONE

PHOENIX GEOSCIENCE

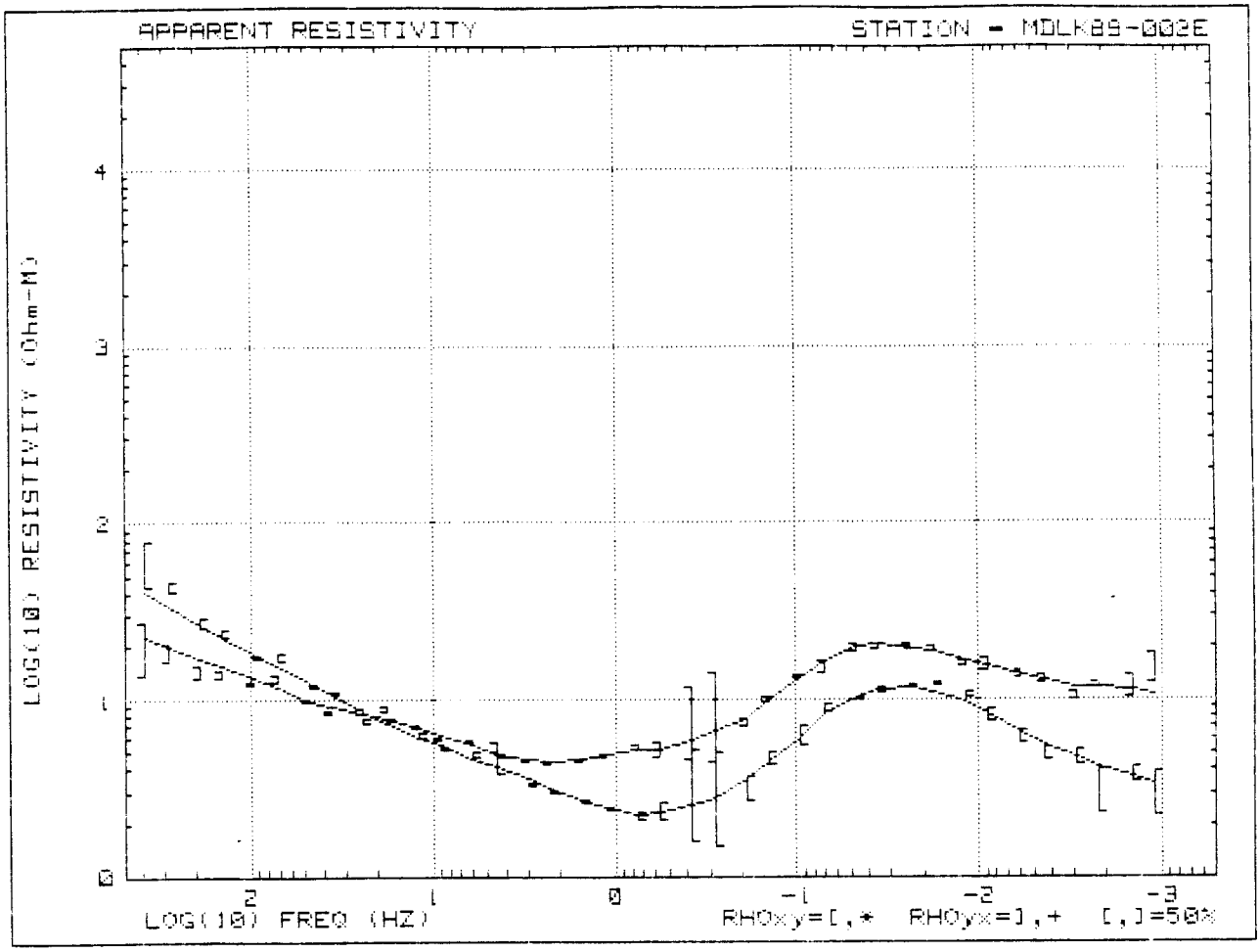
MT Site: MDLK89-002E

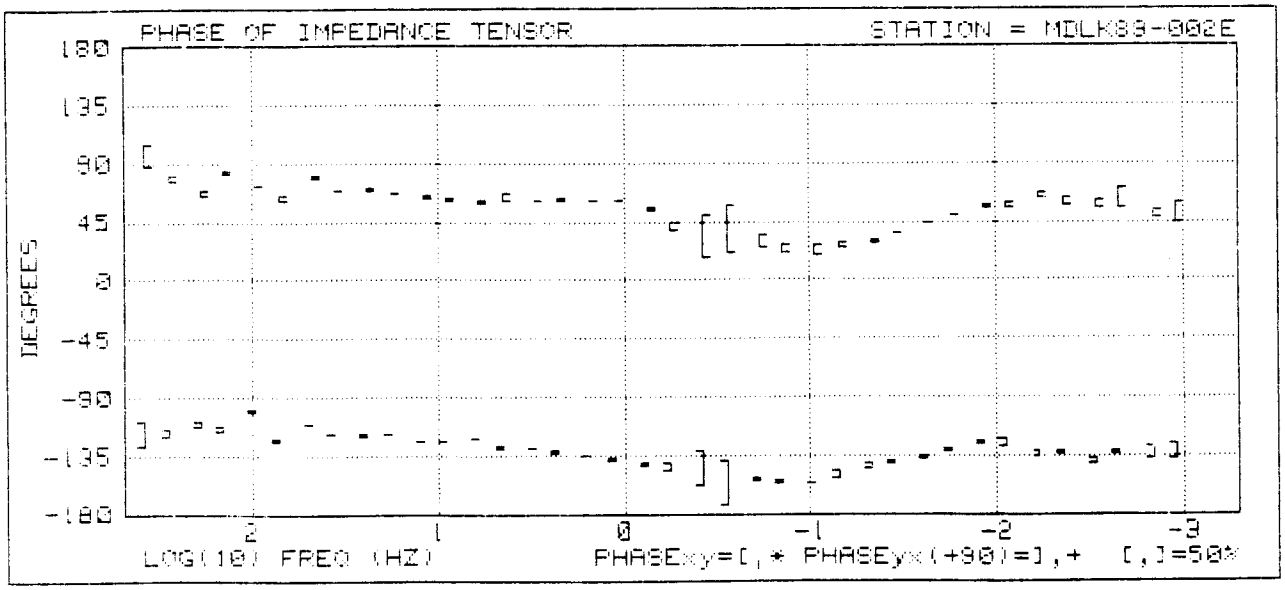
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

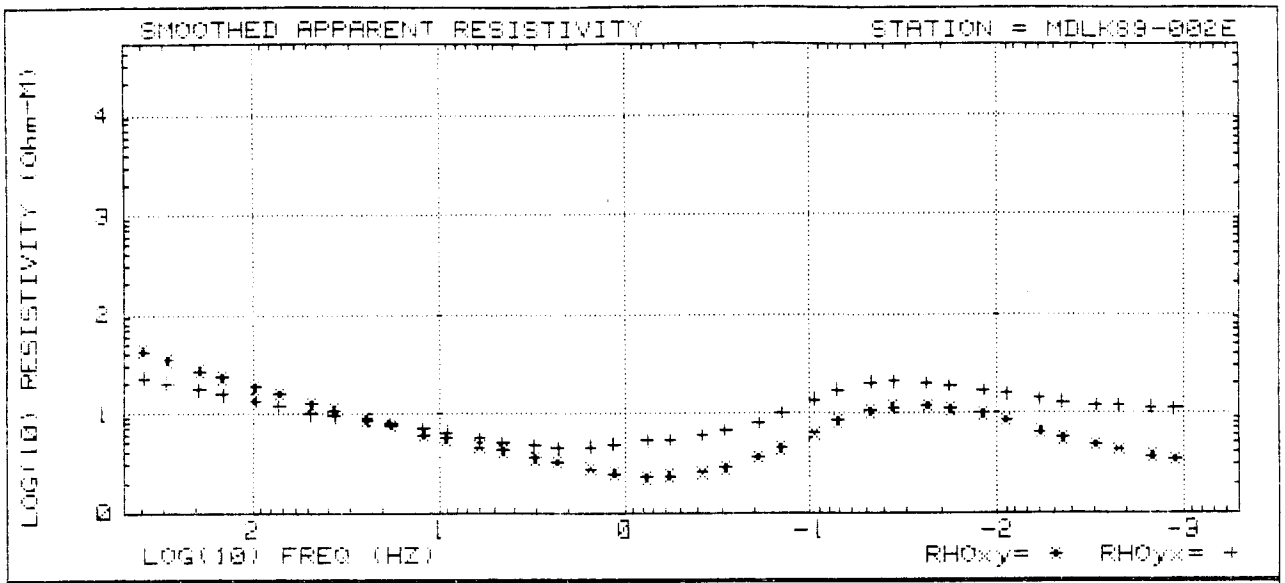
MT Site: MDLK89-002E

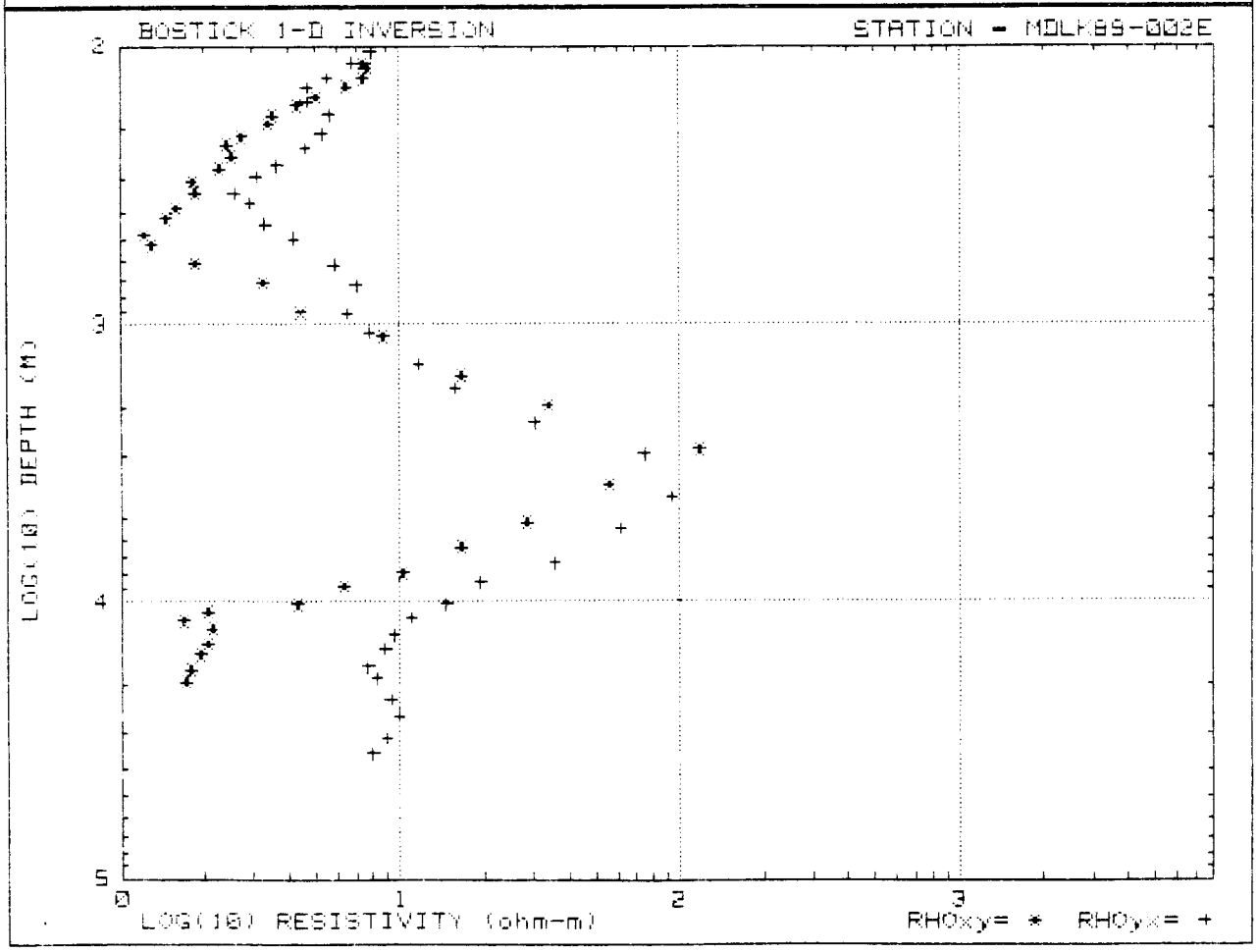




PHOENIX GEOSCIENCE

MT Site: MDLK89-002E





PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	439	58.4	57.2	19.3	66.3	96.9	13.0	-117.6	14.6
2	288.00 Hz	636	43.8	11.3	18.3	16.2	78.6	3.1	-117.7	4.3
3	192.00 Hz	381	27.6	9.8	14.4	11.1	67.5	2.7	-109.8	3.0
4	144.00 Hz	1050	23.7	7.0	13.8	7.6	82.5	1.9	-114.3	2.1
5	96.00 Hz	1910	17.5	2.1	12.3	2.6	72.3	.6	-99.8	.7
6	72.00 Hz	475	17.6	7.2	13.2	7.0	63.6	2.0	-122.4	1.9
7	48.00 Hz	2770	12.0	2.7	9.9	3.2	79.1	.8	-110.4	.9
8	36.00 Hz	1246	10.9	1.4	8.5	1.7	68.9	.4	-118.6	.5
9	24.00 Hz	384	7.6	3.9	8.5	4.9	69.3	1.1	-119.9	1.4
10	18.00 Hz	1056	7.6	3.2	8.8	3.9	66.8	.9	-118.2	1.1
11	12.00 Hz	864	6.3	3.0	7.0	1.6	63.6	.9	-123.5	.5
12	9.00 Hz	864	5.3	2.1	6.0	1.4	62.0	.6	-124.1	.4
13	6.00 Hz	576	4.9	5.1	5.8	2.7	59.7	1.4	-122.3	.8
14	4.50 Hz	288	4.3	17.4	5.4	8.3	63.7	4.6	-128.5	2.3
15	3.00 Hz	8024	3.3	1.0	4.4	1.2	60.9	.3	-129.6	.4
16	2.25 Hz	1528	3.0	2.5	4.4	2.9	61.9	.7	-131.8	.8
17	1.50 Hz	4509	2.7	2.5	4.5	1.9	60.9	.7	-135.2	.5
18	1.13 Hz	3264	2.4	3.4	4.9	2.8	61.6	1.0	-137.5	.8
19	1.33 Sec	2000	2.2	6.3	5.3	5.1	54.5	1.7	-141.2	1.4
20	1.78 Sec	1888	2.3	17.4	5.2	16.2	41.7	4.6	-143.3	4.3
21	2.67 Sec	1959	2.9	99.9	7.3	98.2	34.0	25.0	-144.6	19.6
22	3.56 Sec	1980	2.8	99.9	8.0	99.9	39.2	26.0	-155.4	25.1
23	5.33 Sec	276	3.2	26.1	7.4	7.3	29.5	6.6	-152.8	2.0
24	7.11 Sec	336	4.7	14.6	10.0	4.1	24.6	3.9	-155.0	1.2
25	10.67 Sec	305	6.3	19.4	13.4	3.6	23.4	5.1	-156.0	1.0
26	14.22 Sec	47	8.9	7.2	15.3	13.5	27.4	2.0	-149.5	3.6
27	21.33 Sec	174	10.2	3.6	19.7	7.1	30.4	1.0	-142.5	2.0
28	28.44 Sec	240	11.4	3.7	19.9	2.9	37.0	1.0	-139.5	.8
29	42.67 Sec	222	12.0	1.9	20.3	3.1	44.4	.6	-135.6	.9
30	56.89 Sec	168	12.2	2.1	19.4	3.3	50.1	.6	-130.7	.9
31	85.33 Sec	21	10.6	5.9	16.0	5.5	55.9	1.6	-124.8	1.5
32	113.78 Sec	27	8.1	13.0	15.7	13.0	57.7	3.5	-124.4	3.5
33	170.67 Sec	33	6.2	11.5	14.1	6.7	65.3	3.1	-133.2	1.9
34	227.56 Sec	27	4.9	12.8	13.1	5.4	60.7	3.5	-131.5	1.5
35	341.33 Sec	6	4.7	13.1	10.6	7.4	58.4	3.5	-139.0	2.1
36	455.11 Sec	9	3.1	52.7	12.0	5.3	63.4	12.1	-131.9	1.5
37	682.67 Sec	9	3.8	16.5	11.9	24.6	51.3	4.4	-132.1	6.3
38	910.22 Sec	6	3.0	49.8	15.1	33.4	51.2	11.6	-131.8	9.2

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	439	41.3	22.3	7.5	117	9.1	86
2	288.00 Hz	636	33.9	19.8	7.7	122	8.8	93
3	192.00 Hz	381	26.7	17.1	7.5	133	8.0	106
4	144.00 Hz	1050	22.9	15.4	6.5	142	6.9	116
5	96.00 Hz	1910	18.2	13.1	5.1	155	5.6	132
6	72.00 Hz	475	15.5	11.6	4.3	165	4.7	143
7	48.00 Hz	2770	12.3	9.8	3.5	180	4.7	161
8	36.00 Hz	1246	10.6	9.1	3.4	193	5.6	179
9	24.00 Hz	384	8.6	8.3	2.8	214	5.3	209
10	18.00 Hz	1056	7.4	7.9	2.4	228	4.7	235
11	12.00 Hz	864	6.1	7.0	2.5	253	3.7	271
12	9.00 Hz	864	5.5	6.3	2.3	279	3.1	299
13	6.00 Hz	576	4.6	5.5	1.8	311	2.6	341
14	4.50 Hz	288	4.1	4.9	1.9	340	2.9	373
15	3.00 Hz	8024	3.5	4.6	1.6	386	3.3	441
16	2.25 Hz	1528	3.2	4.4	1.5	423	4.2	499
17	1.50 Hz	4509	2.7	4.5	1.2	481	5.9	619
18	1.13 Hz	3264	2.4	4.8	1.3	524	7.1	738
19	1.33 Sec	2000	2.2	5.2	1.9	612	6.6	934
20	1.78 Sec	1888	2.3	5.3	3.3	720	7.8	1088
21	2.67 Sec	1959	2.5	5.9	4.5	920	11.7	1414
22	3.56 Sec	1980	2.8	6.6	8.8	1123	15.8	1725
23	5.33 Sec	276	3.6	7.9	16.7	1555	30.4	2306
24	7.11 Sec	336	4.4	9.9	34.1	1988	75.1	2991
25	10.67 Sec	305	6.1	13.4	119.2	2873	94.4	4252
26	14.22 Sec	47	8.2	16.7	56.2	3844	61.9	5489
27	21.33 Sec	174	10.2	19.9	28.5	5261	36.0	7339
28	28.44 Sec	240	11.4	20.4	16.8	6400	19.5	8577
29	42.67 Sec	222	11.7	19.6	10.3	7951	14.7	10294
30	56.89 Sec	168	10.9	18.5	6.4	8857	11.1	11540
31	85.33 Sec	21	9.8	16.5	4.3	10277	9.6	13344
32	113.78 Sec	27	8.3	15.4	2.1	10961	8.9	14892
33	170.67 Sec	33	6.4	13.7	1.7	11794	7.7	17213
34	227.56 Sec	27	5.6	12.7	2.1	12653	8.4	19121
35	341.33 Sec	6	4.7	11.9	2.1	14299	9.3	22672
36	455.11 Sec	9	4.2	11.7	1.9	15610	10.0	25933
37	682.67 Sec	9	3.7	11.3	1.8	17781	9.0	31216
38	910.22 Sec	6	3.3	10.8	1.7	19613	8.0	35292

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	439	26.21	-118.62	999.99	-39.99	332.34	999.99
2	288.00 Hz	636	5.47	-34.62	187.32	49.67	246.31	362.04
3	192.00 Hz	381	-1.46	3.89	120.08	62.34	150.51	114.98
4	144.00 Hz	1050	5.54	-23.03	35.26	17.07	129.53	38.56
5	96.00 Hz	1910	3.04	1.42	1.69	27.82	87.40	1.75
6	72.00 Hz	475	1.66	1.95	16.66	35.37	71.22	15.27
7	48.00 Hz	2770	-.64	-2.30	1.77	10.19	52.69	1.03
8	36.00 Hz	1246	-.16	-.08	.30	15.97	41.30	.20
9	24.00 Hz	384	.31	-1.03	1.19	10.69	28.23	.66
10	18.00 Hz	1056	-.63	-.14	.48	10.34	24.07	.33
11	12.00 Hz	864	-.24	-.89	.23	8.64	17.39	.17
12	9.00 Hz	864	.47	-.73	.06	7.24	13.63	.05
13	6.00 Hz	576	.43	-.34	.27	6.10	10.44	.18
14	4.50 Hz	288	.17	-.20	.83	4.36	8.81	1.24
15	3.00 Hz	8024	-.25	-.49	.00	3.43	6.17	.00
16	2.25 Hz	1528	-.15	-.49	.01	2.76	5.17	.01
17	1.50 Hz	4509	-.05	-.50	.01	2.18	3.91	.01
18	1.13 Hz	3264	.07	-.71	.01	1.75	3.24	.01
19	1.33 Sec	2000	-.026	-.464	.022	1.671	2.339	.015
20	1.78 Sec	1888	-.194	-.081	.129	1.909	1.700	.084
21	2.67 Sec	1959	.069	.072	1.772	1.927	1.302	2.057
22	3.56 Sec	1980	.487	-.078	5.695	1.534	1.249	1.617
23	5.33 Sec	276	.060	.077	.111	1.498	.848	.080
24	7.11 Sec	336	.008	.165	.038	1.644	.754	.030
25	10.67 Sec	305	.217	-.158	.091	1.578	.684	.047
26	14.22 Sec	47	.190	-.009	.022	1.569	.813	.007
27	21.33 Sec	174	.124	-.018	.004	1.333	.783	.001
28	28.44 Sec	240	.194	.068	.001	1.131	.852	.001
29	42.67 Sec	222	.148	.055	.001	.848	.830	.000
30	56.89 Sec	168	.089	.018	.001	.664	.793	.000
31	85.33 Sec	21	.098	.044	.001	.442	.653	.001
32	113.78 Sec	27	.060	.057	.003	.319	.505	.003
33	170.67 Sec	33	.107	.018	.002	.178	.386	.001
34	227.56 Sec	27	.104	.028	.002	.161	.288	.001
35	341.33 Sec	6	.052	-.040	.002	.138	.224	.001
36	455.11 Sec	9	.065	.038	.002	.082	.164	.003
37	682.67 Sec	9	.036	.010	.000	.104	.130	.000
38	910.22 Sec	6	.041	.046	.003	.080	.100	.001

PHOENIX GEOSCIENCE

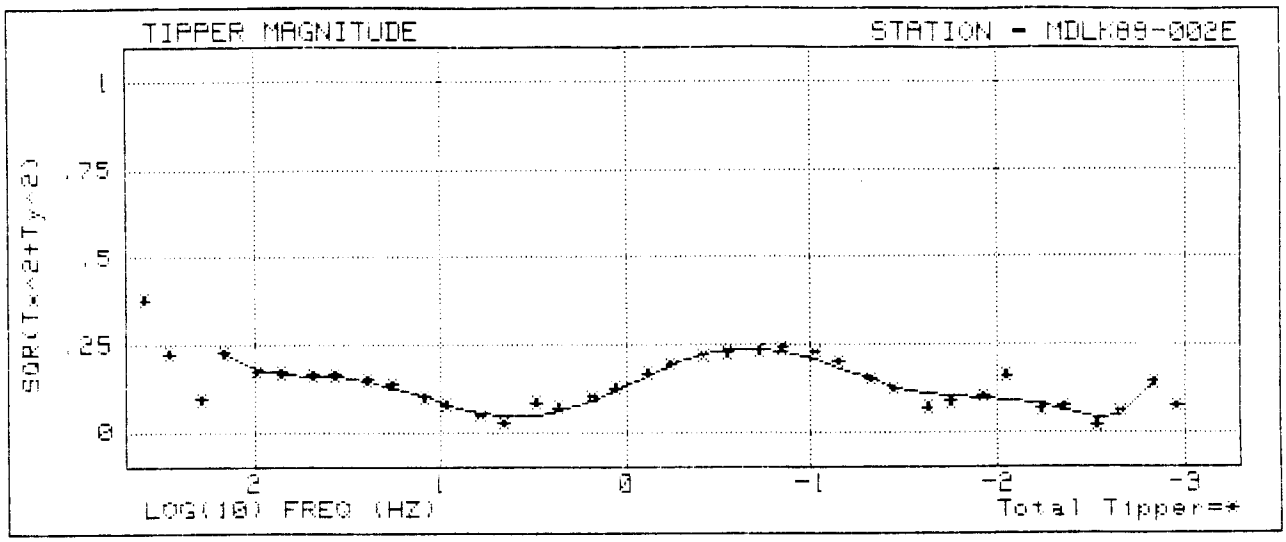
MT Site: MDLK89-002E

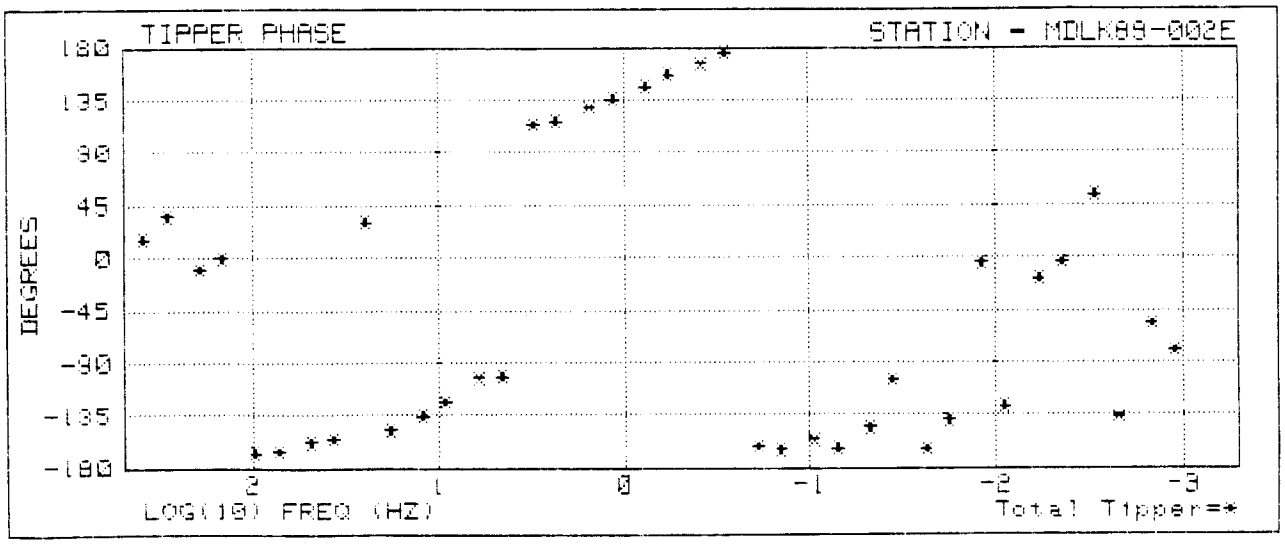
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

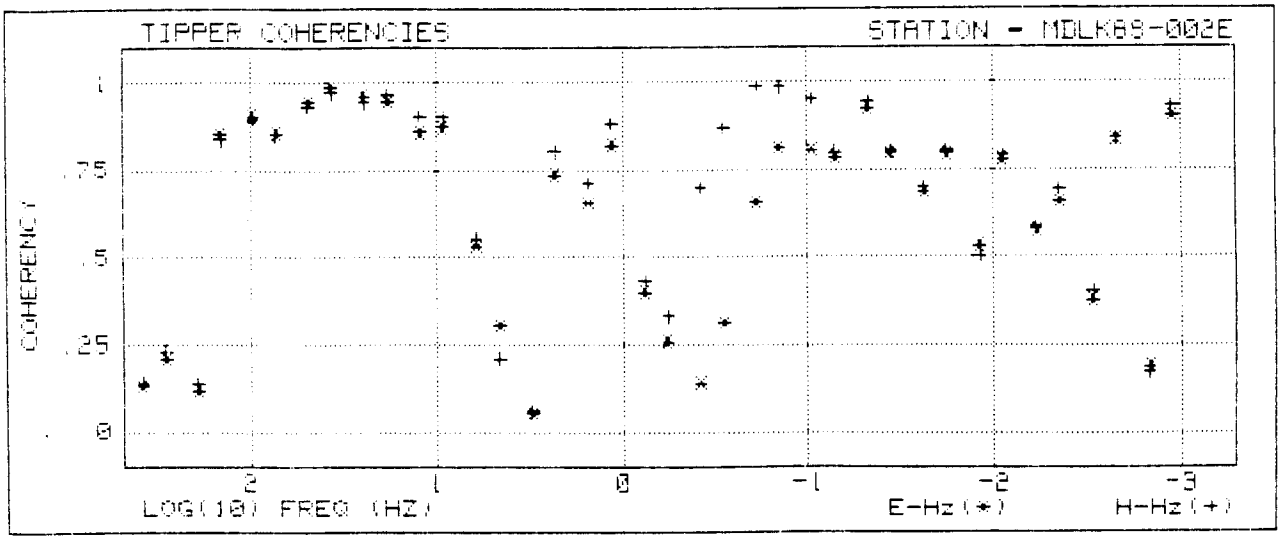
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	439	-89.29	-170.47	999.99	106.77	-54.28	999.99
2	288.00 Hz	636	-75.54	-143.85	297.33	20.15	-30.91	574.64
3	192.00 Hz	381	-39.94	-110.63	76.17	20.85	-8.65	72.93
4	144.00 Hz	1050	-41.08	-90.88	26.39	20.95	-13.46	28.86
5	96.00 Hz	1910	-13.08	-75.77	1.98	2.22	2.46	2.06
6	72.00 Hz	475	-36.97	-58.27	10.77	2.92	2.10	9.87
7	48.00 Hz	2770	-17.03	-45.78	1.22	-.66	-2.33	.71
8	36.00 Hz	1246	-18.69	-34.25	.22	.35	.12	.14
9	24.00 Hz	364	-15.90	-27.67	1.16	.27	-1.38	.64
10	18.00 Hz	1056	-13.33	-24.82	.57	-.54	-.50	.40
11	12.00 Hz	864	-11.33	-17.14	.05	-.09	.77	.04
12	9.00 Hz	864	-9.23	-13.61	.02	.49	.55	.02
13	6.00 Hz	576	-7.07	-11.19	.06	-.24	.52	.04
14	4.50 Hz	288	-6.85	-8.62	.39	.23	.68	.58
15	3.00 Hz	8024	-5.19	-6.27	.01	-.28	.04	.00
16	2.25 Hz	1528	-4.68	-5.24	.02	-.18	.13	.01
17	1.50 Hz	4509	-4.13	-4.10	.01	-.10	.02	.00
18	1.13 Hz	3264	-3.86	-3.54	.01	-.02	-.03	.01
19	1.33 Sec	2000	-3.480	-2.800	.025	-.106	-.151	.017
20	1.78 Sec	1888	-3.080	-2.293	.167	-.122	-.224	.109
21	2.67 Sec	1959	-3.015	-2.144	3.201	.290	-.213	3.715
22	3.56 Sec	1980	-3.046	-1.393	4.297	.534	-.585	1.220
23	5.33 Sec	276	-2.350	-1.209	.017	.244	-.358	.012
24	7.11 Sec	336	-2.398	-1.119	.006	.245	-.323	.005
25	10.67 Sec	305	-2.291	-1.022	.004	.247	-.222	.002
26	14.22 Sec	47	-2.001	-1.179	.043	.188	-.006	.014
27	21.33 Sec	174	-1.708	-1.308	.011	.108	-.007	.005
28	28.44 Sec	240	-1.423	-1.213	.001	.190	.071	.002
29	42.67 Sec	222	-1.102	-1.081	.001	.129	.074	.000
30	56.89 Sec	168	-.853	-.991	.001	.082	.025	.000
31	85.33 Sec	21	-.551	-.794	.001	.061	.072	.001
32	113.78 Sec	27	-.469	-.685	.005	.054	.062	.005
33	170.67 Sec	33	-.439	-.468	.001	.095	.053	.001
34	227.56 Sec	27	-.356	-.401	.000	.086	.059	.000
35	341.33 Sec	6	-.298	-.258	.000	.038	.024	.000
36	455.11 Sec	9	-.242	-.270	.000	.065	.039	.000
37	682.67 Sec	9	-.198	-.219	.002	.039	.007	.001
38	910.22 Sec	6	-.192	-.215	.003	.046	.041	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E







PHOENIX GEOSCIENCE

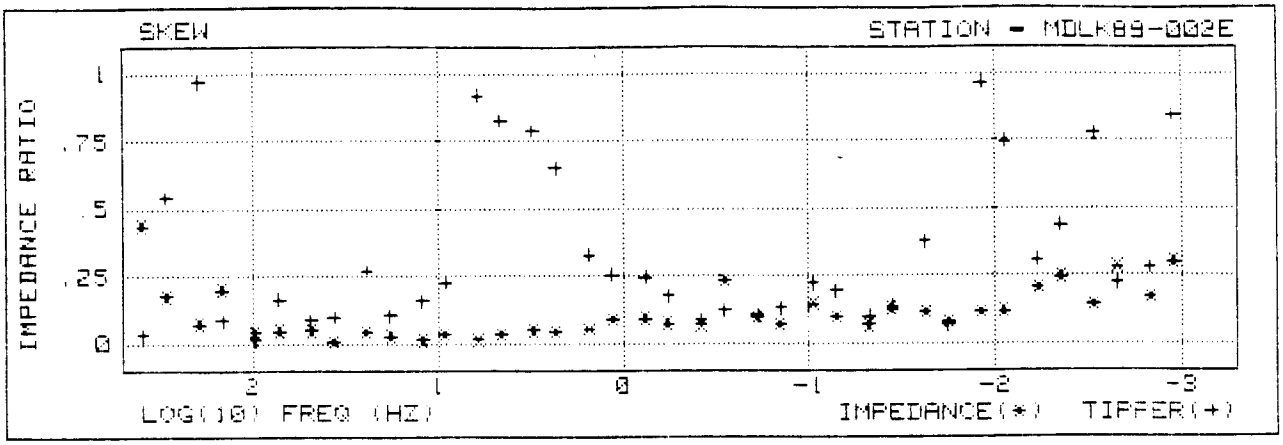
MT Site: MDLK89-002E

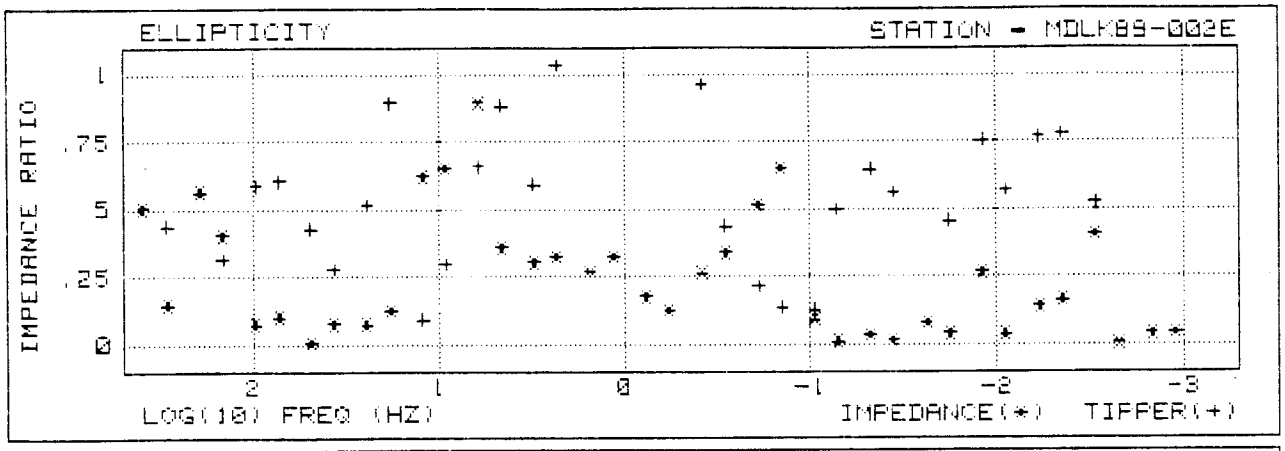
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

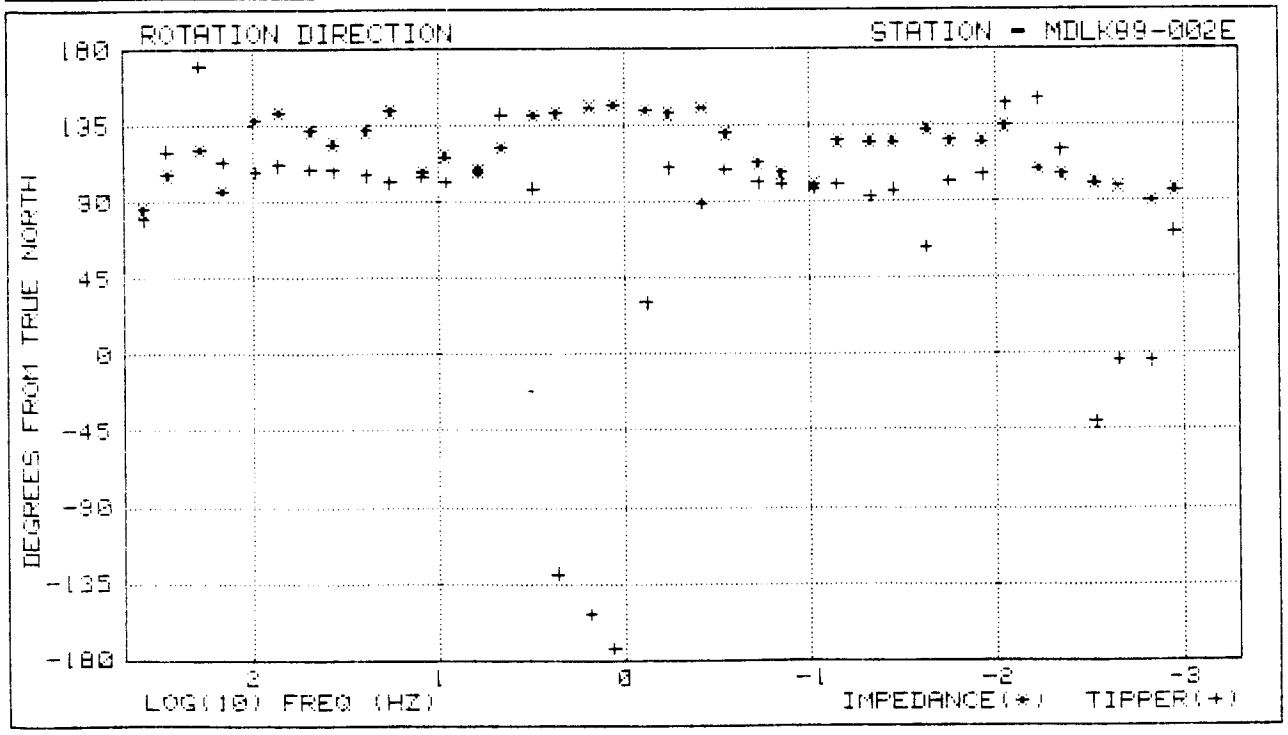
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	439	.37	15.07	.13	.14
2	288.00 Hz	636	.22	34.76	.21	.23
3	192.00 Hz	381	.09	-11.07	.11	.13
4	144.00 Hz	1050	.22	-1.02	.85	.83
5	96.00 Hz	1910	.17	-167.66	.90	.89
6	72.00 Hz	475	.17	-166.76	.85	.85
7	48.00 Hz	2770	.16	-158.63	.94	.93
8	36.00 Hz	1246	.16	-155.95	.98	.96
9	24.00 Hz	384	.14	29.62	.96	.94
10	18.00 Hz	1056	.13	-148.09	.94	.96
11	12.00 Hz	864	.10	-136.76	.85	.90
12	9.00 Hz	864	.07	-124.25	.87	.90
13	6.00 Hz	576	.04	-104.01	.53	.55
14	4.50 Hz	288	.02	-103.13	.30	.21
15	3.00 Hz	8024	.08	113.18	.05	.05
16	2.25 Hz	1528	.07	115.76	.73	.80
17	1.50 Hz	4509	.10	127.71	.65	.71
18	1.13 Hz	3264	.12	134.70	.82	.88
19	1.33 Sec	2000	.16	145.60	.40	.43
20	1.78 Sec	1888	.19	155.65	.26	.33
21	2.67 Sec	1959	.22	164.77	.14	.69
22	3.56 Sec	1980	.22	174.62	.31	.86
23	5.33 Sec	276	.23	-162.53	.65	.98
24	7.11 Sec	336	.24	-165.47	.81	.98
25	10.67 Sec	305	.23	-156.42	.80	.95
26	14.22 Sec	47	.20	-164.13	.78	.79
27	21.33 Sec	174	.15	-146.22	.92	.94
28	28.44 Sec	240	.12	-105.61	.79	.80
29	42.67 Sec	222	.07	-164.32	.68	.69
30	56.89 Sec	168	.08	-140.29	.79	.80
31	85.33 Sec	21	.10	-5.47	.53	.50
32	113.78 Sec	27	.16	-127.69	.77	.79
33	170.67 Sec	33	.06	-18.36	.57	.58
34	227.56 Sec	27	.07	-4.95	.65	.69
35	341.33 Sec	6	.02	52.94	.38	.40
36	455.11 Sec	9	.06	-137.39	.83	.83
37	682.67 Sec	9	.14	-57.51	.18	.17
38	910.22 Sec	6	.07	-80.18	.90	.93

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E







PHOENIX GEOSCIENCE

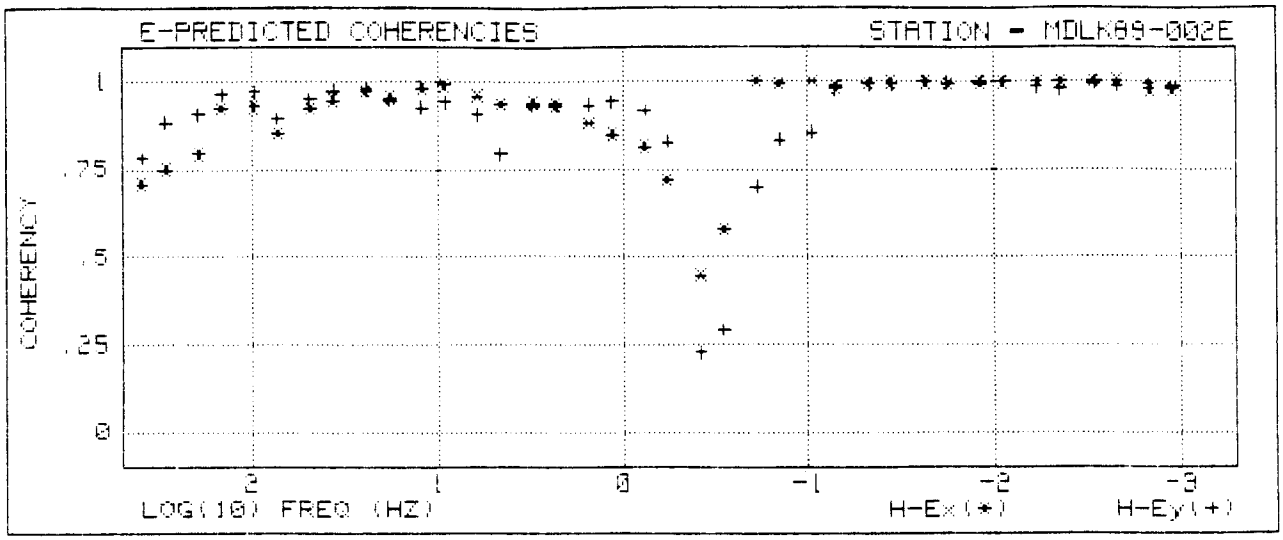
MT Site: MDLK89-002E

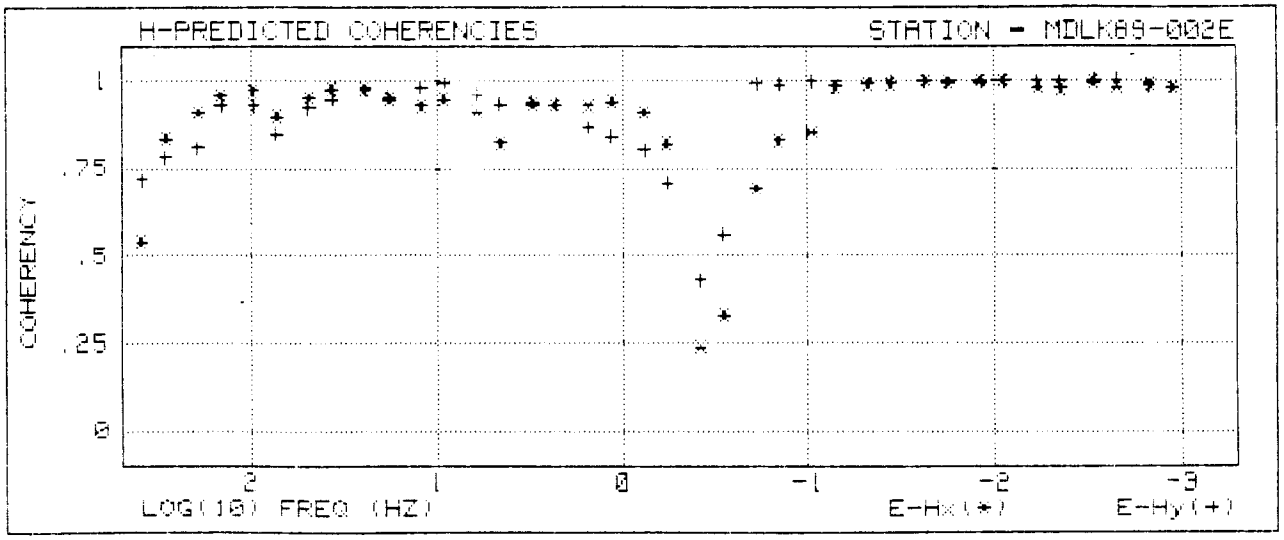
SKEW, ELLIPTICITY AND STRIKE

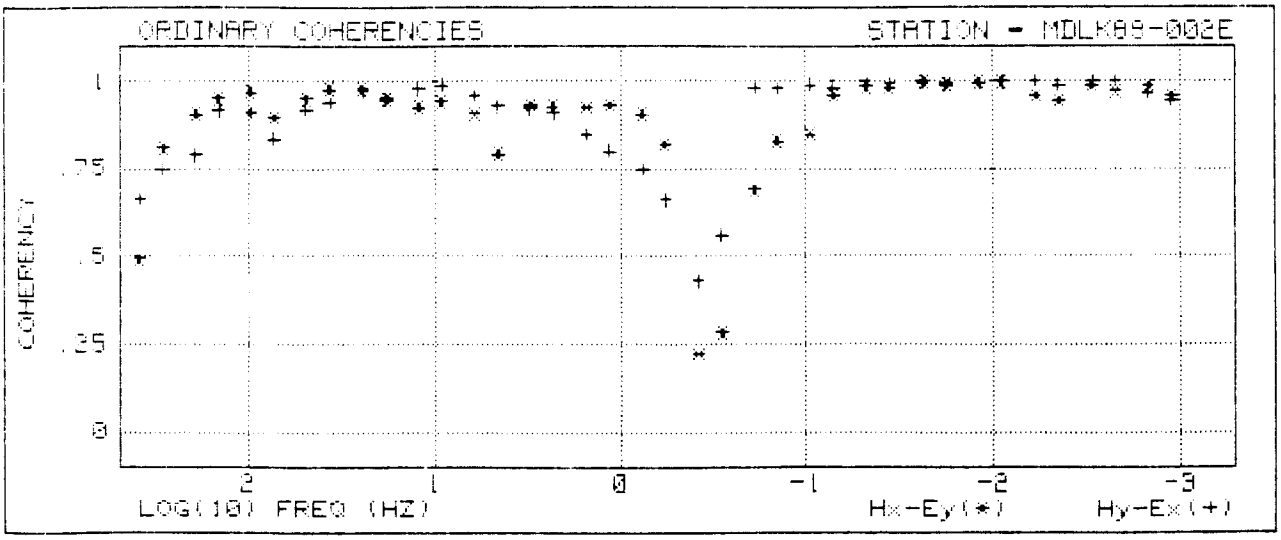
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	439	.43	.50	84.82	.03	1.58	78.90
2	288.00 Hz	636	.17	.14	105.03	.54	.43	118.97
3	192.00 Hz	381	.07	.56	119.97	.96	1.23	168.95
4	144.00 Hz	1050	.20	.40	95.31	.08	.31	112.54
5	96.00 Hz	1910	.04	.07	137.00	.01	.58	106.83
6	72.00 Hz	475	.04	.10	141.62	.16	.60	110.94
7	48.00 Hz	2770	.05	.00	131.12	.09	.42	108.25
8	36.00 Hz	1246	.00	.07	123.17	.09	.27	108.04
9	24.00 Hz	384	.04	.07	131.12	.27	.51	105.00
10	18.00 Hz	1056	.02	.12	142.32	.10	.89	100.74
11	12.00 Hz	864	.01	.62	106.75	.16	.09	104.58
12	9.00 Hz	864	.03	.65	116.14	.22	.29	101.05
13	6.00 Hz	576	.01	.89	107.79	.91	.65	107.24
14	4.50 Hz	288	.03	.35	121.26	.82	.88	140.74
15	3.00 Hz	8024	.05	.30	140.12	.78	.59	97.08
16	2.25 Hz	1528	.04	.32	141.02	.65	1.03	-129.65
17	1.50 Hz	4509	.05	.27	144.87	.32	1.17	-153.28
18	1.13 Hz	3264	.03	.32	145.80	.25	1.21	-173.91
19	1.33 Sec	2000	.09	.17	142.94	.24	1.41	29.77
20	1.78 Sec	1888	.07	.12	140.97	.17	1.96	109.18
21	2.67 Sec	1959	.06	.26	144.55	.09	.96	88.15
22	3.56 Sec	1980	.23	.34	129.40	.12	.43	108.32
23	5.33 Sec	276	.10	.51	112.05	.10	.21	100.53
24	7.11 Sec	336	.07	.65	106.59	.13	.13	99.99
25	10.67 Sec	305	.14	.09	100.29	.22	.12	97.29
26	14.22 Sec	47	.09	.01	125.40	.19	.49	99.69
27	21.33 Sec	174	.06	.03	124.76	.10	.64	92.20
28	28.44 Sec	240	.12	.01	124.83	.13	.56	95.87
29	42.67 Sec	222	.11	.08	131.95	.37	2.46	62.47
30	56.89 Sec	168	.08	.04	125.42	.06	.45	101.17
31	85.33 Sec	21	.11	.26	124.87	.96	.75	105.02
32	113.78 Sec	27	.12	.03	134.05	.74	.57	146.67
33	170.67 Sec	33	.20	.14	108.07	.31	.76	149.84
34	227.56 Sec	27	.24	.16	105.01	.43	.77	119.57
35	341.33 Sec	6	.14	.40	100.04	.77	.52	-41.29
36	455.11 Sec	9	.28	.00	97.57	.22	4.36	-3.77
37	682.67 Sec	9	.17	.04	89.33	.28	2.89	-5.00
38	910.22 Sec	6	.30	.04	95.69	.84	1.82	71.12

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E







PHOENIX GEOSCIENCE

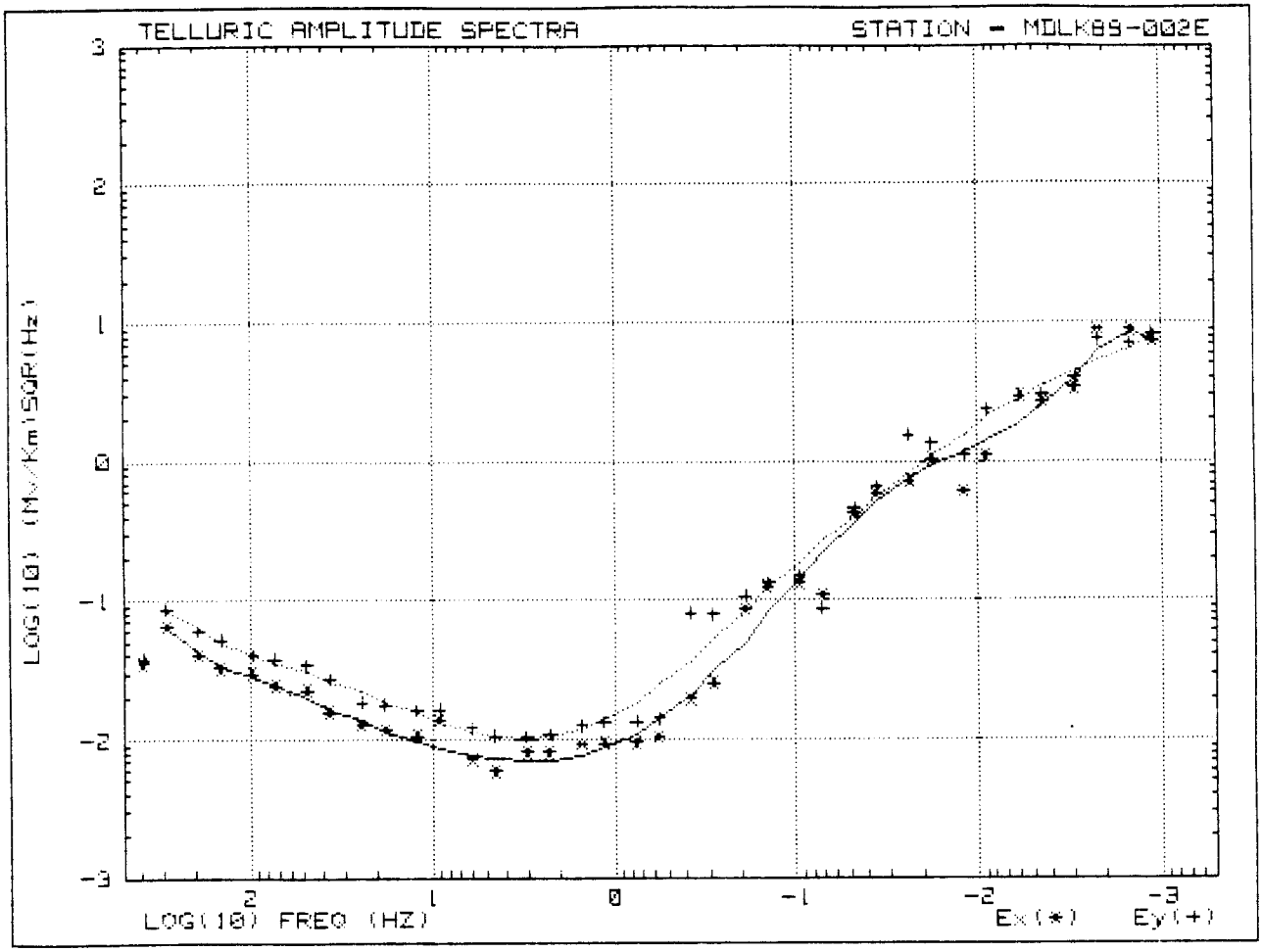
MT Site: MDLK89-002E

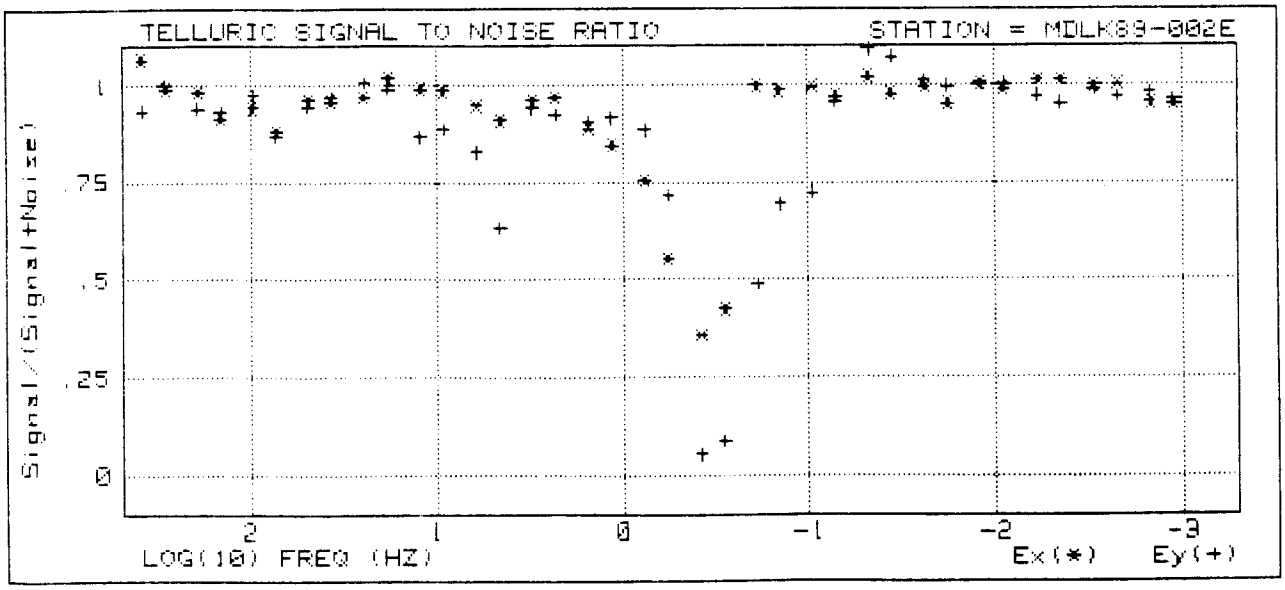
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	439	.71	.78	.54	.71	.49	.66
2	288.00 Hz	636	.75	.88	.83	.78	.80	.74
3	192.00 Hz	381	.79	.90	.90	.80	.90	.78
4	144.00 Hz	1050	.92	.96	.95	.92	.94	.91
5	96.00 Hz	1910	.92	.97	.97	.92	.96	.91
6	72.00 Hz	475	.85	.89	.89	.85	.89	.83
7	48.00 Hz	2770	.92	.95	.95	.92	.95	.91
8	36.00 Hz	1246	.94	.97	.97	.94	.97	.93
9	24.00 Hz	384	.97	.97	.97	.97	.97	.97
10	18.00 Hz	1056	.95	.94	.94	.95	.94	.95
11	12.00 Hz	864	.98	.92	.92	.98	.92	.97
12	9.00 Hz	864	.99	.94	.94	.99	.94	.99
13	6.00 Hz	576	.96	.90	.91	.96	.90	.96
14	4.50 Hz	288	.93	.79	.82	.93	.79	.92
15	3.00 Hz	8024	.93	.93	.93	.93	.93	.92
16	2.25 Hz	1528	.93	.93	.93	.93	.92	.90
17	1.50 Hz	4509	.88	.93	.92	.86	.92	.84
18	1.13 Hz	3264	.85	.94	.93	.84	.93	.80
19	1.33 Sec	2000	.81	.91	.91	.80	.90	.74
20	1.78 Sec	1888	.72	.82	.82	.70	.81	.66
21	2.67 Sec	1959	.44	.22	.23	.43	.22	.43
22	3.56 Sec	1980	.58	.29	.33	.56	.28	.56
23	5.33 Sec	276	1.00	.70	.69	.99	.69	.98
24	7.11 Sec	336	.99	.83	.83	.98	.82	.97
25	10.67 Sec	305	1.00	.85	.85	.99	.84	.98
26	14.22 Sec	47	.98	.97	.98	.98	.95	.98
27	21.33 Sec	174	.99	.99	.99	.99	.98	.98
28	28.44 Sec	240	.99	.99	.99	.99	.97	.99
29	42.67 Sec	222	.99	1.00	1.00	.99	.99	.99
30	56.89 Sec	168	.99	.99	.99	.99	.99	.99
31	85.33 Sec	21	.99	1.00	1.00	.99	.99	.99
32	113.78 Sec	27	1.00	1.00	1.00	1.00	.99	.99
33	170.67 Sec	33	1.00	.98	.98	1.00	.95	1.00
34	227.56 Sec	27	1.00	.97	.97	1.00	.94	.99
35	341.33 Sec	6	1.00	.99	.99	1.00	.98	.99
36	455.11 Sec	9	1.00	.98	.98	1.00	.97	1.00
37	682.67 Sec	9	.97	.99	.99	.98	.98	.96
38	910.22 Sec	6	.97	.98	.98	.98	.95	.94

PHOENIX GEOSCIENCE

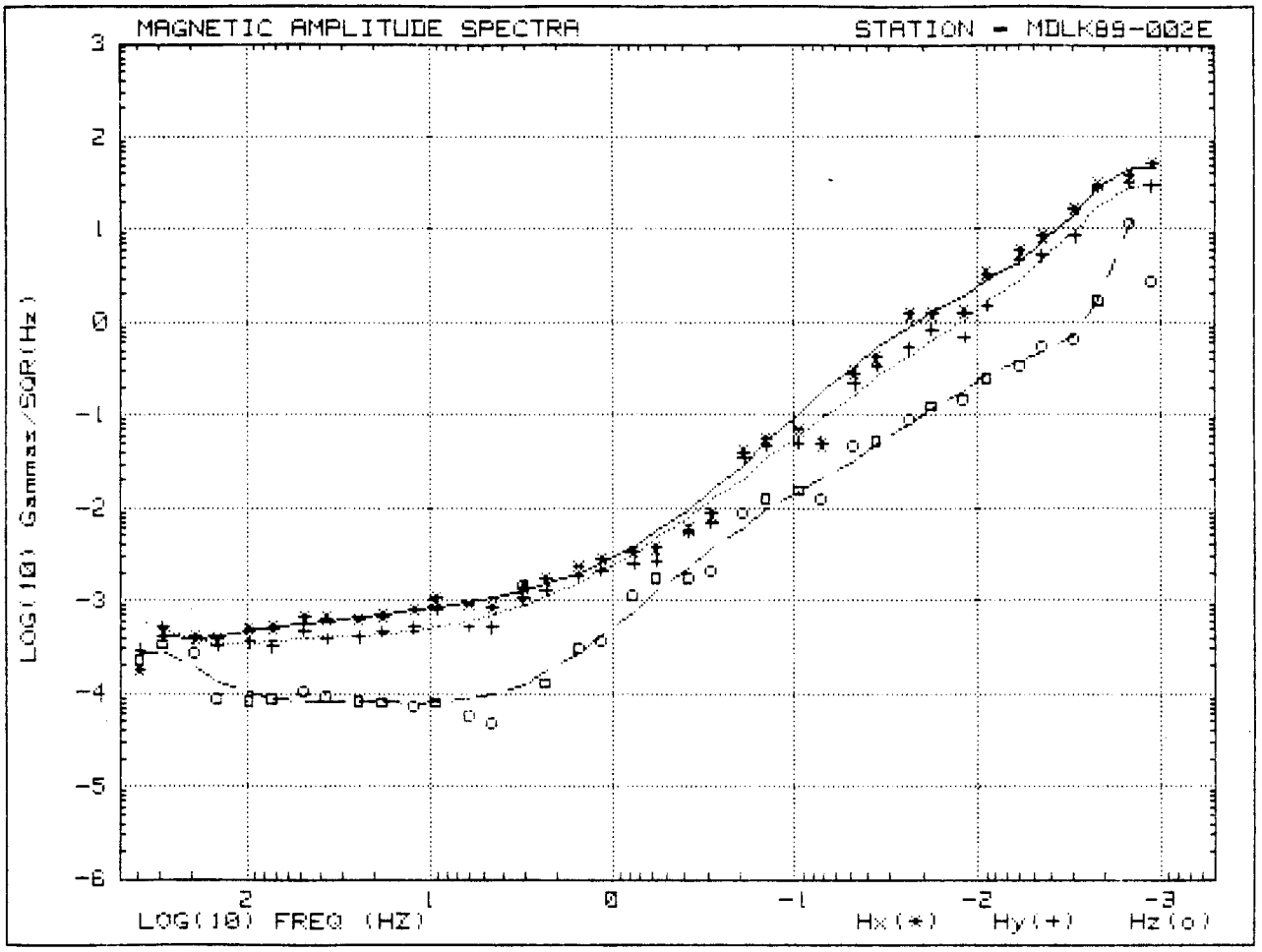
MT Site: MDLK89-002E

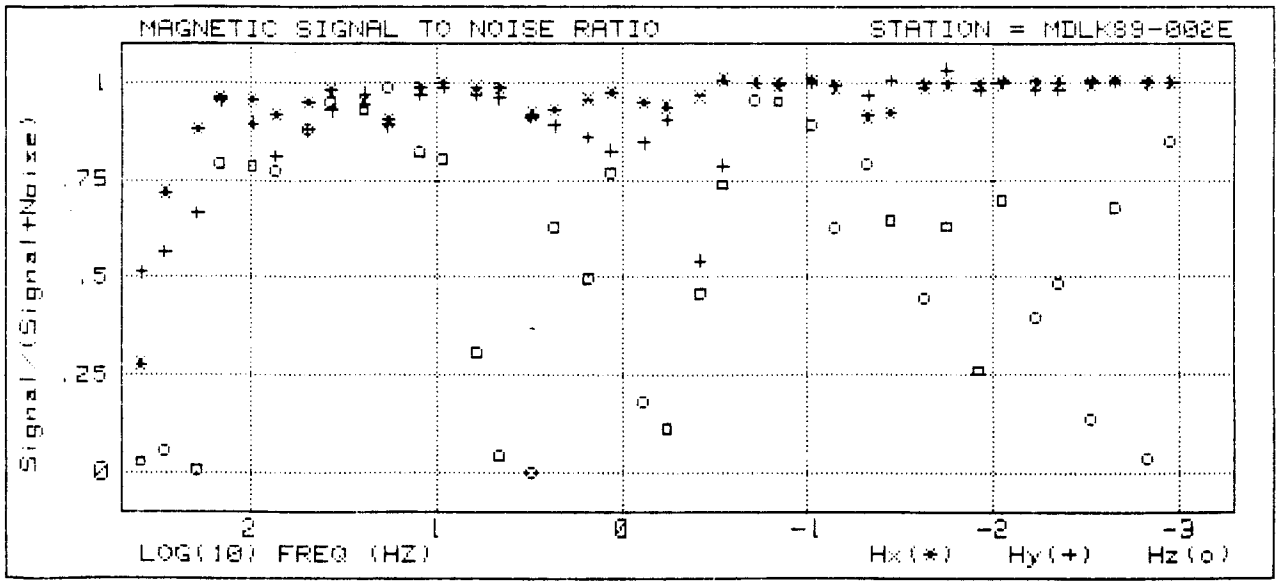




PHOENIX GEOSCIENCE

MT Site: MDLK89-002E





PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	439	1.81E-04	2.92E-04	2.45E-04	3.51E-02	3.76E-02
2	288.00 Hz	636	4.19E-04	5.05E-04	3.54E-04	6.43E-02	8.62E-02
3	192.00 Hz	381	4.00E-04	3.83E-04	2.84E-04	3.98E-02	5.92E-02
4	144.00 Hz	1050	3.79E-04	3.28E-04	9.09E-05	3.22E-02	5.17E-02
5	96.00 Hz	1910	4.86E-04	3.56E-04	8.76E-05	2.94E-02	3.99E-02
6	72.00 Hz	475	4.97E-04	3.17E-04	8.99E-05	2.40E-02	3.73E-02
7	48.00 Hz	2770	6.39E-04	4.57E-04	1.09E-04	2.22E-02	3.36E-02
8	36.00 Hz	1246	6.25E-04	3.84E-04	9.71E-05	1.55E-02	2.67E-02
9	24.00 Hz	384	6.14E-04	3.99E-04	8.67E-05	1.25E-02	1.83E-02
10	18.00 Hz	1056	6.66E-04	4.58E-04	8.42E-05	1.15E-02	1.76E-02
11	12.00 Hz	864	7.91E-04	5.03E-04	7.66E-05	1.04E-02	1.60E-02
12	9.00 Hz	864	1.03E-03	7.99E-04	8.41E-05	1.35E-02	1.63E-02
13	6.00 Hz	576	8.93E-04	5.20E-04	5.96E-05	7.04E-03	1.18E-02
14	4.50 Hz	288	8.35E-04	5.04E-04	5.07E-05	5.81E-03	1.04E-02
15	3.00 Hz	8024	1.38E-03	1.05E-03	1.54E-03	7.98E-03	1.02E-02
16	2.25 Hz	1528	1.67E-03	1.26E-03	1.36E-04	7.99E-03	1.06E-02
17	1.50 Hz	4509	2.31E-03	1.79E-03	3.22E-04	9.11E-03	1.24E-02
18	1.13 Hz	3264	2.76E-03	2.09E-03	3.82E-04	9.24E-03	1.30E-02
19	1.33 Sec	2000	3.29E-03	2.49E-03	1.18E-03	9.38E-03	1.32E-02
20	1.78 Sec	1888	3.64E-03	2.66E-03	1.81E-03	1.03E-02	1.39E-02
21	2.67 Sec	1959	5.73E-03	5.49E-03	1.86E-03	1.92E-02	7.97E-02
22	3.56 Sec	1980	8.37E-03	6.79E-03	2.23E-03	2.50E-02	7.81E-02
23	5.33 Sec	276	3.91E-02	3.45E-02	9.09E-03	8.53E-02	1.05E-01
24	7.11 Sec	336	5.56E-02	4.60E-02	1.29E-02	1.23E-01	1.30E-01
25	10.67 Sec	305	6.87E-02	4.91E-02	1.63E-02	1.30E-01	1.49E-01
26	14.22 Sec	47	4.75E-02	5.02E-02	1.31E-02	1.09E-01	8.67E-02
27	21.33 Sec	174	2.83E-01	2.15E-01	4.94E-02	4.20E-01	4.55E-01
28	28.44 Sec	240	4.11E-01	3.36E-01	5.55E-02	5.79E-01	6.42E-01
29	42.67 Sec	222	1.22E+00	5.25E-01	9.68E-02	7.12E-01	1.53E+00
30	56.89 Sec	168	1.22E+00	8.28E-01	1.33E-01	1.03E+00	1.33E+00
31	85.33 Sec	21	1.26E+00	6.76E-01	1.58E-01	5.98E-01	1.08E+00
32	113.78 Sec	27	3.27E+00	1.48E+00	2.60E-01	1.08E+00	2.35E+00
33	170.67 Sec	33	5.78E+00	4.73E+00	3.65E-01	2.88E+00	2.90E+00
34	227.56 Sec	27	8.29E+00	5.15E+00	5.68E-01	2.62E+00	2.93E+00
35	341.33 Sec	6	1.61E+01	8.22E+00	6.98E-01	3.32E+00	3.88E+00
36	455.11 Sec	9	2.99E+01	2.77E+01	1.75E+00	8.75E+00	7.38E+00
37	682.67 Sec	9	3.85E+01	3.18E+01	1.20E+01	8.66E+00	6.83E+00
38	910.22 Sec	6	5.04E+01	2.80E+01	2.85E+00	7.27E+00	8.19E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	439	.275	.511	.033	1.000	.930
2	288.00 Hz	636	.717	.563	.059	.987	.997
3	192.00 Hz	381	.878	.664	.013	.979	.938
4	144.00 Hz	1050	.960	.951	.797	.911	.927
5	96.00 Hz	1910	.954	.894	.791	.939	.971
6	72.00 Hz	475	.917	.810	.777	.878	.867
7	48.00 Hz	2770	.947	.876	.884	.958	.941
8	36.00 Hz	1246	.978	.927	.955	.957	.965
9	24.00 Hz	384	.942	.967	.936	.966	1.000
10	18.00 Hz	1056	.902	.888	.992	1.000	.986
11	12.00 Hz	864	.983	.965	.827	.988	.864
12	9.00 Hz	864	.998	.988	.812	.984	.884
13	6.00 Hz	576	.986	.967	.310	.946	.827
14	4.50 Hz	288	.985	.958	.046	.907	.633
15	3.00 Hz	8024	.919	.909	.003	.959	.939
16	2.25 Hz	1528	.928	.889	.633	.967	.923
17	1.50 Hz	4509	.956	.859	.504	.887	.901
18	1.13 Hz	3264	.972	.824	.775	.843	.914
19	1.33 Sec	2000	.948	.844	.188	.753	.881
20	1.78 Sec	1888	.937	.903	.115	.550	.715
21	2.67 Sec	1959	.964	.540	.466	.356	.052
22	3.56 Sec	1980	1.000	.787	.744	.423	.085
23	5.33 Sec	276	1.000	.999	.961	.996	.488
24	7.11 Sec	336	.994	.996	.958	.983	.694
25	10.67 Sec	305	1.000	1.000	.897	.994	.723
26	14.22 Sec	47	.990	.990	.632	.968	.954
27	21.33 Sec	174	.914	.967	.799	1.000	1.000
28	28.44 Sec	240	.921	1.000	.650	.976	1.000
29	42.67 Sec	222	.987	.998	.450	.991	1.000
30	56.89 Sec	168	.995	1.000	.637	.949	.993
31	85.33 Sec	21	.998	.979	.265	1.000	.998
32	113.78 Sec	27	.996	1.000	.703	.988	1.000
33	170.67 Sec	33	1.000	.978	.401	1.000	.969
34	227.56 Sec	27	1.000	.981	.490	1.000	.950
35	341.33 Sec	6	.996	1.000	.142	.996	.988
36	455.11 Sec	9	1.000	.999	.685	.999	.966
37	682.67 Sec	9	1.000	.995	.044	.951	.976
38	910.22 Sec	6	.999	1.000	.855	.948	.959

PHOENIX GEOSCIENCE

MT Site: MDLK89-002E

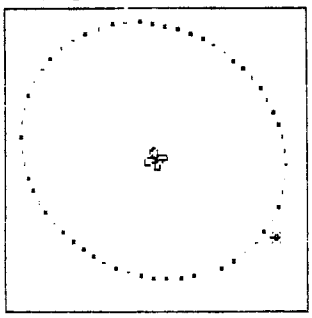
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

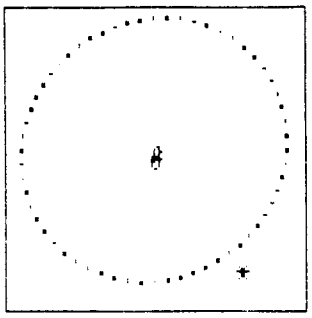
*=Rotation Direction

Zxy = ...
Zxx = ___

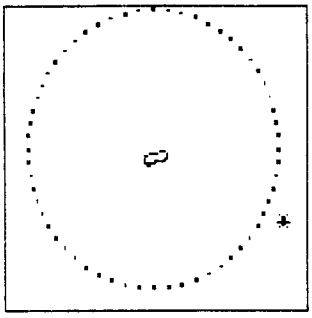
F=8 (36.0 Hz)



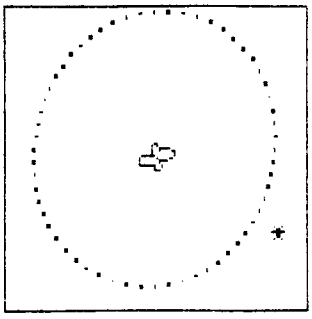
F=10 (18.0 Hz)



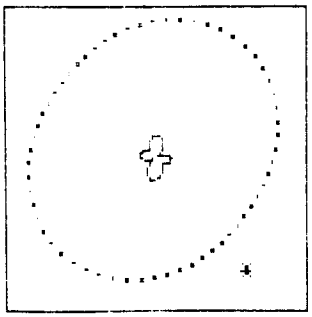
F=12 (9.0 Hz)



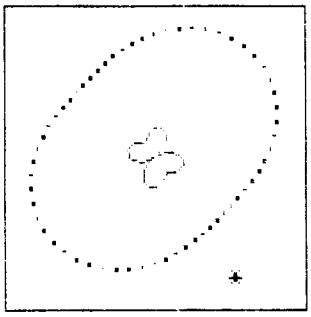
F=14 (4.5 Hz)



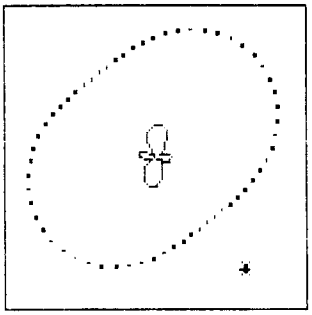
F=16 (2.3 Hz)



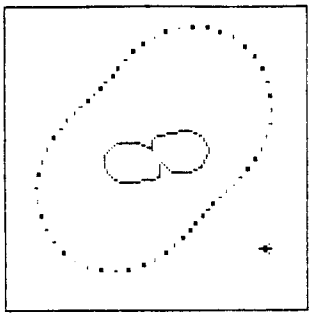
F=18 (1.1 Hz)



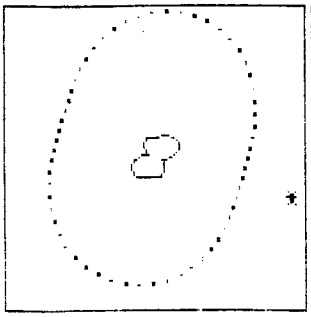
F=20 (.5625 Hz)



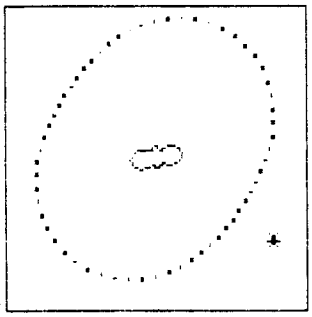
F=22 (.2813 Hz)



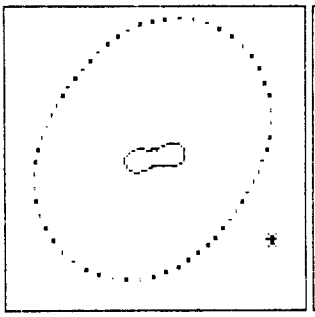
F=24 (.1406 Hz)



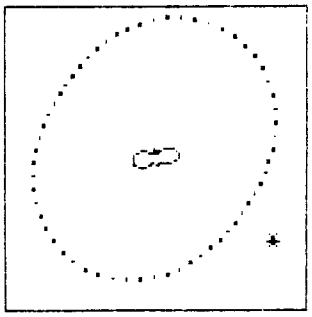
F=26 (.0703 Hz)



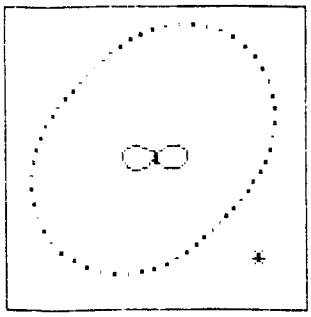
F=28 (.0352 Hz)



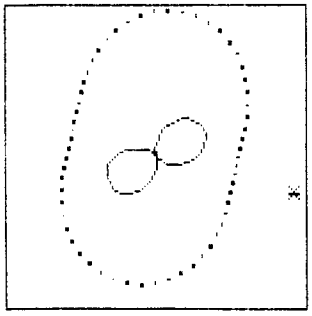
F=30 (.0176 Hz)



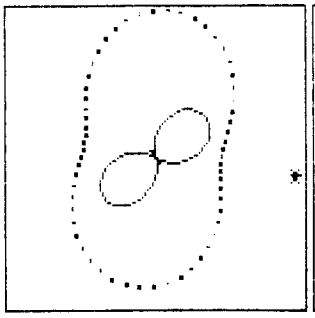
F=32 (.0088 Hz)



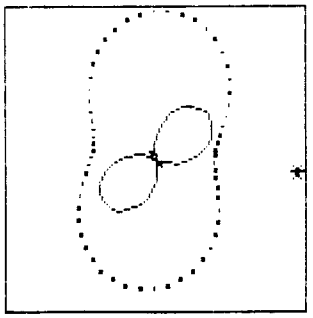
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-001a/002a/003a/

Operator:STEWART
Date: 17 Aug 1989
Time: 15:32:29

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#205-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 3

Stn Number:MDLK89-003a
Site Desc:T43N R4E
41,33,56 N 121,32,57 W
Elevation:6845ft
Reference:MDLK89-002a
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL452	+45 DEG
Hy	12	COIL205	+135 DEG
Hz	13	LOOP005	
Ex	14	171 M	+45 DEG
Ey	15	172 M	+135 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 4.0 K Ohms
Ex Voltage: AC=_2.2 mv, DC=42.3 mv
Ey Pot Resist: 12_ K Ohms
Ey Voltage: AC=_1.2 mv, DC=_5.2 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

OPERATOR LOG FOR MDLK89-001a/002a/003E/

Recorded XPR Files:

X#1	- MDLK89-001a/002a/003a/	HI: 16:15 17 Aug	LO: 18:32 17
X#2	- MDLK89-001a/002a/003a/	HI: 16:29 17 Aug	LO: 21:20 17
X#3	- MDLK89-001a/002a/003a/	HI: 16:36 17 Aug	LO: 22:22 17
X#4	- MDLK89-001a/002a/003a/	HI: 16:44 17 Aug	LO: 23:23 17
X#5	- MDLK89-001a/002a/003a/	HI: 16:52 17 Aug	LO: 00:24 18
X#6	- MDLK89-001a/002a/003a/	HI: 17:07 17 Aug	LO: 01:16 18
X#7	- MDLK89-001a/002a/003a/	HI:	LO: 02:18 18 Aug
X#8	- MDLK89-001a/002a/003a/		LO: 03:19 18 Aug
X#9	- MDLK89-001a/002a/003a/		LO: 03:58 18 Aug
X#10	- MDLK89-001a/002a/003a/		LO: 04:00 18 Aug

Operator:STEWART/WUNDERMAN

Cultural Factors:
NONE

Weather Conditions:
CLEAR DURING RUNS "a & c" LIGHTNING DURING RUN "b"

Other Factors:
NONE

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

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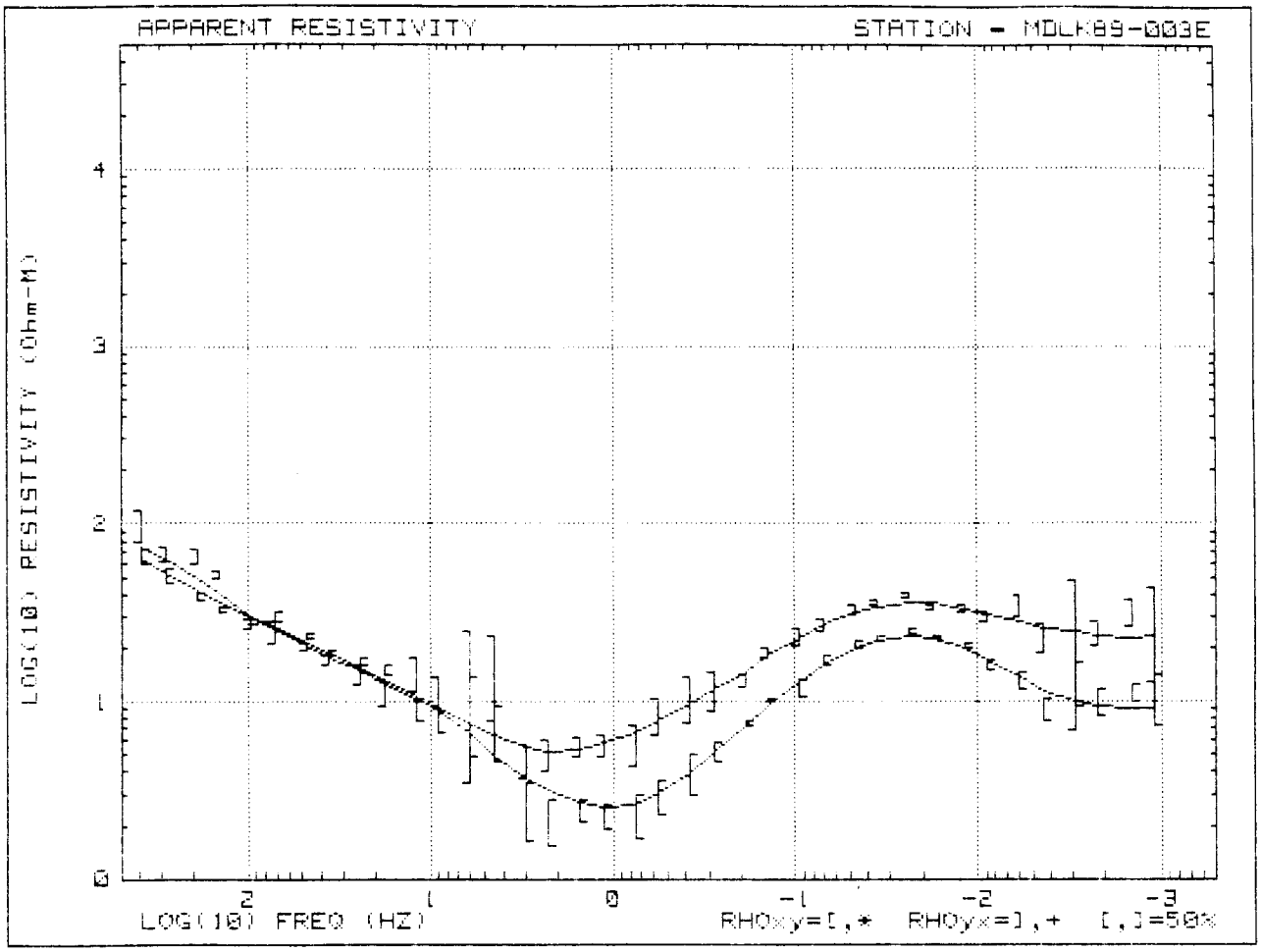

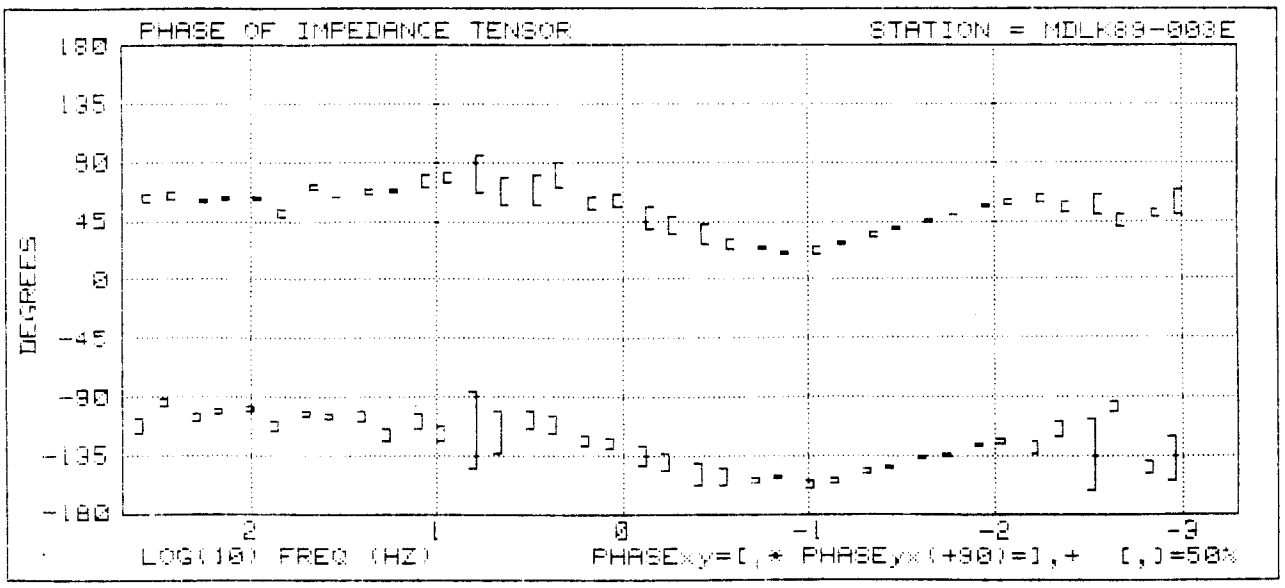

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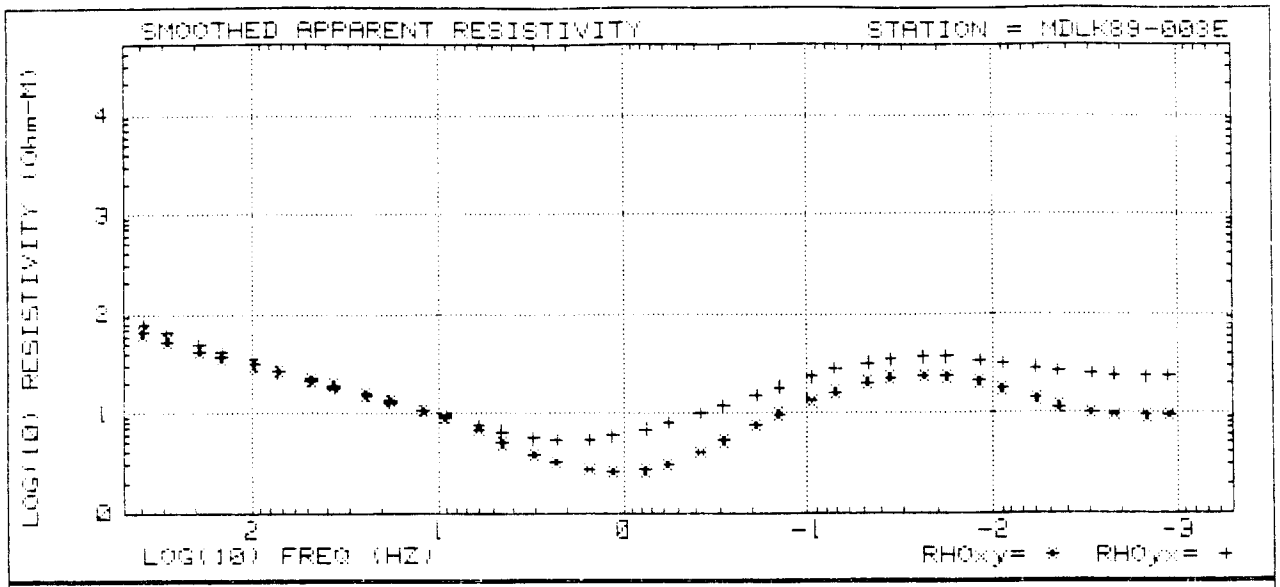
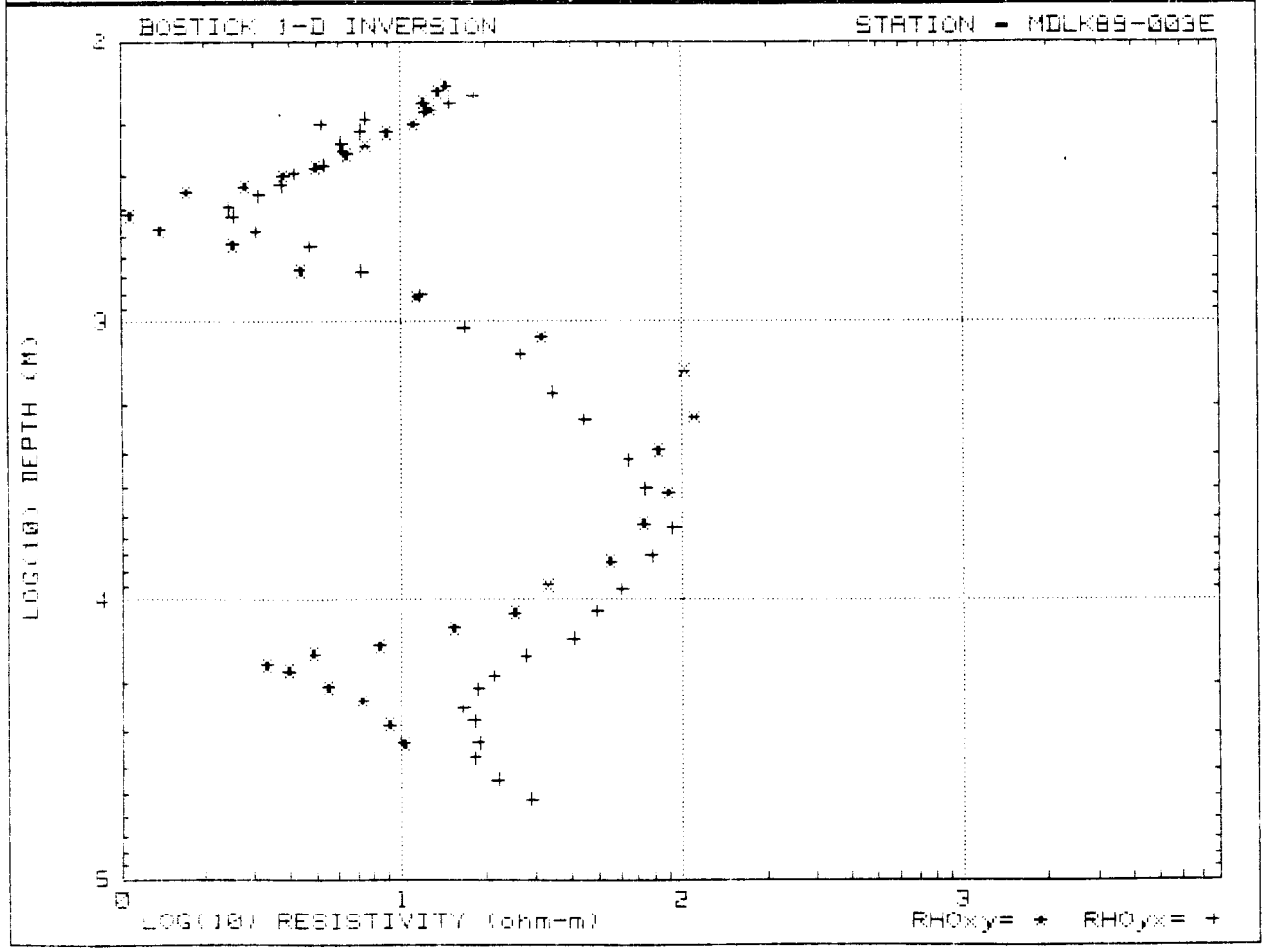
MT Site: MDLK89-003E





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MT Site: MDLK89-003E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	120	65.0	15.6	96.1	36.6	62.6	4.2	-112.6	8.9
2	288.00 Hz	188	51.2	15.5	67.8	15.2	64.5	4.1	-94.9	4.0
3	192.00 Hz	182	38.6	6.8	66.0	16.0	60.3	1.9	-105.4	4.3
4	144.00 Hz	464	32.9	3.2	51.3	6.8	62.4	.9	-100.9	1.9
5	96.00 Hz	190	28.5	4.9	27.2	10.2	62.6	1.4	-100.1	2.8
6	72.00 Hz	96	30.1	10.7	24.5	21.2	51.0	2.9	-112.1	5.5
7	48.00 Hz	568	23.4	5.8	20.2	8.5	70.7	1.6	-102.5	2.3
8	36.00 Hz	472	18.8	3.5	17.2	10.1	62.9	1.0	-104.6	2.8
9	24.00 Hz	576	16.8	9.1	14.2	19.9	66.3	2.5	-104.8	5.2
10	18.00 Hz	288	15.0	8.6	11.3	28.5	68.0	2.4	-119.5	7.2
11	12.00 Hz	480	8.9	22.9	14.2	38.2	75.5	5.9	-108.7	9.3
12	9.00 Hz	480	7.6	22.5	11.4	33.2	77.5	5.8	-118.0	8.2
13	6.00 Hz	288	8.1	99.9	9.3	99.9	81.1	22.0	-115.2	42.5
14	4.50 Hz	96	6.7	70.9	13.5	99.9	68.1	15.4	-117.2	22.9
15	3.00 Hz	2729	2.4	74.0	4.6	41.2	69.1	15.9	-106.9	9.9
16	2.25 Hz	2720	2.1	58.1	5.0	37.0	80.3	13.1	-111.7	9.0
17	1.50 Hz	6183	2.4	25.0	5.5	20.6	58.9	6.4	-123.6	5.4
18	1.13 Hz	6183	2.2	26.9	5.6	21.2	59.7	6.8	-125.6	5.5
19	1.33 Sec	2767	2.2	55.3	5.6	48.9	47.8	12.6	-135.6	11.4
20	1.78 Sec	3088	2.9	37.9	8.2	42.7	41.1	9.2	-140.2	10.2
21	2.67 Sec	1563	3.9	48.6	10.0	56.1	34.7	11.3	-149.4	12.8
22	3.56 Sec	1563	5.2	20.6	11.4	44.9	26.8	5.4	-151.3	10.6
23	5.33 Sec	780	7.6	4.8	13.1	12.3	25.2	1.4	-154.2	3.3
24	7.11 Sec	780	10.2	3.7	18.5	9.0	21.1	1.0	-151.4	2.5
25	10.67 Sec	154	11.9	16.8	23.2	18.2	22.6	4.4	-156.7	4.8
26	14.22 Sec	394	17.2	8.4	27.1	12.1	28.1	2.3	-153.5	3.3
27	21.33 Sec	54	20.7	7.9	32.7	8.9	34.4	2.2	-146.7	2.4
28	28.44 Sec	95	22.4	4.7	35.7	5.3	39.1	1.3	-143.4	1.5
29	42.67 Sec	120	24.9	3.9	39.5	6.4	45.8	1.1	-136.5	1.8
30	56.89 Sec	192	22.8	3.4	33.8	6.1	49.9	.9	-133.8	1.7
31	85.33 Sec	48	20.6	3.7	33.7	7.1	56.7	1.0	-126.8	2.0
32	113.78 Sec	60	16.0	11.4	29.8	10.6	59.6	3.1	-123.9	2.9
33	170.67 Sec	24	12.9	16.8	34.2	24.7	62.2	4.5	-128.6	6.3
34	227.56 Sec	30	9.0	22.6	22.7	34.5	54.9	5.8	-114.8	8.5
35	341.33 Sec	21	12.5	52.2	18.2	99.9	57.2	12.0	-134.4	41.3
36	455.11 Sec	3	9.9	30.1	24.1	23.4	44.9	7.5	-97.8	6.0
37	682.67 Sec	6	11.2	19.4	31.1	29.7	50.7	5.1	-143.5	7.4
38	910.22 Sec	6	10.2	60.7	23.7	99.9	59.5	13.6	-137.1	25.4

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MT Site: MDLK89-003E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	120	63.2	74.9	14.6	144	18.1	157
2	288.00 Hz	188	52.8	62.8	13.6	152	15.0	166
3	192.00 Hz	182	42.0	48.9	12.0	166	12.3	180
4	144.00 Hz	464	35.9	41.5	12.9	178	7.5	191
5	96.00 Hz	190	30.3	30.3	11.2	200	5.2	200
6	72.00 Hz	96	26.1	25.5	8.9	214	7.2	212
7	48.00 Hz	568	21.5	20.6	7.5	238	6.2	233
8	36.00 Hz	472	18.7	17.6	6.5	257	6.3	249
9	24.00 Hz	576	15.4	14.8	5.0	285	5.3	280
10	18.00 Hz	288	13.1	12.7	3.8	304	4.2	298
11	12.00 Hz	480	10.5	10.5	2.8	333	3.8	333
12	9.00 Hz	480	8.8	9.2	1.7	351	3.1	359
13	6.00 Hz	288	6.6	7.5	.56	374	2.4	397
14	4.50 Hz	96	4.9	6.4	.48	377	2.5	426
15	3.00 Hz	2729	3.7	5.5	.86	398	3.0	483
16	2.25 Hz	2720	3.2	5.3	1.1	422	4.8	545
17	1.50 Hz	6183	2.7	5.3	1.4	474	7.3	672
18	1.13 Hz	6183	2.5	5.9	2.5	536	11.8	813
19	1.33 Sec	2767	2.7	6.7	4.4	669	16.7	1067
20	1.78 Sec	3088	3.0	7.9	11.5	825	26.6	1333
21	2.67 Sec	1563	4.0	9.8	31.5	1158	34.6	1821
22	3.56 Sec	1563	5.2	11.6	102.5	1528	45.2	2287
23	5.33 Sec	780	7.4	14.8	111.0	2240	64.4	3161
24	7.11 Sec	780	9.5	17.9	82.7	2925	74.6	4019
25	10.67 Sec	154	12.9	22.6	89.6	4171	93.2	5527
26	14.22 Sec	394	16.0	27.4	73.2	5362	78.3	7021
27	21.33 Sec	54	20.1	31.6	56.0	7368	61.1	9237
28	28.44 Sec	95	22.1	34.1	33.3	8932	50.2	11088
29	42.67 Sec	120	23.1	36.1	25.3	11173	41.3	13958
30	56.89 Sec	192	22.8	35.8	15.3	12827	27.8	16052
31	85.33 Sec	48	20.2	33.1	8.4	14758	21.4	18900
32	113.78 Sec	60	17.2	30.8	4.9	15731	18.8	21083
33	170.67 Sec	24	13.7	27.9	3.4	17231	16.6	24564
34	227.56 Sec	30	11.3	25.8	4.0	18031	18.1	27293
35	341.33 Sec	21	9.9	24.7	5.5	20667	18.9	32688
36	455.11 Sec	3	9.3	23.6	7.4	23129	18.3	36854
37	682.67 Sec	6	9.1	22.7	9.1	28098	22.1	44254
38	910.22 Sec	6	9.3	23.4	10.3	32694	29.1	51907

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	120	14.87	53.25	999.99	162.86	313.61	999.99
2	288.00 Hz	188	-14.20	-49.27	854.45	117.06	244.97	765.03
3	192.00 Hz	182	-1.49	-12.77	267.34	95.43	167.11	79.83
4	144.00 Hz	464	9.25	-5.56	25.31	71.38	136.46	11.69
5	96.00 Hz	190	2.03	-1.11	34.03	53.79	103.95	15.80
6	72.00 Hz	96	-4.61	.65	234.44	65.54	80.87	55.78
7	48.00 Hz	568	4.28	3.88	8.11	24.74	70.66	8.81
8	36.00 Hz	472	1.54	3.98	2.85	26.48	51.81	1.98
9	24.00 Hz	576	-2.89	1.94	7.10	18.06	41.17	7.61
10	18.00 Hz	288	-1.00	-1.40	6.52	13.78	34.08	4.64
11	12.00 Hz	480	-.91	1.33	18.75	5.78	22.38	11.33
12	9.00 Hz	480	.83	2.63	12.97	4.00	18.09	7.07
13	6.00 Hz	288	-.14	.22	198.86	2.41	15.43	72.27
14	4.50 Hz	96	.40	1.80	30.87	4.56	11.35	21.50
15	3.00 Hz	2729	-.78	-.26	4.22	2.13	5.58	5.47
16	2.25 Hz	2720	-.45	-.43	2.65	.81	4.75	2.44
17	1.50 Hz	6183	.14	.44	.51	2.21	3.66	.46
18	1.13 Hz	6183	.03	.45	.41	1.78	3.05	.36
19	1.33 Sec	2767	.016	.463	1.122	1.946	2.144	.811
20	1.78 Sec	3088	.169	.172	.667	2.135	1.865	.415
21	2.67 Sec	1563	.130	-.231	.684	2.216	1.533	.569
22	3.56 Sec	1563	.120	.100	.281	2.424	1.225	.130
23	5.33 Sec	780	.119	.106	.012	2.413	1.136	.008
24	7.11 Sec	780	.127	.012	.005	2.494	.960	.005
25	10.67 Sec	154	.454	.130	.064	2.180	.906	.067
26	14.22 Sec	394	.361	.085	.025	2.167	1.157	.020
27	21.33 Sec	54	.344	.076	.010	1.817	1.246	.014
28	28.44 Sec	95	.378	.124	.004	1.540	1.253	.004
29	42.67 Sec	120	.276	.118	.002	1.192	1.225	.002
30	56.89 Sec	192	.266	.139	.002	.911	1.083	.001
31	85.33 Sec	48	.147	.142	.001	.604	.919	.001
32	113.78 Sec	60	.166	.194	.003	.425	.724	.004
33	170.67 Sec	24	.135	.148	.004	.287	.545	.005
34	227.56 Sec	30	.027	.170	.010	.256	.363	.004
35	341.33 Sec	21	.072	.038	.017	.232	.360	.016
36	455.11 Sec	3	-.006	.103	.002	.233	.233	.004
37	682.67 Sec	6	.052	.026	.001	.181	.222	.001
38	910.22 Sec	6	.090	.059	.020	.120	.204	.006

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	120	-164.89	-396.66	999.99	53.85	52.30	999.99
2	288.00 Hz	188	-26.65	-311.36	975.57	43.73	29.61	873.47
3	192.00 Hz	182	-66.96	-242.57	699.29	31.02	-.51	208.81
4	144.00 Hz	464	-36.42	-188.62	78.92	18.19	.43	36.46
5	96.00 Hz	190	-20.07	-112.41	61.63	6.07	14.97	28.61
6	72.00 Hz	96	-35.31	-86.96	163.43	-3.37	6.79	38.89
7	48.00 Hz	568	-15.03	-68.04	16.12	5.34	-.05	17.51
8	36.00 Hz	472	-13.99	-53.79	14.30	1.78	5.48	9.96
9	24.00 Hz	576	-10.52	-39.93	28.09	-2.82	1.56	30.11
10	18.00 Hz	288	-15.69	-27.75	31.91	.23	-1.03	22.72
11	12.00 Hz	480	-9.36	-27.61	44.40	1.29	-.17	26.82
12	9.00 Hz	480	-10.63	-19.98	21.04	2.06	-1.68	11.47
13	6.00 Hz	288	-7.12	-15.14	307.37	-.11	.73	111.71
14	4.50 Hz	96	-7.97	-15.49	97.13	.68	1.57	67.64
15	3.00 Hz	2729	-2.41	-7.54	4.09	1.24	-.50	5.31
16	2.25 Hz	2720	-2.77	-6.97	2.78	-.01	-.81	2.56
17	1.50 Hz	6183	-3.55	-5.35	.72	.57	.09	.64
18	1.13 Hz	6183	-3.28	-4.58	.59	.41	.08	.50
19	1.33 Sec	2767	-3.271	-3.203	1.663	.407	-.026	1.202
20	1.78 Sec	3088	-3.677	-3.067	1.447	.570	-.341	.900
21	2.67 Sec	1563	-3.737	-2.209	1.870	.278	-.564	1.555
22	3.56 Sec	1563	-3.511	-1.924	1.101	.522	-.525	.507
23	5.33 Sec	780	-3.156	-1.525	.083	.416	-.461	.054
24	7.11 Sec	780	-3.170	-1.730	.048	.492	-.309	.049
25	10.67 Sec	154	-3.032	-1.306	.152	.585	-.148	.160
26	14.22 Sec	394	-2.763	-1.380	.062	.432	-.104	.049
27	21.33 Sec	54	-2.313	-1.522	.028	.389	-.006	.040
28	28.44 Sec	95	-2.011	-1.493	.008	.409	.065	.009
29	42.67 Sec	120	-1.560	-1.480	.009	.279	.113	.012
30	56.89 Sec	192	-1.194	-1.243	.005	.248	.171	.003
31	85.33 Sec	48	-.842	-1.126	.005	.205	.075	.004
32	113.78 Sec	60	-.638	-.949	.007	.221	.142	.010
33	170.67 Sec	24	-.626	-.782	.024	.207	.046	.030
34	227.56 Sec	30	-.296	-.640	.022	.095	.160	.009
35	341.33 Sec	21	-.361	-.369	.277	.076	-.013	.263
36	455.11 Sec	3	-.070	-.509	.006	-.066	.067	.009
37	682.67 Sec	6	-.384	-.284	.008	.093	-.107	.014
38	910.22 Sec	6	-.264	-.245	.051	.110	-.013	.016

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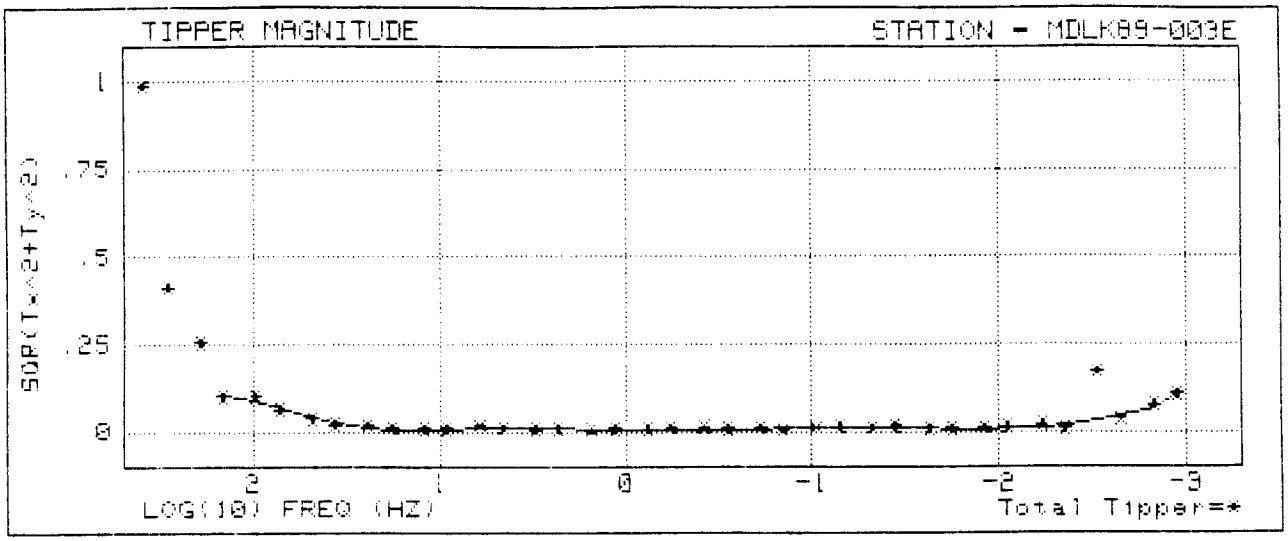

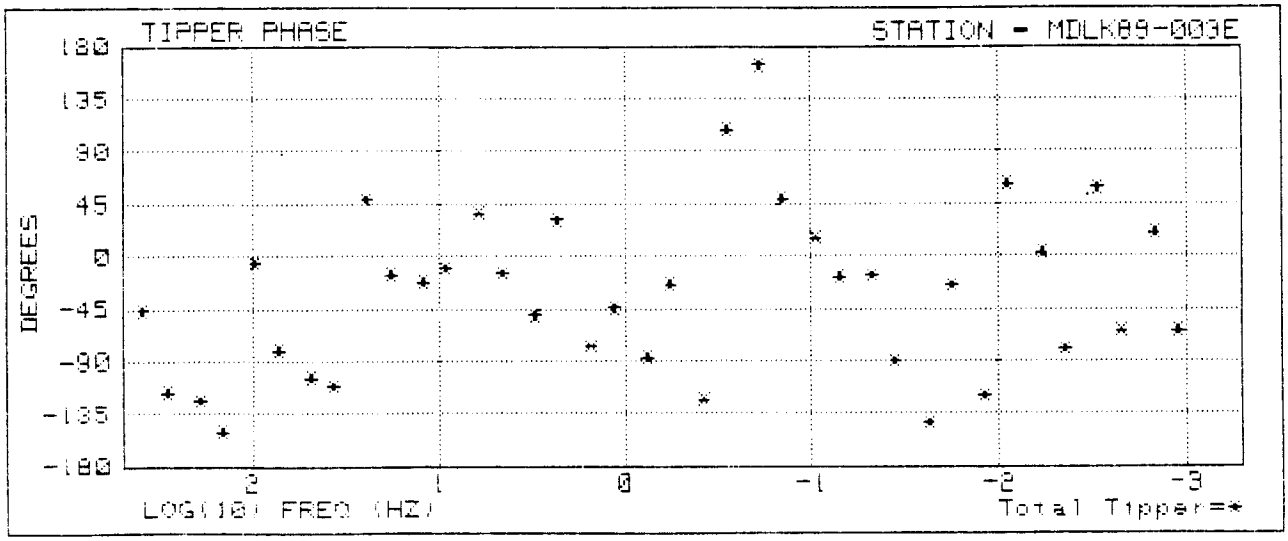

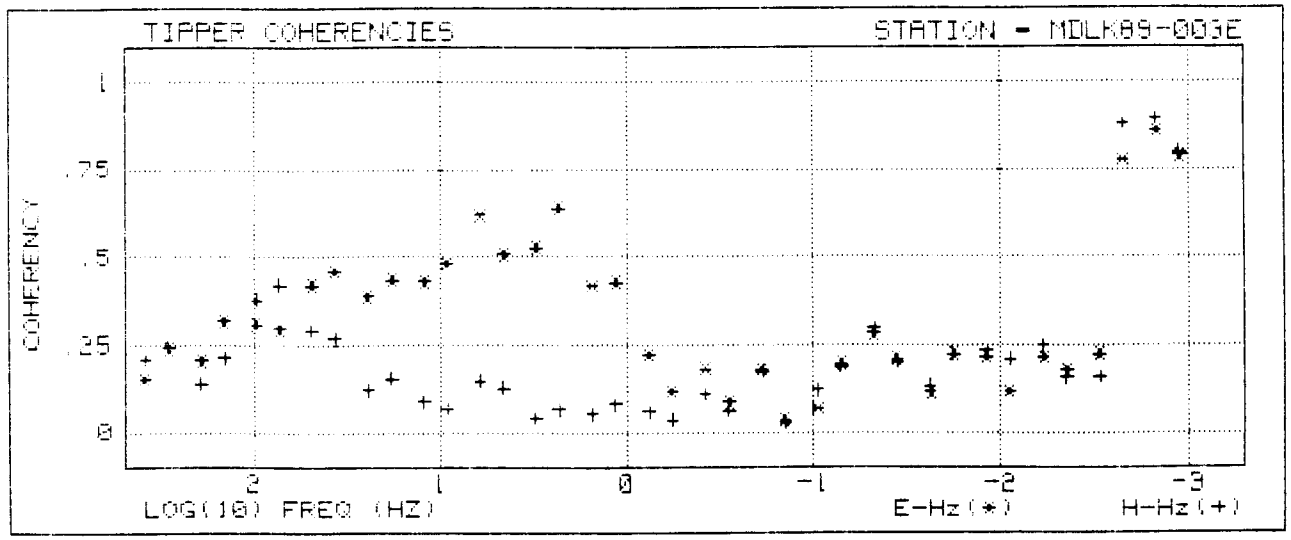

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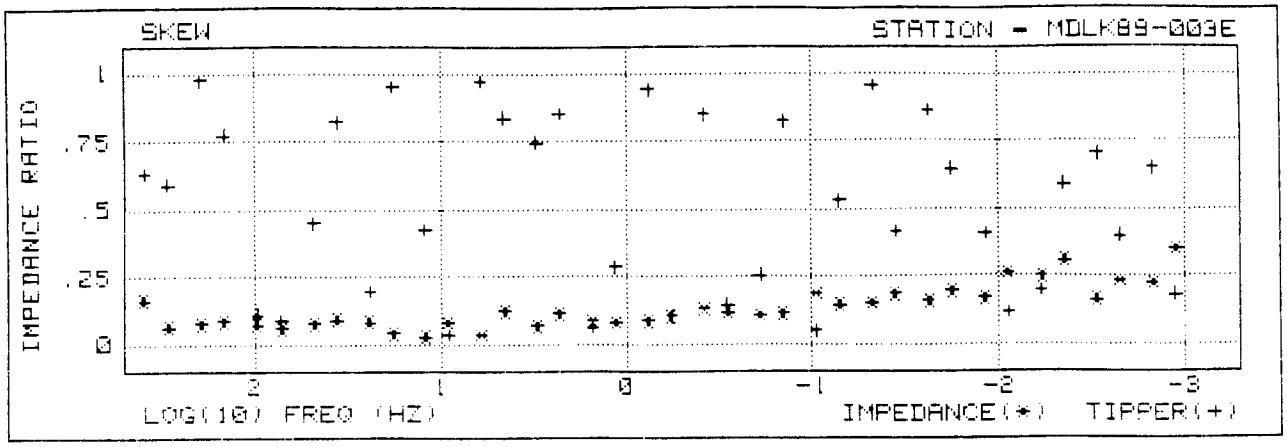
MT Site: MDLK89-003E

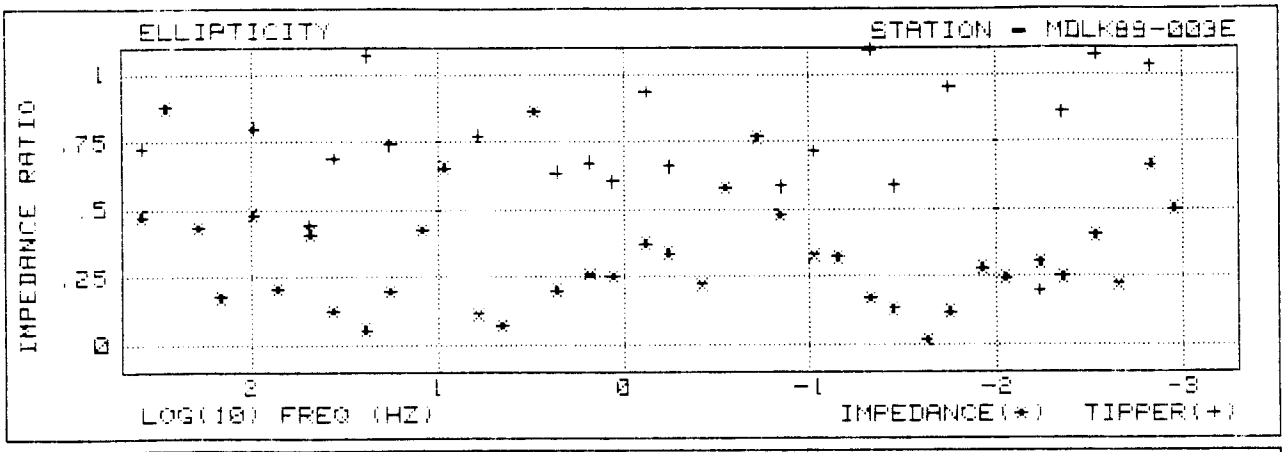
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

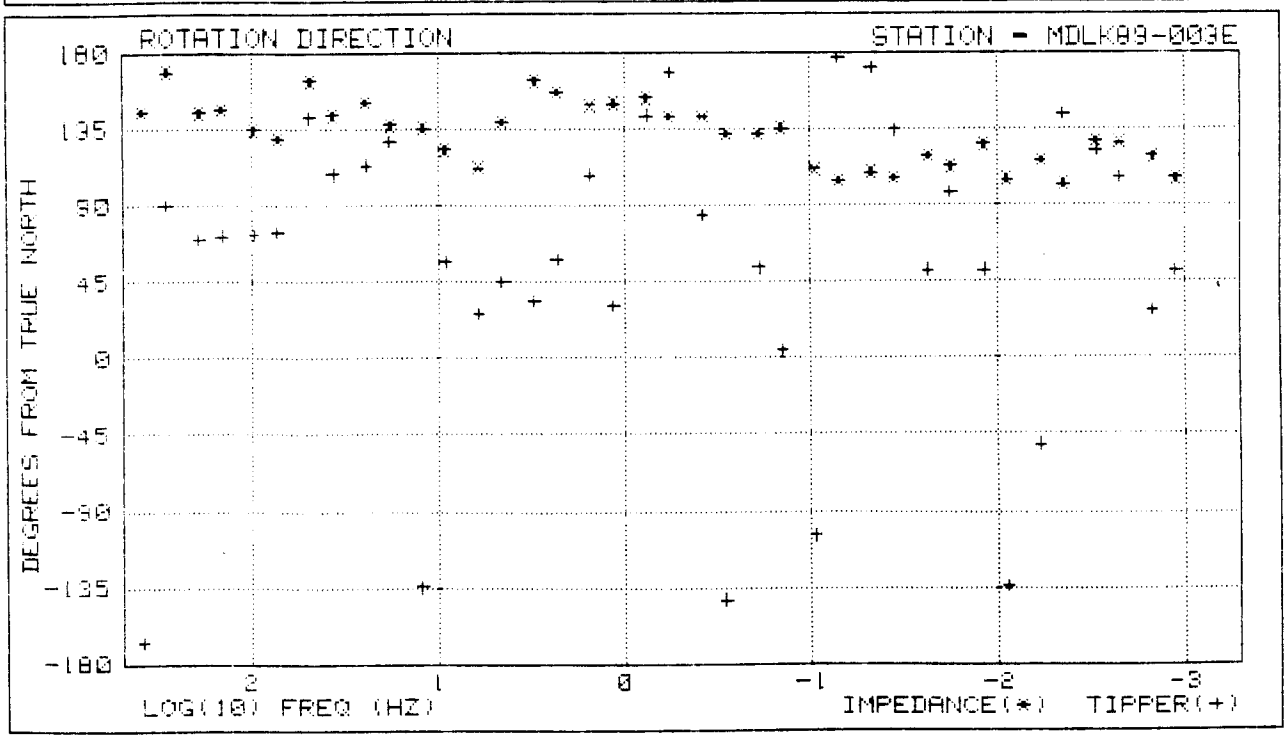
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	120	.98	-47.46	.15	.21
2	288.00 Hz	188	.41	-117.25	.24	.24
3	192.00 Hz	182	.25	-124.38	.20	.14
4	144.00 Hz	464	.10	-150.98	.31	.21
5	96.00 Hz	190	.10	-6.84	.30	.38
6	72.00 Hz	96	.06	-81.45	.29	.42
7	48.00 Hz	568	.03	-104.95	.42	.29
8	36.00 Hz	472	.02	-111.78	.46	.27
9	24.00 Hz	576	.02	48.26	.38	.12
10	18.00 Hz	288	.01	-16.80	.43	.15
11	12.00 Hz	480	.00	-23.03	.43	.08
12	9.00 Hz	480	.00	-11.00	.48	.06
13	6.00 Hz	288	.01	35.73	.62	.14
14	4.50 Hz	96	.01	-14.82	.50	.12
15	3.00 Hz	2729	.00	-51.39	.52	.04
16	2.25 Hz	2720	.01	30.40	.63	.06
17	1.50 Hz	6183	.00	-78.58	.41	.05
18	1.13 Hz	6183	.01	-45.44	.42	.08
19	1.33 Sec	2767	.00	-88.19	.22	.05
20	1.78 Sec	3088	.01	-24.77	.11	.03
21	2.67 Sec	1563	.01	-124.10	.18	.10
22	3.56 Sec	1563	.01	107.51	.08	.06
23	5.33 Sec	780	.01	163.05	.18	.17
24	7.11 Sec	780	.00	48.70	.03	.02
25	10.67 Sec	154	.01	14.96	.06	.12
26	14.22 Sec	394	.01	-18.57	.19	.19
27	21.33 Sec	54	.01	-17.57	.28	.29
28	28.44 Sec	95	.01	-90.72	.21	.20
29	42.67 Sec	120	.00	-143.63	.11	.13
30	56.89 Sec	192	.01	-25.81	.22	.22
31	85.33 Sec	48	.01	-120.26	.21	.23
32	113.78 Sec	60	.01	61.07	.11	.21
33	170.67 Sec	24	.02	2.06	.21	.24
34	227.56 Sec	30	.01	-80.08	.17	.15
35	341.33 Sec	21	.17	58.08	.22	.15
36	455.11 Sec	3	.03	-64.85	.77	.88
37	682.67 Sec	6	.07	19.46	.86	.89
38	910.22 Sec	6	.10	-65.01	.78	.79

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E







PHOENIX GEOSCIENCE

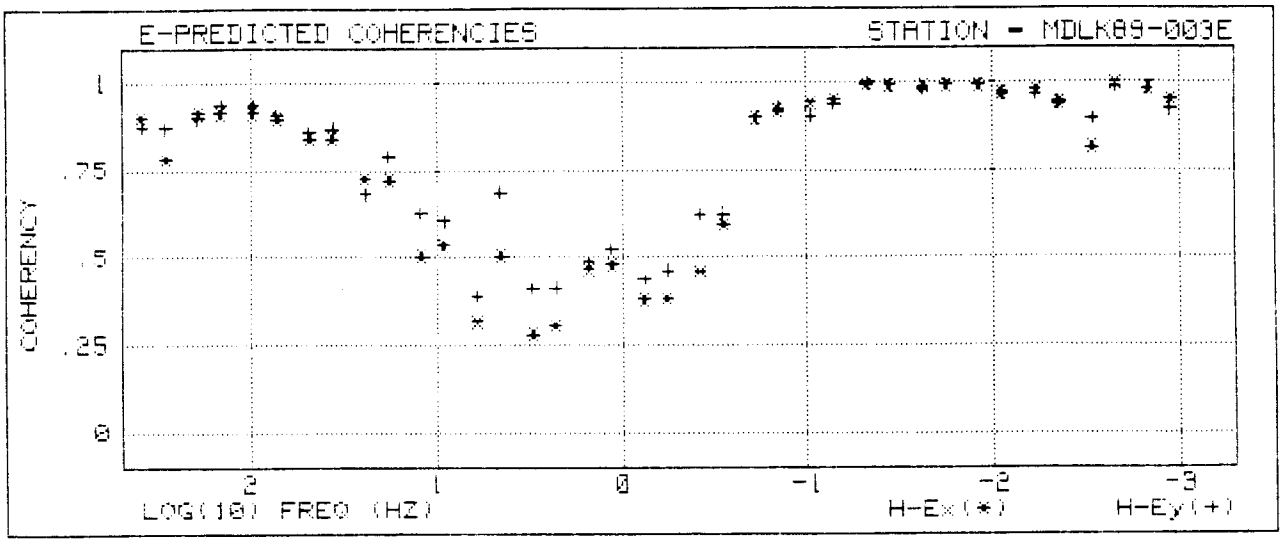
MT Site: MDLK89-003E

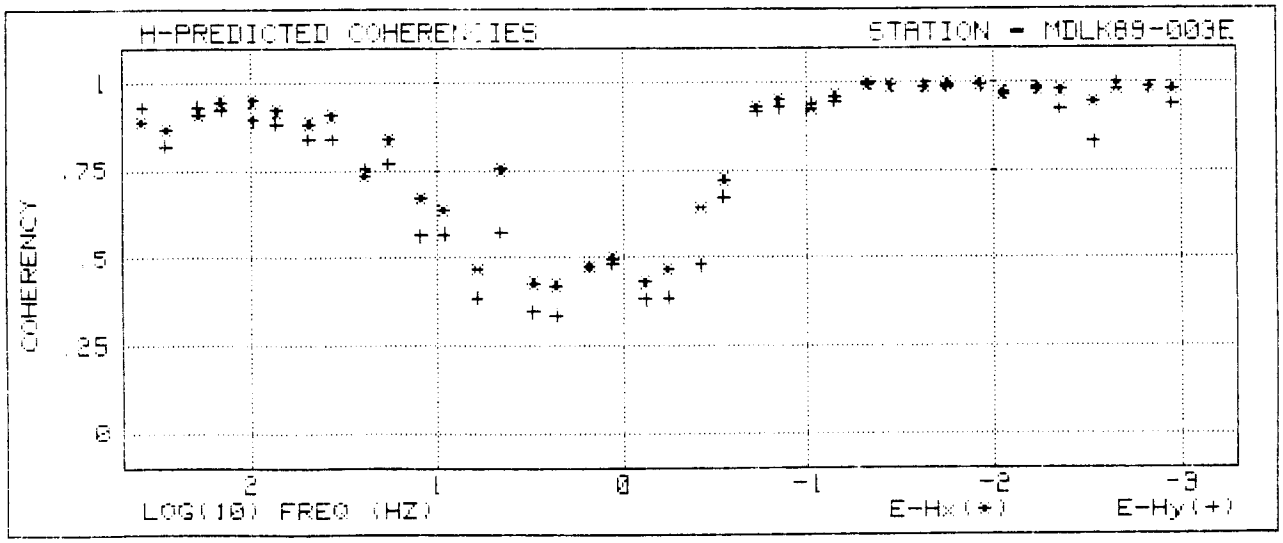
SKEW, ELLIPTICITY AND STRIKE

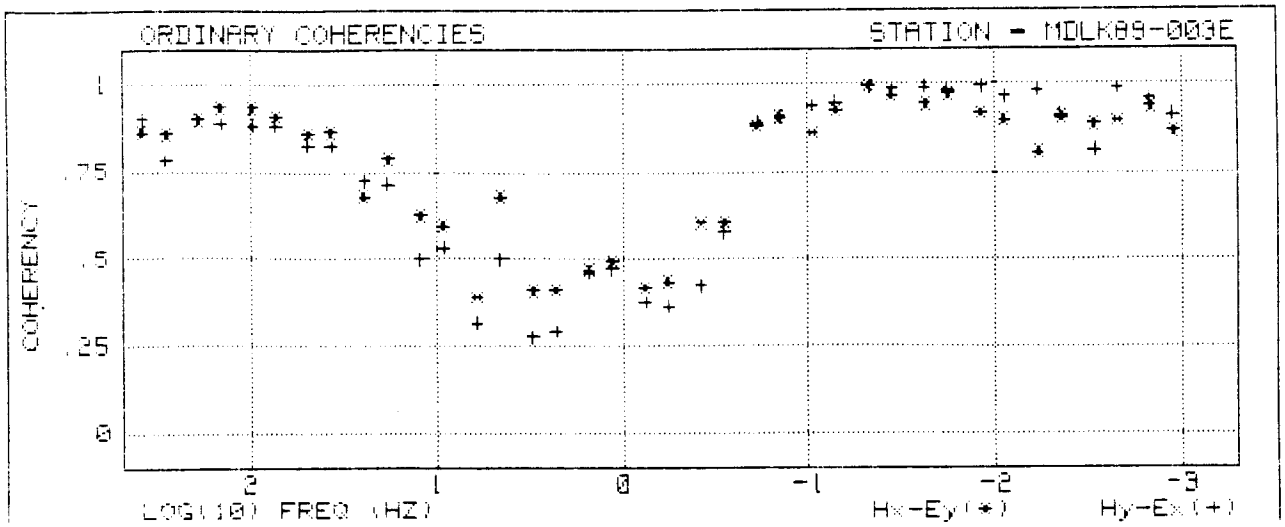
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	120	.16	.47	144.46	.63	.72	-168.09
2	288.00 Hz	188	.06	.87	168.26	.59	2.56	89.49
3	192.00 Hz	182	.07	.43	144.17	.97	1.27	69.09
4	144.00 Hz	464	.08	.17	145.85	.77	2.03	71.23
5	96.00 Hz	190	.07	.48	133.73	.10	.80	72.22
6	72.00 Hz	96	.06	.20	128.73	.08	1.70	73.46
7	48.00 Hz	568	.07	.40	162.75	.44	.44	140.98
8	36.00 Hz	472	.09	.12	142.63	.82	.68	107.95
9	24.00 Hz	576	.08	.05	150.03	.19	1.06	113.08
10	18.00 Hz	288	.04	.19	136.81	.95	.74	127.14
11	12.00 Hz	480	.02	.42	134.67	.42	1.40	-135.32
12	9.00 Hz	480	.07	.65	122.42	.03	3.27	55.99
13	6.00 Hz	288	.03	.11	111.57	.96	.77	25.90
14	4.50 Hz	96	.12	.07	138.71	.83	1.34	44.75
15	3.00 Hz	2729	.06	.85	162.70	.74	1.18	32.98
16	2.25 Hz	2720	.11	.20	156.11	.85	.63	57.88
17	1.50 Hz	6183	.08	.26	148.27	.06	.67	107.26
18	1.13 Hz	6183	.07	.25	149.31	.28	.60	30.06
19	1.33 Sec	2767	.08	.37	152.76	.94	.93	141.82
20	1.78 Sec	3088	.10	.33	141.67	.10	.65	167.64
21	2.67 Sec	1563	.13	.22	141.69	.84	1.22	83.82
22	3.56 Sec	1563	.11	.58	131.24	.14	4.13	-142.64
23	5.33 Sec	780	.10	.76	131.25	.25	4.75	52.84
24	7.11 Sec	780	.11	.47	134.77	.82	.58	3.83
25	10.67 Sec	154	.18	.33	110.69	.04	.71	-104.72
26	14.22 Sec	94	.14	.32	103.86	.53	3.48	176.26
27	21.33 Sec	54	.15	.17	109.01	.95	1.09	170.47
28	28.44 Sec	95	.18	.13	105.57	.41	.58	134.05
29	42.67 Sec	120	.16	.01	118.40	.86	1.61	50.75
30	56.89 Sec	192	.19	.11	112.39	.64	.95	96.69
31	85.33 Sec	48	.17	.28	124.95	.40	2.75	51.14
32	113.78 Sec	60	.26	.24	104.37	.11	1.64	-134.41
33	170.67 Sec	24	.24	.30	115.75	.19	.19	-51.68
34	227.56 Sec	30	.31	.24	101.72	.59	.85	143.10
35	341.33 Sec	21	.16	.40	126.87	.70	1.07	121.57
36	455.11 Sec	3	.23	.22	126.26	.40	1.56	105.21
37	682.67 Sec	6	.22	.66	117.92	.64	1.03	27.19
38	910.22 Sec	6	.35	.50	104.82	.18	10.88	50.24

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E







PHOENIX GEOSCIENCE

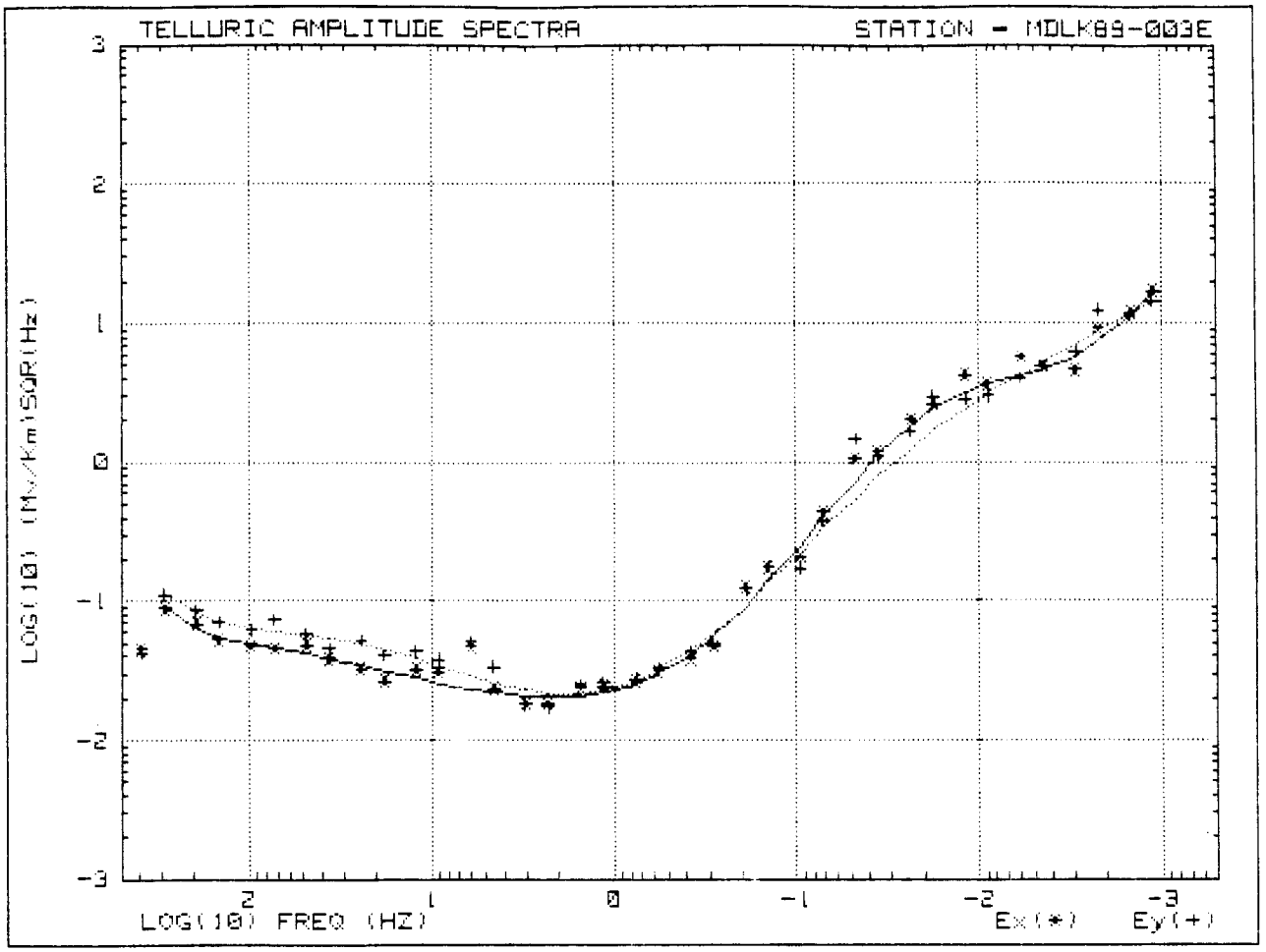
MT Site: MDLK89-003E

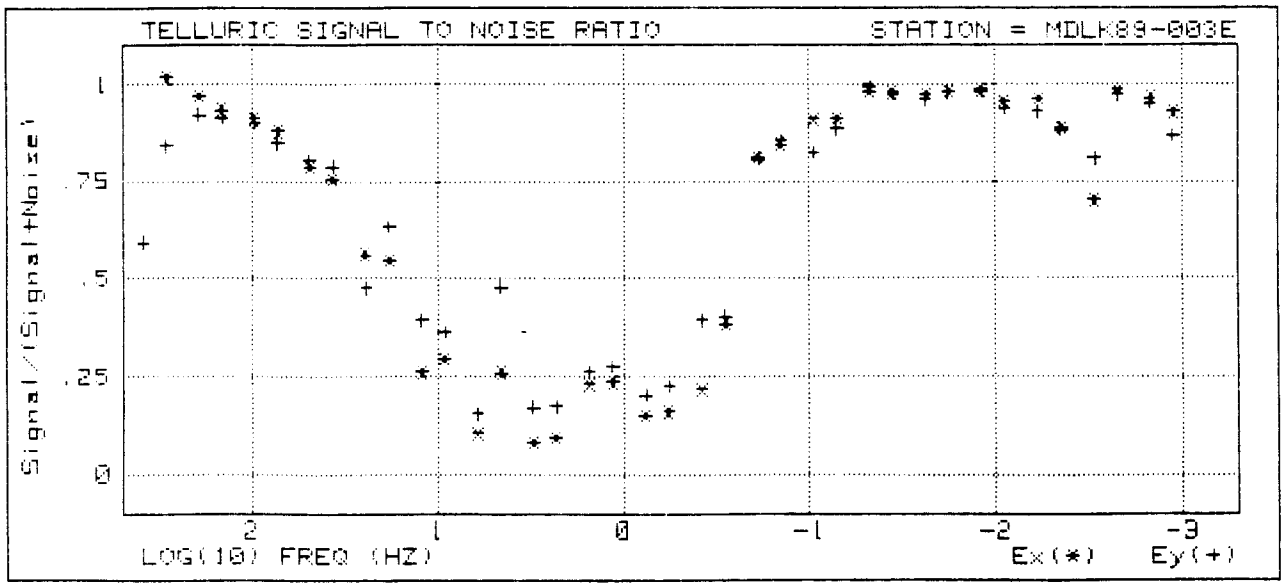
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	120	.90	.87	.89	.93	.86	.90
2	288.00 Hz	188	.78	.87	.86	.82	.85	.78
3	192.00 Hz	182	.91	.90	.91	.93	.90	.90
4	144.00 Hz	464	.91	.93	.94	.92	.93	.88
5	96.00 Hz	190	.91	.93	.95	.89	.93	.88
6	72.00 Hz	96	.89	.91	.92	.88	.90	.88
7	48.00 Hz	568	.84	.86	.88	.84	.86	.82
8	36.00 Hz	472	.84	.86	.90	.84	.86	.82
9	24.00 Hz	576	.72	.68	.73	.75	.68	.72
10	18.00 Hz	288	.72	.79	.83	.76	.78	.71
11	12.00 Hz	480	.50	.63	.67	.56	.62	.50
12	9.00 Hz	480	.53	.60	.63	.56	.59	.53
13	6.00 Hz	288	.31	.39	.46	.38	.39	.31
14	4.50 Hz	96	.50	.68	.75	.57	.68	.50
15	3.00 Hz	2729	.28	.41	.42	.34	.41	.27
16	2.25 Hz	2720	.30	.41	.42	.33	.41	.29
17	1.50 Hz	6183	.46	.49	.47	.47	.47	.46
18	1.13 Hz	6183	.47	.52	.49	.48	.49	.47
19	1.33 Sec	2767	.38	.44	.43	.38	.42	.37
20	1.78 Sec	3088	.38	.46	.46	.38	.43	.36
21	2.67 Sec	1563	.46	.62	.64	.47	.60	.42
22	3.56 Sec	1563	.59	.62	.72	.67	.60	.57
23	5.33 Sec	780	.90	.89	.93	.92	.88	.89
24	7.11 Sec	780	.92	.92	.94	.92	.90	.90
25	10.67 Sec	154	.94	.90	.92	.94	.86	.93
26	14.22 Sec	394	.95	.94	.96	.94	.92	.94
27	21.33 Sec	54	.99	.99	.99	.99	.99	.99
28	28.44 Sec	95	.99	.99	.99	.99	.96	.98
29	42.67 Sec	120	.99	.98	.98	.98	.94	.98
30	56.89 Sec	192	.99	.99	.99	.99	.97	.98
31	85.33 Sec	48	.99	.99	.99	.99	.91	.99
32	113.78 Sec	60	.96	.96	.97	.96	.89	.96
33	170.67 Sec	24	.98	.96	.98	.98	.80	.97
34	227.56 Sec	30	.94	.94	.97	.92	.90	.91
35	341.33 Sec	21	.81	.89	.94	.83	.88	.81
36	455.11 Sec	3	.99	.98	.98	1.00	.89	.98
37	682.67 Sec	6	.98	.98	.98	.98	.93	.95
38	910.22 Sec	6	.95	.92	.98	.93	.86	.91

PHOENIX GEOSCIENCE

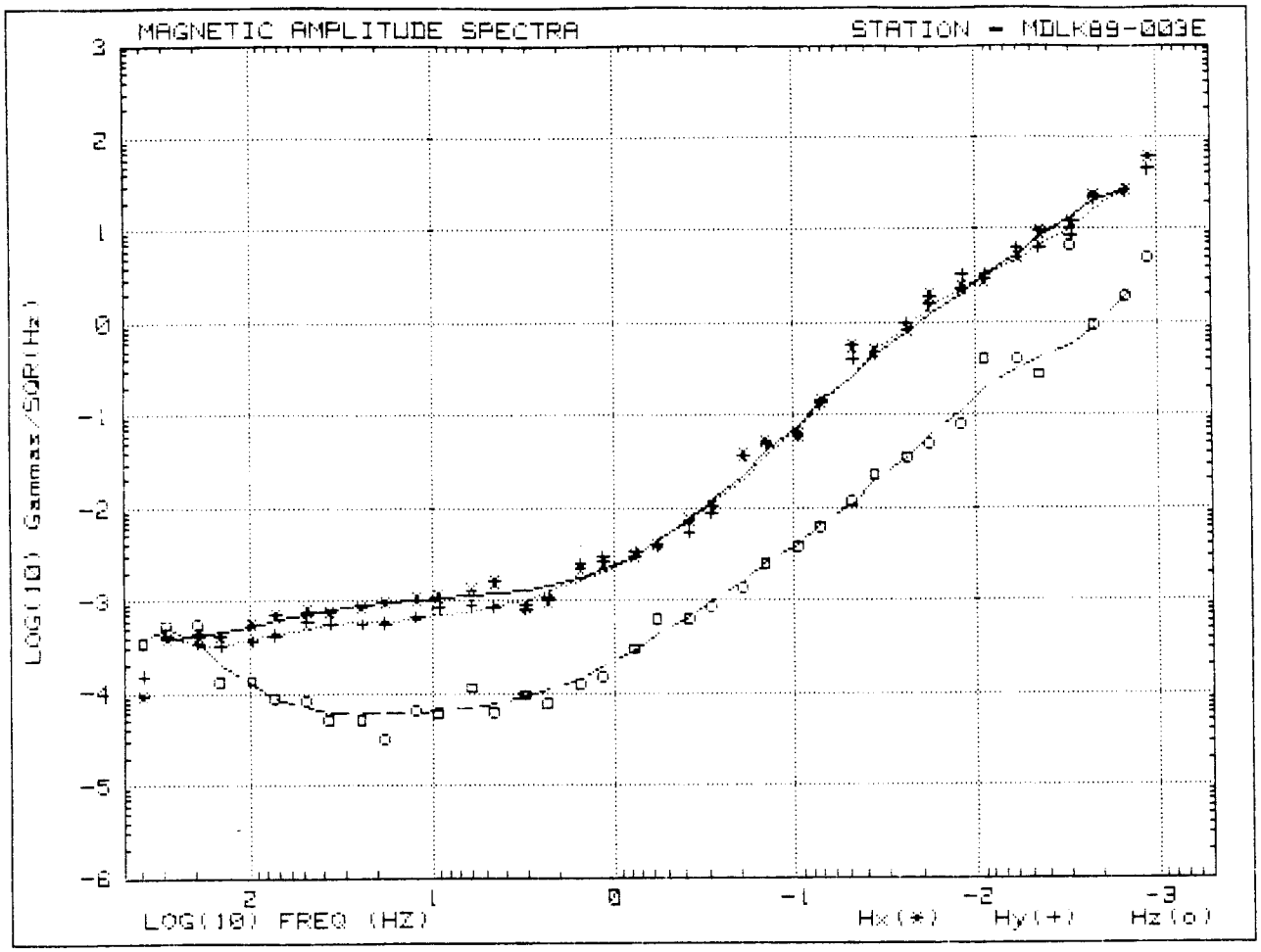
MT Site: MDLK89-003E

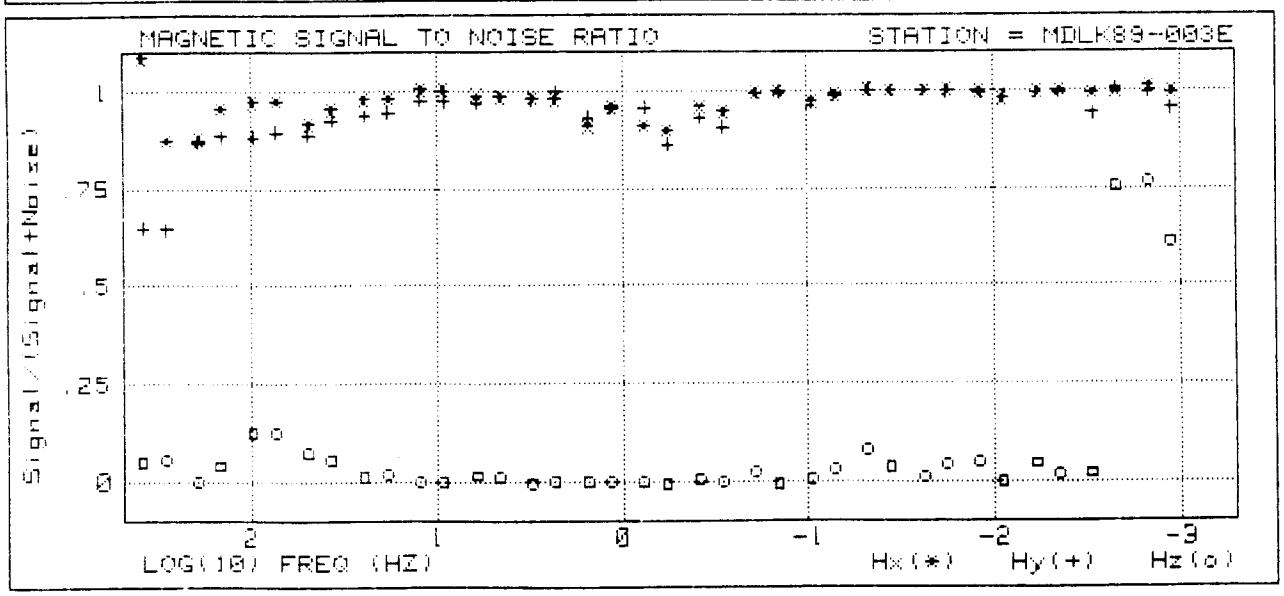




PHOENIX GEOSCIENCE

MT Site: MDLK89-003E





PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	120	9.14E-05	1.51E-04	3.74E-04	4.43E-02	4.22E-02
2	288.00 Hz	188	3.87E-04	4.10E-04	5.71E-04	8.79E-02	1.09E-01
3	192.00 Hz	182	4.23E-04	3.44E-04	5.92E-04	6.77E-02	8.46E-02
4	144.00 Hz	464	4.09E-04	3.26E-04	1.42E-04	5.23E-02	7.00E-02
5	96.00 Hz	190	5.54E-04	3.62E-04	1.44E-04	4.71E-02	6.07E-02
6	72.00 Hz	96	6.85E-04	4.16E-04	9.34E-05	4.50E-02	7.28E-02
7	48.00 Hz	568	7.50E-04	5.77E-04	8.59E-05	4.76E-02	5.71E-02
8	36.00 Hz	472	7.40E-04	5.62E-04	5.40E-05	3.80E-02	4.47E-02
9	24.00 Hz	576	8.34E-04	5.54E-04	5.26E-05	3.19E-02	5.08E-02
10	18.00 Hz	288	9.41E-04	5.56E-04	3.38E-05	2.62E-02	3.97E-02
11	12.00 Hz	480	1.03E-03	6.52E-04	6.70E-05	3.19E-02	4.26E-02
12	9.00 Hz	480	1.08E-03	8.53E-04	6.27E-05	3.03E-02	3.72E-02
13	6.00 Hz	288	1.29E-03	8.78E-04	1.20E-04	4.61E-02	5.05E-02
14	4.50 Hz	96	1.58E-03	8.32E-04	6.58E-05	2.30E-02	3.31E-02
15	3.00 Hz	2729	8.70E-04	7.88E-04	1.01E-04	1.79E-02	1.76E-02
16	2.25 Hz	2720	9.73E-04	1.04E-03	7.98E-05	1.79E-02	1.69E-02
17	1.50 Hz	6183	2.15E-03	2.39E-03	1.34E-04	2.34E-02	2.46E-02
18	1.13 Hz	6183	2.55E-03	2.94E-03	1.60E-04	2.40E-02	2.59E-02
19	1.33 Sec	2767	2.97E-03	3.23E-03	3.15E-04	2.63E-02	2.73E-02
20	1.78 Sec	3088	3.96E-03	3.78E-03	6.53E-04	3.11E-02	3.21E-02
21	2.67 Sec	1563	7.37E-03	5.47E-03	6.53E-04	3.78E-02	4.27E-02
22	3.56 Sec	1563	1.02E-02	8.74E-03	8.83E-04	4.67E-02	4.89E-02
23	5.33 Sec	780	3.71E-02	3.60E-02	1.46E-03	1.23E-01	1.21E-01
24	7.11 Sec	780	5.19E-02	4.81E-02	2.57E-03	1.72E-01	1.75E-01
25	10.67 Sec	154	5.91E-02	6.05E-02	4.09E-03	2.08E-01	1.70E-01
26	14.22 Sec	394	1.40E-01	1.32E-01	6.58E-03	4.34E-01	3.72E-01
27	21.33 Sec	54	5.62E-01	4.03E-01	1.22E-02	1.06E+00	1.45E+00
28	28.44 Sec	95	4.82E-01	4.64E-01	2.35E-02	1.17E+00	1.09E+00
29	42.67 Sec	120	8.14E-01	9.58E-01	3.74E-02	2.00E+00	1.63E+00
30	56.89 Sec	192	1.91E+00	1.53E+00	5.24E-02	2.57E+00	2.91E+00
31	85.33 Sec	48	2.31E+00	3.14E+00	8.42E-02	4.12E+00	2.78E+00
32	113.78 Sec	60	2.82E+00	3.18E+00	4.16E-01	3.56E+00	2.91E+00
33	170.67 Sec	24	4.94E+00	6.13E+00	4.29E-01	5.61E+00	3.93E+00
34	227.56 Sec	30	9.36E+00	6.20E+00	2.88E-01	4.82E+00	4.78E+00
35	341.33 Sec	21	1.19E+01	8.49E+00	7.15E+00	4.52E+00	6.16E+00
36	455.11 Sec	3	2.33E+01	2.13E+01	9.80E-01	8.96E+00	1.22E+01
37	682.67 Sec	6	2.60E+01	2.60E+01	1.99E+00	1.17E+01	1.12E+01
38	910.22 Sec	6	6.10E+01	4.42E+01	5.22E+00	1.67E+01	1.43E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	120	1.000	.647	.054	1.000	.591
2	288.00 Hz	188	.872	.643	.063	1.000	.839
3	192.00 Hz	182	.875	.866	.006	.967	.919
4	144.00 Hz	464	.954	.881	.045	.931	.910
5	96.00 Hz	190	.971	.881	.129	.908	.899
6	72.00 Hz	96	.973	.893	.128	.876	.846
7	48.00 Hz	568	.913	.885	.077	.784	.801
8	36.00 Hz	472	.952	.924	.062	.752	.786
9	24.00 Hz	576	.976	.934	.018	.559	.473
10	18.00 Hz	288	.979	.942	.025	.545	.633
11	12.00 Hz	480	1.000	.975	.006	.259	.391
12	9.00 Hz	480	1.000	.970	.004	.292	.362
13	6.00 Hz	288	.987	.966	.020	.102	.152
14	4.50 Hz	96	.982	.984	.014	.256	.477
15	3.00 Hz	2729	.978	.977	.000	.078	.170
16	2.25 Hz	2720	.976	.997	.005	.091	.171
17	1.50 Hz	6183	.908	.930	.001	.229	.258
18	1.13 Hz	6183	.959	.954	.005	.235	.274
19	1.33 Sec	2767	.911	.955	.002	.147	.201
20	1.78 Sec	3088	.897	.861	.000	.159	.224
21	2.67 Sec	1563	.957	.929	.011	.215	.392
22	3.56 Sec	1563	.946	.906	.003	.382	.403
23	5.33 Sec	780	.994	.992	.029	.809	.805
24	7.11 Sec	780	.998	.994	.001	.843	.852
25	10.67 Sec	154	.970	.971	.013	.907	.822
26	14.22 Sec	394	.990	.985	.035	.910	.882
27	21.33 Sec	54	.999	.999	.085	.981	.989
28	28.44 Sec	95	.998	.999	.040	.978	.973
29	42.67 Sec	120	.997	.998	.016	.974	.959
30	56.89 Sec	192	.999	.996	.049	.978	.978
31	85.33 Sec	48	.995	.991	.054	.984	.978
32	113.78 Sec	60	.977	.981	.005	.955	.935
33	170.67 Sec	24	.993	.992	.052	.960	.927
34	227.56 Sec	30	.999	.991	.024	.885	.880
35	341.33 Sec	21	.992	.938	.026	.699	.806
36	455.11 Sec	3	.991	1.000	.757	.985	.970
37	682.67 Sec	6	1.000	.993	.772	.961	.950
38	910.22 Sec	6	.994	.953	.617	.926	.866

PHOENIX GEOSCIENCE

MT Site: MDLK89-003E

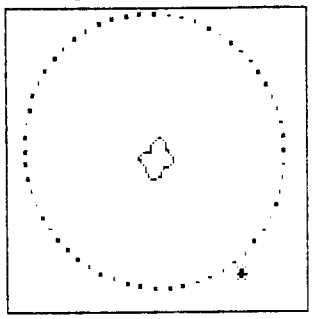
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

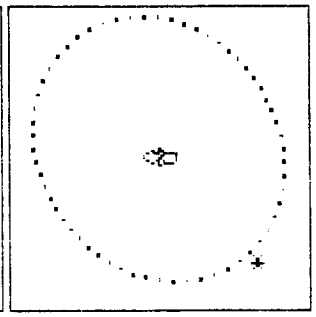
*=Rotation Direction

Zxy = ...
Zxx = ___

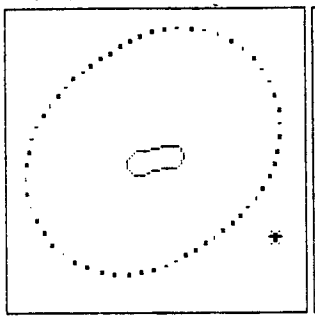
F=8 (36.0 Hz)



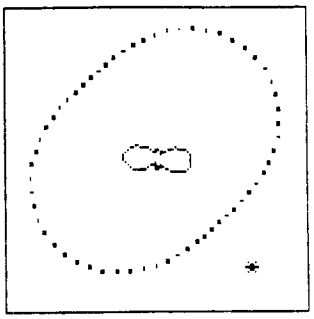
F=10 (18.0 Hz)



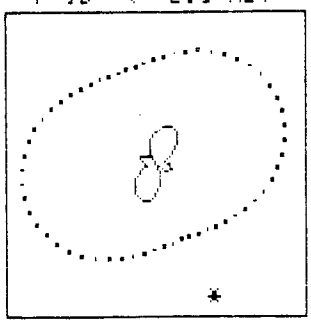
F=12 (9.0 Hz)



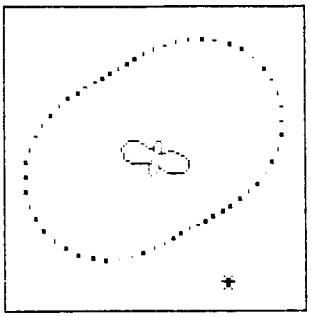
F=14 (4.5 Hz)



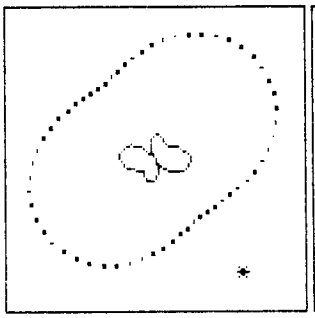
F=16 (2.3 Hz)



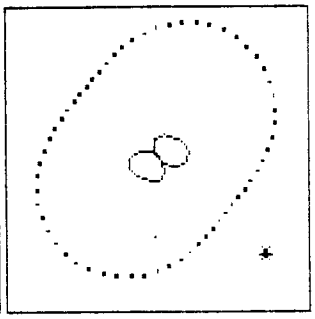
F=18 (1.1 Hz)



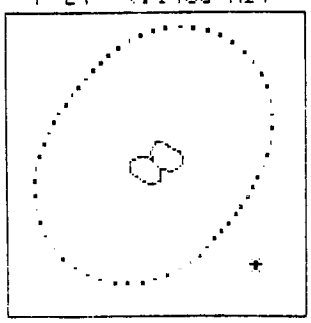
F=20 (.5625 Hz)



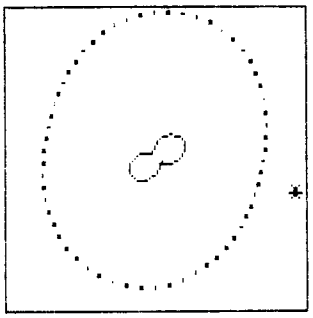
F=22 (.2813 Hz)



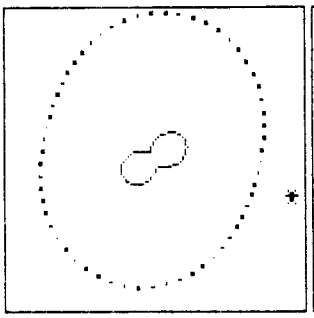
F=24 (.1406 Hz)



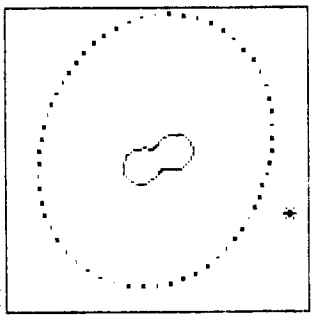
F=26 (.0703 Hz)



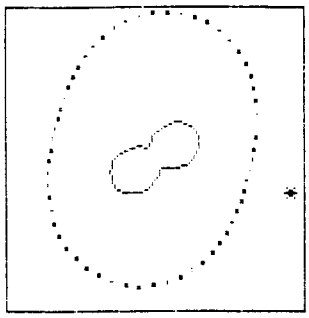
F=28 (.0352 Hz)



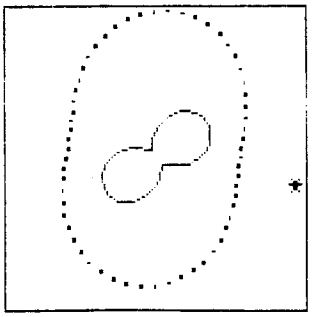
F=30 (.0176 Hz)



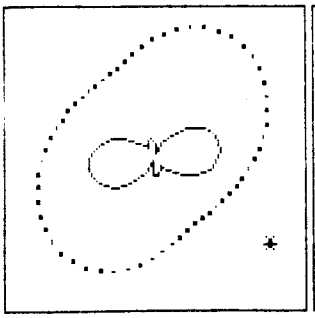
F=32 (.0088 Hz)



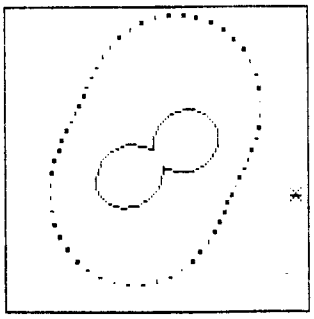
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-004s/010s/011s/

Operator:M. SNOW
Date: 19 Aug 1989
Time: 23:47:45

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#222-14Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#235-16Aug89-01
Sens-Ch02: C#432-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#430-16Aug89-01
Sens-Ch08: L#333-02Jul89-01
Sens-Ch11: C#205-16Aug89-01
Sens-Ch12: C#452-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 1

Stn Number:MDLK89-004s
Site Desc:T43N R4E
41,33,47 N 121,32,14 W
Elevation:6800ft
Reference:MDLK89-011s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL235	+45 DEG
Hy	2	COIL432	+135 DEG
Hz	3	LOOP405	
Ex	4	180 M	+45 DEG
Ey	5	180 M	+135 DEG
Rx	11	COIL205	+45 DEG
Ry	12	COIL452	+135 DEG

Ex Pot Resist: 20.0K Ohms
Ex Voltage: AC=20.5 mv, DC=60.7 mv
Ey Pot Resist: 20.0K Ohms
Ey Voltage: AC=10.3 mv, DC=32.2 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

OPERATOR LOG FOR MDLK89-004E/010s/011s/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, b, c, d, and e.
X#2 - SUM OF RUNS: a, b, c, d, and e.
X#3 - SUM OF RUNS: a, b, c, d, and e.
X#4 - SUM OF RUNS: a, b, c, d, and e.
X#5 - SUM OF RUNS: a, b, c, d, and e.
X#6 - SUM OF RUNS: a, b, c, d, and e.
X#7 - SUM OF RUNS: a, b, c, d, and e.
X#8 - SUM OF RUNS: a, b, c, d, and e.
X#9 - SUM OF RUNS: a, b, c, d, and e.
X#10 - SUM OF RUNS: a, b, c, d, and e.
X#11 - SUM OF RUNS: a, b, c, d, and e.
X#12 - SUM OF RUNS: a, b, c, d, and e.
X#13 - SUM OF RUNS: a, b, c, d, and e.
X#14 - SUM OF RUNS: a, b, c, d, and e.
X#15 - SUM OF RUNS: a, b, c, d, and e.
X#16 - SUM OF RUNS: a, b, c, d, and e.
X#17 - SUM OF RUNS: a, b, c, d, and e.
X#18 - SUM OF RUNS: a, b, c, d, and e.
X#19 - SUM OF RUNS: a, b, c, d, and e.
X#20 - SUM OF RUNS: a, b, c, d, and e.

Operator:SNOW/STEWART/WUNDERMAN

Cultural Factors:
NONE
Weather Conditions:
CLEAR DURING RUNS "a,c & d"LIGHT RAIN AT START OF RUN "b"
DISTANT LIGHTNING DURING RUN "e"
Other Factors:
NONE

PHOENIX GEOSCIENCE

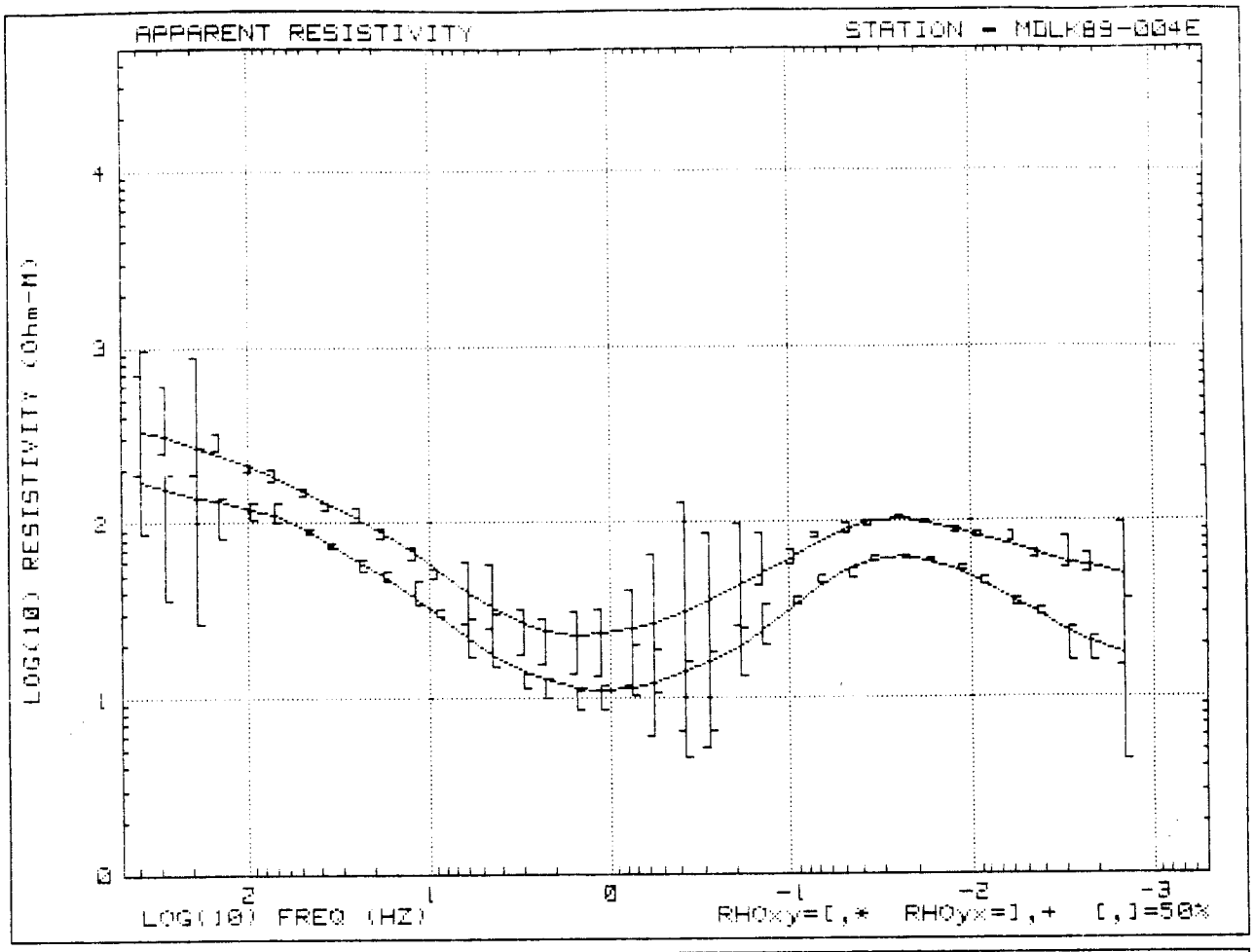
MT Site: MDLK89-004E

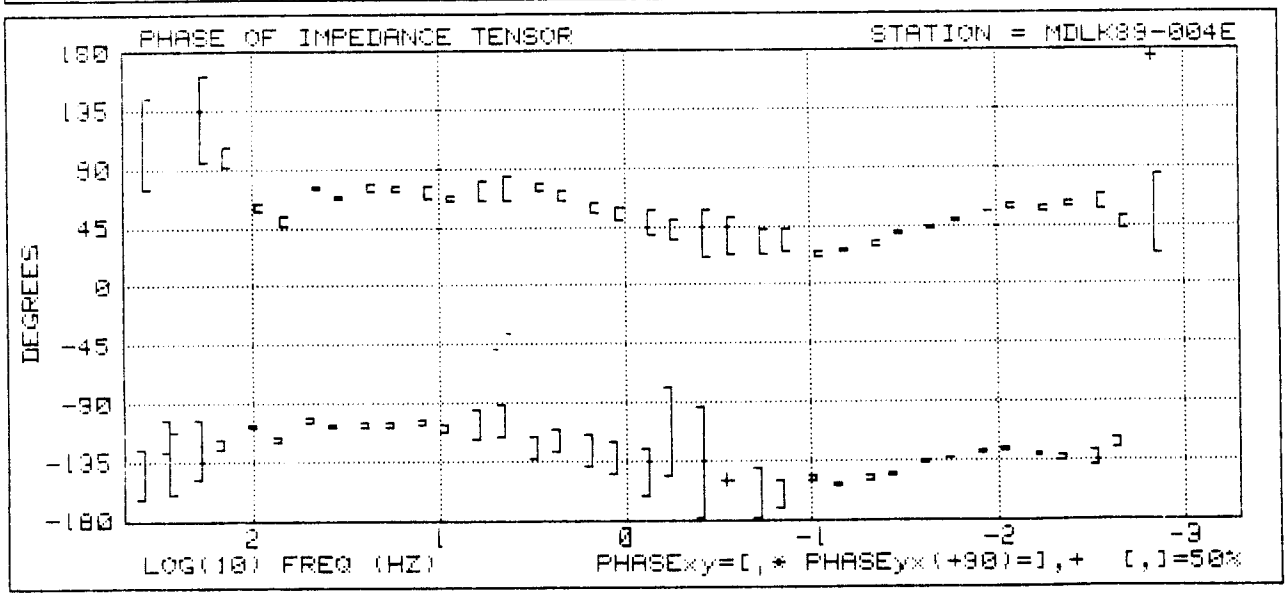
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

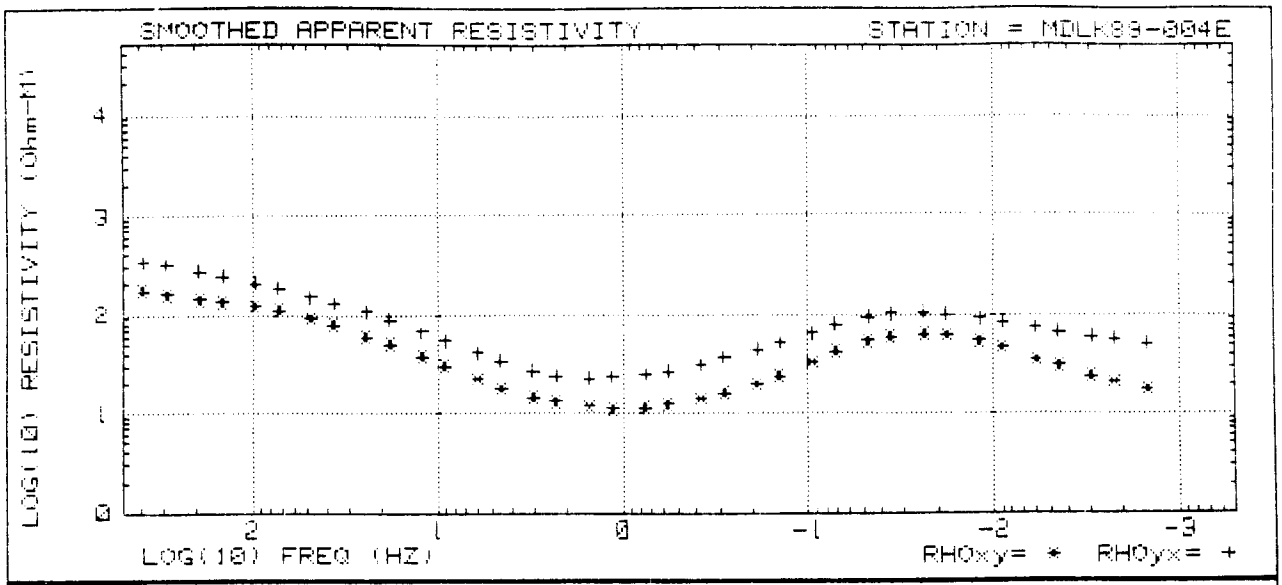
MT Site: MDLK89-004E

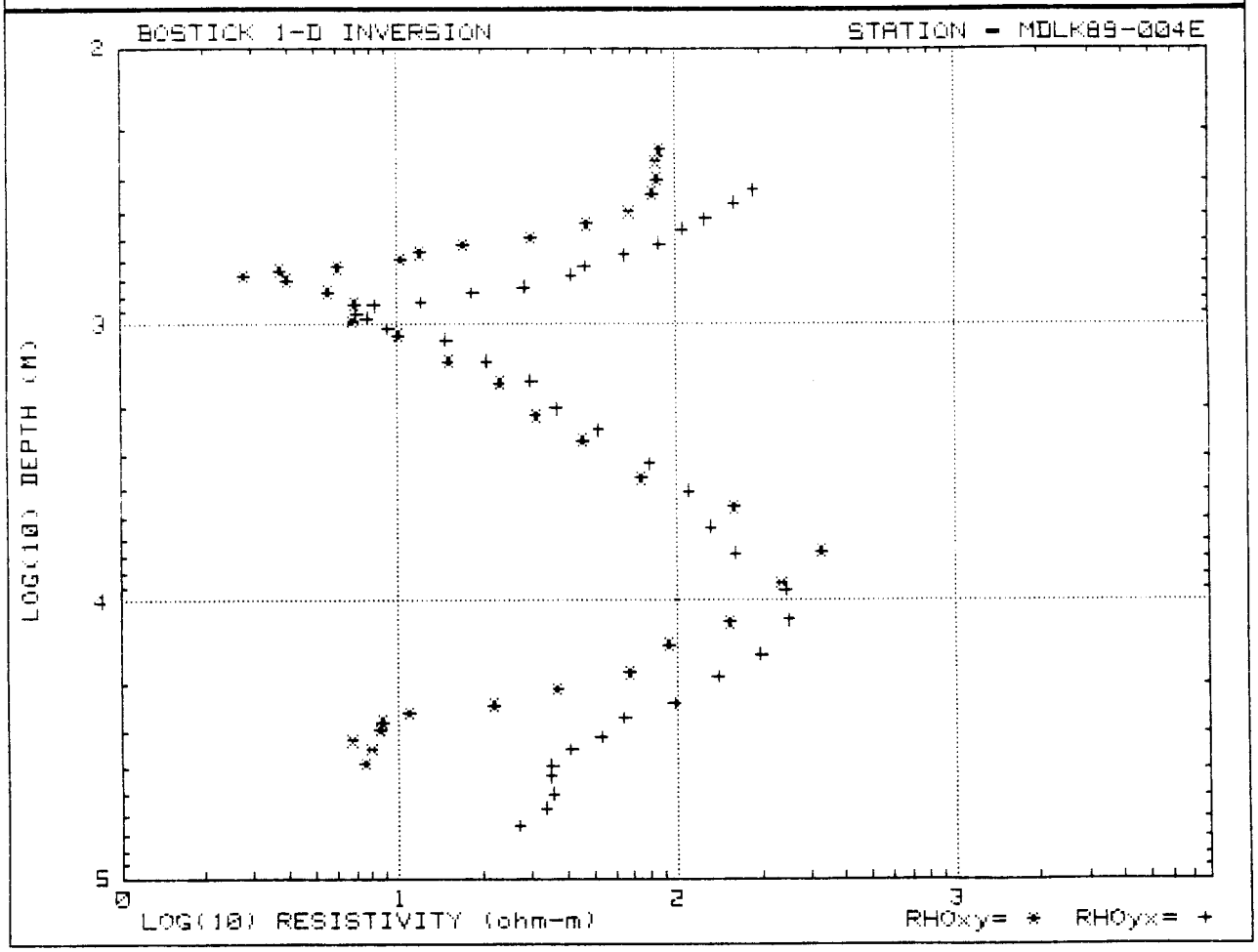




PHOENIX GEOSCIENCE

MT Site: MDLK89-004E





PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	124	288.5	99.9	366.5	99.9	110.0	51.9	-144.9	28.2
2	288.00 Hz	357	82.0	99.9	386.5	90.7	-136.4	35.7	-115.9	18.5
3	192.00 Hz	1198	83.5	99.9	408.3	99.9	127.9	49.3	-125.3	33.1
4	144.00 Hz	720	106.1	51.6	289.7	19.3	99.1	11.9	-122.1	5.1
5	96.00 Hz	1439	116.4	17.1	205.4	7.6	60.2	4.5	-107.6	2.1
6	72.00 Hz	1439	113.8	20.7	185.0	12.1	49.6	5.4	-118.7	3.3
7	48.00 Hz	997	89.9	5.8	150.1	9.2	75.4	1.6	-102.6	2.5
8	36.00 Hz	1100	73.8	5.3	123.6	8.5	67.1	1.5	-107.8	2.3
9	24.00 Hz	1225	56.1	12.1	111.0	14.2	75.4	3.3	-106.7	3.8
10	18.00 Hz	1513	49.1	10.9	87.6	10.0	74.6	3.0	-107.4	2.7
11	12.00 Hz	86	39.7	27.2	66.6	11.9	72.3	6.9	-105.2	3.2
12	9.00 Hz	182	30.5	8.4	50.9	11.2	66.5	2.3	-109.7	3.0
13	6.00 Hz	1341	22.1	45.3	40.2	83.6	73.0	10.7	-106.6	17.4
14	4.50 Hz	1528	21.2	65.0	38.0	89.4	75.1	14.4	-104.5	18.3
15	3.00 Hz	19671	12.4	16.2	23.4	55.2	75.9	4.3	-124.3	12.6
16	2.25 Hz	15621	11.3	22.3	21.0	56.5	68.8	5.8	-119.0	12.8
17	1.50 Hz	16068	9.7	22.8	20.4	83.9	59.9	5.9	-126.4	17.5
18	1.13 Hz	13976	10.1	28.1	20.5	89.2	54.2	7.1	-131.8	18.3
19	1.33 Sec	928	14.5	64.3	22.1	99.9	47.6	14.2	-143.2	26.6
20	1.78 Sec	2112	14.1	50.9	20.0	99.9	41.9	11.8	-111.8	50.9
21	2.67 Sec	2434	8.5	99.9	28.9	99.9	38.8	26.9	-135.6	63.8
22	3.56 Sec	3213	10.8	99.9	21.4	99.9	37.3	21.7	-150.2	60.4
23	5.33 Sec	844	18.2	57.9	50.3	99.9	32.8	13.1	-159.5	28.5
24	7.11 Sec	700	25.9	50.2	61.4	64.7	33.9	11.6	-160.7	14.3
25	10.67 Sec	778	35.6	8.9	63.7	15.0	23.5	2.4	-148.2	4.0
26	14.22 Sec	96	46.8	6.0	84.7	5.1	26.3	1.7	-152.4	1.4
27	21.33 Sec	132	50.4	10.0	92.2	9.8	30.4	2.7	-148.7	2.7
28	28.44 Sec	147	61.4	3.7	97.5	4.5	39.2	1.0	-146.0	1.3
29	42.67 Sec	36	62.2	3.5	106.1	3.9	43.3	1.0	-136.2	1.1
30	56.89 Sec	358	60.4	1.9	99.8	3.2	48.7	.5	-132.9	.9
31	85.33 Sec	117	54.1	4.1	89.5	6.0	55.7	1.1	-128.6	1.7
32	113.78 Sec	51	45.4	6.2	84.4	3.7	59.4	1.7	-126.5	1.0
33	170.67 Sec	3	34.5	6.9	81.2	8.0	57.4	1.9	-130.1	2.2
34	227.56 Sec	48	30.0	7.3	65.0	8.1	61.0	2.0	-133.0	2.2
35	341.33 Sec	33	19.8	39.2	65.9	35.8	63.1	9.5	-133.3	8.8
36	455.11 Sec	6	18.8	26.2	57.7	22.2	47.4	6.7	-122.0	5.8
37	682.67 Sec	9	12.5	99.9	38.2	99.9	53.1	44.9	174.7	40.3

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	124	170.8	333.7	88.8	237	190.6	332
2	288.00 Hz	357	156.0	308.5	85.5	262	162.4	368
3	192.00 Hz	1198	139.6	269.1	85.8	303	128.8	421
4	144.00 Hz	720	132.2	241.6	83.5	341	105.8	461
5	96.00 Hz	1439	119.3	205.2	68.6	397	87.9	520
6	72.00 Hz	1439	109.7	183.0	48.2	439	66.0	567
7	48.00 Hz	997	91.1	148.2	30.5	490	47.6	625
8	36.00 Hz	1100	77.6	128.2	17.3	522	42.3	671
9	24.00 Hz	1225	58.7	104.5	12.0	557	28.8	743
10	18.00 Hz	1513	49.1	86.4	10.3	588	18.8	780
11	12.00 Hz	86	37.3	66.9	6.1	628	12.2	840
12	9.00 Hz	182	29.8	53.6	3.8	648	8.3	868
13	6.00 Hz	1341	21.8	40.3	2.8	678	7.2	922
14	4.50 Hz	1528	17.4	33.0	4.0	701	7.8	964
15	3.00 Hz	19671	14.1	26.2	5.6	773	9.3	1053
16	2.25 Hz	15621	12.9	23.7	7.0	853	15.1	1155
17	1.50 Hz	16068	11.5	22.5	6.9	986	20.9	1378
18	1.13 Hz	13976	10.9	23.1	10.1	1108	30.4	1613
19	1.33 Sec	928	11.2	24.7	15.3	1376	37.4	2043
20	1.78 Sec	2112	12.1	26.6	23.3	1652	52.8	2448
21	2.67 Sec	2434	13.9	31.1	31.5	2170	80.4	3240
22	3.56 Sec	3213	15.8	36.2	46.6	2670	110.8	4036
23	5.33 Sec	844	19.6	44.2	74.7	3641	133.1	5463
24	7.11 Sec	700	23.7	51.2	161.8	4623	162.3	6792
25	10.67 Sec	778	32.9	63.4	333.1	6664	246.1	9252
26	14.22 Sec	96	41.9	77.1	237.8	8688	252.2	11787
27	21.33 Sec	132	53.4	91.6	155.1	12013	200.2	15731
28	28.44 Sec	147	58.8	99.8	93.2	14549	140.6	18966
29	42.67 Sec	36	62.5	103.0	67.9	18377	97.7	23594
30	56.89 Sec	358	60.5	98.0	37.5	20871	65.2	26574
31	85.33 Sec	117	53.1	89.6	22.2	23960	53.6	31122
32	113.78 Sec	51	45.5	82.3	11.0	25604	41.9	34443
33	170.67 Sec	3	34.8	71.5	8.8	27422	35.5	39319
34	227.56 Sec	48	30.1	65.2	8.6	29438	35.3	43349
35	341.33 Sec	33	23.7	58.2	6.8	31986	36.1	50163
36	455.11 Sec	6	20.5	55.4	8.0	34382	34.0	56520
37	682.67 Sec	9	17.5	49.3	7.6	38864	27.3	65296

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	124	240.70	-28.15	999.99	-254.77	699.27	999.99
2	288.00 Hz	357	182.33	401.09	999.99	-249.03	-236.75	999.99
3	192.00 Hz	1198	261.67	165.24	999.99	-173.84	223.41	999.99
4	144.00 Hz	720	163.35	24.09	999.99	-43.52	272.88	999.99
5	96.00 Hz	1439	38.69	43.54	750.55	117.60	205.00	697.77
6	72.00 Hz	1439	27.87	1.15	999.99	131.20	154.15	724.61
7	48.00 Hz	997	-8.57	-3.92	152.62	36.91	142.19	34.62
8	36.00 Hz	1100	-7.56	-2.09	56.17	44.90	106.19	17.44
9	24.00 Hz	1225	12.17	-4.15	81.29	20.76	79.42	43.62
10	18.00 Hz	1513	1.56	1.43	32.25	17.65	64.08	23.66
11	12.00 Hz	86	7.67	5.39	153.16	14.82	46.48	69.00
12	9.00 Hz	182	3.77	-1.51	14.87	14.80	33.98	4.47
13	6.00 Hz	1341	-1.32	1.24	84.94	7.53	24.62	46.20
14	4.50 Hz	1528	.69	-.51	94.57	5.60	21.10	59.85
15	3.00 Hz	19671	-1.42	1.79	4.70	3.33	13.23	2.09
16	2.25 Hz	15621	-.40	.77	7.22	4.08	10.53	2.58
17	1.50 Hz	16068	.87	.69	3.09	4.28	7.38	1.54
18	1.13 Hz	13976	1.13	.15	4.59	4.40	6.10	1.74
19	1.33 Sec	928	.219	-1.044	29.484	4.972	5.451	6.713
20	1.78 Sec	2112	1.419	.910	9.005	4.686	4.197	3.353
21	2.67 Sec	2434	.898	.013	20.191	3.116	2.508	7.068
22	3.56 Sec	3213	.906	-.003	11.920	3.103	2.365	4.362
23	5.33 Sec	844	.607	.743	4.012	3.469	2.237	1.776
24	7.11 Sec	700	.514	.540	2.484	3.543	2.380	1.506
25	10.67 Sec	778	.169	.475	.226	3.749	1.627	.060
26	14.22 Sec	96	.298	.371	.037	3.635	1.795	.028
27	21.33 Sec	132	.574	.232	.065	2.967	1.738	.053
28	28.44 Sec	147	.564	.288	.015	2.547	2.076	.007
29	42.67 Sec	36	.412	.379	.008	1.965	1.850	.004
30	56.89 Sec	358	.341	.270	.003	1.519	1.731	.001
31	85.33 Sec	117	.214	.278	.005	1.005	1.470	.003
32	113.78 Sec	51	.264	.282	.003	.718	1.216	.004
33	170.67 Sec	3	.275	.271	.001	.542	.847	.002
34	227.56 Sec	48	.161	.190	.002	.394	.711	.002
35	341.33 Sec	33	.217	-.015	.039	.244	.480	.016
36	455.11 Sec	6	.176	.088	.031	.307	.334	.006
37	682.67 Sec	9	.146	.330	.175	.182	.242	.113

PHOENIX GEOSCIENCE

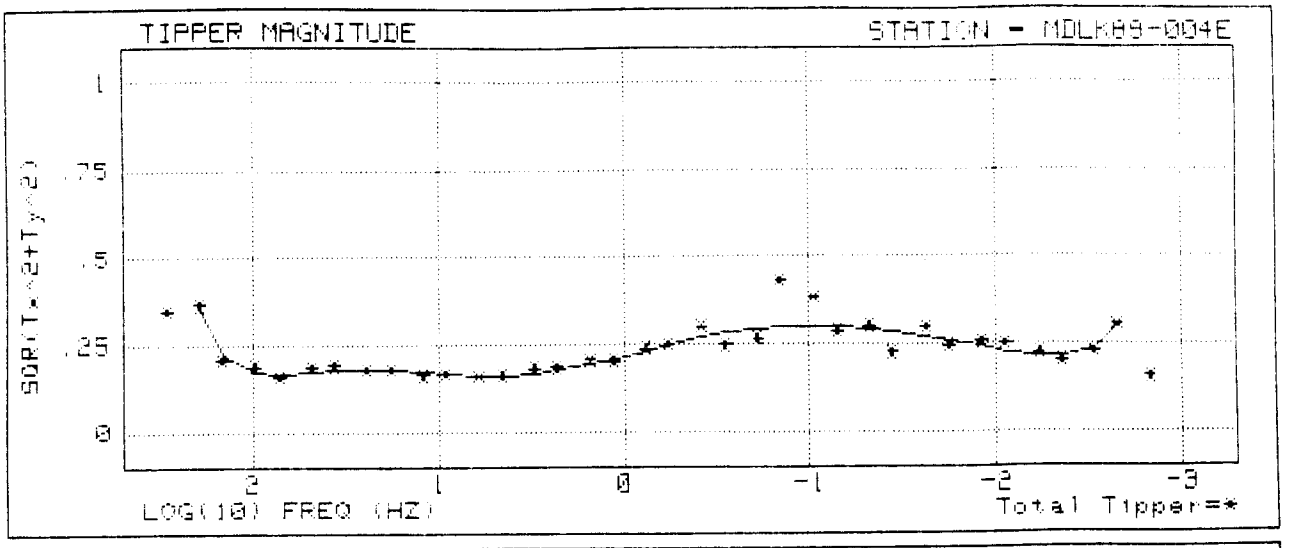
MT Site: MDLK89-004E

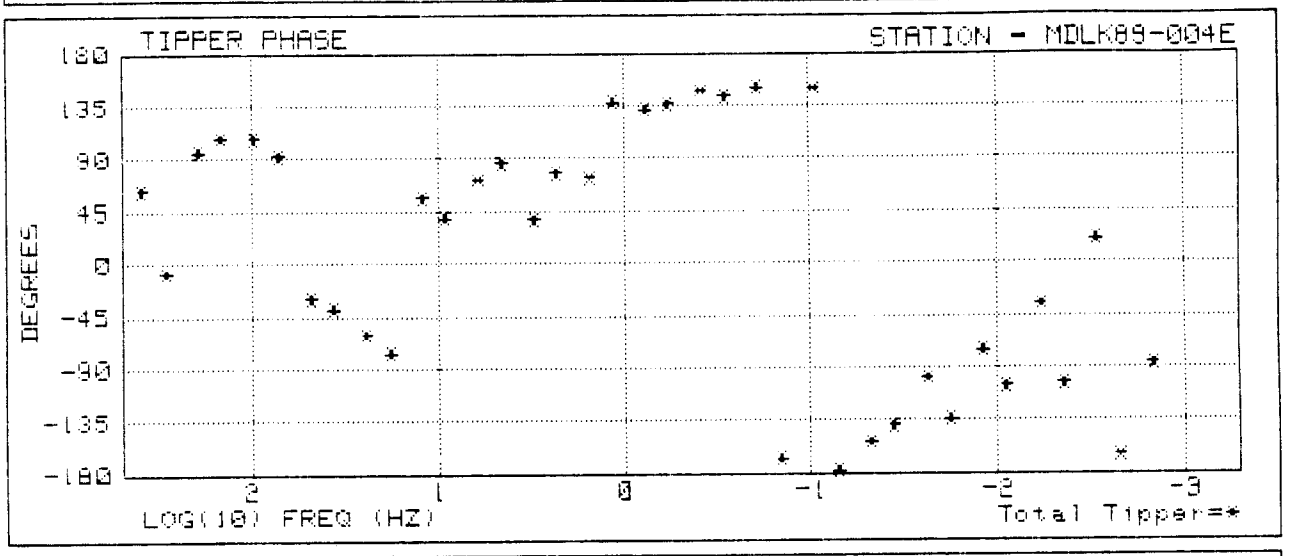
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

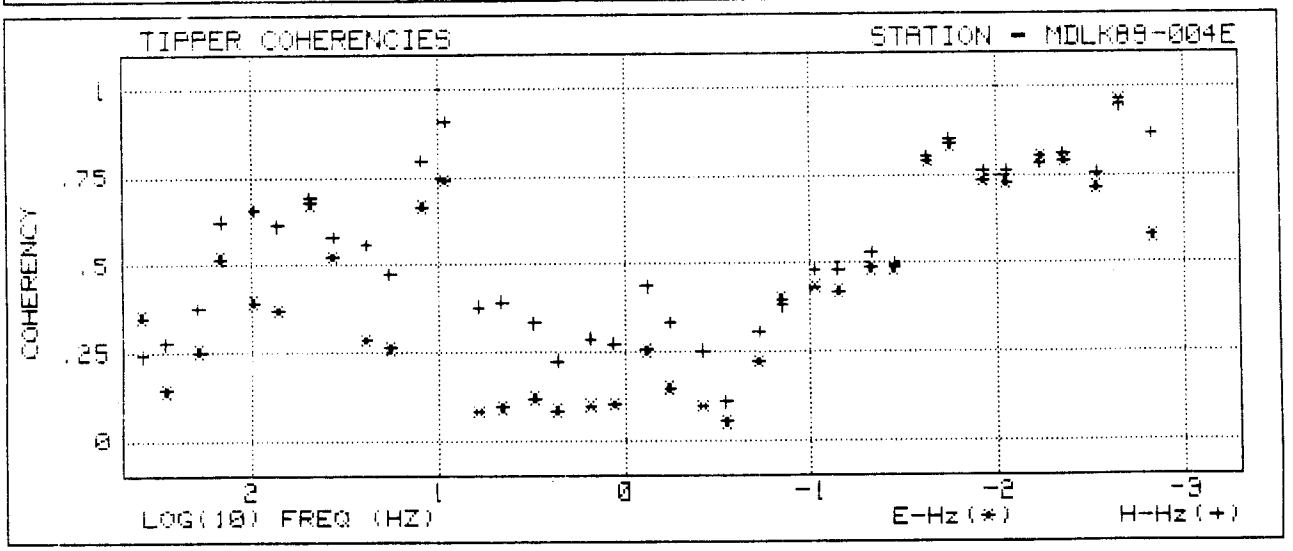
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	124	-686.61	-481.88	999.99	190.07	-247.39	999.99
2	288.00 Hz	357	-324.81	-671.64	999.99	225.76	373.66	999.99
3	192.00 Hz	1198	-361.65	-511.08	999.99	320.22	56.24	999.99
4	144.00 Hz	720	-242.57	-386.99	999.99	111.09	155.09	999.99
5	96.00 Hz	1439	-95.19	-299.23	265.44	-6.21	32.86	246.77
6	72.00 Hz	1439	-124.04	-226.32	434.62	-.69	-1.69	270.00
7	48.00 Hz	997	-41.32	-185.25	138.58	-3.54	-4.44	31.44
8	36.00 Hz	1100	-45.61	-142.01	73.48	-.00	-2.24	22.82
9	24.00 Hz	1225	-33.10	-110.59	117.14	.70	.39	62.86
10	18.00 Hz	1513	-26.51	-84.76	35.73	.92	1.70	26.22
11	12.00 Hz	86	-16.59	-60.98	25.26	-1.27	6.49	11.38
12	9.00 Hz	182	-16.12	-45.05	12.83	1.89	-1.29	3.85
13	6.00 Hz	1341	-9.95	-33.29	222.88	-1.05	1.17	121.22
14	4.50 Hz	1528	-7.31	-28.29	174.23	-.67	-.18	110.26
15	3.00 Hz	19671	-10.55	-15.47	33.93	-.64	-.71	15.10
16	2.25 Hz	15621	-7.46	-13.46	23.72	-.04	.36	8.48
17	1.50 Hz	16068	-7.34	-9.95	28.40	.45	1.19	14.18
18	1.13 Hz	13976	-7.16	-8.00	23.45	.76	.68	8.90
19	1.33 Sec	928	-7.294	-5.455	35.665	.218	-.205	8.120
20	1.78 Sec	2112	-2.783	-6.963	88.658	.455	.247	33.013
21	2.67 Sec	2434	-5.264	-5.151	99.999	.668	.200	47.121
22	3.56 Sec	3213	-4.760	-2.724	66.882	.828	.356	24.475
23	5.33 Sec	844	-6.435	-2.406	23.345	.662	-.216	10.333
24	7.11 Sec	700	-6.200	-2.169	5.369	.392	-.995	3.255
25	10.67 Sec	778	-4.645	-2.878	.292	1.047	-.154	.078
26	14.22 Sec	96	-4.837	-2.530	.037	.673	-.242	.028
27	21.33 Sec	132	-3.972	-2.417	.095	.787	-.084	.077
28	28.44 Sec	147	-3.430	-2.317	.017	.589	.195	.008
29	42.67 Sec	36	-2.546	-2.440	.009	.517	.276	.005
30	56.89 Sec	358	-2.017	-2.169	.004	.387	.217	.001
31	85.33 Sec	117	-1.428	-1.790	.009	.300	.164	.005
32	113.78 Sec	51	-1.146	-1.548	.002	.279	.263	.003
33	170.67 Sec	3	-.993	-1.181	.007	.280	.264	.017
34	227.56 Sec	48	-.814	-.875	.004	.190	.115	.003
35	341.33 Sec	33	-.674	-.715	.045	.129	.147	.019
36	455.11 Sec	6	-.422	-.675	.013	.155	.095	.002
37	682.67 Sec	9	-.527	.049	.276	-.056	.091	.179

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E







PHOENIX GEOSCIENCE

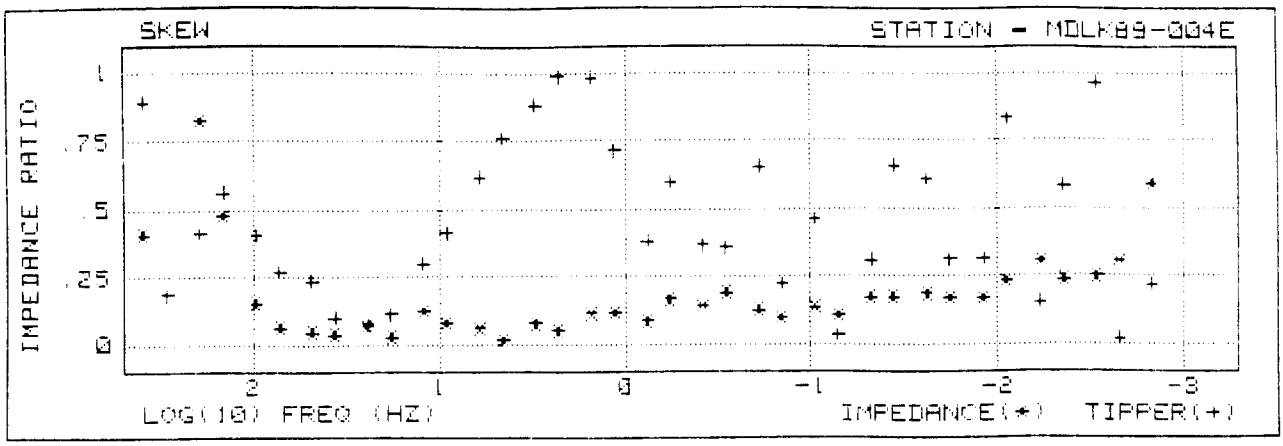
MT Site: MDLK89-004E

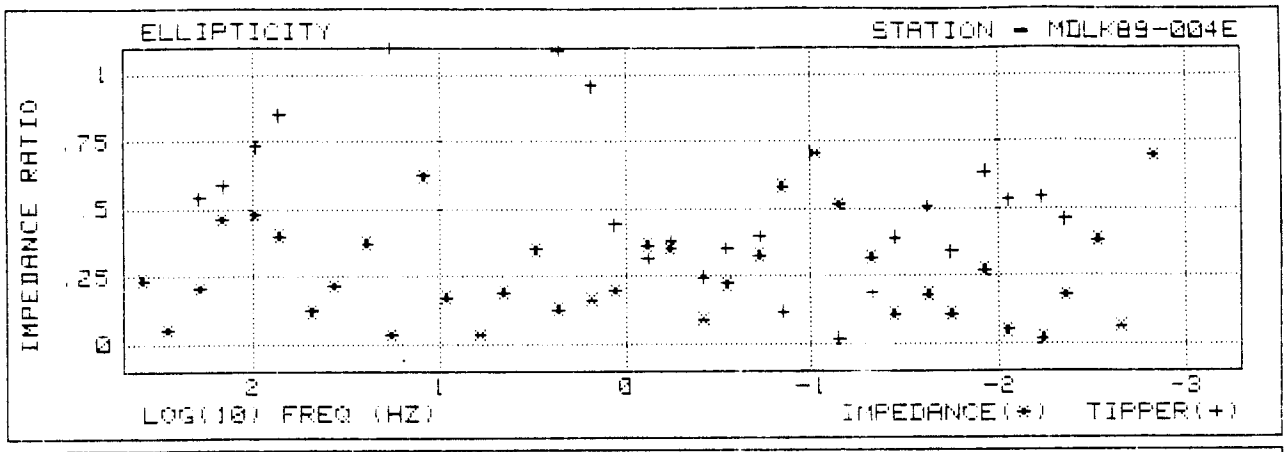
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

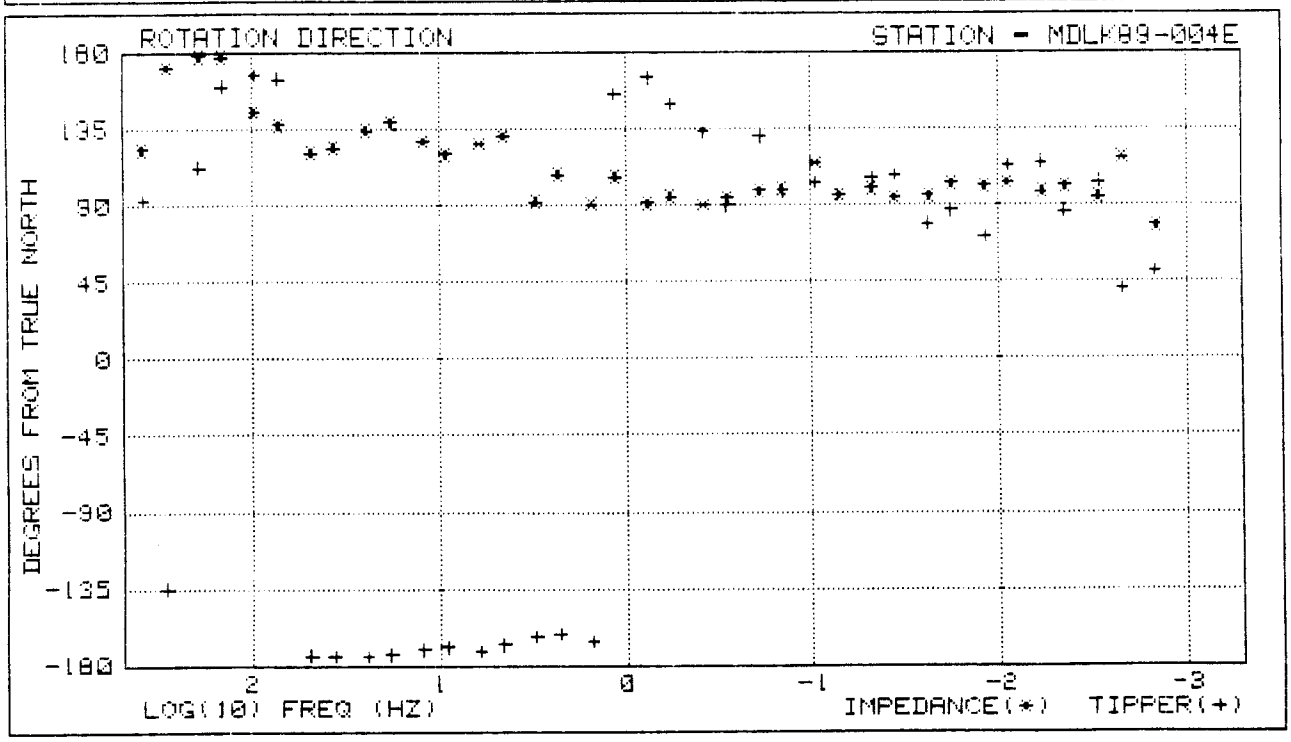
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	124	1.41	62.18	.35	.24
2	288.00 Hz	357	.34	-8.59	.14	.27
3	192.00 Hz	1198	.36	94.77	.25	.37
4	144.00 Hz	720	.20	106.66	.52	.62
5	96.00 Hz	1439	.19	105.86	.39	.65
6	72.00 Hz	1439	.16	91.12	.37	.61
7	48.00 Hz	997	.18	-30.52	.67	.68
8	36.00 Hz	1100	.19	-39.89	.52	.58
9	24.00 Hz	1225	.18	-61.36	.28	.55
10	18.00 Hz	1513	.18	-77.34	.26	.47
11	12.00 Hz	86	.16	55.45	.66	.79
12	9.00 Hz	182	.16	38.09	.74	.91
13	6.00 Hz	1341	.15	71.26	.08	.38
14	4.50 Hz	1528	.16	85.02	.09	.39
15	3.00 Hz	19671	.18	36.44	.12	.33
16	2.25 Hz	15621	.18	76.99	.08	.22
17	1.50 Hz	16068	.20	72.44	.10	.28
18	1.13 Hz	13976	.20	137.21	.10	.27
19	1.33 Sec	928	.23	130.51	.25	.43
20	1.78 Sec	2112	.25	135.82	.14	.33
21	2.67 Sec	2434	.30	147.16	.09	.25
22	3.56 Sec	3213	.24	142.21	.05	.10
23	5.33 Sec	844	.26	149.35	.22	.30
24	7.11 Sec	700	.43	-167.97	.40	.38
25	10.67 Sec	778	.38	149.23	.43	.48
26	14.22 Sec	96	.28	-178.73	.42	.48
27	21.33 Sec	132	.30	-153.88	.48	.53
28	28.44 Sec	147	.22	-140.29	.48	.49
29	42.67 Sec	36	.30	-99.22	.79	.80
30	56.89 Sec	358	.24	-134.52	.83	.85
31	85.33 Sec	117	.25	-75.70	.73	.76
32	113.78 Sec	51	.25	-106.10	.72	.76
33	170.67 Sec	3	.22	-36.48	.80	.78
34	227.56 Sec	48	.20	-104.43	.79	.81
35	341.33 Sec	33	.23	19.39	.71	.75
36	455.11 Sec	6	.30	-165.51	.96	.94
37	682.67 Sec	9	.15	-87.14	.57	.86

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E







PHOENIX GEOSCIENCE

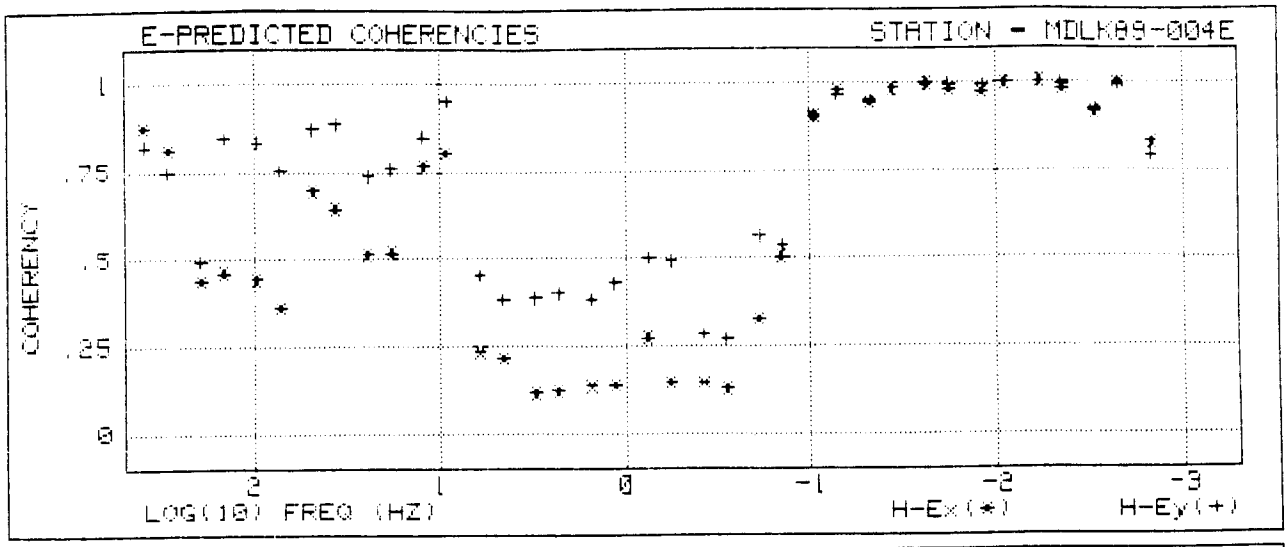
MT Site: MDLK89-004E

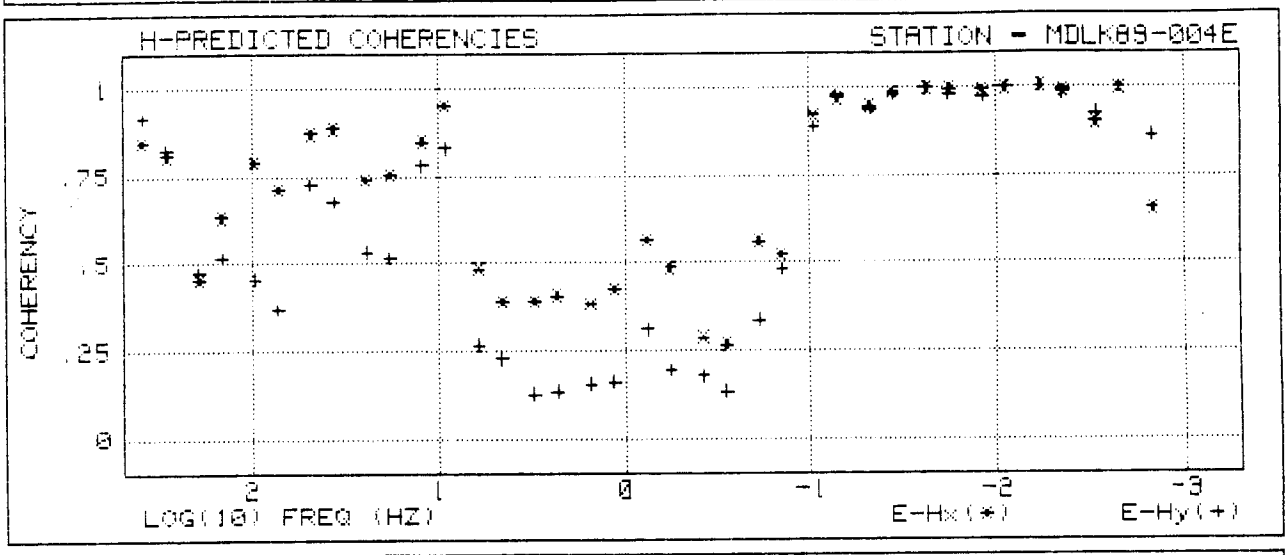
SKEW, ELLIPTICITY AND STRIKE

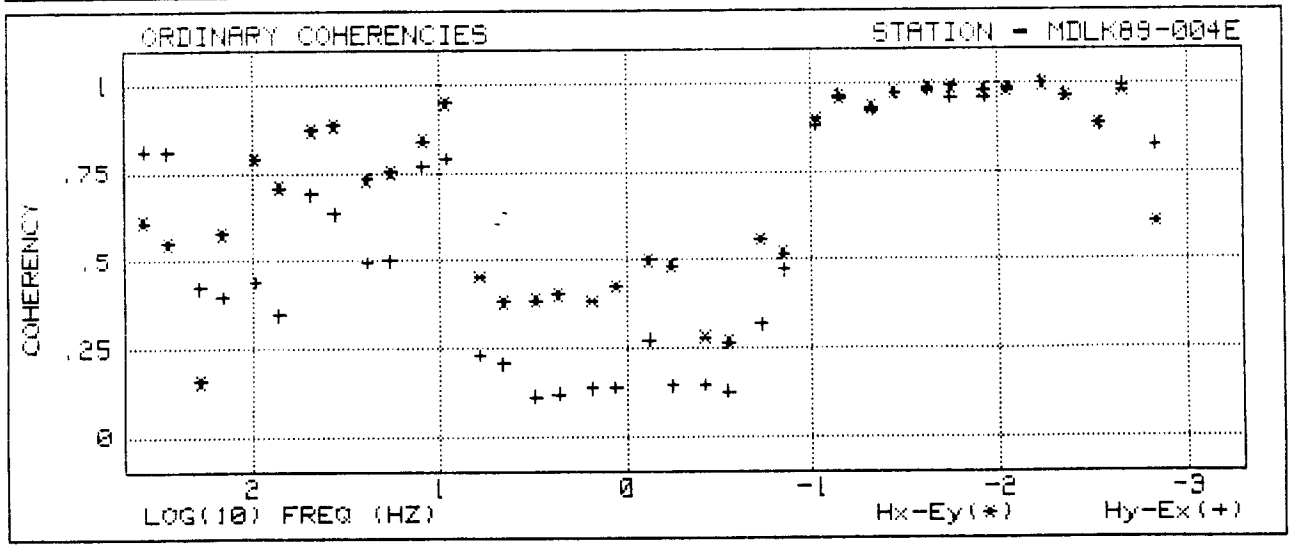
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	124	.41	.23	122.24	.89	1.47	92.16
2	288.00 Hz	357	1.98	.05	170.70	.18	1.35	-135.70
3	192.00 Hz	1198	.82	.20	177.47	.41	.54	111.75
4	144.00 Hz	720	.48	.46	176.69	.56	.58	159.18
5	96.00 Hz	1439	.15	.48	144.41	.40	.73	156.34
6	72.00 Hz	1439	.06	.40	136.96	.27	.84	163.91
7	48.00 Hz	997	.04	.12	120.15	.23	2.26	-174.53
8	36.00 Hz	1100	.03	.21	123.37	.10	1.86	-174.95
9	24.00 Hz	1225	.07	.37	133.15	.07	1.27	-175.11
10	18.00 Hz	1513	.03	.03	138.15	.11	1.09	-174.24
11	12.00 Hz	86	.12	.62	127.24	.30	1.73	-171.45
12	9.00 Hz	182	.07	.17	119.58	.41	2.27	-169.91
13	6.00 Hz	1341	.06	.03	125.71	.61	1.42	-172.27
14	4.50 Hz	1528	.01	.19	129.82	.76	1.24	-168.54
15	3.00 Hz	19671	.07	.35	91.24	.88	1.68	-163.68
16	2.25 Hz	15621	.05	.12	107.55	.98	1.08	-161.90
17	1.50 Hz	16068	.11	.16	89.81	.98	.95	-166.45
18	1.13 Hz	13976	.11	.20	105.66	.71	.44	154.75
19	1.33 Sec	928	.08	.36	90.71	.38	.31	164.07
20	1.78 Sec	2112	.16	.35	94.12	.59	.38	148.96
21	2.67 Sec	2434	.14	.09	89.56	.36	.24	132.17
22	3.56 Sec	3213	.19	.22	93.16	.36	.35	89.10
23	5.33 Sec	844	.13	.32	97.79	.65	.39	129.55
24	7.11 Sec	700	.09	.58	98.77	.22	.11	97.67
25	10.67 Sec	778	.13	.70	113.86	.46	1.88	102.71
26	14.22 Sec	96	.10	.51	95.15	.03	.01	95.32
27	21.33 Sec	132	.17	.31	99.00	.31	.19	105.35
28	28.44 Sec	147	.17	.11	93.88	.65	.39	106.93
29	42.67 Sec	36	.18	.18	94.92	.60	.50	78.66
30	56.89 Sec	358	.17	.11	101.93	.31	.34	86.14
31	85.33 Sec	117	.17	.27	100.39	.31	.63	70.60
32	113.78 Sec	51	.23	.05	102.63	.82	.53	112.43
33	170.67 Sec	3	.30	.02	97.20	.15	.53	114.46
34	227.56 Sec	48	.23	.18	100.66	.58	.45	85.44
35	341.33 Sec	33	.25	.38	94.13	.96	1.14	102.83
36	455.11 Sec	6	.30	.06	117.47	.02	4.29	40.59
37	682.67 Sec	9	.59	.69	77.43	.22	1.91	50.27

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E







PHOENIX GEOSCIENCE

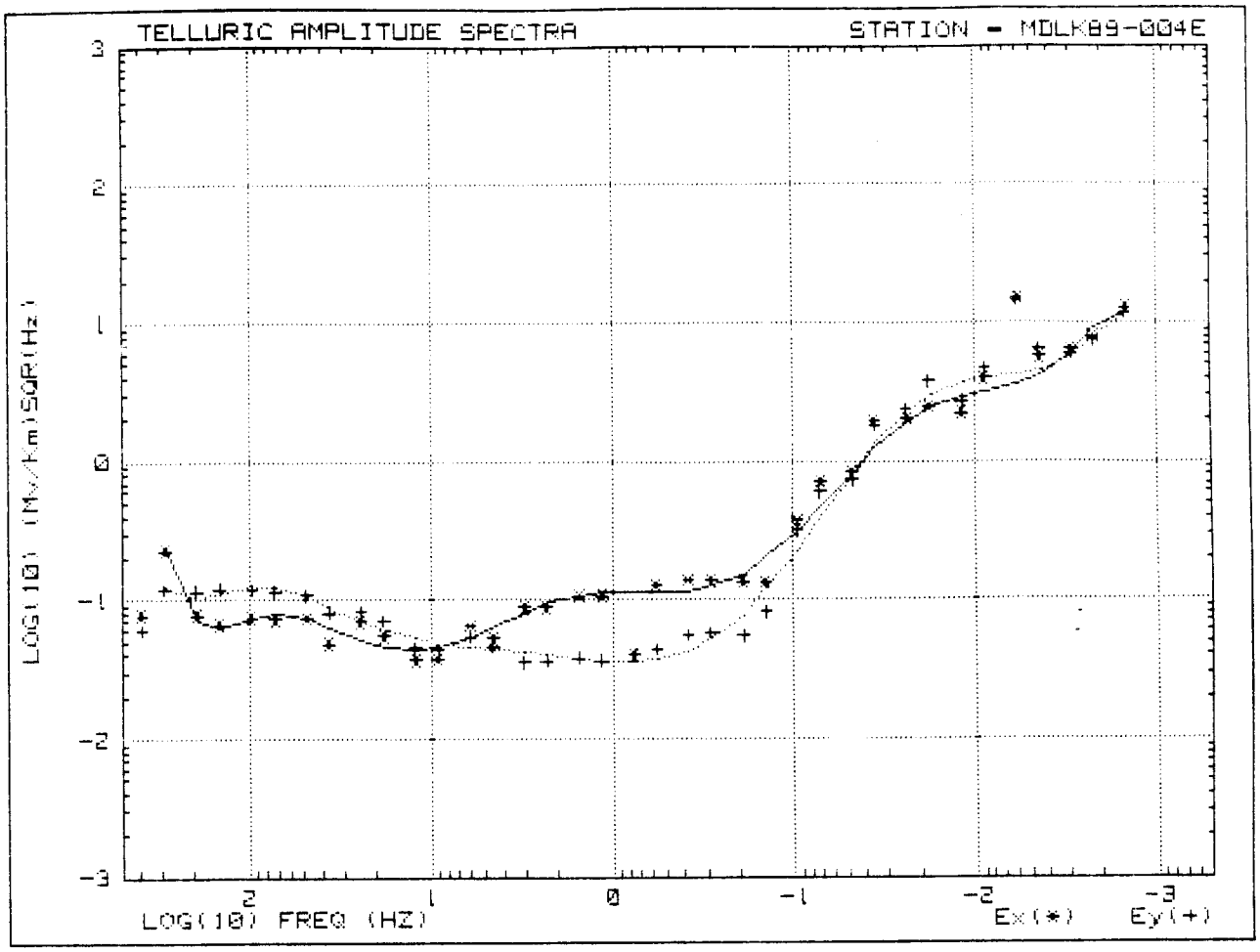
MT Site: MDLK89-004E

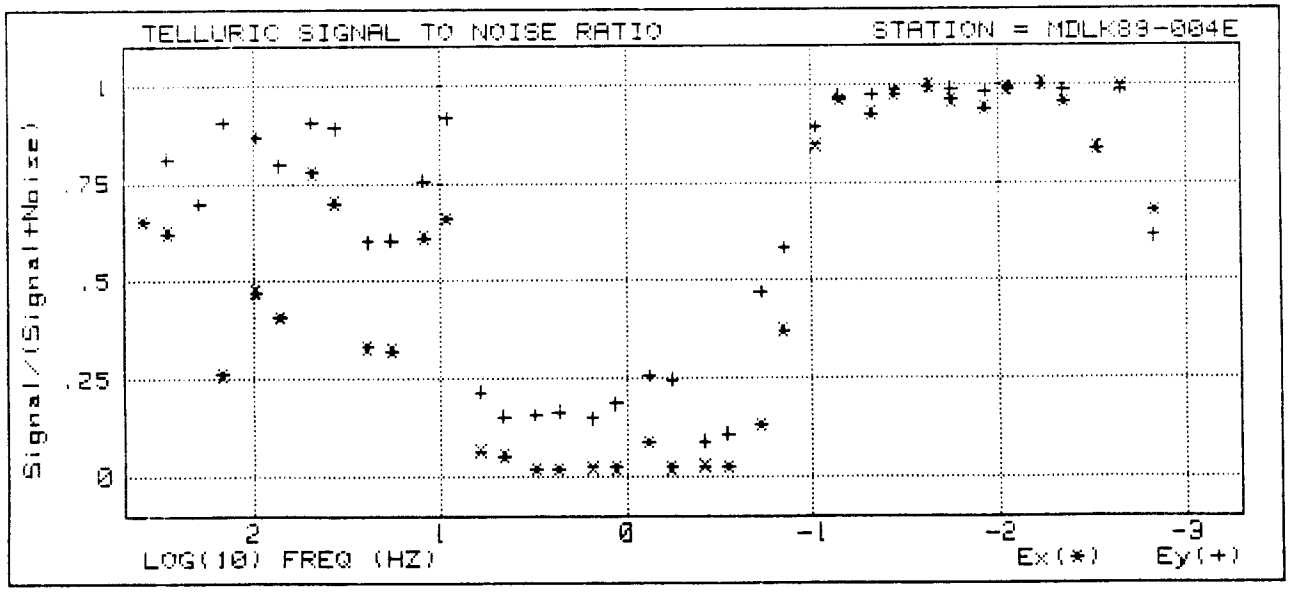
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	124	.87	.82	.84	.91	.61	.81
2	288.00 Hz	357	.81	.74	.80	.82	.55	.80
3	192.00 Hz	1198	.44	.49	.45	.47	.15	.42
4	144.00 Hz	720	.46	.84	.63	.51	.57	.39
5	96.00 Hz	1439	.44	.83	.79	.45	.79	.44
6	72.00 Hz	1439	.36	.75	.71	.36	.70	.34
7	48.00 Hz	997	.69	.87	.87	.72	.87	.69
8	36.00 Hz	1100	.64	.88	.88	.67	.88	.63
9	24.00 Hz	1225	.51	.74	.74	.53	.73	.49
10	18.00 Hz	1513	.52	.76	.75	.51	.75	.50
11	12.00 Hz	86	.76	.84	.84	.78	.84	.76
12	9.00 Hz	182	.80	.95	.95	.83	.95	.79
13	6.00 Hz	1341	.23	.45	.48	.26	.45	.23
14	4.50 Hz	1528	.21	.38	.39	.22	.38	.20
15	3.00 Hz	19671	.11	.38	.39	.12	.38	.11
16	2.25 Hz	15621	.12	.40	.40	.13	.40	.12
17	1.50 Hz	16068	.13	.38	.38	.15	.38	.13
18	1.13 Hz	13976	.13	.43	.42	.16	.42	.13
19	1.33 Sec	928	.27	.50	.56	.31	.50	.27
20	1.78 Sec	2112	.14	.49	.48	.19	.48	.14
21	2.67 Sec	2434	.14	.28	.28	.17	.28	.14
22	3.56 Sec	3213	.12	.26	.26	.13	.26	.12
23	5.33 Sec	844	.32	.56	.56	.33	.55	.31
24	7.11 Sec	700	.50	.53	.52	.48	.51	.47
25	10.67 Sec	778	.90	.90	.92	.88	.90	.88
26	14.22 Sec	96	.97	.96	.96	.97	.96	.96
27	21.33 Sec	132	.94	.95	.94	.93	.93	.92
28	28.44 Sec	147	.98	.98	.98	.98	.97	.97
29	42.67 Sec	36	.99	1.00	.99	.99	.99	.98
30	56.89 Sec	358	.98	.99	.99	.98	.99	.96
31	85.33 Sec	117	.97	.99	.99	.97	.98	.95
32	113.78 Sec	51	.99	1.00	.99	1.00	.98	.98
33	170.67 Sec	3	1.00	1.00	1.00	1.00	.99	1.00
34	227.56 Sec	48	.98	.99	.99	.98	.96	.96
35	341.33 Sec	33	.91	.92	.90	.92	.88	.88
36	455.11 Sec	6	1.00	.99	.99	1.00	.98	.99
37	682.67 Sec	9	.83	.79	.65	.86	.60	.82

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E





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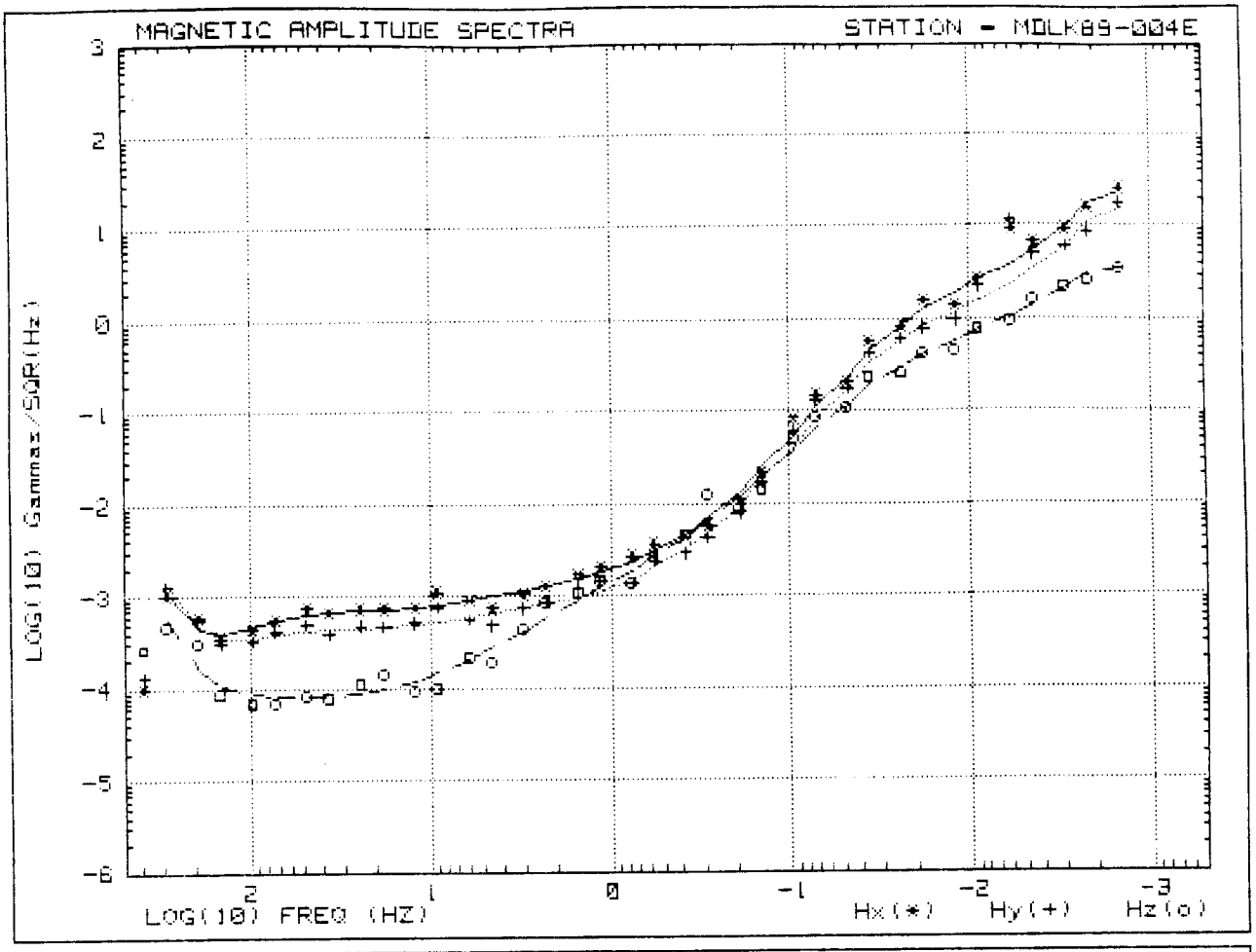
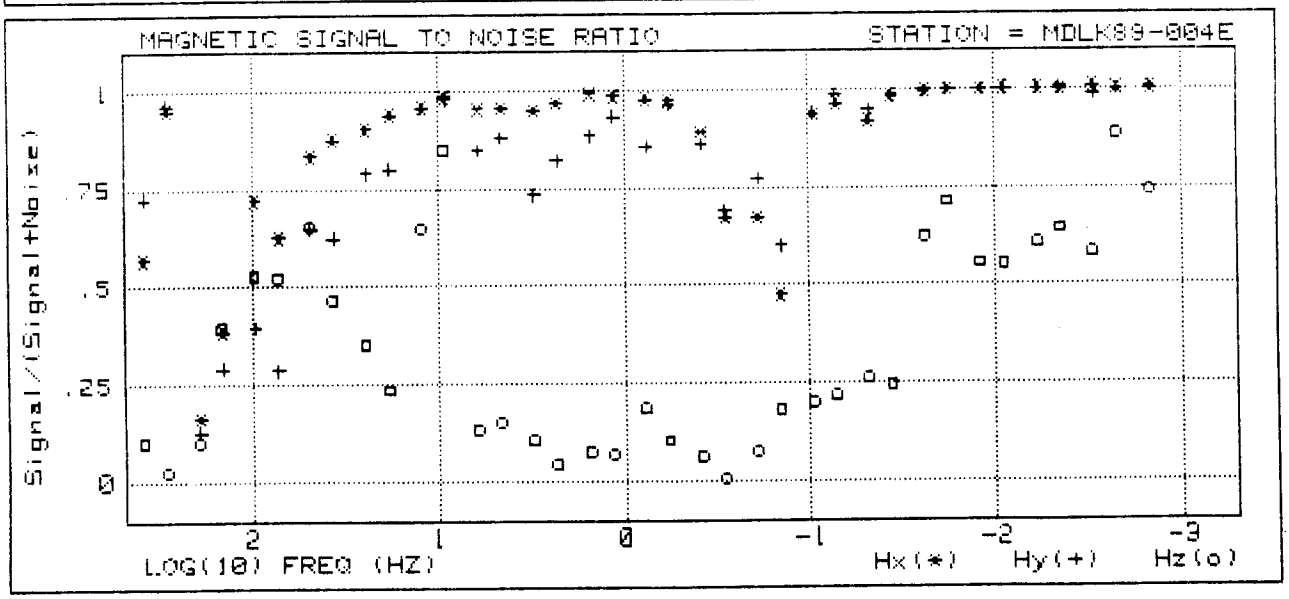
MT Site: MDLK89-004E





PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	124	9.64E-05	1.29E-04	2.79E-04	7.62E-02	5.96E-02
2	288.00 Hz	357	1.03E-03	1.25E-03	4.84E-04	2.26E-01	1.17E-01
3	192.00 Hz	1198	5.78E-04	5.53E-04	3.28E-04	7.62E-02	1.14E-01
4	144.00 Hz	720	3.44E-04	3.00E-04	9.01E-05	6.54E-02	1.18E-01
5	96.00 Hz	1439	4.31E-04	3.21E-04	7.33E-05	7.37E-02	1.16E-01
6	72.00 Hz	1439	5.45E-04	4.14E-04	7.16E-05	7.18E-02	1.15E-01
7	48.00 Hz	997	7.29E-04	4.91E-04	8.51E-05	7.28E-02	1.07E-01
8	36.00 Hz	1100	6.60E-04	3.85E-04	8.34E-05	4.74E-02	8.00E-02
9	24.00 Hz	1225	7.06E-04	4.65E-04	1.19E-04	6.90E-02	8.16E-02
10	18.00 Hz	1513	7.19E-04	4.56E-04	1.50E-04	5.39E-02	6.95E-02
11	12.00 Hz	86	7.46E-04	5.06E-04	9.66E-05	3.62E-02	4.44E-02
12	9.00 Hz	182	1.09E-03	7.46E-04	1.04E-04	3.67E-02	4.30E-02
13	6.00 Hz	1341	8.80E-04	5.51E-04	2.22E-04	6.43E-02	5.32E-02
14	4.50 Hz	1528	7.32E-04	4.80E-04	2.04E-04	5.22E-02	4.55E-02
15	3.00 Hz	19671	1.05E-03	7.20E-04	4.61E-04	8.79E-02	3.48E-02
16	2.25 Hz	15621	1.28E-03	8.51E-04	8.96E-04	8.70E-02	3.59E-02
17	1.50 Hz	16068	1.70E-03	1.21E-03	1.12E-03	1.05E-01	3.72E-02
18	1.13 Hz	13976	2.07E-03	1.44E-03	1.57E-03	1.06E-01	3.60E-02
19	1.33 Sec	928	2.67E-03	1.34E-03	1.43E-03	3.95E-02	3.93E-02
20	1.78 Sec	2112	3.58E-03	2.35E-03	2.81E-03	1.26E-01	4.34E-02
21	2.67 Sec	2434	4.29E-03	2.89E-03	4.93E-03	1.37E-01	5.49E-02
22	3.56 Sec	3213	5.80E-03	4.18E-03	1.32E-02	1.36E-01	5.69E-02
23	5.33 Sec	844	1.09E-02	7.93E-03	9.01E-03	1.34E-01	5.42E-02
24	7.11 Sec	700	2.12E-02	1.68E-02	1.45E-02	1.32E-01	8.13E-02
25	10.67 Sec	778	8.15E-02	5.95E-02	5.21E-02	3.69E-01	3.14E-01
26	14.22 Sec	96	1.46E-01	1.26E-01	8.95E-02	7.06E-01	5.97E-01
27	21.33 Sec	132	2.05E-01	1.73E-01	1.13E-01	8.16E-01	7.25E-01
28	28.44 Sec	147	5.74E-01	4.22E-01	2.52E-01	1.91E+00	1.78E+00
29	42.67 Sec	36	8.24E-01	5.98E-01	2.73E-01	2.00E+00	2.33E+00
30	56.89 Sec	358	1.57E+00	7.82E-01	4.50E-01	2.44E+00	3.73E+00
31	85.33 Sec	117	1.41E+00	9.47E-01	4.74E-01	2.18E+00	2.67E+00
32	113.78 Sec	51	2.63E+00	2.20E+00	8.12E-01	3.87E+00	4.52E+00
33	170.67 Sec	3	9.17E+00	1.12E+01	1.01E+00	1.46E+01	1.43E+01
34	227.56 Sec	48	6.55E+00	4.83E+00	1.66E+00	5.58E+00	6.26E+00
35	341.33 Sec	33	9.17E+00	5.85E+00	2.32E+00	6.30E+00	5.93E+00
36	455.11 Sec	6	1.57E+01	8.61E+00	2.75E+00	7.81E+00	7.32E+00
37	682.67 Sec	9	2.51E+01	1.75E+01	3.66E+00	1.27E+01	1.18E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	124	.568	.722	.106	.651	1.000
2	288.00 Hz	357	.950	.962	.028	.622	.812
3	192.00 Hz	1198	.160	.125	.107	0.000	.696
4	144.00 Hz	720	.383	.289	.402	.259	.903
5	96.00 Hz	1439	.719	.393	.531	.470	.865
6	72.00 Hz	1439	.624	.284	.529	.406	.794
7	48.00 Hz	997	.833	.645	.661	.775	.903
8	36.00 Hz	1100	.873	.621	.470	.697	.889
9	24.00 Hz	1225	.900	.787	.357	.328	.598
10	18.00 Hz	1513	.936	.799	.240	.321	.604
11	12.00 Hz	86	.955	.954	.653	.610	.753
12	9.00 Hz	182	.982	.976	.856	.658	.914
13	6.00 Hz	1341	.951	.847	.134	.062	.213
14	4.50 Hz	1528	.953	.878	.156	.050	.150
15	3.00 Hz	19671	.948	.732	.109	.016	.154
16	2.25 Hz	15621	.966	.819	.050	.017	.163
17	1.50 Hz	16068	.990	.882	.080	.020	.145
18	1.13 Hz	13976	.984	.930	.071	.019	.184
19	1.33 Sec	928	.974	.856	.191	.085	.254
20	1.78 Sec	2112	.971	.962	.108	.020	.245
21	2.67 Sec	2434	.891	.860	.065	.023	.087
22	3.56 Sec	3213	.673	.686	.010	.022	.105
23	5.33 Sec	844	.671	.771	.080	.128	.469
24	7.11 Sec	700	.474	.600	.186	.371	.583
25	10.67 Sec	778	.936	.937	.205	.844	.891
26	14.22 Sec	96	.962	.986	.222	.961	.969
27	21.33 Sec	132	.918	.945	.270	.924	.972
28	28.44 Sec	147	.981	.983	.249	.974	.984
29	42.67 Sec	36	.996	.991	.630	.993	.995
30	56.89 Sec	358	.999	.997	.719	.957	.986
31	85.33 Sec	117	.998	.999	.562	.938	.980
32	113.78 Sec	51	1.000	1.000	.557	.986	.990
33	170.67 Sec	3	1.000	1.000	.613	.999	1.000
34	227.56 Sec	48	.998	1.000	.649	.953	.982
35	341.33 Sec	33	1.000	.986	.587	.836	.837
36	455.11 Sec	6	.999	.998	.891	.995	.984
37	682.67 Sec	9	1.000	1.000	.746	.678	.612

PHOENIX GEOSCIENCE

MT Site: MDLK89-004E

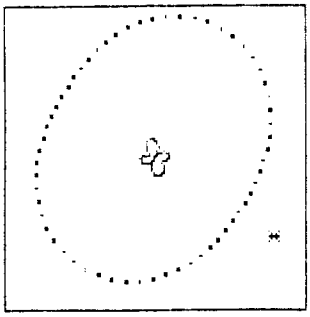
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

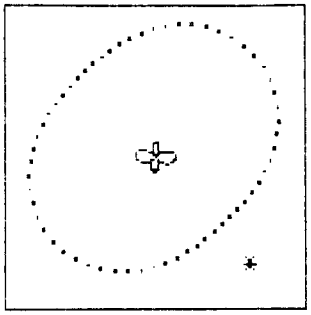
*=Rotation Direction

Zxy = ...
Zxx = ___

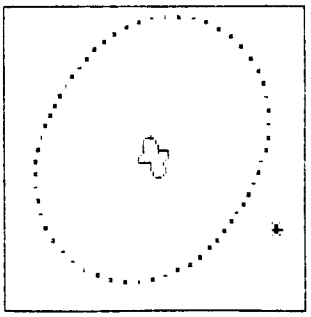
F=8 (36.0 Hz)



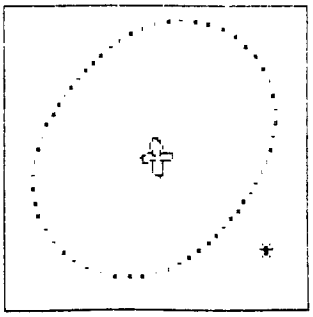
F=10 (18.0 Hz)



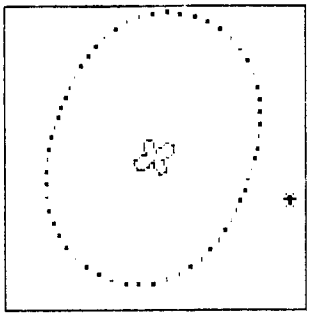
F=12 (9.0 Hz)



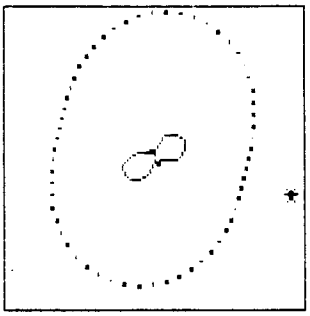
F=14 (4.5 Hz)



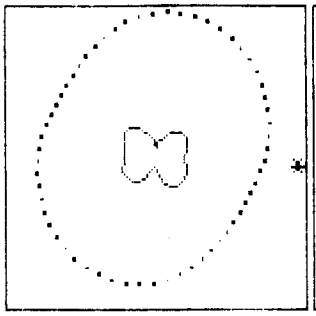
F=16 (2.3 Hz)



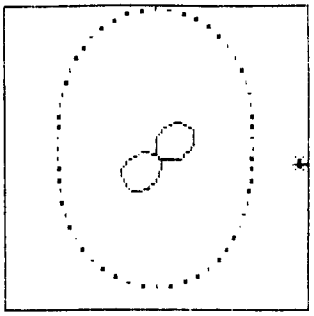
F=18 (1.1 Hz)



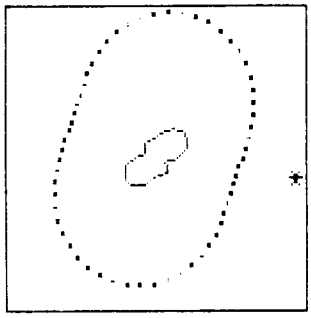
F=20 (.5625 Hz)



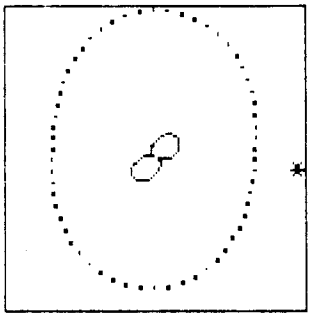
F=22 (.2813 Hz)



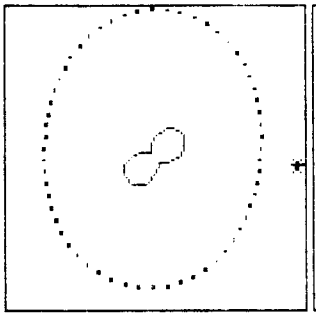
F=24 (.1406 Hz)



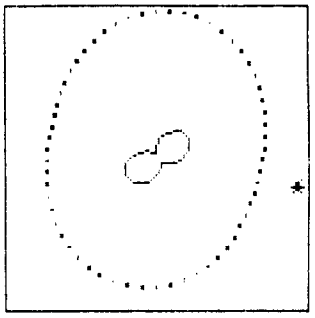
F=26 (.0703 Hz)



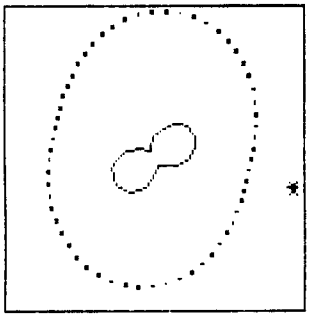
F=28 (.0352 Hz)



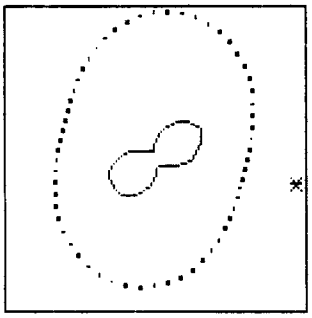
F=30 (.0176 Hz)



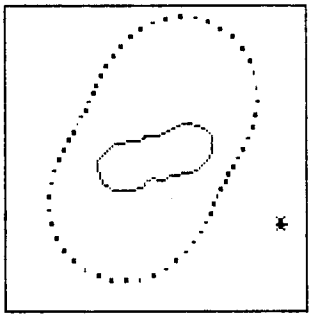
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-005s/006s/009s/

Operator:M. SNOW
Date: 14 Aug 1989
Time: 01:39:20

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 1
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-03Aug89-15
SP--Stn01: B#220-10Aug89-05
SP--Stn02: B#335-10Aug89-05
SP--Stn03: B#507-10Aug89-05
Sens-Ch01: C#445-02Jul89-01
Sens-Ch02: C#210-01Jul89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#452-02Jul89-01
Sens-Ch07: C#432-01Jul89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#205-02Jul89-01
Sens-Ch12: C#235-01Jul89-01
Sens-Ch13: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-005s
Site Desc:T43N R4E
41,33,30 N 121,32,38 W
Elevation:6640 FT
Reference:MDLK89-006s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL445	+0 DEG
Hy	2	COIL210	+90 DEG
Hz	3	LOOP333	
Ex	4	151 M	+0 DEG
Ey	5	178 M	+90 DEG
Rx	6	COIL452	+0 DEG
Ry	7	COIL432	+90 DEG

Ex Pot Resist: 8.0 K Ohms
Ex Voltage: AC=12.0 mv, DC=7.50 mv
Ey Pot Resist: 12.0K Ohms
Ey Voltage: AC=7.50 mv, DC=17.4 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

OPERATOR LOG FOR MT SITES MDLK89-005s/006s/009s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-005d/006d/009d/
Run STARTED: 01:39:20 14 Aug 1989
Run QUIT: 10:54:40 14 Aug 1989
Run Start and Stop Time for MDLK89-005j/042j/009j/
Run STARTED: 19:59:56 16 Aug 1989
Run QUIT: 04:10:33 17 Aug 1989
Run Start and Stop Time for MDLK89-005k/042k/009k/
Run STARTED: 04:04:05 17 Aug 1989
Run QUIT: 12:55:04 17 Aug 1989

Operator:SNOW/STEWART

Cultural Factors:
NONE
Weather Conditions:
LIGHT WIND, MILD TEMPS, DRY.
Other Factors:

PHOENIX GEOSCIENCE

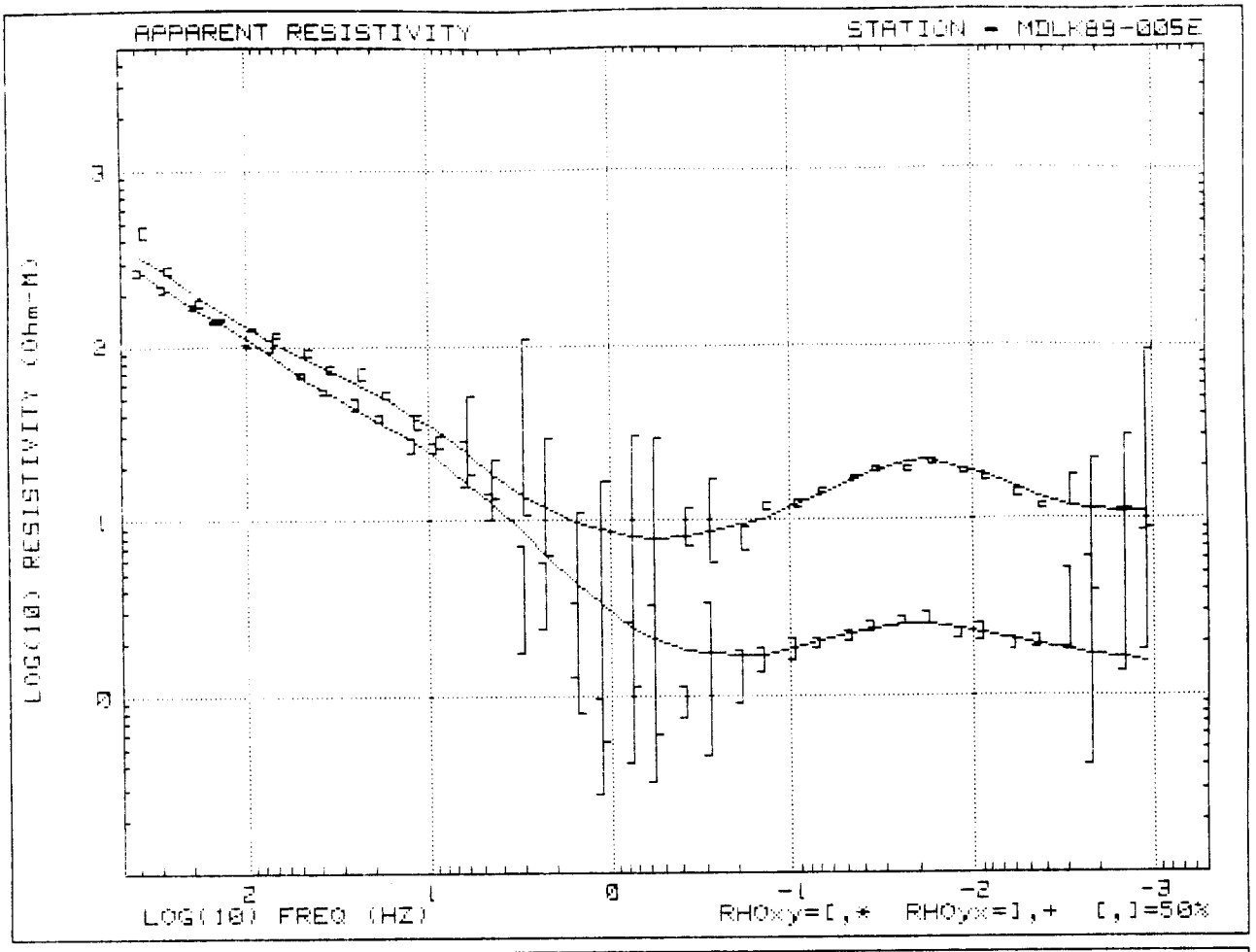
MT Site: MDLK89-005E

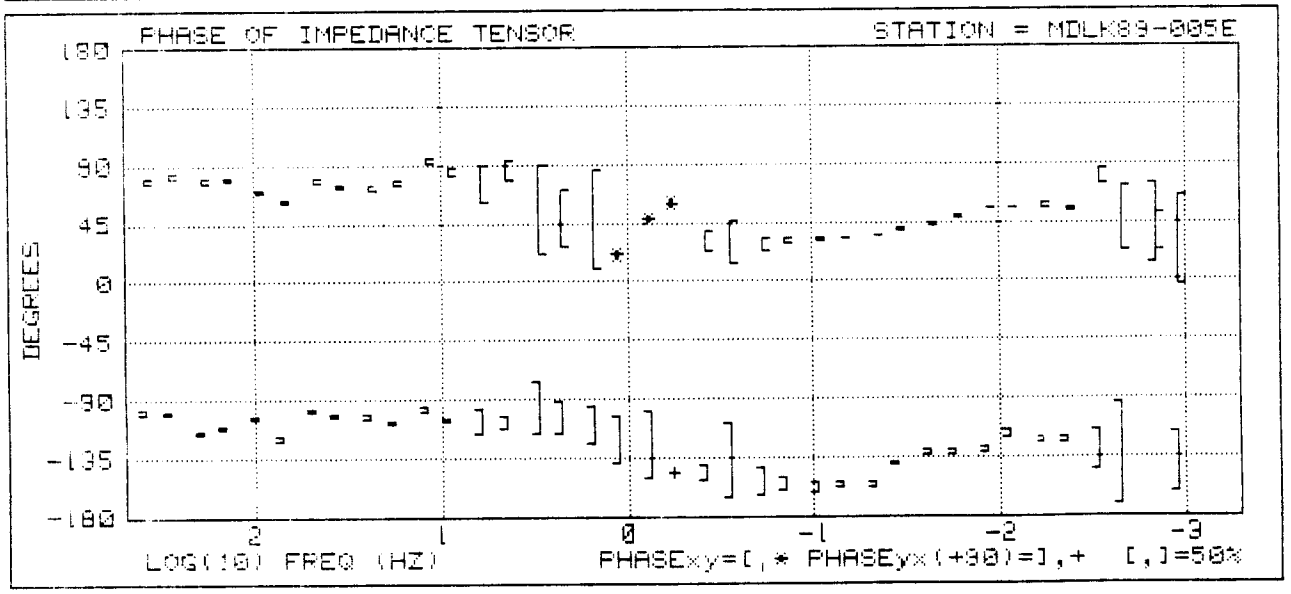
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

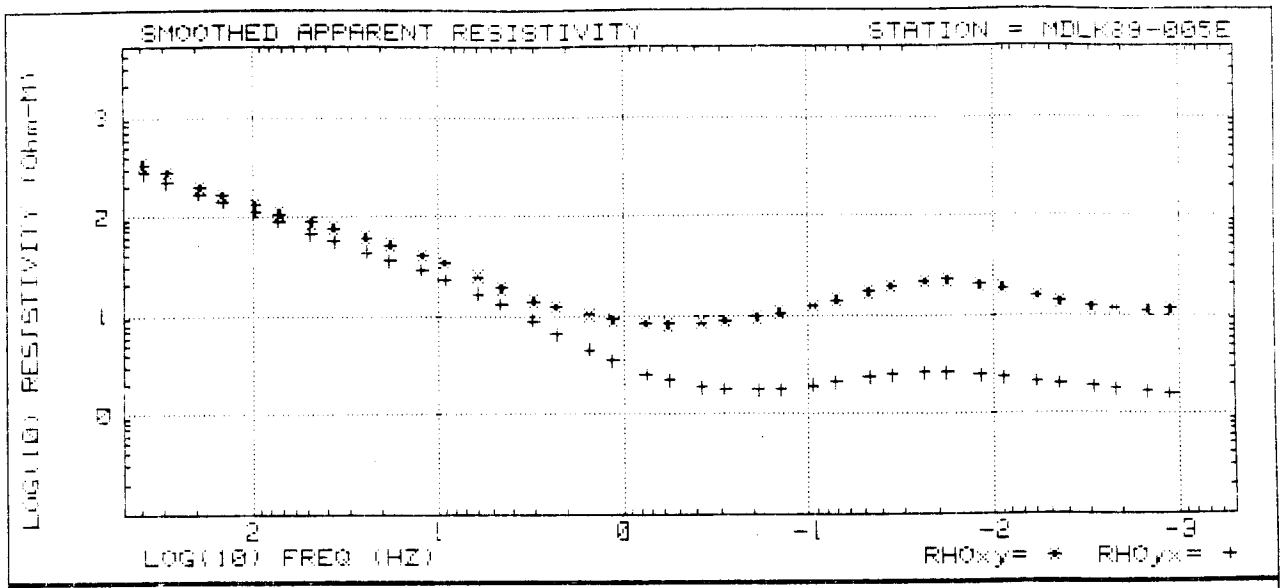
MT Site: MDLK89-005E

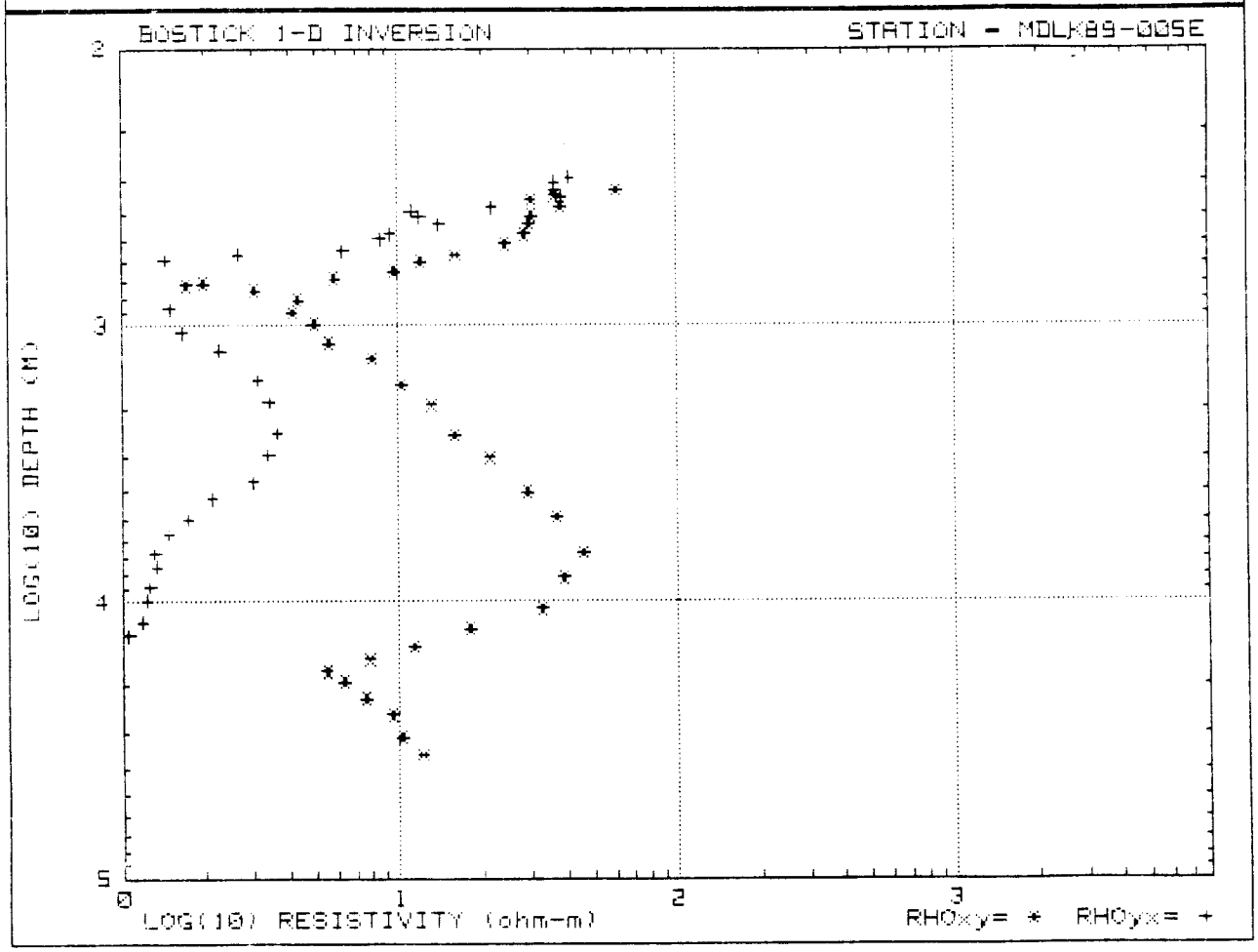




PHOENIX GEOSCIENCE

MT Site: MDLK89-005E





PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	243	450.1	10.9	265.9	8.0	78.2	3.0	-99.7	2.2
2	288.00 Hz	371	272.8	6.5	214.0	5.6	82.1	1.6	-99.4	1.5
3	192.00 Hz	458	174.9	6.5	169.3	6.6	78.2	1.8	-115.9	1.8
4	144.00 Hz	365	143.4	2.7	139.5	2.7	79.6	.8	-111.4	.8
5	96.00 Hz	474	125.9	4.1	100.1	3.1	69.2	1.1	-103.9	.9
6	72.00 Hz	96	115.7	6.7	100.4	10.6	61.8	1.9	-119.2	2.9
7	48.00 Hz	192	90.9	7.5	67.9	5.8	78.1	2.1	-97.8	1.6
8	36.00 Hz	373	73.5	6.1	54.4	5.3	73.5	1.7	-101.5	1.5
9	24.00 Hz	178	69.6	12.5	46.0	10.7	72.7	3.4	-102.5	2.9
10	18.00 Hz	274	51.8	7.7	38.2	7.3	76.3	2.1	-107.4	2.0
11	12.00 Hz	186	36.2	14.0	26.7	12.9	93.5	3.8	-97.7	3.5
12	9.00 Hz	373	28.2	11.2	25.9	9.1	84.9	3.0	-105.9	2.5
13	6.00 Hz	286	30.7	99.9	21.1	58.8	75.3	21.9	-107.1	13.2
14	4.50 Hz	573	17.1	45.3	12.1	28.8	86.1	10.7	-107.8	7.3
15	3.00 Hz	2109	34.3	99.9	3.6	99.9	55.5	49.7	-96.4	30.1
16	2.25 Hz	6845	13.6	99.9	3.7	90.8	49.2	32.7	-104.2	18.5
17	1.50 Hz	9650	3.0	99.9	2.1	99.9	48.8	56.3	-109.9	20.3
18	1.13 Hz	5509	3.0	99.9	.52	99.9	20.2	72.9	-121.1	26.8
19	1.33 Sec	4816	5.9	99.9	1.1	99.9	47.6	70.0	-124.5	39.2
20	1.78 Sec	2323	4.2	99.9	1.0	99.9	59.3	82.7	-146.9	49.6
21	2.67 Sec	552	9.3	45.2	.93	35.8	31.4	10.7	-145.9	8.8
22	3.56 Sec	276	9.9	99.9	1.3	99.9	30.4	23.9	-137.3	42.8
23	5.33 Sec	324	7.9	28.0	1.3	66.8	28.3	7.1	-153.2	14.7
24	7.11 Sec	588	11.9	8.2	1.6	27.3	31.4	2.3	-155.2	6.9
25	10.67 Sec	210	12.4	5.6	1.9	22.8	31.6	1.6	-158.1	5.9
26	14.22 Sec	270	14.7	3.6	2.0	10.4	33.1	1.0	-156.5	2.8
27	21.33 Sec	142	17.5	3.1	2.2	10.0	34.8	.9	-155.2	2.7
28	28.44 Sec	76	19.4	4.2	2.5	7.5	39.3	1.2	-139.8	2.1
29	42.67 Sec	12	19.6	5.8	2.7	8.7	43.9	1.6	-131.2	2.4
30	56.89 Sec	54	21.5	3.8	2.7	12.5	48.5	1.1	-131.4	3.4
31	85.33 Sec	75	19.1	4.5	2.3	8.9	55.6	1.3	-129.5	2.4
32	113.78 Sec	39	17.2	3.2	2.3	17.8	55.6	.9	-117.5	4.7
33	170.67 Sec	9	14.1	7.6	2.0	11.7	57.1	2.1	-121.9	3.2
34	227.56 Sec	9	11.8	4.0	2.0	13.7	54.6	1.1	-121.9	3.7
35	341.33 Sec	3	14.7	34.8	3.1	99.9	80.1	8.6	-129.6	21.7
36	455.11 Sec	39	9.3	99.9	1.6	99.9	47.5	36.5	-132.5	57.6
37	682.67 Sec	18	18.4	99.9	4.0	99.9	38.0	20.8	44.6	45.7
38	910.22 Sec	9	29.1	99.9	4.0	99.9	31.1	49.9	-138.2	33.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	243	329.9	265.5	61.8	330	41.6	296
2	288.00 Hz	371	270.9	215.3	36.8	345	36.9	308
3	192.00 Hz	458	194.7	162.6	30.2	358	37.2	323
4	144.00 Hz	365	163.2	139.3	38.7	379	39.2	350
5	96.00 Hz	474	127.0	110.2	30.6	409	21.8	381
6	72.00 Hz	96	106.8	87.6	29.9	433	11.2	393
7	48.00 Hz	192	86.0	64.5	28.8	476	12.1	412
8	36.00 Hz	373	75.6	54.5	24.4	516	14.1	438
9	24.00 Hz	178	60.4	42.9	16.2	564	9.4	476
10	18.00 Hz	274	50.7	35.0	12.0	597	8.6	496
11	12.00 Hz	186	39.4	28.2	9.8	645	6.4	546
12	9.00 Hz	373	33.4	22.6	5.9	685	2.7	563
13	6.00 Hz	286	24.3	16.3	2.0	716	1.4	587
14	4.50 Hz	573	18.5	12.6	1.7	723	.69	596
15	3.00 Hz	2109	13.7	8.8	3.0	760	.22	608
16	2.25 Hz	6845	11.9	6.3	4.4	819	.16	615
17	1.50 Hz	9650	9.9	4.4	4.1	915	.20	621
18	1.13 Hz	5509	9.0	3.4	5.0	1005	.28	627
19	1.33 Sec	4816	8.1	2.4	5.7	1172	.51	641
20	1.78 Sec	2323	7.9	2.1	8.0	1336	.85	693
21	2.67 Sec	552	8.2	1.8	10.3	1662	.99	781
22	3.56 Sec	276	8.6	1.7	13.2	1967	1.5	885
23	5.33 Sec	324	9.5	1.7	16.0	2530	1.7	1078
24	7.11 Sec	588	10.3	1.7	21.4	3041	2.3	1244
25	10.67 Sec	210	12.1	1.9	29.1	4042	3.1	1600
26	14.22 Sec	270	13.7	2.0	37.0	4963	3.4	1914
27	21.33 Sec	142	16.6	2.3	46.3	6704	3.7	2471
28	28.44 Sec	76	19.0	2.4	39.4	8263	3.4	2939
29	42.67 Sec	12	21.2	2.5	33.2	10707	3.0	3710
30	56.89 Sec	54	22.1	2.5	18.1	12612	2.1	4275
31	85.33 Sec	75	19.8	2.4	11.3	14626	1.7	5091
32	113.78 Sec	39	18.3	2.3	7.9	16236	1.5	5725
33	170.67 Sec	9	15.0	2.1	5.5	18013	1.3	6699
34	227.56 Sec	9	13.3	2.0	6.3	19547	1.3	7497
35	341.33 Sec	3	11.7	1.8	7.6	22533	1.3	8886
36	455.11 Sec	39	11.4	1.7	9.5	25675	1.2	9969
37	682.67 Sec	18	11.0	1.6	10.3	30886	1.2	11876
38	910.22 Sec	9	11.2	1.5	12.2	35892	1.1	13355

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	243	-113.45	-58.34	999.99	190.17	909.92	999.99
2	288.00 Hz	371	-13.29	23.22	247.35	85.90	620.86	774.46
3	192.00 Hz	458	-10.93	-26.30	467.98	84.10	401.04	334.44
4	144.00 Hz	365	-9.34	-6.55	76.05	58.28	316.01	35.95
5	96.00 Hz	474	-15.80	.69	12.63	87.16	229.87	47.90
6	72.00 Hz	96	2.37	4.95	162.82	96.28	179.93	87.13
7	48.00 Hz	192	-7.12	-.84	13.93	30.55	144.54	57.65
8	36.00 Hz	373	-7.30	-.64	6.43	32.74	110.23	23.27
9	24.00 Hz	178	-5.87	-4.81	18.03	27.22	87.25	57.96
10	18.00 Hz	274	-3.82	-4.12	7.79	16.18	66.32	12.86
11	12.00 Hz	186	-.41	-3.36	33.62	-2.84	46.54	18.64
12	9.00 Hz	373	.94	-.07	11.52	3.18	35.49	7.10
13	6.00 Hz	286	-.71	-2.84	193.48	7.69	29.35	268.96
14	4.50 Hz	573	1.05	.10	30.89	1.34	19.58	26.88
15	3.00 Hz	2109	-2.16	2.64	267.50	12.84	18.69	772.74
16	2.25 Hz	6845	-.26	5.17	75.87	8.09	9.37	99.99
17	1.50 Hz	9650	.97	.34	29.60	3.14	3.58	43.79
18	1.13 Hz	5509	.20	-.05	4.40	3.88	1.43	55.49
19	1.33 Sec	4816	.969	.357	25.265	3.158	3.461	65.583
20	1.78 Sec	2323	.757	.072	14.791	1.754	2.957	49.187
21	2.67 Sec	552	.143	-.047	.068	3.560	2.172	1.209
22	3.56 Sec	276	.549	-.061	1.828	3.223	1.891	4.844
23	5.33 Sec	324	.542	.058	.128	2.391	1.286	.224
24	7.11 Sec	588	.534	.099	.020	2.471	1.509	.026
25	10.67 Sec	210	.505	.229	.015	2.053	1.264	.009
26	14.22 Sec	270	.429	.303	.004	1.904	1.242	.003
27	21.33 Sec	142	.478	.249	.005	1.661	1.155	.002
28	28.44 Sec	76	.370	.240	.003	1.431	1.170	.003
29	42.67 Sec	12	.352	.177	.005	1.092	1.049	.004
30	56.89 Sec	54	.307	.246	.003	.910	1.028	.001
31	85.33 Sec	75	.249	.210	.001	.597	.874	.001
32	113.78 Sec	39	.207	.178	.002	.491	.716	.000
33	170.67 Sec	9	.136	.138	.001	.349	.541	.001
34	227.56 Sec	9	.148	.112	.000	.295	.415	.000
35	341.33 Sec	3	.135	-.012	.007	.080	.456	.010
36	455.11 Sec	39	.007	.150	.087	.216	.235	.083
37	682.67 Sec	18	.246	.097	.040	.290	.226	.035
38	910.22 Sec	9	.020	-.046	.015	.342	.207	.242

PHOENIX GEOSCIENCE

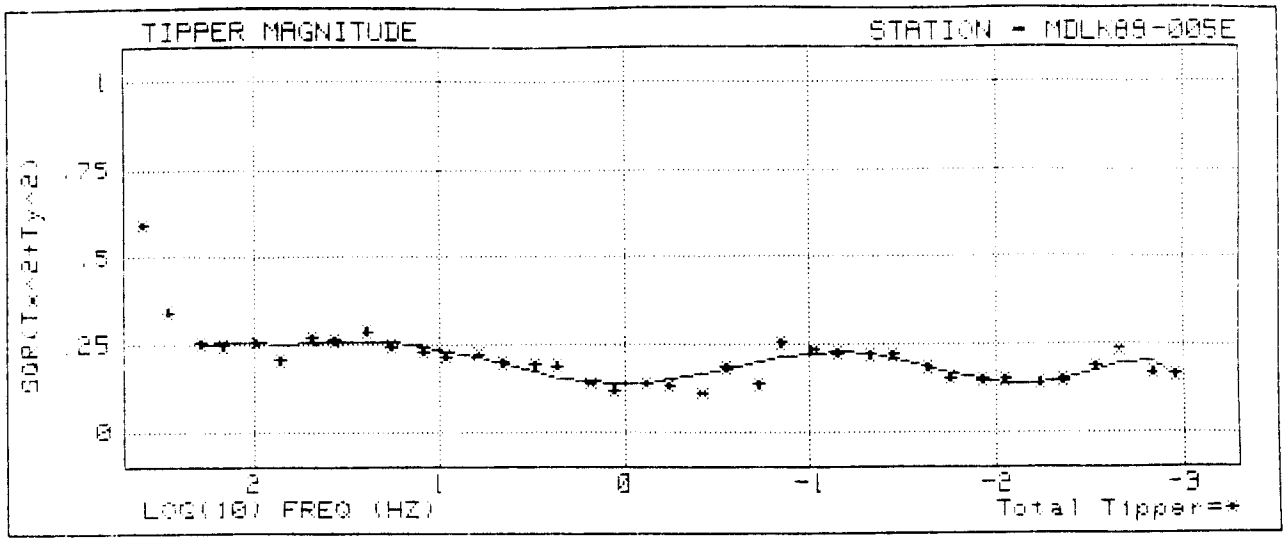
MT Site: MDLK89-005E

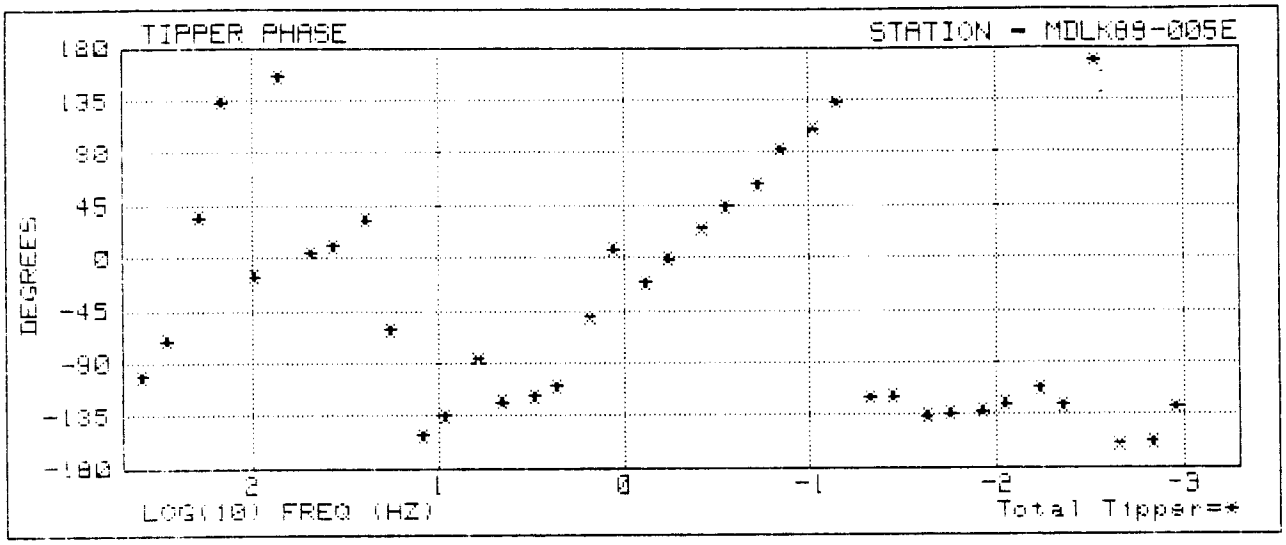
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

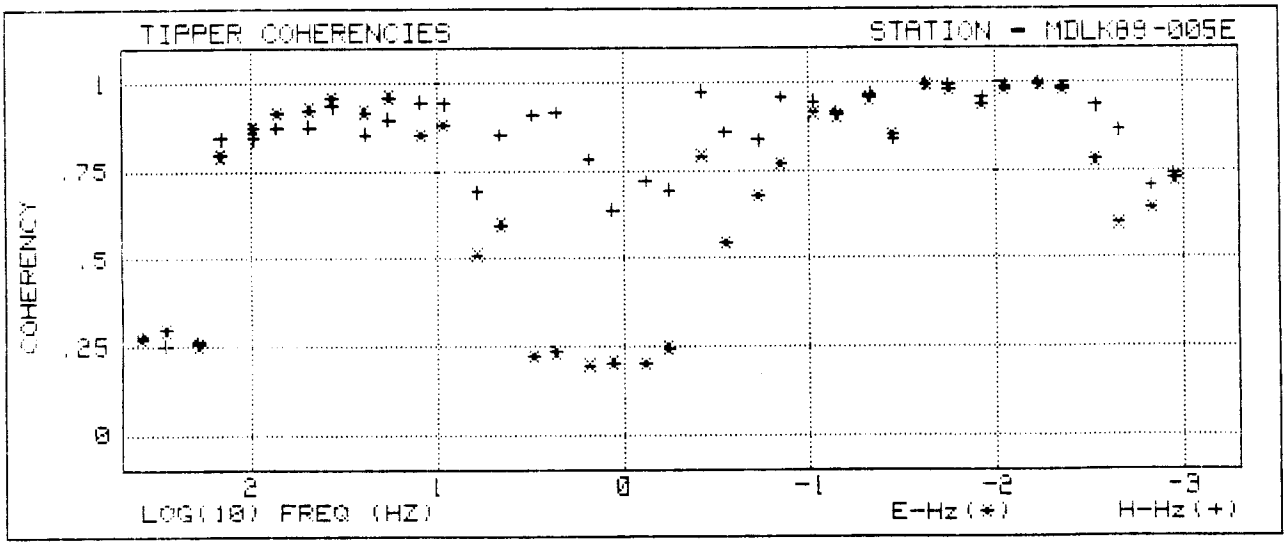
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	243	-120.49	-704.31	999.99	-51.08	-79.48	999.99
2	288.00 Hz	371	-90.85	-547.59	450.25	-9.99	23.45	999.99
3	192.00 Hz	458	-175.90	-362.80	333.40	2.13	5.05	238.26
4	144.00 Hz	365	-115.42	-295.22	35.37	-3.06	10.71	16.72
5	96.00 Hz	474	-52.52	-212.85	21.96	-11.91	-7.24	83.26
6	72.00 Hz	96	-92.86	-165.93	183.56	6.02	4.06	98.23
7	48.00 Hz	192	-17.31	-126.48	25.62	-7.97	-.22	106.04
8	36.00 Hz	373	-19.76	-96.93	13.26	1.69	-9.42	47.97
9	24.00 Hz	178	-16.07	-72.52	28.62	-1.76	-7.92	92.00
10	18.00 Hz	274	-17.56	-55.91	8.42	2.55	-3.27	13.90
11	12.00 Hz	186	-5.33	-39.64	11.74	2.15	-.33	6.51
12	9.00 Hz	373	-9.36	-32.80	4.38	1.31	.79	2.69
13	6.00 Hz	286	-7.39	-24.07	67.77	.17	-2.89	94.21
14	4.50 Hz	573	-5.03	-15.69	8.71	-.88	-1.73	7.57
15	3.00 Hz	2109	-.82	-7.26	29.42	.29	.07	84.98
16	2.25 Hz	6845	-1.59	-6.25	8.68	1.53	1.43	11.44
17	1.50 Hz	9650	-1.35	-3.72	3.92	1.03	1.12	5.80
18	1.13 Hz	5509	-.88	-1.46	1.28	.21	1.08	16.16
19	1.33 Sec	4816	-1.130	-1.642	3.710	.910	.423	9.632
20	1.78 Sec	2323	-1.425	-.929	4.342	1.340	-.023	14.438
21	2.67 Sec	552	-1.092	-.738	.081	.482	-.630	1.444
22	3.56 Sec	276	-.979	-.903	1.976	.575	-.119	5.236
23	5.33 Sec	324	-.984	-.496	.159	.525	.089	.278
24	7.11 Sec	588	-.968	-.448	.033	.538	.094	.043
25	10.67 Sec	210	-.867	-.349	.018	.512	.219	.010
26	14.22 Sec	270	-.766	-.333	.003	.481	.237	.003
27	21.33 Sec	142	-.648	-.300	.002	.494	.229	.001
28	28.44 Sec	76	-.505	-.426	.001	.392	.213	.001
29	42.67 Sec	12	-.371	-.423	.001	.334	.198	.001
30	56.89 Sec	54	-.325	-.368	.002	.279	.271	.001
31	85.33 Sec	75	-.232	-.282	.000	.185	.250	.001
32	113.78 Sec	39	-.146	-.280	.001	.172	.205	.000
33	170.67 Sec	9	-.127	-.204	.000	.096	.164	.001
34	227.56 Sec	9	-.112	-.179	.000	.111	.140	.000
35	341.33 Sec	3	-.136	-.165	.013	.070	-.024	.019
36	455.11 Sec	39	-.089	-.097	.035	.088	.076	.033
37	682.67 Sec	18	.121	.120	.037	.136	.228	.033
38	910.22 Sec	9	-.110	-.098	.015	.008	-.020	.240

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E







PHOENIX GEOSCIENCE

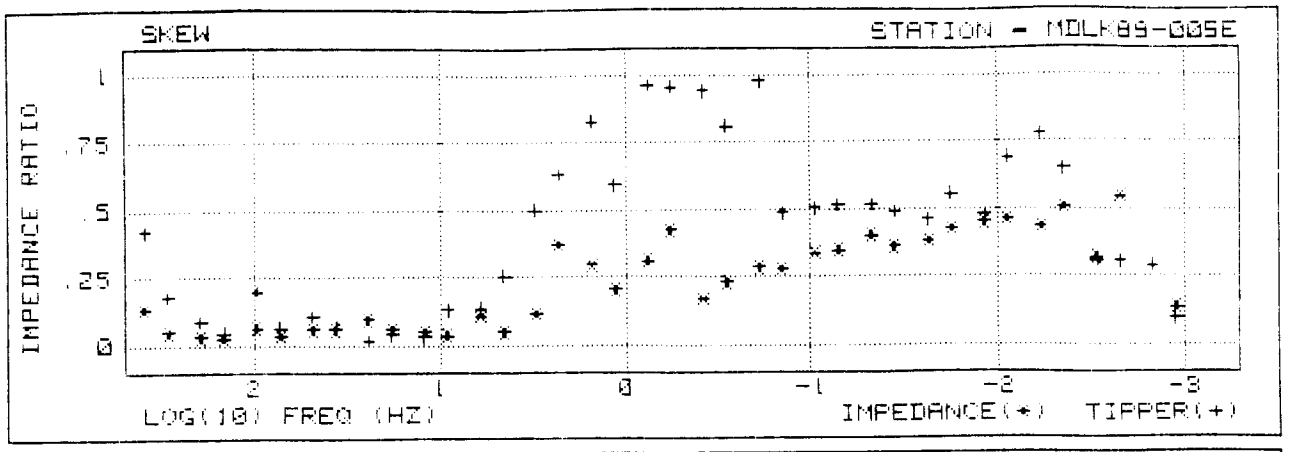
MT Site: MDLK89-005E

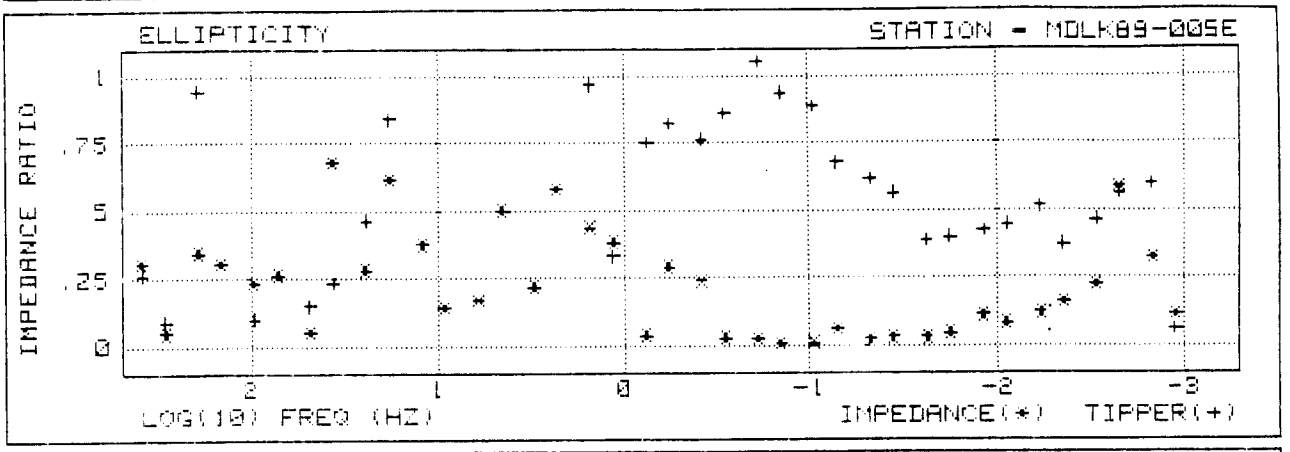
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

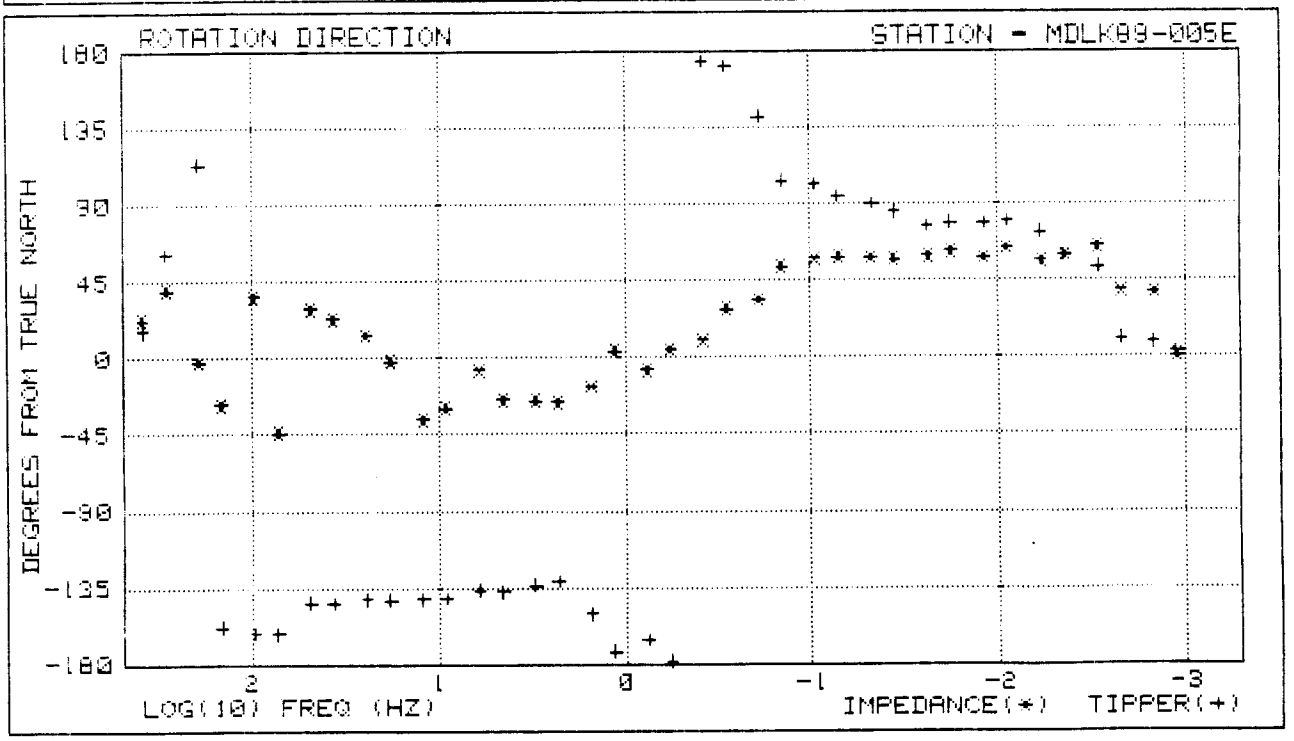
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	243	.59	-102.27	.27	.27
2	288.00 Hz	371	.34	-71.17	.29	.25
3	192.00 Hz	453	.25	34.13	.25	.26
4	144.00 Hz	365	.24	132.83	.79	.84
5	96.00 Hz	474	.25	-16.88	.87	.84
6	72.00 Hz	96	.20	154.36	.91	.87
7	48.00 Hz	192	.26	3.82	.92	.87
8	36.00 Hz	373	.26	9.60	.95	.93
9	24.00 Hz	178	.28	31.81	.91	.85
10	18.00 Hz	274	.24	-62.32	.96	.89
11	12.00 Hz	186	.23	-152.72	.85	.94
12	9.00 Hz	373	.21	-136.05	.88	.94
13	6.00 Hz	286	.22	-86.91	.51	.69
14	4.50 Hz	573	.20	-123.88	.59	.85
15	3.00 Hz	2109	.19	-118.86	.22	.91
16	2.25 Hz	6845	.18	-110.69	.23	.91
17	1.50 Hz	9650	.13	-51.70	.19	.78
18	1.13 Hz	5509	.11	6.70	.20	.63
19	1.33 Sec	4816	.14	-21.81	.20	.72
20	1.78 Sec	2323	.13	-2.16	.24	.69
21	2.67 Sec	552	.11	23.90	.79	.97
22	3.56 Sec	276	.18	42.98	.54	.86
23	5.33 Sec	324	.13	62.08	.67	.83
24	7.11 Sec	588	.25	92.17	.77	.95
25	10.67 Sec	210	.23	109.87	.91	.94
26	14.22 Sec	270	.22	131.90	.90	.91
27	21.33 Sec	142	.22	-120.07	.95	.96
28	28.44 Sec	76	.22	-119.31	.85	.84
29	42.67 Sec	12	.18	-136.68	.99	.99
30	56.89 Sec	54	.15	-134.30	.98	.99
31	85.33 Sec	75	.14	-132.44	.94	.95
32	113.78 Sec	39	.15	-125.72	.98	.98
33	170.67 Sec	9	.14	-112.58	.99	1.00
34	227.56 Sec	9	.14	-127.26	.98	.98
35	341.33 Sec	3	.18	167.67	.78	.93
36	455.11 Sec	39	.23	-161.16	.59	.86
37	682.67 Sec	18	.16	-158.92	.64	.70
38	910.22 Sec	9	.16	-128.50	.72	.73

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E







PHOENIX GEOSCIENCE

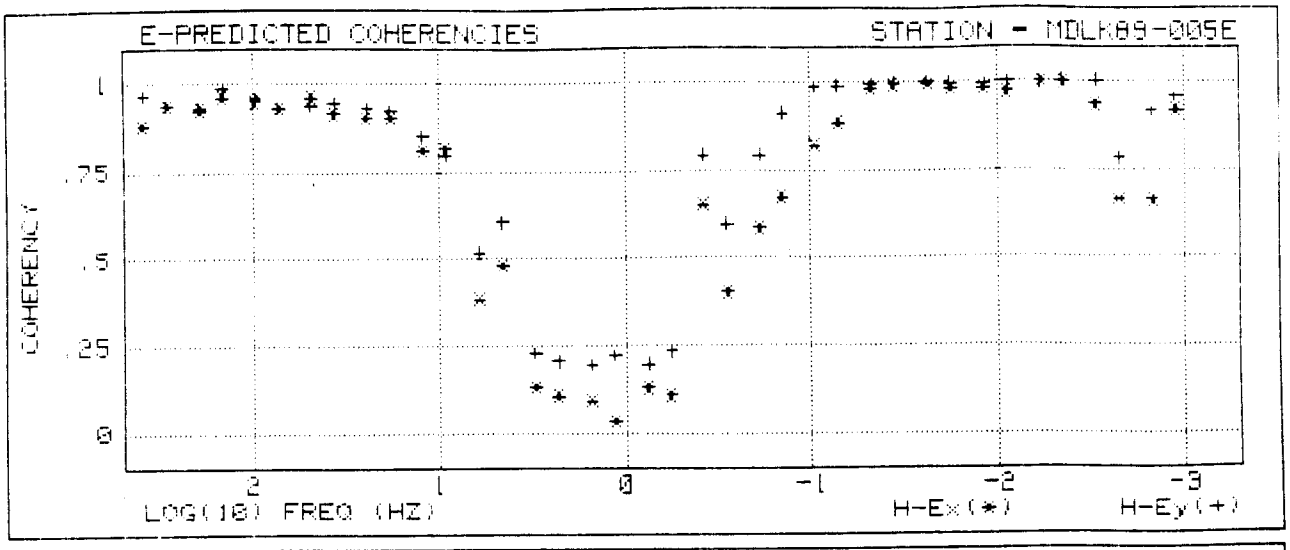
MT Site: MDLK89-005E

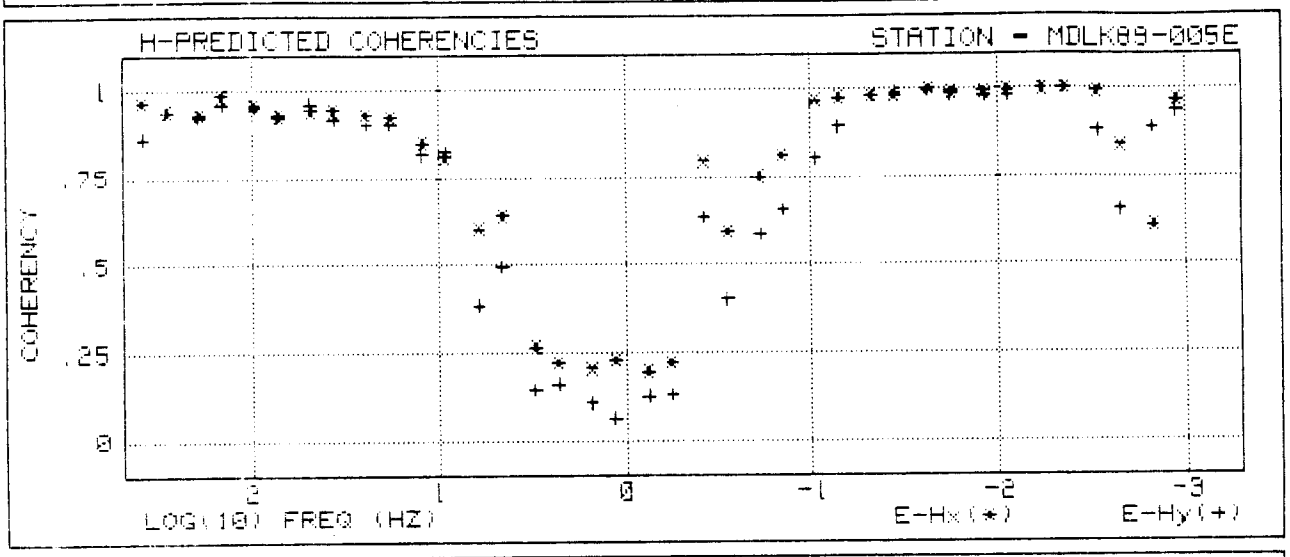
SKEW, ELLIPTICITY AND STRIKE

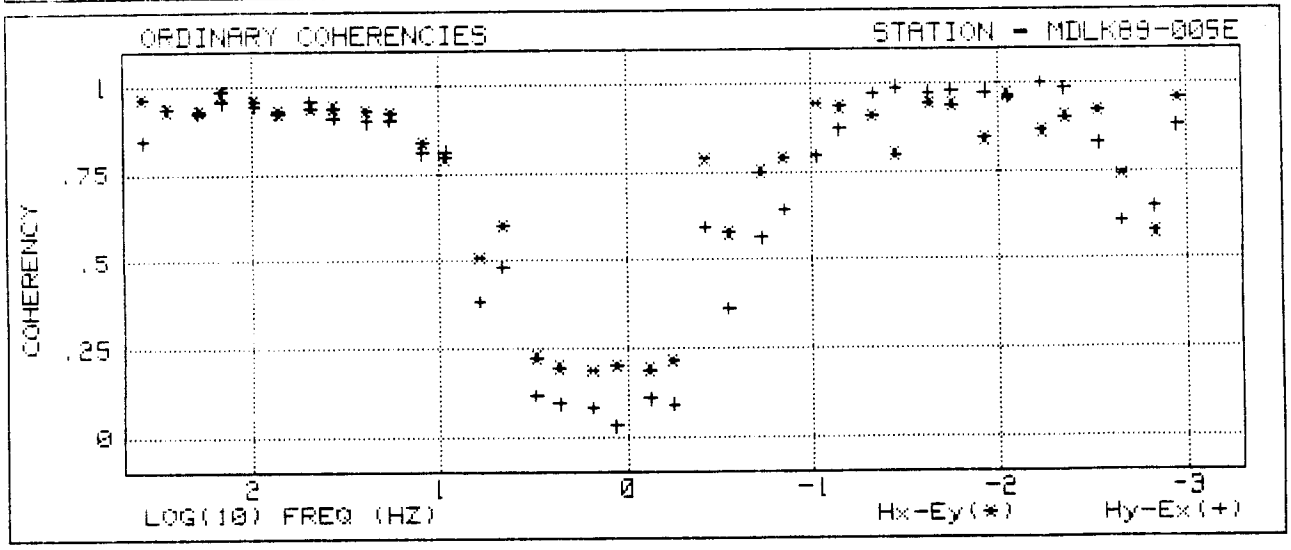
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	243	.13	.30	22.25	.42	.26	15.27
2	288.00 Hz	371	.04	.05	39.51	.17	.09	60.61
3	192.00 Hz	458	.03	.34	-3.12	.08	.94	113.08
4	144.00 Hz	365	.02	.30	-28.33	.04	2.26	-158.74
5	96.00 Hz	474	.06	.23	35.35	.19	.10	-162.29
6	72.00 Hz	96	.03	.26	-44.67	.06	4.41	-162.59
7	48.00 Hz	192	.05	.05	28.46	.10	.14	-144.06
8	36.00 Hz	373	.05	.68	22.49	.06	.23	-144.74
9	24.00 Hz	178	.09	.28	12.79	.01	.46	-142.52
10	18.00 Hz	274	.06	.61	-2.72	.04	.83	-142.87
11	12.00 Hz	186	.05	.37	-37.01	.03	3.66	-142.28
12	9.00 Hz	373	.03	.14	-30.18	.13	2.48	-141.83
13	6.00 Hz	286	.10	.17	-8.03	.13	1.24	-136.93
14	4.50 Hz	573	.05	.50	-25.16	.25	2.27	-137.97
15	3.00 Hz	2109	.11	.21	-25.48	.50	2.31	-133.95
16	2.25 Hz	6845	.37	.58	-26.47	.63	2.25	-131.51
17	1.50 Hz	9650	.29	.43	-17.30	.82	.96	-151.23
18	1.13 Hz	5509	.20	.38	3.08	.59	.33	-173.28
19	1.33 Sec	4816	.31	.03	-8.04	.96	.75	-166.61
20	1.78 Sec	2323	.42	.29	3.96	.95	.82	-178.78
21	2.67 Sec	552	.17	.24	9.48	.94	.76	173.23
22	3.56 Sec	276	.23	.03	28.00	.80	.86	170.50
23	5.33 Sec	324	.28	.02	33.35	.97	1.05	140.36
24	7.11 Sec	588	.28	.00	52.47	.48	.93	103.20
25	10.67 Sec	210	.33	.01	57.25	.50	.88	101.28
26	14.22 Sec	270	.34	.06	58.23	.51	.67	93.83
27	21.33 Sec	142	.40	.02	57.47	.51	.61	89.36
28	28.44 Sec	76	.35	.03	56.57	.48	.56	84.92
29	42.67 Sec	12	.38	.03	58.48	.45	.39	76.49
30	56.89 Sec	54	.42	.04	61.39	.55	.40	78.30
31	85.33 Sec	75	.44	.11	57.91	.47	.42	77.91
32	113.78 Sec	39	.46	.08	63.68	.69	.44	79.46
33	170.67 Sec	9	.43	.12	55.66	.77	.51	72.69
34	227.56 Sec	9	.50	.16	59.01	.64	.37	59.31
35	341.33 Sec	3	.32	.22	64.37	.31	.46	52.22
36	455.11 Sec	39	.54	.58	38.49	.30	.56	10.47
37	682.67 Sec	18	2.52	.32	37.60	.29	.59	7.85
38	910.22 Sec	9	.13	.11	.53	.09	.06	2.62

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E







PHOENIX GEOSCIENCE

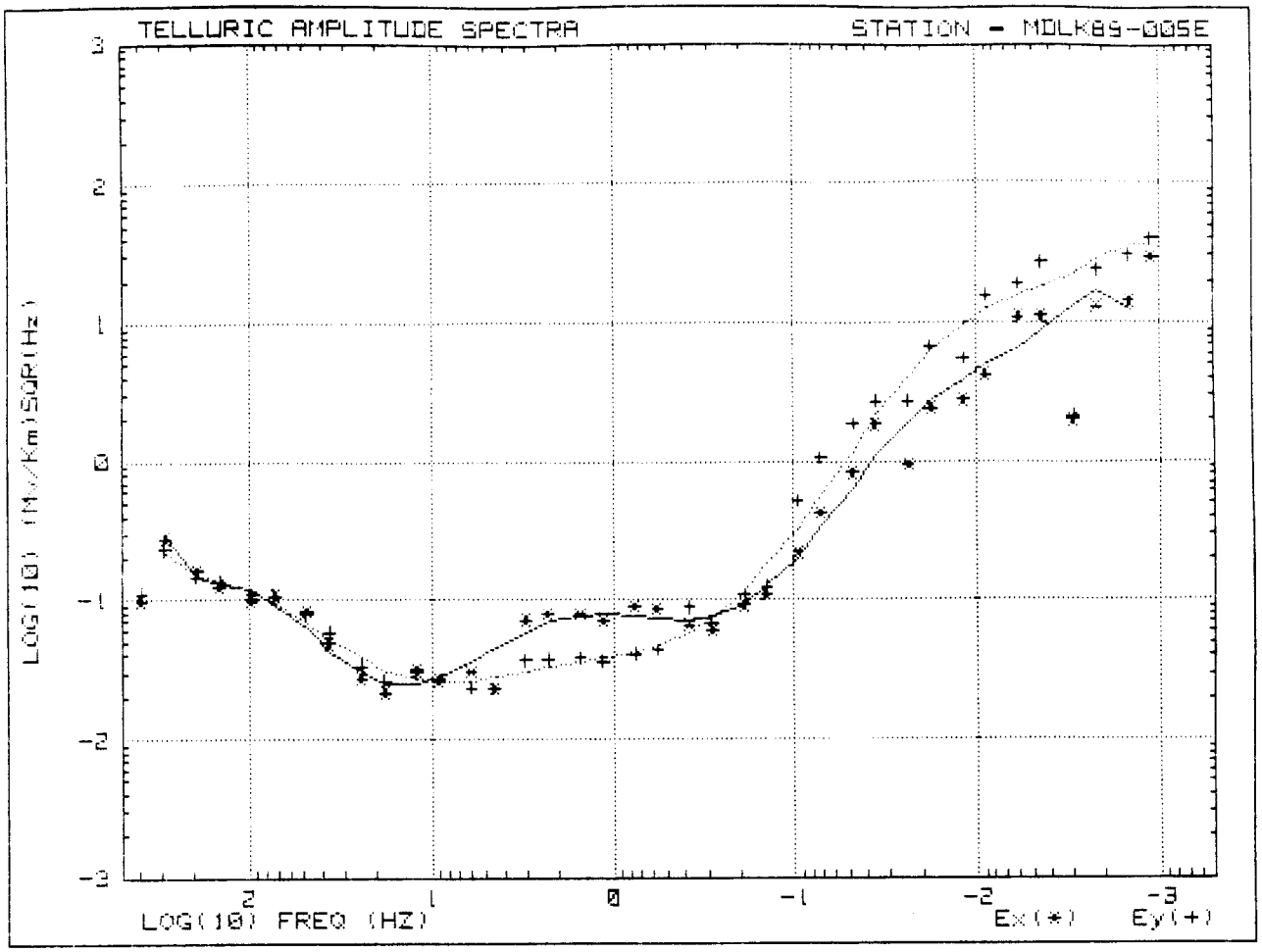
MT Site: MDLK89-005E

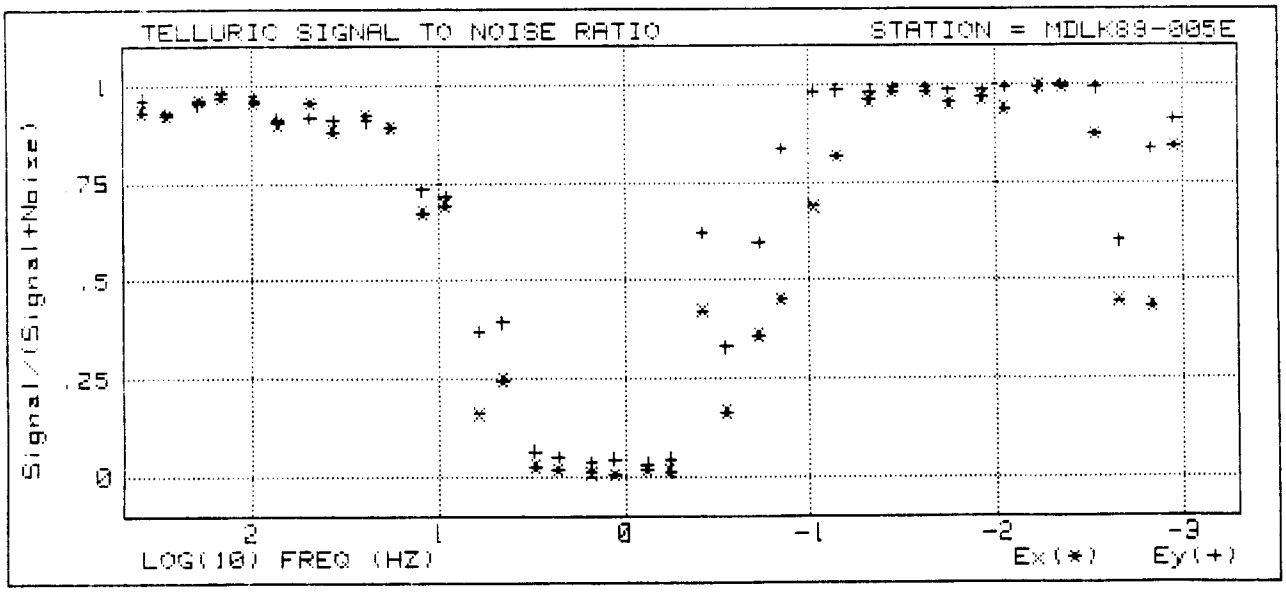
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	243	.88	.96	.96	.86	.96	.84
2	288.00 Hz	371	.93	.93	.93	.93	.93	.93
3	192.00 Hz	458	.92	.93	.93	.92	.93	.92
4	144.00 Hz	365	.96	.98	.98	.96	.98	.95
5	96.00 Hz	474	.95	.95	.95	.95	.95	.94
6	72.00 Hz	96	.93	.93	.92	.92	.92	.92
7	48.00 Hz	192	.96	.94	.94	.96	.94	.95
8	36.00 Hz	373	.91	.94	.94	.91	.94	.90
9	24.00 Hz	178	.90	.93	.93	.90	.93	.89
10	18.00 Hz	274	.90	.92	.92	.90	.92	.90
11	12.00 Hz	186	.81	.85	.84	.81	.83	.81
12	9.00 Hz	373	.81	.80	.81	.82	.79	.81
13	6.00 Hz	286	.38	.51	.60	.38	.51	.38
14	4.50 Hz	573	.48	.60	.64	.49	.60	.48
15	3.00 Hz	2109	.13	.22	.26	.14	.22	.11
16	2.25 Hz	6845	.10	.20	.22	.16	.19	.09
17	1.50 Hz	9650	.09	.19	.20	.10	.18	.08
18	1.13 Hz	5509	.03	.22	.23	.06	.20	.03
19	1.33 Sec	4816	.13	.19	.19	.12	.19	.10
20	1.78 Sec	2323	.10	.23	.22	.13	.21	.09
21	2.67 Sec	552	.65	.79	.79	.63	.78	.59
22	3.56 Sec	276	.40	.59	.59	.40	.57	.36
23	5.33 Sec	324	.58	.79	.75	.58	.75	.56
24	7.11 Sec	588	.67	.91	.81	.65	.78	.64
25	10.67 Sec	210	.82	.98	.96	.80	.94	.79
26	14.22 Sec	270	.88	.98	.97	.89	.93	.87
27	21.33 Sec	142	.98	.99	.97	.98	.90	.97
28	28.44 Sec	76	.99	.99	.98	.99	.79	.99
29	42.67 Sec	12	.99	1.00	1.00	.99	.94	.97
30	56.89 Sec	54	.98	.99	.99	.98	.93	.98
31	85.33 Sec	75	.98	.99	.99	.98	.84	.97
32	113.78 Sec	39	.97	1.00	.99	.98	.96	.96
33	170.67 Sec	9	1.00	1.00	.99	1.00	.86	1.00
34	227.56 Sec	9	.99	1.00	1.00	1.00	.90	.98
35	341.33 Sec	3	.93	1.00	.99	.88	.92	.83
36	455.11 Sec	39	.66	.78	.83	.65	.74	.60
37	682.67 Sec	18	.66	.91	.61	.88	.57	.64
38	910.22 Sec	9	.91	.95	.96	.93	.95	.88

PHOENIX GEOSCIENCE

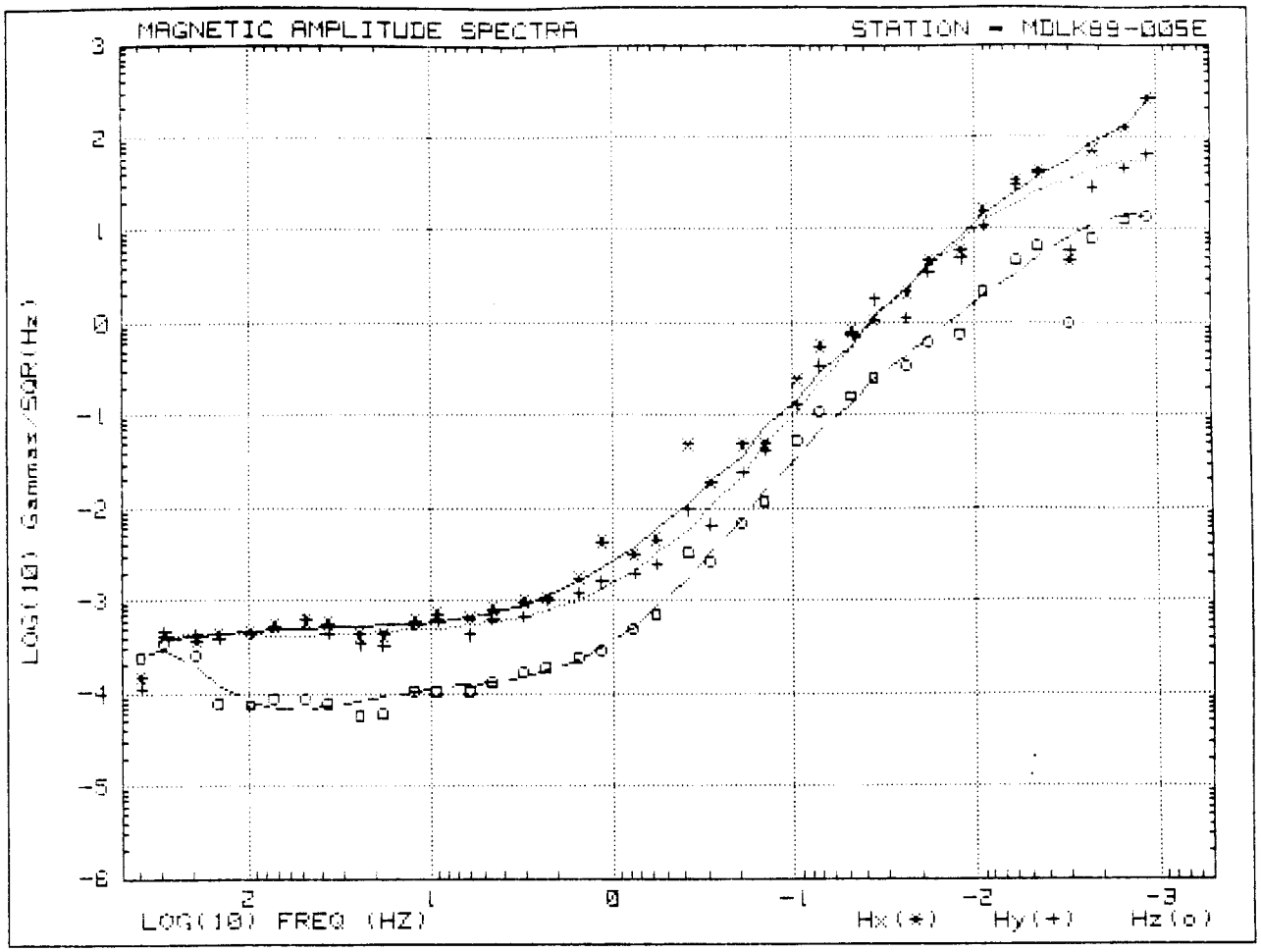
MT Site: MDLK89-005E

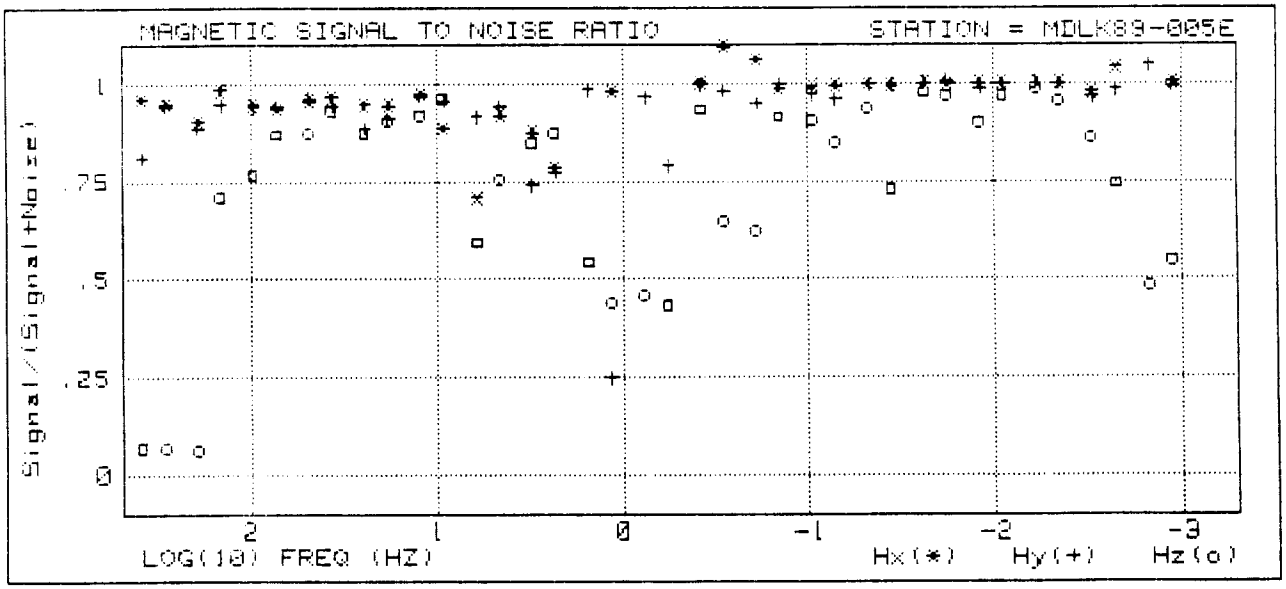




PHOENIX GEOSCIENCE

MT Site: MDLK89-005E





PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	243	1.47E-04	1.10E-04	2.51E-04	9.69E-02	1.10E-01
2	288.00 Hz	371	4.07E-04	4.62E-04	3.71E-04	2.76E-01	2.27E-01
3	192.00 Hz	458	3.71E-04	4.15E-04	2.67E-04	1.59E-01	1.44E-01
4	144.00 Hz	365	4.29E-04	3.82E-04	8.17E-05	1.23E-01	1.33E-01
5	96.00 Hz	474	4.54E-04	4.35E-04	7.95E-05	9.75E-02	1.00E-01
6	72.00 Hz	96	5.32E-04	5.12E-04	9.08E-05	1.06E-01	1.06E-01
7	48.00 Hz	192	6.07E-04	6.05E-04	9.27E-05	8.22E-02	7.90E-02
8	36.00 Hz	373	5.60E-04	4.30E-04	8.25E-05	4.79E-02	5.79E-02
9	24.00 Hz	178	4.23E-04	3.34E-04	6.16E-05	2.72E-02	3.32E-02
10	18.00 Hz	274	4.24E-04	3.21E-04	6.27E-05	2.13E-02	2.61E-02
11	12.00 Hz	186	5.97E-04	5.67E-04	1.13E-04	3.09E-02	2.98E-02
12	9.00 Hz	373	7.17E-04	6.12E-04	1.12E-04	2.62E-02	2.67E-02
13	6.00 Hz	286	6.31E-04	4.24E-04	1.13E-04	3.03E-02	2.28E-02
14	4.50 Hz	573	7.95E-04	6.25E-04	1.37E-04	2.27E-02	2.29E-02
15	3.00 Hz	2109	9.57E-04	6.53E-04	1.74E-04	7.12E-02	3.64E-02
16	2.25 Hz	6845	1.07E-03	1.00E-03	1.98E-04	7.88E-02	3.74E-02
17	1.50 Hz	9650	1.75E-03	1.18E-03	2.59E-04	7.89E-02	3.78E-02
18	1.13 Hz	5509	4.32E-03	1.59E-03	3.10E-04	7.00E-02	3.60E-02
19	1.33 Sec	4816	3.13E-03	1.91E-03	5.16E-04	8.86E-02	4.02E-02
20	1.78 Sec	2323	4.56E-03	2.46E-03	7.29E-04	8.56E-02	4.33E-02
21	2.67 Sec	552	4.81E-02	9.59E-03	3.46E-03	6.55E-02	8.79E-02
22	3.56 Sec	276	1.87E-02	6.54E-03	2.75E-03	5.95E-02	6.58E-02
23	5.33 Sec	324	4.81E-02	2.38E-02	7.33E-03	9.13E-02	1.08E-01
24	7.11 Sec	588	4.87E-02	4.18E-02	1.28E-02	1.09E-01	1.24E-01
25	10.67 Sec	210	2.40E-01	1.25E-01	5.65E-02	2.18E-01	5.10E-01
26	14.22 Sec	270	5.42E-01	3.38E-01	1.15E-01	4.21E-01	1.06E+00
27	21.33 Sec	142	7.88E-01	7.40E-01	1.69E-01	8.21E-01	1.83E+00
28	28.44 Sec	76	1.04E+00	1.73E+00	2.69E-01	1.82E+00	2.66E+00
29	42.67 Sec	12	2.09E+00	1.10E+00	3.63E-01	9.33E-01	2.66E+00
30	56.89 Sec	54	4.65E+00	3.49E+00	6.45E-01	2.38E+00	6.62E+00
31	85.33 Sec	75	5.87E+00	4.84E+00	7.95E-01	2.70E+00	5.40E+00
32	113.78 Sec	39	1.56E+01	1.06E+01	2.25E+00	4.14E+00	1.54E+01
33	170.67 Sec	9	3.36E+01	2.88E+01	4.86E+00	1.07E+01	1.87E+01
34	227.56 Sec	9	4.17E+01	4.02E+01	6.95E+00	1.10E+01	2.62E+01
35	341.33 Sec	3	4.62E+00	5.86E+00	1.05E+00	1.98E+00	2.09E+00
36	455.11 Sec	39	7.02E+01	2.83E+01	8.36E+00	1.26E+01	2.33E+01
37	682.67 Sec	18	1.24E+02	4.45E+01	1.33E+01	1.38E+01	2.95E+01
38	910.22 Sec	9	2.56E+02	6.27E+01	1.46E+01	2.89E+01	3.90E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	243	.961	.808	.075	.930	.961
2	288.00 Hz	371	.947	.944	.073	.921	.926
3	192.00 Hz	458	.903	.886	.069	.960	.951
4	144.00 Hz	365	.984	.945	.714	.968	.976
5	96.00 Hz	474	.945	.940	.775	.957	.963
6	72.00 Hz	96	.936	.941	.876	.902	.912
7	48.00 Hz	192	.956	.963	.877	.954	.916
8	36.00 Hz	373	.964	.943	.936	.879	.911
9	24.00 Hz	178	.945	.884	.879	.922	.908
10	18.00 Hz	274	.944	.910	.910	.891	.891
11	12.00 Hz	186	.973	.967	.926	.673	.731
12	9.00 Hz	373	.885	.954	.966	.691	.713
13	6.00 Hz	286	.705	.915	.599	.159	.368
14	4.50 Hz	573	.919	.942	.758	.244	.392
15	3.00 Hz	2109	.874	.737	.852	.024	.062
16	2.25 Hz	6845	.784	.771	.879	.016	.048
17	1.50 Hz	9650	1.000	.983	.549	.007	.033
18	1.13 Hz	5509	.978	.247	.443	.002	.043
19	1.33 Sec	4816	1.000	.964	.466	.015	.030
20	1.78 Sec	2323	1.000	.787	.433	.011	.043
21	2.67 Sec	552	1.000	.996	.939	.420	.620
22	3.56 Sec	276	1.000	.982	.653	.163	.329
23	5.33 Sec	324	1.000	.947	.627	.357	.596
24	7.11 Sec	588	.986	.997	.920	.450	.834
25	10.67 Sec	210	.993	.971	.911	.688	.979
26	14.22 Sec	270	.994	.958	.855	.814	.984
27	21.33 Sec	142	.998	.995	.940	.957	.982
28	28.44 Sec	76	.996	.994	.736	.980	.991
29	42.67 Sec	12	1.000	.999	.983	.980	.992
30	56.89 Sec	54	.998	1.000	.976	.952	.986
31	85.33 Sec	75	1.000	.988	.907	.963	.984
32	113.78 Sec	39	.999	.998	.972	.937	.992
33	170.67 Sec	9	1.000	1.000	.991	.993	.990
34	227.56 Sec	9	1.000	.998	.963	.991	.997
35	341.33 Sec	3	.977	.963	.868	.872	.990
36	455.11 Sec	39	1.000	.984	.750	.447	.598
37	682.67 Sec	18	1.000	1.000	.487	.434	.833
38	910.22 Sec	9	1.000	.991	.554	.840	.909

PHOENIX GEOSCIENCE

MT Site: MDLK89-005E

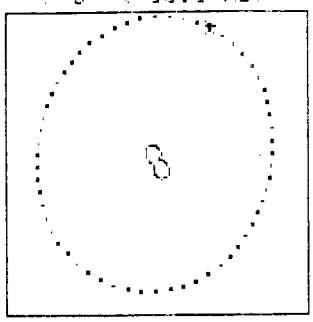
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

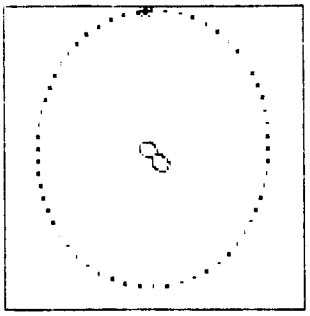
*=Rotation Direction

Zxy = ...
Zxx = ___

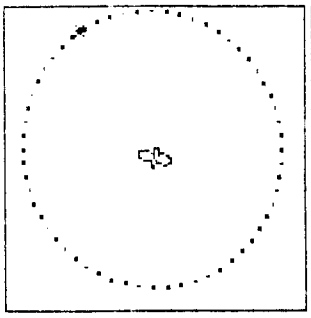
F=8 (36.0 Hz)



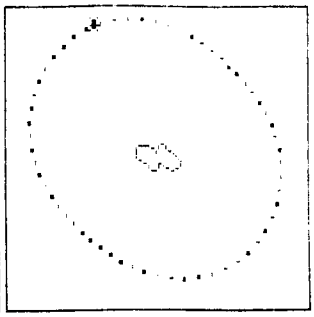
F=10 (18.0 Hz)



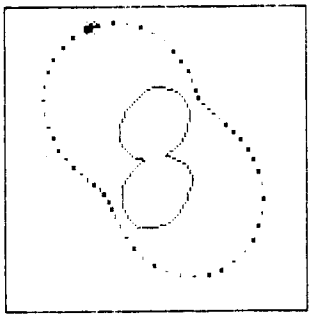
F=12 (9.0 Hz)



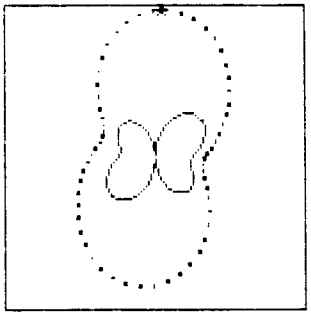
F=14 (4.5 Hz)



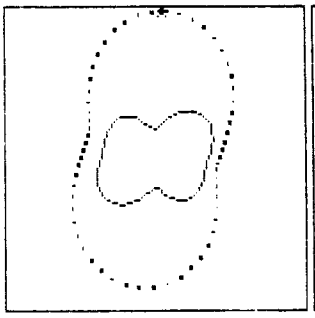
F=16 (2.3 Hz)



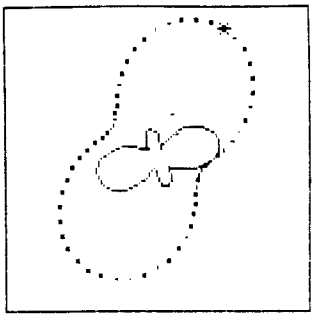
F=18 (1.1 Hz)



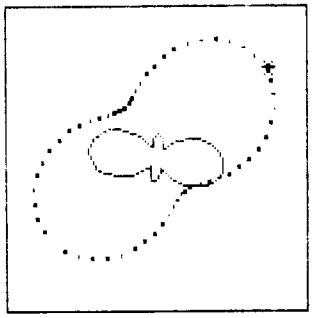
F=20 (.5625 Hz)



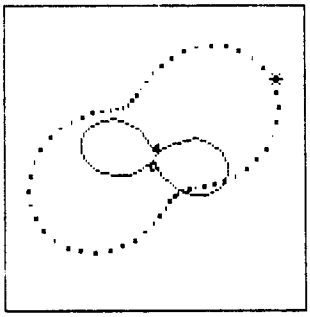
F=22 (.2813 Hz)



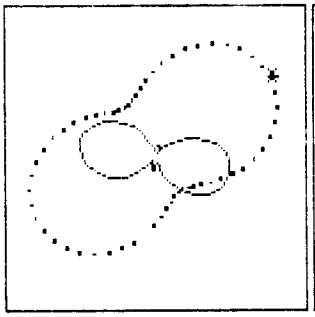
F=24 (.1406 Hz)



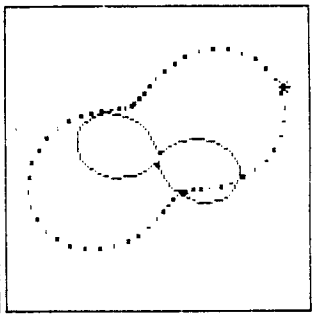
F=26 (.0703 Hz)



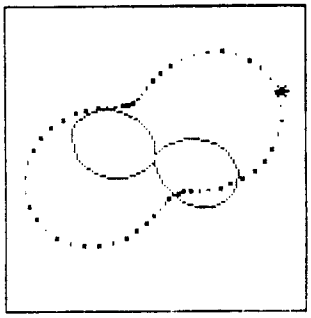
F=28 (.0352 Hz)



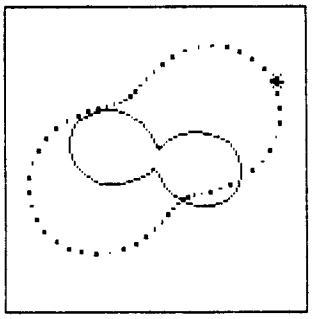
F=30 (.0176 Hz)



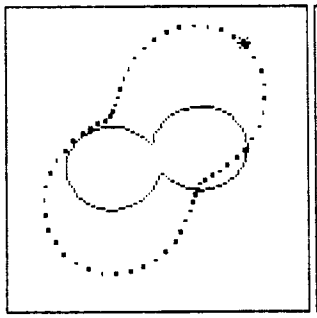
F=32 (.0088 Hz)



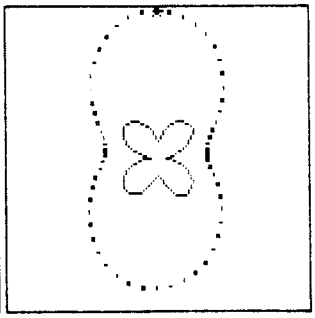
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE CA.
Client:UNOCAL
Run:MDLK89-005s/006s/009s/

Operator:WUNDERMAN
Date: 12 Aug 1989
Time: 14:42:53

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-09Aug89-15
SP--Stn01: B#220-10Aug89-05
SP--Stn02: B#335-10Aug89-05
SP--Stn03: B#507-10Aug89-05
Sens-Ch01: C#445-02Jul89-01
Sens-Ch02: C#210-01Jul89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#452-02Jul89-01
Sens-Ch07: C#432-01Jul89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#205-02Jul89-01
Sens-Ch12: C#235-01Jul89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-006s
Site Desc:T43N R4E
41,33,16 N 121,33,35 W
Elevation:6445 FT
Reference:MDLK89-009s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL452	+0 DEG
Hy	7	COIL432	+90 DEG
Hz	8	LOOP005	
Ex	9	152 M	+0 DEG
Ey	10	182 M	+90 DEG
Rx	11	COIL205	+45 DEG
Ry	12	COIL235	+135 DEG

Ex Pot Resist: 5.0 K Ohms
Ex Voltage: AC=12.6 mv, DC=70.0 mv
Ey Pot Resist: 12.0 K Ohms
Ey Voltage: AC=15.3 mv, DC=91.7 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

OPERATOR LOG FOR MT SITES MDLK89-005s/006s/009s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-005E/006E/009E/
Run Start and Stop Time for MDLK89-005a/006a/009a/
Run STARTED: 14:42:53 12 Aug 1989
Run QUIT: 23:55:21 12 Aug 1989
Run Start and Stop Time for MDLK89-005b/006b/009b/
Run STARTED: 02:32:38 13 Aug 1989
Run QUIT: 09:29:40 13 Aug 1989
Run Start and Stop Time for MDLK89-005c/006c/009c/
Run STARTED: 15:09:33 13 Aug 1989
Run QUIT: 00:57:28 14 Aug 1989

Operator:R.WUNDERMAN

Cultural Factors:
SOME TRAFFIC (1 CAR/ HR) DURING DAYLIGHT HOURS
Weather Conditions:
CLEAR AND STABLE
Other Factors:

PHOENIX GEOSCIENCE

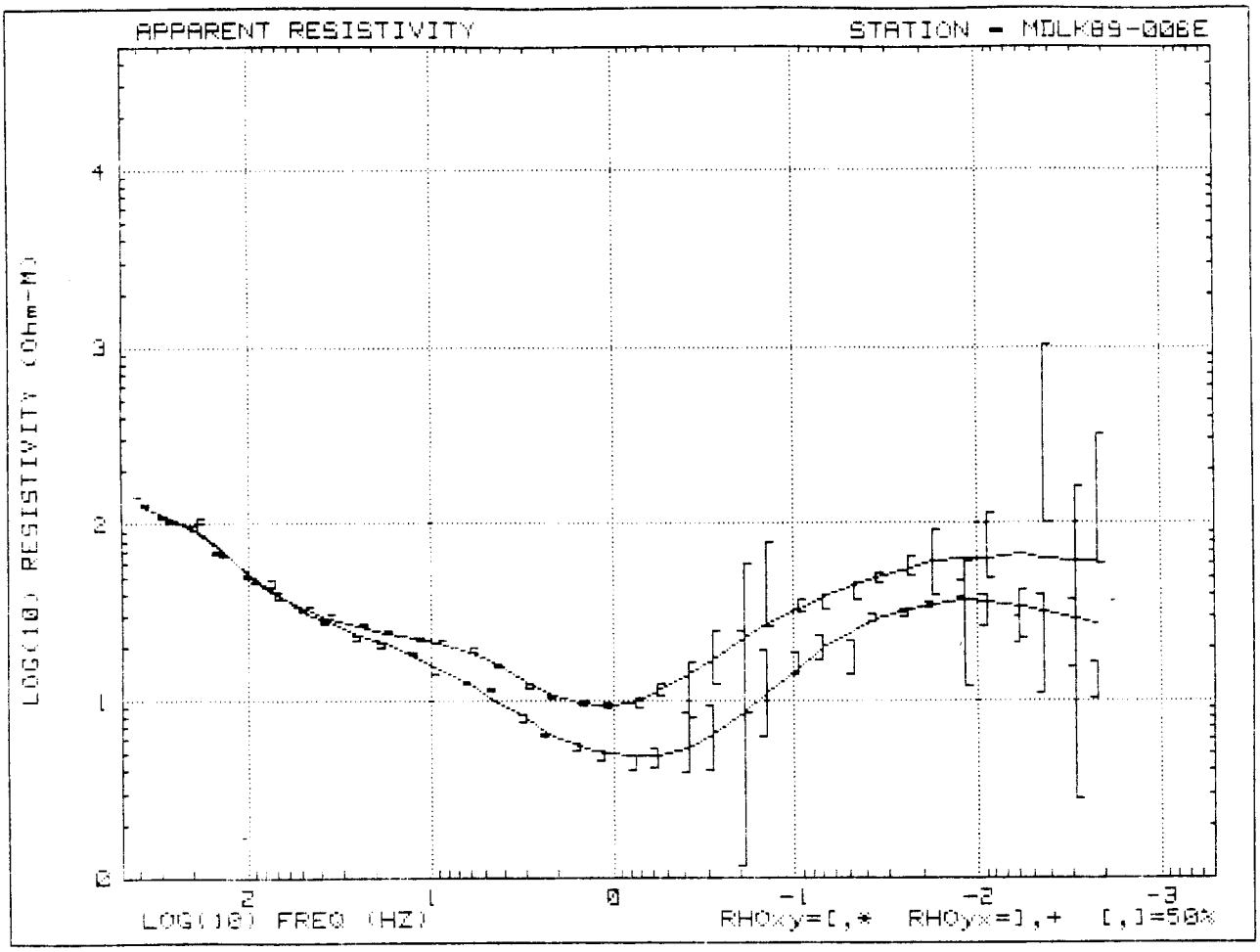
MT Site: MDLK89-006E

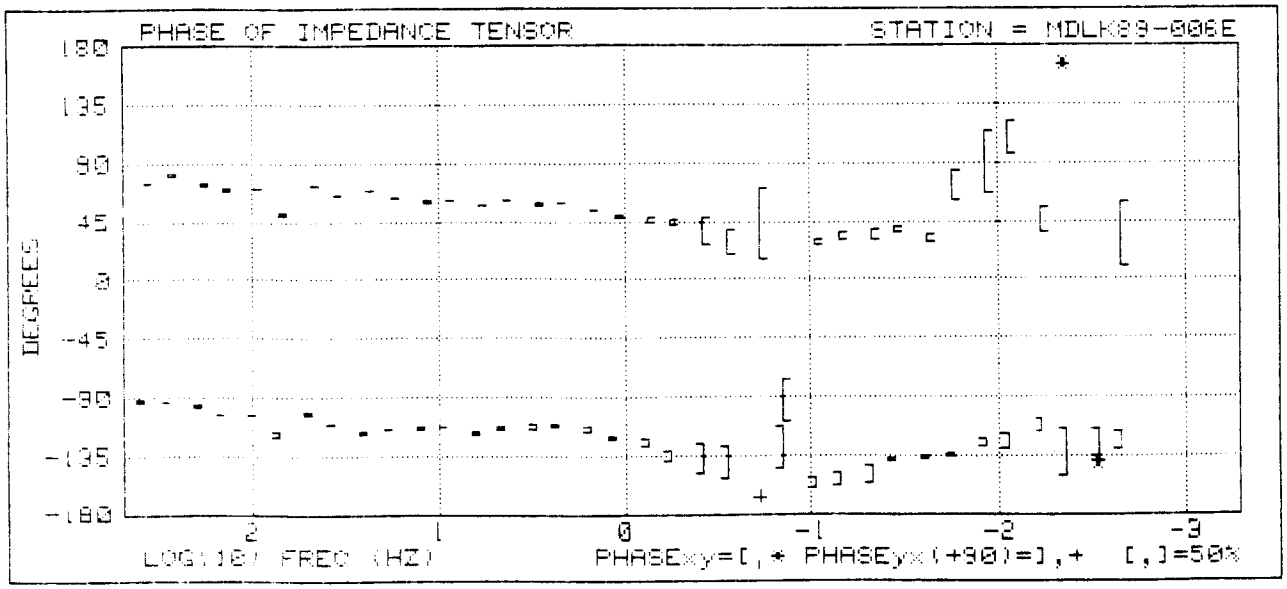
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

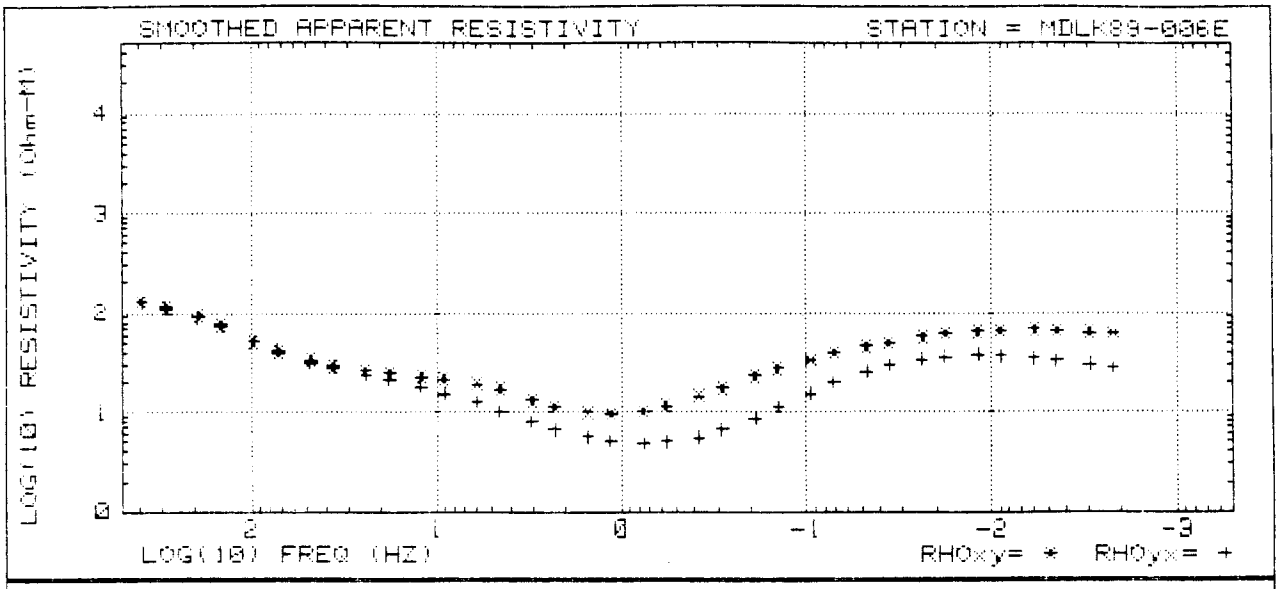
MT Site: MDLK89-006E

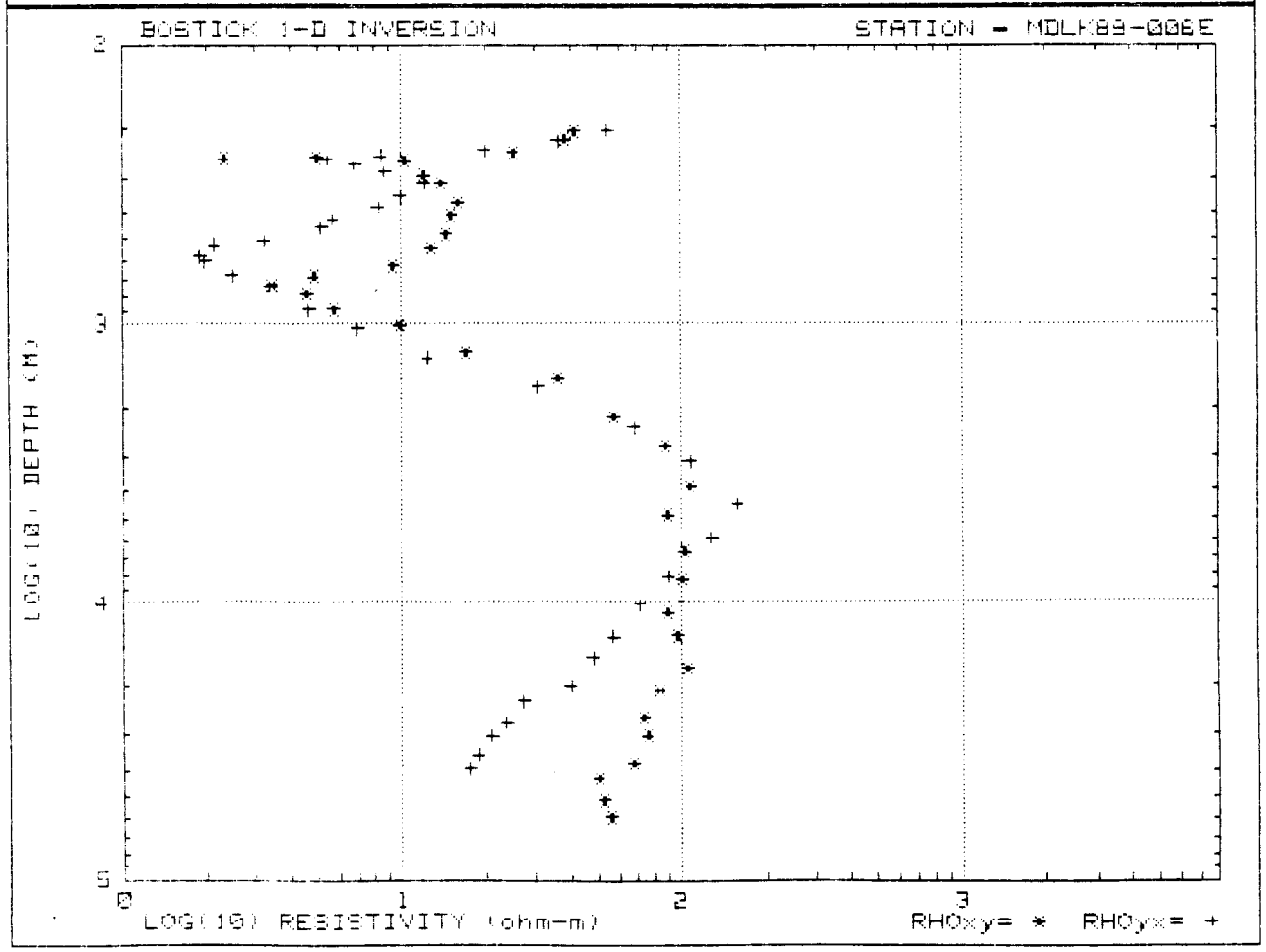




PHOENIX GEOSCIENCE

MT Site: MDLK89-006E





PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	3129	129.3	1.5	142.7	1.5	74.1	.4	-92.3	.4
2	288.00 Hz	3234	104.0	1.6	109.0	1.2	80.9	.4	-93.3	.4
3	192.00 Hz	1050	104.6	5.3	94.3	4.1	73.4	1.5	-96.7	1.2
4	144.00 Hz	668	66.8	2.1	68.9	1.9	69.9	.6	-102.9	.5
5	96.00 Hz	1048	46.2	1.0	50.5	1.3	70.4	.3	-103.2	.4
6	72.00 Hz	192	38.9	5.8	45.6	5.8	51.4	1.6	-118.1	1.6
7	48.00 Hz	573	33.9	1.9	32.0	1.7	72.7	.5	-102.1	.5
8	36.00 Hz	2004	30.7	1.1	27.8	1.7	65.2	.3	-110.1	.5
9	24.00 Hz	1087	27.2	2.9	22.6	3.7	68.7	.8	-117.5	1.0
10	18.00 Hz	1024	24.7	2.6	20.6	2.9	63.2	.7	-114.6	.8
11	12.00 Hz	4224	22.3	1.1	18.6	1.5	60.6	.3	-113.5	.4
12	9.00 Hz	2400	21.9	1.2	14.1	1.3	60.7	.3	-112.9	.4
13	6.00 Hz	672	19.4	2.7	12.8	3.2	57.4	.8	-116.6	.9
14	4.50 Hz	3840	15.8	2.6	11.6	3.6	61.1	.7	-112.8	1.0
15	3.00 Hz	1856	12.2	4.6	8.0	6.5	59.0	1.2	-112.3	1.8
16	2.25 Hz	10272	10.6	2.1	6.4	3.1	58.9	.6	-111.5	.9
17	1.50 Hz	5040	9.7	4.1	5.4	6.3	53.6	1.2	-114.3	1.7
18	1.13 Hz	5168	9.4	4.8	4.9	7.8	48.4	1.3	-120.7	2.2
19	1.33 Sec	3177	9.7	8.8	4.5	14.3	45.6	2.4	-125.0	3.8
20	1.78 Sec	3012	11.7	13.0	4.7	19.8	44.1	3.5	-134.5	5.2
21	2.67 Sec	1524	11.7	72.2	5.8	78.1	38.4	15.6	-136.6	16.5
22	3.56 Sec	696	17.6	67.6	6.1	87.2	28.8	14.8	-140.1	18.0
23	5.33 Sec	228	22.7	99.9	5.4	99.9	43.6	41.0	-167.5	65.4
24	7.11 Sec	612	45.7	99.9	11.1	99.9	-92.3	23.1	-128.3	24.3
25	10.67 Sec	78	34.1	11.7	16.2	21.3	29.3	3.2	-155.8	5.5
26	14.22 Sec	234	36.1	14.5	20.0	24.8	34.1	3.9	-153.2	6.3
27	21.33 Sec	96	41.3	18.6	17.4	38.1	34.6	4.9	-148.7	9.3
28	28.44 Sec	149	49.1	10.2	29.6	8.7	38.4	2.8	-138.2	2.4
29	42.67 Sec	66	58.1	19.3	31.5	7.7	32.2	5.0	-136.0	2.1
30	56.89 Sec	36	61.1	86.3	34.8	6.1	72.4	17.8	-133.6	1.7
31	85.33 Sec	51	27.2	99.9	43.0	18.3	90.9	34.5	-124.8	4.8
32	113.78 Sec	126	75.4	88.7	32.3	34.9	109.8	18.2	-124.0	8.6
33	170.67 Sec	27	30.8	59.2	25.1	27.5	46.0	13.3	-112.2	7.0
34	227.56 Sec	75	321.4	99.9	20.8	99.9	165.2	49.9	-132.6	27.4
35	341.33 Sec	30	21.4	99.9	24.2	92.9	-140.3	86.5	-126.7	18.8
36	455.11 Sec	21	136.8	99.9	13.1	45.1	34.9	36.2	-122.6	10.7

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	3129	127.7	125.8	41.8	205	55.3	204
2	288.00 Hz	3234	110.4	112.5	38.7	220	36.7	222
3	192.00 Hz	1050	91.5	88.5	25.2	246	20.1	242
4	144.00 Hz	668	74.5	72.7	5.0	256	8.5	253
5	96.00 Hz	1048	49.9	51.1	2.3	258	5.4	260
6	72.00 Hz	192	39.6	41.5	10.3	264	6.9	270
7	48.00 Hz	573	33.2	31.1	12.1	296	8.8	286
8	36.00 Hz	2004	28.7	28.1	13.9	318	12.1	315
9	24.00 Hz	1087	26.1	23.6	16.1	371	9.9	353
10	18.00 Hz	1024	24.3	21.2	15.2	414	8.3	386
11	12.00 Hz	4224	22.3	17.4	14.6	485	5.7	429
12	9.00 Hz	2400	21.0	14.9	12.9	544	5.2	458
13	6.00 Hz	672	18.9	12.4	9.4	631	3.2	513
14	4.50 Hz	3840	16.7	9.9	4.9	685	2.1	529
15	3.00 Hz	1856	12.9	7.9	3.5	738	1.9	579
16	2.25 Hz	10272	11.2	6.5	4.6	793	2.0	604
17	1.50 Hz	5040	9.7	5.5	5.7	904	2.5	681
18	1.13 Hz	5168	9.4	5.0	9.9	1027	3.4	750
19	1.33 Sec	3177	9.8	4.8	17.1	1289	4.7	902
20	1.78 Sec	3012	11.3	4.9	36.5	1594	7.0	1055
21	2.67 Sec	1524	14.2	5.4	58.2	2190	12.4	1354
22	3.56 Sec	696	17.2	6.5	88.0	2782	30.9	1709
23	5.33 Sec	228	22.6	8.5	108.5	3910	68.0	2401
24	7.11 Sec	612	27.1	11.1	90.1	4936	107.9	3164
25	10.67 Sec	78	32.9	15.0	103.5	6664	159.6	4502
26	14.22 Sec	234	38.7	19.7	101.9	8354	128.5	5961
27	21.33 Sec	96	44.9	24.9	90.5	11011	90.4	8210
28	28.44 Sec	149	48.9	29.2	97.0	13278	71.3	10263
29	42.67 Sec	66	56.4	33.3	106.2	17454	57.5	13423
30	56.89 Sec	36	60.5	35.2	83.8	20883	48.3	15915
31	85.33 Sec	51	63.0	37.2	74.1	26102	40.3	20051
32	113.78 Sec	126	64.0	36.2	76.0	30370	27.5	22826
33	170.67 Sec	27	66.9	33.9	67.5	38024	23.8	27050
34	227.56 Sec	75	64.2	32.0	50.8	43022	21.2	30391
35	341.33 Sec	30	61.7	29.4	53.4	51646	18.9	35636
36	455.11 Sec	21	61.1	27.6	56.9	59336	17.7	39871

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	3129	24.51	24.09	24.27	136.88	478.99	27.97
2	288.00 Hz	3234	26.07	24.89	15.07	60.93	382.11	18.03
3	192.00 Hz	1050	37.01	8.06	90.89	90.33	303.75	131.81
4	144.00 Hz	668	11.92	-.94	13.29	75.17	205.95	10.58
5	96.00 Hz	1048	2.78	1.23	2.25	49.98	140.23	1.13
6	72.00 Hz	192	1.89	-4.04	43.53	73.80	92.42	22.59
7	48.00 Hz	573	-.94	1.01	1.79	26.78	86.09	1.44
8	36.00 Hz	2004	-.66	.67	.38	31.20	67.52	.31
9	24.00 Hz	1087	-4.07	-1.69	.80	20.73	53.20	1.36
10	18.00 Hz	1024	-3.13	-1.02	.66	21.27	42.06	.75
11	12.00 Hz	4224	-1.36	.50	.12	17.97	31.88	.08
12	9.00 Hz	2400	-.12	.45	.07	15.37	27.38	.07
13	6.00 Hz	672	-1.27	1.16	.17	12.98	20.31	.21
14	4.50 Hz	3840	-.44	-.24	.19	9.12	16.51	.11
15	3.00 Hz	1856	-.41	-.03	.23	6.96	11.60	.19
16	2.25 Hz	10272	-.17	.28	.04	5.64	9.35	.03
17	1.50 Hz	5040	.07	-.11	.07	5.06	6.86	.06
18	1.13 Hz	5168	-.06	-.22	.07	4.83	5.43	.06
19	1.33 Sec	3177	-.087	-.253	.147	4.226	4.317	.129
20	1.78 Sec	3012	-.210	-.025	.230	4.113	3.982	.245
21	2.67 Sec	1524	.067	.089	2.291	3.661	2.907	3.226
22	3.56 Sec	696	-.244	.471	2.013	4.363	2.397	3.304
23	5.33 Sec	228	.266	-.711	12.410	3.343	3.179	21.801
24	7.11 Sec	612	-.644	2.637	13.195	-.229	-5.661	10.479
25	10.67 Sec	78	-.108	.018	.113	3.485	1.958	.098
26	14.22 Sec	234	-.274	-.061	.147	2.953	1.996	.116
27	21.33 Sec	96	-.028	.006	.171	2.560	1.767	.141
28	28.44 Sec	149	.110	-.019	.016	2.302	1.823	.041
29	42.67 Sec	66	.091	-.064	.017	2.210	1.389	.106
30	56.89 Sec	36	-.182	-.102	.031	.701	2.208	1.039
31	85.33 Sec	51	-.014	-.223	.143	-.019	1.263	1.159
32	113.78 Sec	126	-.047	-.067	.252	-.616	1.713	.668
33	170.67 Sec	27	-.087	-.095	.052	.660	.683	.097
34	227.56 Sec	75	.589	-.673	3.771	-2.569	.679	10.704
35	341.33 Sec	30	.463	-.049	.297	-.431	-.357	1.427
36	455.11 Sec	21	-.004	-.064	.061	1.005	.702	1.201

PHOENIX GEOSCIENCE

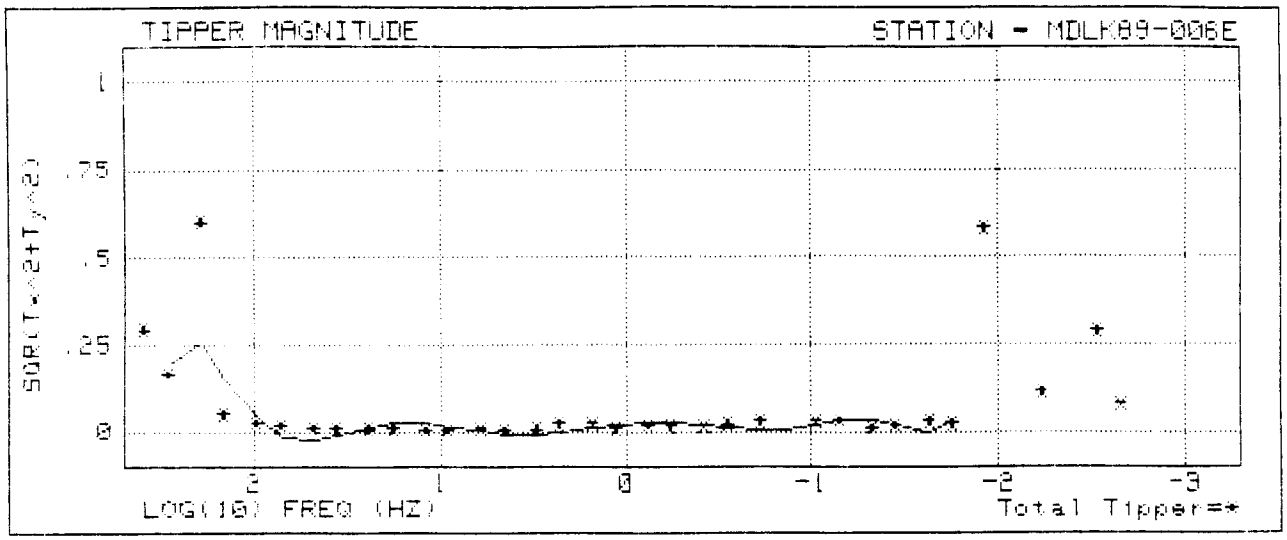
MT Site: MDLK89-006E

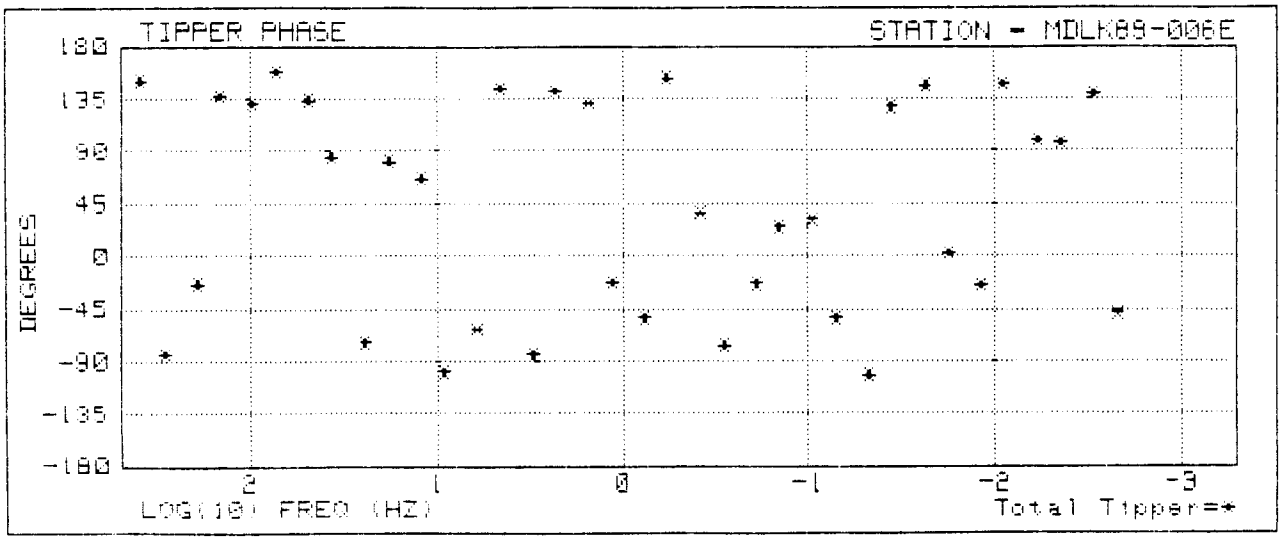
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

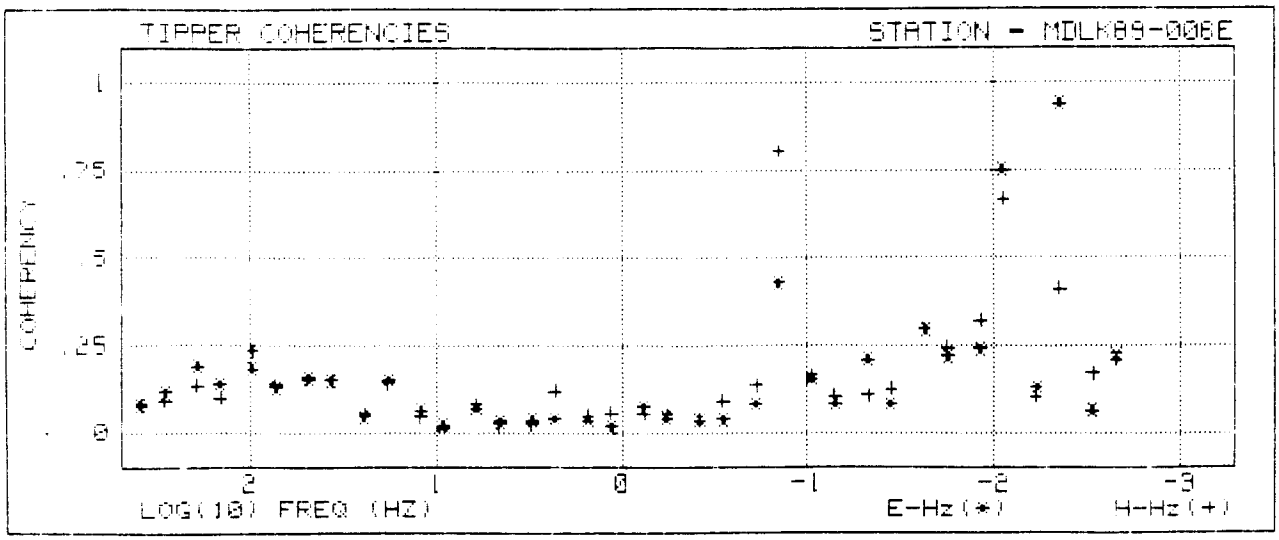
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	3129	-21.27	-523.02	30.81	14.58	-1.97	35.49
2	288.00 Hz	3234	-22.76	-395.47	12.05	19.53	6.19	14.41
3	192.00 Hz	1050	-35.35	-298.82	73.24	36.83	10.08	106.22
4	144.00 Hz	668	-49.61	-217.21	9.10	6.85	-12.46	7.24
5	96.00 Hz	1048	-35.64	-151.58	2.07	-3.29	-6.45	1.04
6	72.00 Hz	192	-60.40	-112.99	26.44	-3.57	-7.60	13.72
7	48.00 Hz	573	-18.32	-85.74	1.11	-.66	-5.70	.90
8	36.00 Hz	2004	-24.28	-66.37	.74	.03	-3.52	.61
9	24.00 Hz	1087	-24.04	-46.15	1.79	-.43	.03	3.04
10	18.00 Hz	1024	-17.94	-39.16	.73	-2.52	-1.73	.83
11	12.00 Hz	4224	-13.34	-30.63	.13	-.66	-2.09	.09
12	9.00 Hz	2400	-9.82	-23.23	.05	.89	-.90	.05
13	6.00 Hz	672	-8.77	-17.50	.18	.14	-.94	.23
14	4.50 Hz	3840	-6.25	-14.89	.17	-.25	-.58	.10
15	3.00 Hz	1856	-4.15	-10.11	.24	-.17	-.48	.19
16	2.25 Hz	10272	-3.10	-7.87	.03	.15	-.29	.03
17	1.50 Hz	5040	-2.62	-5.81	.08	.11	-.21	.06
18	1.13 Hz	5168	-2.68	-4.51	.08	-.08	-.17	.06
19	1.33 Sec	3177	-2.349	-3.353	.149	-.048	-.328	.131
20	1.78 Sec	3012	-2.552	-2.596	.216	-.068	-.184	.230
21	2.67 Sec	1524	-2.391	-2.260	1.803	.166	-.105	2.538
22	3.56 Sec	696	-2.257	-1.885	1.700	-.182	.213	2.790
23	5.33 Sec	228	-2.198	-.487	13.213	-.007	-.595	23.213
24	7.11 Sec	612	-1.730	-2.191	2.806	1.663	2.061	2.228
25	10.67 Sec	78	-2.517	-1.131	.142	.040	-.154	.123
26	14.22 Sec	234	-2.365	-1.196	.172	.074	-.317	.136
27	21.33 Sec	96	-1.727	-1.048	.213	.219	-.280	.176
28	28.44 Sec	149	-1.700	-1.519	.018	.190	-.178	.047
29	42.67 Sec	66	-1.381	-1.335	.010	.079	.124	.065
30	56.89 Sec	36	-1.207	-1.267	.005	-.095	-.055	.182
31	85.33 Sec	51	-.907	-1.303	.036	-.033	.217	.288
32	113.78 Sec	126	-.667	-.988	.064	.038	.084	.168
33	170.67 Sec	27	-.324	-.795	.022	-.101	-.134	.041
34	227.56 Sec	75	-.458	-.498	.209	.655	.437	.593
35	341.33 Sec	30	-.356	-.477	.076	.242	.159	.368
36	455.11 Sec	21	-.204	-.319	.010	-.168	.279	.196

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E







PHOENIX GEOSCIENCE

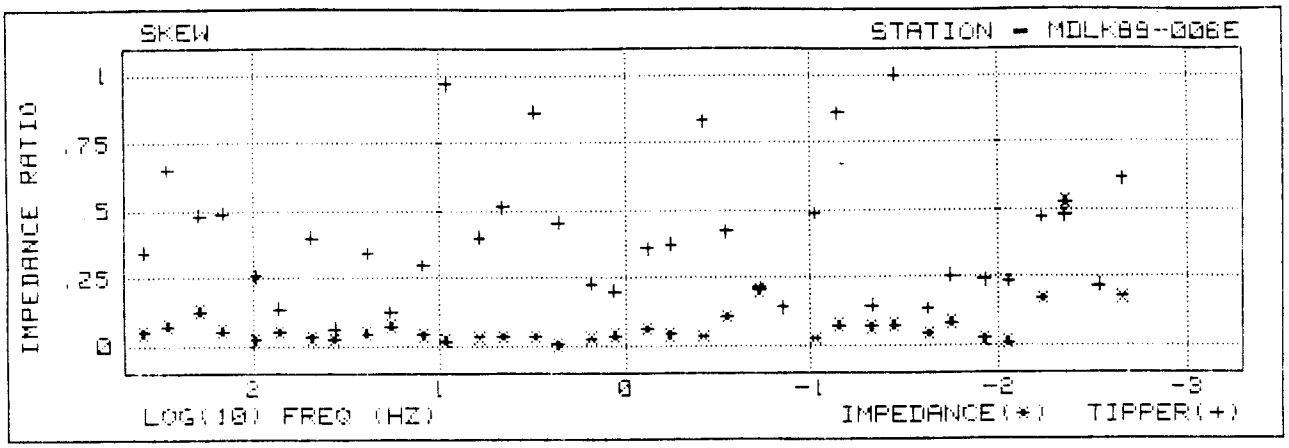
MT Site: MDLK89-006E

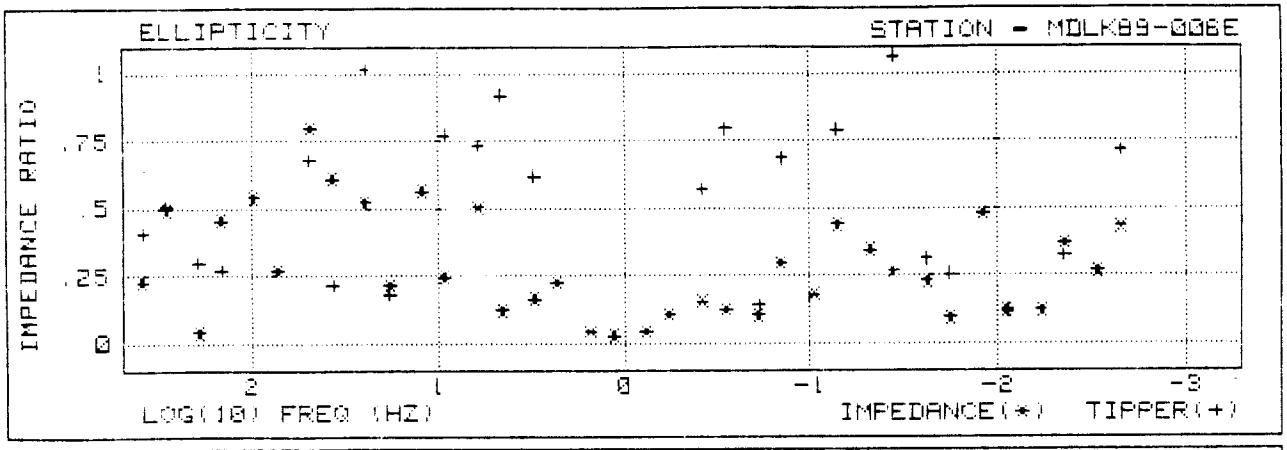
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

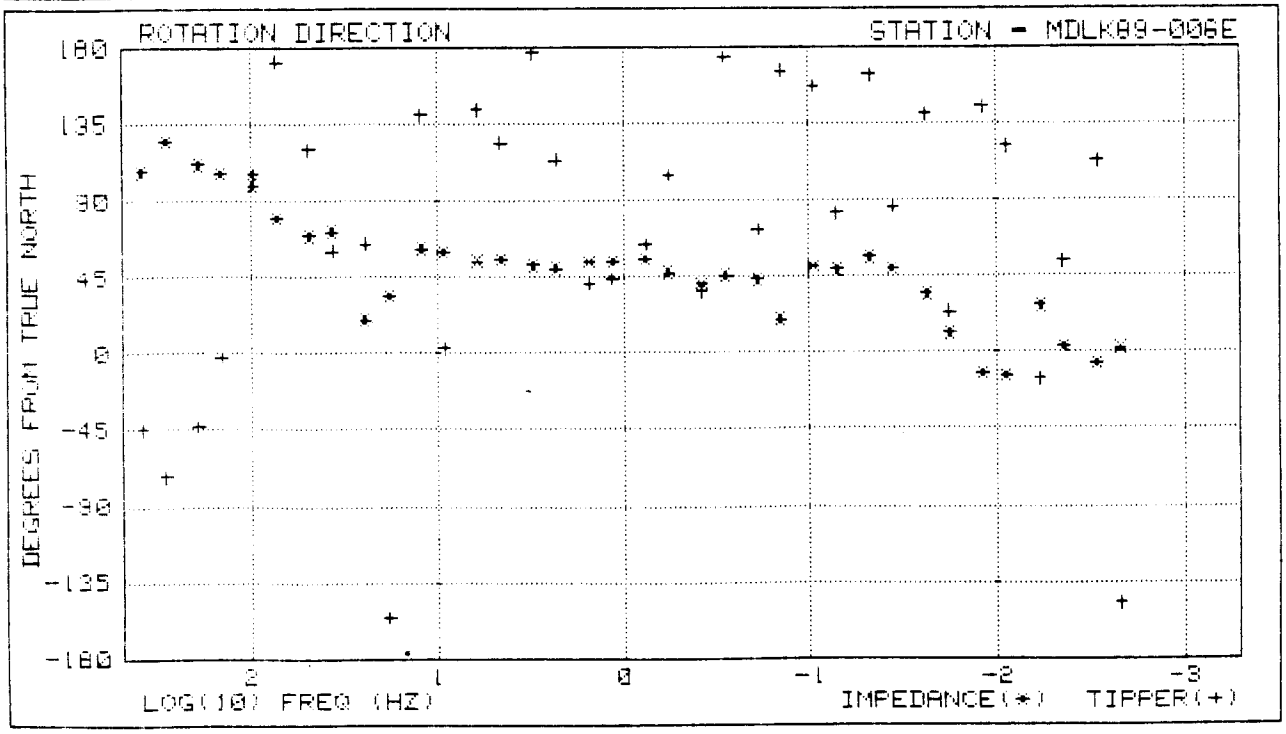
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	3129	.29	149.70	.07	.08
2	288.00 Hz	3234	.16	-84.45	.11	.08
3	192.00 Hz	1050	.60	-24.67	.19	.13
4	144.00 Hz	668	.05	136.09	.13	.09
5	96.00 Hz	1048	.02	130.08	.18	.23
6	72.00 Hz	192	.02	157.00	.13	.13
7	48.00 Hz	573	.01	132.54	.15	.15
8	36.00 Hz	2004	.00	84.42	.15	.14
9	24.00 Hz	1087	.00	-74.97	.04	.05
10	18.00 Hz	1024	.01	80.33	.15	.14
11	12.00 Hz	4224	.00	65.17	.06	.04
12	9.00 Hz	2400	.00	-100.25	.02	.01
13	6.00 Hz	672	.01	-63.38	.06	.08
14	4.50 Hz	3840	.00	142.70	.03	.02
15	3.00 Hz	1856	.00	-85.09	.03	.02
16	2.25 Hz	10272	.02	140.68	.03	.11
17	1.50 Hz	5040	.02	129.74	.03	.05
18	1.13 Hz	5168	.01	-23.58	.01	.05
19	1.33 Sec	3177	.01	-53.92	.07	.05
20	1.78 Sec	3012	.01	151.92	.04	.05
21	2.67 Sec	1524	.01	36.12	.03	.03
22	3.56 Sec	696	.02	-77.75	.03	.09
23	5.33 Sec	228	.03	-23.95	.08	.13
24	7.11 Sec	612	5.57	23.94	.43	.80
25	10.67 Sec	78	.03	30.19	.15	.16
26	14.22 Sec	234	.03	-53.71	.08	.10
27	21.33 Sec	96	.01	-102.59	.21	.10
28	28.44 Sec	149	.02	127.21	.08	.12
29	42.67 Sec	66	.03	145.70	.29	.30
30	56.89 Sec	36	.02	1.93	.21	.24
31	85.33 Sec	51	.58	-25.81	.24	.32
32	113.78 Sec	126	2.87	146.92	.75	.66
33	170.67 Sec	27	.11	98.31	.13	.10
34	227.56 Sec	75	2.67	96.36	.94	.41
35	341.33 Sec	30	.29	138.25	.06	.17
36	455.11 Sec	21	.07	-49.84	.22	.21

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E







PHOENIX GEOSCIENCE

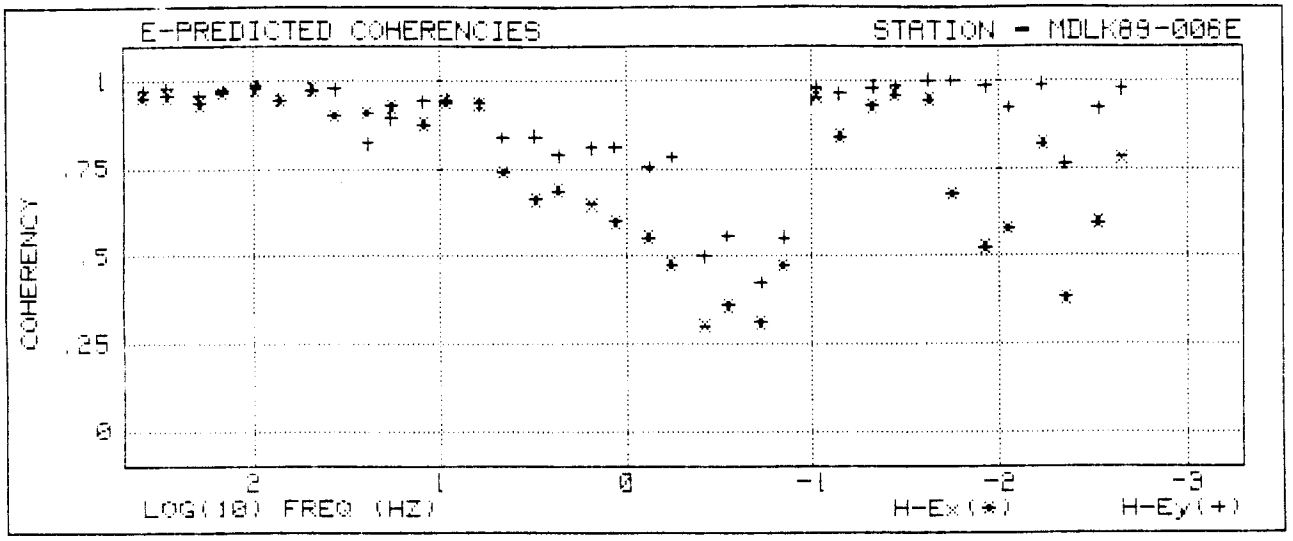
MT Site: MDLK89-006E

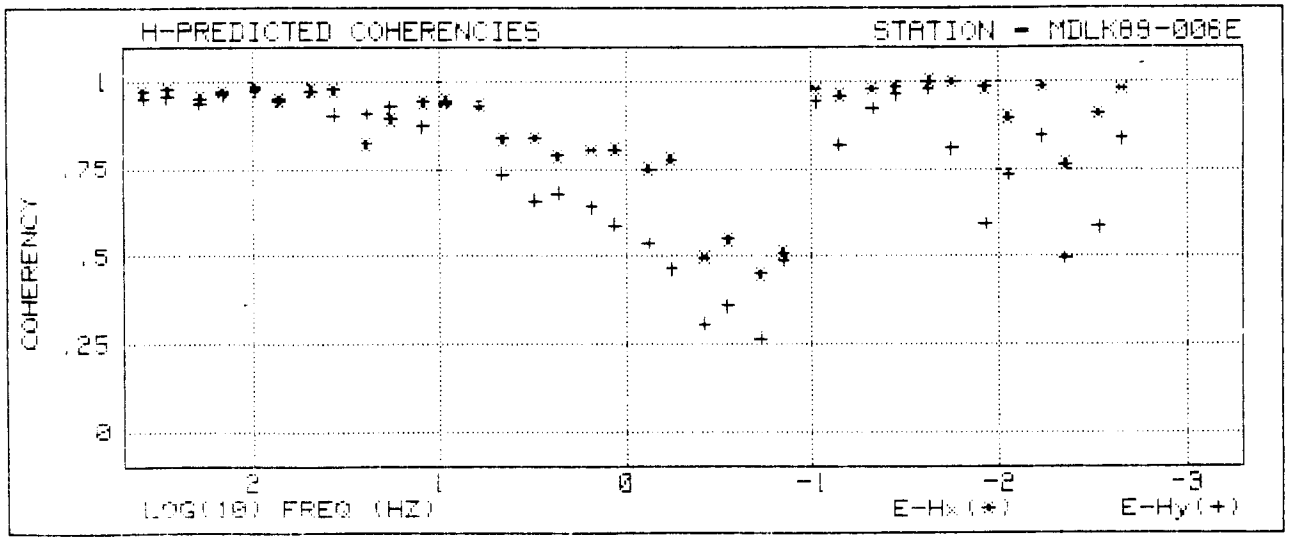
SKEW, ELLIPTICITY AND STRIKE

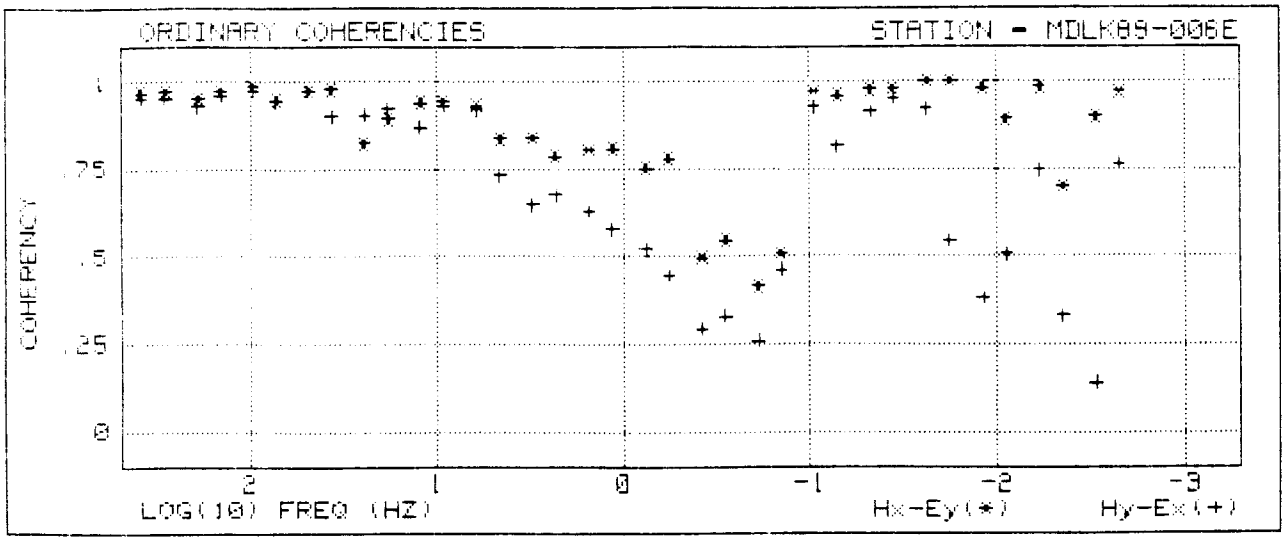
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	3129	.04	.23	106.38	.34	.40	-45.57
2	288.00 Hz	3234	.07	.49	124.29	.65	.50	-72.71
3	192.00 Hz	1050	.12	.04	110.60	.48	.29	-43.90
4	144.00 Hz	668	.05	.45	105.51	.49	.26	-2.82
5	96.00 Hz	1048	.02	.54	98.78	.25	2.42	104.84
6	72.00 Hz	192	.05	.27	79.52	.13	1.76	170.95
7	48.00 Hz	573	.03	.79	68.63	.40	.68	119.39
8	36.00 Hz	2004	.02	.61	71.41	.06	.21	59.63
9	24.00 Hz	1087	.04	.52	19.33	.34	1.01	63.97
10	18.00 Hz	1024	.07	.21	33.17	.12	.18	-156.32
11	12.00 Hz	4224	.04	.56	61.07	.29	4.03	139.46
12	9.00 Hz	2400	.02	.24	59.12	.96	.77	2.10
13	6.00 Hz	672	.03	.50	53.63	.40	.73	142.60
14	4.50 Hz	3840	.03	.12	54.79	.51	.91	123.38
15	3.00 Hz	1856	.03	.16	51.23	.86	.61	175.99
16	2.25 Hz	10272	.00	.22	49.72	.45	3.97	112.99
17	1.50 Hz	5040	.03	.04	53.28	.22	8.07	40.52
18	1.13 Hz	5168	.03	.02	53.39	.20	2.93	43.02
19	1.33 Sec	3177	.06	.04	54.98	.36	1.45	63.39
20	1.78 Sec	3012	.04	.10	46.86	.37	4.17	103.89
21	2.67 Sec	1524	.03	.15	40.26	.83	.57	35.67
22	3.56 Sec	696	.10	.12	45.32	.42	.79	173.36
23	5.33 Sec	228	.20	.10	42.54	.21	.14	72.13
24	7.11 Sec	612	1.27	.29	19.32	.14	.68	165.15
25	10.67 Sec	78	.02	.18	50.42	.49	2.58	155.97
26	14.22 Sec	234	.07	.44	48.32	.85	.79	81.61
27	21.33 Sec	96	.07	.34	55.70	.14	3.15	162.84
28	28.44 Sec	149	.07	.26	49.19	.99	1.06	85.00
29	42.67 Sec	66	.04	.23	33.90	.13	.31	139.64
30	56.89 Sec	36	.08	.09	11.01	.25	.25	23.57
31	85.33 Sec	51	.02	.48	-12.94	.24	4.13	143.97
32	113.78 Sec	126	.01	.12	-14.51	.23	.12	120.73
33	170.67 Sec	27	.17	.12	26.97	.47	1.37	-16.58
34	227.56 Sec	75	.52	.37	2.86	.47	.32	52.92
35	341.33 Sec	30	5.05	.26	-7.57	.21	2.69	112.30
36	455.11 Sec	21	.17	.43	1.59	.61	.71	-148.25

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E







PHOENIX GEOSCIENCE

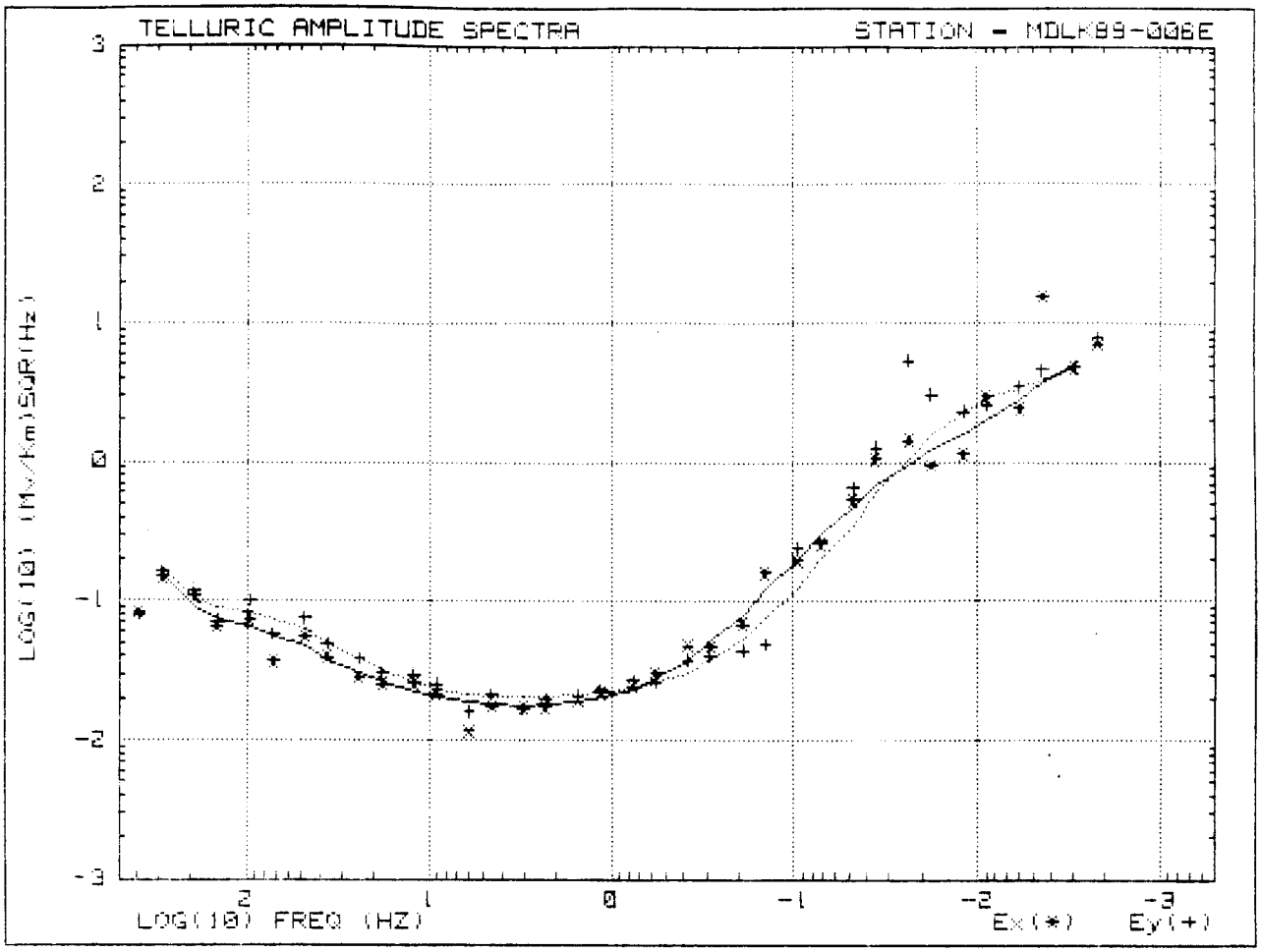
MT Site: MDLK89-006E

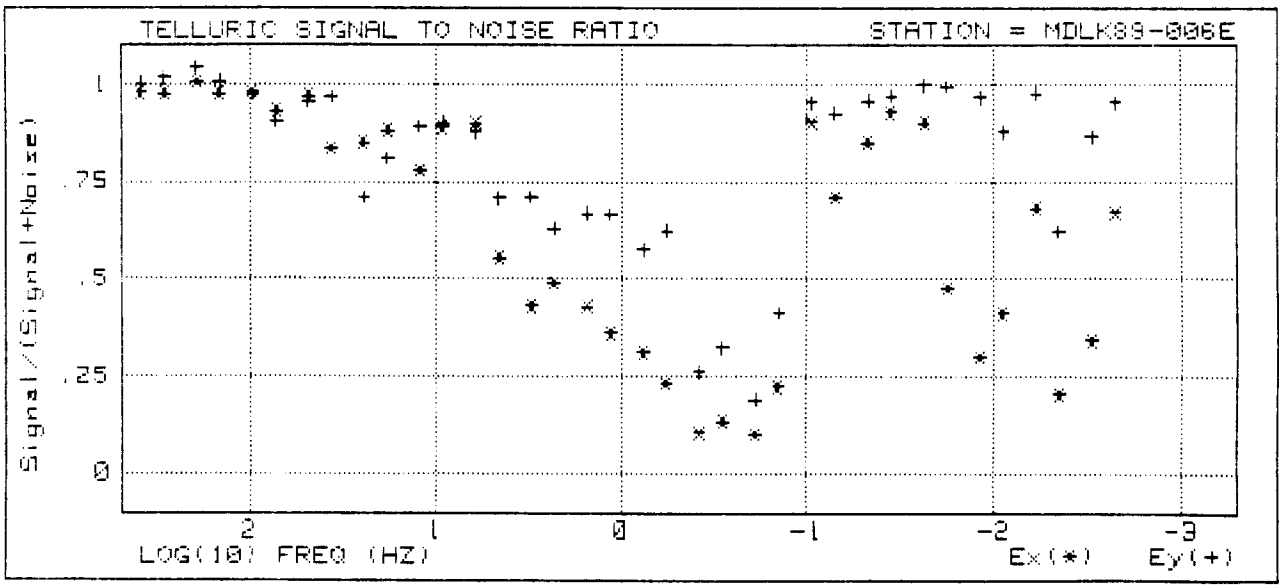
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	3129	.95	.97	.97	.95	.96	.95
2	288.00 Hz	3234	.95	.97	.97	.95	.97	.95
3	192.00 Hz	1050	.93	.95	.95	.94	.95	.92
4	144.00 Hz	668	.96	.97	.97	.96	.97	.95
5	96.00 Hz	1048	.97	.98	.98	.97	.98	.97
6	72.00 Hz	192	.94	.94	.94	.94	.94	.94
7	48.00 Hz	573	.97	.97	.97	.97	.97	.97
8	36.00 Hz	2004	.90	.97	.97	.90	.97	.90
9	24.00 Hz	1087	.91	.82	.82	.91	.82	.90
10	18.00 Hz	1024	.92	.89	.89	.92	.89	.92
11	12.00 Hz	4224	.87	.94	.94	.87	.94	.87
12	9.00 Hz	2400	.94	.94	.94	.94	.94	.93
13	6.00 Hz	672	.93	.93	.93	.93	.93	.92
14	4.50 Hz	3840	.74	.83	.83	.73	.83	.73
15	3.00 Hz	1856	.66	.84	.84	.65	.84	.64
16	2.25 Hz	10272	.68	.78	.78	.68	.78	.67
17	1.50 Hz	5040	.64	.81	.80	.64	.80	.63
18	1.13 Hz	5168	.60	.81	.80	.59	.80	.57
19	1.33 Sec	3177	.55	.75	.75	.53	.75	.52
20	1.78 Sec	3012	.47	.78	.77	.46	.77	.44
21	2.67 Sec	1524	.30	.50	.49	.31	.49	.29
22	3.56 Sec	696	.36	.55	.54	.36	.54	.32
23	5.33 Sec	228	.31	.42	.45	.26	.41	.26
24	7.11 Sec	612	.47	.55	.51	.49	.51	.46
25	10.67 Sec	78	.95	.97	.97	.94	.97	.92
26	14.22 Sec	234	.84	.96	.96	.82	.96	.81
27	21.33 Sec	96	.92	.98	.98	.92	.97	.91
28	28.44 Sec	149	.96	.98	.98	.96	.97	.95
29	42.67 Sec	66	.94	1.00	1.00	.98	1.00	.92
30	56.89 Sec	36	.67	1.00	1.00	.81	1.00	.54
31	85.33 Sec	51	.52	.98	.98	.59	.98	.38
32	113.78 Sec	126	.58	.92	.89	.73	.89	.50
33	170.67 Sec	27	.82	.98	.98	.84	.98	.74
34	227.56 Sec	75	.38	.76	.76	.49	.69	.33
35	341.33 Sec	30	.59	.92	.91	.58	.89	.14
36	455.11 Sec	21	.78	.97	.98	.83	.96	.76

PHOENIX GEOSCIENCE

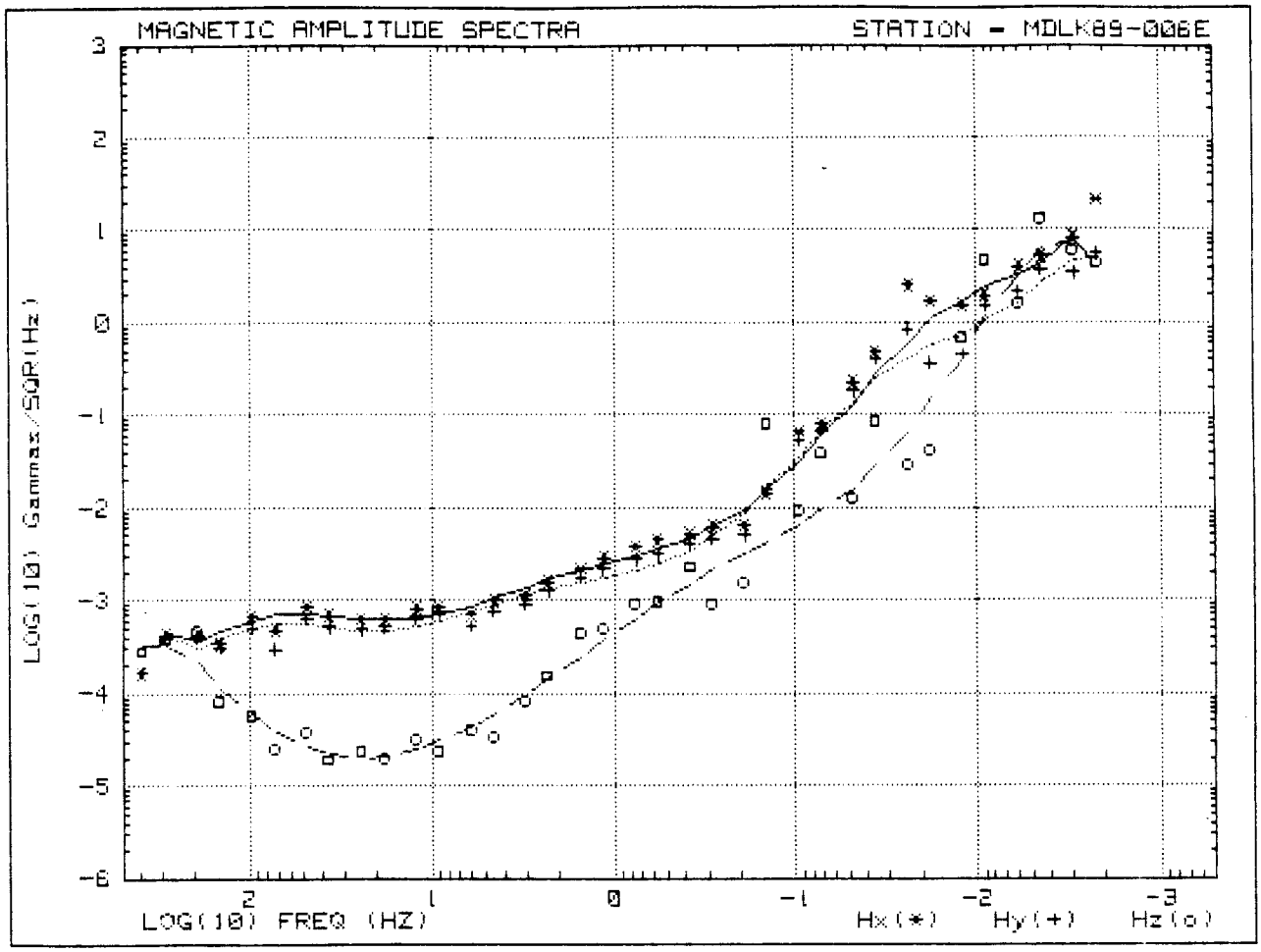
MT Site: MDLK89-006E

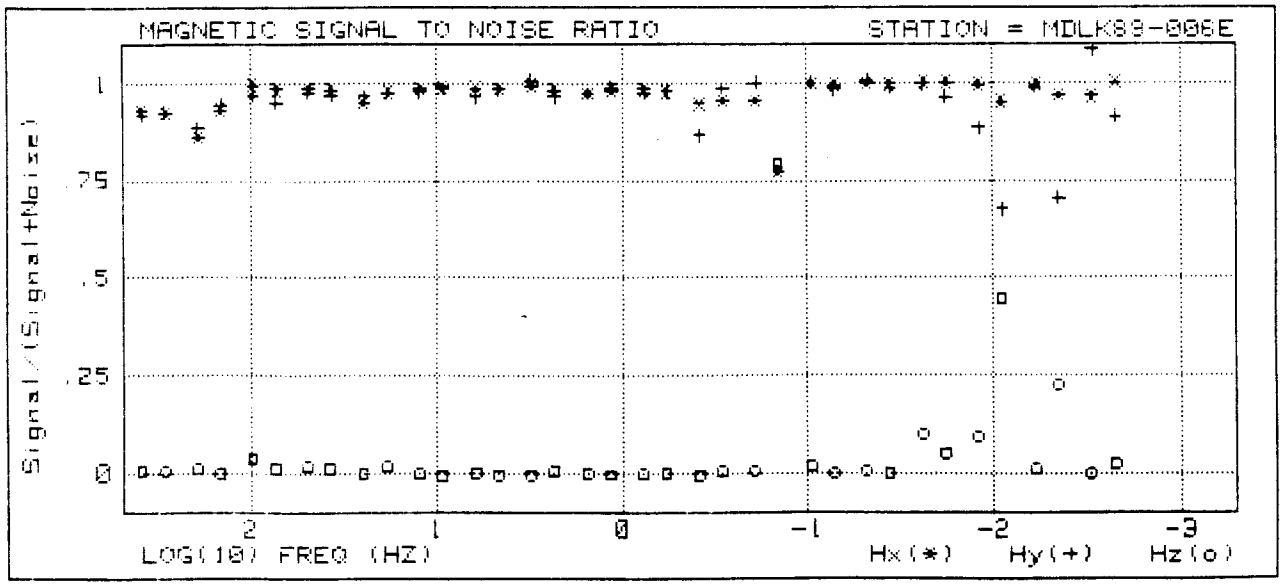




PHOENIX GEOSCIENCE

MT Site: MDLK89-006E





PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	3129	1.61E-04	1.65E-04	2.96E-04	8.23E-02	7.86E-02
2	288.00 Hz	3234	4.19E-04	3.92E-04	3.99E-04	1.47E-01	1.60E-01
3	192.00 Hz	1050	4.19E-04	3.84E-04	4.98E-04	1.06E-01	1.19E-01
4	144.00 Hz	668	3.32E-04	3.00E-04	8.46E-05	6.44E-02	7.09E-02
5	96.00 Hz	1048	6.62E-04	4.84E-04	5.92E-05	7.38E-02	1.01E-01
6	72.00 Hz	192	4.65E-04	2.87E-04	2.60E-05	3.65E-02	5.74E-02
7	48.00 Hz	573	8.38E-04	6.18E-04	3.90E-05	5.52E-02	7.47E-02
8	36.00 Hz	2004	6.64E-04	5.07E-04	2.00E-05	3.89E-02	4.88E-02
9	24.00 Hz	1087	6.19E-04	4.73E-04	2.44E-05	2.79E-02	3.82E-02
10	18.00 Hz	1024	6.17E-04	5.12E-04	2.02E-05	2.49E-02	2.98E-02
11	12.00 Hz	4224	7.96E-04	6.37E-04	3.30E-05	2.54E-02	2.94E-02
12	9.00 Hz	2400	8.18E-04	7.32E-04	2.47E-05	2.11E-02	2.52E-02
13	6.00 Hz	672	6.77E-04	5.19E-04	4.26E-05	1.15E-02	1.56E-02
14	4.50 Hz	3840	9.88E-04	7.35E-04	3.52E-05	1.73E-02	2.10E-02
15	3.00 Hz	1856	1.12E-03	9.01E-04	8.78E-05	1.69E-02	1.66E-02
16	2.25 Hz	10272	1.55E-03	1.23E-03	1.63E-04	1.71E-02	1.92E-02
17	1.50 Hz	5040	2.18E-03	1.72E-03	4.72E-04	1.90E-02	2.07E-02
18	1.13 Hz	5168	2.84E-03	2.12E-03	5.13E-04	2.16E-02	2.30E-02
19	1.33 Sec	3177	3.70E-03	2.72E-03	9.37E-04	2.36E-02	2.63E-02
20	1.78 Sec	3012	4.39E-03	3.05E-03	1.03E-03	3.02E-02	2.61E-02
21	2.67 Sec	1524	5.09E-03	4.00E-03	2.41E-03	4.72E-02	3.75E-02
22	3.56 Sec	696	5.17E-03	4.52E-03	9.34E-04	4.70E-02	4.02E-02
23	5.33 Sec	228	6.43E-03	4.97E-03	1.65E-03	6.76E-02	4.36E-02
24	7.11 Sec	612	1.42E-02	1.53E-02	8.66E-02	1.59E-01	4.89E-02
25	10.67 Sec	78	6.59E-02	5.35E-02	9.64E-03	1.94E-01	2.38E-01
26	14.22 Sec	234	7.92E-02	6.68E-02	4.02E-02	2.56E-01	2.66E-01
27	21.33 Sec	96	2.22E-01	1.79E-01	1.33E-02	5.25E-01	6.41E-01
28	28.44 Sec	149	4.79E-01	4.05E-01	9.18E-02	1.04E+00	1.25E+00
29	42.67 Sec	66	2.49E+00	8.34E-01	3.11E-02	1.40E+00	5.27E+00
30	56.89 Sec	36	1.67E+00	3.60E-01	4.42E-02	9.31E-01	3.00E+00
31	85.33 Sec	51	1.51E+00	4.51E-01	7.14E-01	1.13E+00	2.28E+00
32	113.78 Sec	126	1.94E+00	1.50E+00	4.94E+00	2.92E+00	2.57E+00
33	170.67 Sec	27	3.91E+00	2.10E+00	1.71E+00	2.40E+00	3.46E+00
34	227.56 Sec	75	5.14E+00	3.67E+00	1.40E+01	1.52E+01	4.58E+00
35	341.33 Sec	30	8.14E+00	3.35E+00	6.28E+00	4.72E+00	4.73E+00
36	455.11 Sec	21	2.08E+01	5.38E+00	4.70E+00	6.90E+00	7.60E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	3129	.928	.915	.011	.978	1.000
2	288.00 Hz	3234	.923	.925	.009	.975	1.000
3	192.00 Hz	1050	.860	.882	.015	1.000	1.000
4	144.00 Hz	668	.930	.943	.004	.974	1.000
5	96.00 Hz	1048	.994	.965	.040	.978	.973
6	72.00 Hz	192	.984	.950	.019	.931	.905
7	48.00 Hz	573	.986	.975	.020	.968	.953
8	36.00 Hz	2004	.982	.967	.019	.834	.966
9	24.00 Hz	1087	.947	.964	.003	.850	.708
10	18.00 Hz	1024	.976	.972	.021	.880	.809
11	12.00 Hz	4224	.986	.977	.002	.777	.890
12	9.00 Hz	2400	.990	.986	.000	.889	.900
13	6.00 Hz	672	.988	.964	.006	.899	.876
14	4.50 Hz	3840	.985	.984	.001	.553	.706
15	3.00 Hz	1856	.993	1.000	.000	.428	.707
16	2.25 Hz	10272	.980	.964	.008	.487	.629
17	1.50 Hz	5040	.973	.972	.003	.426	.667
18	1.13 Hz	5168	.980	.988	.001	.359	.664
19	1.33 Sec	3177	.983	.975	.002	.310	.574
20	1.78 Sec	3012	.976	.977	.002	.230	.622
21	2.67 Sec	1524	.946	.863	.001	.103	.260
22	3.56 Sec	696	.953	.986	.008	.130	.322
23	5.33 Sec	228	.954	1.000	.010	.098	.187
24	7.11 Sec	612	.773	1.000	.799	.221	.412
25	10.67 Sec	78	.998	.999	.021	.901	.952
26	14.22 Sec	234	.994	.983	.002	.709	.924
27	21.33 Sec	96	.998	1.000	.011	.848	.955
28	28.44 Sec	149	.995	.987	.006	.927	.968
29	42.67 Sec	66	1.000	.995	.104	.898	.996
30	56.89 Sec	36	1.000	.963	.057	.475	.993
31	85.33 Sec	51	.993	.882	.098	.299	.964
32	113.78 Sec	126	.949	.676	.453	.410	.877
33	170.67 Sec	27	.993	.987	.014	.679	.975
34	227.56 Sec	75	.966	.703	.231	.204	.619
35	341.33 Sec	30	.964	1.000	.004	.340	.864
36	455.11 Sec	21	1.000	.912	.030	.669	.953

PHOENIX GEOSCIENCE

MT Site: MDLK89-006E

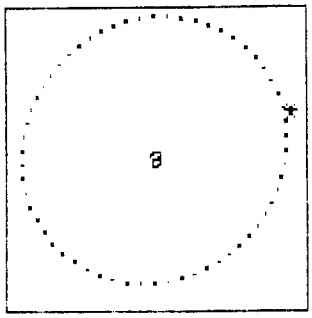
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

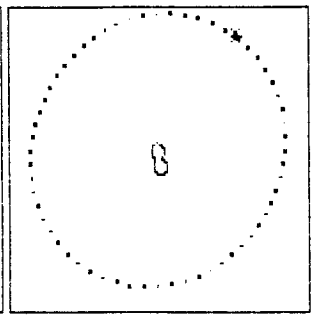
*=Rotation Direction

Zxy = ...
Zxx = ___

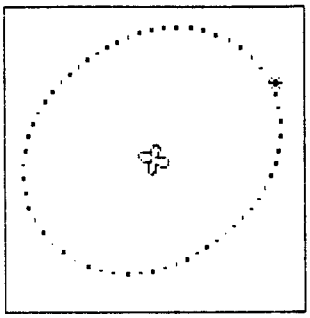
F=8 (36.0 Hz)



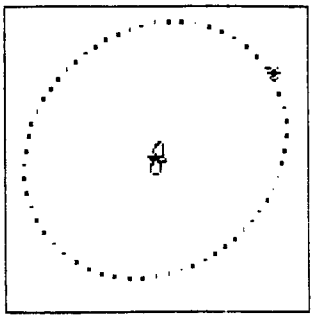
F=10 (18.0 Hz)



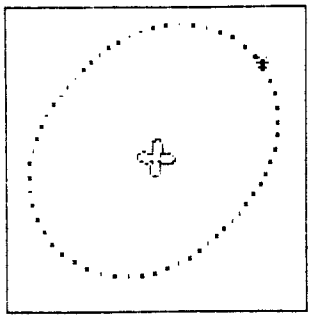
F=12 (9.0 Hz)



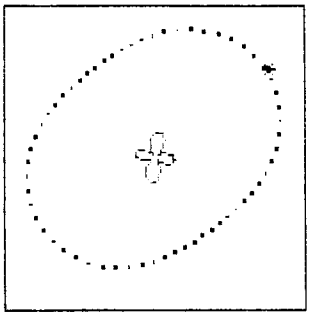
F=14 (4.5 Hz)



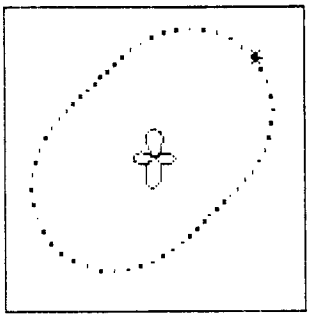
F=16 (2.3 Hz)



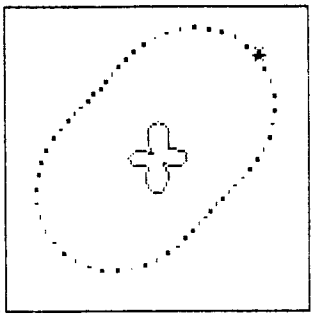
F=18 (1.1 Hz)



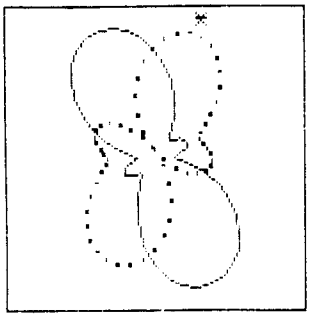
F=20 (.5625 Hz)



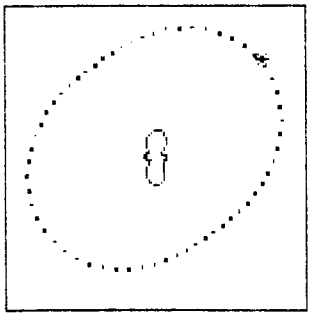
F=22 (.2813 Hz)



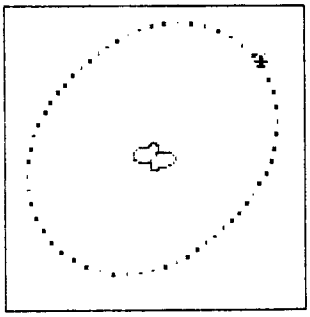
F=24 (.1406 Hz)



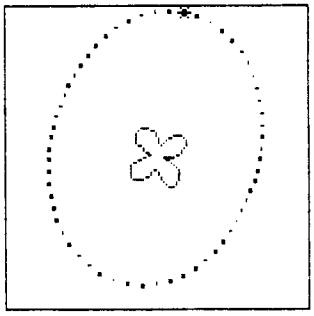
F=26 (.0703 Hz)



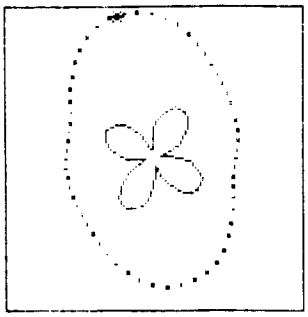
F=28 (.0352 Hz)



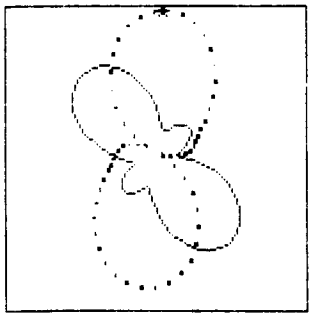
F=30 (.0176 Hz)



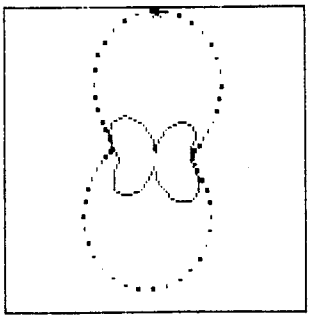
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-007s/008s/

Operator:STEWART
Date: 14 Sep 1989
Time: 17:14:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#220-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 1

Stn Number:MDLK89-007s
Site Desc:T43N R4E
41,32,31 N 121,32,04 W
Elevation:6360 FT
Reference:MDLK89-008s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL431	+0 DEG
Hy	2	COIL210	+90 DEG
Hz	3	LOOP333	
Ex	4	163 M	+0 DEG
Ey	5	140 M	+90 DEG
Rx	6	COIL430	+0 DEG
Ry	7	COIL452	+90 DEG

Ex Pot Resist: 7.0 K Ohms
Ex Voltage: AC=6.8_ mv, DC=18.5 mv
Ey Pot Resist: 11_ K Ohms
Ey Voltage: AC=12.5 mv, DC=25__ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

OPERATOR LOG FOR MT SITES MDLK89-007s/008s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-007d/008d/
Run STARTED: 17:14:42 14 Sep 1989
Run QUIT: 03:44:03 15 Sep 1989
Run Start and Stop Time for MDLK89-007e/008e/
Run STARTED: 04:07:12 15 Sep 1989
Run QUIT: 10:32:38 15 Sep 1989

Operator:stewart

Cultural Factors:
NONE
Weather Conditions:
CALM, DRY, TEMP- 55-60
Other Factors:

PHOENIX GEOSCIENCE

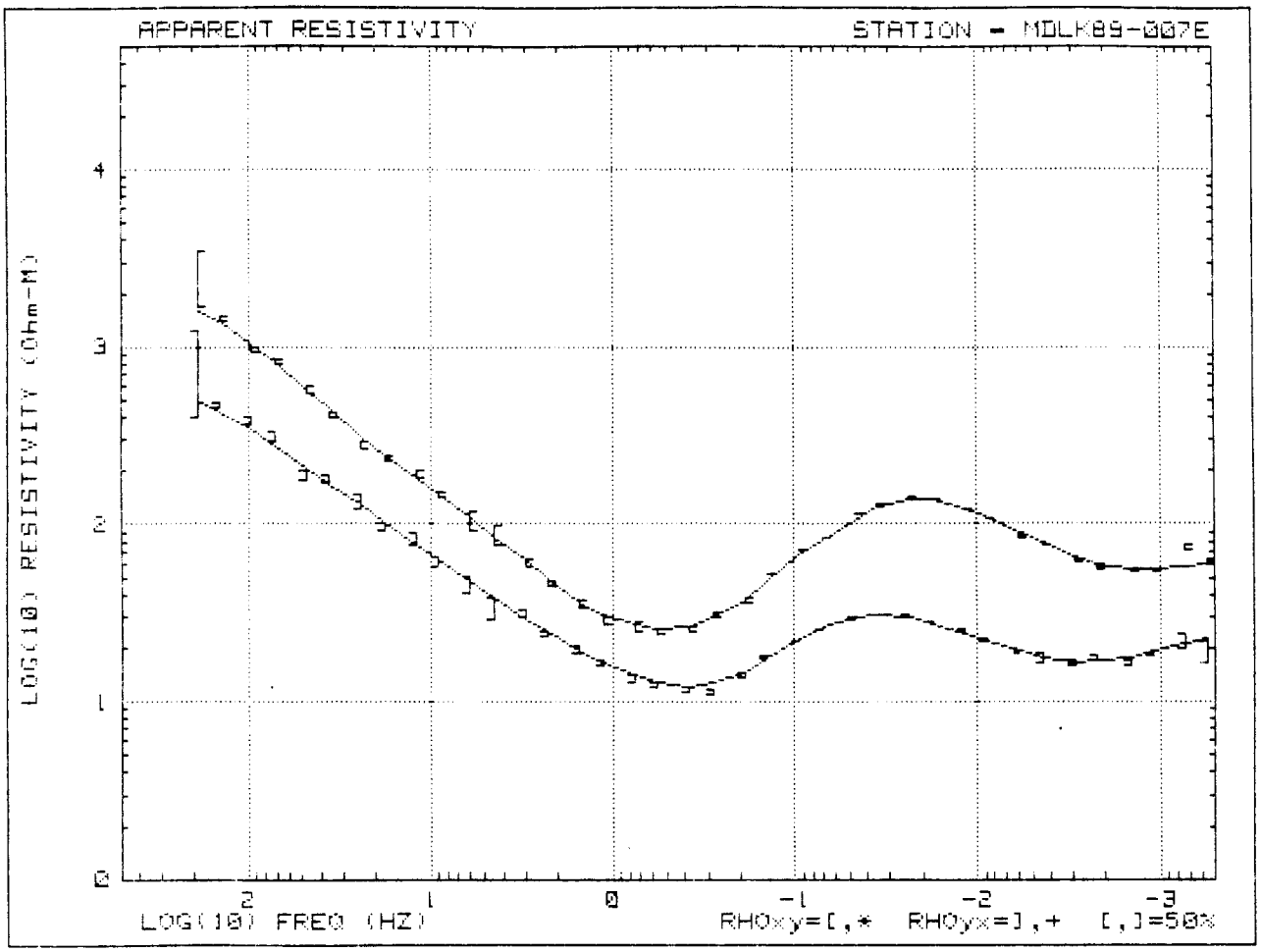
MT Site: MDLK89-007E

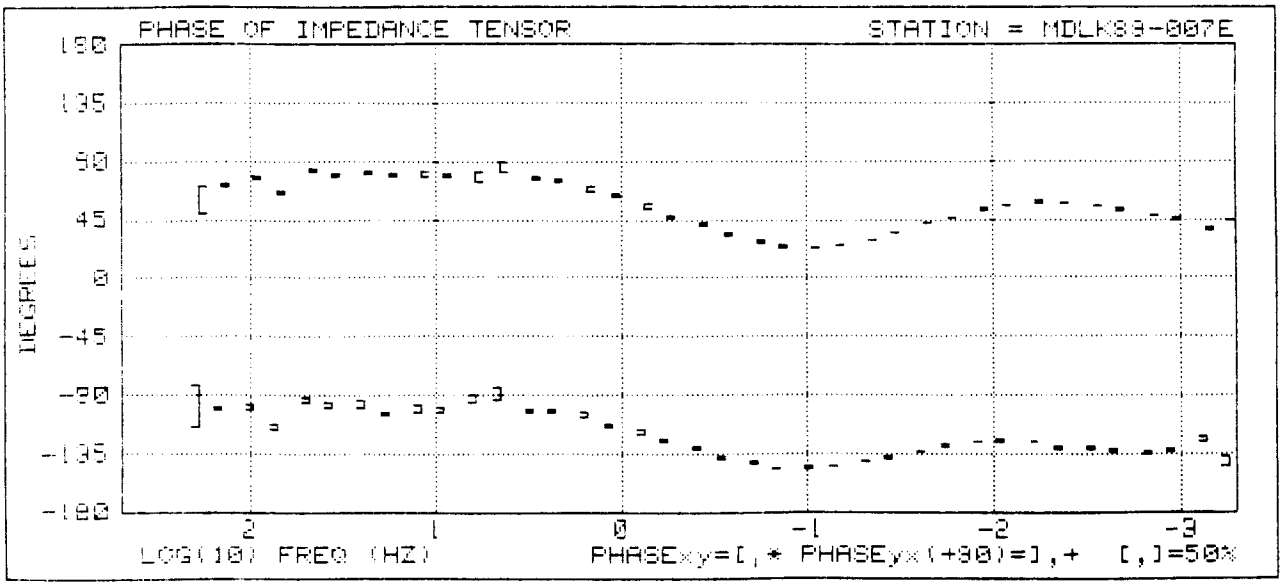
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

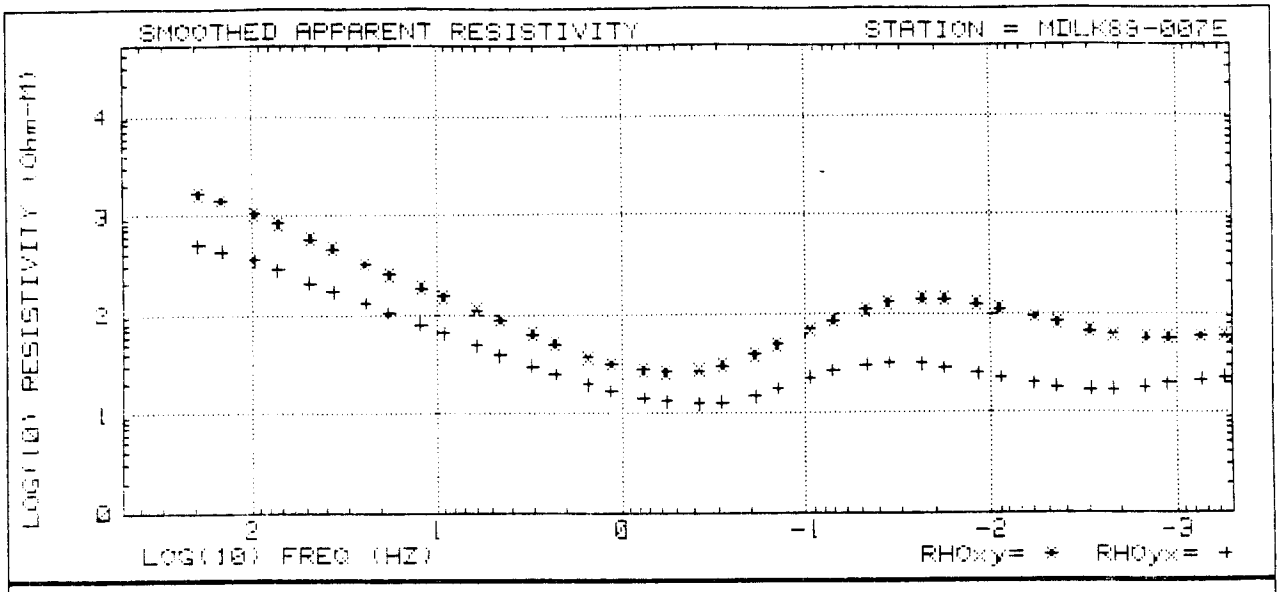
MT Site: MDLK89-007E

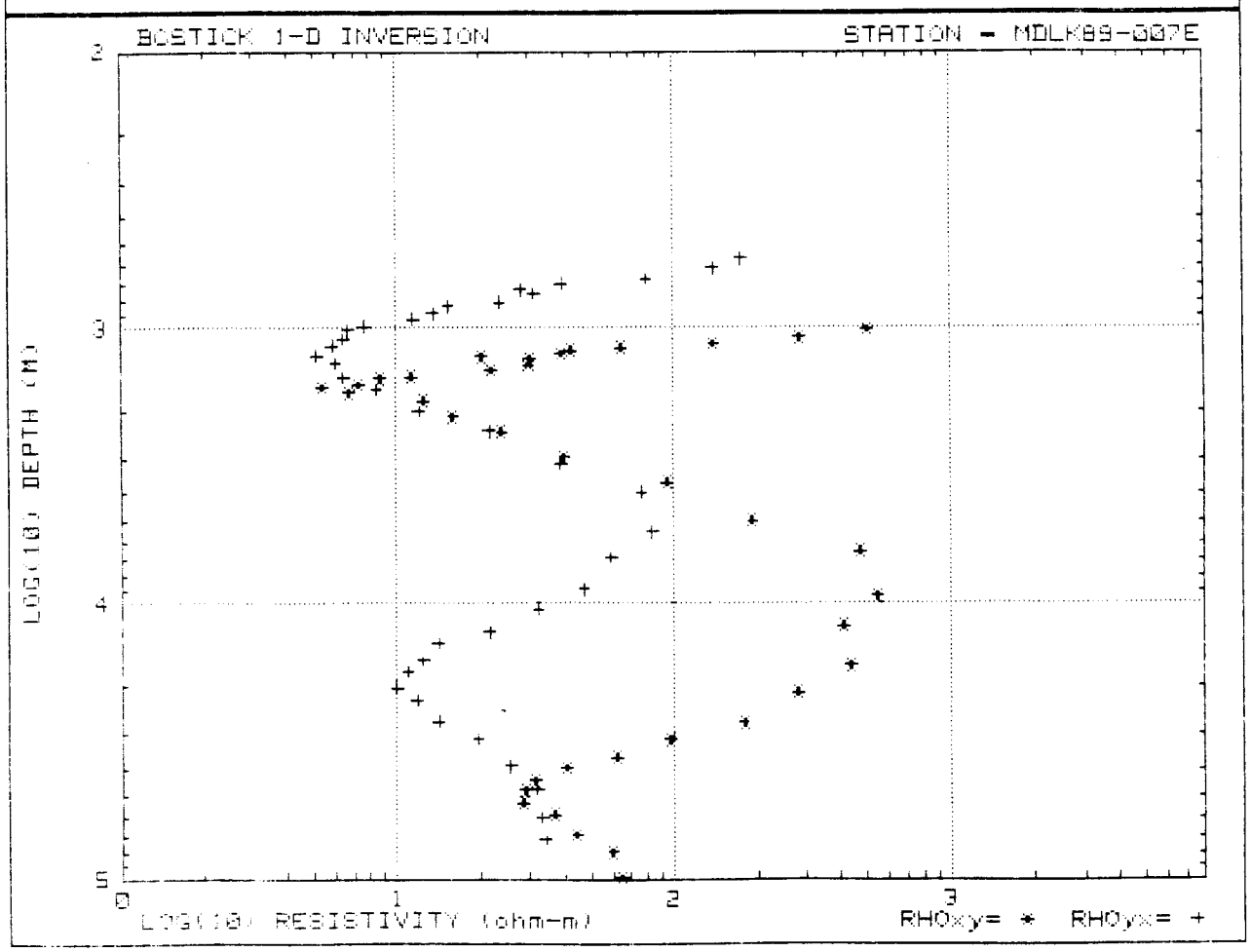




PHOENIX GEOSCIENCE

MT Site: MDLK89-007E





PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	442	2417.0	71.0	704.1	99.9	61.2	15.4	-98.3	24.2
4	144.00 Hz	442	1439.7	4.3	470.2	5.6	71.1	1.2	-100.5	1.5
5	96.00 Hz	96	951.3	5.1	377.7	7.0	76.7	1.4	-99.2	1.9
6	72.00 Hz	666	827.9	4.8	309.0	9.8	66.6	1.3	-113.6	2.7
7	48.00 Hz	188	573.7	5.5	187.7	9.3	82.5	1.5	-93.8	2.5
8	36.00 Hz	281	417.5	4.2	179.1	7.1	78.8	1.2	-97.6	2.0
9	24.00 Hz	289	280.1	6.2	133.3	13.9	81.4	1.7	-96.4	3.7
10	18.00 Hz	576	232.9	4.9	97.1	9.0	80.1	1.4	-103.9	2.5
11	12.00 Hz	384	190.0	6.9	83.1	12.4	80.4	1.9	-100.1	3.3
12	9.00 Hz	384	147.2	6.6	62.0	9.2	79.0	1.8	-100.5	2.5
13	6.00 Hz	192	104.7	22.1	46.1	16.7	79.1	5.7	-92.1	4.4
14	4.50 Hz	384	86.4	20.2	33.2	23.9	86.5	5.3	-89.0	6.1
15	3.00 Hz	2560	60.6	7.9	31.4	6.1	77.5	2.2	-102.1	1.7
16	2.25 Hz	9640	46.1	3.9	23.9	3.4	75.3	1.1	-101.4	1.0
17	1.50 Hz	5311	35.9	7.0	19.7	6.7	69.1	1.9	-105.1	1.9
18	1.13 Hz	2543	28.9	6.7	16.3	5.0	63.7	1.9	-114.0	1.4
19	1.33 Sec	2112	26.3	8.4	13.6	7.5	56.2	2.3	-118.4	2.1
20	1.78 Sec	1856	25.1	5.2	12.5	4.9	47.4	1.4	-124.3	1.4
21	2.67 Sec	956	25.9	4.8	11.8	5.7	40.9	1.3	-131.1	1.6
22	3.56 Sec	1136	30.6	4.1	11.4	4.3	33.7	1.1	-138.3	1.2
23	5.33 Sec	1263	37.2	3.1	14.2	6.4	28.3	.9	-141.3	1.8
24	7.11 Sec	1215	52.5	1.8	17.7	2.0	24.7	.5	-146.5	.6
25	10.67 Sec	569	71.7	1.0	21.9	1.5	23.5	.3	-145.5	.4
26	14.22 Sec	599	84.4	.6	25.5	1.1	25.0	.2	-144.9	.3
27	21.33 Sec	304	114.1	.8	29.5	1.4	29.5	.2	-141.4	.4
28	28.44 Sec	304	127.4	.9	30.8	1.8	34.3	.3	-138.2	.5
29	42.67 Sec	274	140.9	.5	30.8	1.4	41.9	.1	-132.6	.4
30	56.89 Sec	310	138.5	.5	28.2	1.3	47.1	.1	-128.5	.4
31	85.33 Sec	141	122.2	.7	25.1	1.3	52.8	.2	-125.3	.4
32	113.78 Sec	144	108.6	.7	22.3	3.3	56.1	.2	-124.5	.9
33	170.67 Sec	75	85.9	1.0	19.1	2.0	58.3	.3	-125.8	.6
34	227.56 Sec	75	76.1	1.3	17.6	9.2	57.9	.4	-130.3	2.5
35	341.33 Sec	18	63.3	2.2	16.5	3.3	55.2	.6	-130.2	.9
36	455.11 Sec	24	57.3	3.3	17.7	4.3	52.9	.9	-131.5	1.2
37	682.67 Sec	9	54.6	2.7	16.6	5.3	47.9	.8	-134.2	1.5
38	910.22 Sec	9	55.2	2.2	18.5	4.3	44.9	.6	-132.8	1.2
39	1365.33 Sec	3	74.0	6.2	21.9	12.6	37.6	1.7	-123.6	3.4
40	1820.44 Sec	3	61.6	2.5	18.9	22.3	44.6	.7	-141.1	5.8

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	442	1600.3	492.1	505.0	1027	176.9	570
4	144.00 Hz	442	1377.9	429.7	288.0	1101	140.4	615
5	96.00 Hz	96	1016.9	346.2	141.0	1158	80.5	676
6	72.00 Hz	666	815.6	279.1	64.9	1198	39.5	701
7	48.00 Hz	188	563.1	205.5	43.1	1219	28.2	736
8	36.00 Hz	281	450.0	164.9	39.2	1258	31.5	762
9	24.00 Hz	288	314.6	128.4	20.4	1289	23.7	823
10	18.00 Hz	576	244.8	102.4	30.6	1312	15.6	849
11	12.00 Hz	384	183.5	77.1	30.2	1392	13.7	902
12	9.00 Hz	384	148.8	63.1	22.1	1447	11.6	942
13	6.00 Hz	192	109.8	47.8	11.5	1522	7.7	1004
14	4.50 Hz	384	84.8	38.2	8.8	1545	6.7	1038
15	3.00 Hz	2560	62.5	29.4	7.3	1624	6.5	1114
16	2.25 Hz	9640	49.0	24.6	5.4	1661	5.9	1176
17	1.50 Hz	5311	35.9	19.2	6.8	1741	5.2	1275
18	1.13 Hz	2543	30.5	16.5	12.5	1854	6.1	1362
19	1.33 Sec	2112	26.9	14.0	16.1	2130	6.5	1536
20	1.78 Sec	1856	25.7	12.8	24.1	2405	8.5	1697
21	2.67 Sec	956	26.3	12.2	40.6	2979	12.1	2027
22	3.56 Sec	1136	29.8	12.8	95.2	3664	21.7	2397
23	5.33 Sec	1263	37.8	14.6	194.1	5050	39.2	3136
24	7.11 Sec	1215	47.6	17.5	476.6	6547	77.3	3974
25	10.67 Sec	569	66.6	22.5	544.6	9484	84.4	5518
26	14.22 Sec	599	81.8	26.2	413.4	12141	59.9	6868
27	21.33 Sec	304	105.9	29.6	441.5	16915	47.8	8938
28	28.44 Sec	304	125.2	30.8	281.9	21235	32.7	10541
29	42.67 Sec	274	138.3	30.2	180.0	27335	21.7	12769
30	56.89 Sec	310	137.1	27.5	97.0	31427	14.3	14086
31	85.33 Sec	141	122.8	24.2	63.0	36433	12.5	16180
32	113.78 Sec	144	109.7	22.1	41.3	39755	11.0	17843
33	170.67 Sec	75	89.7	19.2	31.6	44035	10.0	20378
34	227.56 Sec	75	78.7	17.8	29.2	47615	11.9	22634
35	341.33 Sec	18	65.3	16.7	28.7	53134	14.3	26897
36	455.11 Sec	24	60.1	16.8	37.0	58835	19.8	31136
37	682.67 Sec	9	55.4	17.7	44.9	69201	25.8	39120
38	910.22 Sec	9	55.9	19.1	60.6	80253	32.1	46981
39	1365.33 Sec	3	57.0	21.1	65.6	99258	33.6	60397
40	1820.44 Sec	3	58.6	22.4	71.8	116282	34.5	71906

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	442	96.30	184.70	999.99	734.55	999.99	999.99
4	144.00 Hz	442	21.40	104.94	999.99	329.21	963.42	920.66
5	96.00 Hz	96	-78.02	46.30	606.08	155.43	657.62	566.42
6	72.00 Hz	666	-3.46	61.68	525.69	216.92	500.97	330.42
7	48.00 Hz	188	-16.84	26.46	240.46	48.30	367.92	193.96
8	36.00 Hz	281	-5.46	16.21	73.80	53.43	268.88	64.79
9	24.00 Hz	288	-10.28	8.92	93.90	27.55	181.26	60.11
10	18.00 Hz	576	1.11	1.14	34.77	24.92	142.62	24.14
11	12.00 Hz	384	-1.90	-.56	42.06	17.81	105.27	25.28
12	9.00 Hz	384	4.28	2.78	24.26	15.54	79.89	13.56
13	6.00 Hz	192	8.40	-3.34	74.49	10.58	55.05	62.77
14	4.50 Hz	384	-.39	4.64	36.14	2.66	44.02	32.82
15	3.00 Hz	2560	.21	1.73	2.70	6.55	29.44	2.62
16	2.25 Hz	9640	.89	1.14	.50	5.78	22.03	.39
17	1.50 Hz	5311	.53	.53	1.13	5.85	15.34	.62
18	1.13 Hz	2543	.09	.69	.63	5.64	11.43	.34
19	1.33 Sec	2112	.363	-.094	.930	5.527	8.249	.317
20	1.78 Sec	1856	.122	-.001	.444	5.683	6.190	.090
21	2.67 Sec	956	.102	.221	.315	5.267	4.567	.053
22	3.56 Sec	1136	.264	.293	.085	5.457	3.635	.034
23	5.33 Sec	1263	.113	.452	.045	5.199	2.797	.016
24	7.11 Sec	1215	.077	.531	.013	5.518	2.540	.006
25	10.67 Sec	569	.021	.416	.006	5.313	2.315	.002
26	14.22 Sec	599	-.042	.283	.004	4.937	2.301	.001
27	21.33 Sec	304	.106	.008	.002	4.500	2.546	.001
28	28.44 Sec	304	.208	-.047	.002	3.909	2.666	.001
29	42.67 Sec	274	.232	-.038	.001	3.023	2.715	.000
30	56.89 Sec	310	.231	-.006	.000	2.377	2.554	.000
31	85.33 Sec	141	.196	.030	.000	1.616	2.133	.000
32	113.78 Sec	144	.174	.041	.000	1.217	1.814	.000
33	170.67 Sec	75	.153	.054	.000	.834	1.349	.000
34	227.56 Sec	75	.102	.041	.000	.688	1.095	.000
35	341.33 Sec	18	.070	.050	.000	.550	.791	.000
36	455.11 Sec	24	.063	.042	.001	.478	.633	.000
37	682.67 Sec	9	.057	.013	.001	.424	.469	.000
38	910.22 Sec	9	.022	.019	.000	.390	.389	.000
39	1365.33 Sec	3	.089	-.111	.002	.412	.318	.000
40	1820.44 Sec	3	.050	.048	.000	.293	.289	.000

PHOENIX GEOSCIENCE

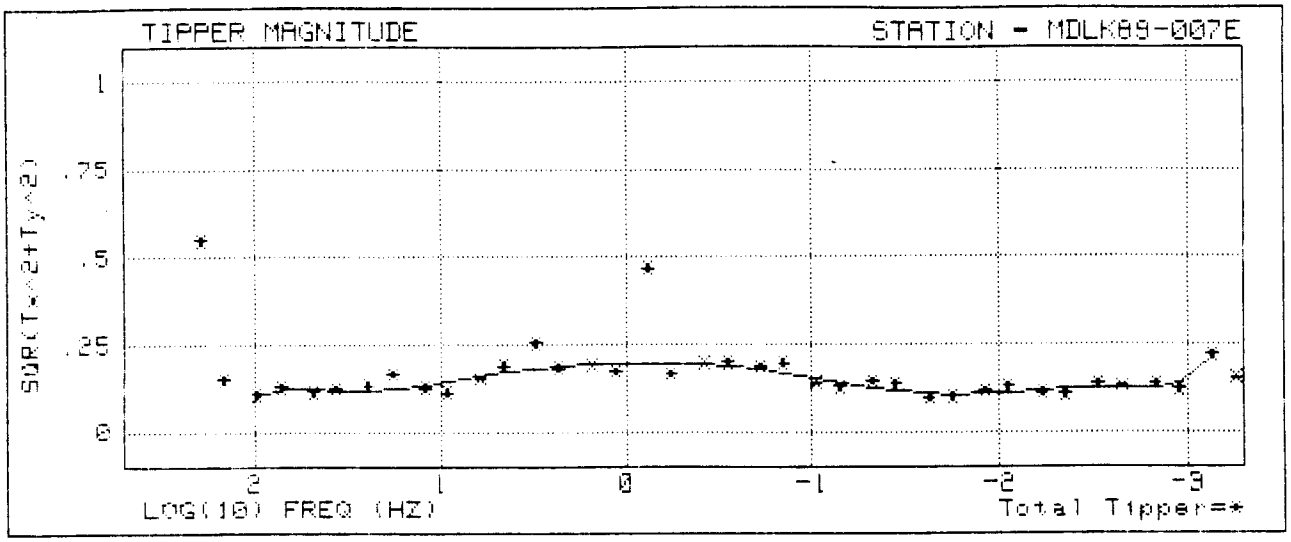
MT Site: MDLK89-007E

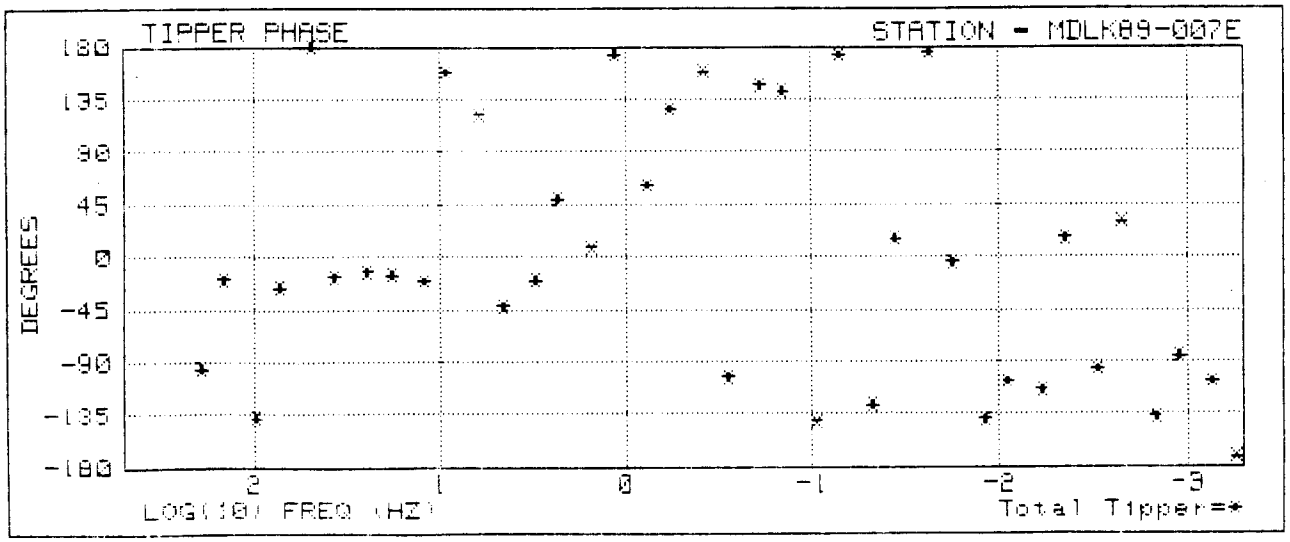
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

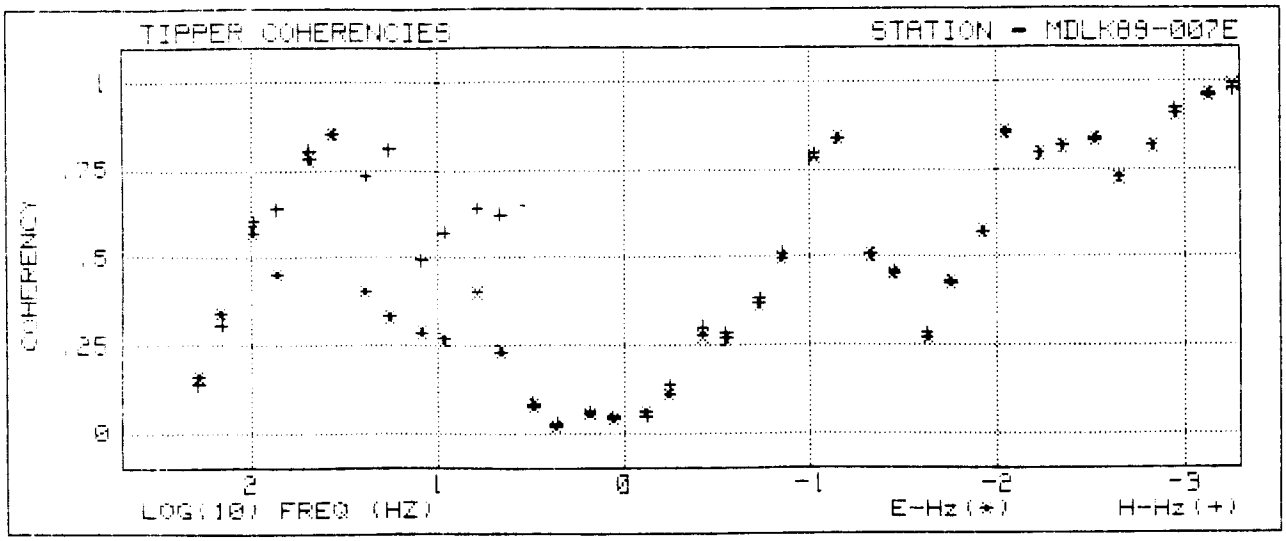
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	442	-118.27	-813.60	999.99	262.33	-11.74	999.99
4	144.00 Hz	442	-105.61	-572.19	495.02	143.91	34.92	342.21
5	96.00 Hz	96	-68.16	-420.31	414.69	54.20	-2.33	387.56
6	72.00 Hz	666	-133.46	-305.63	487.49	28.11	48.20	306.41
7	48.00 Hz	188	-14.16	-211.79	177.36	20.26	18.34	143.06
8	36.00 Hz	281	-23.84	-177.95	76.51	8.89	11.54	67.17
9	24.00 Hz	288	-14.05	-125.67	135.25	.23	6.37	86.57
10	18.00 Hz	576	-22.41	-90.77	32.44	-4.79	1.43	22.53
11	12.00 Hz	384	-12.32	-69.51	33.99	-2.79	-.43	20.43
12	9.00 Hz	384	-9.60	-51.95	10.87	2.31	3.20	6.07
13	6.00 Hz	192	-1.39	-37.16	16.51	.42	.77	13.91
14	4.50 Hz	384	.47	-27.33	17.11	.39	4.49	15.54
15	3.00 Hz	2560	-4.57	-21.22	.82	.72	1.61	.79
16	2.25 Hz	9640	-3.25	-16.07	.15	1.08	1.06	.12
17	1.50 Hz	5311	-3.17	-11.73	.31	.66	.43	.17
18	1.13 Hz	2543	-3.90	-8.75	.11	.33	.53	.06
19	1.33 Sec	2112	-3.403	-6.291	.134	.119	.170	.046
20	1.78 Sec	1856	-3.347	-4.899	.041	.103	.033	.008
21	2.67 Sec	956	-3.093	-3.543	.035	.223	-.036	.006
22	3.56 Sec	1136	-2.995	-2.668	.014	.401	-.056	.006
23	5.33 Sec	1263	-2.845	-2.283	.026	.242	-.139	.009
24	7.11 Sec	1215	-2.944	-1.950	.002	.246	-.204	.001
25	10.67 Sec	569	-2.641	-1.815	.001	.133	-.183	.000
26	14.22 Sec	599	-2.449	-1.724	.001	.057	-.142	.000
27	21.33 Sec	304	-2.055	-1.642	.001	.127	-.049	.000
28	28.44 Sec	304	-1.736	-1.552	.001	.180	.007	.000
29	42.67 Sec	274	-1.286	-1.398	.000	.152	.068	.000
30	56.89 Sec	310	-.979	-1.231	.000	.129	.101	.000
31	85.33 Sec	141	-.699	-.989	.000	.109	.100	.000
32	113.78 Sec	144	-.560	-.816	.001	.090	.095	.000
33	170.67 Sec	75	-.438	-.607	.000	.093	.086	.000
34	227.56 Sec	75	-.401	-.474	.002	.073	.055	.001
35	341.33 Sec	18	-.317	-.375	.000	.064	.053	.000
36	455.11 Sec	24	-.292	-.331	.000	.054	.048	.000
37	682.67 Sec	9	-.243	-.250	.000	.043	.025	.000
38	910.22 Sec	9	-.217	-.234	.000	.026	.015	.000
39	1365.33 Sec	3	-.157	-.236	.001	.047	.022	.000
40	1820.44 Sec	3	-.177	-.143	.001	.049	.049	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E







PHOENIX GEOSCIENCE

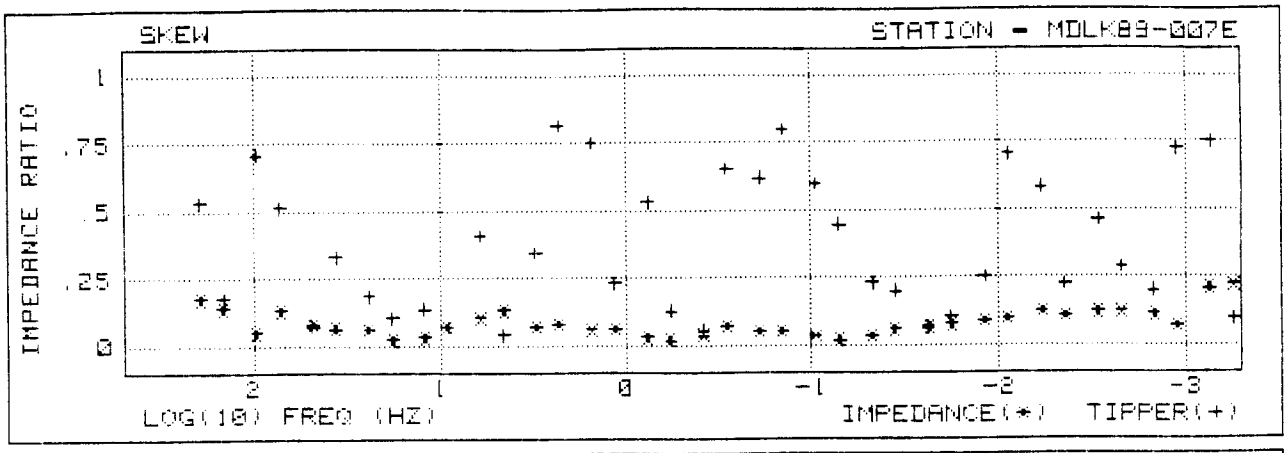
MT Site: MDLK89-007E

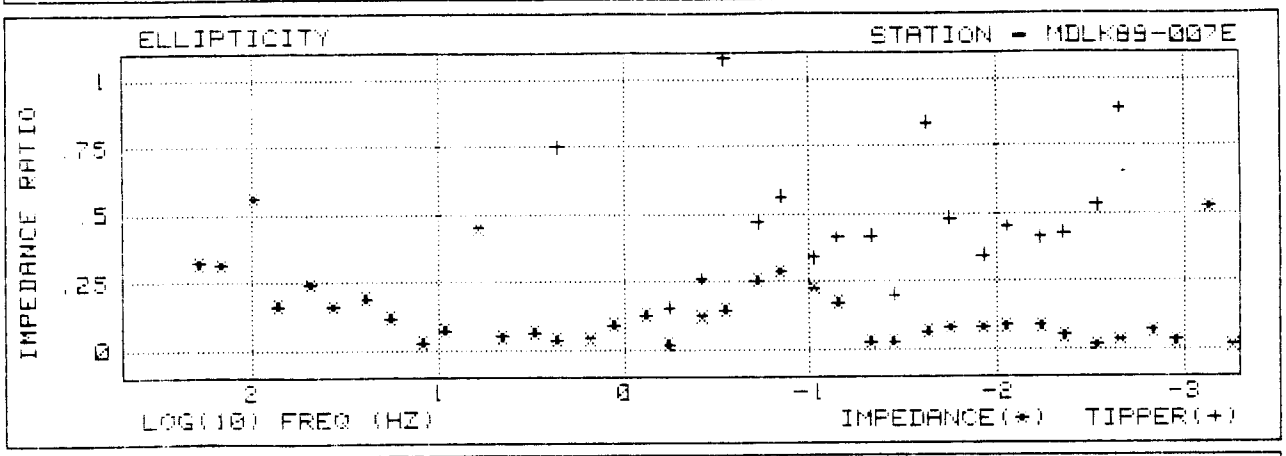
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

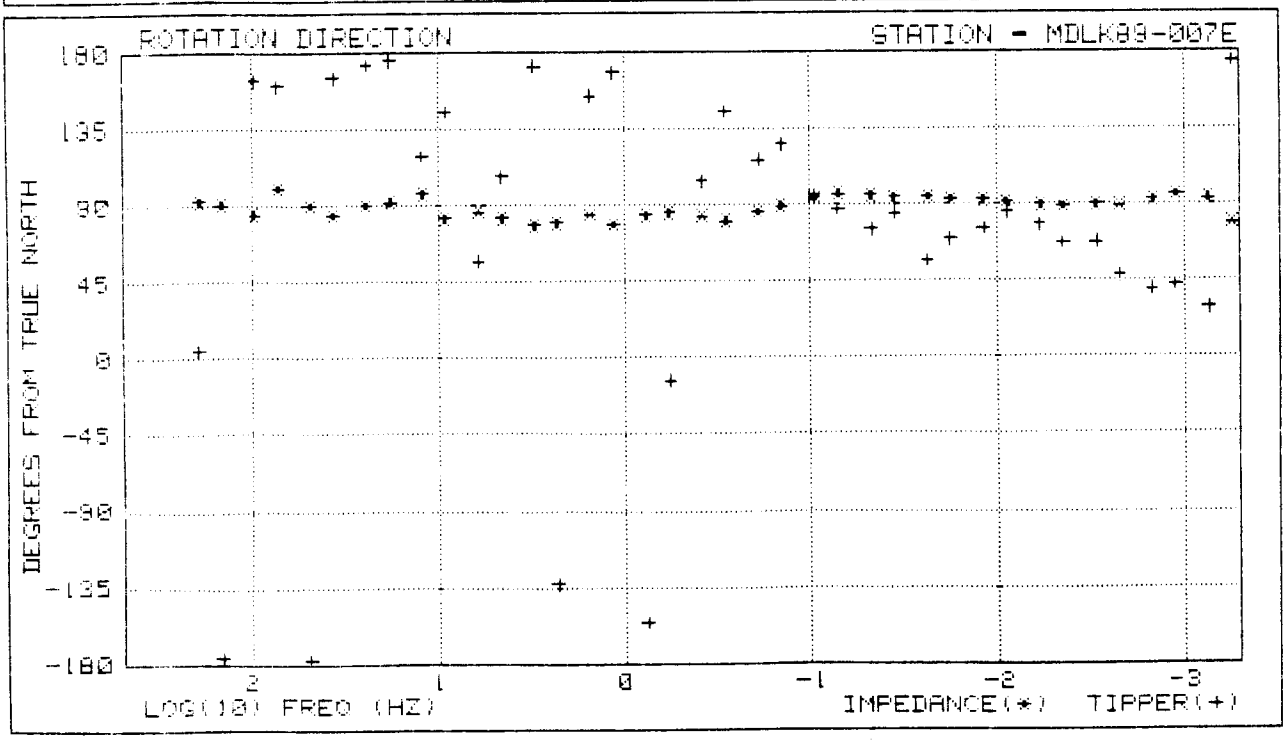
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	442	.55	-96.33	.16	.13
4	144.00 Hz	442	.15	-20.27	.34	.30
5	96.00 Hz	96	.10	-138.85	.57	.60
6	72.00 Hz	666	.13	-27.02	.45	.64
7	48.00 Hz	188	.11	178.82	.78	.80
8	36.00 Hz	281	.12	-17.68	.85	.85
9	24.00 Hz	288	.13	-13.54	.40	.73
10	18.00 Hz	576	.16	-16.52	.33	.81
11	12.00 Hz	384	.12	-21.23	.28	.49
12	9.00 Hz	384	.11	157.68	.26	.57
13	6.00 Hz	192	.15	120.66	.40	.64
14	4.50 Hz	384	.19	-42.99	.23	.62
15	3.00 Hz	2560	.25	-20.79	.07	.08
16	2.25 Hz	9640	.18	48.62	.02	.02
17	1.50 Hz	5311	.19	7.38	.05	.06
18	1.13 Hz	2543	.17	172.99	.04	.04
19	1.33 Sec	2112	.46	60.82	.06	.05
20	1.78 Sec	1856	.16	125.54	.11	.13
21	2.67 Sec	956	.19	158.31	.27	.30
22	3.56 Sec	1136	.19	-104.21	.26	.28
23	5.33 Sec	1263	.18	146.07	.36	.38
24	7.11 Sec	1215	.19	141.55	.49	.51
25	10.67 Sec	569	.14	-142.11	.78	.79
26	14.22 Sec	599	.13	171.74	.84	.84
27	21.33 Sec	304	.14	-128.28	.50	.50
28	28.44 Sec	304	.13	14.78	.45	.45
29	42.67 Sec	274	.09	173.90	.27	.28
30	56.89 Sec	310	.10	-5.29	.42	.43
31	85.33 Sec	141	.11	-139.65	.57	.57
32	113.78 Sec	144	.13	-107.86	.85	.85
33	170.67 Sec	75	.11	-114.42	.79	.79
34	227.56 Sec	75	.10	15.82	.81	.81
35	341.33 Sec	18	.13	-97.39	.83	.83
36	455.11 Sec	24	.13	29.55	.72	.72
37	682.67 Sec	9	.13	-137.79	.81	.81
38	910.22 Sec	9	.12	-85.95	.90	.92
39	1365.33 Sec	3	.22	-108.03	.96	.96
40	1820.44 Sec	3	.15	-172.14	.99	.97

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E







PHOENIX GEOSCIENCE

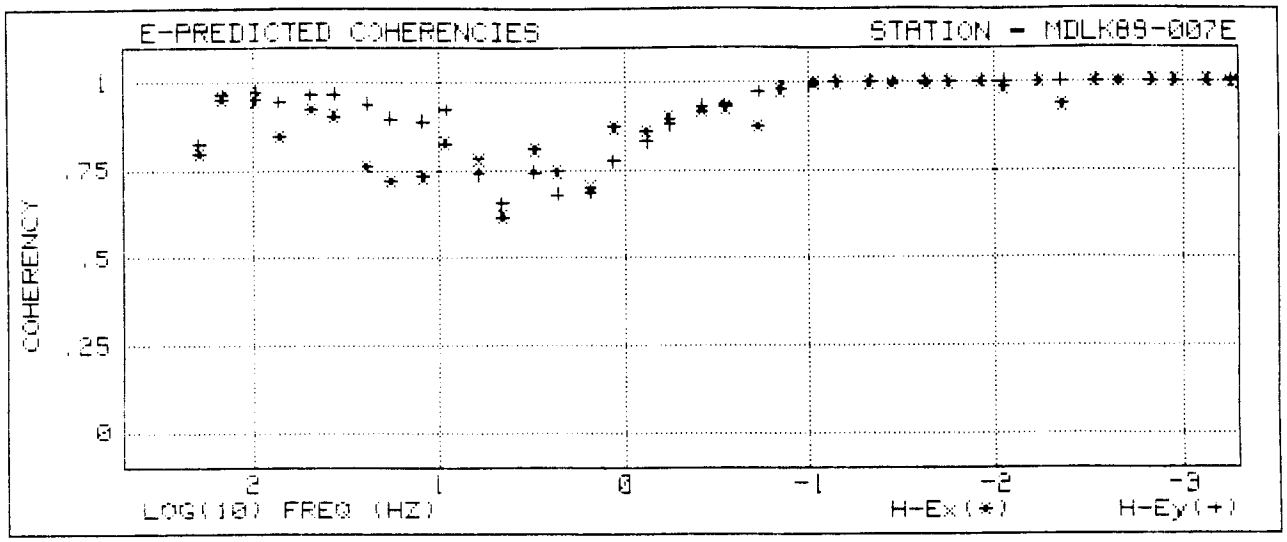
MT Site: MDLK89-007E

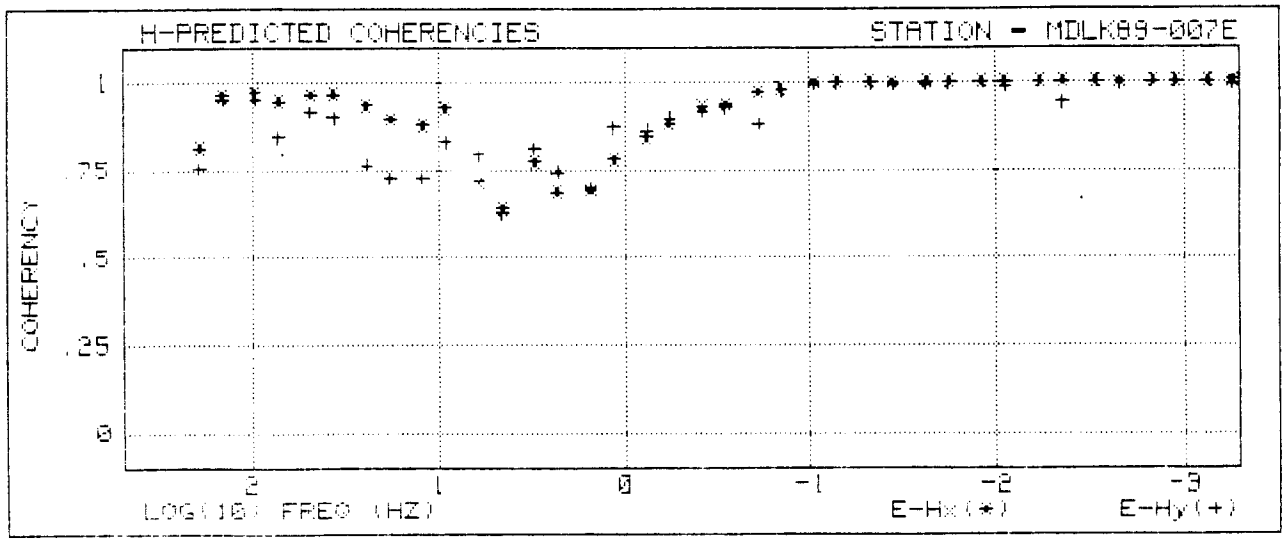
SKEW, ELLIPTICITY AND STRIKE

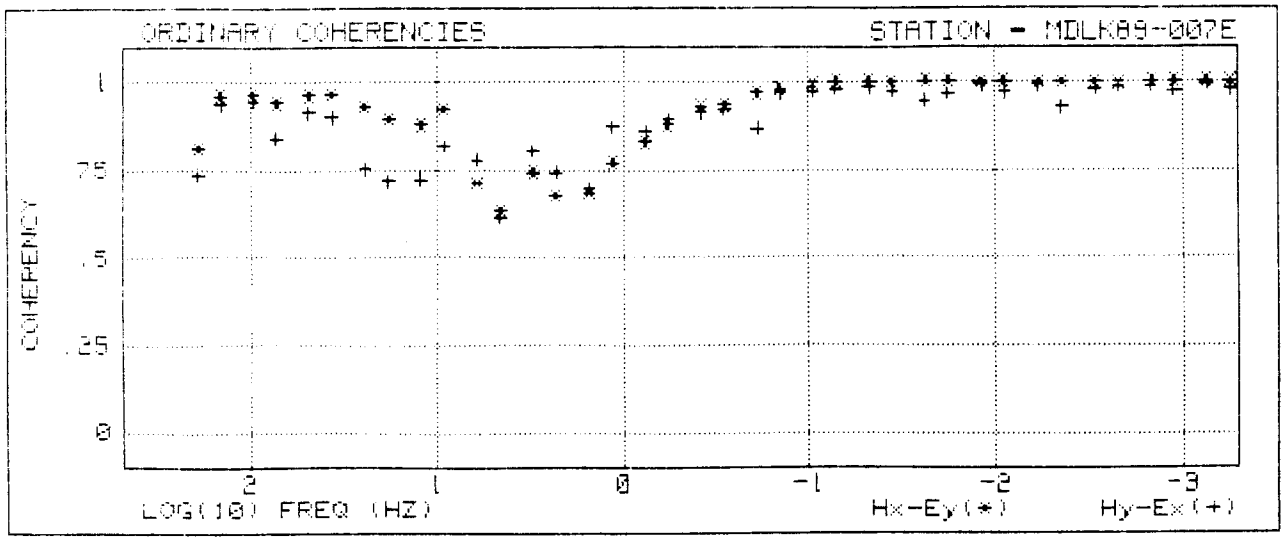
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	442	.17	.32	91.74	.53	3.33	4.31
4	144.00 Hz	442	.14	.31	90.05	.17	2.05	-176.85
5	96.00 Hz	96	.05	.56	84.15	.70	2.43	162.76
6	72.00 Hz	666	.13	.16	99.84	.51	3.62	159.66
7	48.00 Hz	188	.08	.24	89.38	.07	17.30	-178.19
8	36.00 Hz	281	.06	.16	83.88	.33	4.39	164.05
9	24.00 Hz	288	.06	.19	89.52	.18	9.32	172.09
10	18.00 Hz	576	.02	.11	91.63	.10	6.87	174.41
11	12.00 Hz	384	.03	.02	96.38	.13	3.78	118.26
12	9.00 Hz	384	.07	.07	81.80	.07	21.63	144.63
13	6.00 Hz	192	.10	.45	85.83	.40	4.52	56.55
14	4.50 Hz	384	.13	.05	81.78	.04	3.02	106.36
15	3.00 Hz	2560	.07	.06	77.41	.34	1.72	170.82
16	2.25 Hz	9640	.08	.03	78.75	.81	.74	-133.51
17	1.50 Hz	5311	.05	.04	83.90	.75	1.43	153.81
18	1.13 Hz	2543	.06	.09	78.11	.23	8.12	167.25
19	1.33 Sec	2112	.03	.12	83.23	.53	1.50	-156.13
20	1.78 Sec	1856	.22	.01	84.81	.12	.15	-13.99
21	2.67 Sec	956	.03	.12	82.95	.05	.26	103.41
22	3.56 Sec	1136	.07	.14	79.68	.65	1.07	144.45
23	5.33 Sec	1263	.05	.25	85.04	.62	.46	116.13
24	7.11 Sec	1215	.05	.29	88.78	.79	.56	125.33
25	10.67 Sec	569	.03	.22	93.99	.59	.34	95.01
26	14.22 Sec	599	.02	.17	96.01	.44	.41	86.60
27	21.33 Sec	304	.03	.02	94.69	.23	.41	74.39
28	28.44 Sec	304	.06	.03	93.54	.20	.20	84.03
29	42.67 Sec	274	.06	.06	93.70	.06	.83	56.10
30	56.89 Sec	310	.07	.08	92.53	.10	.48	69.03
31	85.33 Sec	141	.09	.08	91.82	.25	.34	75.03
32	113.78 Sec	144	.09	.08	90.86	.70	.45	84.52
33	170.67 Sec	75	.12	.08	89.13	.58	.41	77.40
34	227.56 Sec	75	.10	.05	88.24	.22	.42	66.16
35	341.33 Sec	18	.12	.01	88.91	.46	.53	66.80
36	455.11 Sec	24	.12	.03	88.51	.28	.88	47.11
37	682.67 Sec	9	.11	.06	91.69	.20	1.29	39.34
38	910.22 Sec	9	.07	.03	95.18	.72	2.12	41.86
39	1365.33 Sec	3	.20	.52	92.93	.75	1.40	28.10
40	1820.44 Sec	3	.22	.01	78.35	.09	9.76	173.53

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E







PHOENIX GEOSCIENCE

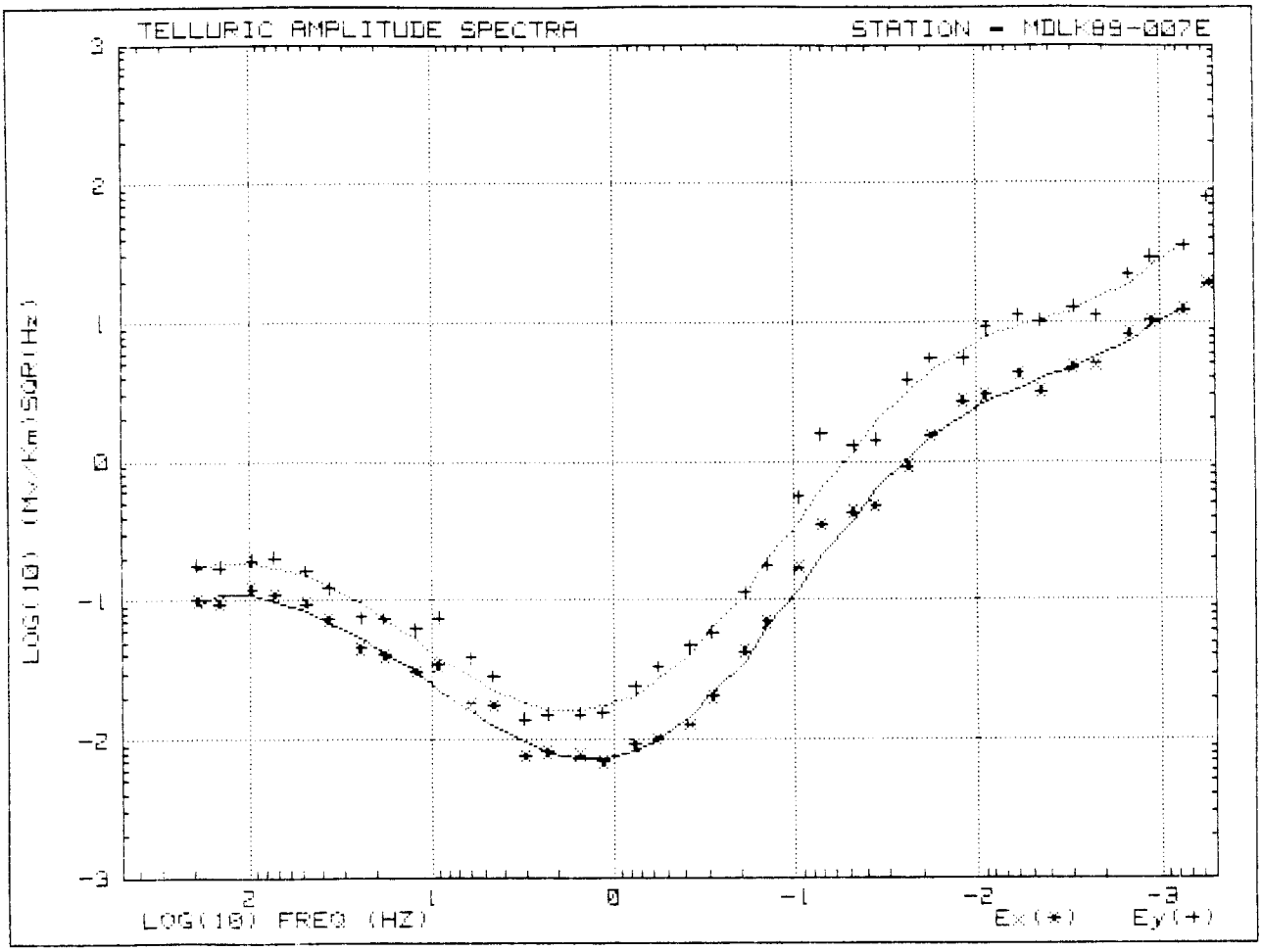
MT Site: MDLK89-007E

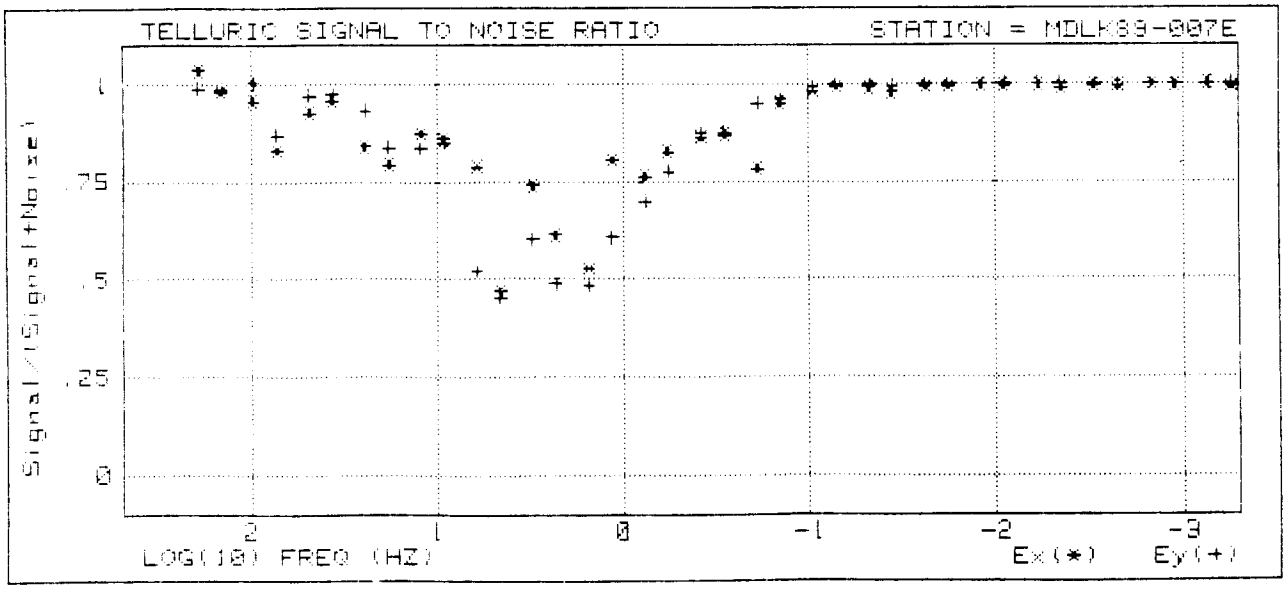
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	442	.79	.82	.81	.75	.81	.73
4	144.00 Hz	442	.95	.96	.96	.95	.96	.93
5	96.00 Hz	96	.95	.97	.97	.95	.96	.94
6	72.00 Hz	666	.84	.94	.94	.84	.94	.84
7	48.00 Hz	186	.92	.96	.96	.91	.96	.91
8	36.00 Hz	281	.90	.96	.96	.90	.96	.90
9	24.00 Hz	288	.76	.93	.93	.76	.93	.75
10	18.00 Hz	576	.72	.89	.89	.72	.89	.71
11	12.00 Hz	384	.73	.89	.87	.72	.87	.72
12	9.00 Hz	384	.82	.92	.93	.82	.92	.81
13	6.00 Hz	192	.78	.74	.71	.79	.71	.77
14	4.50 Hz	384	.61	.65	.64	.62	.63	.61
15	3.00 Hz	2560	.80	.74	.77	.81	.74	.80
16	2.25 Hz	9640	.74	.68	.68	.74	.67	.74
17	1.50 Hz	5311	.70	.68	.69	.70	.68	.70
18	1.13 Hz	2543	.87	.77	.78	.87	.77	.87
19	1.33 Sec	2112	.86	.83	.84	.86	.83	.85
20	1.78 Sec	1856	.89	.87	.88	.89	.87	.89
21	2.67 Sec	956	.91	.93	.93	.91	.93	.91
22	3.56 Sec	1136	.92	.93	.93	.92	.93	.92
23	5.33 Sec	1263	.87	.97	.97	.88	.97	.87
24	7.11 Sec	1215	.97	.98	.98	.97	.98	.97
25	10.67 Sec	569	.99	1.00	1.00	.99	.99	.97
26	14.22 Sec	599	1.00	1.00	1.00	1.00	1.00	.98
27	21.33 Sec	304	.99	1.00	1.00	.99	1.00	.98
28	28.44 Sec	304	.99	1.00	1.00	.99	1.00	.97
29	42.67 Sec	274	.99	1.00	1.00	.99	1.00	.94
30	56.89 Sec	310	.99	1.00	1.00	.99	1.00	.96
31	85.33 Sec	141	1.00	1.00	1.00	1.00	1.00	.99
32	113.78 Sec	144	.98	1.00	1.00	.98	1.00	.97
33	170.67 Sec	75	1.00	1.00	1.00	1.00	1.00	.99
34	227.56 Sec	75	.93	1.00	1.00	.94	1.00	.92
35	341.33 Sec	18	1.00	1.00	1.00	1.00	1.00	.98
36	455.11 Sec	24	1.00	1.00	1.00	.99	.99	.98
37	682.67 Sec	9	1.00	1.00	1.00	1.00	1.00	.99
38	910.22 Sec	9	1.00	1.00	1.00	1.00	1.00	.97
39	1365.33 Sec	3	1.00	1.00	1.00	1.00	1.00	.99
40	1820.44 Sec	3	.99	1.00	1.00	.99	1.00	.97

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E





PHOENIX GEOSCIENCE

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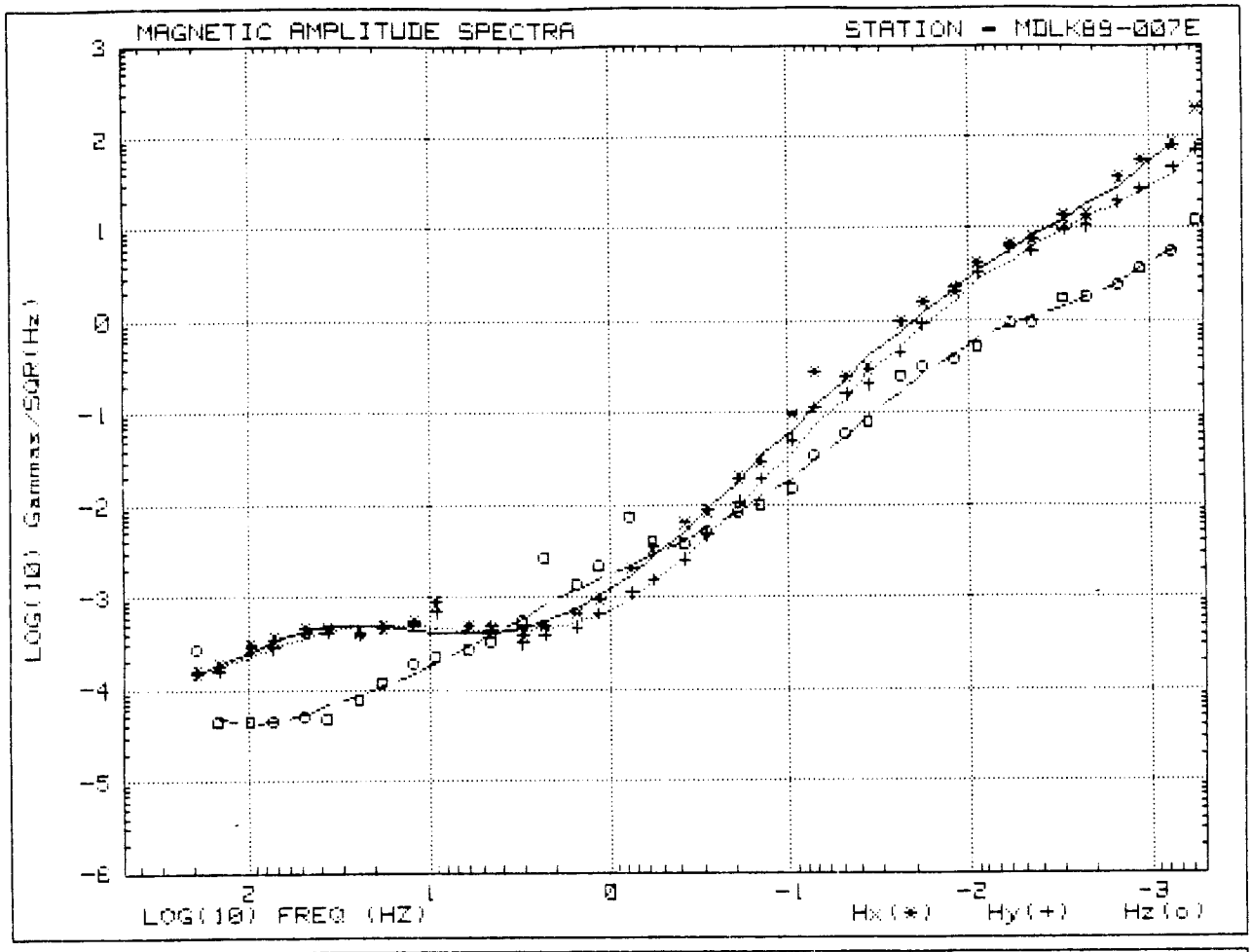
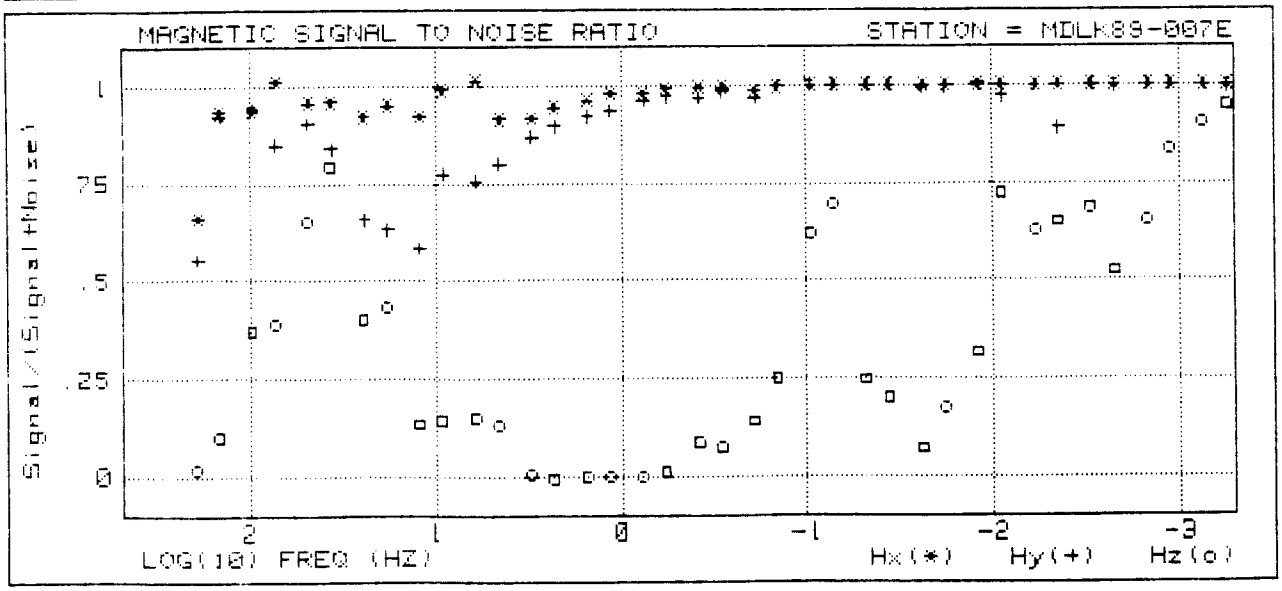




PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	442	.657	.551	.024	1.000	.988
4	144.00 Hz	442	.933	.922	.104	.979	.987
5	96.00 Hz	96	.934	.941	.378	.955	1.000
6	72.00 Hz	666	1.000	.849	.393	.827	.868
7	48.00 Hz	188	.955	.903	.661	.924	.968
8	36.00 Hz	281	.957	.839	.800	.956	.970
9	24.00 Hz	288	.920	.656	.409	.837	.930
10	18.00 Hz	576	.949	.631	.440	.792	.836
11	12.00 Hz	384	.921	.583	.140	.872	.834
12	9.00 Hz	384	.990	.774	.151	.857	.848
13	6.00 Hz	192	1.000	.754	.154	.785	.520
14	4.50 Hz	384	.914	.798	.135	.467	.453
15	3.00 Hz	2560	.916	.867	.009	.738	.598
16	2.25 Hz	9640	.943	.895	.001	.611	.486
17	1.50 Hz	5311	.962	.919	.004	.526	.485
18	1.13 Hz	2543	.979	.935	.002	.803	.605
19	1.33 Sec	2112	.979	.960	.003	.761	.697
20	1.78 Sec	1856	.991	.970	.017	.823	.772
21	2.67 Sec	956	.993	.967	.090	.862	.870
22	3.56 Sec	1136	.994	.984	.077	.867	.874
23	5.33 Sec	1263	.986	.968	.146	.780	.950
24	7.11 Sec	1215	.996	.997	.258	.950	.961
25	10.67 Sec	569	.999	.999	.628	.982	.992
26	14.22 Sec	599	1.000	1.000	.701	.991	.997
27	21.33 Sec	304	1.000	1.000	.253	.989	.996
28	28.44 Sec	304	1.000	1.000	.207	.977	.993
29	42.67 Sec	274	1.000	.994	.076	.991	.998
30	56.89 Sec	310	1.000	.995	.181	.992	.998
31	85.33 Sec	141	1.000	.998	.322	.996	.997
32	113.78 Sec	144	.999	.970	.729	.993	.999
33	170.67 Sec	75	.999	.998	.633	.996	.999
34	227.56 Sec	75	.999	.889	.656	.987	.999
35	341.33 Sec	18	1.000	1.000	.693	.995	.997
36	455.11 Sec	24	1.000	.997	.530	.994	.994
37	682.67 Sec	9	1.000	1.000	.659	.998	.999
38	910.22 Sec	9	1.000	1.000	.841	.996	.998
39	1365.33 Sec	3	1.000	.998	.909	1.000	1.000
40	1820.44 Sec	3	1.000	.997	.953	.992	1.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	442	1.53E-04	1.50E-04	2.89E-04	9.81E-02	1.76E-01
4	144.00 Hz	442	1.81E-04	1.55E-04	4.67E-05	9.39E-02	1.69E-01
5	96.00 Hz	96	2.96E-04	2.77E-04	4.65E-05	1.18E-01	1.92E-01
6	72.00 Hz	666	3.47E-04	2.78E-04	4.84E-05	1.08E-01	2.01E-01
7	48.00 Hz	188	4.54E-04	4.14E-04	5.35E-05	9.35E-02	1.60E-01
8	36.00 Hz	281	4.62E-04	4.16E-04	5.15E-05	7.13E-02	1.20E-01
9	24.00 Hz	288	4.15E-04	3.83E-04	8.24E-05	4.41E-02	7.46E-02
10	18.00 Hz	576	4.70E-04	4.72E-04	1.27E-04	3.95E-02	7.25E-02
11	12.00 Hz	384	5.44E-04	5.11E-04	2.04E-04	3.00E-02	6.10E-02
12	9.00 Hz	384	8.63E-04	6.79E-04	2.40E-04	3.36E-02	7.35E-02
13	6.00 Hz	192	4.86E-04	4.89E-04	2.90E-04	1.76E-02	3.81E-02
14	4.50 Hz	384	4.43E-04	4.75E-04	3.52E-04	1.73E-02	2.79E-02
15	3.00 Hz	2560	3.91E-04	3.12E-04	5.76E-04	7.50E-03	1.37E-02
16	2.25 Hz	9640	4.88E-04	3.92E-04	2.81E-03	7.94E-03	1.50E-02
17	1.50 Hz	5311	6.55E-04	4.69E-04	1.44E-03	7.59E-03	1.49E-02
18	1.13 Hz	2543	9.68E-04	6.52E-04	2.28E-03	6.85E-03	1.54E-02
19	1.33 Sec	2112	2.04E-03	1.11E-03	7.88E-03	8.96E-03	2.35E-02
20	1.78 Sec	1856	3.43E-03	1.53E-03	4.30E-03	9.91E-03	3.25E-02
21	2.67 Sec	956	6.24E-03	2.50E-03	3.97E-03	1.25E-02	4.63E-02
22	3.56 Sec	1136	8.52E-03	4.66E-03	5.42E-03	2.00E-02	5.77E-02
23	5.33 Sec	1263	1.91E-02	1.05E-02	8.65E-03	4.20E-02	1.13E-01
24	7.11 Sec	1215	2.90E-02	1.89E-02	1.03E-02	6.87E-02	1.78E-01
25	10.67 Sec	569	9.51E-02	4.95E-02	1.60E-02	1.69E-01	5.50E-01
26	14.22 Sec	599	2.80E-01	1.12E-01	3.66E-02	3.44E-01	1.55E+00
27	21.33 Sec	304	2.46E-01	1.57E-01	6.17E-02	4.26E-01	1.27E+00
28	28.44 Sec	304	3.01E-01	2.02E-01	8.39E-02	4.73E-01	1.42E+00
29	42.67 Sec	274	9.47E-01	4.52E-01	2.70E-01	9.12E-01	3.84E+00
30	56.89 Sec	310	1.57E+00	8.97E-01	3.30E-01	1.51E+00	5.44E+00
31	85.33 Sec	141	2.03E+00	2.23E+00	4.00E-01	2.65E+00	5.37E+00
32	113.78 Sec	144	4.07E+00	3.21E+00	5.54E-01	2.91E+00	8.94E+00
33	170.67 Sec	75	6.60E+00	6.14E+00	9.62E-01	4.19E+00	1.09E+01
34	227.56 Sec	75	7.58E+00	5.52E+00	1.00E+00	3.11E+00	9.99E+00
35	341.33 Sec	18	1.32E+01	9.48E+00	1.84E+00	4.66E+00	1.26E+01
36	455.11 Sec	24	1.37E+01	1.06E+01	1.87E+00	4.94E+00	1.09E+01
37	682.67 Sec	9	3.47E+01	1.89E+01	2.60E+00	8.15E+00	2.18E+01
38	910.22 Sec	9	5.38E+01	2.64E+01	3.80E+00	1.00E+01	2.94E+01
39	1365.33 Sec	3	7.88E+01	4.46E+01	6.00E+00	1.22E+01	3.54E+01
40	1820.44 Sec	3	1.95E+02	6.96E+01	1.28E+01	1.88E+01	7.79E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-007E

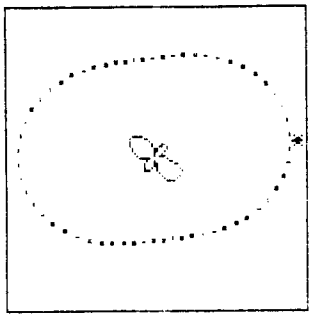
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

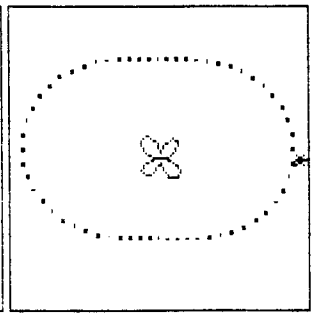
*=Rotation Direction

Zxy = ...
Zxx = ___

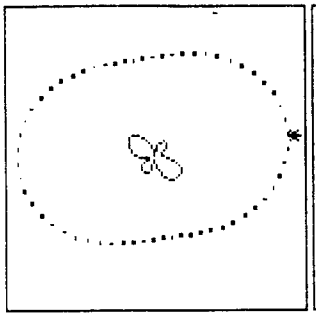
F=8 (36.0 Hz)



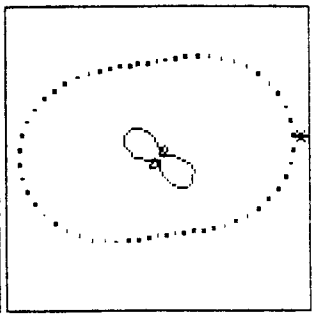
F=10 (18.0 Hz)



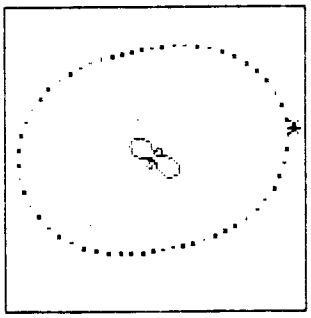
F=12 (9.0 Hz)



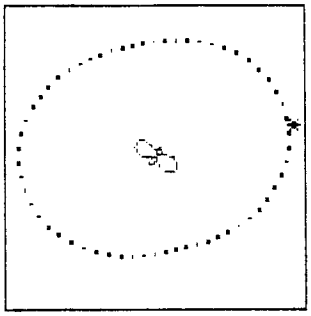
F=14 (4.5 Hz)



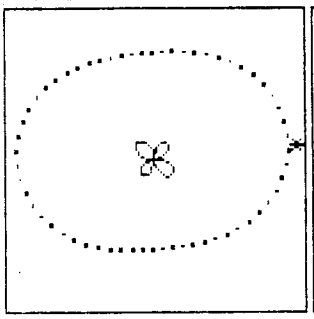
F=16 (2.3 Hz)



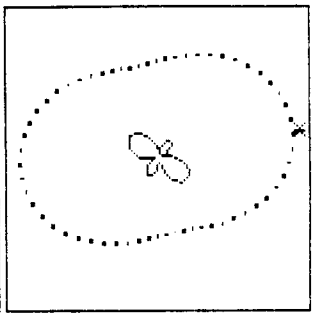
F=18 (1.1 Hz)



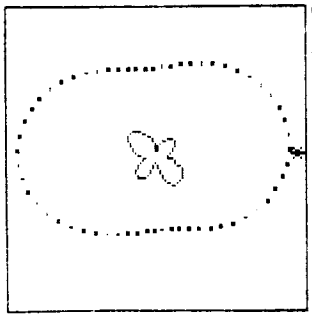
F=20 (.5625 Hz)



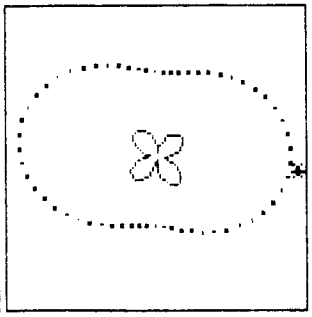
F=22 (.2813 Hz)



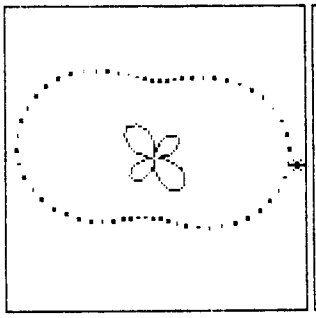
F=24 (.1406 Hz)



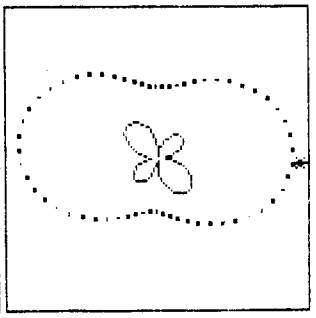
F=26 (.0703 Hz)



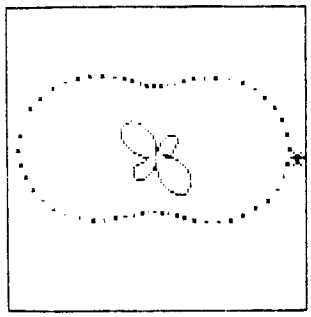
F=28 (.0352 Hz)



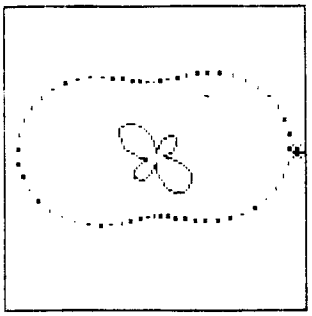
F=30 (.0176 Hz)



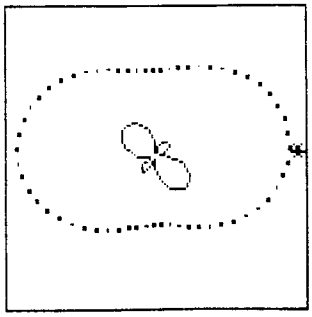
F=32 (.0088 Hz)



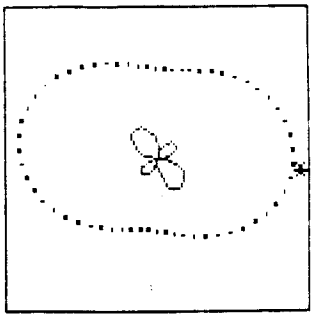
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-007s/008s/

Operator:STEWART
Date: 15 Sep 1989
Time: 04:07:12

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#220-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 2

Stn Number:MDLK89-008s
Site Desc:T43N R4E
41,33,14 N 121,30,42 W
Elevation:6160 FT
Reference:MDLK89-007s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL430	+0 DEG
Hy	7	COIL452	+90 DEG
Hz	8	LOOP005	
Ex	9	180 M	+0 DEG
Ey	10	170 M	+90 DEG
Rx	1	COIL431	+0 DEG
Ry	2	COIL210	+90 DEG

Ex Pot Resist: 12_ K Ohms
Ex Voltage: AC=_15_ mv, DC=_23_ mv
Ey Pot Resist: 9.0 K Ohms
Ey Voltage: AC=_13_ mv, DC=_43_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

OPERATOR LOG FOR MT SITES MDLK89-007e/008e/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-007d/008d/

Run STARTED:	17:14:42	14 Sep 1989
Run QUIT:	03:44:03	15 Sep 1989

Run Start and Stop Time for MDLK89-007e/008e/

Run STARTED:	04:07:12	15 Sep 1989
Run QUIT:	10:32:38	15 Sep 1989

Operator:STEWART (oplog by Snow)

Cultural Factors:
NONE
Weather Conditions:
CLEAR AND MILD
Other Factors:
NONE

PHOENIX GEOSCIENCE

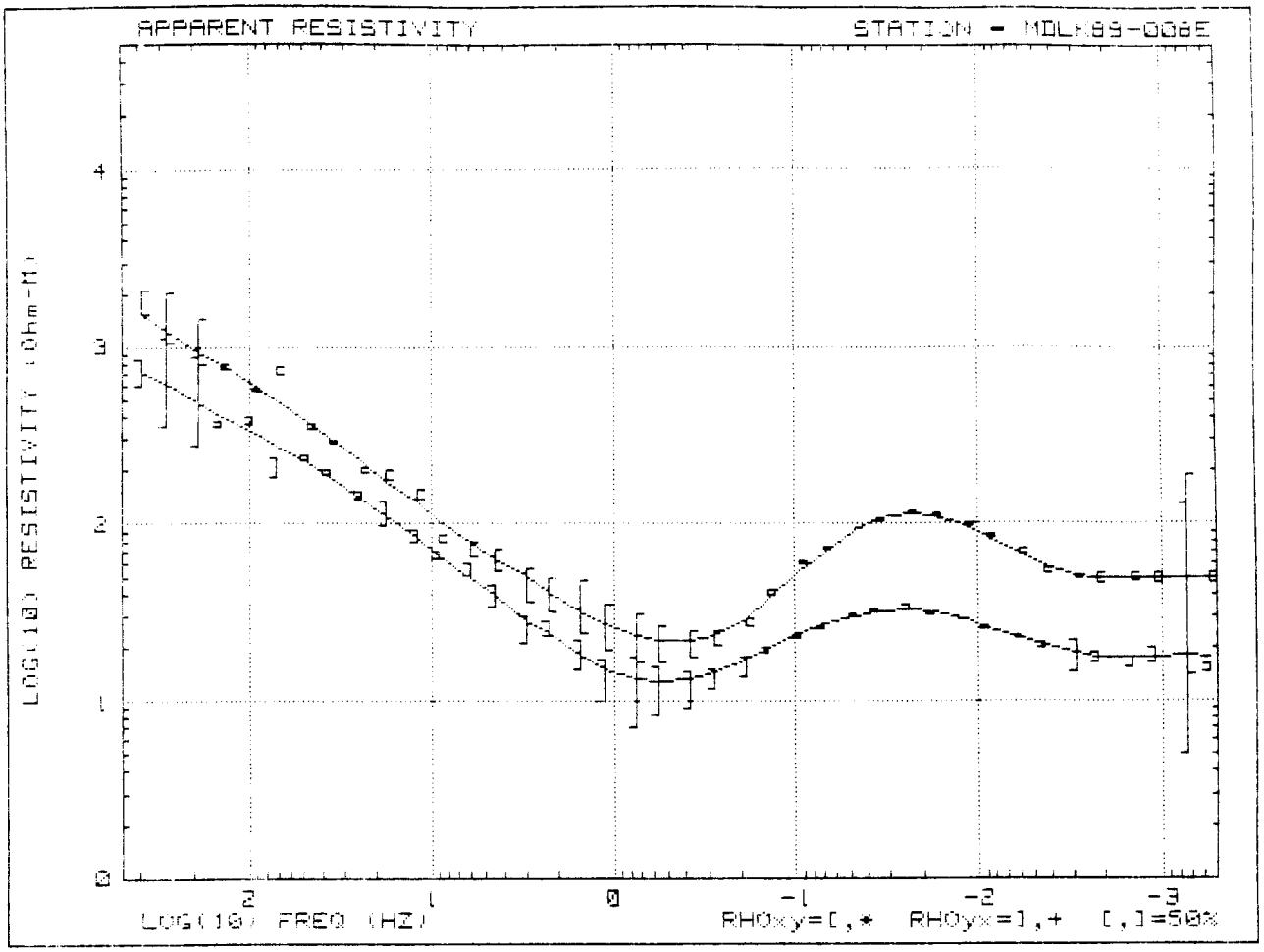
MT Site: MDLK89-008E

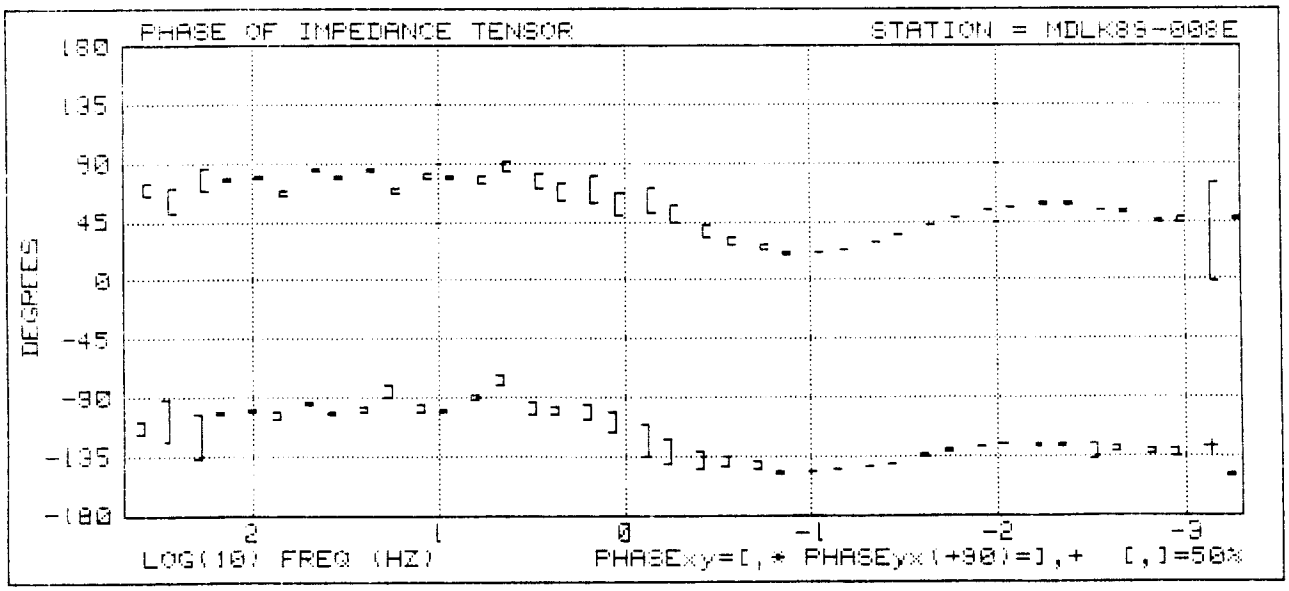
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

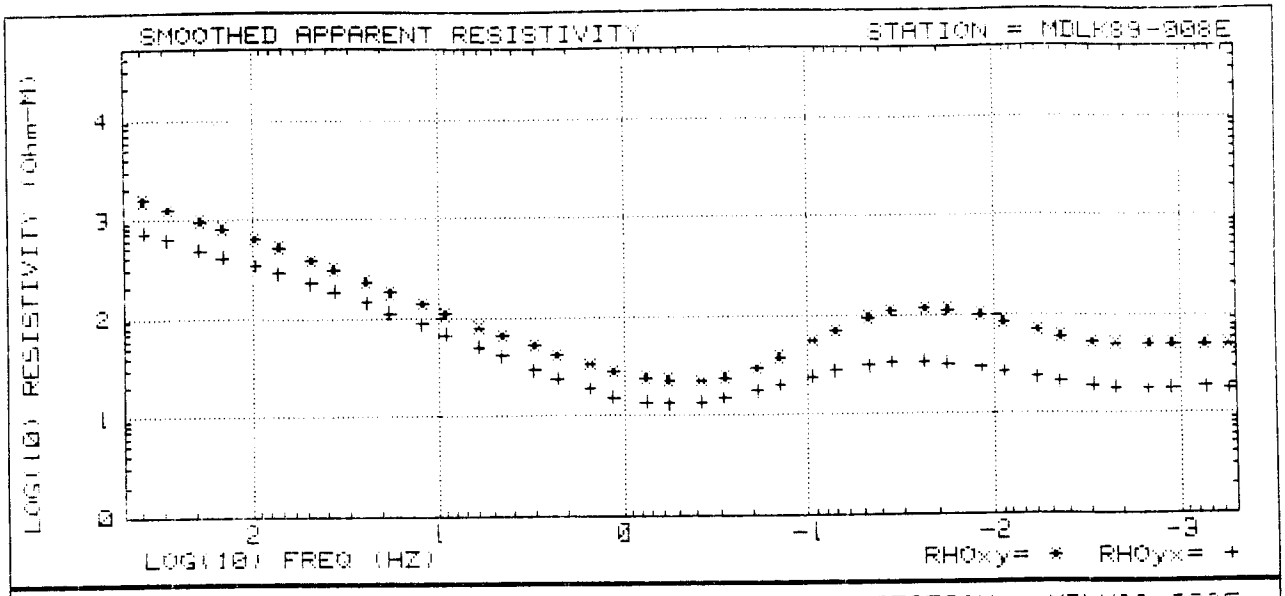
MT Site: MDLK89-008E

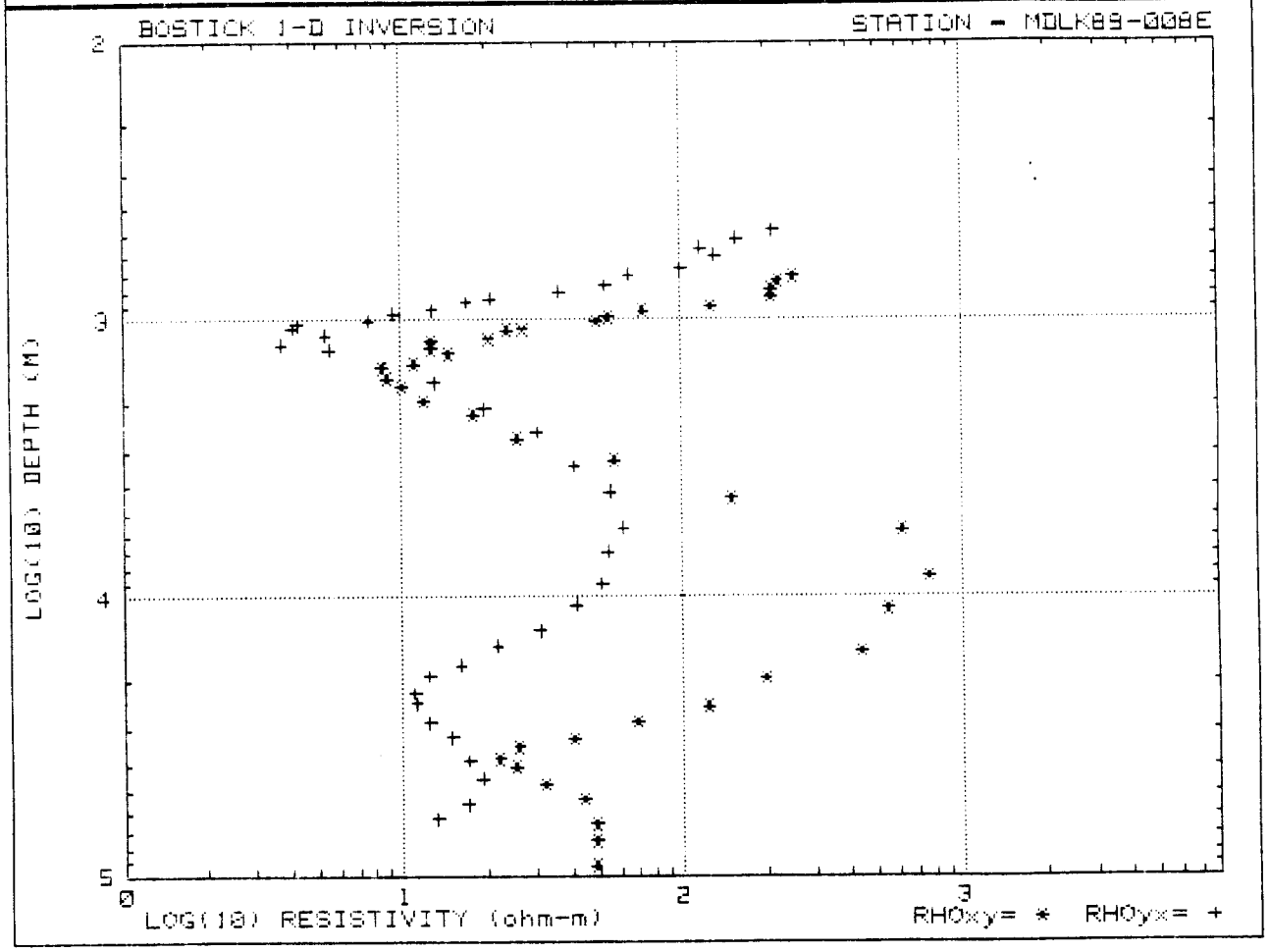




PHOENIX GEOSCIENCE

MT Site: MDLK89-008E





PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	313	1820.2	26.2	717.0	27.3	70.4	6.7	-113.8	6.9
2	288.00 Hz	249	1470.9	63.8	624.3	99.9	61.3	14.1	-107.3	24.9
3	192.00 Hz	346	1073.1	55.9	492.1	99.9	77.2	12.7	-119.9	24.8
4	144.00 Hz	471	770.4	2.9	361.9	4.7	77.1	.8	-102.7	1.3
5	96.00 Hz	379	575.8	3.2	378.4	6.5	78.7	.9	-100.6	1.8
6	72.00 Hz	380	740.3	8.2	208.4	20.1	67.3	2.3	-104.1	5.2
7	48.00 Hz	472	353.1	2.9	233.4	5.5	84.6	.8	-94.1	1.5
8	36.00 Hz	378	285.5	2.9	195.4	5.7	78.9	.8	-101.3	1.6
9	24.00 Hz	288	202.2	5.2	146.0	7.0	84.1	1.5	-99.1	1.9
10	18.00 Hz	288	190.2	10.6	116.2	25.6	68.6	2.9	-84.9	6.5
11	12.00 Hz	192	148.1	10.6	85.6	13.9	79.9	2.3	-97.7	3.7
12	9.00 Hz	672	82.2	6.3	66.6	6.0	79.3	1.8	-99.5	1.7
13	6.00 Hz	573	72.6	15.1	54.7	11.3	76.8	4.0	-90.4	3.1
14	4.50 Hz	576	62.7	24.6	39.2	24.9	88.2	6.3	-76.4	6.4
15	3.00 Hz	11432	44.6	38.1	25.3	27.6	76.5	9.3	-97.6	7.0
16	2.25 Hz	13307	39.5	40.6	25.6	17.3	68.7	9.8	-100.0	4.6
17	1.50 Hz	10187	33.9	69.0	18.1	34.6	69.3	15.0	-100.8	8.5
18	1.13 Hz	9423	26.1	58.4	13.1	50.9	58.4	13.2	-108.4	11.8
19	1.33 Sec	2755	22.6	60.8	11.1	96.4	60.9	13.6	-123.0	19.3
20	1.78 Sec	4848	21.1	43.6	11.5	59.9	51.3	10.4	-130.9	13.5
21	2.67 Sec	1568	20.9	30.2	11.5	42.3	37.6	7.6	-138.7	10.1
22	3.56 Sec	2324	22.6	13.8	13.3	20.2	30.8	3.7	-139.1	5.3
23	5.33 Sec	1119	27.6	6.9	15.6	20.1	25.8	1.9	-141.6	5.3
24	7.11 Sec	975	41.2	3.6	19.4	5.6	21.2	1.0	-146.3	1.6
25	10.67 Sec	521	61.1	1.8	22.8	3.1	21.9	.5	-146.2	.9
26	14.22 Sec	545	73.4	1.1	26.0	2.9	23.3	.3	-144.8	.8
27	21.33 Sec	250	95.0	1.3	30.6	1.9	29.6	.4	-143.2	.5
28	28.44 Sec	250	104.3	1.6	32.3	2.6	34.3	.5	-140.9	.7
29	42.67 Sec	298	116.6	1.4	34.0	2.9	42.8	.4	-134.3	.8
30	56.89 Sec	250	113.8	1.3	31.8	2.4	48.1	.4	-130.3	.7
31	85.33 Sec	99	99.2	2.0	28.8	1.3	53.7	.6	-126.9	.4
32	113.73 Sec	129	85.6	2.1	26.0	3.4	55.4	.6	-125.4	1.0
33	170.67 Sec	57	69.4	2.9	22.7	2.0	58.0	.8	-126.2	.6
34	227.56 Sec	54	54.7	4.7	20.5	6.5	58.8	1.3	-126.6	1.8
35	341.33 Sec	3	49.6	1.2	17.9	34.9	54.2	.3	-131.7	8.6
36	455.11 Sec	24	49.5	7.6	17.8	9.0	52.3	2.1	-129.7	2.5
37	682.67 Sec	9	50.2	6.3	16.4	10.2	45.6	1.7	-130.4	2.8
38	910.22 Sec	9	49.1	9.5	18.3	14.3	46.6	2.6	-131.8	3.8
39	1365.33 Sec	6	52.3	99.9	25.6	99.9	36.7	55.3	-128.9	68.9
40	1820.44 Sec	3	49.6	8.4	15.2	8.4	47.4	2.3	-149.2	2.3

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	313	1514.6	716.3	256.3	707	216.7	486
2	288.00 Hz	249	1234.6	614.0	224.8	737	160.8	520
3	192.00 Hz	346	937.5	477.5	212.2	786	118.6	561
4	144.00 Hz	471	797.3	404.5	214.3	837	133.6	596
5	96.00 Hz	379	628.8	336.9	129.1	911	101.2	667
6	72.00 Hz	380	504.8	278.6	74.2	942	65.9	700
7	48.00 Hz	472	375.5	219.6	55.7	995	54.2	761
8	36.00 Hz	378	301.9	183.3	50.0	1031	37.2	803
9	24.00 Hz	288	228.6	138.7	27.2	1098	20.9	856
10	18.00 Hz	288	175.0	109.8	23.8	1109	17.2	879
11	12.00 Hz	192	135.0	83.6	20.6	1193	13.0	940
12	9.00 Hz	672	105.1	66.2	12.9	1216	9.5	965
13	6.00 Hz	573	78.5	49.8	12.8	1287	7.7	1025
14	4.50 Hz	576	63.8	39.8	14.7	1340	4.3	1059
15	3.00 Hz	11432	50.9	28.5	11.1	1466	4.1	1096
16	2.25 Hz	13307	40.9	23.7	8.6	1518	5.4	1155
17	1.50 Hz	10187	32.4	18.4	9.0	1653	3.7	1245
18	1.13 Hz	9423	27.7	15.0	10.1	1765	5.5	1299
19	1.33 Sec	2755	23.4	13.3	12.0	1989	8.6	1501
20	1.78 Sec	4848	22.1	12.9	18.0	2232	13.1	1704
21	2.67 Sec	1568	21.8	13.4	25.8	2716	19.9	2130
22	3.56 Sec	2324	23.4	14.8	57.7	3249	30.4	2579
23	5.33 Sec	1119	29.3	17.1	150.8	4447	41.6	3397
24	7.11 Sec	975	37.4	19.7	620.6	5806	55.8	4215
25	10.67 Sec	521	54.1	23.8	767.8	8550	62.1	5669
26	14.22 Sec	545	68.3	26.9	548.0	11093	54.7	6957
27	21.33 Sec	250	92.8	30.1	437.3	15835	52.2	9025
28	28.44 Sec	250	107.2	32.3	199.1	19651	42.0	10795
29	42.67 Sec	298	114.3	33.0	123.5	24848	31.0	13348
30	56.89 Sec	250	110.1	31.7	69.3	28168	21.9	15108
31	85.33 Sec	99	97.6	29.0	41.2	32475	16.1	17718
32	113.78 Sec	129	83.1	26.0	26.1	34600	12.6	19352
33	170.67 Sec	57	68.0	22.8	22.3	38332	11.1	22211
34	227.56 Sec	54	58.5	20.5	25.4	41052	11.3	24286
35	341.33 Sec	3	51.7	18.7	32.1	47288	12.5	28404
36	455.11 Sec	24	49.7	17.8	44.5	53534	15.0	32076
37	682.67 Sec	9	49.8	17.6	49.2	65613	17.3	38970
38	910.22 Sec	9	49.5	17.7	49.4	75554	19.3	45234
39	1365.33 Sec	6	49.7	18.1	48.8	92739	17.0	55906
40	1820.44 Sec	3	49.2	17.4	45.7	106515	13.3	63324

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	312	1.09	-60.38	999.99	626.01	999.99	999.99
2	288.00 Hz	249	275.18	-178.25	999.99	699.70	999.99	999.99
3	192.00 Hz	346	123.66	-145.64	999.99	225.49	989.63	999.99
4	144.00 Hz	471	4.01	-11.06	368.75	165.83	726.06	233.30
5	96.00 Hz	379	-31.16	-15.31	764.44	103.38	515.47	139.19
6	72.00 Hz	380	-62.52	-88.28	959.17	199.00	476.34	836.31
7	48.00 Hz	472	-13.32	-16.67	150.09	27.61	289.80	34.17
8	36.00 Hz	378	-2.57	-18.53	105.87	43.80	222.42	20.42
9	24.00 Hz	288	-2.72	-7.00	29.00	16.03	154.93	31.59
10	18.00 Hz	288	-28.71	-14.65	262.06	47.67	121.84	86.36
11	12.00 Hz	192	-2.81	-9.19	46.02	16.46	92.80	44.86
12	9.00 Hz	672	-.02	-1.96	14.31	11.32	59.74	7.00
13	6.00 Hz	573	-1.28	1.31	39.97	10.68	45.45	21.53
14	4.50 Hz	576	1.79	-3.28	59.22	1.19	37.53	34.04
15	3.00 Hz	11432	.35	-2.93	48.70	6.04	25.14	34.88
16	2.25 Hz	13307	2.59	-3.95	32.68	7.66	19.65	25.82
17	1.50 Hz	10187	3.30	-3.30	43.90	5.64	14.91	35.00
18	1.13 Hz	9423	1.10	-3.87	34.78	6.35	10.32	15.55
19	1.33 Sec	2755	.748	-1.526	28.846	4.473	8.046	9.567
20	1.78 Sec	4848	.871	-1.472	11.389	4.810	6.007	3.879
21	2.67 Sec	1568	-.203	-.672	4.737	4.962	3.818	1.362
22	3.56 Sec	2324	-.401	-.560	1.037	4.843	2.882	.266
23	5.33 Sec	1119	-.447	-.157	.259	4.585	2.213	.058
24	7.11 Sec	975	-.219	-.108	.071	5.022	1.944	.019
25	10.67 Sec	521	-.367	-.256	.014	4.967	1.994	.005
26	14.22 Sec	545	-.394	-.263	.007	4.666	2.006	.001
27	21.33 Sec	250	-.164	-.373	.005	4.104	2.329	.002
28	28.44 Sec	250	-.036	-.339	.004	3.535	2.416	.002
29	42.67 Sec	298	.037	-.240	.004	2.713	2.511	.001
30	56.89 Sec	250	.090	-.204	.002	2.112	2.353	.001
31	85.33 Sec	99	.045	-.114	.001	1.428	1.943	.001
32	113.78 Sec	129	.014	-.057	.001	1.102	1.597	.001
33	170.67 Sec	57	.018	-.037	.000	.756	1.209	.001
34	227.56 Sec	54	.055	-.008	.003	.569	.938	.001
35	341.33 Sec	3	-.025	.029	.000	.498	.691	.000
36	455.11 Sec	24	-.035	-.010	.002	.450	.584	.001
37	682.67 Sec	9	-.022	-.016	.001	.424	.433	.001
38	910.22 Sec	9	.030	-.010	.003	.357	.377	.001
39	1365.33 Sec	6	.015	-.043	.280	.351	.261	.356
40	1820.44 Sec	3	.068	.044	.002	.250	.271	.000

PHOENIX GEOSCIENCE

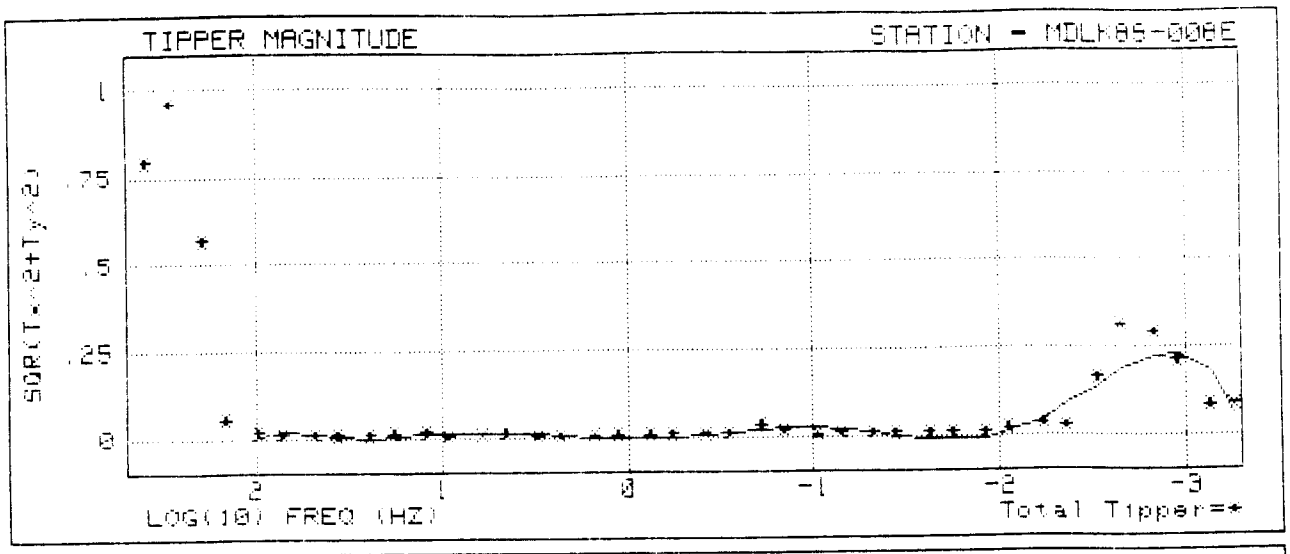
MT Site: MDLK89-008E

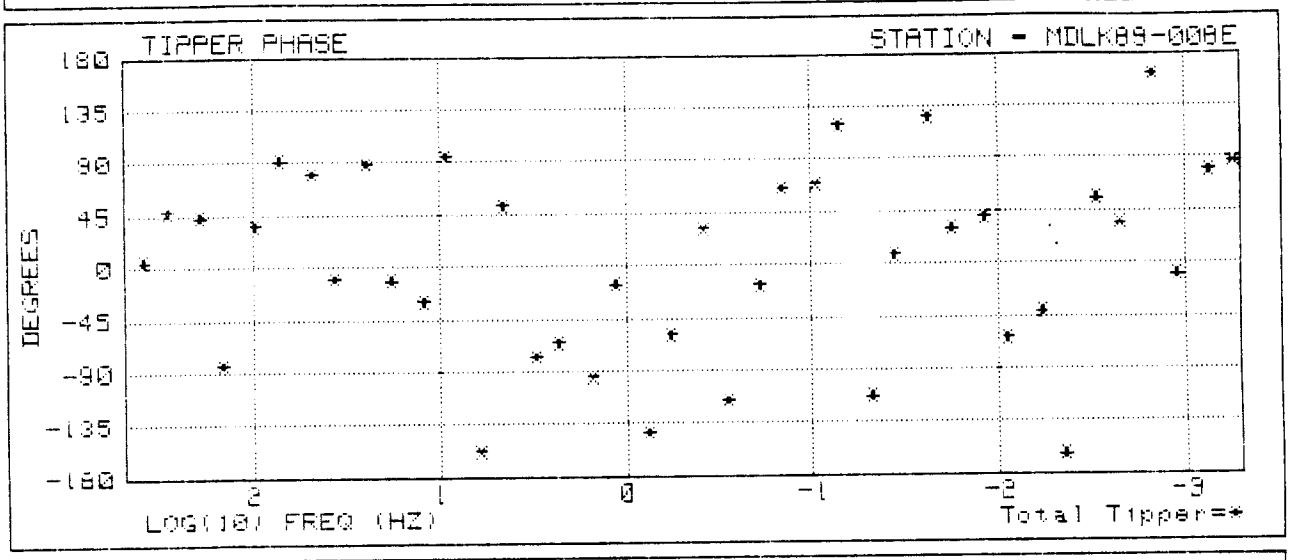
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

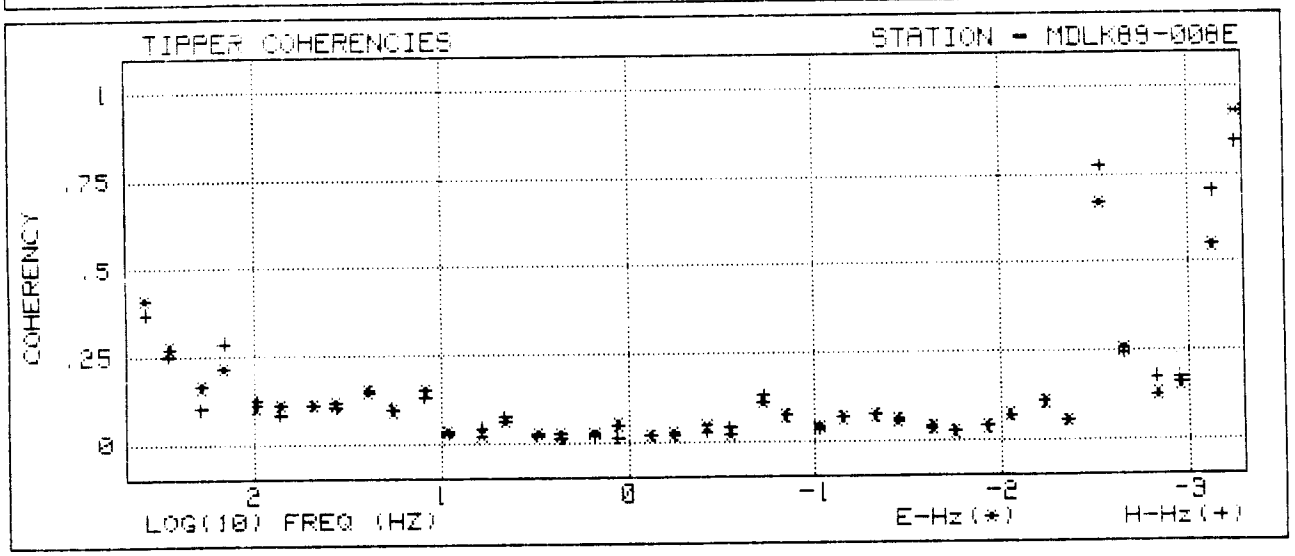
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	313	-472.60	-999.99	999.99	-284.24	3.28	999.99
2	288.00 Hz	249	-289.33	-902.93	999.99	51.02	68.23	999.99
3	192.00 Hz	346	-342.50	-595.91	999.99	17.31	-177.25	999.99
4	144.00 Hz	471	-111.91	-498.07	272.05	-51.27	2.01	172.12
5	96.00 Hz	379	-78.28	-418.95	355.21	2.80	-24.14	64.68
6	72.00 Hz	380	-66.90	-265.63	999.99	-61.33	-89.03	999.99
7	48.00 Hz	472	-16.92	-236.05	80.82	1.00	-19.52	18.40
8	36.00 Hz	378	-36.82	-183.87	54.41	-6.67	-17.79	10.49
9	24.00 Hz	288	-20.93	-130.70	40.05	6.08	-5.21	43.63
10	18.00 Hz	288	9.02	-101.85	271.75	-31.09	-7.91	89.56
11	12.00 Hz	192	-9.57	-71.03	43.45	-7.23	-7.79	42.35
12	9.00 Hz	672	-9.07	-54.00	5.13	-1.13	-1.52	2.51
13	6.00 Hz	573	-.28	-40.51	9.43	-1.94	2.69	5.08
14	4.50 Hz	576	7.00	-28.88	21.76	-1.18	-.47	12.51
15	3.00 Hz	11432	-2.58	-19.33	11.30	.41	-2.97	8.10
16	2.25 Hz	13307	-2.96	-16.71	3.68	.75	-1.01	2.91
17	1.50 Hz	10187	-2.19	-11.45	5.99	1.36	-1.37	4.78
18	1.13 Hz	9423	-2.71	-8.14	6.24	-.57	-1.09	2.79
19	1.33 Sec	2755	-3.514	-5.406	9.468	-.624	-1.027	3.140
20	1.78 Sec	4848	-3.718	-4.289	3.552	-.624	-.522	1.210
21	2.67 Sec	1568	-3.489	-3.064	1.341	-.347	-.391	.386
22	3.56 Sec	2324	-3.266	-2.829	.315	-.411	-.254	.081
23	5.33 Sec	1119	-2.995	-2.370	.245	-.452	-.209	.055
24	7.11 Sec	975	-3.089	-2.018	.020	-.222	-.176	.005
25	10.67 Sec	521	-2.714	-1.819	.005	-.372	-.202	.002
26	14.22 Sec	545	-2.468	-1.744	.004	-.406	-.161	.001
27	21.33 Sec	250	-2.146	-1.605	.001	-.246	-.151	.000
28	28.44 Sec	250	-1.850	-1.504	.002	-.147	-.134	.001
29	42.67 Sec	298	-1.395	-1.427	.002	-.081	-.096	.001
30	56.89 Sec	250	-1.081	-1.274	.001	-.047	-.073	.000
31	85.33 Sec	99	-.780	-1.040	.000	-.016	-.071	.000
32	113.78 Sec	129	-.620	-.872	.001	-.002	-.046	.001
33	170.67 Sec	57	-.482	-.657	.000	.031	-.043	.000
34	227.56 Sec	54	-.400	-.539	.001	.039	-.002	.000
35	341.33 Sec	3	-.341	-.382	.012	-.002	.017	.008
36	455.11 Sec	24	-.282	-.340	.001	.014	-.043	.001
37	682.67 Sec	9	-.225	-.264	.001	-.008	-.033	.000
38	910.22 Sec	9	-.211	-.236	.001	.018	.002	.000
39	1365.33 Sec	6	-.192	-.239	.272	.015	-.042	.345
40	1820.44 Sec	3	-.175	-.105	.000	.021	.065	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E







PHOENIX GEOSCIENCE

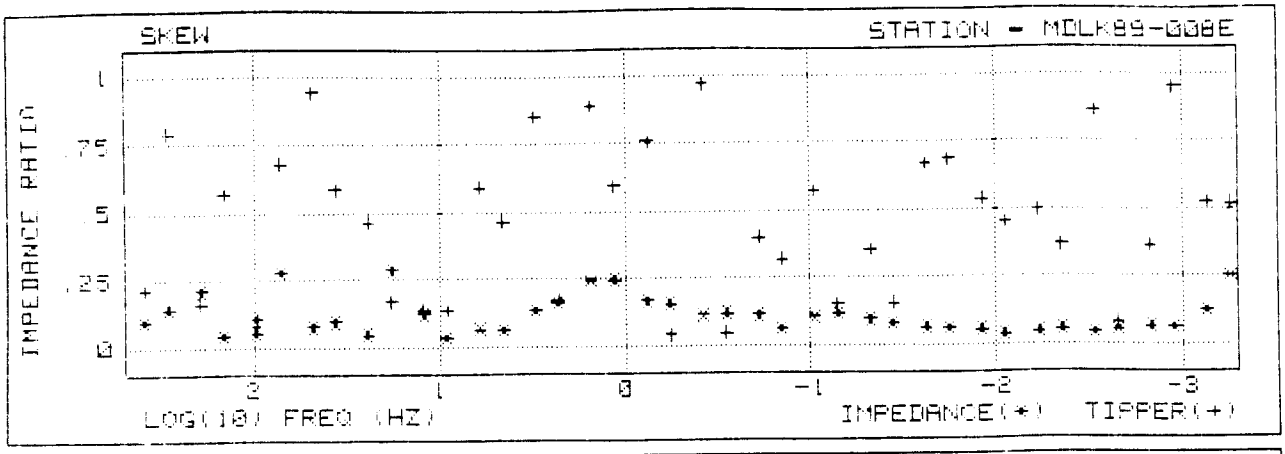
MT Site: MDLK89-008E

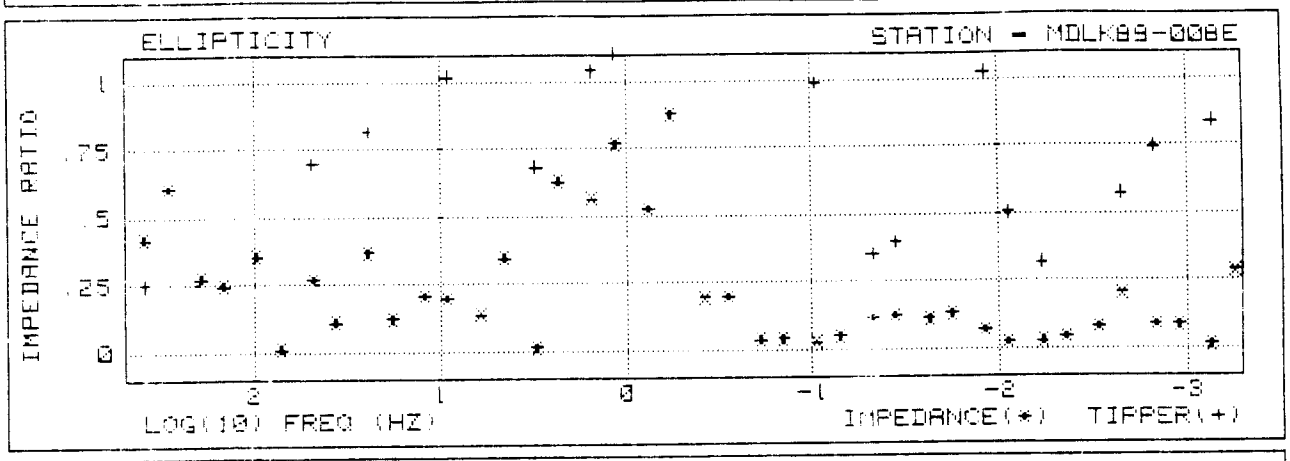
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

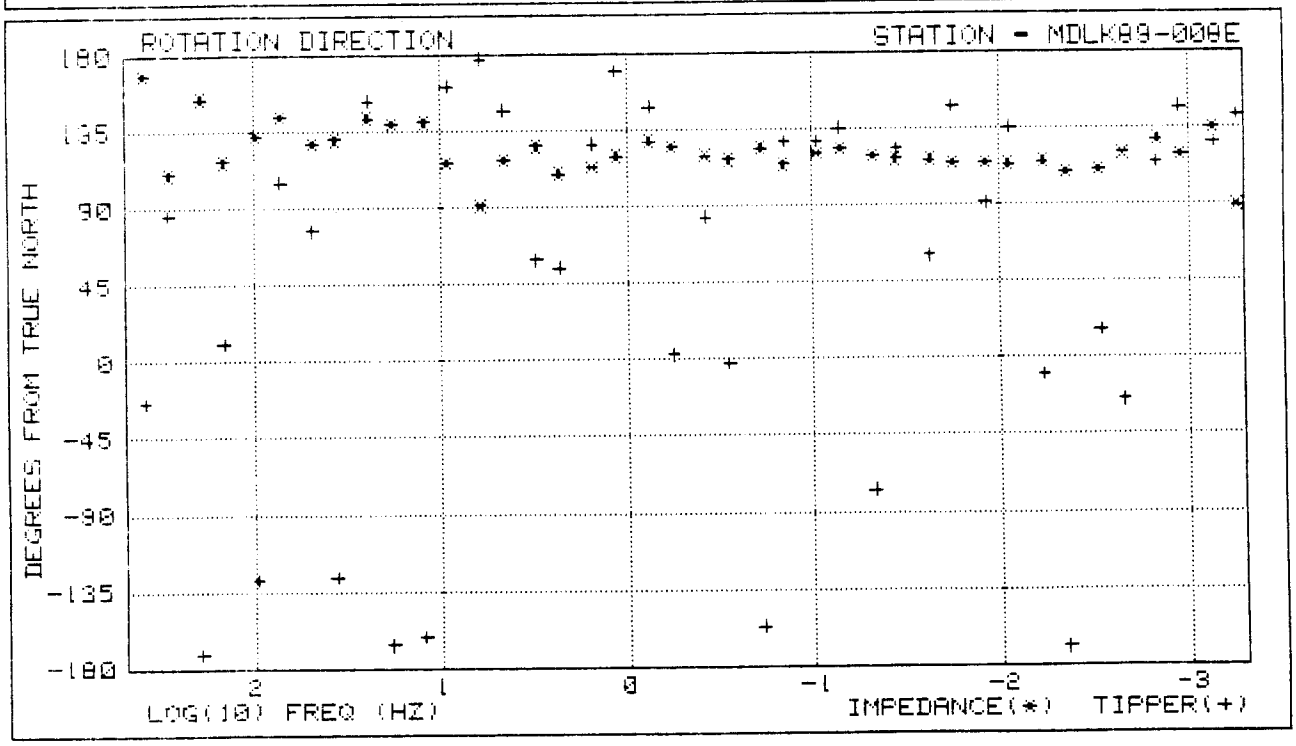
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	313	.79	4.65	.41	.37
2	288.00 Hz	249	.95	47.15	.27	.25
3	192.00 Hz	346	.57	42.03	.16	.10
4	144.00 Hz	471	.05	-84.29	.21	.28
5	96.00 Hz	379	.01	34.71	.10	.12
6	72.00 Hz	380	.01	90.93	.11	.08
7	48.00 Hz	472	.01	79.24	.11	.11
8	36.00 Hz	378	.00	-11.01	.11	.10
9	24.00 Hz	288	.01	87.82	.14	.15
10	18.00 Hz	288	.01	-12.42	.09	.09
11	12.00 Hz	192	.01	-30.86	.15	.13
12	9.00 Hz	672	.00	93.99	.03	.02
13	6.00 Hz	573	.01	-158.96	.02	.04
14	4.50 Hz	576	.01	51.23	.06	.07
15	3.00 Hz	11432	.00	-78.14	.02	.01
16	2.25 Hz	13307	.00	-66.62	.02	.01
17	1.50 Hz	10187	.00	-95.66	.02	.01
18	1.13 Hz	9423	.00	-16.54	.05	.01
19	1.33 Sec	2755	.00	-143.16	.02	.02
20	1.78 Sec	4848	.00	-60.27	.02	.01
21	2.67 Sec	1568	.01	30.49	.04	.02
22	3.56 Sec	2324	.01	-116.30	.02	.03
23	5.33 Sec	1119	.03	-17.68	.11	.13
24	7.11 Sec	975	.01	64.56	.07	.07
25	10.67 Sec	521	.00	68.11	.04	.03
26	14.22 Sec	545	.01	118.63	.06	.06
27	21.33 Sec	250	.01	-113.38	.07	.07
28	28.44 Sec	250	.01	7.48	.05	.06
29	42.67 Sec	298	.01	125.05	.03	.03
30	56.89 Sec	250	.00	29.40	.02	.02
31	85.33 Sec	99	.00	39.04	.03	.03
32	113.78 Sec	129	.02	-64.40	.07	.06
33	170.67 Sec	57	.03	-41.67	.10	.10
34	227.56 Sec	54	.02	-163.81	.05	.05
35	341.33 Sec	3	.16	54.78	.67	.77
36	455.11 Sec	24	.31	33.98	.25	.24
37	682.67 Sec	9	.29	161.29	.12	.17
38	910.22 Sec	9	.21	-10.45	.15	.17
39	1365.33 Sec	6	.08	78.72	.55	.70
40	1820.44 Sec	3	.08	86.05	.93	.84

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E







PHOENIX GEOSCIENCE

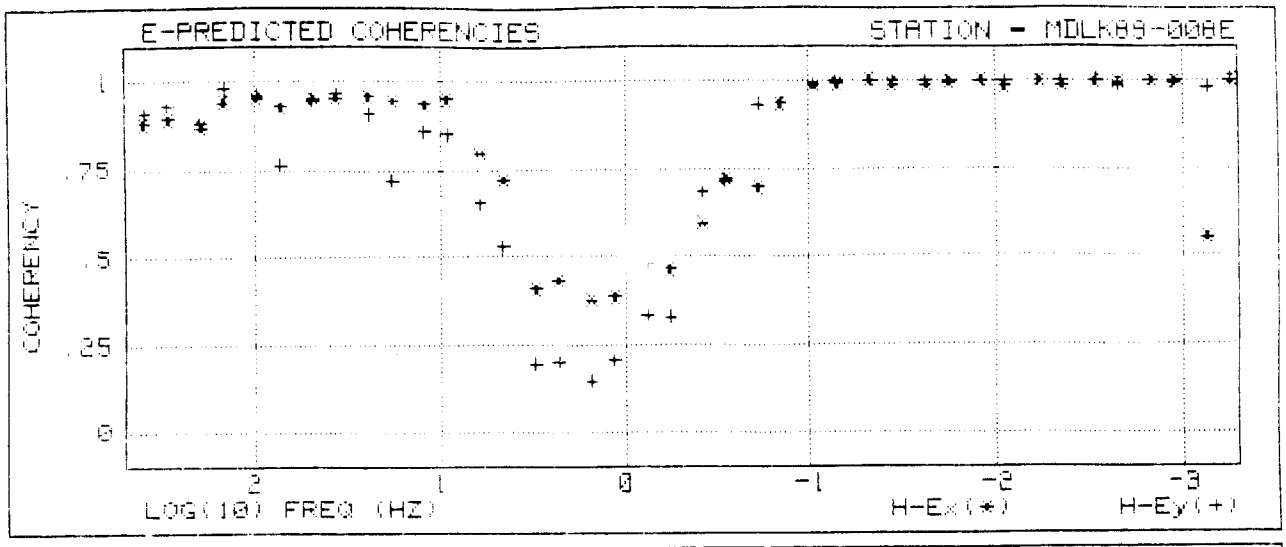
MT Site: MDLK89-008E

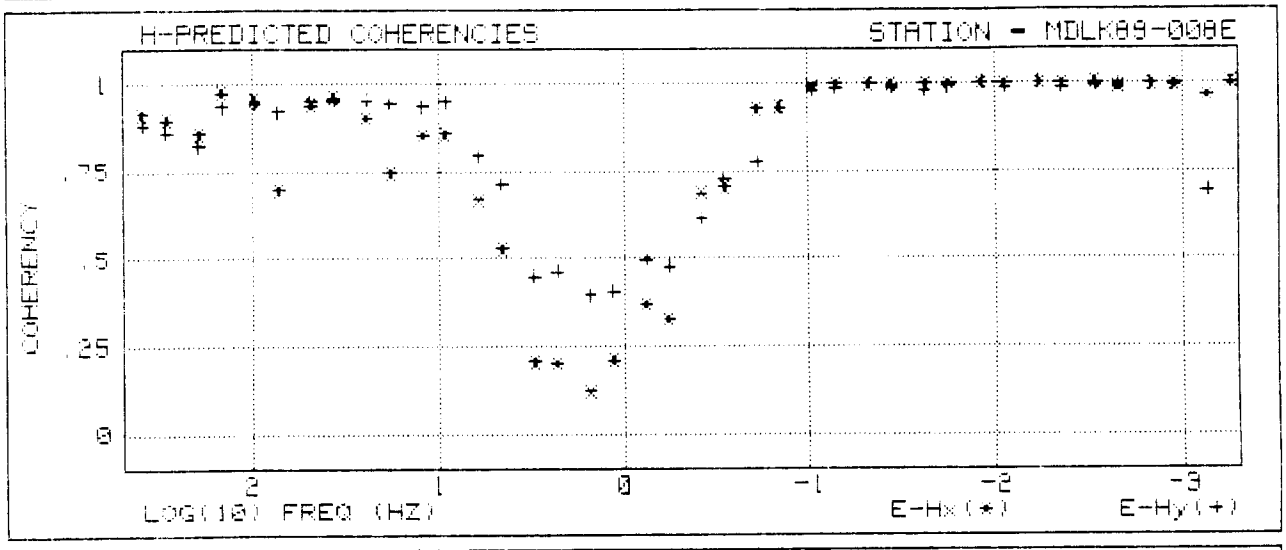
SKEW, ELLIPTICITY AND STRIKE

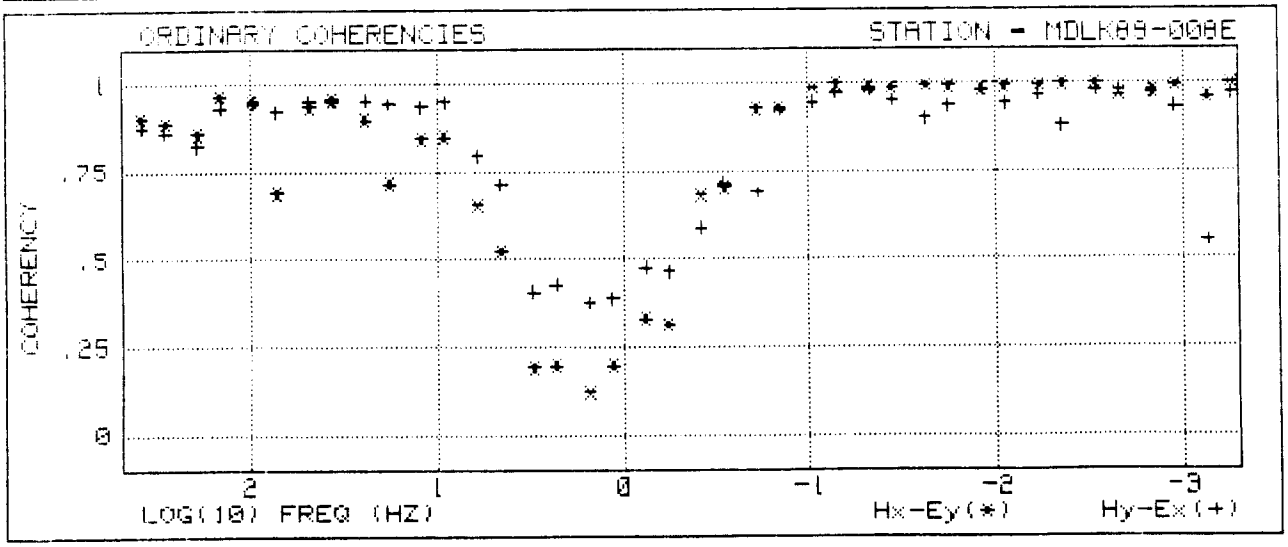
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	313	.09	.41	167.44	.21	.24	-24.49
2	288.00 Hz	249	.14	.60	109.42	.79	1.94	85.16
3	192.00 Hz	346	.21	.27	153.66	.16	1.39	-172.24
4	144.00 Hz	471	.04	.24	116.59	.57	2.54	9.96
5	96.00 Hz	379	.05	.35	131.45	.10	5.56	-128.77
6	72.00 Hz	380	.27	.01	142.80	.68	1.58	104.62
7	48.00 Hz	472	.07	.27	127.06	.94	.69	76.23
8	36.00 Hz	378	.09	.11	129.45	.58	1.55	-127.26
9	24.00 Hz	288	.04	.36	142.25	.46	.81	152.05
10	18.00 Hz	288	.28	.12	138.74	.16	1.38	-167.00
11	12.00 Hz	192	.12	.20	139.59	.13	1.61	-162.11
12	9.00 Hz	672	.03	.19	115.75	.13	1.01	160.98
13	6.00 Hz	573	.06	.13	90.24	.59	2.74	176.96
14	4.50 Hz	576	.06	.34	117.12	.46	1.29	146.58
15	3.00 Hz	11432	.13	.01	125.06	.85	.68	58.57
16	2.25 Hz	13307	.16	.62	108.90	.17	8.05	53.76
17	1.50 Hz	10187	.24	.56	112.57	.88	1.03	126.17
18	1.13 Hz	9423	.24	.76	118.81	.59	1.10	168.88
19	1.33 Sec	2755	.16	.52	127.76	.75	1.99	148.05
20	1.78 Sec	4848	.15	.87	124.39	.04	1.59	2.31
21	2.67 Sec	1568	.11	.19	118.75	.96	1.12	82.76
22	3.56 Sec	2324	.12	.19	116.67	.04	1.74	-3.15
23	5.33 Sec	1119	.11	.03	123.33	.40	3.90	-157.08
24	7.11 Sec	975	.06	.04	113.44	.32	1.53	127.20
25	10.67 Sec	521	.10	.02	120.05	.57	.98	127.31
26	14.22 Sec	545	.11	.05	122.90	.15	4.47	134.64
27	21.33 Sec	250	.09	.11	118.57	.35	.35	-77.78
28	28.44 Sec	250	.08	.12	116.63	.15	.39	122.17
29	42.67 Sec	298	.06	.11	116.23	.66	2.55	60.15
30	56.89 Sec	250	.06	.13	113.97	.68	1.80	147.40
31	85.33 Sec	99	.05	.07	114.26	.53	1.02	90.35
32	113.78 Sec	129	.03	.02	112.97	.45	.50	134.98
33	170.67 Sec	57	.04	.02	114.61	.49	.32	-10.12
34	227.56 Sec	54	.05	.04	108.10	.36	4.04	-169.66
35	341.33 Sec	3	.04	.08	109.90	.86	1.39	15.70
36	455.11 Sec	24	.05	.20	119.38	.08	.57	-25.13
37	682.67 Sec	9	.06	.08	127.62	.36	.74	114.12
38	910.22 Sec	9	.06	.08	118.23	.94	1.29	146.37
39	1365.33 Sec	6	.12	.01	134.42	.52	.83	125.77
40	1820.44 Sec	3	.25	.28	88.64	.52	2.16	141.76

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E







PHOENIX GEOSCIENCE

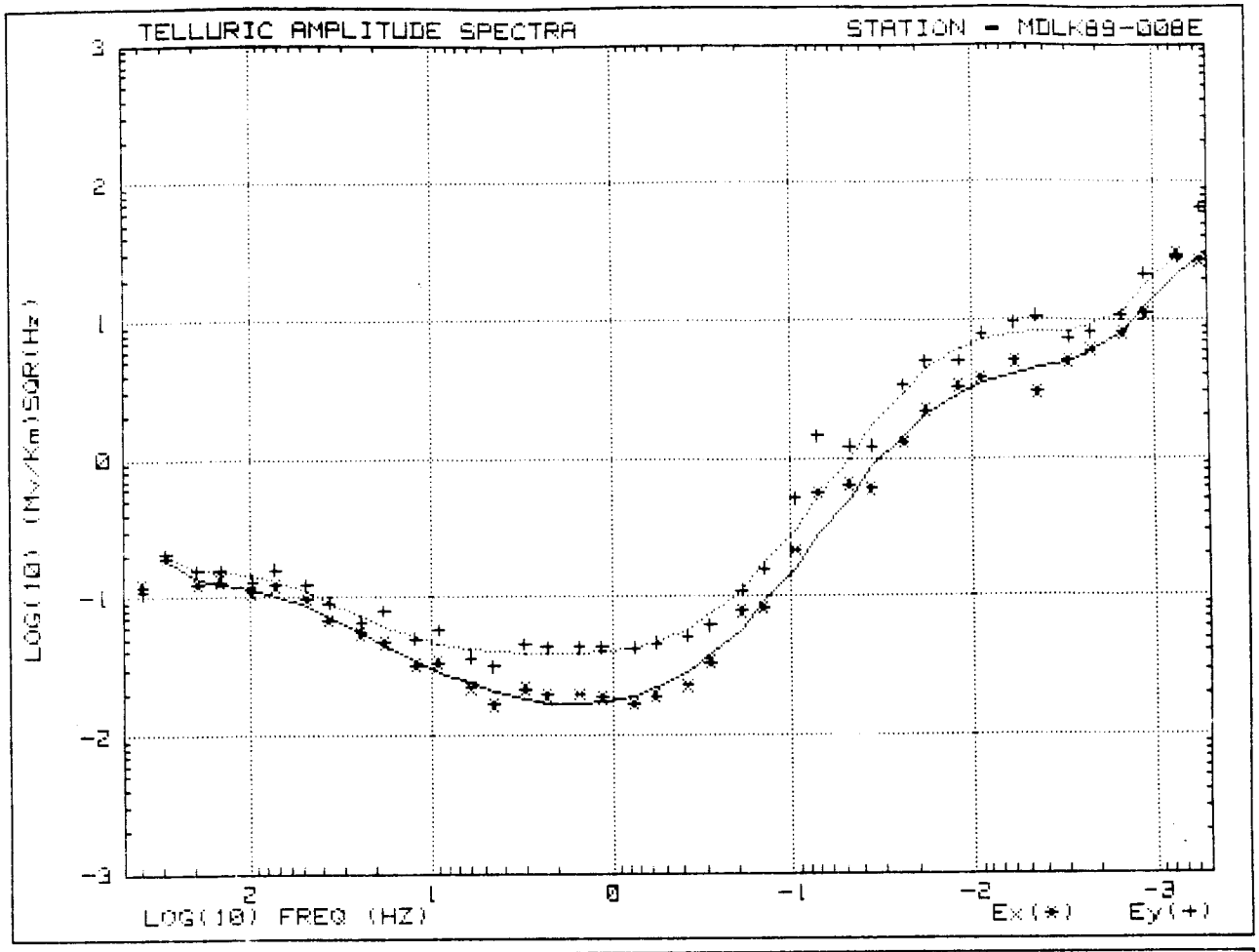
MT Site: MDLK89-008E

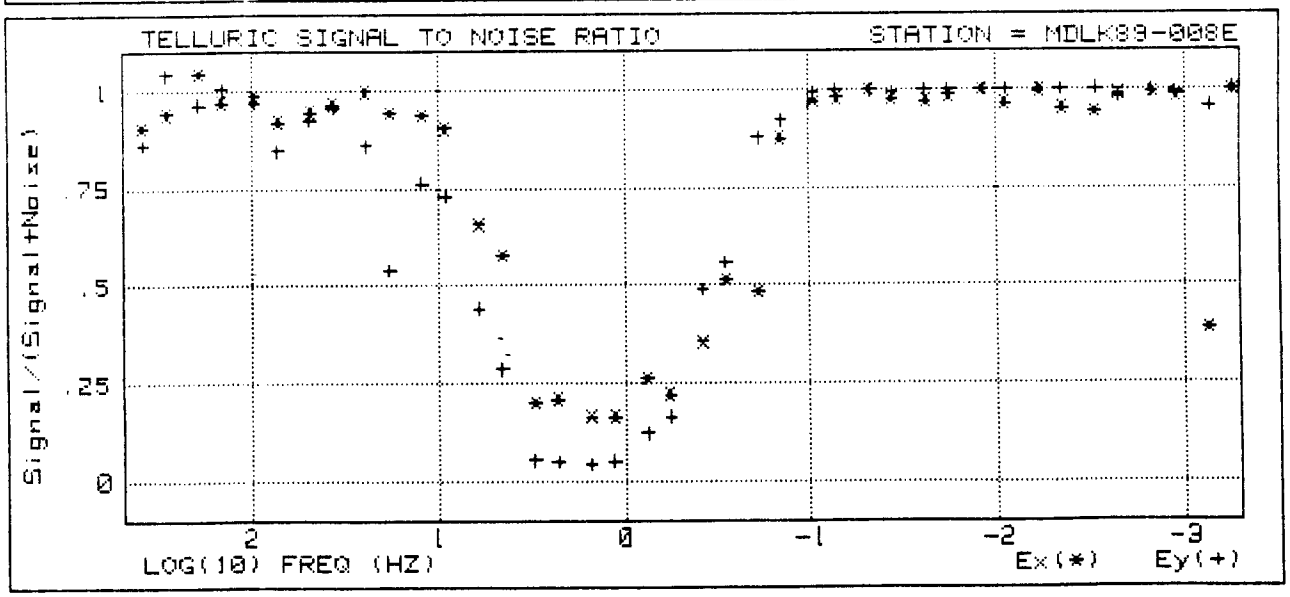
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	313	.88	.91	.91	.88	.90	.87
2	288.00 Hz	249	.89	.93	.89	.86	.88	.86
3	192.00 Hz	346	.87	.88	.85	.82	.85	.82
4	144.00 Hz	471	.94	.97	.97	.93	.96	.93
5	96.00 Hz	379	.95	.96	.95	.94	.95	.94
6	72.00 Hz	380	.92	.76	.69	.92	.69	.92
7	48.00 Hz	472	.95	.94	.93	.95	.93	.95
8	36.00 Hz	378	.95	.96	.96	.95	.95	.95
9	24.00 Hz	288	.95	.90	.90	.95	.89	.95
10	18.00 Hz	288	.94	.72	.74	.94	.71	.94
11	12.00 Hz	192	.93	.85	.85	.93	.84	.93
12	9.00 Hz	672	.94	.85	.85	.95	.84	.94
13	6.00 Hz	573	.79	.65	.66	.79	.65	.79
14	4.50 Hz	576	.72	.52	.53	.71	.52	.71
15	3.00 Hz	11432	.40	.19	.20	.44	.19	.40
16	2.25 Hz	13307	.43	.20	.20	.46	.19	.42
17	1.50 Hz	10187	.37	.14	.12	.39	.12	.37
18	1.13 Hz	9423	.38	.20	.21	.40	.19	.38
19	1.33 Sec	2755	.47	.33	.36	.49	.33	.47
20	1.78 Sec	4848	.46	.33	.32	.47	.31	.46
21	2.67 Sec	1568	.59	.68	.68	.61	.68	.59
22	3.56 Sec	2324	.72	.71	.70	.73	.70	.71
23	5.33 Sec	1119	.69	.93	.92	.77	.92	.69
24	7.11 Sec	975	.93	.93	.93	.93	.93	.92
25	10.67 Sec	521	.98	.99	.99	.98	.98	.94
26	14.22 Sec	545	.99	1.00	1.00	.99	.99	.97
27	21.33 Sec	250	1.00	1.00	.99	1.00	.98	.98
28	28.44 Sec	250	.99	.99	.99	.98	.98	.95
29	42.67 Sec	298	.98	1.00	.99	.98	.99	.90
30	56.89 Sec	250	.99	1.00	1.00	.99	.99	.93
31	85.33 Sec	99	1.00	1.00	1.00	1.00	.98	.98
32	113.78 Sec	129	.98	1.00	1.00	.98	.99	.94
33	170.67 Sec	57	1.00	1.00	1.00	1.00	.99	.96
34	227.56 Sec	54	.98	1.00	1.00	.99	.99	.87
35	341.33 Sec	3	.99	1.00	1.00	.99	1.00	.98
36	455.11 Sec	24	.99	.99	.98	.99	.96	.97
37	682.67 Sec	9	1.00	1.00	1.00	.99	.97	.97
38	910.22 Sec	9	.99	.99	.99	.99	.99	.93
39	1365.33 Sec	6	.55	.97	.96	.69	.96	.55
40	1820.44 Sec	3	1.00	1.00	1.00	1.00	1.00	.97

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E





PHOENIX GEOSCIENCE

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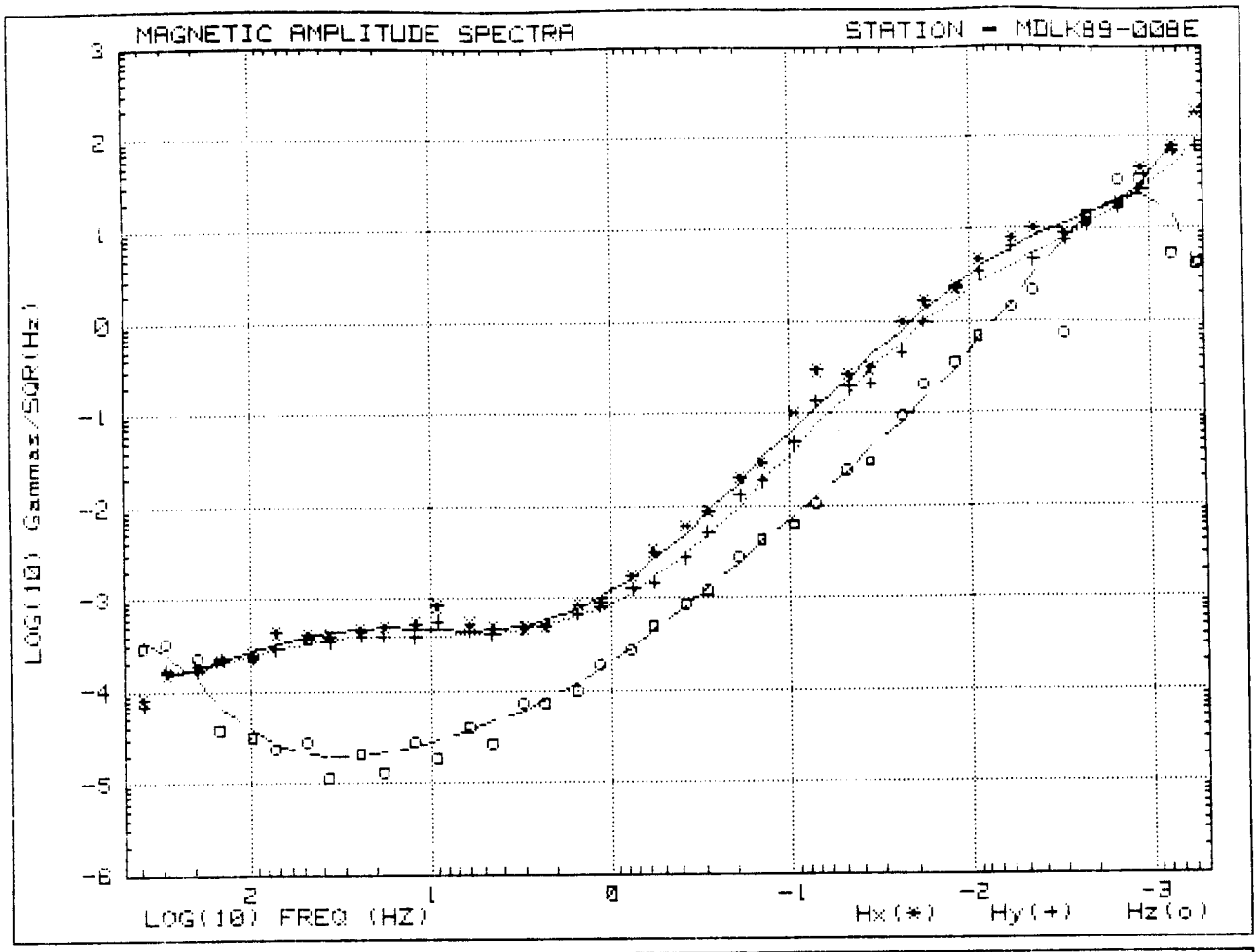
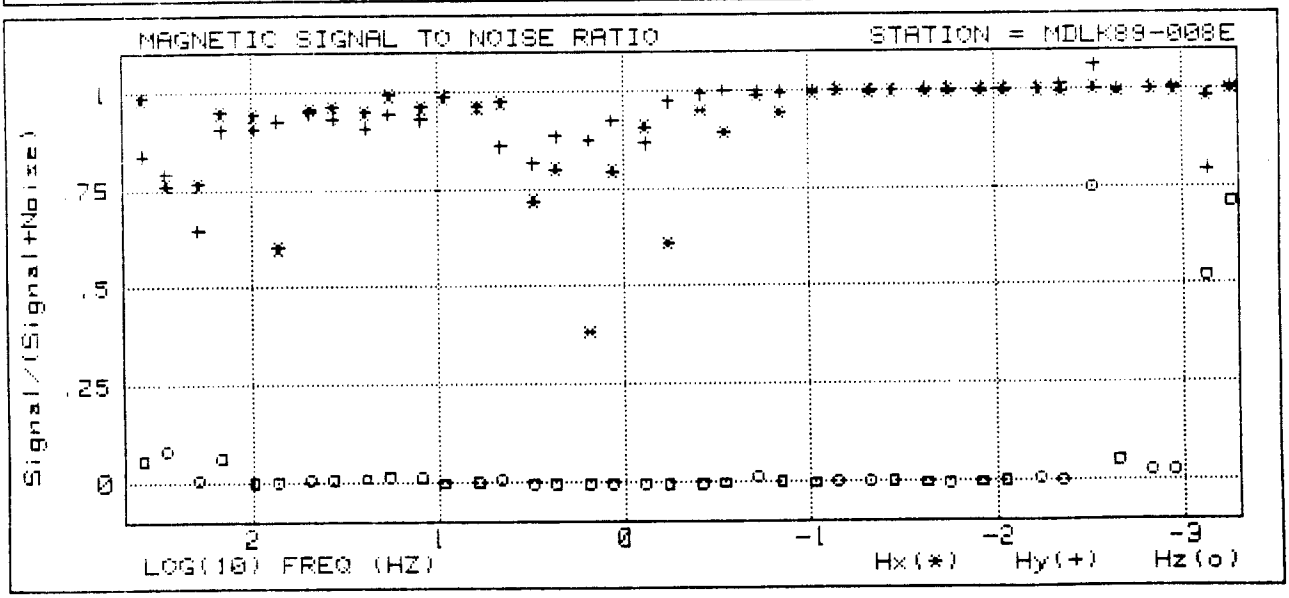




PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	313	8.02E-05	6.77E-05	3.10E-04	1.20E-01	1.07E-01
2	288.00 Hz	249	1.52E-04	1.68E-04	3.47E-04	1.89E-01	2.04E-01
3	192.00 Hz	346	1.84E-04	1.64E-04	2.38E-04	1.21E-01	1.57E-01
4	144.00 Hz	471	2.11E-04	2.25E-04	4.08E-05	1.28E-01	1.52E-01
5	96.00 Hz	379	2.42E-04	2.30E-04	3.36E-05	1.07E-01	1.26E-01
6	72.00 Hz	380	4.27E-04	2.77E-04	2.42E-05	1.20E-01	1.57E-01
7	48.00 Hz	472	3.97E-04	3.66E-04	2.91E-05	9.54E-02	1.20E-01
8	36.00 Hz	378	3.88E-04	3.34E-04	1.22E-05	6.69E-02	9.01E-02
9	24.00 Hz	288	4.41E-04	3.81E-04	2.21E-05	5.42E-02	6.55E-02
10	18.00 Hz	288	4.85E-04	3.93E-04	1.39E-05	4.60E-02	7.86E-02
11	12.00 Hz	192	5.24E-04	3.73E-04	2.97E-05	3.18E-02	4.92E-02
12	9.00 Hz	672	8.15E-04	5.65E-04	1.94E-05	3.32E-02	5.69E-02
13	6.00 Hz	573	5.23E-04	4.37E-04	4.21E-05	2.17E-02	3.61E-02
14	4.50 Hz	576	4.69E-04	4.01E-04	2.84E-05	1.63E-02	3.09E-02
15	3.00 Hz	11432	4.73E-04	4.79E-04	7.70E-05	2.14E-02	4.51E-02
16	2.25 Hz	13307	4.88E-04	4.99E-04	7.70E-05	1.91E-02	4.33E-02
17	1.50 Hz	10187	8.54E-04	6.59E-04	1.05E-04	1.94E-02	4.29E-02
18	1.13 Hz	9423	8.67E-04	7.89E-04	1.99E-04	1.85E-02	4.28E-02
19	1.33 Sec	2755	1.70E-03	1.23E-03	2.83E-04	1.67E-02	4.18E-02
20	1.78 Sec	4848	3.16E-03	1.44E-03	5.33E-04	1.89E-02	4.54E-02
21	2.67 Sec	1568	6.05E-03	2.69E-03	9.16E-04	2.26E-02	5.08E-02
22	3.56 Sec	2324	8.54E-03	5.14E-03	1.25E-03	3.32E-02	6.13E-02
23	5.33 Sec	1119	1.98E-02	1.29E-02	2.94E-03	7.76E-02	1.09E-01
24	7.11 Sec	975	2.85E-02	1.84E-02	4.61E-03	8.18E-02	1.57E-01
25	10.67 Sec	521	1.00E-01	4.81E-02	6.67E-03	2.12E-01	5.04E-01
26	14.22 Sec	545	2.91E-01	1.36E-01	1.10E-02	5.53E-01	1.43E+00
27	21.33 Sec	250	2.62E-01	1.88E-01	2.56E-02	6.35E-01	1.20E+00
28	28.44 Sec	250	3.05E-01	2.06E-01	3.15E-02	5.92E-01	1.21E+00
29	42.67 Sec	298	9.69E-01	4.58E-01	1.02E-01	1.28E+00	3.33E+00
30	56.89 Sec	250	1.65E+00	9.84E-01	2.20E-01	2.18E+00	4.94E+00
31	85.33 Sec	99	2.35E+00	2.27E+00	3.86E-01	3.26E+00	5.00E+00
32	113.78 Sec	129	4.60E+00	3.38E+00	7.47E-01	3.75E+00	7.82E+00
33	170.67 Sec	57	7.85E+00	6.30E+00	1.49E+00	4.91E+00	9.35E+00
34	227.56 Sec	54	1.00E+01	4.50E+00	2.23E+00	2.92E+00	1.04E+01
35	341.33 Sec	3	8.74E+00	7.64E+00	7.69E-01	4.89E+00	7.25E+00
36	455.11 Sec	24	1.15E+01	1.11E+01	1.48E+01	5.92E+00	7.93E+00
37	682.67 Sec	9	1.93E+01	1.61E+01	3.57E+01	7.94E+00	1.06E+01
38	910.22 Sec	9	4.47E+01	2.60E+01	3.67E+01	1.09E+01	2.14E+01
39	1365.33 Sec	6	7.48E+01	6.78E+01	5.70E+00	2.94E+01	2.82E+01
40	1820.44 Sec	3	1.83E+02	7.91E+01	4.51E+00	2.65E+01	6.38E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	313	.984	.837	.060	.903	.859
2	288.00 Hz	249	.760	.791	.088	.940	1.000
3	192.00 Hz	346	.762	.644	.013	1.000	.962
4	144.00 Hz	471	.945	.900	.066	.968	1.000
5	96.00 Hz	379	.939	.903	.006	.985	.966
6	72.00 Hz	380	.599	.923	.006	.919	.844
7	48.00 Hz	472	.954	.946	.012	.944	.924
8	36.00 Hz	378	.961	.931	.011	.962	.954
9	24.00 Hz	288	.945	.905	.014	.997	.857
10	18.00 Hz	288	.989	.942	.019	.941	.539
11	12.00 Hz	192	.958	.926	.018	.936	.760
12	9.00 Hz	672	.983	.988	.001	.902	.728
13	6.00 Hz	573	.958	.957	.002	.656	.440
14	4.50 Hz	576	.971	.857	.010	.576	.284
15	3.00 Hz	11432	.717	.814	.000	.199	.051
16	2.25 Hz	13307	.799	.882	.000	.206	.048
17	1.50 Hz	10187	.382	.871	.000	.164	.041
18	1.13 Hz	9423	.792	.922	.000	.163	.050
19	1.33 Sec	2755	.906	.863	.000	.260	.120
20	1.78 Sec	4848	.607	.970	.000	.220	.162
21	2.67 Sec	1568	.947	.990	.001	.353	.489
22	3.56 Sec	2324	.890	.998	.001	.514	.557
23	5.33 Sec	1119	.985	.997	.017	.481	.876
24	7.11 Sec	975	.941	.993	.005	.875	.920
25	10.67 Sec	521	.990	.997	.001	.966	.990
26	14.22 Sec	545	.998	.999	.004	.978	.996
27	21.33 Sec	250	.994	.999	.005	.997	.996
28	28.44 Sec	250	.995	.999	.003	.973	.992
29	42.67 Sec	298	.992	1.000	.001	.969	.998
30	56.89 Sec	250	.993	.999	.000	.983	.998
31	85.33 Sec	99	.993	1.000	.001	.998	.999
32	113.78 Sec	129	.994	1.000	.004	.963	.999
33	170.67 Sec	57	.996	1.000	.010	.994	.999
34	227.56 Sec	54	.993	1.000	.003	.950	.997
35	341.33 Sec	3	1.000	1.000	.754	.941	1.000
36	455.11 Sec	24	.991	.998	.057	.988	.980
37	682.67 Sec	9	.997	1.000	.028	.991	.994
38	910.22 Sec	9	.996	1.000	.027	.983	.992
39	1365.33 Sec	6	.981	.792	.529	.387	.955
40	1820.44 Sec	3	.998	1.000	.718	.998	.999

PHOENIX GEOSCIENCE

MT Site: MDLK89-008E

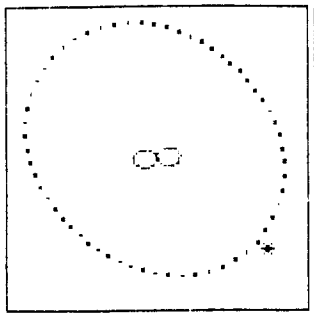
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

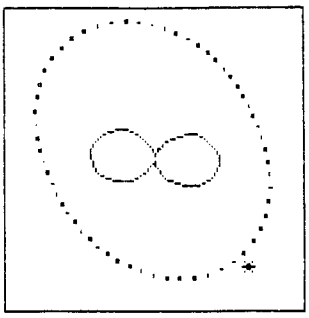
*=Rotation Direction

Zxy = ...
Zxx = ____

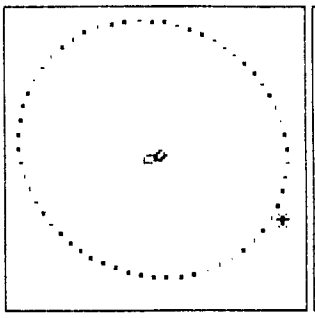
F=8 (36.0 Hz)



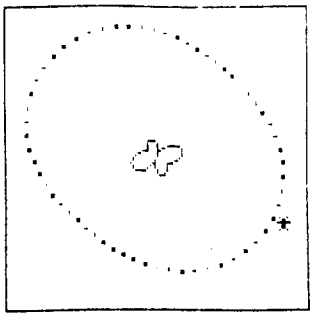
F=10 (18.0 Hz)



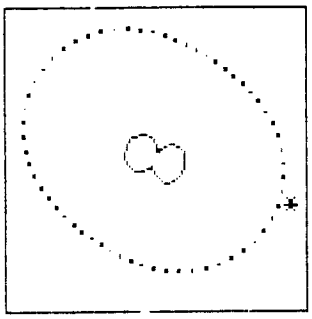
F=12 (9.0 Hz)



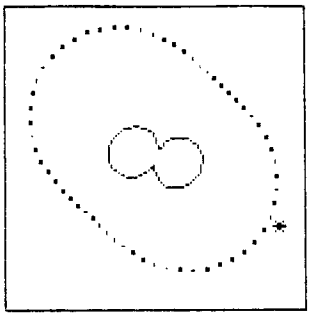
F=14 (4.5 Hz)



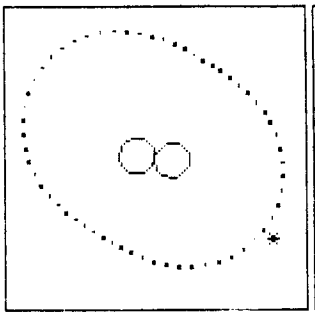
F=16 (2.3 Hz)



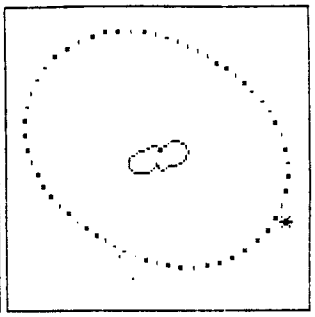
F=18 (1.1 Hz)



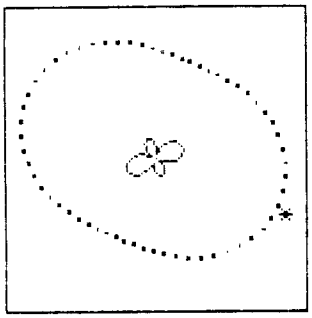
F=20 (.5625 Hz)



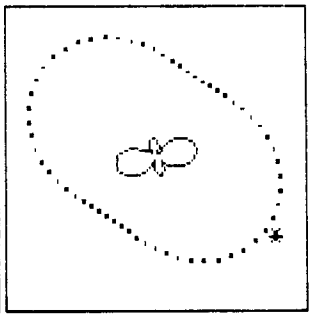
F=22 (.2813 Hz)



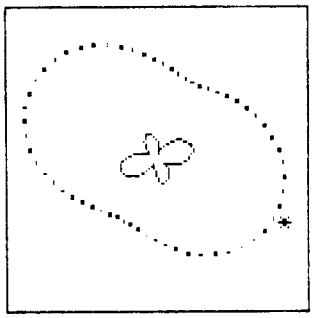
F=24 (.1406 Hz)



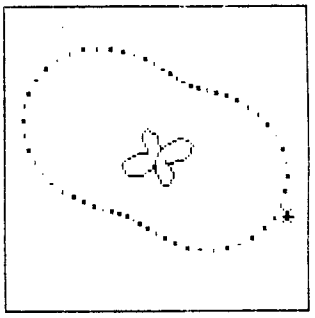
F=26 (.0703 Hz)



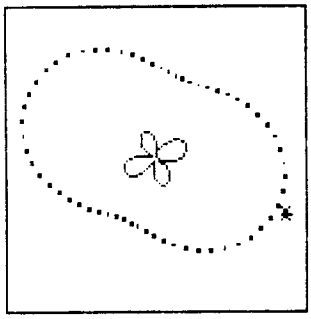
F=28 (.0352 Hz)



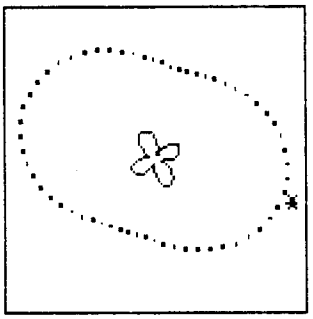
F=30 (.0176 Hz)



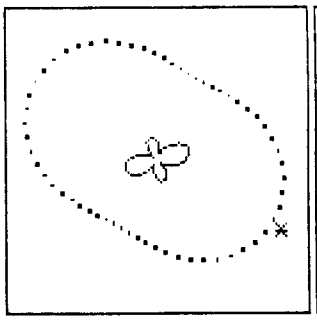
F=32 (.0088 Hz)



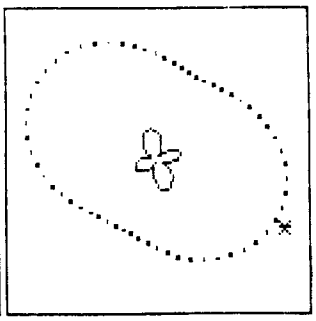
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL
Run:MDLK89-005s/042b/009s/

Operator:M. SNOW
Date: 16 Aug 1989
Time: 19:59:56

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#335-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#205-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#210-16Aug89-01
Sens-Ch12: C#432-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 3

Stn Number:MDLK89-009s
Site Desc:T43N R3E SEC24 NW4
41,33,30 N 121,34,35 W
Elevation:6760ft
Reference:MDLK89-005s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: SNOW
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL210	+45 DEG
Hy	12	COIL432	+135 DEG
Hz	13	LOOP405	
Ex	14	100 M	+45 DEG
Ey	15	100 M	+135 DEG
Rx	1	COIL431	+45 DEG
Ry	2	COIL430	+135 DEG

Ex Pot Resist: 18.0 K Ohms
Ex Voltage: AC=1.70 mv, DC=123.1mv
Ey Pot Resist: 20.0 K Ohms
Ey Voltage: AC=1.20 mv, DC=71.1 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

OPERATOR LOG FOR MDLK89-005s/042s/009E/

Recorded XPR Files:
- X#1 - SUM OF RUNS: j, and k.
- X#2 - SUM OF RUNS: j, and k.
- X#3 - SUM OF RUNS: j, and k.
- X#4 - SUM OF RUNS: j, and k.
- X#5 - SUM OF RUNS: j, and k.
- X#6 - SUM OF RUNS: j, and k.
- X#7 - SUM OF RUNS: j, and k.
- X#8 - SUM OF RUNS: j, and k.
- X#9 - SUM OF RUNS: j, and k.
- X#10 - SUM OF RUNS: j, and k.
- X#11 - SUM OF RUNS: j, and k.
- X#12 - SUM OF RUNS: j, and k.
- X#13 - SUM OF RUNS: j, and k.
- X#14 - SUM OF RUNS: j, and k.
- X#15 - SUM OF RUNS: j, and k.
- X#16 - SUM OF RUNS: j, and k.
- X#17 - SUM OF RUNS: j, and k.
- X#18 - SUM OF RUNS: j, and k.
- X#19 - SUM OF RUNS: j, and k.
- X#20 - SUM OF RUNS: j, and k.

Operator:SNOW/STEWART

Cultural Factors:
LIGHT TRAFFIC BY STATION DURING RUN "k"

Weather Conditions:
LIGHT WINDS WITH MODERATE TEMPS.

Other Factors:
NONE

PHOENIX GEOSCIENCE

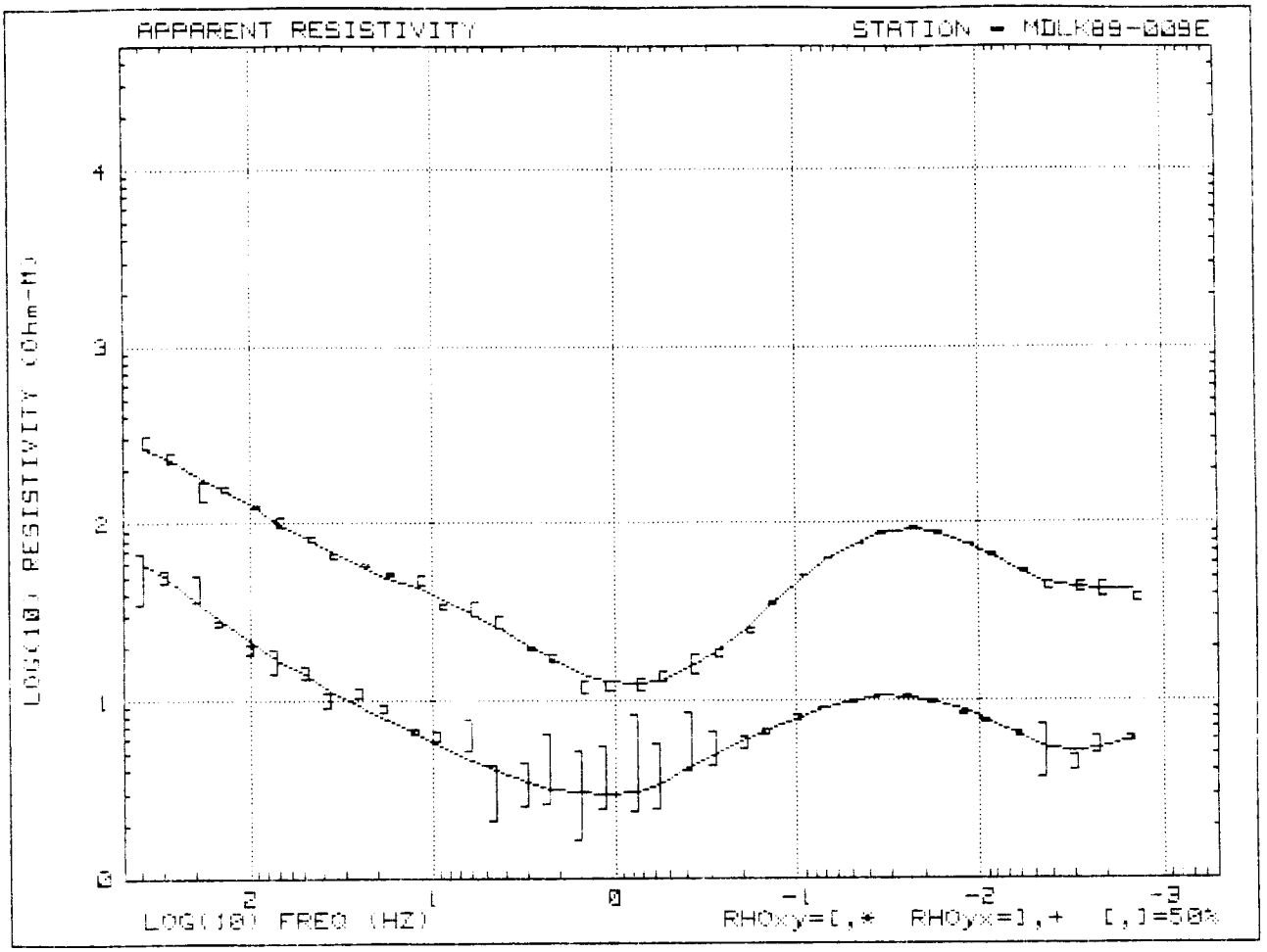
MT Site: MDLK89-009E

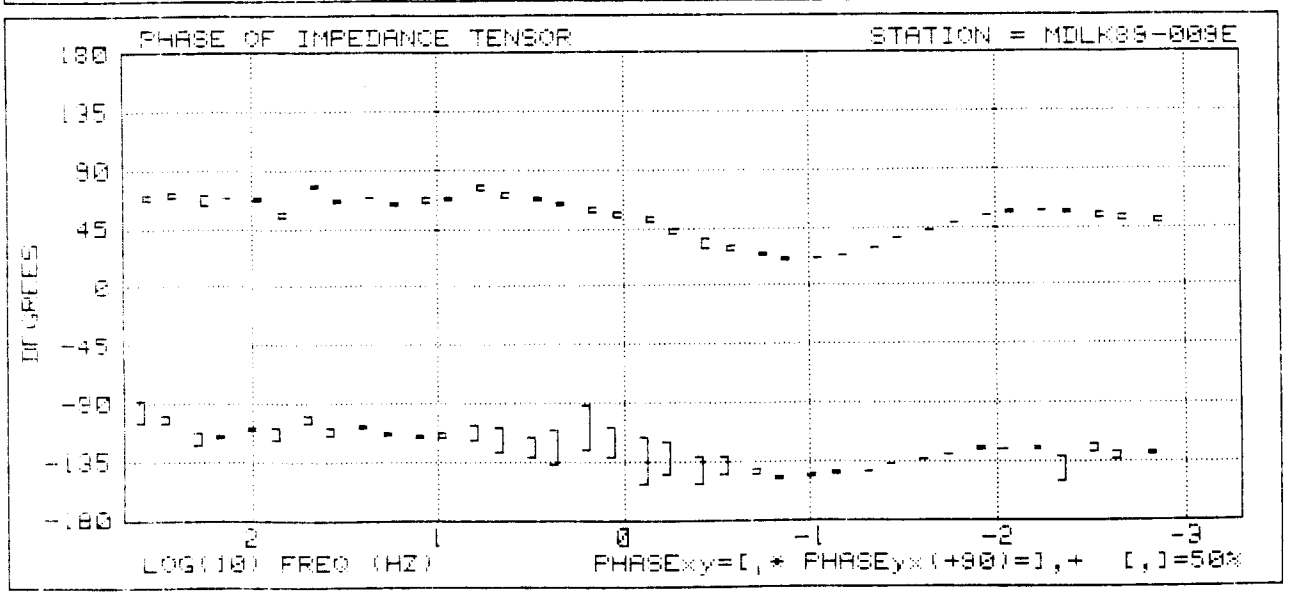
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

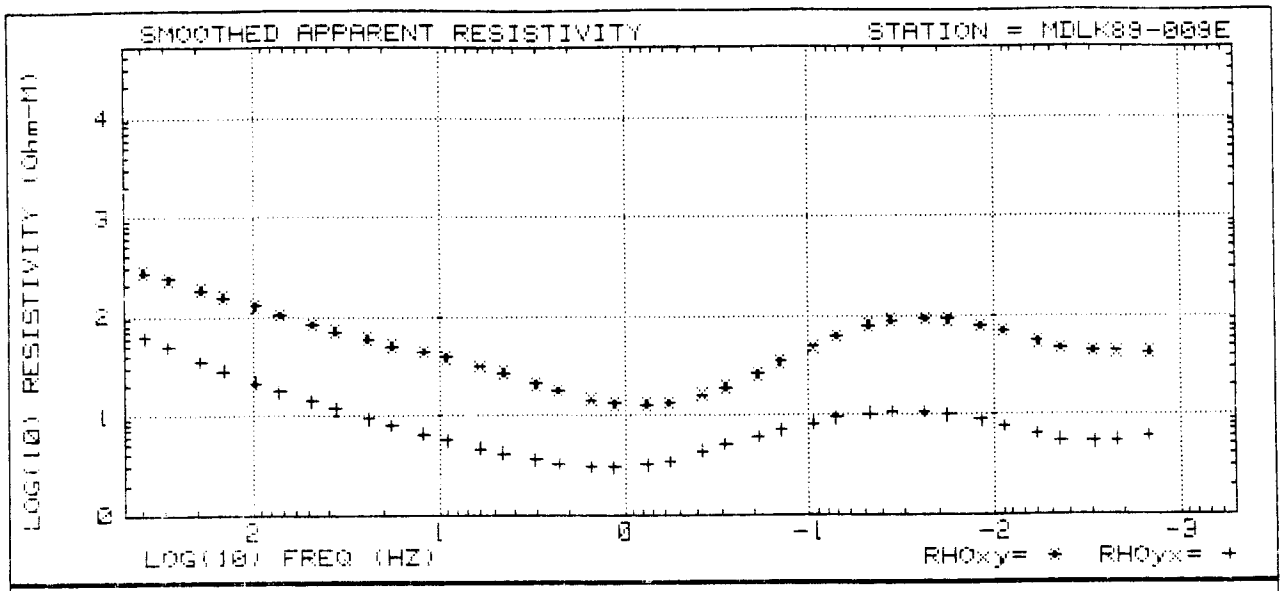
MT Site: MDLK89-009E

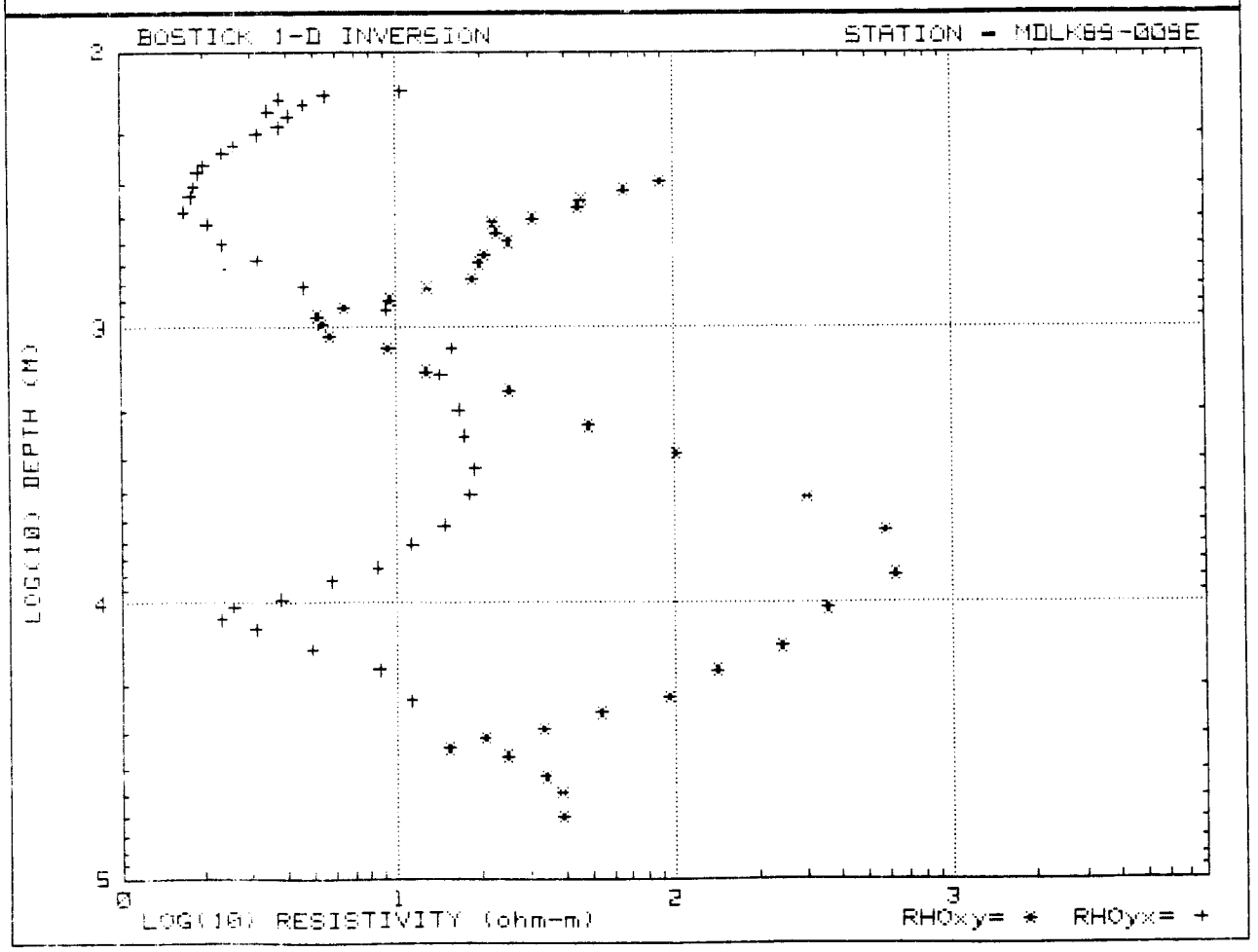




PHOENIX GEOSCIENCE

MT Site: MDLK89-009E





PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	128	288.5	10.5	48.1	62.1	68.8	2.9	-96.5	13.8
2	288.00 Hz	186	235.8	7.6	50.3	12.3	70.5	2.1	-101.9	3.3
3	192.00 Hz	95	152.9	21.1	43.0	28.8	66.7	5.5	-117.7	7.3
4	144.00 Hz	191	156.5	2.9	27.0	5.6	68.8	.8	-114.8	1.6
5	96.00 Hz	190	124.8	3.2	19.4	8.6	67.9	.9	-109.4	2.4
6	72.00 Hz	96	101.5	9.6	16.6	27.9	55.6	2.6	-113.2	7.0
7	48.00 Hz	192	82.1	4.3	14.2	13.0	77.6	1.2	-102.4	3.5
8	36.00 Hz	192	65.1	4.6	9.9	14.9	66.2	1.3	-111.5	4.0
9	24.00 Hz	192	58.4	3.3	11.0	8.3	68.7	.9	-108.0	2.3
10	18.00 Hz	192	51.7	4.3	9.0	7.4	63.5	1.2	-113.7	2.0
11	12.00 Hz	96	47.2	9.6	6.7	6.3	67.7	2.6	-115.1	1.8
12	9.00 Hz	288	33.7	6.2	6.3	8.3	68.3	1.7	-114.3	2.3
13	6.00 Hz	288	32.8	13.0	6.4	36.2	76.1	3.5	-112.5	8.9
14	4.50 Hz	384	27.7	11.9	3.0	69.2	70.1	3.2	-118.0	15.1
15	3.00 Hz	15913	19.7	4.1	3.3	50.0	68.1	1.1	-124.2	11.6
16	2.25 Hz	4797	17.2	6.8	4.1	94.4	64.7	1.9	-123.9	19.0
17	1.50 Hz	5333	11.9	13.1	2.9	99.9	59.2	3.5	-106.6	24.7
18	1.13 Hz	7861	11.9	9.3	3.7	83.5	55.0	2.6	-120.4	17.4
19	1.33 Sec	2544	12.3	13.4	4.5	99.9	51.9	3.6	-134.4	26.9
20	1.78 Sec	2432	13.6	10.5	3.7	87.5	42.8	2.9	-133.0	18.0
21	2.67 Sec	1596	16.1	21.7	5.9	78.1	32.9	5.6	-141.5	16.5
22	3.56 Sec	1572	18.5	8.4	5.4	39.8	28.8	2.3	-138.1	9.6
23	5.33 Sec	663	24.9	3.2	5.8	12.9	24.1	.9	-143.0	3.5
24	7.11 Sec	747	35.5	2.4	6.7	7.0	20.7	.7	-147.1	1.9
25	10.67 Sec	593	50.8	1.4	8.1	3.5	21.9	.4	-146.1	1.0
26	14.22 Sec	575	63.3	.8	9.1	1.7	24.1	.2	-143.8	.5
27	21.33 Sec	280	76.9	.7	10.0	1.5	29.8	.2	-142.4	.4
28	28.44 Sec	280	87.7	.7	10.4	1.1	36.4	.2	-136.7	.3
29	42.67 Sec	279	95.3	.7	10.5	1.8	42.8	.2	-133.4	.5
30	56.89 Sec	267	87.9	.8	9.9	2.4	48.4	.2	-129.2	.7
31	85.33 Sec	138	76.6	.9	8.5	3.2	54.2	.3	-125.3	.9
32	113.78 Sec	132	66.1	.9	7.7	2.9	56.6	.3	-125.3	.8
33	170.67 Sec	63	53.0	1.2	6.5	4.6	57.4	.3	-124.6	1.3
34	227.56 Sec	72	44.5	7.0	5.2	68.5	56.7	1.9	-140.9	14.9
35	341.33 Sec	12	43.4	9.4	4.5	14.1	54.0	2.6	-125.3	3.8
36	455.11 Sec	9	42.1	14.3	5.6	17.4	51.9	3.8	-129.9	4.6
37	682.67 Sec	6	37.9	8.7	6.0	5.1	49.4	2.4	-128.2	1.4

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	128	270.1	59.9	89.4	298	10.5	141
2	288.00 Hz	186	233.7	48.9	66.3	321	5.6	147
3	192.00 Hz	95	183.4	34.5	46.8	348	3.8	151
4	144.00 Hz	191	154.9	28.1	45.5	369	4.7	157
5	96.00 Hz	190	125.6	21.0	30.9	407	3.5	166
6	72.00 Hz	96	101.8	17.1	22.3	423	4.1	173
7	48.00 Hz	192	80.6	13.7	23.0	461	3.8	190
8	36.00 Hz	192	69.3	11.5	25.2	494	3.2	201
9	24.00 Hz	192	58.3	9.3	20.7	555	2.6	221
10	18.00 Hz	192	49.8	7.8	19.8	592	2.4	235
11	12.00 Hz	96	43.3	6.4	18.8	676	2.0	260
12	9.00 Hz	288	37.9	5.5	13.0	730	1.9	277
13	6.00 Hz	288	30.8	4.6	9.5	806	1.8	311
14	4.50 Hz	384	26.2	4.1	6.5	859	1.8	338
15	3.00 Hz	15913	20.3	3.5	5.2	926	1.7	385
16	2.25 Hz	4797	17.4	3.2	5.5	990	2.1	424
17	1.50 Hz	5333	14.1	3.0	5.7	1092	2.4	506
18	1.13 Hz	7861	13.0	2.9	9.4	1210	3.2	575
19	1.33 Sec	2544	12.6	3.1	12.8	1460	4.6	724
20	1.78 Sec	2432	13.1	3.4	25.4	1715	9.2	871
21	2.67 Sec	1596	15.8	4.3	49.3	2307	15.8	1203
22	3.56 Sec	1572	18.7	5.0	102.2	2900	14.4	1504
23	5.33 Sec	663	25.4	6.0	302.9	4145	16.7	2011
24	7.11 Sec	747	33.6	7.0	582.5	5497	17.5	2504
25	10.67 Sec	593	47.2	8.1	629.5	7983	19.2	3304
26	14.22 Sec	575	60.9	9.2	360.6	10476	18.4	4078
27	21.33 Sec	280	77.2	10.2	245.0	14443	14.9	5240
28	28.44 Sec	280	87.4	10.5	141.9	17745	11.3	6155
29	42.67 Sec	279	91.0	10.4	95.3	22178	8.5	7507
30	56.89 Sec	267	88.8	9.8	54.1	25296	5.8	8400
31	85.33 Sec	138	76.9	8.7	33.4	28836	3.8	9720
32	113.78 Sec	132	67.6	7.5	20.6	31205	2.6	10378
33	170.67 Sec	63	53.2	6.2	15.4	33911	2.3	11606
34	227.56 Sec	72	46.1	5.4	24.9	36462	3.1	12518
35	341.33 Sec	12	43.2	5.2	34.1	43234	4.9	14931
36	455.11 Sec	9	42.5	5.4	39.1	49489	8.6	17577
37	682.67 Sec	6	42.0	6.1	39.7	60266	11.3	22887

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	128	-171.15	114.90	999.99	268.84	693.96	999.99
2	288.00 Hz	186	1.84	36.37	999.99	194.91	549.20	910.54
3	192.00 Hz	95	4.43	-17.77	999.99	151.70	351.83	999.99
4	144.00 Hz	191	-1.17	-2.89	114.37	121.17	313.04	45.98
5	96.00 Hz	190	4.05	-4.55	78.97	91.97	226.84	29.22
6	72.00 Hz	96	.06	3.33	534.45	107.87	157.81	154.07
7	48.00 Hz	192	6.06	-2.20	92.96	30.14	137.06	17.19
8	36.00 Hz	192	-2.41	-4.40	48.01	43.64	99.07	12.06
9	24.00 Hz	192	2.61	-2.21	14.50	30.34	78.03	3.71
10	18.00 Hz	192	.40	-1.49	12.07	30.47	61.05	4.19
11	12.00 Hz	96	2.04	-3.11	26.19	20.21	49.24	11.94
12	9.00 Hz	288	1.88	-.10	5.36	14.43	36.19	2.77
13	6.00 Hz	288	3.63	.02	9.98	7.55	30.47	7.39
14	4.50 Hz	384	1.21	-1.35	2.66	8.48	23.46	3.95
15	3.00 Hz	15913	1.82	.63	.24	6.40	15.95	.23
16	2.25 Hz	4797	1.97	.35	.43	5.94	12.56	.42
17	1.50 Hz	5333	1.65	-.50	1.00	4.85	8.12	.68
18	1.13 Hz	7861	1.83	-.31	.51	4.70	6.72	.27
19	1.33 Sec	2544	1.557	.115	.660	4.191	5.336	.363
20	1.78 Sec	2432	.905	-.306	.244	4.538	4.208	.192
21	2.67 Sec	1596	.602	-.081	.434	4.617	2.988	.584
22	3.56 Sec	1572	.393	.034	.134	4.472	2.460	.084
23	5.33 Sec	663	.421	.075	.012	4.412	1.977	.012
24	7.11 Sec	747	.460	-.027	.010	4.672	1.766	.007
25	10.67 Sec	593	.468	.084	.003	4.529	1.819	.002
26	14.22 Sec	575	.418	.158	.001	4.306	1.923	.001
27	21.33 Sec	280	.498	.041	.000	3.683	2.111	.000
28	28.44 Sec	280	.444	.076	.000	3.159	2.330	.000
29	42.67 Sec	279	.455	.068	.000	2.453	2.268	.000
30	56.89 Sec	267	.373	.190	.000	1.844	2.079	.000
31	85.33 Sec	138	.258	.201	.000	1.239	1.718	.000
32	113.78 Sec	132	.195	.189	.000	.938	1.423	.000
33	170.67 Sec	63	.122	.157	.000	.671	1.050	.000
34	227.56 Sec	72	.086	.136	.001	.543	.826	.002
35	341.33 Sec	12	.050	.138	.001	.468	.645	.003
36	455.11 Sec	9	.066	.086	.000	.419	.536	.004
37	682.67 Sec	6	.055	.069	.000	.343	.400	.001

PHOENIX GEOSCIENCE

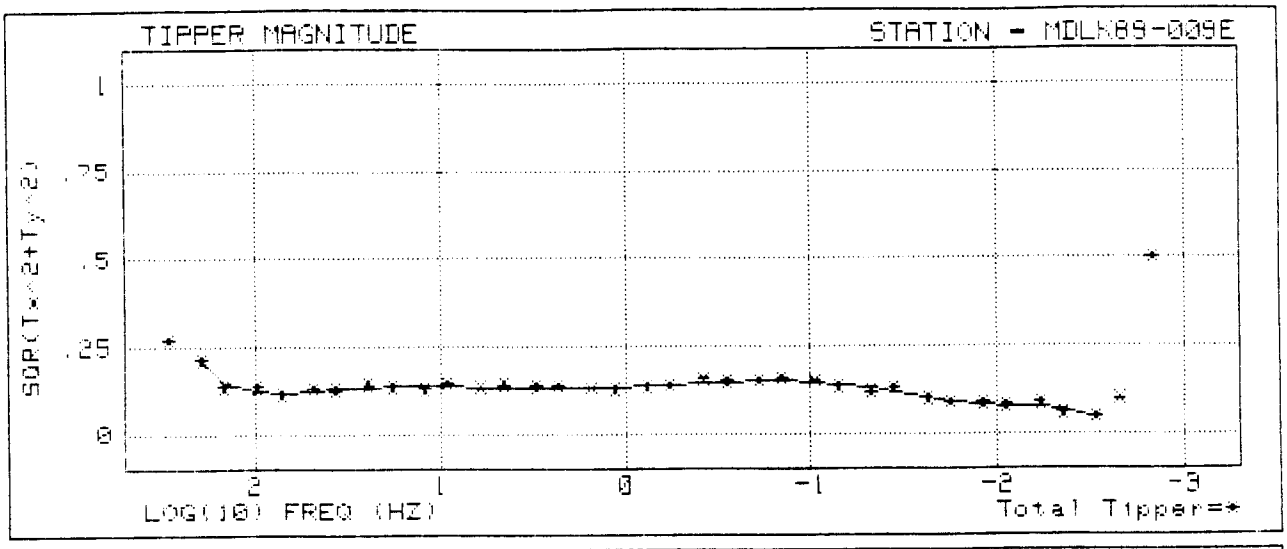
MT Site: MDLK89-009E

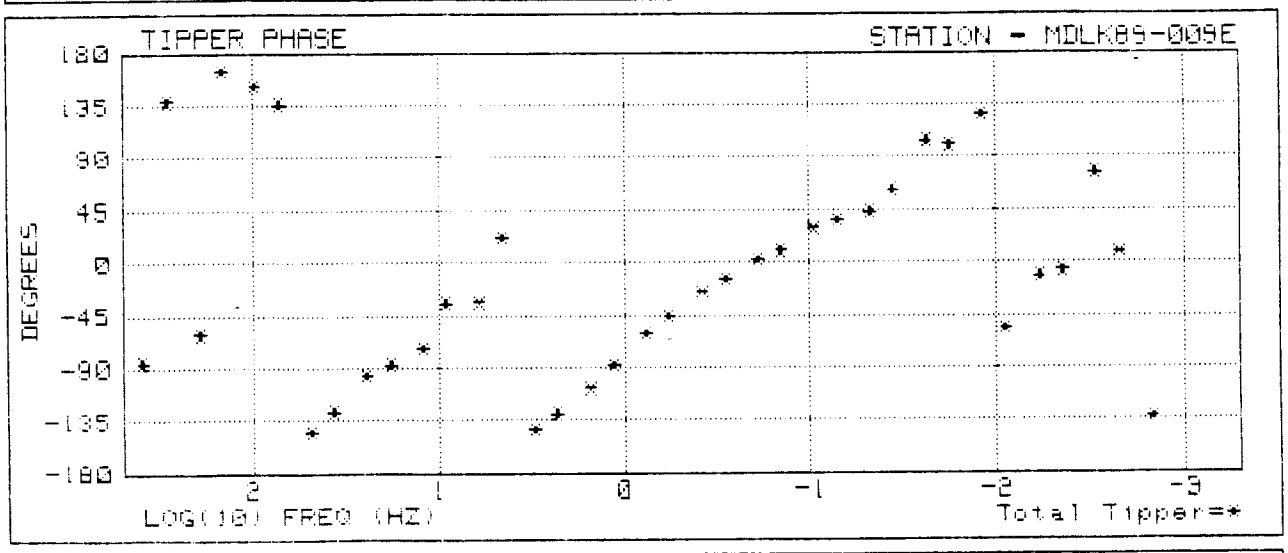
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

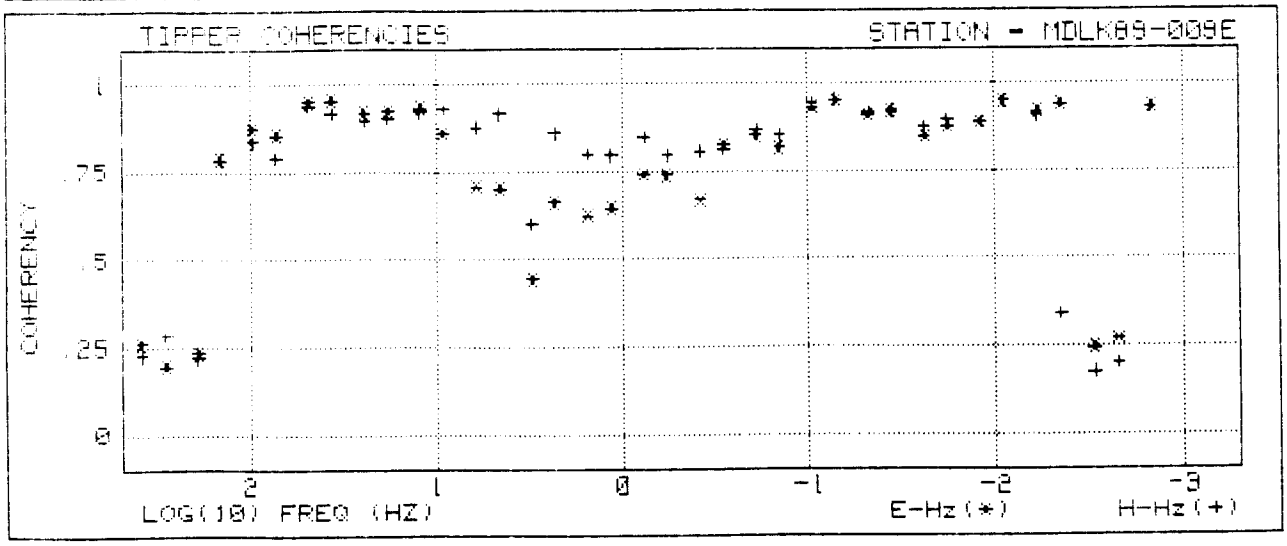
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	128	-34.39	-302.00	999.99	39.66	-11.20	999.99
2	288.00 Hz	186	-55.41	-263.33	484.79	38.85	18.31	145.09
3	192.00 Hz	95	-94.52	-179.84	999.99	11.85	-20.23	288.56
4	144.00 Hz	191	-58.45	-126.61	29.14	5.35	-5.09	11.71
5	96.00 Hz	190	-31.93	-90.93	31.59	1.92	-3.61	11.69
6	72.00 Hz	96	-30.46	-71.11	181.02	4.73	-.85	52.18
7	48.00 Hz	192	-12.59	-57.09	25.44	-4.03	.01	4.71
8	36.00 Hz	192	-15.48	-39.31	17.15	-4.97	-3.19	4.31
9	24.00 Hz	192	-11.20	-34.54	4.19	-.61	-.79	1.07
10	18.00 Hz	192	-11.40	-26.03	2.06	.14	-1.35	.72
11	12.00 Hz	96	-8.51	-18.17	.76	-1.59	-1.75	.35
12	9.00 Hz	288	-6.92	-15.30	.89	.18	.51	.46
13	6.00 Hz	288	-5.30	-12.80	9.17	.27	.44	6.79
14	4.50 Hz	384	-3.86	-7.25	9.32	-1.08	-.70	13.84
15	3.00 Hz	15913	-3.98	-5.86	4.12	1.01	.83	3.98
16	2.25 Hz	4797	-3.80	-5.65	10.25	.62	.77	10.21
17	1.50 Hz	5333	-1.49	-4.43	8.14	.26	.76	5.51
18	1.13 Hz	7861	-2.31	-3.95	3.86	.31	1.00	2.01
19	1.33 Sec	2544	-2.857	-2.920	7.354	.247	.838	4.044
20	1.78 Sec	2432	-2.199	-2.357	2.053	.367	.374	1.618
21	2.67 Sec	1596	-2.601	-2.069	1.840	.467	.216	2.476
22	3.56 Sec	1572	-2.045	-1.836	.423	.424	-.087	.265
23	5.33 Sec	663	-1.854	-1.398	.040	.493	-.245	.040
24	7.11 Sec	747	-1.820	-1.176	.011	.485	-.146	.007
25	10.67 Sec	593	-1.614	-1.086	.002	.485	.019	.002
26	14.22 Sec	575	-1.445	-1.058	.000	.439	.090	.000
27	21.33 Sec	280	-1.211	-.932	.000	.444	.154	.001
28	28.44 Sec	280	-.986	-.928	.000	.369	.193	.000
29	42.67 Sec	279	-.762	-.804	.000	.328	.215	.000
30	56.89 Sec	267	-.589	-.721	.000	.300	.258	.000
31	85.33 Sec	138	-.407	-.576	.000	.218	.231	.000
32	113.78 Sec	132	-.337	-.476	.000	.203	.183	.000
33	170.67 Sec	63	-.248	-.360	.000	.135	.149	.000
34	227.56 Sec	72	-.263	-.214	.016	.188	.090	.029
35	341.33 Sec	12	-.148	-.209	.001	.097	.104	.001
36	455.11 Sec	9	-.159	-.190	.001	.062	.089	.007
37	682.67 Sec	6	-.130	-.165	.000	.036	.087	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E







PHOENIX GEOSCIENCE

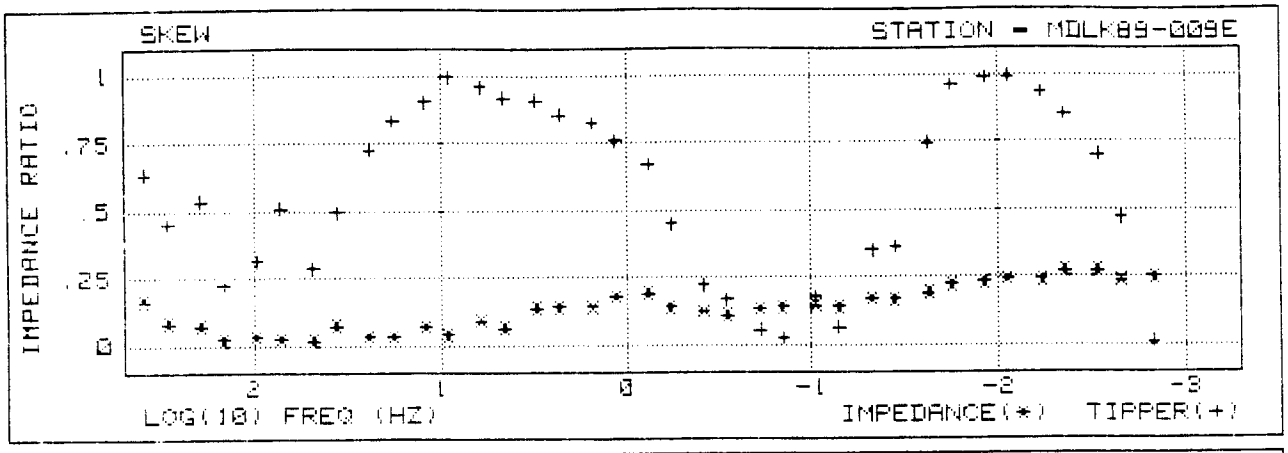
MT Site: MDLK89-009E

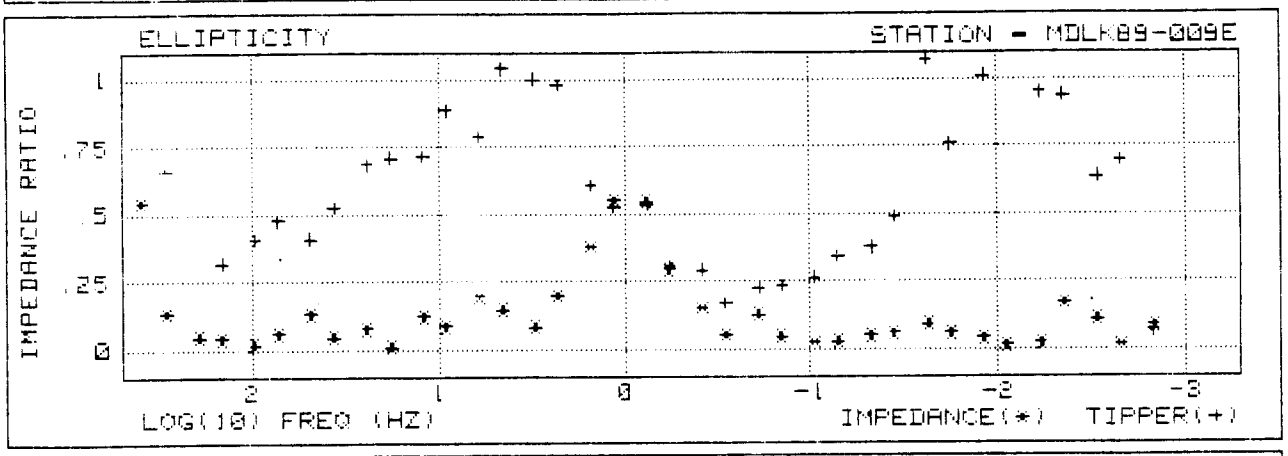
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

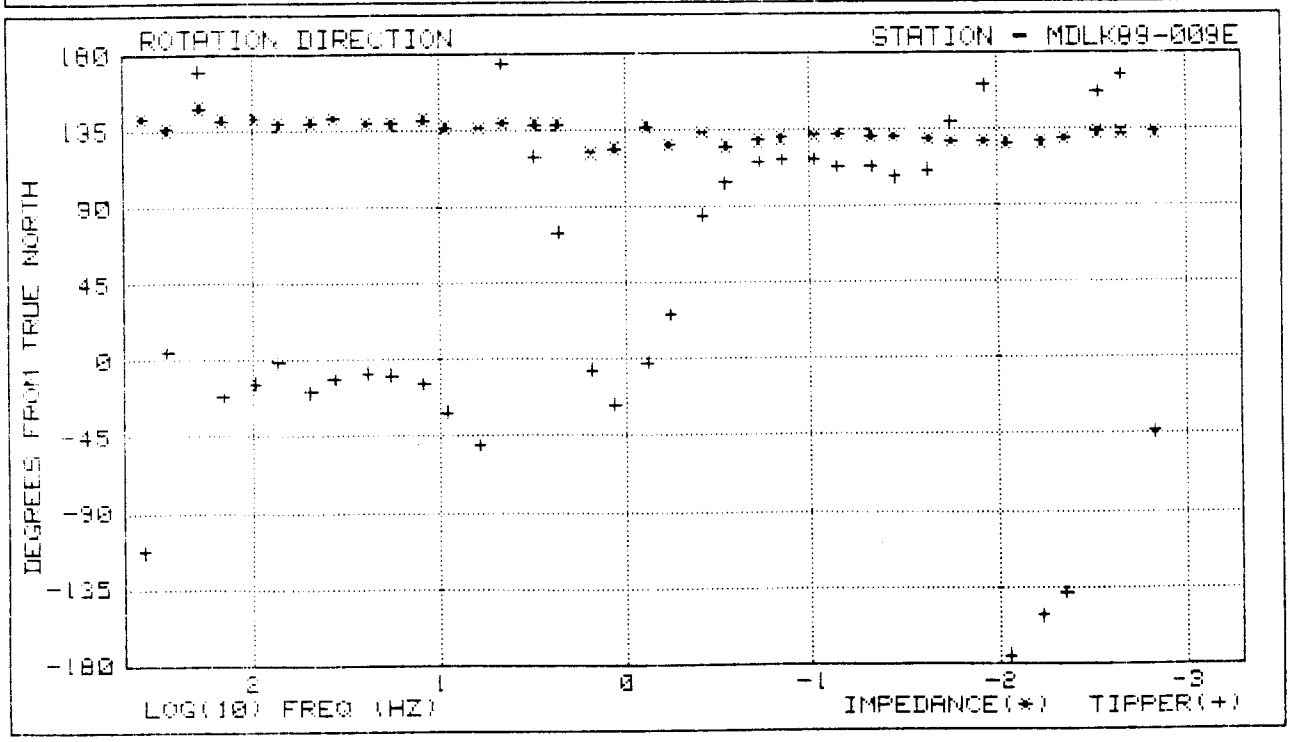
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	128	1.31	-85.63	.26	.22
2	288.00 Hz	186	.27	137.74	.19	.28
3	192.00 Hz	95	.21	-61.81	.23	.21
4	144.00 Hz	191	.13	163.80	.78	.78
5	96.00 Hz	190	.13	150.86	.87	.83
6	72.00 Hz	96	.11	135.04	.85	.79
7	48.00 Hz	192	.13	-145.31	.95	.94
8	36.00 Hz	192	.12	-128.18	.95	.91
9	24.00 Hz	192	.14	-97.14	.91	.89
10	18.00 Hz	192	.13	-87.87	.92	.90
11	12.00 Hz	96	.12	-73.98	.93	.92
12	9.00 Hz	288	.14	-35.26	.86	.93
13	6.00 Hz	288	.13	-34.90	.70	.87
14	4.50 Hz	384	.14	20.65	.70	.91
15	3.00 Hz	15913	.13	-143.67	.44	.60
16	2.25 Hz	4797	.13	-129.81	.66	.85
17	1.50 Hz	5333	.13	-108.41	.62	.79
18	1.13 Hz	7861	.13	-88.90	.64	.79
19	1.33 Sec	2544	.13	-61.66	.74	.84
20	1.78 Sec	2432	.13	-46.57	.74	.79
21	2.67 Sec	1596	.15	-25.38	.66	.80
22	3.56 Sec	1572	.15	-15.23	.82	.81
23	5.33 Sec	663	.15	1.91	.85	.86
24	7.11 Sec	747	.16	9.19	.81	.85
25	10.67 Sec	593	.15	28.55	.93	.94
26	14.22 Sec	575	.13	35.38	.95	.95
27	21.33 Sec	280	.11	42.38	.90	.91
28	28.44 Sec	280	.13	61.58	.91	.92
29	42.67 Sec	279	.10	103.54	.84	.67
30	56.89 Sec	267	.08	99.83	.87	.89
31	85.33 Sec	138	.08	125.70	.89	.88
32	113.78 Sec	132	.08	-56.90	.94	.94
33	170.67 Sec	63	.08	-12.39	.91	.90
34	227.56 Sec	72	.05	-7.20	.94	.34
35	341.33 Sec	12	.04	76.13	.24	.17
36	455.11 Sec	9	.09	8.01	.27	.20
37	682.67 Sec	6	.50	-133.10	.93	.93

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E







PHOENIX GEOSCIENCE

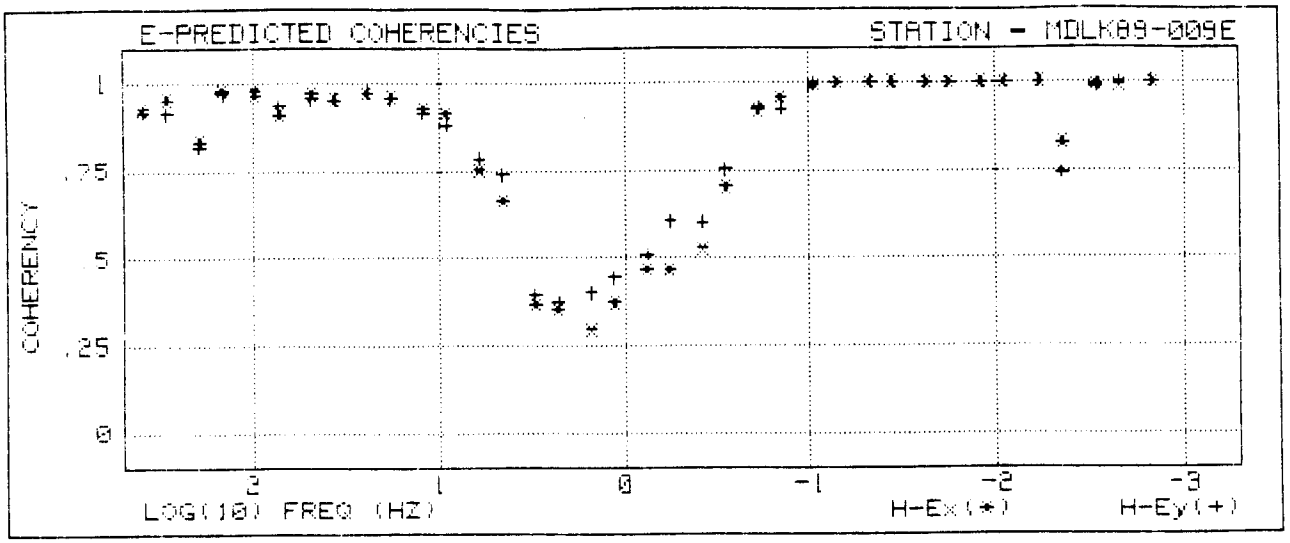
MT Site: MDLK89-009E

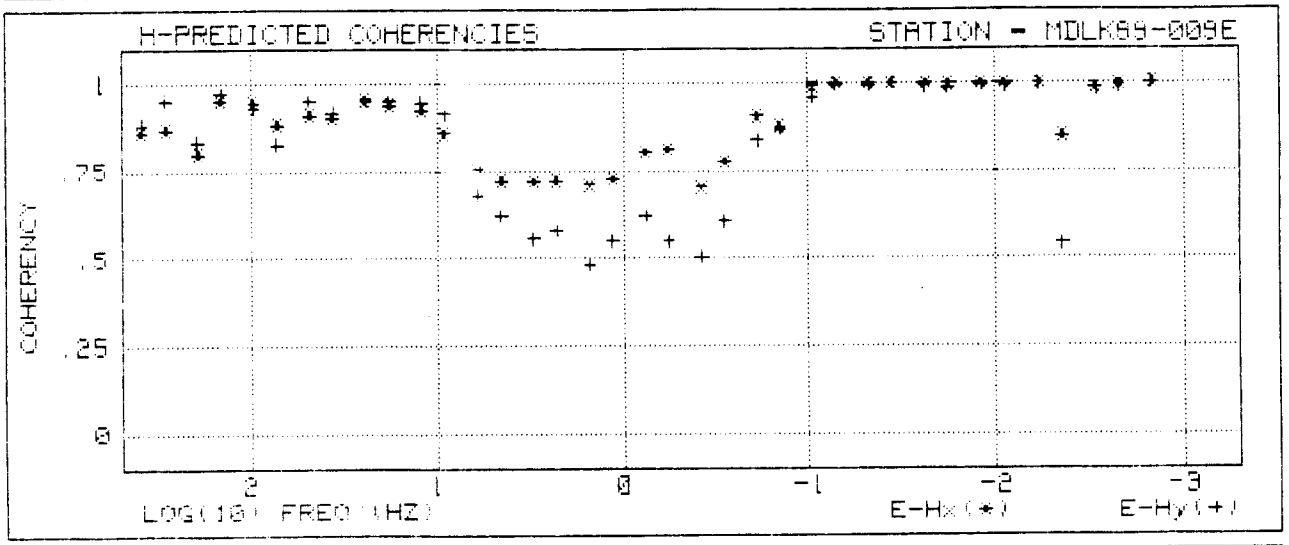
SKEW, ELLIPTICITY AND STRIKE

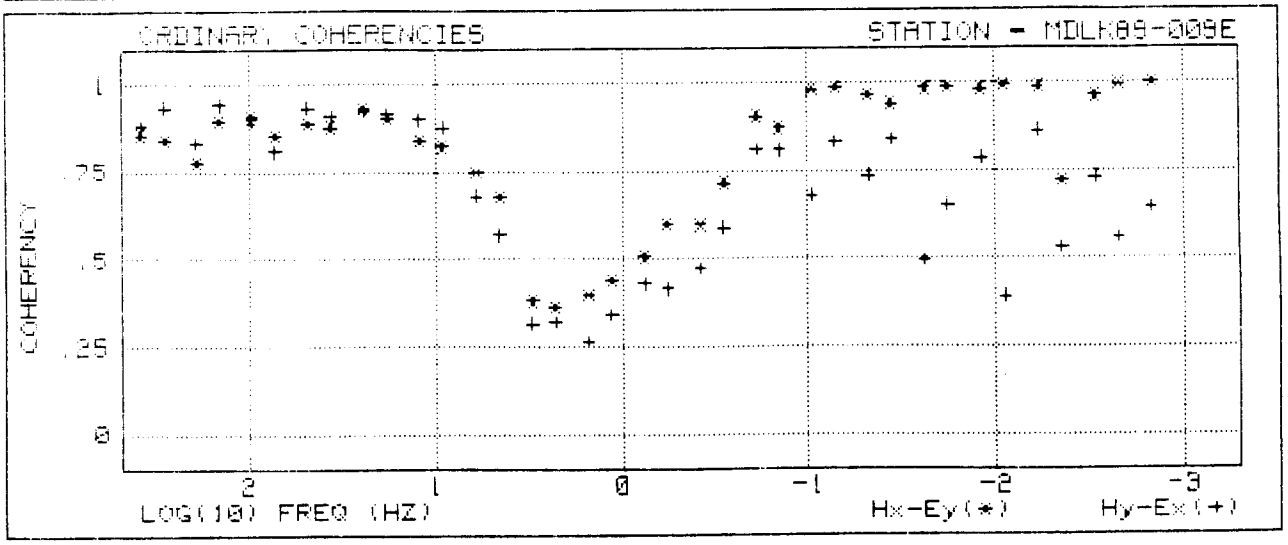
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	128	.16	.54	141.71	.63	2.21	-113.27
2	288.00 Hz	186	.08	.13	135.25	.45	.66	4.40
3	192.00 Hz	95	.07	.04	147.98	.53	3.46	169.38
4	144.00 Hz	191	.02	.04	140.50	.22	.31	-21.99
5	96.00 Hz	190	.03	.02	141.61	.31	.40	-13.89
6	72.00 Hz	96	.02	.05	137.96	.50	.47	-2.18
7	48.00 Hz	192	.01	.13	139.29	.28	.41	-19.27
8	36.00 Hz	192	.07	.04	141.54	.49	.52	-11.75
9	24.00 Hz	192	.03	.07	138.50	.72	.68	-8.27
10	18.00 Hz	192	.03	.01	138.26	.83	.70	-9.85
11	12.00 Hz	96	.07	.12	140.40	.90	.71	-14.55
12	9.00 Hz	288	.04	.08	136.43	.99	.88	-31.51
13	6.00 Hz	288	.09	.19	135.87	.95	.78	-50.77
14	4.50 Hz	384	.06	.14	138.86	.91	1.04	173.59
15	3.00 Hz	15913	.13	.08	137.70	.91	.99	119.11
16	2.25 Hz	4797	.14	.19	137.86	.85	.98	73.99
17	1.50 Hz	5333	.14	.38	120.67	.82	.60	-6.92
18	1.13 Hz	7861	.18	.55	123.43	.75	.52	-27.24
19	1.33 Sec	2544	.19	.54	136.22	.67	.53	-2.51
20	1.78 Sec	2432	.14	.29	125.77	.44	.30	25.68
21	2.67 Sec	1596	.12	.15	133.08	.22	.29	84.06
22	3.56 Sec	1572	.10	.05	124.85	.16	.17	103.30
23	5.33 Sec	663	.13	.12	127.93	.05	.22	115.54
24	7.11 Sec	747	.13	.04	129.61	.02	.23	116.74
25	10.67 Sec	593	.14	.02	130.91	.17	.26	117.09
26	14.22 Sec	575	.14	.02	131.57	.06	.34	112.84
27	21.33 Sec	280	.17	.05	130.67	.35	.37	112.43
28	28.44 Sec	280	.16	.05	130.08	.36	.48	106.24
29	42.67 Sec	279	.19	.09	128.45	.74	1.07	110.06
30	56.89 Sec	267	.22	.05	127.26	.96	.75	138.02
31	85.33 Sec	138	.23	.04	127.03	.98	1.00	159.95
32	113.78 Sec	132	.24	.01	125.98	.99	1.14	-176.24
33	170.67 Sec	63	.24	.02	126.74	.93	.94	-152.29
34	227.56 Sec	72	.27	.17	128.49	.85	.93	-139.10
35	341.33 Sec	12	.27	.11	132.29	.70	.63	156.15
36	455.11 Sec	9	.23	.01	131.73	.46	.69	166.04
37	682.67 Sec	6	.25	.08	132.42	.01	.06	-43.88

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E







PHOENIX GEOSCIENCE

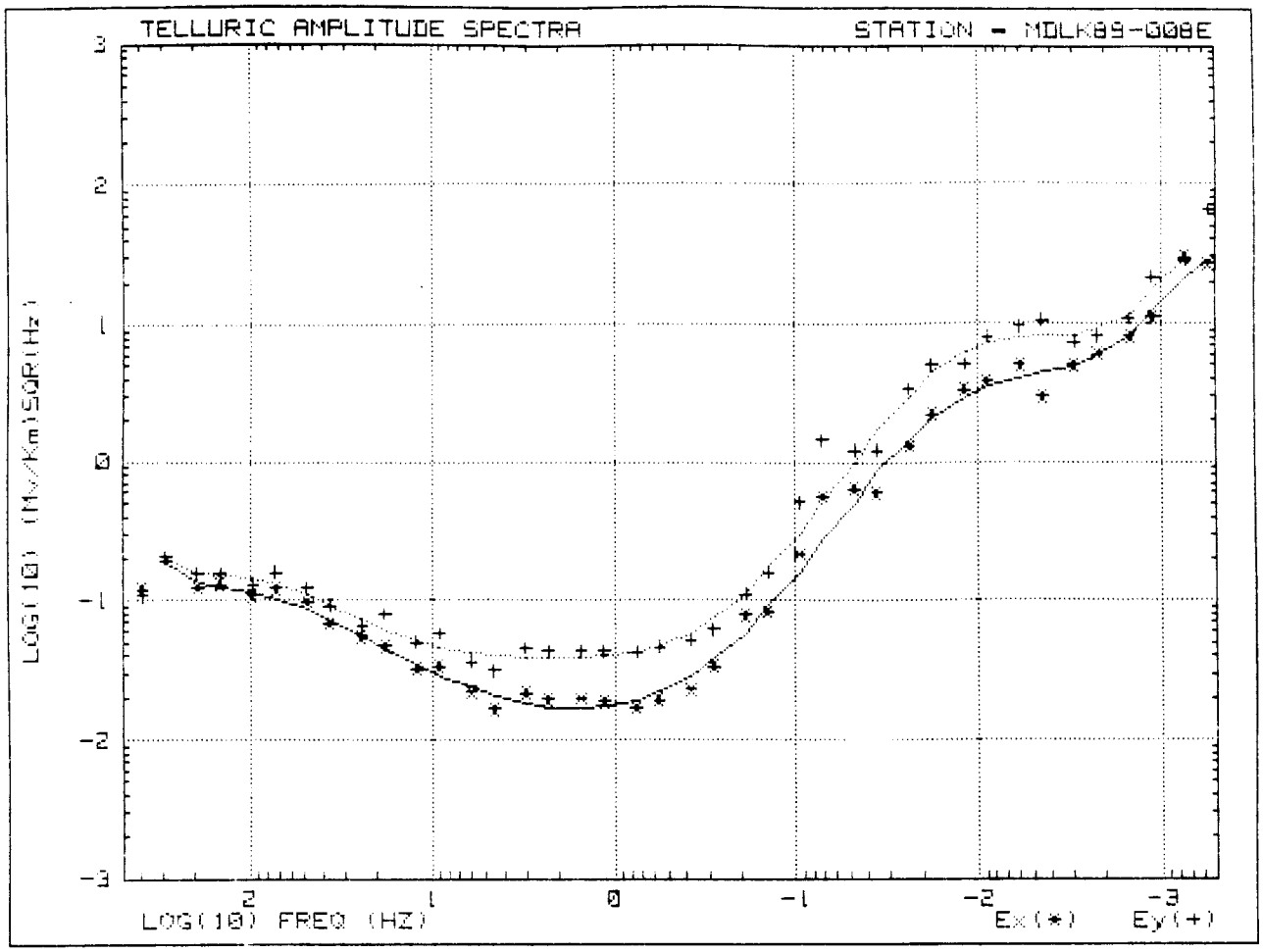
MT Site: MDLK89-009E

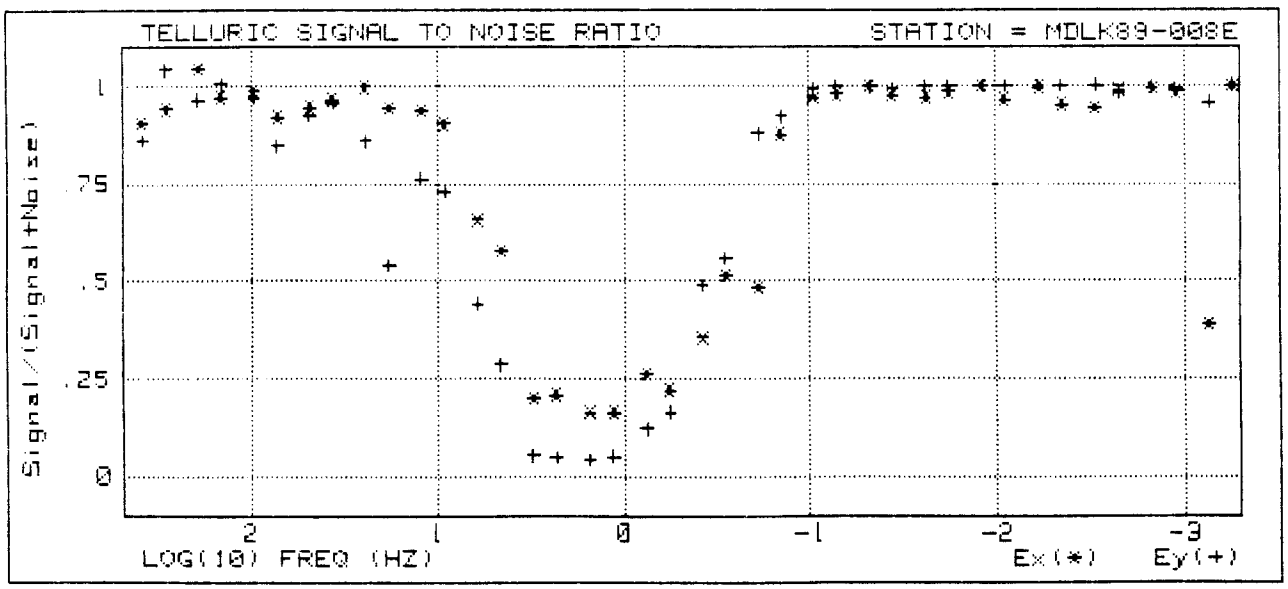
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	128	.92	.91	.86	.88	.85	.87
2	288.00 Hz	186	.95	.91	.86	.95	.84	.93
3	192.00 Hz	95	.83	.81	.80	.83	.77	.83
4	144.00 Hz	191	.98	.97	.95	.97	.89	.94
5	96.00 Hz	190	.96	.97	.94	.93	.90	.90
6	72.00 Hz	96	.91	.93	.88	.82	.85	.80
7	48.00 Hz	192	.97	.95	.91	.95	.88	.93
8	36.00 Hz	192	.95	.95	.90	.91	.87	.91
9	24.00 Hz	192	.97	.97	.95	.95	.93	.92
10	18.00 Hz	192	.96	.95	.94	.95	.90	.91
11	12.00 Hz	96	.93	.91	.92	.94	.83	.90
12	9.00 Hz	288	.91	.88	.85	.91	.82	.87
13	6.00 Hz	288	.75	.78	.75	.68	.74	.68
14	4.50 Hz	384	.66	.73	.72	.62	.67	.57
15	3.00 Hz	15913	.37	.39	.72	.55	.38	.31
16	2.25 Hz	4797	.35	.37	.72	.58	.36	.32
17	1.50 Hz	5333	.29	.40	.71	.48	.39	.26
18	1.13 Hz	7861	.37	.44	.72	.54	.44	.34
19	1.33 Sec	2544	.46	.51	.80	.62	.50	.43
20	1.78 Sec	2432	.46	.60	.81	.54	.60	.41
21	2.67 Sec	1596	.52	.60	.70	.50	.59	.47
22	3.56 Sec	1572	.70	.75	.77	.60	.71	.58
23	5.33 Sec	663	.92	.92	.90	.83	.90	.81
24	7.11 Sec	747	.95	.92	.87	.87	.87	.81
25	10.67 Sec	593	.99	.99	.99	.96	.98	.68
26	14.22 Sec	575	1.00	1.00	1.00	.99	.98	.83
27	21.33 Sec	280	1.00	1.00	1.00	.99	.96	.73
28	28.44 Sec	280	1.00	1.00	1.00	1.00	.94	.84
29	42.67 Sec	279	1.00	1.00	1.00	.99	.98	.49
30	56.89 Sec	267	1.00	1.00	.99	.98	.98	.65
31	85.33 Sec	138	1.00	1.00	1.00	.99	.98	.78
32	113.78 Sec	132	1.00	1.00	1.00	.99	.99	.39
33	170.67 Sec	63	1.00	1.00	1.00	.99	.98	.86
34	227.56 Sec	72	.82	.74	.84	.54	.72	.53
35	341.33 Sec	12	.99	.99	.98	.98	.96	.72
36	455.11 Sec	9	.99	1.00	.99	.99	.99	.55
37	682.67 Sec	6	1.00	1.00	1.00	1.00	1.00	.64

PHOENIX GEOSCIENCE

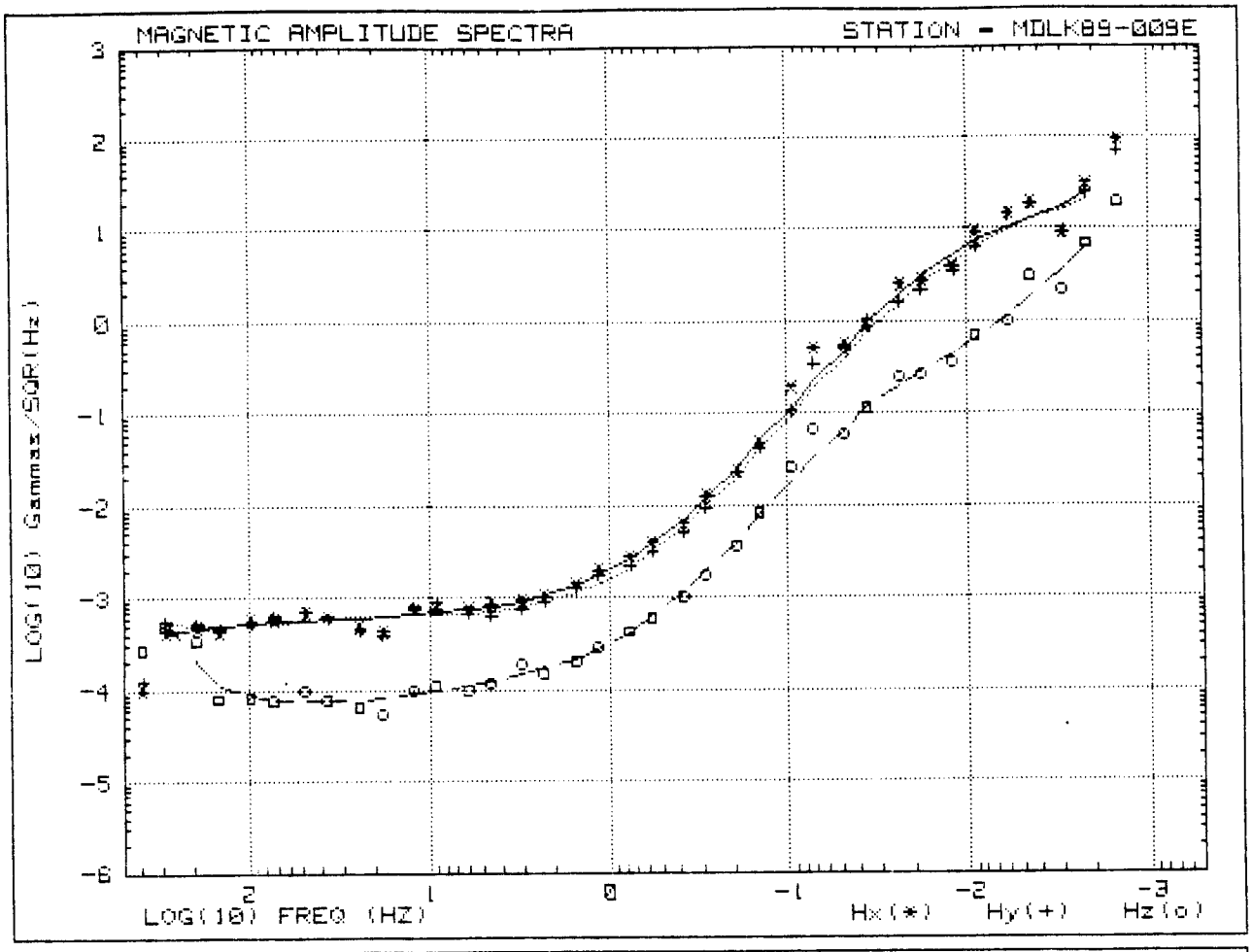
MT Site: MDLK89-008E

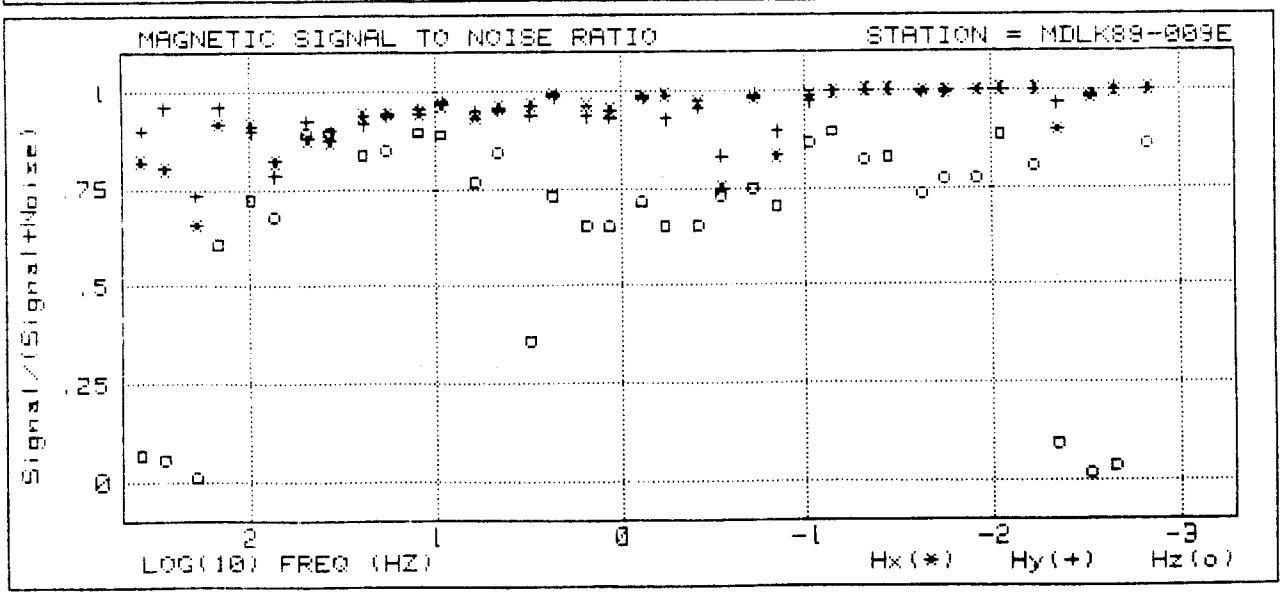




PHOENIX GEOSCIENCE

MT Site: MDLK89-009E





PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	128	9.87E-05	1.21E-04	2.94E-04	8.46E-02	6.50E-02
2	288.00 Hz	186	4.22E-04	5.47E-04	5.20E-04	2.82E-01	2.13E-01
3	192.00 Hz	95	4.75E-04	5.14E-04	3.57E-04	1.69E-01	1.30E-01
4	144.00 Hz	191	4.26E-04	4.51E-04	8.43E-05	1.34E-01	1.15E-01
5	96.00 Hz	190	5.55E-04	5.13E-04	8.57E-05	1.15E-01	1.05E-01
6	72.00 Hz	96	5.72E-04	6.01E-04	7.99E-05	9.97E-02	8.87E-02
7	48.00 Hz	192	6.79E-04	6.80E-04	1.06E-04	8.98E-02	8.24E-02
8	36.00 Hz	192	6.13E-04	5.88E-04	8.29E-05	5.79E-02	5.45E-02
9	24.00 Hz	192	4.71E-04	4.40E-04	6.98E-05	3.39E-02	3.35E-02
10	18.00 Hz	192	4.20E-04	3.95E-04	5.80E-05	2.44E-02	2.44E-02
11	12.00 Hz	96	7.35E-04	7.85E-04	1.04E-04	3.72E-02	3.40E-02
12	9.00 Hz	288	7.37E-04	8.60E-04	1.17E-04	3.01E-02	2.70E-02
13	6.00 Hz	288	7.76E-04	6.45E-04	1.06E-04	2.19E-02	2.28E-02
14	4.50 Hz	384	8.49E-04	6.32E-04	1.26E-04	1.72E-02	1.82E-02
15	3.00 Hz	15913	9.14E-04	7.48E-04	1.99E-04	2.91E-02	2.82E-02
16	2.25 Hz	4797	1.02E-03	8.85E-04	1.61E-04	2.98E-02	2.93E-02
17	1.50 Hz	5333	1.42E-03	1.24E-03	2.18E-04	2.94E-02	2.87E-02
18	1.13 Hz	7861	1.95E-03	1.70E-03	3.01E-04	3.16E-02	3.08E-02
19	1.33 Sec	2544	2.76E-03	2.23E-03	4.51E-04	3.20E-02	3.10E-02
20	1.78 Sec	2432	3.92E-03	3.11E-03	6.38E-04	3.23E-02	3.39E-02
21	2.67 Sec	1596	6.29E-03	5.09E-03	1.08E-03	4.35E-02	4.52E-02
22	3.56 Sec	1572	1.26E-02	9.25E-03	1.87E-03	4.97E-02	5.80E-02
23	5.33 Sec	663	2.30E-02	2.27E-02	3.86E-03	9.14E-02	9.74E-02
24	7.11 Sec	747	4.68E-02	4.16E-02	8.49E-03	1.68E-01	1.80E-01
25	10.67 Sec	593	1.89E-01	1.05E-01	2.73E-02	5.08E-01	6.88E-01
26	14.22 Sec	575	5.03E-01	3.40E-01	7.09E-02	1.51E+00	1.86E+00
27	21.33 Sec	280	5.46E-01	5.06E-01	6.29E-02	1.36E+00	1.59E+00
28	28.44 Sec	280	8.89E-01	1.04E+00	1.24E-01	2.71E+00	2.56E+00
29	42.67 Sec	279	2.47E+00	1.60E+00	2.68E-01	3.92E+00	5.83E+00
30	56.89 Sec	267	2.76E+00	2.13E+00	2.75E-01	4.14E+00	5.54E+00
31	85.33 Sec	138	3.88E+00	3.48E+00	3.82E-01	6.01E+00	6.45E+00
32	113.78 Sec	132	9.02E+00	6.24E+00	7.30E-01	6.02E+00	1.09E+01
33	170.67 Sec	63	1.45E+01	1.41E+01	1.06E+00	1.49E+01	1.49E+01
34	227.56 Sec	72	1.88E+01	1.83E+01	3.18E+00	1.54E+01	1.60E+01
35	341.33 Sec	12	8.84E+00	9.16E+00	2.26E+00	4.96E+00	4.64E+00
36	455.11 Sec	9	3.10E+01	2.53E+01	7.33E+00	6.23E+00	1.30E+01
37	682.67 Sec	6	9.15E+01	6.96E+01	2.04E+01	1.51E+01	3.09E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	128	.817	.897	.071	.912	.933
2	288.00 Hz	186	.801	.958	.063	.946	.942
3	192.00 Hz	95	.657	.734	.014	.946	.968
4	144.00 Hz	191	.916	.957	.613	.986	.987
5	96.00 Hz	190	.913	.895	.727	.976	.984
6	72.00 Hz	96	.819	.782	.685	.903	.944
7	48.00 Hz	192	.877	.923	.900	.969	.954
8	36.00 Hz	192	.870	.895	.896	.961	.966
9	24.00 Hz	192	.936	.914	.839	.984	.979
10	18.00 Hz	192	.941	.937	.855	.956	.944
11	12.00 Hz	96	.943	.954	.901	.906	.887
12	9.00 Hz	288	.963	.970	.895	.856	.796
13	6.00 Hz	288	.928	.945	.772	.587	.651
14	4.50 Hz	384	.957	.947	.849	.459	.561
15	3.00 Hz	15913	.962	.937	.366	.140	.160
16	2.25 Hz	4797	.992	.984	.737	.126	.137
17	1.50 Hz	5333	.962	.932	.657	.092	.166
18	1.13 Hz	7861	.949	.931	.657	.145	.204
19	1.33 Sec	2544	.986	.978	.719	.221	.259
20	1.78 Sec	2432	.986	.927	.661	.232	.371
21	2.67 Sec	1596	.971	.954	.660	.284	.367
22	3.56 Sec	1572	.749	.830	.737	.529	.689
23	5.33 Sec	663	.980	.988	.756	.840	.866
24	7.11 Sec	747	.833	.895	.710	.944	.950
25	10.67 Sec	593	.987	.971	.875	.987	.992
26	14.22 Sec	575	.996	.995	.901	.995	.997
27	21.33 Sec	280	.999	.999	.828	.994	.996
28	28.44 Sec	280	1.000	1.000	.836	.995	.995
29	42.67 Sec	279	.998	.991	.743	.995	.997
30	56.89 Sec	267	.997	.994	.780	.995	.996
31	85.33 Sec	138	.999	.998	.777	.997	.996
32	113.78 Sec	132	.999	.999	.890	.993	.996
33	170.67 Sec	63	.999	.999	.809	.998	.997
34	227.56 Sec	72	.896	.963	.101	.648	.602
35	341.33 Sec	12	.980	.986	.022	.998	.993
36	455.11 Sec	9	.996	1.000	.042	.979	.997
37	682.67 Sec	6	1.000	.999	.865	.996	.999

PHOENIX GEOSCIENCE

MT Site: MDLK89-009E

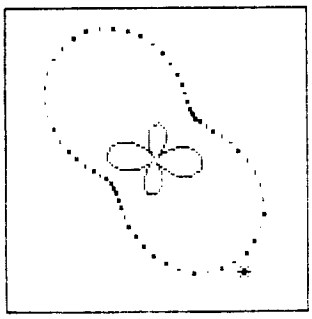
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

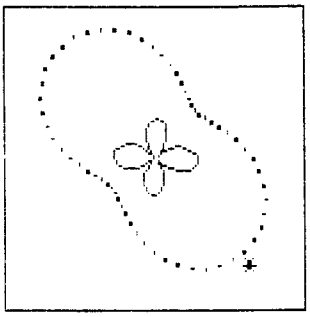
*=Rotation Direction

Zxy = ...
Zxx = ___

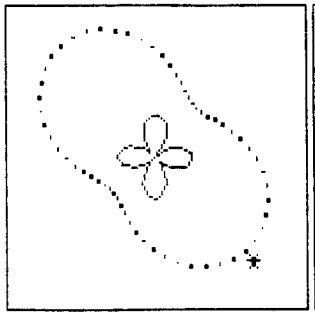
F=8 (36.0 Hz)



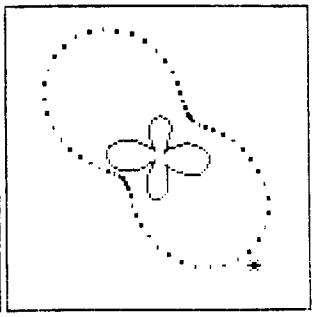
F=10 (18.0 Hz)



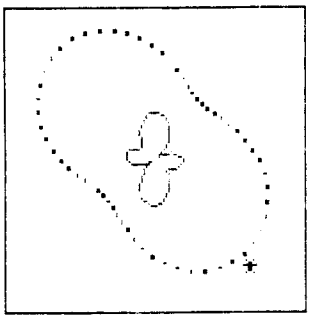
F=12 (9.0 Hz)



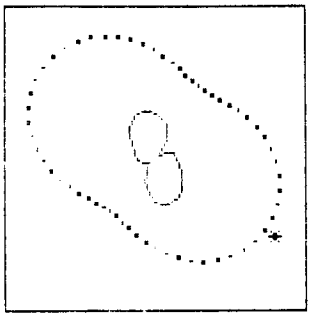
F=14 (4.5 Hz)



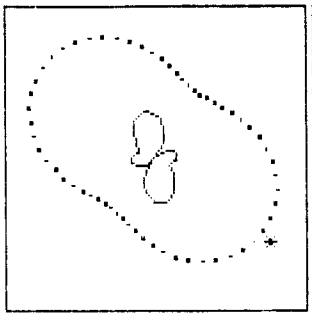
F=16 (2.3 Hz)



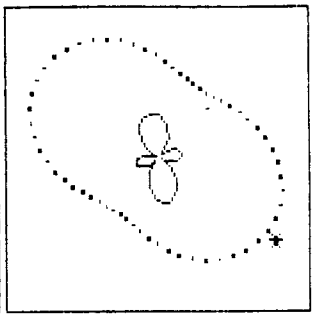
F=18 (1.1 Hz)



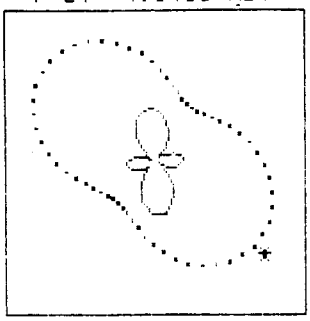
F=20 (.5625 Hz)



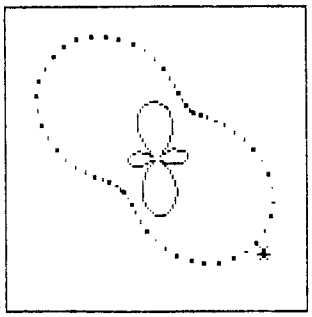
F=22 (.2813 Hz)



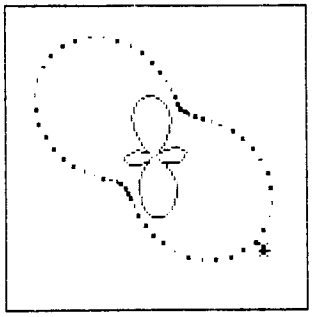
F=24 (.1406 Hz)



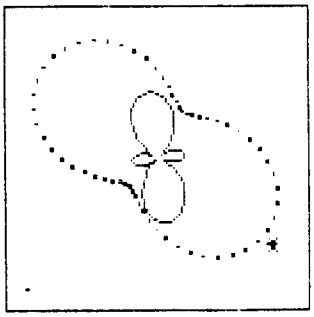
F=26 (.0703 Hz)



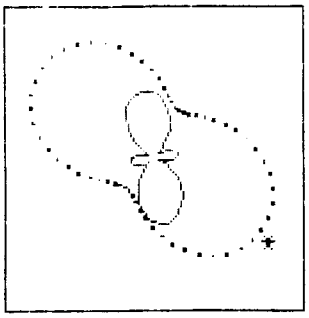
F=28 (.0352 Hz)



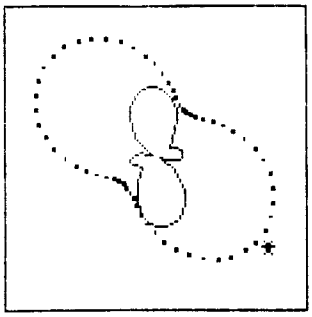
F=30 (.0176 Hz)



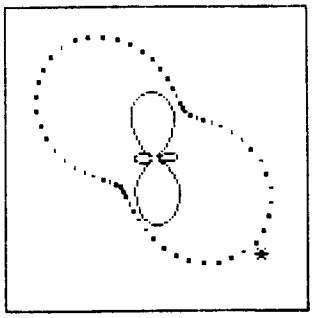
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-022c/041c/010h/

Operator:WUNDERMAN
Date: 23 Aug 1989
Time: 00:54:12

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#205-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 3

Stn Number:MDLK89-010s
Site Desc:T43N R4E
41,33,49 N 121,31,22 W
Elevation:6780 FT
Reference:MDLK89-022s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= -10dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL431	+45 DEG
Hy	12	COIL430	+135 DEG
Hz	13	LOOP333	
Ex	14	269 M	+45 DEG
Ey	15	229 M	+135 DEG
Rx	1	COIL452	+45 DEG
Ry	2	COIL205	+135 DEG

Ex Pot Resist: 30_ K Ohms
Ex Voltage: AC=12.0 mv, DC=213_ mv
Ey Pot Resist: 17_ K Ohms
Ey Voltage: AC=10__ mv, DC=242_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

Summarized Run Chronologies

Run Start and Stop Time for MDLK89-022h/041h/010h/
Run STARTED: 00:54:12 23 Aug 1989
Run QUIT: 14:03:58 23 Aug 1989
Run Start and Stop Time for MDLK89-022i/041i/010i/
Run STARTED: 15:10:46 23 Aug 1989
Run QUIT: 09:01:32 24 Aug 1989
Run Start and Stop Time for MDLK89-004b/010b/011b/
Run STARTED: 10:40:31 20 Aug 1989
Run QUIT: 00:53:52 21 Aug 1989
Run Start and Stop Time for MDLK89-004c/010c/011c/
Run STARTED: 01:39:14 21 Aug 1989
Run QUIT: 08:43:29 21 Aug 1989
Run Start and Stop Time for MDLK89-004d/010d/011d/
Run STARTED: 10:19:14 21 Aug 1989
Run QUIT: 11:32:10 21 Aug 1989

Operator:WUNDERMAN/STEWART

Cultural Factors:
RADIO REPEATER STATION NEAR STSTIONS 1 & 2.
Weather Conditions:
COOL & DAMP DURING RUN
Other Factors:
WEAK SIGNAL AT NIGHT, MODERATE IN A.M.

PHOENIX GEOSCIENCE

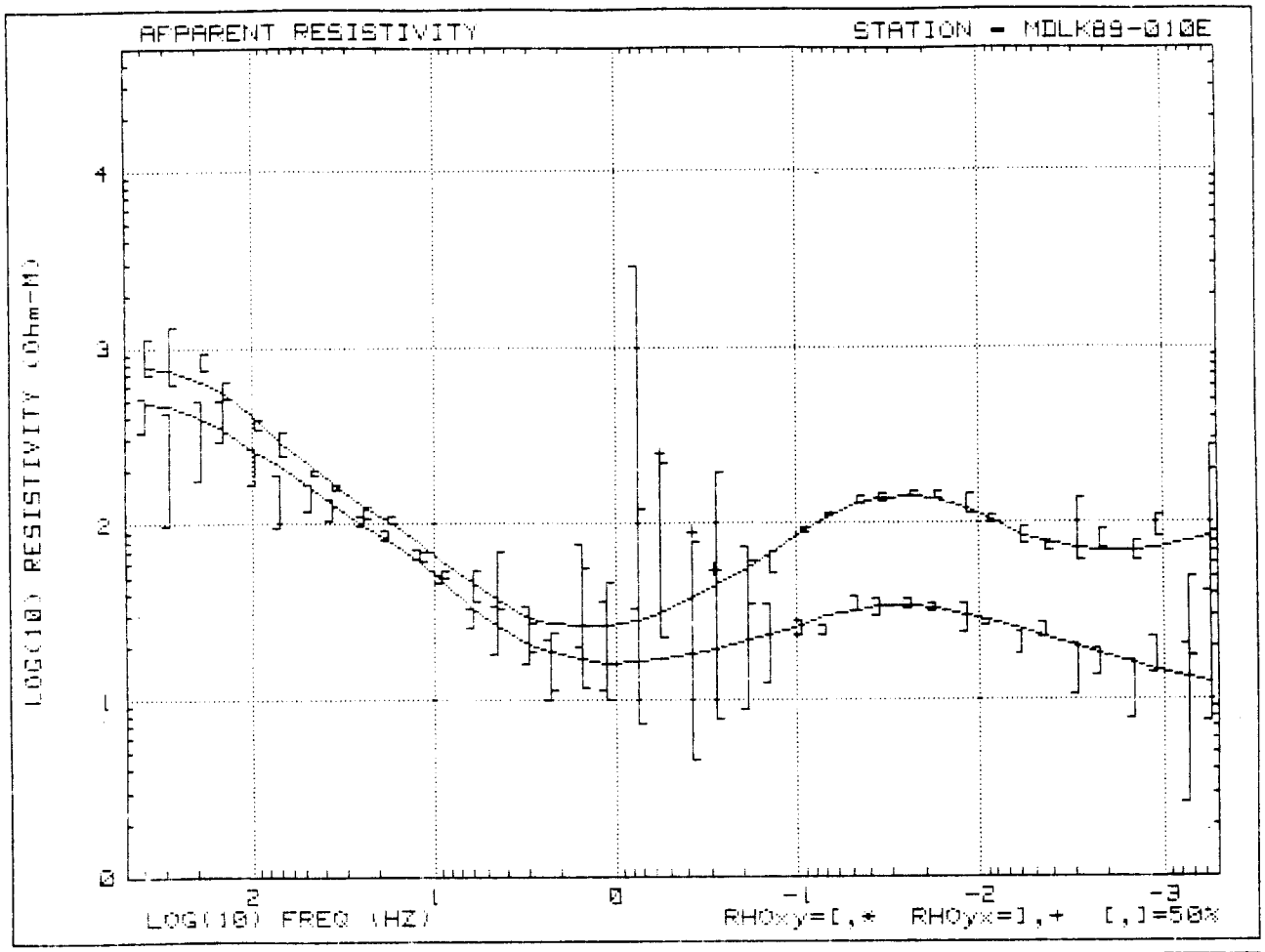
MT Site: MDLK89-010E

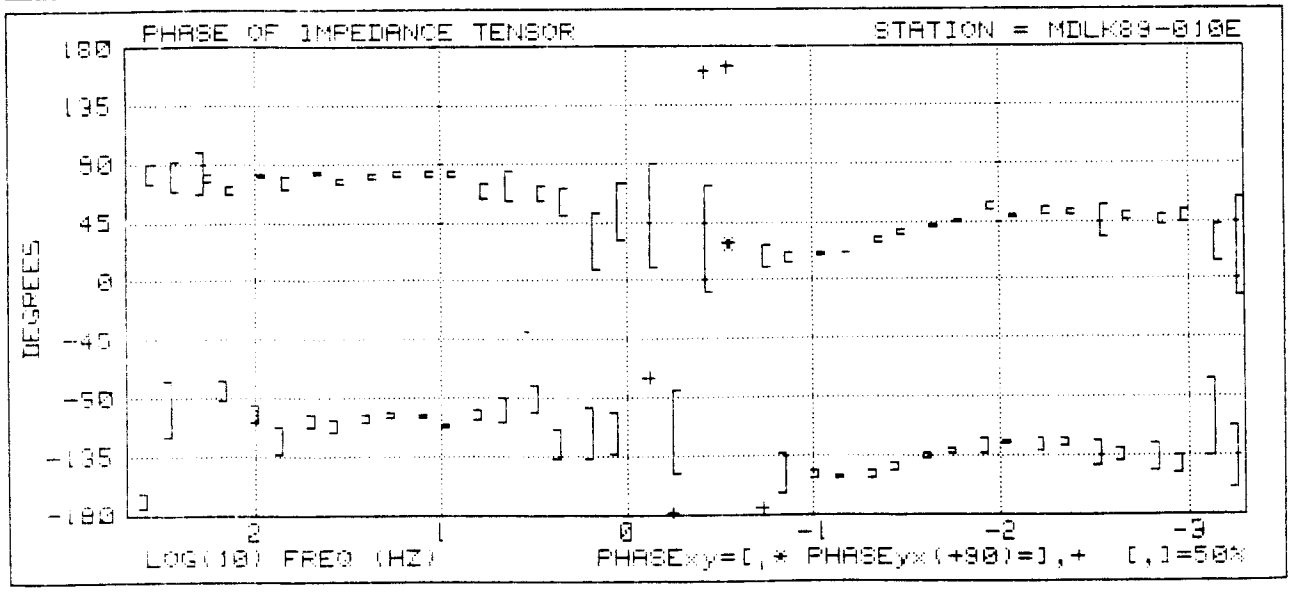
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E





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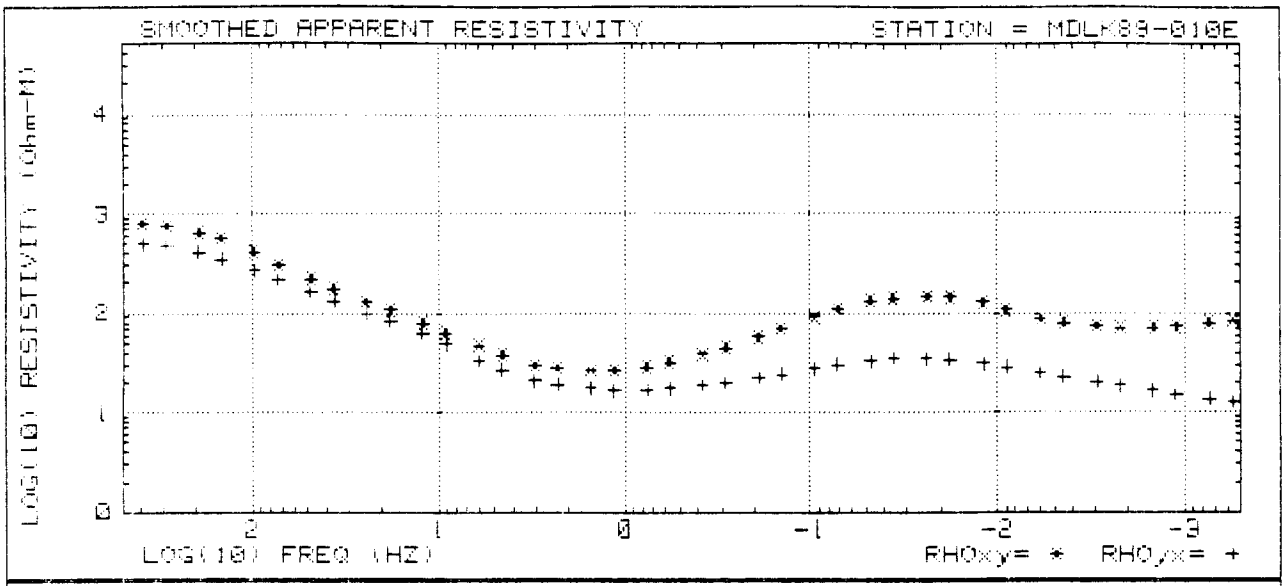
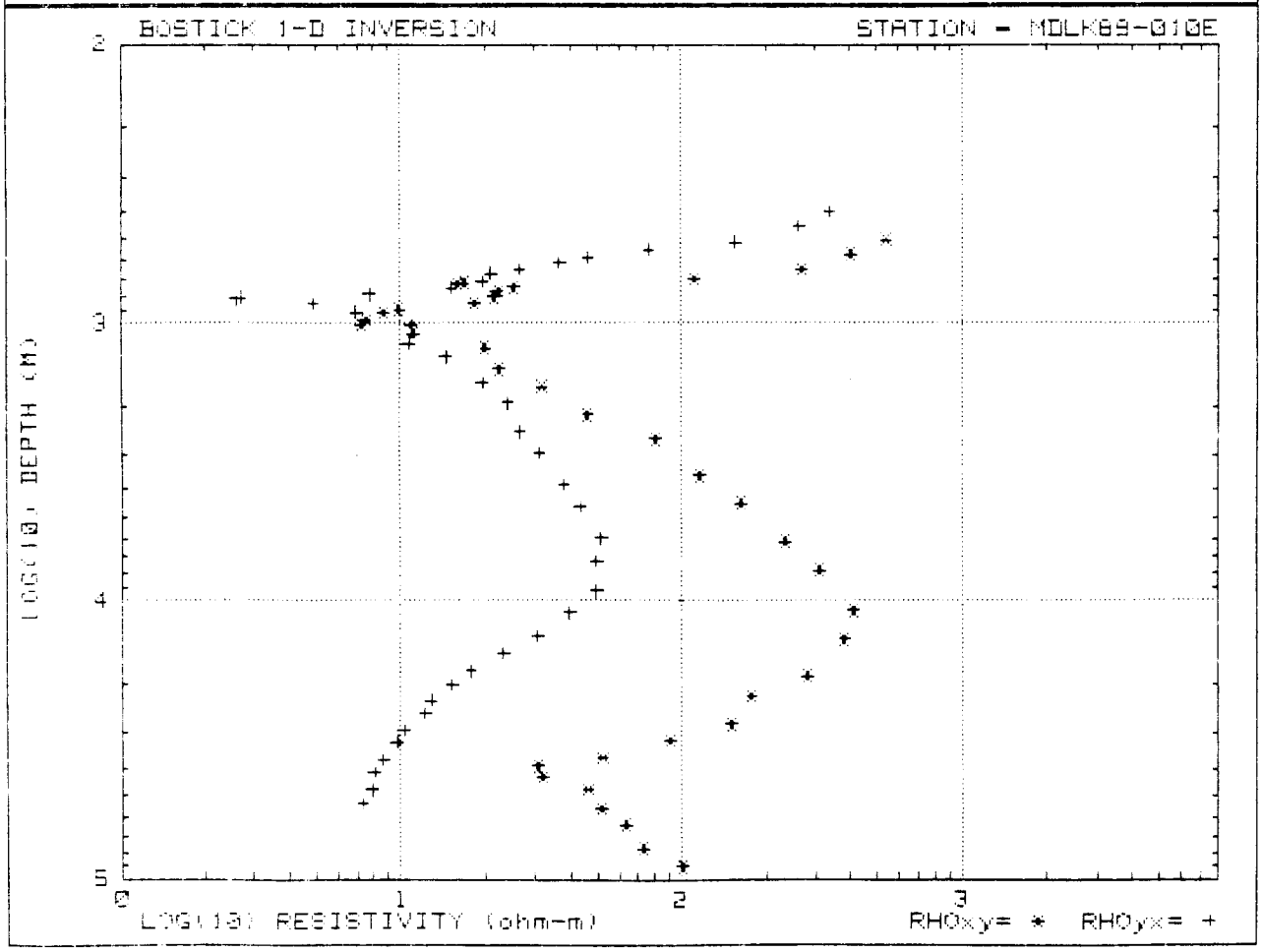
MT Site: MDLK89-010E





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MT Site: MDLK89-010E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	863	892.9	42.1	412.6	38.6	82.0	10.1	-168.8	9.4
2	288.00 Hz	304	895.1	76.6	206.6	99.9	79.8	16.3	-98.1	31.6
3	192.00 Hz	892	835.6	17.4	297.2	99.9	78.7	4.6	83.1	22.6
4	144.00 Hz	96	568.0	18.6	383.4	50.3	70.0	4.9	-84.4	11.7
5	96.00 Hz	336	364.3	8.7	211.6	44.3	81.0	2.4	-102.0	10.5
6	72.00 Hz	518	282.9	27.2	134.6	66.5	75.0	6.9	-122.6	14.6
7	48.00 Hz	973	135.0	6.1	141.3	28.4	83.8	1.7	-108.6	7.2
8	36.00 Hz	1326	161.6	6.4	120.5	24.3	76.3	1.8	-111.1	6.2
9	24.00 Hz	96	116.1	10.9	104.5	11.9	80.3	3.0	-105.9	3.2
10	18.00 Hz	96	106.9	6.5	85.7	9.2	82.3	1.8	-102.3	2.5
11	12.00 Hz	96	65.5	11.3	67.7	8.0	81.9	3.1	-104.2	2.2
12	9.00 Hz	96	51.9	8.5	48.8	7.7	81.7	2.3	-111.5	2.1
13	6.00 Hz	96	44.9	35.3	29.0	21.1	69.3	8.7	-102.8	5.5
14	4.50 Hz	96	48.1	75.7	24.9	61.4	72.6	16.2	-98.8	13.7
15	3.00 Hz	992	22.5	32.7	23.1	73.3	67.7	8.1	-90.6	15.7
16	2.25 Hz	1650	16.4	73.5	14.7	80.8	60.3	15.8	-125.6	17.0
17	1.50 Hz	1680	25.6	99.9	38.9	99.9	30.1	33.5	-117.1	29.2
18	1.13 Hz	496	21.3	99.9	20.3	99.9	52.6	32.8	-117.2	24.5
19	1.33 Sec	1358	30.0	99.9	304.9	99.9	49.5	59.7	-74.9	95.3
20	1.78 Sec	8553	70.0	99.9	246.4	99.9	-116.3	48.8	-179.3	99.9
21	2.67 Sec	1068	18.9	99.9	89.1	99.9	31.7	61.1	159.8	99.9
22	3.56 Sec	756	39.3	99.9	54.4	99.9	28.1	69.0	164.1	99.9
23	5.33 Sec	412	46.1	53.7	25.8	99.9	18.3	12.3	-176.1	45.2
24	7.11 Sec	631	60.4	22.8	20.7	99.9	18.3	5.9	-148.0	22.1
25	10.67 Sec	202	92.5	4.8	25.6	16.2	20.2	1.3	-149.6	4.3
26	14.22 Sec	202	113.1	2.3	24.9	8.0	22.1	.6	-151.0	2.2
27	21.33 Sec	96	136.4	6.7	35.2	13.6	30.9	1.9	-148.7	3.7
28	28.44 Sec	560	139.4	7.3	33.4	18.1	36.5	2.0	-143.6	4.8
29	42.67 Sec	499	146.8	5.7	35.1	9.3	42.1	1.6	-134.6	2.5
30	56.89 Sec	226	145.1	5.3	33.4	7.6	45.9	1.5	-131.2	2.1
31	85.33 Sec	207	130.4	16.3	28.7	32.7	56.8	4.8	-127.4	8.1
32	113.78 Sec	204	106.0	6.7	27.6	4.9	49.3	1.9	-124.6	1.4
33	170.67 Sec	120	84.3	17.8	21.2	22.9	53.0	4.7	-126.5	5.9
34	227.56 Sec	36	73.1	9.3	25.0	14.1	51.6	2.5	-125.1	3.8
35	341.33 Sec	21	91.3	84.2	14.7	63.4	45.1	17.5	-134.1	14.1
36	455.11 Sec	12	81.2	19.9	16.3	29.5	49.2	5.2	-133.6	7.4
37	682.67 Sec	6	70.4	20.3	11.3	76.5	46.3	5.3	-135.6	16.3
38	910.22 Sec	3	96.4	24.6	18.0	42.1	48.6	6.3	-141.4	10.1
39	1365.33 Sec	18	29.5	99.9	7.3	99.9	27.7	21.5	-105.1	44.0
40	1820.44 Sec	3	73.6	99.9	17.6	99.9	25.1	56.1	-136.0	36.3

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	863	783.0	490.4	541.4	508	341.5	402
2	288.00 Hz	304	742.9	465.7	403.2	572	264.4	453
3	192.00 Hz	892	637.5	405.0	270.4	648	157.5	517
4	144.00 Hz	96	561.4	343.3	111.9	703	77.5	550
5	96.00 Hz	336	401.3	261.4	16.9	728	46.8	587
6	72.00 Hz	518	296.8	211.9	16.1	735	37.1	610
7	48.00 Hz	973	215.5	160.7	25.4	754	26.7	651
8	36.00 Hz	1326	171.8	129.1	22.3	777	21.1	674
9	24.00 Hz	96	126.4	97.6	21.7	817	19.7	716
10	18.00 Hz	96	105.2	81.4	18.5	860	15.3	757
11	12.00 Hz	96	77.8	60.7	10.0	906	7.8	801
12	9.00 Hz	96	61.6	47.7	8.8	931	2.7	819
13	6.00 Hz	96	46.3	32.7	7.6	988	2.6	831
14	4.50 Hz	96	37.4	26.4	7.3	1026	5.0	862
15	3.00 Hz	992	29.0	20.4	11.2	1106	7.0	927
16	2.25 Hz	1650	27.5	18.8	20.1	1244	11.0	1029
17	1.50 Hz	1680	26.0	17.0	22.6	1482	10.7	1197
18	1.13 Hz	496	26.2	16.1	32.0	1717	14.5	1346
19	1.33 Sec	1358	27.9	16.4	46.7	2170	19.6	1663
20	1.78 Sec	8553	31.2	17.1	81.0	2650	24.2	1964
21	2.67 Sec	1068	37.9	18.4	116.5	3580	26.6	2495
22	3.56 Sec	756	44.4	19.4	164.1	4470	31.4	2958
23	5.33 Sec	412	56.5	21.7	236.0	6177	38.4	3830
24	7.11 Sec	631	67.9	23.6	313.3	7820	43.8	4607
25	10.67 Sec	202	88.3	26.7	414.3	10919	52.3	6011
26	14.22 Sec	202	106.5	29.5	384.3	13848	50.2	7287
27	21.33 Sec	96	130.7	32.0	282.8	18790	50.0	9302
28	28.44 Sec	560	137.4	34.3	179.2	22246	40.1	11118
29	42.67 Sec	499	143.2	33.8	152.5	27818	31.0	13512
30	56.89 Sec	226	140.4	33.3	92.3	31805	23.4	15490
31	85.33 Sec	207	124.1	29.9	52.9	36618	17.8	17988
32	113.78 Sec	204	106.2	27.9	31.1	39123	15.3	20063
33	170.67 Sec	120	84.9	24.5	32.2	42839	12.9	22994
34	227.56 Sec	36	77.7	22.5	46.8	47330	12.3	25488
35	341.33 Sec	21	71.5	20.0	52.5	55593	10.4	29370
36	455.11 Sec	12	69.9	18.1	63.9	63469	9.7	32298
37	682.67 Sec	6	69.3	16.2	73.7	77409	8.7	37422
38	910.22 Sec	3	71.4	14.7	101.4	90722	8.1	41166
39	1365.33 Sec	18	78.2	13.3	120.5	116255	7.9	47901
40	1820.44 Sec	3	82.8	12.3	124.0	138143	7.4	53360

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	863	728.88	266.15	999.99	182.12	999.99	999.99
2	288.00 Hz	304	-100.42	-52.03	999.99	201.89	999.99	999.99
3	192.00 Hz	892	239.77	-326.45	999.99	175.63	878.23	999.99
4	144.00 Hz	96	69.09	48.33	999.99	218.72	600.96	999.99
5	96.00 Hz	336	4.65	17.57	999.99	65.42	413.02	611.31
6	72.00 Hz	518	43.83	-21.72	999.99	82.36	308.33	999.99
7	48.00 Hz	973	11.15	11.81	429.46	23.51	215.05	81.12
8	36.00 Hz	1326	20.88	22.74	267.25	40.40	165.68	56.09
9	24.00 Hz	96	6.77	14.45	145.04	19.90	116.34	75.02
10	18.00 Hz	96	1.61	9.07	56.50	13.19	97.17	18.98
11	12.00 Hz	96	-.81	9.21	18.28	8.79	62.09	22.65
12	9.00 Hz	96	7.41	3.62	11.38	7.00	47.81	7.82
13	6.00 Hz	96	3.03	.95	54.89	12.95	34.35	61.48
14	4.50 Hz	96	3.65	2.79	287.48	9.84	31.38	171.90
15	3.00 Hz	992	1.62	1.11	62.28	6.98	16.99	13.51
16	2.25 Hz	1650	2.42	2.04	62.53	6.72	11.80	27.97
17	1.50 Hz	1680	-1.62	4.58	168.32	12.00	6.95	131.24
18	1.13 Hz	496	-.35	-.44	179.04	6.74	8.80	80.42
19	1.33 Sec	1358	2.875	4.773	99.999	6.887	8.063	99.999
20	1.78 Sec	8553	9.080	11.665	99.999	-6.216	-12.579	99.999
21	2.67 Sec	1068	3.125	-.874	99.999	5.069	3.134	80.772
22	3.56 Sec	756	.096	-.785	99.999	6.558	3.495	99.999
23	5.33 Sec	412	.359	.596	6.641	6.245	2.060	3.999
24	7.11 Sec	631	.982	.071	1.367	6.185	2.048	.894
25	10.67 Sec	202	.985	.021	.066	6.182	2.274	.047
26	14.22 Sec	202	.864	.287	.020	5.842	2.370	.010
27	21.33 Sec	96	.827	.210	.051	4.852	2.902	.067
28	28.44 Sec	560	.713	.479	.085	3.981	2.941	.061
29	42.67 Sec	498	.581	.478	.015	3.076	2.781	.026
30	56.89 Sec	226	.513	.395	.010	2.487	2.563	.017
31	85.33 Sec	207	.465	.358	.042	1.513	2.313	.107
32	113.78 Sec	204	.228	.372	.002	1.409	1.635	.010
33	170.67 Sec	120	.192	.346	.007	.946	1.255	.033
34	227.56 Sec	36	.121	.270	.001	.787	.994	.006
35	341.33 Sec	21	.048	.133	.022	.816	.819	.250
36	455.11 Sec	12	.014	.110	.006	.617	.715	.015
37	682.67 Sec	6	.057	.196	.011	.496	.519	.009
38	910.22 Sec	3	.081	.022	.016	.481	.546	.013
39	1365.33 Sec	18	.080	.109	.017	.291	.153	.031
40	1820.44 Sec	3	.006	.119	.170	.407	.190	.387

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	863	-873.13	-172.81	999.99	-185.19	-295.91	999.99
2	288.00 Hz	304	-76.74	-539.99	999.99	-135.67	-44.38	999.99
3	192.00 Hz	892	64.59	530.25	999.99	-60.32	-275.27	999.99
4	144.00 Hz	96	50.96	-522.91	999.99	25.34	199.50	999.99
5	96.00 Hz	336	-66.53	-311.66	999.99	10.06	17.63	999.99
6	72.00 Hz	518	-118.69	-185.35	999.99	15.12	-30.21	999.99
7	48.00 Hz	973	-58.62	-174.59	999.99	9.89	10.71	200.10
8	36.00 Hz	1326	-53.12	-137.36	514.32	7.09	16.54	107.94
9	24.00 Hz	96	-30.66	-107.68	78.75	1.92	8.43	40.74
10	18.00 Hz	96	-18.72	-85.82	29.86	2.41	9.47	10.03
11	12.00 Hz	96	-15.60	-61.80	11.92	-.90	6.95	14.77
12	9.00 Hz	96	-17.17	-43.61	5.99	7.61	4.13	4.12
13	6.00 Hz	96	-6.55	-28.73	15.89	.03	4.37	17.80
14	4.50 Hz	96	-3.62	-23.41	64.28	2.31	3.84	38.44
15	3.00 Hz	992	-.20	-18.63	52.46	1.95	2.49	11.38
16	2.25 Hz	1650	-7.49	-10.46	29.01	1.20	1.34	12.98
17	1.50 Hz	1680	-7.77	-15.22	151.76	-1.17	4.81	118.33
18	1.13 Hz	496	-4.88	-9.50	41.80	.06	.62	18.78
19	1.33 Sec	1358	8.831	-32.642	99.999	-5.426	-.535	99.999
20	1.78 Sec	8553	-26.324	-.335	99.999	11.405	5.807	99.999
21	2.67 Sec	1068	-12.130	4.456	99.999	1.388	-2.490	99.999
22	3.56 Sec	756	-8.411	2.395	99.999	.437	-.678	99.999
23	5.33 Sec	412	-4.906	-.337	30.150	1.441	-.245	18.157
24	7.11 Sec	631	-3.236	-2.019	4.312	.984	-.208	2.822
25	10.67 Sec	202	-2.989	-1.755	.136	.919	.430	.097
26	14.22 Sec	202	-2.589	-1.435	.026	.843	.359	.013
27	21.33 Sec	96	-2.456	-1.492	.067	.735	.367	.088
28	28.44 Sec	560	-1.950	-1.440	.081	.775	.396	.058
29	42.67 Sec	499	-1.424	-1.445	.016	.506	.571	.028
30	56.89 Sec	226	-1.128	-1.289	.008	.461	.451	.013
31	85.33 Sec	207	-.786	-1.030	.067	.349	.424	.170
32	113.78 Sec	204	-.625	-.906	.001	.260	.338	.009
33	170.67 Sec	120	-.468	-.633	.013	.215	.329	.062
34	227.56 Sec	36	-.426	-.607	.005	.207	.190	.020
35	341.33 Sec	21	-.324	-.334	.026	-.071	.254	.293
36	455.11 Sec	12	-.292	-.307	.006	.117	.028	.014
37	682.67 Sec	6	-.206	-.201	.013	.136	.124	.011
38	910.22 Sec	3	-.246	-.196	.006	.078	.024	.005
39	1365.33 Sec	18	-.042	-.157	.031	.077	-.026	.056
40	1820.44 Sec	3	-.158	-.153	.039	.014	.068	.088

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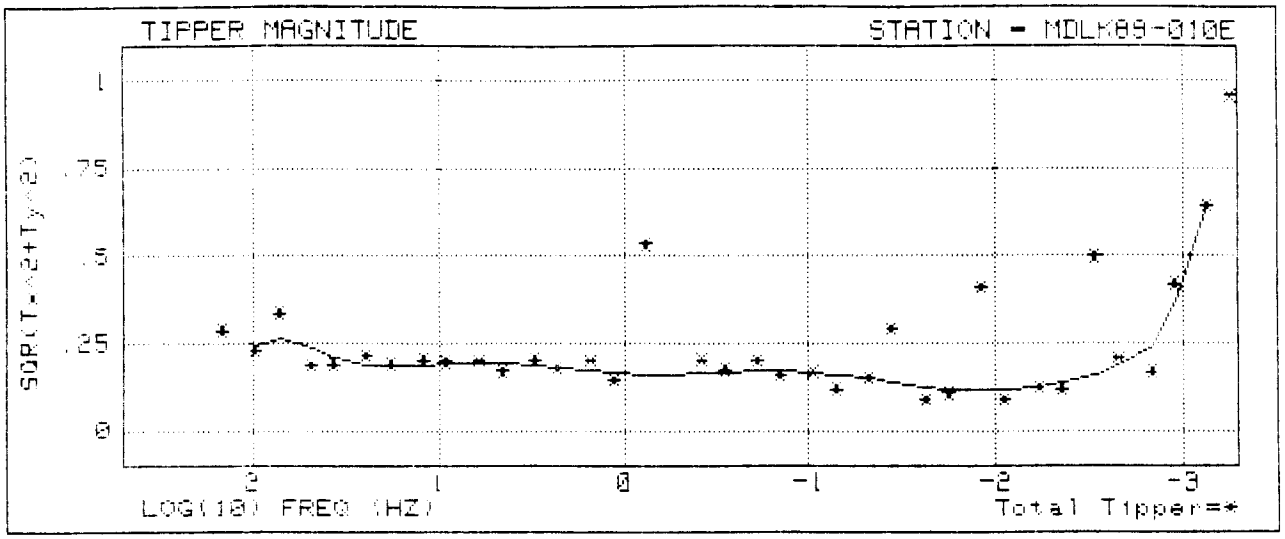
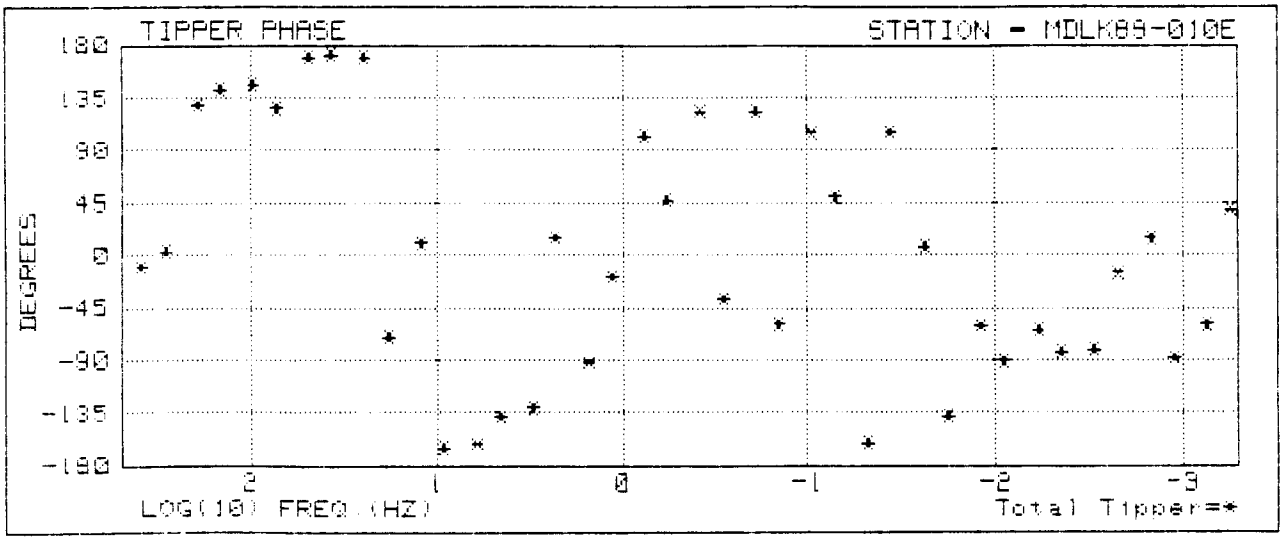
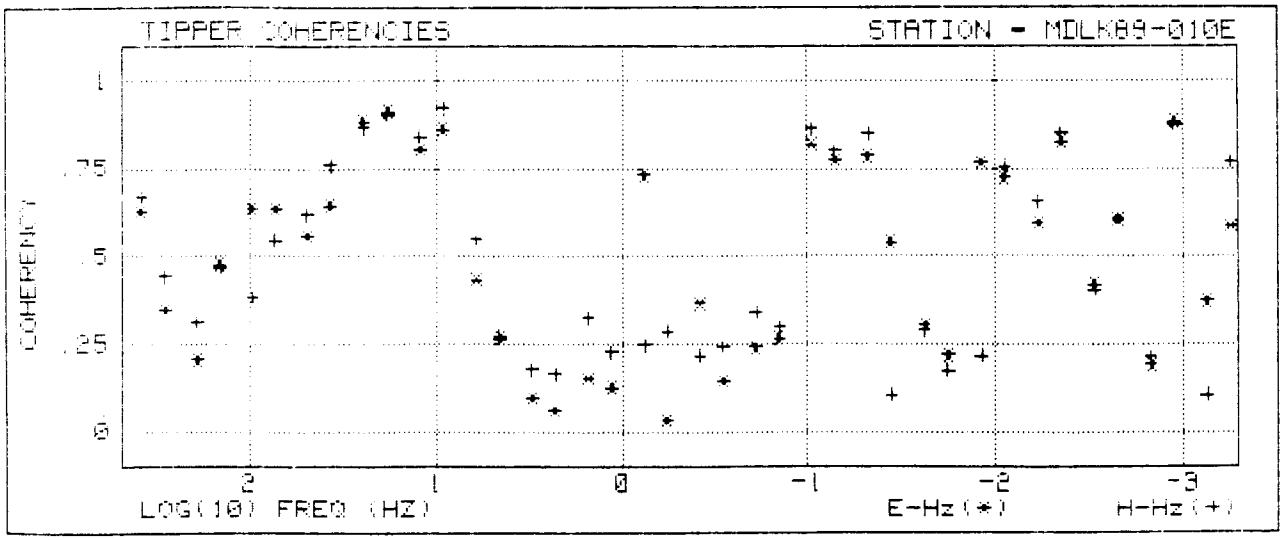
MT Site: MDLK89-010E







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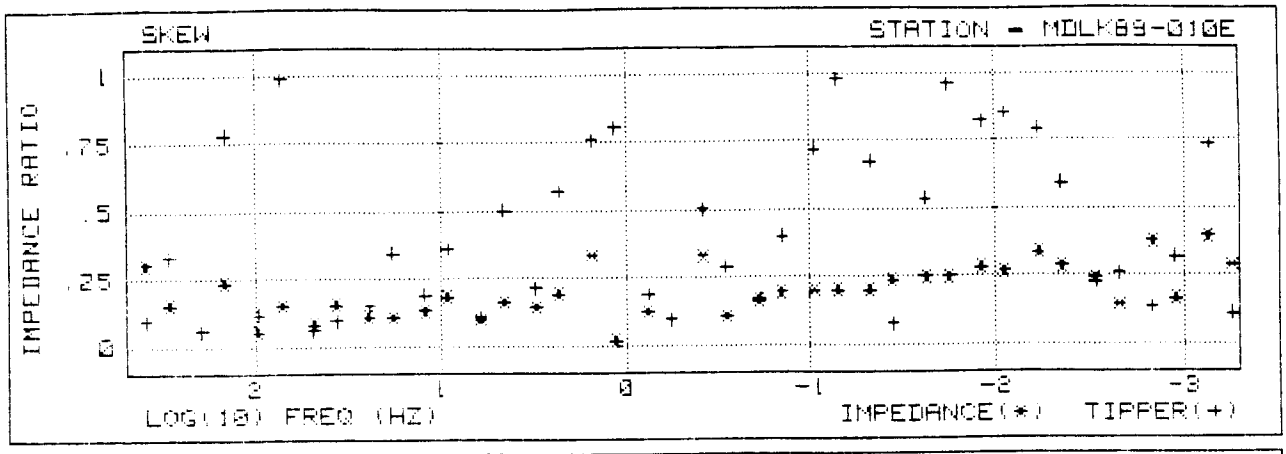
MT Site: MDLK89-010E

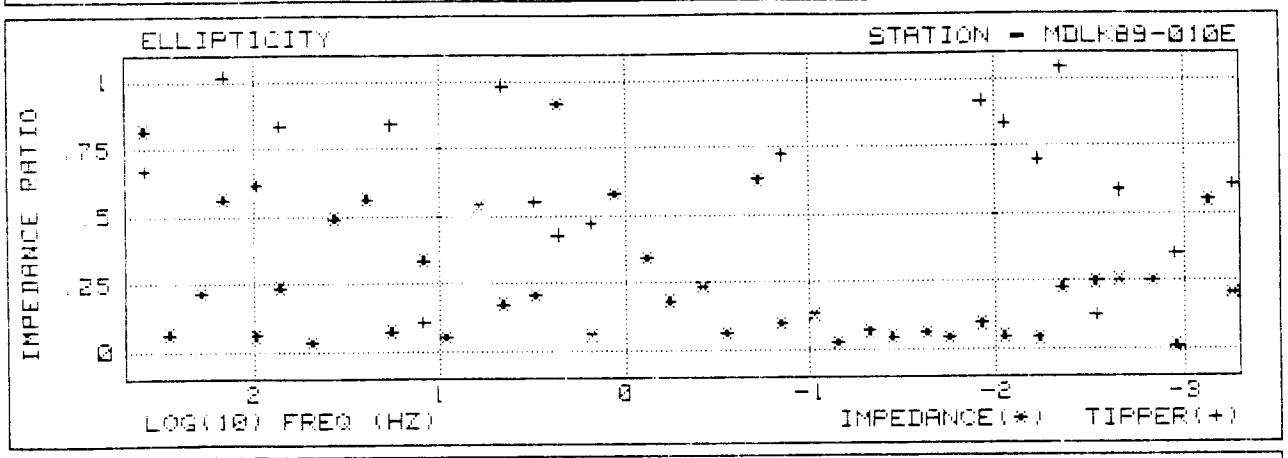
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

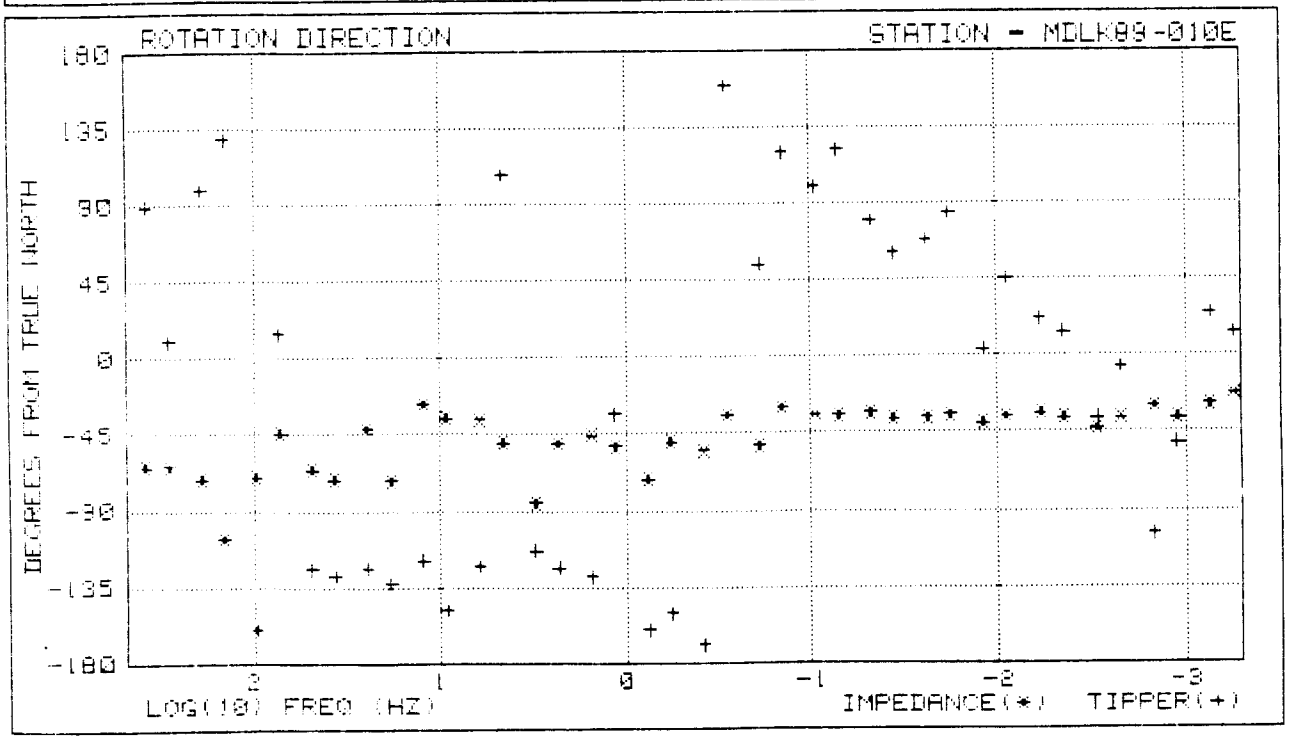
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	863	9.99	-11.25	.62	.67
2	288.00 Hz	304	2.35	2.31	.34	.44
3	192.00 Hz	892	3.93	127.93	.20	.31
4	144.00 Hz	96	.28	141.23	.47	.46
5	96.00 Hz	336	.23	145.18	.63	.38
6	72.00 Hz	518	.33	124.91	.63	.54
7	48.00 Hz	973	.18	168.60	.55	.61
8	36.00 Hz	1326	.19	170.44	.64	.76
9	24.00 Hz	96	.21	168.58	.88	.86
10	18.00 Hz	96	.19	-71.04	.91	.90
11	12.00 Hz	96	.20	9.08	.80	.84
12	9.00 Hz	96	.20	-166.01	.86	.92
13	6.00 Hz	96	.20	-162.06	.43	.55
14	4.50 Hz	96	.17	-138.94	.26	.27
15	3.00 Hz	992	.20	-131.49	.09	.17
16	2.25 Hz	1650	.18	14.28	.06	.16
17	1.50 Hz	1680	.20	-92.80	.15	.32
18	1.13 Hz	496	.14	-19.05	.12	.22
19	1.33 Sec	1358	.53	101.24	.73	.24
20	1.78 Sec	8553	3.83	46.80	.03	.28
21	2.67 Sec	1068	.20	122.11	.36	.21
22	3.56 Sec	756	.17	-38.07	.14	.24
23	5.33 Sec	412	.20	122.61	.24	.34
24	7.11 Sec	631	.16	-59.84	.26	.30
25	10.67 Sec	202	.16	104.00	.82	.86
26	14.22 Sec	202	.11	49.49	.77	.80
27	21.33 Sec	96	.15	-161.61	.78	.85
28	28.44 Sec	560	.29	104.77	.54	.10
29	42.67 Sec	499	.08	6.41	.30	.29
30	56.89 Sec	226	.10	-138.84	.21	.17
31	85.33 Sec	207	.41	-61.66	.76	.21
32	113.78 Sec	204	.09	-91.22	.72	.75
33	170.67 Sec	120	.12	-64.95	.59	.65
34	227.56 Sec	36	.12	-83.69	.82	.85
35	341.33 Sec	21	.50	-81.71	.42	.40
36	455.11 Sec	12	.20	-15.88	.60	.60
37	682.67 Sec	6	.16	13.33	.19	.21
38	910.22 Sec	3	.42	-88.63	.88	.87
39	1365.33 Sec	18	.64	-60.15	.37	.10
40	1820.44 Sec	3	.95	38.31	.58	.77

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E







PHOENIX GEOSCIENCE

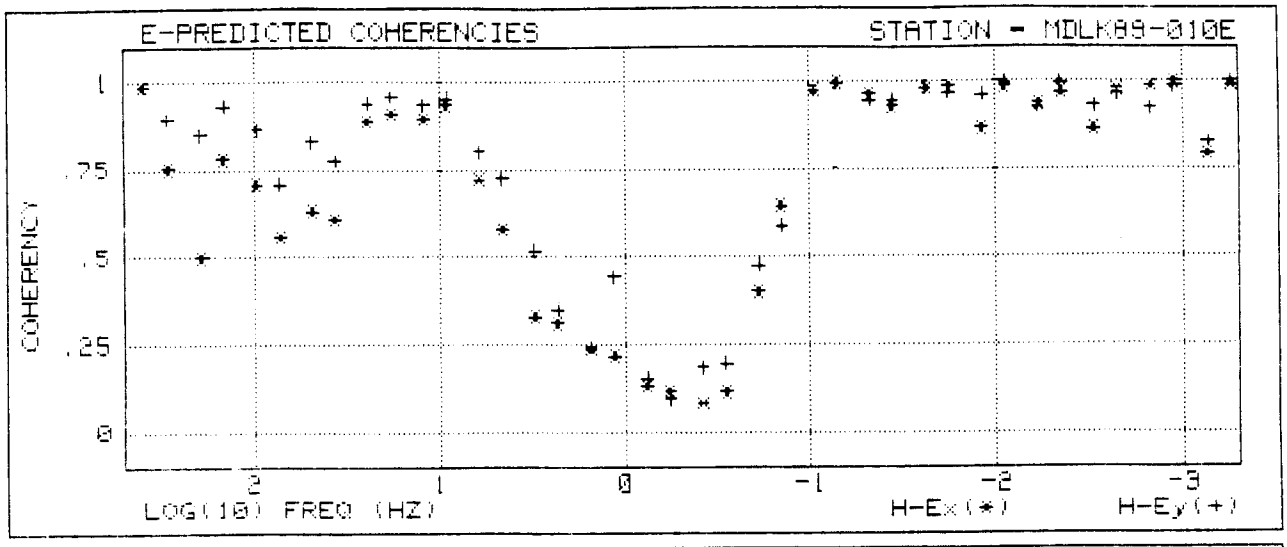
MT Site: MDLK89-010E

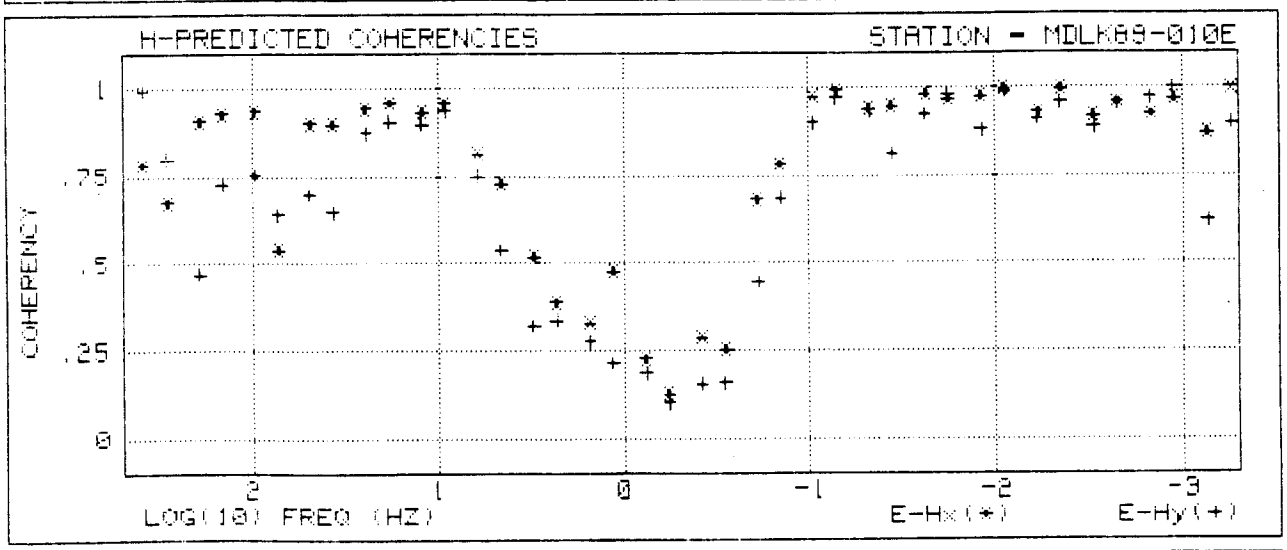
SKEW, ELLIPTICITY AND STRIKE

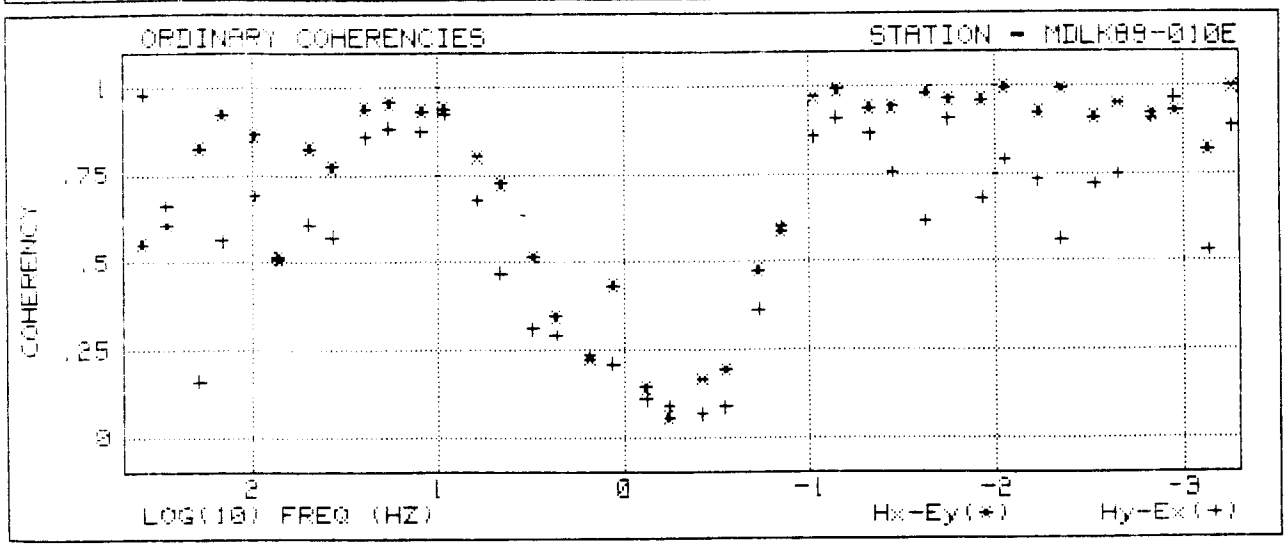
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	863	.30	.81	-64.91	.09	.66	88.73
2	288.00 Hz	304	.15	.06	-64.28	.33	3.06	9.62
3	192.00 Hz	892	1.72	.21	-71.84	.05	4.74	98.26
4	144.00 Hz	96	.23	.56	-106.92	.78	1.01	128.11
5	96.00 Hz	336	.05	.05	-70.59	.12	.61	-160.81
6	72.00 Hz	518	.15	.23	-44.49	.98	.83	13.64
7	48.00 Hz	973	.08	.03	-66.31	.05	1.25	-124.87
8	36.00 Hz	1326	.15	.49	-72.19	.09	1.24	-128.62
9	24.00 Hz	96	.11	.56	-41.84	.15	5.50	-123.82
10	18.00 Hz	96	.10	.07	-72.91	.34	.83	-132.99
11	12.00 Hz	96	.13	.33	-27.44	.19	.10	-119.55
12	9.00 Hz	96	.18	.05	-35.61	.36	5.38	-148.92
13	6.00 Hz	96	.09	.53	-36.61	.10	12.71	-123.21
14	4.50 Hz	96	.16	.17	-50.28	.50	.98	106.87
15	3.00 Hz	992	.14	.20	-85.69	.21	.55	-113.96
16	2.25 Hz	1650	.19	.91	-50.55	.57	.42	-123.94
17	1.50 Hz	1680	.03	.05	-45.89	.75	.47	-129.34
18	1.13 Hz	496	.02	.58	-52.78	.80	1.17	-33.68
19	1.33 Sec	1358	.12	.34	-72.06	.19	5.16	-161.05
20	1.78 Sec	8553	1.14	.18	-50.50	.09	5.13	-151.23
21	2.67 Sec	1068	.33	.23	-55.36	.50	1.64	-169.78
22	3.56 Sec	756	.10	.06	-34.71	.29	1.44	159.12
23	5.33 Sec	412	.16	.63	-52.76	.17	2.48	53.73
24	7.11 Sec	631	.19	.09	-30.28	.40	.72	119.52
25	10.67 Sec	202	.20	.13	-35.00	.71	2.10	99.16
26	14.22 Sec	202	.20	.02	-35.51	.97	1.27	121.00
27	21.33 Sec	96	.20	.07	-33.84	.67	2.00	79.50
28	28.44 Sec	560	.23	.04	-37.10	.07	1.66	60.24
29	42.67 Sec	499	.24	.06	-37.01	.53	3.04	67.60
30	56.89 Sec	226	.24	.04	-35.33	.95	1.30	83.75
31	85.33 Sec	207	.28	.09	-40.05	.82	.91	3.06
32	113.78 Sec	204	.26	.04	-36.14	.85	.83	44.73
33	170.67 Sec	120	.33	.04	-34.33	.79	.70	21.10
34	227.56 Sec	36	.28	.22	-37.37	.59	1.03	13.46
35	341.33 Sec	21	.24	.25	-43.73	.22	.12	-37.18
36	455.11 Sec	12	.14	.25	-37.33	.26	.58	-7.58
37	682.67 Sec	6	.37	.25	-30.44	.13	3.47	-104.82
38	910.22 Sec	3	.16	.01	-37.38	.31	.35	-51.96
39	1365.33 Sec	18	.39	.54	-29.66	.73	1.23	24.31
40	1820.44 Sec	3	.28	.20	-23.28	.11	.60	13.04

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E







PHOENIX GEOSCIENCE

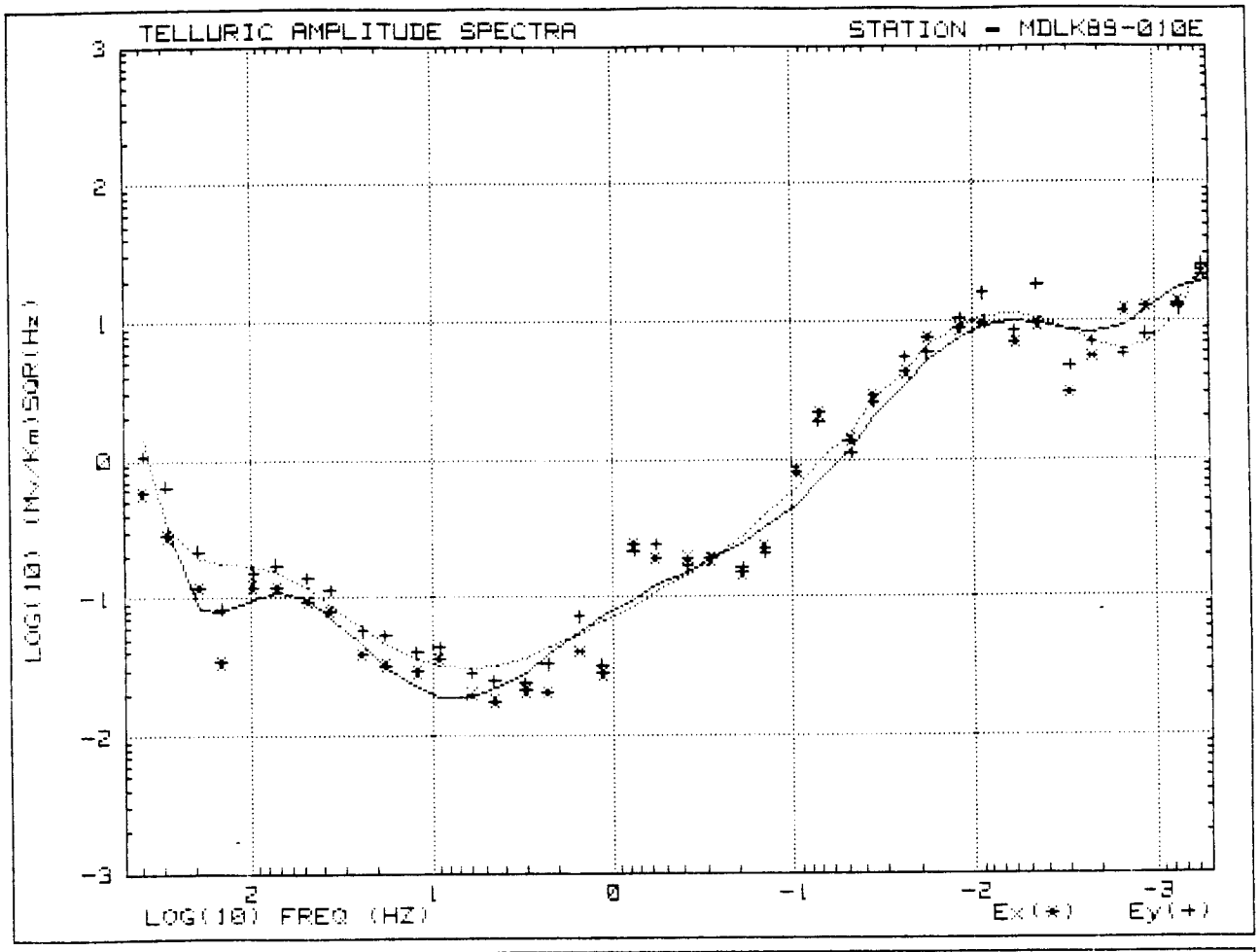
MT Site: MDLK89-010E

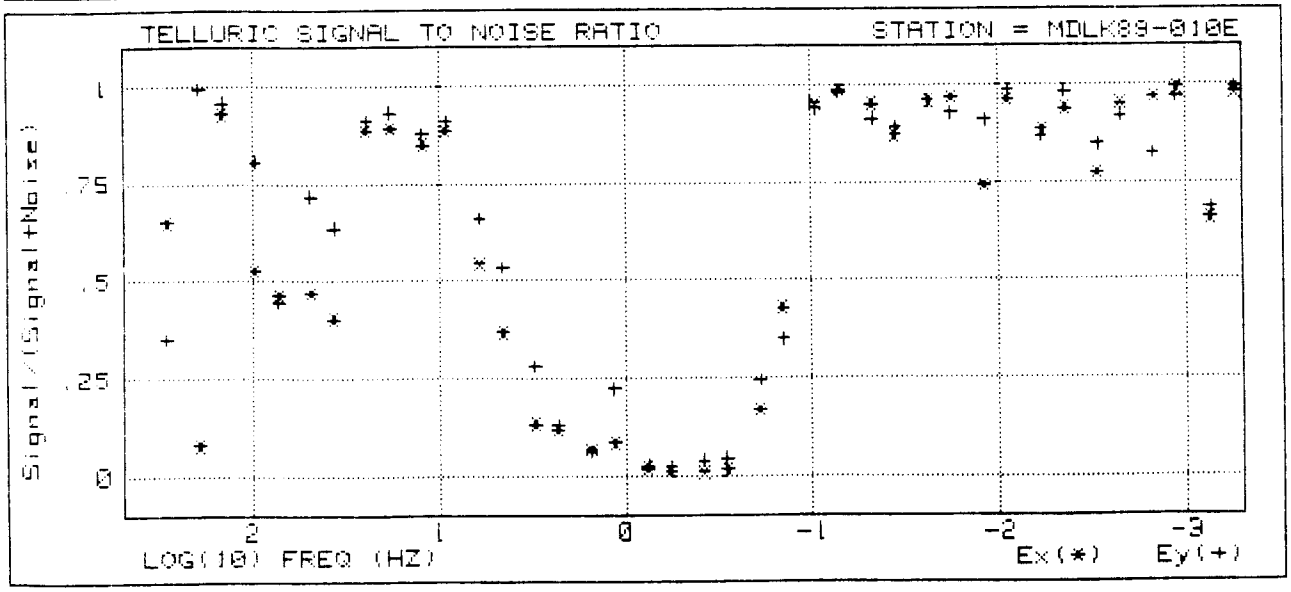
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	863	.98	.98	.78	.99	.55	.98
2	288.00 Hz	304	.75	.89	.67	.80	.60	.66
3	192.00 Hz	892	.50	.85	.90	.46	.82	.16
4	144.00 Hz	96	.78	.93	.92	.72	.92	.56
5	96.00 Hz	336	.70	.86	.93	.75	.86	.69
6	72.00 Hz	518	.55	.70	.54	.64	.51	.51
7	48.00 Hz	973	.63	.82	.90	.69	.82	.61
8	36.00 Hz	1326	.60	.77	.89	.64	.77	.57
9	24.00 Hz	96	.88	.94	.94	.87	.93	.85
10	18.00 Hz	96	.91	.95	.95	.90	.95	.88
11	12.00 Hz	96	.89	.93	.93	.89	.93	.87
12	9.00 Hz	96	.93	.95	.95	.93	.94	.92
13	6.00 Hz	96	.72	.80	.81	.75	.80	.67
14	4.50 Hz	96	.58	.72	.73	.53	.72	.47
15	3.00 Hz	992	.33	.51	.51	.32	.51	.31
16	2.25 Hz	1650	.31	.35	.38	.33	.34	.29
17	1.50 Hz	1680	.23	.24	.32	.27	.22	.23
18	1.13 Hz	496	.21	.44	.47	.21	.43	.21
19	1.33 Sec	1358	.13	.15	.22	.18	.14	.10
20	1.78 Sec	8553	.11	.09	.12	.10	.05	.08
21	2.67 Sec	1068	.08	.18	.28	.15	.16	.06
22	3.56 Sec	756	.11	.19	.25	.15	.19	.08
23	5.33 Sec	412	.40	.47	.68	.44	.47	.36
24	7.11 Sec	631	.64	.58	.78	.68	.58	.60
25	10.67 Sec	202	.97	.97	.97	.90	.97	.85
26	14.22 Sec	202	.99	.99	.99	.97	.99	.91
27	21.33 Sec	96	.96	.94	.94	.93	.94	.86
28	28.44 Sec	560	.92	.94	.94	.81	.94	.75
29	42.67 Sec	499	.98	.98	.98	.92	.98	.61
30	56.89 Sec	226	.98	.96	.96	.98	.96	.90
31	85.33 Sec	207	.86	.96	.97	.87	.96	.68
32	113.78 Sec	204	.98	.99	.99	.99	.99	.78
33	170.67 Sec	120	.93	.92	.92	.91	.92	.73
34	227.56 Sec	36	.96	.99	.99	.95	.99	.56
35	341.33 Sec	21	.86	.92	.92	.88	.91	.72
36	455.11 Sec	12	.97	.96	.95	.95	.95	.74
37	682.67 Sec	6	.98	.92	.92	.97	.92	.90
38	910.22 Sec	3	.99	.98	.96	.99	.93	.96
39	1365.33 Sec	18	.79	.82	.87	.62	.82	.53
40	1820.44 Sec	3	.98	1.00	.99	.89	.99	.88

PHOENIX GEOSCIENCE

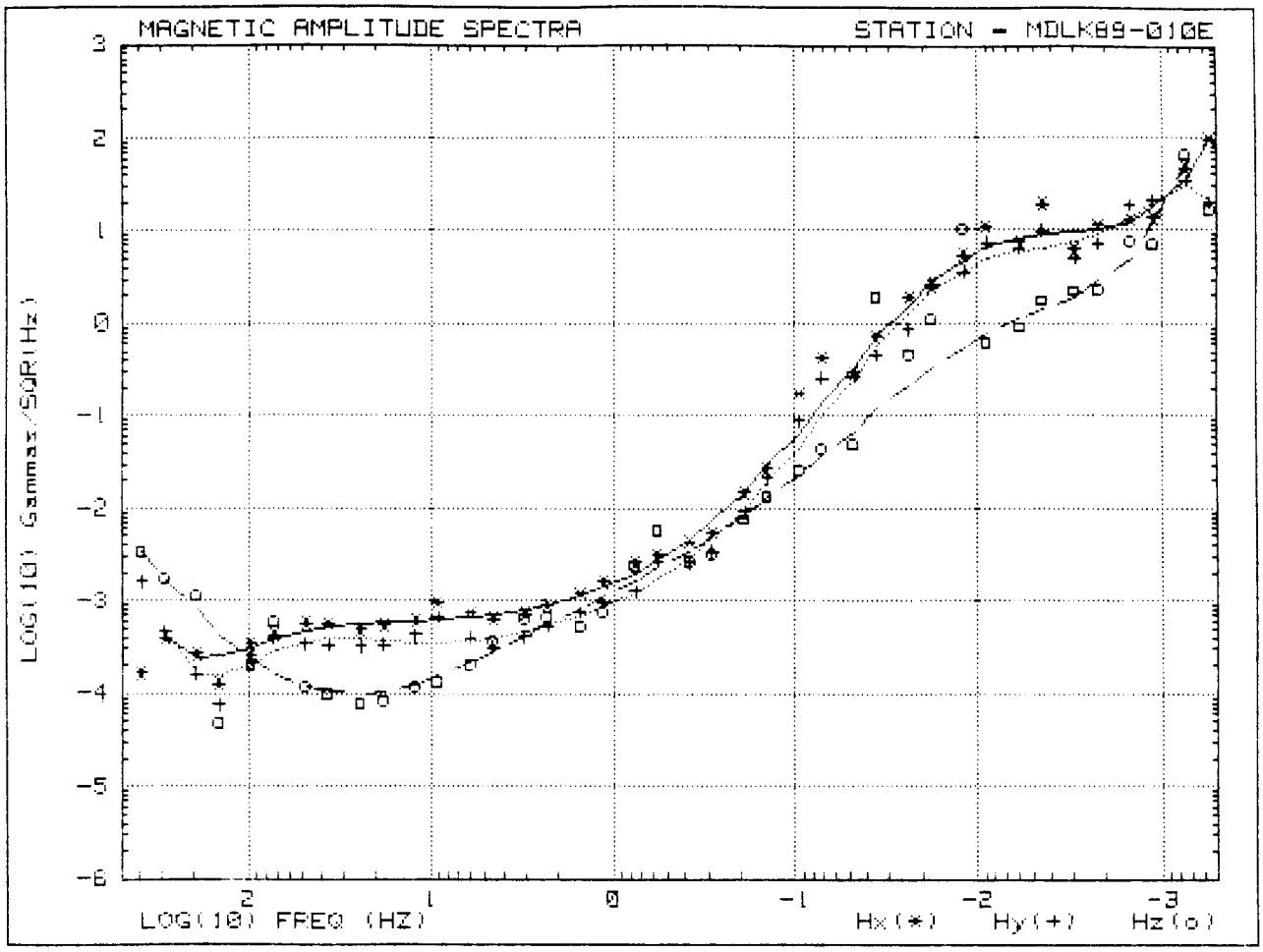
MT Site: MDLK89-010E

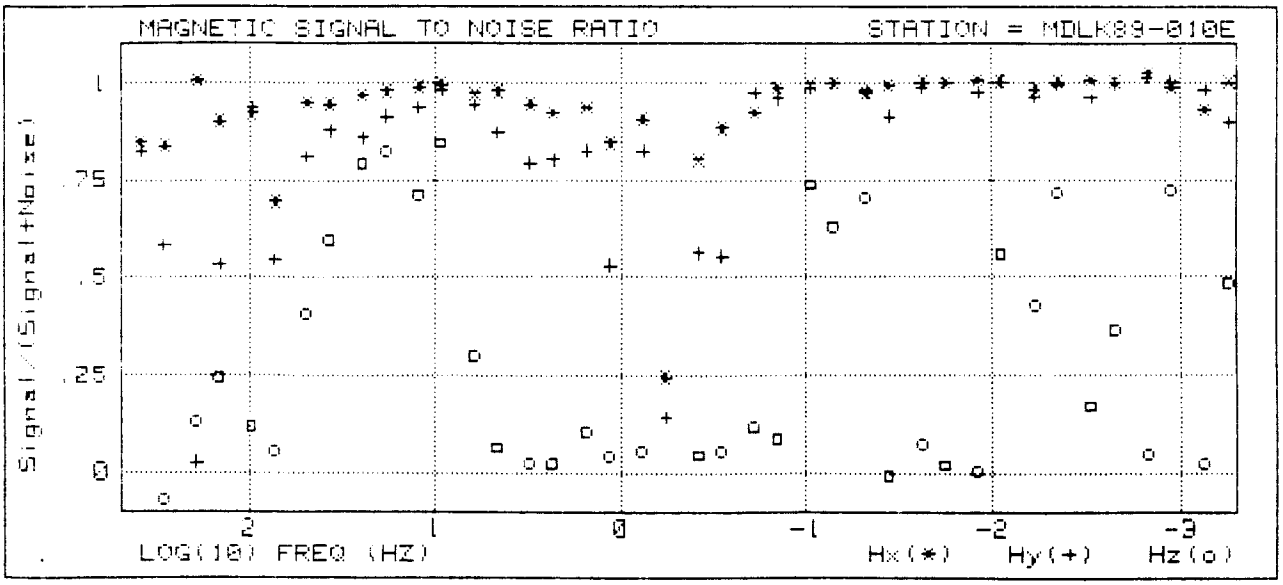




PHOENIX GEOSCIENCE

MT Site: MDLK89-010E





PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	863	1.62E-04	1.57E-03	3.47E-03	5.73E-01	1.05E+00
2	288.00 Hz	304	3.91E-04	4.59E-04	1.82E-03	2.79E-01	6.38E-01
3	192.00 Hz	892	2.62E-04	1.59E-04	1.23E-03	1.18E-01	2.16E-01
4	144.00 Hz	96	1.26E-04	7.42E-05	5.14E-05	3.38E-02	8.26E-02
5	96.00 Hz	336	3.32E-04	2.46E-04	2.09E-04	1.19E-01	1.46E-01
6	72.00 Hz	518	4.12E-04	3.92E-04	6.11E-04	1.17E-01	1.71E-01
7	48.00 Hz	973	5.61E-04	3.32E-04	1.23E-04	9.28E-02	1.37E-01
8	36.00 Hz	1326	5.50E-04	3.18E-04	1.02E-04	7.91E-02	1.13E-01
9	24.00 Hz	96	4.73E-04	3.12E-04	8.34E-05	3.83E-02	5.63E-02
10	18.00 Hz	96	5.38E-04	3.30E-04	8.87E-05	3.19E-02	5.30E-02
11	12.00 Hz	96	5.90E-04	4.25E-04	1.24E-04	2.86E-02	4.00E-02
12	9.00 Hz	96	9.46E-04	6.58E-04	1.41E-04	3.52E-02	4.25E-02
13	6.00 Hz	96	7.41E-04	3.88E-04	2.18E-04	1.98E-02	2.78E-02
14	4.50 Hz	96	6.35E-04	3.07E-04	3.86E-04	1.76E-02	2.48E-02
15	3.00 Hz	992	7.11E-04	3.98E-04	6.66E-04	2.08E-02	2.34E-02
16	2.25 Hz	1650	8.91E-04	5.13E-04	7.08E-04	2.01E-02	3.24E-02
17	1.50 Hz	1680	1.20E-03	7.35E-04	5.58E-04	3.99E-02	7.19E-02
18	1.13 Hz	496	1.57E-03	9.41E-04	7.97E-04	2.76E-02	3.20E-02
19	1.33 Sec	1358	2.56E-03	1.24E-03	2.51E-03	2.38E-01	2.14E-01
20	1.78 Sec	8553	3.08E-03	2.60E-03	6.13E-03	1.89E-01	2.40E-01
21	2.67 Sec	1068	4.25E-03	2.57E-03	2.82E-03	1.90E-01	1.71E-01
22	3.56 Sec	756	5.37E-03	3.38E-03	3.36E-03	1.86E-01	1.86E-01
23	5.33 Sec	412	1.45E-02	8.94E-03	7.97E-03	1.48E-01	1.60E-01
24	7.11 Sec	631	2.66E-02	2.06E-02	1.39E-02	2.26E-01	2.07E-01
25	10.67 Sec	202	1.72E-01	8.64E-02	2.76E-02	8.02E-01	8.04E-01
26	14.22 Sec	202	4.22E-01	2.49E-01	4.71E-02	2.12E+00	1.84E+00
27	21.33 Sec	96	2.86E-01	2.61E-01	5.13E-02	1.35E+00	1.10E+00
28	28.44 Sec	560	7.07E-01	4.51E-01	1.97E+00	2.82E+00	2.56E+00
29	42.67 Sec	499	1.90E+00	8.43E-01	4.91E-01	4.20E+00	5.42E+00
30	56.89 Sec	226	2.44E+00	2.61E+00	1.20E+00	7.47E+00	5.76E+00
31	85.33 Sec	207	5.33E+00	3.49E+00	1.09E+01	8.58E+00	1.00E+01
32	113.78 Sec	204	1.06E+01	7.10E+00	6.64E-01	9.41E+00	1.57E+01
33	170.67 Sec	120	7.29E+00	6.29E+00	9.56E-01	6.83E+00	8.22E+00
34	227.56 Sec	36	1.86E+01	9.70E+00	1.85E+00	9.29E+00	1.78E+01
35	341.33 Sec	21	6.14E+00	5.01E+00	2.34E+00	2.96E+00	4.63E+00
36	455.11 Sec	12	1.11E+01	7.05E+00	2.39E+00	5.41E+00	6.87E+00
37	682.67 Sec	6	1.27E+01	1.83E+01	8.14E+00	1.17E+01	5.59E+00
38	910.22 Sec	3	1.34E+01	2.06E+01	7.35E+00	1.25E+01	7.81E+00
39	1365.33 Sec	18	4.61E+01	3.34E+01	6.73E+01	1.31E+01	1.26E+01
40	1820.44 Sec	3	9.31E+01	1.95E+01	1.73E+01	2.12E+01	2.48E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	863	.846	.823	0.000	1.000	1.000
2	288.00 Hz	304	.837	.582	0.000	.649	.350
3	192.00 Hz	892	1.000	.025	.138	.078	.991
4	144.00 Hz	96	.900	.532	.252	.927	.956
5	96.00 Hz	336	.920	.933	.125	.525	.804
6	72.00 Hz	518	.694	.545	.059	.462	.446
7	48.00 Hz	973	.947	.810	.414	.468	.716
8	36.00 Hz	1326	.943	.877	.601	.402	.634
9	24.00 Hz	96	.965	.857	.798	.885	.909
10	18.00 Hz	96	.977	.911	.827	.892	.930
11	12.00 Hz	96	.987	.935	.718	.849	.878
12	9.00 Hz	96	.994	.979	.851	.884	.907
13	6.00 Hz	96	.970	.942	.307	.543	.658
14	4.50 Hz	96	.977	.873	.070	.366	.532
15	3.00 Hz	992	.942	.792	.030	.130	.280
16	2.25 Hz	1650	.922	.800	.027	.116	.128
17	1.50 Hz	1680	.934	.823	.110	.067	.059
18	1.13 Hz	496	.845	.528	.047	.083	.221
19	1.33 Sec	1358	.906	.823	.062	.018	.024
20	1.78 Sec	8553	.244	.141	0.000	.009	.021
21	2.67 Sec	1068	.801	.562	.051	.008	.036
22	3.56 Sec	756	.883	.553	.060	.015	.042
23	5.33 Sec	412	.922	.973	.121	.167	.242
24	7.11 Sec	631	.984	.957	.092	.427	.348
25	10.67 Sec	202	.996	.985	.744	.952	.940
26	14.22 Sec	202	.998	.998	.637	.985	.982
27	21.33 Sec	96	.974	.976	.710	.949	.913
28	28.44 Sec	560	.992	.912	0.000	.869	.890
29	42.67 Sec	499	1.000	.986	.081	.958	.957
30	56.89 Sec	226	.998	.997	.026	.966	.926
31	85.33 Sec	207	1.000	.972	.011	.740	.908
32	113.78 Sec	204	1.000	1.000	.565	.959	.983
33	170.67 Sec	120	.981	.961	.434	.882	.868
34	227.56 Sec	36	1.000	.994	.723	.936	.981
35	341.33 Sec	21	1.000	.963	.177	.770	.845
36	455.11 Sec	12	1.000	.997	.371	.949	.918
37	682.67 Sec	6	1.000	1.000	.053	.966	.821
38	910.22 Sec	3	.987	1.000	.729	.989	.969
39	1365.33 Sec	18	.928	.979	.031	.656	.683
40	1820.44 Sec	3	.999	.897	.488	.977	.991

PHOENIX GEOSCIENCE

MT Site: MDLK89-010E

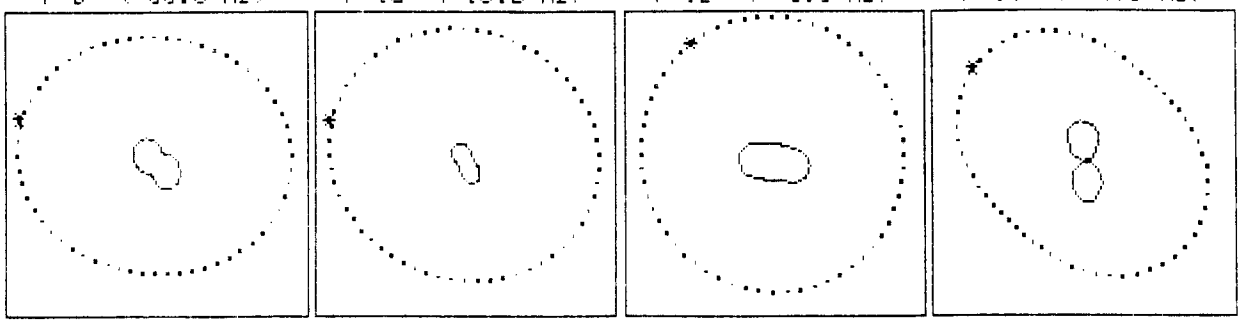
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

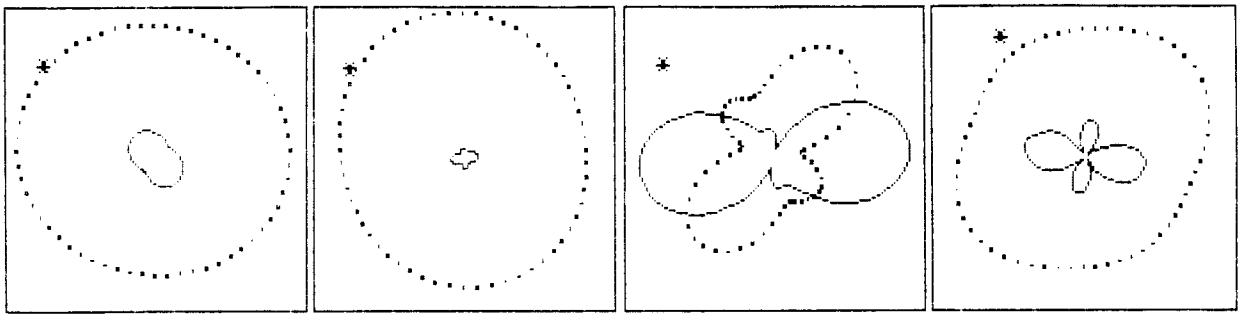
*=Rotation Direction

Zxy = ...
Zxx = ___

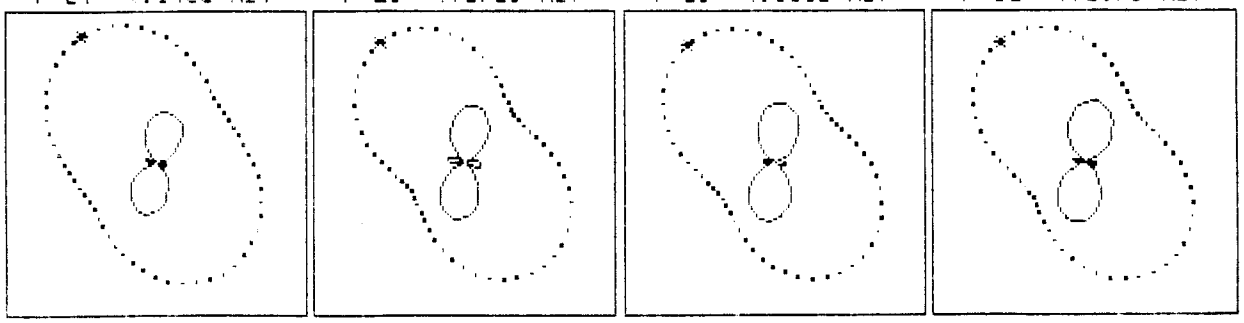
F=8 (36.0 Hz) F=10 (18.0 Hz) F=12 (9.0 Hz) F=14 (4.5 Hz)



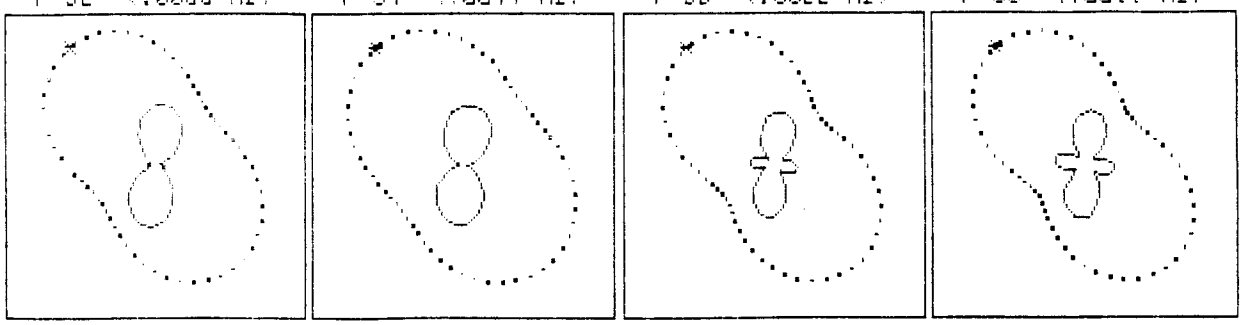
F=16 (2.3 Hz) F=18 (.1 Hz) F=20 (.5625 Hz) F=22 (.2813 Hz)



F=24 (.1406 Hz) F=26 (.0703 Hz) F=28 (.0352 Hz) F=30 (.0176 Hz)



F=32 (.0088 Hz) F=34 (.0044 Hz) F=36 (.0022 Hz) F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-004s/010s/011s/

Operator:SYEWART
Date: 20 Aug 1989
Time: 10:40:31

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#222-14Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#235-16Aug89-01
Sens-Ch02: C#432-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#430-16Aug89-01
Sens-Ch08: L#333-02Jul89-01
Sens-Ch11: C#205-16Aug89-01
Sens-Ch12: C#452-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 3

Stn Number:MDLK89-011s
Site Desc:T43N R4E
41,34,17 N 121,31,37 W
Elevation:6910ft
Reference:MDLK89-004s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL205	+45 DEG
Hy	12	COIL452	+135 DEG
Hz	13	LOOP005	
Ex	14	176 M	+45 DEG
Ey	15	181 M	+135 DEG
Rx	1	COIL235	+45 DEG
Ry	2	COIL432	+135 DEG

Ex Pot Resist: 3.7 K Ohms
Ex Voltage: AC=32__ mv, DC=__68 mv
Ey Pot Resist: 6.8 K Ohms
Ey Voltage: AC=_19_ mv, DC=_93_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

OPERATOR LOG FOR MDLK89-004s/010s/011E/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, and b.
X#2 - SUM OF RUNS: a, and b.
X#3 - SUM OF RUNS: a, and b.
X#4 - SUM OF RUNS: a, and b.
X#5 - SUM OF RUNS: a, and b.
X#6 - SUM OF RUNS: a, and b.
X#7 - SUM OF RUNS: a, and b.
X#8 - SUM OF RUNS: a, and b.
X#9 - SUM OF RUNS: a, and b.
X#10 - SUM OF RUNS: a, and b.
X#11 - SUM OF RUNS: a, and b.
X#12 - SUM OF RUNS: a, and b.
X#13 - SUM OF RUNS: a, and b.
X#14 - SUM OF RUNS: a, and b.
X#15 - SUM OF RUNS: a, and b.
X#16 - SUM OF RUNS: a, and b.
X#17 - SUM OF RUNS: a, and b.
X#18 - SUM OF RUNS: a, and b.
X#19 - SUM OF RUNS: a, and b.
X#20 - SUM OF RUNS: a, and b.

Operator:SNOW/STEWART/WUNDERMAN

Cultural Factors:
NONE

Weather Conditions:
CLEAR DURING RUNS "a,c & d" LIGHT RAIN AT START OF RUN "b"
DISTANT LIGHTNING DURING RUN "e"

Other Factors:
NONE

PHOENIX GEOSCIENCE

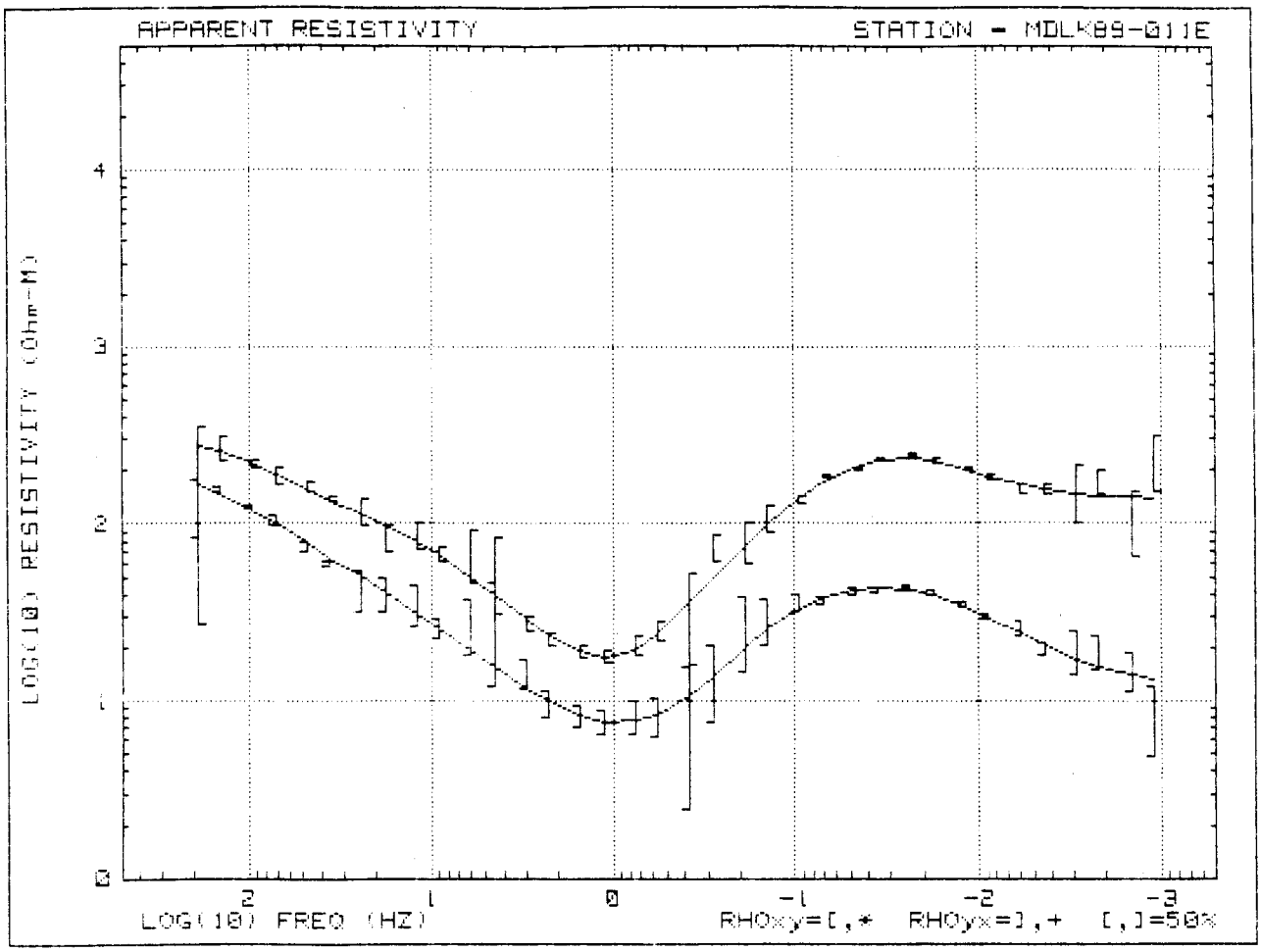
MT Site: MDLK89-011E

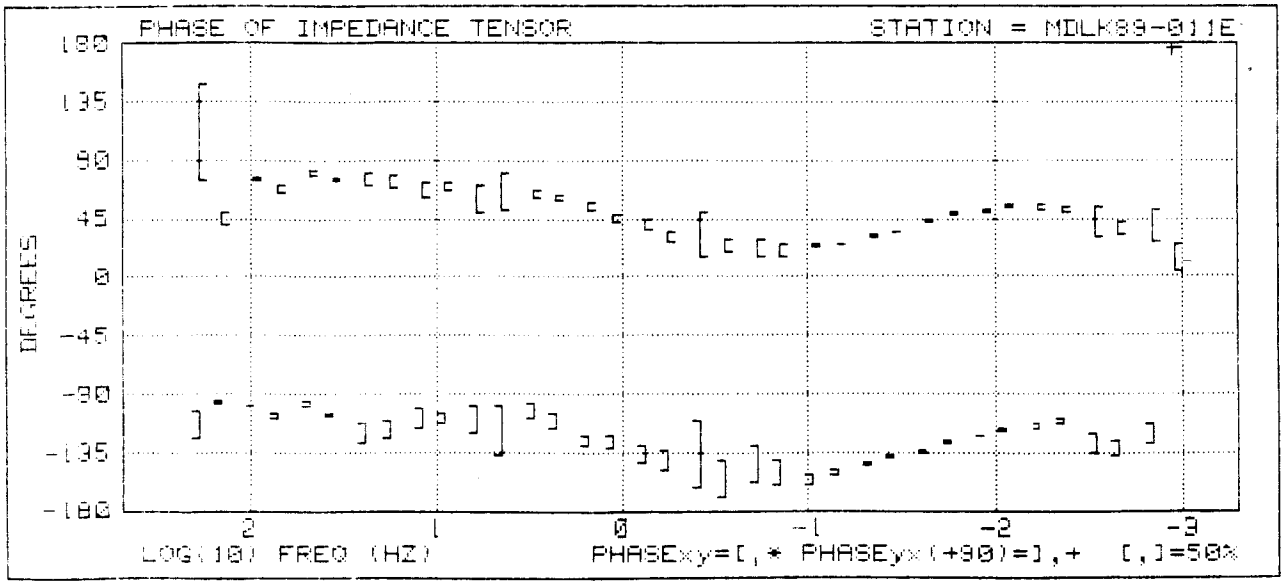
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

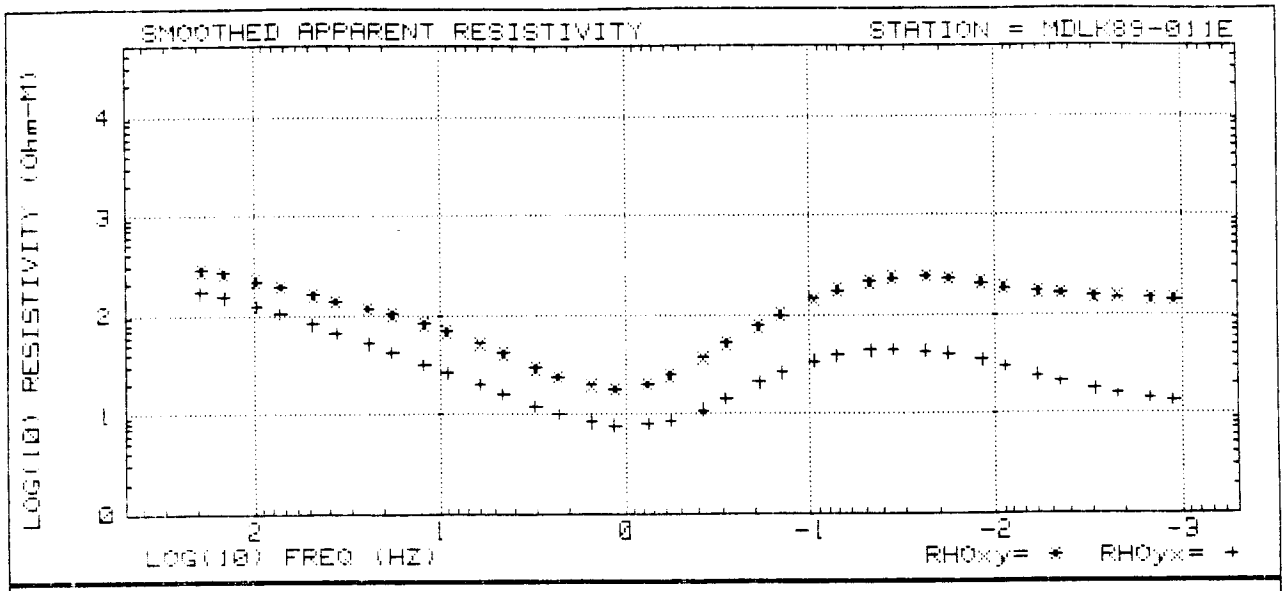
MT Site: MDLK89-011E

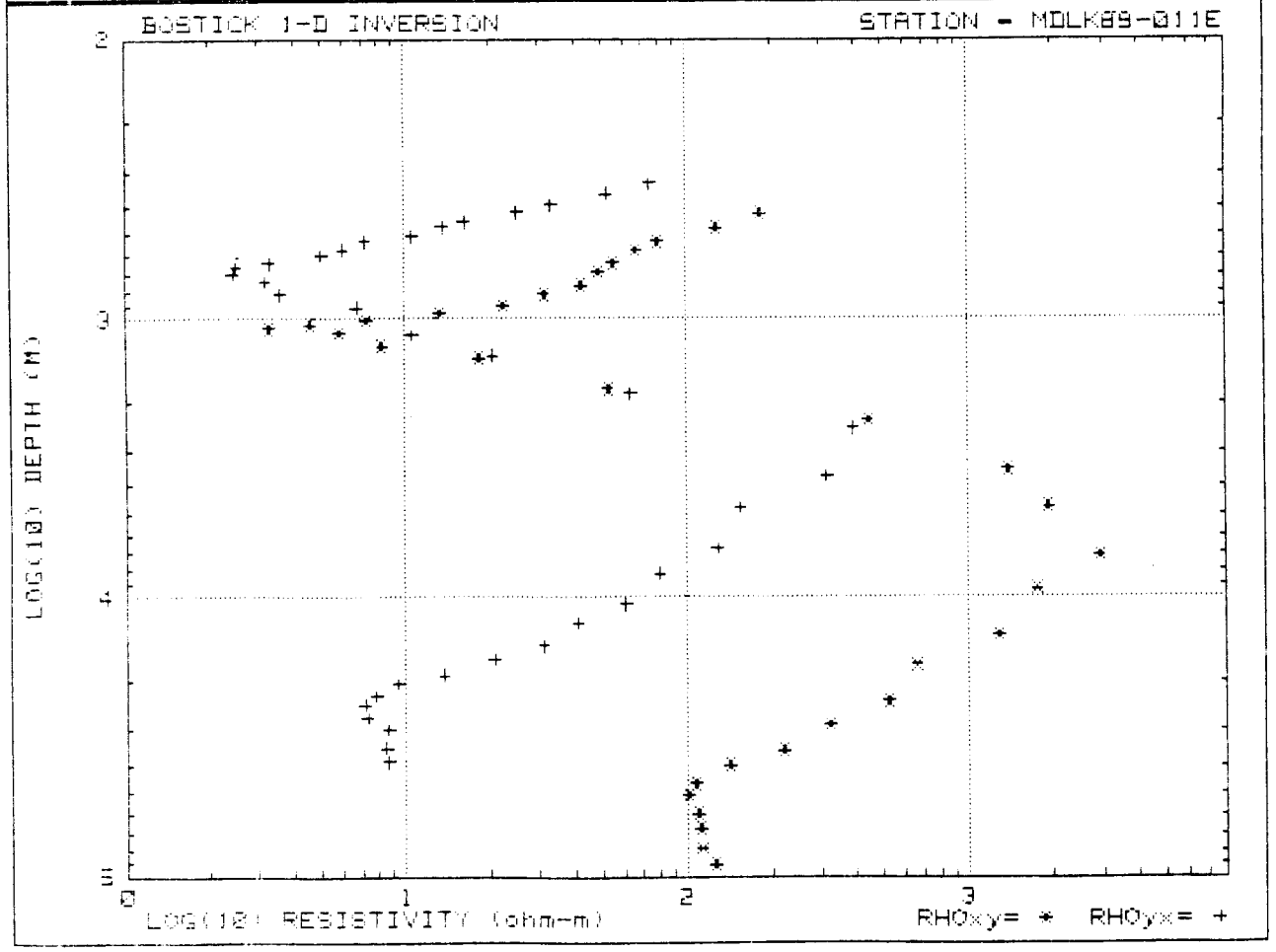




PHOENIX GEOSCIENCE

MT Site: MDLK89-011E





PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	347	99.3	99.9	123.5	75.5	111.9	54.9	-113.7	16.1
4	144.00 Hz	1024	268.7	27.9	158.0	5.3	44.9	7.1	-96.7	1.5
5	96.00 Hz	992	218.8	6.4	124.5	3.1	75.1	1.8	-99.5	.9
6	72.00 Hz	348	186.8	16.3	104.6	11.8	68.4	4.3	-106.7	3.2
7	48.00 Hz	1004	160.6	9.7	74.6	8.7	80.3	2.6	-97.9	2.4
8	36.00 Hz	817	138.6	5.6	59.9	4.5	75.1	1.6	-105.5	1.3
9	24.00 Hz	1244	116.0	31.2	41.6	49.3	75.6	7.8	-120.6	11.5
10	18.00 Hz	861	83.0	29.6	39.5	37.5	73.1	7.4	-116.7	9.1
11	12.00 Hz	671	85.6	30.4	34.1	48.2	67.1	7.6	-108.3	11.3
12	9.00 Hz	1151	67.7	14.6	25.6	21.7	69.8	3.9	-109.5	5.6
13	6.00 Hz	1248	65.1	66.1	25.9	68.5	60.3	14.5	-109.9	15.0
14	4.50 Hz	1248	50.5	99.9	23.6	99.9	65.9	21.6	-118.1	29.1
15	3.00 Hz	12638	27.1	16.5	14.2	32.1	63.5	4.4	-102.9	8.0
16	2.25 Hz	6016	22.2	10.9	9.5	30.8	60.9	3.0	-110.9	7.7
17	1.50 Hz	4992	19.1	12.1	8.1	23.6	55.0	3.3	-125.5	6.1
18	1.13 Hz	5520	18.0	12.2	7.7	26.3	45.3	3.3	-126.8	6.7
19	1.33 Sec	1344	20.6	23.1	8.1	41.6	41.2	6.0	-135.8	10.0
20	1.78 Sec	2768	24.9	22.0	8.0	46.3	31.9	5.7	-141.1	10.9
21	2.67 Sec	684	29.1	99.9	6.2	99.9	32.9	25.0	-136.1	39.2
22	3.56 Sec	1596	72.8	27.1	12.4	99.9	23.8	6.9	-154.2	21.0
23	5.33 Sec	1041	77.8	46.4	24.0	99.9	22.7	10.9	-143.5	20.7
24	7.11 Sec	1226	106.9	28.1	27.8	58.6	21.5	7.1	-150.5	13.2
25	10.67 Sec	715	137.2	8.6	35.4	18.5	24.5	2.4	-155.5	4.9
26	14.22 Sec	576	185.4	2.0	36.6	6.5	25.1	.6	-150.3	1.8
27	21.33 Sec	347	204.1	3.9	41.5	9.5	31.7	1.1	-143.5	2.6
28	28.44 Sec	323	233.0	2.4	42.0	3.9	34.9	.7	-138.4	1.1
29	42.67 Sec	345	245.4	1.9	44.3	2.0	43.2	.5	-133.9	.6
30	56.89 Sec	174	226.9	3.6	40.5	4.1	48.7	1.0	-127.2	1.2
31	85.33 Sec	45	203.2	3.7	35.2	3.9	51.2	1.0	-122.1	1.1
32	113.78 Sec	105	181.2	5.1	29.7	4.5	54.2	1.4	-117.9	1.3
33	170.67 Sec	24	155.1	10.1	25.8	14.2	53.0	2.7	-114.5	3.8
34	227.56 Sec	21	156.2	9.2	19.6	12.2	52.0	2.5	-111.2	3.3
35	341.33 Sec	42	146.9	74.7	18.9	53.3	42.5	16.0	-127.7	12.2
36	455.11 Sec	33	173.6	25.2	18.5	38.0	38.0	6.4	-131.1	9.2
37	682.67 Sec	3	100.1	87.5	14.5	44.7	39.0	18.0	-119.9	10.6
38	910.22 Sec	3	217.6	73.1	7.7	97.3	15.3	15.7	175.3	19.5

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	347	274.8	166.4	184.9	426	74.9	331
4	144.00 Hz	1024	259.8	149.2	129.7	478	52.5	362
5	96.00 Hz	992	218.0	119.3	79.7	536	33.5	397
6	72.00 Hz	348	188.2	101.1	67.1	575	25.3	422
7	48.00 Hz	1004	156.9	78.8	55.6	643	16.4	456
8	36.00 Hz	817	135.3	64.2	49.4	690	13.7	475
9	24.00 Hz	1244	113.6	50.3	42.8	774	10.7	515
10	18.00 Hz	861	98.8	40.9	31.4	834	7.2	537
11	12.00 Hz	671	79.4	31.0	22.4	915	6.0	572
12	9.00 Hz	1151	67.0	25.7	13.3	971	5.1	601
13	6.00 Hz	1248	49.9	19.5	7.3	1027	3.3	641
14	4.50 Hz	1248	40.0	15.7	4.6	1062	2.5	664
15	3.00 Hz	12638	28.8	11.8	3.3	1102	2.4	705
16	2.25 Hz	6016	23.1	9.9	5.9	1140	3.2	748
17	1.50 Hz	4992	19.1	8.2	8.3	1269	3.6	834
18	1.13 Hz	5520	17.6	7.6	18.5	1406	6.8	924
19	1.33 Sec	1344	19.4	7.9	52.9	1810	10.6	1156
20	1.78 Sec	2768	24.2	8.4	444.5	2336	20.5	1376
21	2.67 Sec	684	36.1	10.6	1408.8	3493	63.6	1890
22	3.56 Sec	1596	50.1	13.8	1954.4	4750	392.7	2492
23	5.33 Sec	1041	75.1	20.2	2929.4	7123	318.1	3693
24	7.11 Sec	1226	97.9	25.4	1769.6	9392	155.7	4783
25	10.67 Sec	715	139.7	33.2	1301.2	13737	129.4	6702
26	14.22 Sec	576	171.3	38.3	661.5	17563	80.3	8302
27	21.33 Sec	347	210.1	42.5	523.9	23825	61.0	10718
28	28.44 Sec	323	230.3	43.3	325.1	28805	41.7	12492
29	42.67 Sec	345	236.5	41.9	221.5	35746	31.3	15055
30	56.89 Sec	174	225.2	39.2	143.2	40278	20.8	16801
31	85.33 Sec	45	202.7	33.9	108.2	46800	13.7	19151
32	113.78 Sec	105	182.4	29.2	101.6	51267	9.5	20515
33	170.67 Sec	24	166.4	23.8	110.1	59967	7.9	22698
34	227.56 Sec	21	158.4	20.6	112.3	67561	7.2	24385
35	341.33 Sec	42	147.9	17.1	113.3	79949	7.3	27167
36	455.11 Sec	33	144.5	15.6	126.6	91266	8.7	30027
37	682.67 Sec	3	141.2	14.0	124.4	110502	8.6	34824
38	910.22 Sec	3	138.3	13.2	119.6	126272	8.7	39043

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	347	-22.07	58.53	999.99	-114.91	286.50	999.99
4	144.00 Hz	1024	-64.69	-22.45	287.78	311.38	310.70	999.99
5	96.00 Hz	992	1.64	-5.06	32.89	83.44	313.13	201.44
6	72.00 Hz	348	13.05	-10.29	157.90	95.57	241.08	771.01
7	48.00 Hz	1004	-3.14	6.40	24.59	32.92	193.57	163.97
8	36.00 Hz	817	2.93	-.04	6.44	40.74	152.63	36.80
9	24.00 Hz	1244	-.83	11.08	202.00	29.34	114.26	512.43
10	18.00 Hz	861	2.68	1.23	96.04	25.15	82.69	251.24
11	12.00 Hz	671	-2.08	4.00	95.24	27.85	66.04	181.18
12	9.00 Hz	1151	3.29	.97	10.84	19.10	51.78	28.45
13	6.00 Hz	1248	1.15	2.77	70.52	21.92	38.38	251.61
14	4.50 Hz	1248	-1.65	2.74	140.75	13.77	30.75	321.67
15	3.00 Hz	12638	2.14	.08	3.03	8.99	18.04	4.72
16	2.25 Hz	6016	2.25	.31	.61	7.68	13.81	1.34
17	1.50 Hz	4992	1.86	.29	.37	6.87	9.80	.93
18	1.13 Hz	5520	1.21	-.65	.27	7.08	7.15	.67
19	1.33 Sec	1344	1.761	-.767	.533	6.603	5.786	1.665
20	1.78 Sec	2768	1.817	-.851	.382	7.100	4.420	1.385
21	2.67 Sec	684	1.420	-1.412	4.746	6.205	4.016	20.772
22	3.56 Sec	1596	1.279	-.911	2.382	9.253	4.085	2.948
23	5.33 Sec	1041	1.044	-.997	2.993	7.883	3.290	5.305
24	7.11 Sec	1226	1.972	-.722	1.394	8.065	3.182	2.306
25	10.67 Sec	715	2.240	-.433	.140	7.299	3.321	.219
26	14.22 Sec	576	1.543	.011	.027	7.311	3.423	.013
27	21.33 Sec	347	1.530	.136	.039	5.881	3.638	.035
28	28.44 Sec	323	1.228	.635	.007	5.249	3.662	.012
29	42.67 Sec	345	1.007	.606	.001	3.911	3.670	.005
30	56.89 Sec	174	.713	.544	.002	2.947	3.355	.012
31	85.33 Sec	45	.555	.599	.003	2.162	2.689	.008
32	113.78 Sec	105	.340	.480	.002	1.650	2.289	.010
33	170.67 Sec	24	.288	.388	.010	1.284	1.702	.021
34	227.56 Sec	21	.177	.310	.004	1.140	1.461	.013
35	341.33 Sec	42	.308	.196	.043	1.081	.992	.335
36	455.11 Sec	33	.271	.181	.007	1.088	.850	.048
37	682.67 Sec	3	.211	.191	.019	.665	.539	.145
38	910.22 Sec	3	.184	-.163	.023	1.055	.288	.180

PHOENIX GEOSCIENCE

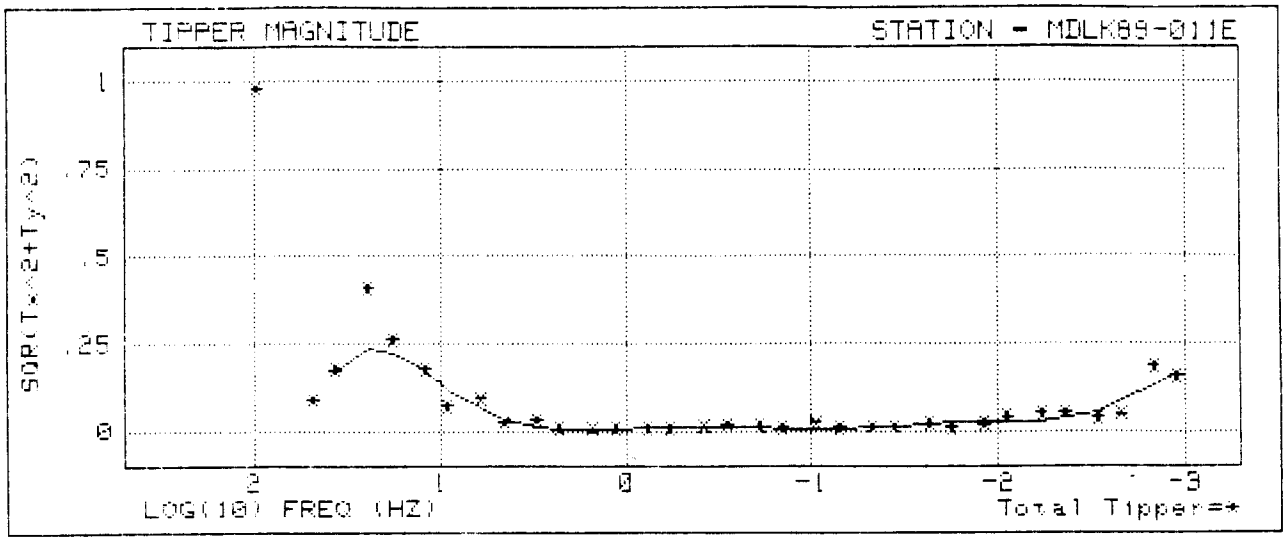
MT Site: MDLK89-011E

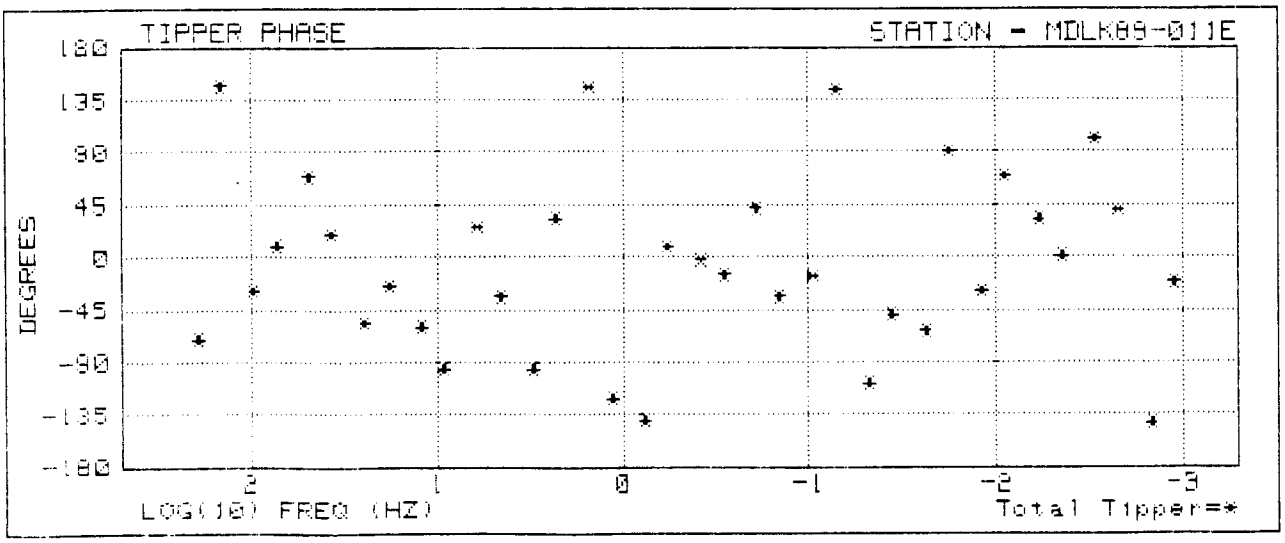
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

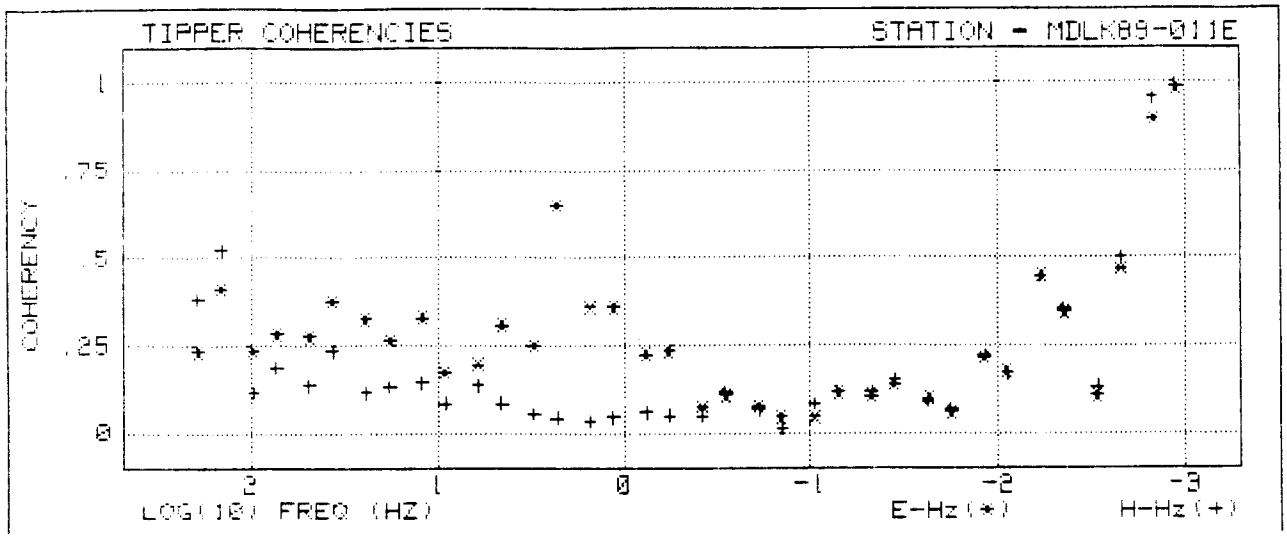
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	347	-138.44	-315.26	999.99	-26.85	100.68	999.99
4	144.00 Hz	1024	-39.50	-334.98	149.54	-64.06	-15.42	999.99
5	96.00 Hz	992	-40.33	-241.15	27.02	-2.57	-2.54	165.46
6	72.00 Hz	348	-55.68	-185.89	232.95	-17.71	11.94	999.99
7	48.00 Hz	1004	-18.49	-132.49	62.29	.06	5.65	415.38
8	36.00 Hz	817	-27.82	-100.08	10.43	1.65	.28	59.60
9	24.00 Hz	1244	-36.00	-60.83	400.85	-8.45	10.13	999.99
10	18.00 Hz	861	-26.82	-53.25	180.55	.62	1.12	472.34
11	12.00 Hz	671	-14.20	-42.95	158.45	-2.21	4.08	301.43
12	9.00 Hz	1151	-11.35	-32.00	22.22	8.20	-.95	58.33
13	6.00 Hz	1248	-9.48	-26.22	105.86	-1.34	5.32	377.69
14	4.50 Hz	1248	-10.86	-20.33	273.25	-3.83	3.35	624.50
15	3.00 Hz	12638	-3.27	-14.24	8.29	-.09	3.43	12.92
16	2.25 Hz	6016	-3.70	-9.68	3.87	1.16	1.37	8.54
17	1.50 Hz	4992	-4.52	-6.35	1.37	.82	.99	3.46
18	1.13 Hz	5520	-3.94	-5.26	1.17	.36	.77	2.94
19	1.33 Sec	1344	-3.936	-3.834	1.823	.484	.977	5.694
20	1.78 Sec	2768	-3.689	-2.977	1.628	1.166	.689	5.904
21	2.67 Sec	684	-2.448	-2.357	10.807	-.153	2.151	47.301
22	3.56 Sec	1596	-3.766	-1.820	4.695	1.148	-.594	5.812
23	5.33 Sec	1041	-3.816	-2.822	5.892	.792	1.188	10.441
24	7.11 Sec	1226	-3.848	-2.174	2.080	1.679	.503	3.442
25	10.67 Sec	715	-3.706	-1.692	.238	1.713	.730	.373
26	14.22 Sec	576	-3.113	-1.778	.025	1.257	.739	.013
27	21.33 Sec	347	-2.509	-1.854	.040	1.188	.781	.036
28	28.44 Sec	323	-2.033	-1.803	.005	1.166	.743	.009
29	42.67 Sec	345	-1.581	-1.642	.001	.964	.654	.004
30	56.89 Sec	174	-1.140	-1.503	.003	.762	.496	.016
31	85.33 Sec	45	-.762	-1.217	.002	.642	.516	.004
32	113.78 Sec	105	-.535	-1.010	.001	.417	.414	.008
33	170.67 Sec	24	-.360	-.791	.007	.340	.335	.014
34	227.56 Sec	21	-.237	-.612	.003	.267	.214	.010
35	341.33 Sec	42	-.322	-.416	.025	.315	.187	.198
36	455.11 Sec	33	-.297	-.340	.011	.111	.429	.071
37	682.67 Sec	3	-.163	-.282	.007	.146	.318	.055
38	910.22 Sec	3	-.205	.017	.010	.015	.310	.077

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E







PHOENIX GEOSCIENCE

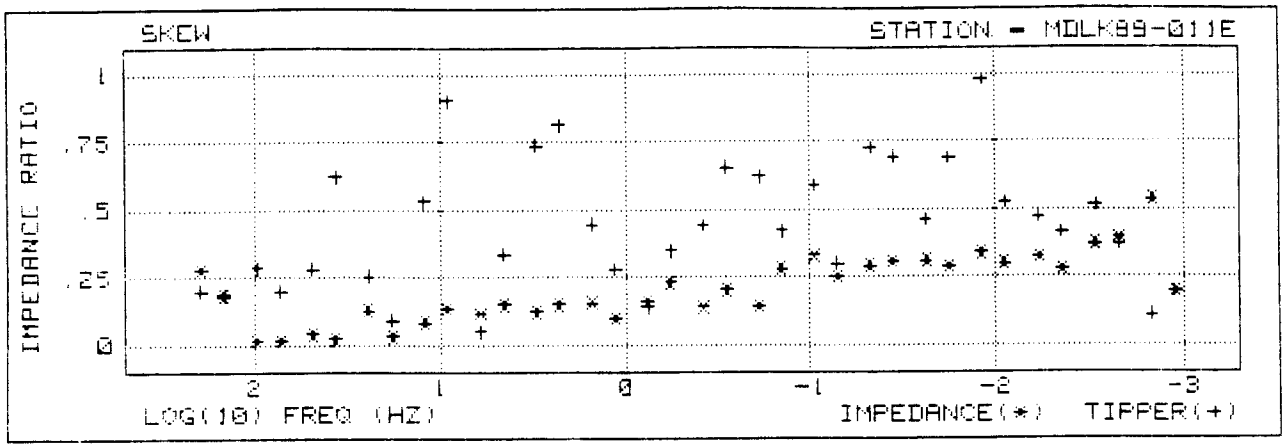
MT Site: MDLK89-011E

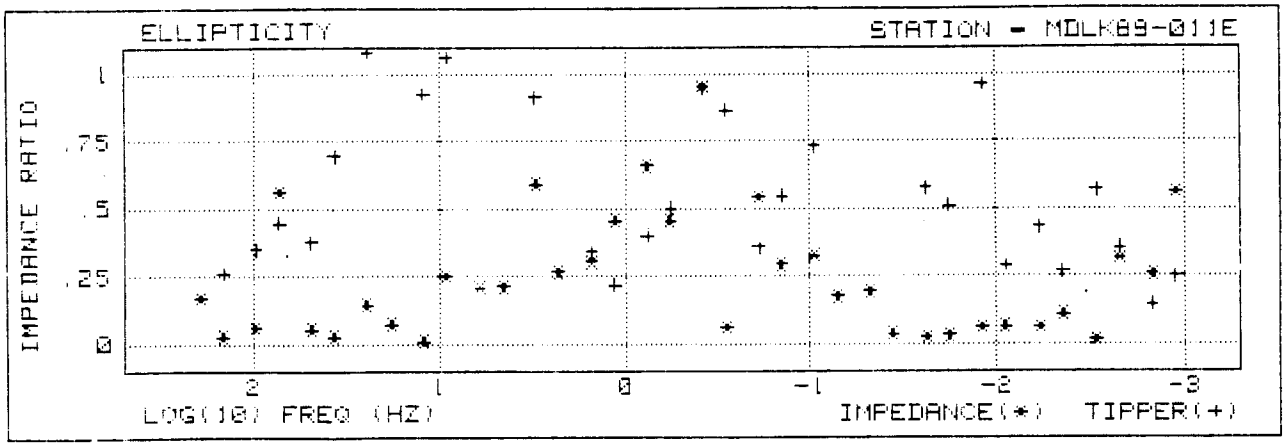
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

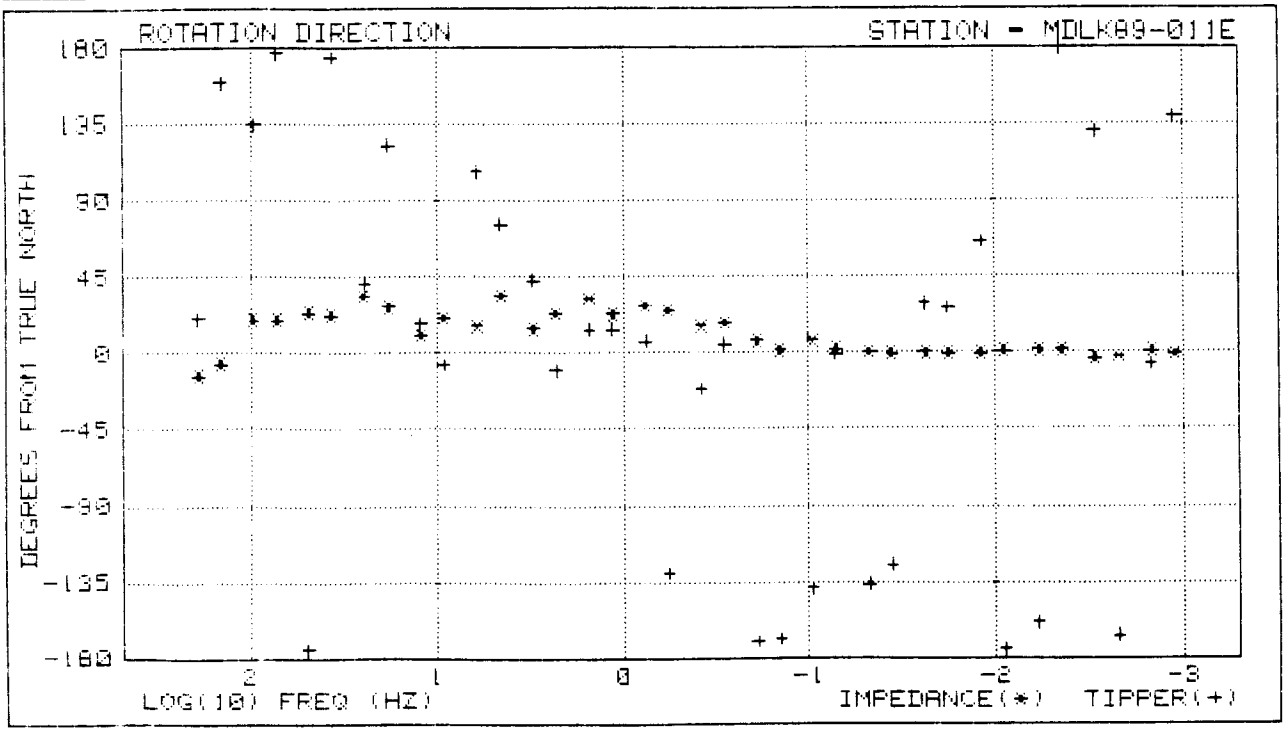
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	347	5.53	-71.23	.23	.38
4	144.00 Hz	1024	4.67	145.76	.41	.52
5	96.00 Hz	992	.98	-30.07	.23	.11
6	72.00 Hz	348	1.27	8.71	.28	.19
7	48.00 Hz	1004	.08	68.39	.27	.13
8	36.00 Hz	817	.17	18.48	.37	.23
9	24.00 Hz	1244	.41	-57.30	.32	.11
10	18.00 Hz	861	.26	-25.88	.26	.13
11	12.00 Hz	671	.17	-60.59	.33	.14
12	9.00 Hz	1151	.07	-96.15	.17	.08
13	6.00 Hz	1248	.09	24.54	.19	.13
14	4.50 Hz	1248	.02	-34.96	.30	.08
15	3.00 Hz	12638	.03	-96.67	.25	.05
16	2.25 Hz	6016	.00	31.89	.65	.04
17	1.50 Hz	4992	.00	145.03	.36	.03
18	1.13 Hz	5520	.00	-121.56	.35	.04
19	1.33 Sec	1344	.00	-140.94	.22	.06
20	1.78 Sec	2768	.01	7.69	.23	.04
21	2.67 Sec	684	.01	-3.17	.07	.05
22	3.56 Sec	1596	.02	-16.16	.10	.11
23	5.33 Sec	1041	.01	41.12	.07	.06
24	7.11 Sec	1226	.00	-34.77	.04	.01
25	10.67 Sec	715	.02	-17.01	.04	.08
26	14.22 Sec	576	.01	142.85	.11	.11
27	21.33 Sec	347	.01	-109.08	.10	.11
28	28.44 Sec	323	.01	-50.17	.14	.15
29	42.67 Sec	345	.02	-64.00	.09	.09
30	56.89 Sec	174	.00	90.27	.05	.06
31	85.33 Sec	45	.02	-29.96	.21	.22
32	113.78 Sec	105	.04	69.27	.17	.17
33	170.67 Sec	24	.05	32.17	.44	.44
34	227.56 Sec	21	.05	.50	.34	.35
35	341.33 Sec	42	.03	100.66	.10	.13
36	455.11 Sec	33	.04	39.22	.46	.50
37	682.67 Sec	3	.18	-142.64	.89	.95
38	910.22 Sec	3	.15	-22.14	.98	.98

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E







PHOENIX GEOSCIENCE

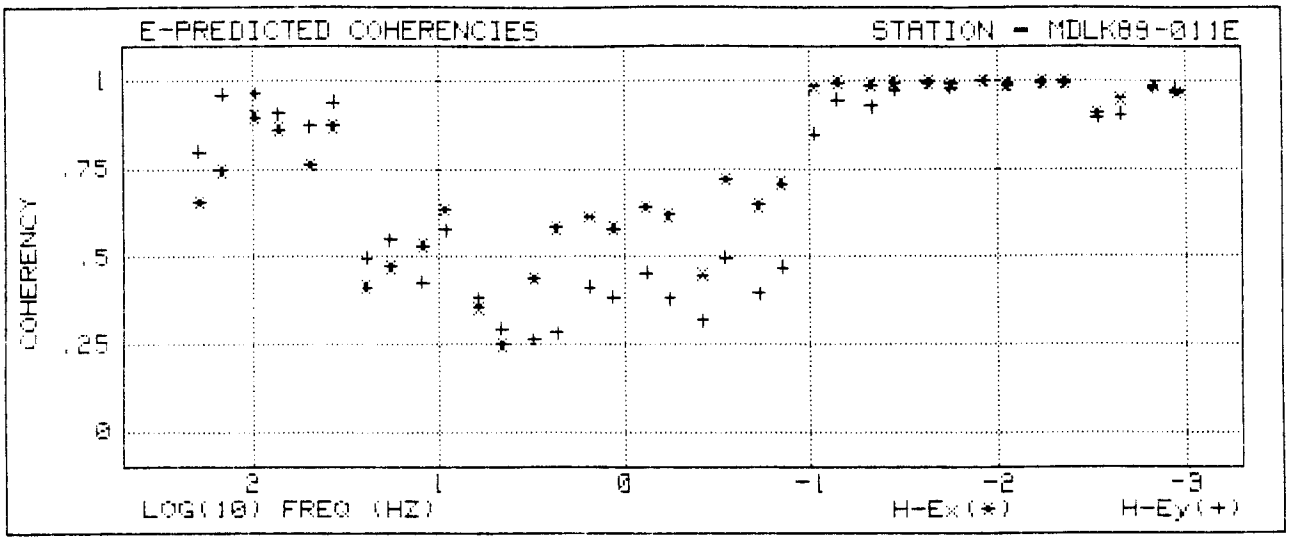
MT Site: MDLK89-011E

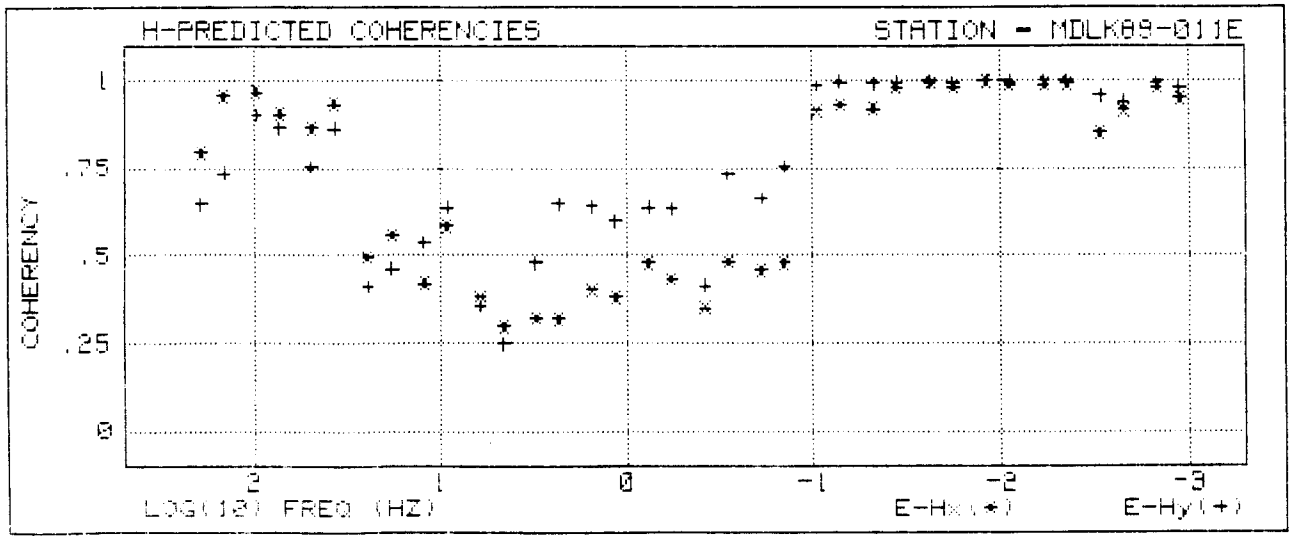
SKEW, ELLIPTICITY AND STRIKE

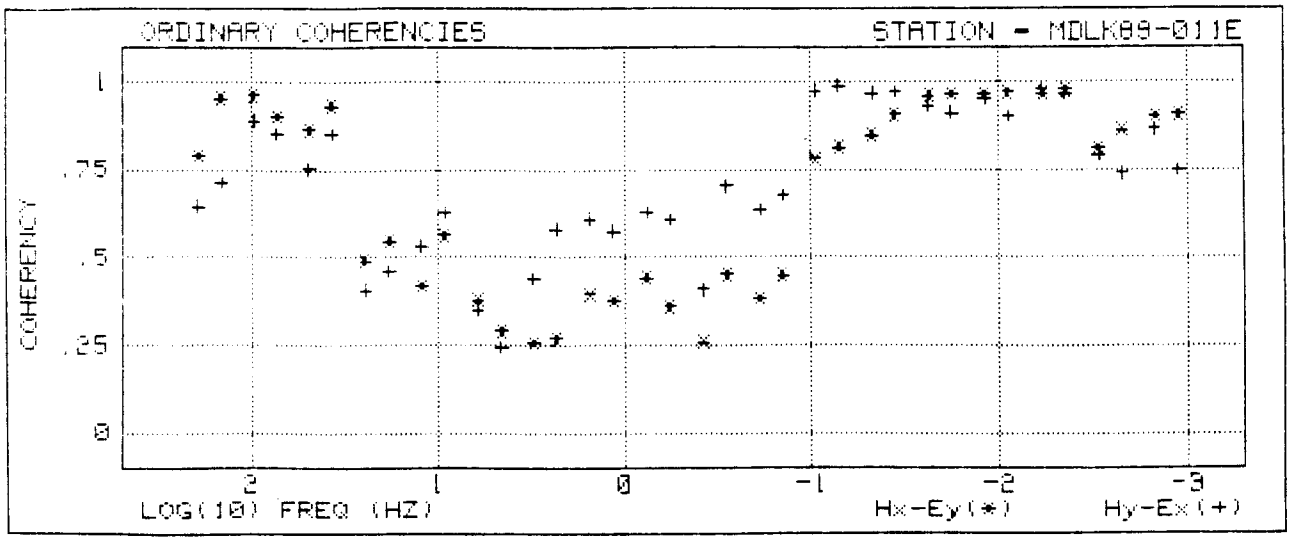
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	347	.28	.17	-14.31	.20	3.74	19.52
4	144.00 Hz	1024	.18	.03	-6.98	.18	.26	158.58
5	96.00 Hz	992	.01	.06	18.96	.28	.35	133.81
6	72.00 Hz	348	.01	.56	19.15	.20	.44	176.01
7	48.00 Hz	1004	.04	.05	23.57	.28	.37	-175.60
8	36.00 Hz	817	.02	.02	22.00	.62	.69	173.29
9	24.00 Hz	1244	.12	.14	33.02	.25	1.07	39.64
10	18.00 Hz	861	.03	.07	26.64	.09	1.20	121.84
11	12.00 Hz	671	.08	.01	9.93	.53	.92	16.87
12	9.00 Hz	1151	.13	.25	20.08	.90	1.06	-7.18
13	6.00 Hz	1248	.11	.20	15.52	.05	39.82	106.15
14	4.50 Hz	1248	.14	.21	33.35	.33	3.94	75.54
15	3.00 Hz	12638	.12	.59	13.86	.73	.91	42.30
16	2.25 Hz	6016	.15	.26	23.19	.81	1.20	-10.60
17	1.50 Hz	4992	.15	.30	31.78	.44	.34	13.49
18	1.13 Hz	5520	.10	.45	22.73	.28	.22	13.34
19	1.33 Sec	1344	.16	.65	27.24	.14	.40	5.97
20	1.78 Sec	2768	.23	.45	24.57	.35	.50	-130.51
21	2.67 Sec	684	.14	.95	15.23	.44	.95	-21.77
22	3.56 Sec	1596	.20	.06	17.13	.65	.86	4.86
23	5.33 Sec	1041	.14	.54	6.41	.62	.36	-170.82
24	7.11 Sec	1226	.28	.29	.98	.42	.54	-169.54
25	10.67 Sec	715	.33	.32	6.80	.58	.73	-139.32
26	14.22 Sec	576	.25	.17	1.97	.30	2.68	-1.56
27	21.33 Sec	347	.29	.19	-.38	.72	2.34	-137.01
28	28.44 Sec	323	.30	.03	-1.06	.69	1.61	-125.45
29	42.67 Sec	345	.31	.02	-.46	.46	.57	28.48
30	56.89 Sec	174	.28	.03	-1.21	.68	.50	26.10
31	85.33 Sec	45	.34	.06	-1.08	.97	.96	65.04
32	113.78 Sec	105	.30	.06	.55	.52	.28	-175.66
33	170.67 Sec	24	.32	.06	.61	.46	.43	-159.47
34	227.56 Sec	21	.28	.11	.94	.41	.26	178.90
35	341.33 Sec	42	.37	.01	-3.83	.51	.56	129.71
36	455.11 Sec	33	.39	.31	-3.06	.37	.35	-167.24
37	682.67 Sec	3	.53	.25	.17	.11	.14	-7.35
38	910.22 Sec	3	.19	.56	-1.49	.19	.25	138.74

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E







PHOENIX GEOSCIENCE

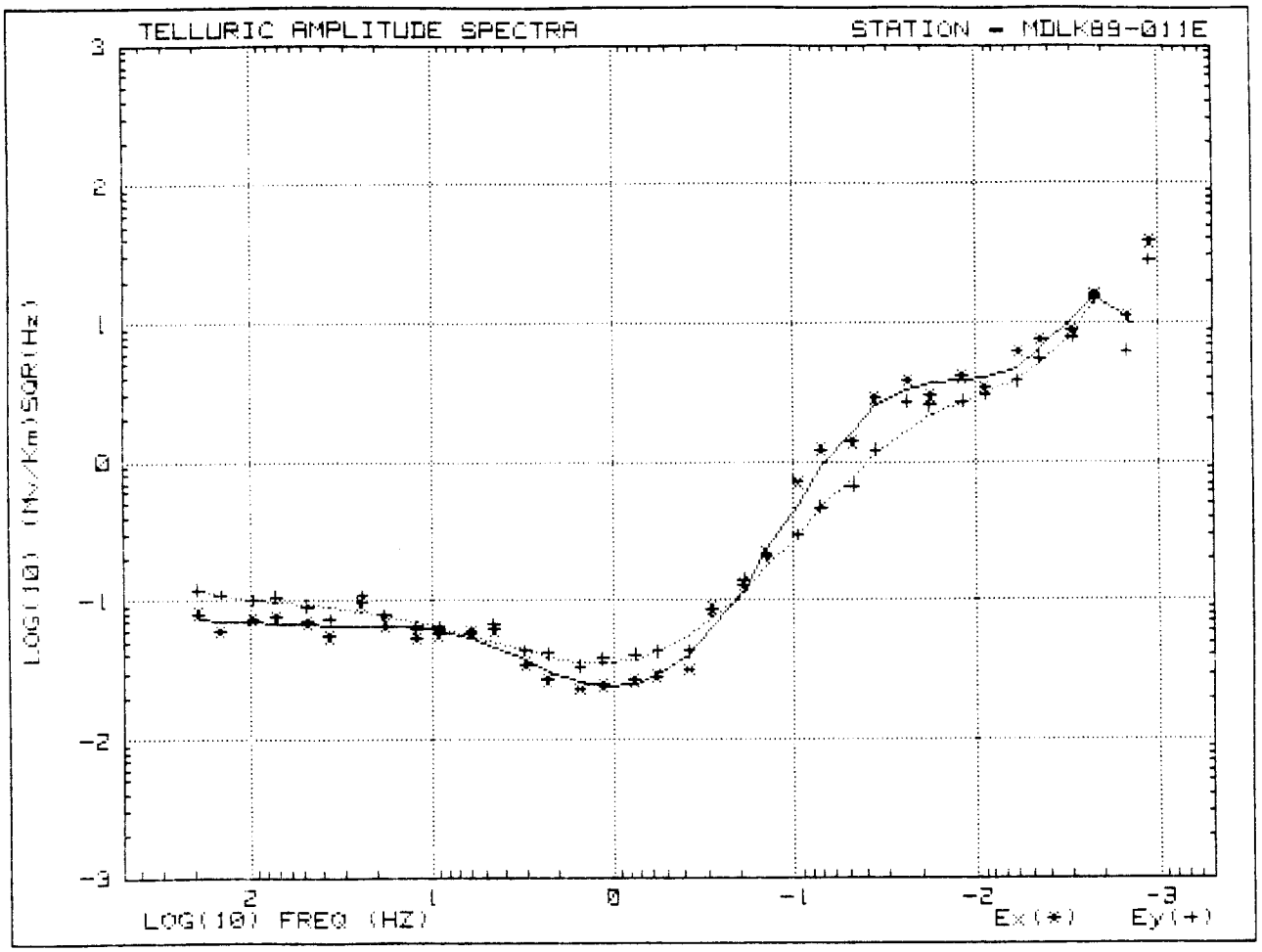
MT Site: MDLK89-011E

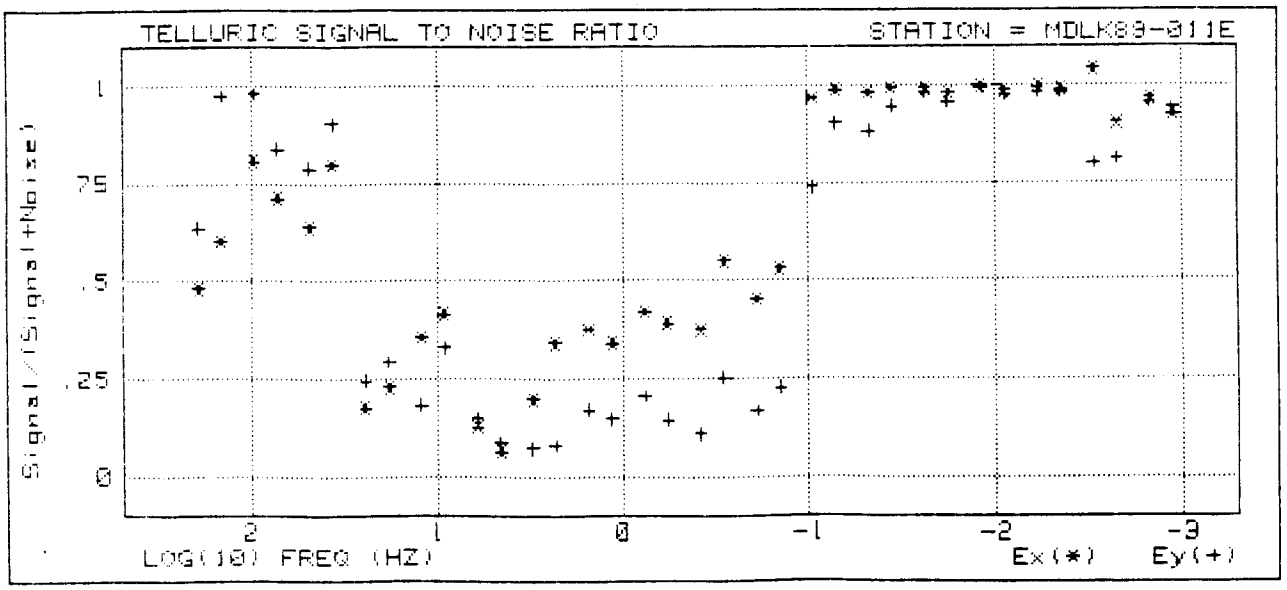
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	347	.65	.80	.79	.64	.79	.64
4	144.00 Hz	1024	.74	.96	.95	.73	.95	.71
5	96.00 Hz	992	.89	.96	.96	.90	.96	.89
6	72.00 Hz	348	.86	.90	.90	.86	.90	.85
7	48.00 Hz	1004	.76	.87	.86	.75	.86	.75
8	36.00 Hz	817	.87	.94	.93	.86	.93	.85
9	24.00 Hz	1244	.41	.49	.49	.41	.49	.40
10	18.00 Hz	861	.47	.54	.55	.46	.54	.46
11	12.00 Hz	671	.53	.42	.42	.53	.41	.53
12	9.00 Hz	1151	.63	.57	.58	.64	.56	.62
13	6.00 Hz	1248	.35	.38	.38	.35	.38	.35
14	4.50 Hz	1248	.24	.29	.29	.24	.28	.24
15	3.00 Hz	12638	.44	.26	.32	.48	.25	.43
16	2.25 Hz	6016	.58	.28	.31	.64	.27	.58
17	1.50 Hz	4992	.61	.41	.40	.64	.39	.61
18	1.13 Hz	5520	.58	.38	.38	.59	.37	.57
19	1.33 Sec	1344	.64	.45	.48	.63	.44	.62
20	1.78 Sec	2768	.62	.38	.43	.63	.36	.60
21	2.67 Sec	684	.45	.31	.35	.41	.26	.40
22	3.56 Sec	1596	.72	.49	.48	.73	.45	.70
23	5.33 Sec	1041	.64	.39	.45	.66	.38	.63
24	7.11 Sec	1226	.70	.47	.47	.75	.44	.67
25	10.67 Sec	715	.98	.84	.91	.98	.78	.97
26	14.22 Sec	576	.99	.94	.93	.99	.81	.98
27	21.33 Sec	347	.98	.92	.91	.99	.85	.96
28	28.44 Sec	323	.99	.97	.98	.99	.90	.97
29	42.67 Sec	345	.99	.99	.99	.99	.96	.93
30	56.89 Sec	174	.99	.98	.98	.99	.96	.91
31	85.33 Sec	45	1.00	1.00	1.00	1.00	.96	.95
32	113.78 Sec	105	.99	.99	.98	.99	.97	.90
33	170.67 Sec	24	.99	.99	.99	1.00	.96	.98
34	227.56 Sec	21	.99	.99	.99	1.00	.97	.96
35	341.33 Sec	42	.90	.89	.85	.95	.81	.79
36	455.11 Sec	33	.94	.90	.91	.94	.86	.73
37	682.67 Sec	3	.98	.98	.98	.99	.90	.86
38	910.22 Sec	3	.96	.97	.95	.98	.90	.75

PHOENIX GEOSCIENCE

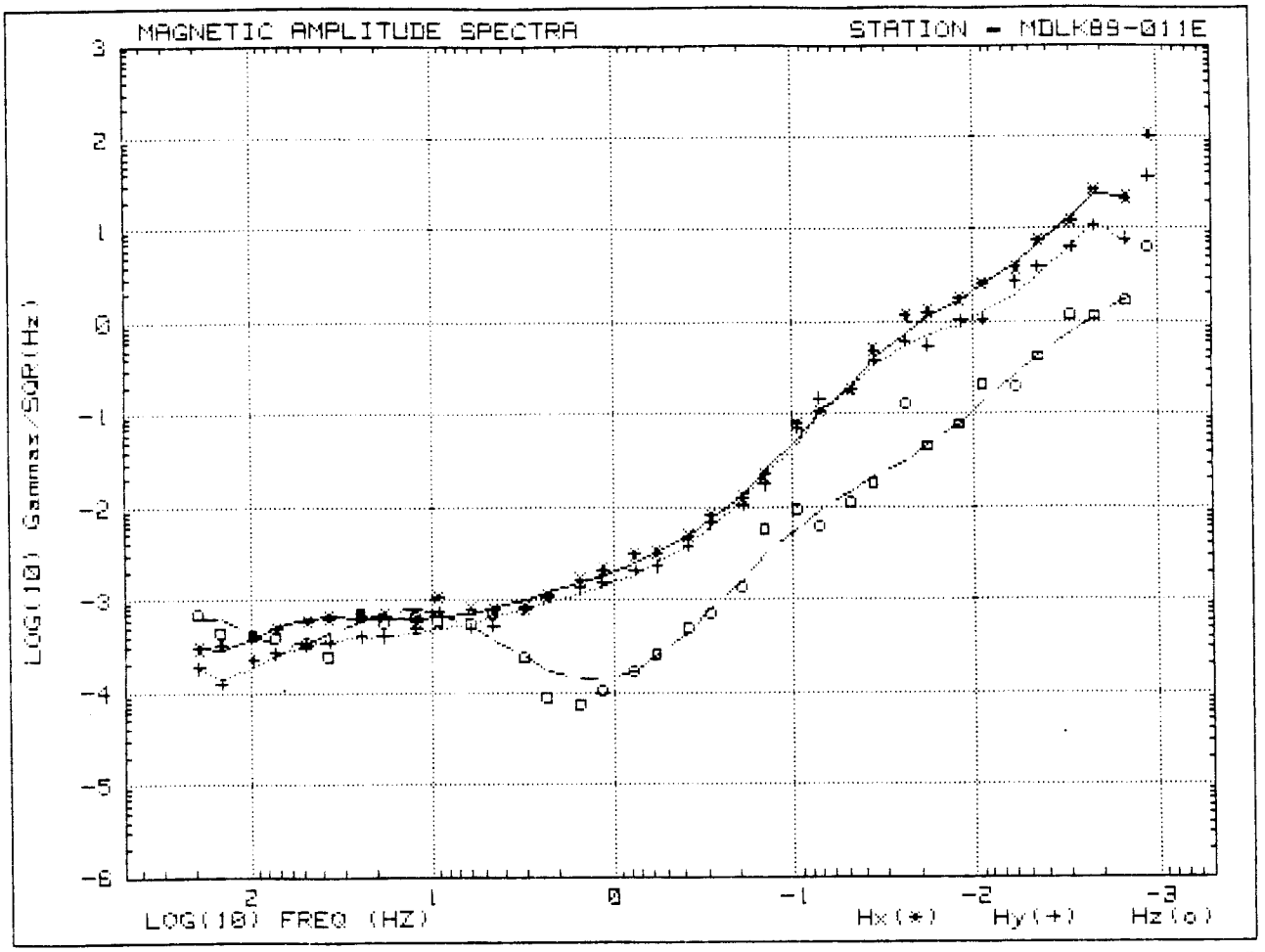
MT Site: MDLK89-011E

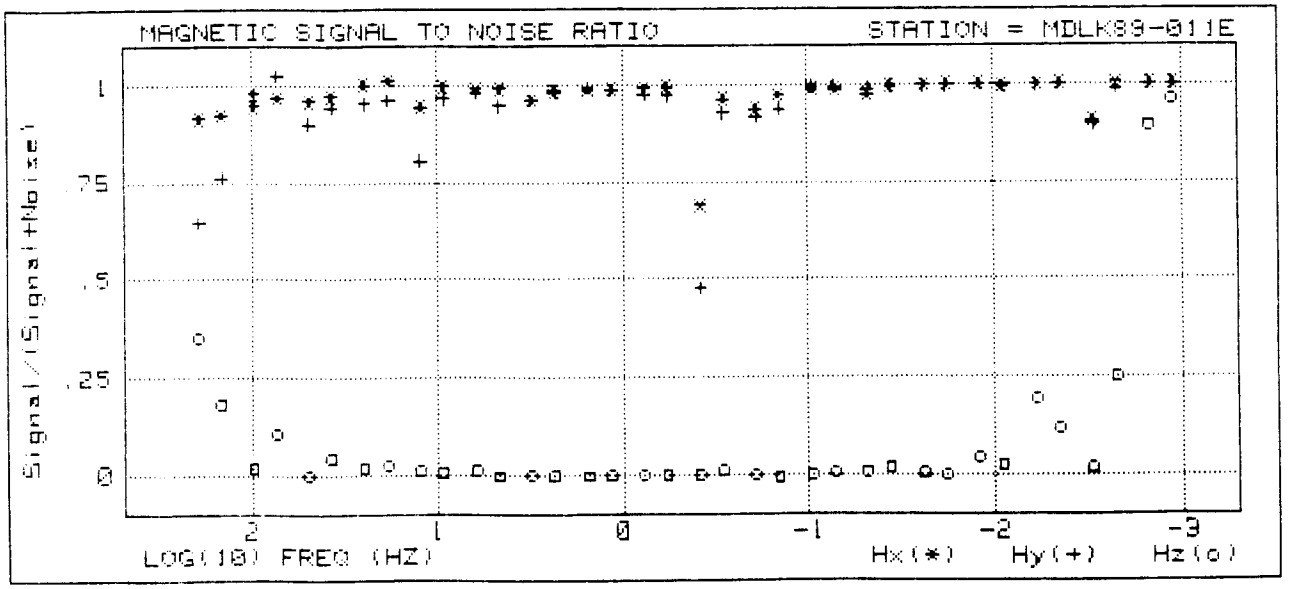




PHOENIX GEOSCIENCE

MT Site: MDLK89-011E





PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	347	2.99E-04	1.83E-04	7.32E-04	7.92E-02	1.18E-01
4	144.00 Hz	1024	3.29E-04	1.23E-04	4.73E-04	5.97E-02	1.09E-01
5	96.00 Hz	992	4.08E-04	2.20E-04	4.33E-04	7.25E-02	9.98E-02
6	72.00 Hz	348	4.87E-04	2.63E-04	4.03E-04	7.48E-02	1.05E-01
7	48.00 Hz	1004	5.86E-04	3.26E-04	3.56E-04	6.87E-02	8.96E-02
8	36.00 Hz	817	6.32E-04	3.44E-04	2.60E-04	5.39E-02	7.13E-02
9	24.00 Hz	1244	6.71E-04	4.02E-04	7.48E-04	9.42E-02	1.07E-01
10	18.00 Hz	861	6.66E-04	3.98E-04	5.80E-04	6.52E-02	7.84E-02
11	12.00 Hz	671	5.99E-04	4.99E-04	6.95E-04	5.25E-02	6.15E-02
12	9.00 Hz	1151	1.07E-03	7.43E-04	6.36E-04	5.68E-02	6.33E-02
13	6.00 Hz	1248	7.97E-04	4.86E-04	5.99E-04	5.77E-02	5.88E-02
14	4.50 Hz	1248	7.75E-04	5.22E-04	7.36E-04	6.08E-02	6.73E-02
15	3.00 Hz	12638	8.10E-04	7.93E-04	2.48E-04	3.43E-02	4.33E-02
16	2.25 Hz	6016	1.11E-03	1.05E-03	9.39E-05	2.62E-02	4.11E-02
17	1.50 Hz	4992	1.64E-03	1.32E-03	7.86E-05	2.29E-02	3.30E-02
18	1.13 Hz	5520	2.08E-03	1.55E-03	1.09E-04	2.43E-02	3.77E-02
19	1.33 Sec	1344	3.07E-03	2.09E-03	1.79E-04	2.63E-02	4.02E-02
20	1.78 Sec	2768	3.19E-03	2.25E-03	2.71E-04	2.81E-02	4.26E-02
21	2.67 Sec	684	4.88E-03	3.83E-03	5.30E-04	3.14E-02	4.26E-02
22	3.56 Sec	1596	8.02E-03	6.71E-03	7.61E-04	8.65E-02	8.41E-02
23	5.33 Sec	1041	1.25E-02	1.02E-02	1.45E-03	1.29E-01	1.40E-01
24	7.11 Sec	1226	2.21E-02	1.75E-02	6.19E-03	2.15E-01	2.08E-01
25	10.67 Sec	715	7.67E-02	7.12E-02	9.97E-03	6.95E-01	2.92E-01
26	14.22 Sec	576	1.06E-01	1.46E-01	6.53E-03	1.21E+00	4.62E-01
27	21.33 Sec	347	1.83E-01	1.88E-01	1.19E-02	1.37E+00	6.59E-01
28	28.44 Sec	323	4.85E-01	3.74E-01	1.86E-02	2.82E+00	1.20E+00
29	42.67 Sec	345	1.15E+00	6.08E-01	1.34E-01	3.78E+00	2.66E+00
30	56.89 Sec	174	1.27E+00	5.44E-01	4.79E-02	2.92E+00	2.50E+00
31	85.33 Sec	45	1.74E+00	1.02E+00	8.19E-02	4.06E+00	2.66E+00
32	113.78 Sec	105	2.53E+00	1.05E+00	2.24E-01	3.35E+00	3.02E+00
33	170.67 Sec	24	3.79E+00	2.63E+00	2.05E-01	6.11E+00	3.73E+00
34	227.56 Sec	21	7.40E+00	3.88E+00	4.38E-01	7.47E+00	5.50E+00
35	341.33 Sec	42	1.21E+01	6.28E+00	1.22E+00	8.76E+00	7.77E+00
36	455.11 Sec	33	2.64E+01	1.06E+01	1.21E+00	1.60E+01	1.51E+01
37	682.67 Sec	3	2.11E+01	7.66E+00	1.76E+00	1.10E+01	6.13E+00
38	910.22 Sec	3	9.90E+01	3.57E+01	6.61E+00	3.79E+01	2.76E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	347	.913	.645	.355	.479	.634
4	144.00 Hz	1024	.923	.760	.187	.601	.972
5	96.00 Hz	992	.945	.977	.021	.804	.979
6	72.00 Hz	348	.967	1.000	.110	.710	.836
7	48.00 Hz	1004	.957	.900	.003	.636	.785
8	36.00 Hz	817	.970	.942	.050	.796	.901
9	24.00 Hz	1244	1.000	.951	.025	.176	.244
10	18.00 Hz	861	1.000	.960	.027	.228	.293
11	12.00 Hz	671	.942	.805	.018	.355	.181
12	9.00 Hz	1151	.996	.965	.008	.414	.329
13	6.00 Hz	1248	.991	.979	.015	.125	.145
14	4.50 Hz	1248	.990	.946	.001	.063	.086
15	3.00 Hz	12638	.960	.960	.003	.197	.071
16	2.25 Hz	6016	.982	.981	.001	.342	.079
17	1.50 Hz	4992	.986	.992	.001	.375	.169
18	1.13 Hz	5520	.988	.985	.002	.338	.147
19	1.33 Sec	1344	.989	.975	.003	.418	.205
20	1.78 Sec	2768	.993	.970	.002	.388	.144
21	2.67 Sec	684	.688	.475	.004	.372	.107
22	3.56 Sec	1596	.962	.926	.016	.548	.251
23	5.33 Sec	1041	.936	.916	.004	.449	.166
24	7.11 Sec	1226	.972	.936	.000	.530	.225
25	10.67 Sec	715	.986	.994	.005	.966	.737
26	14.22 Sec	576	.988	.993	.012	.988	.901
27	21.33 Sec	347	.976	.987	.013	.980	.881
28	28.44 Sec	323	.995	.993	.023	.991	.944
29	42.67 Sec	345	.998	.997	.008	.990	.980
30	56.89 Sec	174	.999	.996	.004	.979	.955
31	85.33 Sec	45	1.000	.998	.049	.996	.992
32	113.78 Sec	105	.996	.991	.029	.983	.975
33	170.67 Sec	24	.999	.996	.199	.993	.979
34	227.56 Sec	21	.999	.998	.122	.988	.981
35	341.33 Sec	42	.905	.894	.021	1.000	.796
36	455.11 Sec	33	1.000	.988	.256	.900	.809
37	682.67 Sec	3	.999	1.000	.901	.965	.954
38	910.22 Sec	3	.999	1.000	.967	.925	.939

PHOENIX GEOSCIENCE

MT Site: MDLK89-011E

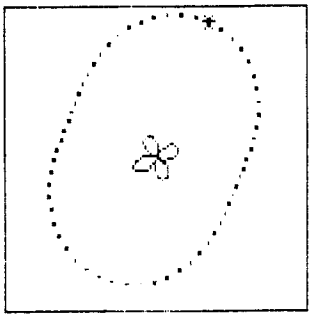
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

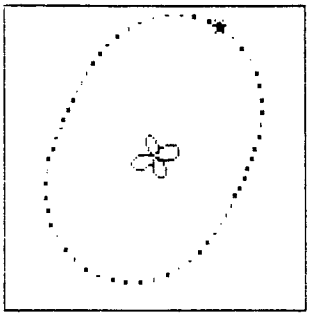
*=Rotation Direction

Zxy = ...
Zxx = ___

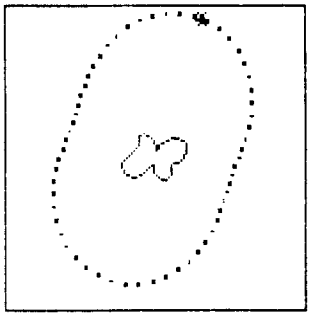
F=8 (36.0 Hz)



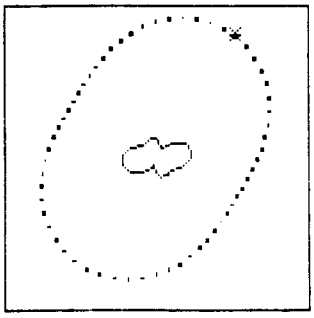
F=10 (18.0 Hz)



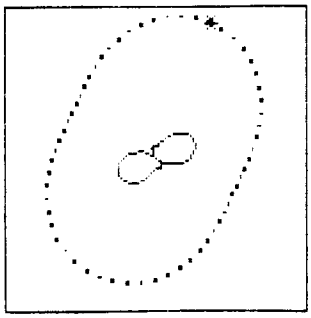
F=12 (9.0 Hz)



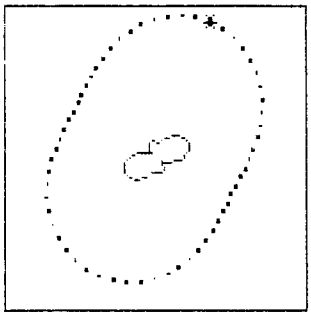
F=14 (4.5 Hz)



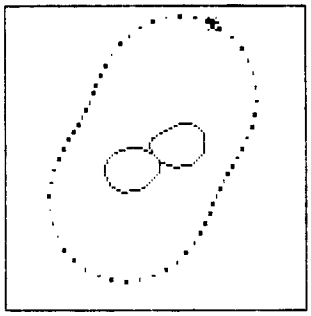
F=16 (2.3 Hz)



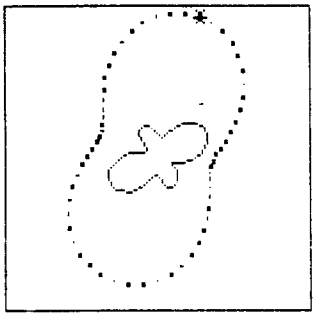
F=18 (1.1 Hz)



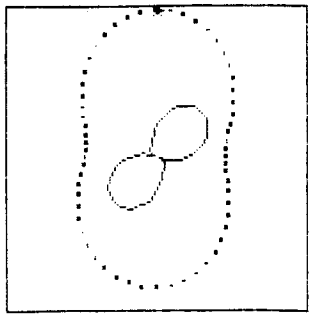
F=20 (.5625 Hz)



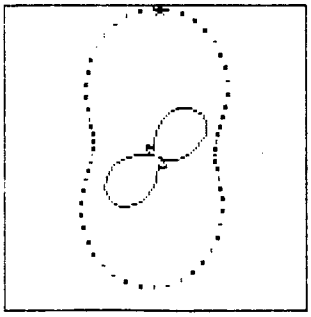
F=22 (.2813 Hz)



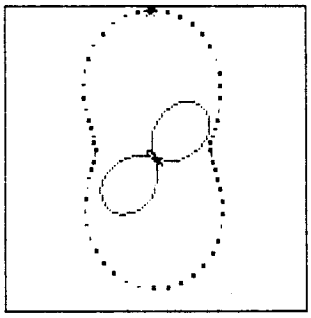
F=24 (.1406 Hz)



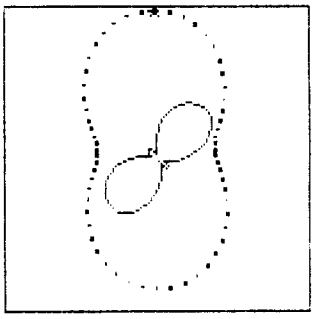
F=26 (.0703 Hz)



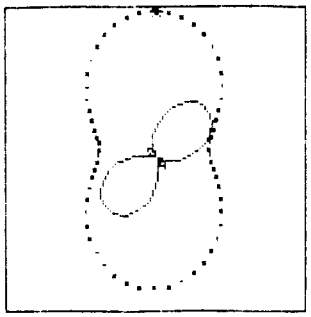
F=28 (.0352 Hz)



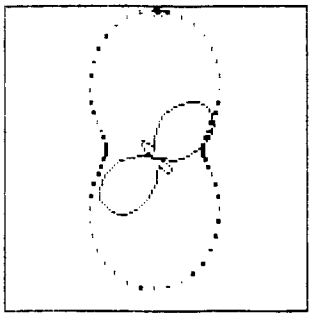
F=30 (.0176 Hz)



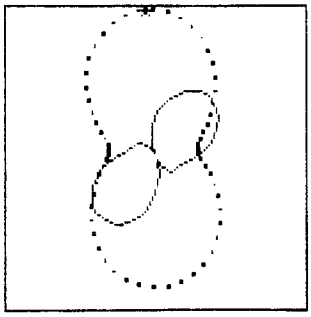
F=32 (.0088 Hz)



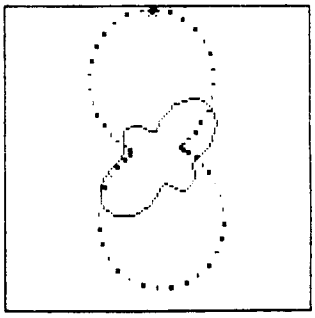
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-012a/013a/023a/

Operator:OJALA
Date: 3 Sep 1989
Time: 13:18:20

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
TPR Weighting: RHO VAR STN
LPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#235-16Aug89-01
Sens-Ch12: C#452-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-012a
Site Desc:T43N R4E
41,34,36 N 121,32,00 W
Elevation:6980 FT
Reference:MDLK89-023a
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL430	+0 DEG
Hy	2	COIL210	+90 DEG
Hz	3	LOOP333	
Ex	4	200 M	+0 DEG
Ey	5	200 M	+90 DEG
Rx	11	COIL235	+0 DEG
Ry	12	COIL452	+90 DEG

Ex Pot Resist: 10.0K Ohms
Ex Voltage: AC=0.6 mv, DC=86.0 mv
Ey Pot Resist: 18.0K Ohms
Ey Voltage: AC=7.6 mv, DC=119.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

OPERATOR LOG FOR MT SITES MDLK89-012a/013a/023a/
Run Chronology

Run STARTED:	13:18:20	3 Sep 1989
Data Acquisition Begun:	13:32:38	3 Sep 1989
Entered HI Range:	13:32:47	3 Sep 1989
Began HI X#2:	13:45:31	3 Sep 1989
Exited HI Range:	13:46:12	3 Sep 1989
Entered LO Range:	13:46:15	3 Sep 1989
Exited LO Range:	14:04:51	3 Sep 1989
Entered HI Range:	14:04:54	3 Sep 1989
Began HI X#3:	14:17:32	3 Sep 1989
Began HI X#4:	14:31:24	3 Sep 1989
Run Re-started:	14:55:16	3 Sep 1989
Entered HI Range:	14:55:25	3 Sep 1989
Began HI X#6:	15:08:30	3 Sep 1989
Began HI X#7:	15:21:54	3 Sep 1989
Began HI X#8:	15:35:29	3 Sep 1989
Began HI X#9:	15:49:03	3 Sep 1989
Exited HI Range:	15:56:15	3 Sep 1989
Entered LO Range:	15:56:19	3 Sep 1989
Began LO X#3:	17:03:04	3 Sep 1989
Began LO X#4:	17:49:39	3 Sep 1989
Exited LO Range:	17:50:31	3 Sep 1989
Entered LO Range:	18:10:20	3 Sep 1989
Began LO X#5:	19:16:29	3 Sep 1989
Began LO X#6:	20:23:14	3 Sep 1989
Began LO X#7:	21:52:05	3 Sep 1989
Began LO X#8:	23:20:58	3 Sep 1989
Began LO X#9:	00:49:51	4 Sep 1989
Began LO X#10:	02:18:49	4 Sep 1989
Exited LO Range:	04:04:56	4 Sep 1989
Run QUIT:	04:04:57	4 Sep 1989

Operator:OJALA

Cultural Factors:
GEOTHERMAL WELL 200 METERS FROMM SITE 012, 500 METERS FROM SITE 023. LIGHTLY TRAVELED FOREST SERVICE ROADS NEAR ALL SITES.

Weather Conditions:
CLEAR AND WARM WITH NO WIND.

Other Factors:
VERY HIGH SIGNAL LEVEL DURING ENTIRE RUN. LOST DIGITIZER INTERFACE IN HIGH RANGE. DO NOT USE XPR #2 OF HIGH RANGE.

PHOENIX GEOSCIENCE

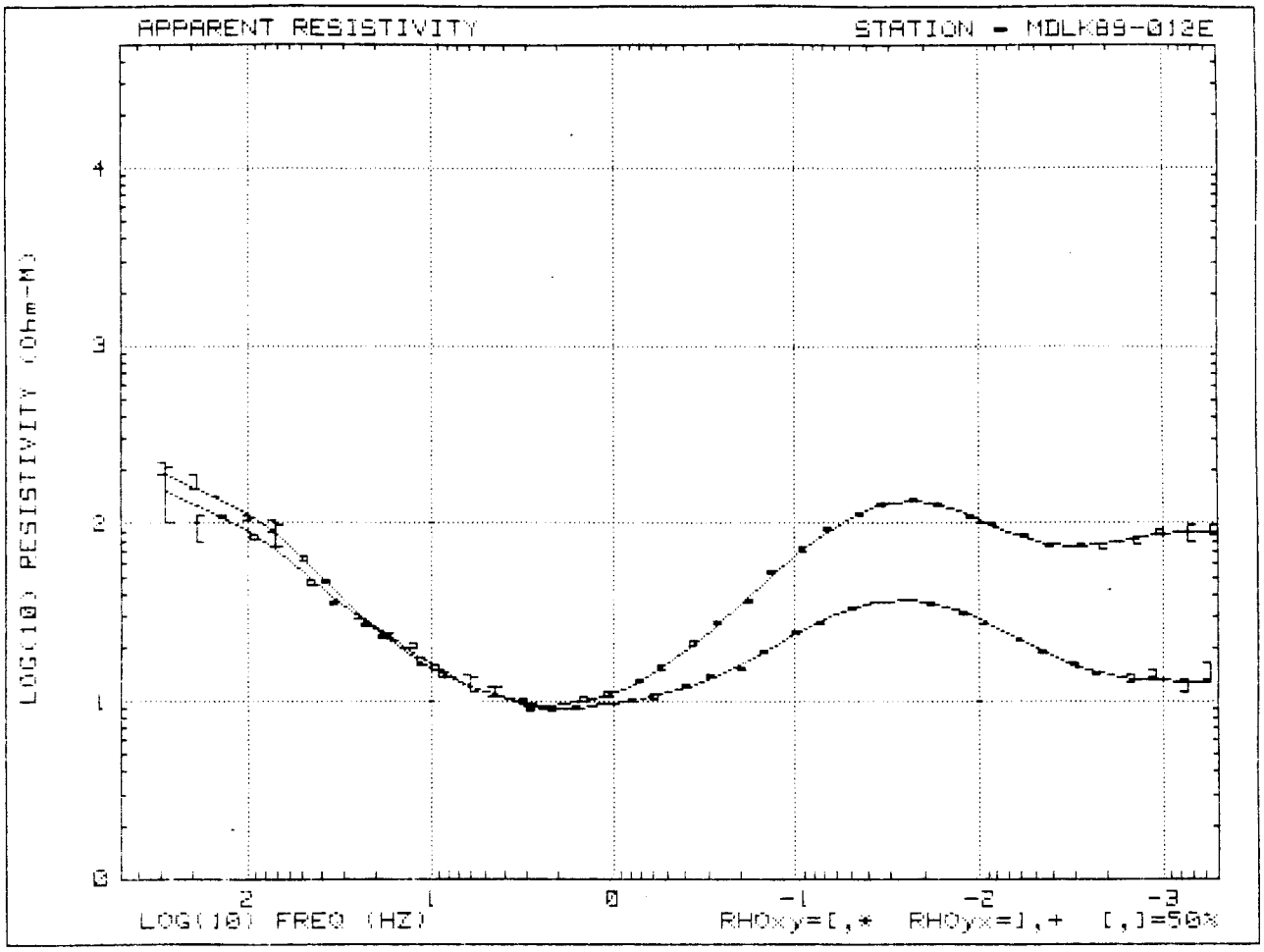
MT Site: MDLK89-012E

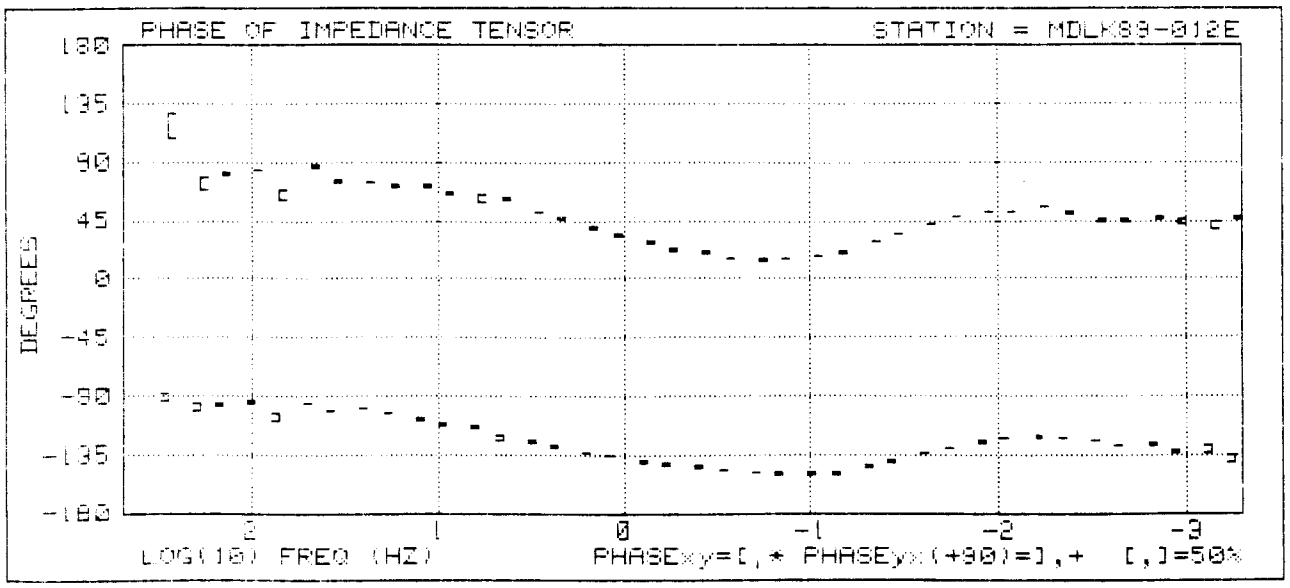
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

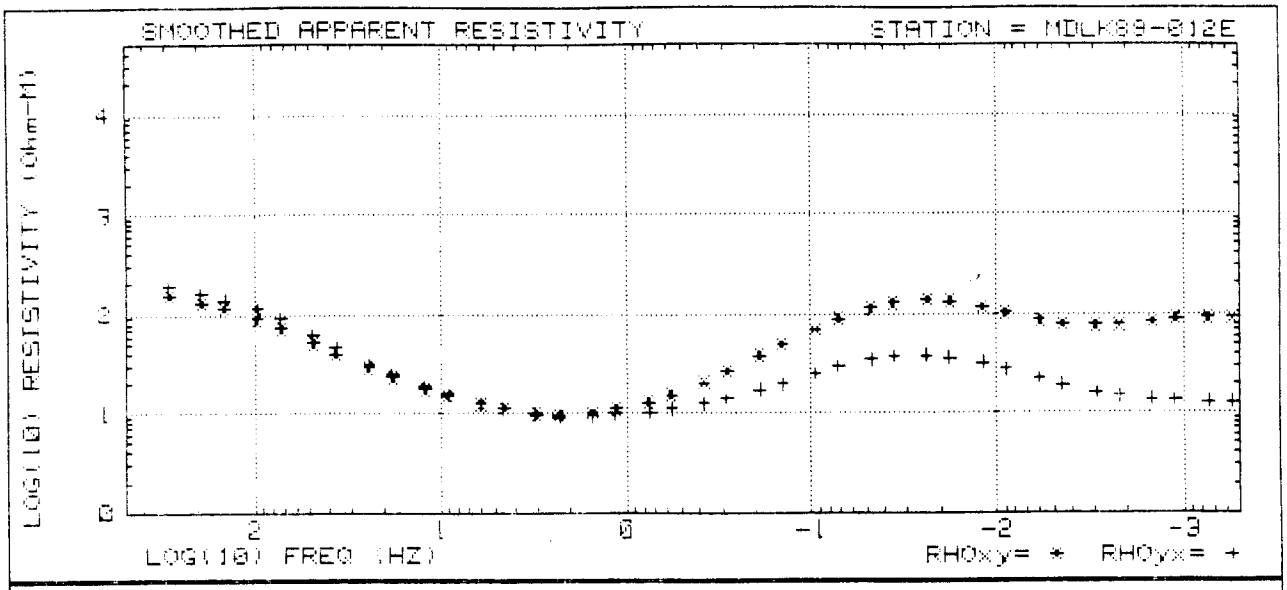
MT Site: MDLK89-012E

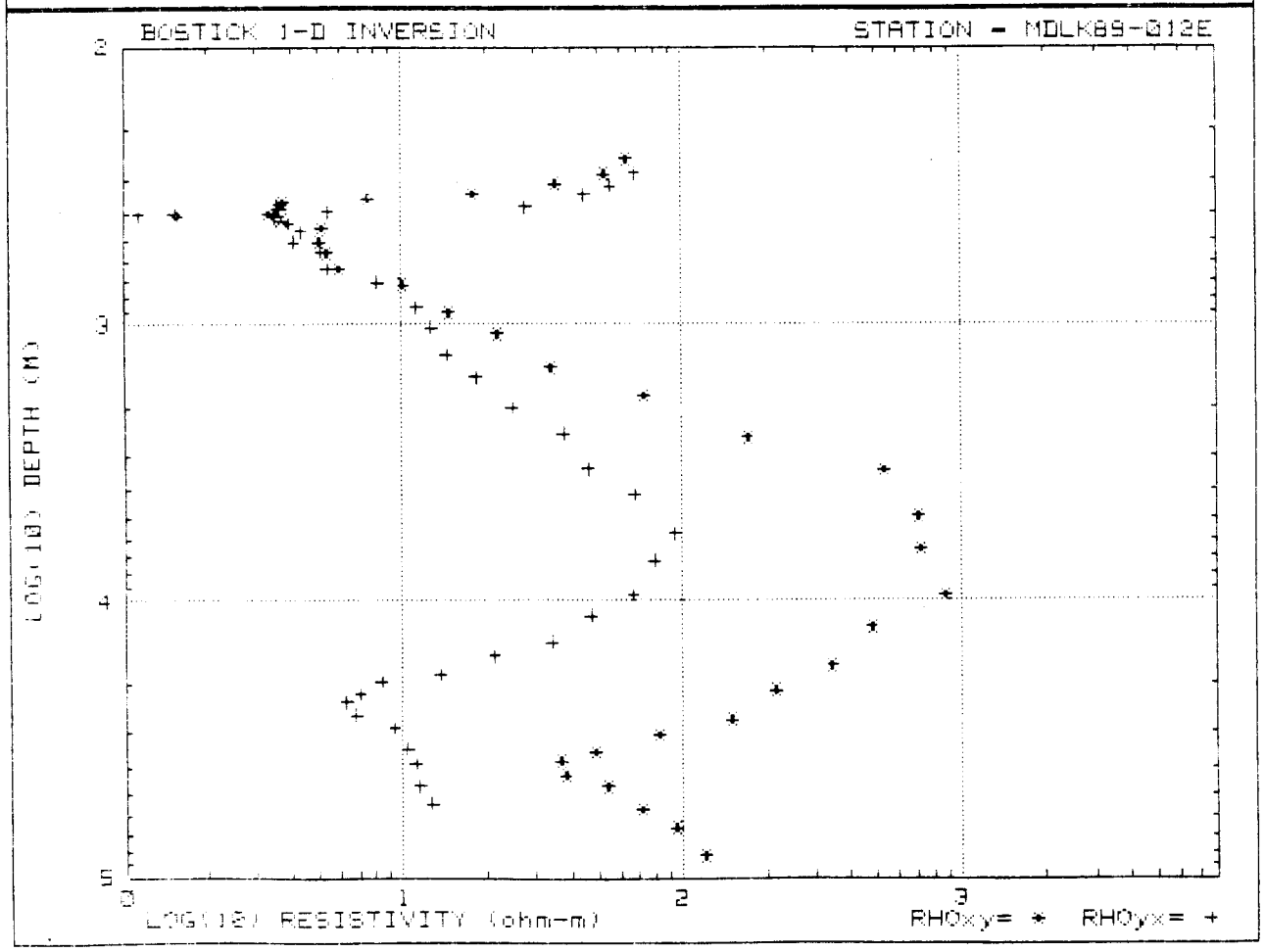




PHOENIX GEOSCIENCE

MT Site: MDLK89-012E





PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	437	144.9	70.1	205.3	12.5	117.9	15.2	-91.1	3.4
3	192.00 Hz	384	93.7	27.7	174.0	15.2	73.9	7.0	-99.1	4.0
4	144.00 Hz	700	110.9	2.2	142.5	1.8	81.6	.6	-96.4	.5
5	96.00 Hz	702	84.8	3.8	109.0	4.2	83.9	1.1	-94.7	1.2
6	72.00 Hz	96	84.5	24.3	95.7	12.8	65.5	6.2	-105.8	3.5
7	48.00 Hz	861	46.6	4.4	63.3	2.9	87.0	1.2	-95.1	.8
8	36.00 Hz	1053	35.6	4.4	46.7	2.9	75.2	1.2	-101.5	.8
9	24.00 Hz	768	26.6	2.1	29.0	2.2	74.7	.6	-98.9	.6
10	18.00 Hz	384	23.5	3.7	22.9	4.0	72.0	1.1	-102.9	1.1
11	12.00 Hz	576	16.8	5.9	20.6	3.9	71.9	1.7	-107.3	1.1
12	9.00 Hz	576	14.1	5.9	15.4	3.9	66.4	1.6	-111.1	1.1
13	6.00 Hz	384	12.4	14.1	13.3	8.3	61.9	3.9	-113.3	2.3
14	4.50 Hz	96	11.3	9.2	11.5	10.5	62.2	2.5	-121.9	2.9
15	3.00 Hz	6204	9.0	3.2	10.2	3.3	51.6	.9	-125.0	.9
16	2.25 Hz	16124	9.1	2.7	9.2	1.5	47.5	.8	-128.5	.4
17	1.50 Hz	8075	10.4	4.3	9.4	2.3	39.9	1.2	-133.7	.6
18	1.13 Hz	7083	11.0	3.7	9.7	2.1	33.4	1.1	-135.4	.6
19	1.33 Sec	2224	13.1	4.7	10.2	2.8	27.7	1.3	-139.7	.8
20	1.78 Sec	2715	15.5	7.0	10.7	3.0	22.7	1.9	-141.8	.8
21	2.67 Sec	1308	21.2	3.7	12.2	3.4	20.2	1.0	-144.1	.9
22	3.56 Sec	1356	28.0	2.5	13.9	2.4	15.6	.7	-146.9	.7
23	5.33 Sec	1012	36.8	2.7	15.3	1.7	15.5	.8	-148.0	.5
24	7.11 Sec	492	53.6	1.2	19.2	1.7	16.0	.3	-149.5	.5
25	10.67 Sec	126	71.8	3.8	24.5	2.4	17.9	1.1	-149.0	.7
26	14.22 Sec	378	93.8	1.5	27.7	1.8	21.0	.4	-149.3	.5
27	21.33 Sec	114	114.0	1.7	33.4	1.4	28.8	.5	-143.8	.4
28	28.44 Sec	136	130.2	2.1	36.1	1.2	34.7	.6	-139.8	.4
29	42.67 Sec	184	138.6	1.2	37.5	1.1	42.6	.3	-132.9	.3
30	56.89 Sec	184	128.0	1.4	35.5	1.2	47.5	.4	-129.8	.3
31	85.33 Sec	75	110.0	1.5	31.3	1.7	51.9	.4	-125.0	.5
32	113.78 Sec	60	99.7	2.1	27.1	1.5	51.5	.6	-122.1	.4
33	170.67 Sec	36	85.6	2.3	22.3	1.4	55.2	.6	-121.0	.4
34	227.56 Sec	15	74.7	2.2	19.2	1.9	50.7	.6	-121.8	.5
35	341.33 Sec	21	74.4	2.1	16.2	3.4	45.7	.6	-124.0	1.0
36	455.11 Sec	6	73.9	2.9	14.3	2.3	44.9	.8	-128.1	.6
37	682.67 Sec	9	81.3	7.1	13.5	8.6	47.4	2.0	-126.4	2.4
38	910.22 Sec	9	88.9	5.4	14.5	7.1	44.3	1.5	-132.3	2.0
39	1365.33 Sec	3	87.7	16.7	12.4	12.3	42.1	4.4	-130.3	3.3
40	1820.44 Sec	3	92.0	7.9	14.8	16.5	46.9	2.2	-137.9	4.4

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	437	150.1	189.0	63.7	257	68.7	288
3	192.00 Hz	384	127.4	156.4	53.3	290	56.2	321
4	144.00 Hz	700	113.0	136.4	35.6	315	45.4	346
5	96.00 Hz	702	88.8	110.6	18.0	342	28.0	382
6	72.00 Hz	96	71.3	90.2	7.7	354	5.5	398
7	48.00 Hz	861	50.8	59.8	3.8	366	1.5	402
8	36.00 Hz	1053	39.3	44.7	3.7	372	1.1	406
9	24.00 Hz	768	28.6	30.1	3.6	389	1.6	410
10	19.00 Hz	384	23.0	23.9	3.3	402	3.5	415
11	12.00 Hz	576	17.1	18.0	3.7	425	4.0	436
12	9.00 Hz	576	14.7	15.4	5.2	455	4.4	465
13	6.00 Hz	384	12.3	12.2	5.1	509	4.1	508
14	4.50 Hz	96	11.1	10.9	5.4	558	5.2	555
15	3.00 Hz	6204	9.7	9.6	6.0	639	5.5	635
16	2.25 Hz	16124	9.4	9.0	10.2	728	8.2	713
17	1.50 Hz	8075	9.9	9.2	14.9	916	11.3	884
18	1.13 Hz	7083	10.8	9.7	22.0	1102	12.8	1045
19	1.33 Sec	2224	12.6	10.2	34.5	1458	14.5	1310
20	1.78 Sec	2715	14.9	11.0	73.3	1832	18.4	1570
21	2.67 Sec	1308	19.9	12.1	173.2	2594	24.9	2024
22	3.56 Sec	1356	25.8	13.9	536.2	3411	38.1	2503
23	5.33 Sec	1012	37.4	16.7	706.9	5025	46.5	3364
24	7.11 Sec	492	48.2	19.3	721.4	6588	68.0	4167
25	10.67 Sec	126	68.6	24.7	890.7	9624	94.9	5772
26	14.22 Sec	378	87.3	29.0	480.9	12538	79.9	7224
27	21.33 Sec	114	110.8	34.1	347.3	17304	67.4	9601
28	28.44 Sec	136	124.8	36.4	218.1	21206	47.6	11444
29	42.67 Sec	184	133.8	37.4	151.8	26890	34.5	14220
30	56.89 Sec	184	130.4	35.4	82.8	30651	21.4	15960
31	85.33 Sec	75	114.6	31.6	49.1	35196	13.7	18475
32	113.78 Sec	60	98.8	26.9	37.2	37728	8.5	19684
33	170.67 Sec	36	83.7	22.0	38.4	42542	7.1	21810
34	227.56 Sec	15	76.4	18.9	54.4	46917	6.3	23309
35	341.33 Sec	21	74.5	15.6	72.2	56755	6.8	25961
36	455.11 Sec	6	75.5	14.4	95.7	65987	9.4	28801
37	682.67 Sec	9	80.8	13.5	121.9	83603	10.4	34140
38	910.22 Sec	9	96.9	13.2	113.3	100108	11.2	38972
39	1365.33 Sec	3	88.6	12.7	92.3	123751	11.6	46945
40	1820.44 Sec	3	88.2	12.7	85.7	142603	12.8	54219

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	437	-.21	-37.79	999.99	-213.66	403.69	999.99
3	192.00 Hz	384	-17.22	-14.93	999.99	82.99	288.16	999.99
4	144.00 Hz	700	-10.53	-31.76	11.09	41.46	279.51	19.38
5	96.00 Hz	702	-7.51	-17.70	50.52	21.47	200.57	28.19
6	72.00 Hz	96	18.27	-2.76	568.89	72.38	158.67	717.56
7	48.00 Hz	861	-14.03	-14.19	13.66	5.60	105.63	10.58
8	36.00 Hz	1053	-1.47	-9.50	4.55	20.50	77.33	5.88
9	24.00 Hz	768	-.09	-4.23	1.08	14.94	54.47	.69
10	18.00 Hz	384	.36	-3.37	1.01	14.19	43.70	1.42
11	12.00 Hz	576	-.43	-3.31	3.46	9.85	30.19	1.68
12	9.00 Hz	576	.38	-2.29	1.07	10.10	23.08	1.04
13	6.00 Hz	384	-.96	-2.04	4.76	9.11	17.04	3.23
14	4.50 Hz	96	-.45	-2.01	1.66	7.44	14.11	.99
15	3.00 Hz	6204	-.80	-1.26	.16	7.23	9.11	.07
16	2.25 Hz	16124	-.52	-1.00	.01	6.83	7.45	.04
17	1.50 Hz	8075	-.49	-.83	.02	6.77	5.67	.07
18	1.13 Hz	7083	-.48	-.93	.01	6.56	4.32	.04
19	1.33 Sec	2224	-.360	-.860	.018	6.198	3.255	.051
20	1.78 Sec	2715	-.404	-.776	.035	6.094	2.553	.100
21	2.67 Sec	1308	-.172	-.806	.009	5.920	2.174	.026
22	3.56 Sec	1356	-.130	-.777	.005	6.047	1.687	.012
23	5.33 Sec	1012	.013	-.634	.014	5.657	1.572	.012
24	7.11 Sec	492	.144	-.704	.004	5.901	1.691	.003
25	10.67 Sec	126	.294	-.524	.021	5.521	1.786	.023
26	14.22 Sec	378	.397	-.216	.005	5.361	2.055	.003
27	21.33 Sec	114	.347	-.174	.002	4.530	2.488	.004
28	28.44 Sec	136	.381	-.025	.004	3.935	2.720	.005
29	42.67 Sec	184	.278	.104	.001	2.968	2.727	.001
30	56.89 Sec	184	.236	.154	.001	2.264	2.474	.001
31	85.33 Sec	75	.151	.196	.001	1.569	1.997	.001
32	113.78 Sec	60	.154	.143	.001	1.303	1.638	.001
33	170.67 Sec	36	.103	.138	.000	.904	1.300	.001
34	227.56 Sec	15	.115	.077	.000	.811	.992	.000
35	341.33 Sec	21	.103	.067	.000	.730	.747	.000
36	455.11 Sec	6	.085	.076	.000	.639	.636	.000
37	682.67 Sec	9	.080	.041	.001	.522	.568	.001
38	910.22 Sec	9	.073	.026	.000	.500	.488	.001
39	1365.33 Sec	3	.060	.051	.001	.420	.380	.004
40	1820.44 Sec	3	.049	.030	.002	.344	.367	.001

PHOENIX GEOSCIENCE

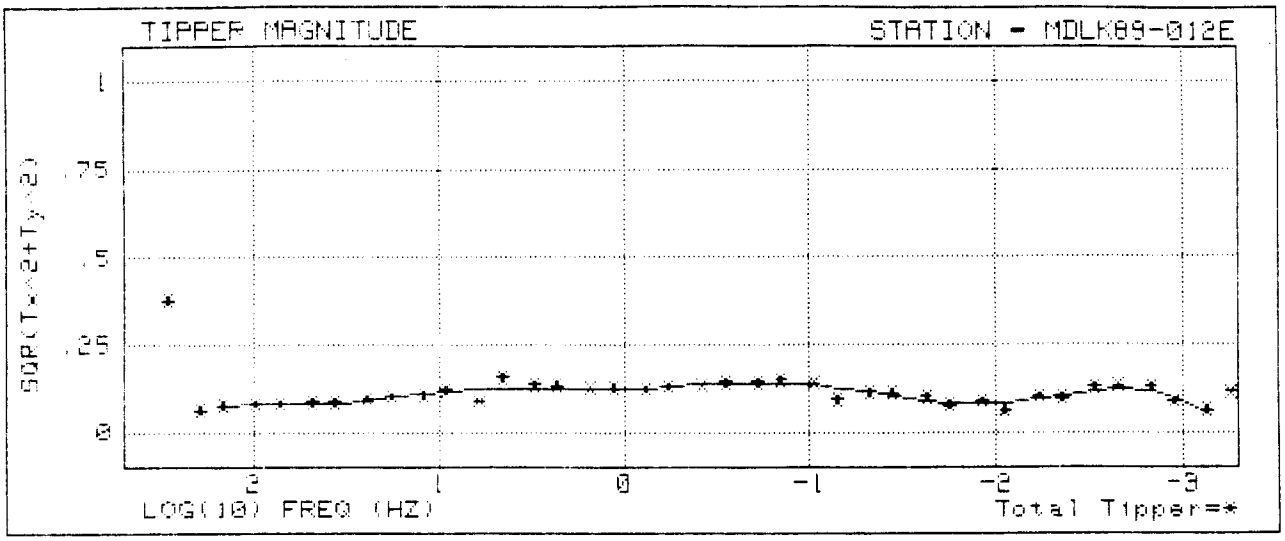
MT Site: MDLK89-012E

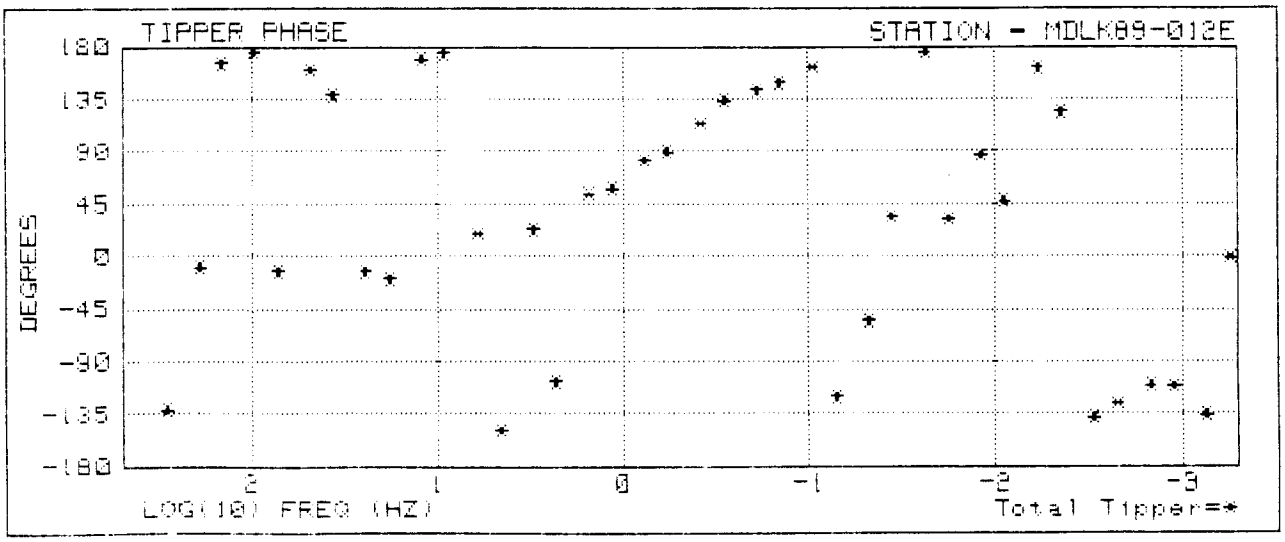
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

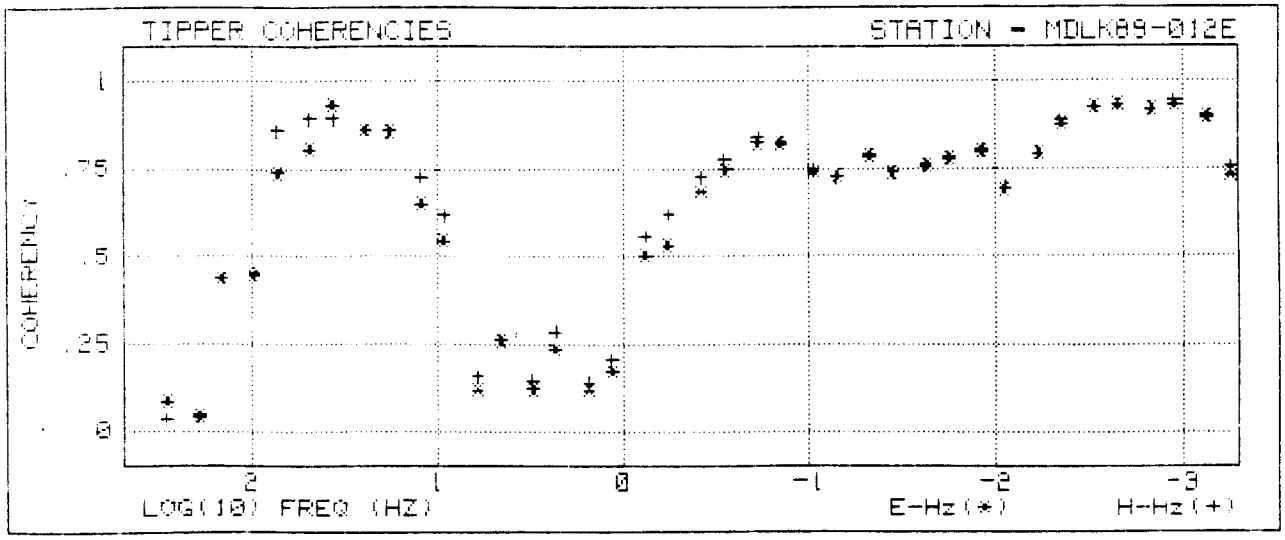
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	437	-10.00	-543.68	999.99	43.52	-107.65	999.99
3	192.00 Hz	384	-64.55	-403.56	999.99	-2.08	-12.51	999.99
4	144.00 Hz	700	-35.61	-318.28	16.19	-4.92	-30.91	28.29
5	96.00 Hz	702	-18.56	-228.00	43.78	-1.08	-17.02	24.43
6	72.00 Hz	96	-50.40	-178.59	250.99	6.49	-15.76	316.58
7	48.00 Hz	861	-11.05	-122.79	6.07	-1.84	-18.07	4.70
8	36.00 Hz	1053	-18.24	-89.81	3.49	-2.85	-9.75	4.51
9	24.00 Hz	768	-9.09	-58.30	.85	-.10	-4.25	.55
10	18.00 Hz	384	-10.17	-44.27	1.62	.52	-2.18	2.27
11	12.00 Hz	576	-10.46	-33.53	.90	-1.94	-3.03	.44
12	9.00 Hz	576	-9.46	-24.56	.51	-.39	-2.62	.49
13	6.00 Hz	384	-7.91	-18.36	1.26	-.34	-1.47	.85
14	4.50 Hz	96	-8.49	-13.65	1.30	-.05	-1.11	.77
15	3.00 Hz	6204	-7.10	-10.14	.08	-.67	-1.24	.04
16	2.25 Hz	16124	-6.34	-7.96	.01	-.43	-.91	.04
17	1.50 Hz	8075	-5.80	-6.06	.02	-.34	-.45	.08
18	1.13 Hz	7083	-5.27	-5.20	.01	-.17	-.48	.04
19	1.33 Sec	2224	-4.709	-3.998	.015	-.171	-.482	.042
20	1.78 Sec	2715	-4.314	-3.393	.013	-.110	-.154	.037
21	2.67 Sec	1308	-3.880	-2.804	.013	.039	-.124	.035
22	3.56 Sec	1356	-3.699	-2.413	.005	.081	-.094	.014
23	5.33 Sec	1012	-3.214	-2.005	.002	.113	-.068	.002
24	7.11 Sec	492	-3.165	-1.861	.002	.185	-.036	.002
25	10.67 Sec	126	-2.904	-1.746	.003	.287	-.026	.004
26	14.22 Sec	378	-2.684	-1.593	.001	.361	-.008	.001
27	21.33 Sec	114	-2.258	-1.654	.001	.275	.022	.001
28	28.44 Sec	136	-1.923	-1.627	.000	.361	.011	.001
29	42.67 Sec	184	-1.426	-1.534	.000	.332	.034	.000
30	56.89 Sec	184	-1.131	-1.356	.000	.293	.095	.000
31	85.33 Sec	75	-.777	-1.109	.000	.253	.104	.000
32	113.78 Sec	60	-.580	-.924	.000	.214	.083	.000
33	170.67 Sec	36	-.417	-.693	.000	.158	.093	.000
34	227.56 Sec	15	-.342	-.551	.000	.115	.077	.000
35	341.33 Sec	21	-.273	-.404	.000	.102	.067	.000
36	455.11 Sec	6	-.244	-.312	.000	.084	.077	.000
37	682.67 Sec	9	-.186	-.253	.000	.069	.052	.001
38	910.22 Sec	9	-.190	-.209	.000	.051	.051	.000
39	1365.33 Sec	3	-.138	-.163	.000	.038	.079	.001
40	1820.44 Sec	3	-.149	-.135	.000	.026	.050	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E







PHOENIX GEOSCIENCE

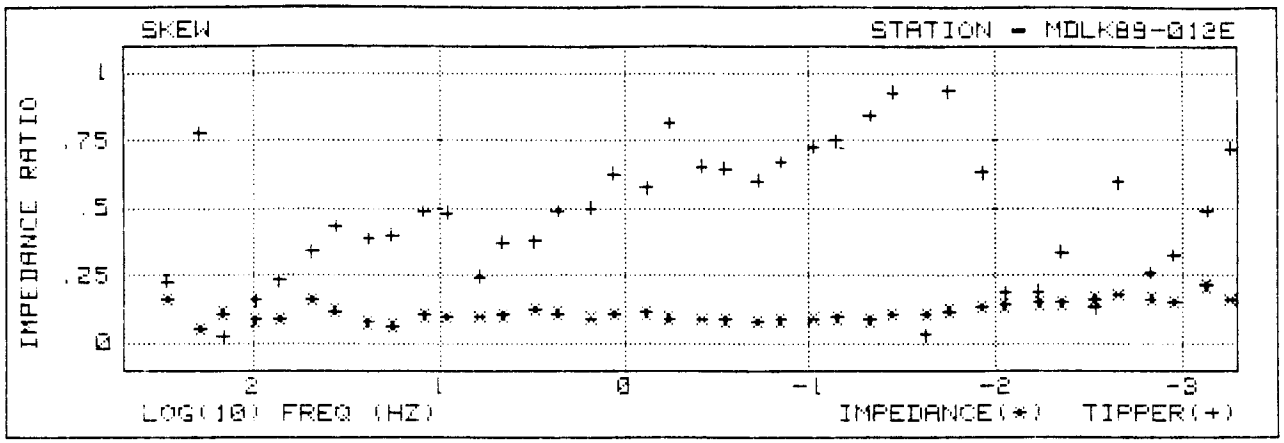
MT Site: MDLK89-012E

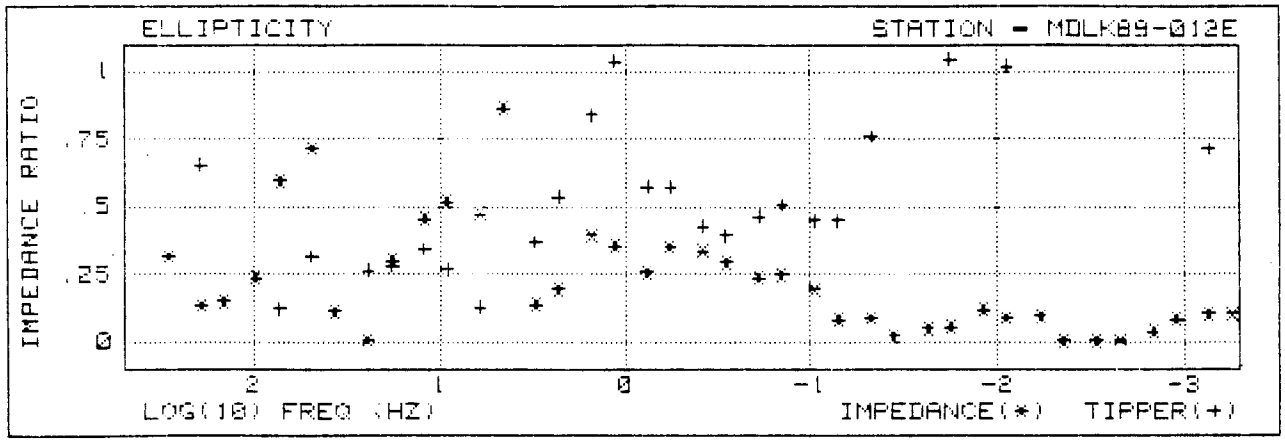
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

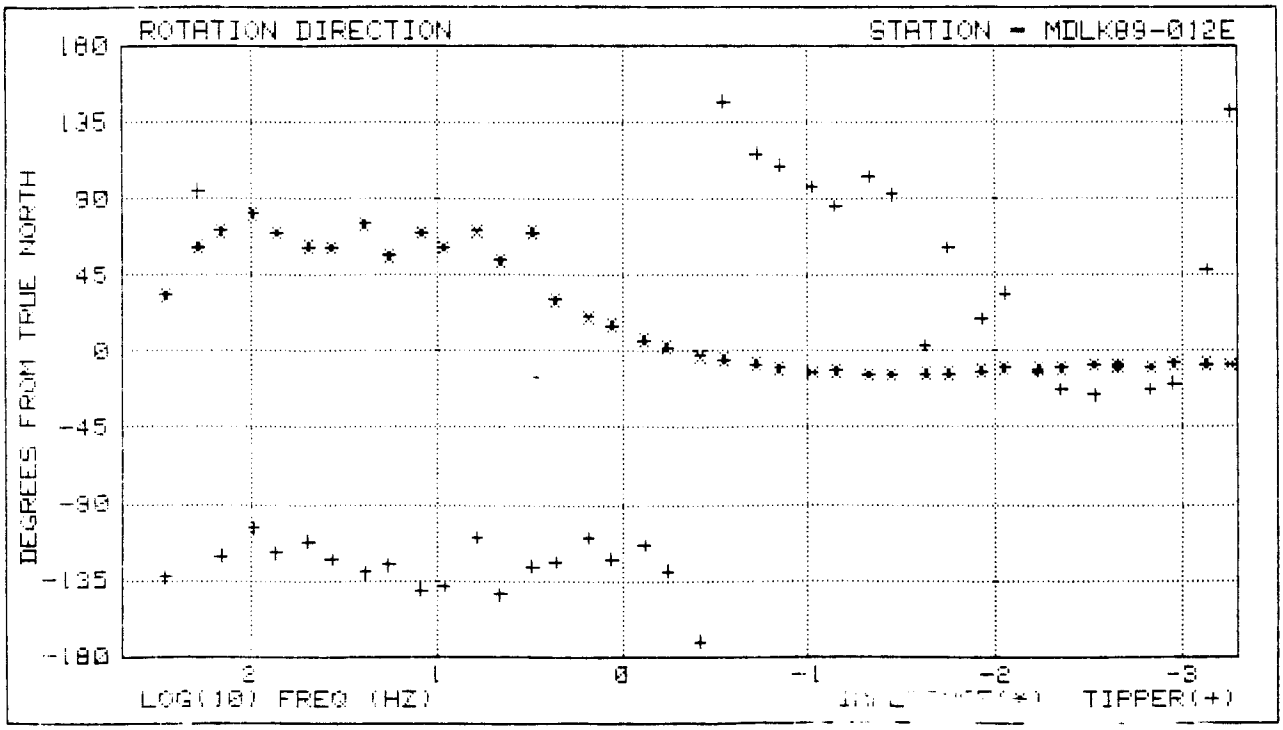
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	437	.37	-132.52	.08	.03
3	192.00 Hz	384	.06	-9.91	.04	.04
4	144.00 Hz	700	.07	164.74	.43	.43
5	96.00 Hz	702	.08	174.41	.44	.45
6	72.00 Hz	96	.08	-13.79	.74	.85
7	48.00 Hz	861	.08	159.20	.80	.89
8	36.00 Hz	1053	.08	137.41	.93	.89
9	24.00 Hz	768	.09	-13.67	.86	.86
10	18.00 Hz	384	.10	-20.11	.85	.85
11	12.00 Hz	576	.10	168.78	.65	.73
12	9.00 Hz	576	.12	173.21	.54	.62
13	6.00 Hz	384	.09	18.40	.11	.15
14	4.50 Hz	96	.15	-149.98	.26	.26
15	3.00 Hz	6204	.13	22.03	.12	.14
16	2.25 Hz	16124	.13	-108.28	.23	.28
17	1.50 Hz	8075	.12	52.62	.12	.14
18	1.13 Hz	7083	.12	57.01	.17	.20
19	1.33 Sec	2224	.12	81.41	.50	.55
20	1.78 Sec	2715	.13	88.96	.53	.62
21	2.67 Sec	1308	.13	113.21	.68	.72
22	3.56 Sec	1356	.14	132.67	.74	.77
23	5.33 Sec	1012	.14	142.15	.82	.84
24	7.11 Sec	492	.14	148.22	.82	.82
25	10.67 Sec	126	.14	161.87	.74	.74
26	14.22 Sec	378	.09	-121.23	.73	.72
27	21.33 Sec	114	.11	-55.92	.78	.79
28	28.44 Sec	136	.11	33.42	.74	.74
29	42.67 Sec	184	.10	174.28	.76	.75
30	56.89 Sec	184	.07	30.89	.78	.77
31	85.33 Sec	75	.08	85.83	.80	.80
32	113.78 Sec	60	.06	46.43	.69	.69
33	170.67 Sec	36	.10	161.00	.79	.79
34	227.56 Sec	15	.09	122.68	.87	.88
35	341.33 Sec	21	.12	-138.65	.92	.92
36	455.11 Sec	6	.13	-126.51	.93	.93
37	682.67 Sec	9	.13	-111.32	.91	.92
38	910.22 Sec	9	.08	-112.21	.93	.94
39	1365.33 Sec	3	.06	-136.48	.89	.90
40	1820.44 Sec	3	.11	-1.99	.72	.75

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E







PHOENIX GEOSCIENCE

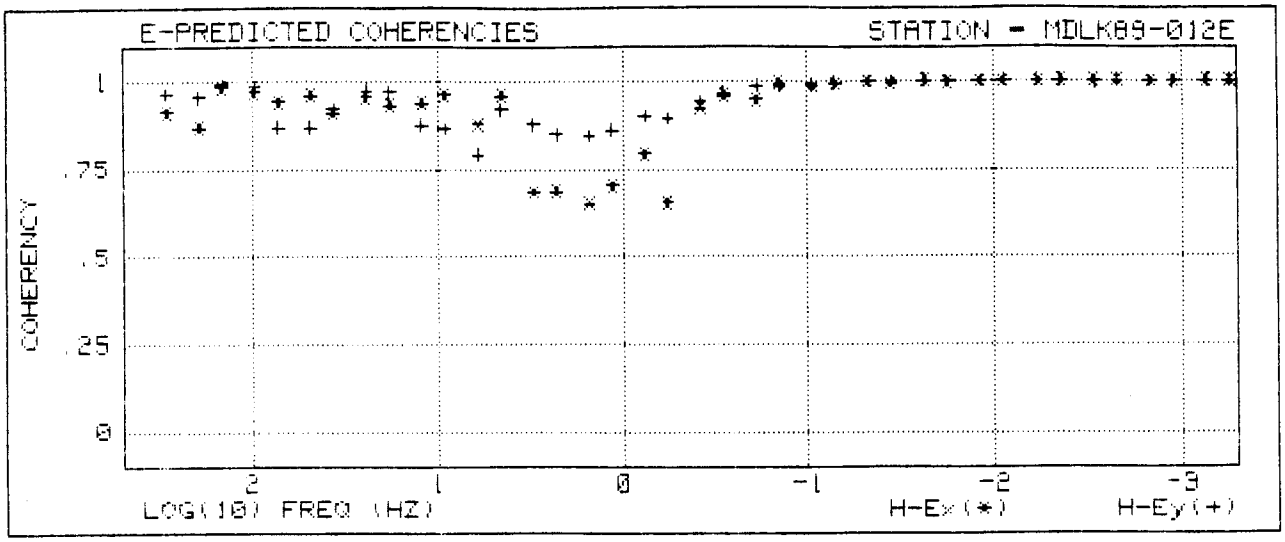
MT Site: MDLK89-012E

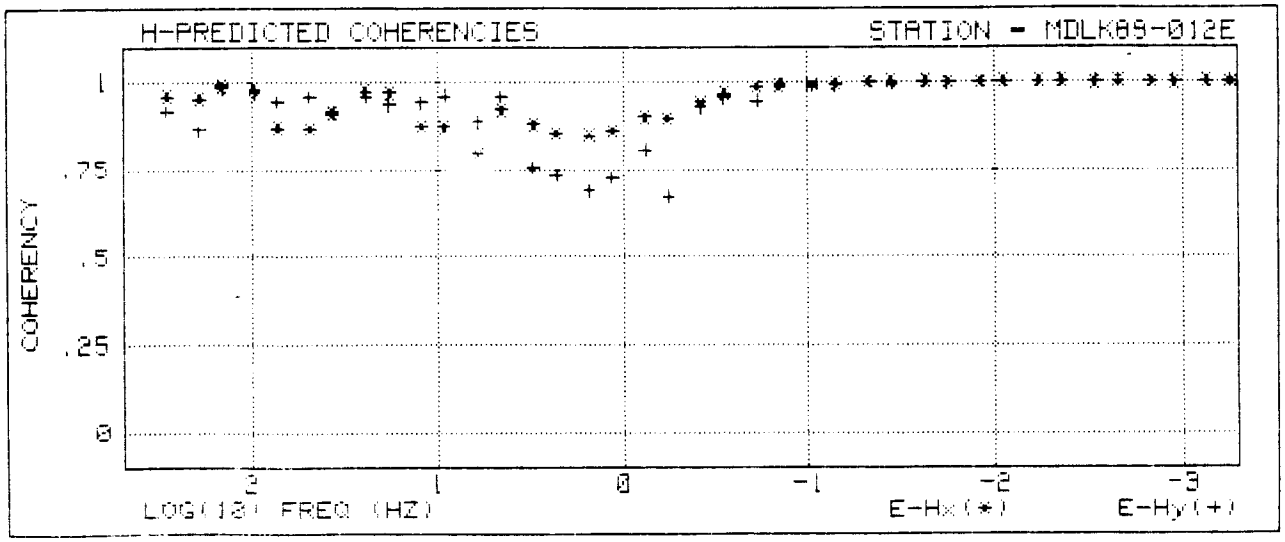
SKEW, ELLIPTICITY AND STRIKE

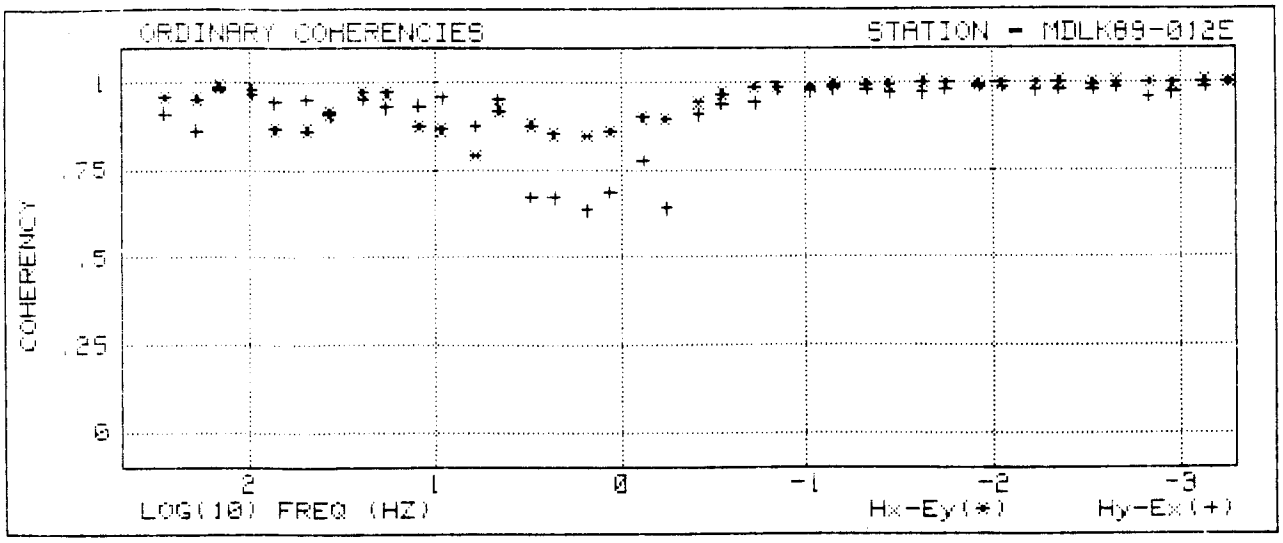
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	437	.16	.31	32.81	.23	3.75	-133.72
3	192.00 Hz	384	.05	.13	61.26	.77	.65	94.11
4	144.00 Hz	700	.11	.14	70.47	.02	56.11	-120.97
5	96.00 Hz	702	.08	.23	80.32	.16	10.48	-104.86
6	72.00 Hz	96	.09	.59	69.27	.23	.12	-119.42
7	48.00 Hz	861	.16	.71	61.24	.34	.31	-112.40
8	36.00 Hz	1053	.12	.11	60.70	.43	3.14	-123.10
9	24.00 Hz	768	.07	.00	74.47	.39	.26	-130.54
10	18.00 Hz	384	.06	.30	55.93	.40	.28	-126.27
11	12.00 Hz	576	.10	.45	69.10	.48	.34	-141.14
12	9.00 Hz	576	.10	.52	60.73	.48	.26	-138.84
13	6.00 Hz	384	.10	.47	70.38	.24	.12	-109.96
14	4.50 Hz	96	.10	.86	52.89	.37	2.68	-143.55
15	3.00 Hz	6204	.12	.13	69.73	.37	.37	-127.04
16	2.25 Hz	16124	.11	.19	29.72	.48	.53	-124.52
17	1.50 Hz	8075	.09	.39	19.61	.50	.83	-109.82
18	1.13 Hz	7083	.10	.35	14.71	.62	1.03	-122.68
19	1.33 Sec	2224	.11	.25	6.32	.57	.57	-114.39
20	1.78 Sec	2715	.09	.35	1.61	.81	.57	-129.87
21	2.67 Sec	1308	.09	.33	-3.35	.65	.42	-171.69
22	3.56 Sec	1356	.08	.29	-5.24	.64	.39	146.54
23	5.33 Sec	1012	.07	.23	-8.51	.60	.46	116.15
24	7.11 Sec	492	.08	.24	-10.70	.67	.50	108.89
25	10.67 Sec	126	.09	.19	-13.08	.72	.45	96.79
26	14.22 Sec	378	.09	.08	-12.42	.74	.45	85.31
27	21.33 Sec	114	.08	.09	-14.82	.84	.76	102.72
28	28.44 Sec	136	.10	.02	-14.76	.92	1.32	91.95
29	42.67 Sec	184	.10	.05	-14.04	.03	3.77	2.63
30	56.89 Sec	184	.11	.05	-13.95	.93	1.04	60.64
31	85.33 Sec	75	.13	.12	-12.62	.63	1.44	18.60
32	113.78 Sec	60	.14	.08	-10.86	.18	1.01	33.69
33	170.67 Sec	36	.15	.09	-11.24	.19	4.84	-13.21
34	227.56 Sec	15	.14	.00	-10.68	.33	1.80	-23.41
35	341.33 Sec	21	.16	.00	-8.71	.13	3.00	-26.87
36	455.11 Sec	6	.18	.00	-9.82	.59	3.07	-9.30
37	682.67 Sec	9	.16	.03	-10.46	.26	3.82	-23.33
38	910.22 Sec	9	.15	.08	-8.05	.32	3.70	-20.01
39	1365.33 Sec	3	.21	.10	-8.24	.48	.71	47.71
40	1820.44 Sec	3	.16	.10	-8.81	.72	2.24	140.85

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E







PHOENIX GEOSCIENCE

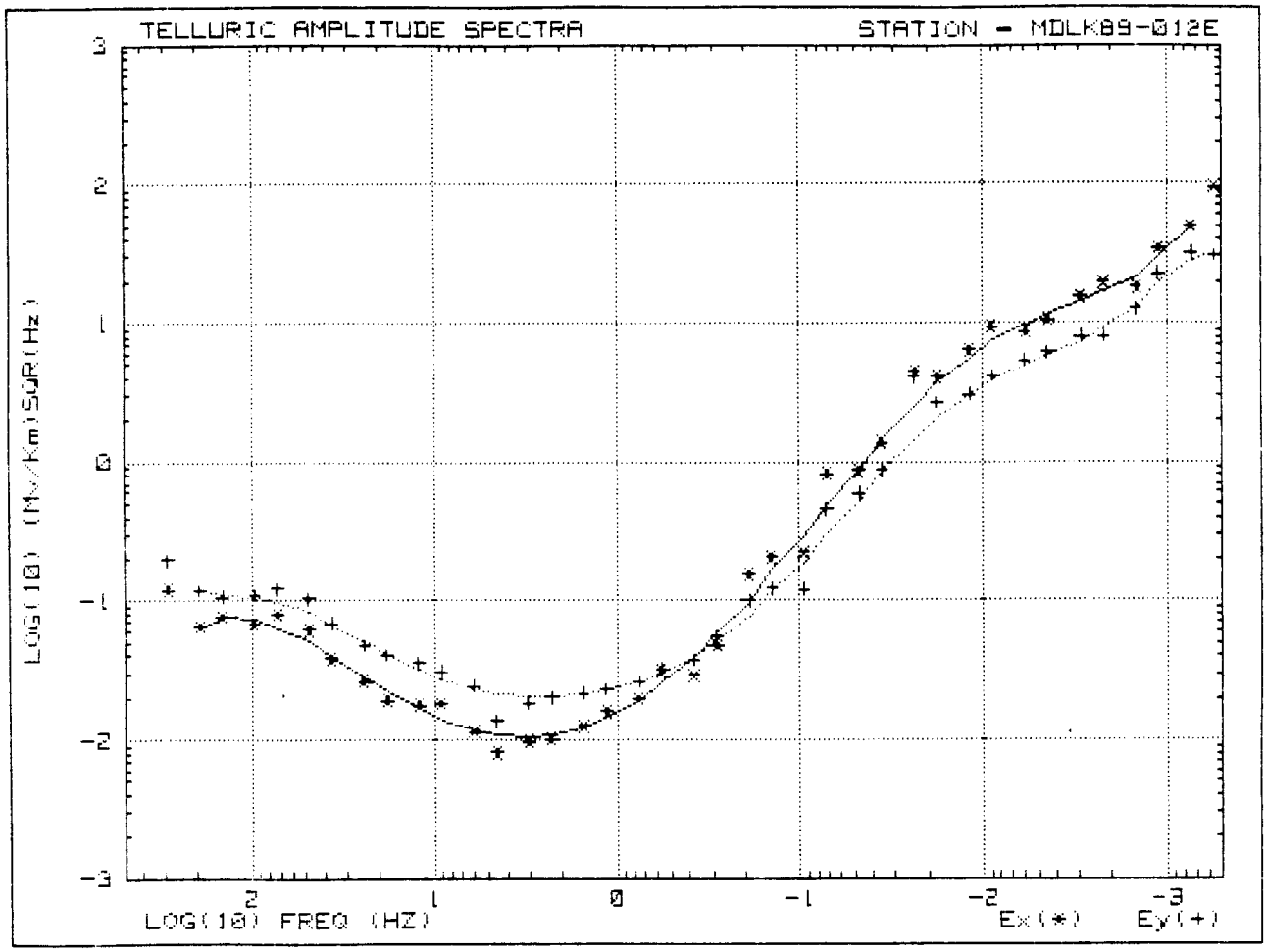
MT Site: MDLK89-012E

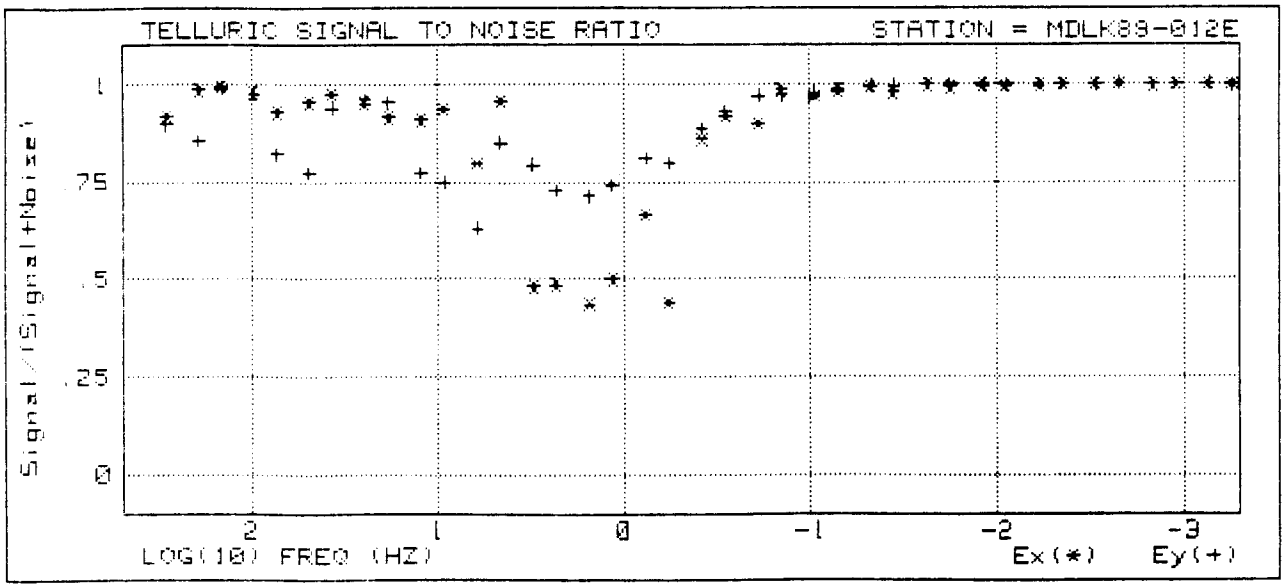
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	437	.91	.96	.96	.91	.96	.91
3	192.00 Hz	384	.87	.95	.95	.86	.95	.86
4	144.00 Hz	700	.98	.99	.99	.98	.99	.98
5	96.00 Hz	702	.96	.98	.98	.97	.98	.96
6	72.00 Hz	96	.94	.87	.87	.94	.86	.94
7	48.00 Hz	861	.96	.87	.86	.95	.86	.95
8	36.00 Hz	1053	.90	.92	.91	.91	.91	.90
9	24.00 Hz	768	.95	.97	.97	.95	.97	.95
10	18.00 Hz	384	.93	.97	.97	.93	.97	.93
11	12.00 Hz	576	.94	.87	.87	.94	.87	.93
12	9.00 Hz	576	.96	.86	.87	.96	.86	.95
13	6.00 Hz	384	.88	.79	.79	.88	.79	.87
14	4.50 Hz	96	.96	.92	.92	.95	.92	.95
15	3.00 Hz	6204	.68	.87	.88	.75	.87	.67
16	2.25 Hz	16124	.68	.85	.85	.73	.85	.66
17	1.50 Hz	8075	.65	.84	.84	.68	.84	.63
18	1.13 Hz	7083	.70	.86	.86	.72	.86	.68
19	1.33 Sec	2224	.79	.90	.90	.80	.90	.77
20	1.78 Sec	2715	.65	.89	.89	.67	.89	.64
21	2.67 Sec	1308	.92	.94	.94	.92	.94	.90
22	3.56 Sec	1356	.96	.96	.96	.95	.96	.94
23	5.33 Sec	1012	.95	.98	.98	.94	.98	.94
24	7.11 Sec	492	.99	.98	.98	.99	.98	.98
25	10.67 Sec	126	.98	.99	.99	.98	.98	.97
26	14.22 Sec	378	.99	.99	.99	.99	.99	.98
27	21.33 Sec	114	1.00	1.00	1.00	1.00	.99	.98
28	28.44 Sec	136	.99	1.00	1.00	.99	.99	.97
29	42.67 Sec	184	1.00	1.00	1.00	1.00	1.00	.97
30	56.89 Sec	184	.99	1.00	1.00	.99	1.00	.98
31	85.33 Sec	75	1.00	1.00	1.00	1.00	.99	.98
32	113.78 Sec	60	1.00	1.00	1.00	1.00	.99	.98
33	170.67 Sec	36	1.00	1.00	1.00	1.00	1.00	.97
34	227.56 Sec	15	1.00	1.00	1.00	1.00	1.00	.98
35	341.33 Sec	21	1.00	1.00	1.00	1.00	.99	.98
36	455.11 Sec	6	1.00	1.00	1.00	1.00	1.00	.98
37	682.67 Sec	9	1.00	1.00	1.00	1.00	1.00	.95
38	910.22 Sec	9	1.00	.99	.99	1.00	.99	.97
39	1365.33 Sec	3	1.00	1.00	1.00	1.00	1.00	.99
40	1820.44 Sec	3	1.00	1.00	1.00	1.00	1.00	1.00

PHOENIX GEOSCIENCE

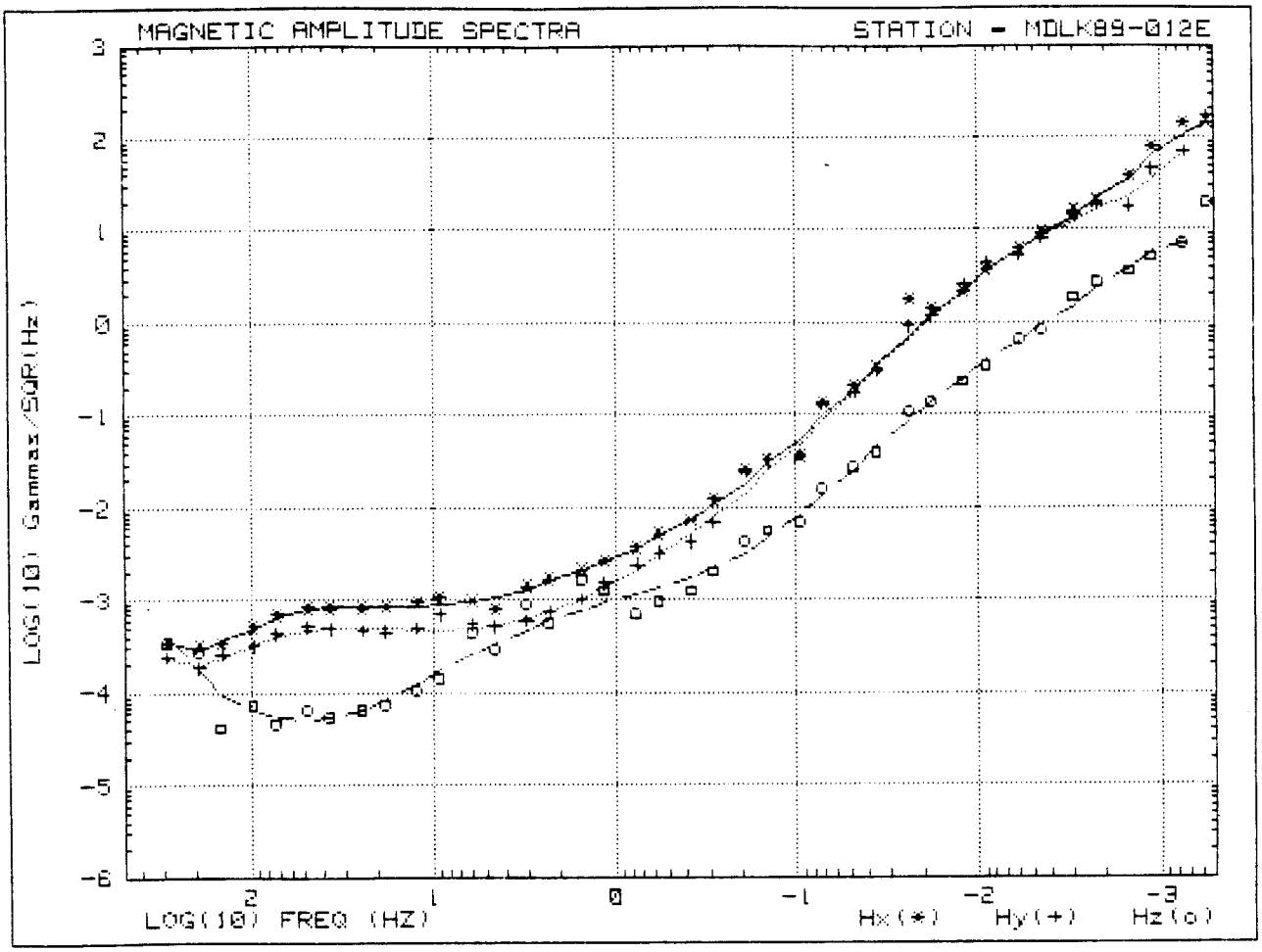
MT Site: MDLK89-012E

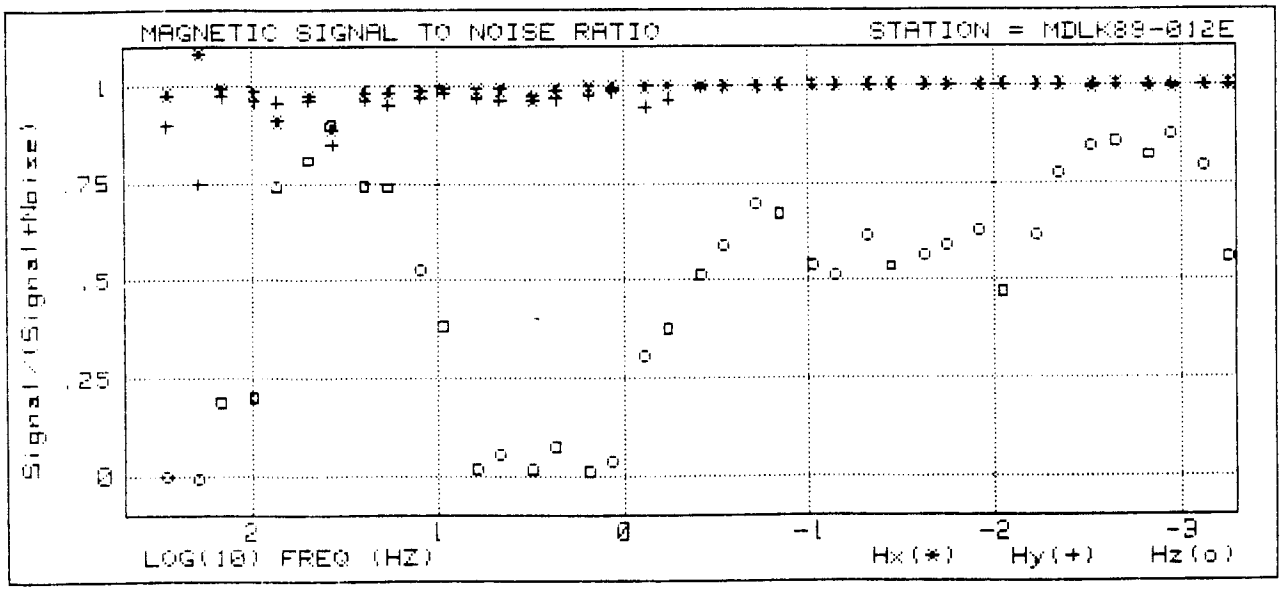




PHOENIX GEOSCIENCE

MT Site: MDLK89-012E





PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	437	3.38E-04	2.37E-04	3.57E-04	1.19E-01	1.93E-01
3	192.00 Hz	384	3.10E-04	1.82E-04	2.87E-04	6.43E-02	1.18E-01
4	144.00 Hz	700	3.37E-04	2.57E-04	4.35E-05	7.55E-02	1.06E-01
5	96.00 Hz	702	5.03E-04	3.17E-04	7.52E-05	6.70E-02	1.08E-01
6	72.00 Hz	96	6.78E-04	4.28E-04	4.88E-05	7.87E-02	1.20E-01
7	48.00 Hz	861	8.17E-04	5.09E-04	6.91E-05	6.09E-02	1.03E-01
8	36.00 Hz	1053	7.98E-04	4.77E-04	5.71E-05	3.79E-02	6.78E-02
9	24.00 Hz	768	7.96E-04	4.60E-04	6.77E-05	2.60E-02	4.67E-02
10	18.00 Hz	384	8.39E-04	4.37E-04	7.85E-05	1.90E-02	4.00E-02
11	12.00 Hz	576	9.46E-04	4.89E-04	1.09E-04	1.74E-02	3.48E-02
12	9.00 Hz	576	1.04E-03	6.86E-04	1.48E-04	1.80E-02	3.05E-02
13	6.00 Hz	384	9.50E-04	5.41E-04	4.62E-04	1.13E-02	2.40E-02
14	4.50 Hz	96	7.87E-04	5.08E-04	3.04E-04	7.93E-03	1.35E-02
15	3.00 Hz	6204	1.36E-03	5.79E-04	9.65E-04	9.62E-03	1.81E-02
16	2.25 Hz	16124	1.64E-03	7.30E-04	5.98E-04	1.00E-02	1.99E-02
17	1.50 Hz	8075	2.09E-03	9.91E-04	1.70E-03	1.25E-02	2.13E-02
18	1.13 Hz	7083	2.59E-03	1.49E-03	1.32E-03	1.57E-02	2.29E-02
19	1.33 Sec	2224	3.68E-03	2.36E-03	7.29E-04	1.95E-02	2.58E-02
20	1.79 Sec	2715	5.13E-03	3.16E-03	1.02E-03	3.11E-02	3.18E-02
21	2.67 Sec	1308	7.20E-03	4.14E-03	1.32E-03	2.87E-02	3.66E-02
22	3.56 Sec	1356	1.20E-02	6.83E-03	2.13E-03	4.66E-02	5.50E-02
23	5.33 Sec	1012	2.51E-02	2.40E-02	4.49E-03	1.54E-01	9.86E-02
24	7.11 Sec	492	3.16E-02	3.16E-02	5.89E-03	2.03E-01	1.21E-01
25	10.67 Sec	126	3.46E-02	3.62E-02	7.27E-03	2.18E-01	1.18E-01
26	14.22 Sec	378	1.34E-01	1.28E-01	1.69E-02	8.03E-01	4.52E-01
27	21.33 Sec	114	2.06E-01	1.75E-01	2.81E-02	8.52E-01	5.87E-01
28	28.44 Sec	136	3.21E-01	2.92E-01	4.08E-02	1.36E+00	8.49E-01
29	42.67 Sec	184	1.77E+00	8.99E-01	1.14E-01	4.42E+00	4.04E+00
30	56.89 Sec	184	1.36E+00	1.16E+00	1.44E-01	4.03E+00	2.62E+00
31	85.33 Sec	75	2.10E+00	2.49E+00	2.42E-01	6.25E+00	2.99E+00
32	113.78 Sec	60	3.64E+00	4.32E+00	3.48E-01	9.16E+00	4.07E+00
33	170.67 Sec	36	6.09E+00	5.33E+00	6.92E-01	8.45E+00	5.27E+00
34	227.56 Sec	15	9.03E+00	8.11E+00	8.69E-01	1.04E+01	5.99E+00
35	341.33 Sec	21	1.57E+01	1.47E+01	1.97E+00	1.51E+01	7.83E+00
36	455.11 Sec	6	1.97E+01	1.88E+01	2.83E+00	1.90E+01	7.83E+00
37	682.67 Sec	9	3.79E+01	1.77E+01	3.79E+00	1.76E+01	1.24E+01
38	910.22 Sec	9	7.72E+01	4.37E+01	5.41E+00	3.39E+01	2.22E+01
39	1365.33 Sec	3	1.41E+02	6.84E+01	7.54E+00	4.85E+01	3.19E+01
40	1820.44 Sec	3	1.43E+02	1.67E+02	2.07E+01	9.30E+01	3.00E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	437	.974	.896	.003	.917	.895
3	192.00 Hz	384	1.000	.747	0.000	.984	.853
4	144.00 Hz	700	.989	.970	.196	.991	.987
5	96.00 Hz	702	.984	.958	.203	.975	.975
6	72.00 Hz	96	.907	.955	.745	.925	.819
7	48.00 Hz	861	.973	.959	.813	.952	.771
8	36.00 Hz	1053	.888	.848	.904	.972	.937
9	24.00 Hz	768	.982	.960	.748	.950	.959
10	18.00 Hz	384	.982	.947	.744	.914	.952
11	12.00 Hz	576	.986	.967	.535	.908	.771
12	9.00 Hz	576	.992	.981	.387	.936	.749
13	6.00 Hz	384	.988	.966	.023	.797	.628
14	4.50 Hz	96	.989	.963	.062	.954	.850
15	3.00 Hz	6204	.962	.970	.021	.479	.792
16	2.25 Hz	16124	.988	.965	.082	.484	.727
17	1.50 Hz	8075	.995	.973	.019	.433	.713
18	1.13 Hz	7083	.994	.984	.041	.499	.740
19	1.33 Sec	2224	.997	.943	.311	.663	.809
20	1.78 Sec	2715	.998	.963	.381	.438	.795
21	2.67 Sec	1308	.997	.992	.519	.858	.883
22	3.56 Sec	1356	.998	.996	.597	.917	.930
23	5.33 Sec	1012	.999	.995	.701	.898	.969
24	7.11 Sec	492	.999	.999	.677	.983	.970
25	10.67 Sec	126	.999	.999	.547	.967	.974
26	14.22 Sec	378	1.000	.999	.520	.981	.985
27	21.33 Sec	114	1.000	1.000	.619	.991	.993
28	28.44 Sec	136	1.000	1.000	.542	.977	.994
29	42.67 Sec	184	.999	1.000	.570	.996	.998
30	56.89 Sec	184	.998	1.000	.598	.990	.996
31	85.33 Sec	75	.999	1.000	.633	.994	.995
32	113.78 Sec	60	1.000	1.000	.477	.991	.996
33	170.67 Sec	36	1.000	1.000	.621	.993	.998
34	227.56 Sec	15	1.000	1.000	.780	.998	.998
35	341.33 Sec	21	.994	1.000	.846	.997	.996
36	455.11 Sec	6	1.000	1.000	.859	.998	.999
37	682.67 Sec	9	.993	1.000	.826	.995	.999
38	910.22 Sec	9	.992	1.000	.879	.997	.997
39	1365.33 Sec	3	1.000	.999	.799	.996	.999
40	1820.44 Sec	3	1.000	1.000	.564	.998	.996

PHOENIX GEOSCIENCE

MT Site: MDLK89-012E

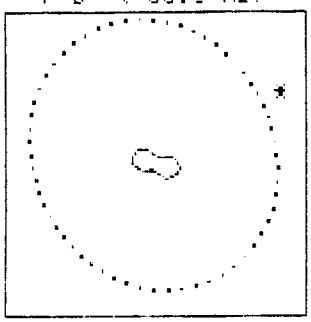
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

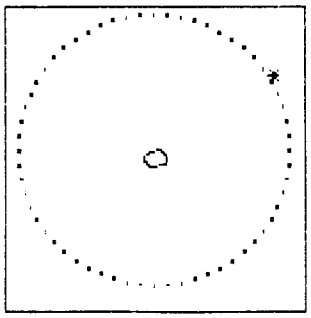
*=Rotation Direction

Zxy = ...
Zxx = ___

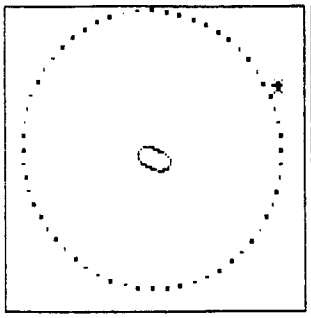
F=8 (36.0 Hz)



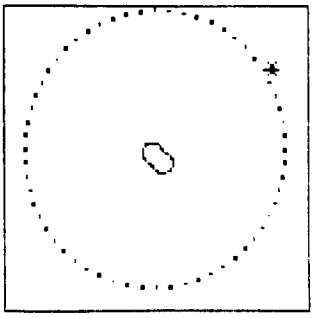
F=10 (18.0 Hz)



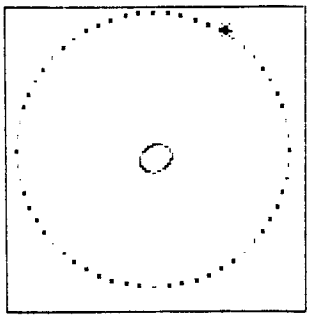
F=12 (9.0 Hz)



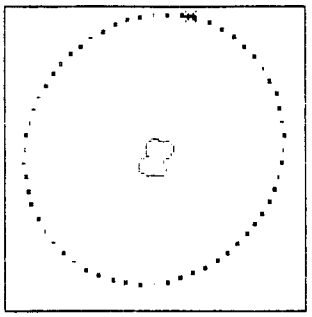
F=14 (4.5 Hz)



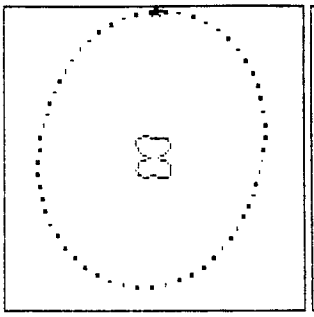
F=16 (2.3 Hz)



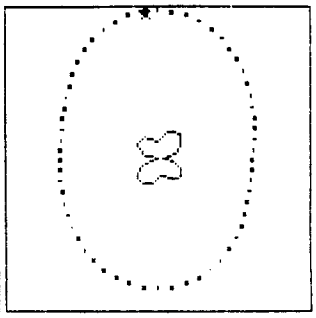
F=18 (1.1 Hz)



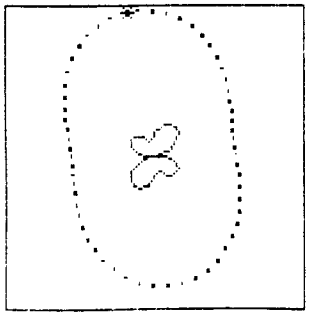
F=20 (.5625 Hz)



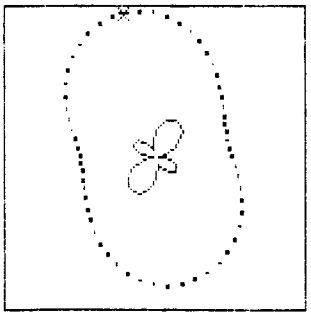
F=22 (.2813 Hz)



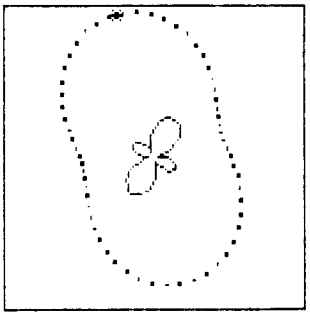
F=24 (.1406 Hz)



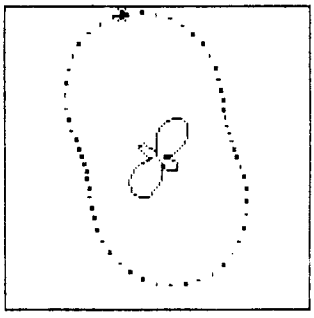
F=26 (.0703 Hz)



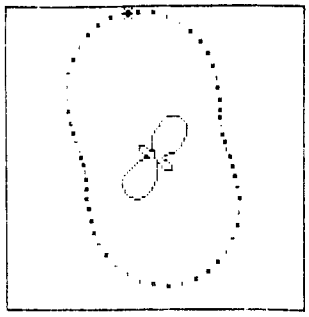
F=28 (.0352 Hz)



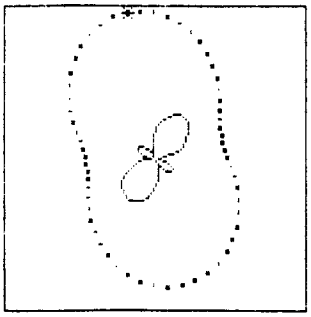
F=30 (.0176 Hz)



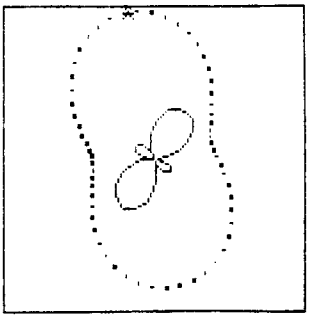
F=32 (.0088 Hz)



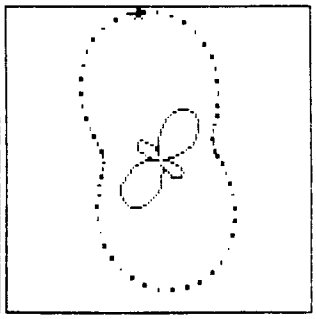
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-012a/013a/023a/

Operator:OJALA
Date: 3 Sep 1989
Time: 13:18:20

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#235-16Aug89-01
Sens-Ch12: C#452-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-013a
Site Desc:T43N R4E
41,34,57 N 121,32,08 W
Elevation:6950 FT
Reference:MDLK89-023a
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL431	+0 DEG
Hy	7	COIL432	+90 DEG
Hz	8	LOOP005	Doubled
Ex	9	148 M	+0 DEG
Ey	10	169 M	+90 DEG
Rx	11	COIL235	+0 DEG
Ry	12	COIL452	+90 DEG

Ex Pot Resist: 20.0K Ohms
Ex Voltage: AC=6.2 mv, DC=3.2 mv
Ey Pot Resist: 20.0K Ohms
Ey Voltage: AC=6.3 mv, DC=6.3 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

OPERATOR LOG FOR MT SITES MDLK89-012a/013a/023a/
Run Chronology

Run STARTED:	13:18:20	3 Sep 1989
Data Acquisition Begun:	13:32:38	3 Sep 1989
Entered HI Range:	13:32:47	3 Sep 1989
Began HI X#2:	13:45:31	3 Sep 1989
Exited HI Range:	13:46:12	3 Sep 1989
Entered LO Range:	13:46:15	3 Sep 1989
Exited LO Range:	14:04:51	3 Sep 1989
Entered HI Range:	14:04:54	3 Sep 1989
Began HI X#3:	14:17:32	3 Sep 1989
Began HI X#4:	14:31:24	3 Sep 1989
Run Re-started:	14:55:16	3 Sep 1989
Entered HI Range:	14:55:25	3 Sep 1989
Began HI X#6:	15:08:30	3 Sep 1989
Began HI X#7:	15:21:54	3 Sep 1989
Began HI X#8:	15:35:29	3 Sep 1989
Began HI X#9:	15:49:03	3 Sep 1989
Exited HI Range:	15:56:15	3 Sep 1989
Entered LO Range:	15:56:19	3 Sep 1989
Began LO X#3:	17:03:04	3 Sep 1989
Began LO X#4:	17:49:39	3 Sep 1989
Exited LO Range:	17:50:31	3 Sep 1989
Entered LO Range:	18:10:20	3 Sep 1989
Began LO X#5:	19:16:29	3 Sep 1989
Began LO X#6:	20:23:14	3 Sep 1989
Began LO X#7:	21:52:05	3 Sep 1989
Began LO X#8:	23:20:58	3 Sep 1989
Began LO X#9:	00:49:51	4 Sep 1989
Began LO X#10:	02:18:49	4 Sep 1989
Exited LO Range:	04:04:56	4 Sep 1989
Run QUIT:	04:04:57	4 Sep 1989

Operator:OJALA

Cultural Factors:
GEOTHERMAL WELL 200 METERS FROMM SITE 012, 500 METERS FROM SITE 023. LIGHTLY TRAVELED FOREST SERVICE ROADS NEAR ALL SITES.

Weather Conditions:
CLEAR AND WARM WITH NO WIND.

Other Factors:
VERY HIGH SIGNAL LEVEL DURING ENTIRE RUN. LOST DIGITIZER INTERFACE IN HIGH RANGE. DO NOT USE XPR #2 OF HIGH RANGE.

PHOENIX GEOSCIENCE

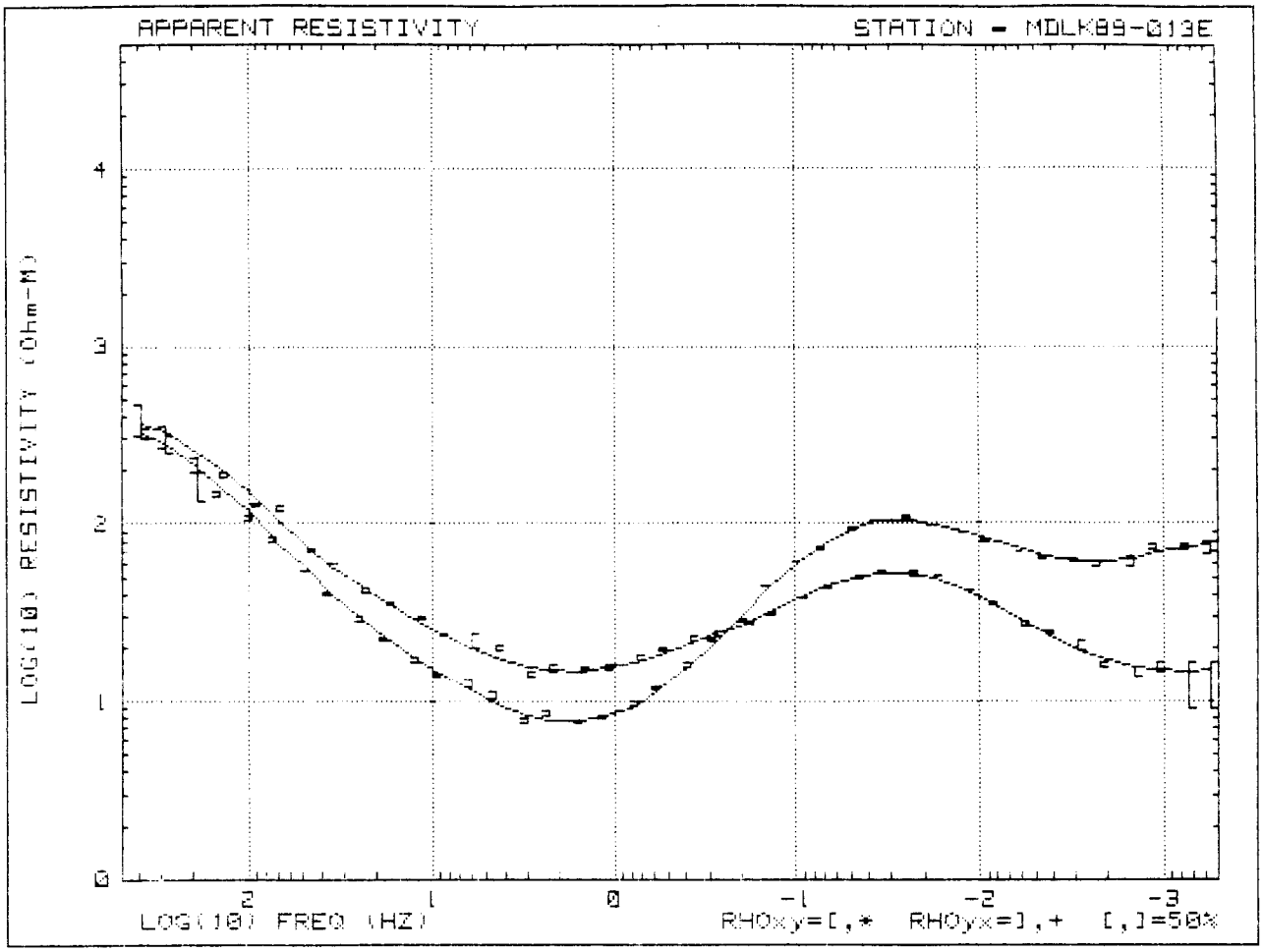
MT Site: MDLK89-013E

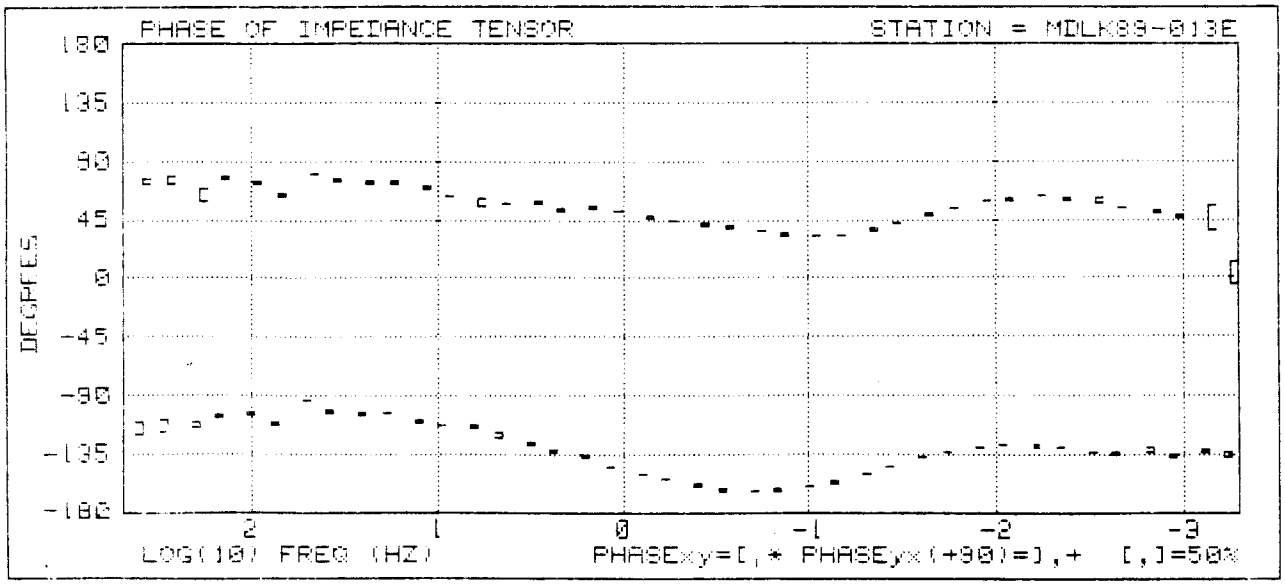
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

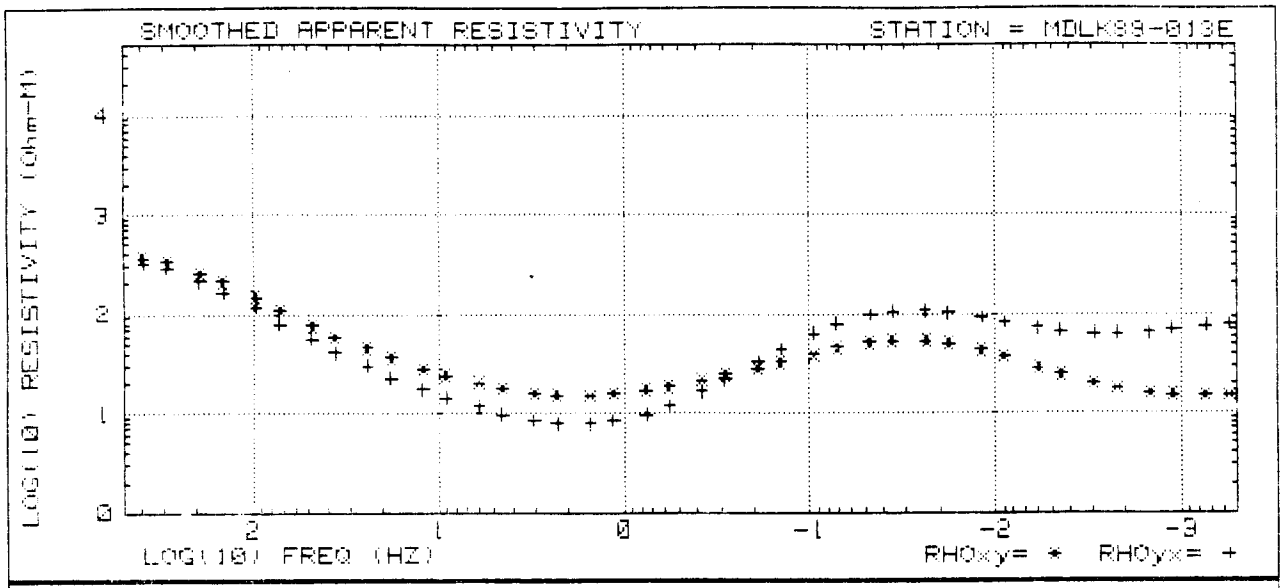
MT Site: MDLK89-013E

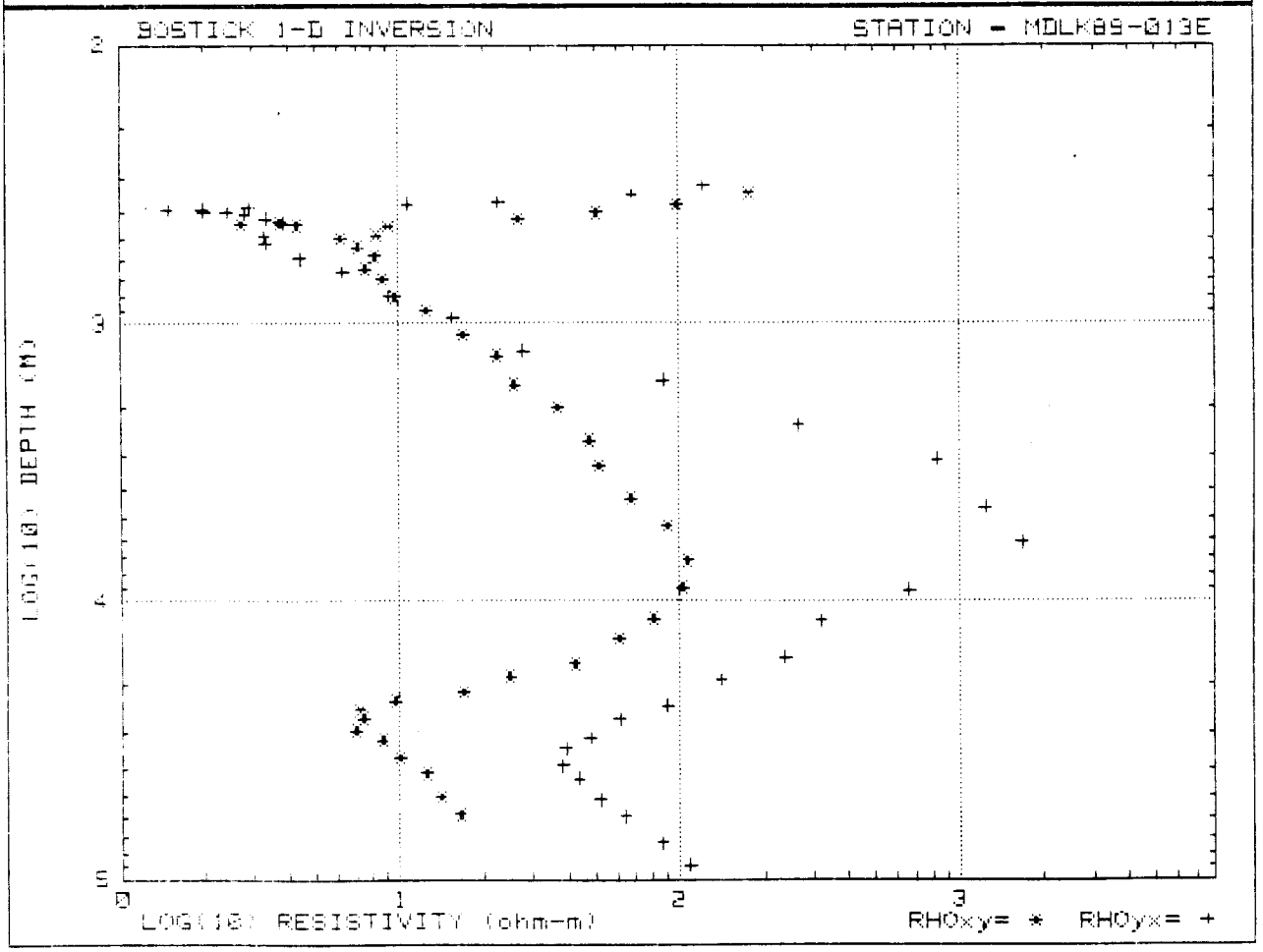




PHOENIX GEOSCIENCE

MT Site: MDLK89-013E





PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	503	317.6	10.0	381.4	33.6	74.1	2.7	-115.3	8.3
2	288.00 Hz	559	278.6	18.2	305.5	24.9	75.5	4.8	-113.1	6.4
3	192.00 Hz	668	162.0	31.1	214.1	14.9	64.1	7.8	-112.3	4.0
4	144.00 Hz	192	189.0	4.6	145.8	5.5	77.1	1.3	-105.3	1.5
5	96.00 Hz	416	126.3	2.2	108.0	3.6	73.2	.6	-104.2	1.0
6	72.00 Hz	383	123.1	4.2	81.4	5.7	64.9	1.2	-111.2	1.6
7	48.00 Hz	768	70.6	1.7	54.2	1.8	80.7	.5	-93.9	.5
8	36.00 Hz	576	59.6	1.8	40.6	3.2	75.2	.5	-101.6	.9
9	24.00 Hz	992	42.1	4.0	28.7	5.4	74.3	1.1	-103.1	1.5
10	18.00 Hz	1280	35.4	2.3	22.1	2.5	73.7	.7	-103.2	.7
11	12.00 Hz	384	29.7	2.7	17.2	3.7	70.3	.8	-109.1	1.0
12	9.00 Hz	864	23.7	1.8	14.0	1.4	63.8	.5	-112.4	.4
13	6.00 Hz	384	21.7	15.1	12.7	6.8	58.8	4.0	-113.6	1.9
14	4.50 Hz	192	19.8	4.1	10.9	7.4	57.7	1.1	-119.9	2.1
15	3.00 Hz	3968	14.1	4.3	7.8	3.3	59.0	1.2	-127.2	.9
16	2.25 Hz	2496	15.3	6.4	8.6	3.8	52.8	1.8	-131.6	1.1
17	1.50 Hz	7163	15.2	2.5	7.8	2.1	54.4	.7	-136.3	.6
18	1.13 Hz	4843	15.4	3.6	8.2	2.5	52.0	1.0	-144.5	.7
19	1.33 Sec	3451	17.7	3.7	9.7	2.6	47.7	1.0	-150.5	.7
20	1.78 Sec	3579	19.5	2.6	11.9	2.1	43.9	.7	-154.2	.6
21	2.67 Sec	444	22.8	5.8	16.0	3.0	40.9	1.6	-159.2	.9
22	3.56 Sec	876	24.1	3.0	22.2	1.6	39.1	.8	-162.4	.5
23	5.33 Sec	640	27.4	2.6	28.6	1.3	36.5	.7	-163.7	.4
24	7.11 Sec	372	31.3	2.8	45.0	1.4	33.9	.8	-162.4	.4
25	10.67 Sec	450	38.4	1.9	61.3	.8	33.1	.5	-159.5	.2
26	14.22 Sec	360	44.3	2.3	73.5	1.4	33.4	.6	-156.8	.4
27	21.33 Sec	202	49.9	1.9	93.7	.9	38.0	.5	-150.9	.2
28	28.44 Sec	244	53.1	1.6	103.9	1.2	42.9	.5	-144.1	.3
29	42.67 Sec	78	52.7	4.5	108.4	1.9	48.7	1.3	-137.6	.5
30	56.89 Sec	244	50.8	1.0	99.1	.8	54.0	.3	-133.4	.2
31	85.33 Sec	114	42.2	1.9	89.3	.7	59.0	.5	-128.9	.2
32	113.78 Sec	114	35.5	2.0	80.5	.8	60.6	.6	-128.1	.2
33	170.67 Sec	33	27.6	4.7	70.0	1.3	63.2	1.3	-128.3	.4
34	227.56 Sec	51	24.3	3.4	64.3	1.2	61.0	1.0	-129.3	.3
35	341.33 Sec	21	20.5	11.2	62.1	1.5	58.8	3.0	-132.8	.4
36	455.11 Sec	9	15.9	3.9	59.9	3.9	53.7	1.1	-133.8	1.1
37	682.67 Sec	9	14.6	9.0	62.2	10.1	51.1	2.5	-132.0	2.7
38	910.22 Sec	12	15.5	8.5	73.7	4.0	47.0	2.3	-136.1	1.1
39	1365.33 Sec	3	12.3	57.0	74.9	5.3	46.3	12.9	-132.3	1.5
40	1820.44 Sec	3	12.3	57.7	72.6	11.4	3.0	13.1	-135.9	3.1

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	503	362.3	318.3	179.9	346	123.5	324
2	288.00 Hz	559	328.9	280.4	100.0	380	68.5	351
3	192.00 Hz	668	250.3	208.9	51.6	406	22.9	371
4	144.00 Hz	192	208.4	160.8	27.0	428	10.8	376
5	96.00 Hz	416	146.7	114.0	3.8	440	2.9	388
6	72.00 Hz	383	107.0	77.9	2.7	444	2.0	392
7	48.00 Hz	768	74.6	55.1	4.4	449	1.5	396
8	36.00 Hz	576	57.7	40.4	9.2	453	2.0	400
9	24.00 Hz	992	45.1	29.4	8.3	488	2.4	404
10	18.00 Hz	1280	35.8	22.5	6.2	502	2.8	408
11	12.00 Hz	384	27.7	17.2	7.2	541	3.4	426
12	9.00 Hz	864	23.8	14.1	8.2	579	3.9	445
13	6.00 Hz	384	19.8	11.6	7.7	646	3.3	494
14	4.50 Hz	192	17.6	9.6	8.7	703	3.4	520
15	3.00 Hz	3968	15.7	8.3	9.7	813	4.4	592
16	2.25 Hz	2496	14.9	7.8	12.5	916	6.3	662
17	1.50 Hz	7163	14.7	7.7	17.0	1116	9.3	808
18	1.13 Hz	4843	15.6	8.3	22.4	1327	15.6	966
19	1.33 Sec	3451	16.7	9.6	26.1	1678	28.0	1270
20	1.78 Sec	3579	18.2	11.7	37.2	2026	88.3	1621
21	2.67 Sec	444	21.1	16.3	48.1	2672	268.7	2343
22	3.56 Sec	876	23.9	21.6	52.0	3279	840.6	3116
23	5.33 Sec	640	27.3	32.0	67.9	4296	1246.7	4647
24	7.11 Sec	372	32.1	43.4	91.1	5374	1692.7	6252
25	10.67 Sec	450	38.1	62.2	108.5	7174	667.4	9166
26	14.22 Sec	360	44.7	77.1	102.9	8976	321.4	11787
27	21.33 Sec	202	50.1	95.1	81.5	11630	239.7	16031
28	28.44 Sec	244	52.8	104.0	61.4	13790	141.3	19360
29	42.67 Sec	78	52.7	105.7	42.5	16882	91.2	23898
30	56.89 Sec	244	49.0	98.8	25.1	18789	61.5	26687
31	85.33 Sec	114	42.2	90.0	16.9	21350	48.5	31179
32	113.78 Sec	114	36.4	80.3	9.7	22915	39.7	34025
33	170.67 Sec	33	28.2	71.1	7.3	24708	38.7	39214
34	227.56 Sec	51	24.2	65.4	7.5	26400	44.1	43431
35	341.33 Sec	21	19.6	62.2	7.0	29108	52.6	51837
36	455.11 Sec	9	17.4	61.8	8.7	31706	64.7	59665
37	682.67 Sec	9	15.5	63.2	10.0	36666	87.3	73906
38	910.22 Sec	12	15.0	69.0	12.5	41614	109.3	89206
39	1365.33 Sec	3	14.6	73.9	14.1	50255	99.0	113027
40	1820.44 Sec	3	14.8	76.4	16.5	58482	96.1	132680

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	503	-5.67	107.27	999.99	213.83	751.11	999.99
2	288.00 Hz	559	10.39	-1.29	999.99	158.86	613.17	999.99
3	192.00 Hz	668	4.54	22.28	999.99	172.01	354.94	999.99
4	144.00 Hz	192	7.35	33.26	126.12	82.18	359.62	136.50
5	96.00 Hz	416	-.65	12.67	92.23	71.03	235.78	14.61
6	72.00 Hz	383	8.23	11.65	138.84	89.20	190.64	36.90
7	48.00 Hz	768	4.66	9.97	5.39	21.10	128.46	2.43
8	36.00 Hz	576	4.75	4.63	9.49	26.44	100.13	1.75
9	24.00 Hz	992	1.43	6.94	18.12	19.25	68.39	3.85
10	18.00 Hz	1280	1.34	4.32	3.95	15.87	54.17	.85
11	12.00 Hz	384	-.76	1.72	3.11	14.22	39.72	.65
12	9.00 Hz	864	2.93	1.65	.42	14.42	29.28	.17
13	6.00 Hz	384	3.04	-.76	17.98	13.21	21.81	6.46
14	4.50 Hz	192	2.74	-.77	1.20	11.30	17.85	.36
15	3.00 Hz	3968	2.09	.20	.53	7.50	12.47	.19
16	2.25 Hz	2496	1.81	-.26	.75	7.93	10.43	.33
17	1.50 Hz	7163	2.36	-.03	.14	6.22	8.69	.04
18	1.13 Hz	4843	2.10	.25	.14	5.74	7.34	.05
19	1.33 Sec	3451	2.025	.011	.087	5.485	6.020	.045
20	1.78 Sec	3579	2.070	-.226	.040	5.334	5.140	.018
21	2.67 Sec	444	2.083	.001	.090	4.940	4.281	.068
22	3.56 Sec	876	1.777	.217	.026	4.513	3.672	.014
23	5.33 Sec	640	1.733	.394	.007	4.077	3.015	.009
24	7.11 Sec	372	1.511	.587	.010	3.896	2.619	.008
25	10.67 Sec	450	1.383	.627	.003	3.557	2.315	.003
26	14.22 Sec	360	1.278	.649	.004	3.295	2.173	.004
27	21.33 Sec	202	1.120	.536	.002	2.696	2.105	.002
28	28.44 Sec	244	1.010	.512	.002	2.238	2.078	.001
29	42.67 Sec	78	.839	.508	.008	1.639	1.867	.006
30	56.89 Sec	244	.662	.507	.001	1.242	1.710	.000
31	85.33 Sec	114	.474	.475	.000	.810	1.348	.000
32	113.78 Sec	114	.370	.420	.000	.614	1.088	.000
33	170.67 Sec	33	.314	.319	.001	.406	.803	.001
34	227.56 Sec	51	.227	.272	.001	.354	.640	.000
35	341.33 Sec	21	.183	.232	.002	.284	.469	.002
36	455.11 Sec	9	.205	.145	.001	.247	.337	.000
37	682.67 Sec	9	.130	.131	.003	.206	.255	.000
38	910.22 Sec	12	.127	.128	.001	.199	.213	.000
39	1365.33 Sec	3	.139	.144	.029	.147	.154	.005
40	1820.44 Sec	3	.081	.025	.002	.184	.010	.004

PHOENIX GEOSCIENCE

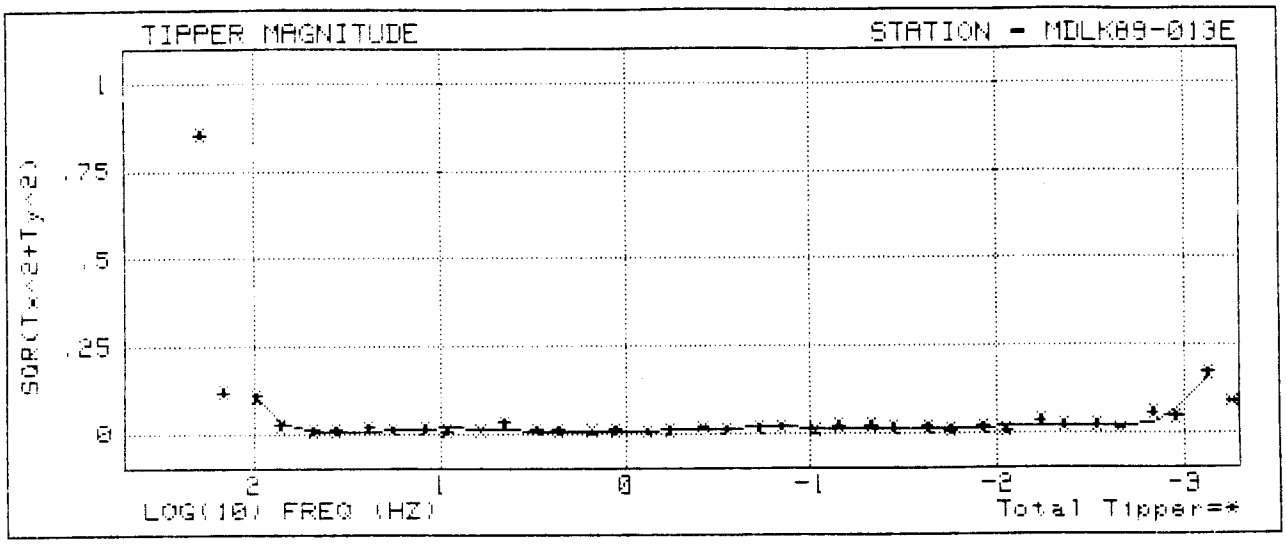
MT Site: MDLK89-013E

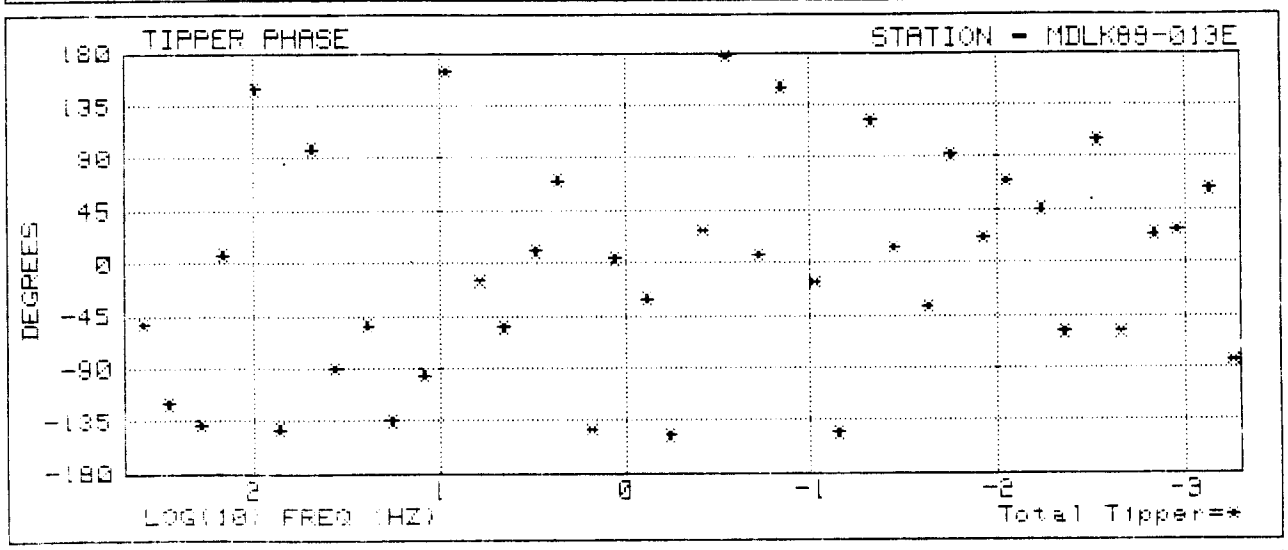
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

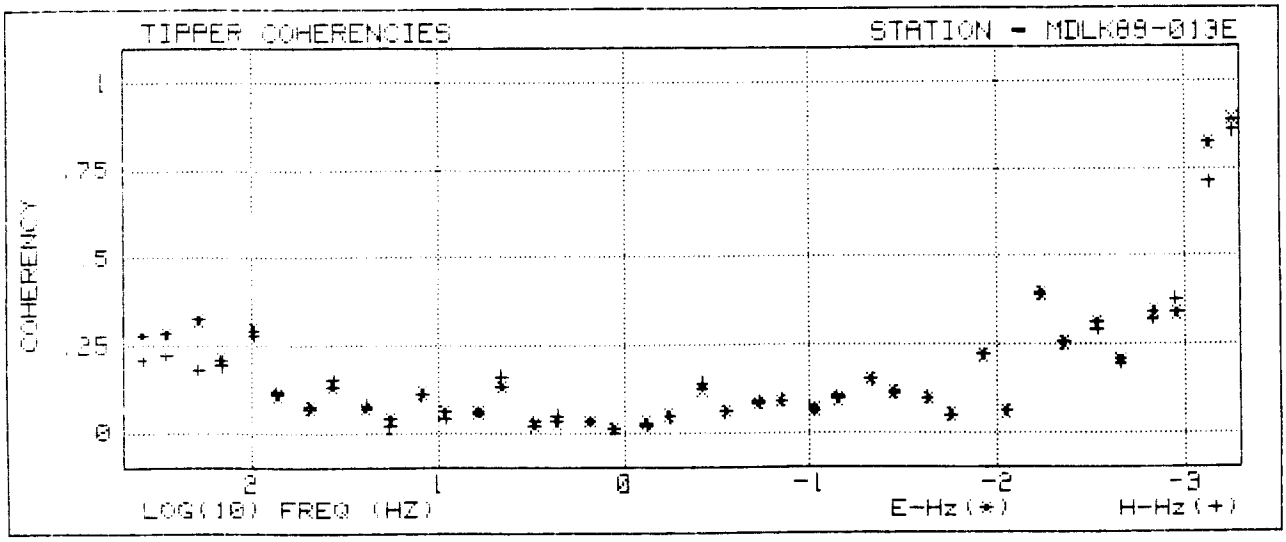
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	503	-366.38	-773.35	999.99	9.57	2.73	999.99
2	288.00 Hz	559	-260.06	-610.11	999.99	12.20	58.77	999.99
3	192.00 Hz	668	-171.87	-419.58	999.99	39.84	22.35	999.99
4	144.00 Hz	192	-85.54	-312.47	148.34	3.49	32.98	160.55
5	96.00 Hz	416	-55.82	-220.78	33.04	1.97	10.01	5.24
6	72.00 Hz	383	-62.04	-159.58	44.44	5.89	13.70	11.81
7	48.00 Hz	768	-7.77	-113.79	1.98	3.73	10.82	.89
8	36.00 Hz	576	-17.21	-83.77	3.72	2.35	5.99	.69
9	24.00 Hz	992	-13.26	-57.19	4.77	2.40	6.42	1.01
10	18.00 Hz	1280	-10.16	-43.42	.58	1.13	4.43	.13
11	12.00 Hz	384	-10.49	-30.36	.67	-.61	1.66	.14
12	9.00 Hz	864	-9.54	-23.18	.06	.96	3.23	.03
13	6.00 Hz	384	-7.81	-17.89	.82	.47	2.77	.30
14	4.50 Hz	192	-7.82	-13.59	.63	-.42	1.81	.19
15	3.00 Hz	3968	-6.56	-8.64	.06	-.73	.89	.02
16	2.25 Hz	2496	-6.52	-7.36	.07	-.69	.88	.03
17	1.50 Hz	7163	-5.51	-5.27	.01	-.69	.60	.00
18	1.13 Hz	4843	-5.54	-3.96	.01	-.69	.42	.01
19	1.33 Sec	3451	-5.261	-2.971	.012	-.479	.196	.006
20	1.78 Sec	3579	-5.213	-2.517	.007	-.331	-.116	.003
21	2.67 Sec	444	-5.127	-1.947	.013	-.049	-.170	.010
22	3.56 Sec	876	-5.325	-1.691	.004	.179	-.438	.002
23	5.33 Sec	640	-4.968	-1.454	.002	.413	-.358	.003
24	7.11 Sec	372	-5.359	-1.702	.003	.742	-.639	.003
25	10.67 Sec	450	-5.021	-1.873	.001	1.108	-.283	.001
26	14.22 Sec	360	-4.669	-2.005	.002	1.178	-.164	.003
27	21.33 Sec	202	-4.093	-2.282	.001	1.171	.132	.001
28	28.44 Sec	244	-3.461	-2.508	.001	1.038	.432	.001
29	42.67 Sec	78	-2.631	-2.404	.002	.837	.513	.002
30	56.89 Sec	244	-2.028	-2.144	.000	.638	.550	.000
31	85.33 Sec	114	-1.437	-1.779	.000	.474	.475	.000
32	113.78 Sec	114	-1.160	-1.480	.000	.385	.399	.000
33	170.67 Sec	33	-.887	-1.125	.000	.312	.322	.000
34	227.56 Sec	51	-.753	-.920	.000	.246	.246	.000
35	341.33 Sec	21	-.648	-.700	.000	.220	.174	.000
36	455.11 Sec	9	-.562	-.585	.000	.200	.151	.000
37	682.67 Sec	9	-.452	-.501	.002	.148	.113	.000
38	910.22 Sec	12	-.458	-.442	.000	.142	.111	.000
39	1365.33 Sec	3	-.353	-.387	.000	.157	.128	.000
40	1820.44 Sec	3	-.320	-.311	.001	.042	.043	.002

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E







PHOENIX GEOSCIENCE

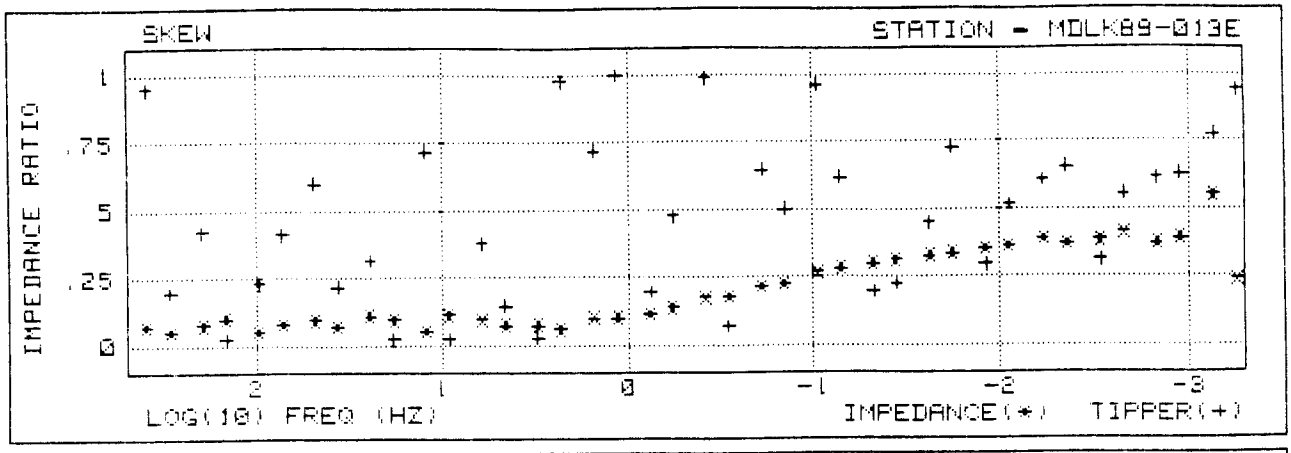
MT Site: MDLK89-013E

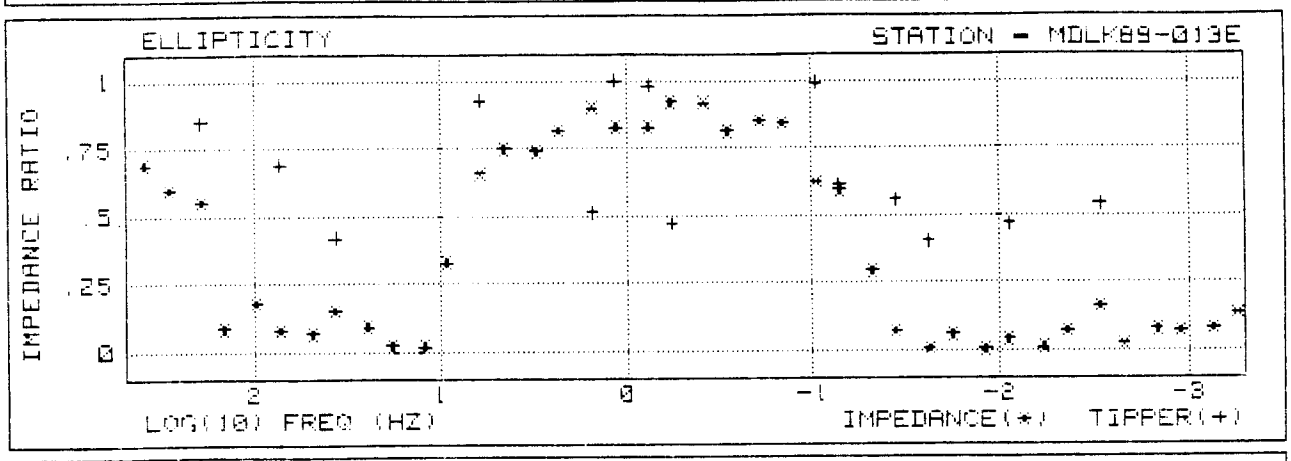
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

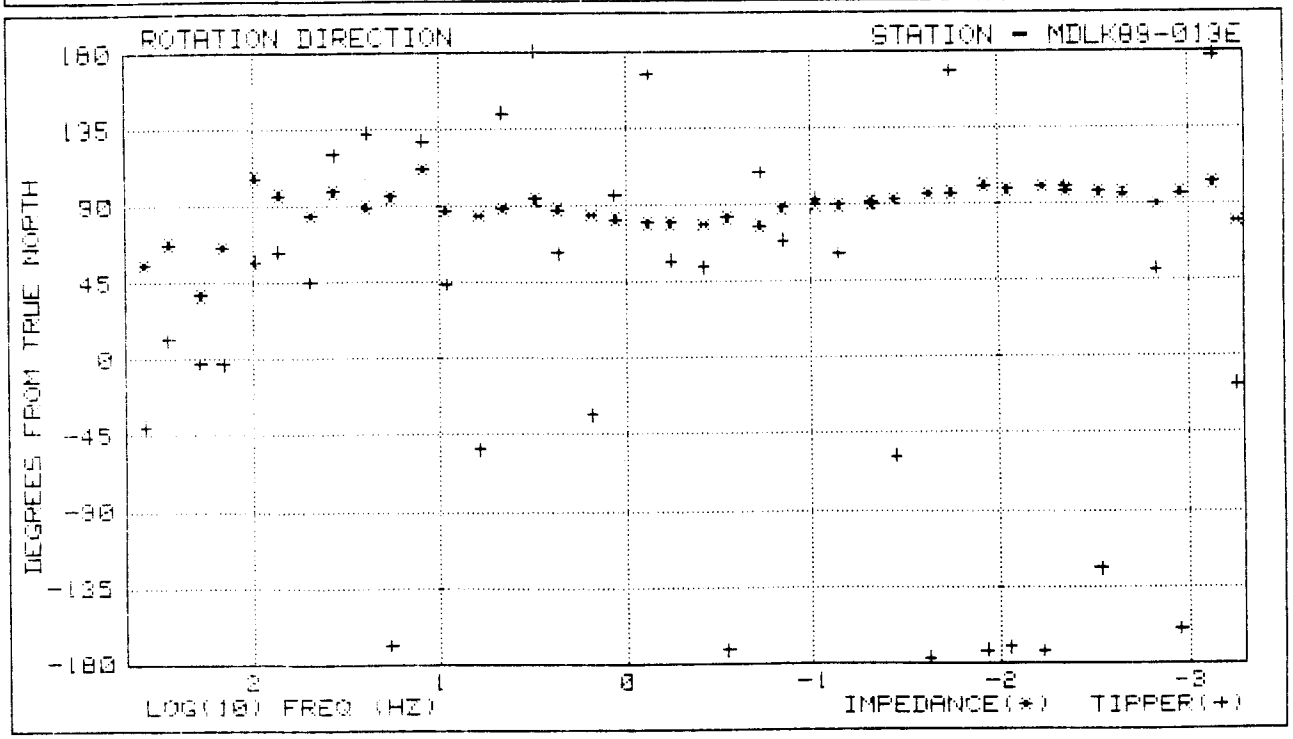
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	503	1.83	-53.14	.28	.20
2	288.00 Hz	559	1.76	-120.79	.28	.22
3	192.00 Hz	668	.85	-139.02	.32	.18
4	144.00 Hz	192	.12	6.89	.21	.19
5	96.00 Hz	416	.10	148.41	.29	.28
6	72.00 Hz	383	.02	-142.69	.10	.11
7	48.00 Hz	768	.01	96.74	.07	.07
8	36.00 Hz	576	.01	-90.54	.13	.15
9	24.00 Hz	992	.01	-54.49	.06	.07
10	18.00 Hz	1280	.01	-135.54	.03	.01
11	12.00 Hz	384	.01	-96.39	.11	.10
12	9.00 Hz	864	.00	163.76	.05	.04
13	6.00 Hz	384	.01	-15.65	.05	.06
14	4.50 Hz	192	.03	-56.07	.13	.16
15	3.00 Hz	3968	.01	9.42	.02	.03
16	2.25 Hz	2496	.01	70.02	.03	.04
17	1.50 Hz	7163	.00	-143.30	.03	.03
18	1.13 Hz	4843	.00	3.17	.01	.01
19	1.33 Sec	3451	.00	-30.92	.03	.02
20	1.78 Sec	3579	.00	-148.18	.05	.04
21	2.67 Sec	444	.01	26.94	.12	.14
22	3.56 Sec	876	.01	176.38	.06	.06
23	5.33 Sec	640	.01	5.98	.08	.08
24	7.11 Sec	372	.01	149.58	.08	.09
25	10.67 Sec	450	.01	-17.23	.06	.06
26	14.22 Sec	360	.02	-145.98	.09	.10
27	21.33 Sec	202	.02	120.61	.15	.15
28	28.44 Sec	244	.01	12.41	.11	.11
29	42.67 Sec	78	.01	-38.46	.09	.09
30	56.89 Sec	244	.00	91.27	.05	.05
31	85.33 Sec	114	.01	20.75	.22	.22
32	113.78 Sec	114	.00	69.21	.05	.06
33	170.67 Sec	33	.03	44.26	.39	.39
34	227.56 Sec	51	.02	-60.19	.25	.25
35	341.33 Sec	21	.02	103.84	.31	.29
36	455.11 Sec	9	.01	-60.15	.20	.19
37	682.67 Sec	9	.05	23.62	.34	.32
38	910.22 Sec	12	.04	27.26	.34	.38
39	1365.33 Sec	3	.17	62.01	.82	.71
40	1820.44 Sec	3	.08	-84.40	.89	.85

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E







PHOENIX GEOSCIENCE

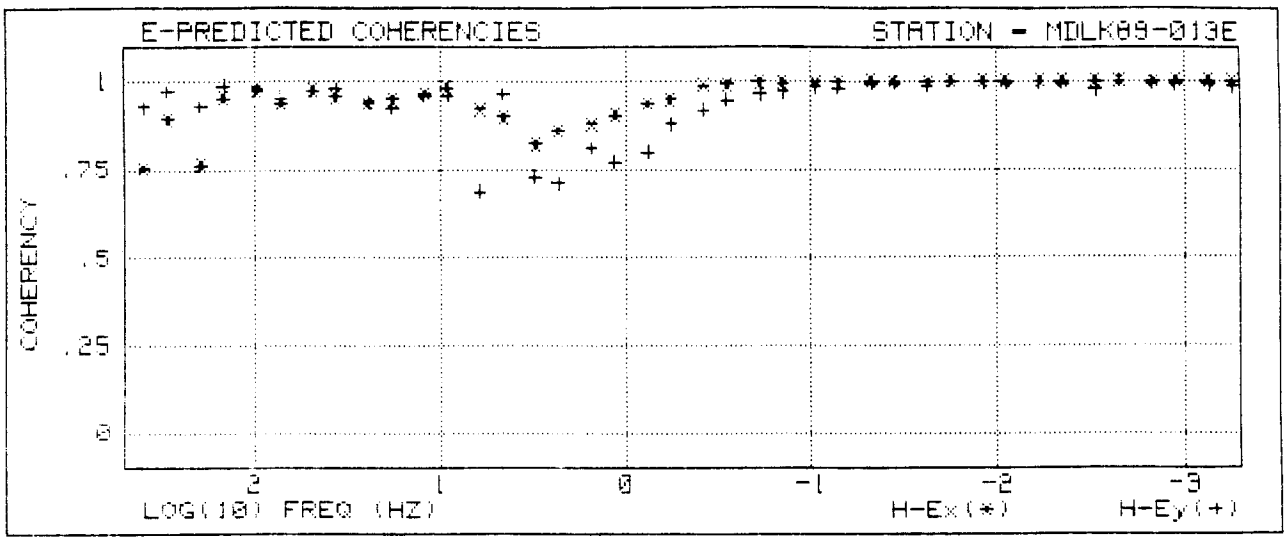
MT Site: MDLK89-013E

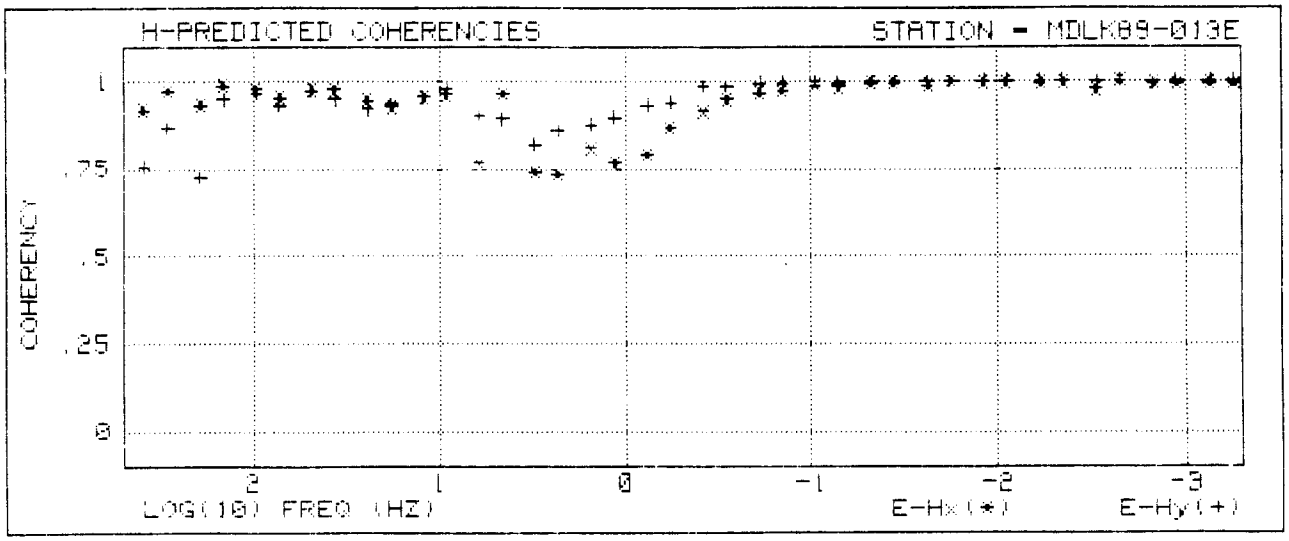
SKEW, ELLIPTICITY AND STRIKE

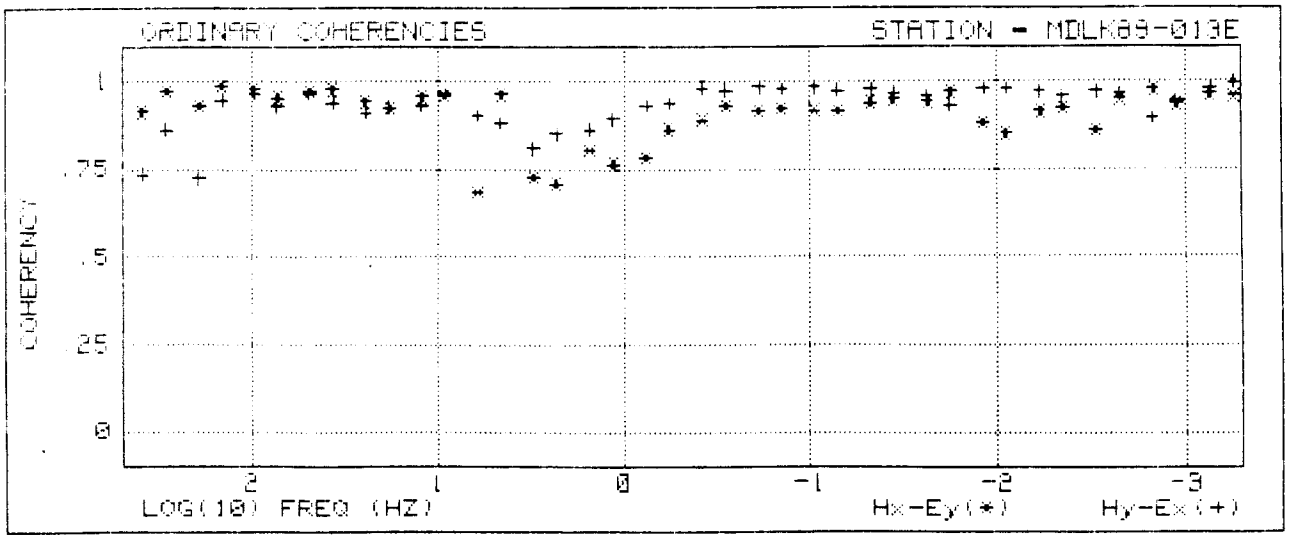
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	503	.07	.69	54.83	.94	1.41	-40.24
2	288.00 Hz	559	.05	.59	66.98	.19	1.46	11.15
3	192.00 Hz	668	.07	.55	36.75	.42	.84	-2.82
4	144.00 Hz	192	.10	.08	64.82	.02	2.49	-3.31
5	96.00 Hz	416	.05	.17	105.75	.23	8.68	56.77
6	72.00 Hz	383	.08	.08	95.98	.41	.69	62.72
7	48.00 Hz	768	.09	.06	83.81	.60	1.81	44.89
8	36.00 Hz	576	.07	.15	97.71	.22	.41	119.47
9	24.00 Hz	992	.11	.09	88.42	.31	3.39	131.83
10	18.00 Hz	1280	.09	.02	94.83	.02	10.04	-169.50
11	12.00 Hz	384	.05	.02	111.22	.71	1.13	127.52
12	9.00 Hz	864	.11	.32	86.97	.02	1.59	43.16
13	6.00 Hz	384	.09	.65	83.87	.37	.92	-54.07
14	4.50 Hz	192	.07	.74	88.14	.14	1.62	143.51
15	3.00 Hz	3968	.07	.74	93.30	.02	16.39	179.88
16	2.25 Hz	2496	.06	.81	87.13	.97	1.16	61.52
17	1.50 Hz	7163	.10	.90	83.65	.71	.51	-33.87
18	1.13 Hz	4843	.10	.82	81.36	.99	.99	95.33
19	1.33 Sec	3451	.11	.82	78.88	.19	.98	166.20
20	1.78 Sec	3579	.14	.92	78.84	.47	.47	56.57
21	2.67 Sec	444	.17	.91	77.75	.98	1.12	52.66
22	3.56 Sec	876	.18	.81	81.63	.07	3.35	-172.75
23	5.33 Sec	640	.21	.85	76.78	.64	1.41	108.44
24	7.11 Sec	372	.22	.84	87.65	.50	2.13	68.50
25	10.67 Sec	450	.26	.62	88.91	.96	.99	92.71
26	14.22 Sec	360	.28	.59	89.26	.62	.61	60.68
27	21.33 Sec	202	.30	.29	90.46	.19	4.06	89.76
28	28.44 Sec	244	.31	.07	92.58	.22	.55	-58.97
29	42.67 Sec	78	.32	.00	95.35	.45	.40	-177.52
30	56.89 Sec	244	.33	.05	95.64	.72	1.76	167.46
31	85.33 Sec	114	.35	.00	99.95	.29	6.33	-173.37
32	113.78 Sec	114	.36	.04	97.83	.51	.46	-171.27
33	170.67 Sec	33	.39	.01	99.82	.60	2.90	-173.86
34	227.56 Sec	51	.37	.07	97.42	.65	1.26	99.52
35	341.33 Sec	21	.38	.16	96.34	.31	.54	-124.86
36	455.11 Sec	9	.41	.02	95.79	.55	1.25	95.23
37	682.67 Sec	9	.37	.07	89.71	.61	1.16	51.00
38	910.22 Sec	12	.39	.07	95.62	.62	2.49	-160.59
39	1365.33 Sec	3	.55	.08	102.23	.77	1.64	176.60
40	1820.44 Sec	3	.24	.13	79.20	.93	1.40	-16.81

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E







PHOENIX GEOSCIENCE

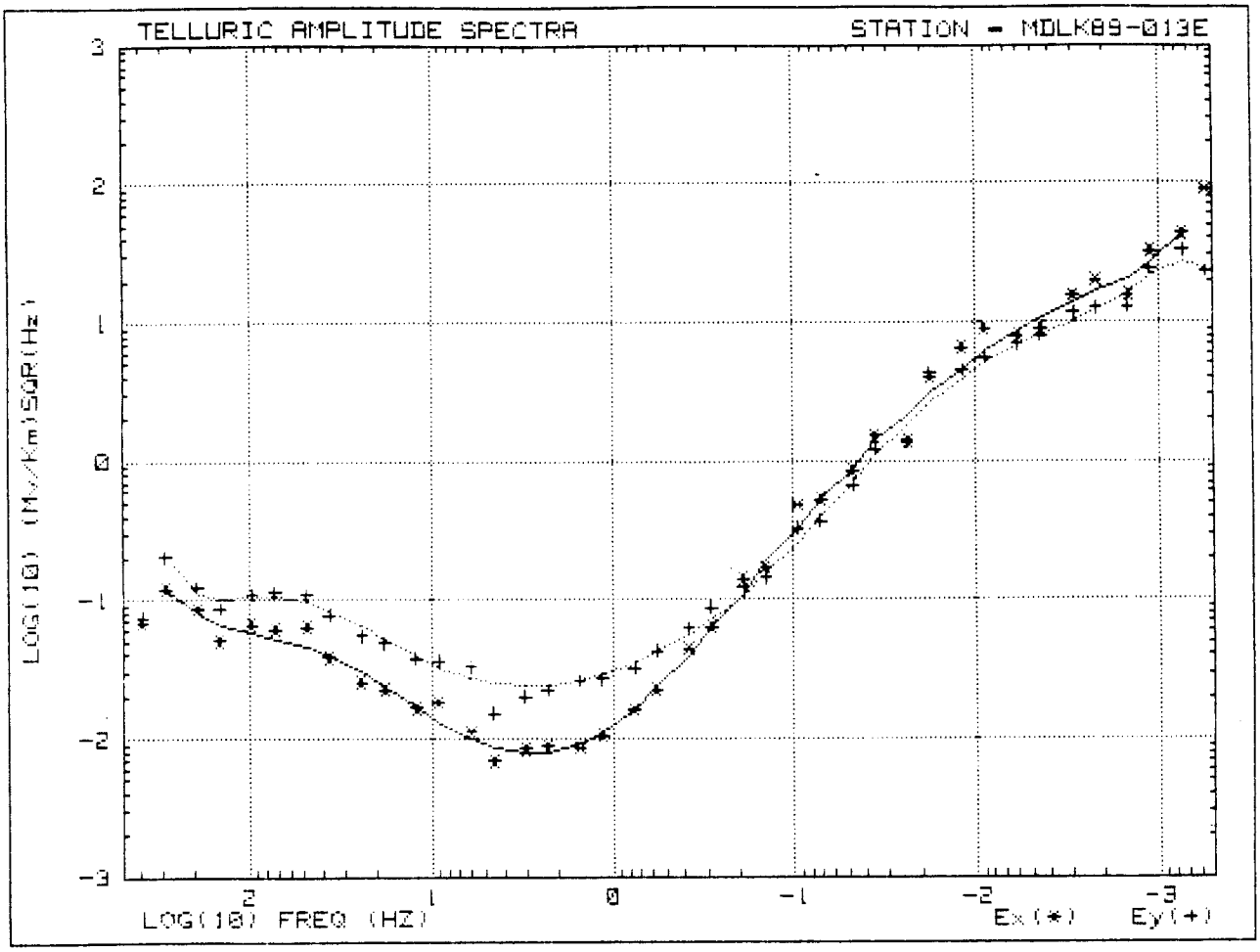
MT Site: MDLK89-013E

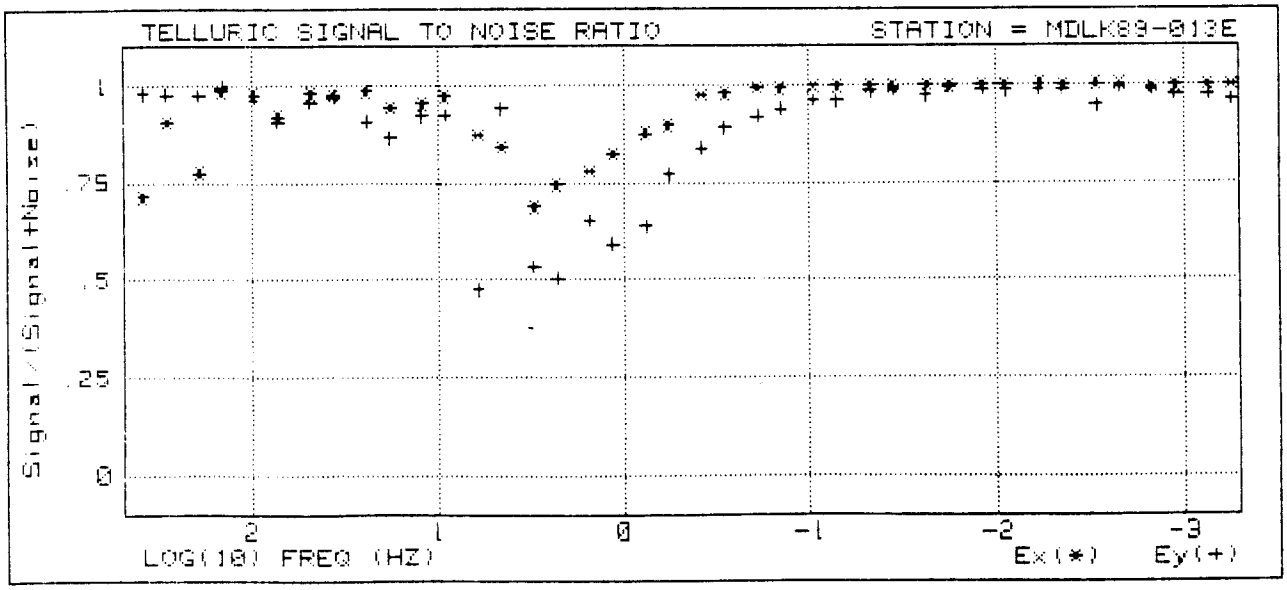
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	503	.75	.92	.91	.75	.91	.73
2	288.00 Hz	559	.89	.97	.97	.86	.97	.86
3	192.00 Hz	668	.76	.93	.93	.72	.93	.72
4	144.00 Hz	192	.95	.98	.98	.95	.98	.94
5	96.00 Hz	416	.97	.98	.98	.96	.98	.96
6	72.00 Hz	383	.93	.95	.95	.93	.95	.92
7	48.00 Hz	768	.97	.97	.97	.97	.97	.96
8	36.00 Hz	576	.95	.97	.97	.94	.97	.93
9	24.00 Hz	992	.93	.94	.94	.92	.94	.91
10	18.00 Hz	1280	.95	.92	.92	.93	.92	.92
11	12.00 Hz	384	.96	.95	.95	.95	.95	.93
12	9.00 Hz	864	.98	.96	.96	.98	.95	.96
13	6.00 Hz	384	.92	.68	.76	.90	.68	.90
14	4.50 Hz	192	.90	.96	.96	.89	.96	.88
15	3.00 Hz	3968	.82	.73	.74	.82	.72	.81
16	2.25 Hz	2496	.86	.71	.73	.86	.70	.85
17	1.50 Hz	7163	.88	.81	.80	.87	.80	.86
18	1.13 Hz	4843	.90	.77	.76	.89	.76	.89
19	1.33 Sec	3451	.93	.79	.78	.93	.78	.93
20	1.78 Sec	3579	.94	.87	.86	.94	.86	.93
21	2.67 Sec	444	.99	.91	.91	.98	.89	.98
22	3.56 Sec	876	.99	.94	.95	.98	.93	.97
23	5.33 Sec	640	.99	.96	.96	.99	.91	.98
24	7.11 Sec	372	.99	.97	.97	.99	.92	.98
25	10.67 Sec	450	1.00	.98	.98	1.00	.92	.98
26	14.22 Sec	360	.99	.98	.98	.99	.91	.97
27	21.33 Sec	202	1.00	.99	.99	1.00	.94	.97
28	28.44 Sec	244	1.00	.99	.99	1.00	.94	.96
29	42.67 Sec	78	1.00	.99	.98	1.00	.94	.95
30	56.89 Sec	244	1.00	1.00	1.00	1.00	.97	.93
31	85.33 Sec	114	1.00	.99	.99	1.00	.88	.98
32	113.78 Sec	114	1.00	.99	.99	1.00	.85	.98
33	170.67 Sec	33	1.00	.99	.99	1.00	.91	.97
34	227.56 Sec	51	1.00	.99	.99	1.00	.92	.95
35	341.33 Sec	21	1.00	.97	.97	1.00	.86	.97
36	455.11 Sec	9	1.00	1.00	1.00	1.00	.95	.96
37	682.67 Sec	9	1.00	.99	.99	.99	.97	.89
38	910.22 Sec	12	1.00	.99	.99	1.00	.93	.94
39	1365.33 Sec	3	1.00	.99	.99	1.00	.96	.97
40	1820.44 Sec	3	1.00	.98	.99	1.00	.95	.99

PHOENIX GEOSCIENCE

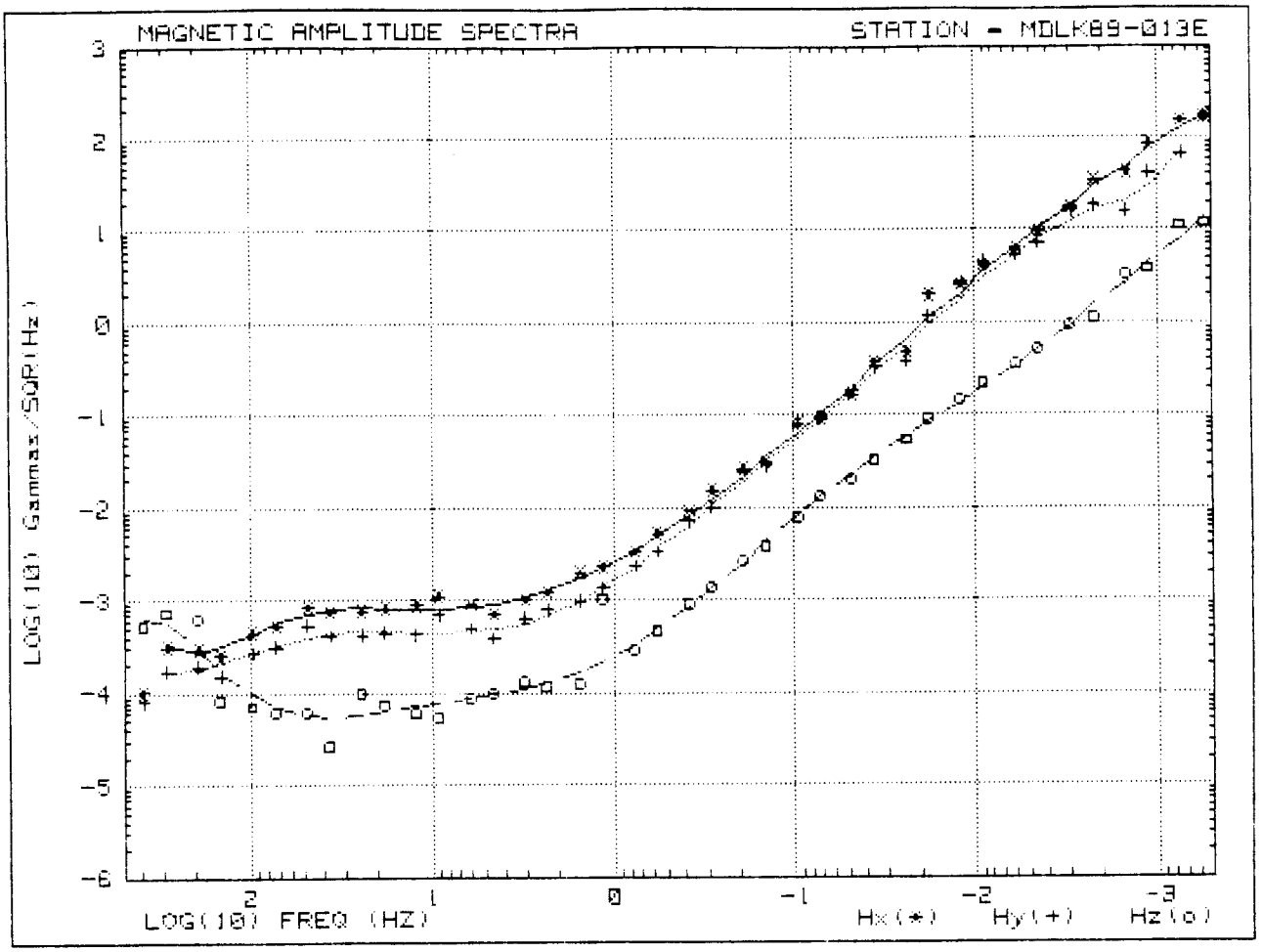
MT Site: MDLK89-013E

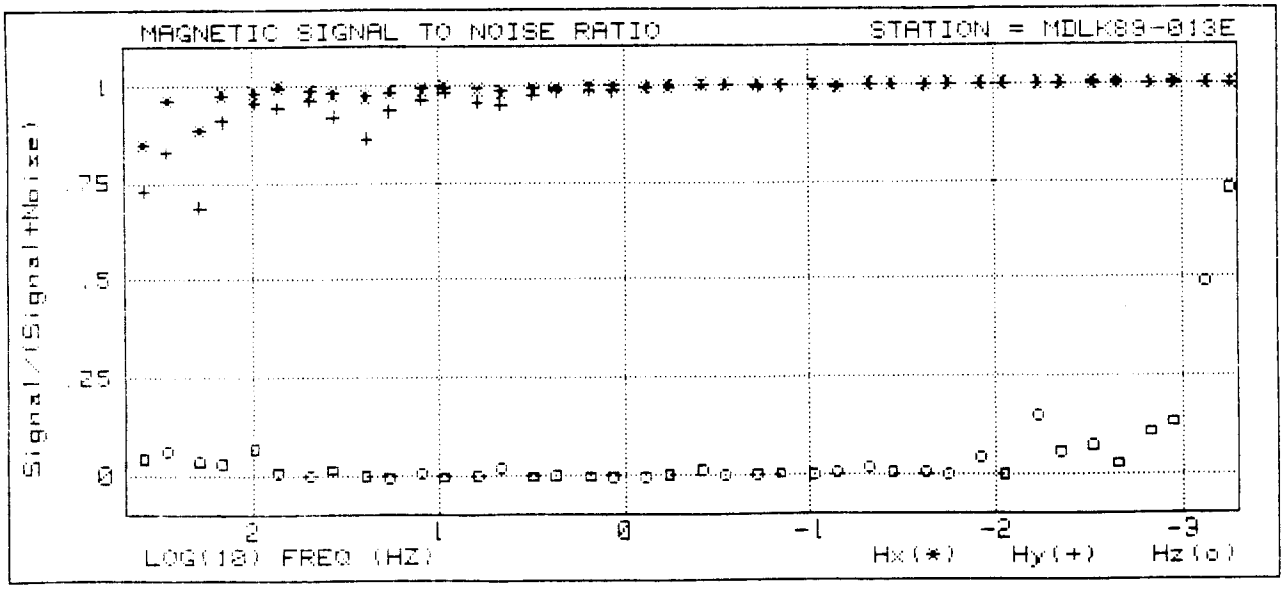




PHOENIX GEOSCIENCE

MT Site: MDLK89-013E





PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	503	1.01E-04	7.96E-05	5.52E-04	6.67E-02	7.34E-02
2	288.00 Hz	559	3.08E-04	1.69E-04	7.72E-04	1.18E-01	2.01E-01
3	192.00 Hz	668	2.92E-04	1.90E-04	6.69E-04	8.49E-02	1.22E-01
4	144.00 Hz	192	2.49E-04	1.50E-04	8.66E-05	5.01E-02	8.52E-02
5	96.00 Hz	416	4.40E-04	2.68E-04	7.48E-05	6.51E-02	1.08E-01
6	72.00 Hz	383	5.19E-04	3.09E-04	6.43E-05	6.04E-02	1.12E-01
7	48.00 Hz	768	8.29E-04	5.30E-04	6.40E-05	6.23E-02	1.08E-01
8	36.00 Hz	576	7.46E-04	4.07E-04	2.72E-05	3.79E-02	7.65E-02
9	24.00 Hz	992	7.58E-04	4.13E-04	1.06E-04	2.52E-02	5.45E-02
10	18.00 Hz	1280	8.09E-04	4.41E-04	7.85E-05	2.22E-02	4.79E-02
11	12.00 Hz	384	8.74E-04	4.26E-04	6.28E-05	1.64E-02	3.74E-02
12	9.00 Hz	864	1.07E-03	6.80E-04	5.69E-05	1.80E-02	3.58E-02
13	6.00 Hz	384	8.87E-04	4.85E-04	9.27E-05	1.10E-02	3.22E-02
14	4.50 Hz	192	6.93E-04	3.85E-04	1.02E-04	6.78E-03	1.49E-02
15	3.00 Hz	3968	9.90E-04	6.35E-04	1.37E-04	8.29E-03	1.97E-02
16	2.25 Hz	2496	1.21E-03	7.68E-04	1.21E-04	8.66E-03	2.19E-02
17	1.50 Hz	7163	1.97E-03	9.67E-04	1.30E-04	8.46E-03	2.57E-02
18	1.13 Hz	4843	2.20E-03	1.33E-03	1.10E-03	1.04E-02	2.63E-02
19	1.33 Sec	3451	3.29E-03	2.33E-03	3.08E-04	1.60E-02	3.20E-02
20	1.78 Sec	3579	5.14E-03	3.33E-03	4.88E-04	2.23E-02	4.18E-02
21	2.67 Sec	444	9.10E-03	7.08E-03	9.54E-04	4.38E-02	6.11E-02
22	3.56 Sec	876	1.50E-02	9.92E-03	1.44E-03	6.23E-02	8.58E-02
23	5.33 Sec	640	2.59E-02	2.37E-02	2.83E-03	1.40E-01	1.20E-01
24	7.11 Sec	372	3.03E-02	2.79E-02	4.04E-03	1.68E-01	1.42E-01
25	10.67 Sec	450	8.00E-02	8.12E-02	8.20E-03	4.77E-01	3.21E-01
26	14.22 Sec	360	9.14E-02	9.31E-02	1.38E-02	5.17E-01	3.61E-01
27	21.33 Sec	202	1.65E-01	1.79E-01	2.12E-02	8.37E-01	6.60E-01
28	28.44 Sec	244	3.66E-01	3.24E-01	3.49E-02	1.48E+00	1.21E+00
29	42.67 Sec	78	4.71E-01	3.80E-01	5.73E-02	1.37E+00	1.33E+00
30	56.89 Sec	244	1.97E+00	1.14E+00	9.48E-02	3.95E+00	4.21E+00
31	85.33 Sec	114	2.54E+00	2.68E+00	1.53E-01	6.46E+00	4.43E+00
32	113.78 Sec	114	4.11E+00	4.43E+00	2.28E-01	8.83E+00	5.43E+00
33	170.67 Sec	33	6.18E+00	5.36E+00	3.69E-01	7.86E+00	6.81E+00
34	227.56 Sec	51	9.49E+00	7.17E+00	5.43E-01	8.84E+00	7.83E+00
35	341.33 Sec	21	1.71E+01	1.60E+01	9.99E-01	1.53E+01	1.14E+01
36	455.11 Sec	9	3.37E+01	1.78E+01	1.16E+00	1.97E+01	1.24E+01
37	682.67 Sec	9	4.18E+01	1.55E+01	3.43E+00	1.54E+01	1.27E+01
38	910.22 Sec	12	8.31E+01	4.09E+01	4.03E+00	3.15E+01	2.35E+01
39	1365.33 Sec	3	1.49E+02	6.52E+01	1.18E+01	4.22E+01	3.22E+01
40	1820.44 Sec	3	1.65E+02	1.62E+02	1.25E+01	8.82E+01	2.26E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	503	.847	.729	.046	.712	.977
2	288.00 Hz	559	.960	.827	.069	.903	.976
3	192.00 Hz	668	.884	.684	.040	.773	.973
4	144.00 Hz	192	.975	.909	.038	.984	.994
5	96.00 Hz	416	.982	.954	.076	.975	.970
6	72.00 Hz	383	.994	.942	.013	.917	.906
7	48.00 Hz	768	.983	.961	.005	.978	.957
8	36.00 Hz	576	.978	.917	.020	.974	.969
9	24.00 Hz	992	.971	.861	.003	.984	.906
10	18.00 Hz	1280	.982	.933	.000	.942	.863
11	12.00 Hz	384	.988	.962	.011	.952	.919
12	9.00 Hz	864	.994	.982	.001	.970	.921
13	6.00 Hz	384	.990	.956	.003	.873	.472
14	4.50 Hz	192	.983	.951	.024	.840	.939
15	3.00 Hz	3968	.989	.972	.001	.688	.532
16	2.25 Hz	2496	.991	.983	.002	.744	.503
17	1.50 Hz	7163	.997	.987	.001	.778	.652
18	1.13 Hz	4843	.995	.984	.000	.822	.591
19	1.33 Sec	3451	.992	.994	.000	.874	.636
20	1.78 Sec	3579	.993	.997	.002	.895	.768
21	2.67 Sec	444	1.000	.999	.018	.972	.837
22	3.56 Sec	876	.999	.997	.003	.976	.890
23	5.33 Sec	640	1.000	.993	.007	.992	.918
24	7.11 Sec	372	.998	.995	.007	.990	.936
25	10.67 Sec	450	.999	.998	.004	.996	.961
26	14.22 Sec	360	.996	.991	.009	.996	.958
27	21.33 Sec	202	1.000	1.000	.021	.996	.984
28	28.44 Sec	244	.999	.997	.012	.994	.985
29	42.67 Sec	78	.999	.996	.009	.997	.971
30	56.89 Sec	244	1.000	1.000	.002	.996	.992
31	85.33 Sec	114	1.000	1.000	.048	.998	.988
32	113.78 Sec	114	1.000	1.000	.003	.998	.984
33	170.67 Sec	33	1.000	1.000	.154	.999	.986
34	227.56 Sec	51	1.000	1.000	.064	.998	.985
35	341.33 Sec	21	1.000	1.000	.077	.999	.946
36	455.11 Sec	9	1.000	1.000	.032	.999	.991
37	682.67 Sec	9	.997	1.000	.114	.992	.986
38	910.22 Sec	12	1.000	1.000	.140	.996	.975
39	1365.33 Sec	3	1.000	1.000	.493	.999	.975
40	1820.44 Sec	3	1.000	1.000	.733	.998	.959

PHOENIX GEOSCIENCE

MT Site: MDLK89-013E

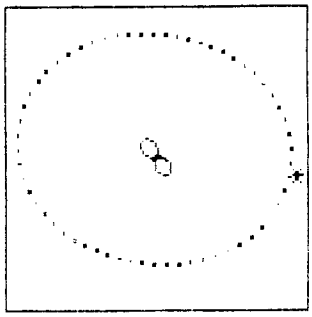
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

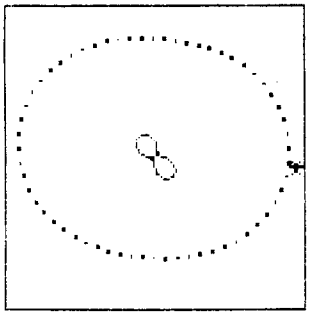
*=Rotation Direction

Zxy = ...
Zxx = ___

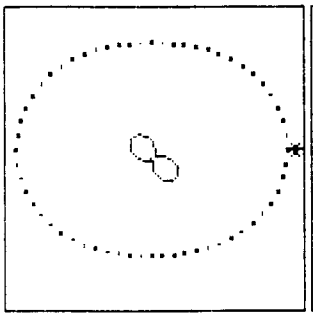
F=8 (36.0 Hz)



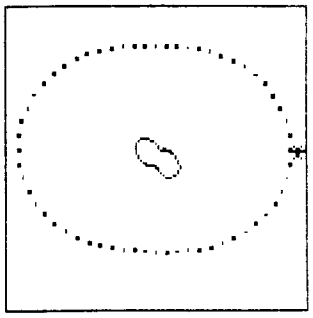
F=10 (18.0 Hz)



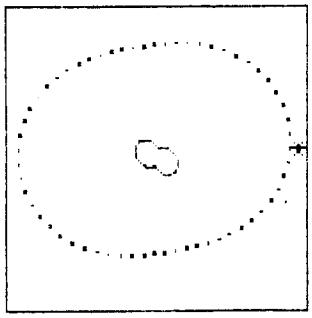
F=12 (9.0 Hz)



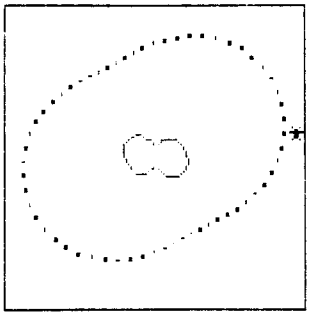
F=14 (4.5 Hz)



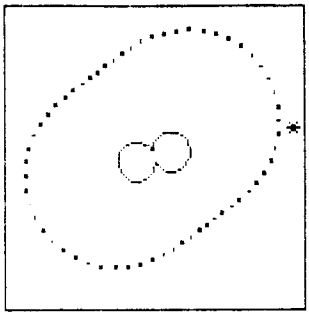
F=16 (2.3 Hz)



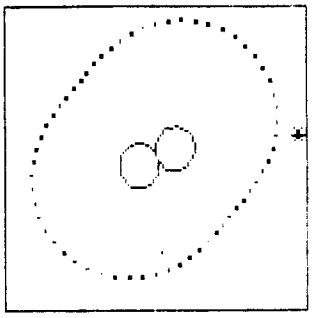
F=18 (1.1 Hz)



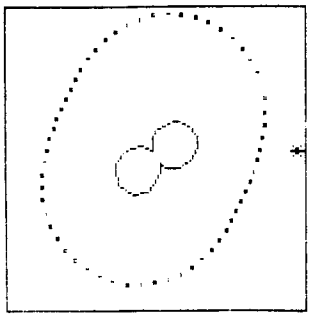
F=20 (.5625 Hz)



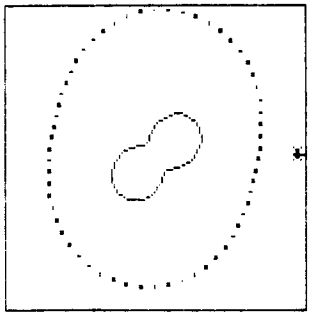
F=22 (.2813 Hz)



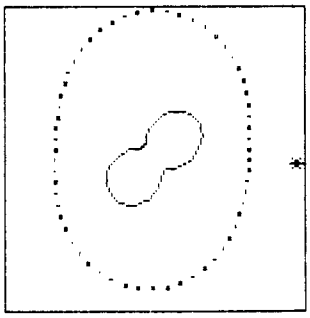
F=24 (.1406 Hz)



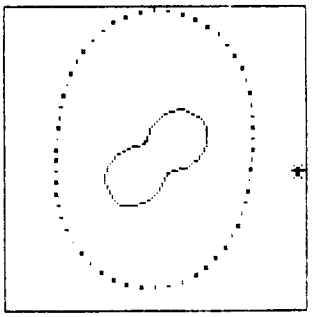
F=26 (.0703 Hz)



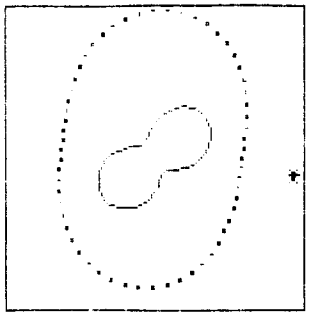
F=28 (.0352 Hz)



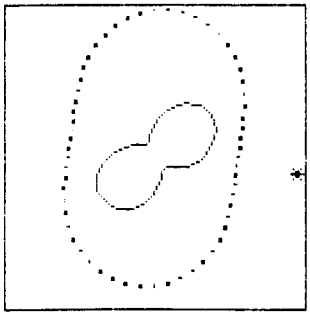
F=30 (.0176 Hz)



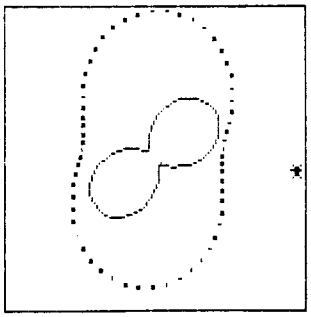
F=32 (.0088 Hz)



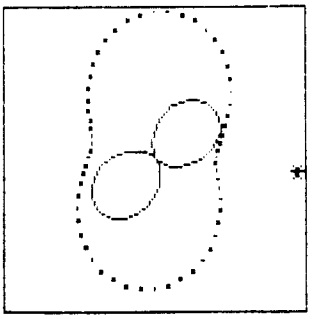
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-014s/049s/

Operator:M. SNOW
Date: 15 Sep 1989
Time: 14:36:19

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#452-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#445-05Sep89-01
Sens-Ch07: C#205-05Sep89-01
Sens-Ch08: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-014s
Site Desc:T43N R4E
41,35,20 N 121,30,37 W
Elevation:7280 FT
Reference:MDLK89-049s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: MR. T. ELDRIDGE
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL431	+45 DEG
Hy	2	COIL452	+135 DEG
Hz	3	LOOP005	Doubled
Ex	4	169 M	+45 DEG
Ey	5	157 M	+135 DEG
Rx	6	COIL445	+45 DEG
Ry	7	COIL205	+135 DEG

Ex Pot Resist: 18.0K Ohms
Ex Voltage: AC=10.0 mv, DC=132.0 mv
Ey Pot Resist: 18.0K Ohms
Ey Voltage: AC=7.80 mv, DC=44.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

OPERATOR LOG FOR MT SITES MDLK89-014e/049e/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-014f/049f/

Run STARTED:	14:36:19	15 Sep 1989
Run QUIT:	22:00:19	15 Sep 1989

Run Start and Stop Time for MDLK89-014g/049g/

Run STARTED:	22:22:55	15 Sep 1989
Run QUIT:	04:26:59	16 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR AND MILD
Other Factors:
NONE

PHOENIX GEOSCIENCE

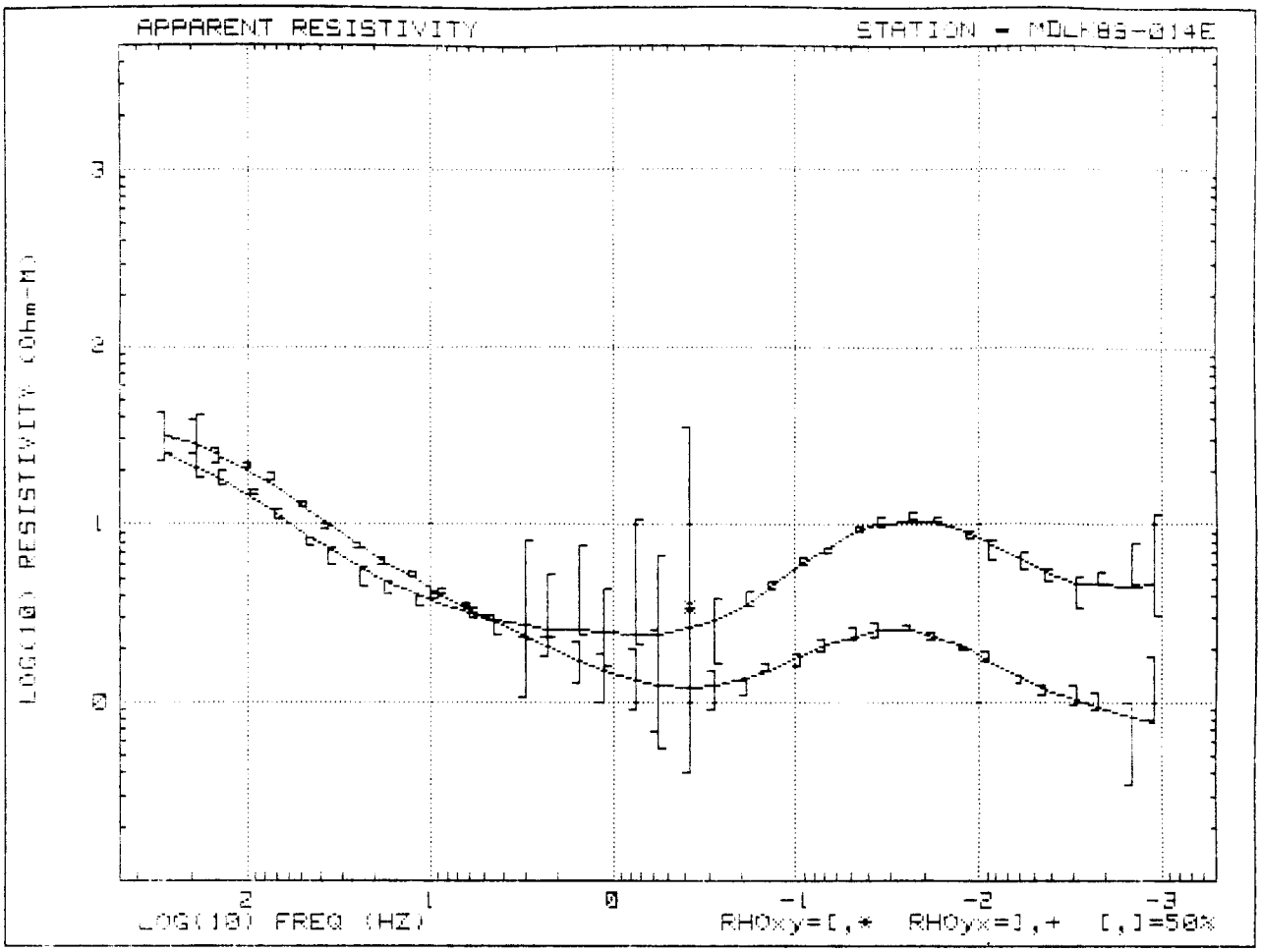
MT Site: MDLK89-014E

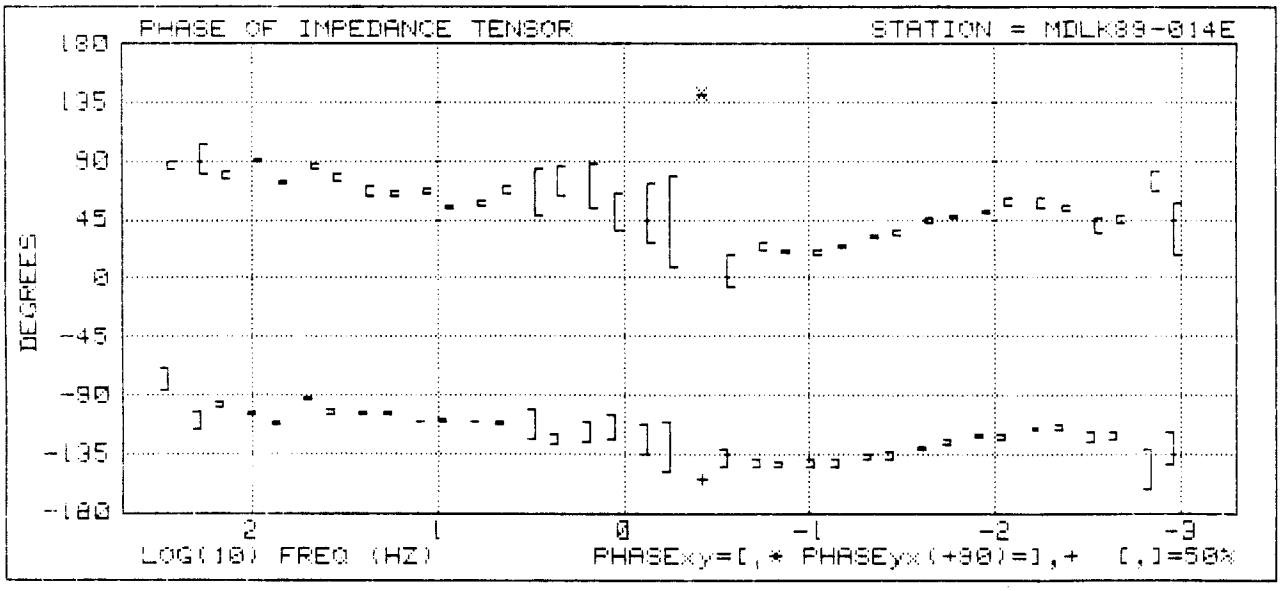
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

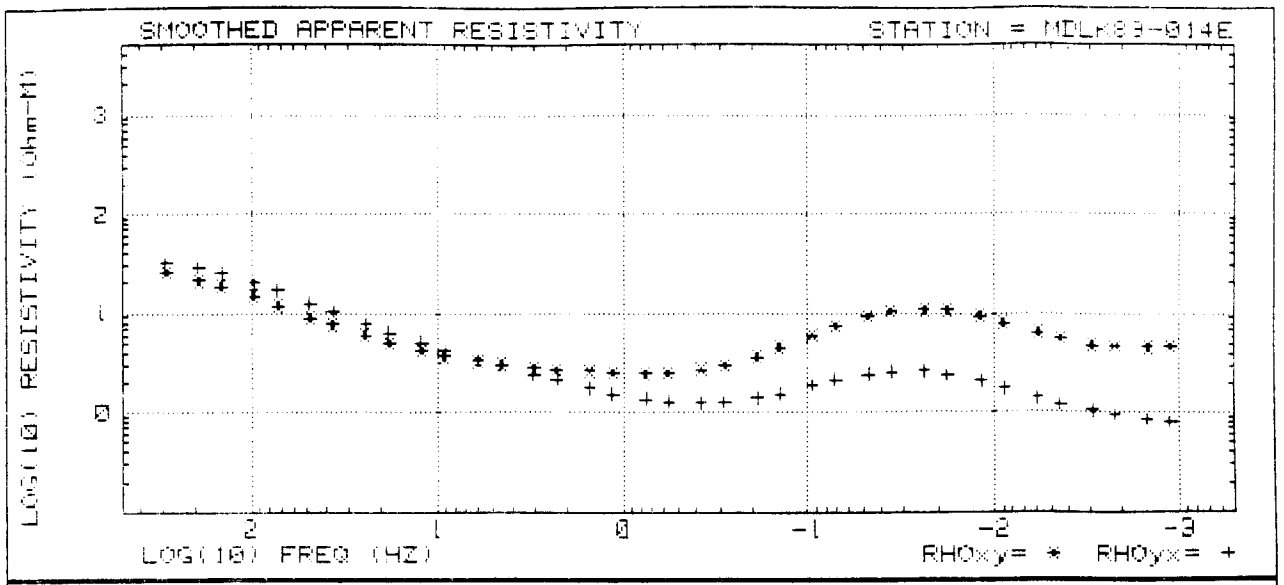
MT Site: MDLK89-014E

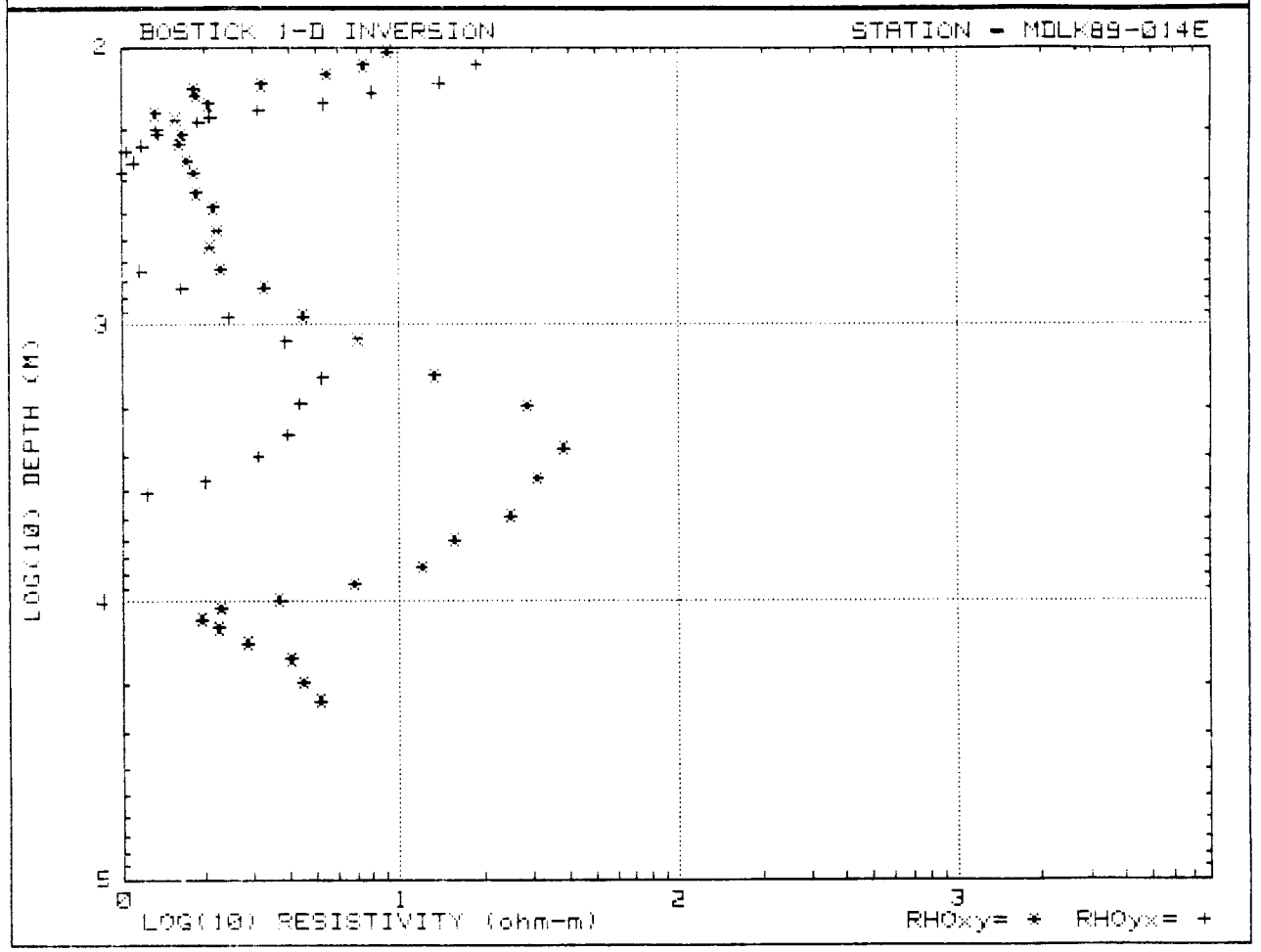




PHOENIX GEOSCIENCE

MT Site: MDLK89-014E





PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	254	28.1	19.1	31.3	60.3	86.9	5.0	-77.6	13.5
3	192.00 Hz	192	27.8	82.8	31.2	41.7	91.7	17.3	-109.8	10.0
4	144.00 Hz	192	18.4	16.6	24.2	14.4	78.8	4.4	-97.4	3.9
5	96.00 Hz	384	15.1	4.7	21.5	4.5	90.0	1.3	-104.1	1.3
6	72.00 Hz	384	11.4	8.6	18.7	6.0	73.5	2.4	-110.9	1.7
7	48.00 Hz	765	7.9	7.5	12.9	4.6	85.5	2.1	-92.6	1.3
8	36.00 Hz	192	6.6	18.4	9.8	6.5	77.7	4.8	-103.2	1.8
9	24.00 Hz	287	5.1	18.6	7.6	4.4	67.2	4.9	-103.7	1.2
10	18.00 Hz	670	4.4	13.4	6.2	5.2	65.2	3.6	-104.0	1.5
11	12.00 Hz	192	3.7	7.6	5.3	3.5	66.8	2.1	-110.7	1.0
12	9.00 Hz	288	4.3	5.4	4.0	3.1	54.3	1.5	-109.4	.9
13	6.00 Hz	192	3.2	9.9	3.6	2.7	56.9	2.7	-110.7	.8
14	4.50 Hz	480	2.7	16.7	3.0	5.1	67.7	4.4	-111.9	1.4
15	3.00 Hz	832	4.3	99.9	1.6	80.6	65.8	27.7	-112.5	16.9
16	2.25 Hz	3360	3.5	80.3	2.1	22.8	74.4	16.9	-123.3	5.9
17	1.50 Hz	848	4.3	99.9	1.7	49.3	70.6	25.0	-118.9	11.5
18	1.13 Hz	2528	2.6	99.9	1.4	58.0	50.5	21.6	-114.5	13.1
19	1.33 Sec	623	4.8	99.9	1.4	77.4	49.8	34.7	-124.1	16.4
20	1.78 Sec	399	2.0	99.9	1.3	99.9	43.4	53.5	-129.9	28.2
21	2.67 Sec	944	3.4	99.9	3.8	99.9	140.6	99.9	-154.4	95.6
22	3.56 Sec	188	2.5	88.6	1.2	45.8	5.8	18.2	-138.2	10.8
23	5.33 Sec	672	3.8	15.5	1.2	13.2	24.9	4.1	-141.3	3.5
24	7.11 Sec	612	4.6	6.6	1.6	7.6	21.2	1.8	-142.7	2.1
25	10.67 Sec	359	6.3	9.1	1.7	13.2	19.5	2.5	-141.9	3.5
26	14.22 Sec	461	7.2	6.4	2.1	12.6	24.7	1.8	-141.6	3.4
27	21.33 Sec	78	9.6	4.8	2.5	12.6	32.9	1.3	-136.8	3.4
28	28.44 Sec	186	10.4	8.6	2.5	14.2	34.5	2.4	-136.2	3.8
29	42.67 Sec	213	11.4	8.9	2.6	5.7	44.9	2.4	-130.6	1.6
30	56.89 Sec	243	10.8	6.1	2.4	6.2	47.4	1.7	-125.7	1.7
31	85.33 Sec	57	8.7	6.2	2.0	2.5	51.4	1.7	-120.9	.7
32	113.78 Sec	99	7.3	20.9	1.8	11.4	58.5	5.4	-121.8	3.1
33	170.67 Sec	3	6.3	16.8	1.4	5.6	57.6	4.4	-115.0	1.6
34	227.56 Sec	3	5.2	11.5	1.2	9.9	53.9	3.1	-114.6	2.7
35	341.33 Sec	15	4.1	36.3	1.1	20.4	40.3	8.9	-121.8	5.3
36	455.11 Sec	9	5.0	13.2	1.0	17.6	45.5	3.5	-121.0	4.6
37	682.67 Sec	3	6.1	50.9	.59	99.9	74.8	11.8	-146.1	22.4
38	910.22 Sec	9	6.0	99.9	1.2	85.0	37.7	28.4	-130.1	17.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	254	25.2	31.1	9.2	105	19.0	117
3	192.00 Hz	192	20.9	28.2	7.4	117	14.0	136
4	144.00 Hz	192	18.2	24.6	5.5	126	8.0	147
5	96.00 Hz	384	14.4	19.8	3.2	138	5.4	162
6	72.00 Hz	384	11.7	16.5	1.8	143	3.1	171
7	48.00 Hz	765	8.7	12.4	1.9	151	2.1	181
8	36.00 Hz	192	7.5	10.1	2.1	162	1.9	189
9	24.00 Hz	287	5.9	7.7	1.3	176	1.4	202
10	18.00 Hz	670	4.8	6.2	1.6	184	1.4	209
11	12.00 Hz	192	4.1	4.9	1.7	209	1.2	228
12	9.00 Hz	288	3.6	4.1	1.6	225	1.0	239
13	6.00 Hz	192	3.2	3.3	1.7	259	1.1	263
14	4.50 Hz	480	2.9	2.9	1.8	288	1.0	285
15	3.00 Hz	832	2.7	2.3	1.9	338	.81	315
16	2.25 Hz	3360	2.6	2.1	2.1	382	.75	341
17	1.50 Hz	848	2.5	1.7	2.2	463	.63	379
18	1.13 Hz	2528	2.5	1.5	2.1	528	.72	412
19	1.33 Sec	623	2.4	1.3	2.3	636	.78	474
20	1.78 Sec	399	2.4	1.3	3.3	741	1.0	532
21	2.67 Sec	944	2.7	1.2	4.5	947	1.2	644
22	3.56 Sec	188	2.9	1.2	7.1	1146	1.7	747
23	5.33 Sec	672	3.5	1.4	13.5	1547	2.4	957
24	7.11 Sec	612	4.4	1.5	28.8	1984	3.9	1166
25	10.67 Sec	359	5.9	1.8	38.6	2824	5.3	1579
26	14.22 Sec	461	7.3	2.1	31.3	3620	4.4	1948
27	21.33 Sec	78	9.1	2.4	25.0	4956	4.0	2523
28	28.44 Sec	186	10.1	2.5	15.7	6019	3.1	3014
29	42.67 Sec	213	10.6	2.5	12.0	7565	2.0	3702
30	56.89 Sec	243	10.5	2.3	6.8	8698	1.2	4095
31	85.33 Sec	57	9.2	2.0	3.7	9946	.82	4702
32	113.78 Sec	99	7.8	1.7	2.3	10630	.44	4991
33	170.67 Sec	3	6.3	1.4	1.9	11625	.40	5408
34	227.56 Sec	3	5.4	1.2	2.2	12526	.50	5838
35	341.33 Sec	15	4.7	1.0	2.8	14230	.51	6642
36	455.11 Sec	9	4.6	.9	4.1	16268	.50	7350
37	682.67 Sec	3	4.5	.8	4.5	19748	.49	8467
38	910.22 Sec	9	4.6	.8	5.2	23003	.53	9507

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	254	12.32	-50.04	999.99	11.05	200.88	620.96
3	192.00 Hz	192	-9.47	-39.02	999.99	-4.92	163.28	999.99
4	144.00 Hz	192	-4.98	-27.11	312.55	22.35	112.84	156.69
5	96.00 Hz	384	10.11	-17.66	8.00	.06	85.17	7.74
6	72.00 Hz	384	.57	-10.86	6.78	18.15	61.43	13.83
7	48.00 Hz	765	1.62	-4.47	2.85	3.40	43.47	5.01
8	36.00 Hz	192	2.69	-4.36	5.29	7.37	33.79	17.10
9	24.00 Hz	287	-1.81	-2.40	4.79	9.61	22.82	8.92
10	18.00 Hz	670	-.75	-1.42	1.06	8.38	18.11	3.14
11	12.00 Hz	192	-.89	-.65	.24	5.89	13.76	.59
12	9.00 Hz	288	.59	-1.37	.12	8.08	11.26	.27
13	6.00 Hz	192	-.05	-.08	.09	5.32	8.18	.43
14	4.50 Hz	480	.25	.02	.18	2.94	7.15	.71
15	3.00 Hz	832	-1.12	-.78	11.70	3.30	7.35	30.27
16	2.25 Hz	3360	-1.19	-.55	7.08	1.69	6.04	6.83
17	1.50 Hz	848	-1.19	-.39	7.56	1.89	5.37	12.34
18	1.13 Hz	2528	-.10	.07	1.37	2.44	2.97	4.19
19	1.33 Sec	623	-.148	-.365	3.402	2.745	3.250	13.245
20	1.78 Sec	399	.152	-.267	3.467	1.703	1.611	9.578
21	2.67 Sec	944	1.539	.175	97.814	-1.948	1.601	99.999
22	3.56 Sec	188	.050	.101	.438	1.866	.191	.708
23	5.33 Sec	672	.222	-.237	.024	1.718	.796	.037
24	7.11 Sec	612	.224	-.160	.008	1.680	.652	.007
25	10.67 Sec	359	.344	.076	.013	1.613	.573	.011
26	14.22 Sec	461	.311	-.064	.007	1.444	.663	.005
27	21.33 Sec	78	.340	-.003	.007	1.257	.814	.002
28	28.44 Sec	186	.259	.072	.008	1.113	.766	.006
29	42.67 Sec	213	.217	.090	.002	.817	.815	.005
30	56.89 Sec	243	.125	.158	.002	.660	.717	.002
31	85.33 Sec	57	.114	.126	.000	.446	.559	.001
32	113.78 Sec	99	.054	.122	.003	.295	.482	.006
33	170.67 Sec	3	.093	.056	.001	.230	.362	.002
34	227.56 Sec	3	.010	.083	.001	.198	.272	.001
35	341.33 Sec	15	.035	.030	.004	.188	.159	.003
36	455.11 Sec	9	.039	.061	.000	.165	.168	.000
37	682.67 Sec	3	.046	.072	.001	.055	.203	.004
38	910.22 Sec	9	.018	.034	.018	.143	.111	.016

PHOENIX GEOSCIENCE

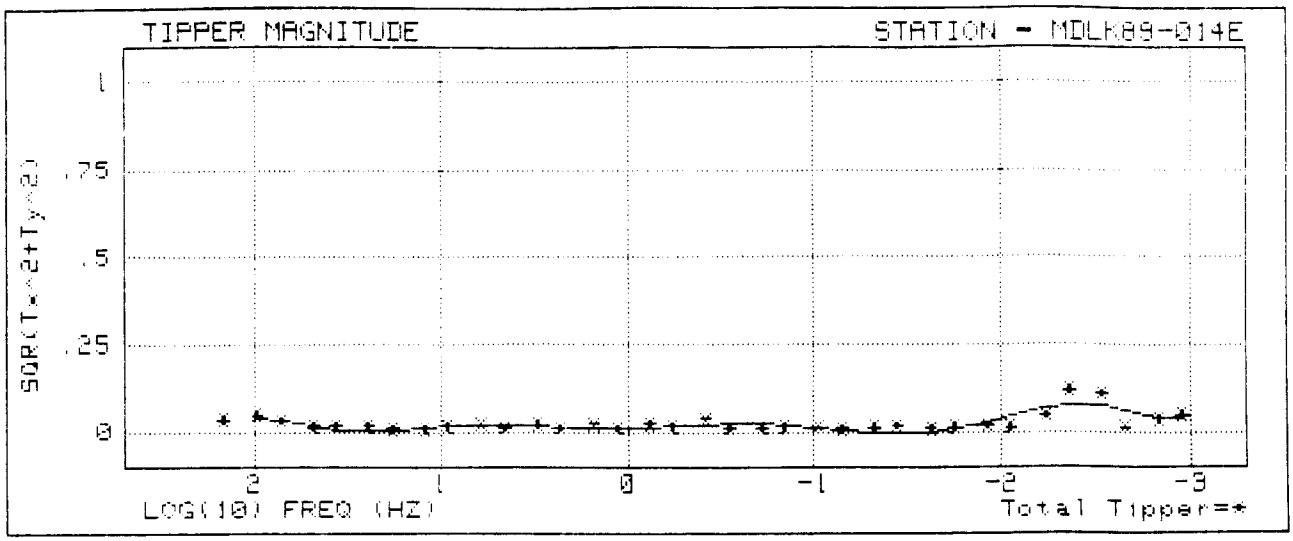
MT Site: MDLK89-014E

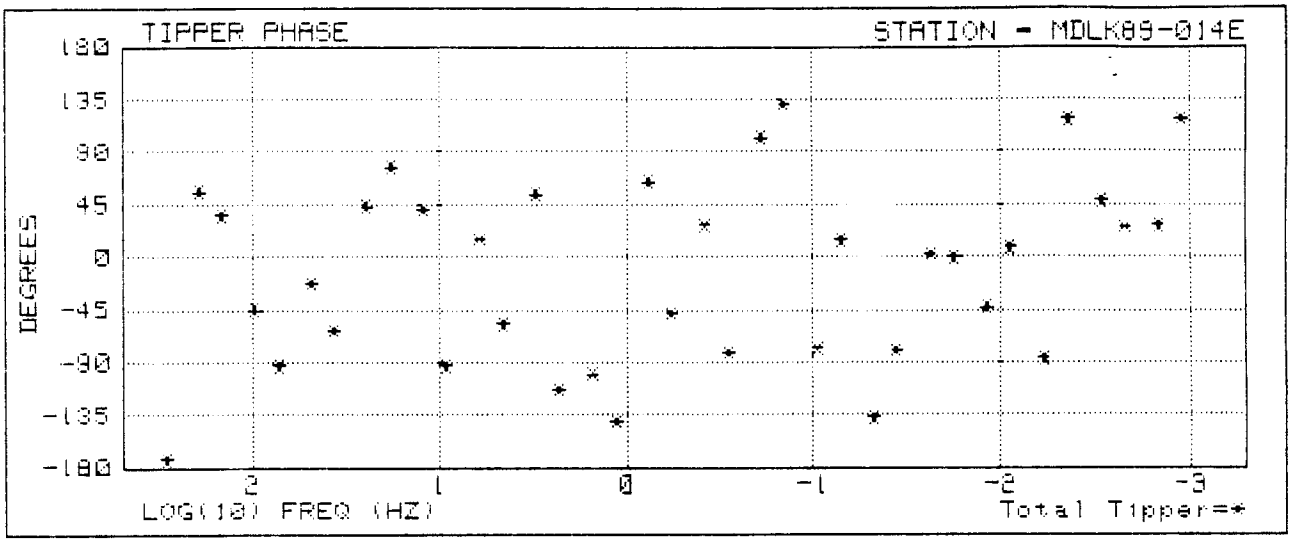
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

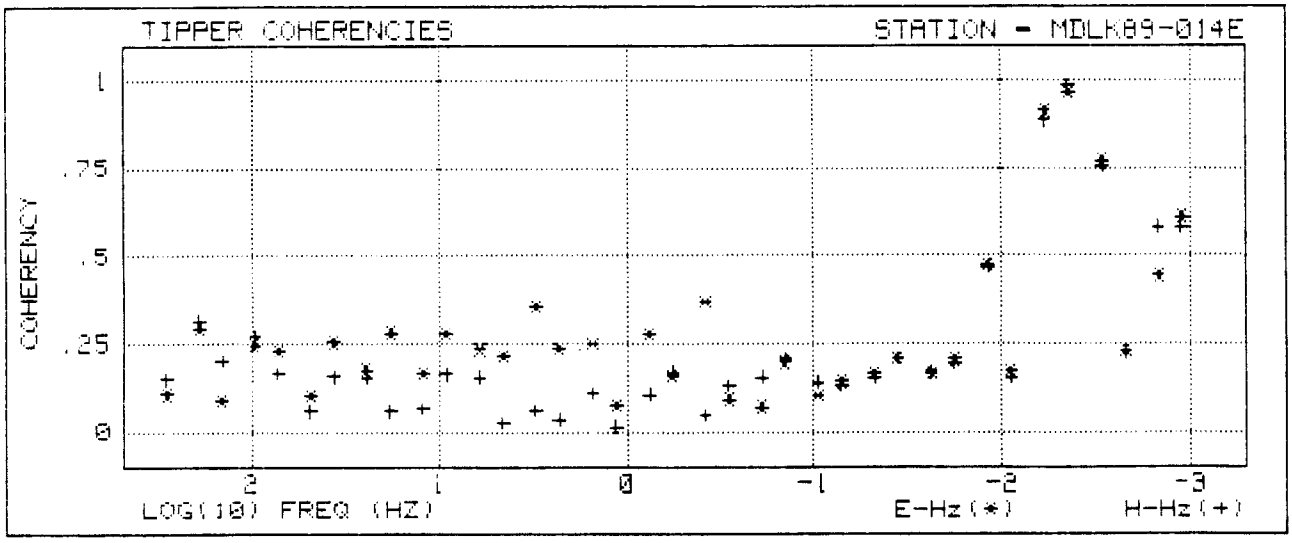
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	254	45.79	-207.45	999.99	11.25	-59.27	518.87
3	192.00 Hz	192	-58.62	-162.77	999.99	-9.47	-38.88	999.99
4	144.00 Hz	192	-17.03	-130.86	158.32	-5.18	-27.17	79.37
5	96.00 Hz	384	-24.74	-98.58	9.96	8.17	-14.09	9.64
6	72.00 Hz	384	-29.17	-76.63	11.27	3.42	-12.92	22.97
7	48.00 Hz	765	-2.51	-55.49	3.15	1.45	-4.49	5.53
8	36.00 Hz	192	-9.58	-40.90	3.46	.36	-3.63	11.18
9	24.00 Hz	287	-7.13	-29.27	.86	2.52	-.74	1.60
10	18.00 Hz	670	-5.73	-22.98	.73	.30	-.85	2.17
11	12.00 Hz	192	-6.29	-16.62	.19	.92	-.91	.47
12	9.00 Hz	288	-4.42	-12.59	.08	1.21	.33	.19
13	6.00 Hz	192	-3.66	-9.72	.04	.47	.48	.19
14	4.50 Hz	480	-3.06	-7.62	.08	.52	-.05	.32
15	3.00 Hz	832	-1.86	-4.51	4.15	.43	-1.56	10.74
16	2.25 Hz	3360	-2.65	-4.02	.49	.52	.27	.47
17	1.50 Hz	848	-1.72	-3.11	1.01	.46	-.52	1.65
18	1.13 Hz	2528	-1.15	-2.52	.80	.06	-.40	2.46
19	1.33 Sec	623	-1.263	-1.863	.832	-.301	-.202	3.239
20	1.78 Sec	399	-1.235	-1.476	1.789	.037	.132	4.943
21	2.67 Sec	944	-2.415	-1.156	39.916	1.565	.427	99.999
22	3.56 Sec	188	-.957	-.856	.117	-.050	-.036	.190
23	5.33 Sec	672	-.832	-.667	.009	.174	.091	.013
24	7.11 Sec	612	-.837	-.638	.003	.220	.099	.003
25	10.67 Sec	359	-.711	-.557	.006	.344	.063	.005
26	14.22 Sec	461	-.677	-.536	.005	.283	.107	.004
27	21.33 Sec	78	-.553	-.519	.004	.281	.138	.001
28	28.44 Sec	186	-.482	-.462	.004	.235	.122	.003
29	42.67 Sec	213	-.362	-.423	.000	.188	.123	.001
30	56.89 Sec	243	-.266	-.371	.000	.155	.124	.000
31	85.33 Sec	57	-.178	-.297	.000	.130	.110	.000
32	113.78 Sec	99	-.149	-.240	.000	.079	.107	.001
33	170.67 Sec	3	-.084	-.181	.000	.069	.075	.000
34	227.56 Sec	3	-.067	-.146	.000	.050	.041	.000
35	341.33 Sec	15	-.067	-.108	.000	.032	.037	.000
36	455.11 Sec	9	-.054	-.090	.000	.051	.044	.000
37	682.67 Sec	3	-.054	-.037	.001	.003	.073	.004
38	910.22 Sec	9	-.053	-.063	.001	.027	.017	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E







PHOENIX GEOSCIENCE

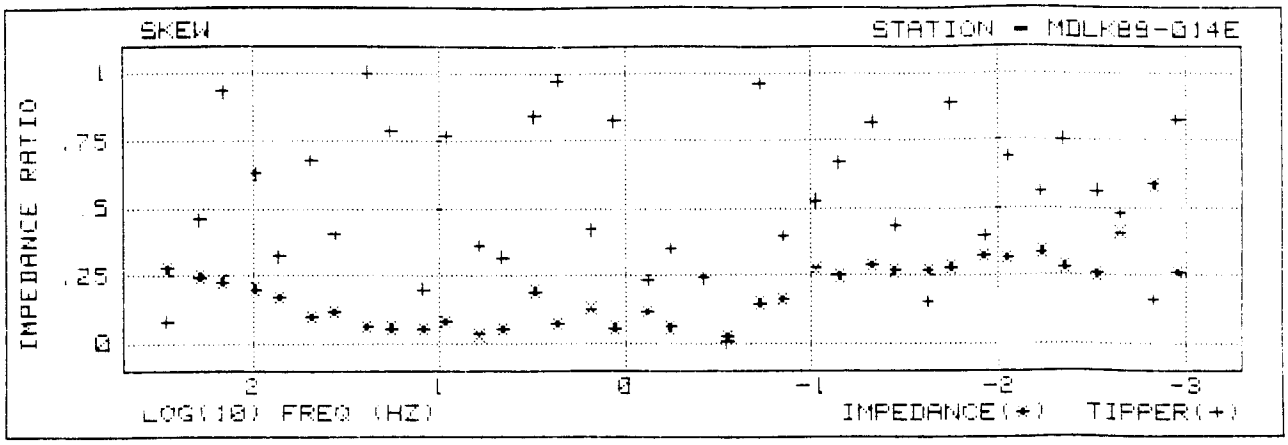
MT Site: MDLK89-014E

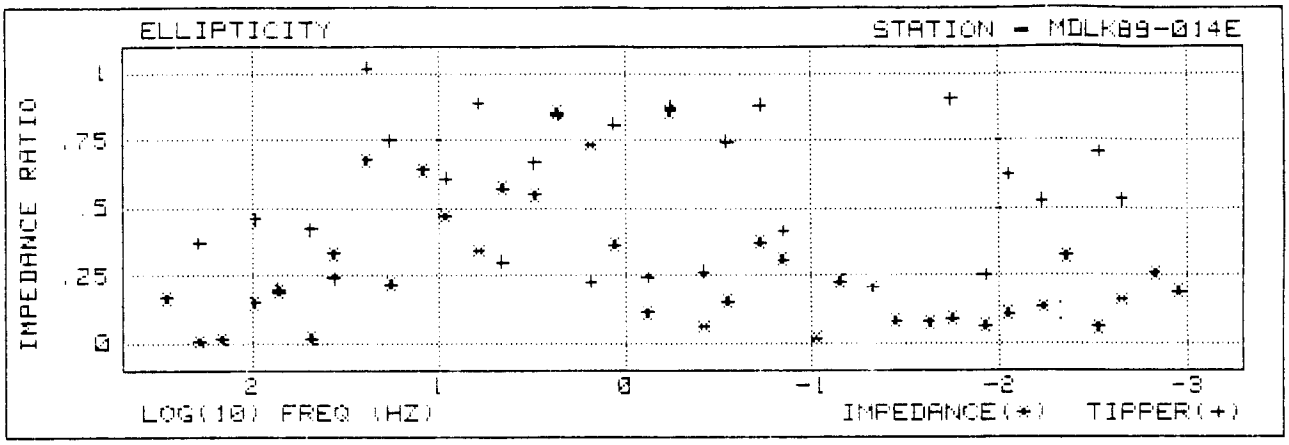
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

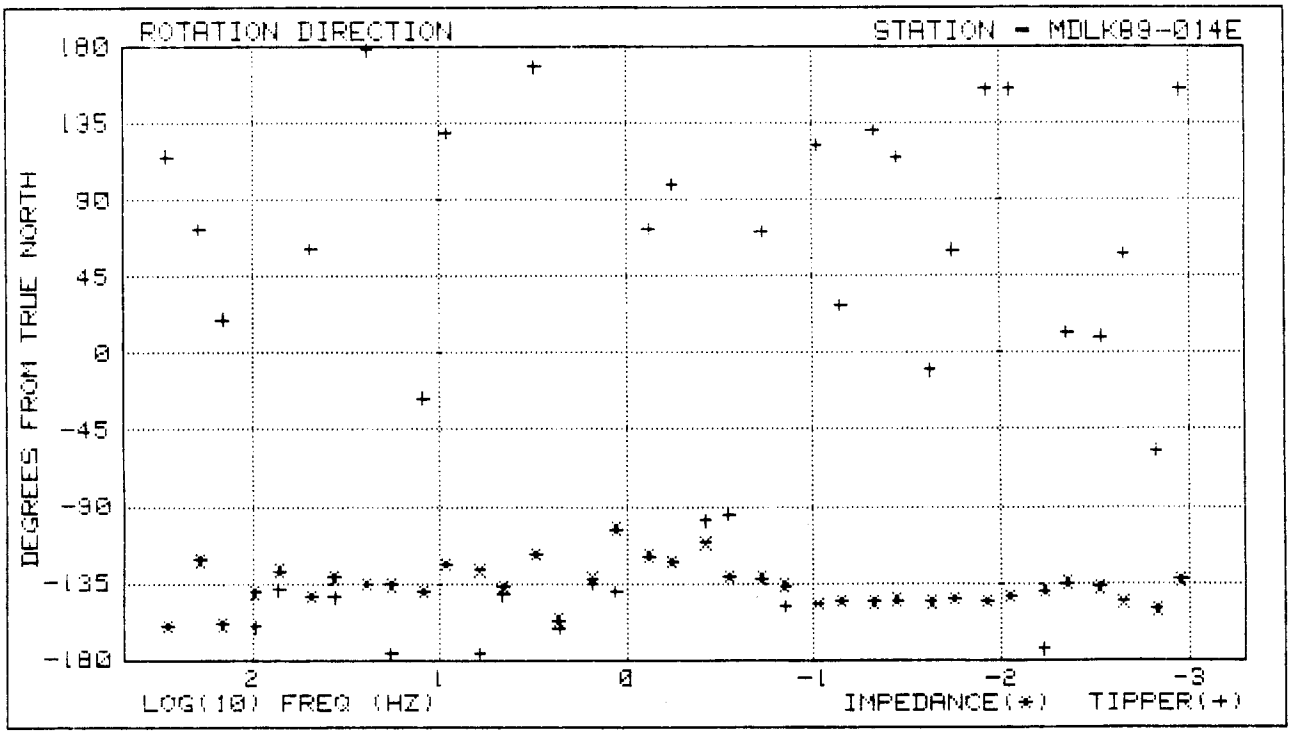
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	254	1.29	-173.50	.10	.15
3	192.00 Hz	192	1.63	55.19	.29	.31
4	144.00 Hz	192	.03	34.78	.08	.20
5	96.00 Hz	384	.04	-45.83	.24	.27
6	72.00 Hz	384	.03	-93.74	.22	.16
7	48.00 Hz	765	.01	-23.47	.10	.05
8	36.00 Hz	192	.01	-63.38	.25	.15
9	24.00 Hz	287	.01	42.59	.17	.15
10	18.00 Hz	670	.00	76.33	.28	.06
11	12.00 Hz	192	.01	39.70	.16	.06
12	9.00 Hz	288	.01	-93.74	.27	.16
13	6.00 Hz	192	.02	14.53	.23	.15
14	4.50 Hz	480	.01	-57.75	.21	.02
15	3.00 Hz	832	.02	52.56	.35	.06
16	2.25 Hz	3360	.01	-113.84	.23	.03
17	1.50 Hz	848	.02	-101.03	.25	.11
18	1.13 Hz	2528	.01	-141.33	.07	.01
19	1.33 Sec	623	.02	63.17	.28	.10
20	1.78 Sec	399	.01	-48.87	.15	.17
21	2.67 Sec	944	.03	26.28	.36	.04
22	3.56 Sec	188	.01	-82.49	.09	.13
23	5.33 Sec	672	.01	101.22	.07	.15
24	7.11 Sec	612	.01	130.32	.19	.20
25	10.67 Sec	359	.01	-78.89	.10	.14
26	14.22 Sec	461	.01	13.74	.14	.13
27	21.33 Sec	78	.01	-137.89	.16	.15
28	28.44 Sec	186	.02	-80.54	.20	.21
29	42.67 Sec	213	.01	1.51	.16	.17
30	56.89 Sec	243	.01	-.92	.20	.19
31	85.33 Sec	57	.02	-44.07	.47	.47
32	113.78 Sec	99	.01	7.30	.17	.15
33	170.67 Sec	3	.04	-87.03	.91	.88
34	227.56 Sec	3	.12	116.38	.96	.98
35	341.33 Sec	15	.11	47.29	.77	.75
36	455.11 Sec	9	.01	24.75	.23	.22
37	682.67 Sec	3	.03	26.54	.44	.58
38	910.22 Sec	9	.05	117.20	.61	.58

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E







PHOENIX GEOSCIENCE

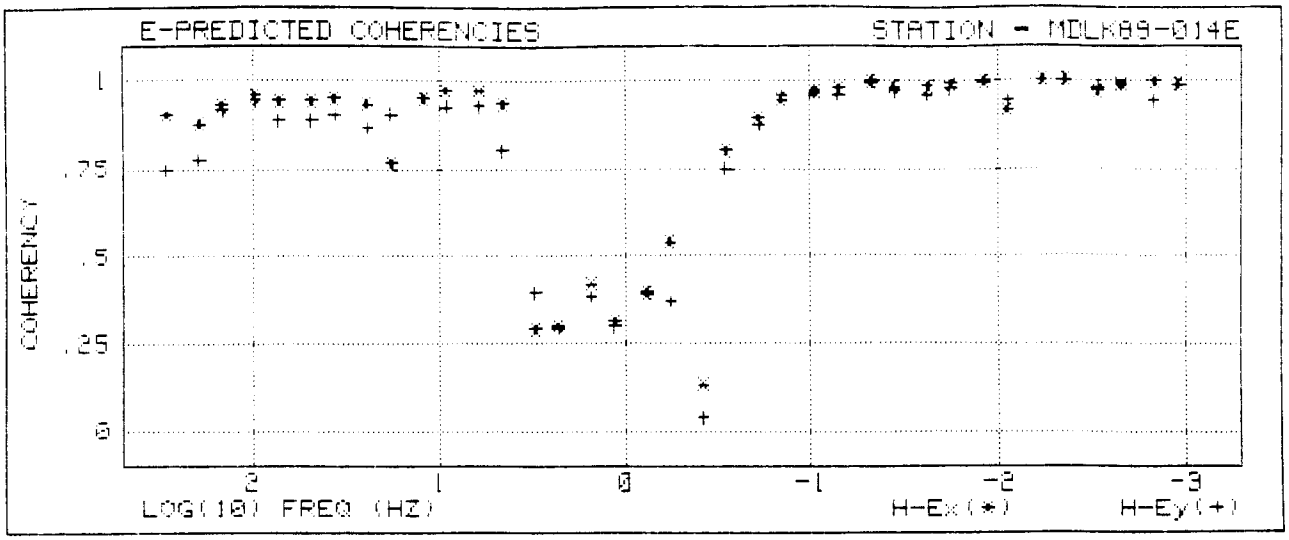
MT Site: MDLK89-014E

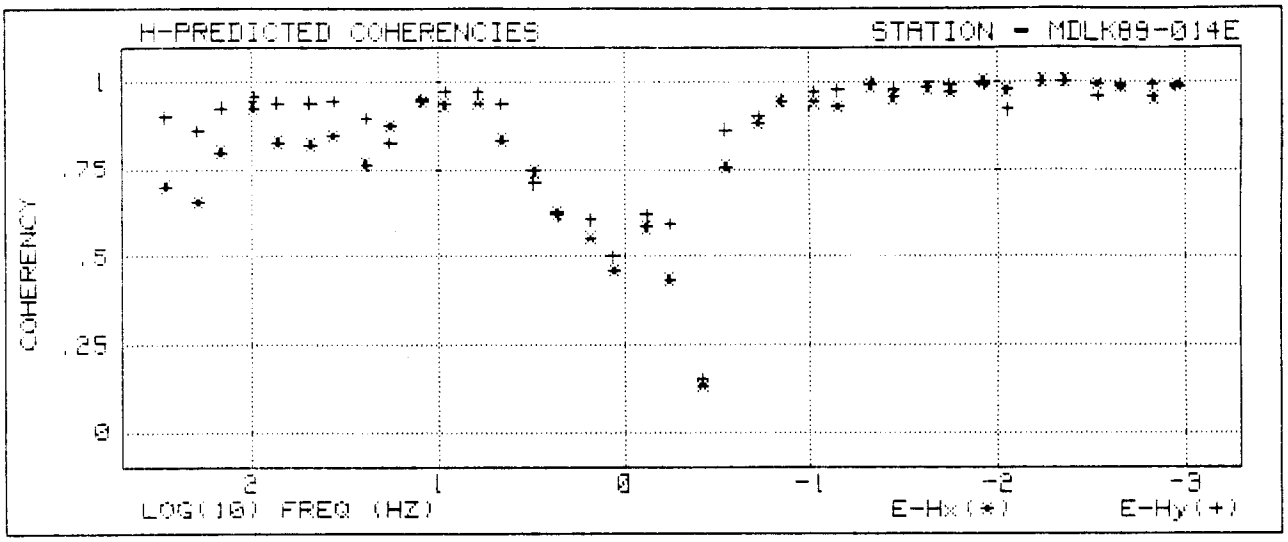
SKEW, ELLIPTICITY AND STRIKE

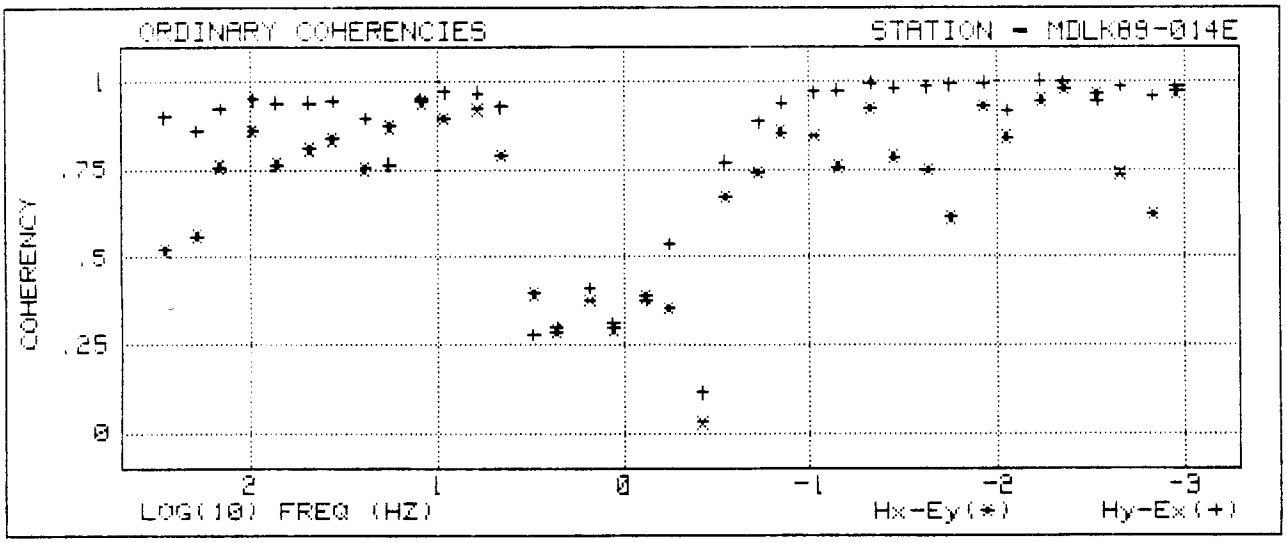
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	254	.27	.16	-160.46	.08	10.46	114.54
3	192.00 Hz	192	.24	.00	-121.93	.45	.37	72.10
4	144.00 Hz	192	.22	.01	-159.49	.93	1.47	19.01
5	96.00 Hz	384	.20	.14	-140.86	.63	.45	-160.90
6	72.00 Hz	384	.17	.19	-128.22	.32	.20	-139.54
7	48.00 Hz	765	.10	.01	-143.26	.67	.42	60.37
8	36.00 Hz	192	.11	.33	-132.01	.40	.24	-143.56
9	24.00 Hz	287	.06	.67	-136.21	.99	1.01	177.41
10	18.00 Hz	670	.05	.21	-136.49	.78	.74	-176.39
11	12.00 Hz	192	.05	.63	-140.52	.20	2.28	-27.31
12	9.00 Hz	288	.08	.47	-124.49	.76	.61	128.69
13	6.00 Hz	192	.03	.34	-127.79	.36	.88	-176.70
14	4.50 Hz	480	.05	.57	-137.34	.32	.30	-142.15
15	3.00 Hz	832	.19	.54	-118.63	.83	.66	167.18
16	2.25 Hz	3360	.07	.85	-157.12	.97	.84	-161.99
17	1.50 Hz	848	.13	.73	-132.77	.42	.22	-135.99
18	1.13 Hz	2528	.05	.36	-103.67	.82	.80	-140.31
19	1.33 Sec	623	.11	.11	-119.64	.23	.24	72.35
20	1.78 Sec	399	.05	.85	-122.98	.35	.87	97.95
21	2.67 Sec	944	1.13	.06	-112.10	.24	.26	-98.99
22	3.56 Sec	188	.02	.15	-131.79	.00	.74	-95.23
23	5.33 Sec	672	.14	.37	-132.64	.96	.88	70.61
24	7.11 Sec	612	.16	.31	-137.01	.39	.41	-149.31
25	10.67 Sec	359	.27	.02	-147.83	.52	2.01	121.32
26	14.22 Sec	461	.24	.22	-146.37	.66	2.23	27.11
27	21.33 Sec	78	.28	.20	-146.65	.82	1.94	129.88
28	28.44 Sec	186	.26	.08	-145.50	.43	4.11	114.11
29	42.67 Sec	213	.27	.07	-146.48	.15	1.83	-10.86
30	56.89 Sec	243	.28	.09	-144.82	.88	.90	59.49
31	85.33 Sec	57	.32	.06	-146.15	.39	.25	154.07
32	113.78 Sec	99	.31	.11	-143.09	.68	.62	153.97
33	170.67 Sec	3	.33	.13	-140.14	.56	.52	-174.20
34	227.56 Sec	3	.28	.32	-135.68	.75	2.07	11.42
35	341.33 Sec	15	.26	.06	-137.91	.56	.70	9.01
36	455.11 Sec	9	.41	.16	-146.56	.47	.53	57.71
37	682.67 Sec	3	.58	.26	-151.19	.16	9.71	-57.38
38	910.22 Sec	9	.26	.19	-133.62	.82	1.82	153.95

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E







PHOENIX GEOSCIENCE

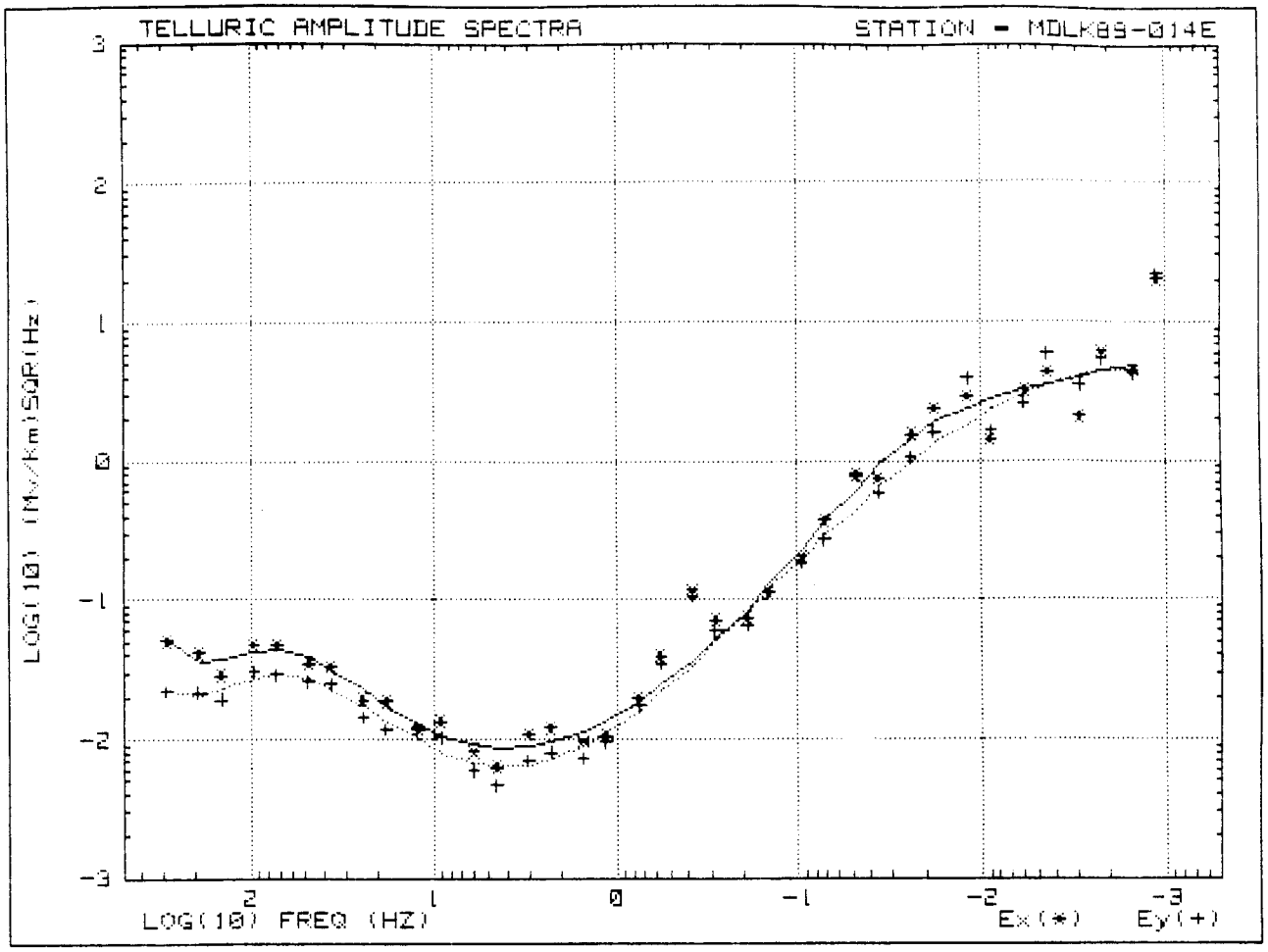
MT Site: MDLK89-014E

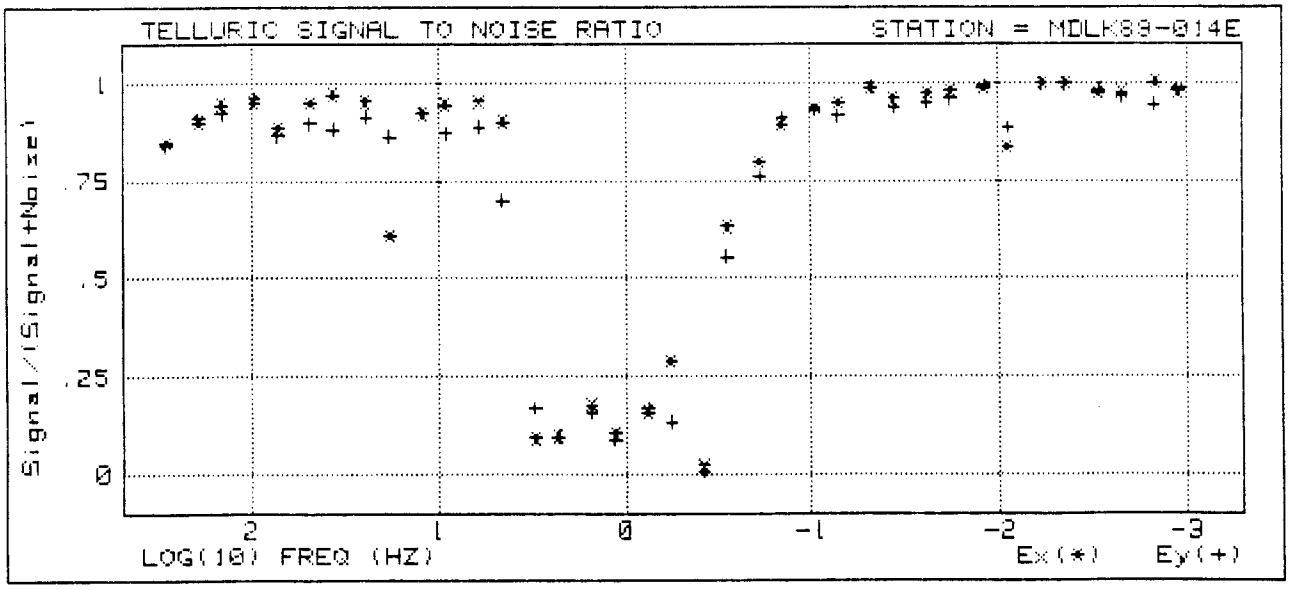
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	254	.90	.74	.70	.90	.52	.90
3	192.00 Hz	192	.87	.77	.65	.86	.56	.86
4	144.00 Hz	192	.92	.91	.79	.92	.75	.92
5	96.00 Hz	384	.95	.94	.92	.95	.86	.94
6	72.00 Hz	384	.94	.88	.82	.94	.76	.94
7	48.00 Hz	765	.94	.88	.82	.94	.81	.94
8	36.00 Hz	192	.94	.90	.84	.94	.83	.94
9	24.00 Hz	287	.93	.86	.76	.89	.75	.89
10	18.00 Hz	670	.76	.90	.87	.82	.87	.76
11	12.00 Hz	192	.95	.95	.94	.94	.94	.94
12	9.00 Hz	288	.97	.92	.93	.97	.89	.97
13	6.00 Hz	192	.97	.93	.93	.97	.92	.96
14	4.50 Hz	480	.93	.80	.83	.93	.79	.92
15	3.00 Hz	832	.29	.39	.74	.71	.39	.28
16	2.25 Hz	3360	.30	.29	.62	.61	.28	.29
17	1.50 Hz	848	.42	.38	.55	.60	.37	.41
18	1.13 Hz	2528	.31	.29	.46	.50	.29	.31
19	1.33 Sec	623	.39	.39	.58	.62	.38	.38
20	1.78 Sec	399	.53	.37	.43	.59	.35	.53
21	2.67 Sec	944	.13	.03	.13	.14	.03	.11
22	3.56 Sec	188	.80	.75	.75	.86	.67	.77
23	5.33 Sec	672	.89	.87	.88	.90	.74	.88
24	7.11 Sec	612	.94	.95	.94	.94	.85	.93
25	10.67 Sec	359	.97	.96	.94	.97	.84	.97
26	14.22 Sec	461	.97	.95	.93	.97	.75	.97
27	21.33 Sec	78	.99	.99	.99	.99	.92	.99
28	28.44 Sec	186	.98	.97	.95	.98	.78	.98
29	42.67 Sec	213	.98	.96	.98	.98	.74	.98
30	56.89 Sec	243	.99	.97	.97	.99	.61	.99
31	85.33 Sec	57	.99	1.00	1.00	.99	.93	.99
32	113.78 Sec	99	.91	.94	.97	.92	.84	.91
33	170.67 Sec	3	1.00	1.00	1.00	1.00	.94	1.00
34	227.56 Sec	3	1.00	1.00	1.00	1.00	.97	.99
35	341.33 Sec	15	.97	.98	.99	.95	.96	.94
36	455.11 Sec	9	.99	.98	.98	.99	.73	.98
37	682.67 Sec	3	.99	.94	.95	.99	.62	.95
38	910.22 Sec	9	.98	.99	.99	.98	.97	.98

PHOENIX GEOSCIENCE

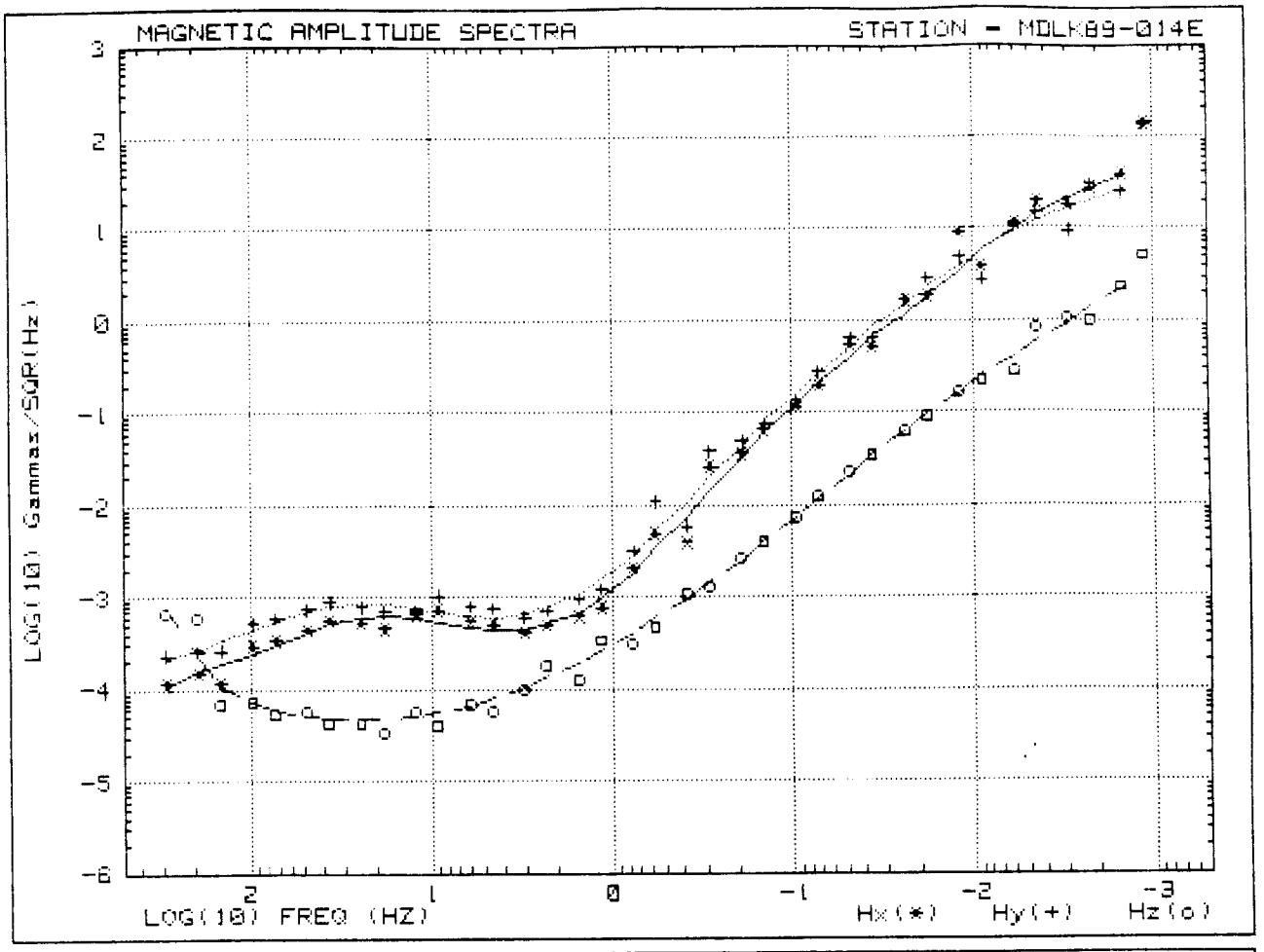
MT Site: MDLK89-014E

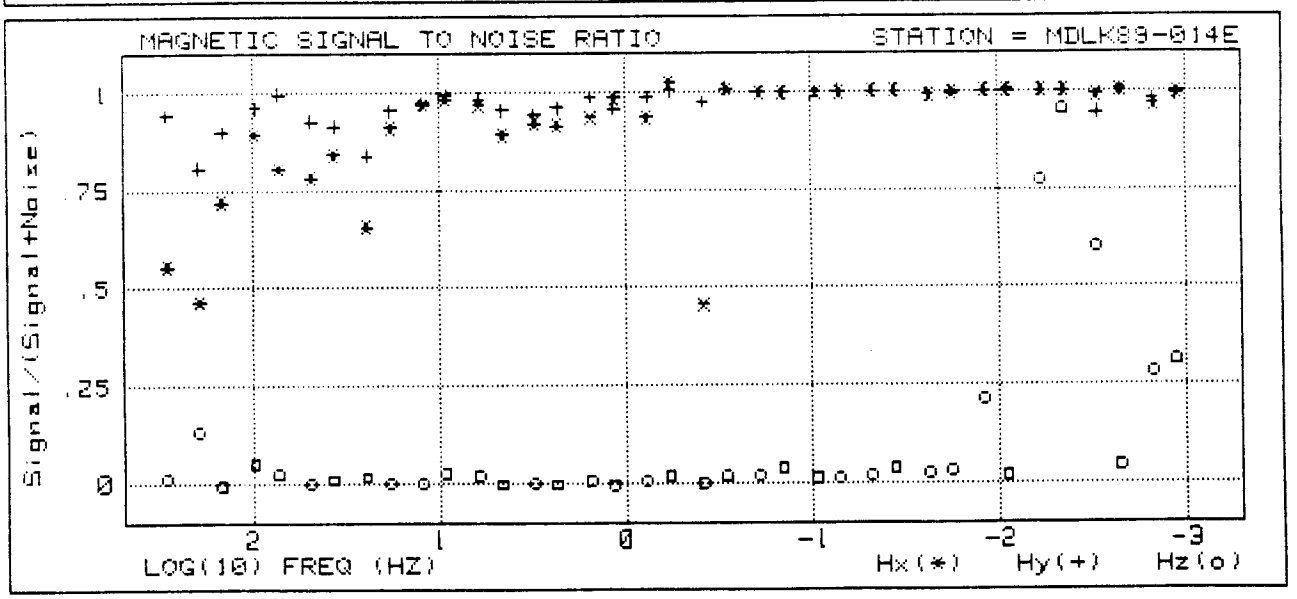




PHOENIX GEOSCIENCE

MT Site: MDLK89-014E





PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	254	1.13E-04	2.27E-04	7.17E-04	5.00E-02	2.20E-02
3	192.00 Hz	192	1.48E-04	2.54E-04	6.33E-04	4.07E-02	2.13E-02
4	144.00 Hz	192	1.14E-04	2.58E-04	7.12E-05	2.84E-02	1.89E-02
5	96.00 Hz	384	2.88E-04	5.22E-04	7.84E-05	4.65E-02	3.03E-02
6	72.00 Hz	384	3.33E-04	5.85E-04	5.57E-05	4.67E-02	2.84E-02
7	48.00 Hz	765	4.29E-04	7.28E-04	6.14E-05	3.47E-02	2.54E-02
8	36.00 Hz	192	5.54E-04	8.73E-04	4.38E-05	3.27E-02	2.46E-02
9	24.00 Hz	287	5.19E-04	7.67E-04	4.58E-05	1.89E-02	1.41E-02
10	18.00 Hz	670	4.47E-04	6.82E-04	3.50E-05	1.84E-02	1.15E-02
11	12.00 Hz	192	6.49E-04	6.94E-04	5.94E-05	1.15E-02	1.18E-02
12	9.00 Hz	288	7.18E-04	1.01E-03	4.17E-05	1.32E-02	1.02E-02
13	6.00 Hz	192	5.34E-04	7.79E-04	7.24E-05	7.97E-03	5.82E-03
14	4.50 Hz	480	4.94E-04	7.43E-04	6.01E-05	6.18E-03	4.54E-03
15	3.00 Hz	832	4.04E-04	5.99E-04	1.05E-04	1.07E-02	6.85E-03
16	2.25 Hz	3360	4.86E-04	6.97E-04	1.89E-04	1.19E-02	7.91E-03
17	1.50 Hz	848	6.09E-04	9.46E-04	1.34E-04	9.47E-03	7.18E-03
18	1.13 Hz	2528	7.59E-04	1.20E-03	3.53E-04	1.05E-02	9.31E-03
19	1.33 Sec	623	2.06E-03	3.13E-03	3.19E-04	1.92E-02	1.73E-02
20	1.78 Sec	399	4.81E-03	1.08E-02	4.88E-04	3.91E-02	3.40E-02
21	2.67 Sec	944	3.84E-03	5.82E-03	1.14E-03	1.18E-01	1.06E-01
22	3.56 Sec	188	2.58E-02	3.73E-02	1.36E-03	7.02E-02	5.84E-02
23	5.33 Sec	672	3.54E-02	4.84E-02	2.75E-03	7.33E-02	6.40E-02
24	7.11 Sec	612	6.45E-02	7.42E-02	4.22E-03	1.11E-01	1.13E-01
25	10.67 Sec	359	1.12E-01	1.35E-01	7.57E-03	2.01E-01	1.85E-01
26	14.22 Sec	461	1.94E-01	2.70E-01	1.29E-02	3.68E-01	2.67E-01
27	21.33 Sec	78	5.43E-01	6.27E-01	2.37E-02	7.86E-01	7.63E-01
28	28.44 Sec	186	5.05E-01	6.40E-01	3.58E-02	7.33E-01	5.83E-01
29	42.67 Sec	213	1.65E+00	1.65E+00	6.50E-02	1.53E+00	1.05E+00
30	56.89 Sec	243	1.83E+00	2.88E+00	9.29E-02	2.35E+00	1.59E+00
31	85.33 Sec	57	8.97E+00	4.77E+00	1.75E-01	2.87E+00	3.89E+00
32	113.78 Sec	99	3.87E+00	2.75E+00	2.33E-01	1.39E+00	1.63E+00
33	170.67 Sec	3	1.14E+01	1.04E+01	2.90E-01	3.16E+00	2.56E+00
34	227.56 Sec	3	1.92E+01	1.42E+01	8.88E-01	4.26E+00	5.77E+00
35	341.33 Sec	15	1.75E+01	9.17E+00	1.12E+00	2.05E+00	3.43E+00
36	455.11 Sec	9	2.70E+01	2.91E+01	1.07E+00	6.06E+00	5.34E+00
37	682.67 Sec	3	3.83E+01	2.42E+01	2.48E+00	4.44E+00	4.19E+00
38	910.22 Sec	9	1.39E+02	1.32E+02	5.41E+00	1.98E+01	2.19E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	254	.554	.942	.016	.848	.838
3	192.00 Hz	192	.463	.804	.135	.900	.908
4	144.00 Hz	192	.717	.898	0.000	.943	.920
5	96.00 Hz	384	.890	.957	.056	.950	.959
6	72.00 Hz	384	.804	.994	.027	.885	.864
7	48.00 Hz	765	.779	.924	.002	.946	.895
8	36.00 Hz	192	.839	.912	.014	.968	.881
9	24.00 Hz	287	.653	.835	.020	.951	.911
10	18.00 Hz	670	.908	.953	.004	.607	.861
11	12.00 Hz	192	.967	.970	.005	.920	.923
12	9.00 Hz	288	.980	.991	.029	.944	.870
13	6.00 Hz	192	.964	.980	.024	.952	.887
14	4.50 Hz	480	.889	.951	.001	.899	.699
15	3.00 Hz	832	.917	.940	.004	.089	.167
16	2.25 Hz	3360	.912	.958	.001	.092	.094
17	1.50 Hz	848	.934	.985	.012	.176	.155
18	1.13 Hz	2528	.982	.954	.000	.101	.088
19	1.33 Sec	623	.933	.985	.011	.155	.165
20	1.78 Sec	399	1.000	1.000	.026	.285	.131
21	2.67 Sec	944	.454	.973	.004	.020	.002
22	3.56 Sec	188	1.000	1.000	.020	.630	.553
23	5.33 Sec	672	.996	.997	.021	.797	.761
24	7.11 Sec	612	.996	.996	.041	.891	.907
25	10.67 Sec	359	.995	.998	.019	.935	.930
26	14.22 Sec	461	.996	.999	.017	.947	.914
27	21.33 Sec	78	1.000	1.000	.021	.985	.987
28	28.44 Sec	186	1.000	.999	.042	.959	.934
29	42.67 Sec	213	.990	.990	.028	.973	.949
30	56.89 Sec	243	.993	.998	.036	.979	.959
31	85.33 Sec	57	1.000	1.000	.217	.985	.992
32	113.78 Sec	99	1.000	1.000	.022	.833	.884
33	170.67 Sec	3	1.000	1.000	.777	.998	.995
34	227.56 Sec	3	.999	1.000	.959	.997	.997
35	341.33 Sec	15	.989	.943	.608	.973	.982
36	455.11 Sec	9	1.000	1.000	.050	.975	.964
37	682.67 Sec	3	.965	.980	.286	1.000	.944
38	910.22 Sec	9	.995	.988	.316	.978	.983

PHOENIX GEOSCIENCE

MT Site: MDLK89-014E

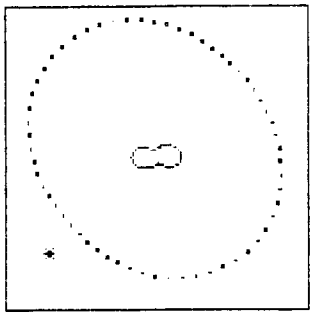
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

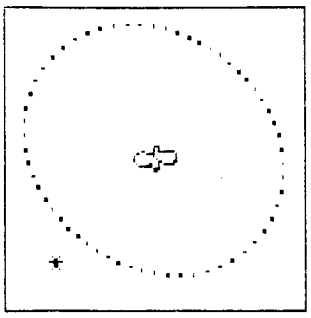
*=Rotation Direction

Zxy = ...
Zxx = ___

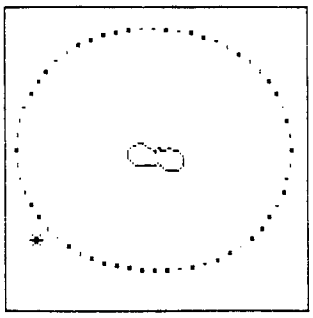
F=8 (36.0 Hz)



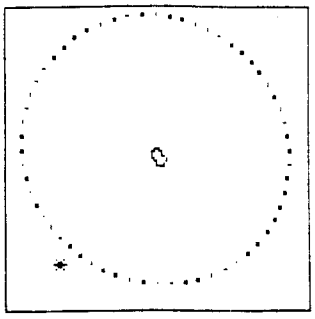
F=10 (18.0 Hz)



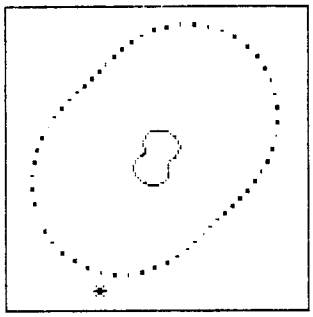
F=12 (9.0 Hz)



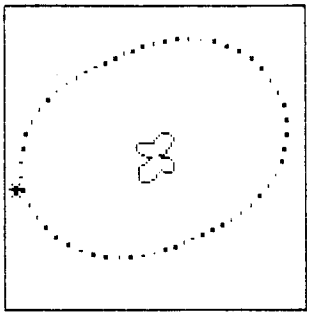
F=14 (4.5 Hz)



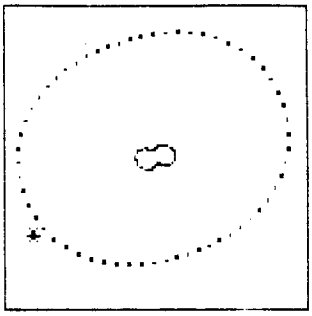
F=16 (2.3 Hz)



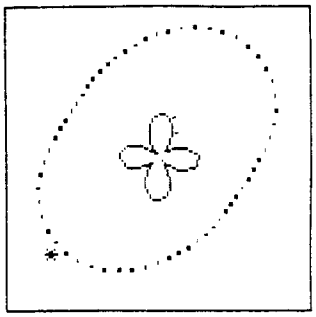
F=18 (1.1 Hz)



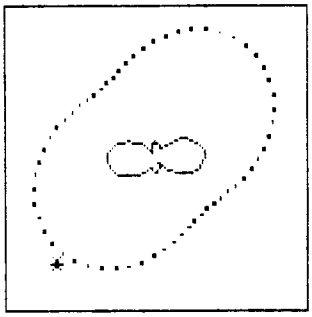
F=20 (.5625 Hz)



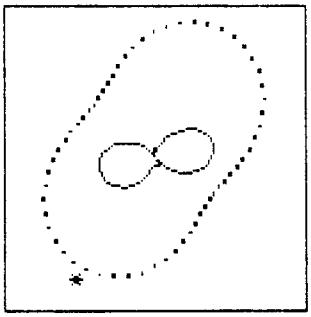
F=22 (.2813 Hz)



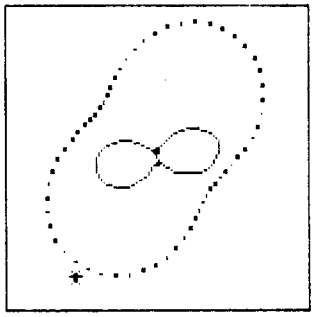
F=24 (.1406 Hz)



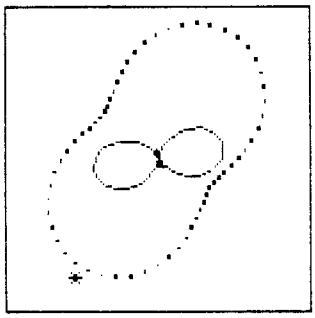
F=26 (.0703 Hz)



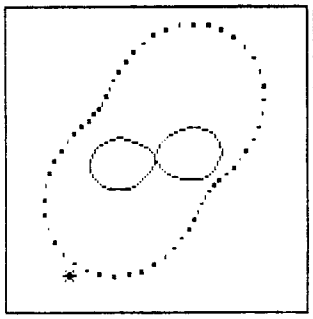
F=28 (.0352 Hz)



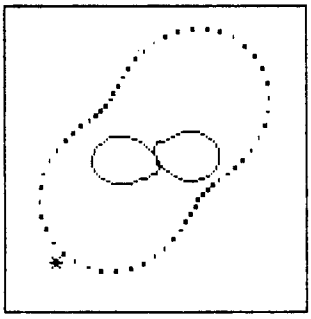
F=30 (.0176 Hz)



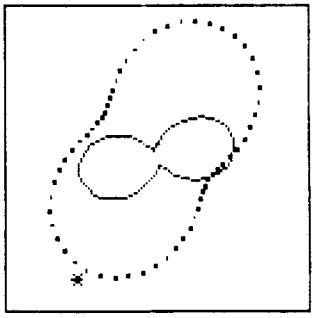
F=32 (.0088 Hz)



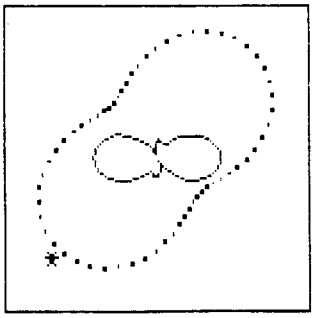
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-014a/015a/016a/

Operator:M. SNOW
Date: 24 Aug 1989
Time: 13:53:51

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#335-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#452-16Aug89-01
Sens-Ch07: C#205-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#235-16Aug89-01
Sens-Ch12: C#432-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-015s
Site Desc:T43N R4E
41,35,11 N 121,29,53 W
Elevation:7020 FT
Reference:MDLK89-014s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL452	+45 DEG
Hy	7	COIL205	+135 DEG
Hz	8	LOOP005	Doubled
Ex	9	200 M	+45 DEG
Ey	10	200 M	+135 DEG
Rx	1	COIL431	+45 DEG
Ry	2	COIL430	+135 DEG

Ex Pot Resist: 7.0 K Ohms
Ex Voltage: AC=36.0 mv, DC=105.0mv
Ey Pot Resist: 6.0 K Ohms
Ey Voltage: AC=28.1 mv, DC=____ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

OPERATOR LOG FOR MDLK89-014s/015E/016s/

Recorded XPR Files:

X#1	- SUM OF RUNS: a, b, and d.
X#2	- SUM OF RUNS: a, b, and d.
X#3	- SUM OF RUNS: a, b, and d.
X#4	- SUM OF RUNS: a, b, and d.
X#5	- SUM OF RUNS: a, b, and d.
X#6	- SUM OF RUNS: a, b, and d.
X#7	- SUM OF RUNS: a, b, and d.
X#8	- SUM OF RUNS: a, b. and d.
X#9	- SUM OF RUNS: a, b, and d.
X#10	- SUM OF RUNS: a, b, and d.
X#11	- SUM OF RUNS: a, b, and d.
X#12	- SUM OF RUNS: a, b, and d.
X#13	- SUM OF RUNS: a, b, and d.
X#14	- SUM OF RUNS: a, b, and d.
X#15	- SUM OF RUNS: a, b, and d.
X#16	- SUM OF RUNS: a, b, and d.
X#17	- SUM OF RUNS: a, b, and d.

Operator:SNOW/STEWART

Cultural Factors:
LG. CROSSCOUNTRY PWRLNS. APP. 11mi FROM SITE

Weather Conditions:
CLEAR AND COOL

Other Factors:
LOW SIGNAL

PHOENIX GEOSCIENCE

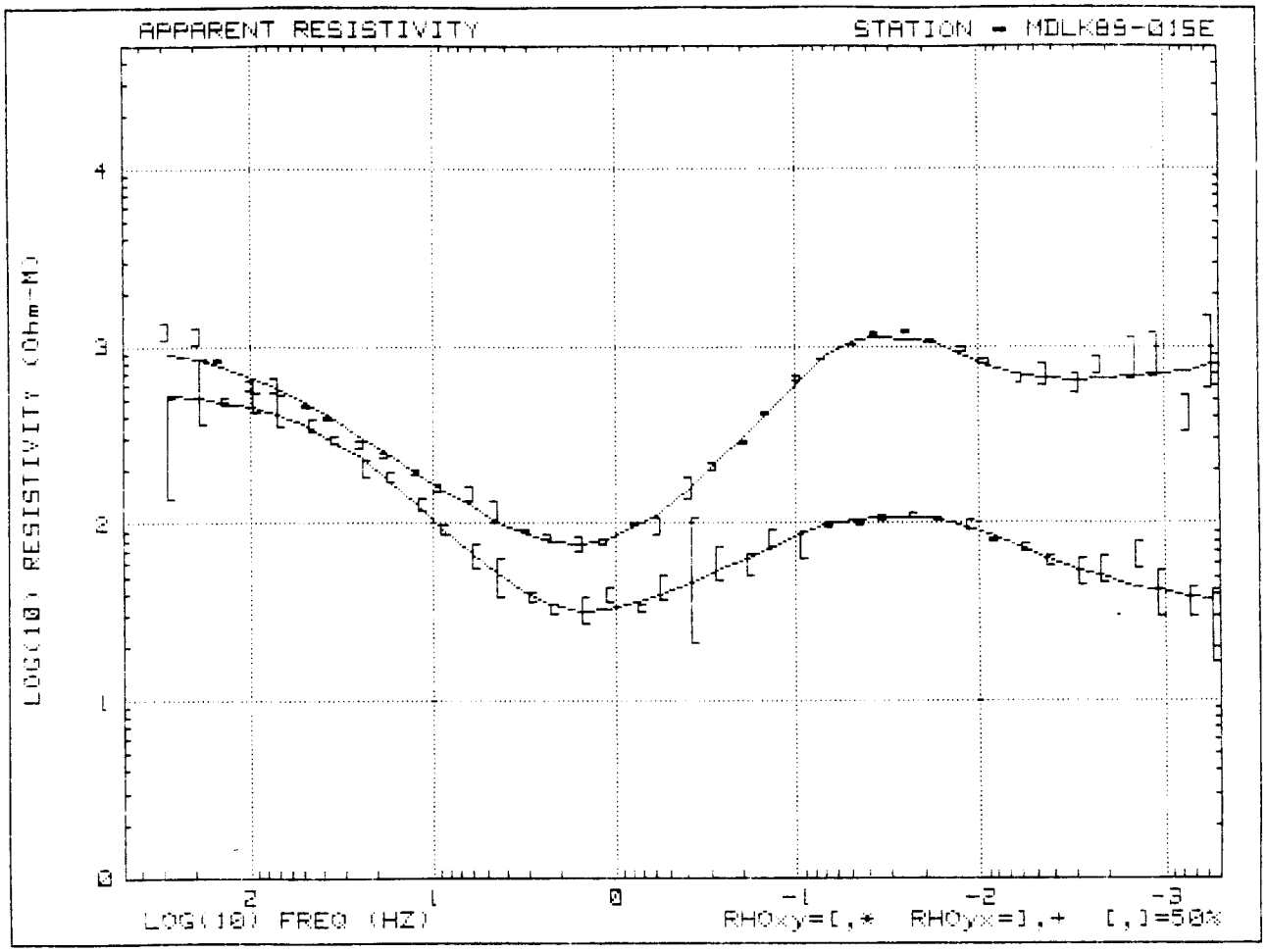
MT Site: MDLK89-015E

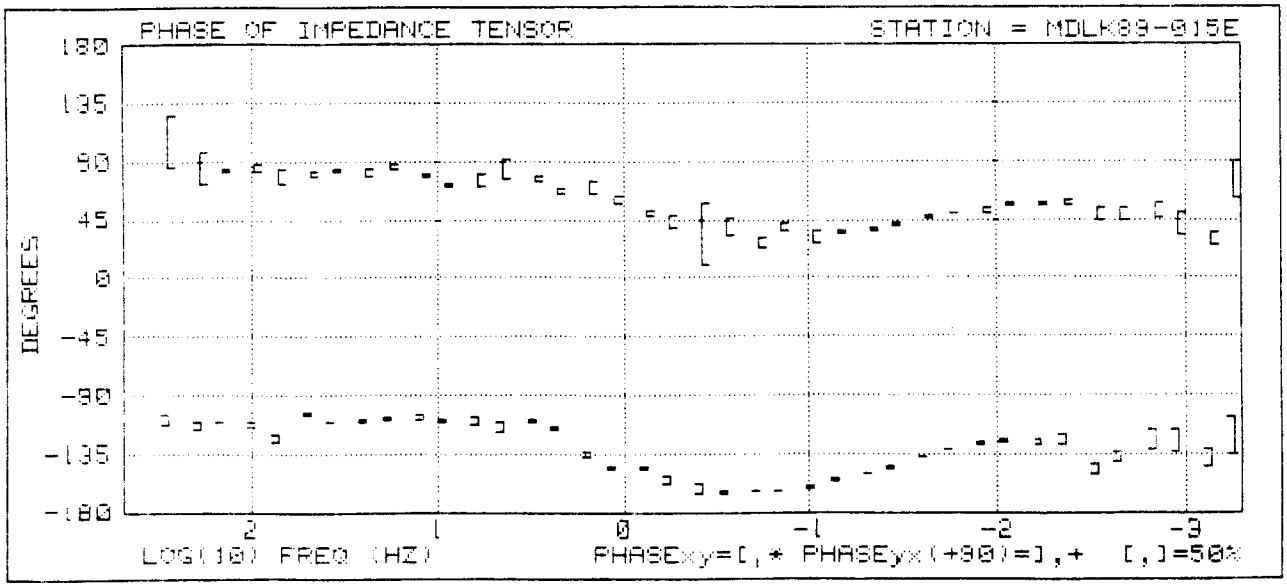
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

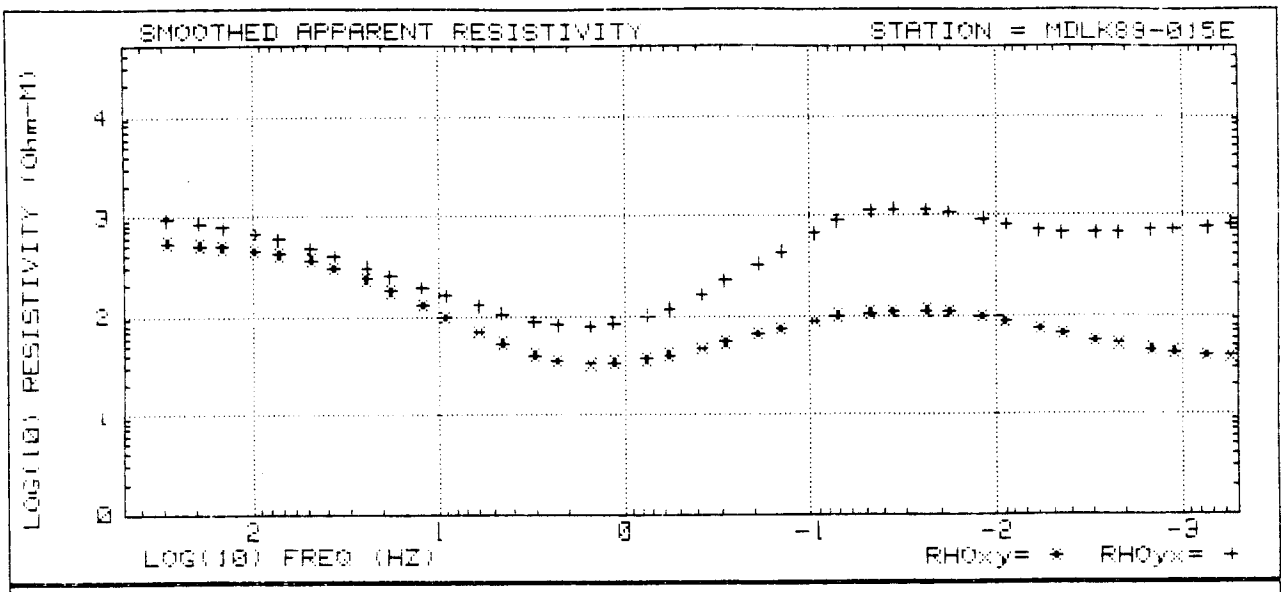
MT Site: MDLK89-015E

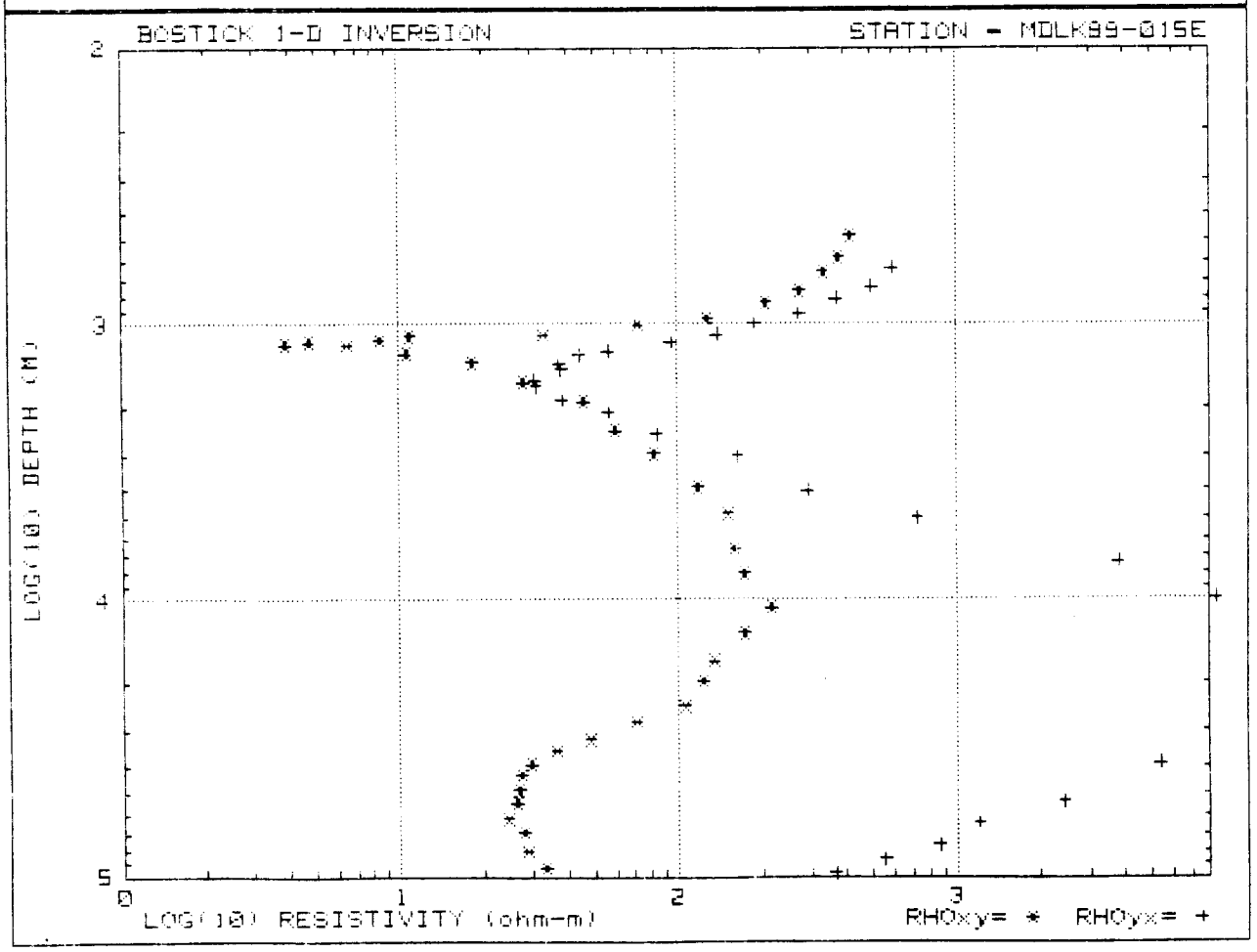




PHOENIX GEOSCIENCE

MT Site: MDLK89-015E





PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	444	265.9	99.9	1206.1	17.8	105.7	28.4	-109.0	4.7
3	192.00 Hz	237	559.5	86.1	1152.8	17.4	84.9	17.8	-113.8	4.6
4	144.00 Hz	1031	493.2	8.9	844.7	2.3	83.2	2.4	-110.5	.7
5	96.00 Hz	251	489.2	20.6	597.6	10.6	84.8	5.4	-112.6	2.9
6	72.00 Hz	241	436.1	36.6	596.9	15.4	78.9	8.9	-122.5	4.1
7	48.00 Hz	780	358.7	10.3	460.4	4.4	80.7	2.8	-104.7	1.2
8	36.00 Hz	1107	297.3	5.3	396.2	2.9	82.2	1.5	-110.5	.8
9	24.00 Hz	576	206.0	18.5	281.3	6.7	81.3	4.9	-110.2	1.9
10	18.00 Hz	864	182.4	10.3	246.5	4.6	85.0	2.8	-108.1	1.3
11	12.00 Hz	1248	128.1	9.9	155.6	5.8	79.3	2.7	-106.8	1.6
12	9.00 Hz	960	91.6	9.7	159.1	5.8	71.7	2.6	-108.9	1.6
13	6.00 Hz	958	65.7	27.8	147.3	13.7	75.3	7.0	-109.2	3.7
14	4.50 Hz	1534	49.1	47.6	116.0	23.2	83.2	11.1	-114.1	6.0
15	3.00 Hz	7584	38.9	9.7	91.2	3.7	76.9	2.7	-110.3	1.0
16	2.25 Hz	7584	32.9	10.0	84.9	4.3	66.9	2.7	-114.8	1.2
17	1.50 Hz	1840	32.3	27.7	76.5	12.8	68.9	7.0	-134.8	3.4
18	1.13 Hz	5072	39.7	14.0	78.2	3.9	60.3	3.8	-145.5	1.1
19	1.33 Sec	749	33.3	7.4	99.7	3.3	49.6	2.1	-145.8	.9
20	1.78 Sec	640	43.5	26.9	96.4	17.1	43.7	6.8	-155.2	4.5
21	2.67 Sec	1044	47.9	99.9	158.5	22.0	33.7	35.3	-161.7	5.7
22	3.56 Sec	1464	59.0	39.1	210.8	6.9	39.9	9.5	-164.4	1.9
23	5.33 Sec	1147	59.3	23.3	290.2	2.7	27.1	6.0	-163.5	.8
24	7.11 Sec	1233	82.6	19.6	422.2	3.5	39.7	5.1	-163.2	1.0
25	10.67 Sec	324	75.5	30.2	660.9	6.9	32.6	7.6	-160.7	1.9
26	14.22 Sec	486	98.7	5.9	847.0	1.9	36.0	1.6	-154.3	.5
27	21.33 Sec	282	99.6	4.2	1023.8	2.0	37.3	1.2	-150.7	.6
28	28.44 Sec	324	108.4	3.5	1195.7	2.3	41.1	1.0	-145.4	.6
29	42.67 Sec	288	111.7	3.9	1210.9	1.2	46.5	1.1	-136.5	.4
30	56.89 Sec	138	107.6	2.4	1081.1	1.1	50.3	.7	-130.8	.3
31	85.33 Sec	84	98.5	11.5	957.9	5.5	52.6	3.1	-126.5	1.5
32	113.78 Sec	156	80.1	3.2	820.2	2.9	56.4	.9	-124.9	.8
33	170.67 Sec	78	72.5	6.3	657.8	9.5	56.3	1.7	-125.2	2.6
34	227.56 Sec	12	61.2	9.1	695.3	22.7	57.4	2.5	-124.1	5.9
35	341.33 Sec	36	53.1	30.0	619.5	21.8	49.2	7.5	-145.5	5.7
36	455.11 Sec	27	55.3	30.5	782.6	17.7	49.4	7.6	-137.1	4.7
37	682.67 Sec	9	66.3	30.9	863.3	47.1	52.1	7.7	-123.7	11.1
38	910.22 Sec	9	40.1	56.6	891.8	51.6	41.5	12.8	-124.6	11.9
39	1365.33 Sec	6	36.0	31.0	419.9	39.0	29.7	7.7	-138.3	9.4
40	1820.44 Sec	3	26.2	99.9	922.9	99.9	75.4	20.0	-121.0	19.9

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	444	532.9	915.1	419.8	484	596.1	634
3	192.00 Hz	237	507.8	840.1	384.2	579	503.3	744
4	144.00 Hz	1031	484.1	769.2	335.7	653	374.8	823
5	96.00 Hz	251	447.9	661.5	277.8	769	276.3	934
6	72.00 Hz	241	411.5	578.6	210.6	851	192.5	1009
7	48.00 Hz	780	358.1	467.5	130.0	972	140.4	1111
8	36.00 Hz	1107	297.6	398.5	72.8	1023	95.7	1184
9	24.00 Hz	576	235.1	305.7	33.3	1114	56.9	1270
10	18.00 Hz	864	176.8	247.6	11.0	1125	44.6	1320
11	12.00 Hz	1248	127.5	188.8	8.5	1160	37.8	1412
12	9.00 Hz	960	96.4	156.0	4.8	1172	38.7	1482
13	6.00 Hz	958	68.1	124.4	3.9	1199	31.0	1620
14	4.50 Hz	1534	52.0	102.9	6.5	1211	31.4	1701
15	3.00 Hz	7584	39.8	86.0	10.6	1295	39.0	1906
16	2.25 Hz	7584	34.8	79.2	18.4	1400	56.8	2112
17	1.50 Hz	1840	32.1	76.7	28.0	1646	84.7	2545
18	1.13 Hz	5072	33.2	82.0	46.1	1933	165.7	3038
19	1.33 Sec	749	35.9	97.0	60.0	2463	295.8	4046
20	1.78 Sec	640	39.5	116.5	83.4	2983	733.5	5121
21	2.67 Sec	1044	46.0	160.4	119.0	3942	3851.9	7360
22	3.56 Sec	1464	53.7	220.4	153.2	4917	8594.2	9962
23	5.33 Sec	1147	64.2	323.9	162.0	6586	12631.7	14791
24	7.11 Sec	1233	72.5	428.5	175.4	8078	16710.2	19644
25	10.67 Sec	324	85.6	649.0	218.6	10756	25309.5	29609
26	14.22 Sec	486	98.1	861.7	173.8	13292	5404.4	39398
27	21.33 Sec	282	103.9	1072.6	135.7	16753	2442.6	53835
28	28.44 Sec	324	107.5	1129.0	123.5	19683	1205.3	63774
29	42.67 Sec	288	109.0	1097.2	106.7	24267	869.5	77001
30	56.89 Sec	138	106.8	1041.9	71.5	27734	555.8	86642
31	85.33 Sec	84	95.0	888.6	48.8	32042	366.4	98000
32	113.78 Sec	156	85.4	780.8	36.9	35089	357.1	106075
33	170.67 Sec	78	72.1	686.4	30.0	39485	404.6	121810
34	227.56 Sec	12	64.2	652.8	27.6	43016	544.6	137167
35	341.33 Sec	36	54.7	644.8	26.9	48646	642.8	166952
36	455.11 Sec	27	50.7	652.1	26.4	54048	769.4	193881
37	682.67 Sec	9	44.0	682.7	24.7	61694	817.7	242953
38	910.22 Sec	9	41.7	694.1	28.1	69321	852.0	282874
39	1365.33 Sec	6	38.5	732.8	29.0	81557	1082.7	355963
40	1820.44 Sec	3	37.8	793.3	33.5	93368	1398.3	427680

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	444	-44.44	-33.25	999.99	-167.00	595.85	999.99
3	192.00 Hz	237	-37.07	-19.38	999.99	65.77	729.95	999.99
4	144.00 Hz	1031	20.85	19.08	110.13	70.40	591.71	999.99
5	96.00 Hz	251	-10.23	.02	435.17	43.72	482.60	999.99
6	72.00 Hz	241	29.35	17.67	419.87	76.61	388.73	999.99
7	48.00 Hz	780	-9.48	13.65	53.97	47.54	289.54	411.02
8	36.00 Hz	1107	.55	18.10	9.10	31.47	229.16	70.12
9	24.00 Hz	576	-4.71	8.94	47.03	23.66	155.43	955.08
10	18.00 Hz	864	2.98	9.84	9.50	11.21	127.64	78.26
11	12.00 Hz	1248	-.17	3.26	11.61	16.33	86.14	33.95
12	9.00 Hz	960	7.95	9.74	6.63	20.21	60.93	17.52
13	6.00 Hz	958	-.64	-1.89	29.50	11.26	42.94	59.24
14	4.50 Hz	1534	-3.38	-2.80	58.81	3.96	33.01	83.72
15	3.00 Hz	7584	3.60	.37	.63	5.49	23.53	2.52
16	2.25 Hz	7584	5.16	1.29	.48	7.54	17.70	1.68
17	1.50 Hz	1840	1.26	-2.01	5.31	5.60	14.52	7.25
18	1.13 Hz	5072	.70	-3.08	.99	7.41	12.99	1.33
19	1.33 Sec	749	1.196	-1.029	.122	7.246	8.515	.321
20	1.78 Sec	640	1.405	-1.389	5.282	7.986	7.644	3.460
21	2.67 Sec	1044	.725	.232	40.817	7.877	5.262	57.959
22	3.56 Sec	1464	.744	-1.067	2.901	6.994	5.838	4.523
23	5.33 Sec	1147	.727	-1.309	.927	6.641	3.396	1.219
24	7.11 Sec	1233	.377	-1.147	1.001	5.859	4.870	.928
25	10.67 Sec	324	.503	-1.164	1.294	5.012	3.201	1.235
26	14.22 Sec	486	1.224	-.340	.057	4.762	3.465	.057
27	21.33 Sec	282	1.084	-.182	.026	3.846	2.926	.020
28	28.44 Sec	324	1.023	.122	.008	3.289	2.871	.011
29	42.67 Sec	288	.816	.336	.006	2.492	2.622	.010
30	56.89 Sec	138	.776	.319	.001	1.963	2.367	.003
31	85.33 Sec	84	.557	.424	.078	1.460	1.908	.034
32	113.78 Sec	156	.530	.387	.001	1.038	1.562	.002
33	170.67 Sec	78	.386	.248	.003	.808	1.213	.004
34	227.56 Sec	12	.360	.322	.014	.624	.977	.005
35	341.33 Sec	36	.195	.010	.013	.576	.668	.027
36	455.11 Sec	27	.103	.025	.016	.507	.591	.021
37	682.67 Sec	9	.221	.031	.033	.428	.550	.018
38	910.22 Sec	9	-.067	-.045	.046	.352	.311	.022
39	1365.33 Sec	6	-.006	-.023	.014	.315	.180	.005
40	1820.44 Sec	3	-.118	-.121	.011	.068	.260	.018

PHOENIX GEOSCIENCE

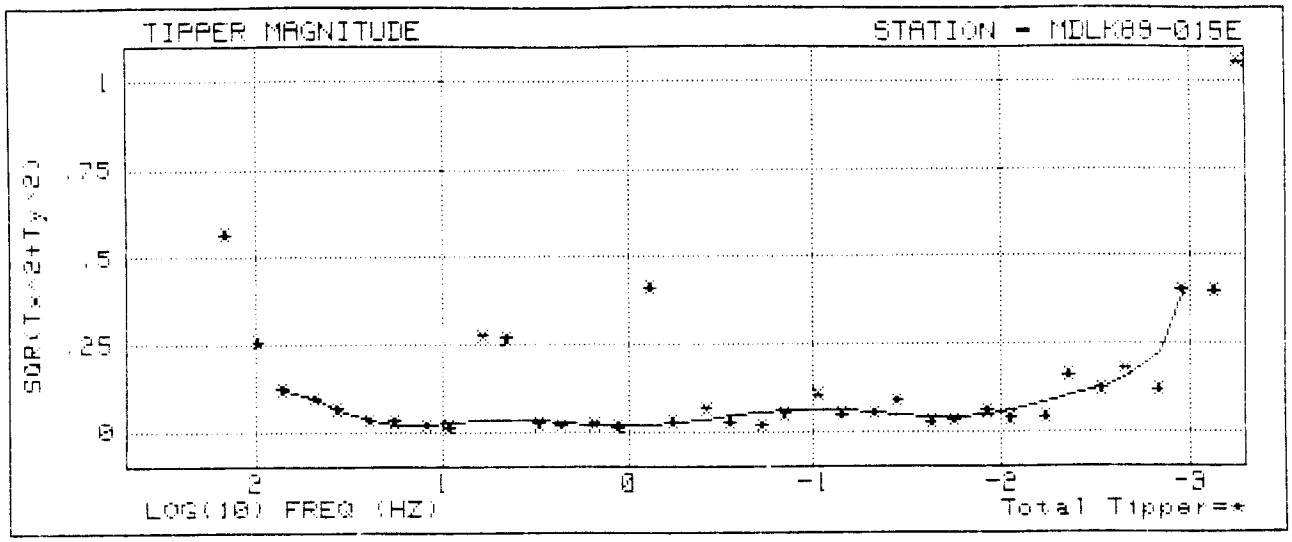
MT Site: MDLK89-015E

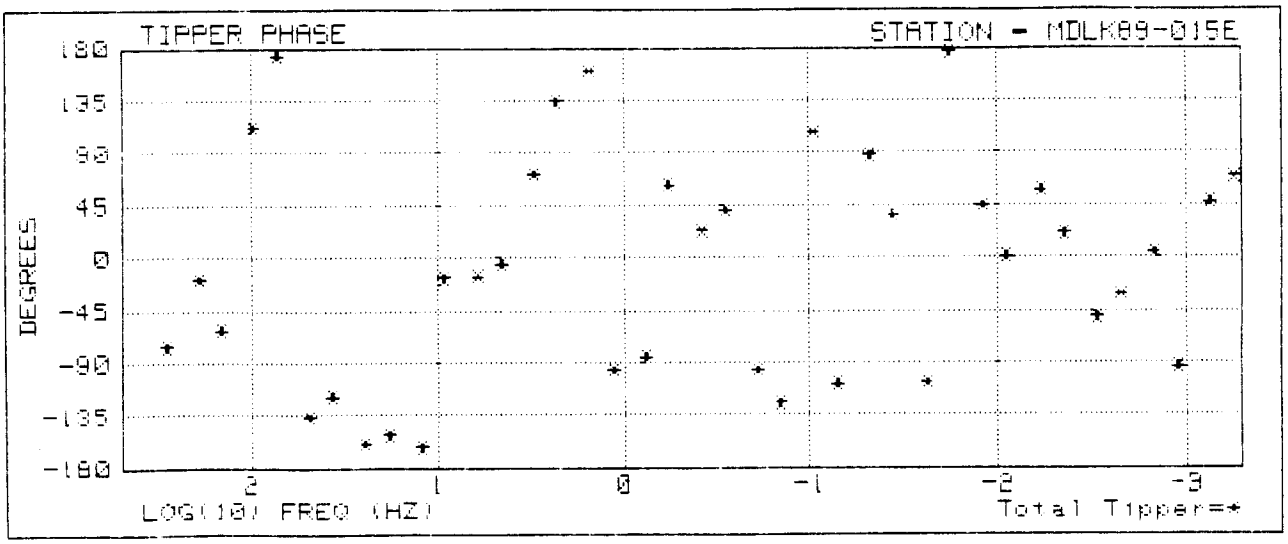
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

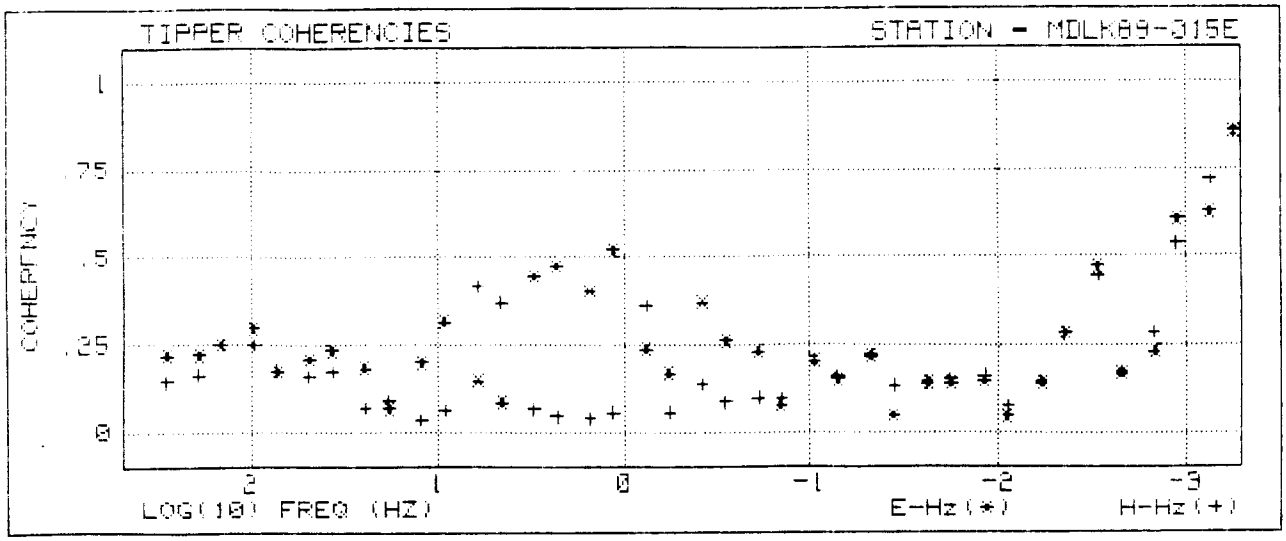
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	444	-428.00	-999.99	999.99	-306.52	206.44	999.99
3	192.00 Hz	237	-425.03	-962.33	999.99	-193.78	222.89	999.99
4	144.00 Hz	1031	-273.46	-730.36	163.38	-44.15	114.27	999.99
5	96.00 Hz	251	-205.57	-494.56	999.99	-16.05	78.78	999.99
6	72.00 Hz	241	-249.01	-390.99	999.99	27.85	131.95	999.99
7	48.00 Hz	780	-84.28	-321.56	103.59	-5.07	8.60	758.84
8	36.00 Hz	1107	-93.62	-250.10	29.40	-3.06	28.82	226.48
9	24.00 Hz	576	-63.53	-172.38	71.44	-12.71	27.76	539.30
10	18.00 Hz	864	-46.17	-141.61	21.98	-1.62	21.36	181.07
11	12.00 Hz	1248	-31.34	-103.70	18.40	-7.93	9.89	53.77
12	9.00 Hz	960	-27.41	-80.04	11.28	.57	12.52	29.81
13	6.00 Hz	958	-21.86	-62.77	36.47	-5.70	.81	73.24
14	4.50 Hz	1534	-20.88	-46.62	56.83	-7.95	2.87	80.91
15	3.00 Hz	7584	-12.83	-34.68	.91	.18	2.62	3.67
16	2.25 Hz	7584	-12.95	-28.07	.84	-.76	4.38	2.89
17	1.50 Hz	1840	-16.88	-16.99	4.13	-.26	4.90	5.64
18	1.13 Hz	5072	-17.28	-11.87	.32	1.61	5.00	.62
19	1.33 Sec	749	-15.983	-10.881	.202	-.265	4.364	.528
20	1.78 Sec	640	-14.954	-6.897	3.384	1.865	2.899	2.217
21	2.67 Sec	1044	-16.373	-5.400	5.871	.681	2.990	9.775
22	3.56 Sec	1464	-16.585	-4.615	.669	1.251	2.911	1.043
23	5.33 Sec	1147	-15.813	-4.696	.100	.441	.712	.131
24	7.11 Sec	1233	-16.497	-4.971	.180	.360	.642	.167
25	10.67 Sec	324	-16.613	-5.812	.685	.164	.341	.654
26	14.22 Sec	486	-15.621	-7.332	.052	.993	.311	.051
27	21.33 Sec	282	-13.505	-7.587	.048	.838	.327	.038
28	28.44 Sec	324	-11.936	-8.229	.053	.902	.317	.074
29	42.67 Sec	288	-8.646	-8.193	.011	.851	.297	.017
30	56.89 Sec	138	-6.364	-7.384	.006	.444	.610	.012
31	85.33 Sec	84	-4.456	-6.022	.080	.366	.564	.035
32	113.78 Sec	156	-3.433	-4.925	.015	.361	.508	.020
33	170.67 Sec	78	-2.533	-3.586	.079	.275	.329	.092
34	227.56 Sec	12	-2.191	-3.237	.319	.200	.433	.112
35	341.33 Sec	36	-2.483	-1.706	.177	-.057	.473	.356
36	455.11 Sec	27	-2.148	-1.996	.115	.039	.100	.151
37	682.67 Sec	9	-1.394	-2.093	.471	-.308	.362	.253
38	910.22 Sec	9	-1.256	-1.823	.424	.602	-.445	.205
39	1365.33 Sec	6	-.926	-.825	.083	.055	-.081	.030
40	1820.44 Sec	3	-.819	-1.365	.611	-.381	.058	.948

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E







PHOENIX GEOSCIENCE

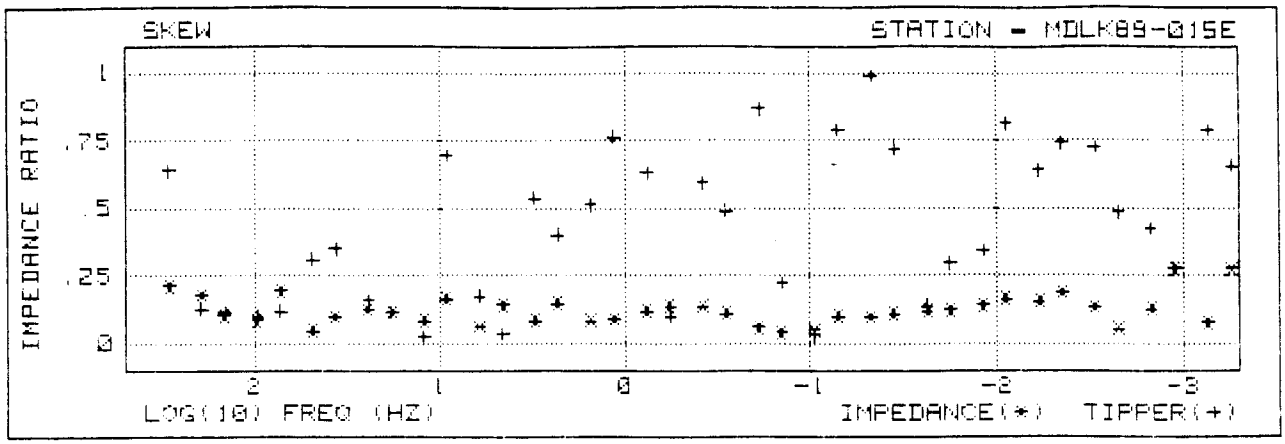
MT Site: MDLK89-015E

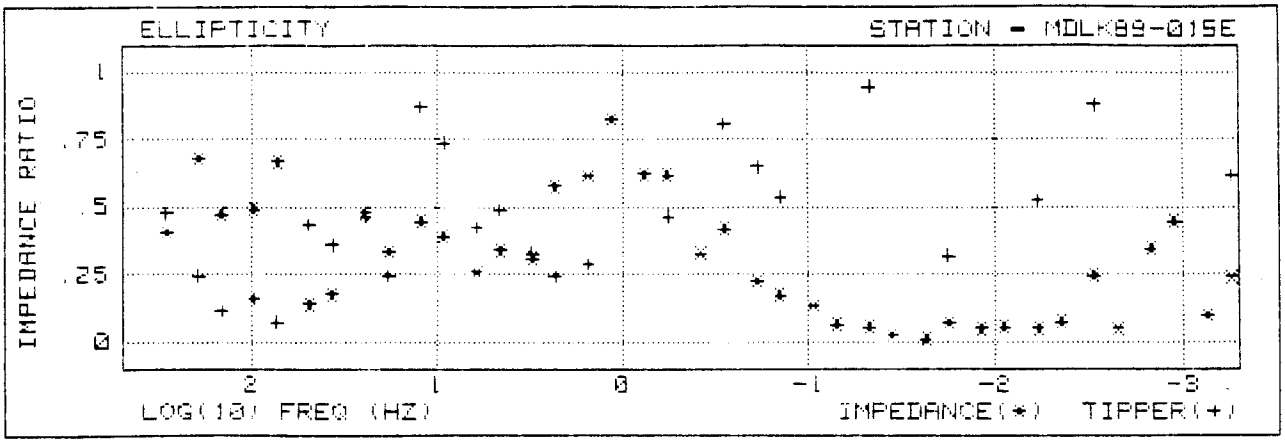
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

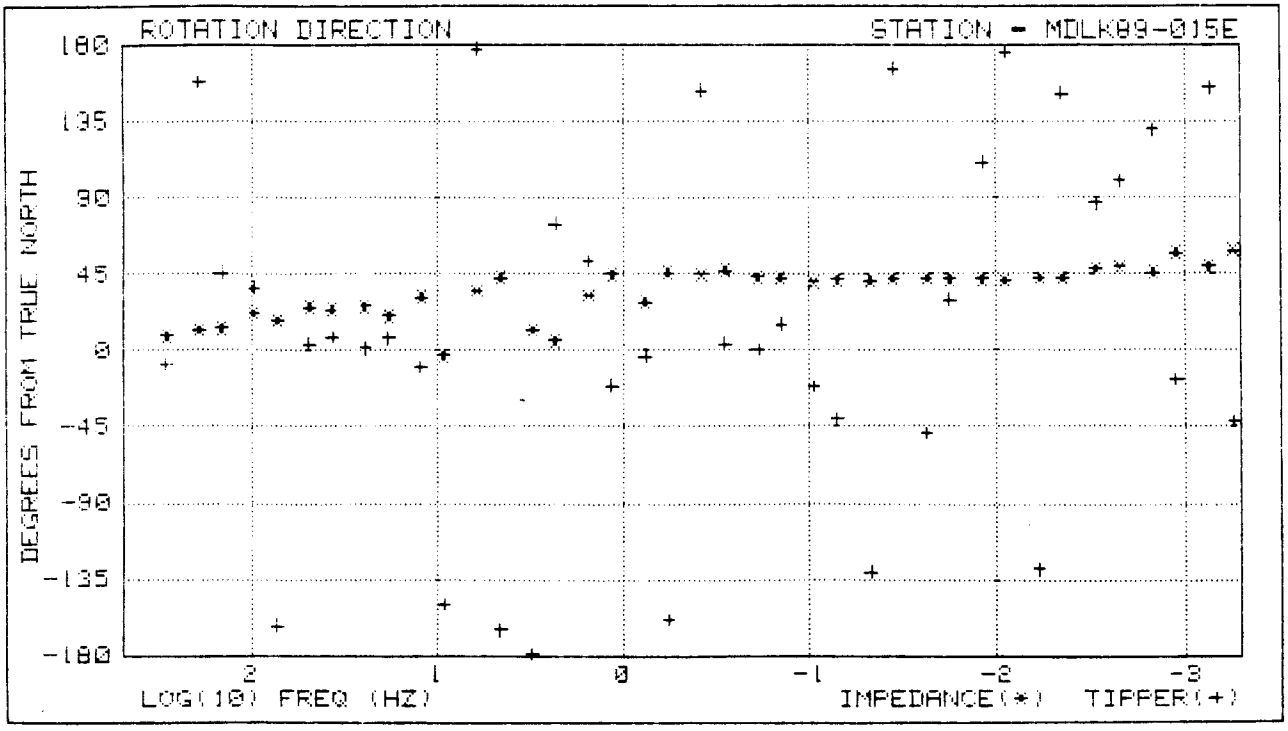
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	444	1.90	-76.50	.21	.14
3	192.00 Hz	237	3.11	-19.66	.22	.16
4	144.00 Hz	1031	.56	-62.78	.25	.25
5	96.00 Hz	251	.25	111.06	.29	.25
6	72.00 Hz	241	.12	173.05	.17	.17
7	48.00 Hz	780	.09	-137.40	.20	.16
8	36.00 Hz	1107	.06	-119.57	.23	.17
9	24.00 Hz	576	.03	-160.17	.18	.06
10	18.00 Hz	864	.03	-152.65	.06	.08
11	12.00 Hz	1248	.01	-163.25	.20	.03
12	9.00 Hz	960	.01	-17.75	.31	.06
13	6.00 Hz	958	.27	-16.64	.14	.41
14	4.50 Hz	1534	.26	-6.14	.08	.37
15	3.00 Hz	7584	.02	71.39	.44	.06
16	2.25 Hz	7584	.02	133.49	.47	.04
17	1.50 Hz	1840	.02	159.58	.40	.03
18	1.13 Hz	5072	.01	-96.94	.52	.05
19	1.33 Sec	749	.41	-85.86	.23	.36
20	1.78 Sec	640	.02	61.12	.16	.05
21	2.67 Sec	1044	.06	21.84	.37	.14
22	3.56 Sec	1464	.02	39.52	.26	.08
23	5.33 Sec	1147	.02	-96.96	.23	.10
24	7.11 Sec	1233	.05	-124.86	.07	.09
25	10.67 Sec	324	.10	107.04	.20	.20
26	14.22 Sec	486	.05	-108.83	.15	.15
27	21.33 Sec	282	.05	87.39	.21	.22
28	28.44 Sec	324	.09	36.34	.04	.13
29	42.67 Sec	288	.02	-107.76	.14	.14
30	56.89 Sec	138	.03	175.62	.14	.15
31	85.33 Sec	84	.05	43.78	.14	.16
32	113.78 Sec	156	.03	.30	.04	.07
33	170.67 Sec	78	.04	57.18	.14	.14
34	227.56 Sec	12	.16	20.26	.28	.28
35	341.33 Sec	36	.12	-51.55	.47	.44
36	455.11 Sec	27	.18	-31.74	.16	.17
37	682.67 Sec	9	.12	3.91	.23	.28
38	910.22 Sec	9	.40	-94.22	.60	.53
39	1365.33 Sec	6	.40	46.29	.62	.72
40	1820.44 Sec	3	1.06	68.31	.85	.85

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E







PHOENIX GEOSCIENCE

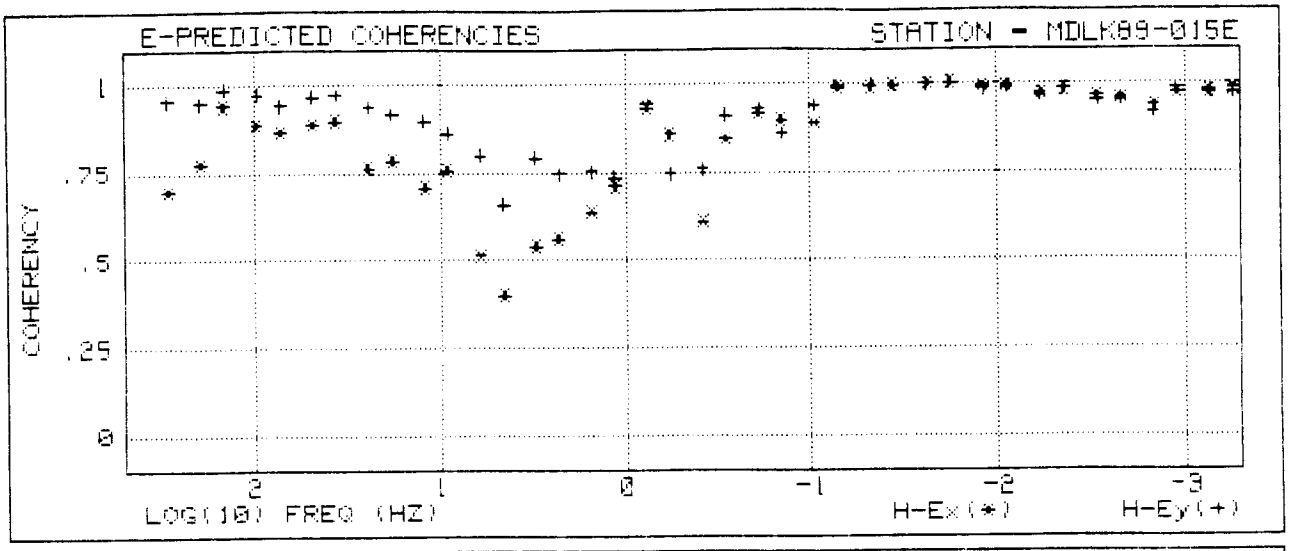
MT Site: MDLK89-015E

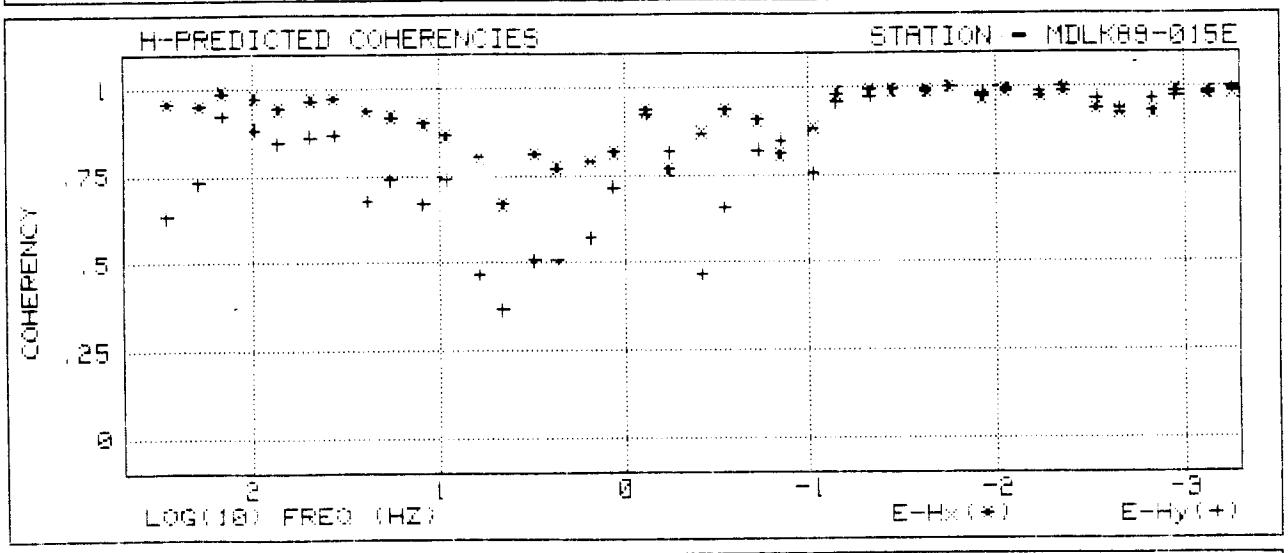
SKEW, ELLIPTICITY AND STRIKE

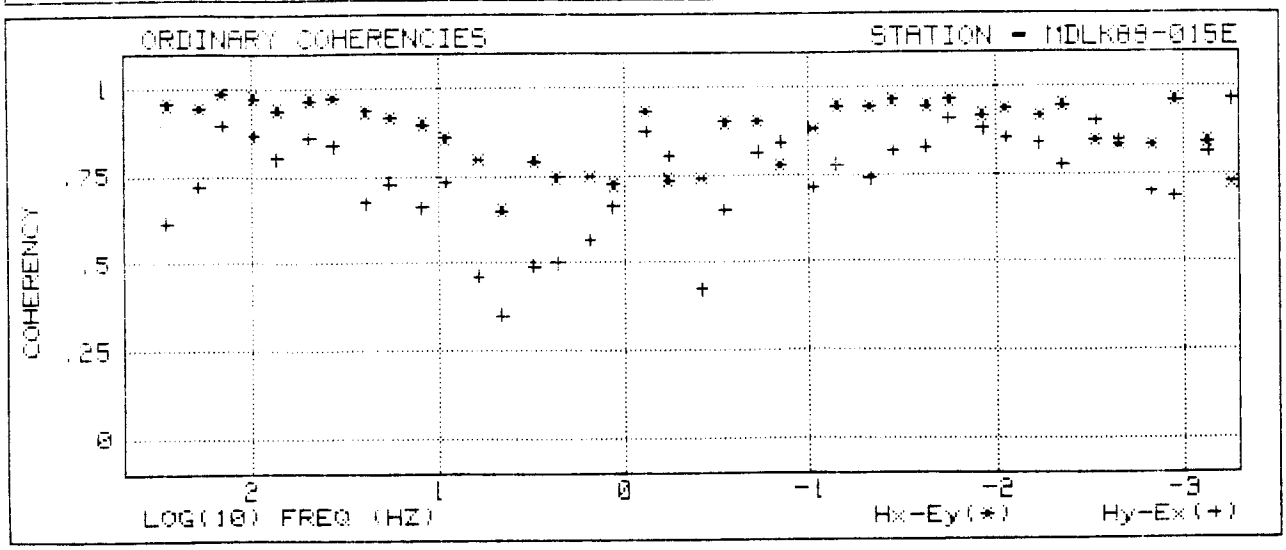
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	444	.21	.40	8.19	.64	.47	-8.80
3	192.00 Hz	237	.17	.67	11.65	.13	.24	157.56
4	144.00 Hz	1031	.10	.47	12.59	.11	.11	45.16
5	96.00 Hz	251	.08	.49	21.54	.10	.16	36.69
6	72.00 Hz	241	.19	.66	17.16	.11	.07	-163.14
7	48.00 Hz	780	.04	.14	24.84	.31	.43	3.03
8	36.00 Hz	1107	.09	.17	23.61	.34	.35	7.02
9	24.00 Hz	576	.12	.47	25.21	.16	.46	1.04
10	18.00 Hz	864	.11	.33	19.55	.11	.24	6.50
11	12.00 Hz	1248	.08	.44	30.48	.02	.87	-10.42
12	9.00 Hz	960	.16	.39	-3.43	.69	.73	-150.53
13	6.00 Hz	958	.06	.25	34.78	.17	.42	176.60
14	4.50 Hz	1534	.14	.34	42.35	.03	.49	-165.63
15	3.00 Hz	7584	.08	.31	11.64	.53	.33	-179.42
16	2.25 Hz	7584	.14	.57	5.33	.40	.24	73.98
17	1.50 Hz	1840	.08	.61	31.45	.51	.28	51.76
18	1.13 Hz	5072	.09	.82	44.38	.76	2.13	-21.45
19	1.33 Sec	749	.11	.62	27.97	.63	1.53	-3.82
20	1.78 Sec	640	.13	.62	45.34	.09	.46	-159.22
21	2.67 Sec	1044	.13	.32	44.07	.59	2.05	152.27
22	3.56 Sec	1464	.11	.41	46.81	.49	.80	3.31
23	5.33 Sec	1147	.05	.22	42.82	.86	.64	-.28
24	7.11 Sec	1233	.04	.17	42.47	.22	.53	14.98
25	10.67 Sec	324	.05	.13	39.83	.03	1.90	-21.84
26	14.22 Sec	486	.10	.06	41.52	.78	1.93	-41.15
27	21.33 Sec	282	.09	.05	40.78	.98	.94	-131.47
28	28.44 Sec	324	.10	.02	41.88	.71	1.39	165.26
29	42.67 Sec	288	.11	.01	41.61	.13	14.50	-49.27
30	56.89 Sec	138	.12	.07	41.15	.29	.32	29.16
31	85.33 Sec	84	.14	.05	41.43	.34	2.43	110.48
32	113.78 Sec	156	.16	.05	40.15	.81	1.62	175.32
33	170.67 Sec	76	.15	.05	41.61	.64	.52	-129.39
34	227.56 Sec	12	.19	.07	41.84	.73	2.10	150.57
35	341.33 Sec	36	.13	.24	47.81	.72	.87	86.38
36	455.11 Sec	27	.05	.05	48.43	.48	3.69	99.12
37	682.67 Sec	9	.13	.34	45.29	.42	4.30	129.38
38	910.22 Sec	9	.27	.44	56.68	.27	3.04	-17.60
39	1365.33 Sec	6	.07	.10	48.65	.78	1.87	153.88
40	1820.44 Sec	3	.27	.24	57.95	.65	.61	-42.27

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E







PHOENIX GEOSCIENCE

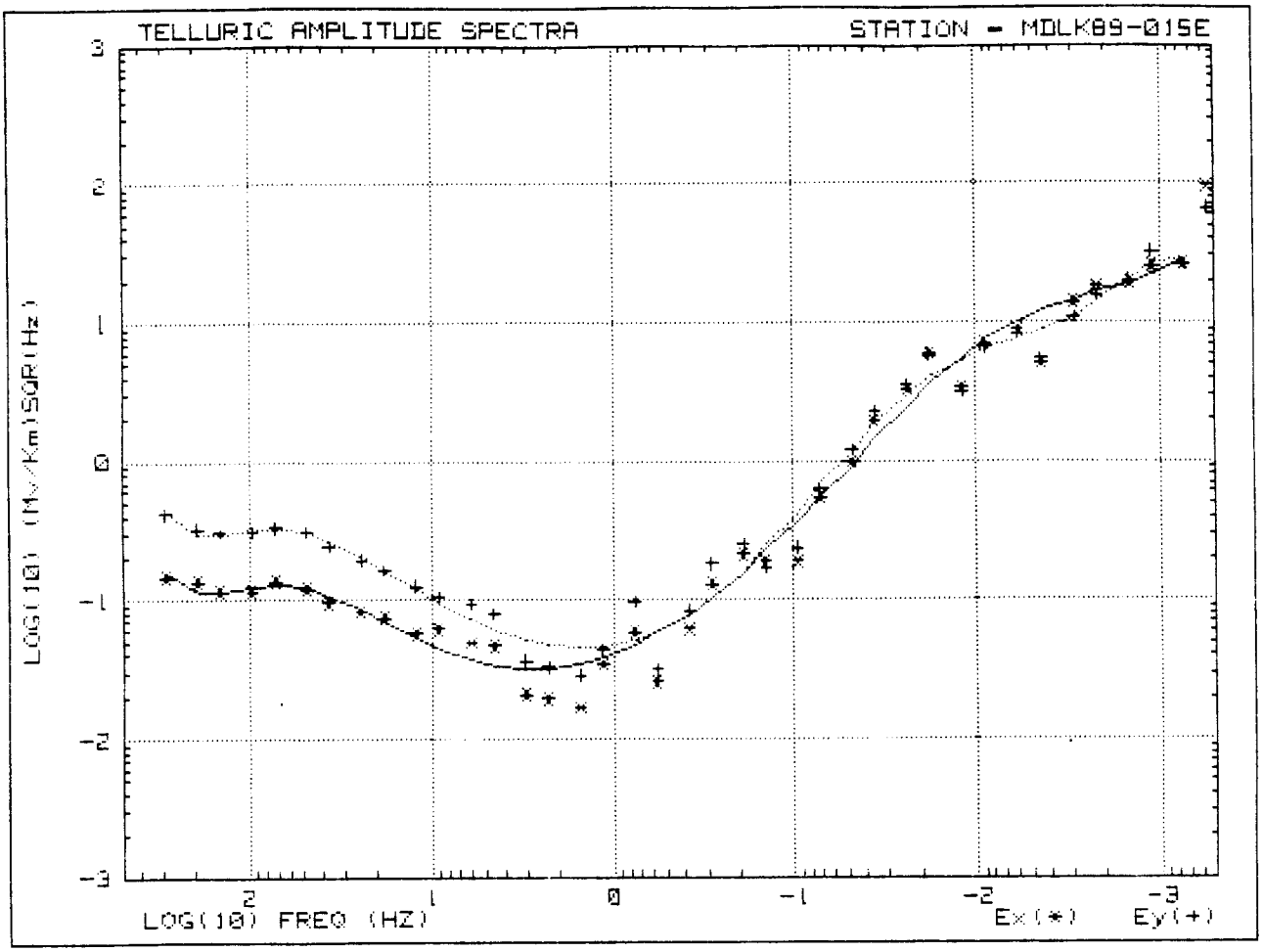
MT Site: MDLK89-015E

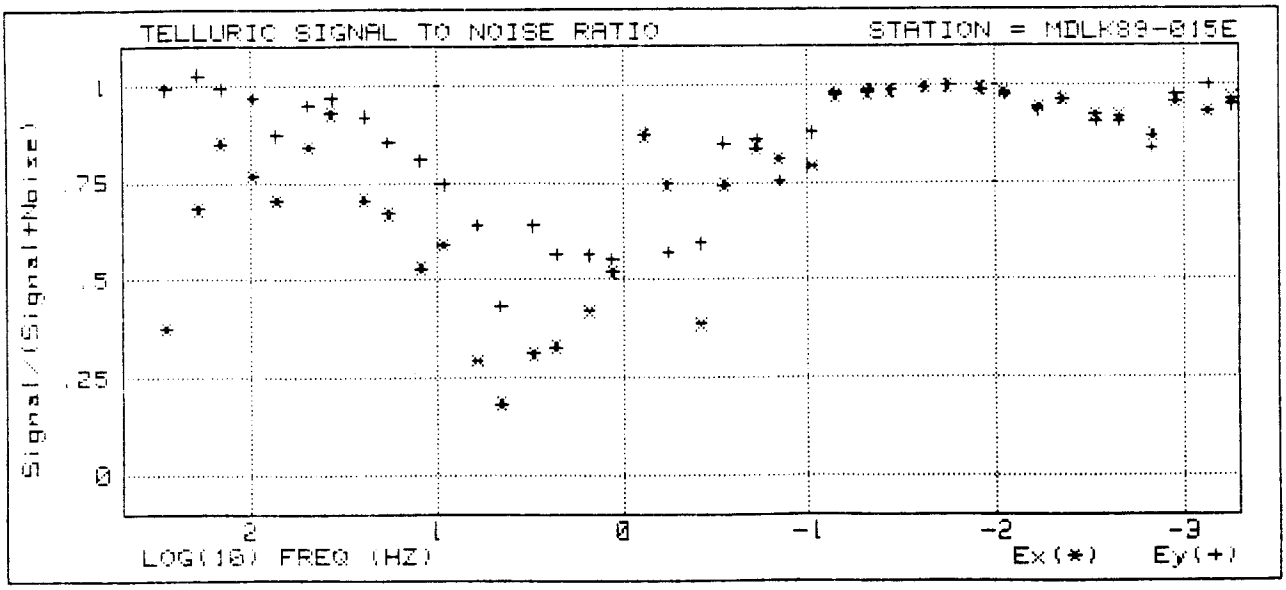
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	444	.70	.95	.96	.63	.95	.61
3	192.00 Hz	237	.77	.94	.95	.73	.94	.71
4	144.00 Hz	1031	.94	.98	.99	.92	.98	.89
5	96.00 Hz	251	.89	.97	.97	.88	.97	.86
6	72.00 Hz	241	.86	.94	.94	.84	.94	.80
7	48.00 Hz	780	.88	.96	.96	.86	.96	.86
8	36.00 Hz	1107	.89	.97	.97	.86	.97	.83
9	24.00 Hz	576	.76	.93	.93	.67	.93	.67
10	18.00 Hz	864	.78	.91	.92	.73	.91	.73
11	12.00 Hz	1248	.70	.89	.90	.66	.89	.66
12	9.00 Hz	960	.75	.86	.86	.74	.85	.73
13	6.00 Hz	958	.51	.79	.80	.46	.79	.46
14	4.50 Hz	1534	.40	.65	.66	.36	.65	.35
15	3.00 Hz	7584	.54	.79	.81	.50	.79	.49
16	2.25 Hz	7584	.56	.74	.77	.51	.74	.50
17	1.50 Hz	1840	.63	.75	.79	.57	.74	.56
18	1.13 Hz	5072	.71	.73	.81	.71	.72	.66
19	1.33 Sec	749	.93	.94	.93	.92	.93	.87
20	1.78 Sec	640	.85	.74	.76	.81	.73	.80
21	2.67 Sec	1044	.61	.76	.86	.46	.74	.42
22	3.56 Sec	1464	.84	.91	.93	.65	.90	.65
23	5.33 Sec	1147	.91	.93	.90	.82	.90	.81
24	7.11 Sec	1233	.89	.86	.80	.84	.77	.84
25	10.67 Sec	324	.88	.93	.88	.75	.88	.71
26	14.22 Sec	486	.98	.99	.98	.95	.94	.77
27	21.33 Sec	282	.99	.99	.99	.97	.94	.73
28	28.44 Sec	324	.99	.99	.99	.99	.96	.81
29	42.67 Sec	288	1.00	.99	.99	.98	.94	.82
30	56.89 Sec	138	1.00	1.00	1.00	1.00	.96	.91
31	85.33 Sec	84	.99	.98	.97	.97	.92	.87
32	113.78 Sec	156	.99	.99	.98	.99	.93	.85
33	170.67 Sec	78	.97	.96	.97	.98	.91	.83
34	227.56 Sec	12	.98	.98	.99	.99	.94	.77
35	341.33 Sec	36	.96	.95	.93	.96	.84	.90
36	455.11 Sec	27	.95	.95	.92	.93	.83	.84
37	682.67 Sec	9	.93	.91	.92	.96	.83	.69
38	910.22 Sec	9	.97	.98	.98	.97	.96	.68
39	1365.33 Sec	6	.97	.97	.98	.98	.84	.81
40	1820.44 Sec	3	.98	.97	.98	.99	.72	.96

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E





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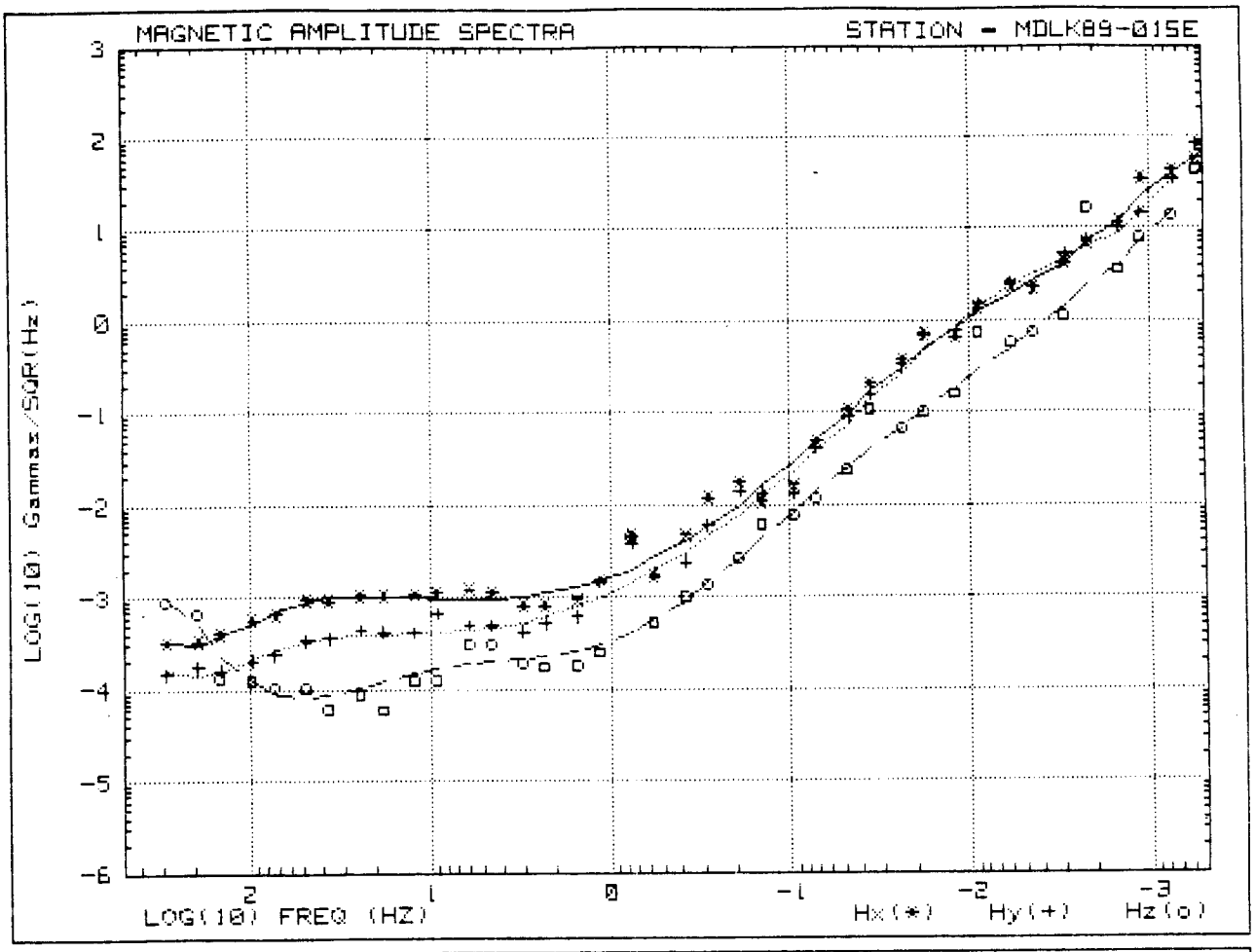
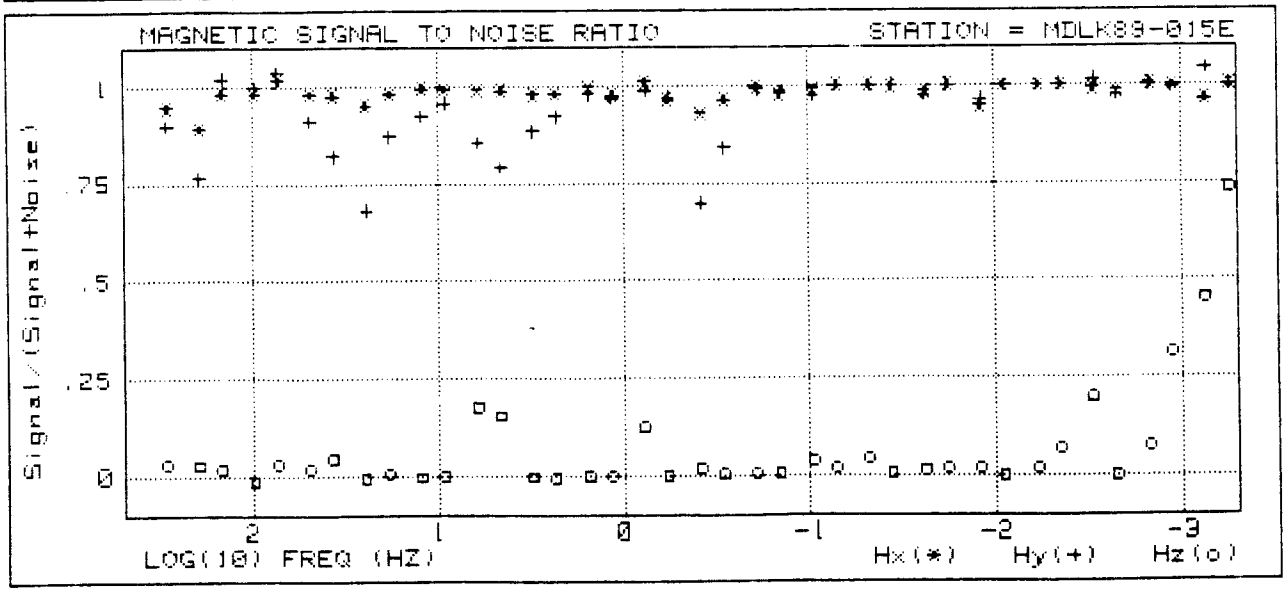
MT Site: MDLK89-015E





PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	444	3.21E-04	1.44E-04	9.33E-04	1.44E-01	4.12E-01
3	192.00 Hz	237	3.28E-04	1.73E-04	7.17E-04	1.34E-01	3.24E-01
4	144.00 Hz	1031	3.97E-04	1.58E-04	1.42E-04	1.14E-01	3.09E-01
5	96.00 Hz	251	5.55E-04	2.03E-04	1.29E-04	1.15E-01	3.06E-01
6	72.00 Hz	241	6.47E-04	2.34E-04	1.12E-04	1.34E-01	3.28E-01
7	48.00 Hz	780	9.26E-04	3.33E-04	1.07E-04	1.19E-01	3.06E-01
8	36.00 Hz	1107	9.12E-04	3.52E-04	6.42E-05	9.52E-02	2.41E-01
9	24.00 Hz	576	1.04E-03	4.28E-04	9.07E-05	8.17E-02	1.93E-01
10	18.00 Hz	864	1.02E-03	4.15E-04	6.23E-05	7.33E-02	1.61E-01
11	12.00 Hz	1248	1.05E-03	4.07E-04	1.29E-04	5.62E-02	1.23E-01
12	9.00 Hz	960	1.10E-03	6.59E-04	1.33E-04	6.08E-02	1.05E-01
13	6.00 Hz	958	1.23E-03	4.86E-04	3.20E-04	4.86E-02	9.28E-02
14	4.50 Hz	1534	1.13E-03	4.88E-04	3.30E-04	4.65E-02	7.81E-02
15	3.00 Hz	7584	7.99E-04	4.15E-04	2.00E-04	2.05E-02	3.61E-02
16	2.25 Hz	7584	8.01E-04	5.04E-04	1.83E-04	1.93E-02	3.23E-02
17	1.50 Hz	1840	9.19E-04	6.02E-04	1.87E-04	1.67E-02	2.81E-02
18	1.13 Hz	5072	1.52E-03	1.43E-03	2.62E-04	3.41E-02	4.30E-02
19	1.33 Sec	749	4.52E-03	3.71E-03	4.85E-03	5.76E-02	9.62E-02
20	1.78 Sec	640	1.64E-03	1.71E-03	5.56E-04	2.55E-02	3.10E-02
21	2.67 Sec	1044	4.63E-03	2.37E-03	1.04E-03	6.14E-02	8.26E-02
22	3.56 Sec	1464	1.19E-02	5.93E-03	1.46E-03	1.28E-01	1.80E-01
23	5.33 Sec	1147	1.78E-02	1.41E-02	2.75E-03	2.11E-01	2.46E-01
24	7.11 Sec	1233	1.07E-02	1.34E-02	6.34E-03	1.87E-01	1.67E-01
25	10.67 Sec	324	1.63E-02	1.35E-02	8.04E-03	1.88E-01	2.34E-01
26	14.22 Sec	486	4.89E-02	4.10E-02	1.23E-02	5.39E-01	6.29E-01
27	21.33 Sec	282	1.06E-01	8.80E-02	2.50E-02	9.66E-01	1.18E+00
28	28.44 Sec	324	2.07E-01	1.54E-01	1.13E-01	1.91E+00	2.25E+00
29	42.67 Sec	288	3.76E-01	3.27E-01	6.94E-02	3.21E+00	3.43E+00
30	56.89 Sec	138	6.93E-01	7.12E-01	1.05E-01	5.86E+00	5.67E+00
31	85.33 Sec	84	6.50E-01	7.63E-01	1.68E-01	3.35E+00	3.10E+00
32	113.78 Sec	156	1.35E+00	1.49E+00	7.63E-01	6.96E+00	6.53E+00
33	170.67 Sec	78	2.33E+00	2.50E+00	5.98E-01	8.74E+00	8.16E+00
34	227.56 Sec	12	2.21E+00	2.22E+00	7.63E-01	4.98E+00	5.43E+00
35	341.33 Sec	36	4.18E+00	5.24E+00	1.16E+00	1.37E+01	1.06E+01
36	455.11 Sec	27	6.88E+00	7.24E+00	1.74E+01	1.80E+01	1.52E+01
37	682.67 Sec	9	1.15E+01	1.02E+01	3.78E+00	1.88E+01	1.95E+01
38	910.22 Sec	9	3.39E+01	1.44E+01	8.29E+00	2.49E+01	3.17E+01
39	1365.33 Sec	6	4.13E+01	3.33E+01	1.45E+01	2.60E+01	2.56E+01
40	1820.44 Sec	3	5.60E+01	8.09E+01	4.51E+01	9.43E+01	6.48E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	444	.945	.896	.035	.374	.990
3	192.00 Hz	237	.890	.765	.033	.681	1.000
4	144.00 Hz	1031	.982	1.000	.023	.849	.989
5	96.00 Hz	251	.980	.997	0.000	.765	.966
6	72.00 Hz	241	1.000	1.000	.035	.701	.870
7	48.00 Hz	780	.979	.909	.024	.840	.948
8	36.00 Hz	1107	.974	.819	.048	.927	.963
9	24.00 Hz	576	.950	.680	.000	.703	.918
10	18.00 Hz	864	.980	.869	.010	.668	.853
11	12.00 Hz	1248	.994	.922	.001	.528	.807
12	9.00 Hz	960	.991	.956	.002	.589	.743
13	6.00 Hz	958	.989	.853	.183	.294	.639
14	4.50 Hz	1534	.988	.791	.158	.182	.432
15	3.00 Hz	7584	.977	.882	.001	.309	.638
16	2.25 Hz	7584	.978	.920	0.000	.327	.564
17	1.50 Hz	1840	.995	.978	.002	.416	.561
18	1.13 Hz	5072	.975	.966	.003	.516	.551
19	1.33 Sec	749	1.000	.988	.128	.870	.875
20	1.78 Sec	640	.963	.969	.004	.745	.570
21	2.67 Sec	1044	.927	.697	.022	.384	.593
22	3.56 Sec	1464	.962	.838	.008	.742	.849
23	5.33 Sec	1147	.996	.990	.009	.835	.859
24	7.11 Sec	1233	.978	.984	.008	.809	.752
25	10.67 Sec	324	.990	.973	.040	.790	.876
26	14.22 Sec	486	.999	.998	.023	.971	.979
27	21.33 Sec	282	.999	.999	.048	.977	.985
28	28.44 Sec	324	.996	1.000	.012	.983	.983
29	42.67 Sec	288	.983	.974	.019	.993	.992
30	56.89 Sec	138	1.000	1.000	.022	.996	.996
31	85.33 Sec	84	.945	.961	.024	.987	.987
32	113.78 Sec	156	.999	.998	.004	.978	.973
33	170.67 Sec	78	.997	.997	.022	.942	.932
34	227.56 Sec	12	.997	1.000	.074	.959	.963
35	341.33 Sec	36	.990	1.000	.203	.922	.907
36	455.11 Sec	27	.983	.972	.006	.918	.904
37	682.67 Sec	9	1.000	1.000	.079	.868	.833
38	910.22 Sec	9	.997	.992	.317	.956	.971
39	1365.33 Sec	6	.963	1.000	.460	.928	.999
40	1820.44 Sec	3	1.000	1.000	.739	.962	.945

PHOENIX GEOSCIENCE

MT Site: MDLK89-015E

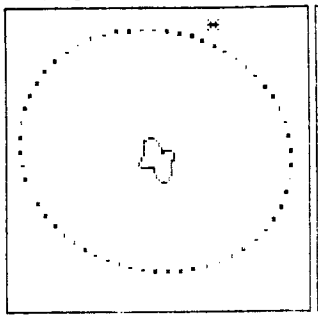
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

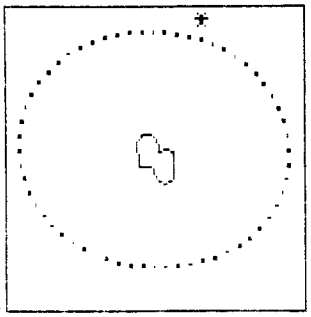
*=Rotation Direction

Zxy = ...
Zxx = ___

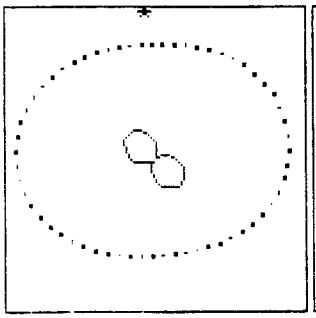
F=8 (36.0 Hz)



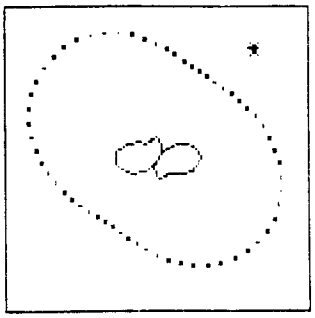
F=10 (18.0 Hz)



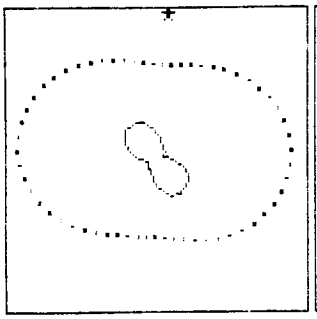
F=12 (9.0 Hz)



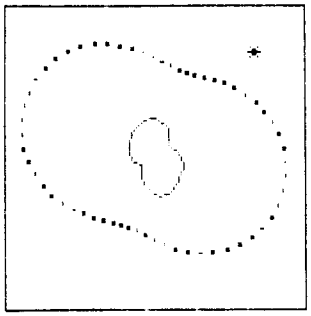
F=14 (4.5 Hz)



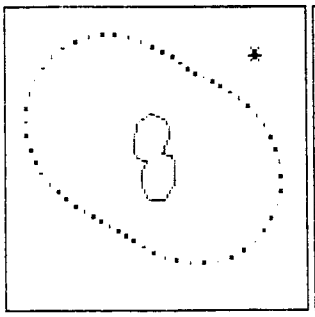
F=16 (2.3 Hz)



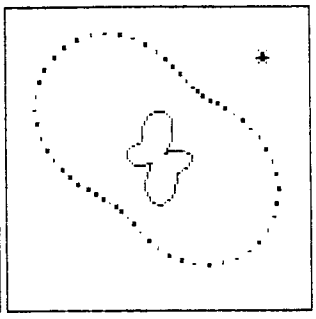
F=18 (1.1 Hz)



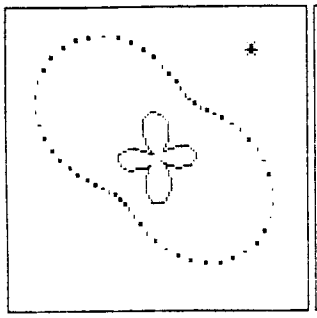
F=20 (.5625 Hz)



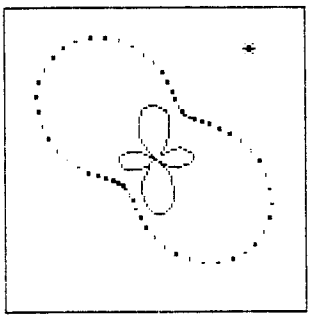
F=22 (.2813 Hz)



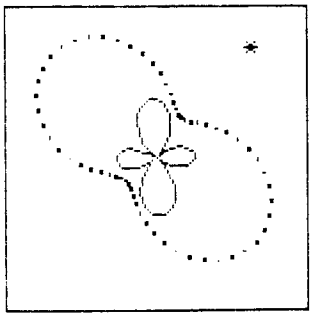
F=24 (.1406 Hz)



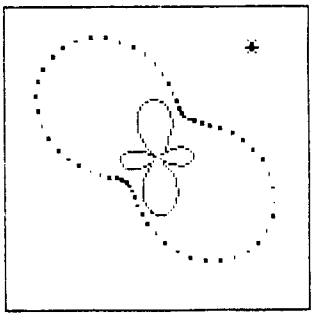
F=26 (.0703 Hz)



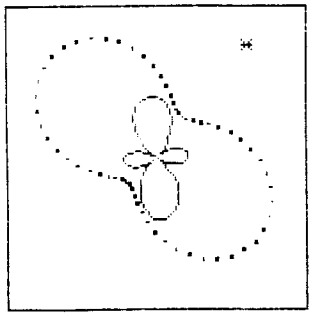
F=28 (.0352 Hz)



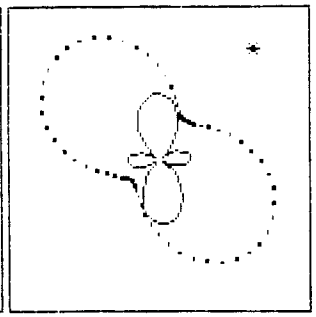
F=30 (.0176 Hz)



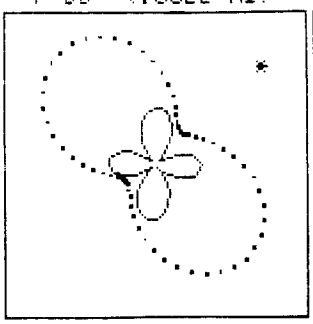
F=32 (.0088 Hz)



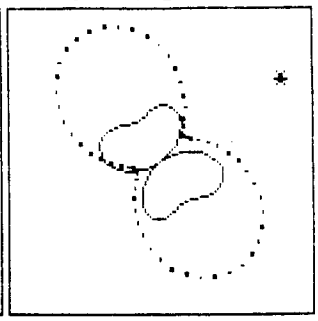
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-014d/016s/015d/

Operator:STEWART
Date: 25 Aug 1989
Time: 18:09:29

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#005-29May89-01

Station 2

Stn Number:MDLK89-016s
Site Desc:T43N R4E
41,34,23 N 121,29,35 W
Elevation:7050 FT
Reference:MDLK89-015s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL235	+45 DEG
Hy	7	COIL432	+135 DEG
Hz	8	LOOP405	
Ex	9	200 M	+45 DEG
Ey	10	200 M	+135 DEG
Rx	11	COIL452	+45 DEG
Ry	12	COIL210	+135 DEG

Ex Pot Resist: 5.7 K Ohms
Ex Voltage: AC=18.7 mv, DC=102_ mv
Ey Pot Resist: 1.2 K Ohms
Ey Voltage: AC=28.6 mv, DC=23.9 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

OPERATOR LOG FOR MDLK89-014s/016E/015s/

Recorded XPR Files:

X#1	- SUM OF RUNS: c, and d.
X#2	- SUM OF RUNS: c, and d.
X#3	- SUM OF RUNS: c, and d.
X#4	- SUM OF RUNS: c, and d.
X#5	- SUM OF RUNS: c, and d.
X#6	- SUM OF RUNS: c, and d.
X#7	- SUM OF RUNS: c, and d.
X#8	- SUM OF RUNS: c, and d.
X#9	- SUM OF RUNS: c, and d.
X#10	- SUM OF RUNS: c, and d.
X#11	- SUM OF RUNS: c, and d.
X#12	- SUM OF RUNS: c, and d.
X#13	- SUM OF RUNS: c, and d.
X#14	- SUM OF RUNS: c, and d.
X#15	- SUM OF RUNS: c, and d.
X#16	- SUM OF RUNS: c, and d.
X#17	- SUM OF RUNS: c, and d.
X#18	- SUM OF RUNS: c, and d.
X#19	- SUM OF RUNS: c, and d.
X#20	- SUM OF RUNS: c, and d.

Operator:SNOW/STEWART

Cultural Factors:
LG. CROSSCOUNTRY PWRLNS. APP. 10mi FROM SITE

Weather Conditions:
CLEAR AND COOL

Other Factors:
LOW SIGNAL

PHOENIX GEOSCIENCE

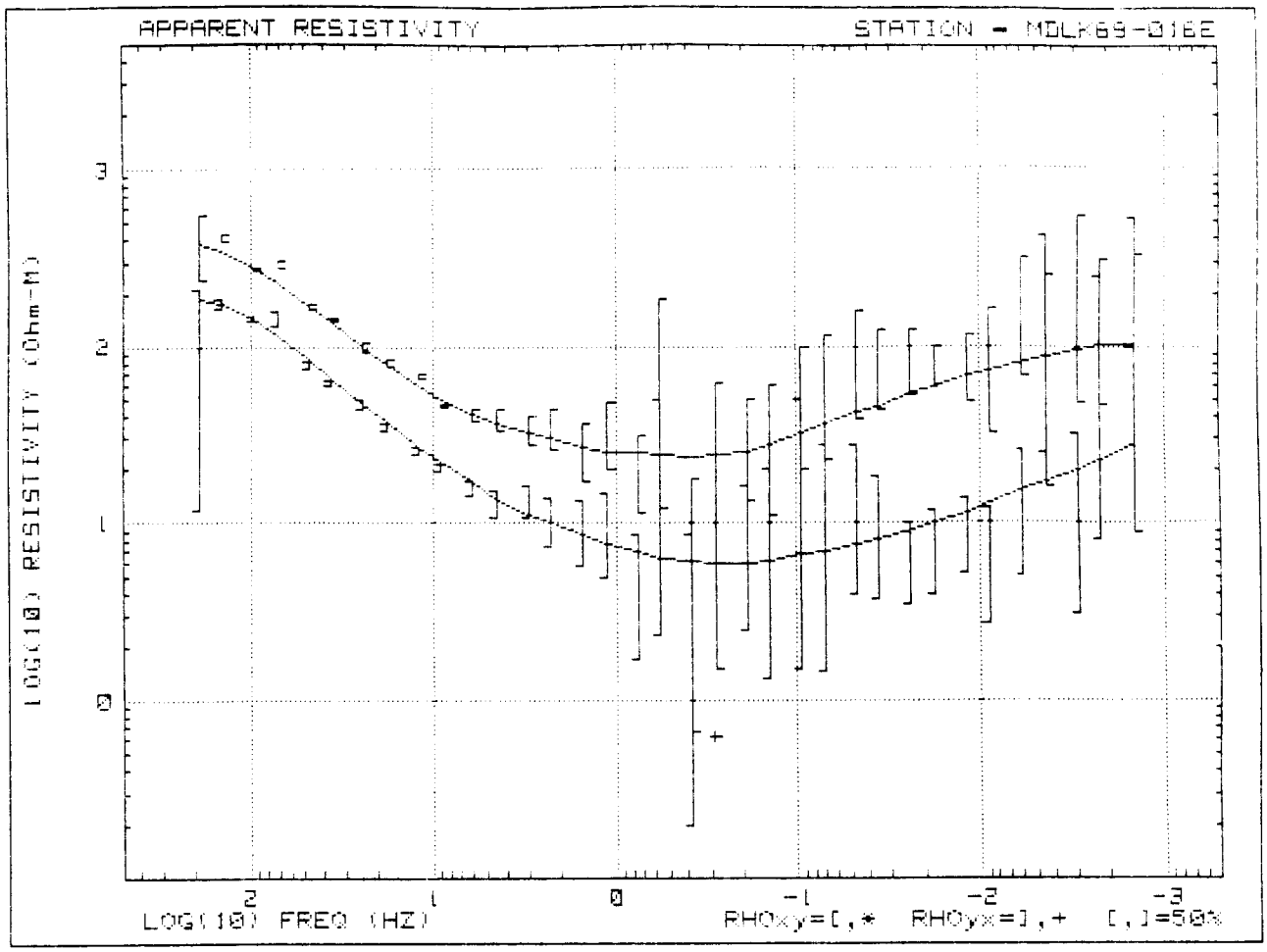
MT Site: MDLK89-016E

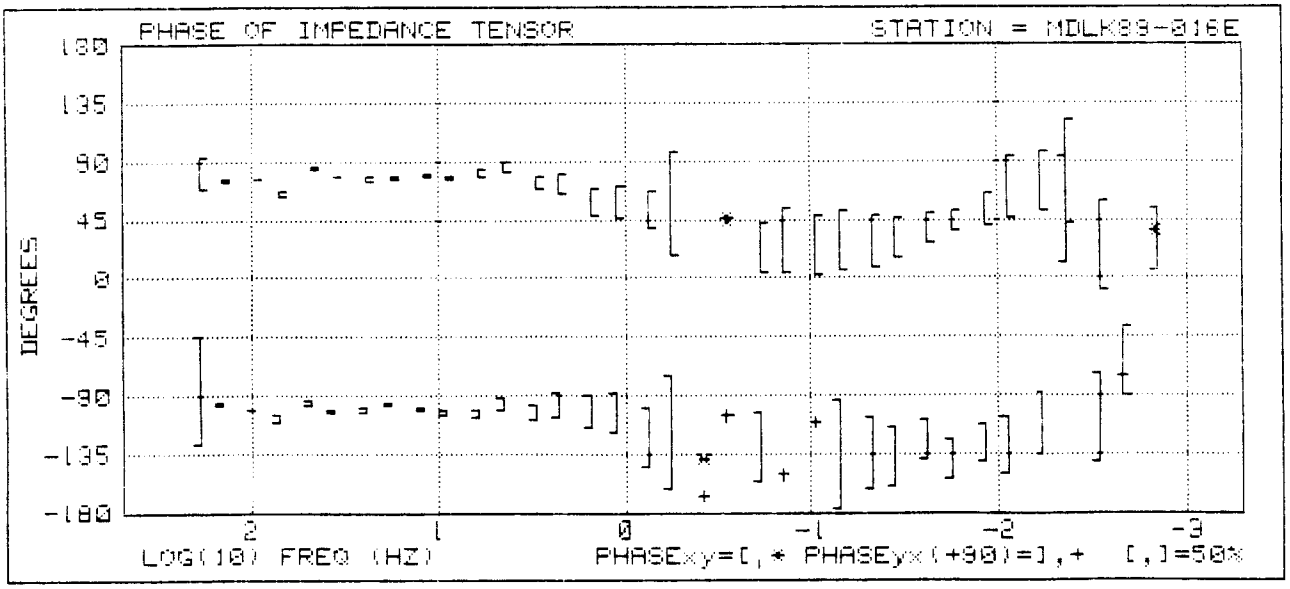
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

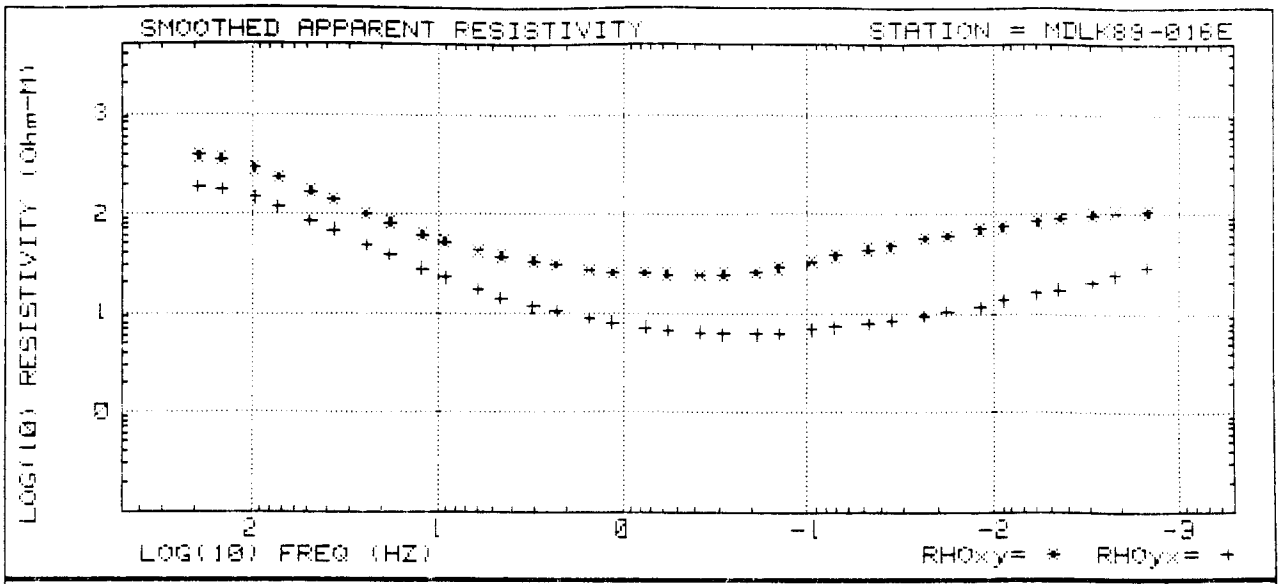
MT Site: MDLK89-016E

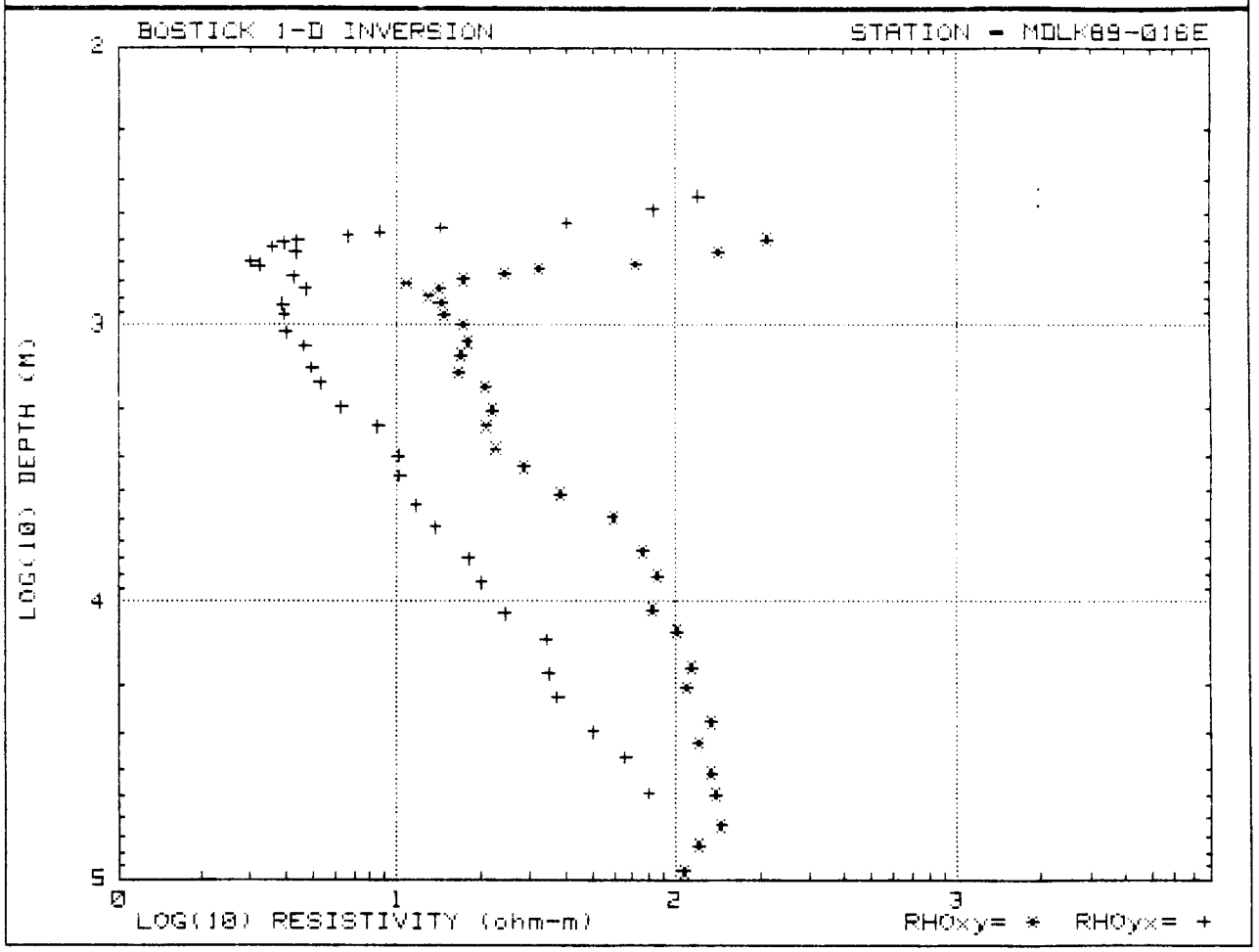




PHOENIX GEOSCIENCE

MT Site: MDLK89-016E





PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	538	363.6	85.8	49.9	99.9	80.8	17.8	-86.0	61.5
4	144.00 Hz	733	413.6	6.6	172.4	9.6	75.6	1.8	-96.3	2.6
5	96.00 Hz	921	273.1	3.8	144.5	4.1	76.2	1.1	-101.0	1.1
6	72.00 Hz	557	295.5	7.2	143.3	14.4	64.9	2.0	-108.2	3.9
7	48.00 Hz	1135	167.6	5.0	79.1	7.4	84.4	1.4	-95.1	2.1
8	36.00 Hz	1423	140.7	3.2	62.4	5.5	78.3	.9	-102.7	1.5
9	24.00 Hz	959	98.7	10.1	46.8	11.2	76.8	2.7	-101.4	3.0
10	18.00 Hz	1152	81.3	6.2	34.6	8.2	77.1	1.7	-96.5	2.3
11	12.00 Hz	1824	67.7	4.7	25.6	7.1	80.1	1.3	-100.0	2.0
12	9.00 Hz	1152	46.2	4.6	20.3	6.9	78.0	1.3	-102.8	1.9
13	6.00 Hz	768	40.4	11.7	15.9	15.6	81.3	3.2	-103.6	4.2
14	4.50 Hz	1920	38.1	22.5	13.0	29.3	85.2	5.8	-96.0	7.4
15	3.00 Hz	25984	33.2	32.0	13.1	35.9	73.4	8.0	-103.2	8.8
16	2.25 Hz	7072	33.6	49.1	10.2	59.9	72.6	11.4	-97.6	13.5
17	1.50 Hz	9136	25.2	72.9	8.8	86.5	58.4	15.7	-102.2	17.9
18	1.13 Hz	5024	20.9	91.4	8.5	99.9	58.0	18.6	-103.3	23.3
19	1.33 Sec	1664	18.8	99.9	3.8	99.9	53.2	21.6	-122.0	34.4
20	1.78 Sec	2320	47.9	99.9	10.8	99.9	57.3	58.5	-118.1	65.9
21	2.67 Sec	1944	3.5	99.9	1.3	99.9	-139.9	70.1	-167.7	80.8
22	3.56 Sec	1380	9.5	99.9	.62	99.9	44.9	79.6	-106.3	99.9
23	5.33 Sec	1148	26.1	99.9	6.3	99.9	23.6	28.3	-129.0	40.0
24	7.11 Sec	1928	26.0	99.9	5.2	99.9	29.1	35.7	-151.5	57.8
25	10.67 Sec	790	44.4	99.9	8.7	99.9	24.9	33.9	-111.2	75.0
26	14.22 Sec	114	51.6	99.9	6.3	99.9	28.7	34.4	-135.4	62.3
27	21.33 Sec	486	78.2	99.9	10.4	99.9	28.6	29.7	-134.4	41.7
28	28.44 Sec	612	74.7	99.9	8.2	99.9	30.5	22.1	-137.0	34.2
29	42.67 Sec	318	80.6	87.1	5.9	99.9	38.6	17.9	-124.3	22.8
30	56.89 Sec	144	77.3	44.8	6.8	99.9	44.2	10.6	-139.3	23.3
31	85.33 Sec	213	75.6	91.5	8.6	99.9	52.9	18.6	-126.2	21.0
32	113.78 Sec	78	72.5	99.9	5.8	99.9	69.1	35.4	-127.8	32.4
33	170.67 Sec	105	148.4	99.9	11.4	99.9	74.7	32.7	-111.6	34.5
34	227.56 Sec	99	64.0	99.9	103.2	99.9	82.5	58.6	52.4	60.2
35	341.33 Sec	9	160.7	99.9	9.9	99.9	25.8	51.5	-107.3	50.2
36	455.11 Sec	12	119.6	99.9	45.0	99.9	-63.7	39.7	-75.5	72.7
37	682.67 Sec	3	54.6	99.9	228.1	99.9	35.9	76.8	30.5	35.2

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	538	377.2	182.9	211.9	499	121.3	347
4	144.00 Hz	733	347.9	172.6	143.1	553	83.0	390
5	96.00 Hz	921	282.5	143.5	72.6	610	40.7	435
6	72.00 Hz	557	230.9	117.3	32.6	637	14.5	454
7	48.00 Hz	1135	167.7	83.5	24.6	665	8.7	470
8	36.00 Hz	1423	137.8	66.8	17.5	696	6.7	485
9	24.00 Hz	959	98.0	47.4	10.8	719	4.4	500
10	18.00 Hz	1152	79.1	37.6	14.3	746	3.9	514
11	12.00 Hz	1824	60.6	27.0	13.0	800	3.6	534
12	9.00 Hz	1152	50.5	22.1	14.4	843	4.4	558
13	6.00 Hz	768	41.2	17.0	14.7	933	3.0	599
14	4.50 Hz	1920	36.4	13.6	17.3	1012	3.2	619
15	3.00 Hz	25984	32.2	11.1	17.9	1166	4.3	683
16	2.25 Hz	7072	29.8	10.0	17.0	1296	4.7	751
17	1.50 Hz	9136	26.7	8.6	16.6	1500	3.9	854
18	1.13 Hz	5024	25.4	7.7	20.9	1690	4.0	932
19	1.33 Sec	1664	24.9	6.9	22.1	2052	4.0	1080
20	1.78 Sec	2320	24.4	6.4	21.0	2342	4.7	1204
21	2.67 Sec	1944	23.7	6.2	22.8	2828	5.0	1446
22	3.56 Sec	1380	24.0	6.0	28.7	3288	5.3	1639
23	5.33 Sec	1148	25.2	6.0	38.8	4126	6.3	2005
24	7.11 Sec	1928	27.8	6.1	59.7	5005	8.6	2343
25	10.67 Sec	790	32.4	6.7	76.7	6620	10.1	3006
26	14.22 Sec	114	36.8	7.0	86.1	8147	10.3	3555
27	21.33 Sec	486	42.8	7.6	83.4	10756	11.7	4538
28	28.44 Sec	612	46.0	8.1	101.5	12880	13.8	5412
29	42.67 Sec	318	55.6	9.1	114.0	17328	18.2	7019
30	56.89 Sec	144	58.5	10.2	109.7	20526	20.2	8587
31	85.33 Sec	213	68.6	11.4	134.4	27232	24.5	11118
32	113.78 Sec	78	73.2	13.2	120.6	32479	34.4	13773
33	170.67 Sec	105	81.3	15.6	135.5	41918	35.2	18352
34	227.56 Sec	99	87.1	17.2	139.5	50089	37.7	22271
35	341.33 Sec	9	95.4	20.2	146.7	64231	50.6	29539
36	455.11 Sec	12	100.8	23.2	122.1	76227	66.2	36554
37	682.67 Sec	3	102.0	28.2	107.8	93890	80.6	49361

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	538	-49.62	263.27	999.99	94.42	583.26	999.99
4	144.00 Hz	733	-50.17	3.21	999.99	135.53	528.64	608.47
5	96.00 Hz	921	-17.37	-17.76	383.38	86.09	351.70	89.94
6	72.00 Hz	557	-26.36	20.66	999.99	138.41	295.33	255.23
7	48.00 Hz	1135	-2.93	-12.19	138.16	19.46	199.64	47.38
8	36.00 Hz	1423	.96	-10.45	33.17	32.15	155.84	12.64
9	24.00 Hz	959	-8.06	-5.97	89.14	24.93	105.91	54.48
10	18.00 Hz	1152	-3.42	-2.23	24.33	19.12	83.35	13.22
11	12.00 Hz	1824	-2.41	-4.41	5.76	11.01	62.78	4.21
12	9.00 Hz	1152	.28	-2.14	3.29	9.51	44.57	2.14
13	6.00 Hz	768	2.28	-2.21	13.55	5.27	34.40	7.37
14	4.50 Hz	1920	.24	-2.46	17.34	2.47	29.19	17.70
15	3.00 Hz	25984	-1.12	.12	6.45	6.38	21.40	19.24
16	2.25 Hz	7072	-.46	-.35	10.64	5.80	18.57	30.20
17	1.50 Hz	9136	-.40	-.41	7.71	7.21	11.72	28.38
18	1.13 Hz	5024	-.76	-.50	10.49	6.98	11.18	36.59
19	1.33 Sec	1664	-.018	-1.517	14.944	5.031	6.724	20.118
20	1.78 Sec	2320	-.624	-1.177	66.566	5.266	9.764	99.999
21	2.67 Sec	1944	-.787	-.171	5.560	-1.948	-1.641	19.416
22	3.56 Sec	1380	1.626	.569	99.999	2.593	2.586	51.729
23	5.33 Sec	1148	-.669	.352	22.710	4.531	1.977	11.939
24	7.11 Sec	1928	-.005	.125	44.585	3.739	2.078	14.215
25	10.67 Sec	790	-.727	-.326	61.321	4.137	1.923	14.576
26	14.22 Sec	114	-.318	.216	20.159	3.735	2.047	13.049
27	21.33 Sec	486	-.382	.762	14.673	3.758	2.049	9.823
28	28.44 Sec	612	-.143	-.088	6.295	3.123	1.839	3.917
29	42.67 Sec	318	-.486	.235	2.901	2.401	1.918	1.853
30	56.89 Sec	144	.095	-.609	1.433	1.868	1.817	.466
31	85.33 Sec	213	-.322	.128	1.703	1.271	1.677	.935
32	113.78 Sec	78	.626	-.158	1.955	.638	1.668	2.430
33	170.67 Sec	105	1.188	-.124	3.395	.551	2.011	2.828
34	227.56 Sec	99	-.233	-.502	14.155	.155	1.175	2.940
35	341.33 Sec	9	.063	-.297	3.041	1.381	.667	3.802
36	455.11 Sec	12	-.248	.724	1.328	.507	-1.028	1.264
37	682.67 Sec	3	.808	-.502	7.890	.512	.370	1.437

PHOENIX GEOSCIENCE

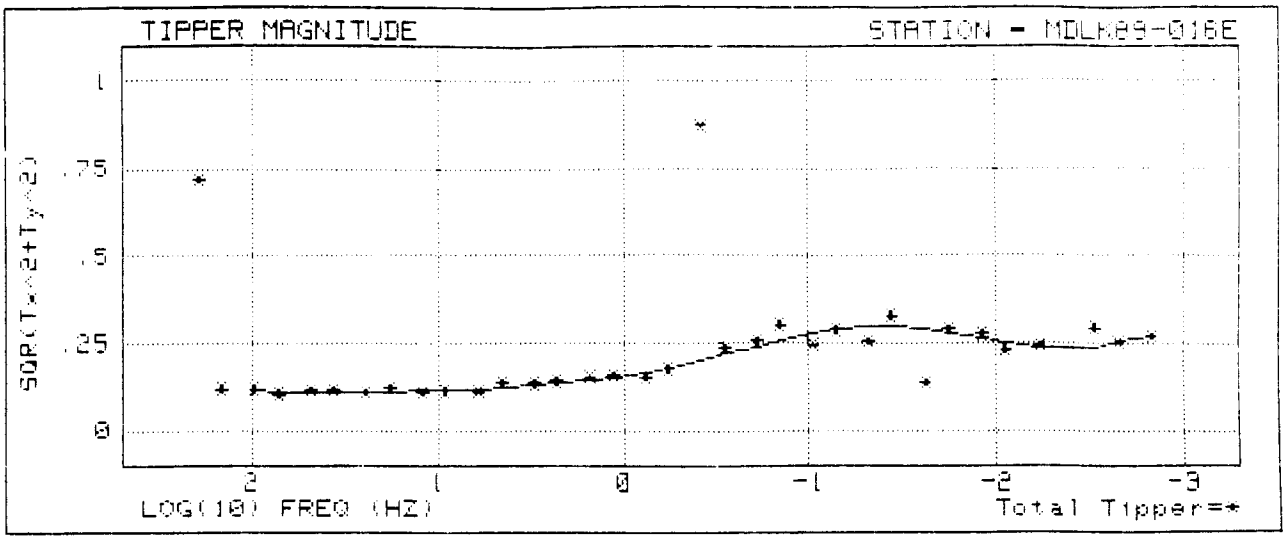
MT Site: MDLK89-016E

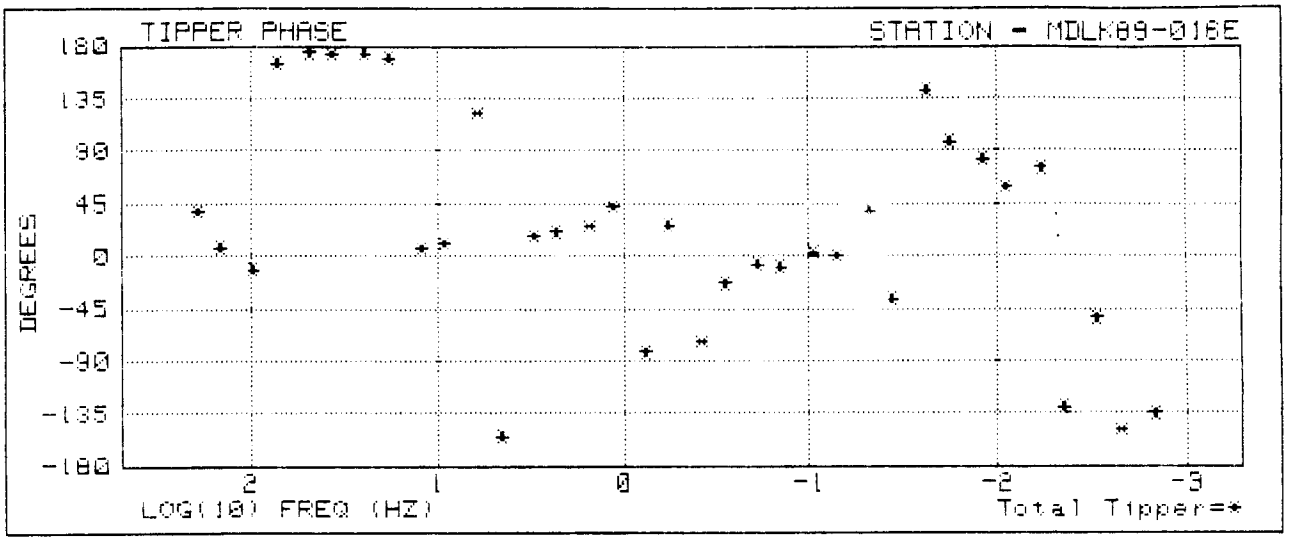
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

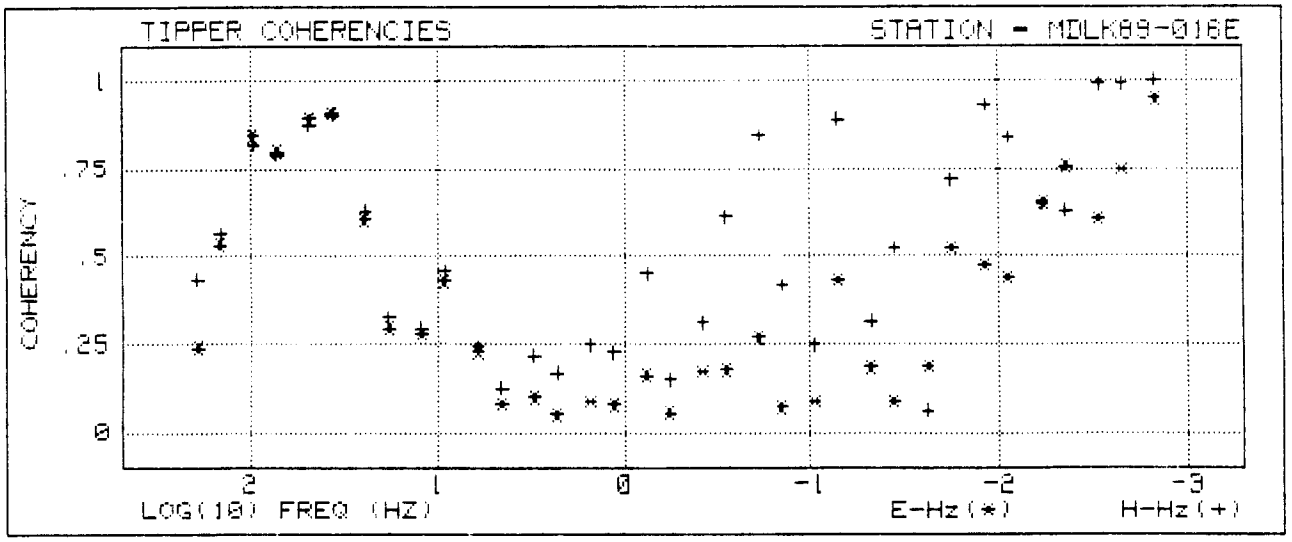
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	538	15.46	-218.39	999.99	61.83	229.71	999.99
4	144.00 Hz	733	-38.62	-350.22	519.51	-12.86	-17.06	130.13
5	96.00 Hz	921	-50.04	-258.54	55.62	-1.67	-23.83	13.05
6	72.00 Hz	557	-70.95	-215.80	466.16	4.80	-5.77	88.12
7	48.00 Hz	1135	-12.18	-137.23	48.66	1.55	-12.71	16.69
8	36.00 Hz	1423	-23.33	-103.40	15.82	1.24	-10.50	6.03
9	24.00 Hz	959	-14.87	-73.43	31.72	4.51	-9.87	19.38
10	18.00 Hz	1152	-6.31	-55.45	9.72	-1.16	-3.26	5.28
11	12.00 Hz	1824	-6.81	-38.58	3.66	1.09	-5.02	2.67
12	9.00 Hz	1152	-6.69	-29.49	2.01	1.85	-2.43	1.30
13	6.00 Hz	768	-5.14	-21.21	5.03	-.11	-2.19	2.74
14	4.50 Hz	1920	-1.78	-16.98	9.64	-.02	-2.45	9.83
15	3.00 Hz	25984	-3.20	-13.66	9.28	5.34	-2.54	27.70
16	2.25 Hz	7072	-1.41	-10.61	12.64	2.44	-1.95	35.89
17	1.50 Hz	9136	-1.72	-7.95	12.87	-1.17	.71	47.36
18	1.13 Hz	5024	-1.59	-6.74	15.83	-1.41	.30	55.21
19	1.33 Sec	1664	-2.015	-3.219	10.394	-1.044	-.635	13.993
20	1.78 Sec	2320	-2.602	-4.865	80.521	.437	-1.970	99.999
21	2.67 Sec	1944	-1.524	-.332	9.685	.093	-1.721	33.825
22	3.56 Sec	1380	-.263	-.897	99.999	1.799	.330	39.309
23	5.33 Sec	1148	-1.530	-1.888	5.747	-.654	-.145	3.021
24	7.11 Sec	1928	-1.677	-.910	7.405	.207	-.250	2.361
25	10.67 Sec	790	-.729	-1.879	13.912	-.731	-.003	3.307
26	14.22 Sec	114	-1.062	-1.046	5.250	-.257	.052	3.398
27	21.33 Sec	486	-1.092	-1.115	2.580	-.120	.012	1.727
28	28.44 Sec	612	-.879	-.818	1.025	-.177	-.014	.638
29	42.67 Sec	318	-.469	-.686	.219	-.270	-.104	.140
30	56.89 Sec	144	-.584	-.503	.197	-.227	-.295	.064
31	85.33 Sec	213	-.419	-.573	.135	-.016	-.108	.074
32	113.78 Sec	78	-.309	-.398	.163	.030	-.004	.202
33	170.67 Sec	105	-.213	-.538	.243	.175	.109	.202
34	227.56 Sec	99	.918	1.194	5.008	-.475	-.393	1.040
35	341.33 Sec	9	-.113	-.363	.222	-.020	.051	.277
36	455.11 Sec	12	.176	-.681	1.594	-.316	.697	1.518
37	682.67 Sec	3	1.113	.657	1.262	.404	.137	.230

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E







PHOENIX GEOSCIENCE

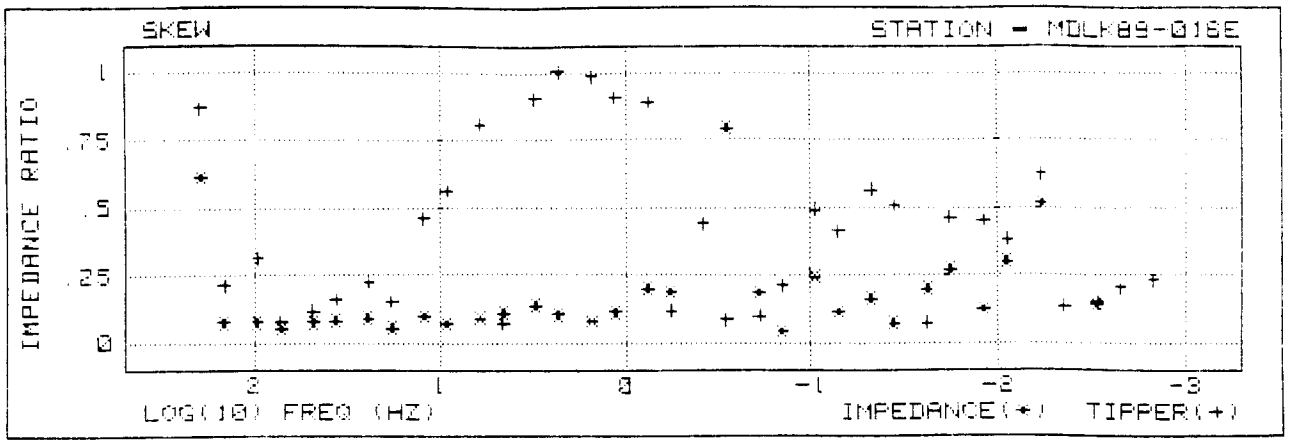
MT Site: MDLK89-016E

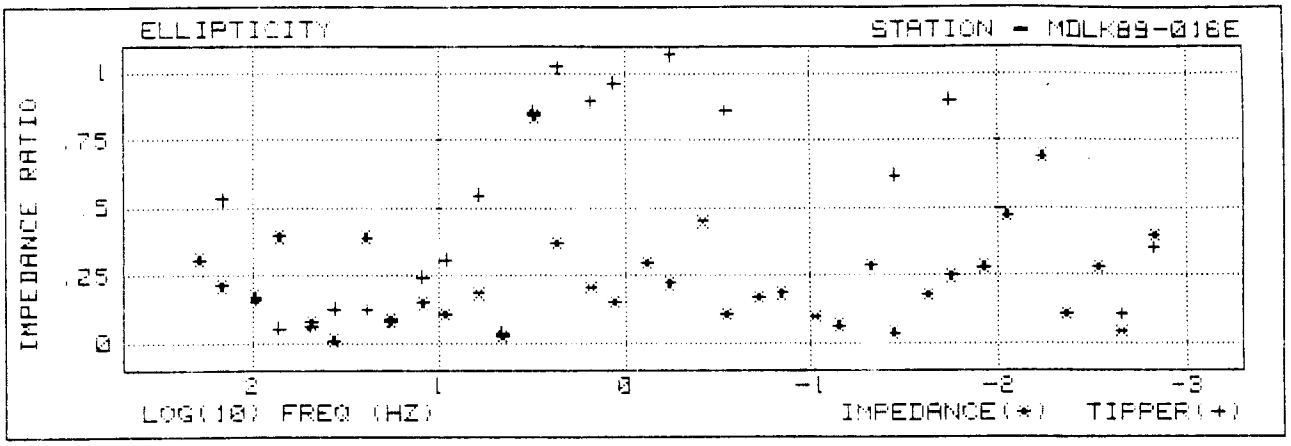
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

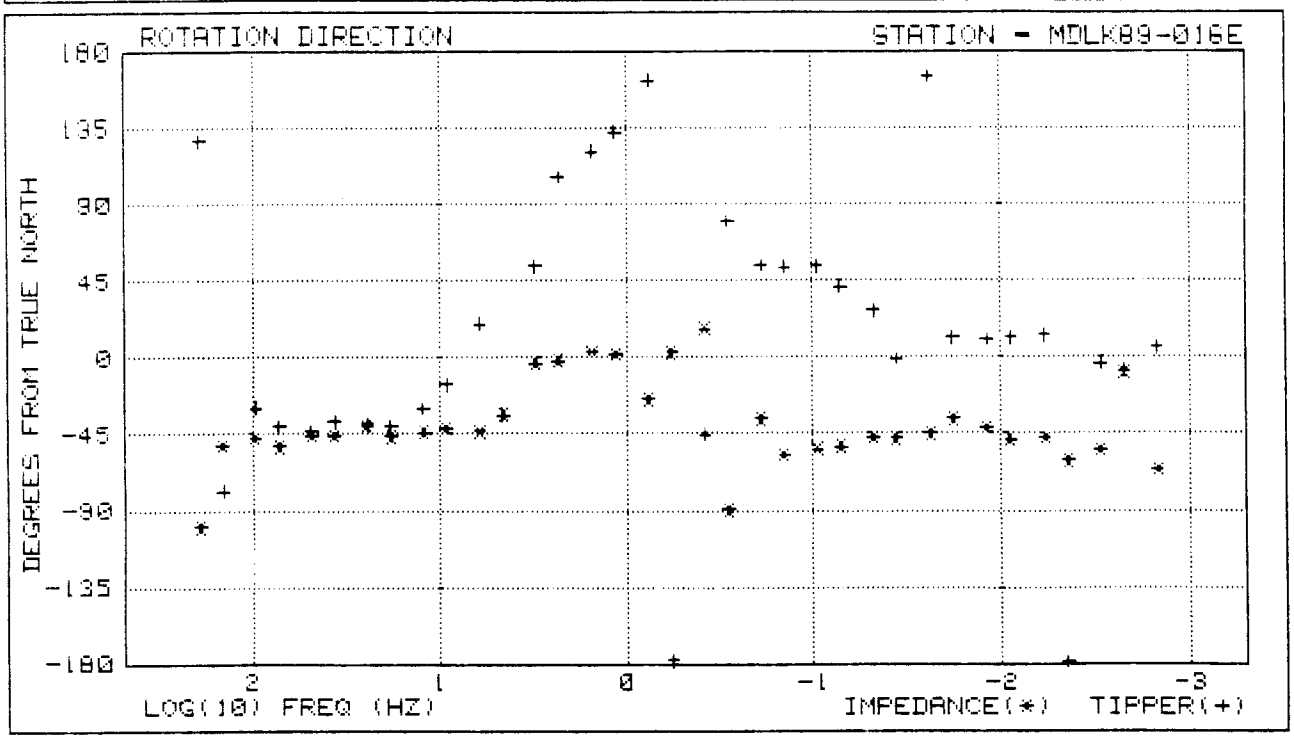
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	538	.72	37.66	.23	.43
4	144.00 Hz	733	.12	6.24	.53	.56
5	96.00 Hz	921	.12	-12.65	.84	.81
6	72.00 Hz	557	.10	164.16	.79	.79
7	48.00 Hz	1135	.11	173.77	.89	.87
8	36.00 Hz	1423	.11	172.30	.90	.90
9	24.00 Hz	959	.11	172.81	.60	.63
10	18.00 Hz	1152	.12	168.51	.29	.32
11	12.00 Hz	1824	.11	5.69	.27	.29
12	9.00 Hz	1152	.11	10.42	.43	.46
13	6.00 Hz	768	.11	121.85	.22	.24
14	4.50 Hz	1920	.13	-155.07	.08	.12
15	3.00 Hz	25984	.13	16.07	.10	.21
16	2.25 Hz	7072	.14	19.96	.05	.16
17	1.50 Hz	9136	.15	24.82	.09	.24
18	1.13 Hz	5024	.15	41.83	.08	.22
19	1.33 Sec	1664	.15	-83.08	.16	.45
20	1.78 Sec	2320	.17	25.50	.05	.15
21	2.67 Sec	1944	.87	-74.24	.17	.31
22	3.56 Sec	1380	.23	-24.14	.17	.61
23	5.33 Sec	1148	.25	-7.91	.26	.84
24	7.11 Sec	1928	.30	-10.02	.07	.41
25	10.67 Sec	790	.24	2.34	.09	.24
26	14.22 Sec	114	.29	-.74	.43	.89
27	21.33 Sec	486	.25	38.34	.18	.31
28	28.44 Sec	612	.32	-37.37	.08	.52
29	42.67 Sec	318	.13	140.87	.18	.06
30	56.89 Sec	144	.29	97.25	.52	.71
31	85.33 Sec	213	.27	82.53	.47	.93
32	113.78 Sec	78	.23	58.40	.44	.84
33	170.67 Sec	105	.24	74.81	.65	.65
34	227.56 Sec	99	2.57	-130.27	.75	.63
35	341.33 Sec	9	.29	-53.54	.60	.99
36	455.11 Sec	12	.25	-150.08	.74	.99
37	682.67 Sec	3	.27	-135.71	.95	1.00

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E







PHOENIX GEOSCIENCE

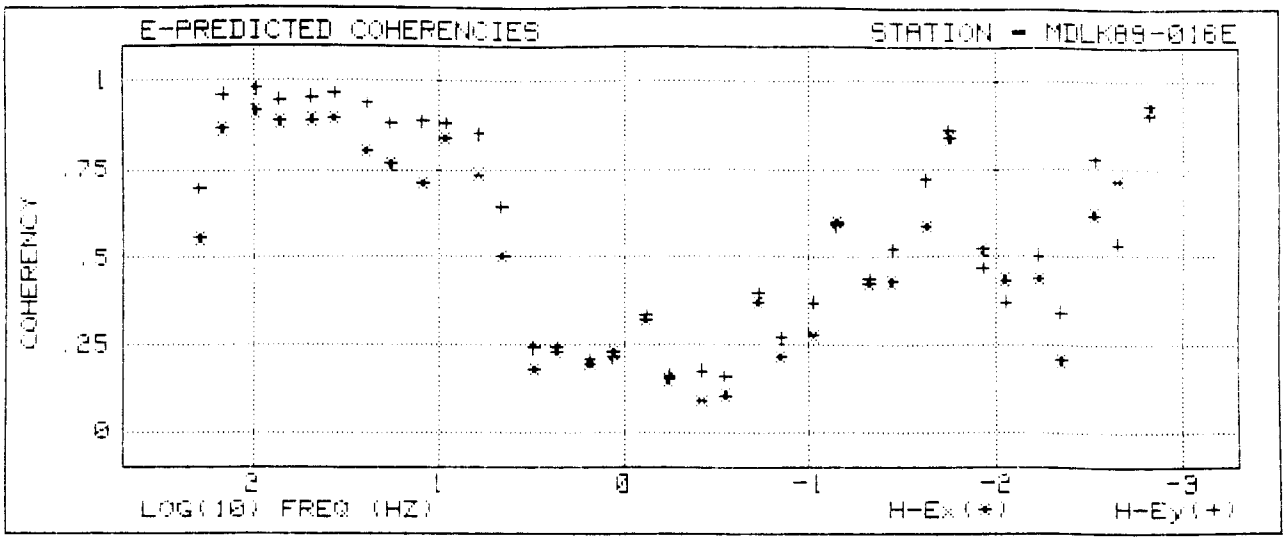
MT Site: MDLK89-016E

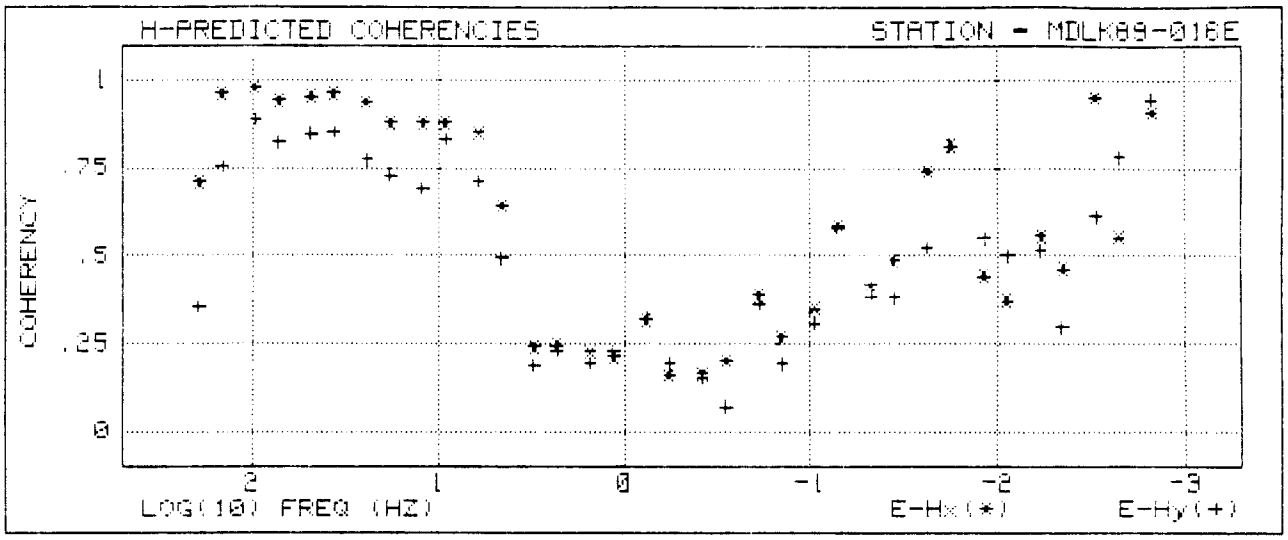
SKEW, ELLIPTICITY AND STRIKE

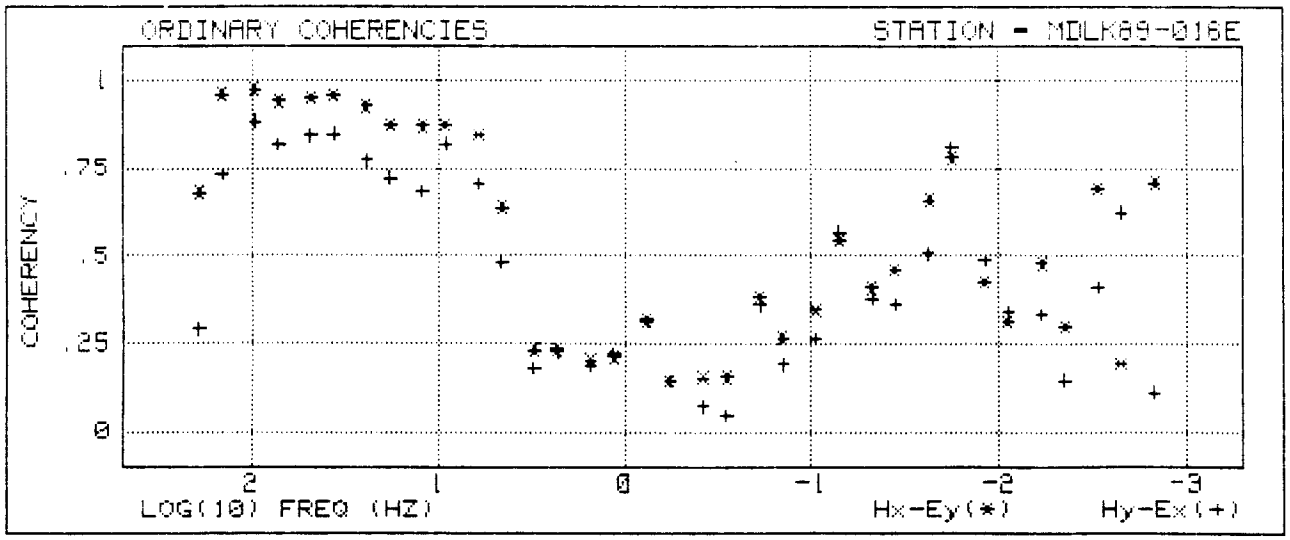
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	538	.61	.31	-100.17	.86	1.39	126.45
4	144.00 Hz	733	.07	.21	-51.99	.21	.53	-79.02
5	96.00 Hz	921	.07	.17	-47.67	.31	.16	-30.20
6	72.00 Hz	557	.05	.39	-52.69	.07	.05	-41.16
7	48.00 Hz	1135	.07	.07	-46.18	.12	.06	-43.58
8	36.00 Hz	1423	.08	.01	-46.48	.16	.12	-38.45
9	24.00 Hz	959	.09	.39	-40.44	.22	.12	-39.86
10	18.00 Hz	1152	.05	.08	-47.12	.15	.08	-40.60
11	12.00 Hz	1824	.09	.14	-44.45	.45	.24	-30.38
12	9.00 Hz	1152	.07	.10	-41.97	.56	.30	-16.73
13	6.00 Hz	768	.09	.18	-44.00	.80	.54	19.01
14	4.50 Hz	1920	.11	.02	-34.13	.07	.03	-34.35
15	3.00 Hz	25984	.13	.84	-3.97	.90	.85	52.65
16	2.25 Hz	7072	.10	.36	-2.52	1.00	1.02	105.24
17	1.50 Hz	9136	.07	.20	2.60	.98	.89	120.32
18	1.13 Hz	5024	.11	.15	1.24	.90	.96	131.69
19	1.33 Sec	1664	.20	.29	-25.37	.88	1.65	162.25
20	1.78 Sec	2320	.18	.22	2.24	.12	1.06	-178.71
21	2.67 Sec	1944	1.46	.45	16.15	.43	4.32	-45.88
22	3.56 Sec	1380	.79	.10	-90.21	.08	.86	79.52
23	5.33 Sec	1148	.19	.17	-36.59	.10	6.36	53.35
24	7.11 Sec	1928	.04	.18	-58.06	.21	3.87	52.49
25	10.67 Sec	790	.24	.09	-54.59	.49	3.03	52.65
26	14.22 Sec	114	.11	.06	-52.99	.41	4.34	40.64
27	21.33 Sec	486	.16	.28	-47.68	.56	1.77	26.77
28	28.44 Sec	612	.07	.03	-48.48	.50	.62	-1.65
29	42.67 Sec	318	.20	.18	-45.36	.07	4.58	164.81
30	56.89 Sec	144	.27	.24	-36.91	.46	.90	11.03
31	85.33 Sec	213	.12	.28	-42.22	.45	1.11	10.08
32	113.78 Sec	78	.30	.47	-48.83	.38	1.50	10.82
33	170.67 Sec	105	.51	.69	-47.90	.62	1.34	12.42
34	227.56 Sec	99	1.49	.10	-61.35	.13	1.85	-179.58
35	341.33 Sec	9	.14	.27	-54.90	.15	1.22	-4.09
36	455.11 Sec	12	3.19	.04	-9.13	.20	.10	-8.17
37	682.67 Sec	3	1.90	.39	-66.43	.23	.35	5.30

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E







PHOENIX GEOSCIENCE

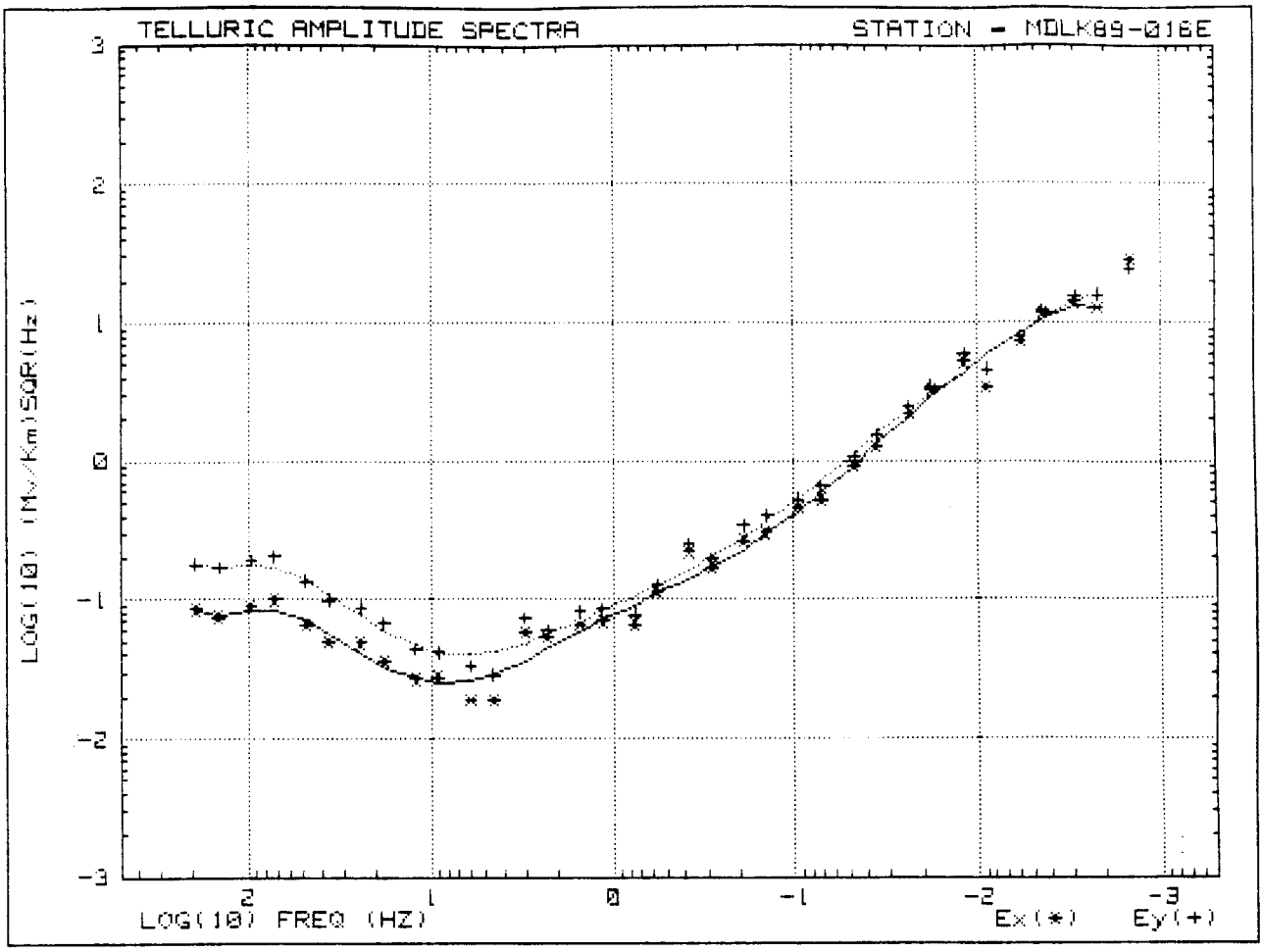
MT Site: MDLK89-016E

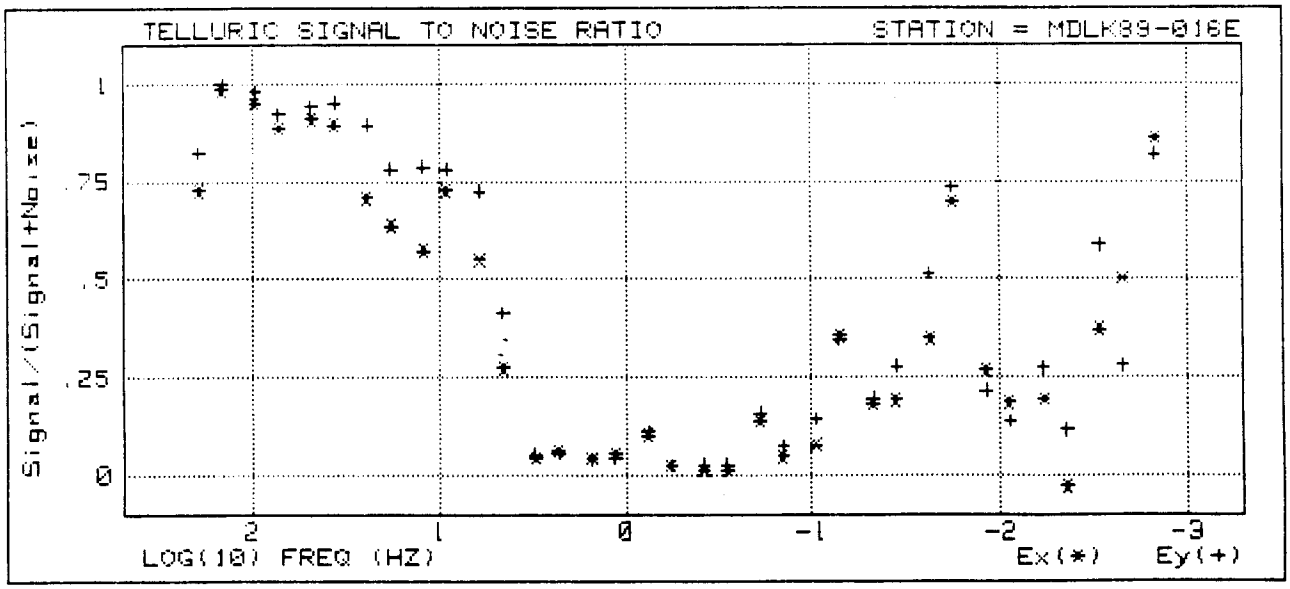
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	538	.55	.70	.71	.35	.68	.29
4	144.00 Hz	733	.86	.96	.96	.75	.96	.73
5	96.00 Hz	921	.91	.97	.97	.88	.97	.88
6	72.00 Hz	557	.88	.94	.94	.82	.94	.81
7	48.00 Hz	1135	.89	.95	.95	.85	.95	.84
8	36.00 Hz	1423	.89	.96	.96	.85	.95	.84
9	24.00 Hz	959	.80	.93	.93	.77	.92	.77
10	18.00 Hz	1152	.76	.88	.87	.73	.87	.72
11	12.00 Hz	1824	.71	.88	.87	.69	.87	.68
12	9.00 Hz	1152	.84	.88	.88	.83	.87	.82
13	6.00 Hz	768	.73	.85	.85	.71	.84	.70
14	4.50 Hz	1920	.50	.64	.64	.49	.63	.48
15	3.00 Hz	25984	.18	.24	.24	.18	.23	.18
16	2.25 Hz	7072	.22	.24	.24	.23	.23	.22
17	1.50 Hz	9136	.19	.20	.22	.19	.20	.19
18	1.13 Hz	5024	.22	.21	.21	.22	.21	.22
19	1.33 Sec	1664	.32	.33	.31	.32	.31	.31
20	1.78 Sec	2320	.14	.16	.16	.19	.14	.14
21	2.67 Sec	1944	.09	.17	.16	.15	.15	.07
22	3.56 Sec	1380	.10	.16	.20	.07	.15	.04
23	5.33 Sec	1148	.37	.39	.38	.36	.38	.36
24	7.11 Sec	1928	.21	.26	.26	.19	.26	.19
25	10.67 Sec	790	.27	.37	.35	.30	.34	.26
26	14.22 Sec	114	.60	.59	.58	.58	.54	.56
27	21.33 Sec	486	.42	.44	.41	.38	.40	.37
28	28.44 Sec	612	.43	.52	.48	.38	.46	.36
29	42.67 Sec	318	.58	.71	.74	.52	.66	.50
30	56.89 Sec	144	.83	.86	.81	.81	.78	.81
31	85.33 Sec	213	.52	.46	.44	.54	.42	.48
32	113.78 Sec	78	.43	.37	.37	.50	.31	.34
33	170.67 Sec	105	.44	.50	.55	.51	.48	.33
34	227.56 Sec	99	.20	.34	.46	.29	.30	.14
35	341.33 Sec	9	.61	.77	.95	.61	.69	.41
36	455.11 Sec	12	.71	.53	.55	.78	.19	.62
37	682.67 Sec	3	.92	.90	.90	.94	.70	.11

PHOENIX GEOSCIENCE

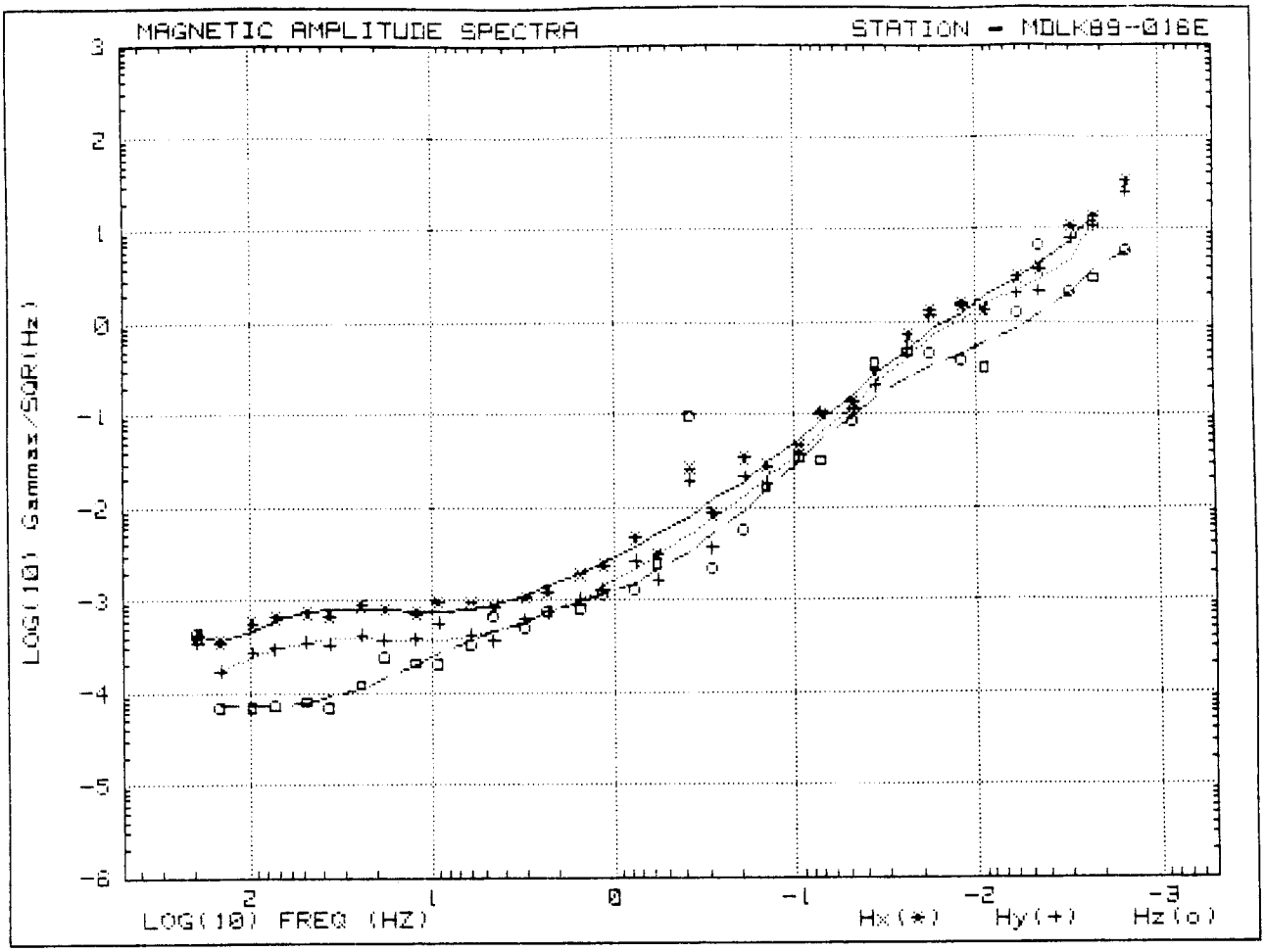
MT Site: MDLK89-016E

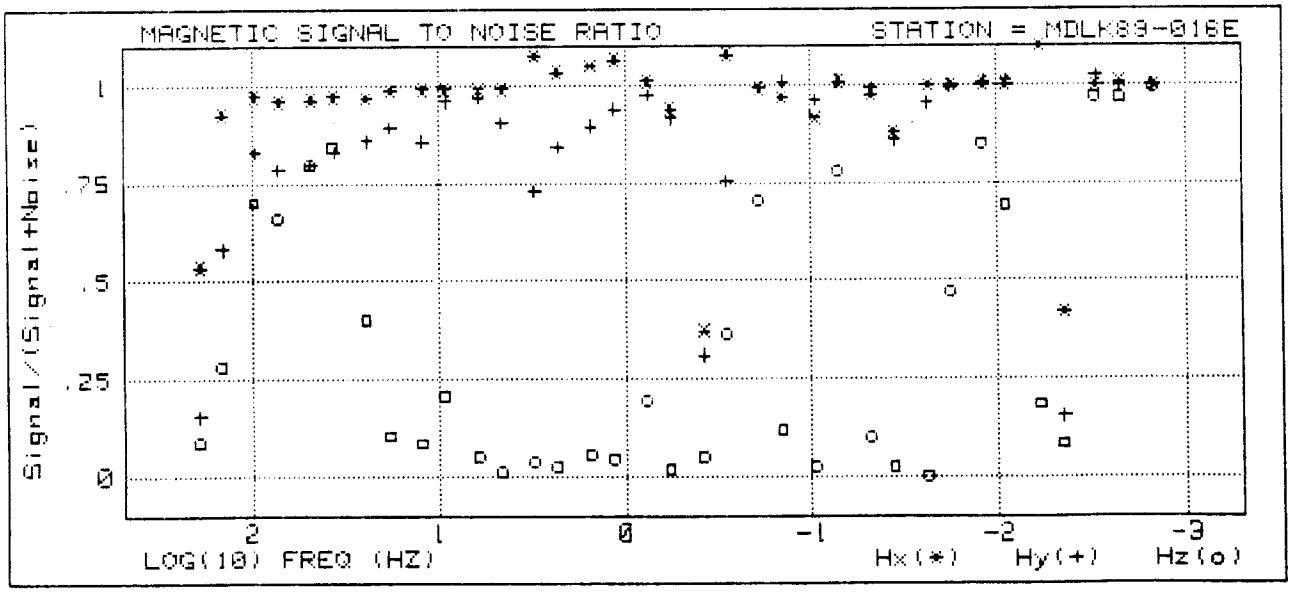




PHOENIX GEOSCIENCE

MT Site: MDLK89-016E





PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	538	4.16E-04	3.50E-04	4.51E-04	8.44E-02	1.78E-01
4	144.00 Hz	733	3.45E-04	1.69E-04	7.29E-05	7.40E-02	1.68E-01
5	96.00 Hz	921	5.56E-04	2.68E-04	7.24E-05	8.86E-02	1.90E-01
6	72.00 Hz	557	6.40E-04	2.98E-04	7.52E-05	9.80E-02	2.03E-01
7	48.00 Hz	1135	7.25E-04	3.45E-04	8.39E-05	6.42E-02	1.35E-01
8	36.00 Hz	1423	6.74E-04	3.24E-04	7.30E-05	4.86E-02	9.79E-02
9	24.00 Hz	959	8.62E-04	4.12E-04	1.28E-04	4.83E-02	8.68E-02
10	18.00 Hz	1152	7.80E-04	3.66E-04	2.50E-04	3.54E-02	6.59E-02
11	12.00 Hz	1824	7.17E-04	3.73E-04	2.20E-04	2.63E-02	4.34E-02
12	9.00 Hz	1152	9.37E-04	5.62E-04	2.10E-04	2.72E-02	4.11E-02
13	6.00 Hz	768	9.32E-04	4.15E-04	3.48E-04	1.87E-02	3.25E-02
14	4.50 Hz	1920	8.12E-04	3.51E-04	6.98E-04	1.87E-02	2.81E-02
15	3.00 Hz	25984	1.05E-03	6.13E-04	5.23E-04	5.75E-02	7.31E-02
16	2.25 Hz	7072	1.22E-03	7.29E-04	8.08E-04	5.31E-02	5.98E-02
17	1.50 Hz	9136	1.90E-03	1.01E-03	8.65E-04	6.46E-02	8.09E-02
18	1.13 Hz	5024	2.37E-03	1.30E-03	1.20E-03	6.89E-02	8.35E-02
19	1.33 Sec	1664	4.68E-03	2.65E-03	1.35E-03	6.49E-02	7.62E-02
20	1.78 Sec	2320	3.14E-03	1.66E-03	2.62E-03	1.14E-01	1.25E-01
21	2.67 Sec	1944	2.57E-02	1.92E-02	1.02E-01	2.19E-01	2.47E-01
22	3.56 Sec	1380	8.52E-03	3.64E-03	2.31E-03	1.69E-01	1.97E-01
23	5.33 Sec	1148	3.31E-02	2.11E-02	6.08E-03	2.62E-01	3.41E-01
24	7.11 Sec	1928	2.77E-02	1.77E-02	1.73E-02	3.02E-01	3.97E-01
25	10.67 Sec	790	4.59E-02	3.60E-02	3.58E-02	4.54E-01	5.23E-01
26	14.22 Sec	114	1.01E-01	1.06E-01	3.35E-02	5.22E-01	6.46E-01
27	21.33 Sec	486	1.36E-01	1.13E-01	8.97E-02	8.93E-01	1.06E+00
28	28.44 Sec	612	2.89E-01	2.02E-01	3.75E-01	1.23E+00	1.48E+00
29	42.67 Sec	318	7.12E-01	5.15E-01	4.94E-01	2.16E+00	2.45E+00
30	56.89 Sec	144	1.29E+00	1.17E+00	4.77E-01	3.22E+00	3.40E+00
31	85.33 Sec	213	1.54E+00	1.47E+00	4.08E-01	5.15E+00	5.87E+00
32	113.78 Sec	78	1.33E+00	1.31E+00	3.37E-01	3.33E+00	4.49E+00
33	170.67 Sec	105	2.98E+00	2.01E+00	1.32E+00	7.20E+00	7.77E+00
34	227.56 Sec	99	3.74E+00	2.12E+00	7.22E+00	1.15E+01	1.19E+01
35	341.33 Sec	9	1.06E+01	8.00E+00	2.31E+00	1.38E+01	1.51E+01
36	455.11 Sec	12	1.32E+01	1.10E+01	3.17E+00	1.25E+01	1.54E+01
37	682.67 Sec	3	3.29E+01	2.54E+01	6.24E+00	2.77E+01	2.40E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	538	.535	.152	.090	.725	.822
4	144.00 Hz	733	.923	.581	.289	.983	.997
5	96.00 Hz	921	.970	.828	.706	.948	.977
6	72.00 Hz	557	.958	.784	.667	.884	.921
7	48.00 Hz	1135	.961	.798	.801	.908	.939
8	36.00 Hz	1423	.970	.828	.850	.892	.949
9	24.00 Hz	959	.967	.858	.405	.706	.892
10	18.00 Hz	1152	.986	.890	.108	.634	.780
11	12.00 Hz	1824	.990	.855	.089	.573	.786
12	9.00 Hz	1152	.990	.957	.215	.725	.779
13	6.00 Hz	768	.990	.969	.056	.549	.724
14	4.50 Hz	1920	.990	.904	.015	.271	.413
15	3.00 Hz	25984	1.000	.726	.043	.042	.049
16	2.25 Hz	7072	1.000	.841	.028	.060	.053
17	1.50 Hz	9136	1.000	.893	.061	.040	.038
18	1.13 Hz	5024	1.000	.937	.051	.054	.041
19	1.33 Sec	1664	1.000	.972	.201	.101	.108
20	1.78 Sec	2320	.937	.913	.022	.023	.022
21	2.67 Sec	1944	.371	.306	.055	.010	.024
22	3.56 Sec	1380	1.000	.753	.368	.010	.023
23	5.33 Sec	1148	.989	.992	.708	.136	.157
24	7.11 Sec	1928	.965	1.000	.123	.045	.072
25	10.67 Sec	790	.915	.960	.028	.075	.142
26	14.22 Sec	114	1.000	1.000	.787	.354	.344
27	21.33 Sec	486	.975	.990	.103	.179	.194
28	28.44 Sec	612	.878	.857	.027	.190	.277
29	42.67 Sec	318	.998	.952	.006	.348	.514
30	56.89 Sec	144	.999	.993	.475	.695	.733
31	85.33 Sec	213	1.000	1.000	.857	.266	.213
32	113.78 Sec	78	1.000	1.000	.699	.184	.136
33	170.67 Sec	105	1.000	1.000	.190	.192	.271
34	227.56 Sec	99	.418	.152	.089	0.000	.115
35	341.33 Sec	9	.998	1.000	.976	.371	.587
36	455.11 Sec	12	1.000	.999	.971	.501	.279
37	682.67 Sec	3	.997	.995	.999	.859	.817

PHOENIX GEOSCIENCE

MT Site: MDLK89-016E

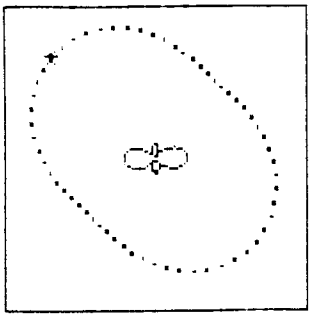
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

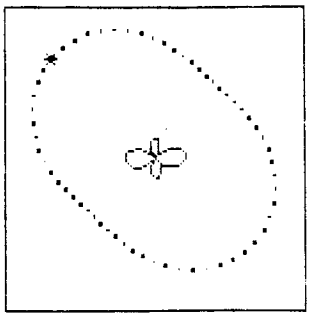
*=Rotation Direction

Zxy = ...
Zxx = ___

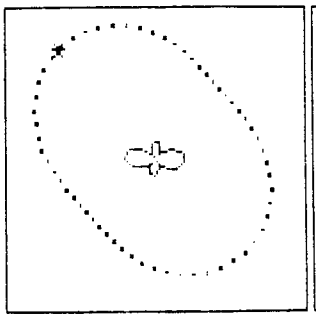
F=8 (36.0 Hz)



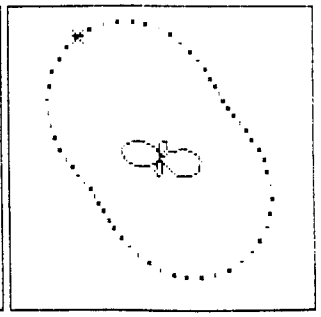
F=10 (18.0 Hz)



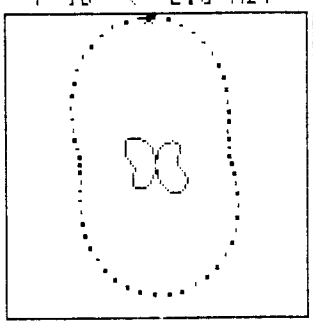
F=12 (9.0 Hz)



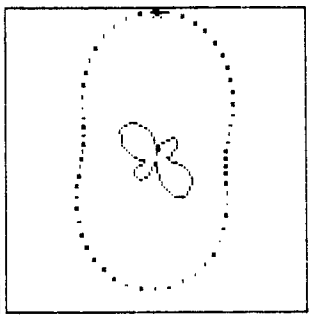
F=14 (4.5 Hz)



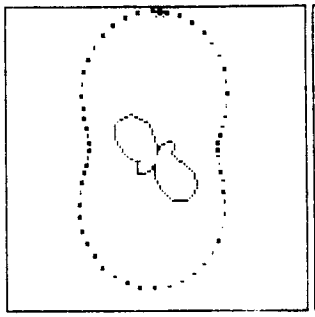
F=16 (2.3 Hz)



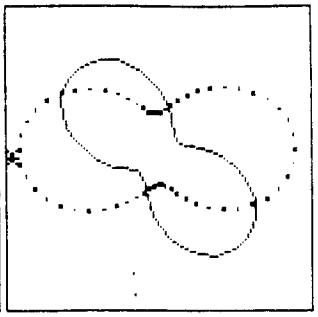
F=18 (1.1 Hz)



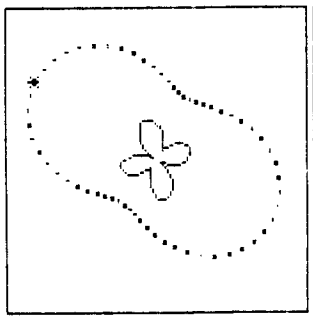
F=20 (.5625 Hz)



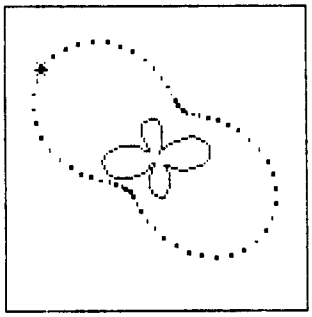
F=22 (.2813 Hz)



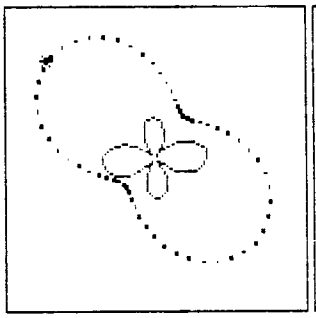
F=24 (.1406 Hz)



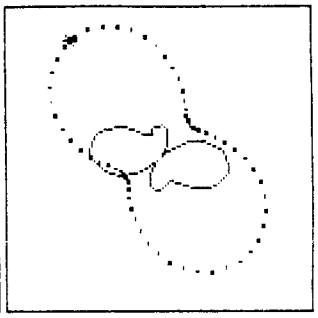
F=26 (.0703 Hz)



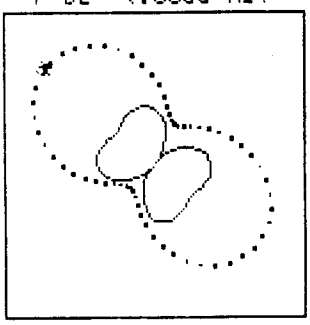
F=28 (.0352 Hz)



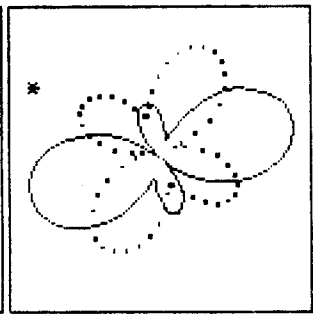
F=30 (.0176 Hz)



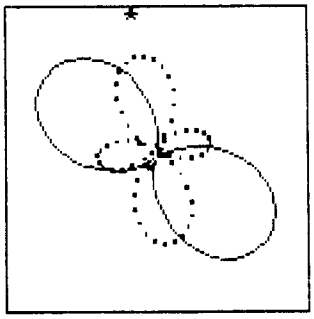
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-017s/018s/019s/

Operator:STEWART
Date: 27 Aug 1989
Time: 12:44:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 1

Stn Number:MDLK89-017s
Site Desc:T43N R4E
41,34,08 N 121,28,33 W
Elevation:5720 FT
Reference:MDLK89-018s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL452	+0 DEG
Hy	2	COIL210	+90 DEG
Hz	3	LOOP405	
Ex	4	194 M	+0 DEG
Ey	5	184 M	+90 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 10.5K Ohms
Ex Voltage: AC=26__ mv, DC=25.6 mv
Ey Pot Resist: 9.0 K Ohms
Ey Voltage: AC=14__ mv, DC=202_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

OPERATOR LOG FOR MDLK89-017E/018s/019s/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, and b.
X#2 - SUM OF RUNS: a, and b.
X#3 - SUM OF RUNS: a, and b.
X#4 - SUM OF RUNS: a, and b.
X#5 - SUM OF RUNS: a, and b.
X#6 - SUM OF RUNS: a, and b.
X#7 - SUM OF RUNS: a, and b.
X#8 - SUM OF RUNS: a, and b.
X#9 - SUM OF RUNS: a, and b.
X#10 - SUM OF RUNS: a, and b.
X#11 - SUM OF RUNS: a, and b.
X#12 - SUM OF RUNS: a, and b.
X#13 - SUM OF RUNS: a, and b.
X#14 - SUM OF RUNS: a, and b.
X#15 - SUM OF RUNS: a, and b.
X#16 - SUM OF RUNS: a, and b.

Operator:STEWART/OJALA

Cultural Factors:
LG. CROSSCOUNTRY PWRLNS. APP. 8mi EAST OF SITE.
LIGHTLY TRAVELED FOREST RDS. NEAR SITE

Weather Conditions:
CLEAR AND WARM WITH LIGHT WINDS

Other Factors:
NONE

PHOENIX GEOSCIENCE

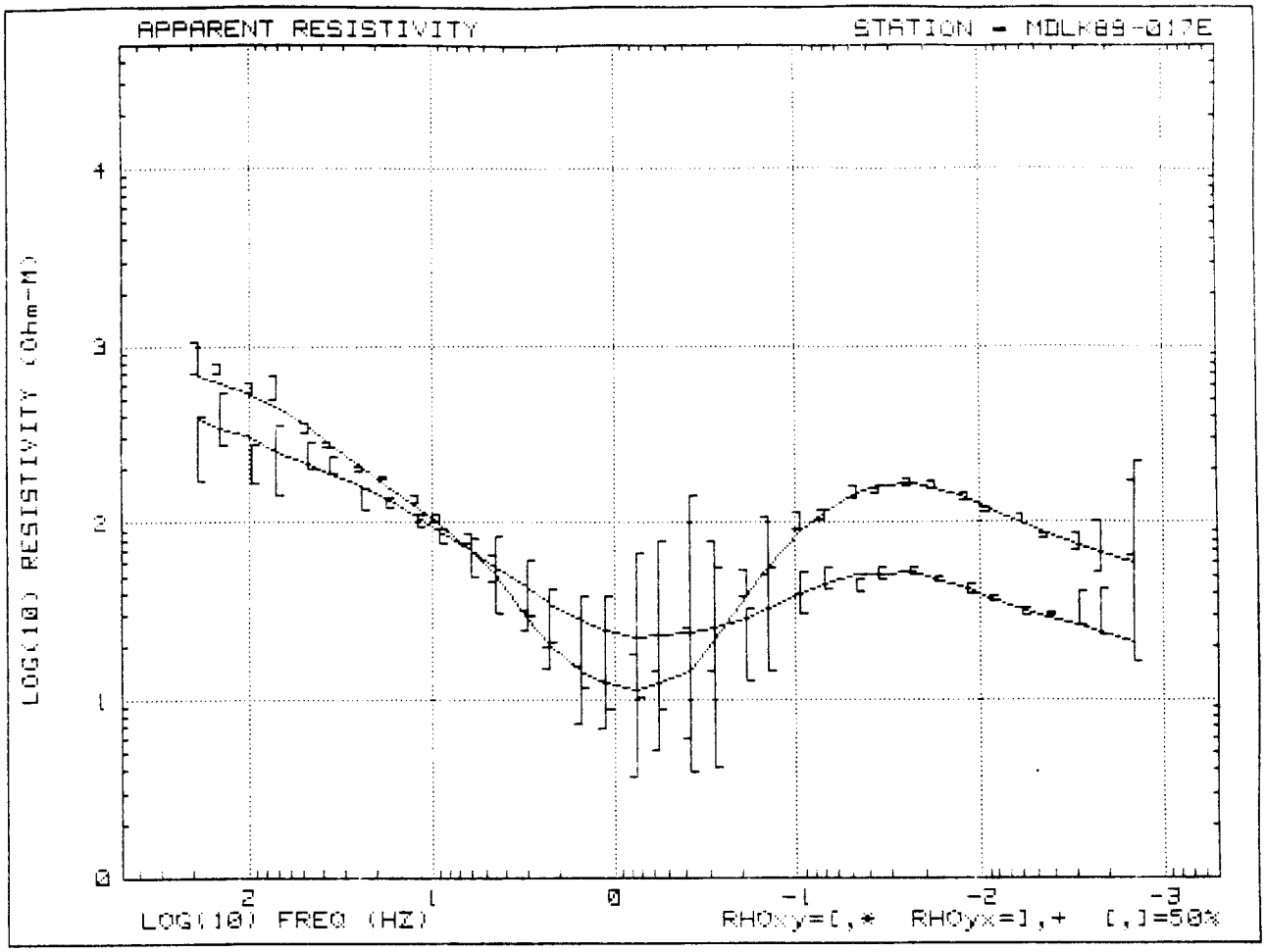
MT Site: MDLK89-017E

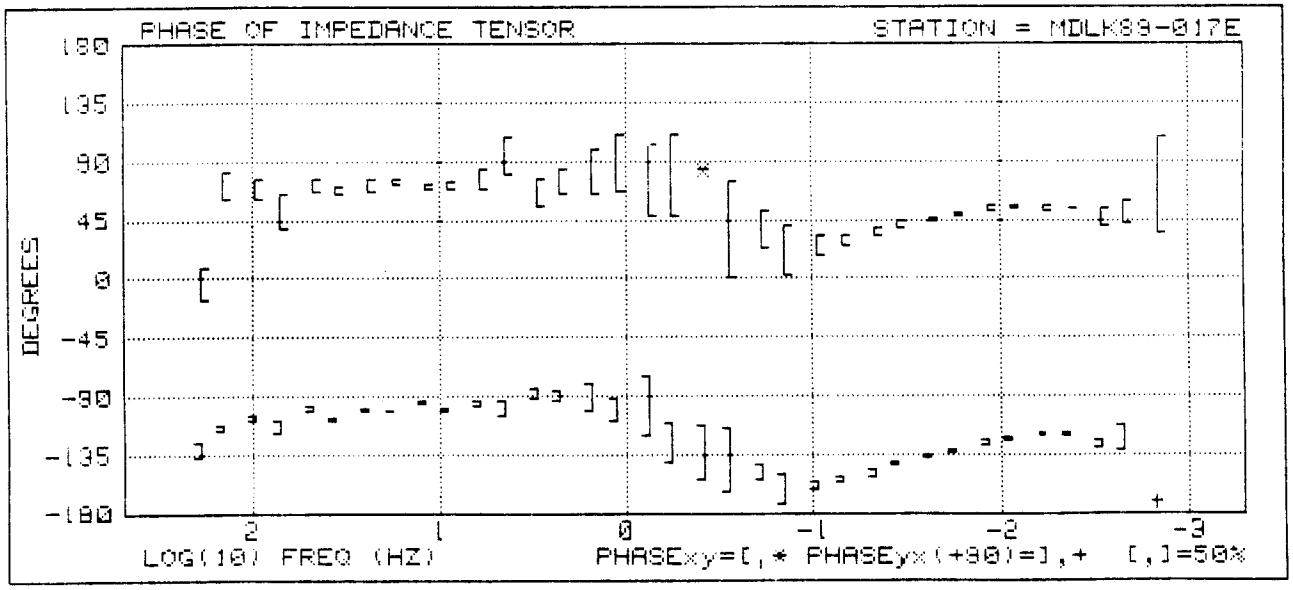
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

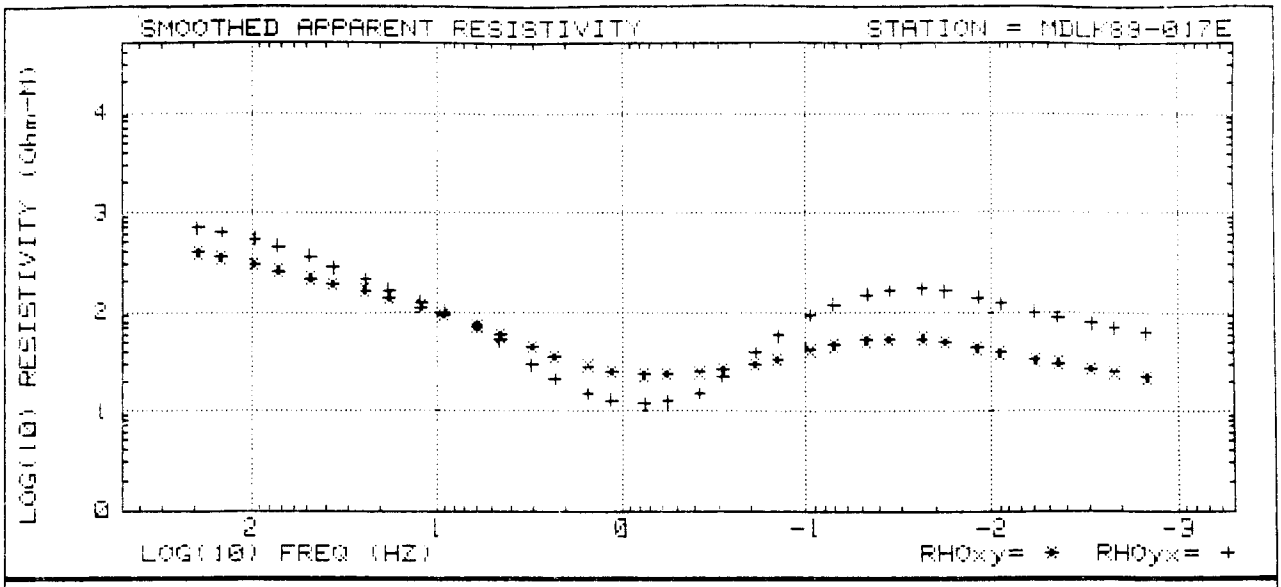
MT Site: MDLK89-017E

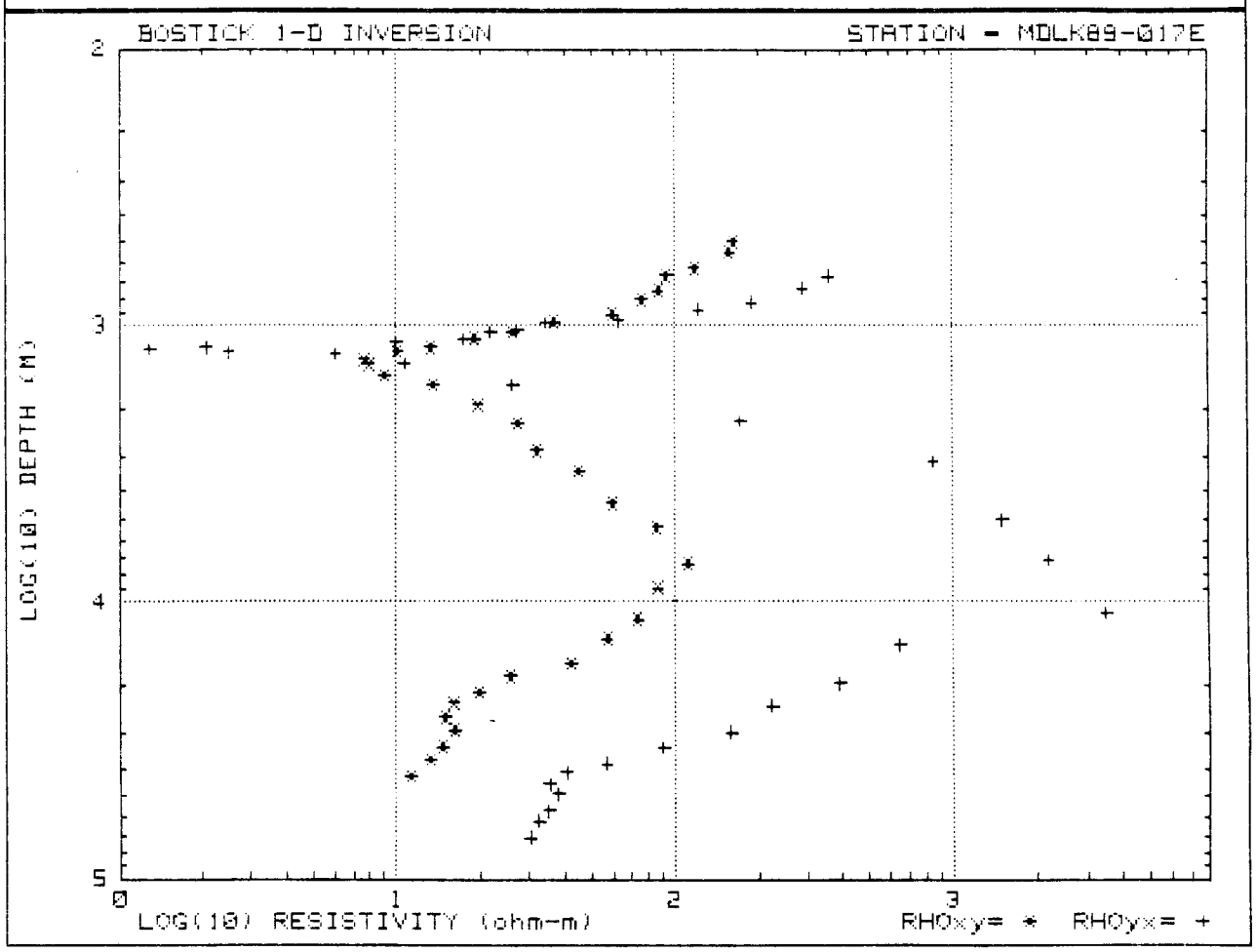




PHOENIX GEOSCIENCE

MT Site: MDLK89-017E





PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	282	265.0	86.2	860.2	33.7	-3.4	17.8	-130.9	8.3
4	144.00 Hz	454	389.3	69.9	748.4	9.4	71.5	15.2	-115.1	2.6
5	96.00 Hz	281	213.3	46.9	583.8	11.3	69.5	11.0	-106.8	3.1
6	72.00 Hz	281	224.0	99.9	584.3	26.6	51.4	19.8	-113.7	6.8
7	48.00 Hz	575	239.4	29.5	344.8	8.5	72.3	7.4	-99.6	2.3
8	36.00 Hz	571	210.9	17.0	275.4	5.2	68.6	4.5	-106.9	1.4
9	24.00 Hz	576	137.3	23.9	202.1	4.3	71.4	6.1	-100.9	1.2
10	18.00 Hz	1152	129.6	10.3	180.5	2.8	75.1	2.8	-101.2	.8
11	12.00 Hz	1440	103.8	13.1	137.2	6.3	71.1	3.5	-94.2	1.8
12	9.00 Hz	288	84.7	15.6	105.3	6.5	71.6	4.1	-100.4	1.8
13	6.00 Hz	576	62.5	45.0	82.2	10.5	76.6	10.7	-94.6	2.8
14	4.50 Hz	480	51.4	99.9	55.3	30.4	94.2	21.5	-99.1	7.6
15	3.00 Hz	9188	43.1	70.1	28.2	20.8	66.8	15.2	-87.4	5.4
16	2.25 Hz	18244	30.0	66.0	17.5	24.4	74.9	14.5	-89.7	6.3
17	1.50 Hz	9632	21.3	99.9	10.8	74.2	81.9	25.4	-91.2	15.9
18	1.13 Hz	8224	18.4	99.9	9.5	61.7	88.7	31.3	-100.0	13.8
19	1.33 Sec	3040	26.6	99.9	8.2	99.9	75.1	40.1	-97.3	34.0
20	1.78 Sec	5101	26.4	99.9	8.7	99.9	79.0	46.4	-125.5	21.6
21	2.67 Sec	1696	23.5	99.9	12.5	99.9	82.5	76.8	-132.7	31.1
22	3.56 Sec	868	15.3	99.9	34.1	99.9	38.0	55.4	-139.1	36.3
23	5.33 Sec	192	20.7	99.9	46.0	28.9	37.7	20.5	-148.3	7.3
24	7.11 Sec	1470	28.8	99.9	73.8	72.6	21.3	28.8	-161.5	15.6
25	10.67 Sec	681	40.4	48.2	104.0	18.1	25.5	11.3	-158.2	4.8
26	14.22 Sec	717	48.3	23.7	110.3	10.6	29.0	6.1	-154.7	2.9
27	21.33 Sec	48	44.4	13.6	149.3	13.1	35.7	3.7	-149.4	3.5
28	28.44 Sec	100	51.4	13.6	150.0	5.1	41.3	3.6	-141.4	1.4
29	42.67 Sec	48	52.7	7.4	170.6	6.9	44.8	2.0	-135.6	1.9
30	56.89 Sec	93	47.2	4.6	166.1	7.4	49.2	1.3	-132.5	2.0
31	85.33 Sec	90	42.0	10.5	140.0	7.6	52.9	2.9	-126.0	2.1
32	113.78 Sec	24	37.1	5.0	117.6	4.5	53.8	1.4	-122.6	1.2
33	170.67 Sec	18	31.3	7.3	107.4	7.8	53.7	2.0	-118.8	2.1
34	227.56 Sec	6	30.1	2.7	83.0	4.4	53.7	.8	-118.4	1.2
35	341.33 Sec	12	32.8	38.0	77.5	17.8	46.9	9.2	-126.5	4.7
36	455.11 Sec	30	31.4	55.1	72.9	62.0	50.1	12.6	-121.8	13.8
37	682.67 Sec	6	60.4	99.9	106.6	99.9	72.2	55.6	-172.6	20.7

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	282	386.7	686.5	163.0	505	359.9	673
4	144.00 Hz	454	344.0	627.6	158.9	550	291.4	743
5	96.00 Hz	281	299.6	532.8	118.0	629	190.3	838
6	72.00 Hz	281	254.5	452.0	94.1	669	123.0	892
7	48.00 Hz	575	217.8	358.4	87.5	758	63.4	972
8	36.00 Hz	571	189.3	278.4	76.2	816	34.9	990
9	24.00 Hz	576	162.1	209.1	59.9	925	27.5	1051
10	18.00 Hz	1152	137.6	163.5	37.4	984	22.0	1073
11	12.00 Hz	1440	109.0	123.2	26.4	1072	17.7	1140
12	9.00 Hz	288	90.2	97.3	19.2	1126	10.1	1170
13	6.00 Hz	576	69.5	70.2	13.4	1211	2.1	1217
14	4.50 Hz	480	56.4	50.6	10.2	1260	1.3	1229
15	3.00 Hz	9188	42.9	28.6	7.7	1347	.73	1242
16	2.25 Hz	18244	34.8	20.5	8.0	1400	.53	1254
17	1.50 Hz	9632	27.8	14.6	9.2	1533	2.5	1267
18	1.13 Hz	9224	24.5	12.6	13.7	1662	6.0	1279
19	1.33 Sec	3040	22.9	11.5	19.8	1965	10.8	1392
20	1.78 Sec	5101	23.3	12.3	27.4	2291	26.4	1664
21	2.67 Sec	1696	24.2	14.8	32.2	2857	173.6	2233
22	3.56 Sec	868	25.7	22.1	45.8	3404	860.6	3152
23	5.33 Sec	192	29.4	38.9	59.7	4453	1517.8	5127
24	7.11 Sec	1470	32.6	56.6	87.0	5417	2208.6	7142
25	10.67 Sec	681	40.2	90.3	112.1	7374	3520.1	11042
26	14.22 Sec	717	45.2	116.1	87.2	9021	653.5	14459
27	21.33 Sec	48	50.2	146.5	74.2	11641	395.0	19893
28	28.44 Sec	100	51.7	159.5	57.3	13643	225.6	23974
29	42.67 Sec	48	52.0	165.0	42.9	16762	160.2	29857
30	56.89 Sec	93	48.3	157.9	25.9	18663	91.4	33731
31	85.33 Sec	90	42.2	137.1	20.0	21348	57.4	38495
32	113.78 Sec	24	37.8	118.9	16.2	23325	41.3	41391
33	170.67 Sec	18	31.9	98.0	15.0	26276	35.9	46027
34	227.56 Sec	6	29.4	86.2	16.2	29111	38.5	49847
35	341.33 Sec	12	26.2	75.2	14.7	33627	35.7	57007
36	455.11 Sec	30	24.2	67.4	13.3	37354	32.8	62307
37	682.67 Sec	6	21.4	59.2	11.4	43022	30.6	71532

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	282	-106.46	202.19	999.99	503.52	-30.13	999.99
4	144.00 Hz	454	-18.27	4.92	999.99	168.06	502.06	999.99
5	96.00 Hz	281	-42.49	-59.29	999.99	112.20	299.63	999.99
6	72.00 Hz	281	-33.61	-32.84	999.99	177.06	222.03	999.99
7	48.00 Hz	575	-34.87	-13.14	713.57	72.93	228.35	999.99
8	36.00 Hz	571	-22.03	-.71	96.55	71.10	181.38	469.33
9	24.00 Hz	576	-16.30	-.54	103.41	40.94	121.66	378.58
10	18.00 Hz	1152	-5.44	1.54	20.48	27.72	104.37	55.70
11	12.00 Hz	1440	-5.00	-1.91	44.39	25.61	74.66	47.02
12	9.00 Hz	288	.48	-.41	16.23	19.45	58.61	39.96
13	6.00 Hz	576	-7.50	-2.64	25.55	10.07	42.13	129.69
14	4.50 Hz	480	-2.53	.86	69.08	-2.50	33.92	325.14
15	3.00 Hz	9188	-.53	-.01	21.35	10.04	23.37	91.22
16	2.25 Hz	18244	.85	.90	16.31	4.78	17.73	43.32
17	1.50 Hz	9632	.56	.65	31.84	1.78	12.52	62.70
18	1.13 Hz	8224	-.80	-.23	18.08	.23	10.18	61.90
19	1.33 Sec	3040	-1.987	.984	52.349	2.560	9.649	97.759
20	1.78 Sec	5101	-1.397	-1.038	21.606	1.642	8.466	97.736
21	2.67 Sec	1696	-.792	-1.232	24.583	.865	6.580	99.999
22	3.56 Sec	868	.164	.239	18.795	3.656	2.853	40.206
23	5.33 Sec	192	.638	-.272	2.441	3.482	2.692	4.947
24	7.11 Sec	1470	-1.312	1.095	5.731	4.195	1.638	10.266
25	10.67 Sec	681	.147	-.071	.455	3.928	1.874	1.464
26	14.22 Sec	717	.363	-.074	.129	3.605	1.998	.386
27	21.33 Sec	48	.233	-.323	.222	2.621	1.882	.085
28	28.44 Sec	100	.346	.211	.036	2.260	1.984	.073
29	42.67 Sec	48	.366	.115	.024	1.764	1.751	.016
30	56.89 Sec	93	.183	.076	.007	1.331	1.542	.004
31	85.33 Sec	90	.198	.056	.010	.946	1.252	.012
32	113.78 Sec	24	.131	.108	.002	.755	1.031	.002
33	170.67 Sec	18	.117	.066	.001	.567	.771	.002
34	227.56 Sec	6	.074	.107	.000	.482	.655	.000
35	341.33 Sec	12	-.019	.068	.005	.474	.507	.025
36	455.11 Sec	30	.151	-.000	.032	.377	.450	.033
37	682.67 Sec	6	-.186	.229	.049	.204	.633	.833

PHOENIX GEOSCIENCE

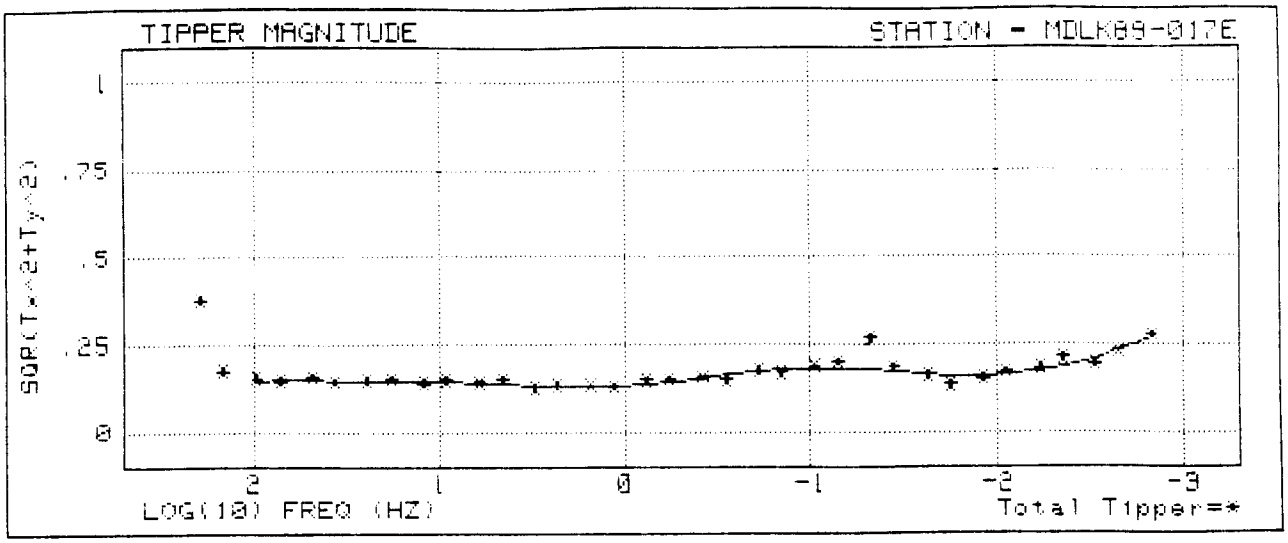
MT Site: MDLK89-017E

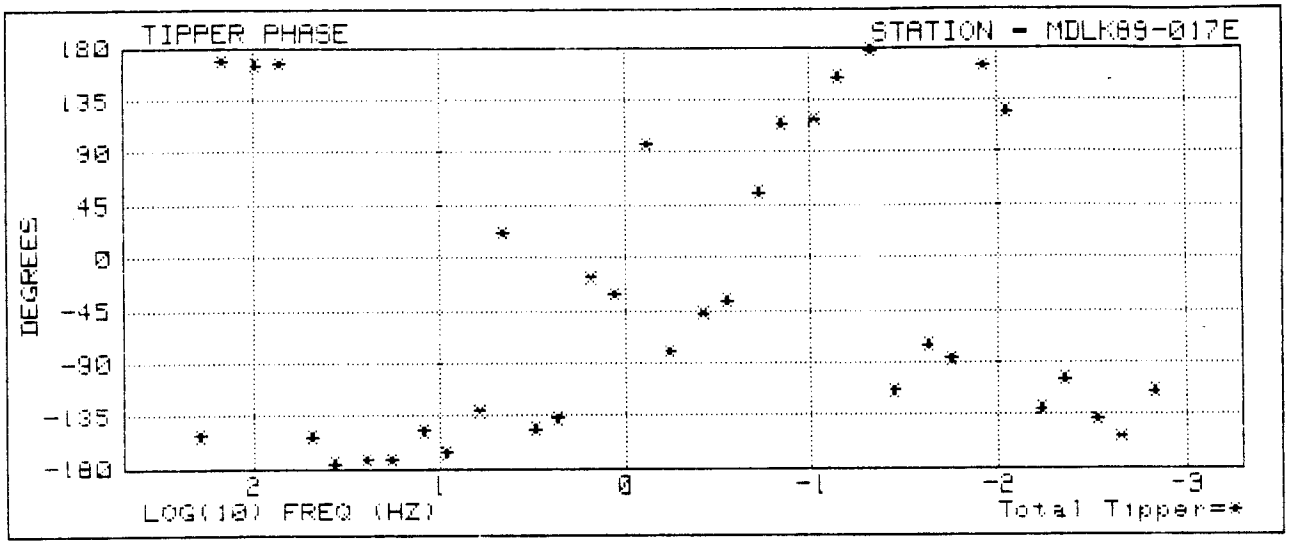
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

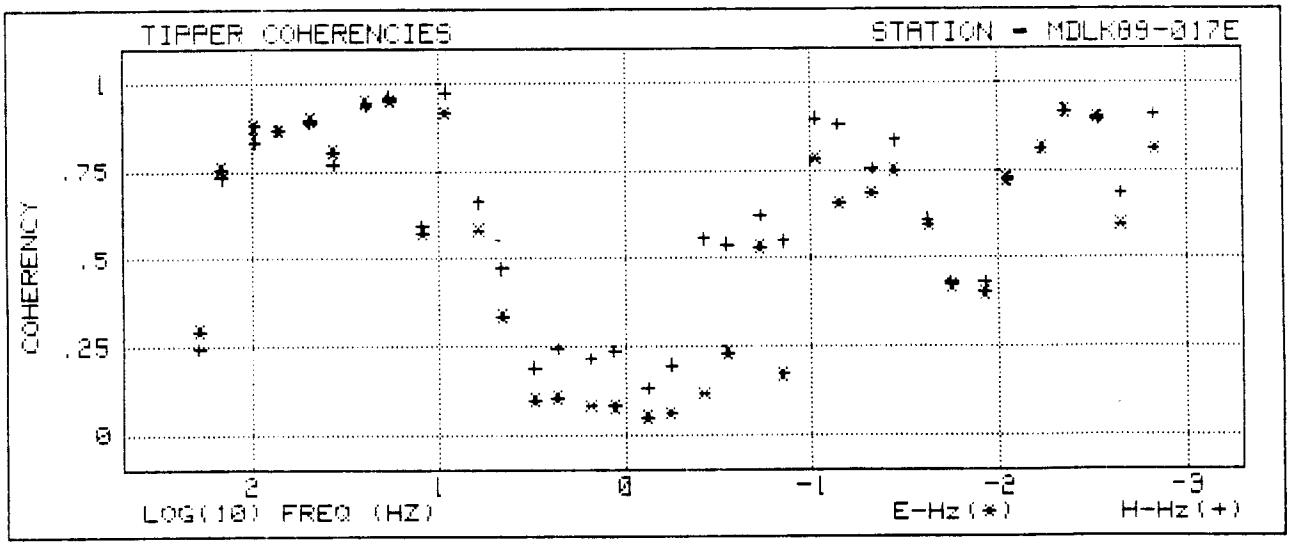
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	282	-595.48	-686.43	999.99	333.67	145.71	999.99
4	144.00 Hz	454	-311.06	-664.87	999.99	-64.63	45.63	999.99
5	96.00 Hz	281	-152.66	-506.89	999.99	-55.53	-56.74	999.99
6	72.00 Hz	281	-184.10	-420.06	999.99	-1.36	-33.98	999.99
7	48.00 Hz	575	-48.06	-283.63	276.75	-13.03	-3.31	746.17
8	36.00 Hz	571	-64.84	-212.98	62.55	-2.44	3.17	304.08
9	24.00 Hz	576	-29.55	-152.91	21.25	-5.51	3.39	77.79
10	18.00 Hz	1152	-24.72	-125.05	6.06	-1.25	2.15	16.49
11	12.00 Hz	1440	-6.66	-90.47	15.39	-2.01	1.68	16.31
12	9.00 Hz	288	-12.39	-67.71	9.27	5.40	3.41	22.82
13	6.00 Hz	576	-4.02	-49.49	12.20	-3.73	.46	61.92
14	4.50 Hz	480	-5.59	-34.84	43.97	-2.12	-2.68	206.93
15	3.00 Hz	9188	.92	-20.54	7.56	.41	-3.64	32.31
16	2.25 Hz	18244	.09	-14.03	4.69	1.00	.70	12.45
17	1.50 Hz	9632	-.18	-9.00	12.47	1.34	.30	24.55
18	1.13 Hz	8224	-1.26	-7.19	6.16	.64	.27	21.08
19	1.33 Sec	3040	-.702	-5.513	21.711	1.333	-.507	40.545
20	1.78 Sec	5101	-2.868	-4.021	6.959	-1.716	-1.125	31.480
21	2.67 Sec	1696	-3.280	-3.554	13.786	.423	-.262	88.642
22	3.56 Sec	868	-5.236	-4.535	38.594	-.603	.960	82.562
23	5.33 Sec	192	-5.588	-3.450	1.389	.631	-.251	2.815
24	7.11 Sec	1470	-6.831	-2.289	7.736	-.714	-1.325	13.858
25	10.67 Sec	681	-6.482	-2.598	.677	.217	-.320	2.178
26	14.22 Sec	717	-5.630	-2.664	.196	.359	-.061	.585
27	21.33 Sec	48	-5.091	-3.012	.264	-.003	.193	.101
28	28.44 Sec	100	-4.013	-3.203	.032	.452	.059	.065
29	42.67 Sec	48	-3.197	-3.127	.045	.369	.112	.029
30	56.89 Sec	93	-2.581	-2.817	.037	.300	-.040	.021
31	85.33 Sec	90	-1.682	-2.317	.022	.219	.042	.027
32	113.78 Sec	24	-1.223	-1.917	.005	.195	.074	.004
33	170.67 Sec	16	-.854	-1.554	.009	.147	.055	.014
34	227.56 Sec	6	-.642	-1.188	.002	.093	.102	.001
35	341.33 Sec	12	-.634	-.856	.015	.083	.021	.081
36	455.11 Sec	30	-.472	-.761	.093	.107	.013	.096
37	682.67 Sec	6	-.876	-.113	.204	.081	.574	3.471

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E







PHOENIX GEOSCIENCE

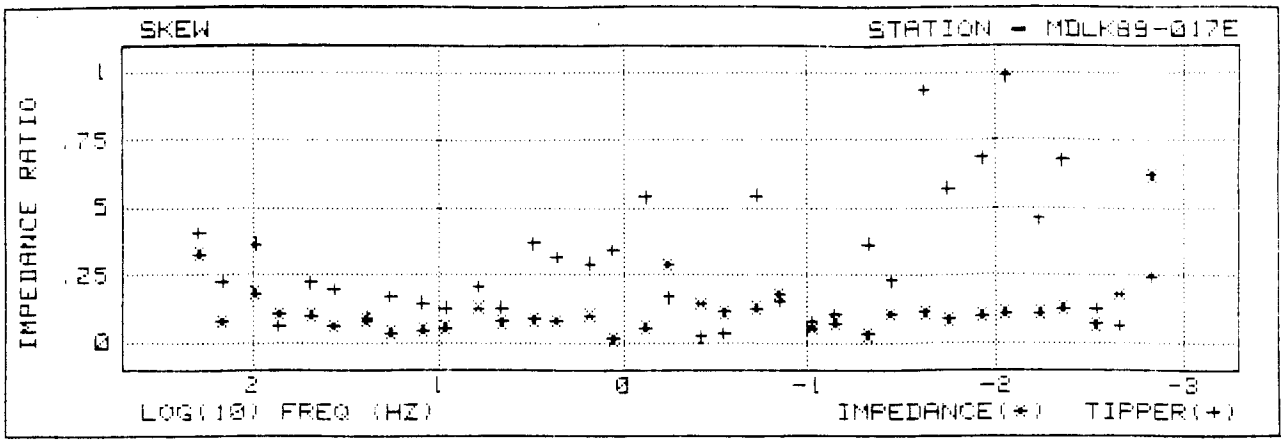
MT Site: MDLK89-017E

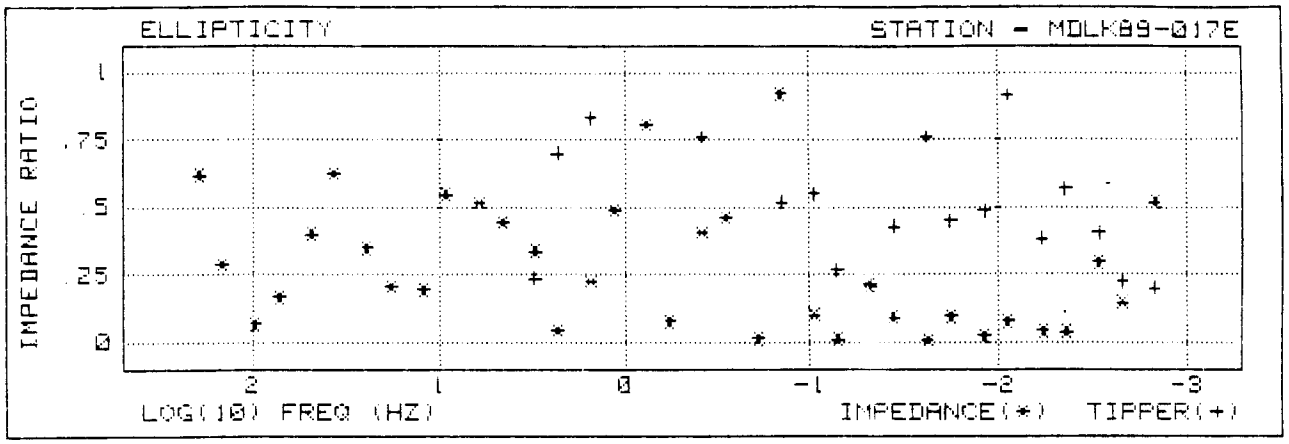
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

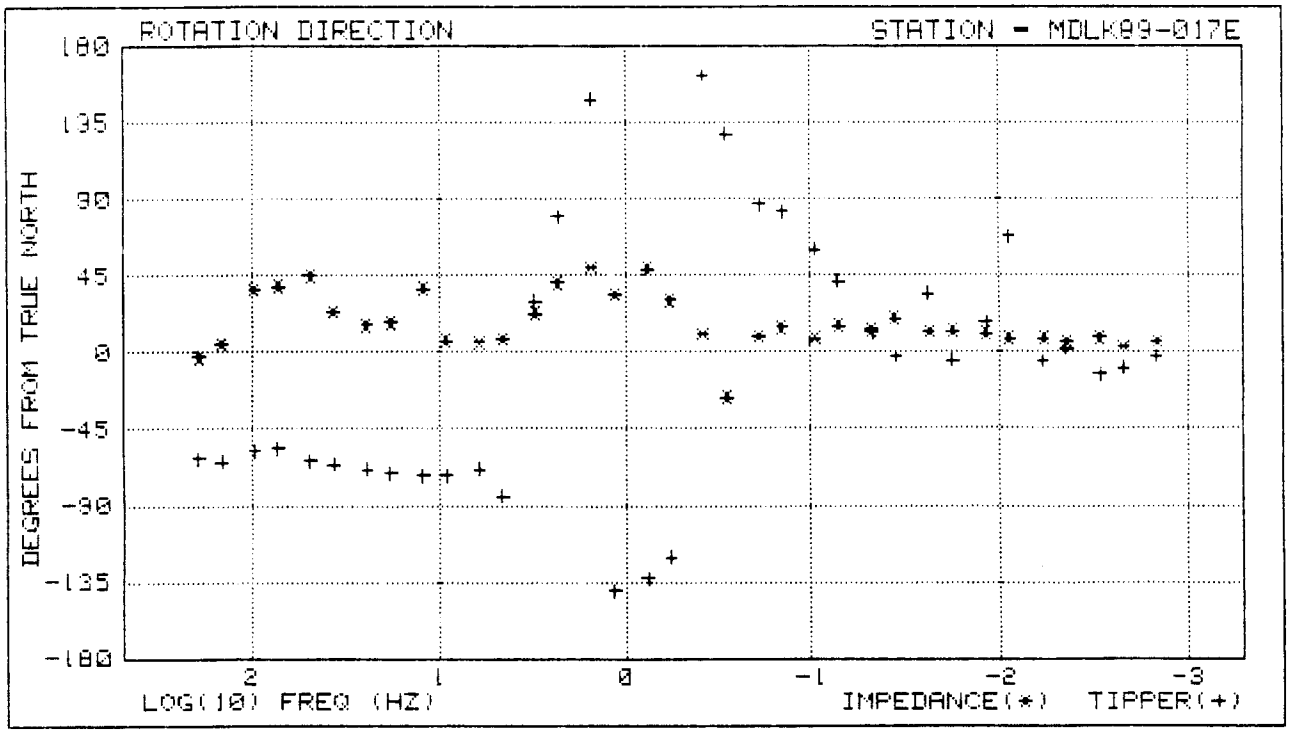
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	282	.37	-152.45	.29	.24
4	144.00 Hz	454	.17	167.83	.75	.73
5	96.00 Hz	281	.15	164.66	.87	.83
6	72.00 Hz	281	.14	166.05	.86	.96
7	48.00 Hz	575	.16	-153.11	.89	.88
8	36.00 Hz	571	.14	-176.13	.80	.77
9	24.00 Hz	576	.14	-172.80	.94	.94
10	18.00 Hz	1152	.15	-172.94	.95	.96
11	12.00 Hz	1440	.14	-148.28	.57	.59
12	9.00 Hz	288	.15	-166.96	.91	.97
13	6.00 Hz	576	.14	-131.69	.58	.66
14	4.50 Hz	480	.15	20.33	.33	.47
15	3.00 Hz	9188	.12	-146.83	.09	.18
16	2.25 Hz	19244	.13	-137.70	.10	.24
17	1.50 Hz	9632	.13	-18.04	.08	.21
18	1.13 Hz	8224	.13	-31.84	.08	.23
19	1.33 Sec	3040	.15	96.31	.05	.13
20	1.78 Sec	5101	.15	-80.61	.06	.19
21	2.67 Sec	1696	.16	-47.86	.11	.55
22	3.56 Sec	868	.15	-37.22	.23	.54
23	5.33 Sec	192	.17	54.99	.53	.62
24	7.11 Sec	1470	.17	114.21	.17	.55
25	10.67 Sec	681	.19	117.84	.78	.89
26	14.22 Sec	717	.20	153.75	.65	.88
27	21.33 Sec	48	.27	177.02	.68	.75
28	28.44 Sec	100	.18	-115.04	.75	.83
29	42.67 Sec	48	.16	-75.58	.59	.61
30	56.89 Sec	93	.13	-87.28	.42	.43
31	85.33 Sec	90	.15	163.64	.40	.43
32	113.78 Sec	24	.17	124.15	.72	.72
33	170.67 Sec	18	.18	-130.05	.81	.81
34	227.56 Sec	6	.21	-104.72	.92	.91
35	341.33 Sec	12	.19	-139.01	.90	.89
36	455.11 Sec	30	.23	-154.29	.59	.68
37	682.67 Sec	6	.27	-115.44	.81	.90

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E







PHOENIX GEOSCIENCE

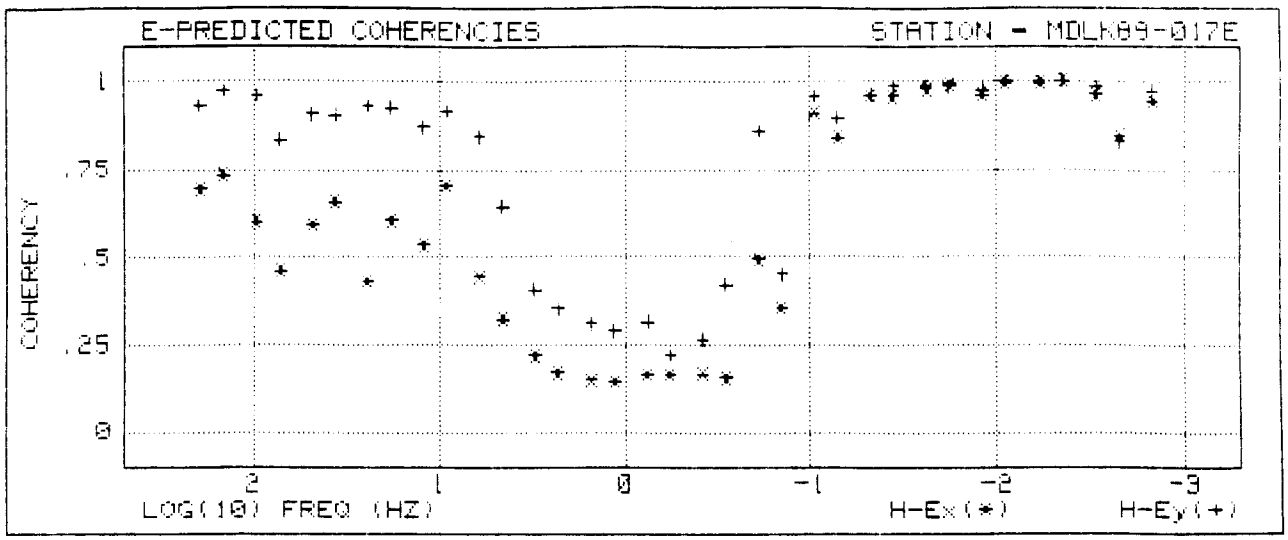
MT Site: MDLK89-017E

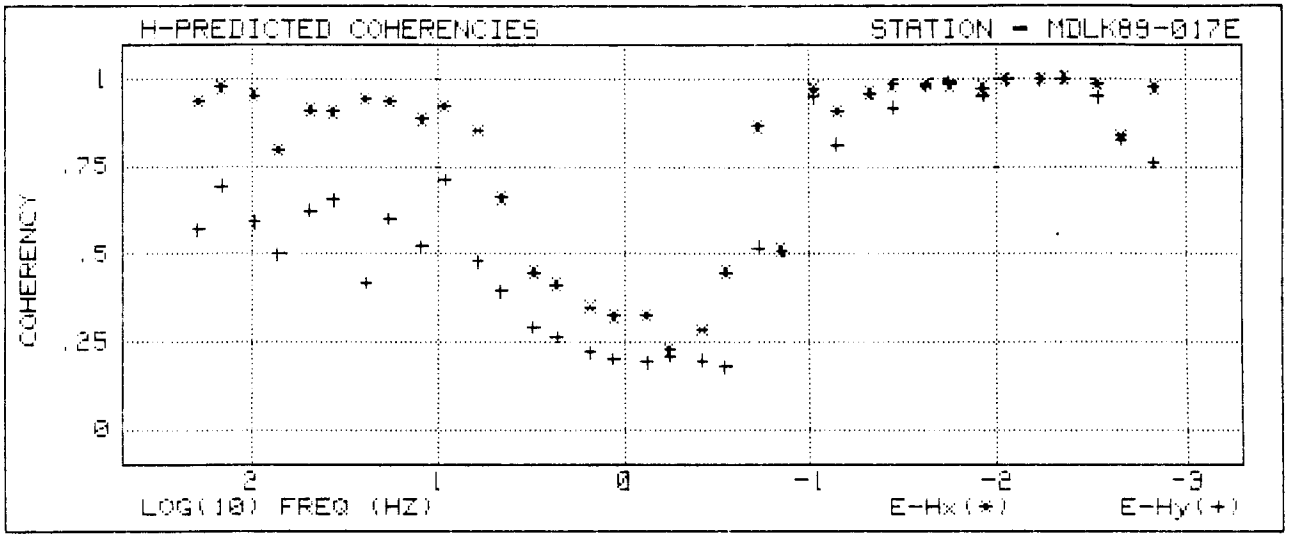
SKEW, ELLIPTICITY AND STRIKE

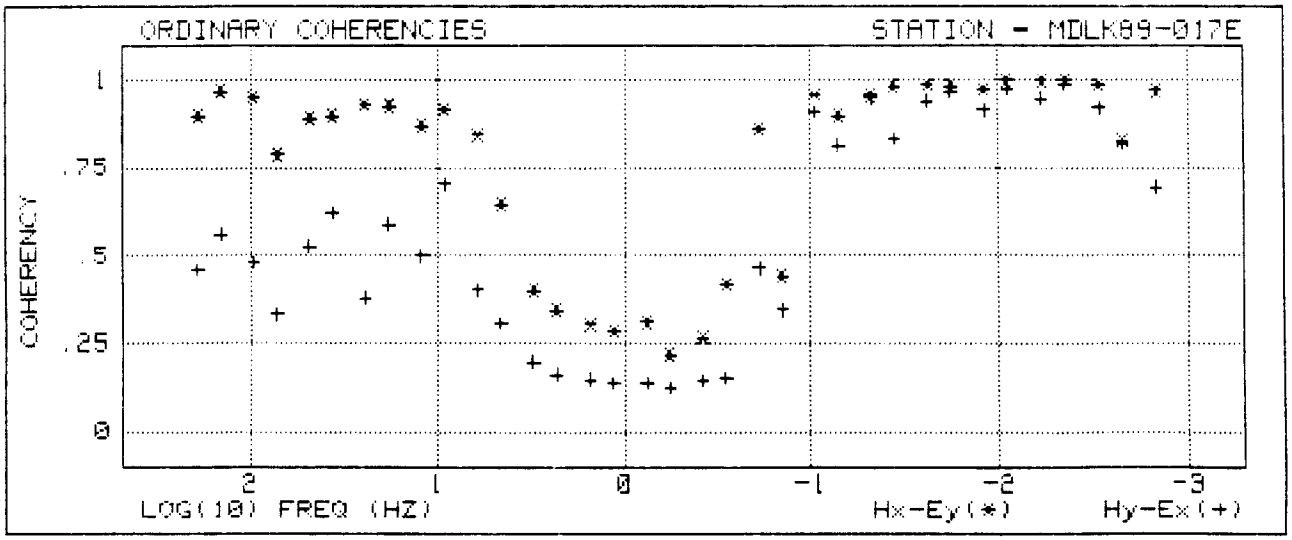
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	282	.32	.61	-3.48	.40	1.63	-62.86
4	144.00 Hz	454	.08	.28	4.03	.22	4.37	-64.74
5	96.00 Hz	281	.18	.06	36.20	.36	4.05	-58.27
6	72.00 Hz	281	.10	.16	37.83	.06	5.92	-57.13
7	48.00 Hz	575	.10	.40	44.06	.22	2.82	-64.22
8	36.00 Hz	571	.06	.62	22.90	.20	10.08	-65.95
9	24.00 Hz	576	.08	.35	15.26	.09	8.97	-68.88
10	18.00 Hz	1152	.03	.20	16.88	.17	11.40	-71.40
11	12.00 Hz	1440	.04	.19	36.31	.14	2.83	-72.72
12	9.00 Hz	288	.05	.54	5.99	.12	4.92	-73.02
13	6.00 Hz	576	.12	.51	5.14	.20	3.34	-69.24
14	4.50 Hz	480	.07	.44	7.01	.12	14.07	-84.92
15	3.00 Hz	9188	.08	.33	22.07	.36	.23	29.44
16	2.25 Hz	18244	.08	.04	40.04	.31	.70	78.94
17	1.50 Hz	9632	.10	.22	49.08	.29	.83	147.87
18	1.13 Hz	8224	.01	.48	32.96	.34	1.16	-140.96
19	1.33 Sec	3040	.05	.80	48.01	.54	2.20	-133.64
20	1.78 Sec	5101	.29	.07	29.81	.16	1.44	-121.29
21	2.67 Sec	1696	.14	.40	9.82	.02	.76	161.72
22	3.56 Sec	868	.11	.46	-27.12	.03	19.80	127.38
23	5.33 Sec	192	.13	.01	8.65	.54	1.21	86.00
24	7.11 Sec	1470	.17	.92	13.78	.15	.51	81.75
25	10.67 Sec	681	.05	.10	7.78	.08	.55	59.43
26	14.22 Sec	717	.07	.01	14.76	.10	.26	41.03
27	21.33 Sec	48	.03	.21	12.26	.36	.21	10.74
28	28.44 Sec	100	.10	.09	19.09	.23	.42	-2.86
29	42.67 Sec	48	.11	.00	11.31	.93	.76	33.64
30	56.89 Sec	93	.08	.09	11.68	.57	.45	-5.40
31	85.33 Sec	90	.10	.02	10.39	.68	.48	17.38
32	113.78 Sec	24	.11	.07	7.38	.98	.91	67.54
33	170.67 Sec	18	.11	.04	7.44	.45	.38	-6.04
34	227.56 Sec	6	.12	.03	5.72	.67	.56	1.43
35	341.33 Sec	12	.06	.29	7.81	.12	.40	-13.74
36	455.11 Sec	30	.17	.14	2.69	.06	.22	-9.55
37	682.67 Sec	6	.62	.51	5.75	.24	.20	-3.15

PHOENIX GEOSCIENCE

MT Site: MDLK89-017E







PHOENIX GEOSCIENCE

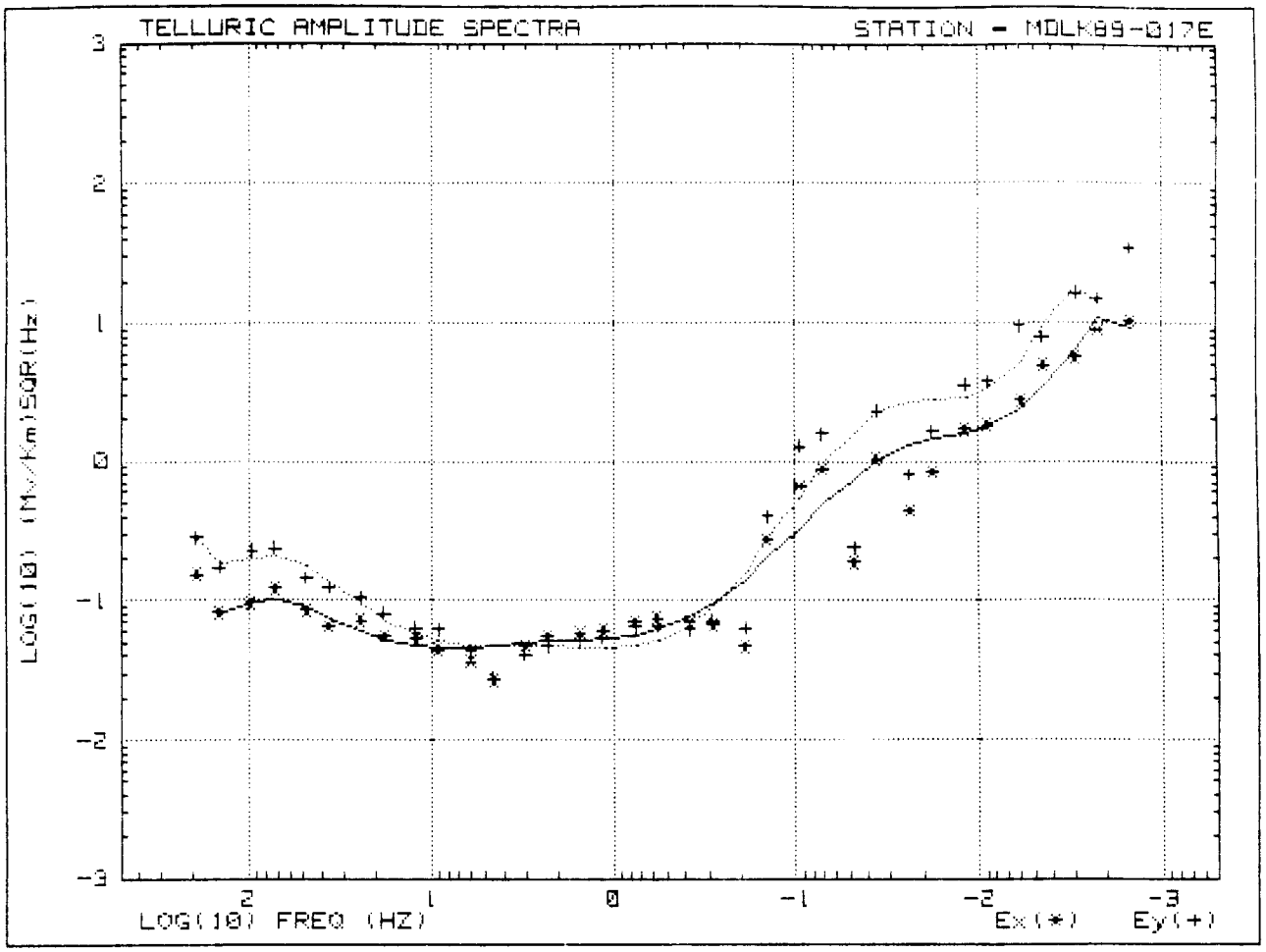
MT Site: MDLK89-017E

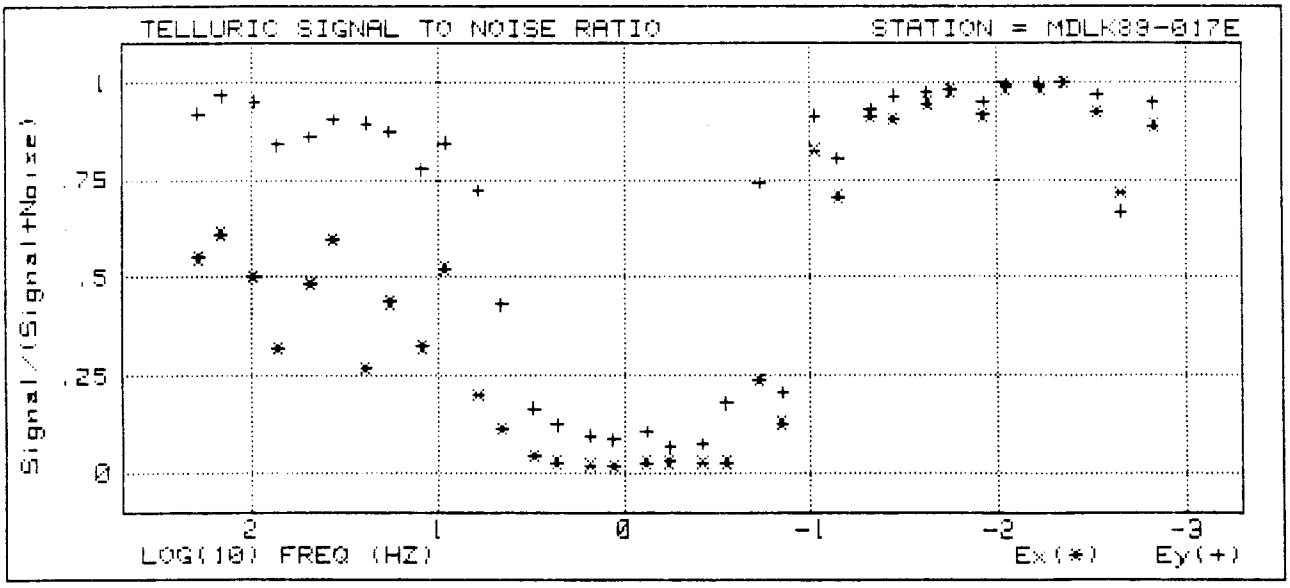
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	282	.69	.93	.93	.57	.89	.46
4	144.00 Hz	454	.73	.97	.97	.69	.96	.56
5	96.00 Hz	281	.60	.95	.95	.59	.95	.48
6	72.00 Hz	281	.46	.83	.79	.50	.78	.33
7	48.00 Hz	575	.59	.90	.91	.62	.89	.52
8	36.00 Hz	571	.66	.90	.90	.65	.89	.62
9	24.00 Hz	576	.43	.93	.94	.41	.93	.37
10	18.00 Hz	1152	.60	.92	.93	.60	.92	.59
11	12.00 Hz	1440	.53	.87	.88	.52	.87	.50
12	9.00 Hz	288	.70	.91	.92	.71	.91	.70
13	6.00 Hz	576	.44	.84	.85	.48	.84	.40
14	4.50 Hz	480	.32	.64	.66	.39	.64	.30
15	3.00 Hz	9188	.22	.40	.45	.29	.40	.19
16	2.25 Hz	18244	.17	.35	.41	.26	.34	.16
17	1.50 Hz	9632	.15	.31	.35	.21	.30	.14
18	1.13 Hz	8224	.14	.29	.32	.20	.28	.13
19	1.33 Sec	3040	.16	.31	.32	.19	.31	.13
20	1.78 Sec	5101	.16	.22	.22	.21	.21	.12
21	2.67 Sec	1696	.17	.26	.28	.19	.26	.14
22	3.56 Sec	868	.15	.42	.44	.17	.42	.15
23	5.33 Sec	192	.49	.86	.86	.51	.86	.46
24	7.11 Sec	1470	.35	.45	.51	.51	.44	.34
25	10.67 Sec	681	.91	.96	.97	.95	.95	.90
26	14.22 Sec	717	.84	.89	.91	.81	.89	.81
27	21.33 Sec	48	.96	.96	.96	.95	.95	.94
28	28.44 Sec	100	.95	.98	.98	.92	.98	.83
29	42.67 Sec	48	.97	.98	.98	.98	.98	.93
30	56.89 Sec	93	.99	.98	.98	.99	.98	.96
31	85.33 Sec	90	.96	.97	.97	.95	.97	.91
32	113.78 Sec	24	.99	1.00	1.00	.99	.99	.97
33	170.67 Sec	18	.99	1.00	1.00	.99	.99	.94
34	227.56 Sec	6	1.00	1.00	1.00	1.00	1.00	.99
35	341.33 Sec	12	.96	.98	.98	.94	.98	.92
36	455.11 Sec	30	.85	.82	.83	.82	.82	.81
37	682.67 Sec	6	.94	.97	.97	.76	.96	.69

PHOENIX GEOSCIENCE

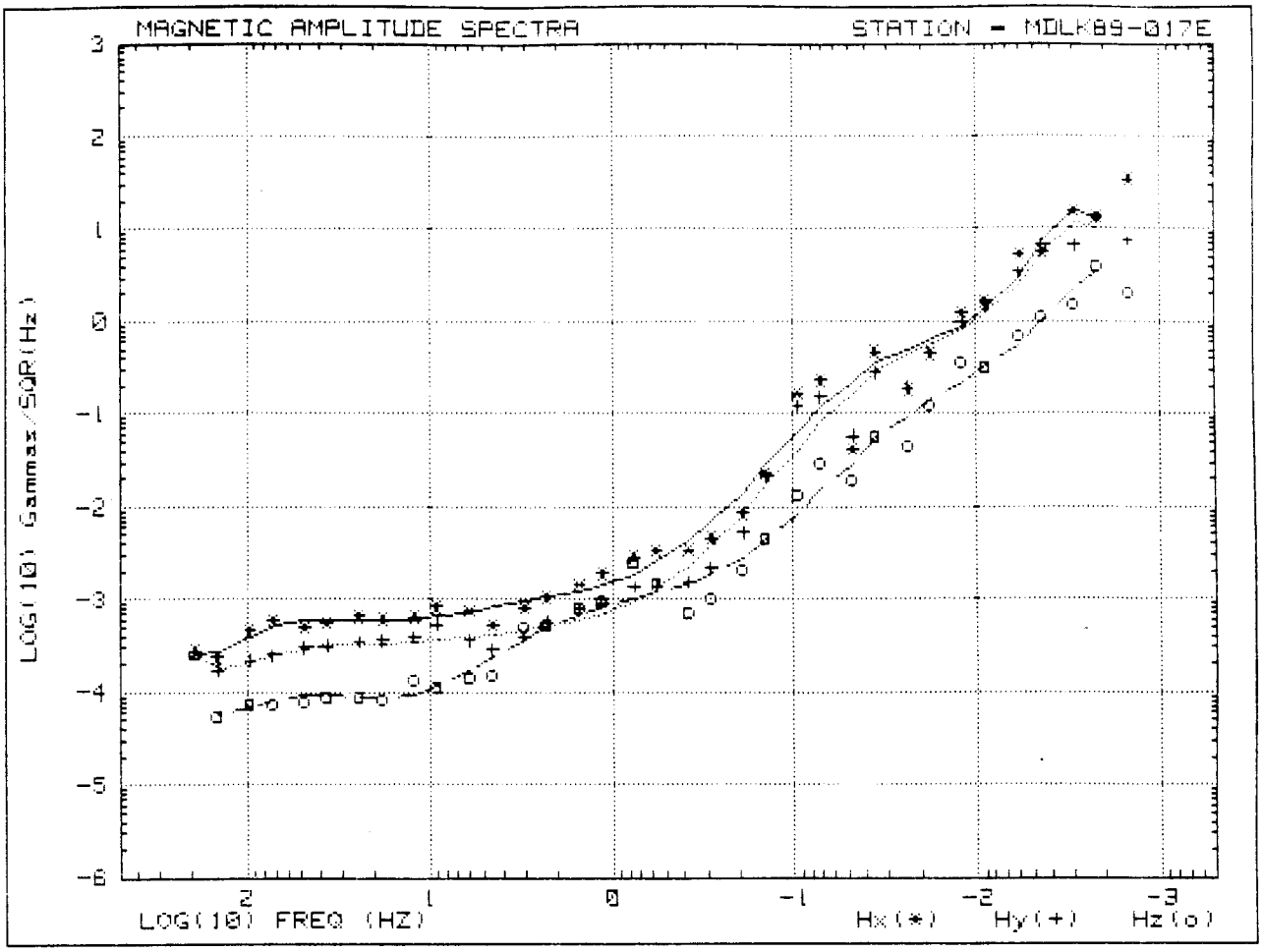
MT Site: MDLK89-017E

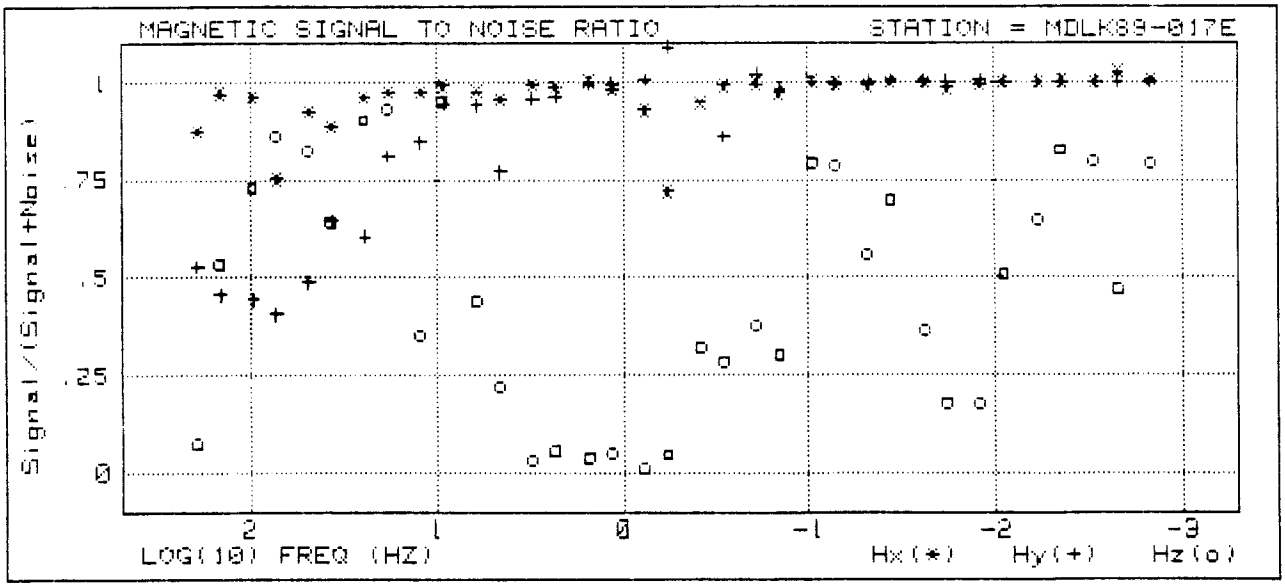




PHOENIX GEOSCIENCE

MT Site: MDLK89-017E





PHOENIX GEOSCIENCE

MT Site: MDLK89-017E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	282	2.73E-04	2.65E-04	2.62E-04	1.50E-01	2.79E-01
4	144.00 Hz	454	2.34E-04	1.69E-04	5.66E-05	8.04E-02	1.71E-01
5	96.00 Hz	281	4.52E-04	2.16E-04	7.53E-05	9.43E-02	2.25E-01
6	72.00 Hz	281	5.85E-04	2.49E-04	7.83E-05	1.20E-01	2.34E-01
7	48.00 Hz	575	4.92E-04	2.95E-04	8.32E-05	8.39E-02	1.44E-01
8	36.00 Hz	571	5.50E-04	3.05E-04	9.21E-05	6.43E-02	1.22E-01
9	24.00 Hz	576	6.39E-04	3.39E-04	9.10E-05	7.05E-02	1.03E-01
10	18.00 Hz	1152	6.00E-04	3.56E-04	8.83E-05	5.48E-02	8.01E-02
11	12.00 Hz	1440	6.36E-04	3.84E-04	1.38E-04	5.23E-02	6.26E-02
12	9.00 Hz	288	8.21E-04	5.27E-04	1.16E-04	4.35E-02	6.08E-02
13	6.00 Hz	576	7.34E-04	3.56E-04	1.49E-04	3.58E-02	4.28E-02
14	4.50 Hz	480	5.14E-04	2.78E-04	1.58E-04	2.63E-02	2.72E-02
15	3.00 Hz	9188	7.93E-04	3.85E-04	5.22E-04	4.66E-02	3.97E-02
16	2.25 Hz	18244	1.05E-03	5.54E-04	5.53E-04	5.53E-02	4.63E-02
17	1.50 Hz	9632	1.44E-03	7.81E-04	8.56E-04	5.80E-02	5.00E-02
18	1.13 Hz	8224	1.87E-03	9.10E-04	9.88E-04	6.03E-02	5.33E-02
19	1.33 Sec	3040	2.81E-03	1.35E-03	2.56E-03	6.98E-02	6.32E-02
20	1.78 Sec	5101	3.34E-03	1.38E-03	1.58E-03	7.31E-02	6.42E-02
21	2.67 Sec	1696	3.35E-03	1.52E-03	7.55E-04	6.85E-02	6.14E-02
22	3.56 Sec	868	4.59E-03	2.19E-03	1.09E-03	6.59E-02	7.04E-02
23	5.33 Sec	192	8.38E-03	5.28E-03	2.20E-03	4.62E-02	6.30E-02
24	7.11 Sec	1470	2.25E-02	2.10E-02	4.72E-03	2.73E-01	4.00E-01
25	10.67 Sec	681	1.66E-01	1.17E-01	1.42E-02	6.50E-01	1.25E+00
26	14.22 Sec	717	2.26E-01	1.49E-01	3.06E-02	8.60E-01	1.54E+00
27	21.33 Sec	48	4.11E-02	5.62E-02	2.00E-02	1.86E-01	2.38E-01
28	28.44 Sec	100	4.54E-01	2.72E-01	5.88E-02	1.03E+00	2.26E+00
29	42.67 Sec	48	1.79E-01	1.84E-01	4.64E-02	4.40E-01	7.94E-01
30	56.89 Sec	93	4.40E-01	4.46E-01	1.30E-01	8.32E-01	1.61E+00
31	85.33 Sec	90	1.23E+00	9.99E-01	3.76E-01	1.67E+00	3.55E+00
32	113.78 Sec	24	1.64E+00	1.56E+00	3.31E-01	1.78E+00	3.73E+00
33	170.67 Sec	18	5.25E+00	3.44E+00	7.33E-01	2.72E+00	9.37E+00
34	227.56 Sec	6	5.54E+00	6.52E+00	1.19E+00	4.85E+00	7.72E+00
35	341.33 Sec	12	1.52E+01	6.49E+00	1.57E+00	5.57E+00	1.62E+01
36	455.11 Sec	30	1.33E+01	1.29E+01	4.10E+00	8.70E+00	1.47E+01
37	682.67 Sec	6	3.37E+01	7.40E+00	2.18E+00	1.02E+01	3.37E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	360	.963	.820	.268	.797	.809
5	96.00 Hz	476	.794	.304	.126	.399	.716
6	72.00 Hz	190	.995	.834	.062	.725	.512
7	48.00 Hz	2009	.947	.836	.193	.716	.737
8	36.00 Hz	1913	.917	.916	.448	.789	.774
9	24.00 Hz	1728	.955	.940	.003	.842	.812
10	18.00 Hz	1536	.976	.952	.014	.825	.759
11	12.00 Hz	288	.960	.957	.283	.945	.797
12	9.00 Hz	768	.986	.975	.076	.953	.844
13	6.00 Hz	1824	.972	.949	.024	.842	.654
14	4.50 Hz	288	.969	.948	.243	.905	.585
15	3.00 Hz	3072	.970	.909	.005	.709	.372
16	2.25 Hz	4096	.972	.936	.012	.615	.305
17	1.50 Hz	5120	.976	.972	.010	.738	.305
18	1.13 Hz	6656	.980	.980	.028	.784	.270
19	1.33 Sec	2717	.981	.985	.019	.797	.349
20	1.78 Sec	3069	.970	.985	.015	.669	.345
21	2.67 Sec	3124	.990	.985	.029	.742	.211
22	3.56 Sec	592	.987	.998	.031	.907	.601
23	5.33 Sec	822	.993	.988	.037	.951	.742
24	7.11 Sec	1278	.988	.988	.010	.915	.470
25	10.67 Sec	729	1.000	1.000	.856	.999	.998
26	14.22 Sec	765	1.000	1.000	.701	.994	.983
27	21.33 Sec	334	1.000	.999	.261	.997	.977
28	28.44 Sec	358	1.000	.998	.449	.997	.996
29	42.67 Sec	381	1.000	1.000	.824	.998	.996
30	56.89 Sec	363	1.000	1.000	.656	.998	.996
31	85.33 Sec	129	1.000	1.000	.752	1.000	.999
32	113.78 Sec	138	1.000	1.000	.726	.999	.999
33	170.67 Sec	72	.999	1.000	.322	.998	.996
34	227.56 Sec	63	.999	1.000	.079	.996	.992
35	341.33 Sec	9	1.000	1.000	.626	1.000	.999
36	455.11 Sec	21	1.000	1.000	.675	.999	.997
37	682.67 Sec	6	.996	.996	.402	.984	.984
38	910.22 Sec	6	1.000	1.000	.089	.994	.960
39	1365.33 Sec	3	1.000	.996	.615	.997	.961
40	1820.44 Sec	3	1.000	.999	.913	.998	.588

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

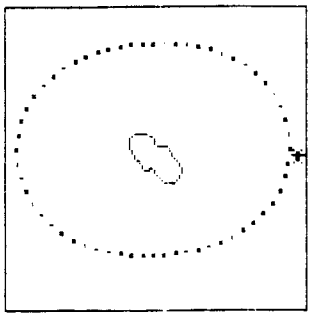
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

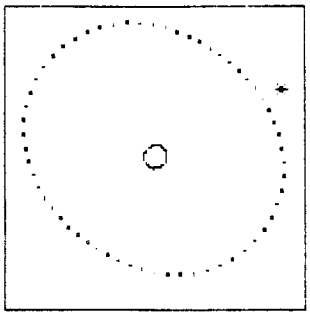
*=Rotation Direction

Zxy = ...
Zxx = ___

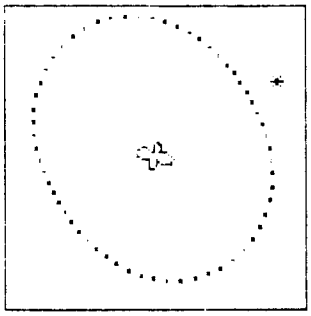
F=8 (36.0 Hz)



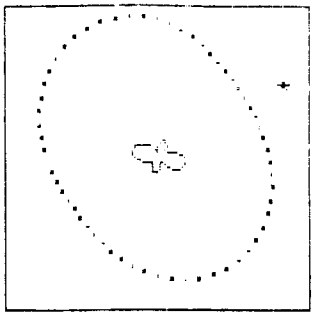
F=10 (18.0 Hz)



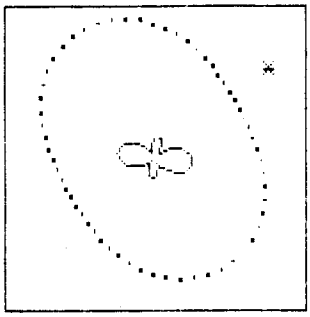
F=12 (9.0 Hz)



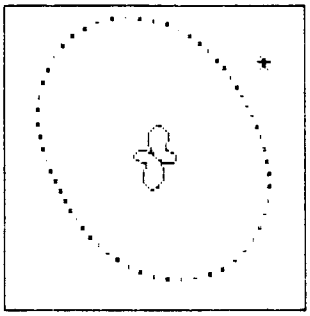
F=14 (4.5 Hz)



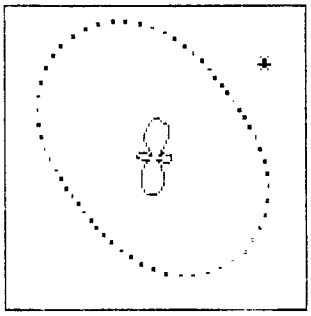
F=16 (2.3 Hz)



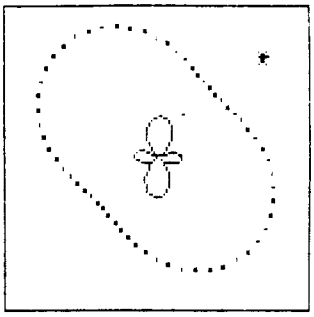
F=18 (1.1 Hz)



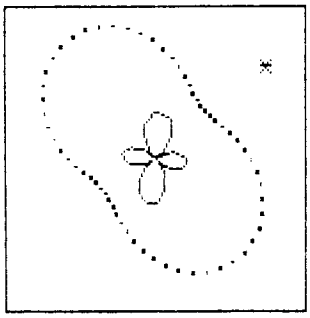
F=20 (.5625 Hz)



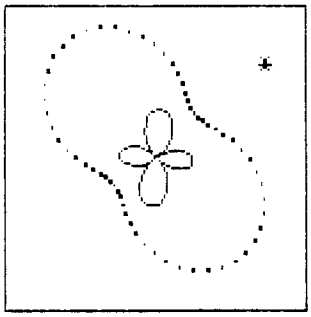
F=22 (.2813 Hz)



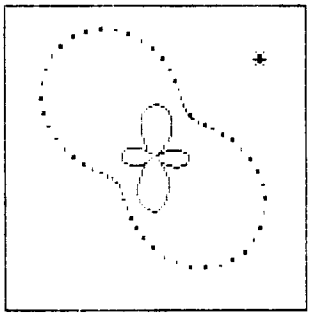
F=24 (.1406 Hz)



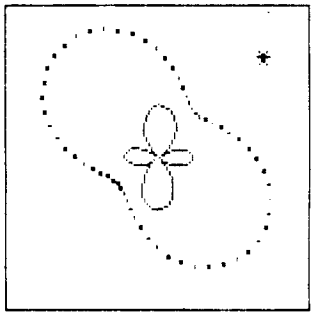
F=26 (.0703 Hz)



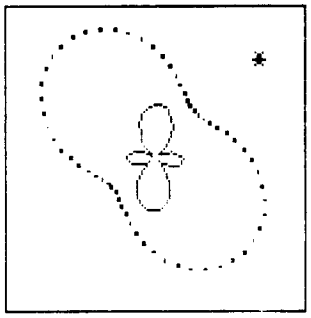
F=28 (.0352 Hz)



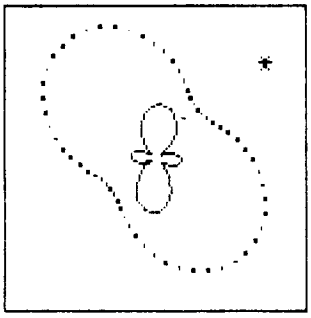
F=30 (.0176 Hz)



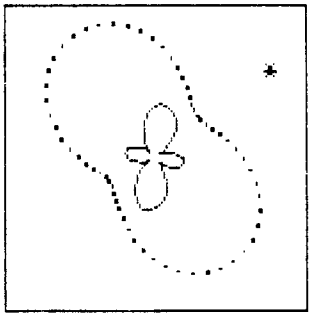
F=32 (.0088 Hz)



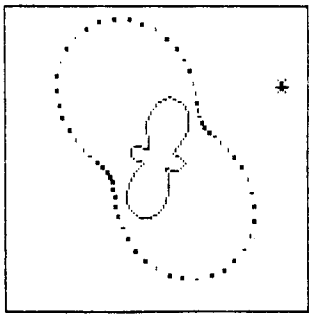
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-017s/018s/019s/

Operator:STEWART
Date: 27 Aug 1989
Time: 12:44:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 2

Stn Number:MDLK89-018s
Site Desc:T43N R4E
41,35,10 N 121,28,15 W
Elevation:5585 FT
Reference:MDLK89-017s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL432	+0 DEG
Hy	7	COIL235	+90 DEG
Hz	8	LOOP005	
Ex	9	182 M	+0 DEG
Ey	10	166 M	+90 DEG
Rx	1	COIL452	+0 DEG
Ry	2	COIL210	+90 DEG

Ex Pot Resist: 9.0 K Ohms
Ex Voltage: AC=16.5 mv, DC=_60_ mv
Ey Pot Resist: 8.0 K Ohms
Ey Voltage: AC=7.8_ mv, DC=77.5 mv

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MT Site: MDLK89-018E

OPERATOR LOG FOR MT SITES MDLK89-017s/018s/019s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-017a/018a/019a/
Run STARTED: 12:44:42 27 Aug 1989
Run QUIT: 04:01:04 28 Aug 1989
Run Start and Stop Time for MDLK89-017b/018b/019b/
Run STARTED: 04:39:15 28 Aug 1989
Run QUIT: 11:24:25 28 Aug 1989

Operator:STEWART

Cultural Factors:
LARGE TRANSMISSION LINE APPROX. 8 MILES EAST OF SITES.
Weather Conditions:
NO WIND, MILD TEMPERATURE, DRY
Other Factors:

PHOENIX GEOSCIENCE

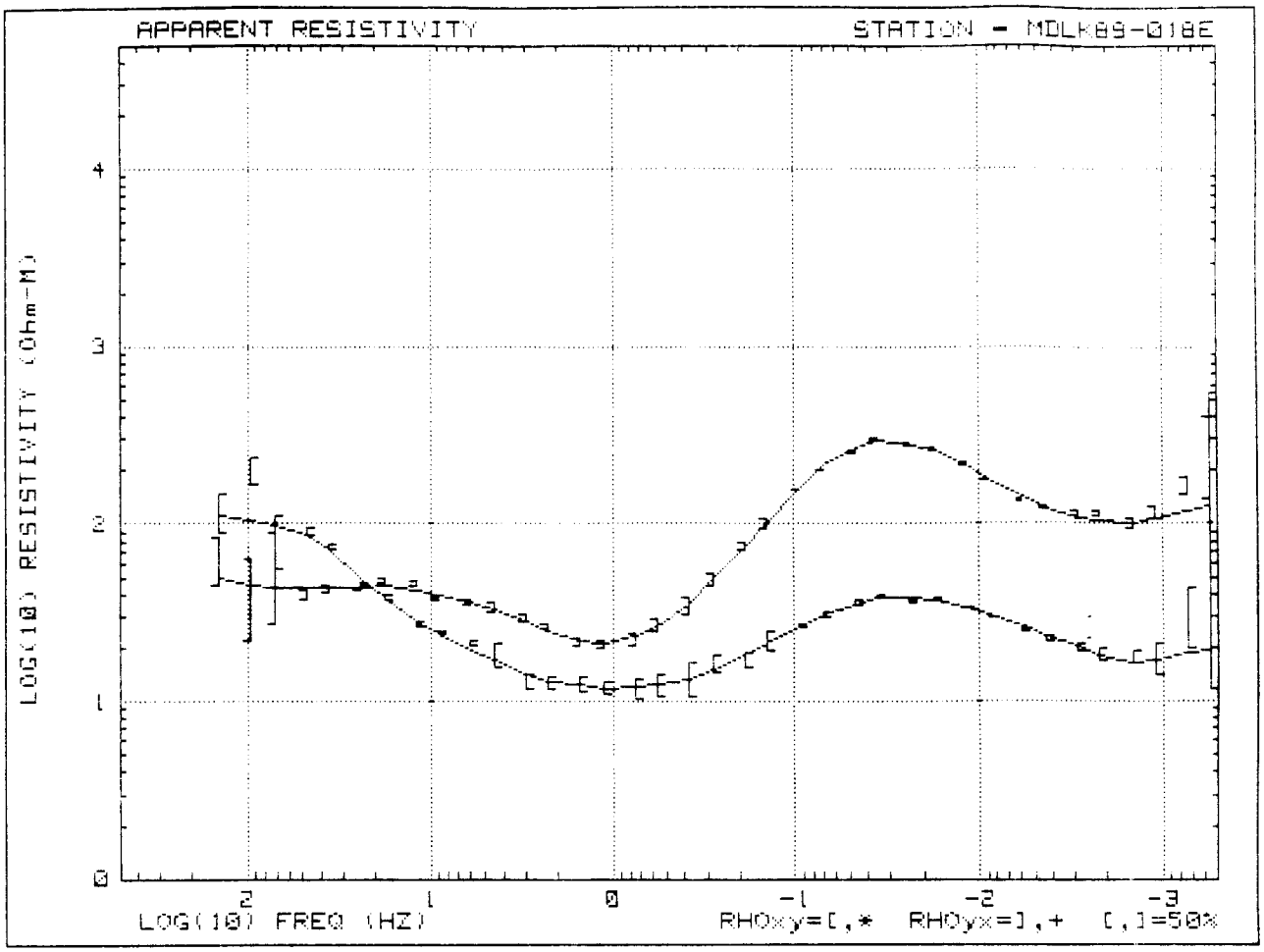
MT Site: MDLK89-018E

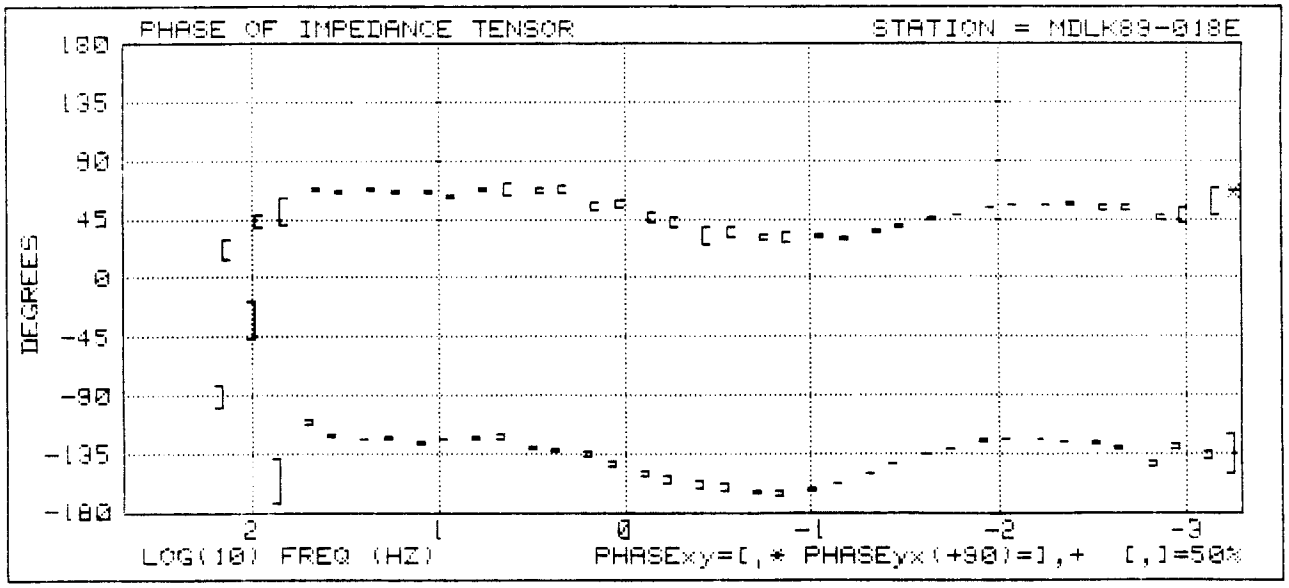
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

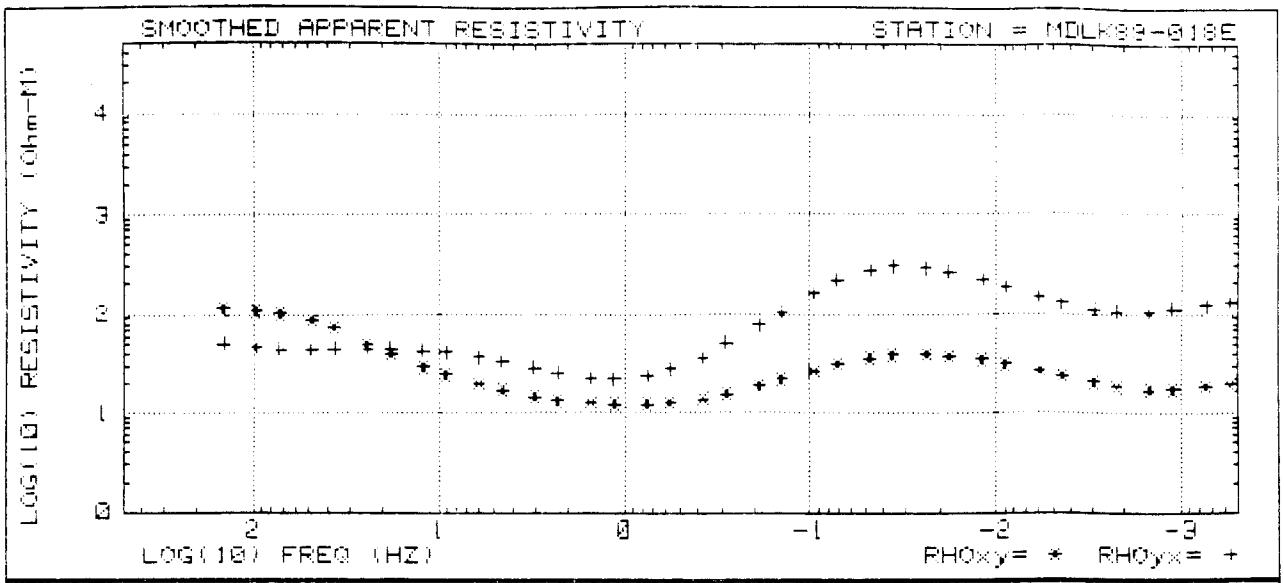
MT Site: MDLK89-018E

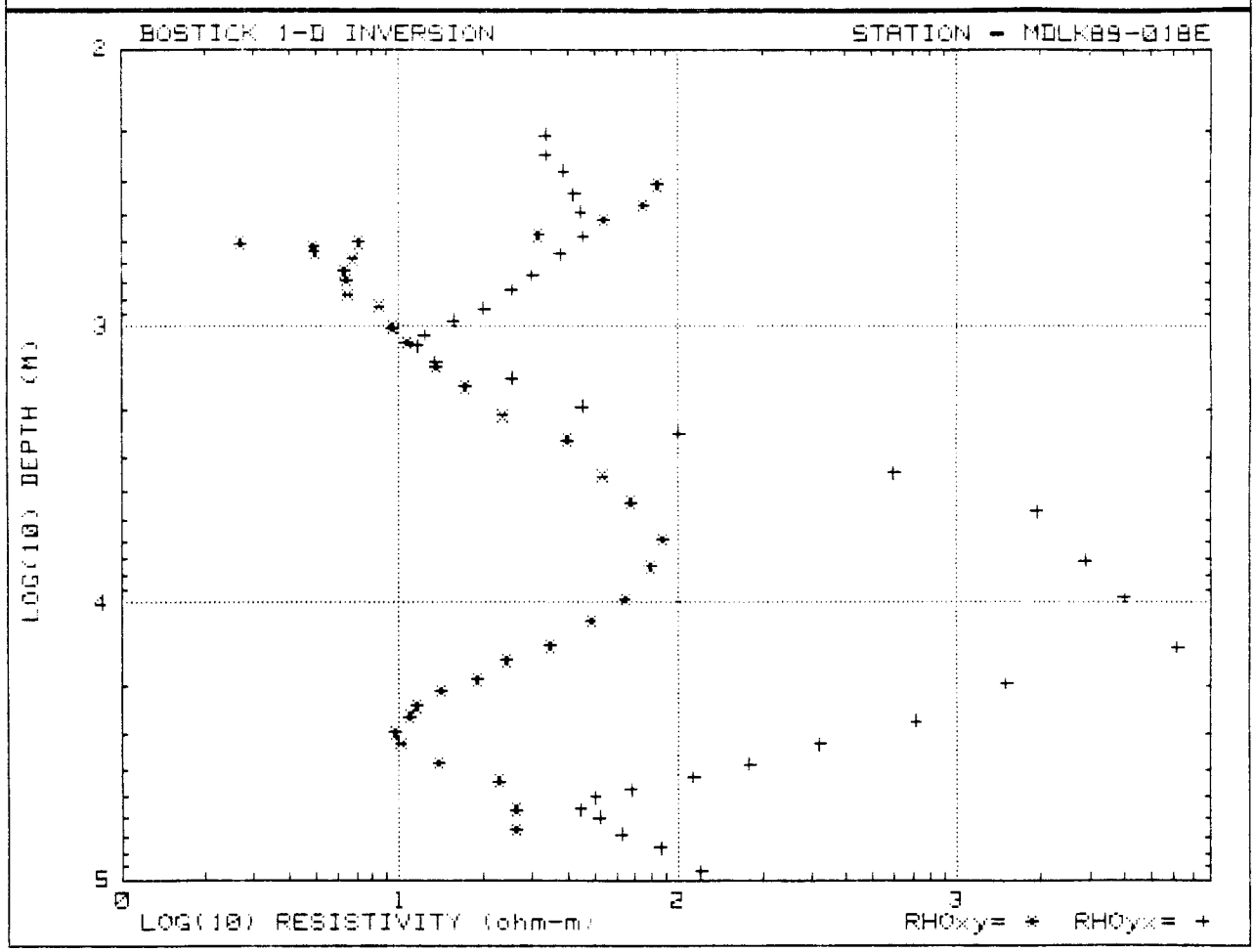




PHOENIX GEOSCIENCE

MT Site: MDLK89-018E





PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	360	114.3	46.7	61.2	57.7	22.3	11.0	-90.7	13.0
5	96.00 Hz	476	198.9	31.4	37.2	99.9	43.6	7.8	-32.0	22.1
6	72.00 Hz	190	79.9	67.7	49.6	99.9	50.7	14.8	-156.2	25.0
7	48.00 Hz	2009	91.3	6.5	39.5	10.6	67.5	1.8	-109.8	2.9
8	36.00 Hz	1913	73.9	4.9	42.9	5.9	66.5	1.4	-121.5	1.6
9	24.00 Hz	1728	46.1	3.0	42.7	3.2	67.7	.8	-124.0	.9
10	18.00 Hz	1536	38.4	3.8	47.8	4.0	65.5	1.1	-123.2	1.1
11	12.00 Hz	288	27.3	6.5	46.6	4.8	65.6	1.8	-126.1	1.4
12	9.00 Hz	768	24.3	3.3	38.1	2.6	62.9	.9	-123.8	.7
13	6.00 Hz	1824	21.4	6.0	36.3	4.0	67.6	1.7	-123.3	1.1
14	4.50 Hz	288	18.3	25.0	33.6	10.8	67.5	6.4	-122.6	2.9
15	3.00 Hz	3072	12.8	13.0	29.1	7.7	67.5	3.5	-130.3	2.1
16	2.25 Hz	4096	12.7	11.4	26.4	7.1	67.8	3.1	-132.7	2.0
17	1.50 Hz	5120	12.4	13.3	21.5	9.0	54.8	3.6	-135.4	2.5
18	1.13 Hz	6656	12.0	13.5	20.8	8.5	56.1	3.6	-142.7	2.3
19	1.33 Sec	2717	11.8	20.6	22.4	11.8	46.1	5.4	-149.8	3.2
20	1.78 Sec	3069	12.4	24.2	26.8	12.9	41.9	6.2	-154.6	3.5
21	2.67 Sec	3124	13.3	41.6	34.5	17.4	32.4	10.0	-158.3	4.6
22	3.56 Sec	592	16.2	19.3	48.0	12.3	35.3	5.1	-160.5	3.3
23	5.33 Sec	822	17.1	13.8	75.6	5.5	31.3	3.7	-164.6	1.5
24	7.11 Sec	1278	22.1	21.4	100.9	8.8	31.6	5.6	-164.9	2.4
25	10.67 Sec	729	27.1	1.8	156.7	.8	31.9	.5	-162.4	.2
26	14.22 Sec	765	30.8	3.3	202.5	1.0	30.3	.9	-158.1	.3
27	21.33 Sec	334	36.0	4.6	256.6	1.4	36.0	1.3	-150.6	.4
28	28.44 Sec	358	39.2	3.3	298.1	1.0	39.1	.9	-143.2	.3
29	42.67 Sec	381	36.8	4.0	285.3	1.1	45.6	1.1	-134.7	.3
30	56.89 Sec	363	38.1	1.4	265.1	.8	48.5	.4	-130.9	.2
31	85.33 Sec	129	33.8	1.4	218.0	.8	53.5	.4	-124.6	.2
32	113.78 Sec	138	29.9	1.6	179.3	1.0	55.9	.5	-123.4	.3
33	170.67 Sec	72	25.2	3.4	136.5	1.6	55.8	1.0	-123.7	.5
34	227.56 Sec	63	22.6	3.8	125.3	1.8	56.4	1.1	-126.1	.5
35	341.33 Sec	9	20.2	9.0	114.0	4.9	53.2	2.5	-127.0	1.4
36	455.11 Sec	21	18.5	11.0	115.2	4.2	53.7	3.0	-131.0	1.2
37	682.67 Sec	6	18.0	12.9	100.8	8.3	46.2	3.5	-143.1	2.3
38	910.22 Sec	6	17.4	36.1	116.4	10.4	48.1	8.8	-129.7	2.8
39	1365.33 Sec	3	29.3	77.3	164.0	18.2	58.8	16.4	-136.3	4.9
40	1820.44 Sec	3	80.7	99.9	236.1	99.9	65.6	82.2	-135.8	22.2

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	360	111.4	49.0	84.6	313	33.8	208
5	96.00 Hz	476	105.4	45.5	75.7	373	33.7	245
6	72.00 Hz	190	99.4	44.2	54.4	418	39.2	279
7	48.00 Hz	2009	86.0	43.7	31.9	476	42.7	339
8	36.00 Hz	1913	72.3	43.9	7.2	504	45.0	393
9	24.00 Hz	1728	48.7	44.1	2.7	510	45.9	482
10	18.00 Hz	1536	38.9	44.5	4.9	523	38.2	559
11	12.00 Hz	288	28.5	41.8	5.0	548	30.4	664
12	9.00 Hz	768	23.9	39.9	6.8	580	25.5	749
13	6.00 Hz	1824	19.4	35.9	6.4	640	20.2	870
14	4.50 Hz	288	16.8	32.9	6.5	688	15.7	962
15	3.00 Hz	3072	14.3	28.1	6.6	776	12.4	1089
16	2.25 Hz	4096	13.0	25.1	8.5	856	11.7	1189
17	1.50 Hz	5120	12.3	21.8	9.5	1021	13.6	1356
18	1.13 Hz	6656	11.9	21.4	10.7	1156	25.5	1551
19	1.33 Sec	2717	11.9	23.2	13.7	1418	45.5	1978
20	1.78 Sec	3069	12.5	26.8	17.3	1676	101.2	2456
21	2.67 Sec	3124	13.3	34.7	23.7	2120	602.7	3421
22	3.56 Sec	592	15.1	49.7	40.4	2612	1937.4	4730
23	5.33 Sec	822	18.2	74.4	53.9	3511	2903.0	7091
24	7.11 Sec	1278	21.3	102.6	67.9	4383	3999.6	9611
25	10.67 Sec	729	26.2	159.0	88.1	5950	6200.1	14655
26	14.22 Sec	765	31.0	214.8	79.2	7478	1515.4	19670
27	21.33 Sec	334	35.5	267.7	64.7	9790	716.5	26893
28	28.44 Sec	358	38.0	294.7	48.8	11701	323.7	32581
29	42.67 Sec	381	38.7	276.6	35.1	14458	180.6	38658
30	56.89 Sec	363	36.7	254.7	24.3	16271	113.8	42842
31	85.33 Sec	129	33.6	212.2	19.3	19051	68.2	47885
32	113.78 Sec	138	30.5	178.5	14.2	20947	50.8	50712
33	170.67 Sec	72	26.1	144.2	11.6	23739	45.0	55838
34	227.56 Sec	63	23.3	124.1	10.9	25922	52.6	59803
35	341.33 Sec	9	20.3	109.0	9.6	29617	63.1	68631
36	455.11 Sec	21	18.2	103.1	10.2	32401	86.8	77107
37	682.67 Sec	6	16.7	102.7	13.8	37977	120.9	94209
38	910.22 Sec	6	17.1	109.1	22.9	44362	160.6	112172
39	1365.33 Sec	3	18.4	117.2	26.4	56483	184.8	142340
40	1820.44 Sec	3	19.3	127.5	26.4	66691	233.4	171448

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	360	126.47	-78.16	999.99	265.40	108.81	999.99
5	96.00 Hz	476	200.73	-30.94	999.99	223.71	213.18	999.99
6	72.00 Hz	190	53.37	-16.73	999.99	107.43	131.18	999.99
7	48.00 Hz	2009	39.23	1.26	125.10	56.68	136.74	43.60
8	36.00 Hz	1913	14.33	8.38	52.82	46.05	105.73	15.00
9	24.00 Hz	1728	-.43	-.19	8.75	28.22	68.85	2.39
10	18.00 Hz	1536	.69	-5.59	3.13	24.42	53.51	2.44
11	12.00 Hz	288	-3.02	-2.06	4.99	16.70	36.89	3.23
12	9.00 Hz	768	.44	-2.13	.69	15.07	29.40	.58
13	6.00 Hz	1824	-1.12	-.53	1.31	9.64	23.43	1.09
14	4.50 Hz	288	-.01	-2.10	8.07	7.77	18.76	10.29
15	3.00 Hz	3072	-1.44	-.31	1.76	5.32	12.81	1.45
16	2.25 Hz	4096	-1.22	.44	.90	4.52	11.08	.83
17	1.50 Hz	5120	.58	.51	.59	5.57	7.89	.72
18	1.13 Hz	6656	.47	.94	.40	4.57	6.81	.54
19	1.33 Sec	2717	.846	.483	.410	4.619	4.794	.779
20	1.78 Sec	3069	.663	.332	.530	4.396	3.949	.817
21	2.67 Sec	3124	.800	.112	1.123	4.214	2.669	1.507
22	3.56 Sec	592	.488	-.104	.469	3.891	2.758	.356
23	5.33 Sec	822	.295	-.117	.077	3.422	2.079	.133
24	7.11 Sec	1278	.399	-.100	.360	3.361	2.065	.292
25	10.67 Sec	729	.625	.026	.000	3.029	1.884	.002
26	14.22 Sec	765	.362	-.012	.002	2.843	1.659	.006
27	21.33 Sec	334	.393	.083	.003	2.350	1.709	.009
28	28.44 Sec	358	.483	.162	.001	2.035	1.656	.004
29	42.67 Sec	381	.292	.097	.001	1.452	1.485	.003
30	56.89 Sec	363	.329	.149	.000	1.212	1.370	.000
31	85.33 Sec	129	.267	.136	.000	.837	1.132	.000
32	113.78 Sec	138	.230	.150	.000	.643	.950	.000
33	170.67 Sec	72	.176	.126	.000	.483	.710	.000
34	227.56 Sec	63	.159	.091	.000	.390	.587	.000
35	341.33 Sec	9	.140	.059	.001	.326	.436	.001
36	455.11 Sec	21	.097	.031	.001	.267	.363	.001
37	682.67 Sec	6	.025	.153	.003	.251	.262	.001
38	910.22 Sec	6	.136	.023	.012	.207	.230	.005
39	1365.33 Sec	3	-.002	.059	.019	.170	.280	.018
40	1820.44 Sec	3	-.142	.011	.476	.194	.429	.913

PHOENIX GEOSCIENCE

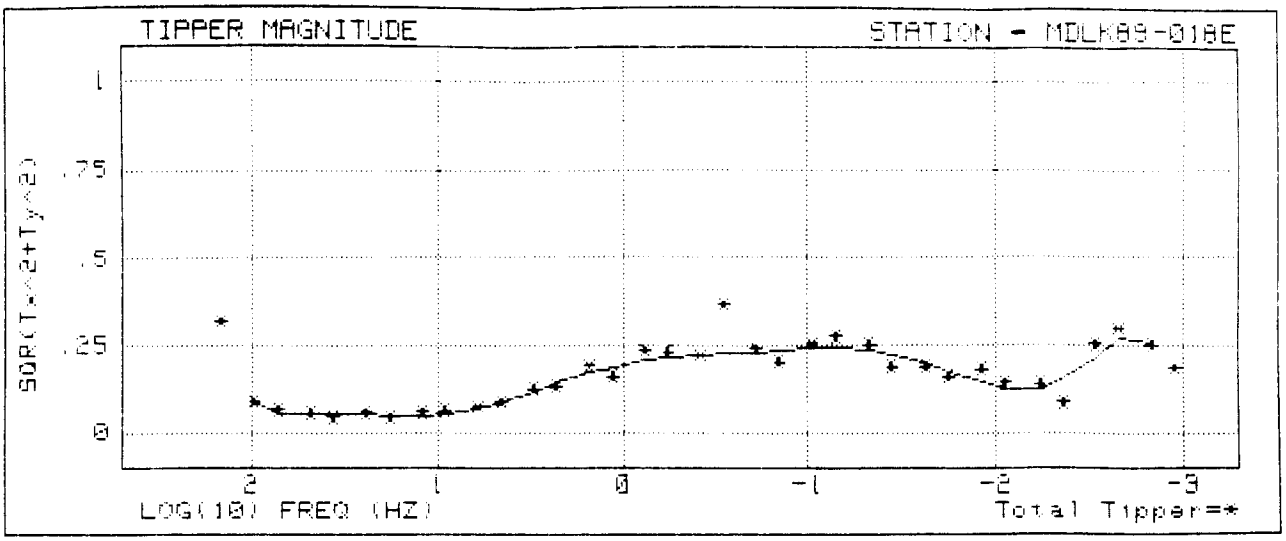
MT Site: MDLK89-018E

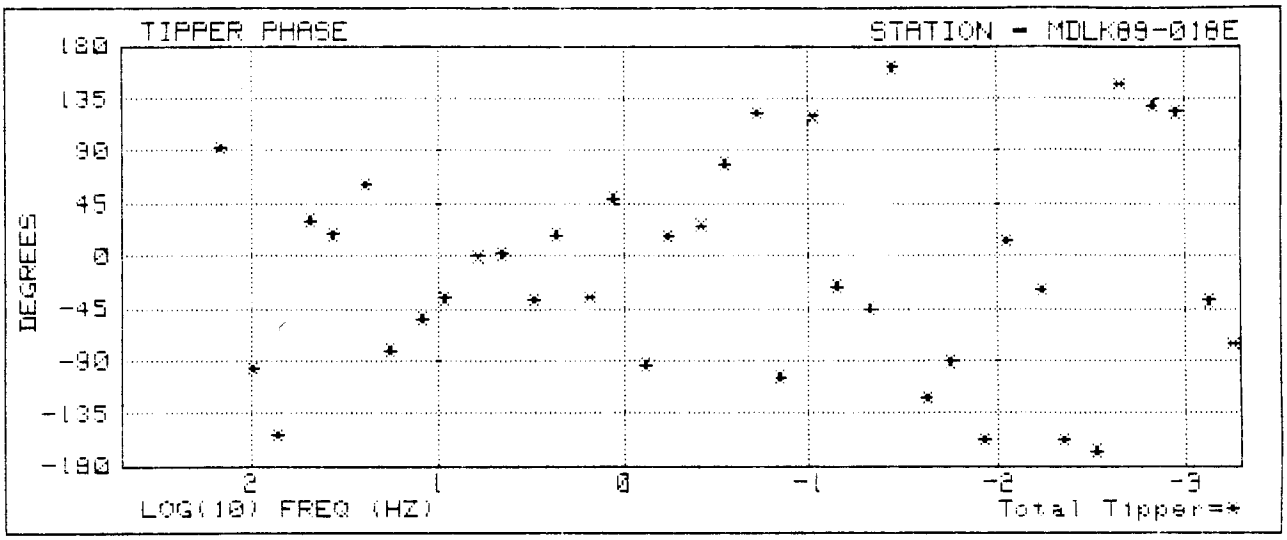
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

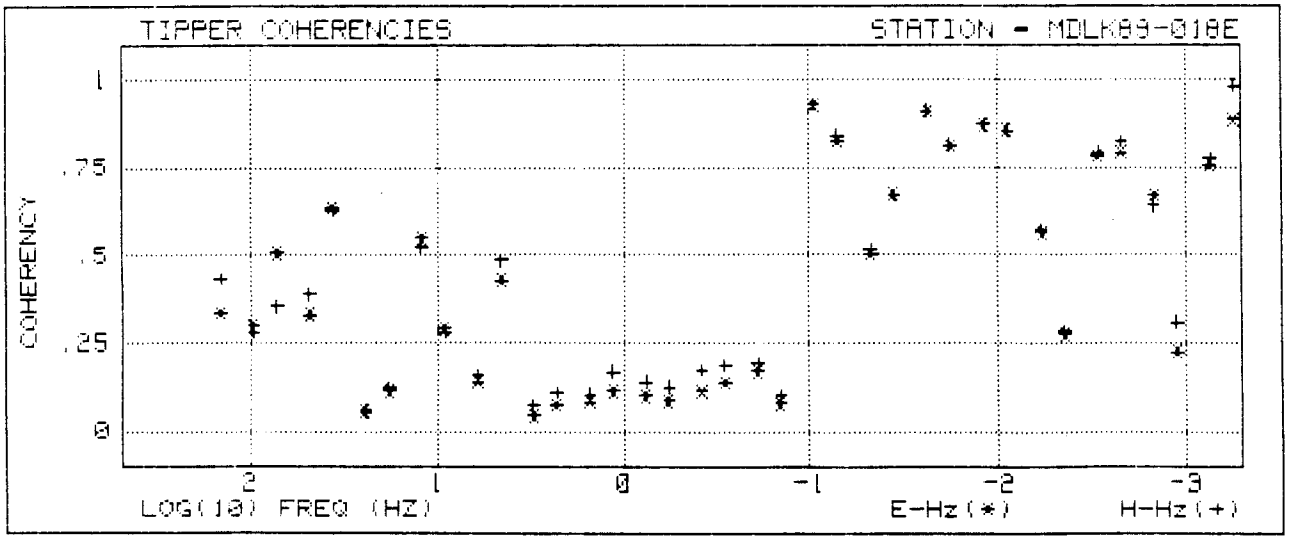
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	360	-2.58	-209.92	999.99	147.51	-23.46	999.99
5	96.00 Hz	476	113.45	-70.77	999.99	143.47	104.62	999.99
6	72.00 Hz	190	-122.22	-53.95	999.99	12.57	-24.54	544.98
7	48.00 Hz	2009	-33.02	-91.64	47.94	16.07	13.41	16.71
8	36.00 Hz	1913	-45.86	-74.97	12.75	8.98	8.41	3.62
9	24.00 Hz	1728	-39.99	-59.39	2.60	4.43	5.85	.71
10	18.00 Hz	1536	-35.90	-54.88	3.37	-.61	5.37	2.62
11	12.00 Hz	288	-31.18	-42.69	3.11	-3.80	-.13	2.02
12	9.00 Hz	768	-23.04	-34.41	.57	-.06	-1.34	.48
13	6.00 Hz	1824	-18.14	-27.58	.82	-1.22	-.32	.68
14	4.50 Hz	288	-14.84	-23.16	3.97	-.60	-1.15	5.06
15	3.00 Hz	3072	-13.51	-15.94	1.21	-1.12	-1.15	.99
16	2.25 Hz	4096	-11.69	-12.68	.71	-.94	-.83	.66
17	1.50 Hz	5120	-9.05	-8.92	.60	.92	-.63	.74
18	1.13 Hz	6656	-8.61	-6.55	.39	.41	-.05	.53
19	1.33 Sec	2717	-7.919	-4.607	.524	.819	.015	.994
20	1.78 Sec	3069	-7.853	-3.721	.559	.646	.074	.863
21	2.67 Sec	3124	-7.471	-2.974	.830	.837	-.284	1.113
22	3.56 Sec	592	-7.742	-2.746	.453	.488	.125	.344
23	5.33 Sec	822	-8.116	-2.232	.100	.295	-.095	.174
24	7.11 Sec	1278	-8.131	-2.199	.253	.394	.060	.206
25	10.67 Sec	729	-8.171	-2.591	.002	.612	.122	.014
26	14.22 Sec	765	-7.828	-3.146	.004	.363	-.015	.010
27	21.33 Sec	334	-6.754	-3.811	.006	.392	.086	.016
28	28.44 Sec	358	-5.800	-4.331	.003	.242	.501	.010
29	42.67 Sec	381	-4.070	-4.106	.002	.277	.112	.005
30	56.89 Sec	363	-3.157	-3.651	.001	.253	.214	.001
31	85.33 Sec	129	-2.030	-2.941	.000	.171	.199	.000
32	113.78 Sec	138	-1.547	-2.342	.000	.088	.243	.000
33	170.67 Sec	72	-1.110	-1.664	.001	.076	.192	.001
34	227.56 Sec	63	-.978	-1.340	.000	.039	.184	.001
35	341.33 Sec	9	-.777	-1.032	.002	.046	.130	.002
36	455.11 Sec	21	-.738	-.849	.001	.025	.101	.001
37	682.67 Sec	6	-.687	-.516	.002	.080	.059	.001
38	910.22 Sec	6	-.511	-.615	.003	.118	.037	.001
39	1365.33 Sec	3	-.560	-.536	.008	-.026	.096	.008
40	1820.44 Sec	3	-.578	-.561	.196	-.122	-.045	.375

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E







PHOENIX GEOSCIENCE

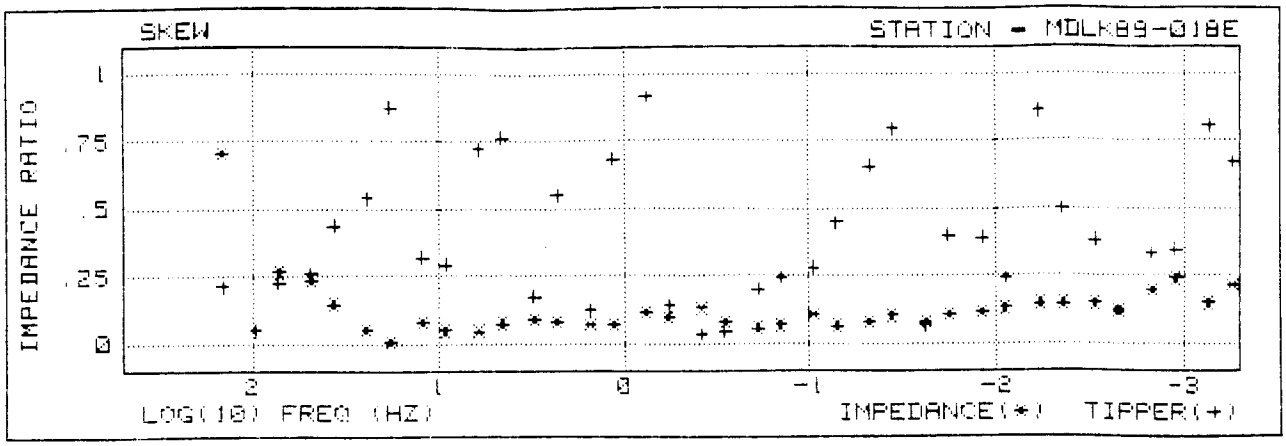
MT Site: MDLK89-018E

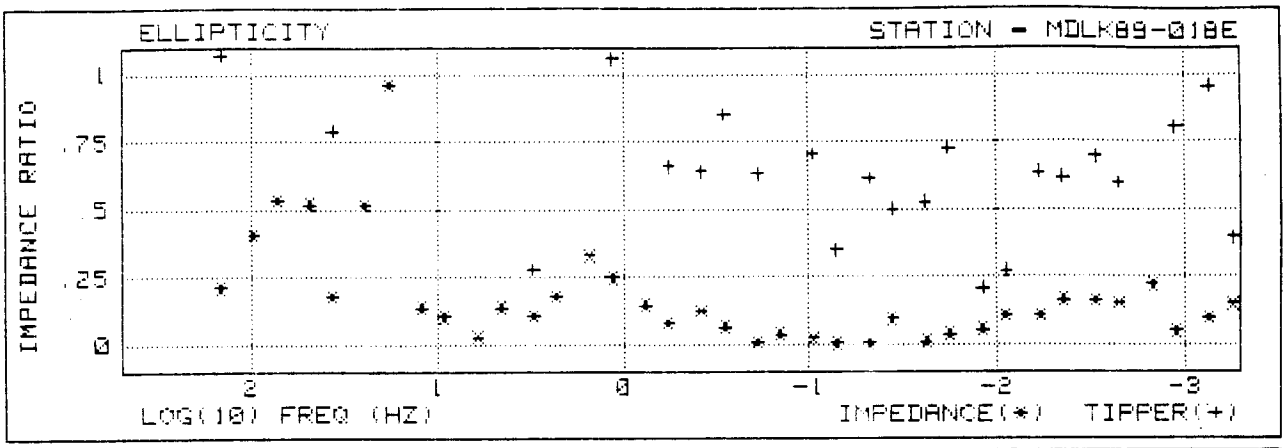
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

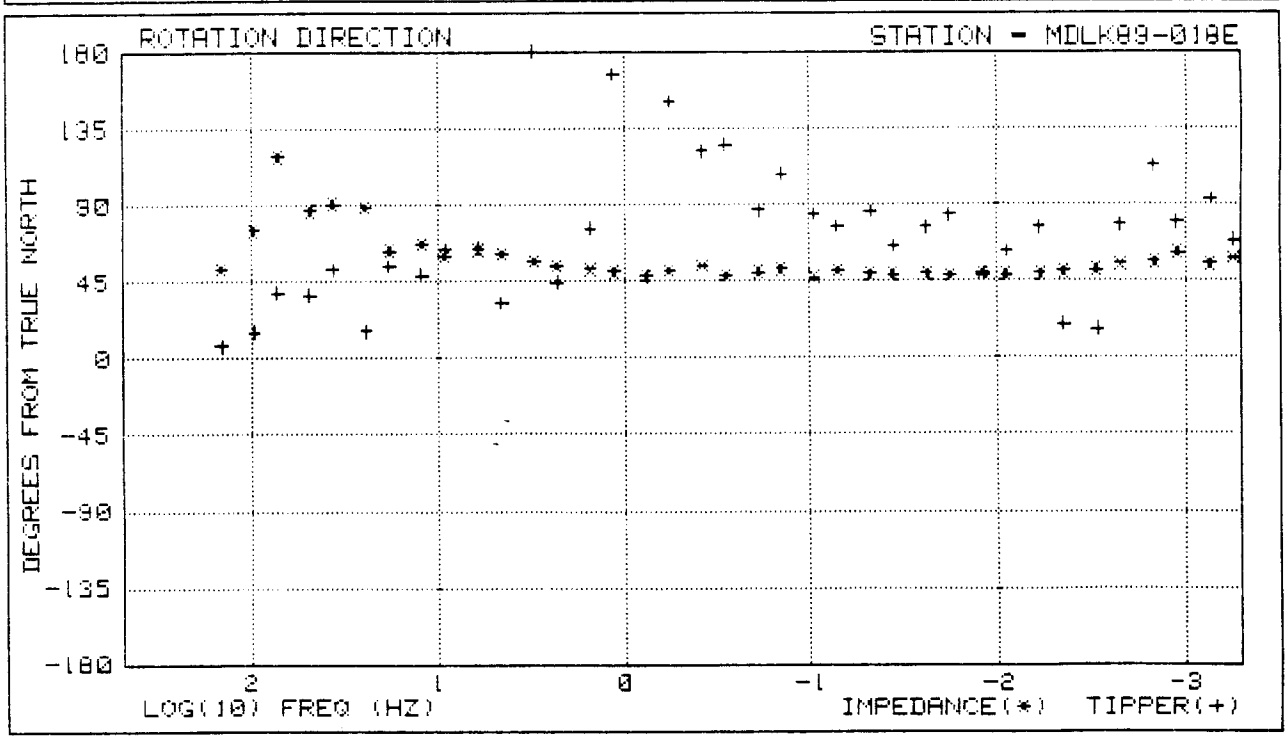
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	360	.32	92.04	.33	.43
5	96.00 Hz	476	.09	-97.32	.29	.28
6	72.00 Hz	190	.06	-153.75	.50	.35
7	48.00 Hz	2009	.05	29.47	.33	.38
8	36.00 Hz	1913	.04	17.87	.63	.62
9	24.00 Hz	1728	.05	60.55	.05	.06
10	18.00 Hz	1536	.04	-81.62	.11	.12
11	12.00 Hz	288	.06	-54.39	.55	.52
12	9.00 Hz	768	.06	-36.59	.29	.28
13	6.00 Hz	1824	.07	-1.10	.14	.15
14	4.50 Hz	288	.09	1.30	.42	.48
15	3.00 Hz	3072	.12	-38.27	.04	.07
16	2.25 Hz	4096	.13	17.12	.07	.11
17	1.50 Hz	5120	.19	-36.31	.08	.10
18	1.13 Hz	6656	.16	48.80	.11	.17
19	1.33 Sec	2717	.23	-94.24	.10	.14
20	1.78 Sec	3069	.23	16.37	.08	.12
21	2.67 Sec	3124	.22	25.76	.11	.17
22	3.56 Sec	592	.37	77.90	.13	.18
23	5.33 Sec	822	.24	121.68	.17	.19
24	7.11 Sec	1278	.20	-104.97	.08	.10
25	10.67 Sec	729	.25	118.87	.92	.93
26	14.22 Sec	765	.27	-27.06	.82	.84
27	21.33 Sec	334	.25	-45.84	.50	.51
28	28.44 Sec	358	.19	161.04	.67	.67
29	42.67 Sec	381	.18	-122.74	.91	.91
30	56.89 Sec	363	.16	-91.84	.81	.81
31	85.33 Sec	129	.18	-158.11	.87	.87
32	113.78 Sec	138	.14	12.55	.85	.85
33	170.67 Sec	72	.14	-29.98	.56	.57
34	227.56 Sec	63	.08	-158.12	.27	.28
35	341.33 Sec	9	.25	-167.85	.78	.79
36	455.11 Sec	21	.29	146.94	.79	.82
37	682.67 Sec	6	.25	128.76	.67	.64
38	910.22 Sec	6	.18	123.29	.22	.31
39	1365.33 Sec	3	1.36	-38.74	.75	.77
40	1820.44 Sec	3	5.99	-76.33	.88	.98

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E







PHOENIX GEOSCIENCE

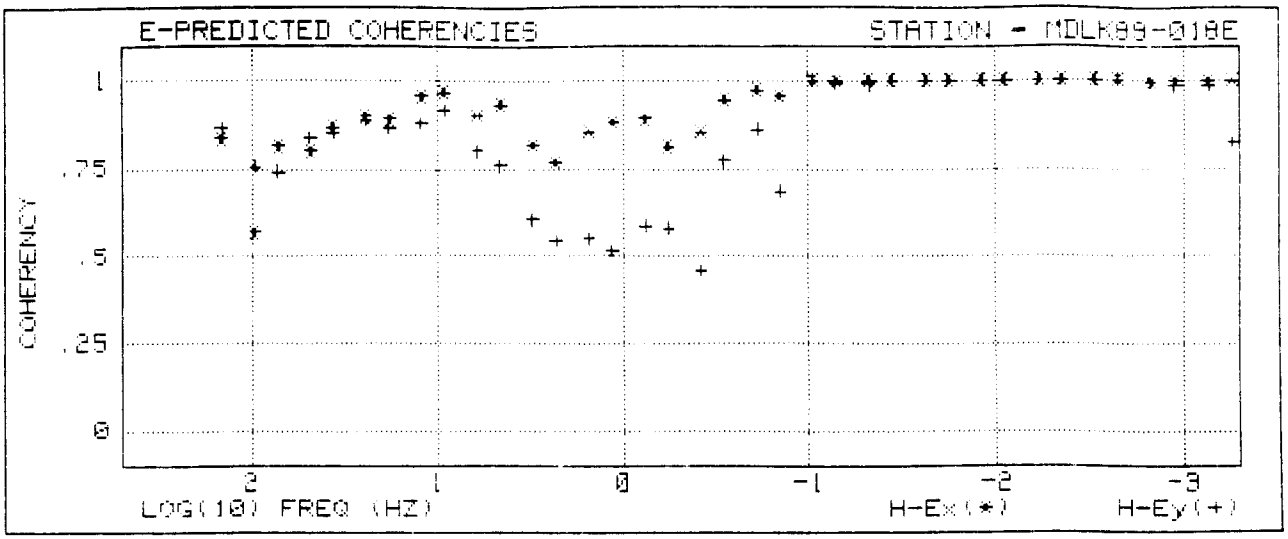
MT Site: MDLK89-018E

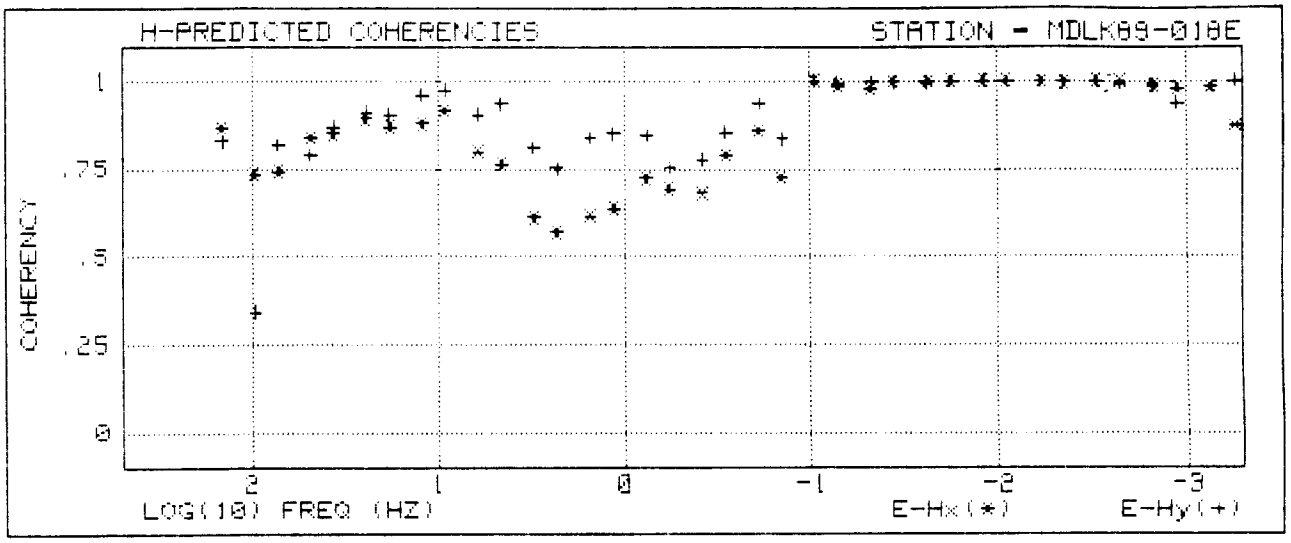
SKEW, ELLIPTICITY AND STRIKE

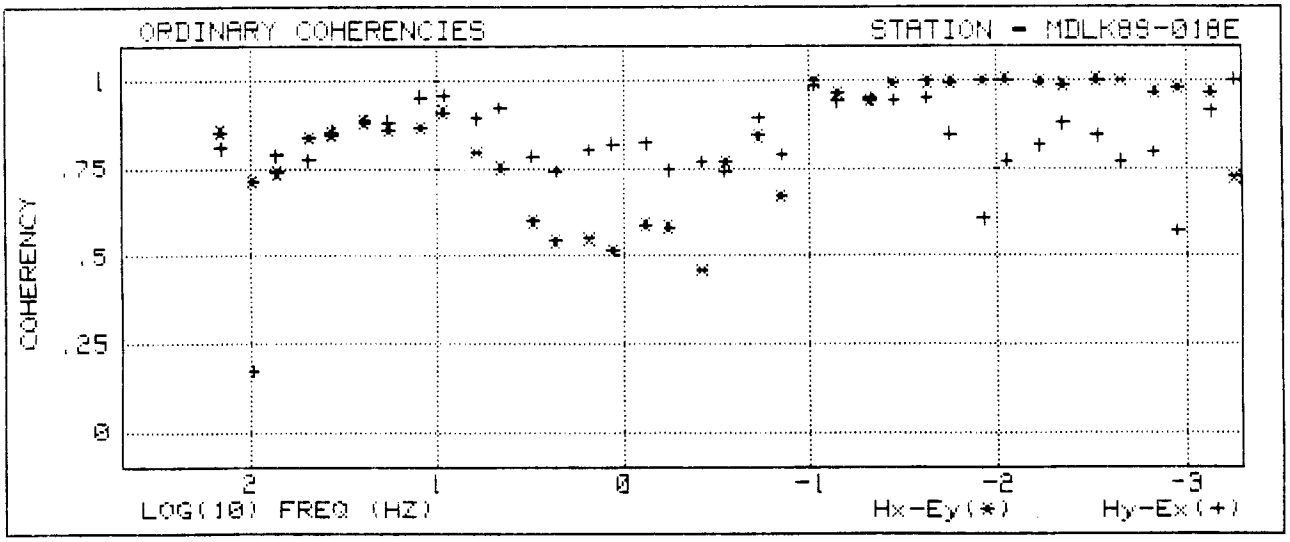
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00 Hz	360	.70	.21	51.94	.21	1.07	6.58
5	96.00 Hz	476	1.16	.40	74.67	.05	1.73	14.62
6	72.00 Hz	190	.26	.53	117.99	.23	4.76	38.07
7	48.00 Hz	2009	.23	.51	86.00	.26	1.16	36.47
8	36.00 Hz	1913	.14	.17	89.94	.43	.79	51.35
9	24.00 Hz	1728	.05	.51	88.08	.54	2.45	15.36
10	18.00 Hz	1536	.00	.96	62.65	.87	1.57	53.55
11	12.00 Hz	288	.08	.13	66.15	.31	5.20	48.04
12	9.00 Hz	768	.05	.10	59.38	.29	5.47	63.33
13	6.00 Hz	1824	.04	.02	62.95	.72	1.38	63.75
14	4.50 Hz	288	.07	.13	60.36	.76	1.55	31.49
15	3.00 Hz	3072	.09	.10	56.13	.17	.28	179.45
16	2.25 Hz	4096	.08	.18	53.25	.54	1.52	43.89
17	1.50 Hz	5120	.07	.33	51.45	.12	16.20	75.75
18	1.13 Hz	6656	.07	.25	50.19	.68	1.05	166.10
19	1.33 Sec	2717	.11	.14	47.43	.91	1.19	47.24
20	1.78 Sec	3069	.09	.07	50.64	.14	.65	150.26
21	2.67 Sec	3124	.13	.12	53.37	.03	.64	120.63
22	3.56 Sec	592	.08	.06	47.71	.04	.85	124.91
23	5.33 Sec	822	.05	.00	49.61	.20	.63	85.99
24	7.11 Sec	1278	.06	.03	51.59	.24	1.43	107.15
25	10.67 Sec	729	.10	.02	46.58	.28	.70	83.58
26	14.22 Sec	765	.06	.00	50.46	.45	.34	76.33
27	21.33 Sec	334	.08	.00	48.45	.65	.61	85.31
28	28.44 Sec	358	.10	.09	48.16	.79	.50	64.98
29	42.67 Sec	381	.08	.01	48.37	.06	.52	75.93
30	56.89 Sec	363	.10	.03	47.57	.40	.72	83.09
31	85.33 Sec	129	.11	.05	48.89	.39	.20	48.00
32	113.78 Sec	138	.13	.10	48.18	.24	.27	61.88
33	170.67 Sec	72	.14	.10	48.69	.85	.63	75.86
34	227.56 Sec	63	.14	.16	50.02	.49	.61	19.33
35	341.33 Sec	9	.14	.16	51.14	.38	.69	16.37
36	455.11 Sec	21	.11	.15	54.20	.12	.59	77.50
37	682.67 Sec	6	.19	.22	55.73	.33	1.27	112.20
38	910.22 Sec	6	.24	.05	61.26	.34	.80	79.03
39	1365.33 Sec	3	.14	.09	54.33	.80	.95	92.55
40	1820.44 Sec	3	.21	.14	57.51	.67	.39	68.13

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E







PHOENIX GEOSCIENCE

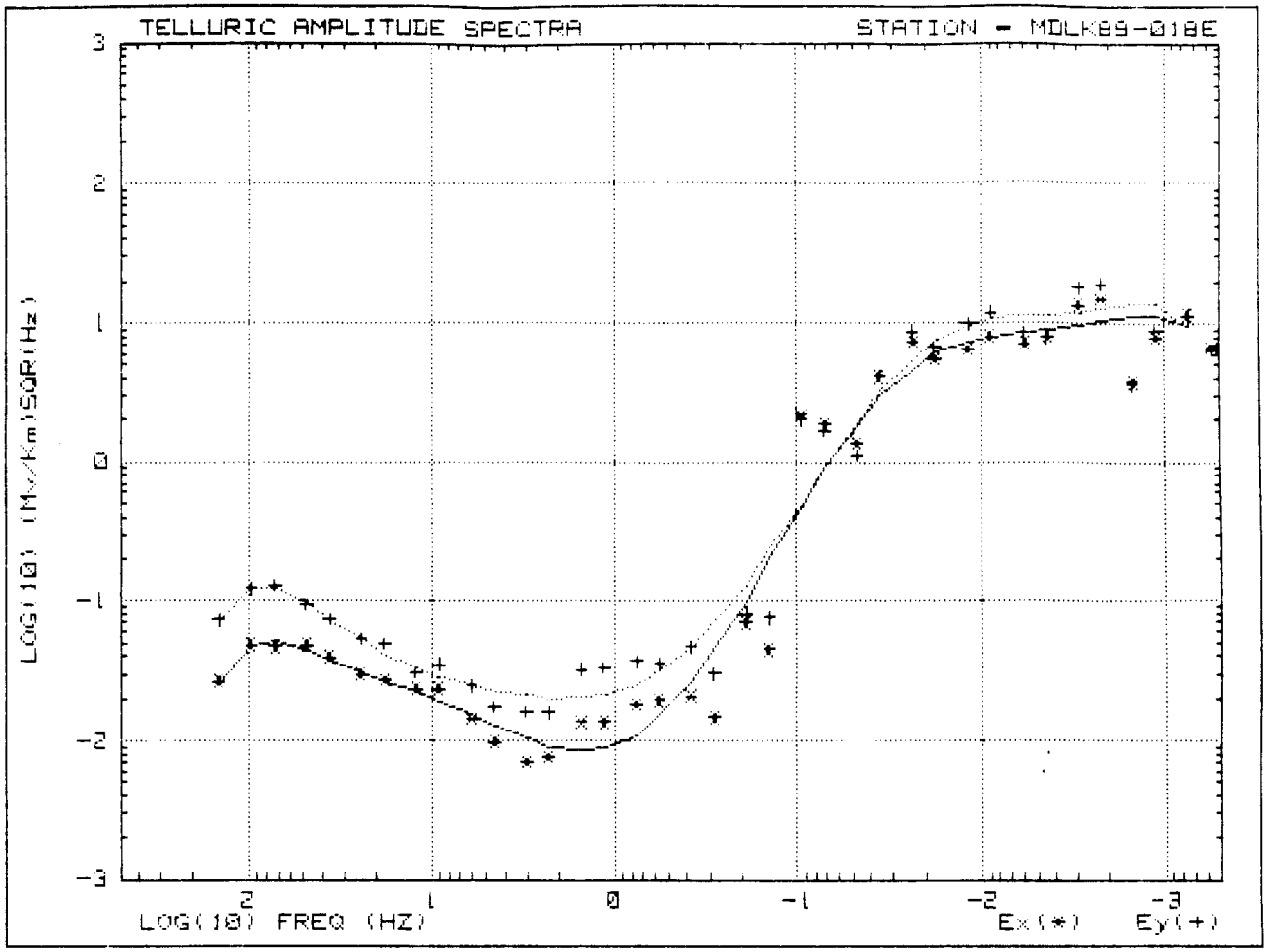
MT Site: MDLK89-018E

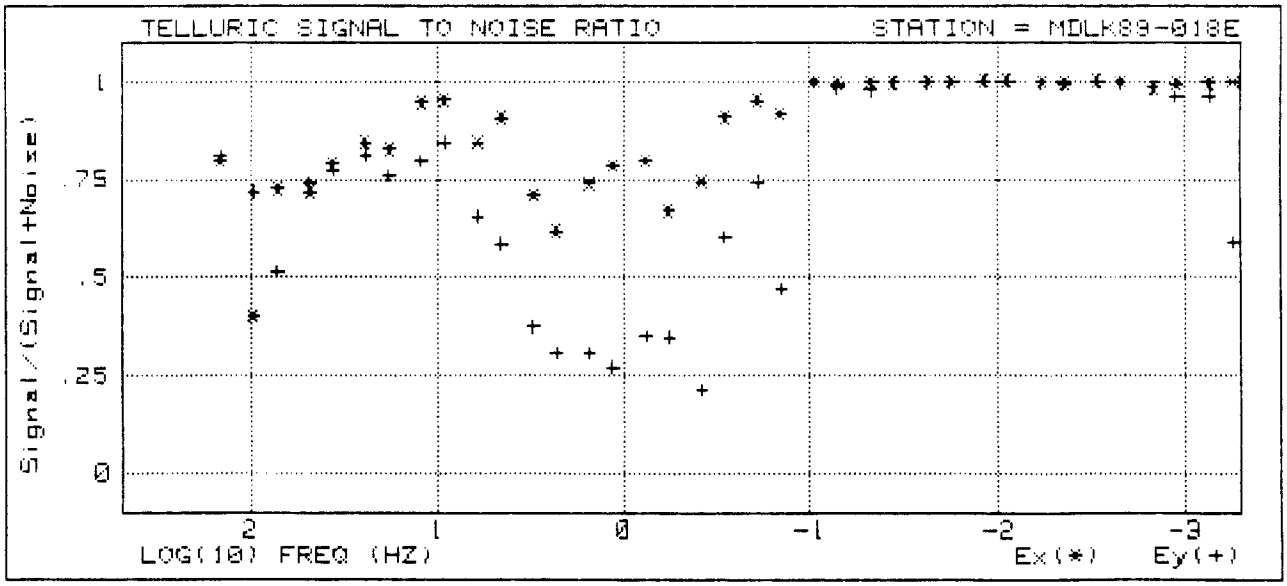
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	360	.83	.86	.86	.83	.85	.80
5	96.00 Hz	476	.57	.75	.73	.34	.71	.17
6	72.00 Hz	190	.81	.74	.74	.81	.73	.78
7	48.00 Hz	2009	.80	.84	.84	.79	.83	.77
8	36.00 Hz	1913	.87	.85	.85	.87	.85	.85
9	24.00 Hz	1728	.90	.88	.89	.91	.88	.88
10	18.00 Hz	1536	.89	.86	.86	.90	.86	.88
11	12.00 Hz	288	.95	.88	.87	.96	.86	.95
12	9.00 Hz	768	.96	.91	.91	.97	.91	.96
13	6.00 Hz	1824	.90	.80	.80	.90	.79	.89
14	4.50 Hz	288	.93	.76	.76	.93	.75	.92
15	3.00 Hz	3072	.81	.60	.61	.81	.60	.78
16	2.25 Hz	4096	.77	.54	.57	.75	.54	.74
17	1.50 Hz	5120	.85	.55	.61	.84	.55	.80
18	1.13 Hz	6656	.88	.51	.64	.85	.51	.82
19	1.33 Sec	2717	.89	.59	.72	.84	.58	.82
20	1.78 Sec	3069	.81	.58	.69	.75	.58	.74
21	2.67 Sec	3124	.85	.46	.68	.77	.46	.76
22	3.56 Sec	592	.94	.77	.79	.85	.77	.74
23	5.33 Sec	822	.97	.86	.86	.93	.84	.89
24	7.11 Sec	1278	.95	.68	.72	.83	.67	.79
25	10.67 Sec	729	1.00	1.00	1.00	1.00	1.00	.98
26	14.22 Sec	765	1.00	.99	.98	.99	.96	.94
27	21.33 Sec	334	1.00	.99	.98	.99	.94	.95
28	28.44 Sec	358	1.00	1.00	1.00	.99	.99	.94
29	42.67 Sec	381	1.00	1.00	1.00	.99	.99	.95
30	56.89 Sec	363	1.00	1.00	1.00	1.00	.99	.84
31	85.33 Sec	129	1.00	1.00	1.00	1.00	1.00	.60
32	113.78 Sec	138	1.00	1.00	1.00	1.00	1.00	.77
33	170.67 Sec	72	1.00	1.00	1.00	1.00	.99	.81
34	227.56 Sec	63	1.00	1.00	.99	.99	.98	.88
35	341.33 Sec	9	1.00	1.00	1.00	1.00	1.00	.84
36	455.11 Sec	21	1.00	1.00	1.00	.99	1.00	.77
37	682.67 Sec	6	.99	.99	.99	.98	.96	.79
38	910.22 Sec	6	1.00	.98	.98	.94	.97	.57
39	1365.33 Sec	3	1.00	.98	.98	.98	.96	.91
40	1820.44 Sec	3	1.00	.82	.87	1.00	.72	1.00

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E





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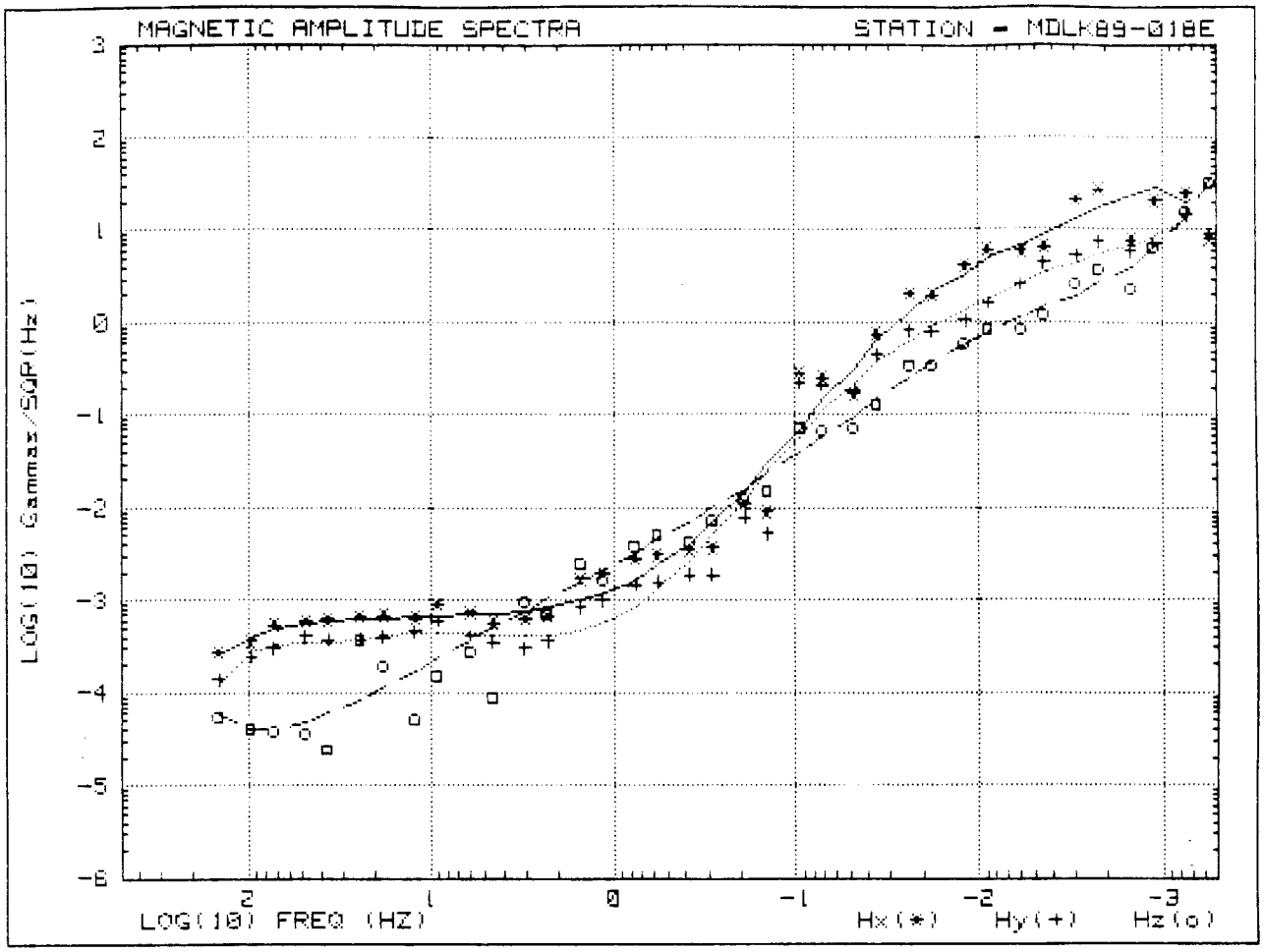
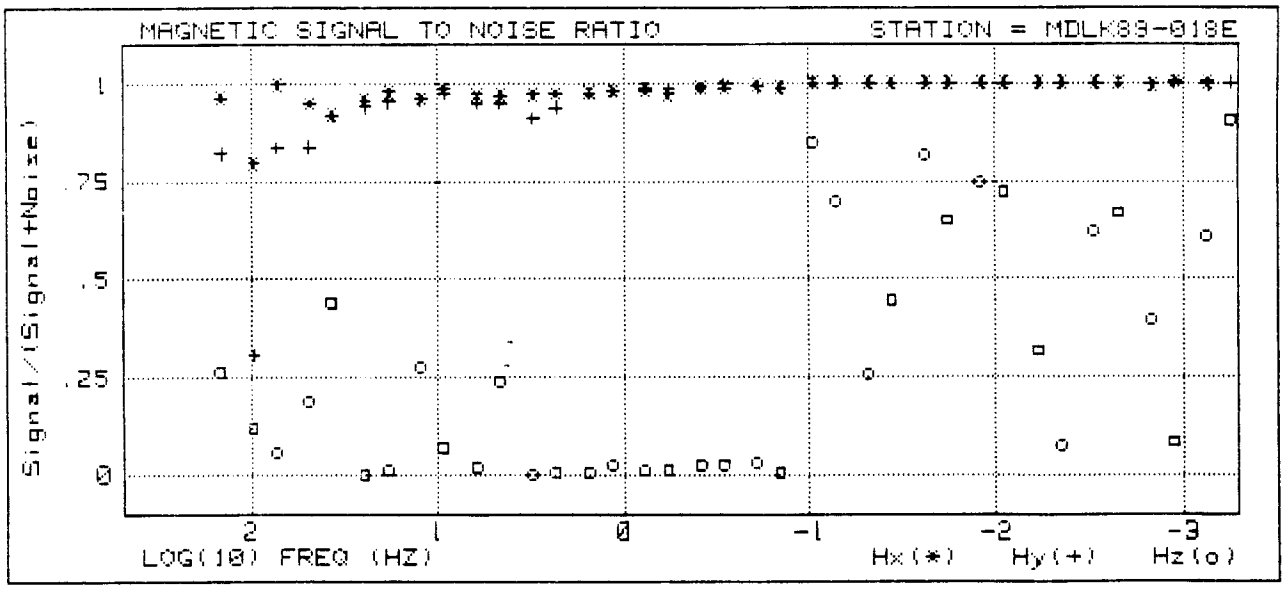
MT Site: MDLK89-018E





PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd		STACKS	HX	HY	HZ	EX	EY
4	144.00	Hz	360	2.66E-04	1.37E-04	5.76E-05	2.60E-02	7.17E-02
5	96.00	Hz	476	3.53E-04	2.45E-04	4.19E-05	4.72E-02	1.20E-01
6	72.00	Hz	190	5.25E-04	2.96E-04	3.96E-05	4.65E-02	1.26E-01
7	48.00	Hz	2009	5.79E-04	4.03E-04	3.71E-05	4.75E-02	9.24E-02
8	36.00	Hz	1913	6.06E-04	3.68E-04	2.55E-05	3.89E-02	7.31E-02
9	24.00	Hz	1728	6.52E-04	3.67E-04	3.93E-04	2.93E-02	5.28E-02
10	18.00	Hz	1536	6.64E-04	3.93E-04	1.98E-04	2.67E-02	4.89E-02
11	12.00	Hz	288	6.31E-04	4.53E-04	5.26E-05	2.31E-02	3.02E-02
12	9.00	Hz	768	8.86E-04	5.88E-04	1.55E-04	2.31E-02	3.46E-02
13	6.00	Hz	1824	7.20E-04	4.05E-04	2.86E-04	1.41E-02	2.45E-02
14	4.50	Hz	288	5.59E-04	3.46E-04	8.97E-05	9.56E-03	1.72E-02
15	3.00	Hz	3072	6.14E-04	2.96E-04	1.02E-03	6.92E-03	1.60E-02
16	2.25	Hz	4096	6.52E-04	3.52E-04	7.29E-04	7.43E-03	1.57E-02
17	1.50	Hz	5120	1.66E-03	8.25E-04	2.57E-03	1.34E-02	3.16E-02
18	1.13	Hz	6656	1.94E-03	9.75E-04	1.76E-03	1.34E-02	3.26E-02
19	1.33	Sec	2717	2.83E-03	1.45E-03	4.10E-03	1.79E-02	3.62E-02
20	1.78	Sec	3069	3.02E-03	1.53E-03	5.36E-03	1.93E-02	3.54E-02
21	2.67	Sec	3124	3.47E-03	1.85E-03	4.45E-03	2.04E-02	4.61E-02
22	3.56	Sec	592	3.65E-03	1.85E-03	7.53E-03	1.46E-02	2.96E-02
23	5.33	Sec	822	1.09E-02	7.84E-03	1.30E-02	6.85E-02	8.02E-02
24	7.11	Sec	1278	8.90E-03	5.27E-03	1.62E-02	4.46E-02	7.49E-02
25	10.67	Sec	729	2.83E-01	2.17E-01	7.44E-02	2.17E+00	1.96E+00
26	14.22	Sec	765	2.51E-01	2.10E-01	6.97E-02	1.82E+00	1.63E+00
27	21.33	Sec	334	1.69E-01	1.87E-01	7.57E-02	1.34E+00	1.09E+00
28	28.44	Sec	358	7.39E-01	4.36E-01	1.39E-01	4.02E+00	4.08E+00
29	42.67	Sec	381	2.00E+00	8.03E-01	3.65E-01	7.17E+00	8.46E+00
30	56.89	Sec	363	1.91E+00	7.74E-01	3.63E-01	5.37E+00	6.62E+00
31	85.33	Sec	129	4.03E+00	1.01E+00	6.17E-01	6.38E+00	9.64E+00
32	113.78	Sec	138	6.03E+00	1.57E+00	8.60E-01	7.82E+00	1.16E+01
33	170.67	Sec	72	5.80E+00	2.52E+00	8.62E-01	6.94E+00	8.30E+00
34	227.56	Sec	63	6.38E+00	4.24E+00	1.27E+00	7.81E+00	7.62E+00
35	341.33	Sec	9	2.05E+01	5.20E+00	2.78E+00	1.32E+01	1.77E+01
36	455.11	Sec	21	2.66E+01	7.35E+00	3.93E+00	1.46E+01	1.90E+01
37	682.67	Sec	6	7.57E+00	5.77E+00	2.42E+00	3.74E+00	3.58E+00
38	910.22	Sec	6	2.01E+01	6.99E+00	6.74E+00	7.78E+00	8.67E+00
39	1365.33	Sec	3	2.41E+01	1.43E+01	1.64E+01	1.12E+01	1.13E+01
40	1820.44	Sec	3	7.71E+00	8.94E+00	3.36E+01	6.58E+00	6.33E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-018E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	360	.963	.820	.268	.797	.809
5	96.00 Hz	476	.794	.304	.126	.399	.716
6	72.00 Hz	190	.995	.834	.062	.725	.512
7	48.00 Hz	2009	.947	.836	.193	.716	.737
8	36.00 Hz	1913	.917	.916	.448	.789	.774
9	24.00 Hz	1728	.955	.940	.003	.842	.812
10	18.00 Hz	1536	.976	.952	.014	.825	.759
11	12.00 Hz	288	.960	.957	.283	.945	.797
12	9.00 Hz	768	.986	.975	.076	.953	.844
13	6.00 Hz	1824	.972	.949	.024	.842	.654
14	4.50 Hz	288	.969	.948	.243	.905	.585
15	3.00 Hz	3072	.970	.909	.005	.709	.372
16	2.25 Hz	4096	.972	.936	.012	.615	.305
17	1.50 Hz	5120	.976	.972	.010	.738	.305
18	1.13 Hz	6656	.980	.980	.028	.784	.270
19	1.33 Sec	2717	.981	.985	.019	.797	.349
20	1.78 Sec	3069	.970	.985	.015	.669	.345
21	2.67 Sec	3124	.990	.985	.029	.742	.211
22	3.56 Sec	592	.987	.998	.032	.907	.601
23	5.33 Sec	822	.993	.988	.037	.951	.742
24	7.11 Sec	1278	.988	.988	.010	.915	.470
25	10.67 Sec	729	1.000	1.000	.856	.999	.998
26	14.22 Sec	765	1.000	1.000	.701	.994	.983
27	21.33 Sec	334	1.000	.999	.261	.997	.977
28	28.44 Sec	358	1.000	.998	.449	.997	.996
29	42.67 Sec	381	1.000	1.000	.824	.998	.996
30	56.89 Sec	363	1.000	1.000	.656	.998	.996
31	85.33 Sec	129	1.000	1.000	.752	1.000	.999
32	113.78 Sec	138	1.000	1.000	.726	.999	.999
33	170.67 Sec	72	.999	1.000	.322	.998	.996
34	227.56 Sec	63	.999	1.000	.079	.996	.992
35	341.33 Sec	9	1.000	1.000	.626	1.000	.999
36	455.11 Sec	21	1.000	1.000	.675	.999	.997
37	682.67 Sec	6	.996	.996	.402	.984	.984
38	910.22 Sec	6	1.000	1.000	.089	.994	.960
39	1365.33 Sec	3	1.000	.996	.615	.997	.961
40	1820.44 Sec	3	1.000	.999	.913	.998	.588

PHOENIX GEOSCIENCE

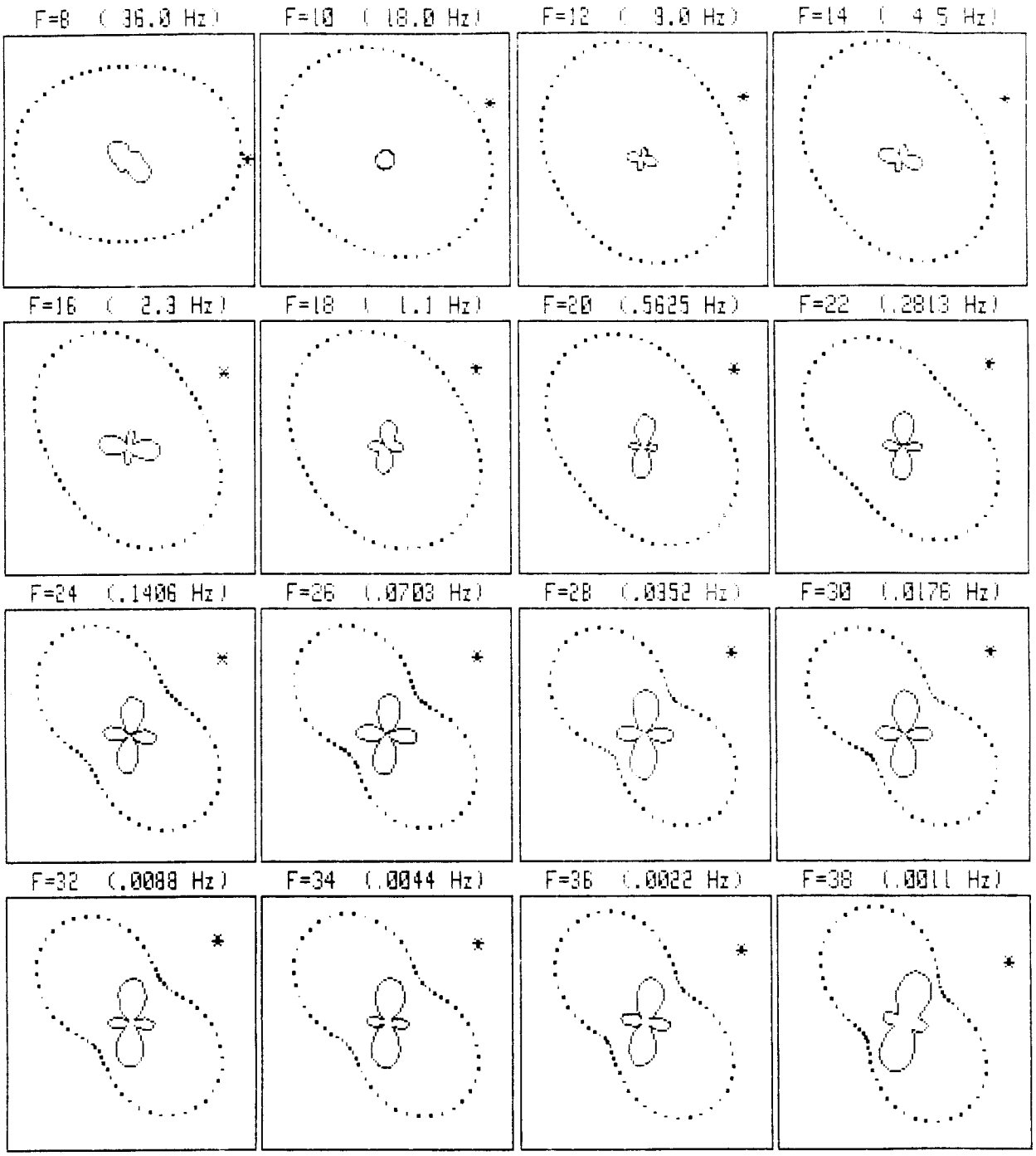
MT Site: MDLK89-018E

IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

*=Rotation Direction

Zxy = ...
Zxx = ___



PHOENIX GEOSCIENCE

MT Site: MDLK89-019E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-017s/018s/019s/

Operator:STEWART
Date: 27 Aug 1989
Time: 12:44:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 3

Stn Number:MDLK89-019s
Site Desc:T43N R4E
41,35,27 N 121,27,06 W
Elevation:5045 FT
Reference:MDLK89-018s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL431	+45 DEG
Hy	12	COIL430	+135 DEG
Hz	13	LOOP333	Doubled
Ex	14	195 M	+45 DEG
Ey	15	196 M	+135 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 4.5 K Ohms
Ex Voltage: AC=9.8_ mv, DC=_88_ mv
Ey Pot Resist: 5.0 K Ohms
Ey Voltage: AC=_9.7 mv, DC=_39_ mv

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MT Site: MDLK89-019E

OPERATOR LOG FOR MDLK89-017s/018s/019E/

Recorded XPR Files:
- X#1 - SUM OF RUNS: a, and b.
- X#2 - SUM OF RUNS: a, and b.
- X#3 - SUM OF RUNS: a, and b.
- X#4 - SUM OF RUNS: a, and b.
- X#5 - SUM OF RUNS: a, and b.
- X#6 - SUM OF RUNS: a, and b.
- X#7 - SUM OF RUNS: a, and b.
- X#8 - SUM OF RUNS: a, and b.
- X#9 - SUM OF RUNS: a, and b.
- X#10 - SUM OF RUNS: a, and b.
- X#11 - SUM OF RUNS: a, and b.
- X#12 - SUM OF RUNS: a, and b.
- X#13 - SUM OF RUNS: a, and b.
- X#14 - SUM OF RUNS: a, and b.
- X#15 - SUM OF RUNS: a, and b.
- X#16 - SUM OF RUNS: a, and b.

Operator:STEWART/OJALA

Cultural Factors:
LG. CROSSCOUNTRY PWRLNS. APP. 8mi FROM SITE.
LIGHTLY TRAVELLED FOREST ROADS NEAR SITE

Weather Conditions:
CLEAR AND WARM WITH LIGHT WINDS

Other Factors:
NONE

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MT Site: MDLK89-019E

MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

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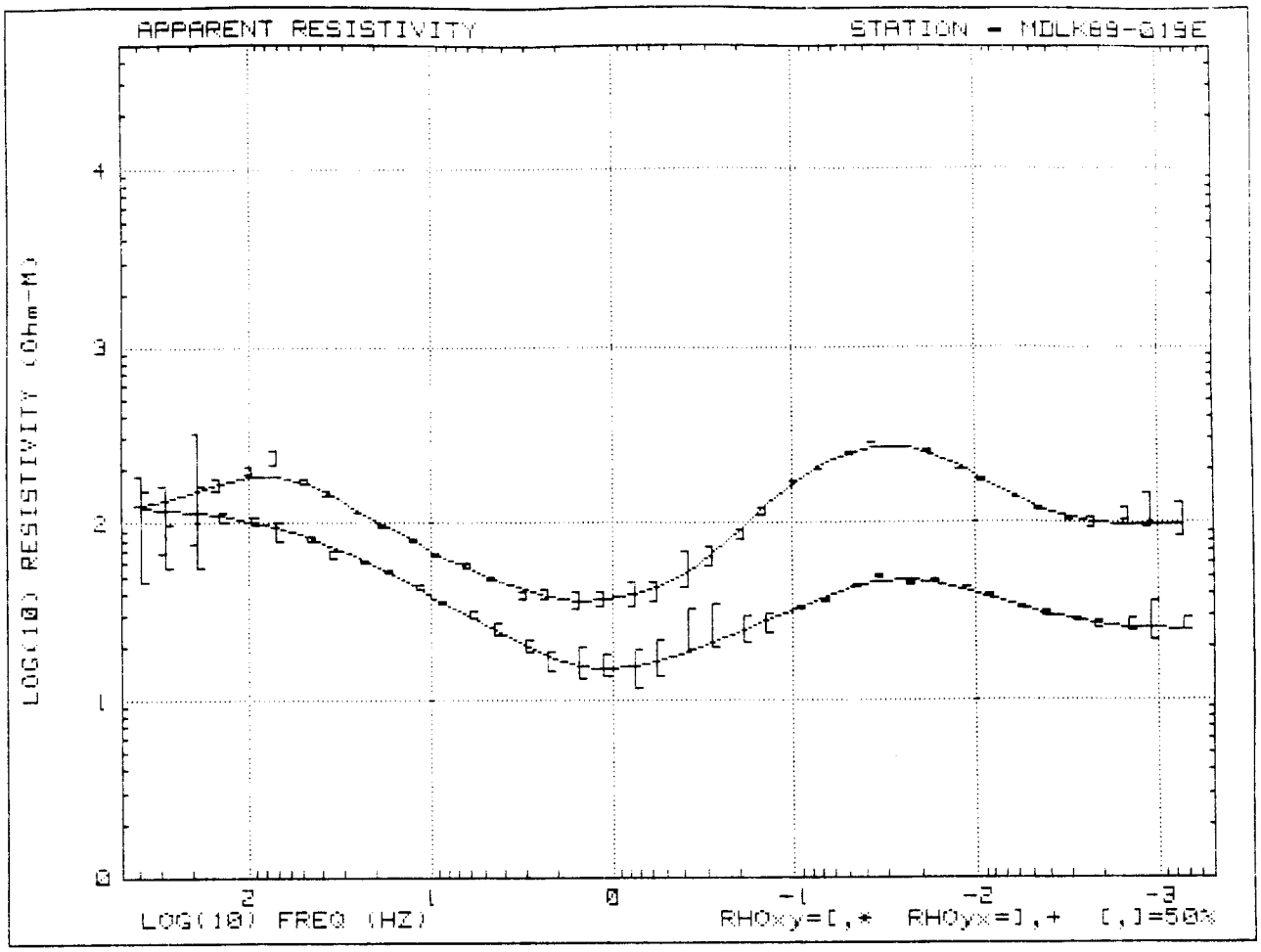
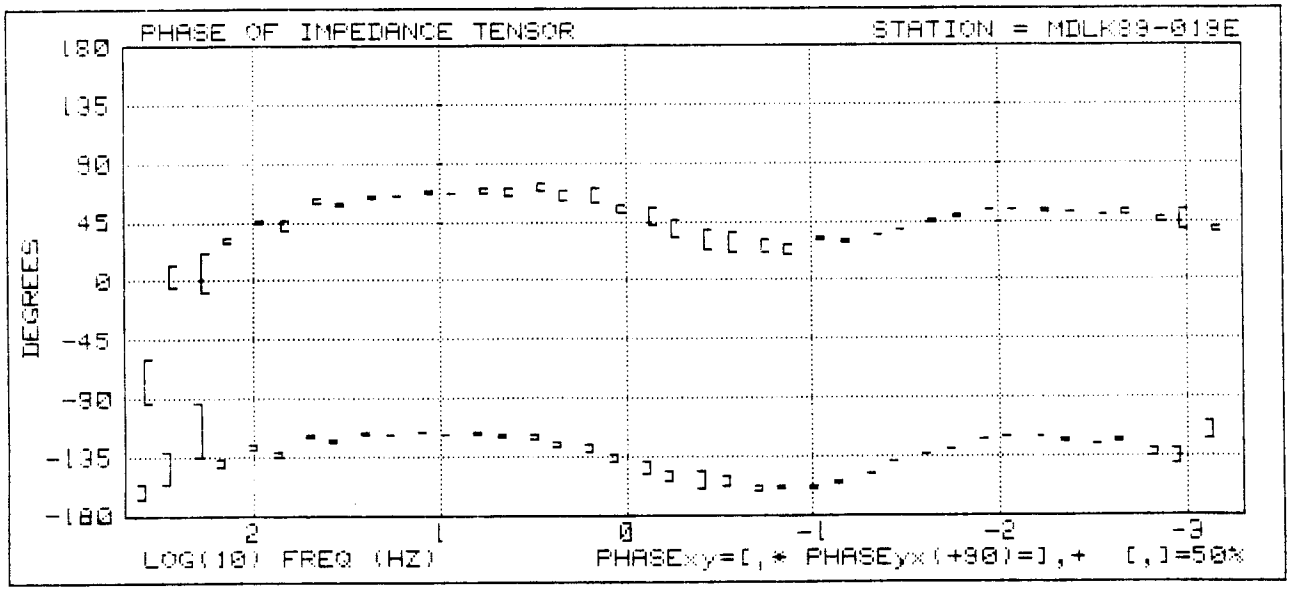
MT Site: MDLK89-019E





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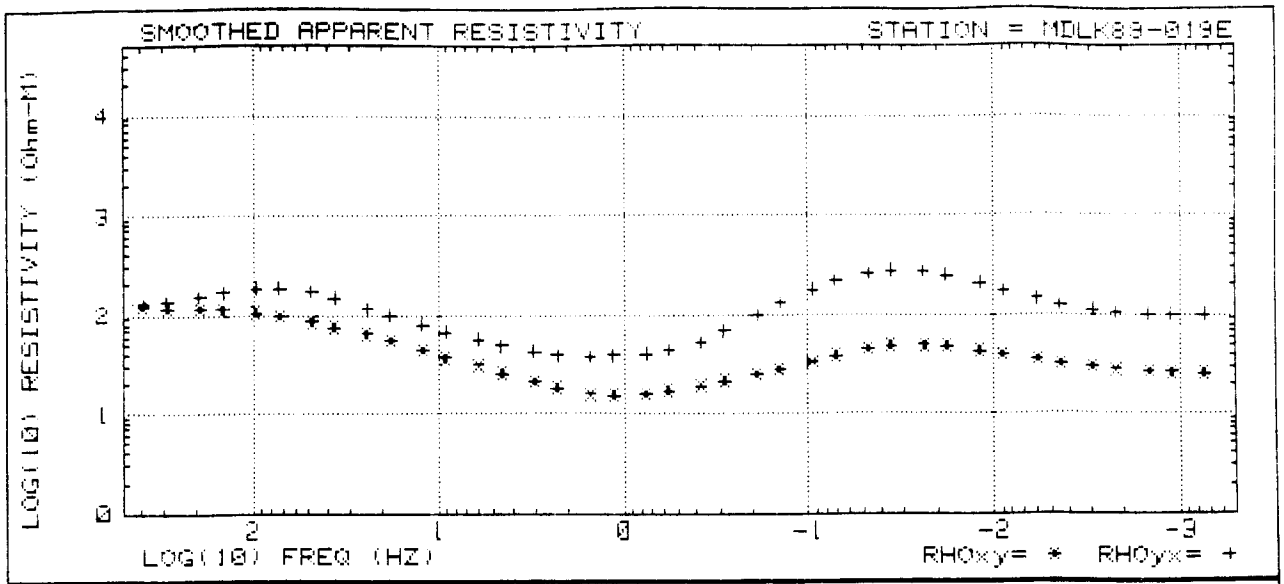
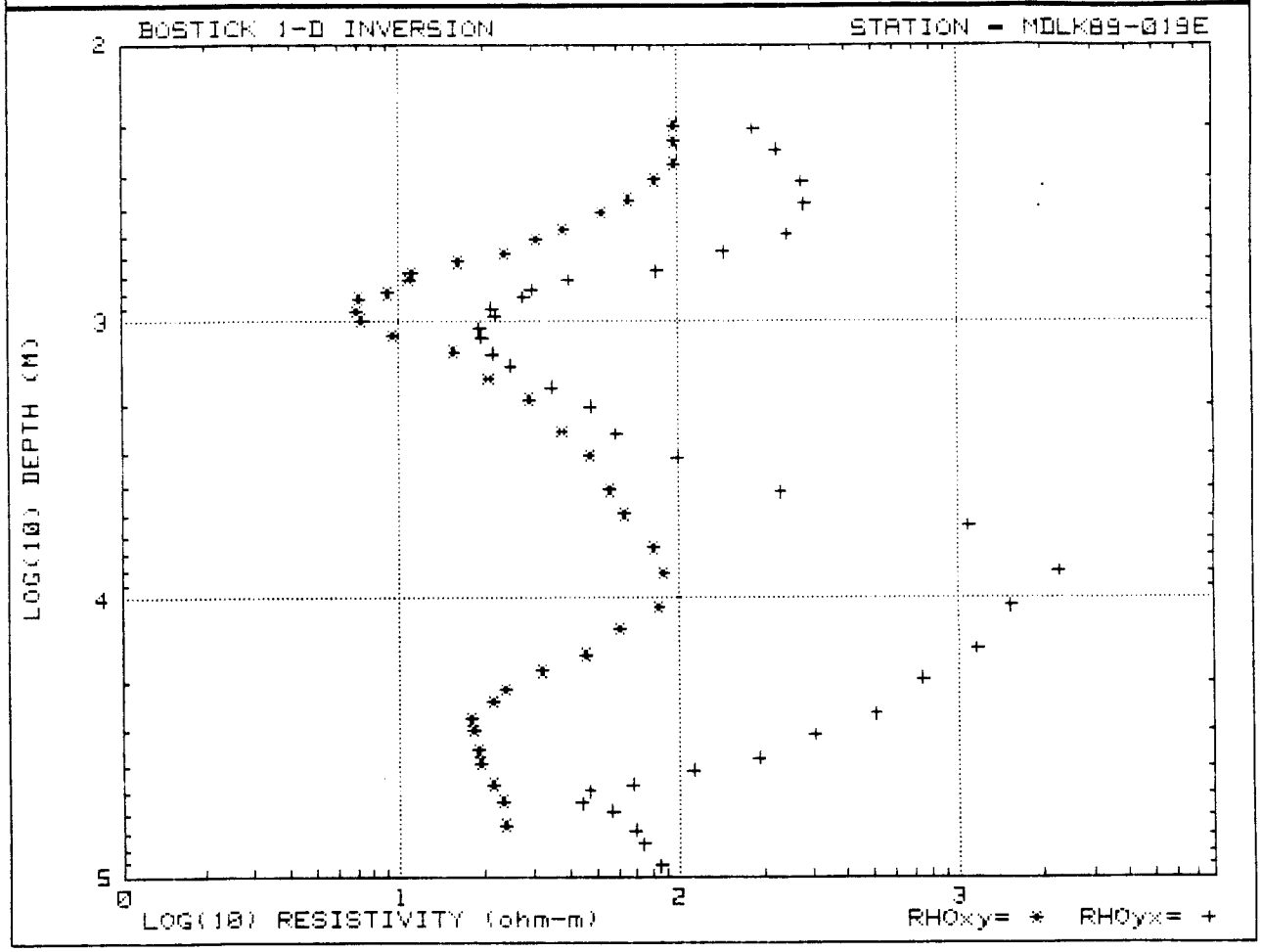
MT Site: MDLK89-019E





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MT Site: MDLK89-019E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	654	83.1	99.9	151.1	32.7	-76.3	25.4	-162.2	8.1
2	288.00 Hz	416	74.3	53.1	105.2	92.9	4.0	12.2	-143.3	18.8
3	192.00 Hz	179	95.8	99.9	156.1	99.9	6.1	22.6	-113.4	31.0
4	144.00 Hz	179	108.0	10.0	165.0	11.9	30.2	2.7	-139.6	3.2
5	96.00 Hz	474	103.7	6.4	198.6	6.6	45.1	1.8	-127.6	1.8
6	72.00 Hz	284	88.8	20.0	234.4	13.8	42.9	5.2	-132.9	3.7
7	48.00 Hz	670	80.6	5.5	174.4	4.3	61.3	1.5	-118.5	1.2
8	36.00 Hz	480	66.6	5.4	148.0	3.3	58.7	1.5	-123.3	.9
9	24.00 Hz	960	60.9	2.7	114.5	2.0	64.1	.8	-117.1	.6
10	18.00 Hz	1536	53.6	2.1	97.3	1.5	64.8	.6	-118.4	.4
11	12.00 Hz	1728	43.3	3.1	79.7	2.0	67.7	.9	-116.1	.6
12	9.00 Hz	1152	35.4	2.9	65.9	2.0	66.8	.8	-118.3	.6
13	6.00 Hz	1056	30.4	8.9	57.2	3.9	68.6	2.4	-117.1	1.1
14	4.50 Hz	1536	24.8	12.3	48.6	4.4	67.7	3.3	-119.5	1.2
15	3.00 Hz	19236	20.3	13.7	39.4	8.4	71.2	3.7	-119.9	2.3
16	2.25 Hz	11864	16.6	21.3	39.8	10.0	65.4	5.5	-126.2	2.7
17	1.50 Hz	2240	16.2	36.8	36.3	17.4	64.7	9.0	-129.1	4.6
18	1.13 Hz	12496	15.8	20.7	37.0	15.5	54.7	5.4	-136.1	4.1
19	1.33 Sec	5453	14.9	44.5	39.2	25.7	49.2	10.6	-143.9	6.6
20	1.78 Sec	5997	17.2	42.7	40.8	21.6	40.0	10.2	-149.9	5.6
21	2.67 Sec	2824	25.0	48.4	55.1	39.2	30.4	11.3	-152.8	9.5
22	3.56 Sec	2776	26.2	51.1	65.1	21.5	28.9	11.8	-153.5	5.6
23	5.33 Sec	1150	25.2	30.4	85.9	9.1	26.9	7.6	-160.2	2.5
24	7.11 Sec	416	27.4	20.5	115.6	6.1	23.9	5.3	-158.9	1.7
25	10.67 Sec	729	33.5	3.1	172.9	1.4	31.7	.9	-158.6	.4
26	14.22 Sec	729	36.8	1.9	200.0	1.1	30.4	.5	-154.9	.3
27	21.33 Sec	340	44.0	2.1	248.9	2.3	34.6	.6	-148.1	.6
28	28.44 Sec	370	49.7	1.5	282.8	.9	38.5	.4	-138.9	.3
29	42.67 Sec	381	45.3	2.3	266.5	.9	45.6	.6	-132.9	.3
30	56.89 Sec	327	46.6	1.8	256.5	1.3	48.8	.5	-128.8	.4
31	85.33 Sec	129	43.4	1.8	202.6	1.1	53.4	.5	-121.7	.3
32	113.78 Sec	126	39.0	2.8	174.1	1.2	53.9	.8	-119.8	.4
33	170.67 Sec	42	33.5	2.0	139.8	1.8	52.8	.6	-120.4	.5
34	227.56 Sec	24	30.6	3.9	120.2	2.9	51.8	1.1	-122.4	.8
35	341.33 Sec	9	28.6	1.6	107.1	2.9	50.4	.5	-125.7	.8
36	455.11 Sec	33	26.7	7.5	100.3	9.2	51.9	2.1	-122.8	2.5
37	682.67 Sec	6	26.9	10.9	113.9	11.9	46.2	3.0	-132.1	3.2
38	910.22 Sec	6	28.2	44.7	119.4	37.9	46.3	10.6	-134.9	9.2
39	1365.33 Sec	6	27.1	11.7	104.2	40.2	38.3	3.2	-115.2	9.7

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MT Site: MDLK89-019E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	654	120.6	127.3	97.2	199	188.6	205
2	288.00 Hz	416	116.9	134.6	97.8	227	226.4	243
3	192.00 Hz	179	113.3	151.8	96.9	273	281.7	316
4	144.00 Hz	179	110.7	165.7	83.5	312	287.9	382
5	96.00 Hz	474	102.8	183.0	67.0	368	248.1	491
6	72.00 Hz	284	95.7	183.9	52.9	410	146.2	569
7	48.00 Hz	670	84.2	169.1	39.0	471	84.3	668
8	36.00 Hz	480	74.2	145.9	31.0	511	40.5	716
9	24.00 Hz	960	63.4	114.2	24.1	578	30.0	776
10	18.00 Hz	1536	54.3	97.3	16.4	618	28.0	828
11	12.00 Hz	1729	43.7	77.8	11.2	679	21.6	906
12	9.00 Hz	1152	36.1	65.8	10.8	712	22.2	962
13	6.00 Hz	1056	30.1	55.2	9.1	797	19.5	1079
14	4.50 Hz	1536	24.9	47.3	7.2	837	19.9	1153
15	3.00 Hz	19236	20.5	41.6	7.0	931	21.7	1326
16	2.25 Hz	11864	17.7	38.0	7.3	1000	25.2	1462
17	1.50 Hz	2240	15.4	36.2	9.5	1140	35.1	1748
18	1.13 Hz	12496	15.1	37.6	15.8	1303	48.4	2057
19	1.33 Sec	5453	15.6	39.5	21.0	1625	60.0	2582
20	1.78 Sec	5997	16.7	43.4	29.3	1938	99.5	3126
21	2.67 Sec	2824	18.9	51.8	38.4	2528	232.7	4183
22	3.56 Sec	2776	21.1	67.4	47.9	3083	1101.5	5510
23	5.33 Sec	1150	24.8	95.7	56.9	4090	2281.5	8039
24	7.11 Sec	416	27.7	127.5	64.3	4998	1543.9	10717
25	10.67 Sec	729	32.6	172.1	81.4	6638	1172.8	15250
26	14.22 Sec	729	37.3	213.6	88.8	8198	753.8	19615
27	21.33 Sec	340	43.3	253.5	85.3	10815	509.9	26172
28	28.44 Sec	370	46.8	269.6	61.2	12983	306.8	31164
29	42.67 Sec	381	47.5	265.1	46.5	16021	193.3	37849
30	56.89 Sec	327	46.5	241.8	32.2	18294	112.2	41742
31	85.33 Sec	129	41.9	205.7	24.0	21284	68.0	47147
32	113.78 Sec	126	38.5	170.6	21.5	23553	47.7	49586
33	170.67 Sec	42	34.4	139.2	18.1	27284	44.6	54862
34	227.56 Sec	24	31.0	119.4	18.3	29893	57.7	58670
35	341.33 Sec	9	28.8	109.3	19.2	35298	69.6	68749
36	455.11 Sec	33	27.0	102.4	19.5	39439	74.9	76835
37	682.67 Sec	6	25.8	98.2	21.6	47220	86.0	92134
38	910.22 Sec	6	25.4	97.8	23.6	54090	94.1	106208
39	1365.33 Sec	6	25.1	96.9	24.0	65939	92.1	129413

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MT Site: MDLK89-019E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	654	227.55	132.04	999.99	94.80	-388.08	999.99
2	288.00 Hz	416	67.38	146.84	999.99	326.33	22.85	999.99
3	192.00 Hz	179	-40.57	159.72	999.99	301.50	32.32	999.99
4	144.00 Hz	179	-3.94	5.75	181.93	240.90	140.34	352.14
5	96.00 Hz	474	13.66	-.37	36.80	157.56	157.93	96.67
6	72.00 Hz	284	27.30	-8.30	153.19	130.96	121.78	529.42
7	48.00 Hz	670	-.09	-2.02	11.40	66.86	121.96	28.21
8	36.00 Hz	480	1.17	-3.61	4.47	56.80	93.60	16.46
9	24.00 Hz	960	1.64	-2.64	.96	37.33	76.88	2.59
10	18.00 Hz	1536	.86	-4.71	.39	29.58	62.87	1.07
11	12.00 Hz	1728	.00	-5.33	.65	19.38	47.17	1.25
12	9.00 Hz	1152	1.28	-3.31	.34	15.73	36.67	.66
13	6.00 Hz	1056	-1.70	-1.31	1.10	11.05	28.13	3.31
14	4.50 Hz	1536	-.79	-2.10	1.07	8.97	21.87	3.75
15	3.00 Hz	19236	1.02	-1.04	.98	5.62	16.52	2.50
16	2.25 Hz	11864	.13	-1.50	1.25	5.68	12.43	3.49
17	1.50 Hz	2240	.77	-1.27	2.24	4.72	9.96	5.96
18	1.13 Hz	12496	.96	-.69	.79	5.45	7.69	1.58
19	1.33 Sec	5453	.510	-.366	1.711	4.884	5.653	3.787
20	1.78 Sec	5997	.246	.102	1.159	5.332	4.481	3.072
21	2.67 Sec	2824	.396	-.002	1.932	5.906	3.463	3.649
22	3.56 Sec	2776	.291	-.551	1.096	5.312	2.933	3.136
23	5.33 Sec	1150	-.498	-.401	.506	4.334	2.202	.833
24	7.11 Sec	416	-.375	-.716	.204	4.014	1.781	.336
25	10.67 Sec	729	.044	-.459	.002	3.372	2.079	.007
26	14.22 Sec	729	-.215	-.328	.001	3.101	1.821	.002
27	21.33 Sec	340	-.068	-.287	.002	2.644	1.821	.002
28	28.44 Sec	370	-.061	-.200	.000	2.311	1.841	.001
29	42.67 Sec	381	.000	-.088	.000	1.613	1.645	.001
30	56.89 Sec	327	.006	-.072	.000	1.335	1.523	.001
31	85.33 Sec	129	.030	-.129	.000	.950	1.281	.000
32	113.78 Sec	126	.098	-.037	.000	.771	1.058	.001
33	170.67 Sec	42	.094	-.024	.000	.598	.789	.000
34	227.56 Sec	24	.064	-.026	.000	.508	.645	.000
35	341.33 Sec	9	.057	-.031	.000	.412	.499	.000
36	455.11 Sec	33	.008	-.020	.000	.334	.427	.001
37	682.67 Sec	6	.077	.008	.001	.307	.321	.001
38	910.22 Sec	6	.013	.001	.009	.272	.284	.011
39	1365.33 Sec	6	-.025	-.136	.002	.247	.195	.001

PHOENIX GEOSCIENCE

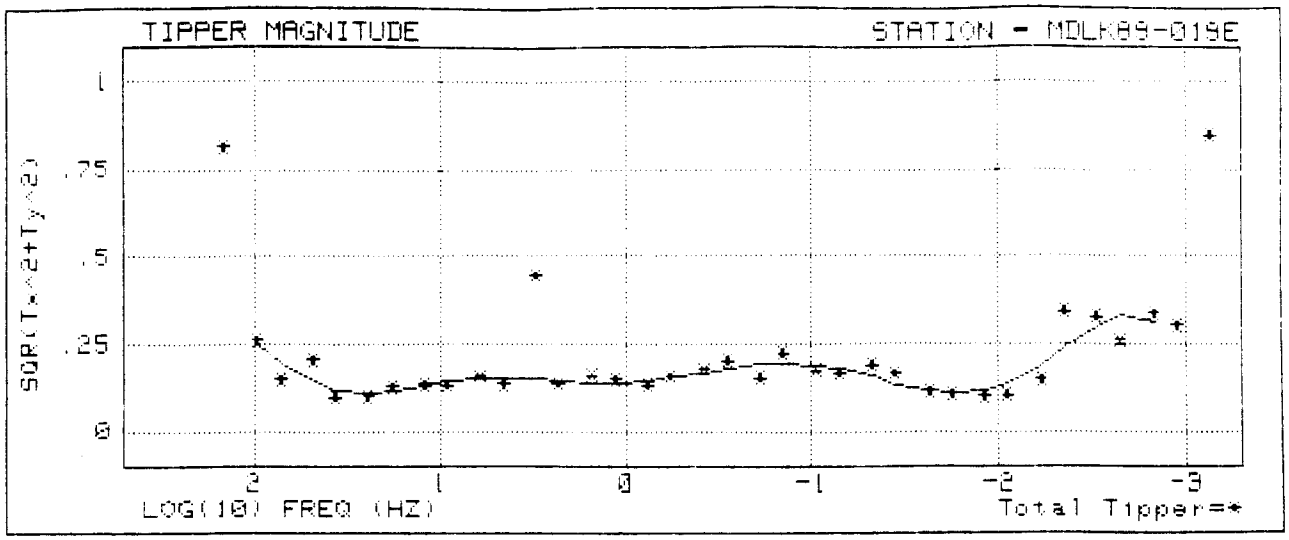
MT Site: MDLK89-019E

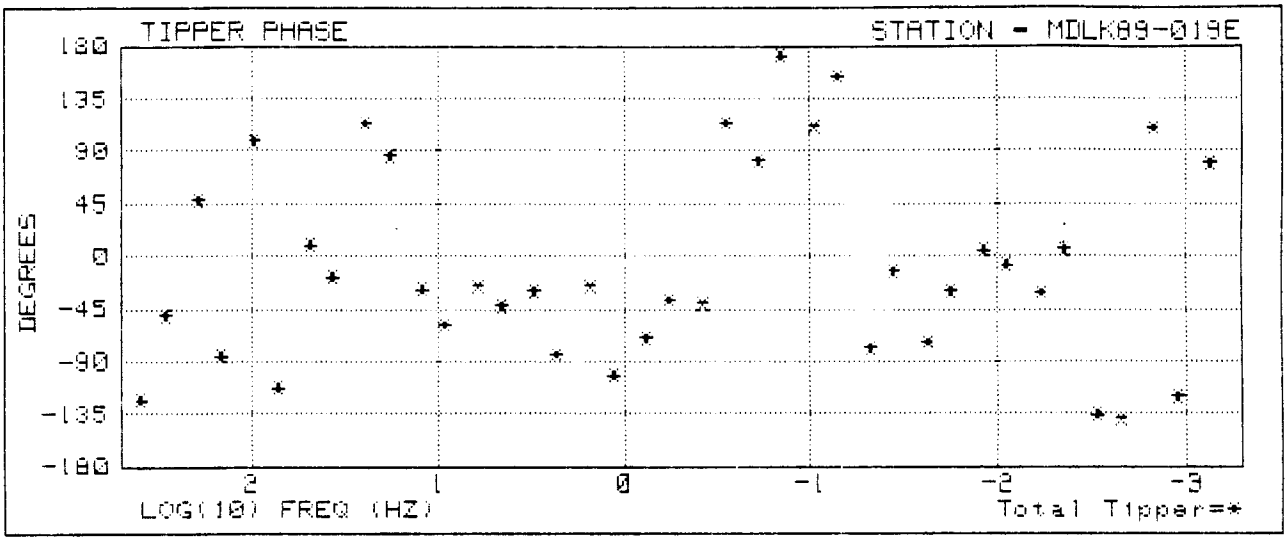
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

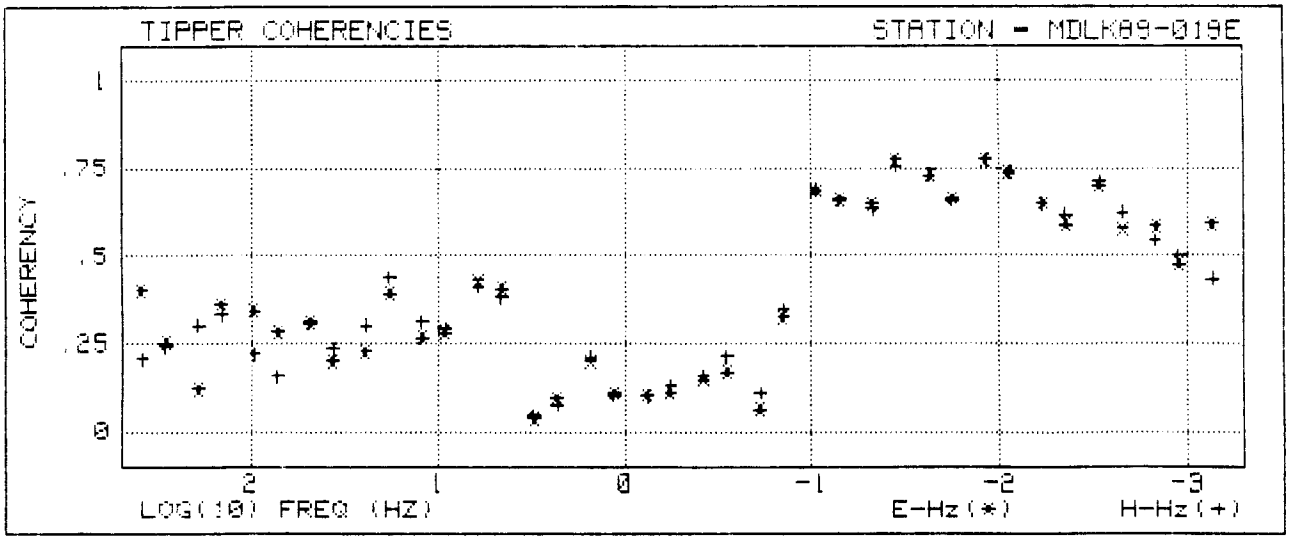
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	654	-512.94	-164.28	999.99	59.18	259.50	999.99
2	288.00 Hz	416	-311.95	-232.79	999.99	-121.08	133.93	999.99
3	192.00 Hz	179	-153.83	-355.19	999.99	-134.08	116.94	999.99
4	144.00 Hz	179	-262.54	-223.32	755.62	-57.89	19.82	999.99
5	96.00 Hz	474	-188.60	-244.48	197.14	-62.10	26.80	517.89
6	72.00 Hz	284	-197.65	-212.88	707.35	-34.74	37.11	999.99
7	48.00 Hz	670	-97.59	-179.84	36.67	-5.30	.75	90.75
8	36.00 Hz	480	-89.66	-136.41	14.11	-1.05	-1.91	51.91
9	24.00 Hz	960	-53.43	-104.35	2.69	-3.78	.54	7.28
10	18.00 Hz	1536	-44.47	-82.31	1.01	-5.13	-.12	2.79
11	12.00 Hz	1728	-30.45	-62.07	.90	-4.10	-2.28	1.73
12	9.00 Hz	1152	-25.79	-47.97	.60	-1.15	-1.14	1.16
13	6.00 Hz	1056	-18.84	-36.88	1.23	-.54	-2.34	3.70
14	4.50 Hz	1536	-16.28	-28.78	1.02	-.75	-2.15	3.59
15	3.00 Hz	19236	-12.12	-21.06	1.92	-.09	.55	4.92
16	2.25 Hz	11864	-12.49	-17.08	2.03	-.21	-1.00	5.68
17	1.50 Hz	2240	-10.41	-12.80	3.48	-.40	1.08	9.29
18	1.13 Hz	12496	-10.39	-10.01	2.16	.21	.89	4.30
19	1.33 Sec	5453	-9.797	-7.146	3.849	.145	.835	8.518
20	1.78 Sec	5997	-9.259	-5.378	2.196	.167	.451	5.818
21	2.67 Sec	2824	-9.044	-4.641	5.644	.108	.767	11.242
22	3.56 Sec	2776	-8.558	-4.274	1.732	-.120	.444	4.957
23	5.33 Sec	1150	-8.444	-3.042	.305	-.651	.349	.501
24	7.11 Sec	416	-8.413	-3.246	.143	-.648	.104	.235
25	10.67 Sec	729	-8.381	-3.289	.007	-.101	.144	.024
26	14.22 Sec	729	-7.593	-3.558	.004	-.304	-.099	.007
27	21.33 Sec	340	-6.486	-4.033	.015	-.063	-.295	.014
28	28.44 Sec	370	-5.312	-4.636	.002	-.159	-.094	.009
29	42.67 Sec	381	-3.802	-4.097	.001	.034	-.118	.011
30	56.89 Sec	327	-2.974	-3.701	.002	.113	-.152	.006
31	85.33 Sec	129	-1.810	-2.932	.001	.073	-.152	.003
32	113.78 Sec	126	-1.376	-2.399	.001	.008	.004	.003
33	170.67 Sec	42	-1.025	-1.745	.001	.006	.015	.001
34	227.56 Sec	24	-.872	-1.372	.001	-.001	.007	.001
35	341.33 Sec	9	-.731	-1.017	.001	-.034	.024	.000
36	455.11 Sec	33	-.568	-.883	.004	.020	-.027	.010
37	682.67 Sec	6	-.612	-.678	.005	.061	.022	.008
38	910.22 Sec	6	-.572	-.573	.034	-.012	.027	.042
39	1365.33 Sec	6	-.263	-.559	.022	-.034	-.136	.008

PHOENIX GEOSCIENCE

MT Site: MDLK89-019E







PHOENIX GEOSCIENCE

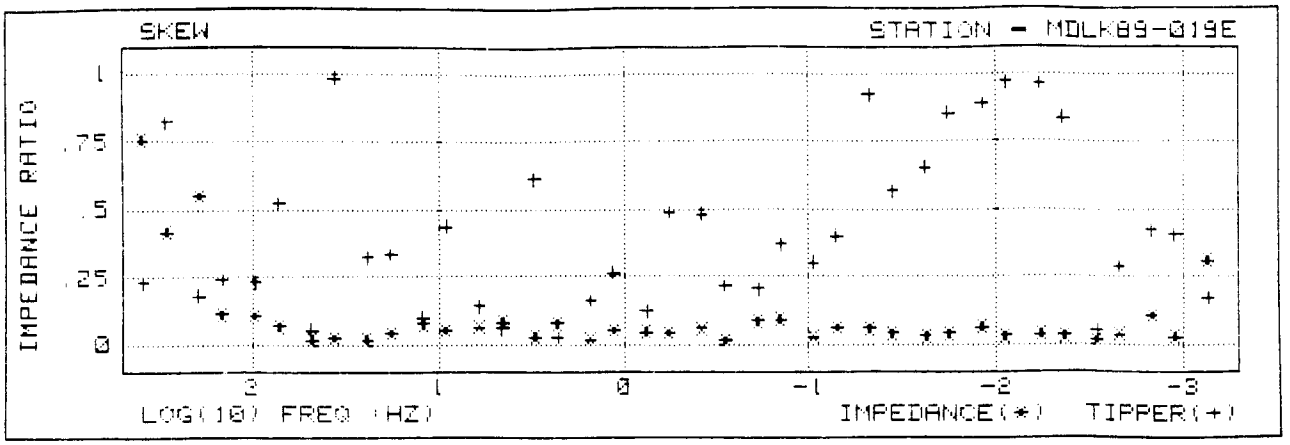
MT Site: MDLK89-019E

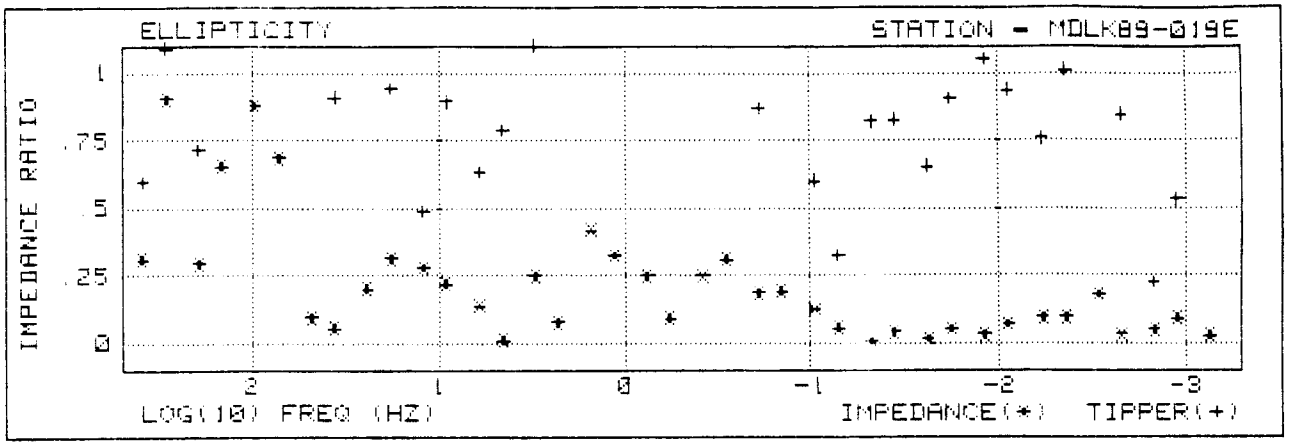
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

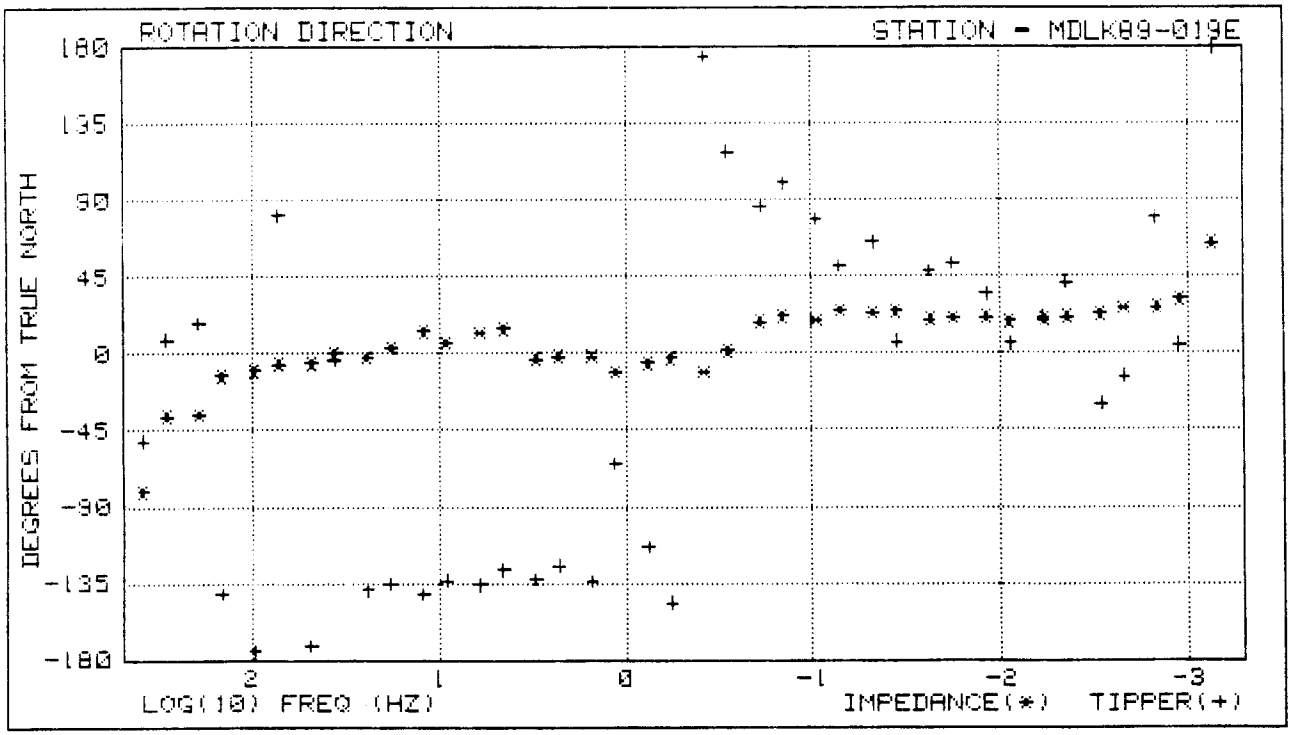
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	654	11.48	-123.95	.40	.20
2	288.00 Hz	416	4.20	-51.55	.25	.24
3	192.00 Hz	179	4.56	47.25	.12	.30
4	144.00 Hz	179	.81	-85.94	.36	.33
5	96.00 Hz	474	.26	98.07	.34	.22
6	72.00 Hz	284	.15	-113.22	.28	.15
7	48.00 Hz	670	.20	8.92	.31	.30
8	36.00 Hz	480	.09	-18.84	.19	.23
9	24.00 Hz	960	.10	113.28	.22	.30
10	18.00 Hz	1536	.13	85.18	.39	.44
11	12.00 Hz	1728	.13	-29.49	.26	.31
12	9.00 Hz	1152	.13	-59.25	.28	.29
13	6.00 Hz	1056	.15	-26.63	.43	.41
14	4.50 Hz	1536	.13	-43.45	.40	.38
15	3.00 Hz	19236	.44	-30.65	.03	.04
16	2.25 Hz	11864	.13	-84.28	.09	.07
17	1.50 Hz	2240	.16	-26.29	.19	.21
18	1.13 Hz	12496	.14	-103.09	.11	.10
19	1.33 Sec	5453	.13	-70.70	.10	.10
20	1.78 Sec	5997	.15	-37.99	.11	.13
21	2.67 Sec	2824	.18	-40.87	.14	.15
22	3.56 Sec	2776	.20	112.98	.16	.21
23	5.33 Sec	1150	.15	80.74	.06	.11
24	7.11 Sec	416	.22	170.39	.32	.35
25	10.67 Sec	729	.17	110.41	.68	.68
26	14.22 Sec	729	.16	153.15	.66	.65
27	21.33 Sec	340	.19	-78.77	.64	.63
28	28.44 Sec	370	.16	-13.78	.77	.75
29	42.67 Sec	381	.11	-73.93	.73	.73
30	56.89 Sec	327	.10	-30.69	.66	.65
31	85.33 Sec	129	.10	4.76	.77	.77
32	113.78 Sec	126	.10	-7.90	.73	.74
33	170.67 Sec	42	.15	-32.29	.64	.64
34	227.56 Sec	24	.34	4.91	.59	.61
35	341.33 Sec	9	.33	-136.65	.70	.71
36	455.11 Sec	33	.26	-139.98	.57	.62
37	682.67 Sec	6	.34	108.98	.58	.54
38	910.22 Sec	6	.30	-120.91	.47	.50
39	1365.33 Sec	6	.84	78.49	.59	.43

PHOENIX GEOSCIENCE

MT Site: MDLK89-019E







PHOENIX GEOSCIENCE

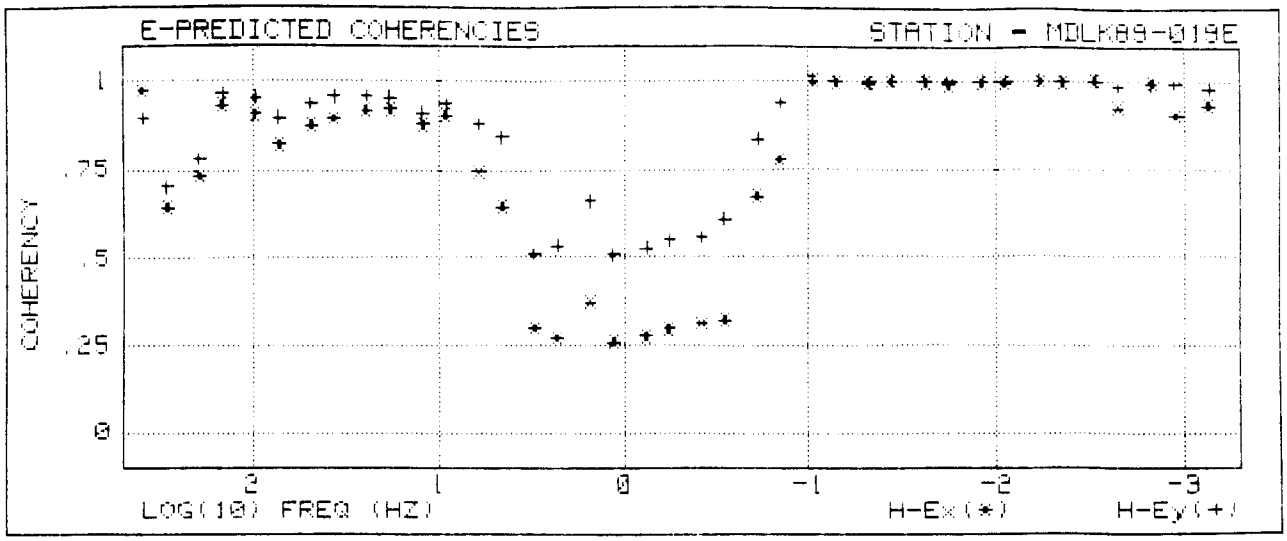
MT Site: MDLK89-019E

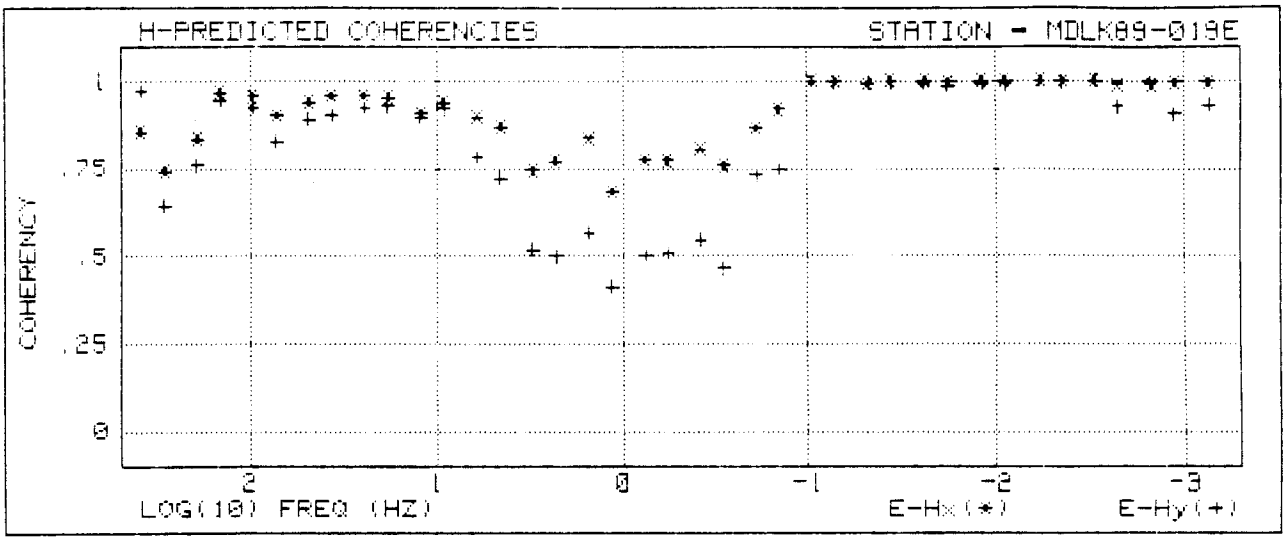
SKEW, ELLIPTICITY AND STRIKE

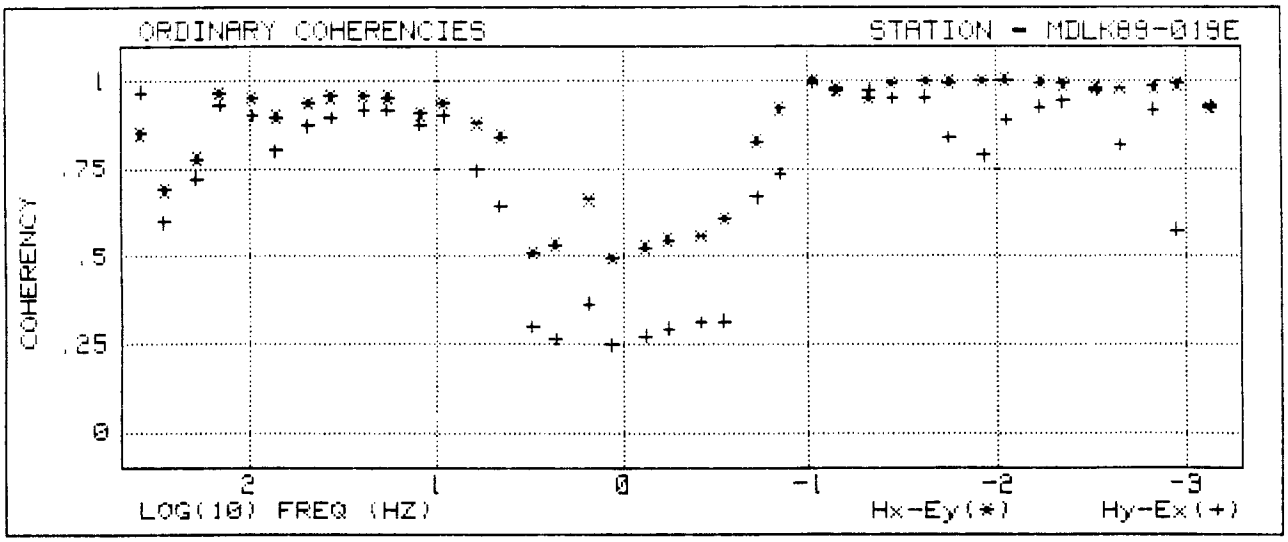
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	654	.75	.30	-81.71	.23	.59	-51.80
2	288.00 Hz	416	.42	.90	-37.26	.82	1.09	7.65
3	192.00 Hz	179	.55	.29	-36.34	.18	.71	16.98
4	144.00 Hz	179	.11	.65	-13.76	.24	1.26	-141.93
5	96.00 Hz	474	.10	.88	-10.60	.23	1.54	-175.47
6	72.00 Hz	284	.06	.68	-6.87	.52	3.55	80.37
7	48.00 Hz	670	.02	.09	-6.54	.05	1.88	-172.21
8	36.00 Hz	480	.02	.05	-.57	.98	.90	-4.59
9	24.00 Hz	960	.01	.20	-2.94	.32	1.56	-139.63
10	18.00 Hz	1536	.04	.31	2.85	.33	.94	-136.31
11	12.00 Hz	1728	.07	.28	12.61	.10	.48	-141.64
12	9.00 Hz	1152	.05	.22	5.50	.43	.89	-134.15
13	6.00 Hz	1056	.06	.13	11.33	.14	.63	-136.60
14	4.50 Hz	1536	.08	.01	13.94	.05	.78	-127.98
15	3.00 Hz	19236	.03	.24	-3.89	.61	1.09	-133.28
16	2.25 Hz	11864	.07	.07	-2.61	.02	1.55	-125.45
17	1.50 Hz	2240	.02	.41	-2.56	.16	1.10	-134.74
18	1.13 Hz	12496	.05	.32	-11.77	.26	4.02	-65.14
19	1.33 Sec	5453	.04	.24	-6.41	.12	3.47	-114.38
20	1.78 Sec	5997	.04	.09	-3.57	.48	2.20	-147.22
21	2.67 Sec	2824	.05	.24	-11.75	.48	3.27	173.47
22	3.56 Sec	2776	.01	.31	1.00	.21	2.05	117.47
23	5.33 Sec	1150	.08	.18	17.75	.20	.87	85.33
24	7.11 Sec	416	.09	.19	20.90	.36	4.27	99.22
25	10.67 Sec	729	.02	.12	18.82	.30	.60	78.02
26	14.22 Sec	729	.06	.05	24.24	.40	.32	50.23
27	21.33 Sec	340	.06	.00	23.20	.92	.82	64.53
28	28.44 Sec	370	.04	.04	24.01	.56	.82	6.01
29	42.67 Sec	381	.03	.01	19.18	.65	.65	47.51
30	56.89 Sec	327	.04	.05	20.17	.85	.90	52.07
31	85.33 Sec	129	.06	.03	20.67	.88	1.05	34.29
32	113.78 Sec	126	.03	.07	18.22	.96	.93	5.02
33	170.67 Sec	42	.03	.09	19.22	.96	.75	20.37
34	227.56 Sec	24	.03	.09	20.59	.83	1.00	40.78
35	341.33 Sec	9	.01	.17	22.58	.05	1.30	-29.87
36	455.11 Sec	33	.03	.03	25.88	.29	.84	-13.93
37	682.67 Sec	6	.10	.04	26.14	.42	.22	78.84
38	910.22 Sec	6	.02	.09	31.10	.40	.53	4.79
39	1365.33 Sec	6	.31	.02	64.19	.17	2.15	178.70

PHOENIX GEOSCIENCE

MT Site: MDLK89-019E







PHOENIX GEOSCIENCE

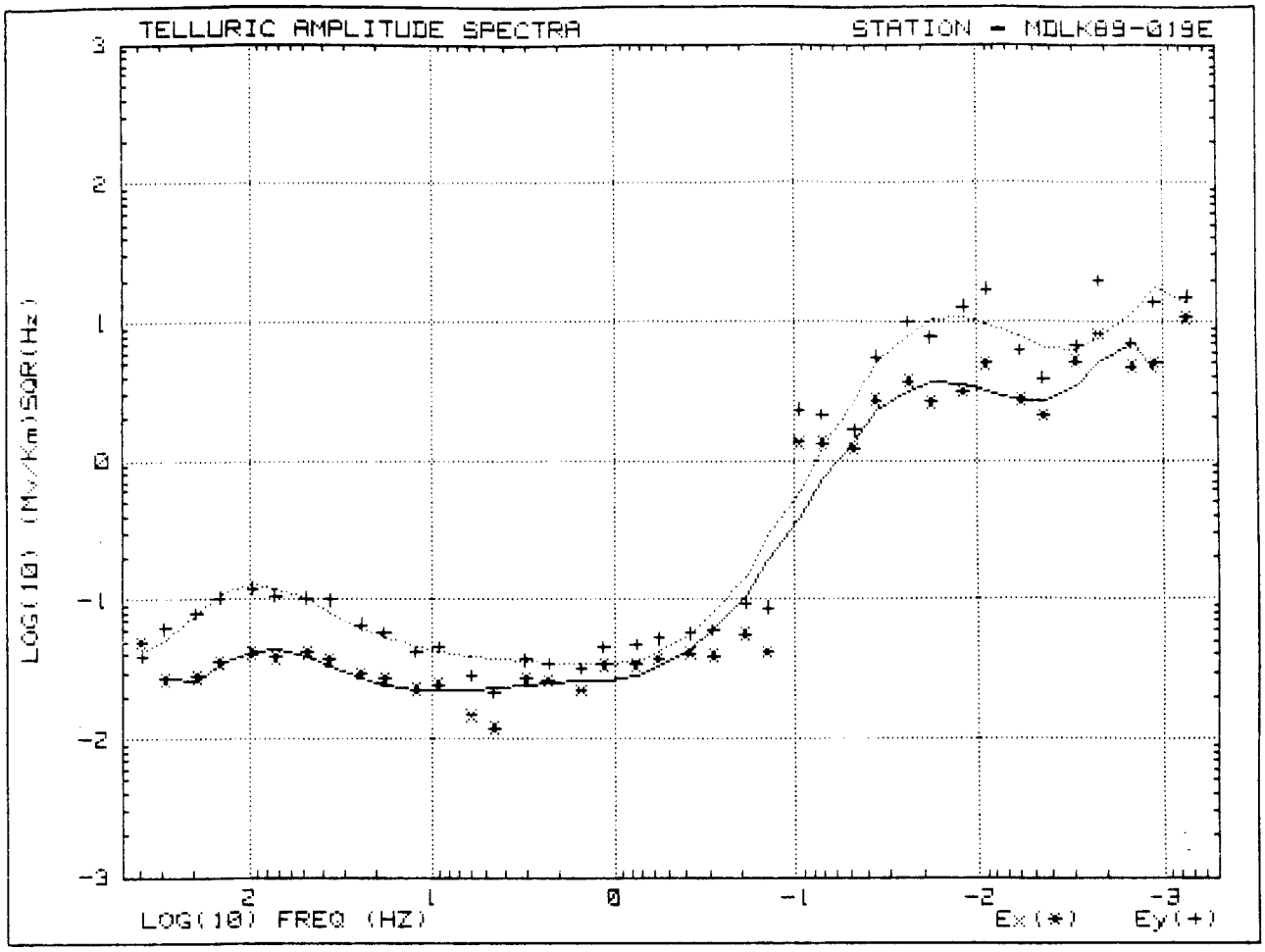
MT Site: MDLK89-019E

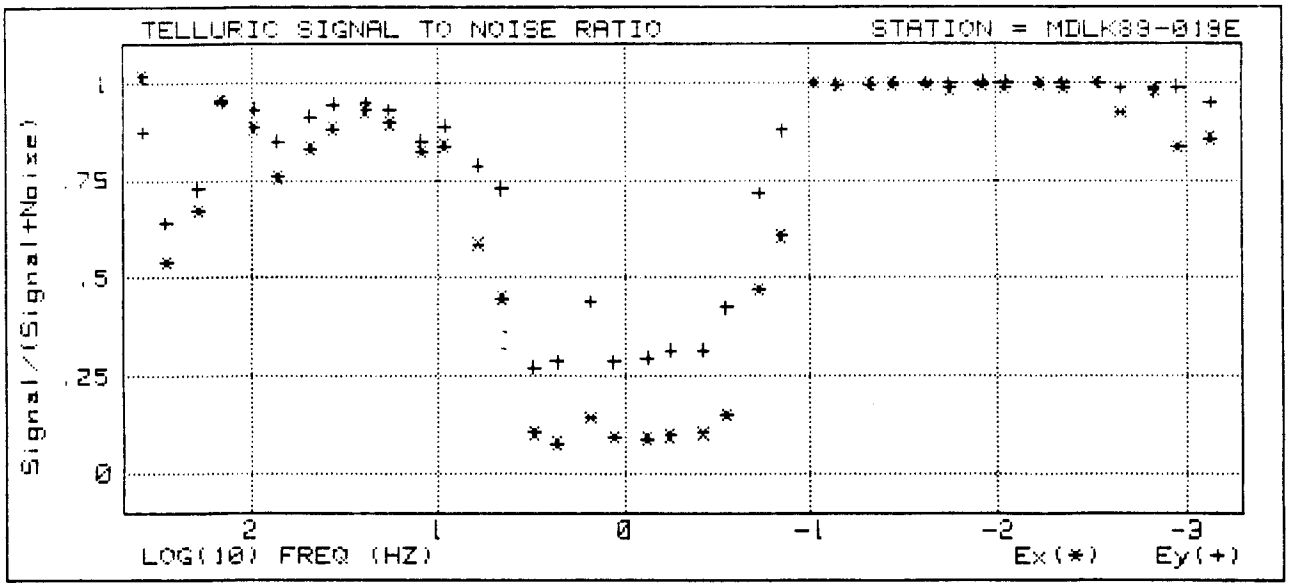
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	654	.97	.89	.85	.97	.85	.96
2	288.00 Hz	416	.64	.70	.74	.64	.69	.60
3	192.00 Hz	179	.73	.78	.83	.76	.77	.72
4	144.00 Hz	179	.93	.96	.96	.94	.96	.93
5	96.00 Hz	474	.90	.95	.95	.92	.95	.90
6	72.00 Hz	284	.82	.89	.90	.82	.89	.80
7	48.00 Hz	670	.87	.93	.93	.89	.93	.87
8	36.00 Hz	480	.89	.95	.95	.90	.95	.89
9	24.00 Hz	960	.92	.95	.95	.92	.95	.91
10	18.00 Hz	1536	.92	.95	.95	.92	.95	.91
11	12.00 Hz	1728	.88	.91	.90	.89	.90	.87
12	9.00 Hz	1152	.90	.93	.94	.92	.93	.90
13	6.00 Hz	1056	.74	.88	.89	.78	.88	.74
14	4.50 Hz	1536	.64	.84	.86	.72	.84	.64
15	3.00 Hz	19236	.30	.51	.74	.51	.51	.29
16	2.25 Hz	11864	.27	.53	.77	.50	.53	.26
17	1.50 Hz	2240	.37	.66	.83	.56	.66	.36
18	1.13 Hz	12496	.25	.50	.68	.41	.49	.24
19	1.33 Sec	5453	.27	.52	.77	.50	.52	.27
20	1.78 Sec	5997	.29	.54	.77	.51	.54	.29
21	2.67 Sec	2824	.31	.56	.80	.54	.55	.31
22	3.56 Sec	2776	.32	.61	.76	.46	.60	.31
23	5.33 Sec	1150	.67	.83	.86	.73	.82	.66
24	7.11 Sec	416	.77	.93	.92	.74	.92	.73
25	10.67 Sec	729	1.00	1.00	1.00	1.00	1.00	.99
26	14.22 Sec	729	1.00	1.00	1.00	.99	.97	.97
27	21.33 Sec	340	.99	.99	.99	.99	.95	.97
28	28.44 Sec	370	1.00	1.00	1.00	.99	.99	.95
29	42.67 Sec	381	.99	1.00	1.00	.99	1.00	.95
30	56.89 Sec	327	.99	1.00	1.00	.98	.99	.83
31	85.33 Sec	129	.99	1.00	1.00	.99	1.00	.78
32	113.78 Sec	126	.99	1.00	1.00	.99	1.00	.88
33	170.67 Sec	42	1.00	1.00	1.00	1.00	.99	.92
34	227.56 Sec	24	.99	1.00	1.00	.99	.99	.94
35	341.33 Sec	9	1.00	1.00	1.00	1.00	.98	.97
36	455.11 Sec	33	.92	.98	.99	.92	.98	.81
37	682.67 Sec	6	.99	.99	.99	.99	.98	.91
38	910.22 Sec	6	.90	.99	.99	.90	.99	.57
39	1365.33 Sec	6	.93	.98	.99	.93	.92	.92

PHOENIX GEOSCIENCE

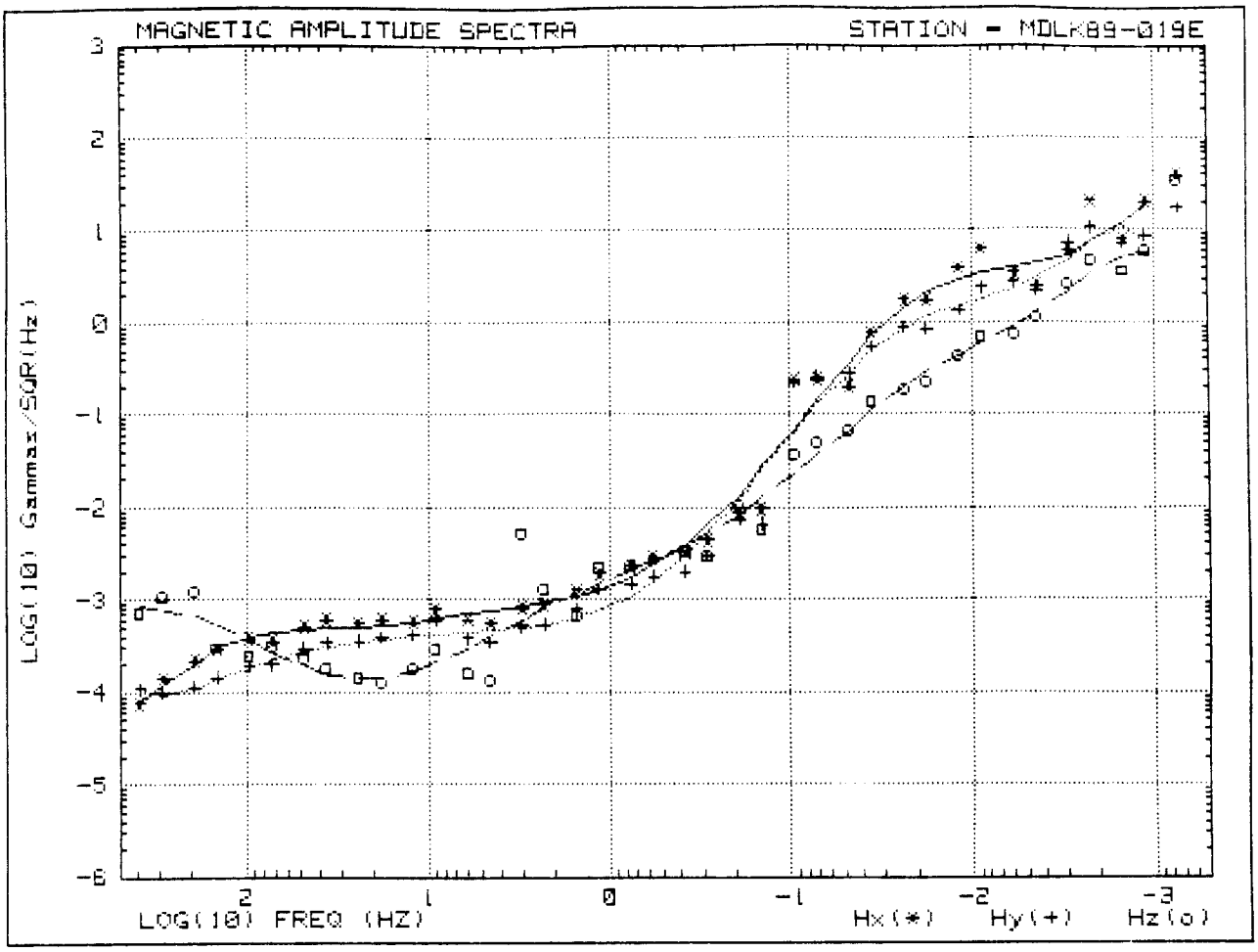
MT Site: MDLK89-019E

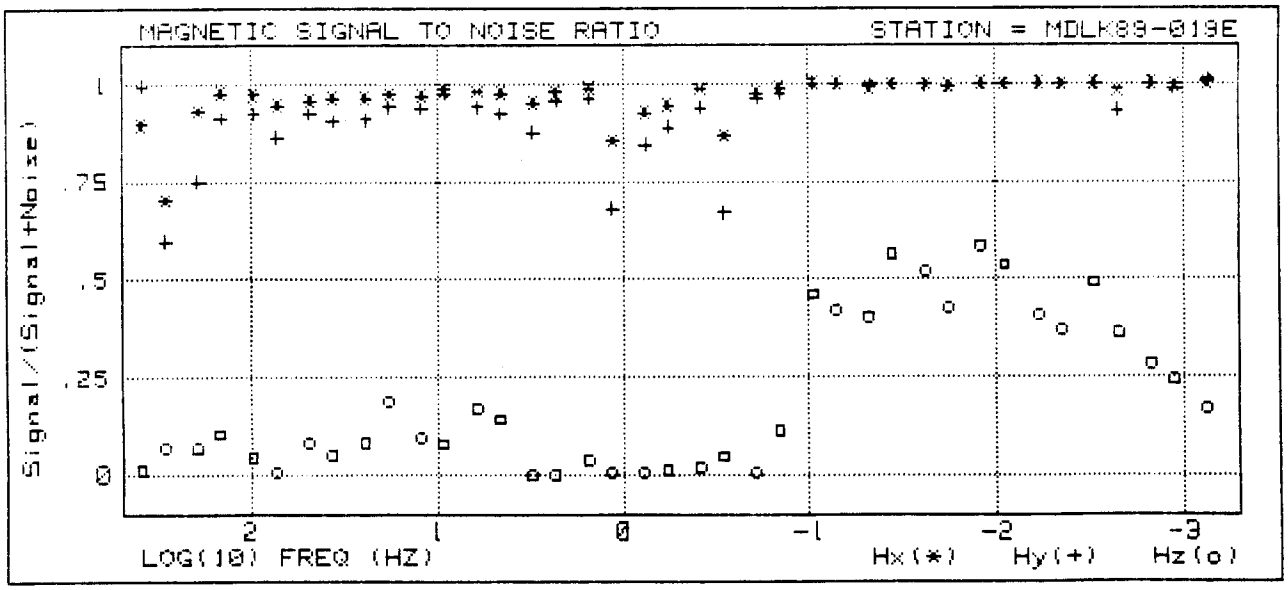




PHOENIX GEOSCIENCE

MT Site: MDLK89-019E





PHOENIX GEOSCIENCE

MT Site: MDLK89-019E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	654	7.46E-05	1.06E-04	7.34E-04	4.90E-02	3.87E-02
2	288.00 Hz	416	1.38E-04	9.63E-05	1.11E-03	2.64E-02	6.11E-02
3	192.00 Hz	179	2.13E-04	1.11E-04	1.28E-03	2.75E-02	7.91E-02
4	144.00 Hz	179	2.83E-04	1.42E-04	3.15E-04	3.49E-02	1.01E-01
5	96.00 Hz	474	3.70E-04	1.87E-04	2.60E-04	4.04E-02	1.19E-01
6	72.00 Hz	284	3.47E-04	1.93E-04	3.25E-04	3.76E-02	1.06E-01
7	48.00 Hz	670	4.92E-04	2.92E-04	2.46E-04	4.09E-02	1.02E-01
8	36.00 Hz	480	5.94E-04	3.35E-04	1.86E-04	3.63E-02	9.81E-02
9	24.00 Hz	960	5.53E-04	3.47E-04	1.48E-04	2.89E-02	6.55E-02
10	18.00 Hz	1536	5.94E-04	3.80E-04	1.33E-04	2.66E-02	5.74E-02
11	12.00 Hz	1728	5.61E-04	4.04E-04	1.92E-04	2.22E-02	4.13E-02
12	9.00 Hz	1152	7.77E-04	5.78E-04	3.09E-04	2.41E-02	4.49E-02
13	6.00 Hz	1056	5.98E-04	3.73E-04	1.63E-04	1.46E-02	2.77E-02
14	4.50 Hz	1536	5.43E-04	3.38E-04	1.41E-04	1.17E-02	2.11E-02
15	3.00 Hz	19236	8.05E-04	5.11E-04	5.53E-03	2.64E-02	3.63E-02
16	2.25 Hz	11864	8.68E-04	5.25E-04	1.34E-03	2.56E-02	3.41E-02
17	1.50 Hz	2240	1.28E-03	7.72E-04	6.97E-04	2.20E-02	3.13E-02
18	1.13 Hz	12496	1.89E-03	1.27E-03	2.39E-03	3.34E-02	4.52E-02
19	1.33 Sec	5453	2.25E-03	1.45E-03	2.42E-03	3.37E-02	4.69E-02
20	1.78 Sec	5997	2.84E-03	1.73E-03	2.87E-03	3.68E-02	5.20E-02
21	2.67 Sec	2824	3.22E-03	1.96E-03	3.47E-03	4.07E-02	5.61E-02
22	3.56 Sec	2776	4.35E-03	2.92E-03	3.08E-03	3.86E-02	5.96E-02
23	5.33 Sec	1150	8.85E-03	7.24E-03	1.12E-02	5.58E-02	9.18E-02
24	7.11 Sec	416	9.58E-03	6.50E-03	6.02E-03	4.17E-02	8.66E-02
25	10.67 Sec	729	2.38E-01	2.20E-01	3.88E-02	1.32E+00	2.26E+00
26	14.22 Sec	729	2.38E-01	2.49E-01	5.32E-02	1.30E+00	2.07E+00
27	21.33 Sec	340	1.99E-01	2.74E-01	7.12E-02	1.19E+00	1.61E+00
28	28.44 Sec	370	7.67E-01	5.33E-01	1.45E-01	2.68E+00	5.47E+00
29	42.67 Sec	381	1.75E+00	8.68E-01	1.95E-01	3.66E+00	9.87E+00
30	56.89 Sec	327	1.70E+00	8.32E-01	2.31E-01	2.60E+00	7.68E+00
31	85.33 Sec	129	3.90E+00	1.31E+00	4.47E-01	3.09E+00	1.26E+01
32	113.78 Sec	126	6.25E+00	2.36E+00	7.18E-01	4.90E+00	1.67E+01
33	170.67 Sec	42	3.37E+00	2.73E+00	7.82E-01	2.70E+00	6.11E+00
34	227.56 Sec	24	2.46E+00	2.12E+00	1.17E+00	2.08E+00	3.80E+00
35	341.33 Sec	9	5.95E+00	7.24E+00	2.72E+00	5.02E+00	6.52E+00
36	455.11 Sec	33	2.03E+01	1.04E+01	4.93E+00	8.03E+00	1.95E+01
37	682.67 Sec	6	7.85E+00	6.98E+00	3.77E+00	4.65E+00	6.86E+00
38	910.22 Sec	6	1.99E+01	8.40E+00	6.17E+00	4.99E+00	1.35E+01
39	1365.33 Sec	6	3.81E+01	1.73E+01	3.60E+01	1.05E+01	1.48E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-019E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	654	.894	.993	.019	1.000	.872
2	288.00 Hz	416	.701	.597	.074	.539	.640
3	192.00 Hz	179	.929	.747	.071	.669	.725
4	144.00 Hz	179	.974	.910	.108	.953	.949
5	96.00 Hz	474	.971	.922	.046	.883	.930
6	72.00 Hz	284	.944	.862	.012	.757	.849
7	48.00 Hz	670	.955	.922	.087	.830	.912
8	36.00 Hz	480	.962	.904	.054	.881	.944
9	24.00 Hz	960	.962	.908	.088	.926	.946
10	18.00 Hz	1536	.972	.940	.194	.895	.929
11	12.00 Hz	1728	.968	.935	.099	.821	.849
12	9.00 Hz	1152	.984	.972	.083	.836	.887
13	6.00 Hz	1056	.980	.939	.174	.584	.787
14	4.50 Hz	1536	.974	.923	.146	.446	.726
15	3.00 Hz	19236	.949	.874	.002	.101	.270
16	2.25 Hz	11864	.977	.953	.005	.074	.285
17	1.50 Hz	2240	.988	.959	.043	.142	.437
18	1.13 Hz	12496	.852	.680	.011	.090	.284
19	1.33 Sec	5453	.924	.842	.010	.087	.295
20	1.78 Sec	5997	.943	.886	.017	.096	.314
21	2.67 Sec	2824	.986	.937	.025	.103	.313
22	3.56 Sec	2776	.866	.668	.051	.148	.422
23	5.33 Sec	1150	.974	.963	.011	.470	.714
24	7.11 Sec	416	.988	.976	.119	.605	.876
25	10.67 Sec	729	.999	.999	.467	.997	.998
26	14.22 Sec	729	.999	.999	.425	.992	.994
27	21.33 Sec	340	.989	.995	.410	.993	.994
28	28.44 Sec	370	.998	.997	.571	.994	.997
29	42.67 Sec	381	.998	.996	.527	.991	.998
30	56.89 Sec	327	.995	.991	.431	.982	.996
31	85.33 Sec	129	.999	.997	.592	.991	.999
32	113.78 Sec	126	.999	.997	.542	.987	.999
33	170.67 Sec	42	.999	1.000	.413	.993	.999
34	227.56 Sec	24	.998	.999	.374	.988	.995
35	341.33 Sec	9	1.000	1.000	.499	.998	.998
36	455.11 Sec	33	.984	.930	.367	.922	.986
37	682.67 Sec	6	.999	1.000	.290	.983	.977
38	910.22 Sec	6	.995	.987	.247	.835	.987
39	1365.33 Sec	6	1.000	1.000	.176	.855	.947

PHOENIX GEOSCIENCE

MT Site: MDLK89-019E

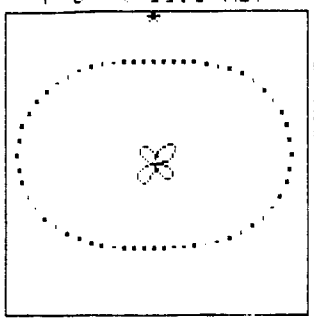
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

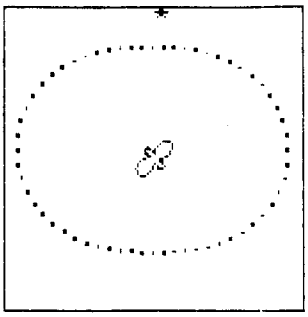
*=Rotation Direction

Zxy = ...
Zxx = ____

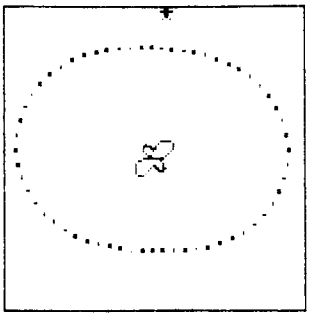
F=8 (36.0 Hz)



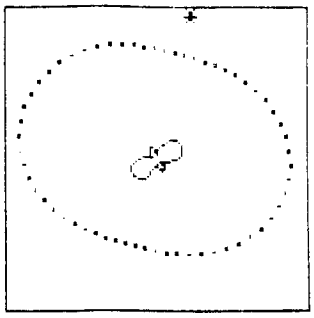
F=10 (18.0 Hz)



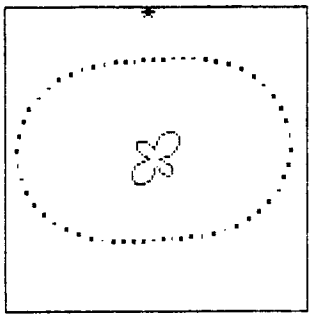
F=12 (9.0 Hz)



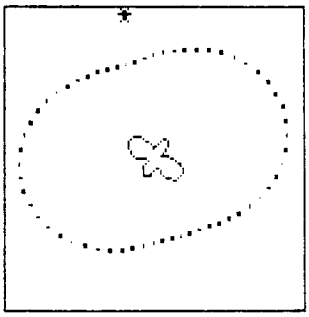
F=14 (4.5 Hz)



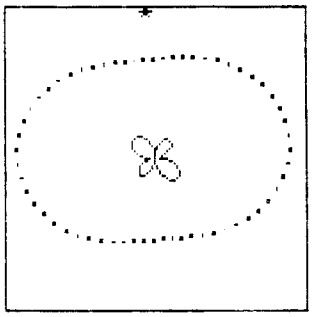
F=16 (2.3 Hz)



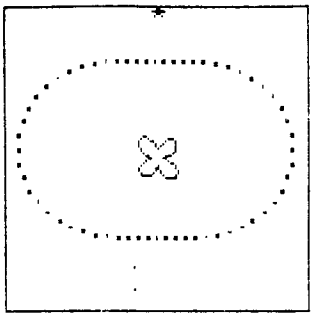
F=18 (1.1 Hz)



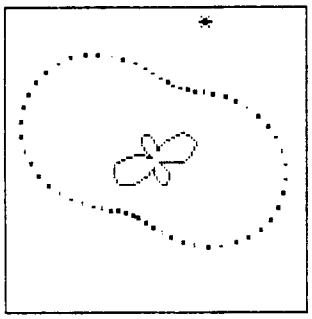
F=20 (.5625 Hz)



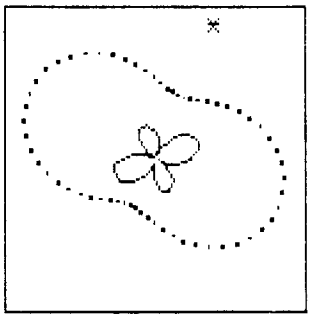
F=22 (.2813 Hz)



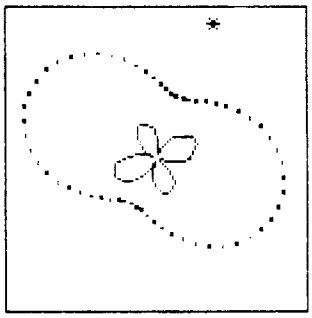
F=24 (.1406 Hz)



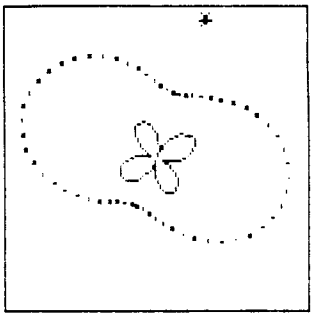
F=26 (.0703 Hz)



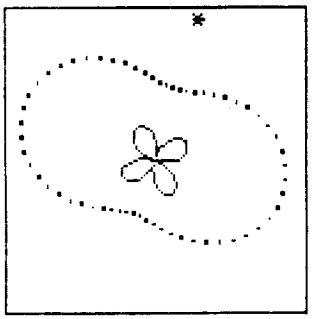
F=28 (.0352 Hz)



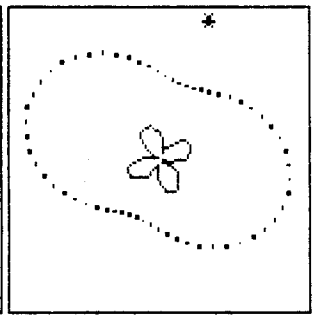
F=30 (.0176 Hz)



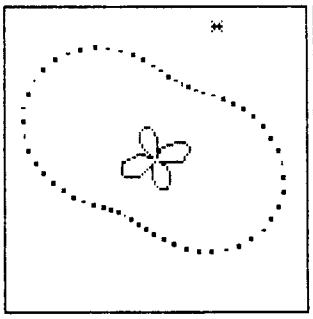
F=32 (.0088 Hz)



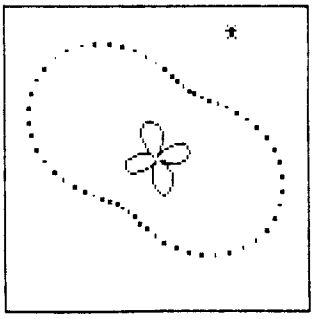
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-020s/021s/

Operator:OJALA
Date: 28 Aug 1989
Time: 14:50:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#210-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-020s
Site Desc:T44N R4E SEC35 SE4
41,36,25 N 121,28,30 W
Elevation:6200 FT
Reference:MDLK89-021s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL430	+0 DEG
Hy	2	COIL431	+90 DEG
Hz	3	LOOP333	Doubled
Ex	4	185 M	+0 DEG
Ey	5	150 M	+90 DEG
Rx	6	COIL210	+0 DEG
Ry	7	COIL452	+90 DEG

Ex Pot Resist: 30_ K Ohms
Ex Voltage: AC=13.0 mv, DC=102.5 mv
Ey Pot Resist: 27_ K Ohms
Ey Voltage: AC=5.9 mv, DC=____ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

OPERATOR LOG FOR MT SITES MDLK89-020a/021a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-020a/021a/

Run STARTED:	14:50:42	28 Aug 1989
Run QUIT:	03:57:21	29 Aug 1989

Operator:OJALA

Cultural Factors:
LARGE DC TRANSMISSION LINE ~ 9 MILES EAST OF SITES. NO OTHER CULTURE APPARENT.

Weather Conditions:
CLEAR AND WARM WITH LIGHT WINDS.

Other Factors:
WILL START A 'b' RUN. SITE 020 NEEDS SOME MORE DATA IN LO RANGE.

PHOENIX GEOSCIENCE

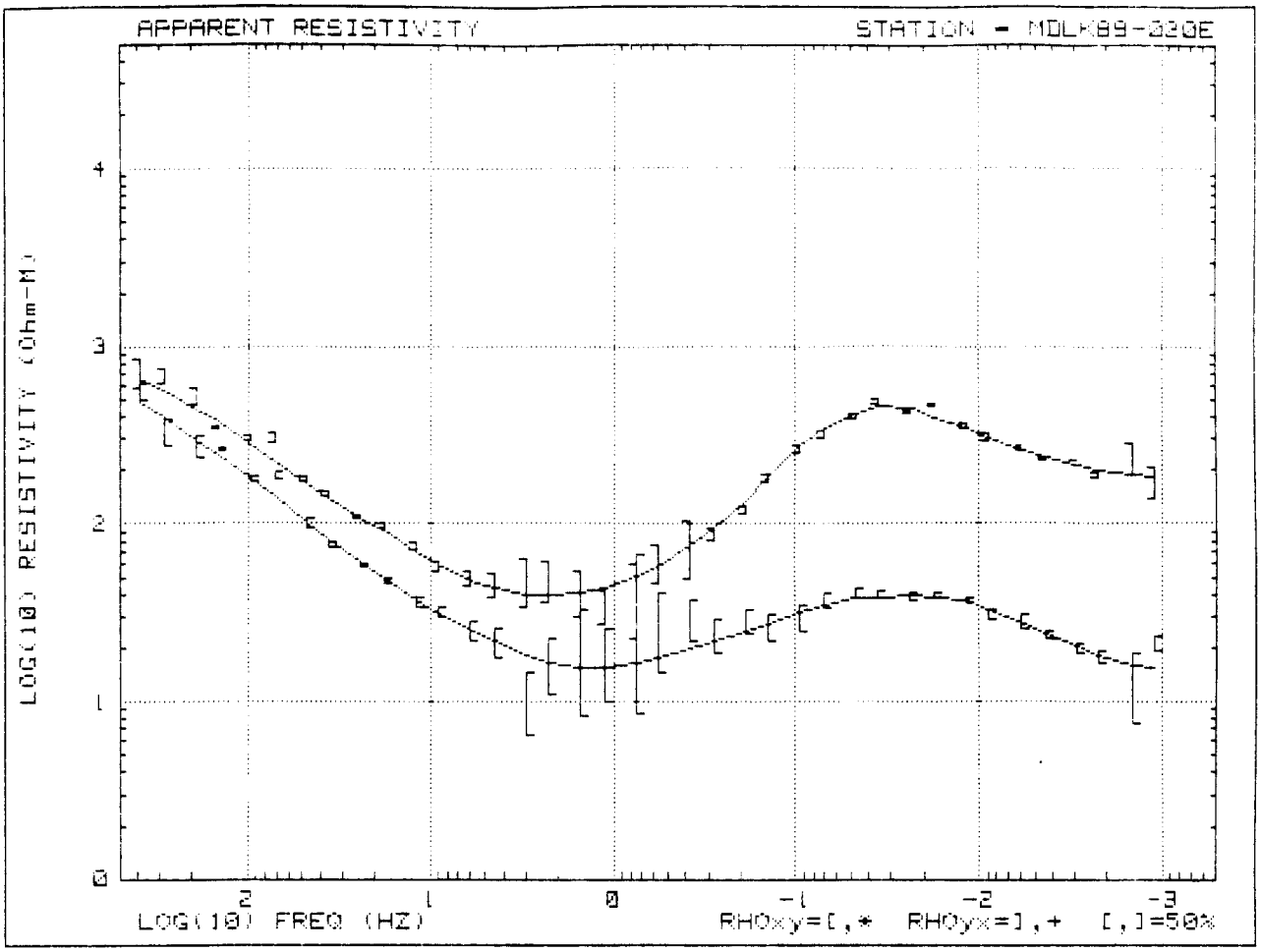
MT Site: MDLK89-020E

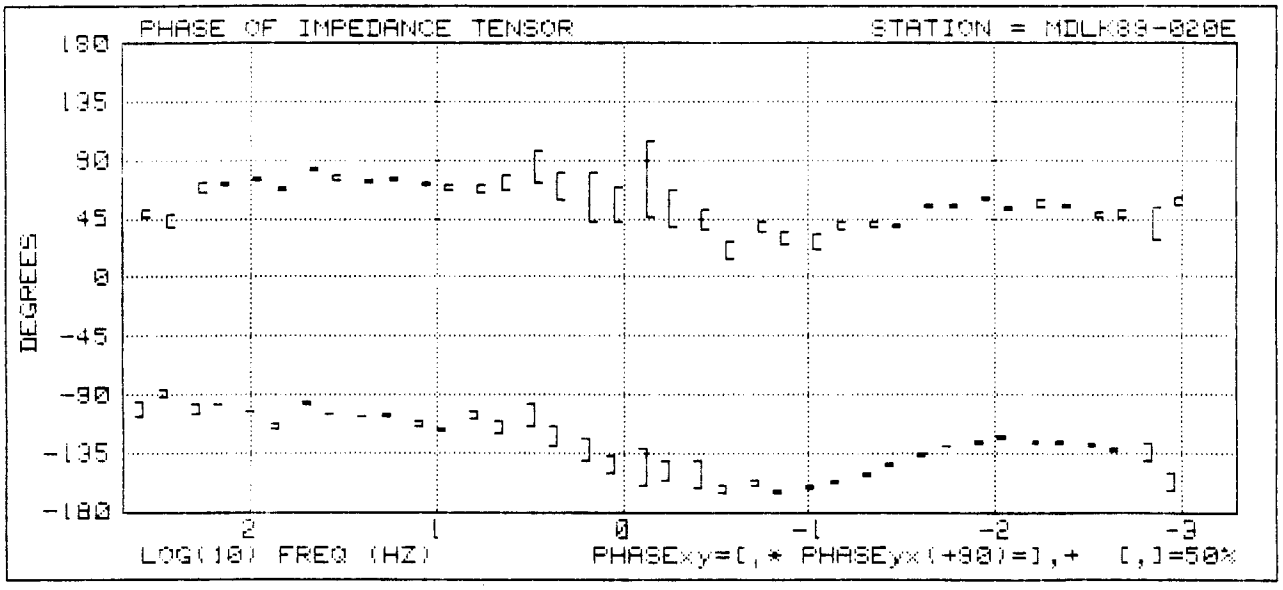
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

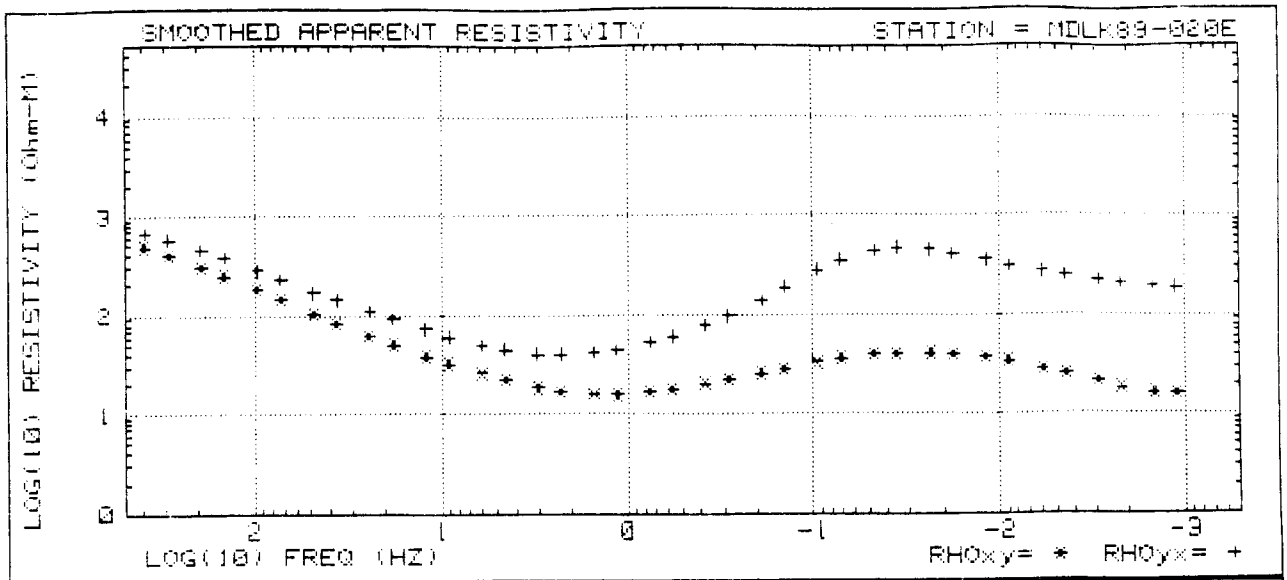
MT Site: MDLK89-020E

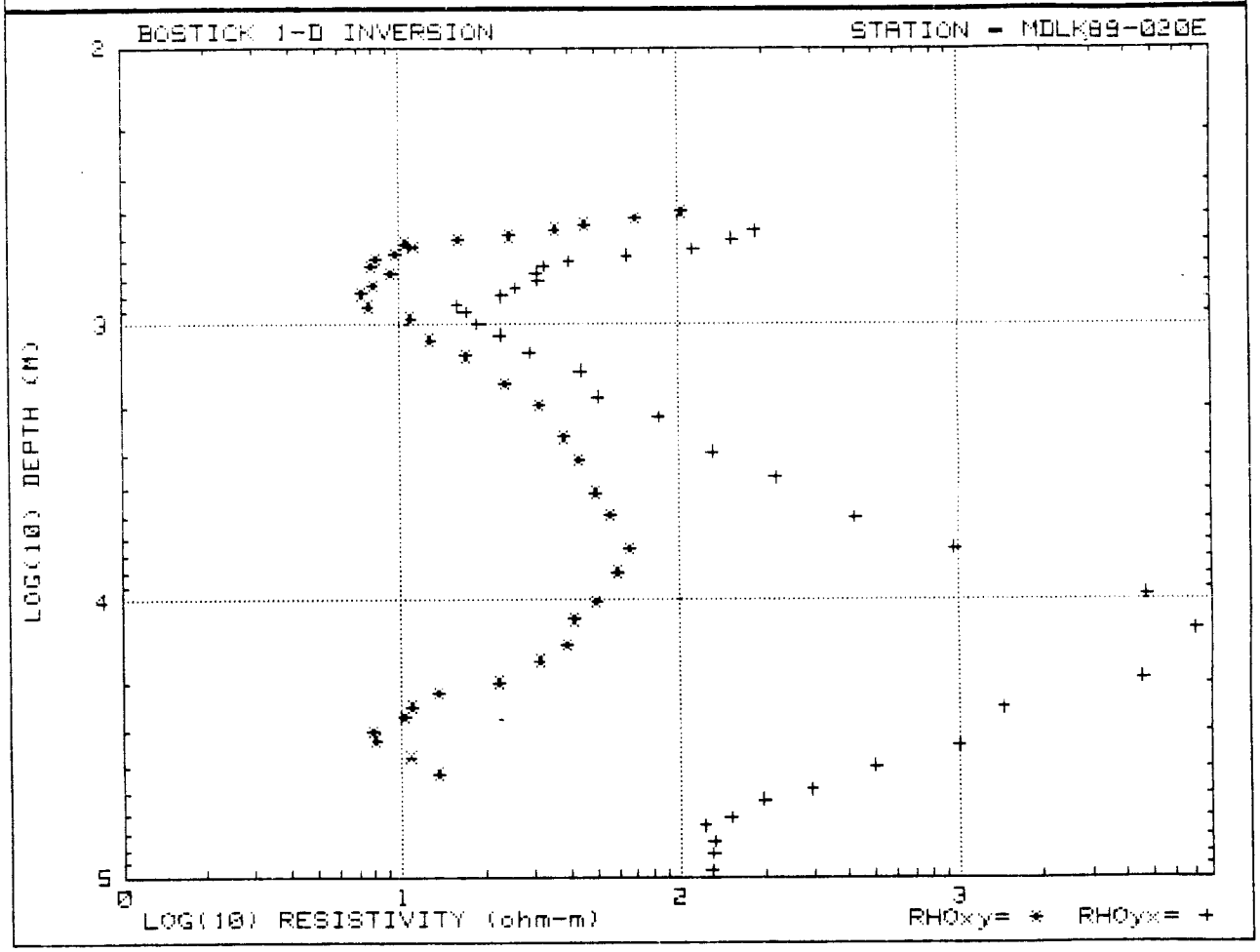




PHOENIX GEOSCIENCE

MT Site: MDLK89-020E





PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	312	556.6	19.3	707.5	31.1	48.8	5.1	-101.4	7.3
2	288.00 Hz	310	329.9	29.3	684.9	15.0	43.0	7.4	-89.3	4.0
3	192.00 Hz	477	269.6	22.0	519.1	17.4	69.0	5.7	-101.2	4.6
4	144.00 Hz	667	263.9	4.1	352.9	2.1	71.3	1.2	-96.9	.6
5	96.00 Hz	285	176.7	4.1	298.5	4.7	76.0	1.2	-103.0	1.3
6	72.00 Hz	285	186.4	9.2	302.2	9.0	67.9	2.5	-114.1	2.5
7	48.00 Hz	477	101.3	7.8	179.2	4.2	83.3	2.1	-97.1	1.2
8	36.00 Hz	477	76.9	5.9	146.6	3.7	76.5	1.6	-105.1	1.0
9	24.00 Hz	864	58.5	4.3	110.0	3.5	74.0	1.2	-106.5	1.0
10	18.00 Hz	192	47.8	7.1	98.7	4.9	75.0	2.0	-105.9	1.4
11	12.00 Hz	864	36.1	9.1	75.0	8.0	71.5	2.5	-112.5	2.2
12	9.00 Hz	576	32.2	10.0	58.3	8.9	68.8	2.7	-117.0	2.4
13	6.00 Hz	864	24.8	18.4	49.1	14.5	67.5	4.8	-106.0	3.9
14	4.50 Hz	672	21.2	33.7	44.5	26.1	72.7	8.3	-115.0	6.6
15	3.00 Hz	4448	9.7	85.9	46.4	61.0	84.8	17.8	-105.7	13.6
16	2.25 Hz	8864	15.6	70.9	46.7	47.0	70.0	15.3	-122.3	11.0
17	1.50 Hz	3712	16.4	99.9	40.1	53.6	61.3	29.2	-132.9	12.3
18	1.13 Hz	1472	15.9	99.9	34.0	39.0	56.2	20.2	-143.2	9.4
19	1.33 Sec	752	24.1	99.9	37.0	99.9	75.3	43.8	-146.0	20.7
20	1.78 Sec	2596	24.4	99.9	59.1	46.0	52.4	21.6	-148.9	10.8
21	2.67 Sec	192	28.5	48.8	71.9	71.6	44.7	11.4	-151.4	15.5
22	3.56 Sec	1853	23.5	38.9	88.3	12.9	20.6	9.4	-162.9	3.5
23	5.33 Sec	825	28.0	25.0	119.1	8.1	38.3	6.4	-157.3	2.2
24	7.11 Sec	381	25.9	27.2	182.3	7.4	30.5	6.9	-164.4	2.0
25	10.67 Sec	144	29.9	29.0	264.6	8.0	27.2	7.3	-160.6	2.2
26	14.22 Sec	138	37.7	15.3	317.1	7.1	38.8	4.1	-156.4	2.0
27	21.33 Sec	120	40.7	11.1	396.8	5.0	40.2	3.0	-150.3	1.4
28	28.44 Sec	180	40.2	6.6	482.6	4.1	39.0	1.8	-143.4	1.2
29	42.67 Sec	72	38.8	7.1	419.8	1.6	54.5	2.0	-136.0	.5
30	56.89 Sec	120	39.5	4.8	456.8	1.8	54.3	1.3	-130.0	.5
31	85.33 Sec	66	37.4	5.6	353.8	4.7	60.6	1.5	-126.2	1.3
32	113.78 Sec	48	31.3	9.9	304.3	7.2	52.8	2.7	-122.3	2.0
33	170.67 Sec	24	27.7	14.8	265.0	5.4	56.6	4.0	-126.1	1.5
34	227.56 Sec	9	23.7	7.8	232.7	3.5	55.1	2.2	-126.4	1.0
35	341.33 Sec	3	19.8	10.1	226.8	1.4	48.5	2.8	-128.4	.4
36	455.11 Sec	21	17.7	12.1	190.8	5.4	49.1	3.3	-131.8	1.5
37	682.67 Sec	6	12.0	97.2	232.3	38.0	41.4	19.5	-134.4	9.2
38	910.22 Sec	3	21.2	17.7	169.7	37.7	58.0	4.7	-156.7	9.2

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	312	481.0	659.5	103.1	398	189.6	466
2	288.00 Hz	310	399.3	562.4	70.7	419	157.3	497
3	192.00 Hz	477	296.3	446.4	46.2	442	113.8	543
4	144.00 Hz	667	240.8	372.6	36.1	460	65.8	572
5	96.00 Hz	285	177.5	274.9	24.7	484	40.7	602
6	72.00 Hz	285	142.6	222.8	16.4	501	33.3	626
7	48.00 Hz	477	102.4	164.6	10.4	520	31.1	659
8	36.00 Hz	477	81.1	138.8	11.3	534	31.6	699
9	24.00 Hz	864	60.6	106.4	9.7	566	26.2	749
10	18.00 Hz	192	49.1	91.3	8.2	587	23.3	802
11	12.00 Hz	864	37.0	70.6	7.9	625	16.1	863
12	9.00 Hz	576	31.3	59.1	9.4	664	17.4	912
13	6.00 Hz	864	25.5	48.4	8.0	733	19.1	1011
14	4.50 Hz	672	21.8	43.8	7.4	784	23.1	1110
15	3.00 Hz	4448	18.1	39.1	7.7	873	29.4	1284
16	2.25 Hz	8864	16.5	39.7	11.0	964	44.8	1495
17	1.50 Hz	3712	15.7	40.7	12.9	1152	51.5	1854
18	1.13 Hz	1472	15.4	43.0	17.4	1318	84.7	2201
19	1.33 Sec	752	16.4	51.0	23.9	1663	132.5	2936
20	1.78 Sec	2596	17.6	58.5	31.5	1990	222.4	3630
21	2.67 Sec	192	19.9	76.5	38.5	2595	427.5	5082
22	3.56 Sec	1853	21.9	94.9	44.0	3141	974.0	6536
23	5.33 Sec	825	25.2	135.3	50.3	4123	4759.4	9558
24	7.11 Sec	381	27.6	182.6	56.8	4986	7120.5	12823
25	10.67 Sec	144	32.0	272.4	66.9	6574	4580.9	19183
26	14.22 Sec	138	35.3	337.8	60.4	7969	1449.5	24668
27	21.33 Sec	120	38.4	419.2	50.6	10184	1004.0	33654
28	28.44 Sec	180	38.8	449.1	42.0	11819	504.5	40225
29	42.67 Sec	72	39.5	436.4	39.7	14605	297.4	48561
30	56.89 Sec	120	38.9	393.9	31.5	16734	199.3	53273
31	85.33 Sec	66	36.7	347.7	22.5	19914	151.7	61297
32	113.78 Sec	48	32.9	300.1	13.7	21785	122.9	65758
33	170.67 Sec	24	27.5	260.1	10.9	24399	131.9	74977
34	227.56 Sec	9	24.4	239.2	10.3	26523	130.8	83032
35	341.33 Sec	3	20.8	212.3	8.0	29951	129.2	95792
36	455.11 Sec	21	17.9	202.1	8.2	32151	141.4	107932
37	682.67 Sec	6	16.0	187.8	10.8	37198	136.8	127422
38	910.22 Sec	3	15.7	181.2	13.7	42534	141.4	144545

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	312	-159.58	369.45	999.99	680.61	778.08	999.99
2	288.00 Hz	310	-132.63	155.54	999.99	503.96	470.13	999.99
3	192.00 Hz	477	-74.81	45.77	999.99	182.57	474.81	999.99
4	144.00 Hz	667	-10.84	24.96	42.14	139.75	412.85	153.09
5	96.00 Hz	285	-5.34	-10.86	61.00	70.31	282.59	68.34
6	72.00 Hz	285	2.01	-1.36	177.16	97.48	240.00	259.06
7	48.00 Hz	477	3.44	-9.98	23.54	18.27	154.83	68.01
8	36.00 Hz	477	-.17	-5.24	10.94	27.54	114.37	22.67
9	24.00 Hz	864	-2.09	-3.06	6.55	23.03	80.56	6.28
10	18.00 Hz	192	2.94	-2.99	3.91	16.97	63.37	10.01
11	12.00 Hz	864	-2.83	-.28	11.29	14.77	44.15	8.25
12	9.00 Hz	576	-.96	1.81	8.13	13.77	35.50	6.53
13	6.00 Hz	864	-2.90	-.36	19.62	10.43	25.18	10.56
14	4.50 Hz	672	-3.13	1.01	27.03	6.50	20.82	20.12
15	3.00 Hz	4448	-6.30	-1.05	25.97	1.09	11.99	27.88
16	2.25 Hz	8864	-3.73	.85	17.28	4.54	12.45	25.20
17	1.50 Hz	3712	-1.10	.69	26.58	5.33	9.74	63.99
18	1.13 Hz	1472	.53	.59	5.84	5.27	7.86	22.26
19	1.33 Sec	752	-1.569	.840	28.125	2.418	9.188	99.999
20	1.78 Sec	2596	-1.673	-.126	13.172	5.061	6.568	19.627
21	2.67 Sec	192	-1.607	-.369	2.967	5.202	5.139	4.217
22	3.56 Sec	1853	-.308	-.644	1.155	5.385	2.019	1.782
23	5.33 Sec	825	-1.169	.482	.317	4.021	3.180	.656
24	7.11 Sec	381	-.659	-.830	.564	3.680	2.164	.528
25	10.67 Sec	144	-.156	-.216	.484	3.331	1.709	.455
26	14.22 Sec	138	-.416	-.137	.118	2.834	2.282	.135
27	21.33 Sec	120	-.184	.284	.117	2.357	1.993	.053
28	28.44 Sec	180	.178	-.338	.022	2.068	1.672	.014
29	42.67 Sec	72	-.331	.022	.015	1.239	1.734	.011
30	56.89 Sec	120	.026	-.024	.003	1.088	1.512	.004
31	85.33 Sec	66	.231	-.117	.009	.726	1.289	.003
32	113.78 Sec	48	.209	-.141	.013	.708	.934	.006
33	170.67 Sec	24	.082	.014	.012	.496	.752	.008
34	227.56 Sec	9	.098	-.061	.001	.413	.591	.001
35	341.33 Sec	3	.058	-.012	.001	.357	.403	.001
36	455.11 Sec	21	.032	-.012	.002	.289	.334	.001
37	682.67 Sec	6	-.031	-.045	.063	.223	.196	.020
38	910.22 Sec	3	.024	-.002	.006	.181	.290	.002

PHOENIX GEOSCIENCE

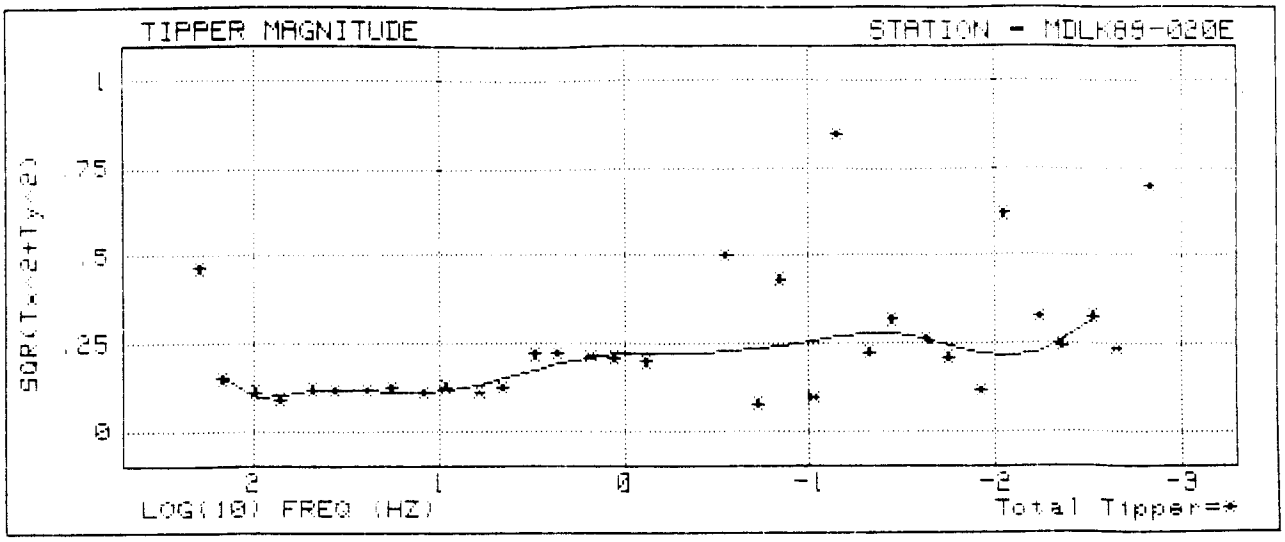
MT Site: MDLK89-020E

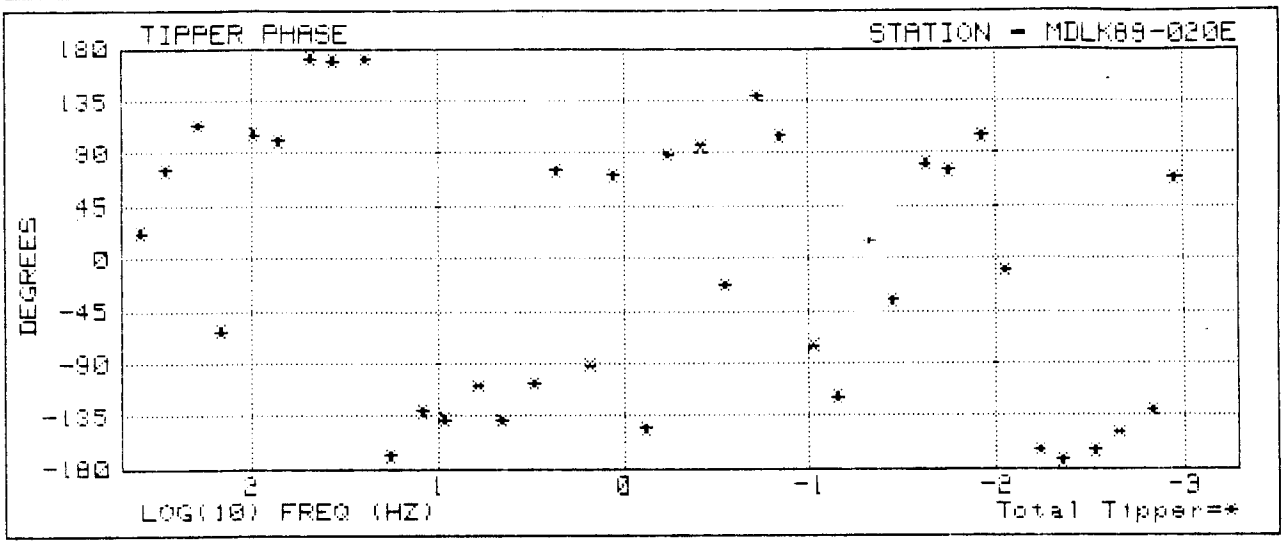
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

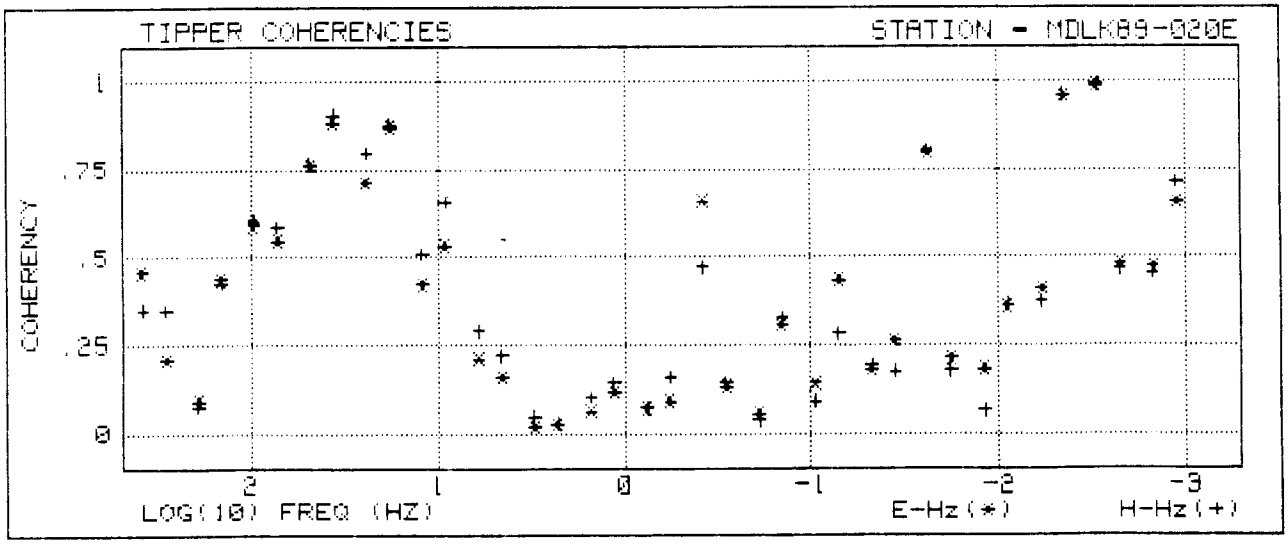
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	312	-230.75	-999.99	999.99	-344.86	140.71	999.99
2	288.00 Hz	310	12.23	-993.04	999.99	-341.69	-50.84	999.99
3	192.00 Hz	477	-137.39	-692.43	999.99	-43.83	52.20	999.99
4	144.00 Hz	667	-60.36	-500.48	56.90	-77.99	-35.89	206.72
5	96.00 Hz	285	-85.34	-368.75	148.76	-26.74	-7.13	166.65
6	72.00 Hz	285	-134.91	-300.97	403.42	-22.64	13.77	589.92
7	48.00 Hz	477	-25.49	-205.80	36.95	-6.50	-8.57	106.77
8	36.00 Hz	477	-42.23	-156.84	17.25	-1.12	-4.91	35.74
9	24.00 Hz	864	-32.68	-110.13	7.63	2.80	-4.66	7.32
10	18.00 Hz	192	-25.75	-90.65	10.30	6.99	-4.29	26.37
11	12.00 Hz	864	-25.71	-61.96	13.45	1.81	-3.13	9.83
12	9.00 Hz	576	-23.27	-45.62	9.58	2.38	-1.33	7.69
13	6.00 Hz	864	-10.59	-36.91	13.57	3.15	-.44	7.31
14	4.50 Hz	672	-13.36	-28.70	26.98	-.13	-1.60	20.08
15	3.00 Hz	4448	-7.13	-25.39	78.86	4.72	-6.01	84.63
16	2.25 Hz	8864	-12.27	-19.37	39.06	1.25	-4.70	56.95
17	1.50 Hz	3712	-11.81	-12.70	27.67	.92	-3.75	66.61
18	1.13 Hz	1472	-11.07	-8.29	10.37	.62	-.57	39.54
19	1.33 Sec	752	-9.770	-6.579	36.078	-2.181	-.885	99.999
20	1.78 Sec	2596	-11.034	-6.664	11.914	-1.656	-1.221	17.753
21	2.67 Sec	192	-10.195	-5.555	19.650	-1.509	-1.546	27.927
22	3.56 Sec	1853	-10.654	-3.273	.911	-.834	1.566	1.406
23	5.33 Sec	825	-9.745	-4.084	.341	-1.065	-.172	.705
24	7.11 Sec	381	-10.906	-3.042	.325	-.755	-.038	.304
25	10.67 Sec	144	-10.504	-3.702	.372	-.380	.587	.349
26	14.22 Sec	138	-9.672	-4.232	.263	-.234	-.774	.300
27	21.33 Sec	120	-8.378	-4.777	.109	.008	-.131	.049
28	28.44 Sec	180	-7.394	-5.491	.068	.031	-.132	.044
29	42.67 Sec	72	-5.045	-4.873	.007	-.050	-.319	.005
30	56.89 Sec	120	-4.072	-4.854	.007	-.034	.030	.008
31	85.33 Sec	66	-2.689	-3.674	.022	-.014	.085	.008
32	113.78 Sec	48	-1.956	-3.090	.032	.060	-.055	.015
33	170.67 Sec	24	-1.641	-2.252	.011	-.089	.144	.007
34	227.56 Sec	9	-1.343	-1.820	.003	-.050	.051	.006
35	341.33 Sec	3	-1.133	-1.428	.000	-.072	.087	.000
36	455.11 Sec	21	-.966	-1.079	.003	-.046	.058	.002
37	682.67 Sec	6	-.913	-.932	.088	-.036	-.041	.028
38	910.22 Sec	3	-.887	-.382	.048	.016	.056	.012

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E







PHOENIX GEOSCIENCE

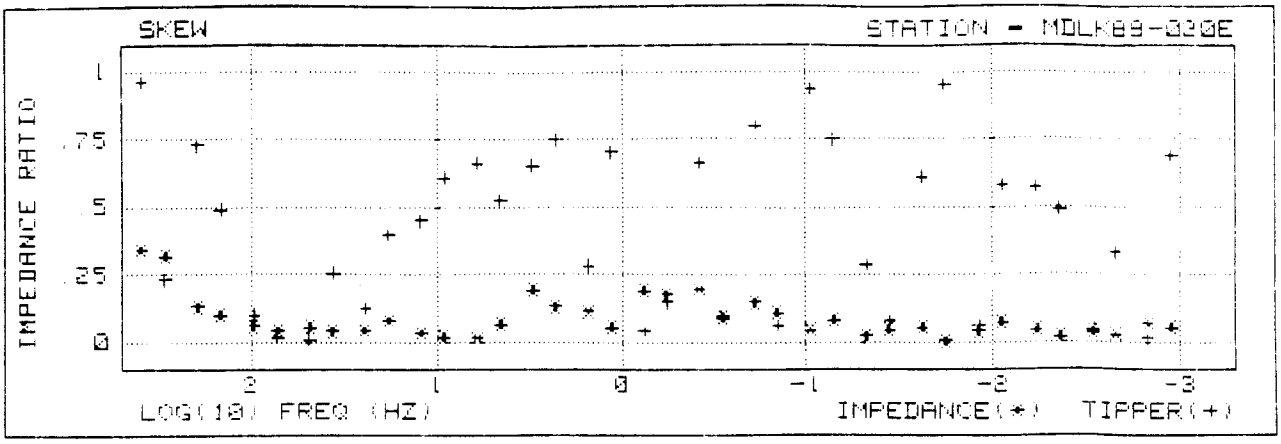
MT Site: MDLK89-020E

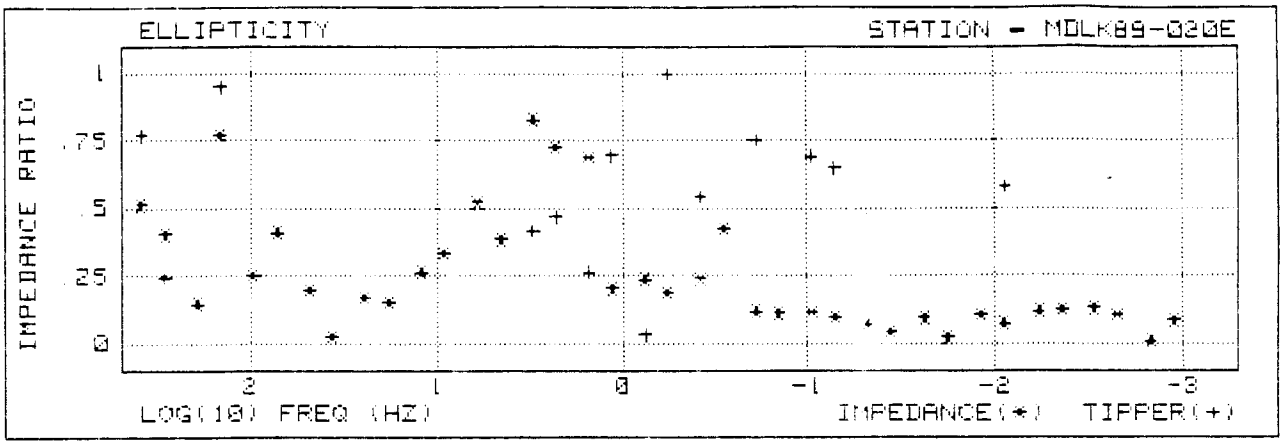
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

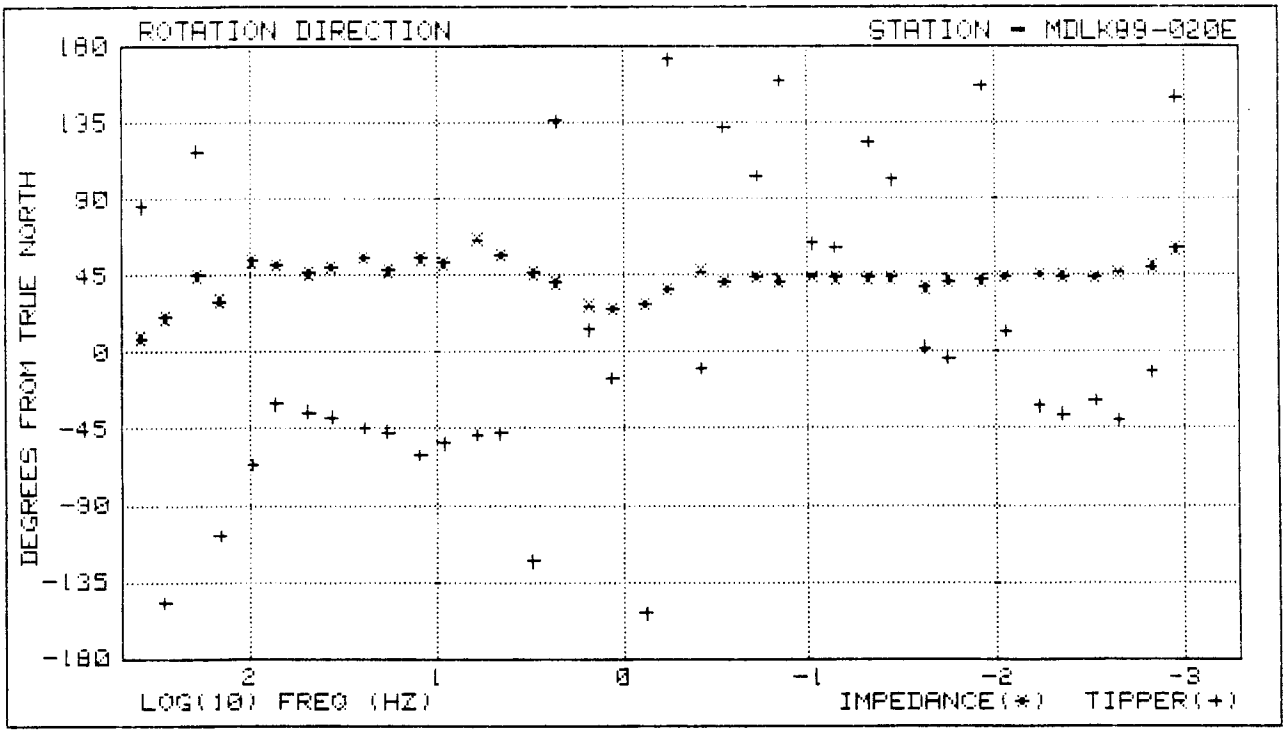
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	312	1.62	21.54	.45	.35
2	288.00 Hz	310	2.38	74.27	.20	.34
3	192.00 Hz	477	.46	113.42	.09	.07
4	144.00 Hz	667	.15	-63.07	.43	.42
5	96.00 Hz	285	.11	105.42	.59	.60
6	72.00 Hz	285	.09	99.52	.54	.58
7	48.00 Hz	477	.11	170.46	.76	.76
8	36.00 Hz	477	.11	168.55	.88	.90
9	24.00 Hz	864	.11	170.23	.71	.79
10	18.00 Hz	192	.12	-169.49	.87	.87
11	12.00 Hz	864	.11	-131.64	.42	.51
12	9.00 Hz	576	.12	-138.31	.53	.65
13	6.00 Hz	864	.11	-110.07	.21	.29
14	4.50 Hz	672	.12	-138.95	.15	.22
15	3.00 Hz	4448	.22	-108.00	.01	.05
16	2.25 Hz	8864	.22	74.62	.02	.02
17	1.50 Hz	3712	.21	-92.19	.06	.10
18	1.13 Hz	1472	.21	70.07	.11	.14
19	1.33 Sec	752	.20	-146.16	.07	.07
20	1.78 Sec	2596	1.10	87.63	.09	.16
21	2.67 Sec	192	1.32	95.94	.65	.47
22	3.56 Sec	1853	.50	-23.87	.13	.14
23	5.33 Sec	825	.07	138.25	.05	.03
24	7.11 Sec	381	.43	104.04	.30	.32
25	10.67 Sec	144	.09	-75.54	.14	.09
26	14.22 Sec	138	.84	-119.26	.43	.28
27	21.33 Sec	120	.22	14.56	.18	.19
28	28.44 Sec	180	.32	-36.66	.26	.17
29	42.67 Sec	72	.26	80.45	.79	.80
30	56.89 Sec	120	.21	74.46	.21	.17
31	85.33 Sec	66	.11	104.14	.18	.06
32	113.78 Sec	48	.61	-11.24	.36	.36
33	170.67 Sec	24	.32	-164.39	.41	.37
34	227.56 Sec	9	.24	-173.46	.96	.96
35	341.33 Sec	3	.33	-164.87	.98	.99
36	455.11 Sec	21	.23	-150.02	.48	.46
37	682.67 Sec	6	.69	-130.71	.47	.45
38	910.22 Sec	3	1.47	67.96	.65	.71

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E







PHOENIX GEOSCIENCE

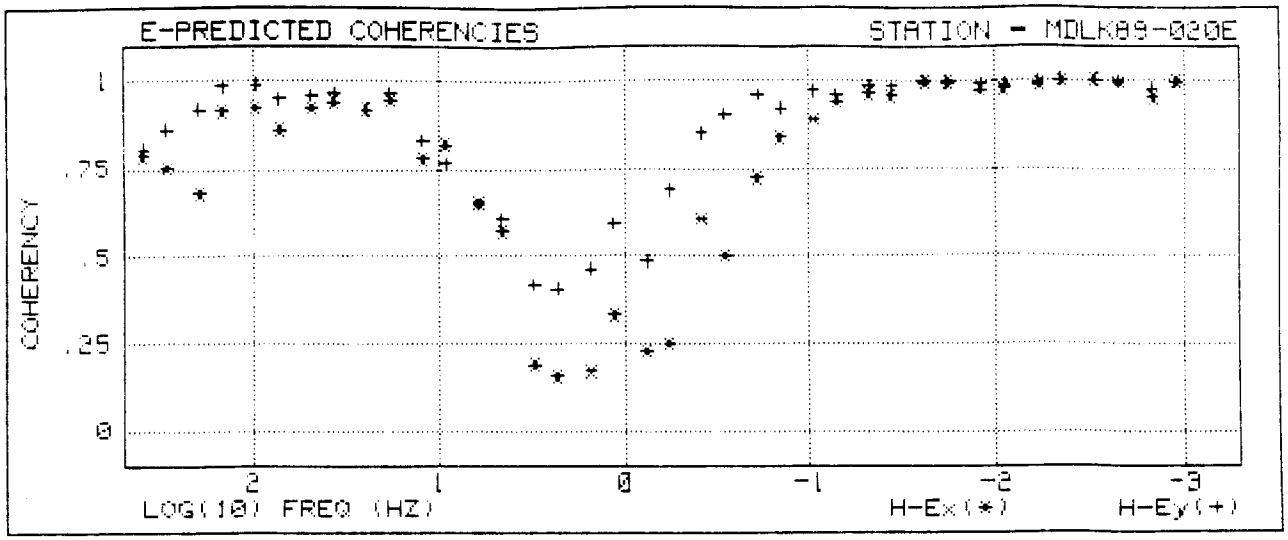
MT Site: MDLK89-020E

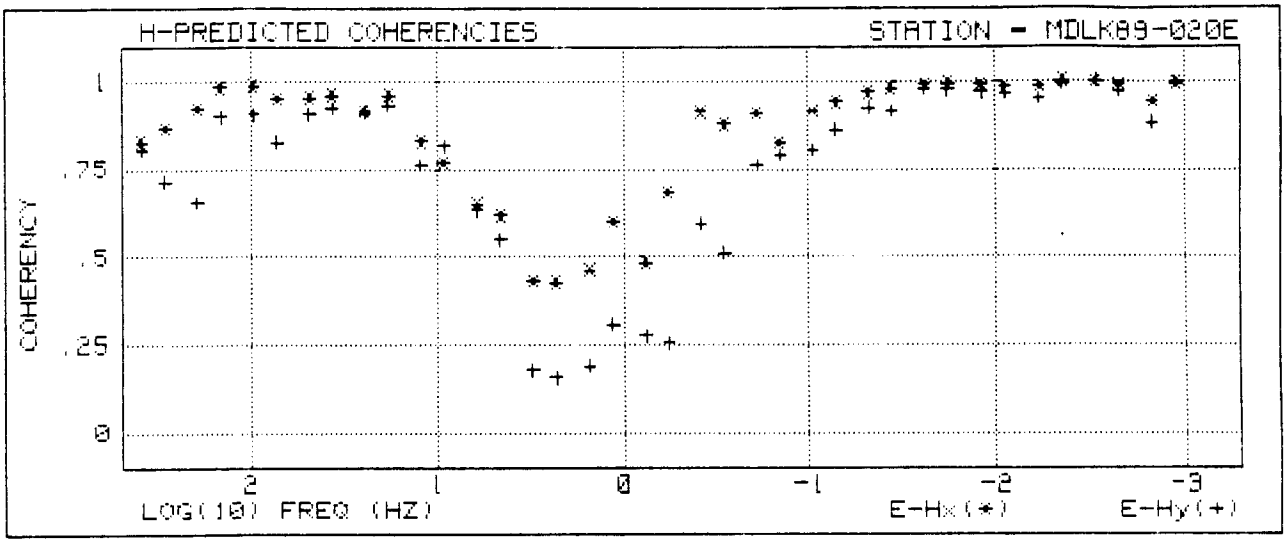
SKEW, ELLIPTICITY AND STRIKE

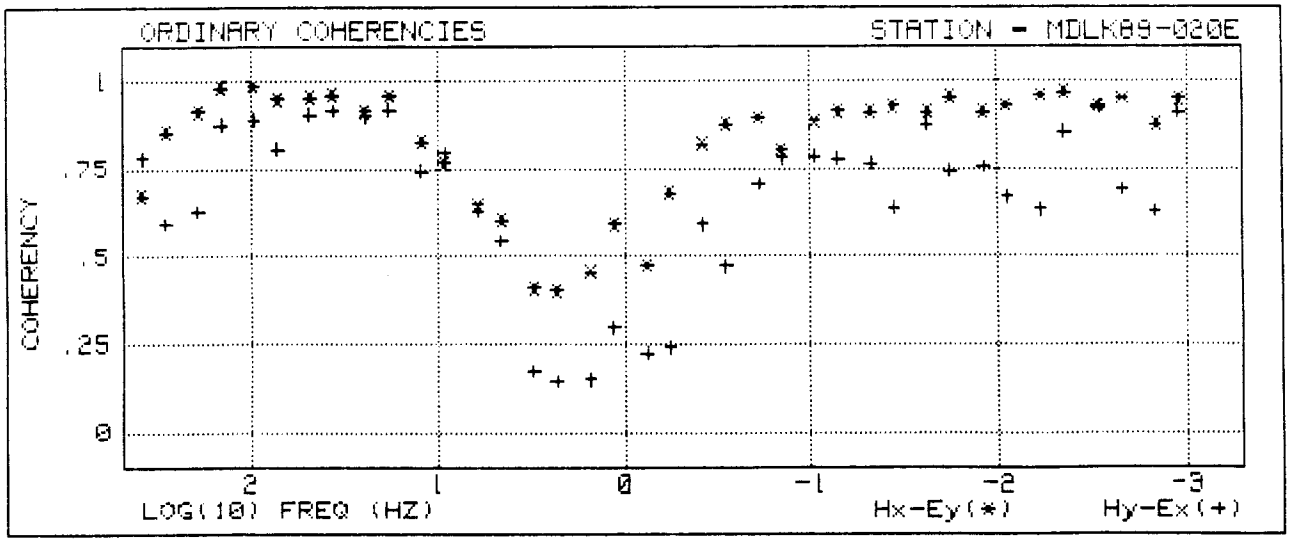
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	312	.34	.51	7.77	.95	.76	84.54
2	288.00 Hz	310	.31	.40	19.85	.23	.24	-147.76
3	192.00 Hz	477	.13	.14	44.16	.72	1.22	117.30
4	144.00 Hz	667	.10	.77	29.40	.49	.94	-108.67
5	96.00 Hz	285	.05	.25	52.68	.10	1.36	-66.56
6	72.00 Hz	285	.04	.40	50.38	.02	1.57	-30.75
7	48.00 Hz	477	.05	.19	45.71	.01	16.78	-35.93
8	36.00 Hz	477	.04	.02	49.15	.25	7.23	-38.91
9	24.00 Hz	864	.04	.17	55.00	.12	4.96	-44.96
10	18.00 Hz	192	.08	.15	47.20	.39	4.13	-47.26
11	12.00 Hz	864	.03	.26	54.29	.44	1.66	-60.70
12	9.00 Hz	576	.02	.33	51.66	.60	1.91	-54.02
13	6.00 Hz	864	.01	.52	65.56	.66	1.52	-49.44
14	4.50 Hz	672	.06	.38	56.40	.52	2.46	-48.32
15	3.00 Hz	4448	.19	.82	45.43	.65	.41	-123.50
16	2.25 Hz	8864	.13	.72	39.83	.74	.46	135.31
17	1.50 Hz	3712	.11	.68	26.16	.28	.26	12.50
18	1.13 Hz	1472	.05	.20	24.56	.70	.69	-15.95
19	1.33 Sec	752	.19	.23	27.26	.04	.03	-153.91
20	1.78 Sec	2596	.17	.18	36.15	.15	.99	171.61
21	2.67 Sec	192	.20	.24	46.76	.66	.54	-10.13
22	3.56 Sec	1853	.09	.42	40.16	.09	1.64	131.66
23	5.33 Sec	825	.14	.11	43.19	.79	.75	102.33
24	7.11 Sec	381	.11	.11	41.06	.06	1.26	158.80
25	10.67 Sec	144	.04	.11	43.14	.93	.69	62.99
26	14.22 Sec	138	.08	.09	42.88	.74	.65	60.47
27	21.33 Sec	120	.02	.07	42.83	.28	2.36	122.61
28	28.44 Sec	180	.04	.04	42.65	.07	1.59	100.47
29	42.67 Sec	72	.05	.09	37.21	.60	1.83	1.57
30	56.89 Sec	120	.00	.02	40.85	.95	1.37	-4.31
31	85.33 Sec	66	.04	.10	41.37	.06	1.39	156.22
32	113.78 Sec	48	.07	.07	43.17	.57	.57	11.30
33	170.67 Sec	24	.04	.11	44.67	.57	2.86	-32.38
34	227.56 Sec	9	.02	.12	43.79	.49	3.71	-37.46
35	341.33 Sec	3	.03	.13	43.29	.04	3.10	-28.86
36	455.11 Sec	21	.03	.10	45.67	.33	5.61	-40.70
37	682.67 Sec	6	.07	.01	49.29	.01	1.83	-12.00
38	910.22 Sec	3	.05	.08	60.25	.69	2.52	149.22

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E







PHOENIX GEOSCIENCE

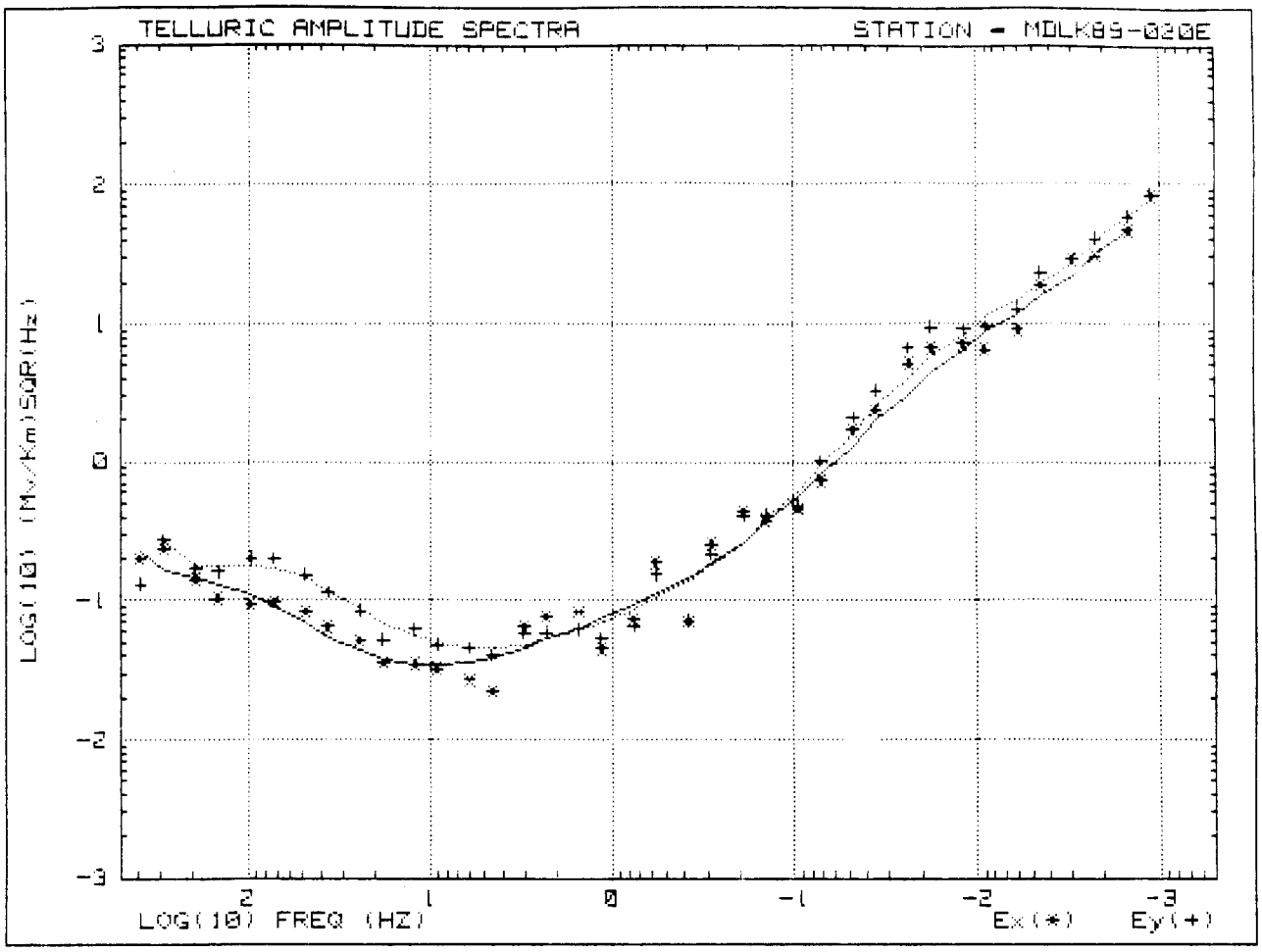
MT Site: MDLK89-020E

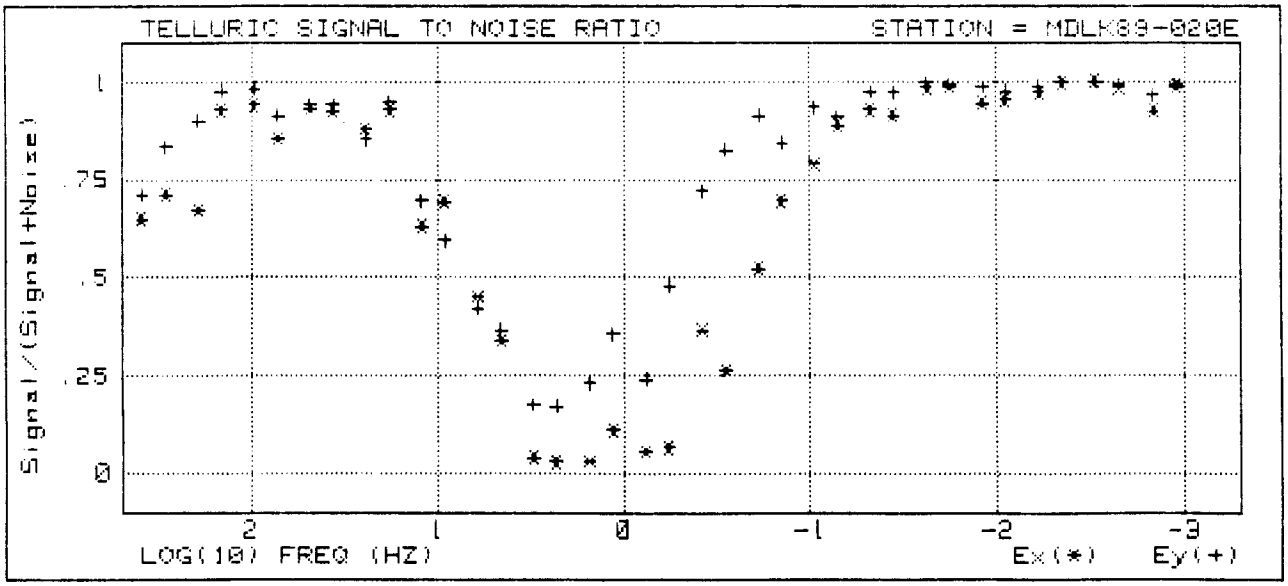
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	312	.78	.80	.82	.80	.67	.78
2	288.00 Hz	310	.75	.86	.86	.71	.85	.59
3	192.00 Hz	477	.68	.91	.92	.65	.91	.63
4	144.00 Hz	667	.91	.98	.98	.90	.98	.87
5	96.00 Hz	285	.92	.98	.98	.90	.98	.89
6	72.00 Hz	285	.86	.95	.95	.82	.94	.80
7	48.00 Hz	477	.92	.95	.95	.90	.95	.90
8	36.00 Hz	477	.94	.96	.96	.92	.96	.91
9	24.00 Hz	864	.91	.91	.91	.91	.91	.90
10	18.00 Hz	192	.94	.96	.96	.93	.95	.91
11	12.00 Hz	864	.78	.83	.83	.76	.82	.74
12	9.00 Hz	576	.82	.77	.76	.81	.76	.79
13	6.00 Hz	864	.65	.65	.65	.63	.64	.63
14	4.50 Hz	672	.57	.60	.61	.54	.60	.54
15	3.00 Hz	4448	.19	.41	.43	.17	.40	.17
16	2.25 Hz	8864	.15	.40	.42	.15	.40	.14
17	1.50 Hz	3712	.17	.46	.46	.18	.45	.15
18	1.13 Hz	1472	.33	.59	.60	.31	.59	.29
19	1.33 Sec	752	.23	.48	.48	.27	.47	.22
20	1.78 Sec	2596	.25	.69	.68	.25	.68	.24
21	2.67 Sec	192	.60	.85	.91	.59	.82	.59
22	3.56 Sec	1853	.50	.90	.88	.51	.87	.47
23	5.33 Sec	825	.72	.95	.91	.76	.89	.70
24	7.11 Sec	381	.83	.92	.82	.79	.80	.78
25	10.67 Sec	144	.88	.97	.91	.80	.88	.78
26	14.22 Sec	138	.93	.95	.94	.86	.91	.77
27	21.33 Sec	120	.96	.98	.96	.92	.91	.76
28	28.44 Sec	180	.95	.98	.98	.91	.92	.63
29	42.67 Sec	72	.99	1.00	.99	.98	.91	.87
30	56.89 Sec	120	.99	1.00	.99	.97	.95	.74
31	85.33 Sec	66	.97	.99	.99	.97	.91	.75
32	113.78 Sec	48	.97	.99	.98	.96	.93	.66
33	170.67 Sec	24	.98	.99	.98	.95	.95	.63
34	227.56 Sec	9	1.00	1.00	1.00	.99	.96	.85
35	341.33 Sec	3	1.00	1.00	1.00	1.00	.93	.92
36	455.11 Sec	21	.99	.99	.99	.97	.95	.69
37	682.67 Sec	6	.94	.97	.94	.88	.87	.63
38	910.22 Sec	3	.99	.99	.99	1.00	.95	.91

PHOENIX GEOSCIENCE

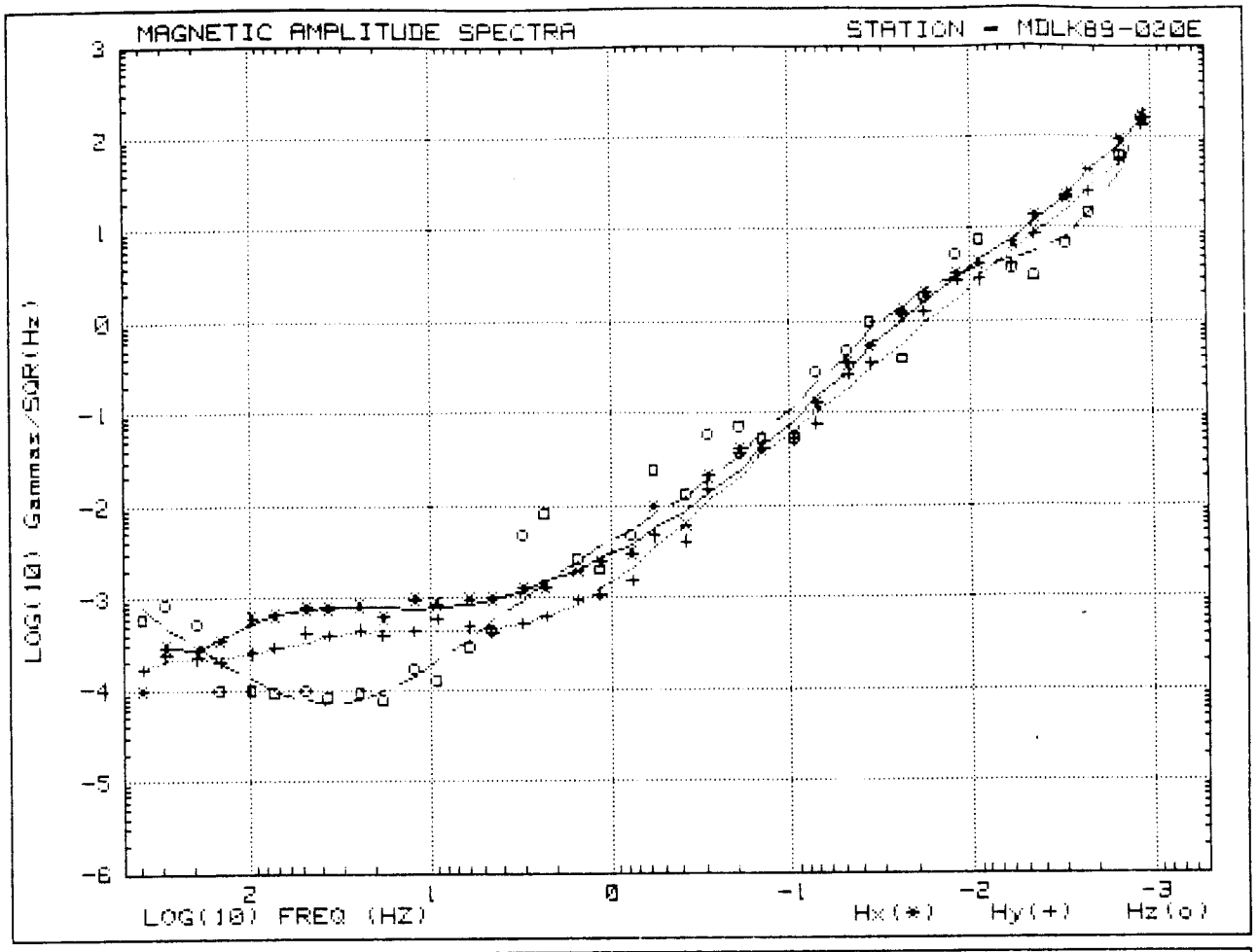
MT Site: MDLK89-020E

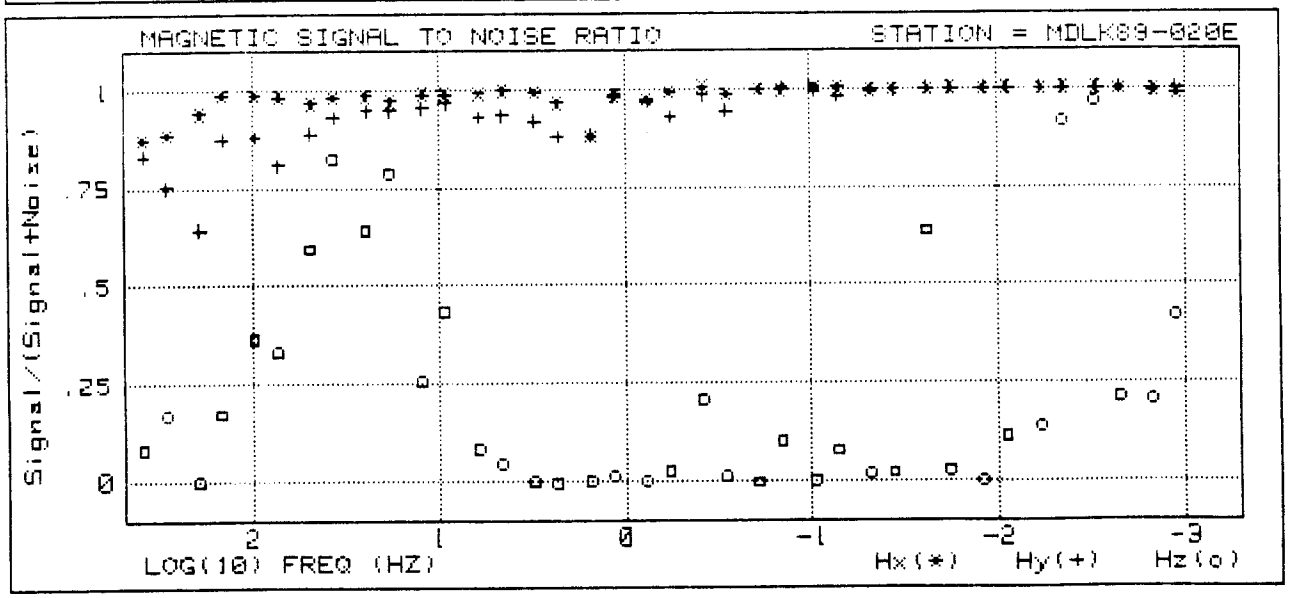




PHOENIX GEOSCIENCE

MT Site: MDLK89-020E





PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	312	9.58E-05	1.67E-04	6.15E-04	1.97E-01	1.29E-01
2	288.00 Hz	310	2.89E-04	2.31E-04	9.13E-04	2.31E-01	2.71E-01
3	192.00 Hz	477	2.63E-04	2.19E-04	5.63E-04	1.40E-01	1.66E-01
4	144.00 Hz	667	3.38E-04	1.97E-04	1.03E-04	1.01E-01	1.60E-01
5	96.00 Hz	285	5.99E-04	2.47E-04	1.06E-04	9.22E-02	1.99E-01
6	72.00 Hz	285	6.38E-04	2.82E-04	9.55E-05	9.57E-02	1.96E-01
7	48.00 Hz	477	7.77E-04	4.14E-04	1.05E-04	8.20E-02	1.51E-01
8	36.00 Hz	477	7.62E-04	3.85E-04	8.73E-05	6.33E-02	1.12E-01
9	24.00 Hz	864	7.99E-04	4.44E-04	9.68E-05	5.10E-02	8.27E-02
10	18.00 Hz	192	6.07E-04	3.80E-04	7.98E-05	3.53E-02	5.16E-02
11	12.00 Hz	864	9.63E-04	4.35E-04	1.80E-04	3.43E-02	6.18E-02
12	9.00 Hz	576	8.59E-04	5.81E-04	1.33E-04	3.20E-02	4.74E-02
13	6.00 Hz	864	9.66E-04	4.74E-04	3.07E-04	2.64E-02	4.53E-02
14	4.50 Hz	672	9.80E-04	4.10E-04	4.71E-04	2.21E-02	3.98E-02
15	3.00 Hz	4448	1.23E-03	5.20E-04	5.02E-03	6.33E-02	5.78E-02
16	2.25 Hz	8864	1.29E-03	6.23E-04	8.53E-03	7.61E-02	5.79E-02
17	1.50 Hz	3712	1.92E-03	9.45E-04	2.78E-03	8.13E-02	6.08E-02
18	1.13 Hz	1472	2.46E-03	1.07E-03	2.13E-03	4.44E-02	5.28E-02
19	1.33 Sec	752	2.96E-03	1.51E-03	5.08E-03	7.26E-02	6.45E-02
20	1.78 Sec	2596	9.68E-03	4.64E-03	2.58E-02	1.88E-01	1.52E-01
21	2.67 Sec	192	6.18E-03	4.03E-03	1.42E-02	7.01E-02	7.07E-02
22	3.56 Sec	1853	2.06E-02	1.49E-02	6.30E-02	2.52E-01	2.14E-01
23	5.33 Sec	825	4.00E-02	3.66E-02	7.69E-02	4.36E-01	4.07E-01
24	7.11 Sec	381	3.99E-02	4.17E-02	5.52E-02	3.80E-01	4.08E-01
25	10.67 Sec	144	5.70E-02	5.05E-02	5.49E-02	4.55E-01	4.79E-01
26	14.22 Sec	138	1.25E-01	7.52E-02	2.96E-01	7.21E-01	1.01E+00
27	21.33 Sec	120	3.48E-01	2.67E-01	5.14E-01	1.67E+00	2.08E+00
28	28.44 Sec	180	5.40E-01	3.49E-01	1.05E+00	2.34E+00	3.28E+00
29	42.67 Sec	72	1.26E+00	1.18E+00	4.12E-01	5.08E+00	6.60E+00
30	56.89 Sec	120	1.96E+00	1.23E+00	1.93E+00	6.54E+00	9.21E+00
31	85.33 Sec	66	3.17E+00	2.77E+00	5.56E+00	7.01E+00	8.91E+00
32	113.78 Sec	48	4.16E+00	2.78E+00	7.88E+00	6.46E+00	9.51E+00
33	170.67 Sec	24	6.96E+00	4.03E+00	3.96E+00	8.90E+00	1.26E+01
34	227.56 Sec	9	1.33E+01	8.49E+00	3.18E+00	1.86E+01	2.31E+01
35	341.33 Sec	3	2.12E+01	2.26E+01	7.25E+00	2.84E+01	2.87E+01
36	455.11 Sec	21	4.26E+01	2.49E+01	1.55E+01	3.04E+01	4.02E+01
37	682.67 Sec	6	9.12E+01	5.46E+01	6.69E+01	4.57E+01	5.74E+01
38	910.22 Sec	3	1.62E+02	1.34E+02	1.69E+02	8.05E+01	8.23E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	312	.872	.830	.084	.648	.710
2	288.00 Hz	310	.884	.751	.174	.710	.832
3	192.00 Hz	477	.938	.641	.002	.670	.899
4	144.00 Hz	667	.984	.873	.177	.927	.976
5	96.00 Hz	285	.986	.877	.368	.939	.981
6	72.00 Hz	285	.980	.806	.336	.853	.912
7	48.00 Hz	477	.965	.886	.599	.928	.941
8	36.00 Hz	477	.980	.930	.829	.925	.939
9	24.00 Hz	864	.982	.945	.648	.879	.852
10	18.00 Hz	192	.971	.945	.794	.927	.947
11	12.00 Hz	864	.986	.953	.260	.629	.694
12	9.00 Hz	576	.988	.965	.441	.691	.594
13	6.00 Hz	864	.989	.929	.084	.450	.421
14	4.50 Hz	672	.996	.933	.046	.337	.364
15	3.00 Hz	4448	.992	.918	.002	.037	.173
16	2.25 Hz	8864	.964	.879	.000	.026	.168
17	1.50 Hz	3712	.878	.881	.006	.028	.228
18	1.13 Hz	1472	.983	.981	.017	.109	.354
19	1.33 Sec	752	.974	.967	.004	.053	.238
20	1.78 Sec	2596	.991	.928	.032	.065	.478
21	2.67 Sec	192	1.000	.982	.211	.365	.719
22	3.56 Sec	1853	.985	.944	.016	.262	.823
23	5.33 Sec	825	.997	.997	.001	.521	.911
24	7.11 Sec	381	.996	1.000	.104	.693	.842
25	10.67 Sec	144	1.000	.994	.007	.788	.933
26	14.22 Sec	138	1.000	.980	.083	.887	.907
27	21.33 Sec	120	.994	.998	.025	.926	.973
28	28.44 Sec	180	.998	.995	.026	.913	.971
29	42.67 Sec	72	.998	1.000	.643	.992	.997
30	56.89 Sec	120	.999	1.000	.032	.984	.991
31	85.33 Sec	66	.997	1.000	.003	.944	.985
32	113.78 Sec	48	.999	1.000	.119	.952	.974
33	170.67 Sec	24	.997	1.000	.142	.971	.987
34	227.56 Sec	9	1.000	.999	.921	.995	.997
35	341.33 Sec	3	1.000	1.000	.972	1.000	.999
36	455.11 Sec	21	.998	.999	.217	.983	.991
37	682.67 Sec	6	.995	.993	.212	.925	.965
38	910.22 Sec	3	.987	1.000	.426	.988	.992

PHOENIX GEOSCIENCE

MT Site: MDLK89-020E

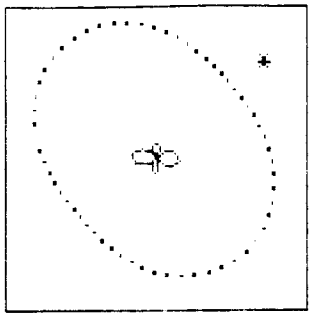
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

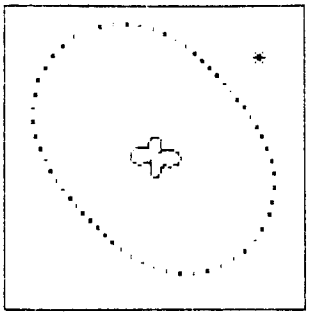
*=Rotation Direction

Zxy = ...
Zxx = ____

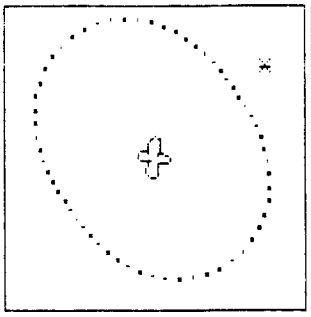
F=8 (36.0 Hz)



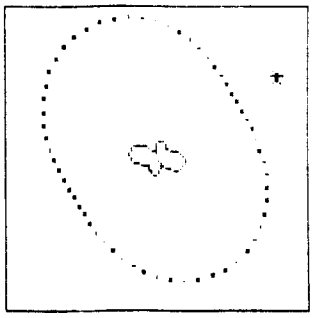
F=10 (18.0 Hz)



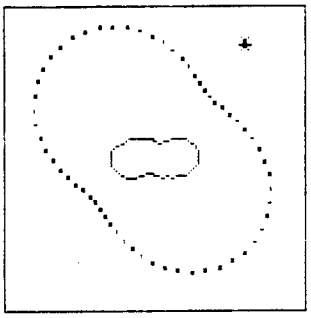
F=12 (9.0 Hz)



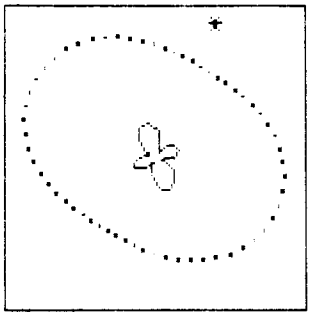
F=14 (4.5 Hz)



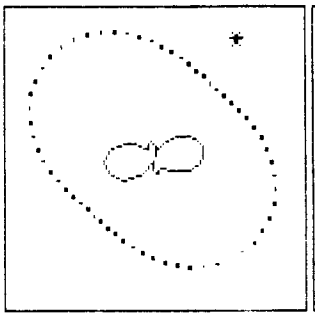
F=16 (2.3 Hz)



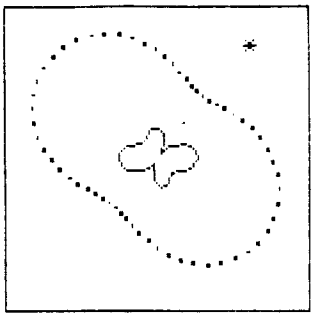
F=18 (1.1 Hz)



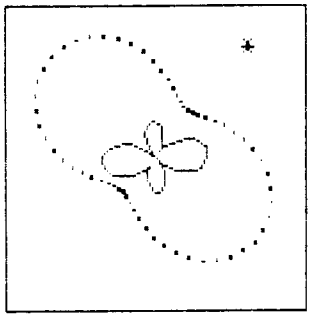
F=20 (.5625 Hz)



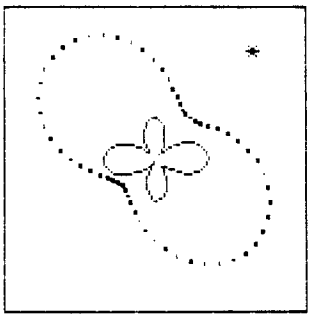
F=22 (.2813 Hz)



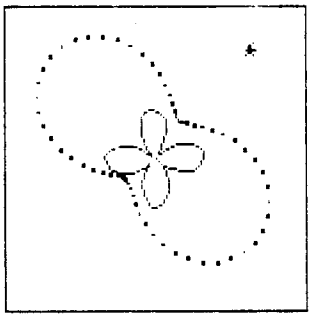
F=24 (.1406 Hz)



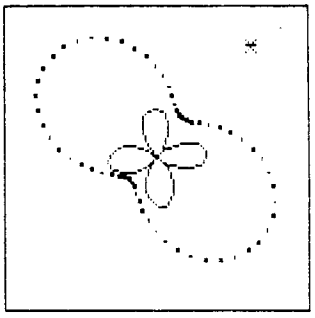
F=26 (.0703 Hz)



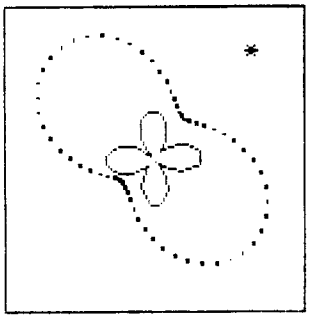
F=28 (.0352 Hz)



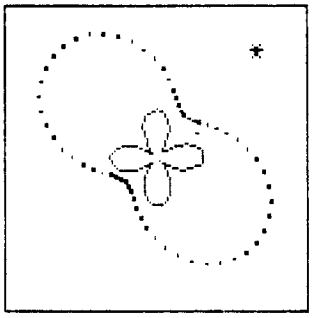
F=30 (.0176 Hz)



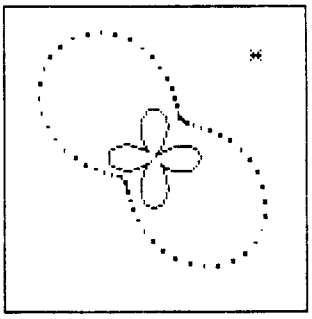
F=32 (.0088 Hz)



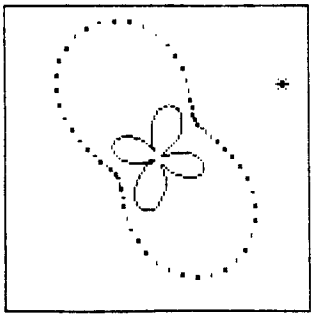
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-020s/021s/

Operator:OJALA
Date: 28 Aug 1989
Time: 14:50:42

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#210-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-021s
Site Desc:T44N R4E SEC36 NE4
41,36,47 N 121,27,00 W
Elevation:5075 FT
Reference:MDLK89-020s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL210	+0 DEG
Hy	7	COIL452	+90 DEG
Hz	8	LOOP405	Doubled
Ex	9	185 M	+0 DEG
Ey	10	164 M	+90 DEG
Rx	1	COIL430	+0 DEG
Ry	2	COIL431	+90 DEG

Ex Pot Resist: 11.0K Ohms
Ex Voltage: AC=17.5 mv, DC=17.8 mv
Ey Pot Resist: 11.5K Ohms
Ey Voltage: AC=9.0 mv, DC=38.7 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

OPERATOR LOG FOR MT SITES MDLK89-020a/021a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-020a/021a/

Run STARTED:	14:50:42	28 Aug 1989
Run QUIT:	03:57:21	29 Aug 1989

Operator:OJALA

Cultural Factors:
LARGE DC TRANSMISSION LINE ~ 9 MILES EAST OF SITES. NO OTHER CULTURE APPARENT.

Weather Conditions:
CLEAR AND WARM WITH LIGHT WINDS.

Other Factors:
WILL START A 'b' RUN. SITE 020 NEEDS SOME MORE DATA IN LO RANGE.

PHOENIX GEOSCIENCE

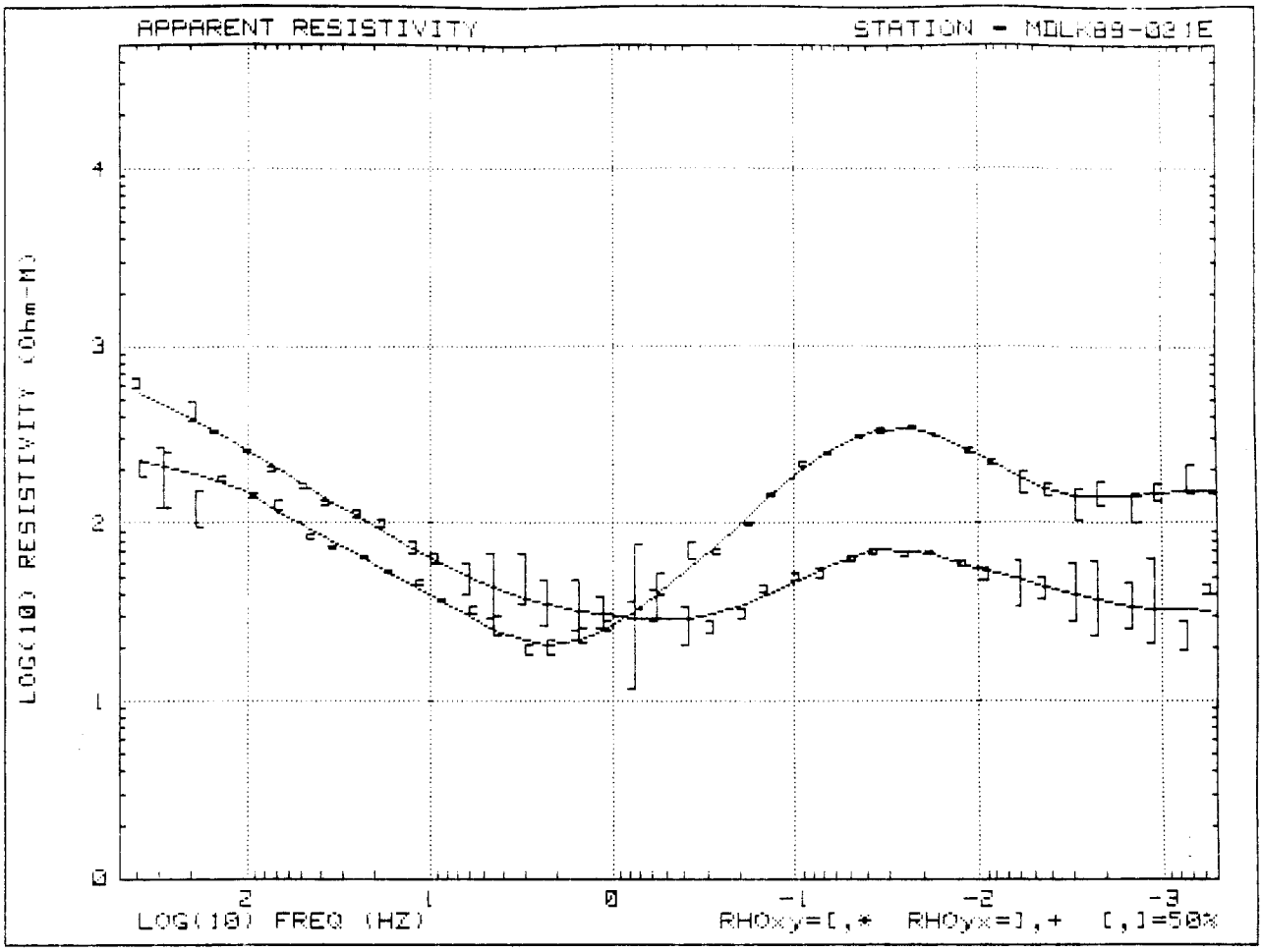
MT Site: MDLK89-021E

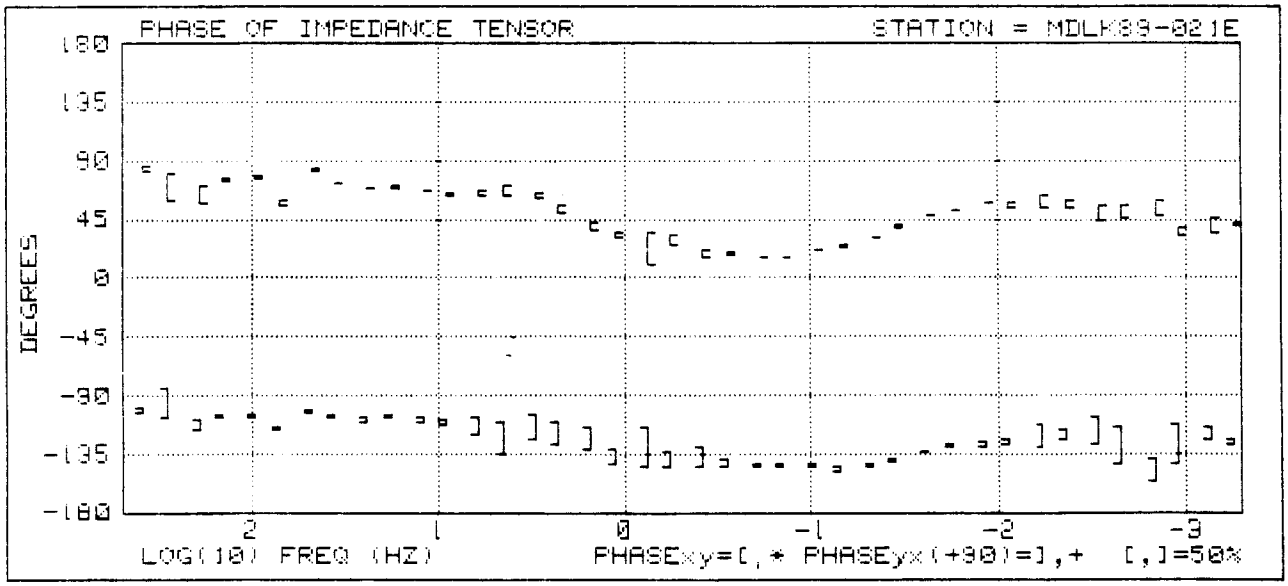
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

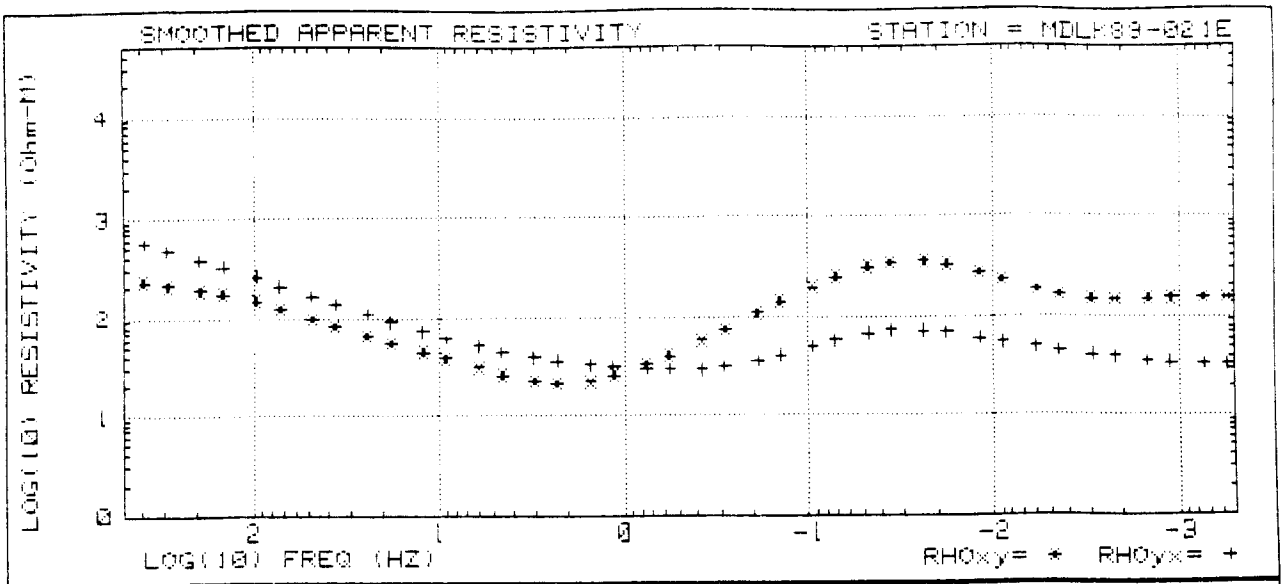
MT Site: MDLK89-021E

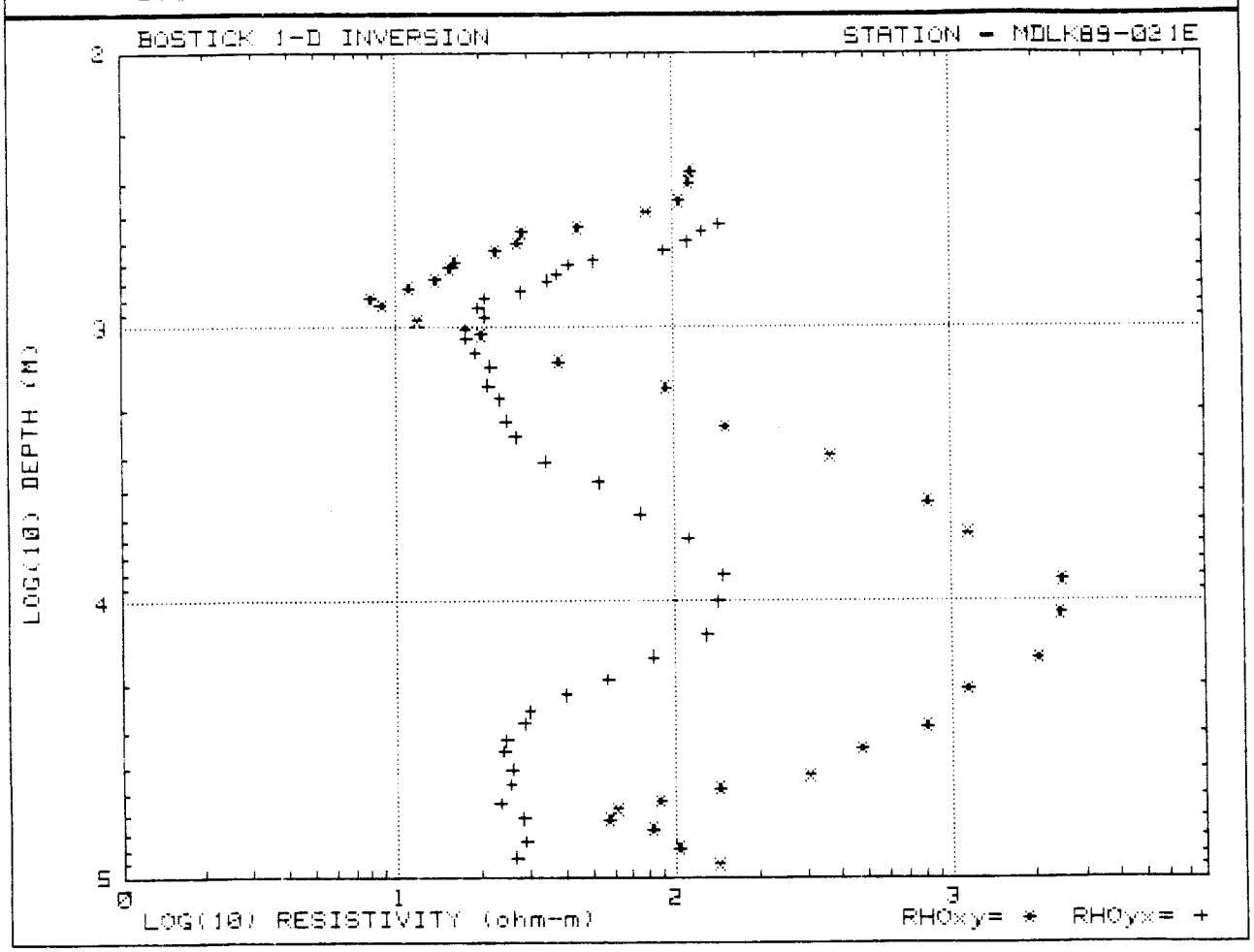




PHOENIX GEOSCIENCE

MT Site: MDLK89-021E





PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	372	200.1	13.7	613.8	9.6	84.1	3.7	-101.7	2.6
2	288.00 Hz	190	173.8	71.7	180.6	75.1	70.3	15.5	-95.6	16.1
3	192.00 Hz	477	119.4	40.1	430.3	21.4	63.4	9.7	-112.5	5.6
4	144.00 Hz	667	178.3	3.8	327.6	3.5	76.1	1.1	-106.2	1.0
5	96.00 Hz	477	143.5	3.1	255.1	4.4	77.7	.9	-106.4	1.2
6	72.00 Hz	384	125.6	9.6	200.0	4.0	57.0	2.6	-115.7	1.1
7	48.00 Hz	667	84.5	4.3	160.7	5.4	82.9	1.2	-102.0	1.5
8	36.00 Hz	858	73.5	3.1	130.7	4.2	72.8	.9	-105.1	1.2
9	24.00 Hz	672	64.8	2.3	112.7	6.4	69.4	.7	-108.7	1.8
10	18.00 Hz	864	53.4	4.4	99.5	7.8	70.6	1.2	-106.0	2.1
11	12.00 Hz	864	46.8	3.8	72.0	12.2	67.1	1.1	-108.7	3.3
12	9.00 Hz	672	36.7	3.9	63.4	11.2	63.7	1.1	-110.2	3.0
13	6.00 Hz	864	32.2	8.1	48.4	37.7	64.9	2.2	-113.3	9.2
14	4.50 Hz	672	26.3	19.6	44.3	87.3	66.5	5.1	-122.4	18.0
15	3.00 Hz	7456	19.3	12.0	48.6	62.0	62.8	3.2	-114.0	13.8
16	2.25 Hz	5920	20.0	16.5	35.3	57.1	53.0	4.4	-119.1	12.9
17	1.50 Hz	4448	23.5	14.7	34.1	62.2	40.3	3.9	-122.8	13.9
18	1.13 Hz	2944	26.2	10.7	31.7	35.0	32.5	2.9	-136.7	8.6
19	1.33 Sec	2628	50.5	87.0	20.5	99.9	22.5	17.9	-129.4	23.8
20	1.78 Sec	2980	45.5	24.1	34.5	38.3	28.7	6.2	-139.2	9.3
21	2.67 Sec	744	70.5	16.2	26.5	47.0	19.4	4.3	-137.3	11.0
22	3.56 Sec	1673	68.9	4.2	26.1	13.4	18.9	1.2	-141.4	3.6
23	5.33 Sec	729	100.6	2.7	30.9	8.2	15.8	.8	-143.4	2.3
24	7.11 Sec	645	146.1	2.2	43.0	5.8	16.3	.6	-144.2	1.6
25	10.67 Sec	318	214.0	3.2	49.9	7.4	21.6	.9	-143.9	2.0
26	14.22 Sec	360	245.1	3.3	52.6	7.3	24.3	.9	-146.2	2.0
27	21.33 Sec	138	304.3	2.7	63.6	4.8	30.9	.8	-143.2	1.3
28	28.44 Sec	126	331.8	3.6	70.1	5.1	39.0	1.0	-139.3	1.4
29	42.67 Sec	228	346.6	1.5	67.8	4.0	48.2	.4	-133.2	1.1
30	56.89 Sec	204	314.1	1.3	68.3	3.3	51.7	.4	-129.1	.9
31	85.33 Sec	78	261.2	4.6	59.4	6.1	57.5	1.3	-127.6	1.7
32	113.78 Sec	87	220.3	6.4	51.8	11.1	55.5	1.8	-124.9	3.0
33	170.67 Sec	36	168.6	24.2	45.9	57.5	58.8	6.2	-120.3	13.0
34	227.56 Sec	33	153.8	11.0	43.1	21.6	56.7	3.0	-120.4	5.6
35	341.33 Sec	24	128.4	33.7	41.0	72.2	49.4	8.3	-116.6	15.6
36	455.11 Sec	21	146.5	27.1	37.8	99.9	50.5	6.9	-128.2	21.3
37	682.67 Sec	6	122.3	35.2	34.5	56.2	54.0	8.6	-147.9	12.8
38	910.22 Sec	9	149.4	17.9	36.8	99.9	35.4	4.7	-128.1	22.9
39	1365.33 Sec	3	178.9	32.1	23.1	31.8	40.6	8.0	-119.0	7.9
40	1820.44 Sec	3	149.4	2.3	42.5	9.4	41.2	.7	-126.2	2.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	372	228.6	555.1	116.0	275	147.7	428
2	288.00 Hz	190	208.1	469.8	115.3	302	127.4	455
3	192.00 Hz	477	187.4	373.0	105.3	352	112.4	496
4	144.00 Hz	667	171.3	323.8	80.5	388	93.5	534
5	96.00 Hz	477	145.9	254.4	45.8	439	51.8	579
6	72.00 Hz	384	119.3	204.7	28.5	458	42.2	600
7	48.00 Hz	667	95.3	161.2	27.7	501	38.4	652
8	36.00 Hz	858	81.5	133.7	23.0	535	35.5	686
9	24.00 Hz	672	64.6	107.8	16.5	584	28.3	754
10	18.00 Hz	864	54.0	89.2	15.8	616	21.0	792
11	12.00 Hz	864	44.2	70.2	13.8	683	19.9	861
12	9.00 Hz	672	37.6	60.6	11.1	727	21.0	923
13	6.00 Hz	864	30.3	50.1	8.1	800	17.9	1029
14	4.50 Hz	672	25.2	43.6	8.9	842	18.0	1108
15	3.00 Hz	7456	21.8	37.6	12.0	958	19.4	1260
16	2.25 Hz	5920	20.6	35.0	20.3	1076	22.0	1403
17	1.50 Hz	4448	21.6	32.1	39.0	1352	21.5	1646
18	1.13 Hz	2944	25.1	30.5	94.3	1681	23.7	1853
19	1.33 Sec	2628	32.4	29.4	153.5	2337	25.0	2229
20	1.78 Sec	2980	39.4	28.8	370.1	2979	27.0	2548
21	2.67 Sec	744	56.6	28.8	834.3	4373	34.3	3117
22	3.56 Sec	1673	72.2	30.6	1162.2	5702	53.4	3715
23	5.33 Sec	729	104.4	34.7	2518.2	8398	75.1	4842
24	7.11 Sec	645	136.6	39.5	2482.6	11093	112.2	5968
25	10.67 Sec	318	194.3	48.4	2042.1	16200	150.7	8085
26	14.22 Sec	360	242.3	56.5	1144.7	20889	142.7	10085
27	21.33 Sec	138	305.0	65.3	812.3	28706	131.1	13285
28	28.44 Sec	126	331.9	71.2	474.2	34577	83.9	16018
29	42.67 Sec	228	344.7	69.1	308.7	43159	57.6	19328
30	56.89 Sec	204	319.4	66.9	145.2	47975	40.8	21952
31	85.33 Sec	78	265.8	58.4	88.9	53595	30.1	25131
32	113.78 Sec	87	226.1	53.6	62.0	57077	28.8	27786
33	170.67 Sec	36	179.1	47.4	57.9	62219	24.8	32019
34	227.56 Sec	33	158.6	43.1	83.0	67608	24.3	35262
35	341.33 Sec	24	144.2	39.1	103.6	78955	26.1	41091
36	455.11 Sec	21	141.6	37.6	144.0	90332	25.7	46543
37	682.67 Sec	6	145.0	34.3	163.5	111983	23.6	54462
38	910.22 Sec	9	147.6	33.1	164.9	130432	28.5	61733
39	1365.33 Sec	3	150.7	32.6	165.0	161448	29.1	75055
40	1820.44 Sec	3	152.3	31.9	163.3	187366	26.9	85625

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	372	-77.06	-95.00	999.99	63.93	616.55	999.99
2	288.00 Hz	190	1.99	49.45	999.99	169.00	470.81	999.99
3	192.00 Hz	477	-47.66	-59.43	999.99	151.65	302.77	999.99
4	144.00 Hz	667	-14.67	14.73	150.64	86.09	347.83	89.16
5	96.00 Hz	477	-8.82	13.46	116.47	56.11	256.34	31.14
6	72.00 Hz	384	2.27	35.25	43.07	115.79	178.39	191.45
7	48.00 Hz	667	-.97	4.86	40.90	17.50	141.32	18.25
8	36.00 Hz	858	3.86	2.08	13.38	34.08	109.85	6.36
9	24.00 Hz	672	-1.03	.05	6.12	31.09	82.55	2.01
10	18.00 Hz	864	-.61	-.29	10.88	22.98	65.42	4.54
11	12.00 Hz	864	1.67	.08	7.08	20.59	48.84	1.98
12	9.00 Hz	672	3.05	3.52	3.53	17.98	36.42	1.20
13	6.00 Hz	864	1.89	1.97	13.48	13.17	28.16	2.94
14	4.50 Hz	672	.46	2.89	29.63	9.72	22.30	9.51
15	3.00 Hz	7456	-.46	.34	10.10	7.78	15.15	1.85
16	2.25 Hz	5920	.03	.33	7.37	9.03	11.99	2.62
17	1.50 Hz	4448	-.42	-.83	4.72	10.12	8.58	1.66
18	1.13 Hz	2944	-.34	-.13	2.11	10.24	6.53	.77
19	1.33 Sec	2628	-1.778	2.148	42.209	12.716	5.255	37.064
20	1.78 Sec	2980	.779	-.171	6.936	9.924	5.434	2.987
21	2.67 Sec	744	-.187	1.619	6.333	10.846	3.820	1.491
22	3.56 Sec	1673	.110	1.190	.271	9.309	3.190	.081
23	5.33 Sec	729	.127	.109	.108	9.346	2.642	.033
24	7.11 Sec	645	-.063	.119	.052	9.728	2.849	.023
25	10.67 Sec	318	.163	-.150	.072	9.312	3.687	.049
26	14.22 Sec	360	.060	-.018	.070	8.459	3.825	.045
27	21.33 Sec	138	.137	-.009	.020	7.245	4.339	.025
28	28.44 Sec	126	.124	.085	.050	5.938	4.803	.037
29	42.67 Sec	228	.214	.010	.011	4.249	4.750	.005
30	56.89 Sec	204	.184	.059	.005	3.255	4.125	.002
31	85.33 Sec	78	.098	.162	.010	2.104	3.298	.015
32	113.78 Sec	87	.133	.108	.018	1.762	2.564	.019
33	170.67 Sec	36	-.014	.092	.209	1.153	1.900	.116
34	227.56 Sec	33	.026	.104	.021	1.010	1.536	.018
35	341.33 Sec	24	-.124	.212	.100	.893	1.041	.079
36	455.11 Sec	21	.062	-.019	.104	.807	.979	.046
37	682.67 Sec	6	.189	-.012	.097	.556	.766	.041
38	910.22 Sec	9	-.002	.006	.024	.738	.525	.011
39	1365.33 Sec	3	.048	-.065	.066	.614	.527	.025
40	1820.44 Sec	3	.011	.004	.000	.482	.422	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	372	-219.29	-999.99	999.99	-299.34	-17.68	999.99
2	288.00 Hz	190	-49.91	-507.46	999.99	9.92	75.22	999.99
3	192.00 Hz	477	-245.45	-593.98	999.99	7.26	-77.12	999.99
4	144.00 Hz	667	-135.87	-466.31	137.59	19.60	.33	81.44
5	96.00 Hz	477	-98.55	-335.77	112.61	13.84	1.36	30.11
6	72.00 Hz	384	-116.44	-241.75	54.85	-18.01	35.45	243.79
7	48.00 Hz	667	-40.79	-192.13	52.76	3.03	3.02	23.55
8	36.00 Hz	858	-39.93	-148.10	20.24	4.51	1.98	9.62
9	24.00 Hz	672	-37.24	-110.17	25.64	3.47	-.95	8.44
10	18.00 Hz	864	-26.09	-90.95	25.11	4.11	-.86	10.47
11	12.00 Hz	864	-21.02	-62.27	28.77	4.50	-.01	8.05
12	9.00 Hz	672	-18.47	-50.11	16.00	2.66	3.53	5.42
13	6.00 Hz	864	-15.08	-35.00	74.40	1.57	2.06	16.25
14	4.50 Hz	672	-16.89	-26.67	196.15	.49	2.84	62.97
15	3.00 Hz	7456	-10.96	-24.67	94.88	.59	-.01	15.56
16	2.25 Hz	5920	-9.69	-17.40	40.46	.64	.25	14.39
17	1.50 Hz	4448	-8.66	-13.44	29.88	1.85	-.14	10.51
18	1.13 Hz	2944	-9.72	-9.16	8.05	1.02	.14	2.93
19	1.33 Sec	2628	-5.563	-6.785	26.488	-1.009	1.067	23.260
20	1.78 Sec	2980	-7.457	-6.426	5.104	.748	-.247	2.198
21	2.67 Sec	744	-5.185	-4.784	3.700	-.494	-.180	.871
22	3.56 Sec	1673	-4.729	-3.780	.289	-.070	-.210	.086
23	5.33 Sec	729	-4.322	-3.205	.091	.075	-.349	.028
24	7.11 Sec	645	-4.458	-3.216	.048	-.096	-.354	.021
25	10.67 Sec	318	-3.907	-2.847	.059	.163	-.149	.040
26	14.22 Sec	360	-3.572	-2.393	.046	.108	-.182	.030
27	21.33 Sec	138	-3.091	-2.313	.016	.115	.037	.020
28	28.44 Sec	126	-2.662	-2.287	.015	.233	-.058	.011
29	42.67 Sec	228	-1.928	-2.056	.006	.176	.043	.003
30	56.89 Sec	204	-1.544	-1.902	.003	.147	.088	.002
31	85.33 Sec	78	-1.139	-1.478	.006	.250	.081	.009
32	113.78 Sec	87	-.862	-1.238	.013	.065	.154	.013
33	170.67 Sec	36	-.584	-1.001	.139	.015	.074	.077
34	227.56 Sec	33	-.493	-.839	.018	.099	.050	.016
35	341.33 Sec	24	-.347	-.694	.089	.026	-.023	.070
36	455.11 Sec	21	-.399	-.506	.114	.070	-.025	.051
37	682.67 Sec	6	-.426	-.267	.025	.101	.011	.010
38	910.22 Sec	9	-.278	-.354	.065	.010	-.026	.030
39	1365.33 Sec	3	-.141	-.254	.003	-.016	.047	.001
40	1820.44 Sec	3	-.202	-.276	.000	.027	-.027	.000

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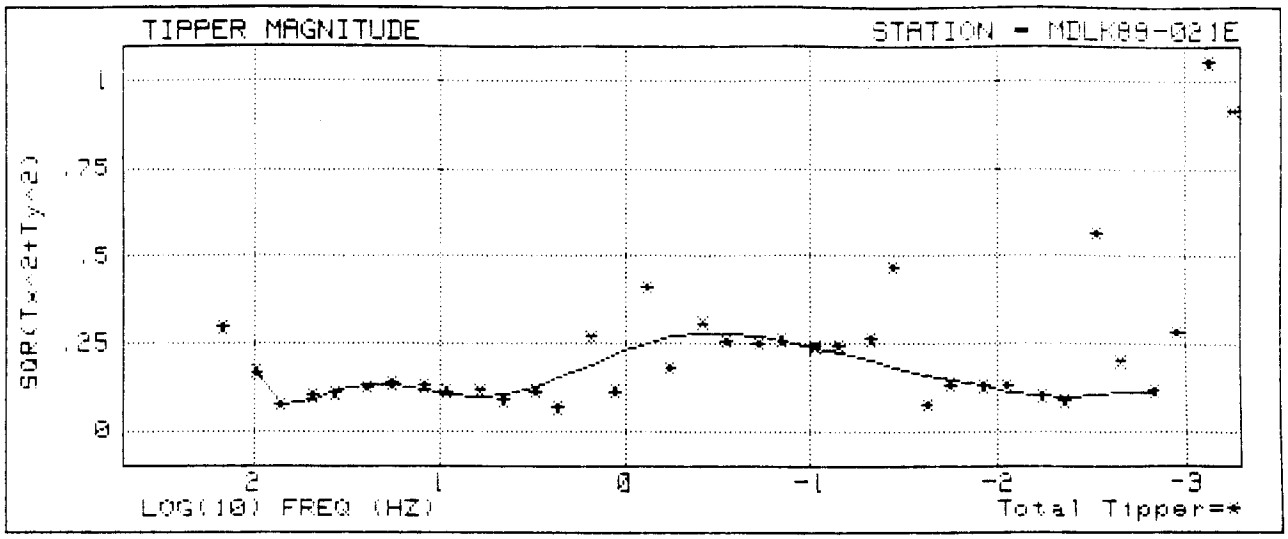
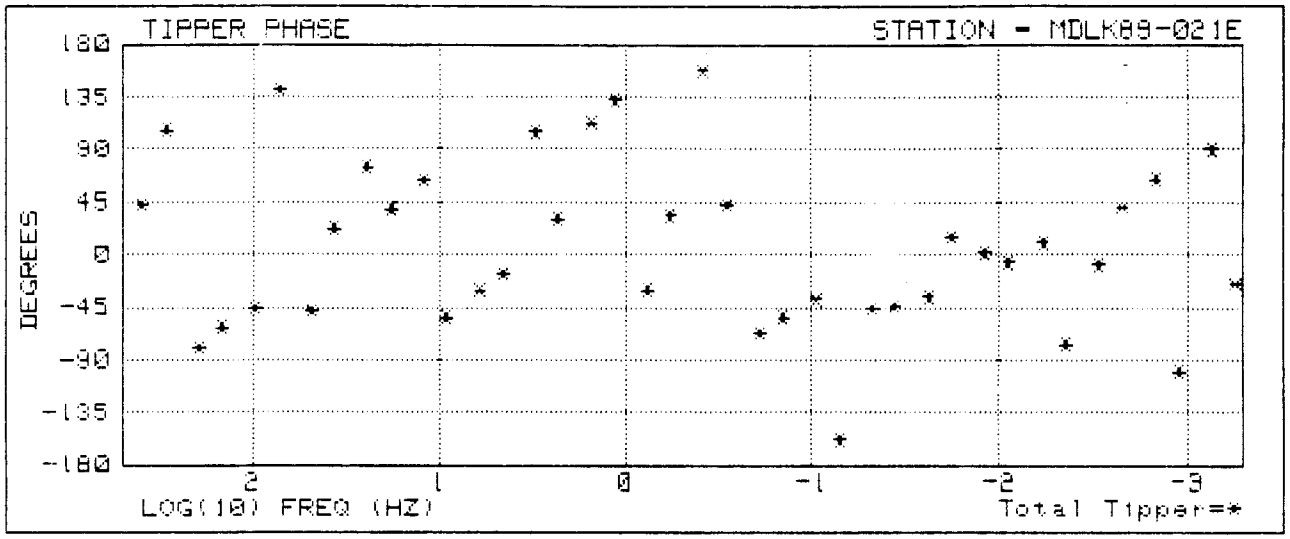
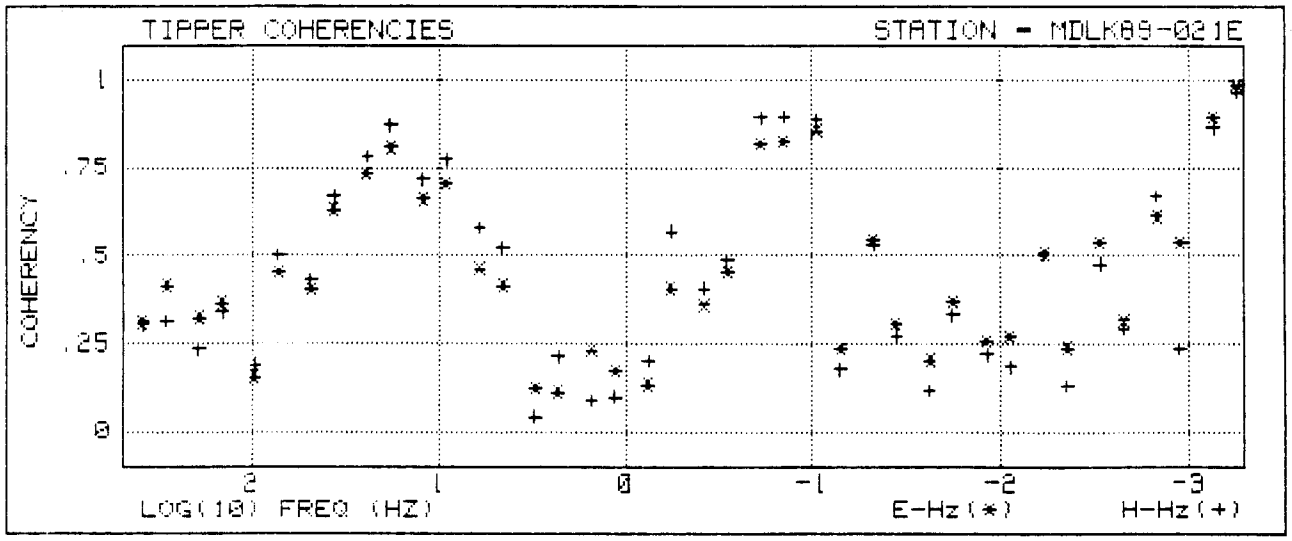
MT Site: MDLK89-021E







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MT Site: MDLK89-021E

ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	372	2.76	41.83	.31	.30
2	288.00 Hz	190	1.58	105.14	.41	.31
3	192.00 Hz	477	1.49	-80.57	.32	.23
4	144.00 Hz	667	.29	-62.85	.36	.34
5	96.00 Hz	477	.16	-46.66	.15	.18
6	72.00 Hz	384	.07	140.59	.45	.50
7	48.00 Hz	667	.10	-48.47	.40	.43
8	36.00 Hz	858	.10	20.99	.63	.66
9	24.00 Hz	672	.12	73.65	.73	.78
10	18.00 Hz	864	.13	37.81	.80	.87
11	12.00 Hz	864	.13	62.52	.66	.71
12	9.00 Hz	672	.11	-54.76	.70	.77
13	6.00 Hz	864	.11	-30.91	.46	.58
14	4.50 Hz	672	.08	-17.11	.41	.52
15	3.00 Hz	7456	.11	104.32	.12	.04
16	2.25 Hz	5920	.06	29.39	.11	.21
17	1.50 Hz	4448	.27	112.06	.23	.09
18	1.13 Hz	2944	.11	131.68	.17	.09
19	1.33 Sec	2628	.41	-30.94	.13	.20
20	1.78 Sec	2980	.18	32.59	.40	.56
21	2.67 Sec	744	.30	156.94	.35	.40
22	3.56 Sec	1673	.25	41.59	.45	.48
23	5.33 Sec	729	.25	-67.64	.82	.89
24	7.11 Sec	645	.26	-54.61	.82	.89
25	10.67 Sec	318	.24	-38.85	.85	.88
26	14.22 Sec	360	.24	-158.99	.23	.17
27	21.33 Sec	138	.26	-46.48	.54	.53
28	28.44 Sec	126	.46	-44.56	.30	.27
29	42.67 Sec	228	.07	-36.63	.20	.11
30	56.89 Sec	204	.13	14.11	.37	.33
31	85.33 Sec	78	.12	1.32	.25	.22
32	113.78 Sec	87	.13	-7.08	.27	.18
33	170.67 Sec	36	.10	9.62	.50	.50
34	227.56 Sec	33	.08	-77.26	.23	.13
35	341.33 Sec	24	.56	-9.79	.53	.47
36	455.11 Sec	21	.20	39.35	.31	.29
37	682.67 Sec	6	.11	63.29	.61	.67
38	910.22 Sec	9	.28	-101.00	.53	.23
39	1365.33 Sec	3	1.05	89.10	.89	.86
40	1820.44 Sec	3	.91	-25.74	.98	.96

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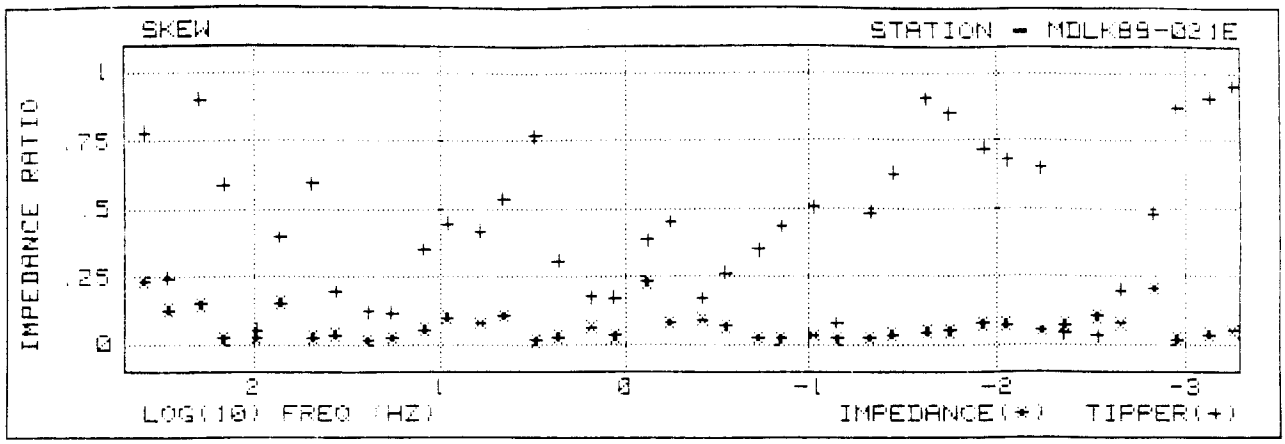

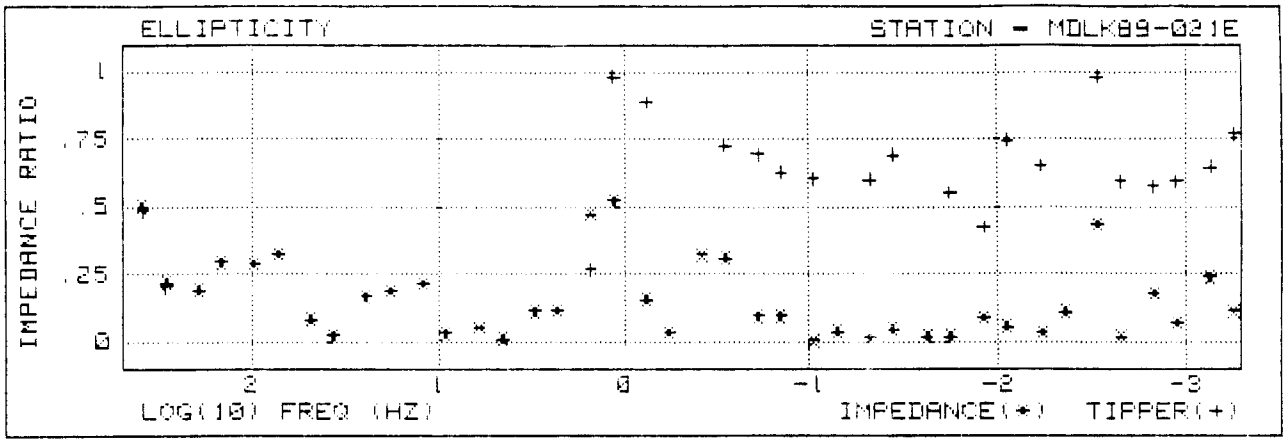

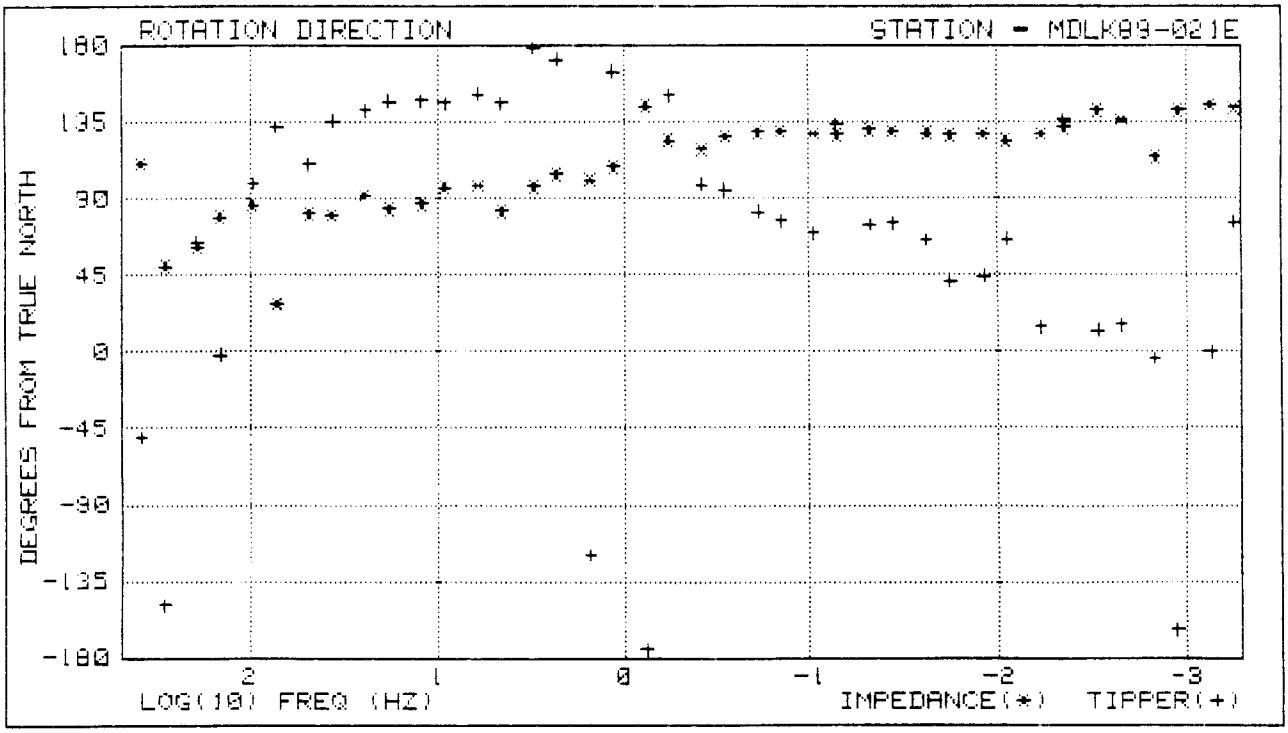

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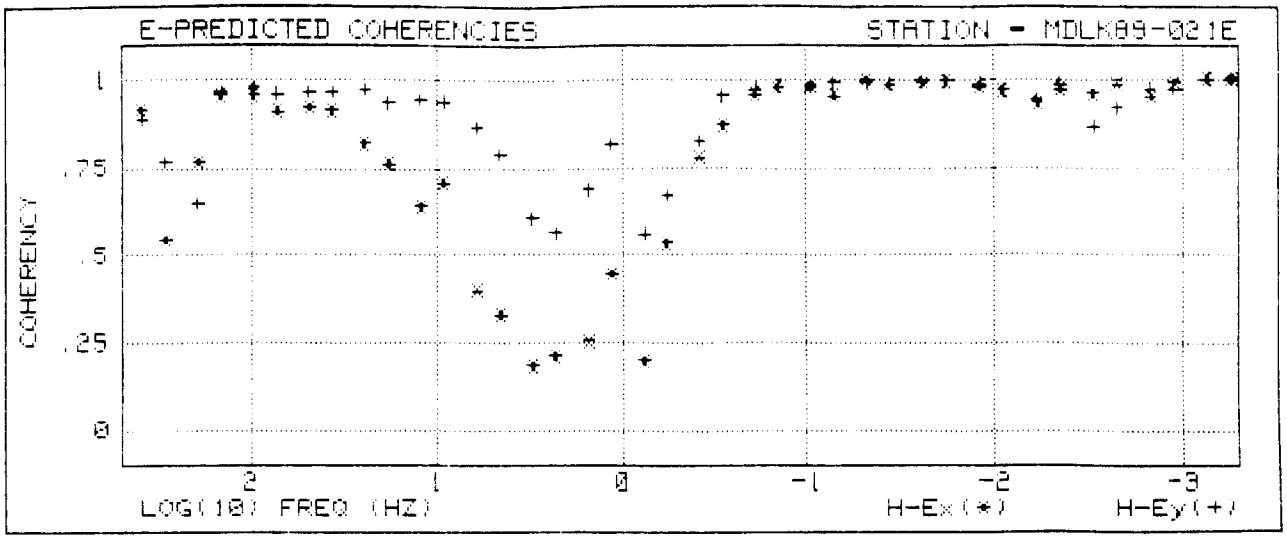
MT Site: MDLK89-021E

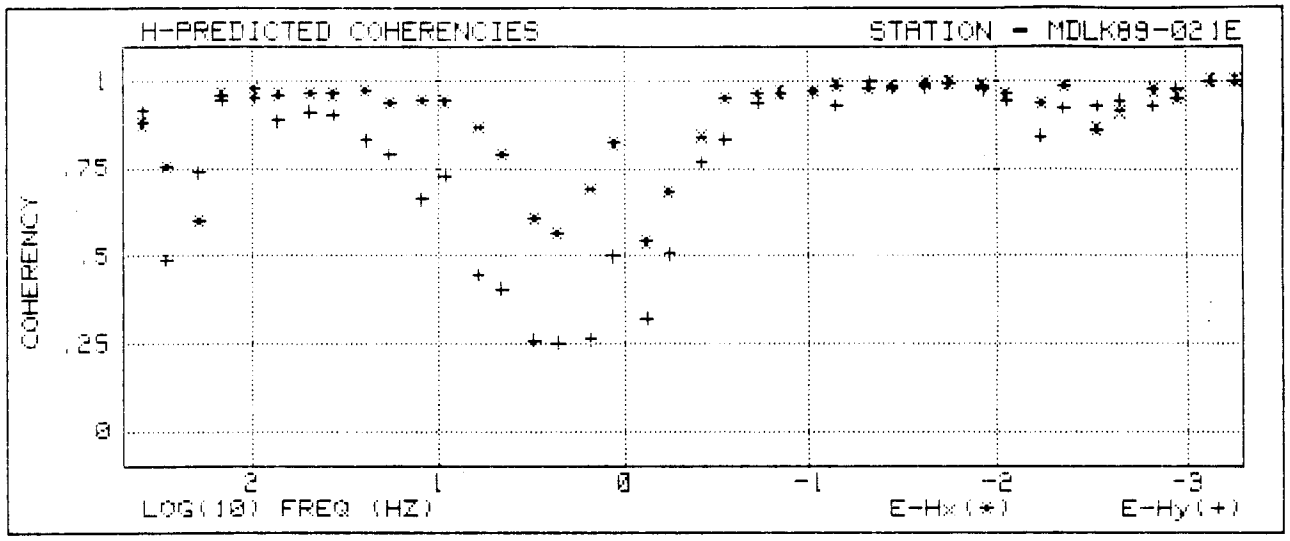
SKEW, ELLIPTICITY AND STRIKE

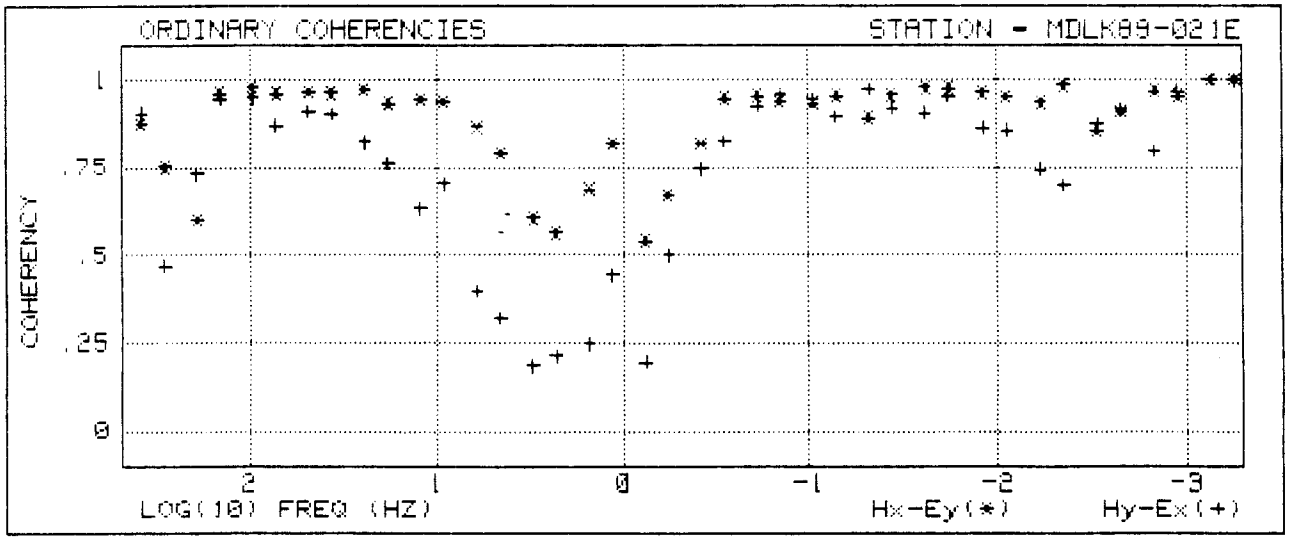
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	372	.23	.50	109.62	.78	.48	-50.87
2	288.00 Hz	190	.12	.22	49.73	.24	.20	-149.47
3	192.00 Hz	477	.15	.19	60.43	.89	1.56	63.91
4	144.00 Hz	667	.02	.29	78.19	.59	2.36	-2.59
5	96.00 Hz	477	.03	.29	85.65	.05	3.03	98.38
6	72.00 Hz	384	.15	.32	27.34	.39	3.08	131.28
7	48.00 Hz	667	.02	.08	80.17	.59	2.55	109.14
8	36.00 Hz	858	.03	.02	79.49	.20	2.10	135.00
9	24.00 Hz	672	.01	.16	90.82	.12	1.19	141.22
10	18.00 Hz	864	.02	.18	83.16	.12	1.96	146.54
11	12.00 Hz	864	.05	.21	86.05	.35	1.68	146.98
12	9.00 Hz	672	.10	.03	95.79	.44	1.13	145.37
13	6.00 Hz	864	.08	.05	96.68	.41	1.33	150.88
14	4.50 Hz	672	.10	.01	81.78	.53	1.72	145.65
15	3.00 Hz	7456	.01	.11	96.12	.76	1.95	177.93
16	2.25 Hz	5920	.03	.11	103.30	.31	2.29	170.92
17	1.50 Hz	4448	.06	.47	99.88	.17	.26	-120.26
18	1.13 Hz	2944	.03	.52	107.88	.17	.98	163.77
19	1.33 Sec	2628	.23	.15	143.28	.38	.88	-175.57
20	1.78 Sec	2980	.08	.03	123.35	.45	1.28	149.81
21	2.67 Sec	744	.09	.32	118.09	.17	1.16	97.17
22	3.56 Sec	1673	.06	.31	125.75	.26	.72	94.53
23	5.33 Sec	729	.02	.09	127.99	.34	.69	81.37
24	7.11 Sec	645	.02	.09	128.58	.43	.62	76.02
25	10.67 Sec	318	.03	.00	127.21	.50	.60	68.97
26	14.22 Sec	360	.02	.03	126.56	.07	8.52	132.90
27	21.33 Sec	138	.02	.01	129.69	.48	.60	73.80
28	28.44 Sec	126	.03	.04	128.41	.62	.69	74.55
29	42.67 Sec	228	.04	.01	127.37	.90	1.18	64.72
30	56.89 Sec	204	.05	.02	126.55	.84	.55	40.56
31	85.33 Sec	78	.07	.08	126.92	.71	.42	43.51
32	113.78 Sec	87	.07	.05	123.37	.67	.74	65.45
33	170.67 Sec	36	.05	.03	127.24	.64	.65	13.71
34	227.56 Sec	33	.07	.11	131.17	.04	4.23	135.63
35	341.33 Sec	24	.10	.43	141.07	.03	.98	12.01
36	455.11 Sec	21	.07	.02	135.58	.20	.59	15.42
37	682.67 Sec	6	.20	.18	113.52	.48	.57	-4.68
38	910.22 Sec	9	.02	.07	141.12	.87	.59	-164.25
39	1365.33 Sec	3	.03	.24	144.36	.91	.64	-.64
40	1820.44 Sec	3	.04	.11	142.60	.95	.76	75.48

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E







PHOENIX GEOSCIENCE

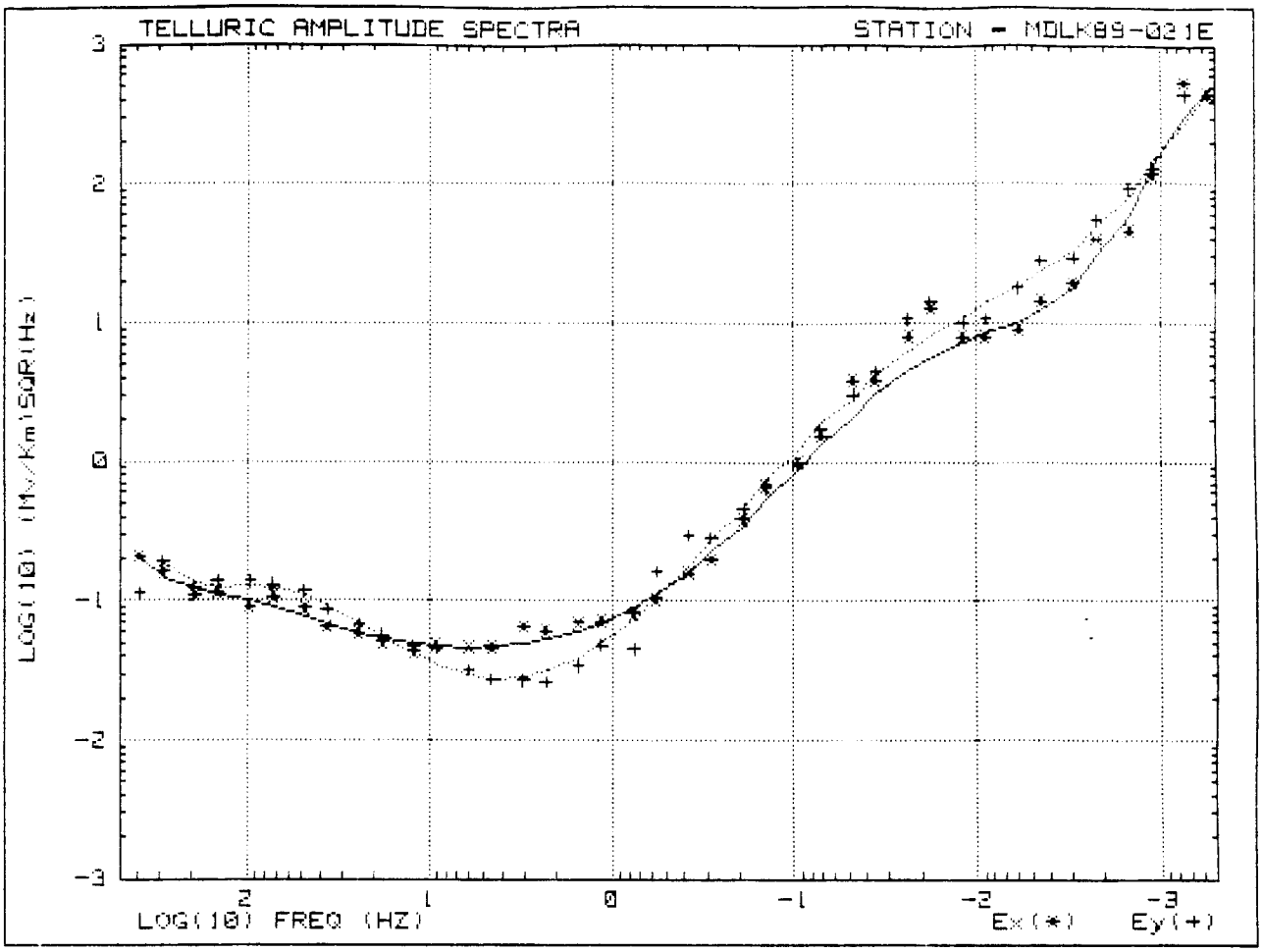
MT Site: MDLK89-021E

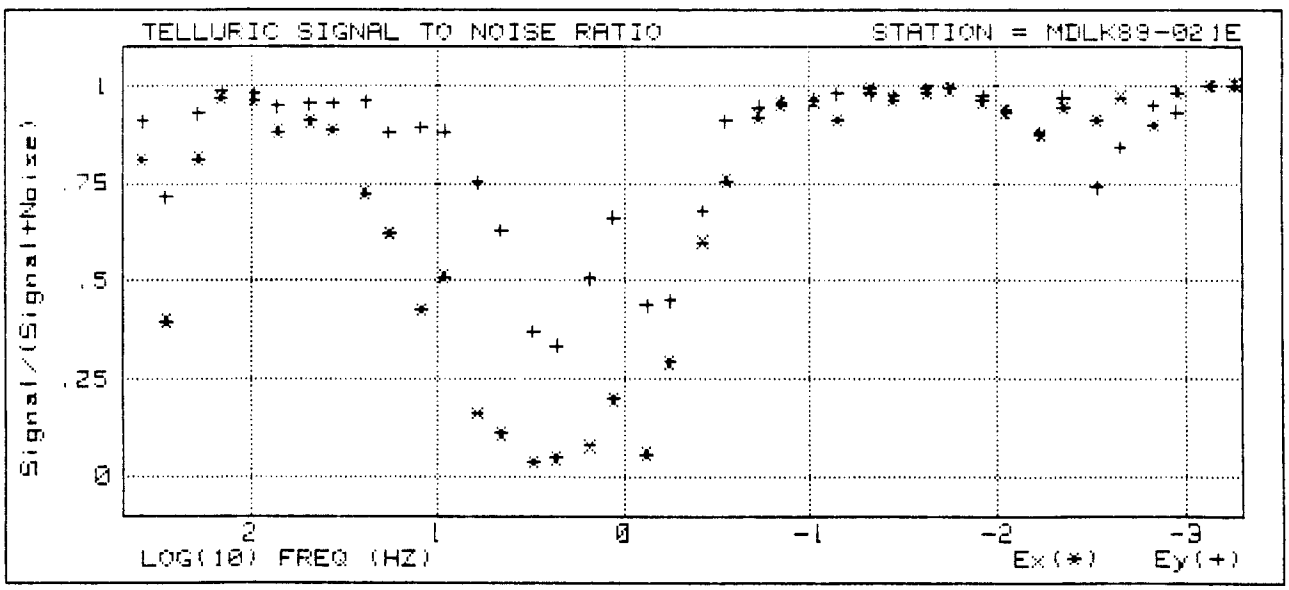
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	372	.91	.89	.88	.91	.87	.90
2	288.00 Hz	190	.54	.76	.75	.49	.75	.47
3	192.00 Hz	477	.76	.65	.60	.73	.60	.73
4	144.00 Hz	667	.95	.96	.96	.94	.96	.94
5	96.00 Hz	477	.95	.98	.98	.95	.98	.95
6	72.00 Hz	384	.91	.96	.96	.88	.96	.87
7	48.00 Hz	667	.92	.96	.96	.91	.96	.91
8	36.00 Hz	858	.91	.96	.96	.90	.96	.90
9	24.00 Hz	672	.82	.97	.97	.83	.97	.82
10	18.00 Hz	864	.76	.93	.93	.79	.93	.76
11	12.00 Hz	864	.64	.94	.94	.66	.94	.63
12	9.00 Hz	672	.70	.94	.94	.72	.93	.70
13	6.00 Hz	864	.40	.86	.86	.44	.86	.39
14	4.50 Hz	672	.33	.79	.79	.40	.79	.32
15	3.00 Hz	7456	.18	.60	.60	.26	.60	.18
16	2.25 Hz	5920	.21	.56	.56	.25	.56	.21
17	1.50 Hz	4448	.25	.69	.69	.26	.68	.24
18	1.13 Hz	2944	.44	.81	.82	.50	.81	.44
19	1.33 Sec	2628	.19	.56	.54	.32	.54	.19
20	1.78 Sec	2980	.53	.67	.68	.50	.67	.50
21	2.67 Sec	744	.77	.82	.84	.76	.81	.74
22	3.56 Sec	1673	.87	.95	.95	.83	.94	.82
23	5.33 Sec	729	.96	.97	.96	.94	.95	.92
24	7.11 Sec	645	.97	.98	.96	.96	.93	.95
25	10.67 Sec	318	.98	.98	.97	.97	.93	.94
26	14.22 Sec	360	.95	.99	.98	.93	.95	.89
27	21.33 Sec	138	1.00	.99	.98	.99	.89	.97
28	28.44 Sec	126	.98	.99	.98	.98	.95	.91
29	42.67 Sec	228	.99	.99	.99	.98	.97	.90
30	56.89 Sec	204	.99	1.00	.99	.99	.97	.95
31	85.33 Sec	78	.98	.99	.98	.97	.96	.86
32	113.78 Sec	87	.97	.97	.96	.94	.95	.85
33	170.67 Sec	36	.93	.94	.93	.84	.93	.74
34	227.56 Sec	33	.97	.98	.98	.92	.98	.70
35	341.33 Sec	24	.96	.87	.86	.93	.85	.87
36	455.11 Sec	21	.99	.92	.91	.94	.91	.91
37	682.67 Sec	6	.95	.97	.97	.93	.96	.79
38	910.22 Sec	9	.99	.97	.95	.98	.95	.96
39	1365.33 Sec	3	1.00	1.00	1.00	1.00	1.00	1.00
40	1820.44 Sec	3	1.00	1.00	1.00	1.00	1.00	.99

PHOENIX GEOSCIENCE

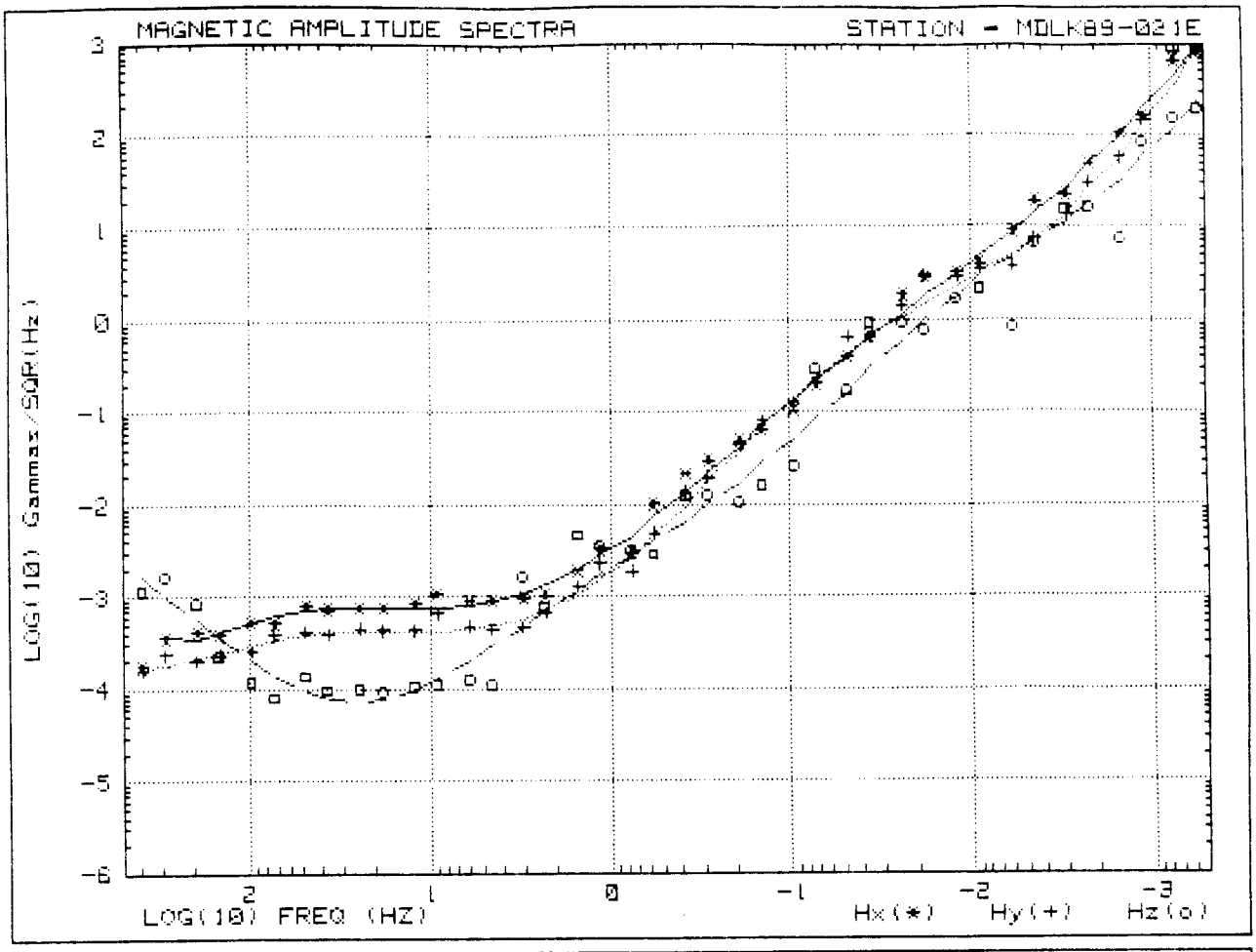
MT Site: MDLK89-021E

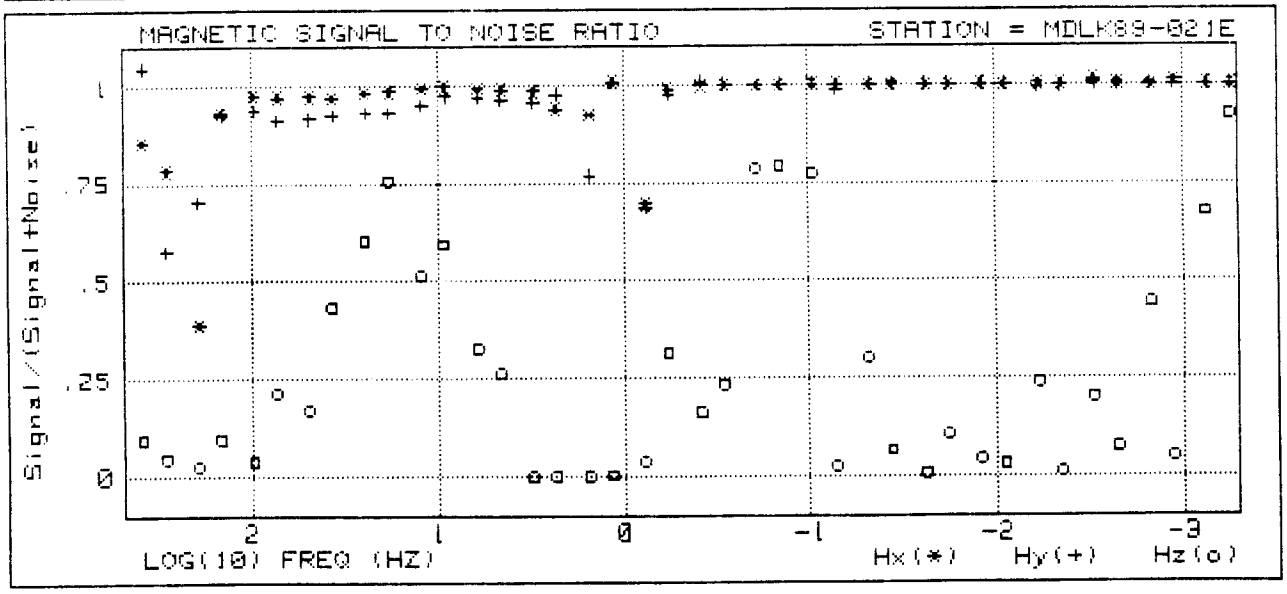




PHOENIX GEOSCIENCE

MT Site: MDLK89-021E





PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	372	1.71E-04	1.55E-04	1.22E-03	2.04E-01	1.12E-01
2	288.00 Hz	190	3.54E-04	2.32E-04	1.71E-03	1.58E-01	1.86E-01
3	192.00 Hz	477	4.10E-04	1.98E-04	8.77E-04	1.09E-01	1.21E-01
4	144.00 Hz	667	3.81E-04	2.27E-04	2.35E-04	1.13E-01	1.37E-01
5	96.00 Hz	477	5.19E-04	2.51E-04	1.22E-04	8.98E-02	1.36E-01
6	72.00 Hz	384	5.04E-04	3.77E-04	8.40E-05	1.05E-01	1.28E-01
7	48.00 Hz	667	7.88E-04	4.10E-04	1.44E-04	8.75E-02	1.16E-01
8	36.00 Hz	858	7.18E-04	3.85E-04	1.01E-04	6.48E-02	8.50E-02
9	24.00 Hz	672	7.38E-04	4.41E-04	1.04E-04	5.82E-02	6.58E-02
10	18.00 Hz	864	7.38E-04	4.22E-04	9.75E-05	5.01E-02	5.53E-02
11	12.00 Hz	864	8.27E-04	4.24E-04	1.13E-04	4.24E-02	4.63E-02
12	9.00 Hz	672	1.06E-03	6.45E-04	1.15E-04	4.77E-02	4.50E-02
13	6.00 Hz	864	8.94E-04	4.72E-04	1.34E-04	4.56E-02	3.14E-02
14	4.50 Hz	672	8.82E-04	4.35E-04	1.18E-04	4.55E-02	2.66E-02
15	3.00 Hz	7456	9.60E-04	4.61E-04	1.75E-03	6.48E-02	2.65E-02
16	2.25 Hz	5920	1.03E-03	6.55E-04	8.13E-04	6.01E-02	2.58E-02
17	1.50 Hz	4448	1.91E-03	1.27E-03	4.91E-03	6.89E-02	3.34E-02
18	1.13 Hz	2944	3.25E-03	2.25E-03	3.76E-03	7.07E-02	4.76E-02
19	1.33 Sec	2628	3.00E-03	1.84E-03	3.32E-03	8.12E-02	4.43E-02
20	1.78 Sec	2980	1.00E-02	4.82E-03	3.05E-03	1.02E-01	1.62E-01
21	2.67 Sec	744	2.09E-02	1.33E-02	1.29E-02	1.56E-01	2.93E-01
22	3.56 Sec	1673	2.92E-02	1.93E-02	1.30E-02	1.97E-01	2.83E-01
23	5.33 Sec	729	4.71E-02	4.42E-02	1.10E-02	3.85E-01	4.52E-01
24	7.11 Sec	645	6.25E-02	7.93E-02	1.64E-02	6.68E-01	6.39E-01
25	10.67 Sec	318	1.03E-01	1.27E-01	2.66E-02	9.84E-01	9.78E-01
26	14.22 Sec	360	2.00E-01	2.08E-01	3.09E-01	1.52E+00	1.71E+00
27	21.33 Sec	138	3.97E-01	6.56E-01	1.80E-01	3.82E+00	3.01E+00
28	28.44 Sec	126	6.66E-01	6.41E-01	1.01E+00	3.81E+00	4.43E+00
29	42.67 Sec	228	1.85E+00	1.42E+00	9.97E-01	7.87E+00	1.04E+01
30	56.89 Sec	204	2.88E+00	2.96E+00	8.27E-01	1.25E+01	1.39E+01
31	85.33 Sec	78	3.20E+00	2.92E+00	1.80E+00	7.80E+00	1.00E+01
32	113.78 Sec	87	3.92E+00	3.45E+00	2.33E+00	7.80E+00	1.07E+01
33	170.67 Sec	36	8.77E+00	3.72E+00	8.71E-01	8.84E+00	1.75E+01
34	227.56 Sec	33	1.85E+01	7.27E+00	7.24E+00	1.42E+01	2.76E+01
35	341.33 Sec	24	2.22E+01	1.38E+01	1.67E+01	1.95E+01	2.89E+01
36	455.11 Sec	21	4.85E+01	3.04E+01	1.76E+01	3.97E+01	5.49E+01
37	682.67 Sec	6	1.05E+02	5.65E+01	8.11E+00	4.53E+01	9.02E+01
38	910.22 Sec	9	1.59E+02	1.42E+02	8.80E+01	1.16E+02	1.28E+02
39	1365.33 Sec	3	6.33E+02	7.95E+02	1.61E+02	5.34E+02	4.30E+02
40	1820.44 Sec	3	8.11E+02	8.22E+02	2.07E+02	4.44E+02	4.35E+02

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	372	.854	1.000	.096	.808	.907
2	288.00 Hz	190	.782	.576	.051	.396	.712
3	192.00 Hz	477	.386	.702	.029	.811	.926
4	144.00 Hz	667	.929	.924	.101	.966	.986
5	96.00 Hz	477	.974	.935	.040	.962	.977
6	72.00 Hz	384	.969	.910	.219	.880	.945
7	48.00 Hz	667	.970	.914	.173	.907	.951
8	36.00 Hz	858	.966	.922	.439	.884	.954
9	24.00 Hz	672	.979	.928	.611	.722	.958
10	18.00 Hz	864	.984	.929	.762	.620	.879
11	12.00 Hz	864	.991	.947	.518	.426	.891
12	9.00 Hz	672	.995	.970	.599	.510	.880
13	6.00 Hz	864	.992	.968	.333	.161	.750
14	4.50 Hz	672	.988	.962	.268	.109	.626
15	3.00 Hz	7456	.983	.955	.001	.034	.368
16	2.25 Hz	5920	.937	.974	.005	.045	.334
17	1.50 Hz	4448	.923	.768	.006	.077	.504
18	1.13 Hz	2944	1.000	1.000	.007	.196	.659
19	1.33 Sec	2628	.694	.683	.041	.055	.436
20	1.78 Sec	2980	.988	.975	.320	.290	.449
21	2.67 Sec	744	.996	1.000	.165	.597	.676
22	3.56 Sec	1673	.999	1.000	.239	.755	.908
23	5.33 Sec	729	.997	.998	.791	.919	.944
24	7.11 Sec	645	.998	1.000	.797	.950	.957
25	10.67 Sec	318	1.000	1.000	.777	.958	.963
26	14.22 Sec	360	.999	.986	.030	.909	.976
27	21.33 Sec	138	.998	1.000	.307	.990	.977
28	28.44 Sec	126	.998	1.000	.070	.963	.972
29	42.67 Sec	228	.998	1.000	.013	.981	.990
30	56.89 Sec	204	.998	1.000	.109	.990	.992
31	85.33 Sec	78	1.000	.999	.050	.958	.972
32	113.78 Sec	87	.999	1.000	.038	.931	.933
33	170.67 Sec	36	1.000	.994	.246	.872	.876
34	227.56 Sec	33	1.000	.997	.018	.941	.968
35	341.33 Sec	24	1.000	1.000	.208	.909	.738
36	455.11 Sec	21	1.000	1.000	.082	.968	.841
37	682.67 Sec	6	.998	1.000	.449	.896	.947
38	910.22 Sec	9	1.000	.999	.054	.980	.931
39	1365.33 Sec	3	1.000	1.000	.681	.998	.999
40	1820.44 Sec	3	1.000	1.000	.930	.999	1.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-021E

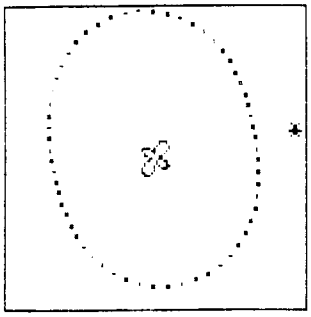
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

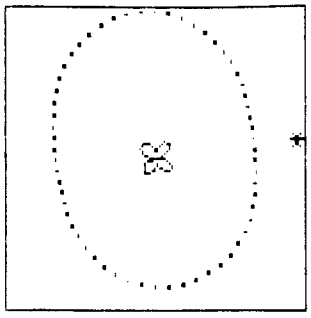
*=Rotation Direction

Zxy = ...
Zxx = ___

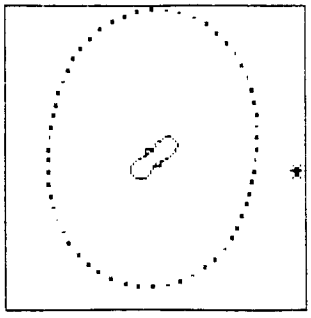
F=8 (36.0 Hz)



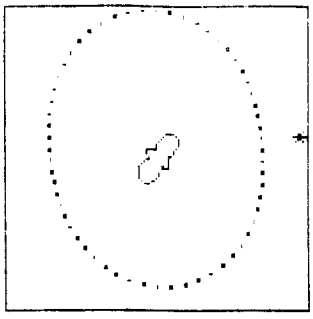
F=10 (18.0 Hz)



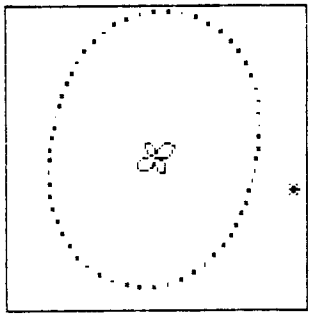
F=12 (9.0 Hz)



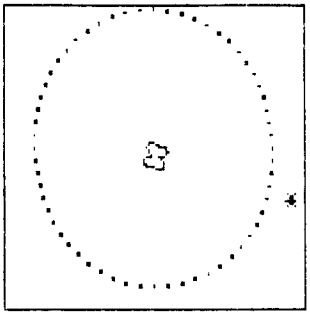
F=14 (4.5 Hz)



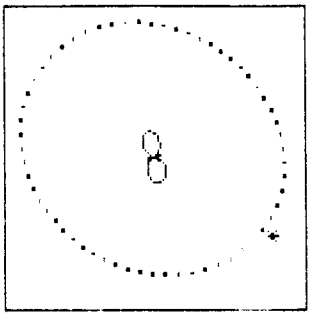
F=16 (2.3 Hz)



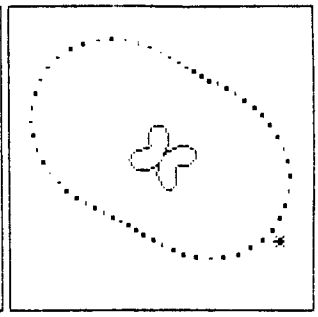
F=18 (1.1 Hz)



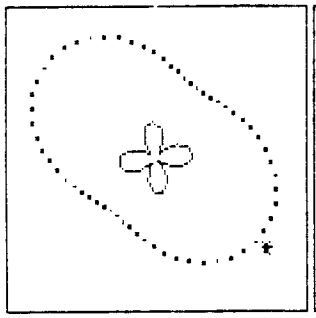
F=20 (.5625 Hz)



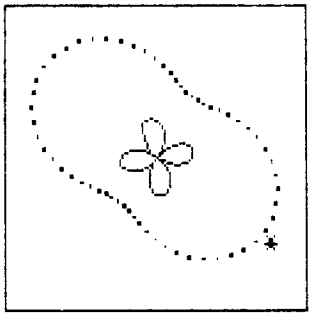
F=22 (.2813 Hz)



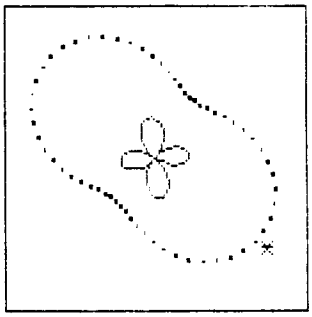
F=24 (.1406 Hz)



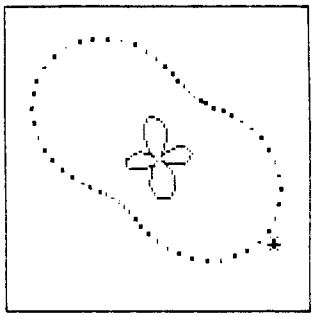
F=26 (.0703 Hz)



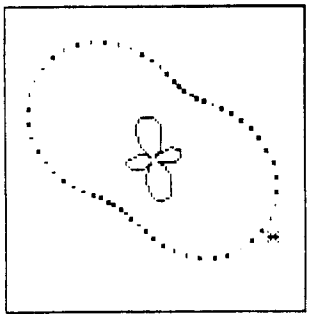
F=28 (.0352 Hz)



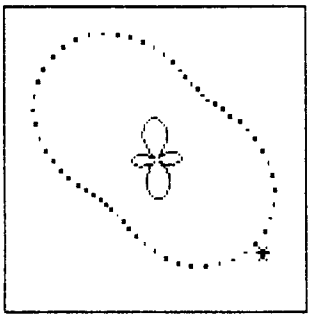
F=30 (.0176 Hz)



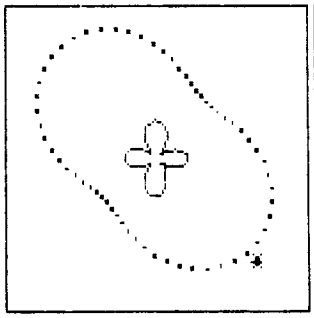
F=32 (.0088 Hz)



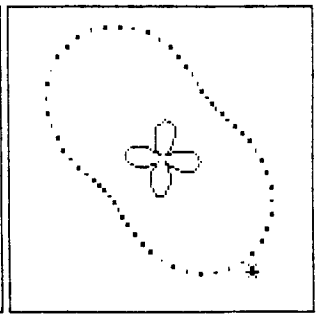
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-022s/041s/010f/

Operator:M. SNOW
Date: 21 Aug 1989
Time: 19:39:23

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#205-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 1

Stn Number:MDLK89-022s
Site Desc:T43N R4E
41,34,44 N 121,31,12 W
Elevation:7700 FT
Reference:MDLK89-041s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE222
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL452	+45 DEG
Hy	2	COIL205	+135 DEG
Hz	3	LOOP005	Doubled
Ex	4	192 M	+45 DEG
Ey	5	183 M	+135 DEG
Rx	6	COIL235	+45 DEG
Ry	7	COIL432	+135 DEG

Ex Pot Resist: 28.0K Ohms
Ex Voltage: AC=21.5 mv, DC=134.0 mv
Ey Pot Resist: 22.0K Ohms
Ey Voltage: AC=14.3 mv, DC=85.2 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

OPERATOR LOG FOR MT SITES MDLK89-022a/041a/010a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-022a/041a/010a/
Run STARTED: 19:39:23 21 Aug 1989
Run QUIT: 08:48:43 22 Aug 1989
Run Start and Stop Time for MDLK89-022b/041b/010b/
Run STARTED: 14:27:17 22 Aug 1989
Run QUIT: 23:16:37 22 Aug 1989
Run Start and Stop Time for MDLK89-022c/041c/010c/
Run STARTED: 00:54:12 23 Aug 1989
Run QUIT: 14:03:58 23 Aug 1989
Run Start and Stop Time for MDLK89-022d/041d/010d/
Run STARTED: 15:10:46 23 Aug 1989
Run QUIT: 09:01:32 24 Aug 1989

Operator:SNOW/WUNDERMAN

Cultural Factors:
Weather Conditions:
SOME RAIN AND FOG--COOL.
Other Factors:
LOW SIGNAL LEVEL

PHOENIX GEOSCIENCE

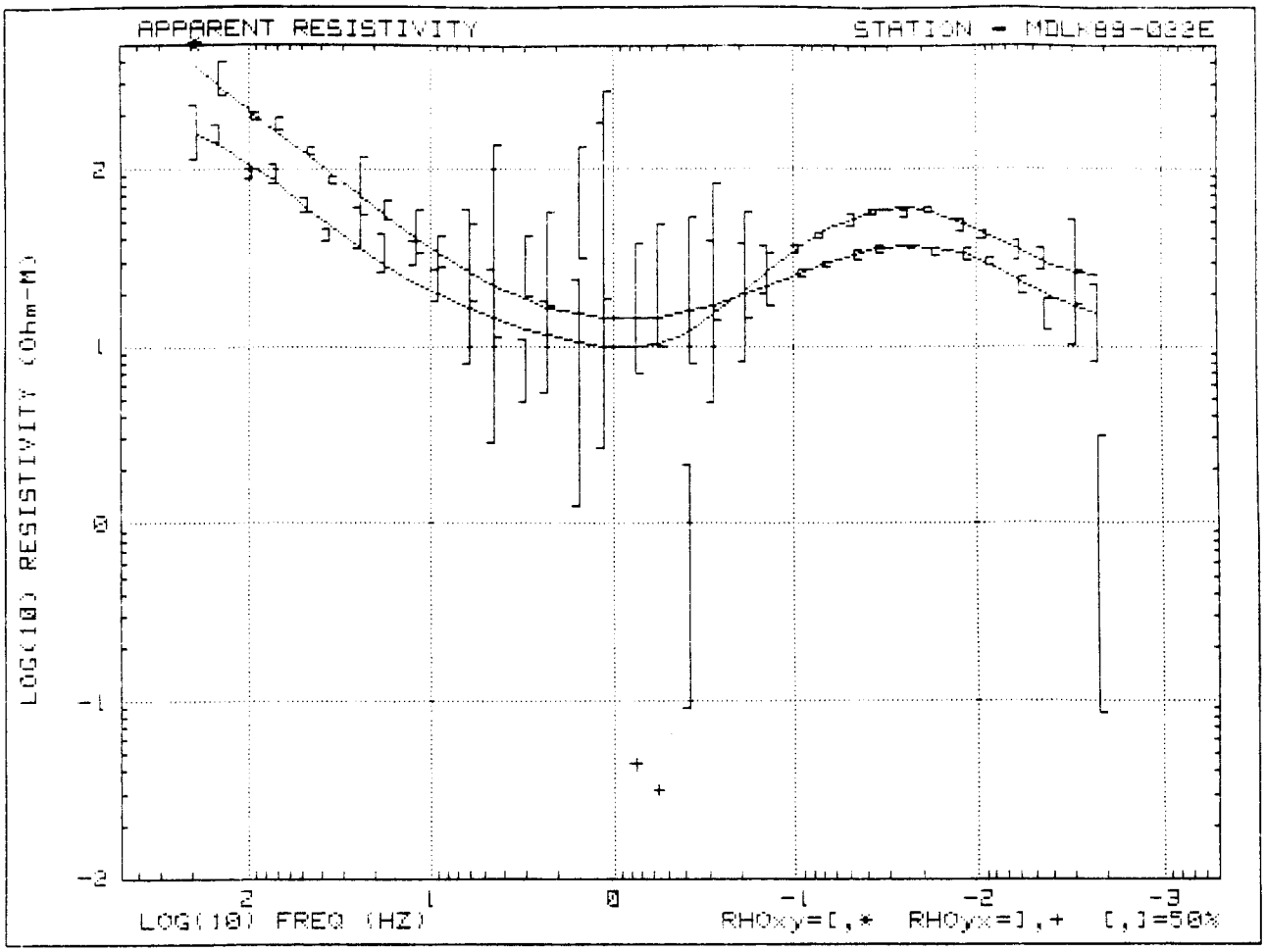
MT Site: MDLK89-022E

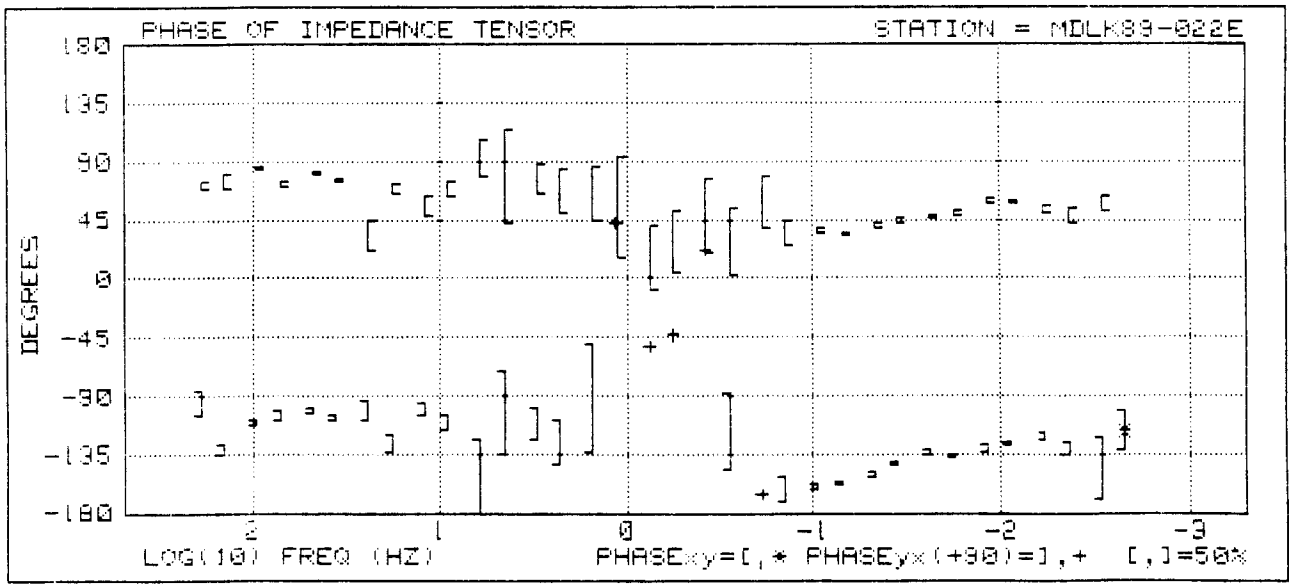
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

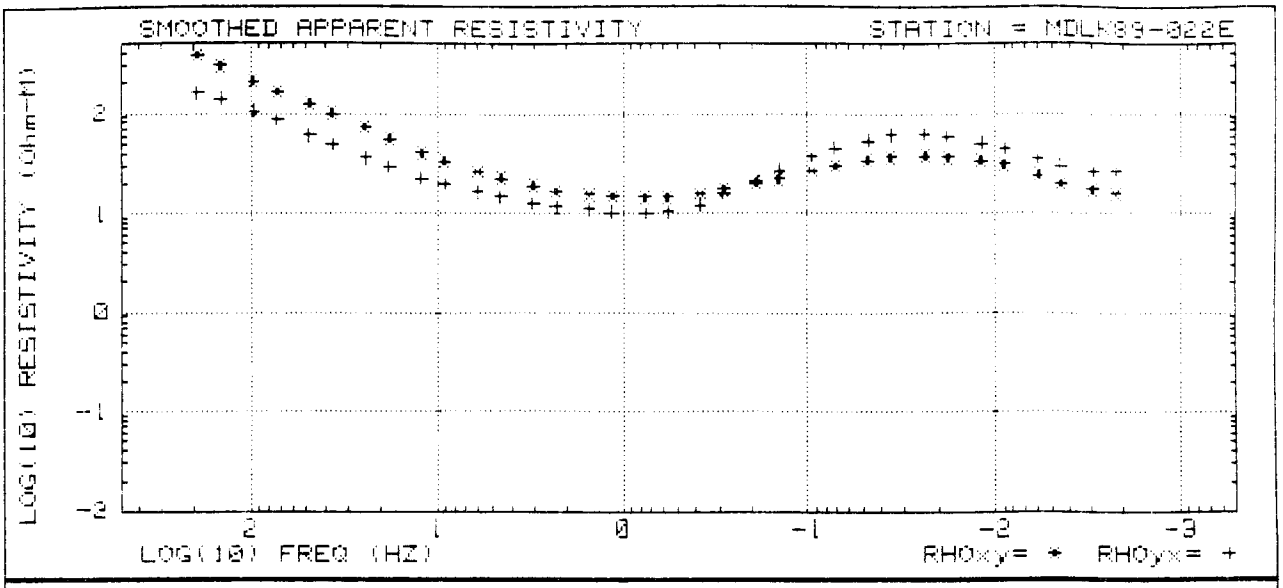
MT Site: MDLK89-022E

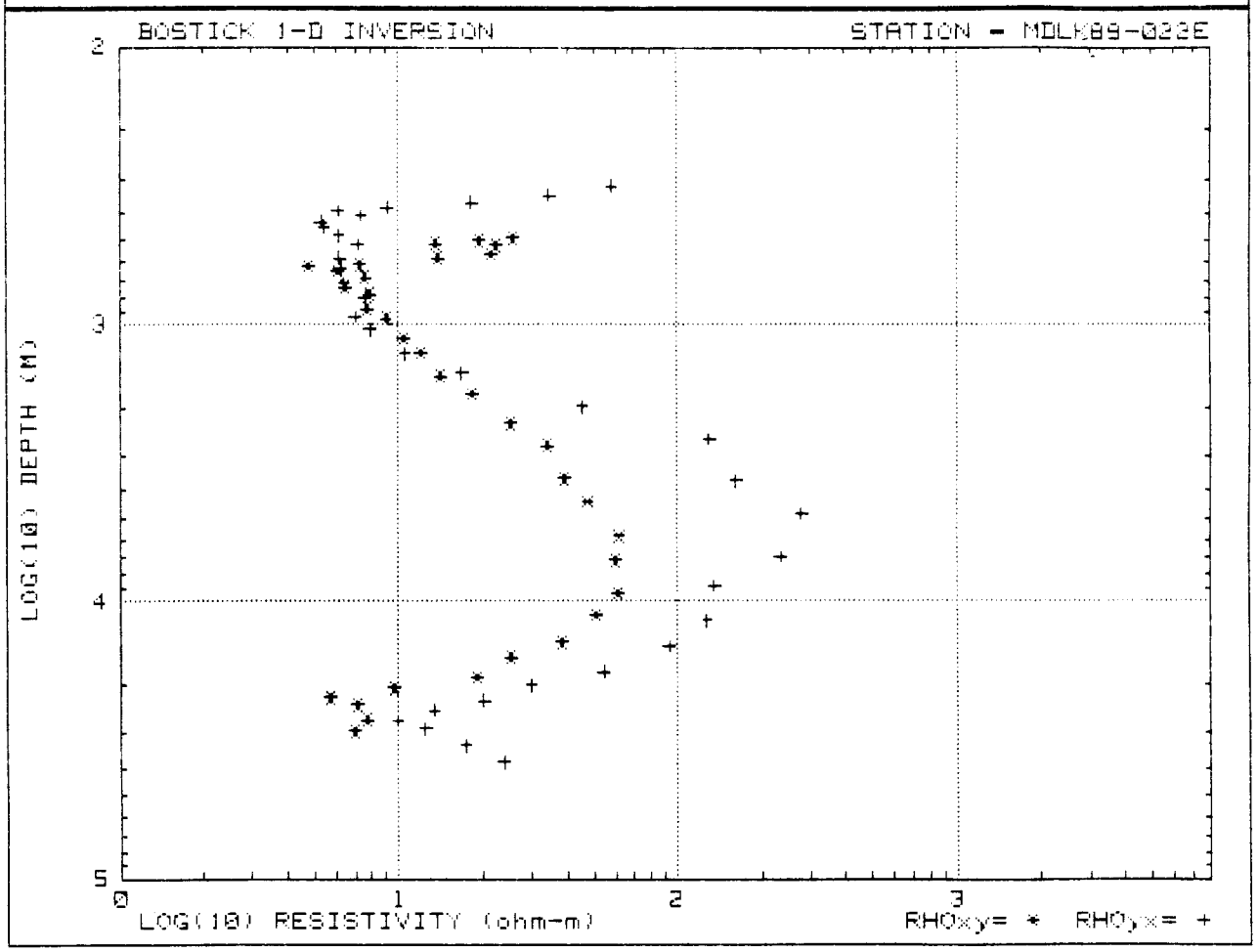




PHOENIX GEOSCIENCE

MT Site: MDLK89-022E





PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	263	498.0	18.0	160.2	69.7	72.2	4.7	-95.6	15.2
4	144.00 Hz	1723	320.8	37.2	158.0	19.9	75.0	9.1	-130.7	5.2
5	96.00 Hz	864	194.8	6.0	95.0	9.6	85.6	1.7	-111.2	2.6
6	72.00 Hz	336	180.6	11.8	93.4	20.6	72.2	3.2	-105.5	5.4
7	48.00 Hz	957	126.5	5.7	62.6	12.8	81.0	1.6	-101.4	3.4
8	36.00 Hz	431	87.4	6.4	42.7	11.9	75.7	1.8	-106.4	3.2
9	24.00 Hz	946	80.8	75.1	46.6	49.2	33.2	16.0	-100.8	11.5
10	18.00 Hz	2164	59.1	21.9	33.1	44.9	68.2	5.7	-126.4	10.6
11	12.00 Hz	2010	45.0	51.9	33.7	27.0	55.5	12.0	-101.0	6.8
12	9.00 Hz	1534	34.0	36.1	21.7	35.0	69.1	8.8	-110.2	8.6
13	6.00 Hz	1343	30.0	99.9	21.5	99.9	92.1	21.4	-151.4	42.5
14	4.50 Hz	1535	39.7	99.9	8.8	99.9	78.5	53.3	-102.9	48.5
15	3.00 Hz	1184	28.4	77.3	7.3	84.8	76.1	16.4	-111.3	17.6
16	2.25 Hz	2368	30.9	99.9	10.0	99.9	66.7	26.2	-125.4	25.4
17	1.50 Hz	6384	65.2	99.9	5.5	99.9	65.8	30.8	-91.6	62.6
18	1.13 Hz	2224	70.8	99.9	21.8	99.9	54.5	57.9	41.8	90.4
19	1.33 Sec	10181	16.2	99.9	.04	99.9	15.4	36.1	-52.5	99.9
20	1.78 Sec	12101	22.0	99.9	.03	99.9	28.4	34.1	-44.2	99.9
21	2.67 Sec	4798	20.7	99.9	.44	99.9	48.2	41.3	21.4	67.6
22	3.56 Sec	192	34.4	99.9	13.7	99.9	28.3	38.1	-117.6	44.5
23	5.33 Sec	688	28.8	99.9	17.5	99.9	58.5	29.3	-166.0	32.5
24	7.11 Sec	616	23.8	64.0	26.7	59.0	35.4	14.2	-161.6	13.3
25	10.67 Sec	784	25.6	8.5	35.0	8.2	36.5	2.3	-159.4	2.3
26	14.22 Sec	814	28.8	4.9	41.3	4.1	34.3	1.4	-157.5	1.1
27	21.33 Sec	388	32.4	10.7	51.2	10.5	41.2	2.9	-149.7	2.9
28	28.44 Sec	514	35.3	7.1	57.2	6.4	44.0	2.0	-141.9	1.8
29	42.67 Sec	184	36.4	4.1	55.8	6.2	47.7	1.2	-133.3	1.7
30	56.89 Sec	136	34.0	5.2	59.1	4.4	50.0	1.4	-135.4	1.2
31	85.33 Sec	39	33.4	12.7	48.5	13.5	59.5	3.4	-130.4	3.6
32	113.78 Sec	84	30.0	6.1	42.8	7.4	58.0	1.7	-126.7	2.0
33	170.67 Sec	78	22.1	16.3	34.8	20.4	52.3	4.3	-121.0	5.3
34	227.56 Sec	63	15.1	35.8	31.0	25.2	48.7	8.8	-130.1	6.4
35	341.33 Sec	12	21.7	37.7	23.2	99.9	57.3	9.2	-145.9	34.6
36	455.11 Sec	60	.52	99.9	13.4	99.9	-117.8	77.0	-116.2	21.5

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	263	371.9	156.4	25.8	495	58.4	321
4	144.00 Hz	1723	289.6	137.2	19.5	505	34.8	347
5	96.00 Hz	864	203.0	103.5	13.6	518	18.3	370
6	72.00 Hz	336	157.9	84.5	22.4	527	9.1	386
7	48.00 Hz	957	120.6	59.3	21.6	564	6.1	395
8	36.00 Hz	431	97.5	48.1	14.0	586	7.4	411
9	24.00 Hz	946	71.7	35.7	7.3	615	5.3	434
10	18.00 Hz	2164	55.4	28.8	4.8	624	5.5	450
11	12.00 Hz	2010	40.0	22.2	6.1	650	6.2	484
12	9.00 Hz	1534	33.3	19.5	7.7	684	7.2	523
13	6.00 Hz	1343	26.0	16.2	6.5	740	6.2	584
14	4.50 Hz	1535	22.0	14.3	7.9	786	6.3	634
15	3.00 Hz	1184	18.7	12.3	7.8	889	6.4	722
16	2.25 Hz	2368	16.5	11.5	9.1	964	7.6	805
17	1.50 Hz	6384	15.3	10.7	10.6	1137	7.0	951
18	1.13 Hz	2224	14.5	10.0	12.1	1279	8.0	1059
19	1.33 Sec	10181	14.4	9.9	14.1	1558	10.6	1294
20	1.78 Sec	12101	14.5	10.2	18.4	1804	17.0	1516
21	2.67 Sec	4798	15.6	11.8	25.4	2296	46.0	1995
22	3.56 Sec	192	17.1	15.4	34.3	2771	131.3	2633
23	5.33 Sec	688	19.7	20.4	39.5	3648	163.9	3710
24	7.11 Sec	616	21.5	26.4	47.8	4400	281.1	4877
25	10.67 Sec	784	25.6	36.2	62.0	5884	236.8	6992
26	14.22 Sec	814	28.7	44.0	59.9	7186	136.3	8899
27	21.33 Sec	388	32.7	51.6	61.1	9403	127.6	11809
28	28.44 Sec	514	35.4	59.0	51.3	11286	94.2	14576
29	42.67 Sec	184	37.2	60.5	38.6	14175	54.5	18085
30	56.89 Sec	136	35.8	56.9	25.5	16067	30.1	20244
31	85.33 Sec	39	33.1	48.9	19.1	18906	20.3	22982
32	113.78 Sec	84	29.8	42.7	9.7	20712	13.5	24809
33	170.67 Sec	78	23.3	34.1	5.8	22431	10.0	27151
34	227.56 Sec	63	19.6	29.2	7.2	23767	12.5	29031
35	341.33 Sec	12	16.9	25.8	7.8	27000	17.5	33428
36	455.11 Sec	60	15.2	25.6	7.0	29576	24.0	38415

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	263	25.27	-144.73	999.99	211.37	658.37	999.99
4	144.00 Hz	1723	-33.95	-101.51	999.99	124.04	464.29	999.99
5	96.00 Hz	864	30.11	-26.33	310.72	23.68	304.85	156.18
6	72.00 Hz	336	1.09	11.39	999.99	77.77	242.86	403.65
7	48.00 Hz	957	2.41	-.18	259.69	27.38	172.08	46.49
8	36.00 Hz	431	2.35	2.22	173.72	30.89	121.54	30.52
9	24.00 Hz	946	-19.52	24.70	999.99	82.42	53.85	999.99
10	18.00 Hz	2164	-2.79	.38	300.31	27.09	67.69	104.58
11	12.00 Hz	2010	-6.77	3.51	159.09	29.45	42.78	235.85
12	9.00 Hz	1534	-3.46	-.90	109.96	13.92	36.53	72.64
13	6.00 Hz	1343	-8.74	3.72	429.20	-1.12	29.97	251.29
14	4.50 Hz	1535	-11.33	-3.30	999.99	5.93	29.28	999.99
15	3.00 Hz	1184	.46	-2.58	99.43	4.96	20.03	69.83
16	2.25 Hz	2368	.16	-1.30	175.00	7.37	17.14	145.77
17	1.50 Hz	6384	1.66	-5.23	518.94	9.08	20.17	282.16
18	1.13 Hz	2224	-6.13	-8.59	999.99	11.60	16.25	813.40
19	1.33 Sec	10181	1.237	.555	9.710	7.519	2.073	48.377
20	1.78 Sec	12101	.924	.491	8.217	6.913	3.738	43.726
21	2.67 Sec	4798	1.353	-.590	7.707	4.153	4.646	40.285
22	3.56 Sec	192	1.350	-1.180	59.511	6.125	3.296	42.787
23	5.33 Sec	688	-.023	.450	18.736	2.711	4.428	14.123
24	7.11 Sec	616	.563	-.228	2.620	3.334	2.368	2.048
25	10.67 Sec	784	.785	.208	.047	2.786	2.064	.040
26	14.22 Sec	814	.740	.140	.010	2.626	1.793	.012
27	21.33 Sec	388	.690	.205	.035	2.073	1.817	.039
28	28.44 Sec	514	.754	.170	.012	1.793	1.729	.015
29	42.67 Sec	184	.557	.228	.010	1.391	1.527	.003
30	56.99 Sec	136	.398	.310	.004	1.112	1.324	.004
31	85.33 Sec	39	.316	.203	.037	.710	1.205	.014
32	113.78 Sec	84	.299	.151	.006	.609	.974	.002
33	170.67 Sec	78	.200	.185	.027	.492	.637	.007
34	227.56 Sec	63	.090	.164	.025	.381	.433	.016
35	341.33 Sec	12	.166	.115	.034	.304	.474	.016
36	455.11 Sec	60	-.165	.081	.058	-.035	-.067	.021

PHOENIX GEOSCIENCE

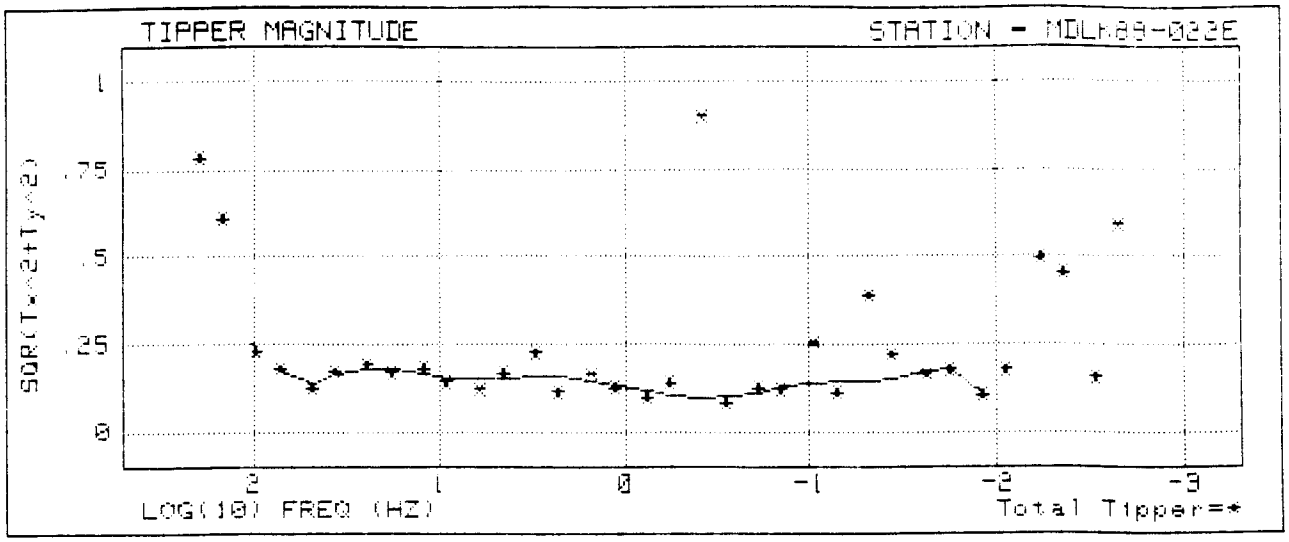
MT Site: MDLK89-022E

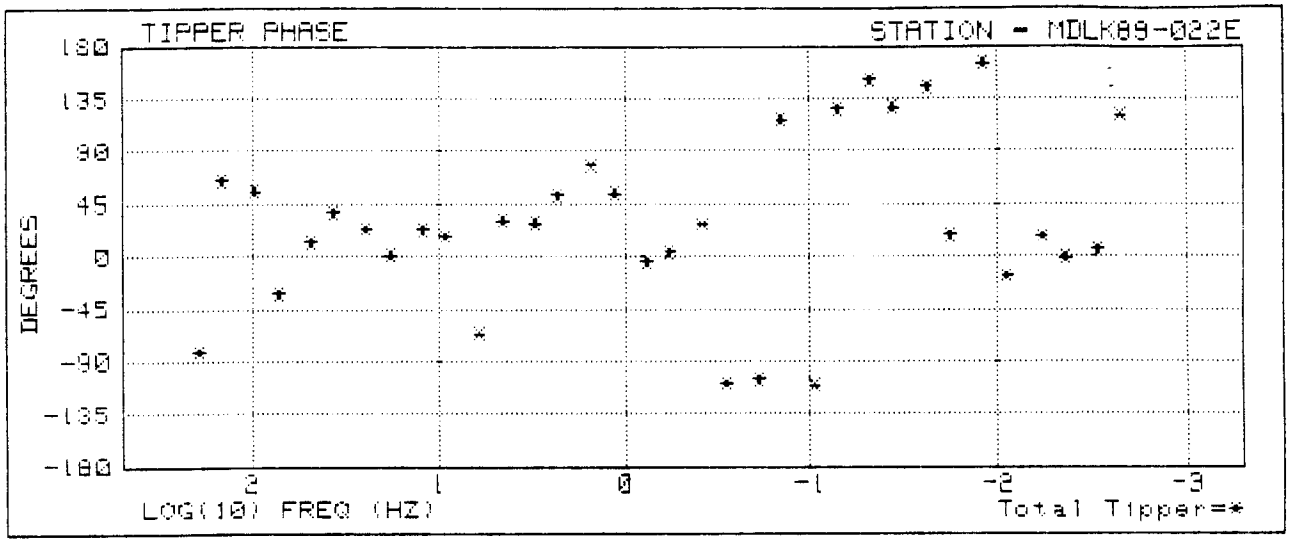
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

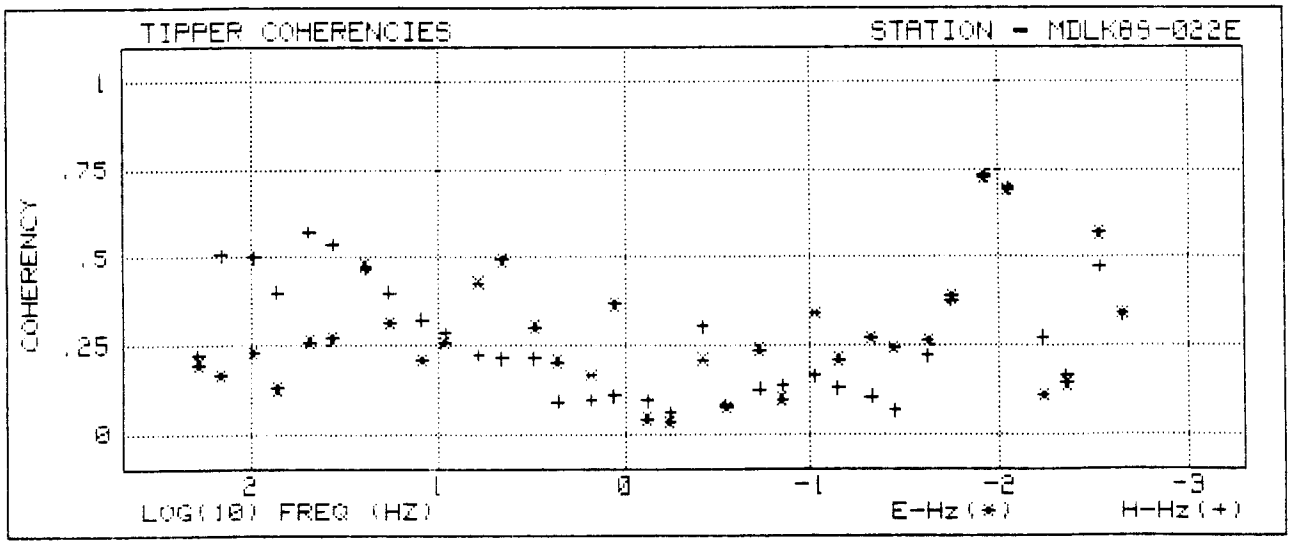
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	263	-38.36	-390.34	999.99	-75.02	-79.98	999.99
4	144.00 Hz	1723	-220.08	-255.58	999.99	22.42	-75.57	509.08
5	96.00 Hz	864	-77.24	-199.05	190.58	-1.48	-42.32	95.80
6	72.00 Hz	336	-49.17	-176.67	589.98	2.51	10.77	188.44
7	48.00 Hz	957	-24.22	-120.20	108.60	-12.95	.75	19.44
8	36.00 Hz	431	-24.77	-84.15	48.33	-2.79	3.06	8.49
9	24.00 Hz	946	-14.05	-73.41	446.80	-28.55	-6.85	624.84
10	18.00 Hz	2164	-32.43	-43.92	205.06	4.99	2.12	71.41
11	12.00 Hz	2010	-8.55	-44.15	57.60	-7.52	-8.05	85.40
12	9.00 Hz	1534	-10.78	-29.34	44.05	.61	-2.68	29.10
13	6.00 Hz	1343	-22.30	-12.18	711.90	-5.91	7.44	416.80
14	4.50 Hz	1535	-3.14	-13.69	283.22	-.70	-5.21	278.27
15	3.00 Hz	1184	-3.80	-9.74	20.64	-1.48	-2.36	14.49
16	2.25 Hz	2368	-6.16	-8.65	44.17	1.18	-1.45	36.79
17	1.50 Hz	6384	-.18	-6.42	98.59	-2.56	-2.50	53.61
18	1.13 Hz	2224	8.24	7.38	609.35	-5.02	-9.52	406.29
19	1.33 Sec	10181	.246	-.320	3.278	1.561	-.881	16.332
20	1.78 Sec	12101	.212	-.206	2.659	1.392	-.454	14.148
21	2.67 Sec	4798	.850	.333	2.324	-1.136	1.912	12.147
22	3.56 Sec	192	-2.029	-3.888	23.160	1.526	.039	16.651
23	5.33 Sec	688	-3.929	-.983	10.578	.239	.543	7.974
24	7.11 Sec	616	-4.112	-1.368	2.019	.759	-.076	1.578
25	10.67 Sec	784	-3.793	-1.425	.051	.670	.026	.044
26	14.22 Sec	814	-3.522	-1.456	.012	.763	.200	.014
27	21.33 Sec	388	-2.990	-1.750	.060	.708	.447	.068
28	28.44 Sec	514	-2.496	-1.955	.019	.621	.584	.023
29	42.67 Sec	184	-1.752	-1.862	.012	.429	.366	.004
30	56.89 Sec	136	-1.622	-1.602	.005	.422	.267	.005
31	85.33 Sec	39	-1.093	-1.282	.023	.286	.347	.009
32	113.78 Sec	84	-.820	-1.100	.005	.212	.297	.002
33	170.67 Sec	78	-.520	-.866	.018	.159	.190	.005
34	227.56 Sec	63	-.531	-.632	.017	.178	.097	.011
35	341.33 Sec	12	-.483	-.327	.248	.175	.126	.117
36	455.11 Sec	60	-.170	-.345	.042	.053	-.028	.015

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E







PHOENIX GEOSCIENCE

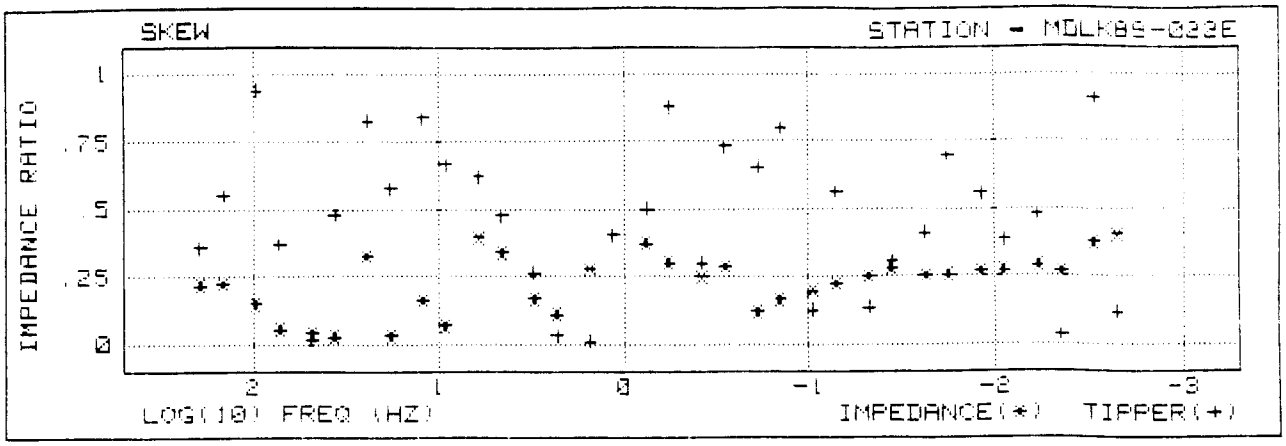
MT Site: MDLK89-022E

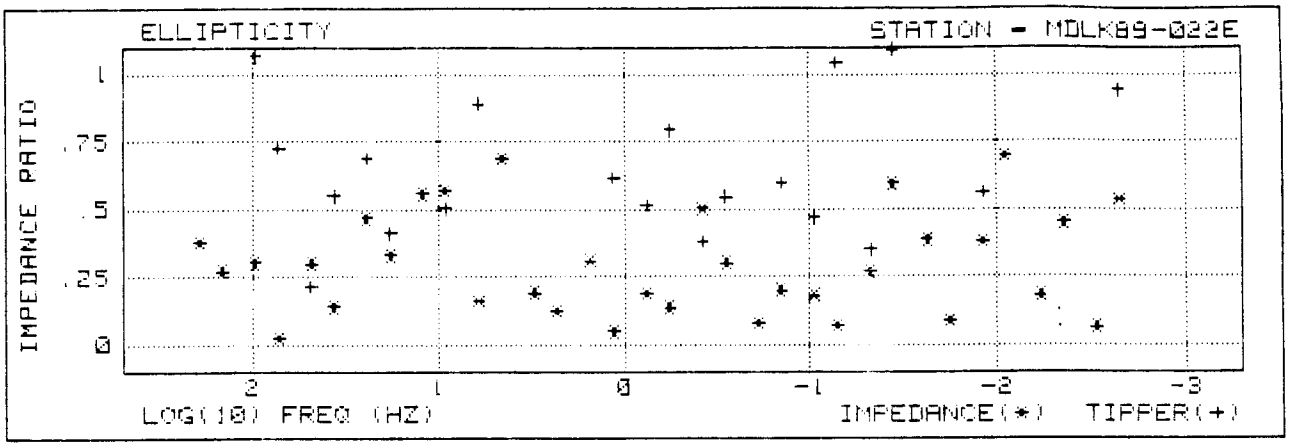
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

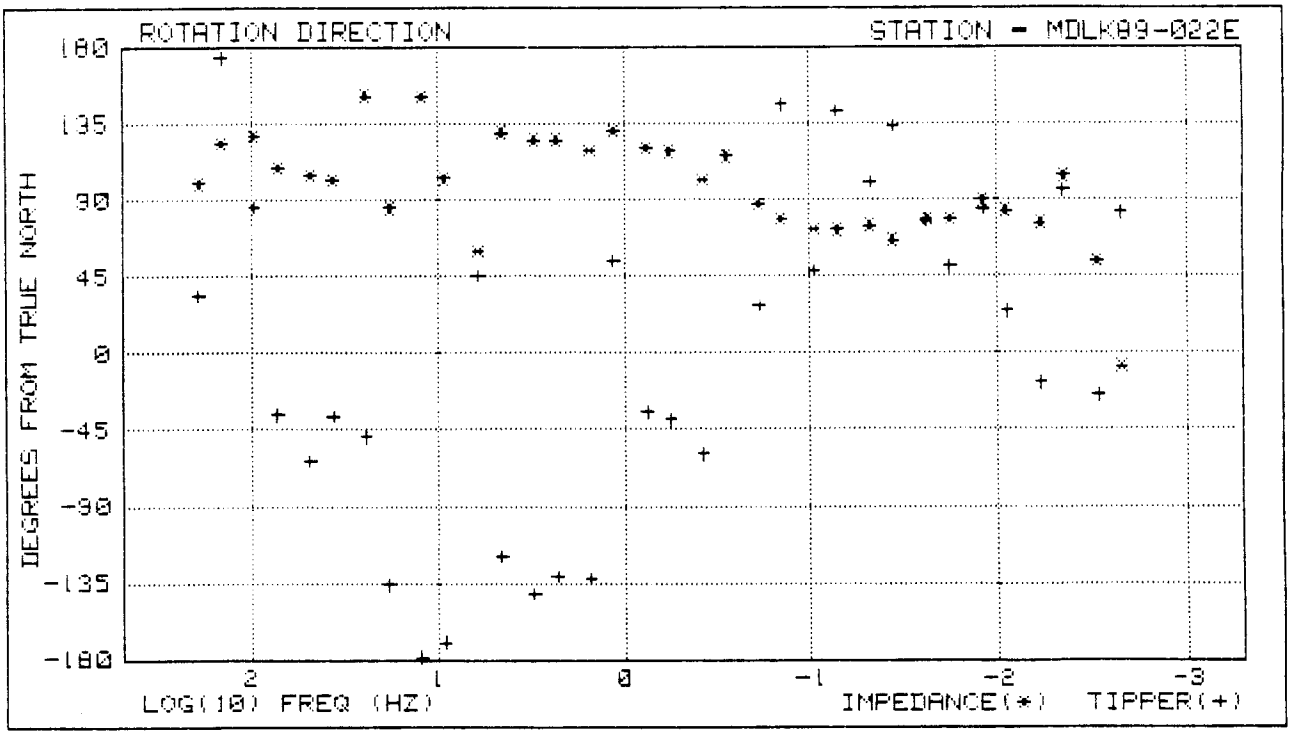
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	263	.78	-82.24	.19	.22
4	144.00 Hz	1723	.61	63.79	.16	.50
5	96.00 Hz	864	.23	54.83	.23	.50
6	72.00 Hz	336	.18	-32.68	.12	.39
7	48.00 Hz	957	.12	11.59	.25	.57
8	36.00 Hz	431	.17	36.47	.27	.53
9	24.00 Hz	946	.19	22.46	.47	.47
10	18.00 Hz	2164	.17	.22	.31	.40
11	12.00 Hz	2010	.18	21.93	.20	.32
12	9.00 Hz	1534	.14	16.38	.25	.28
13	6.00 Hz	1343	.12	-67.31	.42	.22
14	4.50 Hz	1535	.16	29.48	.49	.21
15	3.00 Hz	1184	.22	27.90	.30	.21
16	2.25 Hz	2368	.11	51.53	.20	.09
17	1.50 Hz	6384	.16	76.95	.16	.09
18	1.13 Hz	2224	.12	52.84	.36	.10
19	1.33 Sec	10181	.10	-5.19	.04	.09
20	1.78 Sec	12101	.14	3.14	.03	.06
21	2.67 Sec	4798	.90	26.80	.21	.30
22	3.56 Sec	192	.08	-109.94	.07	.08
23	5.33 Sec	688	.12	-106.13	.23	.12
24	7.11 Sec	616	.12	115.86	.09	.13
25	10.67 Sec	784	.25	-111.34	.34	.16
26	14.22 Sec	814	.11	125.14	.21	.12
27	21.33 Sec	388	.39	150.31	.27	.10
28	28.44 Sec	514	.22	126.60	.24	.06
29	42.67 Sec	184	.16	144.04	.26	.21
30	56.89 Sec	136	.17	17.54	.38	.37
31	85.33 Sec	39	.10	164.56	.72	.73
32	113.78 Sec	84	.17	-17.12	.69	.69
33	170.67 Sec	78	.49	16.65	.11	.27
34	227.56 Sec	63	.45	-1.78	.14	.16
35	341.33 Sec	12	.15	5.25	.57	.47
36	455.11 Sec	60	.59	120.47	.34	.33

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E







PHOENIX GEOSCIENCE

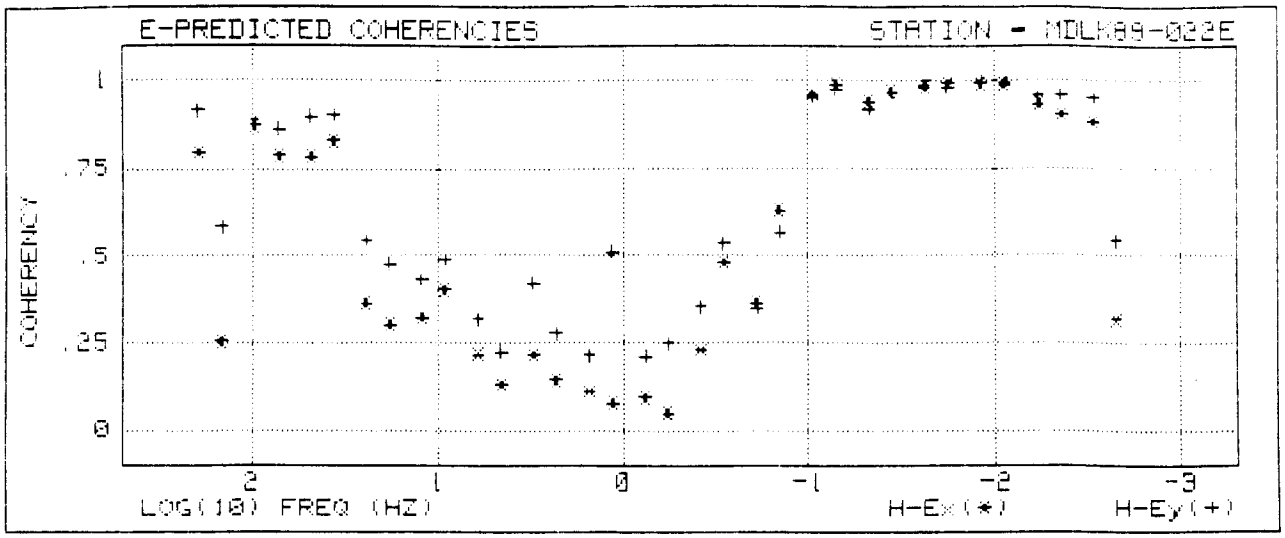
MT Site: MDLK89-022E

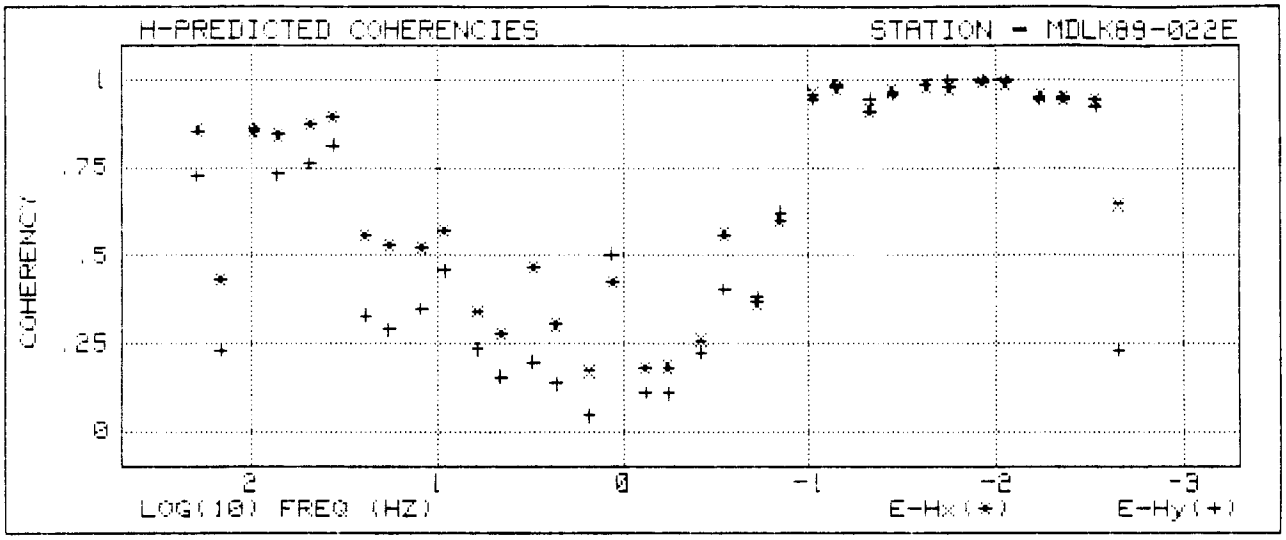
SKEW, ELLIPTICITY AND STRIKE

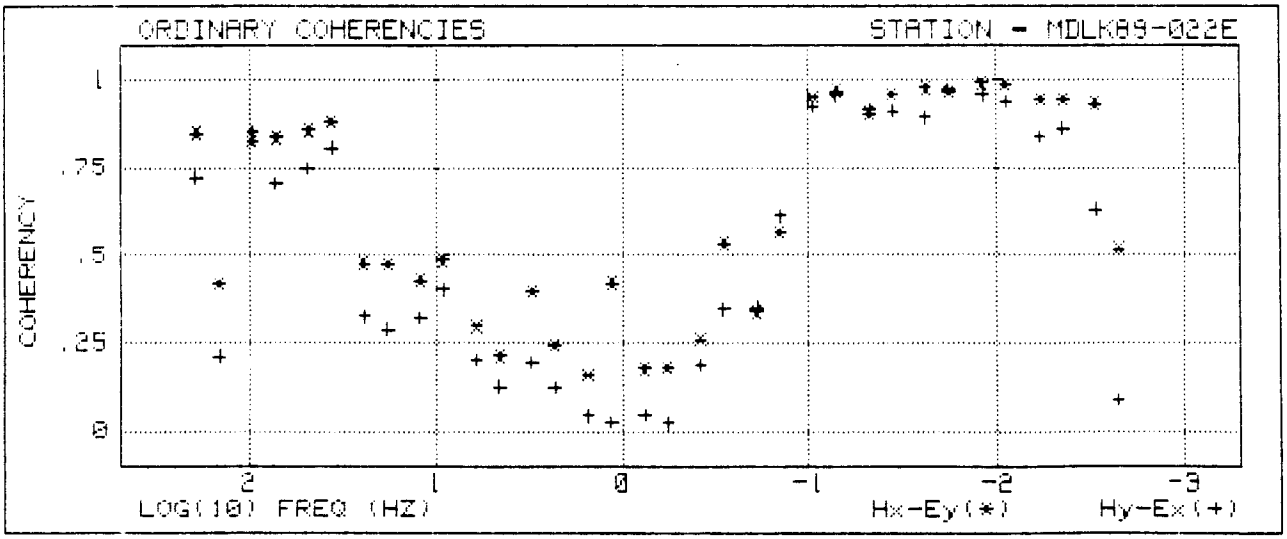
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	263	.21	.37	99.25	.35	1.60	32.96
4	144.00 Hz	1723	.22	.27	122.91	.55	2.26	173.08
5	96.00 Hz	864	.14	.30	127.10	.93	1.06	85.37
6	72.00 Hz	336	.05	.02	108.43	.37	.72	-36.81
7	48.00 Hz	957	.04	.30	104.16	.02	.21	-63.88
8	36.00 Hz	431	.02	.14	100.98	.48	.54	-37.63
9	24.00 Hz	946	.32	.46	150.52	.82	.68	-49.70
10	18.00 Hz	2164	.03	.33	84.84	.57	.41	-136.77
11	12.00 Hz	2010	.16	.55	150.28	.83	1.38	-179.04
12	9.00 Hz	1534	.07	.57	102.14	.66	.50	-170.45
13	6.00 Hz	1343	.39	.16	58.98	.62	.89	44.53
14	4.50 Hz	1535	.34	.68	129.20	.47	2.16	-119.98
15	3.00 Hz	1184	.16	.19	124.70	.26	6.87	-141.72
16	2.25 Hz	2368	.11	.12	124.73	.03	4.15	-131.75
17	1.50 Hz	6384	.28	.31	118.56	.01	3.03	-133.19
18	1.13 Hz	2224	2.24	.05	130.23	.40	.61	53.31
19	1.33 Sec	10181	.37	.18	120.02	.50	.51	-35.50
20	1.78 Sec	12101	.30	.13	117.85	.87	.79	-39.77
21	2.67 Sec	4798	.25	.50	100.93	.30	.38	-60.08
22	3.56 Sec	192	.28	.30	115.18	.72	.54	115.74
23	5.33 Sec	688	.12	.08	86.70	.65	1.68	27.17
24	7.11 Sec	616	.16	.20	77.82	.79	.59	145.39
25	10.67 Sec	784	.20	.18	71.96	.12	.46	47.35
26	14.22 Sec	814	.22	.07	71.84	.56	1.04	141.68
27	21.33 Sec	388	.25	.26	73.99	.13	.35	99.76
28	28.44 Sec	514	.28	.59	65.56	.30	1.09	132.69
29	42.67 Sec	184	.25	.38	77.72	.41	2.10	76.89
30	56.89 Sec	136	.25	.09	77.79	.69	1.17	49.75
31	85.33 Sec	39	.27	.38	88.80	.56	.56	84.33
32	113.78 Sec	84	.27	.69	82.98	.38	4.20	23.75
33	170.67 Sec	78	.29	.18	75.65	.48	3.55	-18.21
34	227.56 Sec	63	.27	.45	103.72	.03	1.60	94.84
35	341.33 Sec	12	.37	.06	53.13	.90	1.29	-25.04
36	455.11 Sec	60	.40	.53	-8.31	.11	.94	82.00

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E







PHOENIX GEOSCIENCE

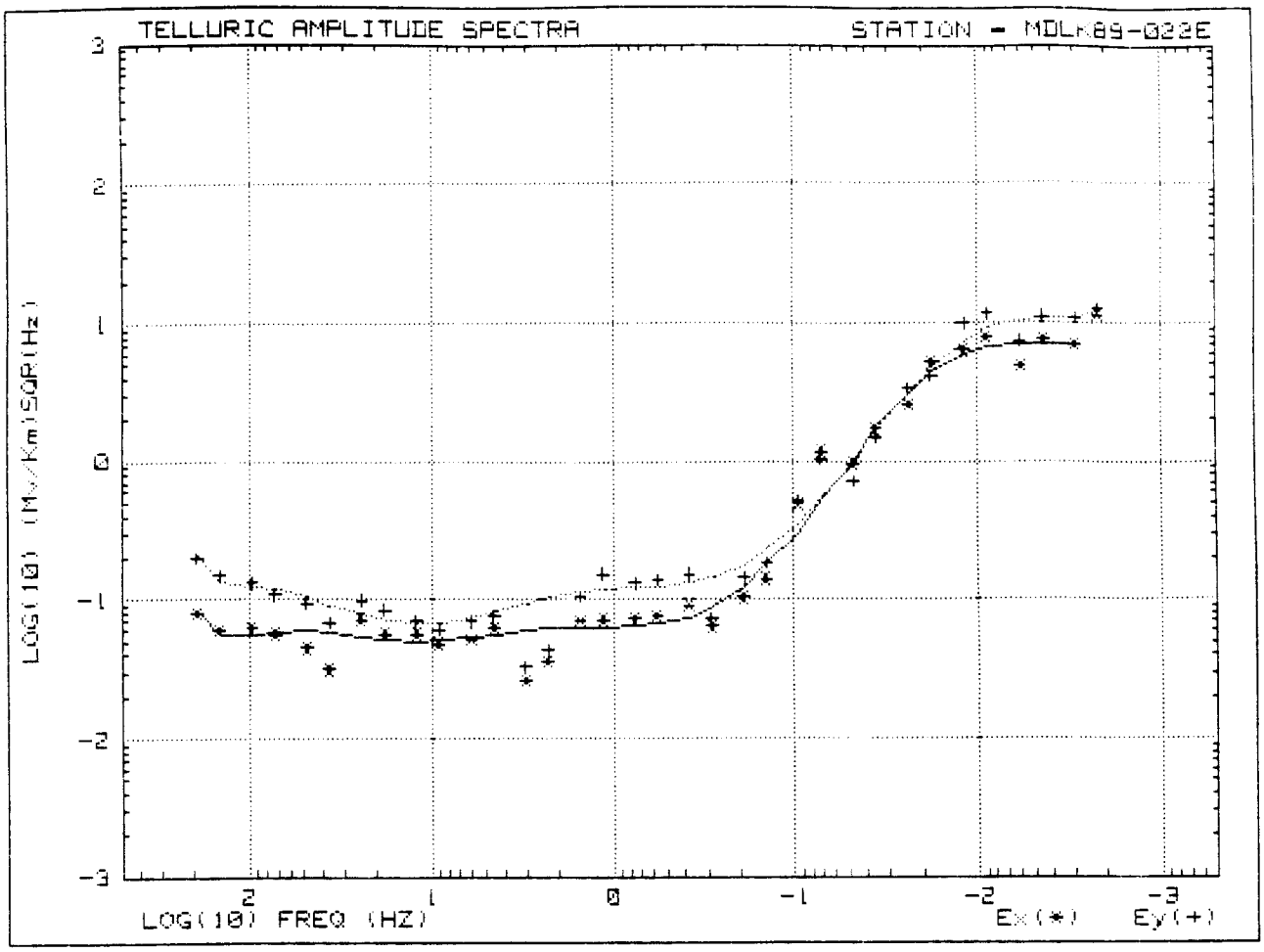
MT Site: MDLK89-022E

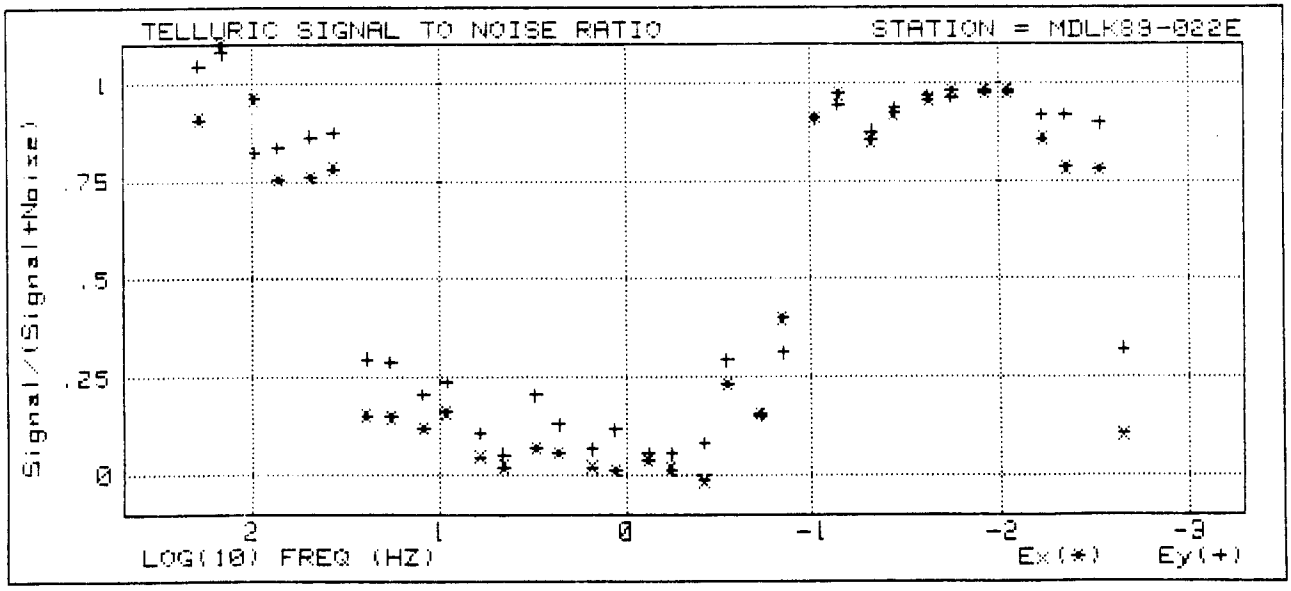
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	263	.79	.91	.85	.72	.84	.72
4	144.00 Hz	1723	.25	.58	.43	.23	.41	.21
5	96.00 Hz	864	.87	.87	.85	.85	.82	.85
6	72.00 Hz	336	.78	.86	.84	.73	.83	.70
7	48.00 Hz	957	.78	.89	.87	.76	.85	.75
8	36.00 Hz	431	.83	.90	.89	.81	.88	.80
9	24.00 Hz	946	.36	.54	.56	.33	.47	.32
10	18.00 Hz	2164	.30	.47	.53	.29	.47	.28
11	12.00 Hz	2010	.32	.43	.52	.34	.42	.32
12	9.00 Hz	1534	.40	.49	.57	.45	.48	.40
13	6.00 Hz	1343	.21	.31	.34	.23	.29	.20
14	4.50 Hz	1535	.13	.22	.27	.15	.21	.12
15	3.00 Hz	1184	.21	.42	.46	.19	.39	.19
16	2.25 Hz	2368	.14	.27	.30	.13	.24	.12
17	1.50 Hz	6384	.11	.21	.17	.04	.16	.04
18	1.13 Hz	2224	.07	.51	.42	.50	.42	.02
19	1.33 Sec	10181	.09	.21	.18	.11	.17	.04
20	1.78 Sec	12101	.04	.24	.18	.10	.18	.02
21	2.67 Sec	4798	.23	.35	.26	.22	.26	.18
22	3.56 Sec	192	.48	.53	.56	.40	.53	.34
23	5.33 Sec	688	.36	.35	.36	.38	.34	.35
24	7.11 Sec	616	.63	.56	.60	.62	.56	.61
25	10.67 Sec	784	.95	.95	.96	.94	.95	.92
26	14.22 Sec	814	.98	.97	.97	.98	.96	.95
27	21.33 Sec	388	.94	.91	.91	.94	.90	.91
28	28.44 Sec	514	.96	.96	.96	.95	.95	.91
29	42.67 Sec	184	.98	.98	.98	.98	.97	.89
30	56.89 Sec	136	.99	.98	.97	.99	.96	.97
31	85.33 Sec	39	.99	.99	.99	1.00	.99	.95
32	113.78 Sec	84	.99	.99	.99	.99	.98	.93
33	170.67 Sec	78	.93	.95	.95	.94	.94	.83
34	227.56 Sec	63	.90	.95	.94	.95	.94	.86
35	341.33 Sec	12	.88	.95	.94	.92	.93	.63
36	455.11 Sec	60	.31	.54	.64	.22	.52	.08

PHOENIX GEOSCIENCE

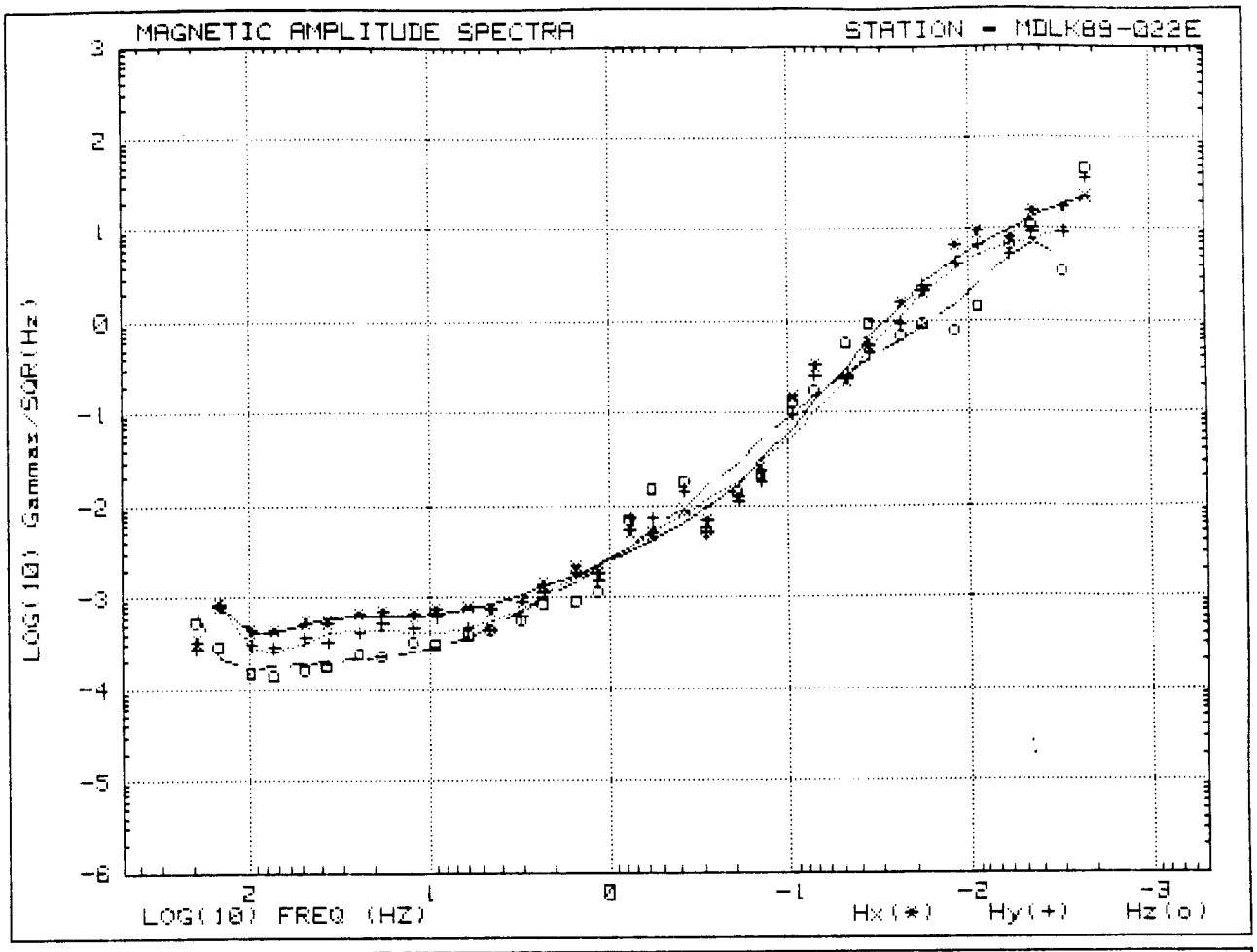
MT Site: MDLK89-022E

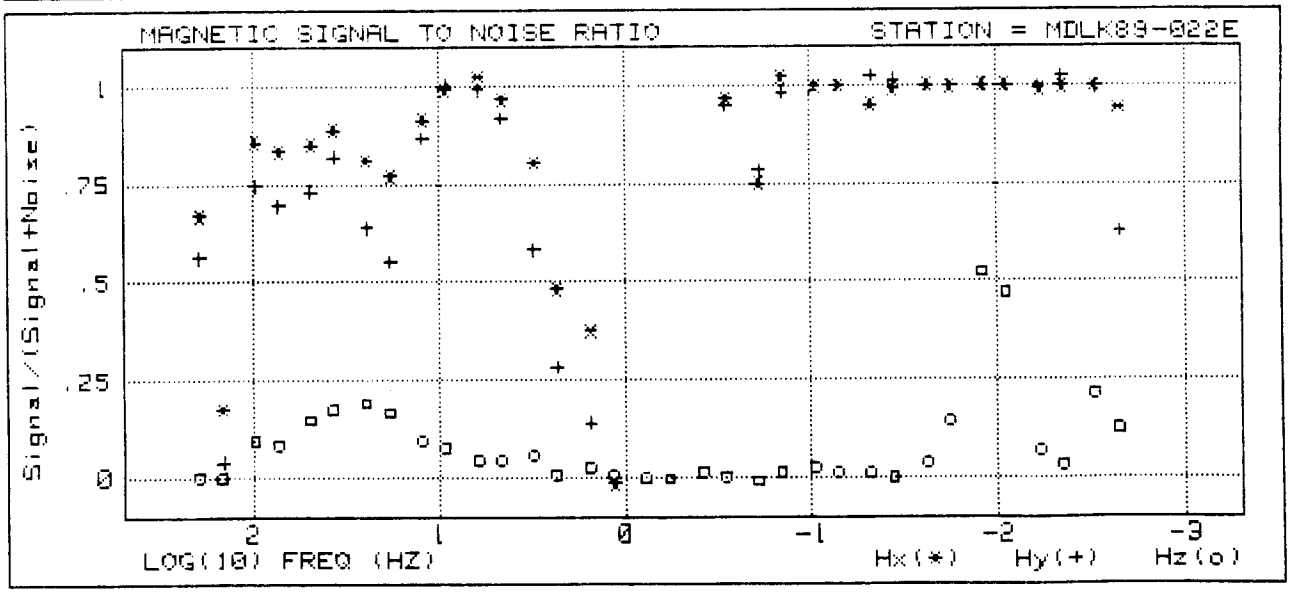




PHOENIX GEOSCIENCE

MT Site: MDLK89-022E





PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	263	3.24E-04	2.67E-04	5.67E-04	7.89E-02	1.96E-01
4	144.00 Hz	1723	8.10E-04	8.19E-04	3.06E-04	5.93E-02	1.49E-01
5	96.00 Hz	864	4.20E-04	2.94E-04	1.61E-04	6.08E-02	1.31E-01
6	72.00 Hz	336	4.33E-04	2.79E-04	1.45E-04	5.54E-02	1.07E-01
7	48.00 Hz	957	5.29E-04	3.53E-04	1.72E-04	4.45E-02	9.21E-02
8	36.00 Hz	431	5.31E-04	3.18E-04	1.83E-04	3.11E-02	6.72E-02
9	24.00 Hz	946	6.56E-04	4.04E-04	2.59E-04	7.07E-02	9.79E-02
10	18.00 Hz	2164	6.92E-04	5.05E-04	2.42E-04	5.59E-02	8.26E-02
11	12.00 Hz	2010	6.41E-04	4.51E-04	3.49E-04	5.60E-02	6.91E-02
12	9.00 Hz	1534	7.39E-04	6.03E-04	3.20E-04	4.72E-02	6.00E-02
13	6.00 Hz	1343	7.80E-04	4.48E-04	4.02E-04	5.10E-02	6.88E-02
14	4.50 Hz	1535	7.27E-04	4.35E-04	4.56E-04	6.21E-02	7.43E-02
15	3.00 Hz	1184	8.90E-04	6.04E-04	5.80E-04	2.57E-02	3.21E-02
16	2.25 Hz	2368	1.38E-03	1.14E-03	9.15E-04	3.56E-02	4.26E-02
17	1.50 Hz	6384	2.16E-03	1.85E-03	9.69E-04	7.00E-02	1.04E-01
18	1.13 Hz	2224	1.80E-03	1.53E-03	1.21E-03	7.11E-02	1.51E-01
19	1.33 Sec	10181	5.18E-03	7.23E-03	7.42E-03	7.18E-02	1.30E-01
20	1.78 Sec	12101	4.94E-03	7.00E-03	1.59E-02	7.58E-02	1.37E-01
21	2.67 Sec	4798	8.84E-03	1.41E-02	1.88E-02	8.99E-02	1.51E-01
22	3.56 Sec	192	6.60E-03	4.92E-03	5.53E-03	6.39E-02	7.30E-02
23	5.33 Sec	688	1.22E-02	1.12E-02	1.51E-02	1.03E-01	1.42E-01
24	7.11 Sec	616	2.45E-02	1.82E-02	2.32E-02	1.39E-01	1.82E-01
25	10.67 Sec	784	1.49E-01	9.54E-02	1.37E-01	4.90E-01	5.12E-01
26	14.22 Sec	814	3.28E-01	2.51E-01	1.85E-01	1.15E+00	1.03E+00
27	21.33 Sec	388	2.27E-01	2.51E-01	5.96E-01	9.41E-01	7.03E-01
28	28.44 Sec	514	5.44E-01	4.42E-01	1.01E+00	1.67E+00	1.47E+00
29	42.67 Sec	184	1.58E+00	8.93E-01	7.20E-01	2.53E+00	3.34E+00
30	56.89 Sec	136	2.07E+00	2.45E+00	9.61E-01	5.11E+00	4.07E+00
31	85.33 Sec	39	6.64E+00	4.17E+00	8.25E-01	6.28E+00	9.70E+00
32	113.78 Sec	84	9.20E+00	6.67E+00	1.51E+00	7.74E+00	1.15E+01
33	170.67 Sec	78	7.83E+00	5.16E+00	7.00E+00	4.78E+00	7.19E+00
34	227.56 Sec	63	1.54E+01	8.68E+00	1.14E+01	7.48E+00	1.08E+01
35	341.33 Sec	12	1.68E+01	9.19E+00	3.71E+00	6.88E+00	1.07E+01
36	455.11 Sec	60	2.26E+01	3.54E+01	4.88E+01	1.12E+01	1.23E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	263	.668	.561	.007	.905	1.000
4	144.00 Hz	1723	.174	.036	.002	1.000	1.000
5	96.00 Hz	864	.854	.743	.099	.958	.822
6	72.00 Hz	336	.832	.693	.088	.753	.834
7	48.00 Hz	957	.849	.730	.152	.759	.862
8	36.00 Hz	431	.887	.818	.178	.779	.871
9	24.00 Hz	946	.808	.636	.196	.149	.295
10	18.00 Hz	2164	.769	.551	.171	.146	.286
11	12.00 Hz	2010	.911	.867	.100	.116	.205
12	9.00 Hz	1534	.989	.999	.079	.158	.236
13	6.00 Hz	1343	1.000	.990	.046	.043	.104
14	4.50 Hz	1535	.964	.917	.047	.017	.049
15	3.00 Hz	1184	.802	.581	.059	.066	.203
16	2.25 Hz	2368	.479	.280	.013	.053	.126
17	1.50 Hz	6384	.372	.137	.028	.018	.064
18	1.13 Hz	2224	0.000	1.000	.012	.010	.115
19	1.33 Sec	10181	1.000	0.000	.002	.034	.053
20	1.78 Sec	12101	1.000	0.000	.001	.012	.051
21	2.67 Sec	4798	1.000	0.000	.019	0.000	.080
22	3.56 Sec	192	.967	.947	.006	.230	.291
23	5.33 Sec	688	.749	.782	0.000	.154	.150
24	7.11 Sec	616	1.000	.982	.016	.398	.310
25	10.67 Sec	784	.997	.999	.028	.910	.907
26	14.22 Sec	814	.998	.999	.015	.970	.942
27	21.33 Sec	388	.950	1.000	.016	.852	.873
28	28.44 Sec	514	.989	1.000	.005	.920	.936
29	42.67 Sec	184	1.000	.998	.043	.956	.965
30	56.89 Sec	136	.995	.999	.149	.979	.961
31	85.33 Sec	39	1.000	1.000	.530	.975	.982
32	113.78 Sec	84	.999	.998	.479	.974	.979
33	170.67 Sec	78	.989	.998	.072	.856	.916
34	227.56 Sec	63	.996	1.000	.038	.781	.915
35	341.33 Sec	12	.998	.996	.221	.778	.896
36	455.11 Sec	60	.940	.626	.128	.102	.320

PHOENIX GEOSCIENCE

MT Site: MDLK89-022E

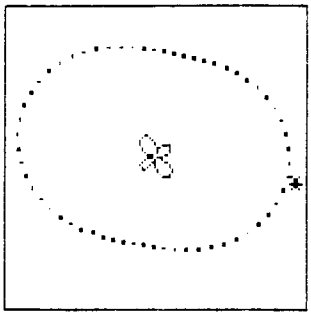
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

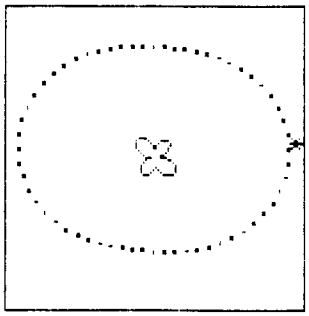
*=Rotation Direction

Zxy = ...
Zxx = ___

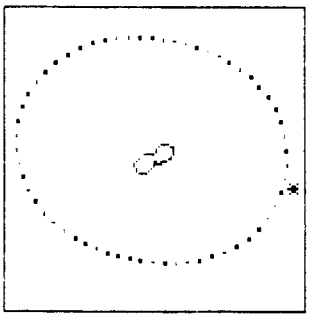
F=8 (36.0 Hz)



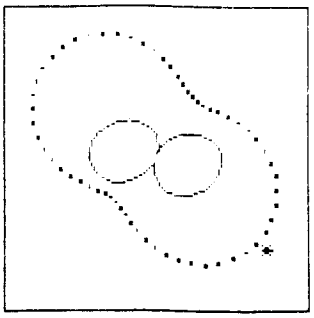
F=10 (18.0 Hz)



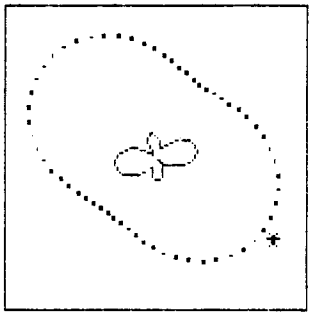
F=12 (9.0 Hz)



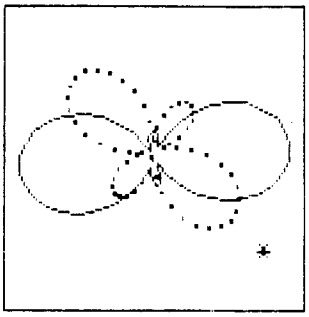
F=14 (4.5 Hz)



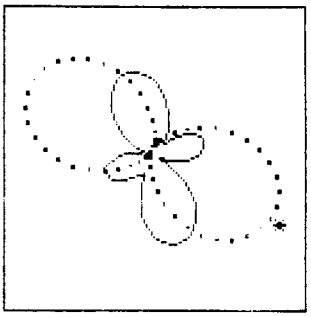
F=16 (2.3 Hz)



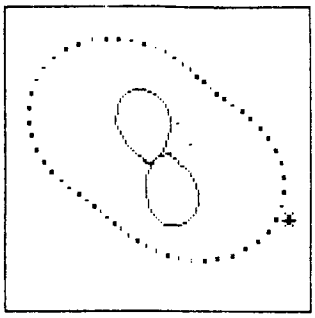
F=18 (1.1 Hz)



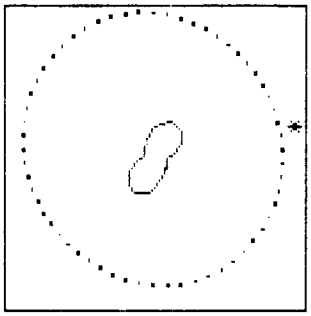
F=20 (.5625 Hz)



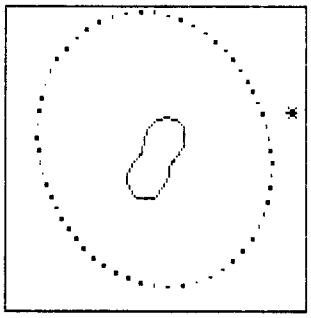
F=22 (.2813 Hz)



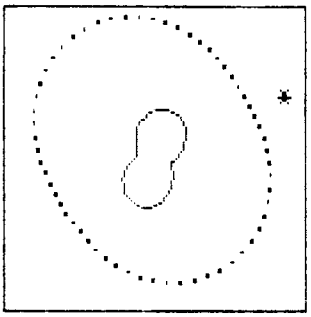
F=24 (.1406 Hz)



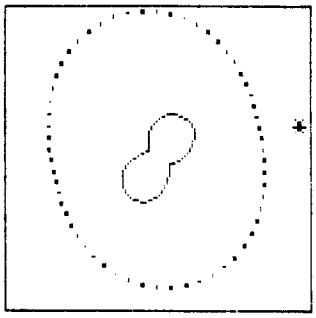
F=26 (.0703 Hz)



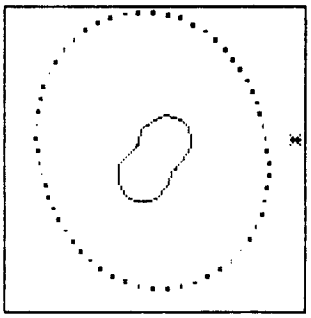
F=28 (.0352 Hz)



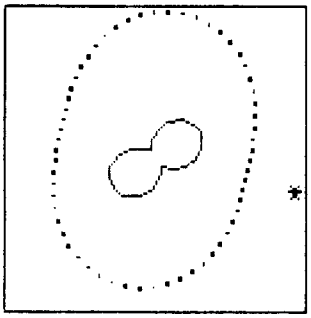
F=30 (.0176 Hz)



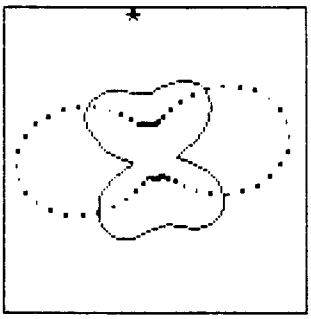
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-012a/013a/023a/

Operator:OJALA
Date: 3 Sep 1989
Time: 13:18:20

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#210-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#235-16Aug89-01
Sens-Ch12: C#452-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 3

Stn Number:MDLK89-023a
Site Desc:T43N R4E
41,34,20 N 121,32,38 W
Elevation:7080 FT
Reference:MDLK89-012a
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL235	+0 DEG
Hy	12	COIL452	+90 DEG
Hz	13	LOOP405	Doubled
Ex	14	180 M	+0 DEG
Ey	15	173 M	+90 DEG
Rx	1	COIL430	+0 DEG
Ry	2	COIL210	+90 DEG

Ex Pot Resist: 18.0K Ohms
Ex Voltage: AC=17.0 mv, DC=395.0 mv
Ey Pot Resist: 15.0K Ohms
Ey Voltage: AC=9.7 mv, DC=151.6 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

OPERATOR LOG FOR MT SITES MDLK89-012a/013a/023a/
Run Chronology

Run STARTED:	13:18:20	3 Sep 1989
Data Acquisition Begun:	13:32:38	3 Sep 1989
Entered HI Range:	13:32:47	3 Sep 1989
Began HI X#2:	13:45:31	3 Sep 1989
Exited HI Range:	13:46:12	3 Sep 1989
Entered LO Range:	13:46:15	3 Sep 1989
Exited LO Range:	14:04:51	3 Sep 1989
Entered HI Range:	14:04:54	3 Sep 1989
Began HI X#3:	14:17:32	3 Sep 1989
Began HI X#4:	14:31:24	3 Sep 1989
Run Re-started:	14:55:16	3 Sep 1989
Entered HI Range:	14:55:25	3 Sep 1989
Began HI X#6:	15:08:30	3 Sep 1989
Began HI X#7:	15:21:54	3 Sep 1989
Began HI X#8:	15:35:29	3 Sep 1989
Began HI X#9:	15:49:03	3 Sep 1989
Exited HI Range:	15:56:15	3 Sep 1989
Entered LO Range:	15:56:19	3 Sep 1989
Began LO X#3:	17:03:04	3 Sep 1989
Began LO X#4:	17:49:39	3 Sep 1989
Exited LO Range:	17:50:31	3 Sep 1989
Entered LO Range:	18:10:20	3 Sep 1989
Began LO X#5:	19:16:29	3 Sep 1989
Began LO X#6:	20:23:14	3 Sep 1989
Began LO X#7:	21:52:05	3 Sep 1989
Began LO X#8:	23:20:58	3 Sep 1989
Began LO X#9:	00:49:51	4 Sep 1989
Began LO X#10:	02:18:49	4 Sep 1989
Exited LO Range:	04:04:56	4 Sep 1989
Run QUIT:	04:04:57	4 Sep 1989

Operator:OJALA

Cultural Factors:
GEOTHERMAL WELL 200 METERS FROM SITE 012, 500 METERS FROM SITE 023. LIGHTLY TRAVELED FOREST SERVICE ROADS NEAR ALL SITES.

Weather Conditions:
CLEAR AND WARM WITH NO WIND.

Other Factors:
VERY HIGH SIGNAL LEVEL DURING ENTIRE RUN. LOST DIGITIZER INTERFACE IN HIGH RANGE, DO NOT USE XPR #2 OF HIGH RANGE.

PHOENIX GEOSCIENCE

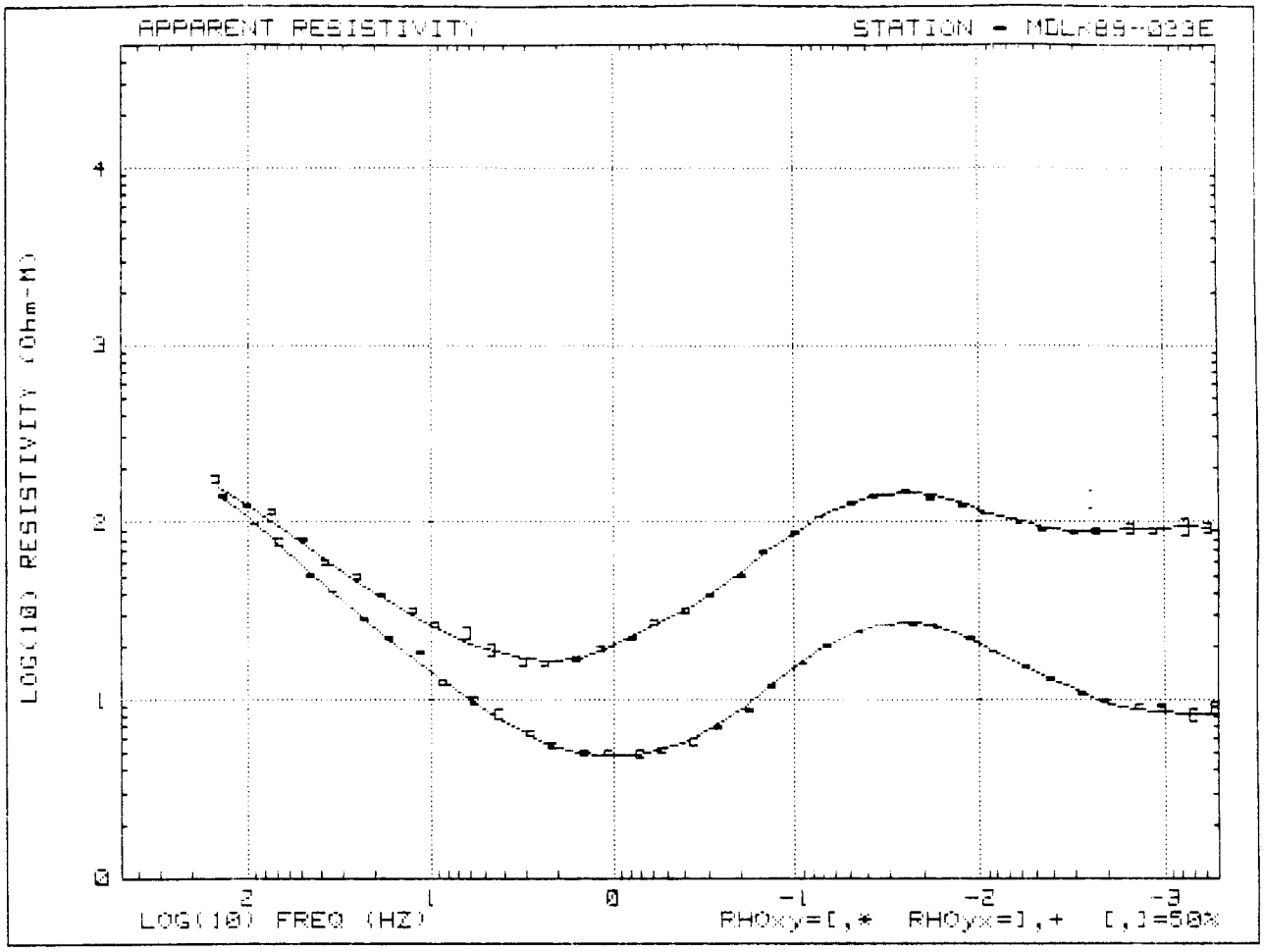
MT Site: MDLK89-023E

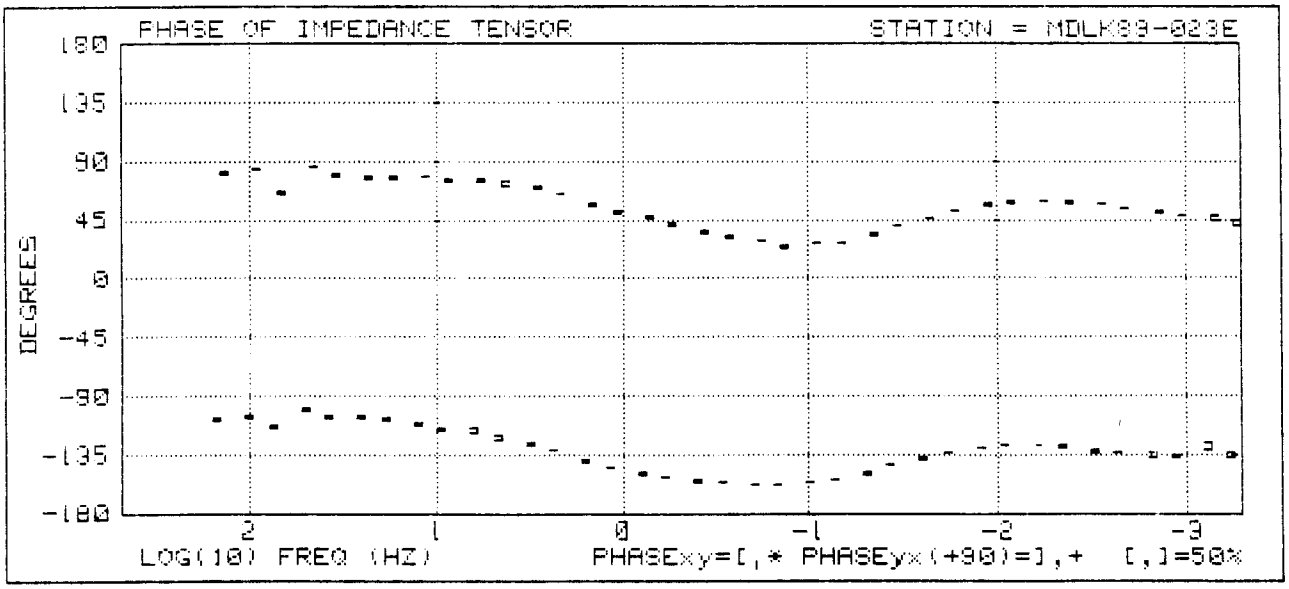
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

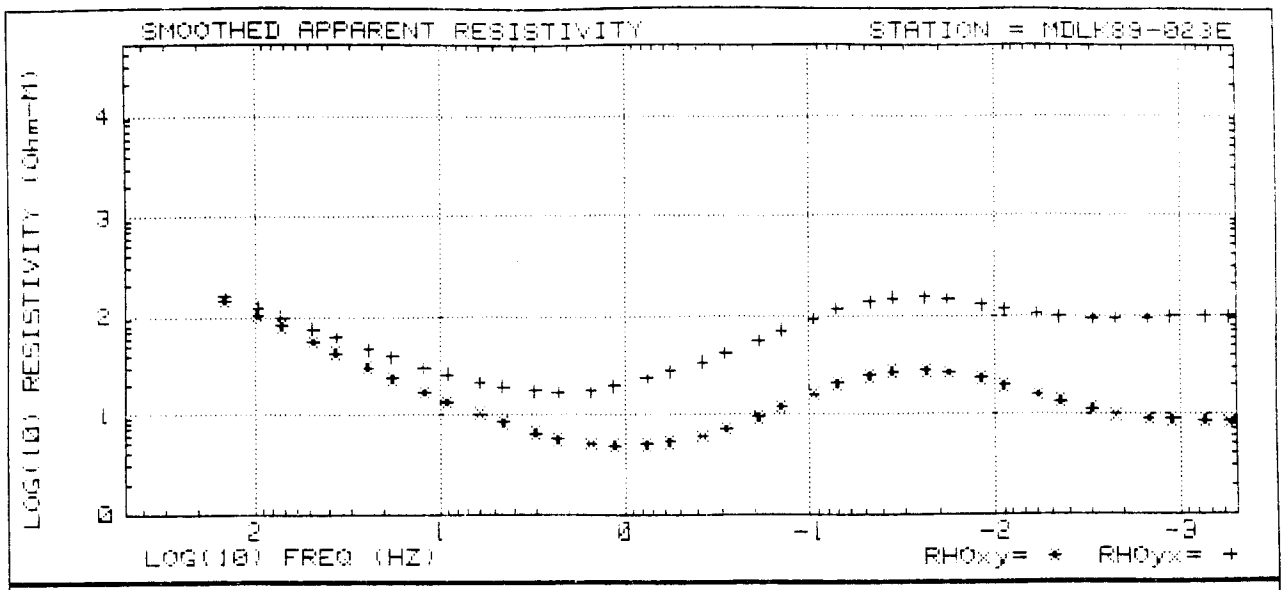
MT Site: MDLK89-023E

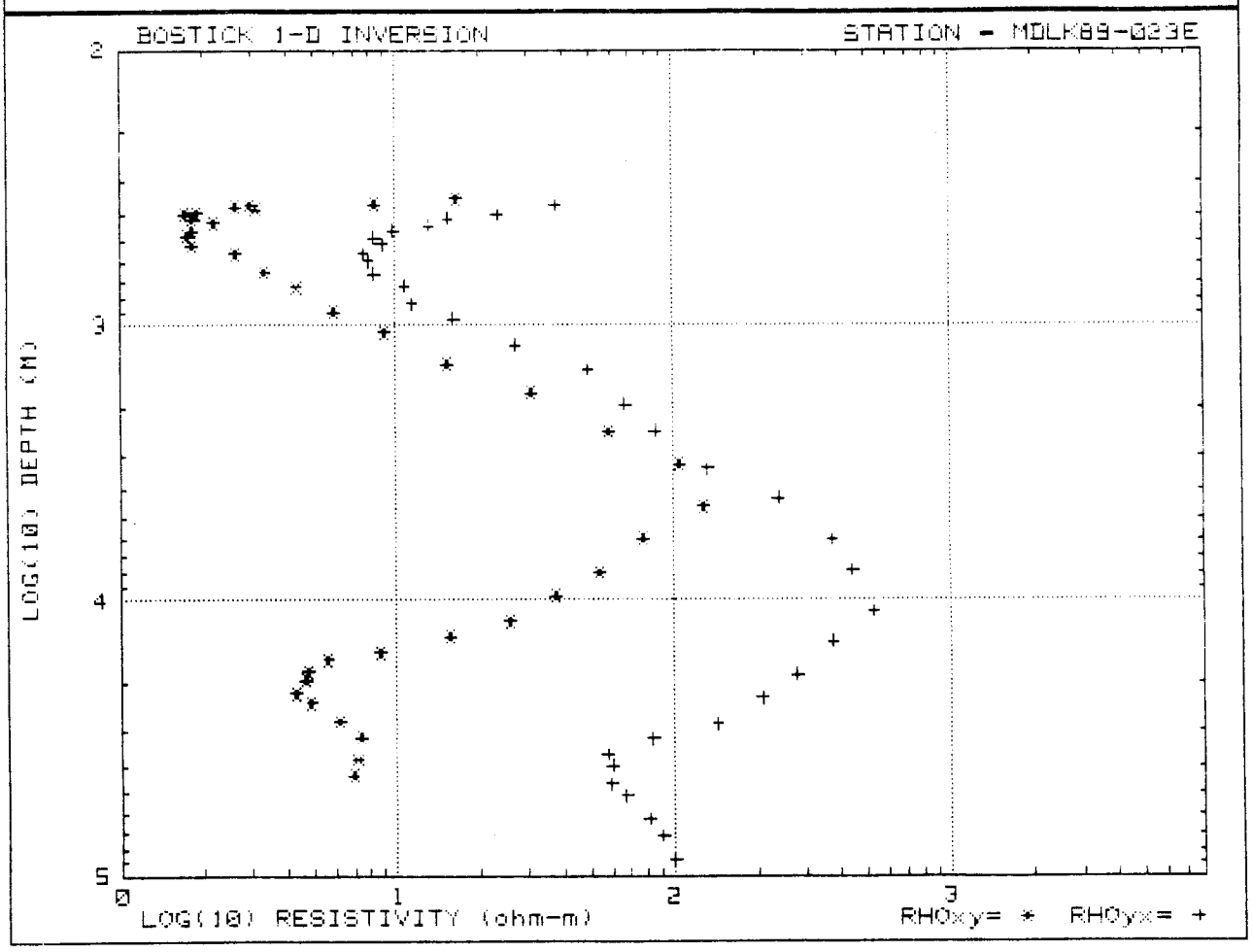




PHOENIX GEOSCIENCE

MT Site: MDLK89-023E





PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	192	140.8	3.5	175.5	5.4	80.7	1.0	-107.3	1.5
5	96.00 Hz	1051	98.0	1.0	122.9	1.7	84.4	.3	-105.8	.5
6	72.00 Hz	191	77.8	6.9	114.7	6.6	66.6	1.9	-114.0	1.8
7	48.00 Hz	574	50.7	1.7	79.6	3.0	85.8	.5	-99.6	.9
8	36.00 Hz	477	40.9	2.0	59.8	5.0	79.1	.6	-105.7	1.4
9	24.00 Hz	192	28.8	2.9	49.6	5.4	77.6	.8	-105.0	1.5
10	18.00 Hz	1152	22.3	1.9	39.0	3.8	77.6	.5	-108.0	1.1
11	12.00 Hz	1056	18.6	2.8	32.1	4.4	78.2	.8	-111.4	1.2
12	9.00 Hz	864	12.4	3.7	26.4	3.9	75.6	1.0	-115.6	1.1
13	6.00 Hz	480	9.9	7.5	23.7	12.7	75.4	2.1	-116.8	3.4
14	4.50 Hz	480	8.3	9.1	19.0	14.7	72.8	2.5	-121.9	3.9
15	3.00 Hz	4480	6.5	5.2	16.3	6.3	69.0	1.5	-127.3	1.8
16	2.25 Hz	14172	5.5	3.5	16.0	4.1	65.2	1.0	-131.3	1.2
17	1.50 Hz	7883	5.0	5.2	17.1	4.8	57.1	1.4	-139.9	1.3
18	1.13 Hz	8075	5.0	4.6	19.3	3.7	51.4	1.3	-144.6	1.0
19	1.33 Sec	3947	5.0	6.6	22.3	4.6	46.8	1.8	-148.9	1.3
20	1.78 Sec	3947	5.3	5.3	27.1	3.6	42.3	1.5	-152.0	1.0
21	2.67 Sec	1711	5.9	7.5	31.6	4.9	35.6	2.1	-155.0	1.4
22	3.56 Sec	1680	7.0	3.3	39.5	2.7	31.5	.9	-156.3	.8
23	5.33 Sec	556	8.7	3.1	49.9	2.2	29.2	.9	-157.3	.6
24	7.11 Sec	1012	11.9	1.4	68.9	1.1	24.7	.4	-158.1	.3
25	10.67 Sec	300	16.1	1.3	88.5	.9	27.0	.4	-156.6	.3
26	14.22 Sec	156	20.1	1.8	107.5	1.6	27.6	.5	-154.0	.4
27	21.33 Sec	204	24.2	1.6	128.2	1.2	34.0	.5	-149.3	.3
28	28.44 Sec	244	26.6	1.1	141.2	.9	40.3	.3	-143.4	.3
29	42.67 Sec	126	27.0	1.3	148.9	1.0	46.5	.4	-137.9	.3
30	56.89 Sec	148	25.8	1.2	136.9	1.0	51.4	.3	-132.6	.3
31	85.33 Sec	75	22.2	1.3	123.5	.8	56.8	.4	-129.0	.2
32	113.78 Sec	72	18.6	1.5	111.3	1.1	58.7	.4	-127.8	.3
33	170.67 Sec	39	15.1	1.9	98.2	1.1	59.9	.5	-127.7	.3
34	227.56 Sec	54	13.0	2.6	90.4	2.0	58.2	.7	-128.7	.6
35	341.33 Sec	12	10.9	2.8	88.9	2.5	57.3	.8	-132.4	.7
36	455.11 Sec	24	9.8	1.7	89.4	2.4	54.1	.5	-133.0	.7
37	682.67 Sec	12	9.1	4.1	92.1	10.2	51.4	1.1	-134.6	2.8
38	910.22 Sec	9	9.4	2.2	90.5	4.3	48.3	.6	-136.3	1.2
39	1365.33 Sec	3	8.1	13.2	93.8	16.0	46.2	3.5	-128.3	4.3
40	1820.44 Sec	3	9.0	11.5	91.9	9.1	42.9	3.1	-134.6	2.5

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	192	141.9	156.8	16.6	353	38.1	371
5	96.00 Hz	1051	103.0	122.5	8.4	369	23.5	402
6	72.00 Hz	191	78.8	98.0	3.0	372	15.5	415
7	48.00 Hz	574	54.2	74.0	2.6	378	13.2	442
8	36.00 Hz	477	42.0	60.4	3.1	385	9.8	461
9	24.00 Hz	192	29.8	44.9	1.9	397	8.4	487
10	18.00 Hz	1152	22.8	37.6	1.7	401	9.0	514
11	12.00 Hz	1056	16.4	29.4	1.8	416	7.7	557
12	9.00 Hz	864	13.1	25.1	2.2	430	8.0	594
13	6.00 Hz	480	10.0	20.6	1.8	460	8.4	659
14	4.50 Hz	480	8.1	19.7	1.8	478	10.8	726
15	3.00 Hz	4480	6.4	17.1	1.8	521	11.5	849
16	2.25 Hz	14172	5.5	16.4	2.6	558	16.3	961
17	1.50 Hz	7883	5.0	17.0	3.4	652	27.3	1200
18	1.13 Hz	8075	4.8	19.2	4.4	737	49.6	1472
19	1.33 Sec	3947	4.9	23.1	6.0	907	67.7	1977
20	1.78 Sec	3947	5.2	27.0	9.1	1081	86.5	2467
21	2.67 Sec	1711	5.9	33.3	15.3	1411	134.3	3353
22	3.56 Sec	1680	7.1	41.0	31.1	1783	240.4	4299
23	5.33 Sec	556	9.1	54.4	59.1	2482	377.9	6061
24	7.11 Sec	1012	11.7	68.9	105.6	3251	447.3	7880
25	10.67 Sec	300	15.9	90.4	128.9	4631	530.8	11050
26	14.22 Sec	156	20.2	112.7	77.9	6026	377.3	14248
27	21.33 Sec	204	23.9	131.4	54.7	8032	281.4	18842
28	28.44 Sec	244	26.5	145.0	37.9	9763	209.1	22853
29	42.67 Sec	126	27.0	149.0	25.8	12083	144.5	28374
30	56.89 Sec	148	26.0	143.4	15.6	13699	84.2	32147
31	85.33 Sec	75	22.7	124.4	8.8	15668	58.2	36670
32	113.78 Sec	72	19.2	111.5	5.7	16625	60.3	40092
33	170.67 Sec	39	15.6	101.2	4.8	18360	59.9	46771
34	227.56 Sec	54	13.3	93.4	4.7	19566	67.8	51873
35	341.33 Sec	12	11.2	90.7	4.4	21997	81.5	62603
36	455.11 Sec	24	9.8	90.0	4.9	23764	91.5	72018
37	682.67 Sec	12	8.9	91.2	6.3	27746	101.0	88791
38	910.22 Sec	9	8.7	93.2	7.4	31644	101.3	103660
39	1365.33 Sec	3	8.4	93.9	7.2	38200	94.7	127392
40	1820.44 Sec	3	8.2	93.5	7.0	43587	91.0	146819

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	192	-29.85	24.79	413.12	51.32	314.29	59.24
5	96.00 Hz	1051	-14.94	6.29	15.17	21.00	215.88	2.56
6	72.00 Hz	191	7.04	-15.04	282.31	66.37	153.65	62.91
7	48.00 Hz	574	-1.43	-5.47	12.72	8.05	109.97	1.76
8	36.00 Hz	477	1.46	-8.99	13.06	16.29	84.23	1.47
9	24.00 Hz	192	2.70	-5.92	9.04	12.59	57.42	1.43
10	18.00 Hz	1152	2.18	-5.06	1.68	9.59	43.79	.35
11	12.00 Hz	1056	-3.06	-2.39	1.51	6.81	32.67	.42
12	9.00 Hz	864	.17	-2.21	.81	5.89	22.88	.37
13	6.00 Hz	480	-2.33	-1.32	2.24	4.37	16.71	.78
14	4.50 Hz	480	-1.14	-1.15	2.55	4.05	13.06	.71
15	3.00 Hz	4480	-1.57	-1.63	.41	3.52	9.18	.13
16	2.25 Hz	14172	-1.26	-1.25	.14	3.30	7.15	.04
17	1.50 Hz	7883	-1.04	-.82	.14	3.32	5.13	.05
18	1.13 Hz	8075	-.97	-.65	.07	3.30	4.13	.03
19	1.33 Sec	3947	-.867	-.282	.093	2.959	3.156	.038
20	1.78 Sec	3947	-.709	-.432	.052	2.841	2.589	.020
21	2.67 Sec	1711	-.488	.204	.080	2.695	1.929	.029
22	3.56 Sec	1680	-.383	.227	.016	2.679	1.640	.005
23	5.33 Sec	556	-.179	.115	.006	2.500	1.396	.004
24	7.11 Sec	1012	-.107	.109	.001	2.626	1.208	.001
25	10.67 Sec	300	.079	.160	.001	2.447	1.249	.001
26	14.22 Sec	156	.244	.182	.001	2.358	1.233	.001
27	21.33 Sec	204	.266	.112	.001	1.976	1.331	.001
28	28.44 Sec	244	.325	.120	.000	1.648	1.400	.000
29	42.67 Sec	126	.314	.107	.000	1.224	1.291	.000
30	56.89 Sec	148	.247	.143	.000	.938	1.176	.000
31	85.33 Sec	75	.201	.132	.000	.625	.954	.000
32	113.78 Sec	72	.169	.128	.000	.470	.773	.000
33	170.67 Sec	39	.134	.117	.000	.334	.576	.000
34	227.56 Sec	54	.083	.107	.000	.281	.454	.000
35	341.33 Sec	12	.073	.086	.000	.216	.336	.000
36	455.11 Sec	24	.076	.085	.000	.192	.266	.000
37	682.67 Sec	12	.063	.075	.000	.161	.202	.000
38	910.22 Sec	9	.054	.062	.000	.151	.170	.000
39	1365.33 Sec	3	.038	.072	.001	.120	.124	.000
40	1820.44 Sec	3	.055	.055	.000	.115	.107	.000

PHOENIX GEOSCIENCE

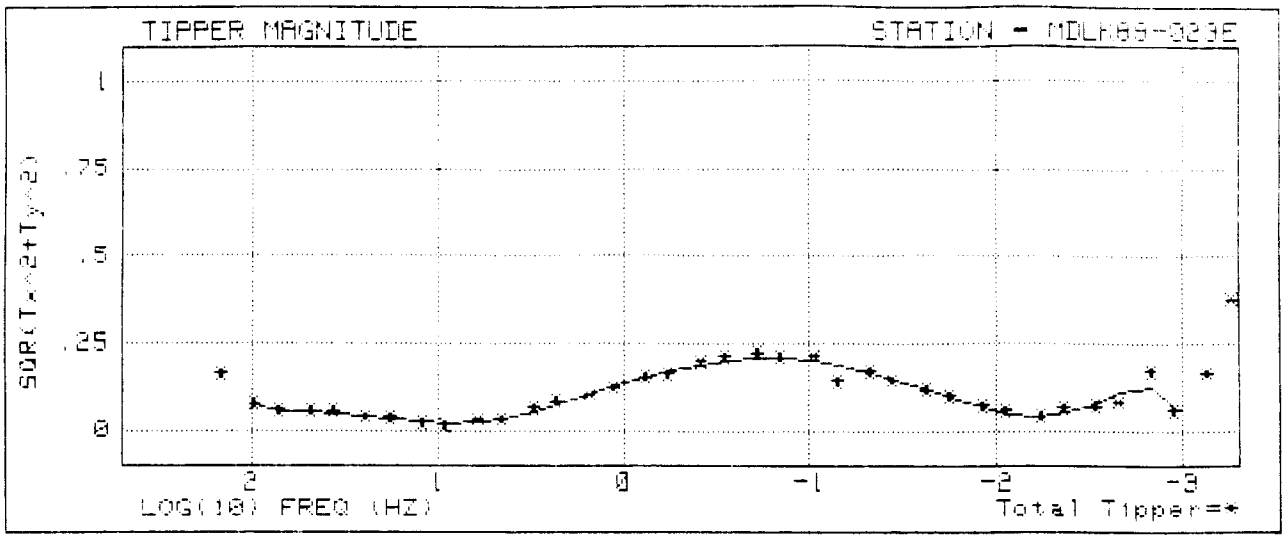
MT Site: MDLK89-023E

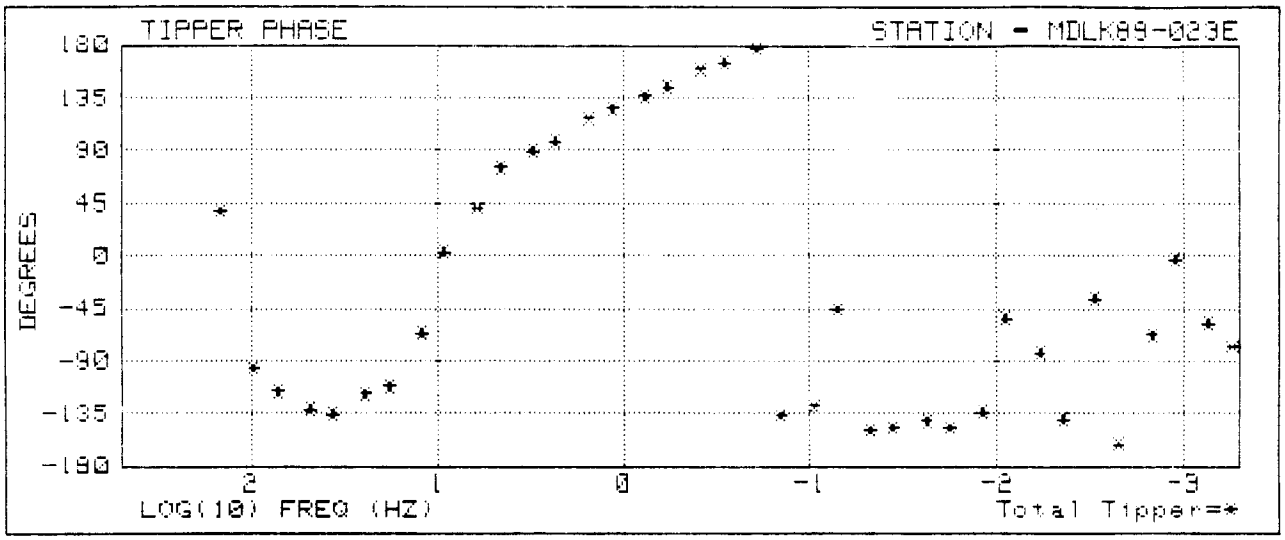
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

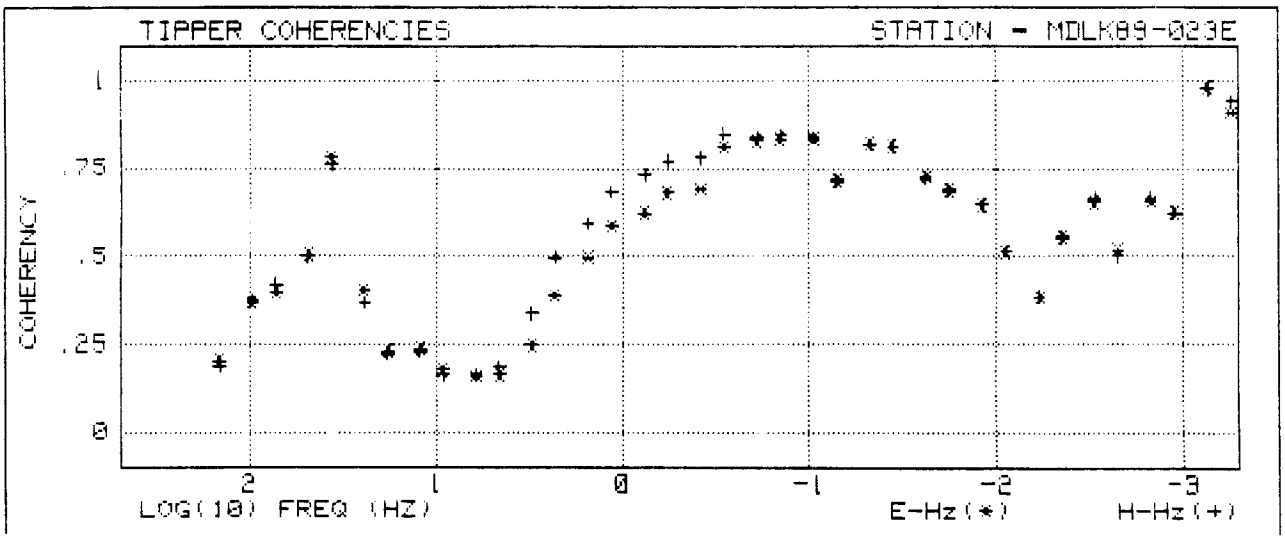
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	192	-105.49	-339.49	176.06	-12.03	-13.52	25.25
5	96.00 Hz	1051	-66.33	-233.68	8.08	-6.89	-14.20	1.36
6	72.00 Hz	191	-82.61	-185.63	84.19	-14.05	-4.34	18.76
7	48.00 Hz	574	-23.15	-136.26	8.41	-3.13	-4.50	1.16
8	36.00 Hz	477	-28.08	-99.91	12.84	-5.14	-4.02	1.45
9	24.00 Hz	192	-20.01	-74.48	8.34	-2.91	-3.47	1.32
10	18.00 Hz	1152	-18.27	-56.38	2.39	-3.06	-1.45	.50
11	12.00 Hz	1056	-16.05	-40.87	1.77	-2.58	-2.93	.49
12	9.00 Hz	864	-14.92	-31.08	.85	-.92	-1.02	.39
13	6.00 Hz	480	-12.00	-23.79	5.04	-2.21	-1.44	1.76
14	4.50 Hz	480	-10.94	-17.56	4.00	-1.97	.12	1.12
15	3.00 Hz	4480	-9.46	-12.42	.46	-1.98	-.87	.14
16	2.25 Hz	14172	-8.85	-10.08	.15	-1.40	-.98	.04
17	1.50 Hz	7883	-8.66	-7.29	.14	-.96	-1.02	.05
18	1.13 Hz	8075	-8.49	-6.03	.07	-.75	-1.24	.03
19	1.33 Sec	3947	-7.823	-4.724	.085	-.554	-1.252	.035
20	1.78 Sec	3947	-7.714	-4.102	.048	-.393	-1.449	.018
21	2.67 Sec	1711	-6.971	-3.251	.069	.042	-1.509	.025
22	3.56 Sec	1680	-6.821	-3.000	.020	.155	-1.410	.006
23	5.33 Sec	556	-6.308	-2.640	.011	.263	-1.237	.007
24	7.11 Sec	1012	-6.459	-2.597	.003	.360	-1.180	.002
25	10.67 Sec	300	-5.912	-2.559	.002	.453	-.828	.002
26	14.22 Sec	156	-5.526	-2.696	.004	.545	-.470	.004
27	21.33 Sec	204	-4.715	-2.796	.002	.526	-.373	.002
28	28.44 Sec	244	-3.999	-2.971	.001	.465	-.090	.001
29	42.67 Sec	126	-3.097	-2.802	.001	.362	.047	.001
30	56.89 Sec	148	-2.346	-2.555	.001	.276	.114	.000
31	85.33 Sec	75	-1.692	-2.091	.000	.218	.116	.000
32	113.78 Sec	72	-1.354	-1.748	.000	.199	.101	.000
33	170.67 Sec	39	-1.037	-1.342	.000	.155	.098	.000
34	227.56 Sec	54	-.882	-1.099	.000	.146	.048	.000
35	341.33 Sec	12	-.770	-.842	.000	.135	.017	.000
36	455.11 Sec	24	-.676	-.725	.000	.120	.039	.000
37	682.67 Sec	12	-.577	-.585	.003	.085	.050	.001
38	910.22 Sec	9	-.510	-.487	.000	.054	.061	.000
39	1365.33 Sec	3	-.363	-.460	.004	.089	.035	.001
40	1820.44 Sec	3	-.353	-.358	.001	.042	.067	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E







PHOENIX GEOSCIENCE

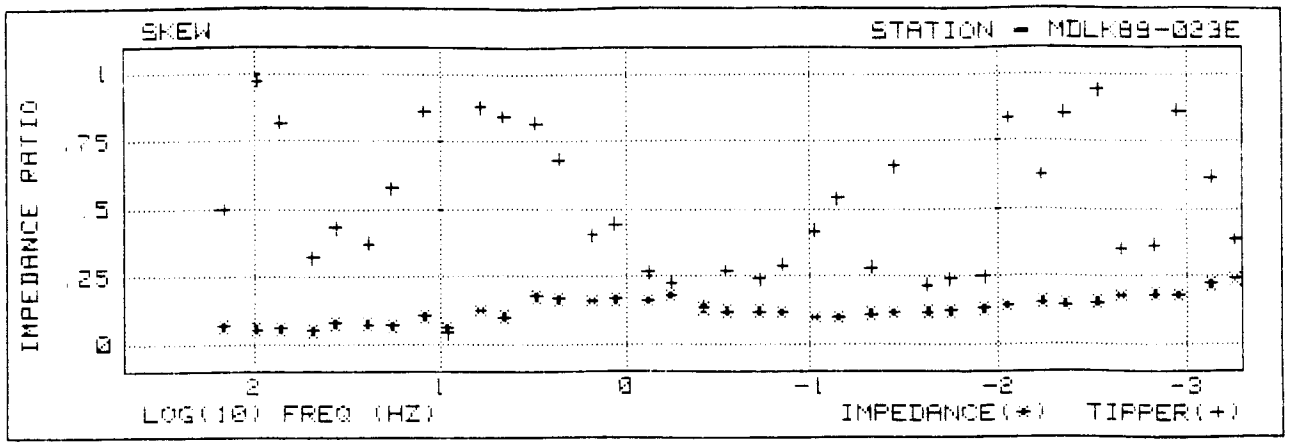
MT Site: MDLK89-023E

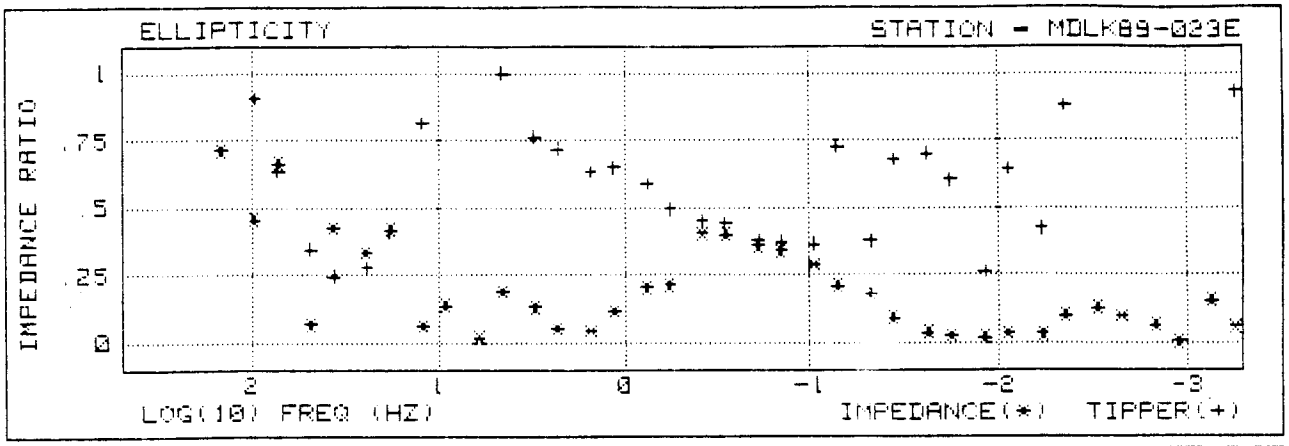
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

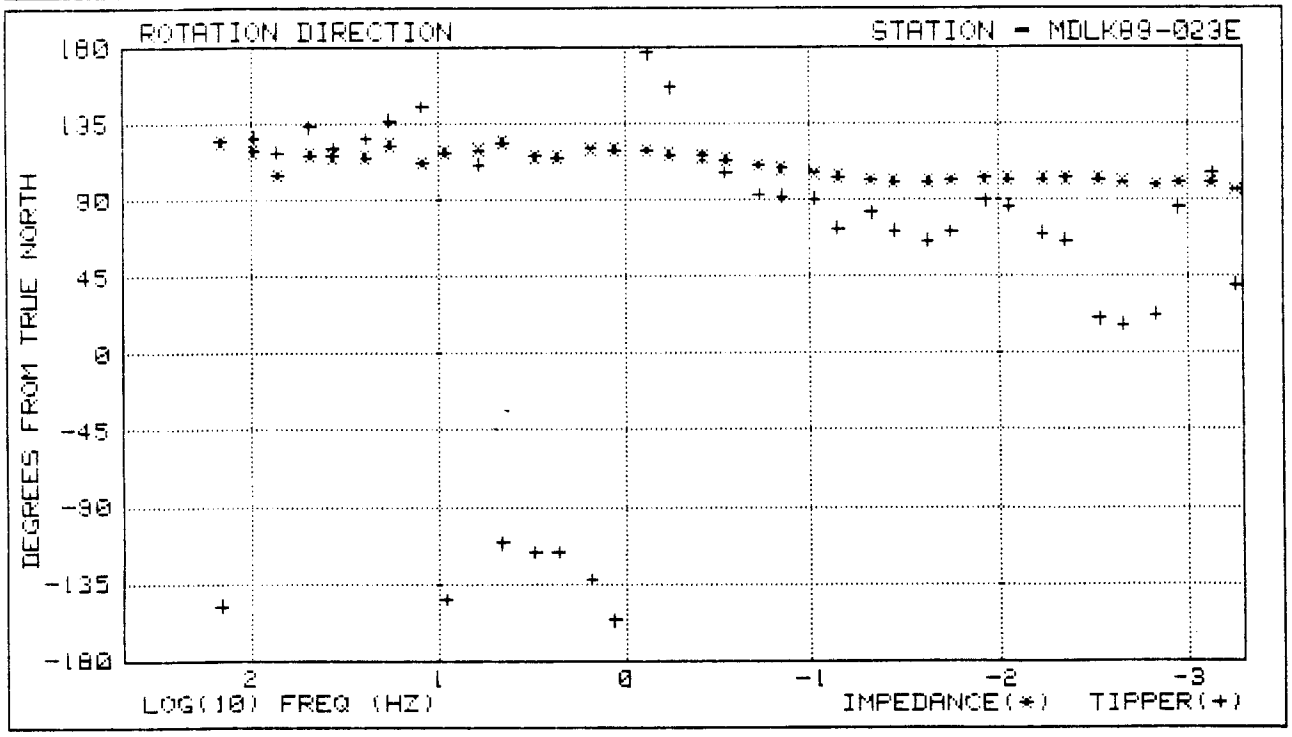
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	192	.16	37.37	.20	.19
5	96.00 Hz	1051	.07	-97.32	.37	.37
6	72.00 Hz	191	.05	-116.47	.40	.42
7	48.00 Hz	574	.05	-132.45	.50	.50
8	36.00 Hz	477	.05	-136.27	.78	.76
9	24.00 Hz	192	.04	-118.78	.40	.36
10	18.00 Hz	1152	.03	-112.92	.23	.22
11	12.00 Hz	1056	.02	-67.06	.23	.23
12	9.00 Hz	864	.01	2.23	.17	.16
13	6.00 Hz	480	.03	39.56	.15	.16
14	4.50 Hz	480	.03	74.54	.16	.18
15	3.00 Hz	4480	.06	88.63	.24	.34
16	2.25 Hz	14172	.08	97.23	.39	.49
17	1.50 Hz	7883	.10	116.88	.49	.59
18	1.13 Hz	8075	.12	125.39	.58	.68
19	1.33 Sec	3947	.15	135.77	.62	.73
20	1.78 Sec	3947	.16	143.12	.68	.77
21	2.67 Sec	1711	.20	158.97	.69	.78
22	3.56 Sec	1680	.21	164.55	.81	.85
23	5.33 Sec	556	.22	176.01	.83	.84
24	7.11 Sec	1012	.21	-137.43	.83	.84
25	10.67 Sec	300	.21	-129.26	.83	.83
26	14.22 Sec	156	.14	-46.94	.71	.71
27	21.33 Sec	204	.17	-149.76	.82	.82
28	28.44 Sec	244	.14	-147.54	.81	.81
29	42.67 Sec	126	.12	-142.36	.72	.72
30	56.89 Sec	148	.10	-147.31	.69	.68
31	85.33 Sec	75	.07	-134.25	.64	.64
32	113.78 Sec	72	.05	-54.21	.51	.51
33	170.67 Sec	39	.04	-84.07	.38	.38
34	227.56 Sec	54	.06	-140.38	.55	.55
35	341.33 Sec	12	.07	-37.57	.65	.66
36	455.11 Sec	24	.08	-161.39	.51	.50
37	682.67 Sec	12	.17	-68.22	.65	.66
38	910.22 Sec	9	.05	-3.76	.62	.62
39	1365.33 Sec	3	.16	-58.67	.98	.97
40	1820.44 Sec	3	.37	-77.92	.91	.94

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E







PHOENIX GEOSCIENCE

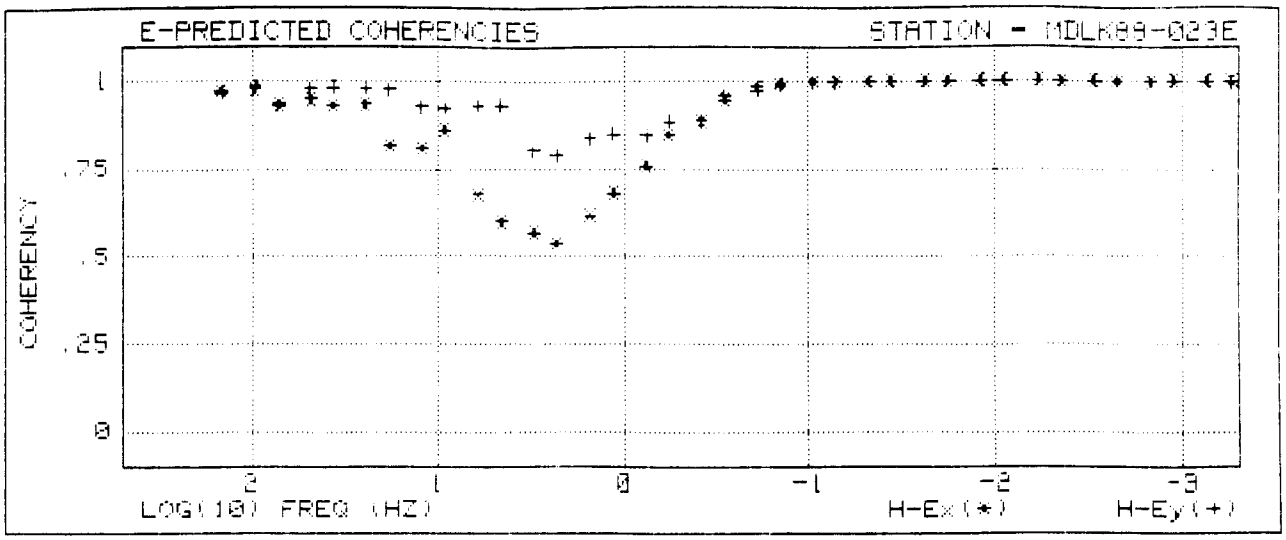
MT Site: MDLK89-023E

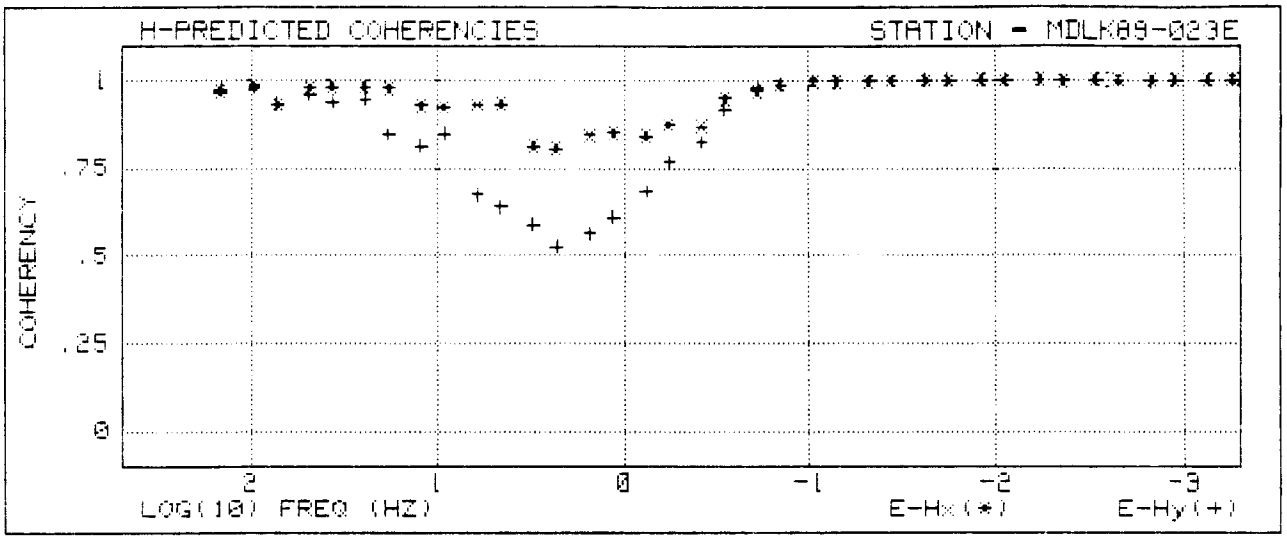
SKEW, ELLIPTICITY AND STRIKE

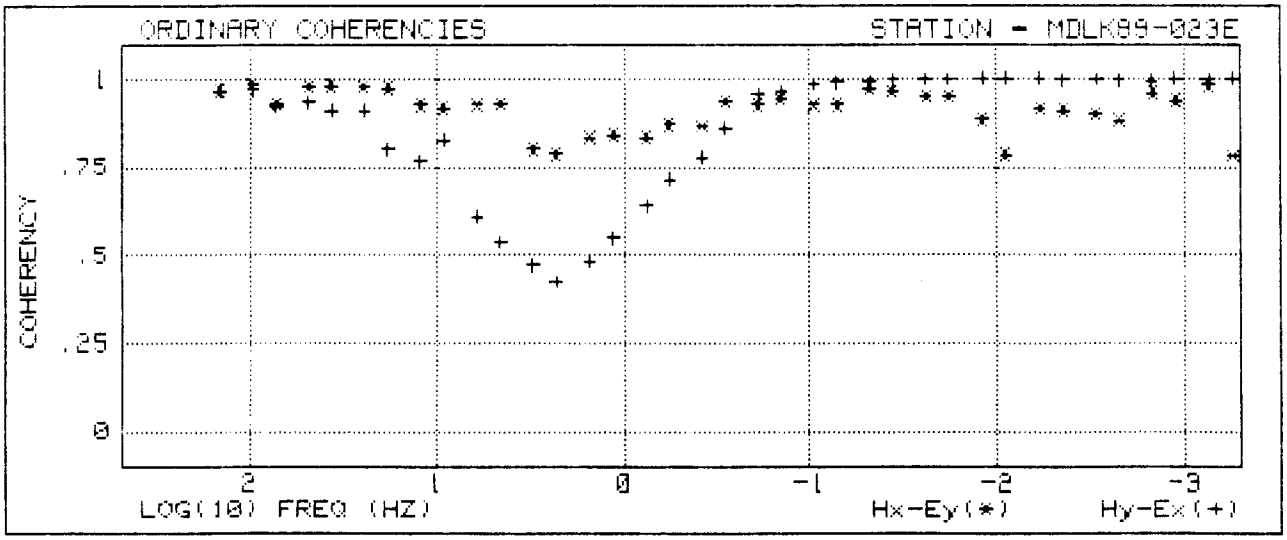
F#	Frq/Prd		STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00	Hz	192	.06	.71	123.50	.49	3.71	-148.72
5	96.00	Hz	1051	.05	.45	117.79	.97	.90	125.92
6	72.00	Hz	191	.06	.66	103.75	.81	.63	117.26
7	48.00	Hz	574	.04	.06	116.01	.32	.34	132.52
8	36.00	Hz	477	.07	.42	114.99	.43	.24	119.90
9	24.00	Hz	192	.07	.33	114.55	.37	.28	125.74
10	18.00	Hz	1152	.06	.42	121.63	.57	.41	136.33
11	12.00	Hz	1056	.10	.06	111.22	.86	.81	144.63
12	9.00	Hz	864	.06	.13	117.61	.04	7.58	-144.96
13	6.00	Hz	480	.12	.02	118.83	.87	1.70	110.26
14	4.50	Hz	480	.10	.18	123.34	.84	1.00	-111.90
15	3.00	Hz	4480	.17	.13	114.93	.81	.76	-117.07
16	2.25	Hz	14172	.16	.05	114.40	.68	.71	-117.42
17	1.50	Hz	7883	.16	.04	119.42	.40	.63	-133.07
18	1.13	Hz	8075	.16	.11	119.06	.44	.64	-156.58
19	1.33	Sec	3947	.16	.20	118.23	.26	.59	175.82
20	1.78	Sec	3947	.17	.21	116.04	.22	.49	155.61
21	2.67	Sec	1711	.13	.40	115.00	.13	.44	115.00
22	3.56	Sec	1680	.11	.40	113.13	.27	.44	105.52
23	5.33	Sec	556	.12	.36	109.54	.24	.38	92.56
24	7.11	Sec	1012	.11	.34	108.06	.29	.37	91.32
25	10.67	Sec	300	.09	.29	104.75	.41	.36	90.19
26	14.22	Sec	156	.10	.21	103.17	.54	.72	72.45
27	21.33	Sec	204	.11	.18	100.88	.28	.37	81.90
28	28.44	Sec	244	.11	.09	100.01	.65	.68	71.07
29	42.67	Sec	126	.12	.03	100.00	.22	.70	65.39
30	56.89	Sec	148	.12	.02	101.27	.24	.60	70.72
31	85.33	Sec	75	.13	.02	101.86	.25	.26	89.23
32	113.78	Sec	72	.14	.03	101.49	.83	.64	85.43
33	170.67	Sec	39	.15	.03	101.62	.62	.42	69.77
34	227.56	Sec	54	.14	.10	102.00	.85	.88	65.26
35	341.33	Sec	12	.15	.12	101.34	.94	1.29	19.65
36	455.11	Sec	24	.18	.09	100.10	.35	4.35	16.00
37	682.67	Sec	12	.18	.06	98.33	.36	4.78	22.11
38	910.22	Sec	9	.18	.00	99.73	.86	1.59	84.89
39	1365.33	Sec	3	.22	.15	99.49	.62	1.22	104.96
40	1820.44	Sec	3	.24	.05	95.24	.39	.92	39.53

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E







PHOENIX GEOSCIENCE

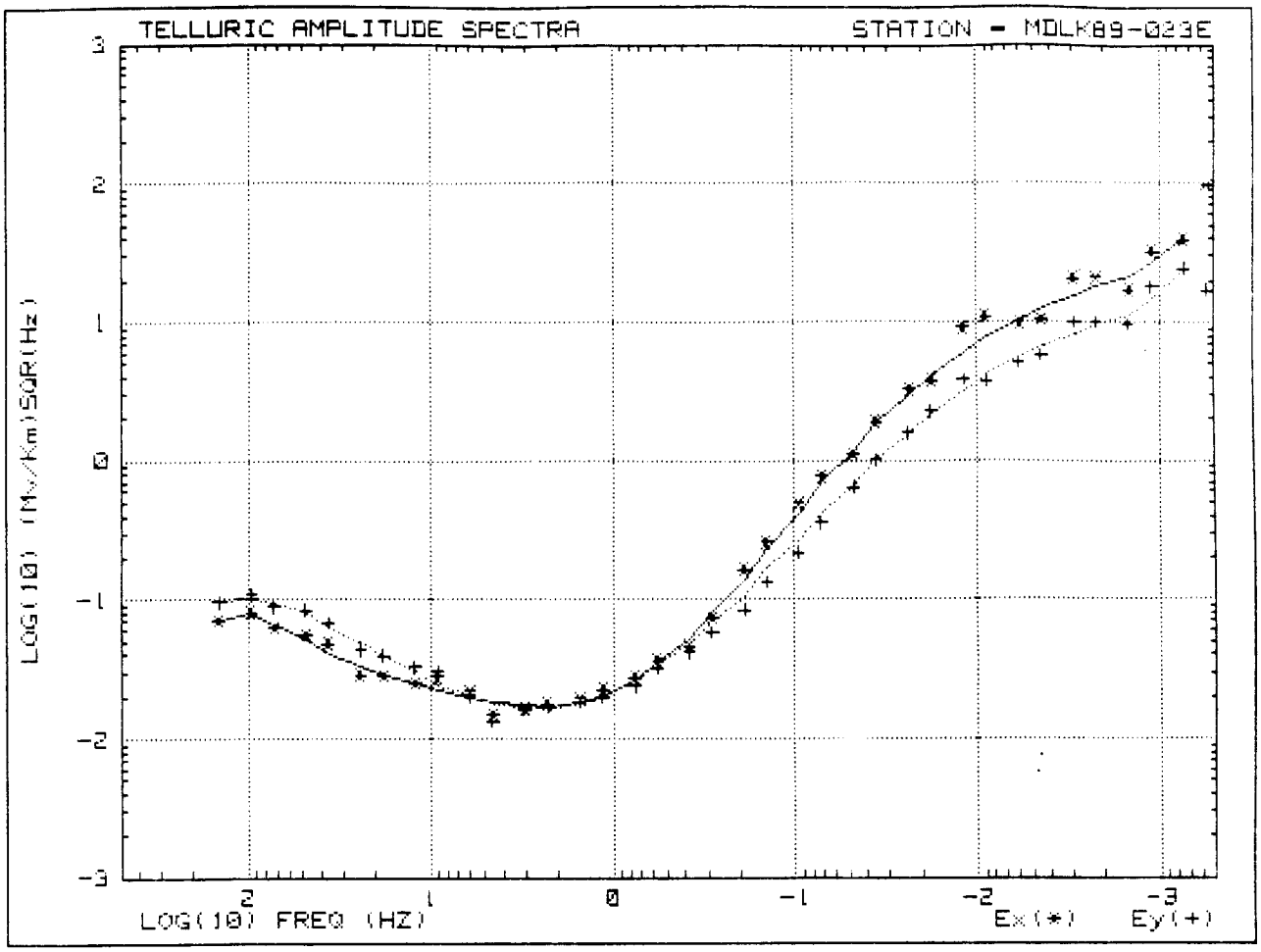
MT Site: MDLK89-023E

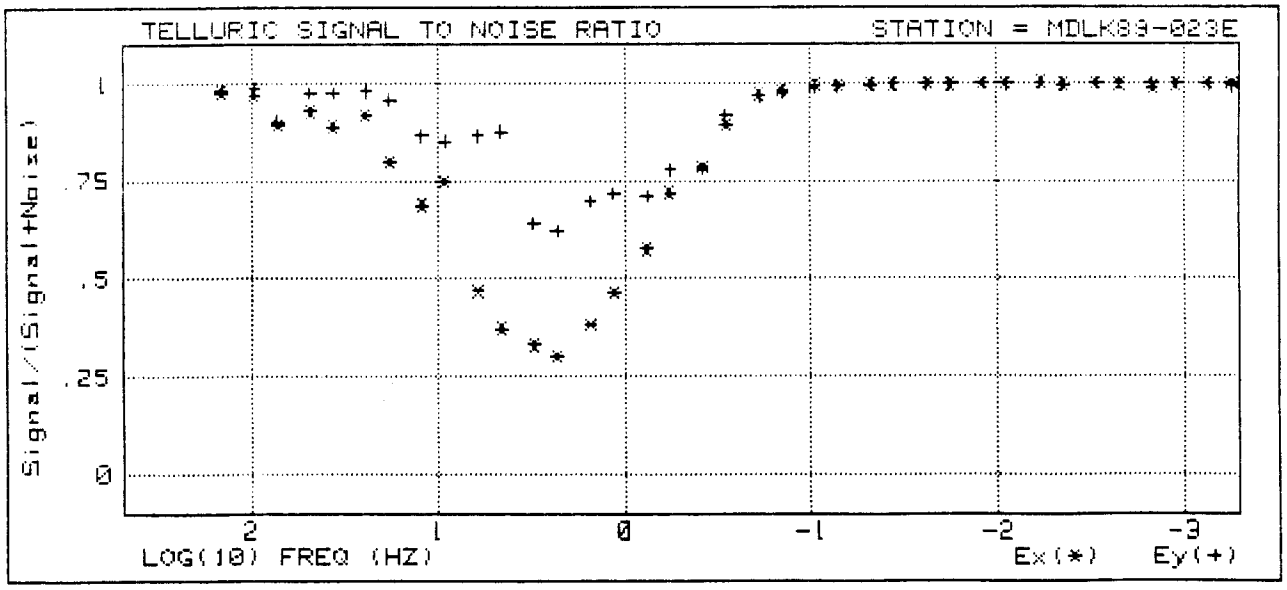
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	192	.97	.96	.96	.97	.96	.96
5	96.00 Hz	1051	.97	.98	.98	.98	.98	.97
6	72.00 Hz	191	.93	.93	.93	.93	.93	.92
7	48.00 Hz	574	.95	.98	.98	.95	.98	.93
8	36.00 Hz	477	.93	.98	.98	.94	.98	.91
9	24.00 Hz	192	.93	.98	.98	.94	.98	.91
10	18.00 Hz	1152	.81	.97	.97	.84	.97	.80
11	12.00 Hz	1056	.81	.92	.92	.81	.92	.76
12	9.00 Hz	864	.86	.92	.92	.84	.91	.82
13	6.00 Hz	480	.67	.93	.93	.67	.92	.61
14	4.50 Hz	480	.59	.93	.93	.64	.93	.53
15	3.00 Hz	4480	.56	.80	.81	.59	.80	.47
16	2.25 Hz	14172	.53	.78	.80	.52	.78	.42
17	1.50 Hz	7883	.61	.83	.84	.56	.83	.48
18	1.13 Hz	8075	.68	.84	.85	.61	.84	.55
19	1.33 Sec	3947	.75	.84	.84	.68	.83	.64
20	1.78 Sec	3947	.84	.88	.87	.77	.87	.71
21	2.67 Sec	1711	.88	.88	.87	.82	.86	.77
22	3.56 Sec	1680	.94	.96	.95	.92	.93	.86
23	5.33 Sec	556	.98	.97	.97	.98	.92	.96
24	7.11 Sec	1012	.99	.98	.98	.99	.94	.96
25	10.67 Sec	300	1.00	.99	.99	1.00	.92	.98
26	14.22 Sec	156	1.00	.99	.99	.99	.92	.99
27	21.33 Sec	204	1.00	1.00	.99	1.00	.97	.99
28	28.44 Sec	244	1.00	1.00	1.00	1.00	.96	1.00
29	42.67 Sec	126	1.00	1.00	1.00	1.00	.95	1.00
30	56.89 Sec	148	1.00	1.00	1.00	1.00	.95	1.00
31	85.33 Sec	75	1.00	1.00	1.00	1.00	.88	1.00
32	113.78 Sec	72	1.00	1.00	1.00	1.00	.78	1.00
33	170.67 Sec	39	1.00	1.00	1.00	1.00	.91	1.00
34	227.56 Sec	54	1.00	1.00	.99	1.00	.91	.99
35	341.33 Sec	12	1.00	1.00	1.00	1.00	.90	1.00
36	455.11 Sec	24	1.00	1.00	1.00	1.00	.88	1.00
37	682.67 Sec	12	.99	1.00	1.00	.99	.96	.99
38	910.22 Sec	9	1.00	1.00	1.00	1.00	.94	1.00
39	1365.33 Sec	3	1.00	1.00	1.00	1.00	.98	1.00
40	1820.44 Sec	3	1.00	.99	1.00	1.00	.78	1.00

PHOENIX GEOSCIENCE

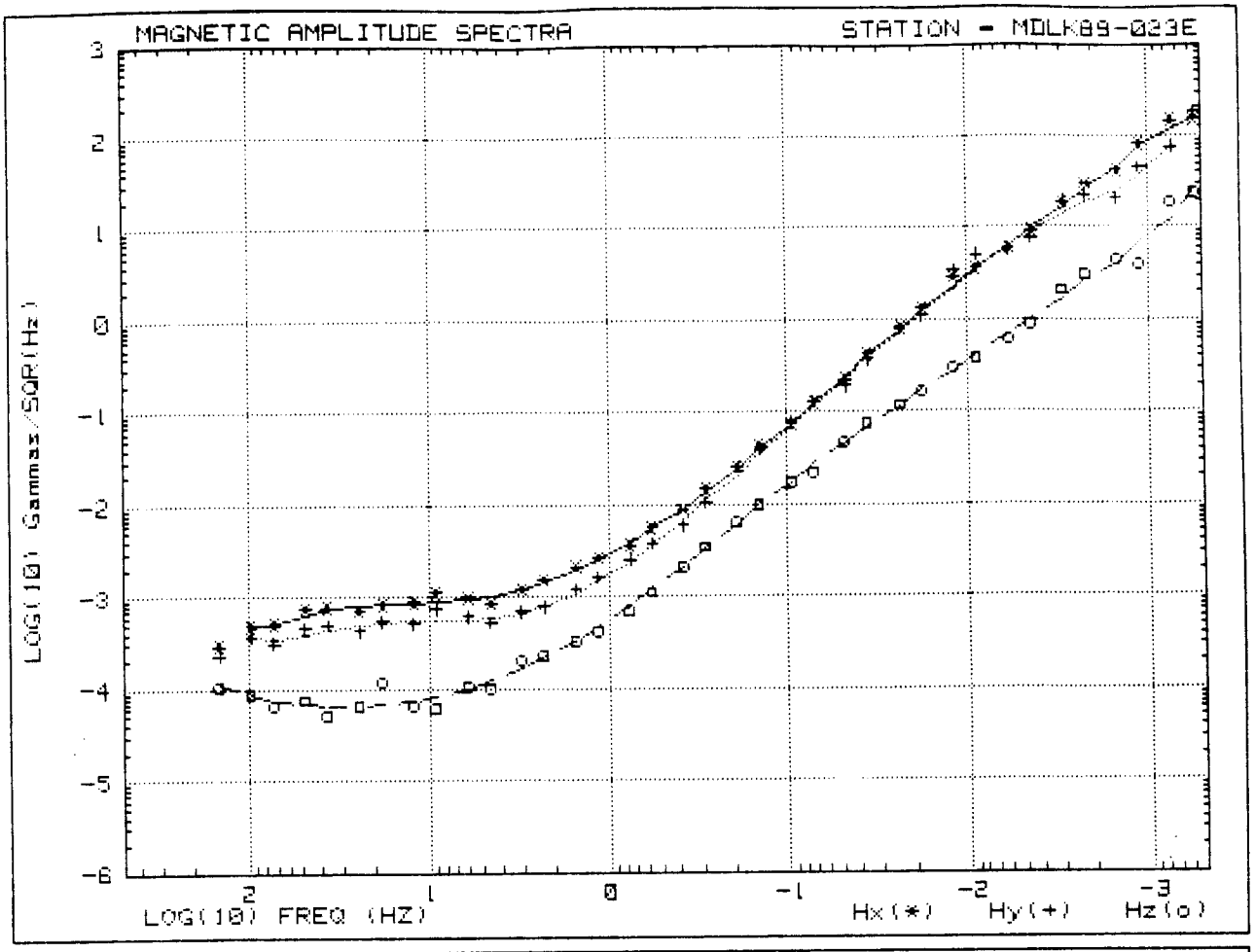
MT Site: MDLK89-023E

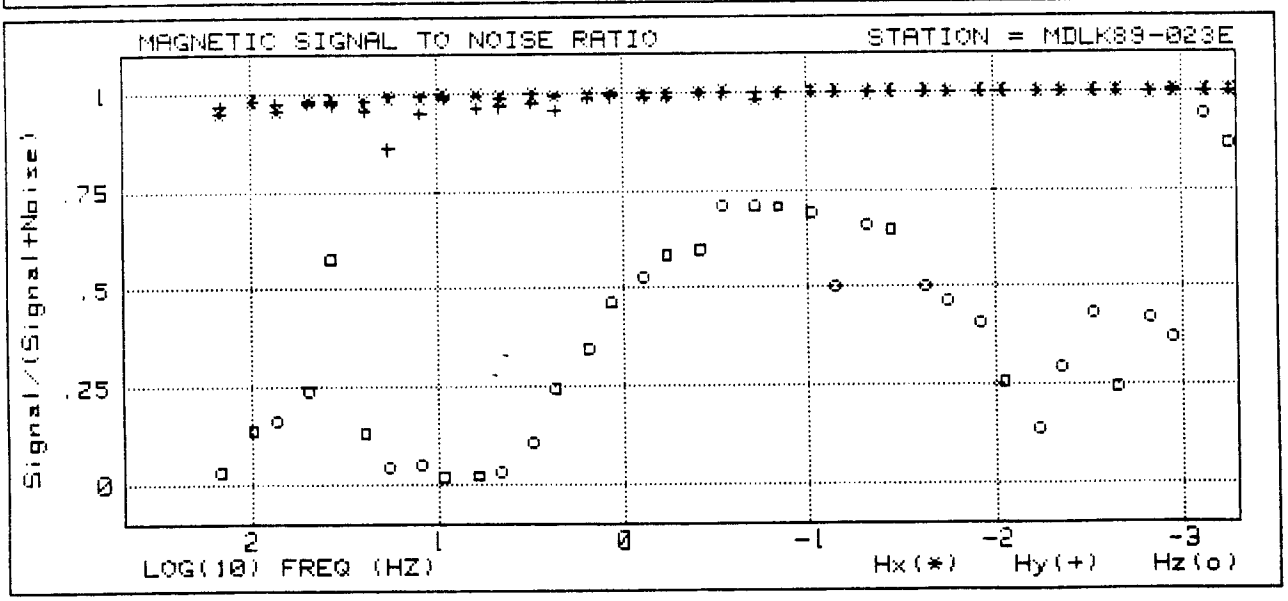




PHOENIX GEOSCIENCE

MT Site: MDLK89-023E





PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd		STACKS	HX	HY	HZ	EX	EY
4	144.00	Hz	192	2.90E-04	2.23E-04	1.11E-04	7.00E-02	9.46E-02
5	96.00	Hz	1051	4.76E-04	3.69E-04	9.14E-05	8.00E-02	1.06E-01
6	72.00	Hz	191	5.00E-04	3.10E-04	6.69E-05	6.15E-02	8.72E-02
7	48.00	Hz	574	7.34E-04	4.50E-04	7.94E-05	5.49E-02	8.32E-02
8	36.00	Hz	477	7.56E-04	4.84E-04	5.29E-05	4.77E-02	6.68E-02
9	24.00	Hz	192	7.00E-04	4.20E-04	6.72E-05	2.81E-02	4.25E-02
10	18.00	Hz	1152	8.18E-04	5.37E-04	1.22E-04	2.80E-02	3.90E-02
11	12.00	Hz	1056	8.62E-04	5.09E-04	6.70E-05	2.47E-02	3.20E-02
12	9.00	Hz	864	1.11E-03	7.22E-04	6.28E-05	2.76E-02	2.97E-02
13	6.00	Hz	480	9.73E-04	6.04E-04	1.12E-04	2.16E-02	1.99E-02
14	4.50	Hz	480	8.39E-04	5.17E-04	1.06E-04	1.48E-02	1.32E-02
15	3.00	Hz	4480	1.19E-03	6.80E-04	2.14E-04	1.64E-02	1.58E-02
16	2.25	Hz	14172	1.52E-03	7.76E-04	2.34E-04	1.74E-02	1.67E-02
17	1.50	Hz	7883	2.07E-03	1.17E-03	3.44E-04	1.93E-02	1.81E-02
18	1.13	Hz	8075	2.58E-03	1.60E-03	4.46E-04	2.21E-02	1.98E-02
19	1.33	Sec	3947	3.59E-03	2.49E-03	7.32E-04	2.70E-02	2.35E-02
20	1.78	Sec	3947	5.60E-03	3.72E-03	1.17E-03	3.57E-02	3.14E-02
21	2.67	Sec	1711	8.67E-03	5.86E-03	2.20E-03	4.59E-02	4.11E-02
22	3.56	Sec	1680	1.46E-02	1.02E-02	3.65E-03	7.24E-02	5.73E-02
23	5.33	Sec	556	2.52E-02	2.54E-02	6.71E-03	1.64E-01	8.27E-02
24	7.11	Sec	1012	4.15E-02	3.83E-02	1.04E-02	2.56E-01	1.32E-01
25	10.67	Sec	300	7.24E-02	7.92E-02	1.83E-02	4.86E-01	2.17E-01
26	14.22	Sec	156	1.26E-01	1.26E-01	2.32E-02	7.56E-01	3.53E-01
27	21.33	Sec	204	2.25E-01	1.88E-01	4.92E-02	1.09E+00	6.38E-01
28	28.44	Sec	244	4.11E-01	3.66E-01	7.98E-02	1.86E+00	1.00E+00
29	42.67	Sec	126	7.97E-01	7.60E-01	1.25E-01	3.17E+00	1.54E+00
30	56.89	Sec	148	1.32E+00	1.08E+00	1.71E-01	3.70E+00	2.20E+00
31	85.33	Sec	75	2.84E+00	3.40E+00	3.10E-01	8.96E+00	3.75E+00
32	113.78	Sec	72	3.54E+00	5.03E+00	4.12E-01	1.08E+01	3.68E+00
33	170.67	Sec	39	5.91E+00	5.80E+00	6.57E-01	9.70E+00	4.97E+00
34	227.56	Sec	54	9.08E+00	7.41E+00	9.52E-01	1.02E+01	5.66E+00
35	341.33	Sec	12	1.85E+01	1.88E+01	2.21E+00	2.05E+01	9.78E+00
36	455.11	Sec	24	2.95E+01	2.16E+01	3.19E+00	2.08E+01	9.79E+00
37	682.67	Sec	12	4.17E+01	2.02E+01	4.66E+00	1.67E+01	9.46E+00
38	910.22	Sec	9	8.05E+01	4.53E+01	4.21E+00	3.17E+01	1.75E+01
39	1365.33	Sec	3	1.42E+02	7.34E+01	1.96E+01	3.86E+01	2.40E+01
40	1820.44	Sec	3	1.46E+02	1.79E+02	2.54E+01	9.54E+01	1.67E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	192	.948	.965	.036	.976	.981
5	96.00 Hz	1051	.978	.981	.140	.969	.985
6	72.00 Hz	191	.954	.972	.168	.891	.900
7	48.00 Hz	574	.979	.972	.246	.927	.973
8	36.00 Hz	477	.982	.970	.581	.887	.972
9	24.00 Hz	192	.977	.957	.134	.916	.976
10	18.00 Hz	1152	.990	.858	.050	.797	.956
11	12.00 Hz	1056	.989	.948	.053	.686	.864
12	9.00 Hz	864	.994	.985	.026	.747	.849
13	6.00 Hz	480	.993	.961	.026	.468	.863
14	4.50 Hz	480	.988	.965	.036	.370	.875
15	3.00 Hz	4480	.996	.973	.113	.328	.638
16	2.25 Hz	14172	.992	.953	.248	.299	.620
17	1.50 Hz	7883	.996	.986	.350	.381	.696
18	1.13 Hz	8075	.998	.990	.467	.462	.714
19	1.33 Sec	3947	.997	.988	.534	.574	.708
20	1.78 Sec	3947	.997	.987	.592	.717	.775
21	2.67 Sec	1711	.998	.995	.605	.783	.779
22	3.56 Sec	1680	.999	.996	.715	.890	.914
23	5.33 Sec	556	.980	.999	.714	.969	.963
24	7.11 Sec	1012	.995	.999	.713	.979	.974
25	10.67 Sec	300	1.000	1.000	.697	.993	.990
26	14.22 Sec	156	1.000	1.000	.508	.991	.989
27	21.33 Sec	204	.996	1.000	.665	.993	.994
28	28.44 Sec	244	.999	1.000	.655	.995	.995
29	42.67 Sec	126	.999	1.000	.510	.997	.996
30	56.89 Sec	148	.998	1.000	.469	.996	.996
31	85.33 Sec	75	.999	1.000	.414	.999	.997
32	113.78 Sec	72	1.000	1.000	.262	.997	.996
33	170.67 Sec	39	.998	1.000	.144	.999	.999
34	227.56 Sec	54	.998	1.000	.299	.993	.993
35	341.33 Sec	12	1.000	1.000	.440	.997	.997
36	455.11 Sec	24	1.000	1.000	.249	.995	.997
37	682.67 Sec	12	.996	1.000	.427	.987	.998
38	910.22 Sec	9	1.000	1.000	.376	.996	.998
39	1365.33 Sec	3	1.000	.999	.946	.997	.996
40	1820.44 Sec	3	1.000	1.000	.874	.999	.990

PHOENIX GEOSCIENCE

MT Site: MDLK89-023E

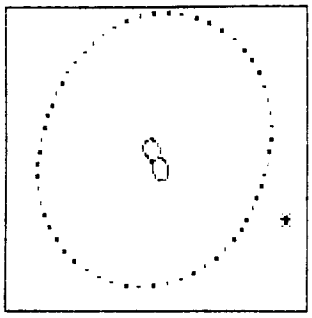
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

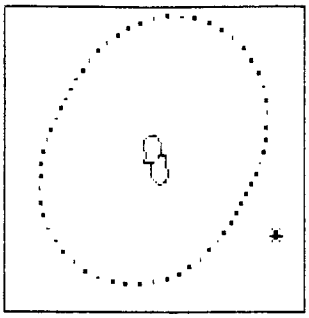
*=Rotation Direction

Zxy = ...
Zxx = ___

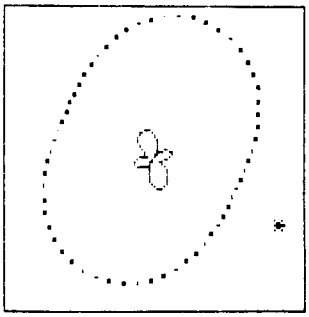
F=8 (36.0 Hz)



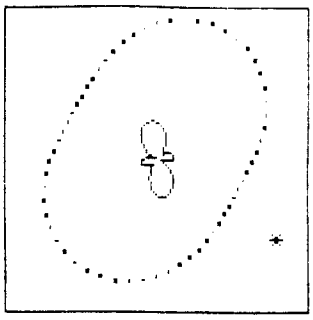
F=10 (18.0 Hz)



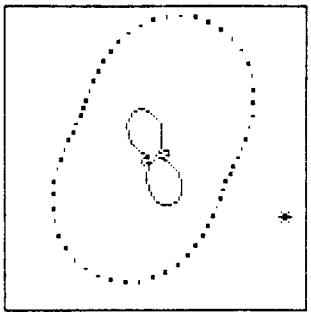
F=12 (9.0 Hz)



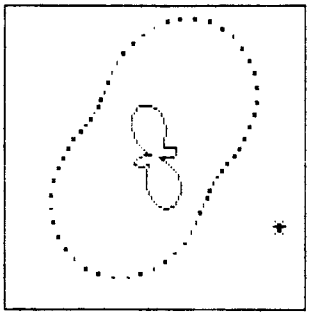
F=14 (4.5 Hz)



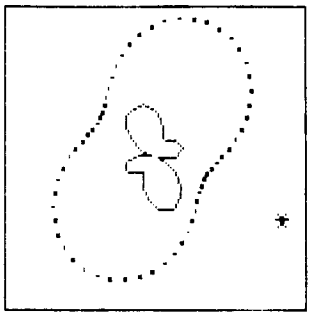
F=16 (2.3 Hz)



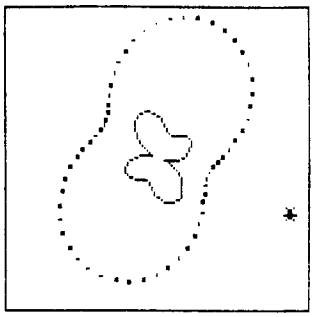
F=18 (1.1 Hz)



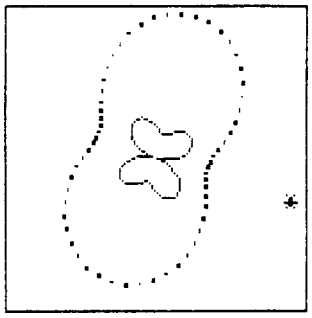
F=20 (.5625 Hz)



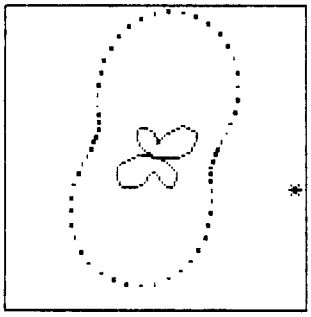
F=22 (.2813 Hz)



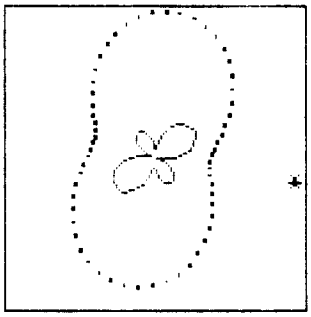
F=24 (.1406 Hz)



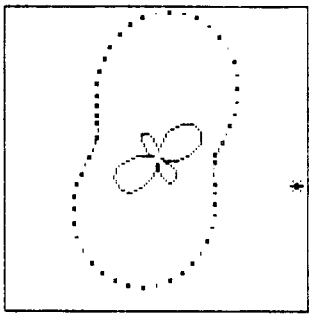
F=26 (.0703 Hz)



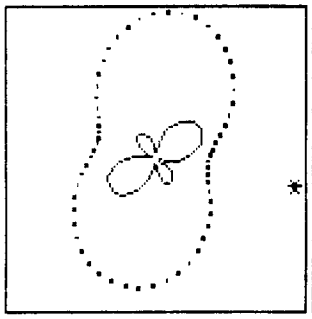
F=28 (.0352 Hz)



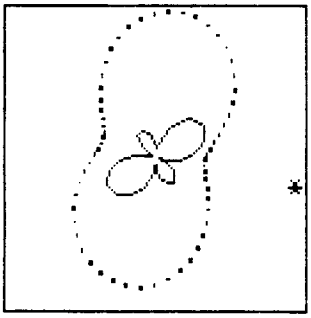
F=30 (.0176 Hz)



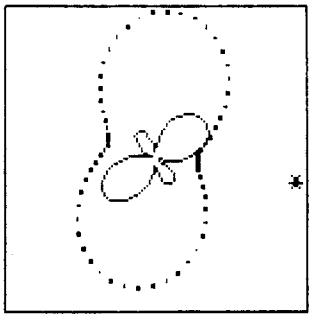
F=32 (.0088 Hz)



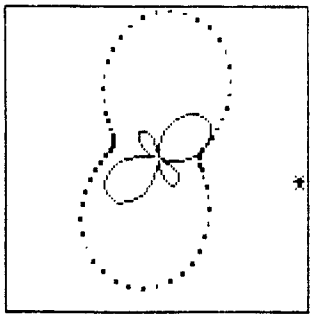
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-024s/025s/026s/

Operator:M. SNOW
Date: 29 Aug 1989
Time: 14:58:08

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#432-16Aug89-01
Sens-Ch02: C#235-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#431-16Aug89-01
Sens-Ch08: L#333-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-024s
Site Desc:T43N R4E SEC24 SE4
41,35,02 N 121,32,41 W
Elevation:6900 FT
Reference:MDLK89-025s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL432	+45 DEG
Hy	2	COIL235	+135 DEG
Hz	3	LOOP005	
Ex	4	143 M	+45 DEG
Ey	5	180 M	+135 DEG
Rx	6	COIL430	+0 DEG
Ry	7	COIL431	+90 DEG

Ex Pot Resist: 10.0K Ohms
Ex Voltage: AC=5.80 mv, DC=33.4 mv
Ey Pot Resist: 13.0K Ohms
Ey Voltage: AC=4.60 mv, DC=4.60 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

OPERATOR LOG FOR MT SITES MDLK89-024a/025a/026a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-024a/025a/026a/
Run STARTED: 14:58:08 29 Aug 1989
Run QUIT: 02:45:00 30 Aug 1989
Run Start and Stop Time for MDLK89-024b/025b/026b/
Run STARTED: 03:20:28 30 Aug 1989
Run QUIT: 08:35:36 30 Aug 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
MEGA-LIGHTNING STORM FROM 2100hrs. TO 2400hrs. WITH RAIN AND WINDS
Other Factors:
NONE

PHOENIX GEOSCIENCE

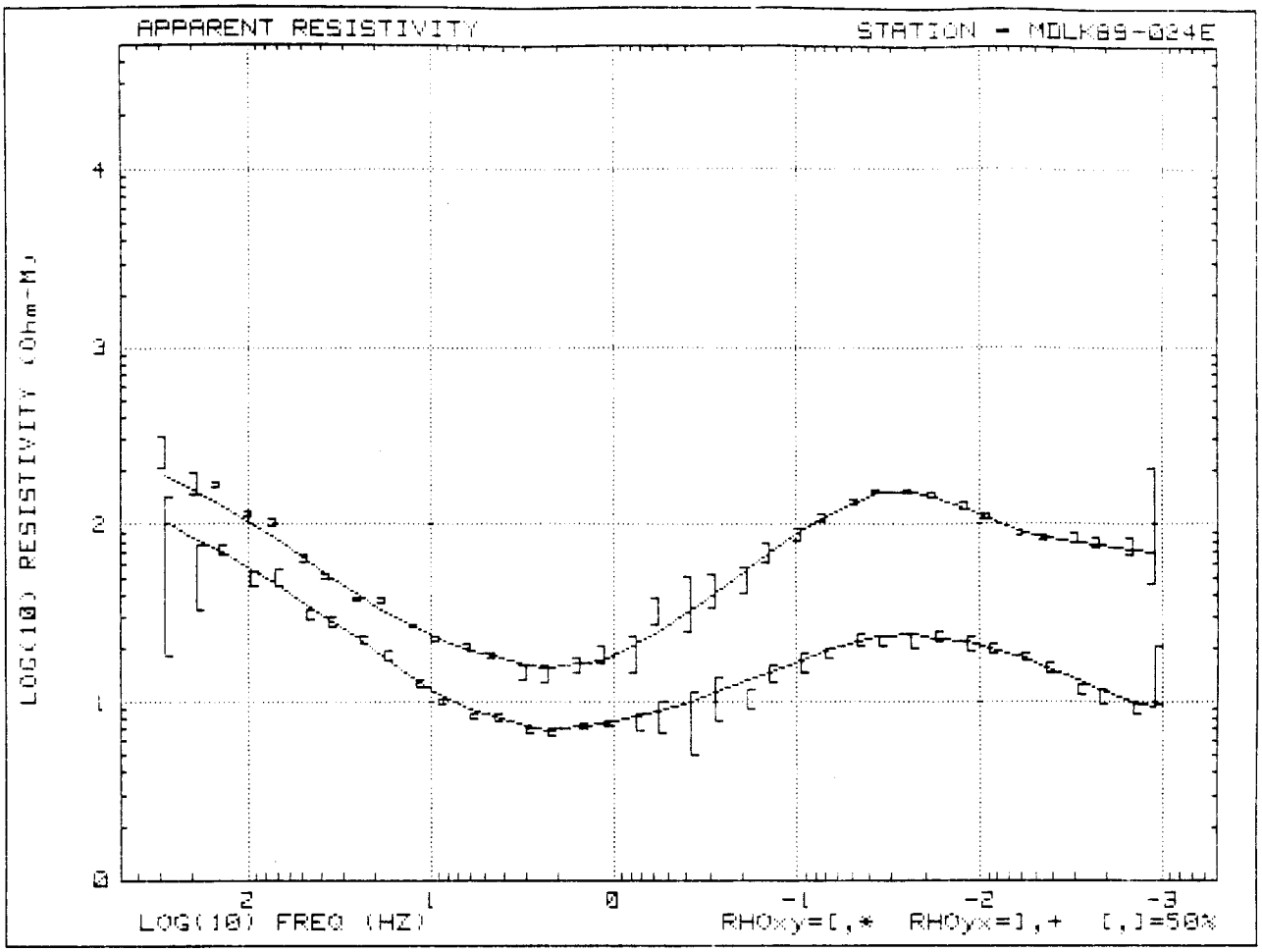
MT Site: MDLK89-024E

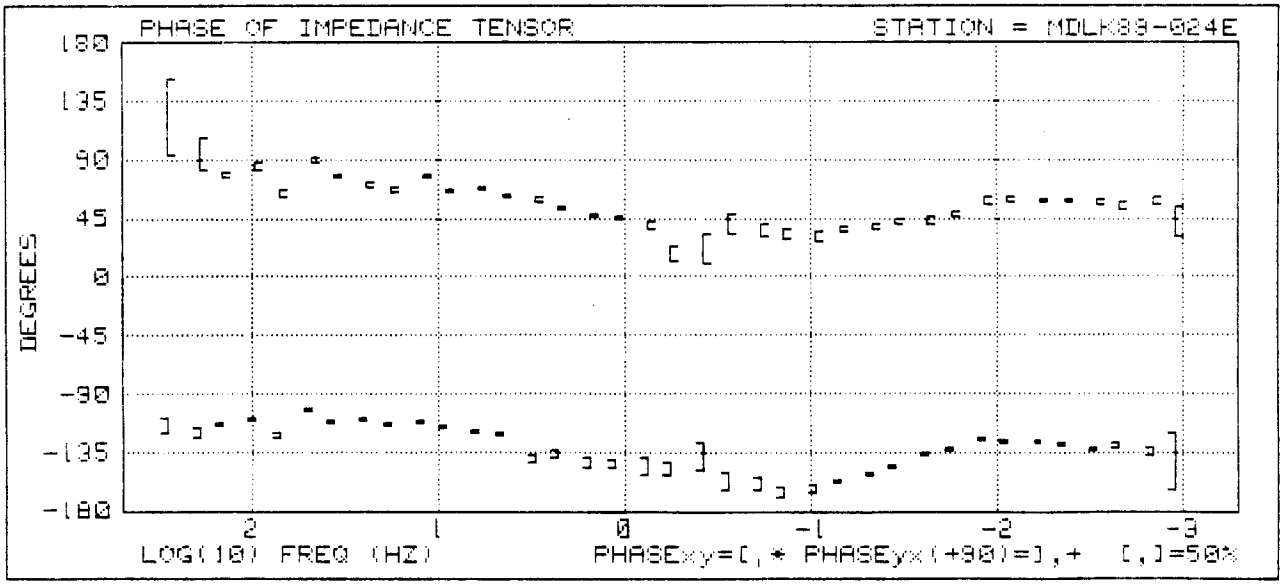
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

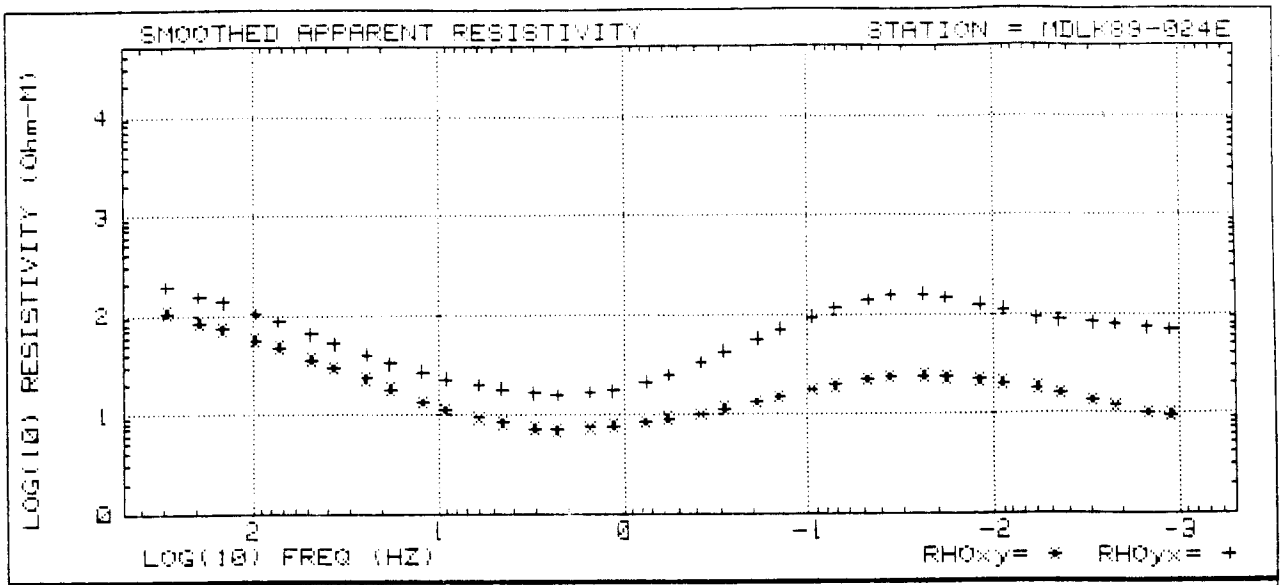
MT Site: MDLK89-024E

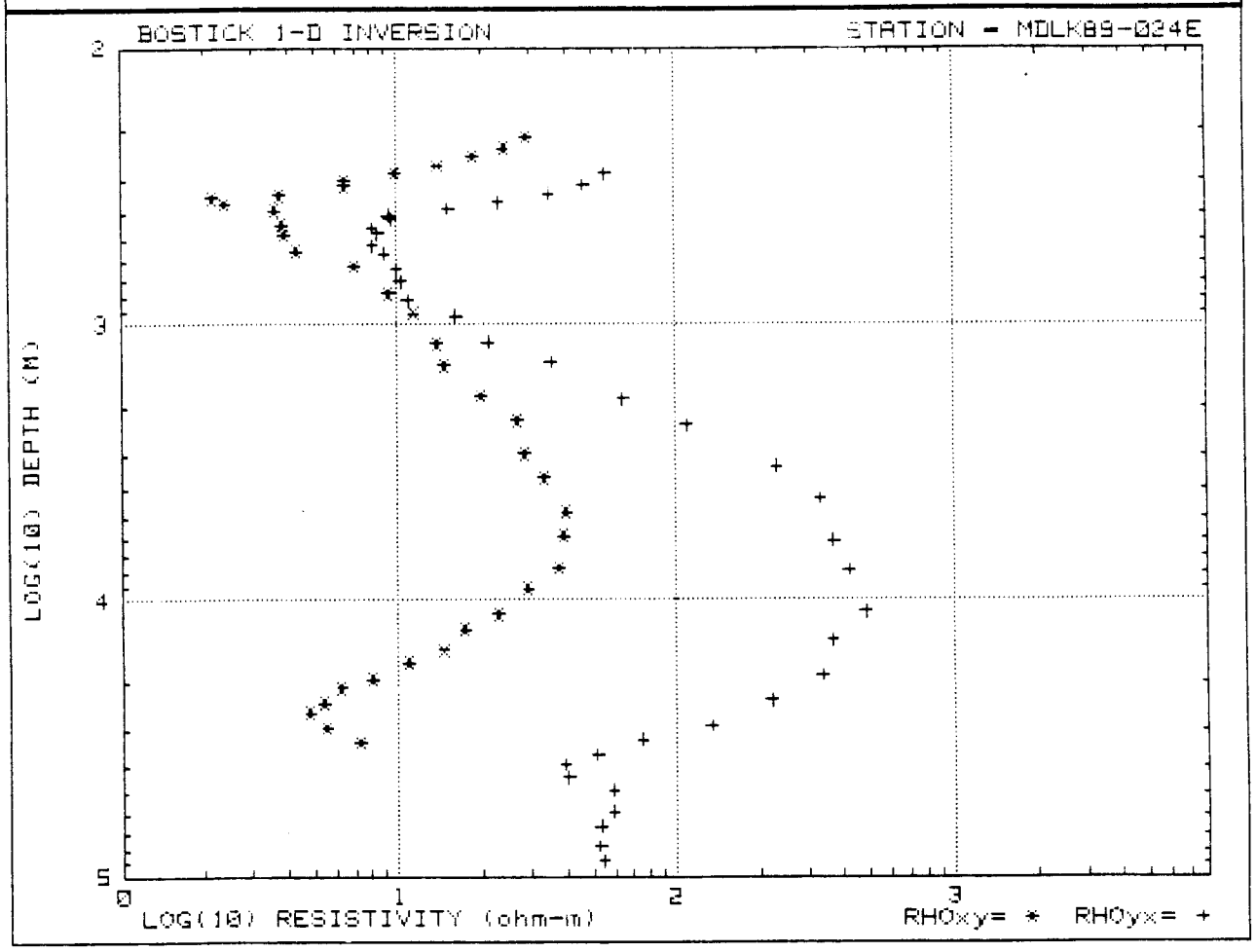




PHOENIX GEOSCIENCE

MT Site: MDLK89-024E





PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	188	50.7	99.9	254.4	34.5	123.0	43.9	-115.0	8.5
3	192.00 Hz	190	50.5	89.2	171.1	23.2	93.7	18.3	-119.8	6.0
4	144.00 Hz	189	71.3	9.4	164.9	4.4	77.9	2.6	-113.6	1.2
5	96.00 Hz	96	49.6	15.7	113.6	4.9	84.2	4.2	-108.8	1.4
6	72.00 Hz	95	50.0	18.2	102.4	7.3	64.1	4.8	-121.9	2.0
7	48.00 Hz	96	30.9	11.0	64.2	5.9	89.8	3.0	-102.6	1.6
8	36.00 Hz	384	28.0	8.9	50.7	3.5	77.3	2.4	-110.9	1.0
9	24.00 Hz	96	22.4	8.7	37.7	3.4	71.3	2.4	-109.6	1.0
10	18.00 Hz	96	18.1	8.6	36.9	5.0	67.5	2.4	-112.7	1.4
11	12.00 Hz	96	12.8	6.8	26.9	4.6	77.1	1.9	-110.9	1.3
12	9.00 Hz	190	10.0	4.9	22.7	4.1	65.3	1.4	-115.1	1.1
13	6.00 Hz	288	8.4	5.6	20.6	2.9	68.6	1.6	-118.7	.8
14	4.50 Hz	288	8.1	8.4	18.2	4.1	62.2	2.3	-120.8	1.2
15	3.00 Hz	3359	6.9	6.3	14.6	15.8	59.4	1.8	-139.9	4.2
16	2.25 Hz	1664	6.9	6.9	14.4	18.1	53.2	1.9	-135.6	4.8
17	1.50 Hz	1184	7.3	4.3	16.1	17.1	46.4	1.2	-142.6	4.5
18	1.13 Hz	1184	7.6	4.9	18.5	17.8	44.4	1.4	-143.4	4.7
19	1.33 Sec	2496	7.7	18.0	18.5	40.5	39.3	4.7	-145.8	9.7
20	1.78 Sec	3146	8.2	33.6	32.1	28.4	17.6	8.3	-147.5	7.2
21	2.67 Sec	1271	7.6	82.5	35.9	71.0	21.2	17.2	-138.6	15.4
22	3.56 Sec	624	10.4	52.9	42.3	39.6	40.3	12.2	-156.3	9.6
23	5.33 Sec	372	10.3	22.4	48.6	29.3	35.8	5.8	-159.2	7.4
24	7.11 Sec	180	14.6	18.1	70.2	20.3	33.3	4.8	-165.7	5.3
25	10.67 Sec	90	16.6	21.3	87.8	13.3	31.5	5.5	-162.8	3.6
26	14.22 Sec	240	18.8	11.0	109.9	5.8	37.3	3.0	-156.9	1.6
27	21.33 Sec	150	22.2	11.5	134.3	5.7	38.7	3.1	-150.9	1.6
28	28.44 Sec	250	22.1	10.7	153.3	3.3	41.8	2.9	-145.9	.9
29	42.67 Sec	228	21.9	16.4	155.5	3.6	43.2	4.3	-136.5	1.0
30	56.89 Sec	108	23.3	9.7	147.2	4.3	48.7	2.7	-132.7	1.2
31	85.33 Sec	84	21.2	13.7	128.2	6.9	58.0	3.7	-125.1	1.9
32	113.78 Sec	57	20.0	10.3	111.8	4.6	59.9	2.8	-125.8	1.3
33	170.67 Sec	33	17.9	7.6	88.1	4.9	58.6	2.1	-126.5	1.4
34	227.56 Sec	39	15.5	8.4	83.5	6.1	58.4	2.3	-128.0	1.7
35	341.33 Sec	12	11.8	10.8	83.1	9.2	58.3	2.9	-132.1	2.5
36	455.11 Sec	18	10.7	14.4	79.0	9.5	55.2	3.8	-129.5	2.6
37	682.67 Sec	3	9.2	11.1	74.9	16.4	58.5	3.0	-134.9	4.3
38	910.22 Sec	6	14.1	76.9	97.7	99.9	42.9	16.3	-142.4	32.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	188	103.3	189.6	29.3	213	56.5	289
3	192.00 Hz	190	82.4	152.2	24.2	233	47.1	317
4	144.00 Hz	189	70.8	131.5	18.8	250	35.3	340
5	96.00 Hz	96	55.1	102.0	14.1	270	23.1	367
6	72.00 Hz	95	46.9	85.0	9.9	287	15.3	387
7	48.00 Hz	96	35.1	63.1	6.5	304	9.4	408
8	36.00 Hz	384	29.1	50.8	6.5	320	9.5	423
9	24.00 Hz	96	22.6	39.2	3.8	345	8.2	455
10	18.00 Hz	96	17.7	32.3	2.2	353	8.6	477
11	12.00 Hz	96	13.1	26.2	2.4	372	8.2	526
12	9.00 Hz	190	11.0	22.5	3.6	393	9.0	562
13	6.00 Hz	288	9.2	19.5	3.8	442	10.0	642
14	4.50 Hz	288	8.3	18.0	3.9	482	10.3	711
15	3.00 Hz	3359	7.2	16.2	4.4	552	11.0	827
16	2.25 Hz	1664	7.0	15.7	7.0	626	16.3	940
17	1.50 Hz	1184	7.3	16.4	9.3	783	21.3	1177
18	1.13 Hz	1184	7.6	17.2	11.5	923	35.8	1391
19	1.33 Sec	2496	8.4	20.9	13.9	1189	65.0	1880
20	1.78 Sec	3146	9.0	24.5	14.8	1422	110.6	2350
21	2.67 Sec	1271	9.9	32.5	19.9	1831	233.2	3315
22	3.56 Sec	624	11.3	41.4	27.0	2260	334.9	4318
23	5.33 Sec	372	13.2	55.9	28.5	2982	373.4	6144
24	7.11 Sec	180	14.6	69.1	33.7	3631	422.8	7891
25	10.67 Sec	90	17.3	92.0	40.6	4835	486.5	11147
26	14.22 Sec	240	19.4	110.9	39.6	5904	369.4	14135
27	21.33 Sec	150	22.0	133.6	37.8	7702	339.9	18996
28	28.44 Sec	250	23.3	150.0	29.4	9154	223.1	23248
29	42.67 Sec	228	23.8	153.0	22.9	11345	135.1	28752
30	56.89 Sec	108	22.9	143.7	17.5	12854	75.8	32178
31	85.33 Sec	84	21.7	123.4	14.6	15314	52.1	36525
32	113.78 Sec	57	20.0	108.4	10.9	16990	39.8	39524
33	170.67 Sec	33	17.7	89.5	8.1	19553	40.9	43996
34	227.56 Sec	39	15.5	83.7	6.3	21134	59.7	49121
35	341.33 Sec	12	13.2	79.7	5.4	23881	59.5	58713
36	455.11 Sec	18	11.6	75.7	4.8	25860	53.4	66060
37	682.67 Sec	3	9.9	70.7	5.6	29288	53.0	78212
38	910.22 Sec	6	9.6	68.6	7.3	33182	55.1	88907

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	188	-29.67	-185.53	999.99	-147.25	226.70	999.99
3	192.00 Hz	190	-14.10	-88.55	999.99	-14.23	219.80	999.99
4	144.00 Hz	189	-3.19	-19.95	56.04	47.35	221.59	208.11
5	96.00 Hz	96	-7.87	-2.83	37.16	15.67	153.44	253.13
6	72.00 Hz	95	-10.33	2.03	30.09	58.68	120.62	251.08
7	48.00 Hz	96	.86	4.79	7.62	.27	86.15	40.15
8	36.00 Hz	384	.11	3.99	2.39	15.57	69.26	18.27
9	24.00 Hz	96	-.28	3.65	1.15	16.60	49.08	9.39
10	18.00 Hz	96	-1.36	.68	.82	15.44	37.31	5.50
11	12.00 Hz	96	-.04	2.39	.88	6.22	27.03	1.65
12	9.00 Hz	190	.81	1.16	.20	8.85	19.24	.51
13	6.00 Hz	288	-.13	-.44	.05	5.77	14.75	.37
14	4.50 Hz	288	.37	.38	.08	6.31	11.97	.59
15	3.00 Hz	3359	-1.27	-1.42	.26	5.19	8.76	.20
16	2.25 Hz	1664	-.39	-1.23	.17	5.27	7.03	.17
17	1.50 Hz	1184	-.43	-1.21	.10	5.12	5.38	.05
18	1.13 Hz	1184	-.44	-1.34	.09	4.67	4.57	.05
19	1.33 Sec	2496	.427	-.822	.568	4.164	3.414	.397
20	1.78 Sec	3146	2.116	.455	1.151	4.583	1.453	.968
21	2.67 Sec	1271	.857	.666	5.350	3.530	1.369	2.593
22	3.56 Sec	624	-.047	-.935	.658	2.913	2.467	1.316
23	5.33 Sec	372	.597	-.548	.144	2.525	1.822	.199
24	7.11 Sec	180	-.138	-.384	.084	2.672	1.758	.141
25	10.67 Sec	90	-.209	-.246	.074	2.379	1.456	.145
26	14.22 Sec	240	.044	-.236	.019	2.045	1.556	.036
27	21.33 Sec	150	.098	-.088	.019	1.782	1.427	.031
28	28.44 Sec	250	.040	-.193	.013	1.468	1.312	.020
29	42.67 Sec	228	.041	-.029	.025	1.169	1.096	.030
30	56.89 Sec	108	.062	-.034	.010	.945	1.077	.009
31	85.33 Sec	84	-.036	-.071	.020	.590	.946	.010
32	113.78 Sec	57	.237	-.020	.006	.470	.810	.004
33	170.67 Sec	33	.048	.039	.001	.378	.618	.001
34	227.56 Sec	39	.080	-.003	.001	.306	.497	.001
35	341.33 Sec	12	.032	.028	.002	.218	.353	.001
36	455.11 Sec	18	.066	-.019	.001	.196	.282	.001
37	682.67 Sec	3	.048	-.029	.002	.135	.221	.000
38	910.22 Sec	6	.116	-.062	.275	.204	.190	.013

PHOENIX GEOSCIENCE

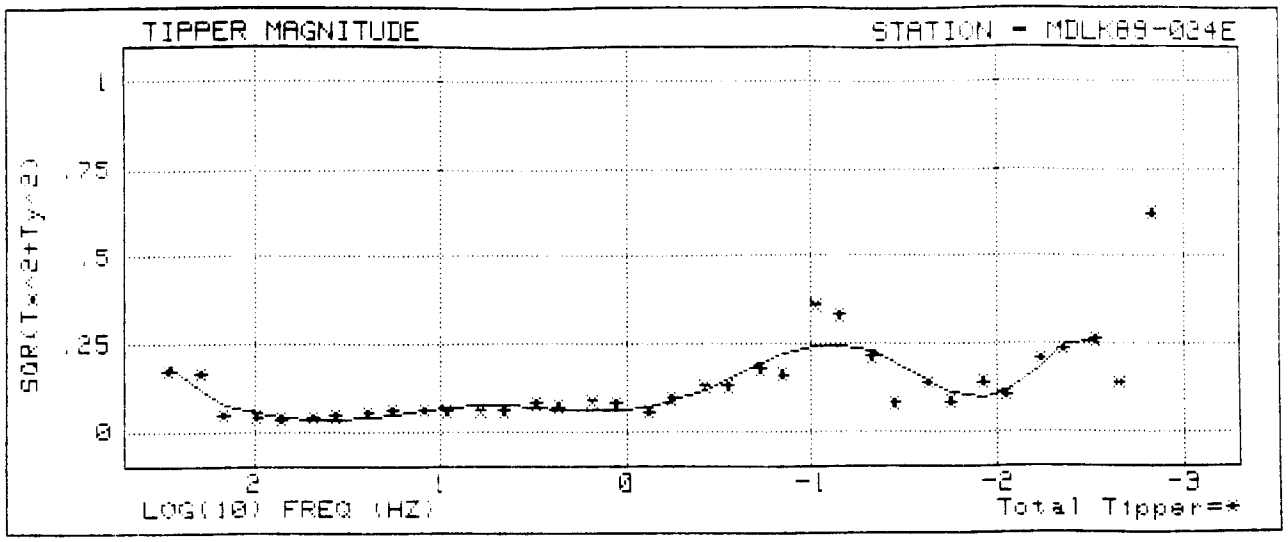
MT Site: MDLK89-024E

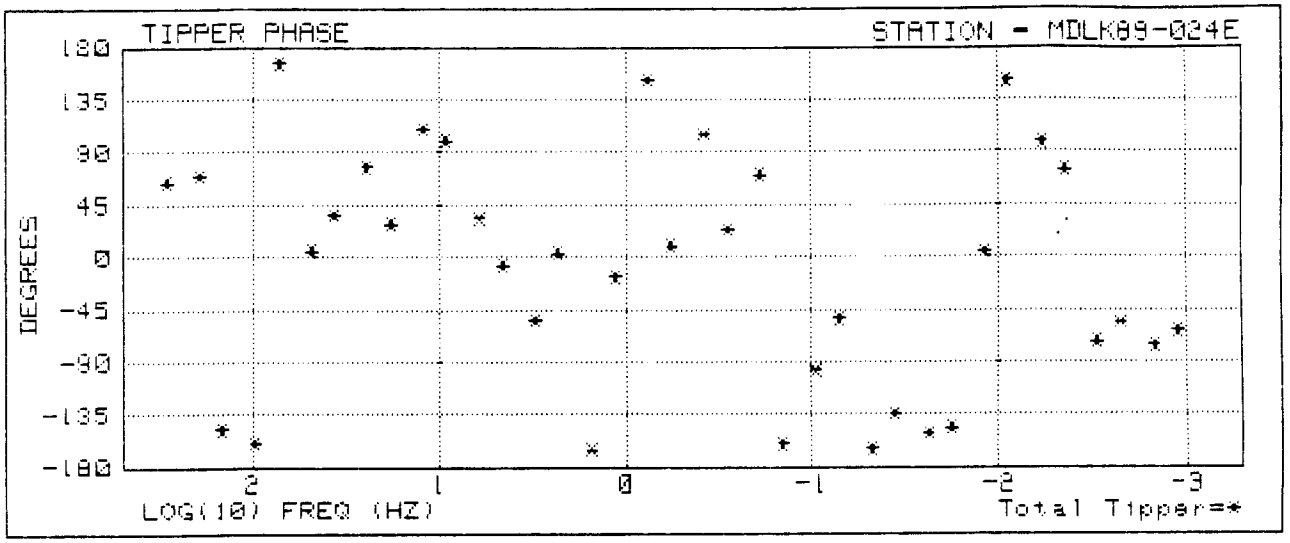
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

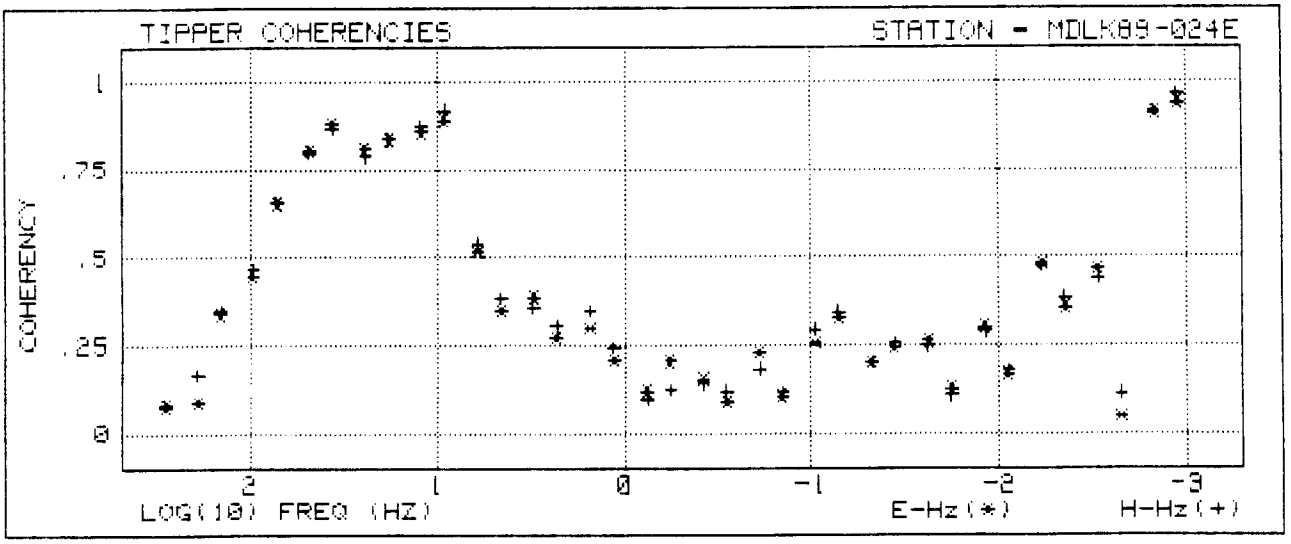
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	188	-255.76	-548.51	999.99	-176.47	-1.68	999.99
3	192.00 Hz	190	-201.16	-351.85	999.99	-46.10	-36.35	999.99
4	144.00 Hz	189	-138.07	-315.64	112.29	-26.98	2.99	417.01
5	96.00 Hz	96	-75.27	-221.08	61.51	-5.58	-4.85	419.06
6	72.00 Hz	95	-101.54	-162.97	92.05	-6.26	-2.08	768.15
7	48.00 Hz	96	-26.99	-121.14	25.50	.82	4.83	134.35
8	36.00 Hz	384	-34.10	-89.26	5.32	2.74	1.56	40.56
9	24.00 Hz	96	-22.53	-63.42	2.50	3.37	2.14	20.34
10	18.00 Hz	96	-22.24	-53.18	3.92	.27	-.02	26.22
11	12.00 Hz	96	-14.33	-37.49	1.65	1.39	1.28	3.11
12	9.00 Hz	190	-13.55	-28.91	.81	.66	1.23	2.08
13	6.00 Hz	288	-11.94	-21.78	.25	-2.38	1.53	1.85
14	4.50 Hz	288	-10.35	-17.38	.33	-1.18	1.54	2.34
15	3.00 Hz	3359	-11.32	-9.54	2.37	-1.48	.24	1.81
16	2.25 Hz	1664	-9.10	-8.93	2.24	-.63	-.74	2.33
17	1.50 Hz	1184	-8.71	-6.67	1.50	-1.10	.67	.72
18	1.13 Hz	1184	-8.19	-6.08	1.39	-1.21	.46	.72
19	1.33 Sec	2496	-6.885	-4.673	4.005	-.211	.557	2.801
20	1.78 Sec	3146	-8.010	-5.098	2.816	.548	1.929	2.367
21	2.67 Sec	1271	-6.156	-5.425	9.694	-.084	1.275	4.698
22	3.56 Sec	624	-7.064	-3.107	3.312	-.344	.988	6.618
23	5.33 Sec	372	-6.311	-2.403	1.504	.350	1.056	2.083
24	7.11 Sec	180	-6.807	-1.740	.844	-.136	.052	1.427
25	10.67 Sec	90	-6.127	-1.898	.322	-.208	-.253	.632
26	14.22 Sec	240	-5.718	-2.438	.062	-.004	-.036	.118
27	21.33 Sec	150	-4.901	-2.731	.048	.054	.016	.076
28	28.44 Sec	250	-4.300	-2.909	.015	.035	-.184	.022
29	42.67 Sec	228	-3.098	-2.936	.011	.040	-.028	.013
30	56.89 Sec	108	-2.439	-2.643	.012	.027	-.001	.010
31	85.33 Sec	84	-1.578	-2.242	.017	-.078	-.039	.008
32	113.78 Sec	57	-1.298	-1.797	.005	.110	.087	.003
33	170.67 Sec	33	-.954	-1.292	.003	-.022	.099	.003
34	227.56 Sec	39	-.833	-1.068	.003	.041	.033	.003
35	341.33 Sec	12	-.740	-.819	.005	.005	.058	.002
36	455.11 Sec	18	-.593	-.719	.004	.000	.041	.003
37	682.67 Sec	3	-.522	-.525	.006	.008	.021	.001
38	910.22 Sec	6	-.580	-.447	.335	.039	.050	.015

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E







PHOENIX GEOSCIENCE

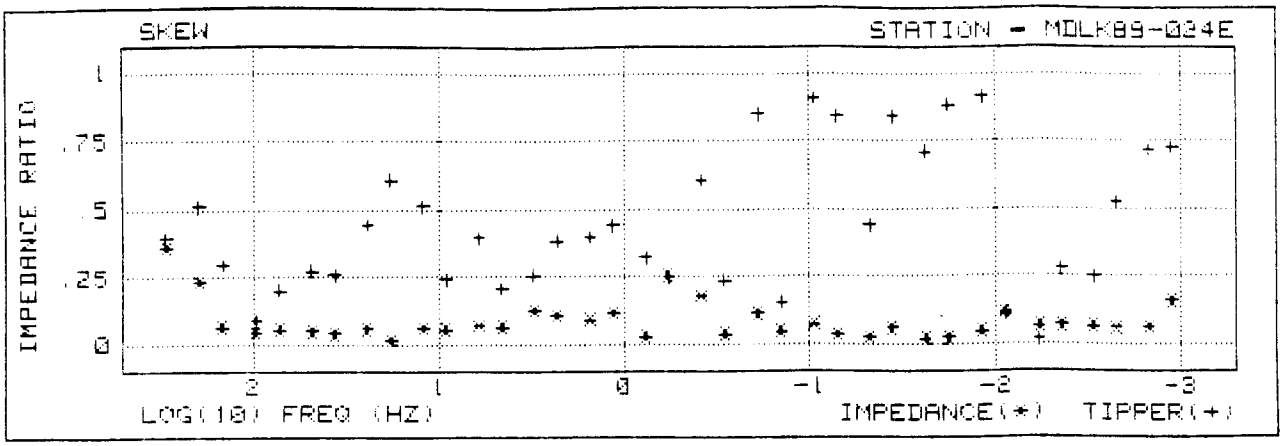
MT Site: MDLK89-024E

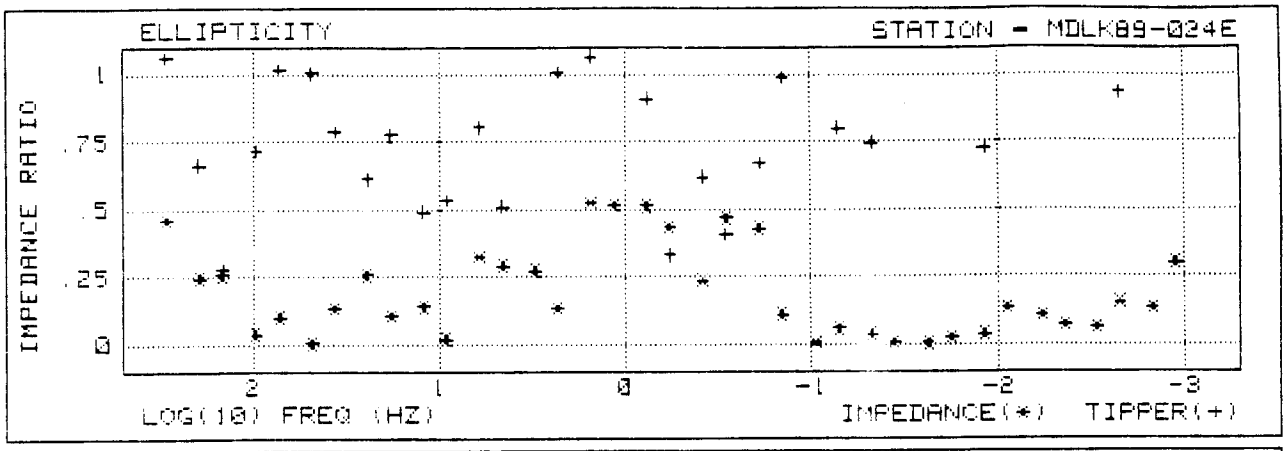
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

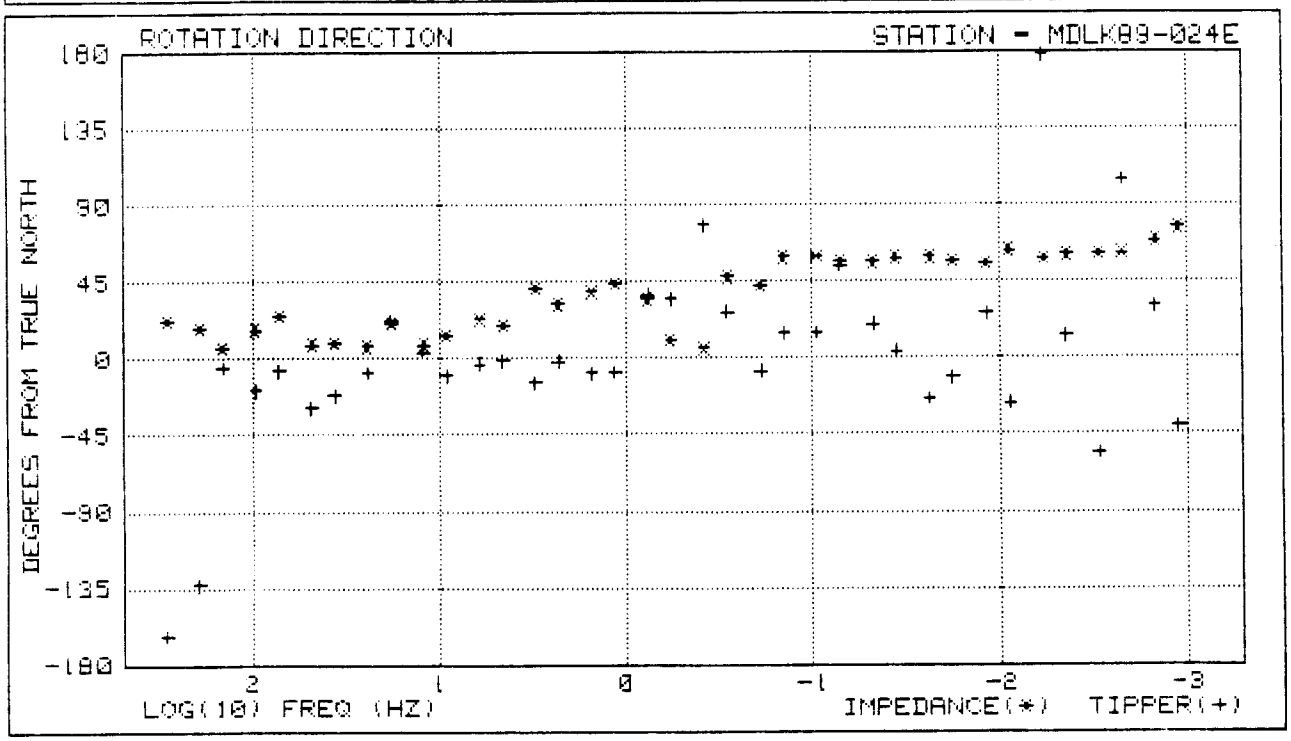
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	188	.17	63.56	.07	.08
3	192.00 Hz	190	.16	68.88	.09	.16
4	144.00 Hz	189	.04	-148.40	.34	.34
5	96.00 Hz	96	.04	-160.14	.45	.46
6	72.00 Hz	95	.03	165.26	.65	.65
7	48.00 Hz	96	.04	4.85	.80	.80
8	36.00 Hz	384	.04	35.37	.88	.87
9	24.00 Hz	96	.05	76.89	.80	.78
10	18.00 Hz	96	.06	27.36	.83	.83
11	12.00 Hz	96	.06	108.73	.85	.87
12	9.00 Hz	190	.05	98.86	.89	.91
13	6.00 Hz	288	.05	32.77	.51	.54
14	4.50 Hz	288	.05	-7.93	.35	.38
15	3.00 Hz	3359	.08	-54.88	.38	.35
16	2.25 Hz	1664	.07	2.34	.27	.30
17	1.50 Hz	1184	.08	-166.11	.29	.34
18	1.13 Hz	1184	.08	-18.15	.20	.24
19	1.33 Sec	2496	.05	151.23	.12	.09
20	1.78 Sec	3146	.09	8.65	.20	.12
21	2.67 Sec	1271	.13	104.67	.15	.14
22	3.56 Sec	624	.13	22.85	.08	.12
23	5.33 Sec	372	.17	69.69	.23	.18
24	7.11 Sec	180	.16	-160.88	.10	.11
25	10.67 Sec	90	.36	-97.82	.25	.29
26	14.22 Sec	240	.33	-53.85	.32	.34
27	21.33 Sec	150	.21	-164.96	.20	.20
28	28.44 Sec	250	.08	-134.76	.24	.25
29	42.67 Sec	228	.14	-152.18	.26	.24
30	56.89 Sec	108	.08	-147.06	.12	.10
31	85.33 Sec	84	.14	3.61	.30	.29
32	113.78 Sec	57	.10	150.21	.17	.18
33	170.67 Sec	33	.20	97.45	.48	.47
34	227.56 Sec	39	.23	73.97	.35	.38
35	341.33 Sec	12	.26	-73.28	.46	.44
36	455.11 Sec	18	.13	-57.10	.04	.11
37	682.67 Sec	3	.62	-76.80	.91	.91
38	910.22 Sec	6	2.31	-63.93	.94	.96

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E







PHOENIX GEOSCIENCE

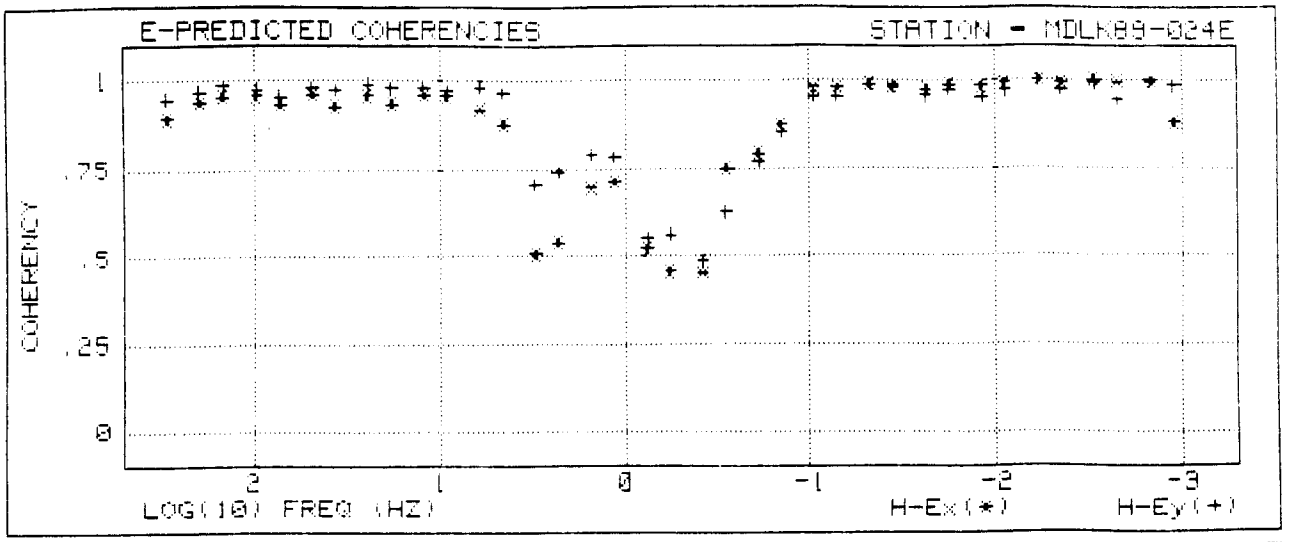
MT Site: MDLK89-024E

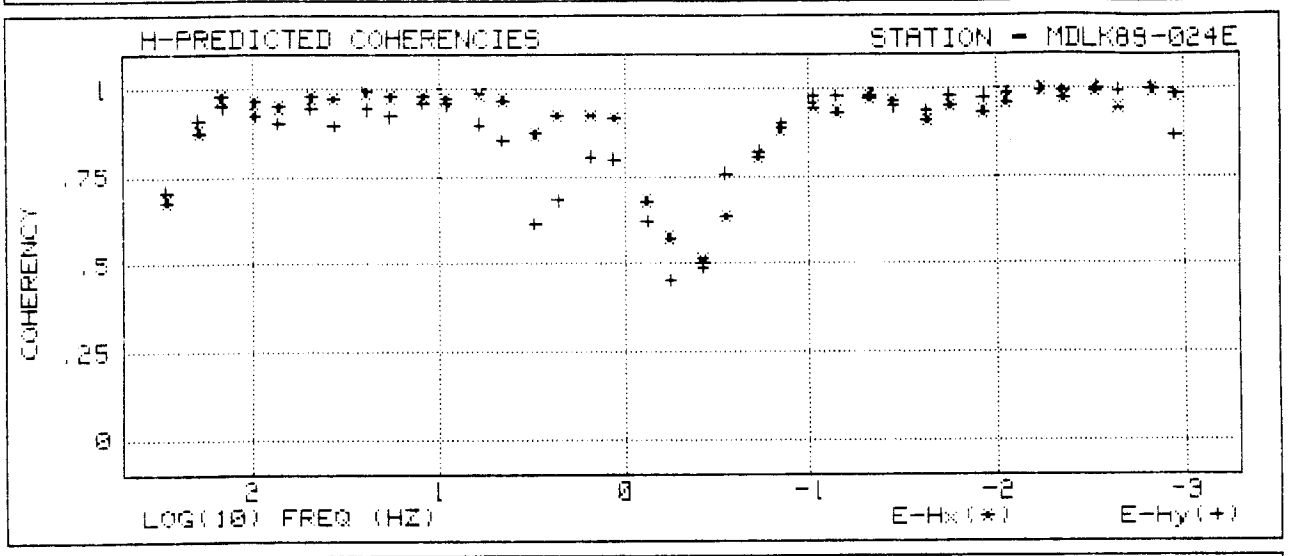
SKEW, ELLIPTICITY AND STRIKE

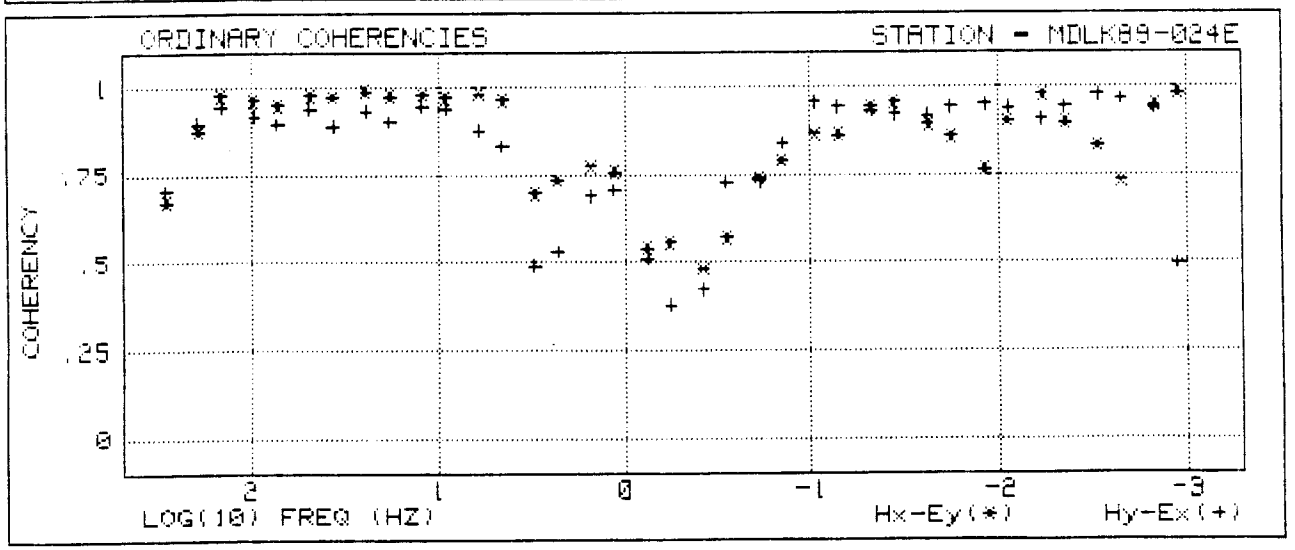
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	188	.36	.46	21.74	.39	1.06	-163.39
3	192.00 Hz	190	.23	.24	17.15	.51	.66	-133.61
4	144.00 Hz	189	.06	.25	5.87	.29	.27	-6.05
5	96.00 Hz	96	.04	.03	16.06	.08	.71	-19.37
6	72.00 Hz	95	.05	.10	24.21	.20	1.01	-7.76
7	48.00 Hz	96	.05	.00	7.37	.27	1.00	-29.76
8	36.00 Hz	384	.04	.13	8.60	.25	.78	-22.55
9	24.00 Hz	96	.06	.25	6.85	.44	.61	-8.94
10	18.00 Hz	96	.01	.10	20.21	.61	.77	21.52
11	12.00 Hz	96	.06	.14	7.52	.51	.49	3.19
12	9.00 Hz	190	.05	.02	12.66	.24	.53	-10.98
13	6.00 Hz	288	.07	.32	22.59	.39	.80	-4.03
14	4.50 Hz	288	.06	.29	18.60	.20	.50	-2.20
15	3.00 Hz	3359	.12	.27	40.44	.25	1.41	-15.29
16	2.25 Hz	1664	.10	.13	31.26	.38	1.00	-2.39
17	1.50 Hz	1184	.09	.52	38.30	.39	1.06	-9.52
18	1.13 Hz	1184	.11	.51	43.27	.43	1.19	-8.73
19	1.33 Sec	2496	.02	.51	33.99	.32	.90	36.57
20	1.78 Sec	3146	.25	.43	10.14	.25	.33	33.92
21	2.67 Sec	1271	.18	.23	5.35	.60	.62	77.65
22	3.56 Sec	624	.03	.46	47.28	.23	.40	26.30
23	5.33 Sec	372	.11	.42	41.91	.84	.67	-8.37
24	7.11 Sec	180	.04	.11	58.63	.15	.98	14.05
25	10.67 Sec	90	.07	.00	59.23	.90	1.57	14.27
26	14.22 Sec	240	.03	.05	56.06	.84	.80	53.45
27	21.33 Sec	150	.02	.03	55.97	.44	.74	19.02
28	28.44 Sec	250	.05	.00	58.08	.83	1.23	3.11
29	42.67 Sec	228	.02	.00	58.72	.70	2.43	-24.59
30	56.89 Sec	108	.02	.02	56.19	.88	1.63	-12.39
31	85.33 Sec	84	.04	.03	54.93	.91	.72	25.41
32	113.78 Sec	57	.11	.13	62.75	.11	3.57	-27.24
33	170.67 Sec	33	.06	.10	57.64	.01	1.57	177.04
34	227.56 Sec	39	.06	.07	60.19	.27	1.33	12.60
35	341.33 Sec	12	.06	.06	60.42	.25	1.88	-56.78
36	455.11 Sec	18	.05	.15	61.23	.52	.93	103.98
37	682.67 Sec	3	.06	.13	68.20	.71	2.36	29.93
38	910.22 Sec	6	.15	.30	75.81	.72	1.47	-41.14

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E







PHOENIX GEOSCIENCE

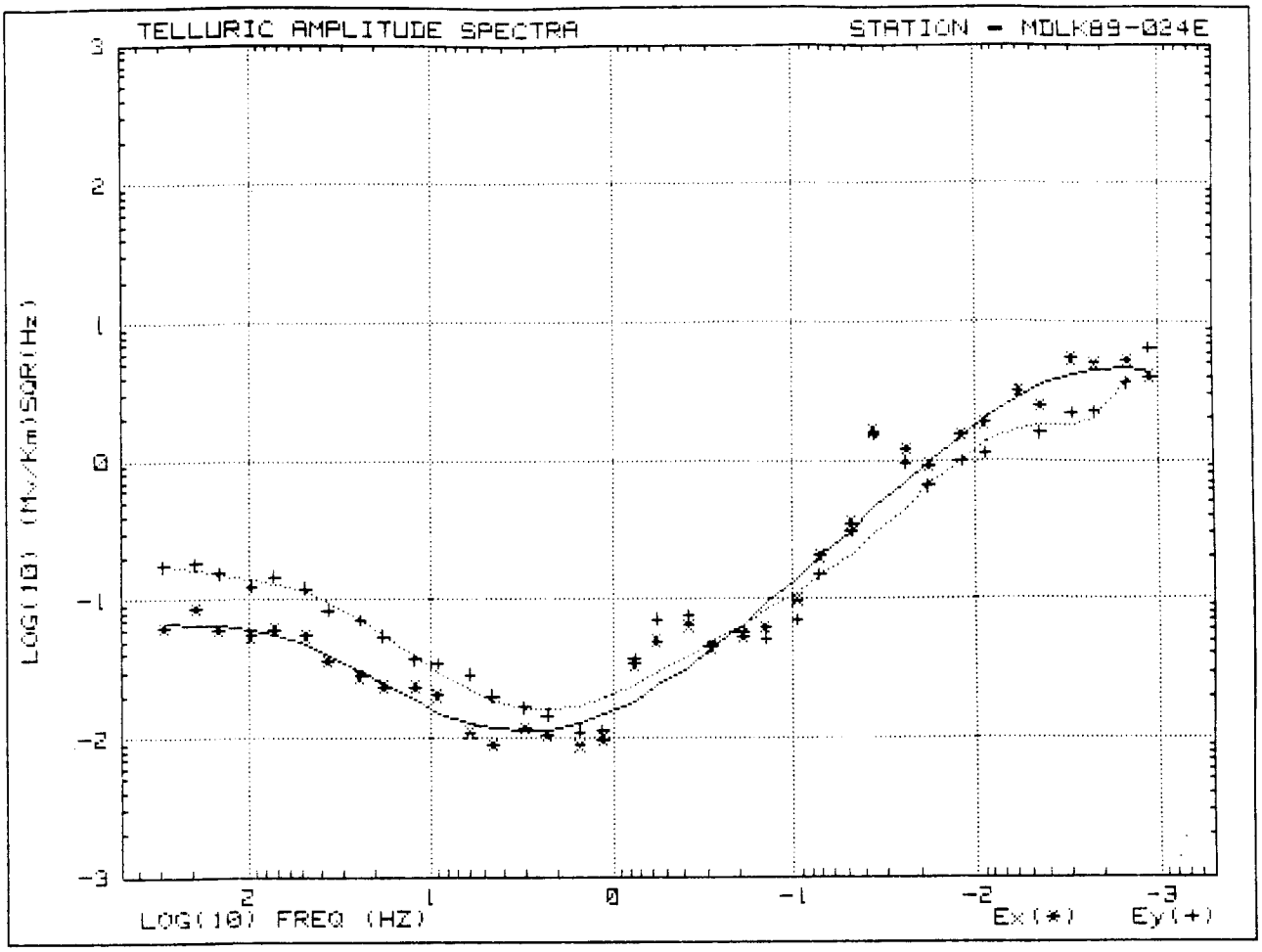
MT Site: MDLK89-024E

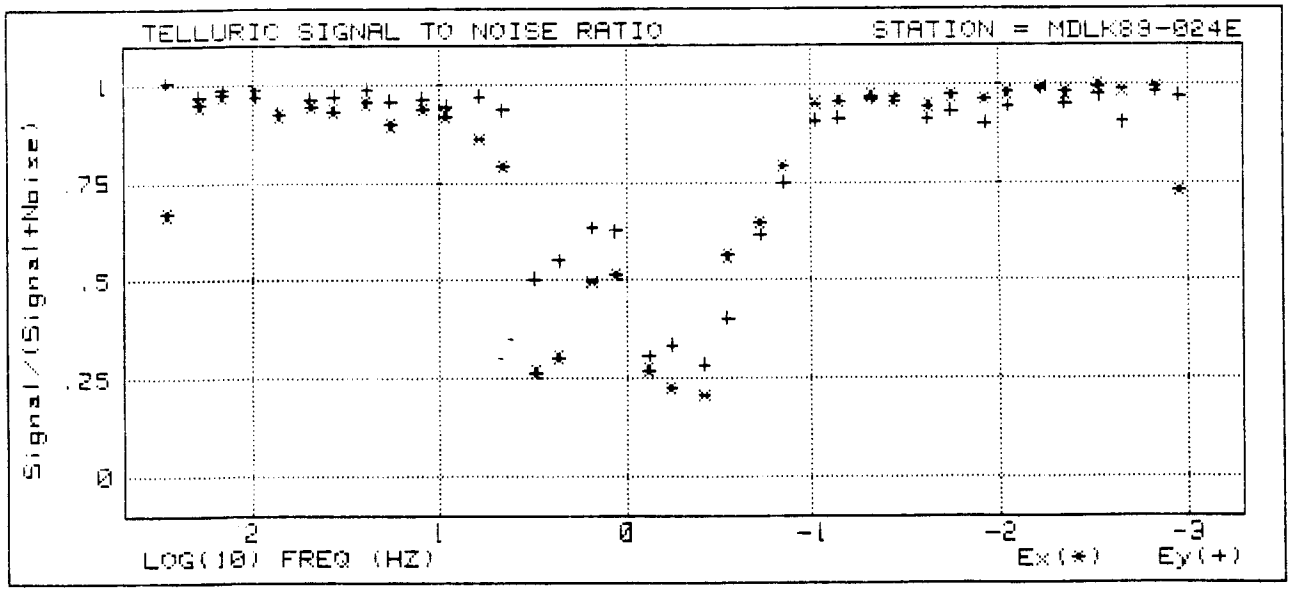
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	188	.89	.94	.68	.70	.67	.70
3	192.00 Hz	190	.93	.96	.87	.91	.87	.89
4	144.00 Hz	189	.95	.98	.97	.95	.97	.94
5	96.00 Hz	96	.95	.97	.96	.92	.96	.91
6	72.00 Hz	95	.93	.95	.95	.90	.94	.89
7	48.00 Hz	96	.95	.97	.97	.94	.97	.94
8	36.00 Hz	384	.92	.97	.97	.89	.97	.89
9	24.00 Hz	96	.95	.99	.99	.94	.99	.93
10	18.00 Hz	96	.93	.97	.97	.92	.97	.90
11	12.00 Hz	96	.95	.98	.98	.95	.98	.94
12	9.00 Hz	190	.95	.97	.97	.95	.97	.94
13	6.00 Hz	288	.91	.98	.98	.89	.98	.87
14	4.50 Hz	288	.87	.96	.96	.85	.96	.83
15	3.00 Hz	3359	.50	.70	.87	.61	.69	.49
16	2.25 Hz	1664	.54	.74	.92	.68	.73	.53
17	1.50 Hz	1184	.69	.79	.92	.80	.77	.69
18	1.13 Hz	1184	.71	.78	.91	.79	.75	.70
19	1.33 Sec	2496	.52	.55	.68	.62	.54	.51
20	1.78 Sec	3146	.45	.56	.57	.45	.55	.38
21	2.67 Sec	1271	.45	.48	.51	.49	.48	.42
22	3.56 Sec	624	.75	.62	.63	.75	.57	.72
23	5.33 Sec	372	.79	.77	.80	.82	.74	.73
24	7.11 Sec	180	.87	.85	.88	.90	.79	.83
25	10.67 Sec	90	.97	.95	.94	.97	.86	.95
26	14.22 Sec	240	.98	.95	.93	.97	.86	.94
27	21.33 Sec	150	.98	.98	.97	.98	.94	.93
28	28.44 Sec	250	.98	.98	.96	.95	.95	.92
29	42.67 Sec	228	.97	.95	.91	.93	.89	.92
30	56.89 Sec	108	.98	.97	.95	.97	.85	.94
31	85.33 Sec	84	.98	.95	.93	.97	.76	.95
32	113.78 Sec	57	.99	.97	.96	.98	.90	.93
33	170.67 Sec	33	1.00	.99	.99	.99	.97	.90
34	227.56 Sec	39	.99	.97	.97	.99	.89	.94
35	341.33 Sec	12	1.00	.99	.99	1.00	.83	.97
36	455.11 Sec	18	.99	.94	.94	.99	.73	.96
37	682.67 Sec	3	.99	.99	.99	1.00	.94	.93
38	910.22 Sec	6	.88	.98	.98	.86	.98	.49

PHOENIX GEOSCIENCE

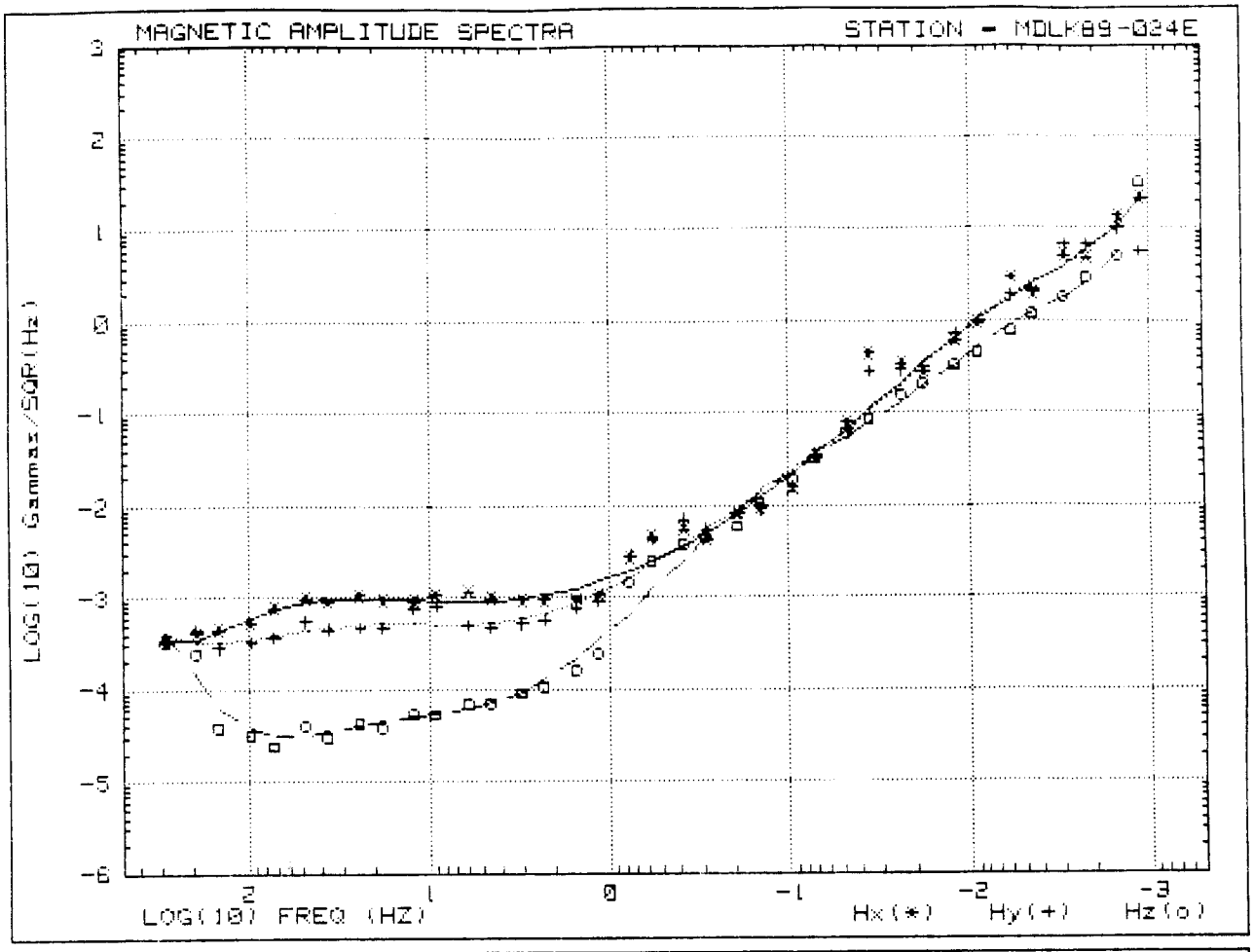
MT Site: MDLK89-024E

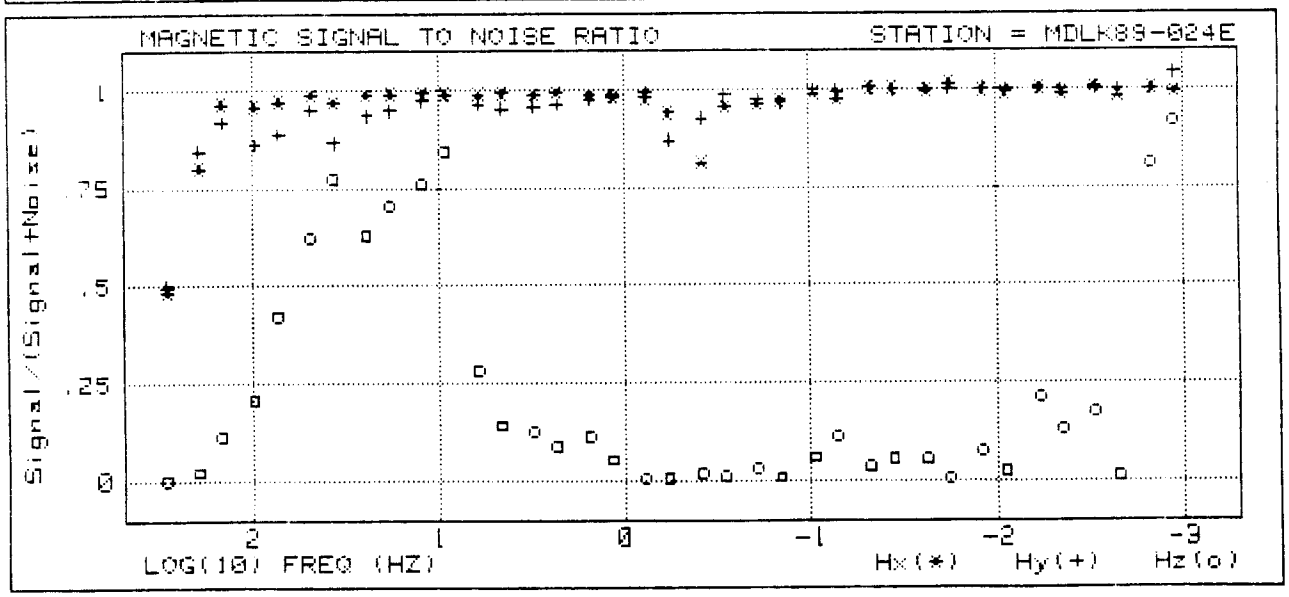




PHOENIX GEOSCIENCE

MT Site: MDLK89-024E





PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	188	3.26E-04	3.50E-04	3.50E-04	6.21E-02	1.73E-01
3	192.00 Hz	190	4.04E-04	4.37E-04	2.61E-04	8.47E-02	1.81E-01
4	144.00 Hz	189	4.40E-04	2.80E-04	4.07E-05	5.94E-02	1.53E-01
5	96.00 Hz	96	5.14E-04	3.20E-04	3.41E-05	5.43E-02	1.21E-01
6	72.00 Hz	95	7.56E-04	3.60E-04	2.54E-05	6.04E-02	1.46E-01
7	48.00 Hz	96	9.56E-04	5.34E-04	4.16E-05	5.38E-02	1.19E-01
8	36.00 Hz	384	8.78E-04	4.43E-04	3.21E-05	3.54E-02	8.35E-02
9	24.00 Hz	96	1.04E-03	4.60E-04	4.53E-05	2.76E-02	6.93E-02
10	18.00 Hz	96	9.19E-04	4.60E-04	4.00E-05	2.33E-02	5.33E-02
11	12.00 Hz	96	9.01E-04	7.47E-04	5.56E-05	2.33E-02	3.64E-02
12	9.00 Hz	190	1.05E-03	7.98E-04	5.53E-05	2.01E-02	3.42E-02
13	6.00 Hz	286	1.14E-03	4.86E-04	7.08E-05	1.08E-02	2.83E-02
14	4.50 Hz	288	9.63E-04	4.59E-04	7.41E-05	8.71E-03	1.97E-02
15	3.00 Hz	3359	9.29E-04	5.03E-04	9.51E-05	1.16E-02	1.64E-02
16	2.25 Hz	1664	9.31E-04	5.61E-04	1.11E-04	1.03E-02	1.43E-02
17	1.50 Hz	1184	9.33E-04	7.52E-04	1.66E-04	8.68E-03	1.08E-02
18	1.13 Hz	1184	1.06E-03	8.80E-04	2.51E-04	9.58E-03	1.09E-02
19	1.33 Sec	2496	2.72E-03	2.80E-03	1.54E-03	3.34E-02	3.66E-02
20	1.78 Sec	3146	4.54E-03	4.26E-03	2.69E-03	4.90E-02	7.08E-02
21	2.67 Sec	1271	5.50E-03	6.93E-03	4.07E-03	6.33E-02	7.49E-02
22	3.56 Sec	624	4.19E-03	5.45E-03	4.86E-03	4.43E-02	4.50E-02
23	5.33 Sec	372	8.13E-03	8.07E-03	6.26E-03	5.33E-02	5.70E-02
24	7.11 Sec	180	9.51E-03	8.94E-03	1.08E-02	6.18E-02	5.14E-02
25	10.67 Sec	90	1.52E-02	1.58E-02	2.01E-02	9.75E-02	6.99E-02
26	14.22 Sec	240	3.26E-02	3.49E-02	3.36E-02	2.01E-01	1.50E-01
27	21.33 Sec	150	7.75E-02	6.41E-02	6.43E-02	3.49E-01	3.09E-01
28	28.44 Sec	250	4.37E-01	2.78E-01	9.11E-02	1.59E+00	1.53E+00
29	42.67 Sec	228	3.39E-01	2.89E-01	1.65E-01	1.19E+00	9.44E-01
30	56.89 Sec	108	2.79E-01	3.06E-01	2.18E-01	9.08E-01	6.42E-01
31	85.33 Sec	84	6.07E-01	7.26E-01	3.48E-01	1.50E+00	9.75E-01
32	113.78 Sec	57	9.28E-01	9.74E-01	4.81E-01	1.83E+00	1.10E+00
33	170.67 Sec	33	2.87E+00	1.85E+00	8.05E-01	3.08E+00	3.05E+00
34	227.56 Sec	39	1.94E+00	2.10E+00	1.23E+00	2.42E+00	1.54E+00
35	341.33 Sec	12	5.05E+00	6.65E+00	1.88E+00	5.31E+00	2.14E+00
36	455.11 Sec	18	4.71E+00	6.65E+00	3.12E+00	4.93E+00	2.25E+00
37	682.67 Sec	3	1.34E+01	9.82E+00	5.34E+00	5.20E+00	3.57E+00
38	910.22 Sec	6	2.10E+01	5.56E+00	3.30E+01	3.97E+00	6.33E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	189	.485	.496	.007	.669	1.000
3	192.00 Hz	190	.799	.842	.027	.946	.968
4	144.00 Hz	189	.962	.917	.116	.971	.985
5	96.00 Hz	96	.956	.859	.213	.983	.966
6	72.00 Hz	95	.968	.886	.428	.920	.925
7	48.00 Hz	96	.986	.948	.628	.942	.961
8	36.00 Hz	384	.967	.863	.780	.930	.969
9	24.00 Hz	96	.985	.932	.634	.952	.987
10	18.00 Hz	96	.988	.946	.708	.895	.956
11	12.00 Hz	96	.989	.971	.767	.934	.962
12	9.00 Hz	190	.988	.984	.846	.918	.943
13	6.00 Hz	288	.988	.962	.287	.860	.969
14	4.50 Hz	288	.989	.949	.146	.789	.933
15	3.00 Hz	3359	.986	.956	.132	.263	.502
16	2.25 Hz	1664	.992	.960	.092	.300	.549
17	1.50 Hz	1184	.985	.974	.116	.493	.632
18	1.13 Hz	1184	.978	.982	.058	.513	.624
19	1.33 Sec	2496	.977	.990	.009	.271	.306
20	1.78 Sec	3146	.940	.869	.01[illegible]	.224	.332
21	2.67 Sec	1271	.812	.924	.024	.206	.282
22	3.56 Sec	624	.954	.984	.014	.561	.402
23	5.33 Sec	372	.960	.972	.037	.645	.615
24	7.11 Sec	180	.971	.964	.013	.791	.748
25	10.67 Sec	90	.987	.997	.064	.949	.905
26	14.22 Sec	240	.975	.993	.118	.957	.911
27	21.33 Sec	150	1.000	1.000	.039	.968	.962
28	28.44 Sec	250	1.000	.995	.061	.957	.963
29	42.67 Sec	228	.994	.998	.058	.944	.910
30	56.89 Sec	108	1.000	1.000	.009	.970	.930
31	85.33 Sec	84	.997	1.000	.078	.960	.899
32	113.78 Sec	57	.988	.997	.030	.977	.942
33	170.67 Sec	33	1.000	.998	.218	.991	.985
34	227.56 Sec	39	.987	.997	.134	.977	.950
35	341.33 Sec	12	1.000	1.000	.182	.995	.970
36	455.11 Sec	18	.981	.998	.014	.984	.901
37	682.67 Sec	3	1.000	.998	.816	.992	.980
38	910.22 Sec	6	.992	1.000	.922	.726	.967

PHOENIX GEOSCIENCE

MT Site: MDLK89-024E

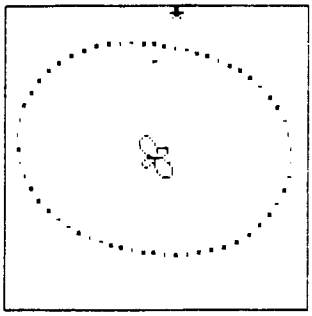
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

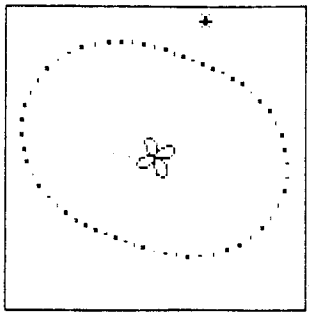
*=Rotation Direction

Zxy = ...
Zxx = ____

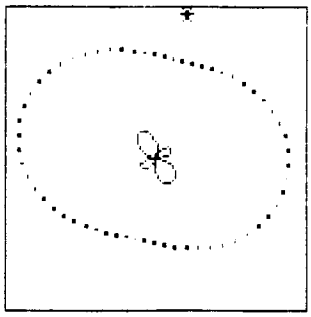
F=8 (36.0 Hz)



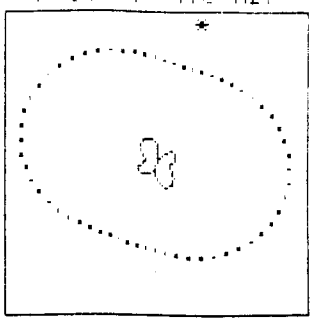
F=10 (18.0 Hz)



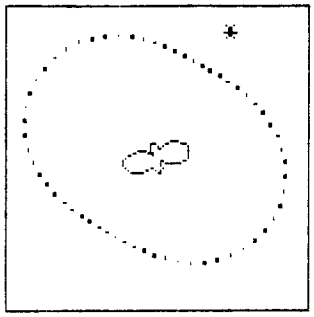
F=12 (9.0 Hz)



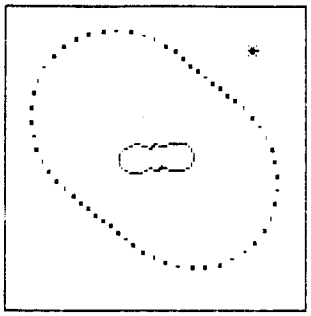
F=14 (4.5 Hz)



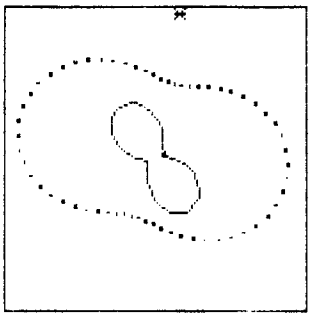
F=16 (2.3 Hz)



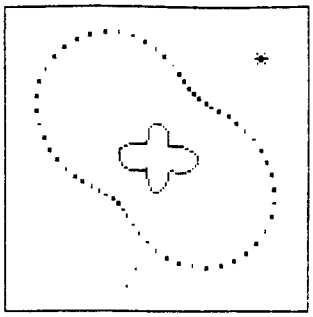
F=18 (1.1 Hz)



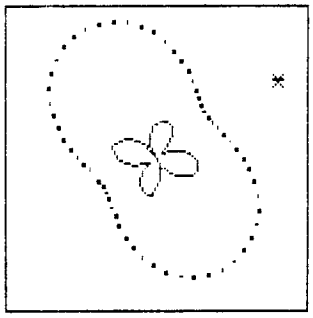
F=20 (.5625 Hz)



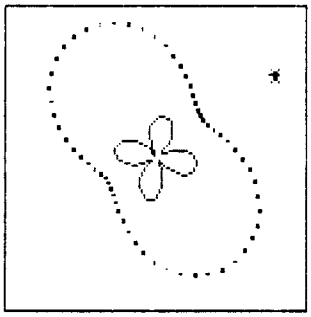
F=22 (.2813 Hz)



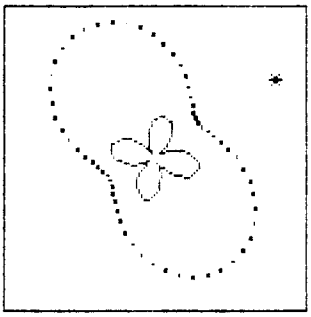
F=24 (.1406 Hz)



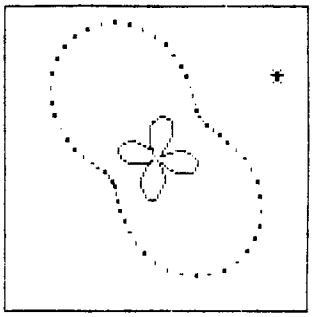
F=26 (.0703 Hz)



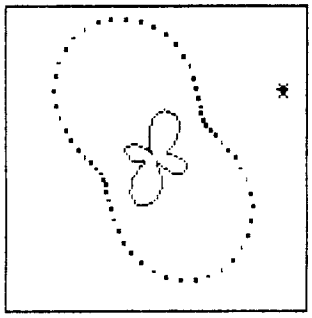
F=28 (.0352 Hz)



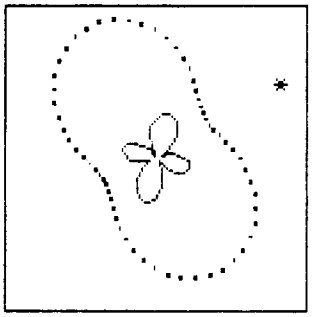
F=30 (.0176 Hz)



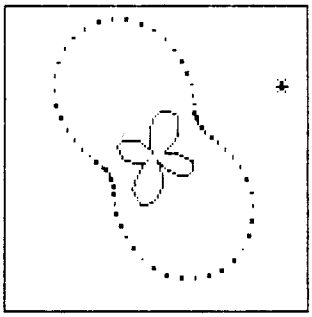
F=32 (.0088 Hz)



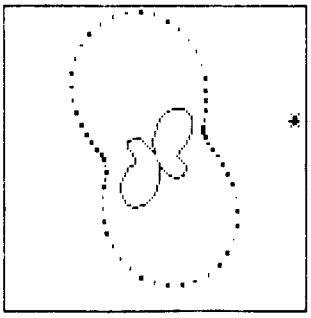
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-024s/025s/026s/

Operator:M. SNOW
Date: 29 Aug 1989
Time: 14:58:08

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#432-16Aug89-01
Sens-Ch02: C#235-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#431-16Aug89-01
Sens-Ch08: L#333-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-025s
Site Desc:T43N R4E
41,35,00 N 121,33,44 W
Elevation:6800 FT
Reference:MDLK89-026s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL430	+0 DEG
Hy	7	COIL431	+90 DEG
Hz	8	LOOP333	
Ex	9	160 M	+0 DEG
Ey	10	174 M	+90 DEG
Rx	11	COIL452	+0 DEG
Ry	12	COIL210	+90 DEG

Ex Pot Resist: 10.5K Ohms
Ex Voltage: AC=8.00 mv, DC=5.80 mv
Ey Pot Resist: 5.0 K Ohms
Ey Voltage: AC=8.80 mv, DC=27.2 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

OPERATOR LOG FOR MT SITES MDLK89-024s/025s/026s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-024a/025a/026a/
Run STARTED: 14:58:08 29 Aug 1989
Run QUIT: 02:45:00 30 Aug 1989
Run Start and Stop Time for MDLK89-024b/025b/026b/
Run STARTED: 03:20:28 30 Aug 1989
Run QUIT: 08:35:36 30 Aug 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
MEGA-LIGHTNING STORM FROM 2100hrs. TO 2400hrs. WITH RAIN AND WINDS
Other Factors:
NONE

PHOENIX GEOSCIENCE

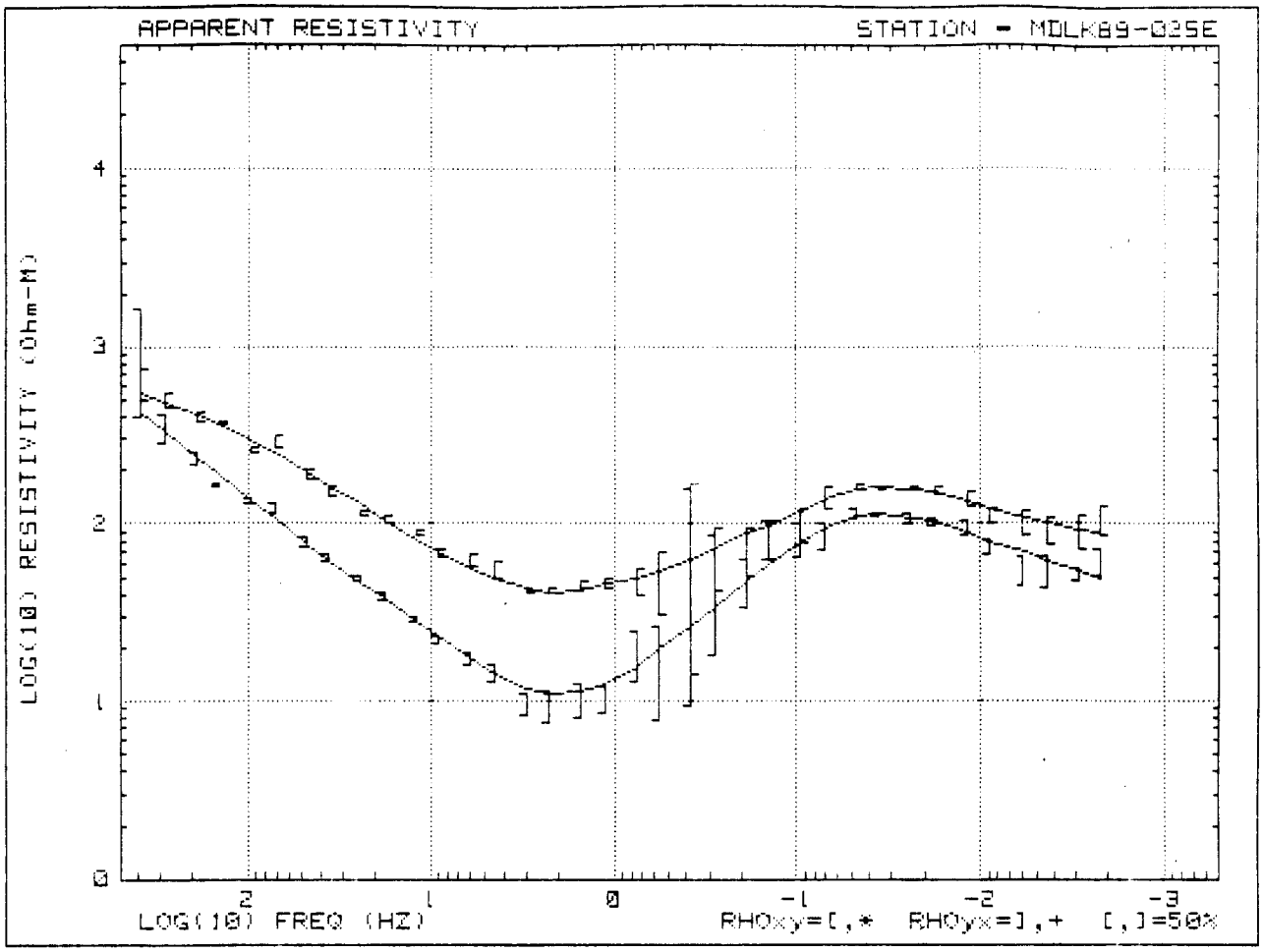
MT Site: MDLK89-025E

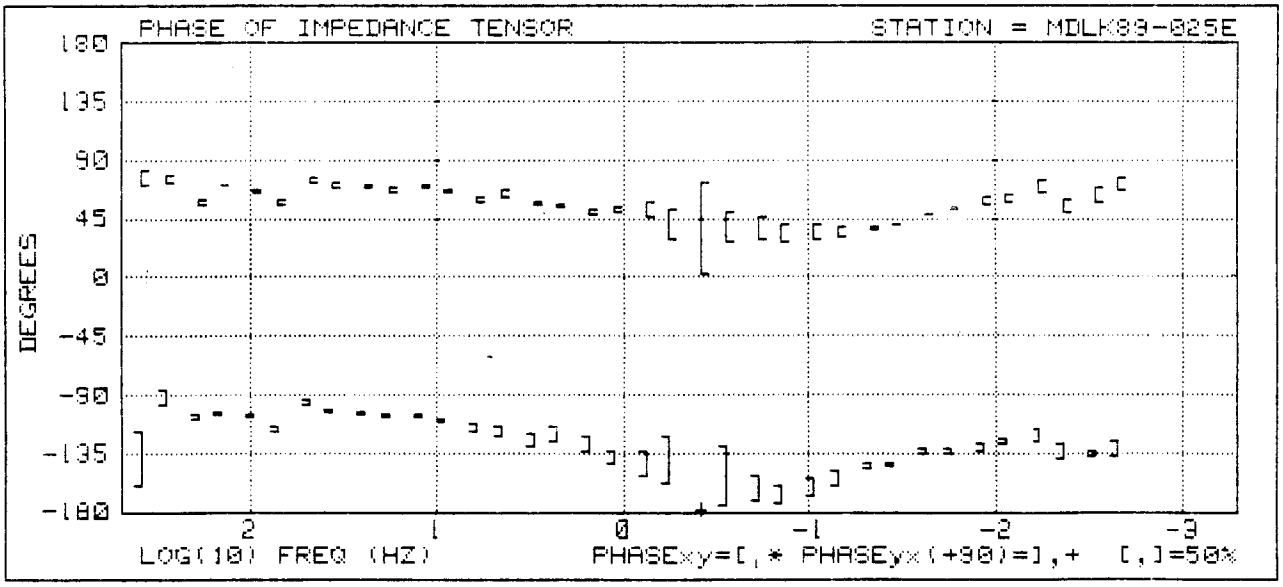
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

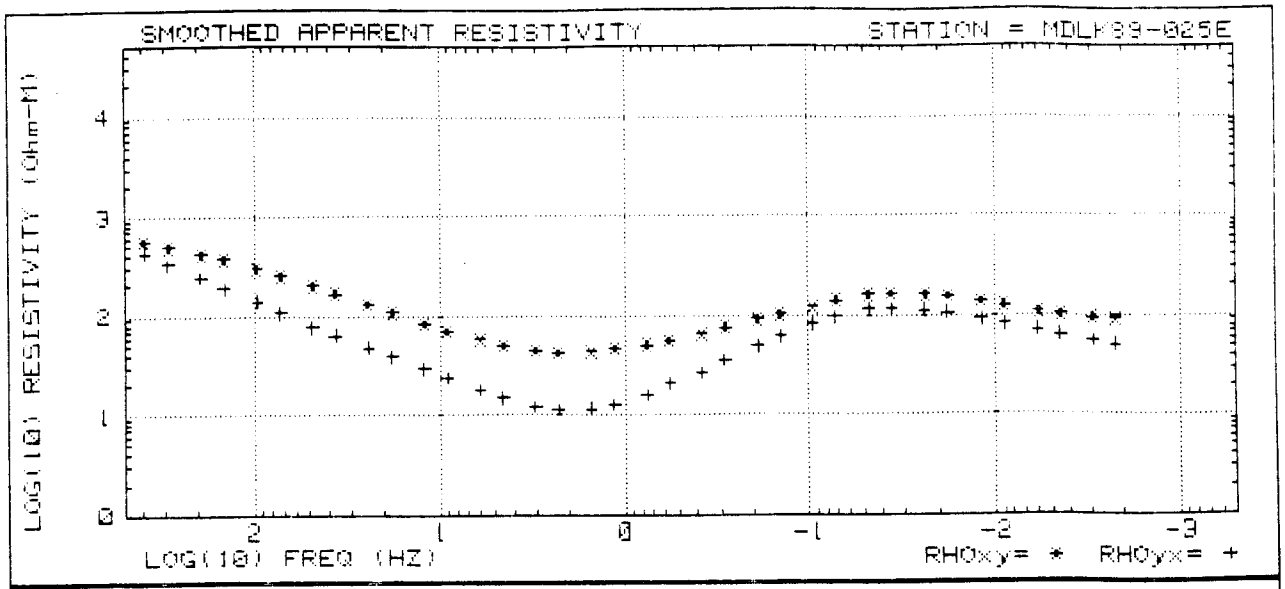
MT Site: MDLK89-025E

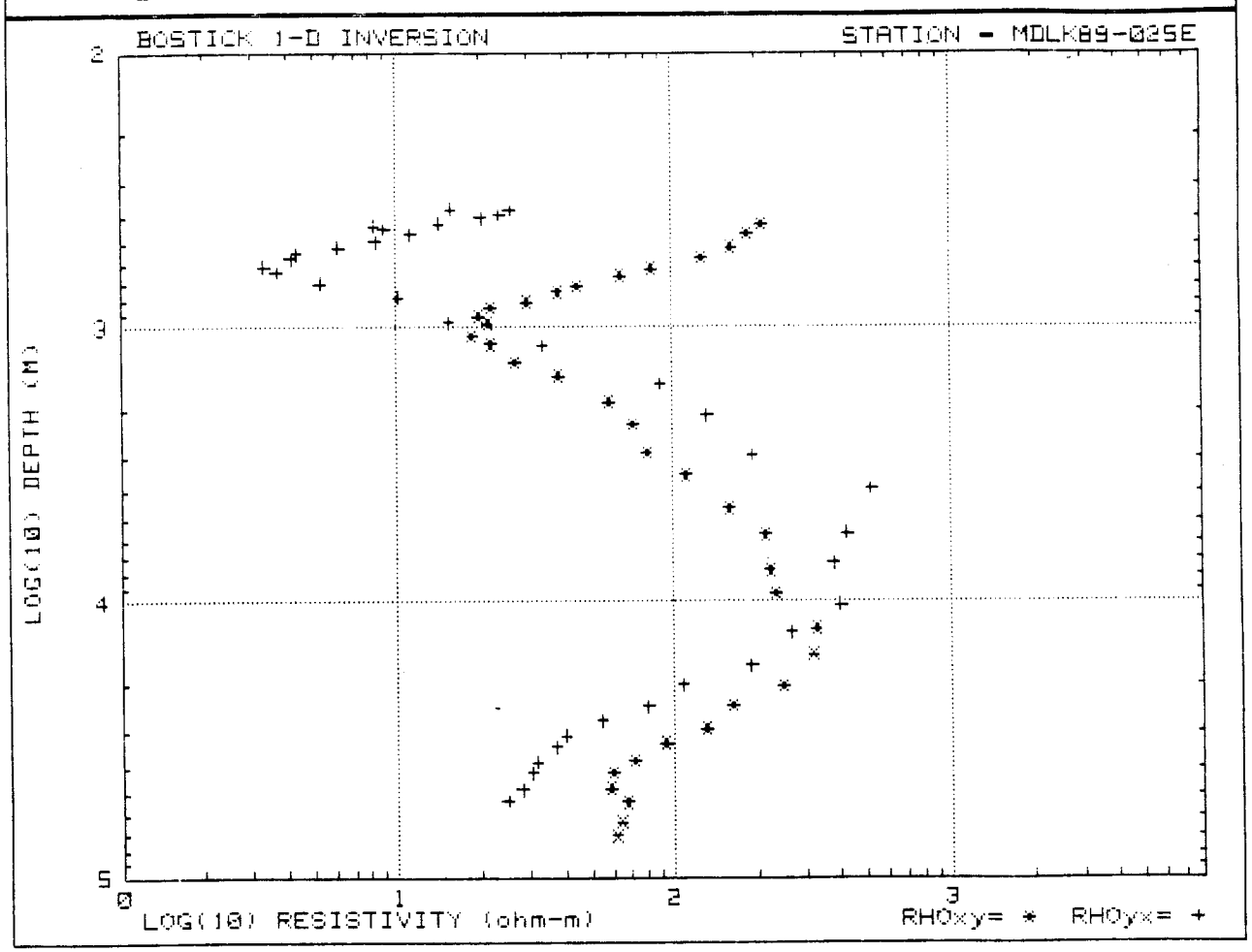




PHOENIX GEOSCIENCE

MT Site: MDLK89-025E





PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	127	612.6	34.4	809.4	99.9	76.4	8.5	-138.7	30.7
2	288.00 Hz	251	502.4	14.0	345.5	32.4	76.0	3.8	-91.5	8.0
3	192.00 Hz	378	402.5	9.5	232.9	11.3	57.4	2.6	-106.9	3.1
4	144.00 Hz	378	370.5	2.3	162.5	2.9	70.3	.6	-104.1	.8
5	96.00 Hz	191	258.7	4.8	133.5	5.3	65.8	1.3	-106.2	1.5
6	72.00 Hz	191	288.6	10.1	122.9	9.1	57.8	2.8	-115.7	2.5
7	48.00 Hz	288	189.3	8.7	79.2	9.3	74.2	2.4	-95.2	2.6
8	36.00 Hz	288	151.9	8.8	63.9	7.3	70.4	2.4	-102.5	2.0
9	24.00 Hz	384	114.4	6.5	49.1	5.7	69.8	1.8	-104.5	1.6
10	18.00 Hz	192	104.9	7.7	39.1	6.5	66.6	2.1	-105.9	1.8
11	12.00 Hz	382	90.0	4.9	29.2	4.5	70.2	1.4	-105.4	1.3
12	9.00 Hz	286	68.9	5.9	22.2	5.5	65.6	1.6	-108.8	1.5
13	6.00 Hz	192	62.5	12.4	17.6	12.5	58.8	3.4	-115.4	3.4
14	4.50 Hz	192	54.9	18.5	14.2	17.6	63.7	4.9	-118.2	4.6
15	3.00 Hz	2367	41.6	4.2	9.6	24.2	56.2	1.2	-124.6	6.2
16	2.25 Hz	6016	41.9	5.0	9.4	35.4	54.5	1.4	-119.4	8.7
17	1.50 Hz	1600	45.5	7.3	10.1	37.8	50.3	2.0	-127.2	9.2
18	1.13 Hz	1712	46.4	9.4	10.1	29.6	51.8	2.6	-138.0	7.4
19	1.33 Sec	432	47.2	30.0	17.9	61.9	51.9	7.5	-142.7	13.8
20	1.78 Sec	432	46.6	80.4	14.5	99.9	41.3	16.9	-139.9	26.0
21	2.67 Sec	192	48.6	99.9	38.8	99.9	37.7	52.5	-178.5	60.0
22	3.56 Sec	468	62.8	81.8	39.7	99.9	39.4	17.1	-152.1	32.9
23	5.33 Sec	108	69.4	57.2	46.6	59.1	38.0	13.0	-161.5	13.3
24	7.11 Sec	204	80.8	44.1	80.6	45.2	34.2	10.5	-165.9	10.7
25	10.67 Sec	108	99.2	39.1	81.1	40.3	35.0	9.5	-161.3	9.7
26	14.22 Sec	126	140.5	24.2	86.4	29.9	35.4	6.2	-153.9	7.5
27	21.33 Sec	244	164.3	4.7	114.3	9.0	37.2	1.3	-145.1	2.5
28	28.44 Sec	250	158.9	2.1	112.8	4.4	40.9	.6	-143.4	1.2
29	42.67 Sec	202	158.1	3.0	107.2	9.2	48.1	.9	-133.5	2.5
30	56.89 Sec	244	154.4	5.0	102.4	8.7	53.4	1.4	-132.9	2.4
31	85.33 Sec	114	138.5	13.7	95.3	13.4	57.9	3.7	-130.7	3.6
32	113.78 Sec	51	110.4	15.6	74.7	15.2	61.0	4.1	-125.7	4.0
33	170.67 Sec	15	102.1	26.6	54.5	31.0	69.6	6.8	-121.3	7.7
34	227.56 Sec	18	91.3	29.4	53.3	34.2	55.2	7.4	-134.1	8.4
35	341.33 Sec	6	89.4	35.6	51.9	10.5	63.3	8.7	-134.4	2.9
36	455.11 Sec	3	104.9	32.7	59.9	28.5	71.6	8.1	-131.3	7.2

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	127	554.8	429.0	213.3	428	15.8	376
2	288.00 Hz	251	488.2	328.4	189.6	463	26.0	380
3	192.00 Hz	378	408.8	237.4	165.3	519	23.9	396
4	144.00 Hz	378	363.8	186.4	129.0	566	20.5	405
5	96.00 Hz	191	293.8	136.2	84.9	623	14.4	424
6	72.00 Hz	191	248.2	106.4	65.6	661	8.4	433
7	48.00 Hz	288	196.3	75.3	45.7	720	9.1	446
8	36.00 Hz	288	161.3	61.8	38.4	753	11.3	466
9	24.00 Hz	384	128.1	46.7	29.7	822	8.4	496
10	18.00 Hz	192	104.6	38.2	22.0	858	6.2	518
11	12.00 Hz	382	81.5	28.3	20.0	928	4.4	547
12	9.00 Hz	286	68.8	23.0	21.5	984	4.2	569
13	6.00 Hz	192	56.7	17.5	18.9	1094	3.3	608
14	4.50 Hz	192	48.7	14.3	22.0	1170	3.7	635
15	3.00 Hz	2367	43.6	11.7	26.9	1357	5.3	702
16	2.25 Hz	6016	41.3	11.1	38.9	1524	10.2	790
17	1.50 Hz	1600	42.8	11.3	59.2	1900	15.6	978
18	1.13 Hz	1712	46.1	12.4	72.0	2279	34.1	1180
19	1.33 Sec	432	49.8	15.7	80.7	2899	90.9	1626
20	1.78 Sec	432	54.4	20.2	112.8	3500	134.3	2131
21	2.67 Sec	192	63.4	26.1	161.8	4627	194.6	2971
22	3.56 Sec	468	73.6	34.2	218.7	5758	522.4	3926
23	5.33 Sec	108	89.4	48.0	224.5	7772	428.7	5694
24	7.11 Sec	204	99.2	59.5	236.1	9453	382.9	7323
25	10.67 Sec	108	118.7	79.6	328.8	12662	403.1	10373
26	14.22 Sec	126	137.4	94.7	321.6	15732	267.8	13062
27	21.33 Sec	244	156.7	110.9	249.7	20578	192.0	17310
28	28.44 Sec	250	161.0	114.0	165.0	24085	108.7	20270
29	42.67 Sec	202	158.1	109.1	130.9	29224	81.3	24277
30	56.89 Sec	244	150.8	103.1	93.6	32967	55.1	27252
31	85.33 Sec	114	134.4	88.4	71.9	38111	40.7	30908
32	113.78 Sec	51	122.3	79.8	60.2	41974	37.6	33913
33	170.67 Sec	15	106.2	68.9	58.6	47908	32.0	38586
34	227.56 Sec	18	100.1	62.0	67.8	53714	30.8	42258
35	341.33 Sec	6	92.9	54.6	64.5	63379	28.1	48581
36	455.11 Sec	3	88.4	49.6	62.0	71365	24.9	53485

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	127	-85.53	144.69	999.99	254.34	999.99	999.99
2	288.00 Hz	251	-139.65	.67	999.99	205.87	825.30	999.99
3	192.00 Hz	378	-34.22	-34.33	999.99	334.91	523.72	999.99
4	144.00 Hz	378	-19.17	-29.56	123.76	173.68	486.40	68.41
5	96.00 Hz	191	5.61	-35.33	290.65	144.23	321.51	137.17
6	72.00 Hz	191	-7.43	-29.21	999.99	171.62	272.84	479.68
7	48.00 Hz	288	8.00	-16.19	199.91	58.10	205.08	158.68
8	36.00 Hz	288	-1.17	-16.64	196.06	55.41	155.76	96.22
9	24.00 Hz	384	-4.52	-9.60	67.48	40.51	109.97	27.34
10	18.00 Hz	192	2.93	-18.11	98.48	38.58	89.17	26.21
11	12.00 Hz	382	-5.35	-3.35	10.89	24.85	69.16	6.29
12	9.00 Hz	286	.27	-3.97	6.10	23.02	50.69	5.12
13	6.00 Hz	192	-3.77	-4.64	54.68	22.40	37.05	12.91
14	4.50 Hz	192	-3.93	-1.45	40.86	15.58	31.49	17.71
15	3.00 Hz	2367	-.06	-2.17	1.22	13.90	20.76	.52
16	2.25 Hz	6016	1.01	-.27	.45	12.60	17.69	.56
17	1.50 Hz	1600	.13	-1.74	1.29	11.78	14.21	.85
18	1.13 Hz	1712	-.73	-1.32	1.47	9.98	12.70	1.05
19	1.33 Sec	432	.028	-1.153	6.857	8.211	10.468	6.097
20	1.78 Sec	432	.433	-.432	16.015	8.599	7.553	22.778
21	2.67 Sec	192	.865	-1.512	99.999	7.553	5.833	99.999
22	3.56 Sec	468	.357	-.029	20.725	7.260	5.972	15.778
23	5.33 Sec	108	.084	-.459	5.282	6.356	4.965	6.656
24	7.11 Sec	204	-.394	-.595	3.701	6.234	4.233	3.789
25	10.67 Sec	108	.204	-.797	1.388	5.585	3.915	2.532
26	14.22 Sec	126	-.360	-.523	.645	5.731	4.067	1.160
27	21.33 Sec	244	.064	-.067	.069	4.943	3.752	.041
28	28.44 Sec	250	-.170	-.123	.014	3.996	3.460	.006
29	42.67 Sec	202	.219	.043	.023	2.874	3.205	.008
30	56.89 Sec	244	.308	-.025	.019	2.194	2.959	.016
31	85.33 Sec	114	.249	.065	.028	1.513	2.414	.066
32	113.78 Sec	51	.142	.148	.013	1.068	1.926	.051
33	170.67 Sec	15	.147	-.042	.018	.603	1.621	.083
34	227.56 Sec	18	.117	.036	.027	.808	1.163	.067
35	341.33 Sec	6	-.129	.194	.012	.514	1.022	.061
36	455.11 Sec	3	-.293	.107	.039	.338	1.019	.046

PHOENIX GEOSCIENCE

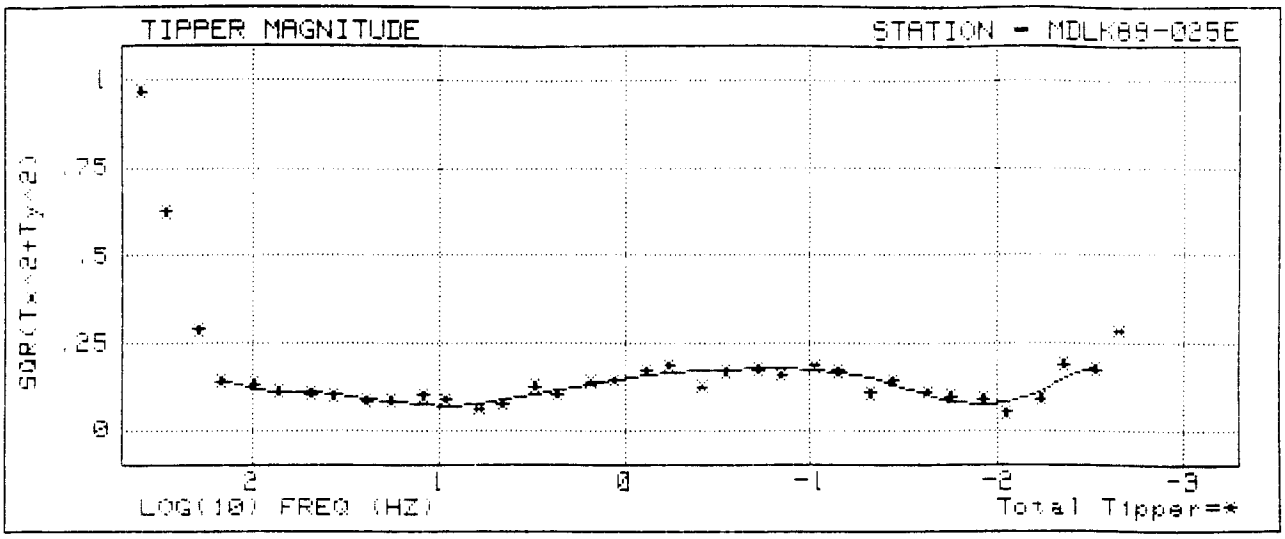
MT Site: MDLK89-025E

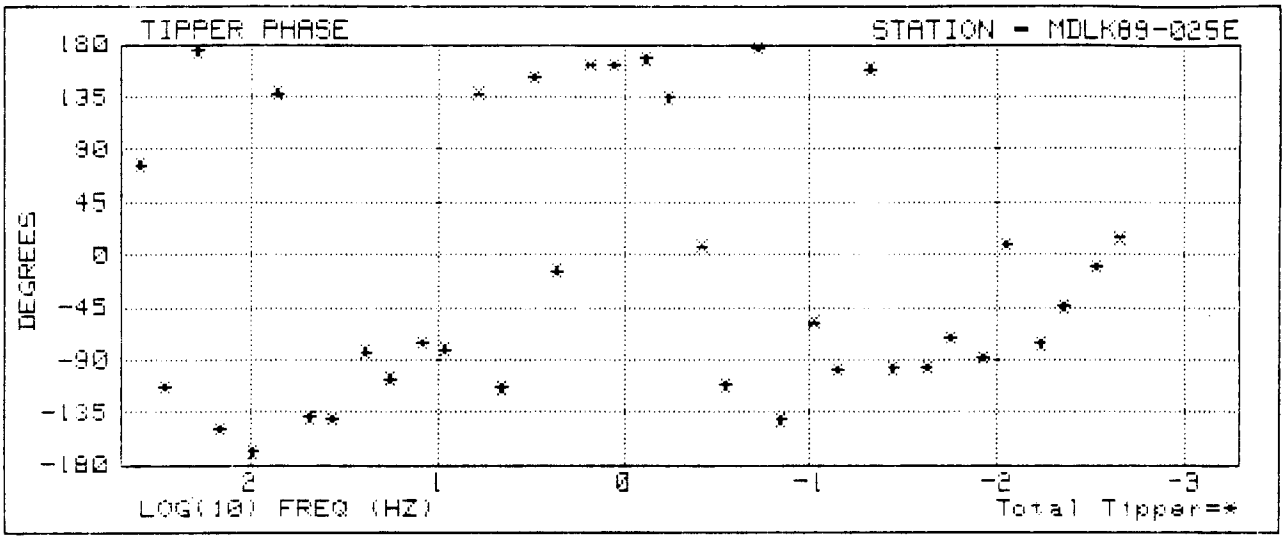
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

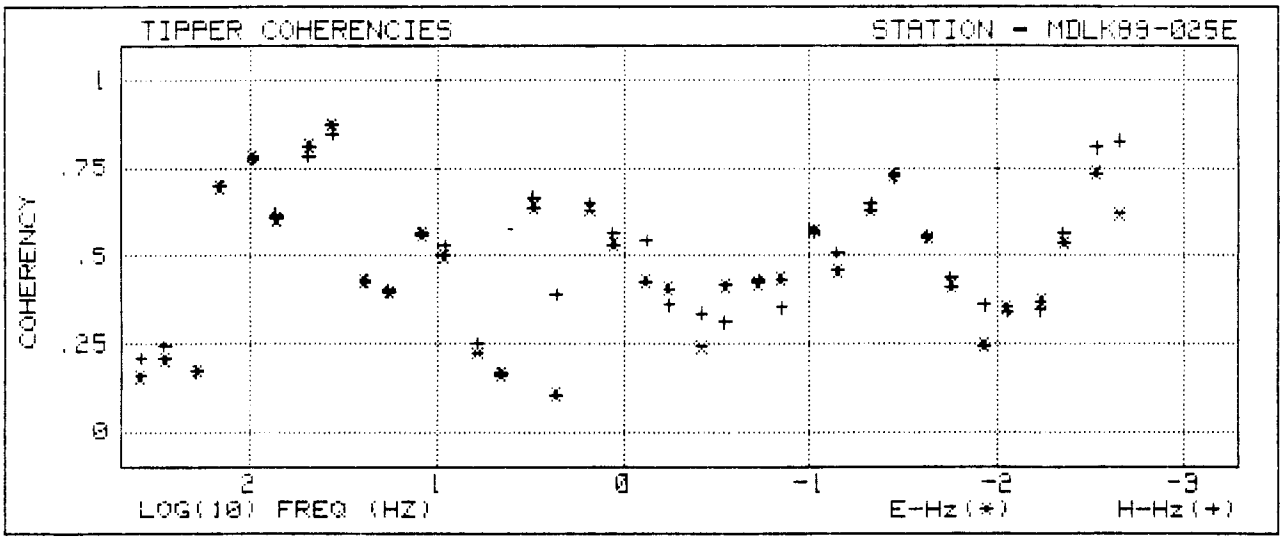
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	127	-936.68	-822.63	999.99	-208.98	-219.01	999.99
2	288.00 Hz	251	-18.34	-705.06	999.99	-52.69	-134.96	999.99
3	192.00 Hz	378	-137.35	-452.46	999.99	-32.05	-40.33	859.26
4	144.00 Hz	378	-83.17	-331.80	47.63	-19.67	-29.27	26.33
5	96.00 Hz	191	-70.57	-243.11	86.66	-11.97	-18.81	40.90
6	72.00 Hz	191	-91.32	-189.51	168.18	-22.80	-14.40	54.30
7	48.00 Hz	288	-12.55	-137.31	75.46	1.46	-11.79	59.89
8	36.00 Hz	288	-23.13	-104.75	28.86	-3.89	-14.91	14.16
9	24.00 Hz	384	-19.23	-74.28	9.08	-4.38	-9.69	3.68
10	18.00 Hz	192	-16.22	-57.05	7.04	-6.89	-11.28	1.87
11	12.00 Hz	382	-11.13	-40.39	1.69	-3.10	-4.42	.97
12	9.00 Hz	286	-10.19	-29.94	1.42	-.68	-3.39	1.19
13	6.00 Hz	192	-9.84	-20.76	3.66	-4.15	-4.36	.86
14	4.50 Hz	192	-8.46	-15.75	4.19	-2.47	-2.11	1.82
15	3.00 Hz	2367	-6.83	-9.88	3.40	-1.13	-1.46	1.46
16	2.25 Hz	6016	-5.03	-8.94	4.83	-.79	1.29	5.97
17	1.50 Hz	1600	-5.26	-6.93	3.88	-.50	-1.18	2.55
18	1.13 Hz	1712	-5.59	-5.03	1.91	-.64	-1.35	1.37
19	1.33 Sec	432	-6.512	-4.954	7.767	-.554	-.973	6.906
20	1.78 Sec	432	-4.878	-4.106	16.679	-.475	.548	23.723
21	2.67 Sec	192	-8.524	-.224	99.999	.591	-1.560	99.999
22	3.56 Sec	468	-6.608	-3.495	36.873	-.091	.089	28.072
23	5.33 Sec	108	-6.268	-2.102	4.709	-.370	-.445	5.934
24	7.11 Sec	204	-7.303	-1.835	3.943	.364	-.258	4.038
25	10.67 Sec	108	-5.842	-1.974	2.177	.549	-.751	3.973
26	14.22 Sec	126	-4.950	-2.420	1.038	.354	-.861	1.868
27	21.33 Sec	244	-4.243	-2.964	.100	.452	-.412	.059
28	28.44 Sec	250	-3.574	-2.656	.018	.282	-.361	.008
29	42.67 Sec	202	-2.440	-2.570	.048	.367	-.058	.018
30	56.89 Sec	244	-2.043	-2.196	.031	.228	-.009	.026
31	85.33 Sec	114	-1.542	-1.790	.044	.235	.064	.105
32	113.78 Sec	51	-1.057	-1.471	.033	.250	.146	.132
33	170.67 Sec	15	-.657	-1.080	.058	.143	-.042	.270
34	227.56 Sec	18	-.753	-.777	.051	.114	.037	.125
35	341.33 Sec	6	-.610	-.623	.004	.214	.277	.019
36	455.11 Sec	3	-.536	-.610	.021	-.067	.216	.024

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E







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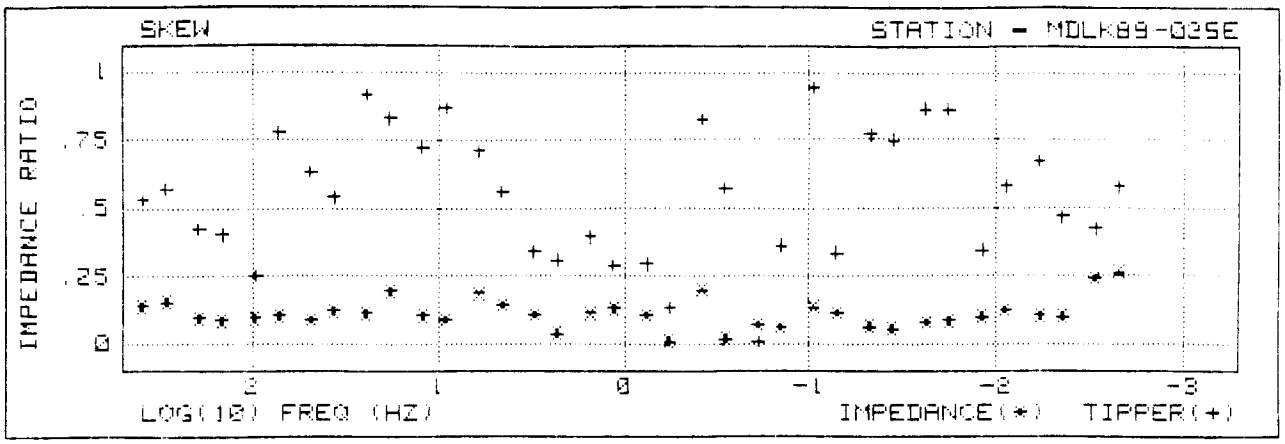
MT Site: MDLK89-025E

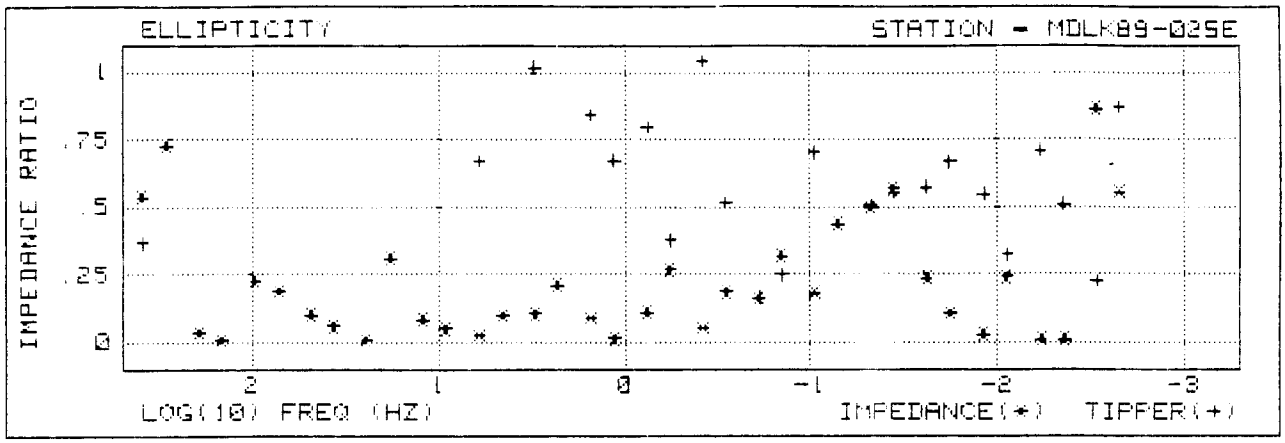
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

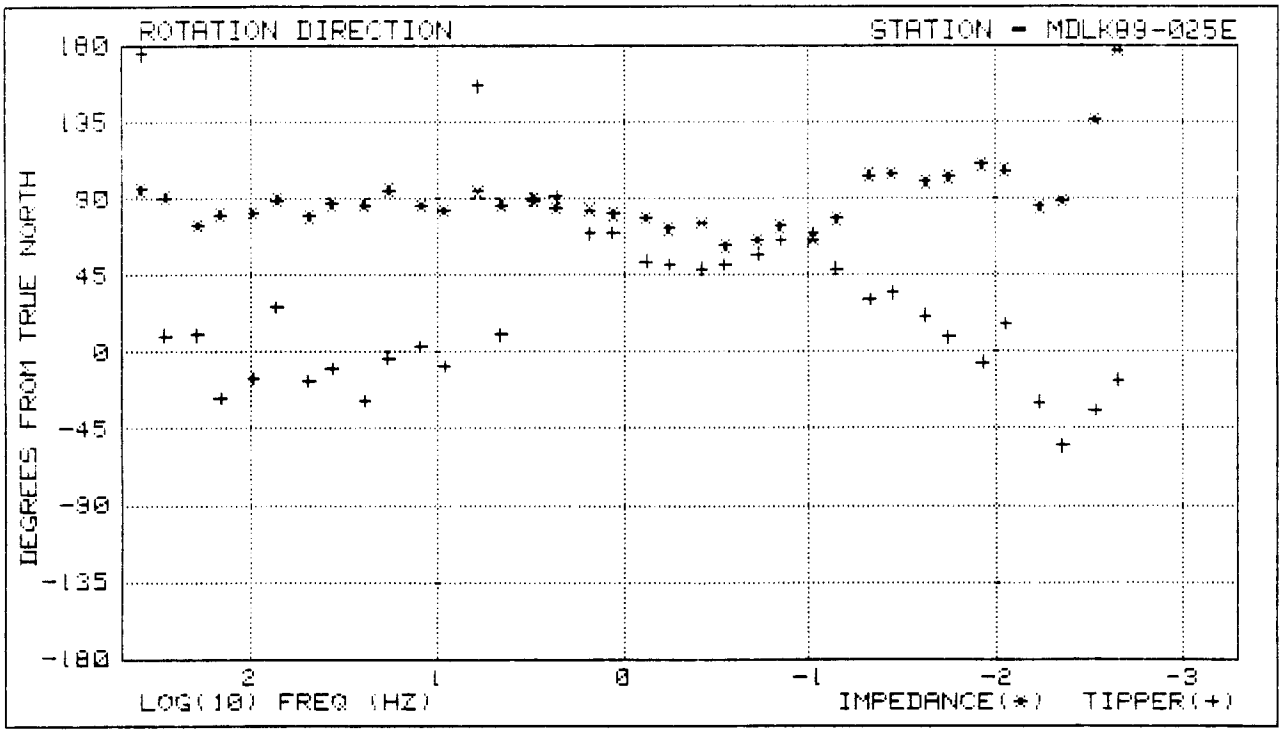
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	127	.96	76.18	.15	.20
2	288.00 Hz	251	.62	-113.70	.20	.24
3	192.00 Hz	378	.29	173.40	.17	.17
4	144.00 Hz	378	.14	-150.02	.69	.69
5	96.00 Hz	191	.13	-169.07	.78	.77
6	72.00 Hz	191	.11	136.72	.60	.61
7	48.00 Hz	288	.10	-139.86	.81	.78
8	36.00 Hz	288	.10	-141.34	.87	.84
9	24.00 Hz	384	.08	-83.96	.42	.43
10	18.00 Hz	192	.08	-107.02	.39	.40
11	12.00 Hz	382	.10	-76.12	.56	.56
12	9.00 Hz	286	.08	-81.42	.50	.53
13	6.00 Hz	192	.06	137.23	.22	.25
14	4.50 Hz	192	.07	-114.73	.16	.16
15	3.00 Hz	2367	.12	151.26	.63	.66
16	2.25 Hz	6016	.10	-14.18	.10	.39
17	1.50 Hz	1600	.14	161.19	.63	.64
18	1.13 Hz	1712	.14	161.20	.53	.56
19	1.33 Sec	432	.17	167.47	.42	.54
20	1.78 Sec	432	.18	133.33	.40	.36
21	2.67 Sec	192	.12	6.70	.24	.33
22	3.56 Sec	468	.17	-112.28	.41	.31
23	5.33 Sec	108	.17	176.33	.42	.43
24	7.11 Sec	204	.15	-141.74	.43	.35
25	10.67 Sec	108	.18	-58.52	.57	.56
26	14.22 Sec	126	.17	-99.23	.45	.50
27	21.33 Sec	244	.10	158.16	.63	.64
28	28.44 Sec	250	.14	-97.98	.73	.72
29	42.67 Sec	202	.11	-97.02	.55	.55
30	56.89 Sec	244	.09	-71.97	.41	.43
31	85.33 Sec	114	.09	-88.74	.24	.36
32	113.78 Sec	51	.05	7.89	.35	.34
33	170.67 Sec	15	.09	-77.18	.37	.34
34	227.56 Sec	18	.19	-45.59	.53	.56
35	341.33 Sec	6	.17	-10.88	.73	.80
36	455.11 Sec	3	.28	13.27	.62	.82

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E







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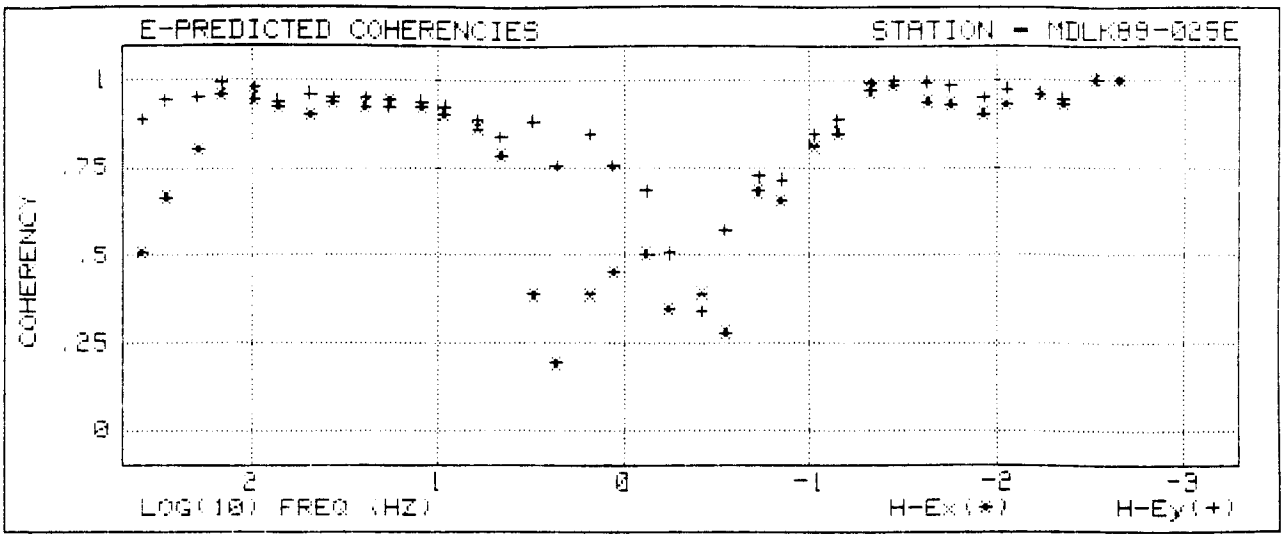
MT Site: MDLK89-025E

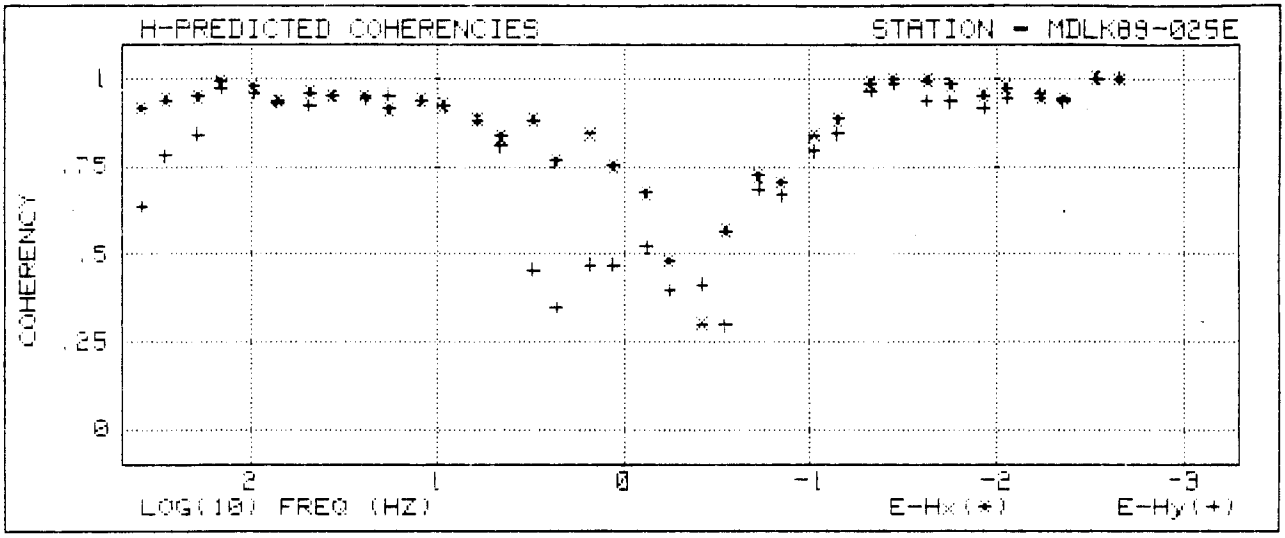
SKEW, ELLIPTICITY AND STRIKE

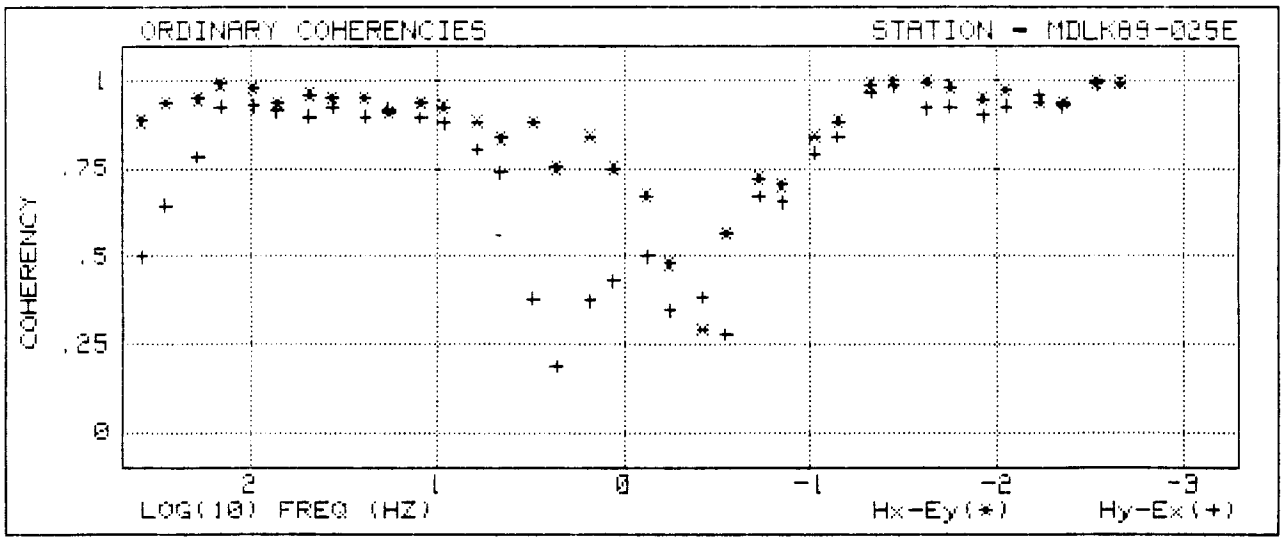
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	127	.14	.53	94.75	.53	.36	174.20
2	288.00 Hz	251	.15	.72	89.96	.57	2.78	8.98
3	192.00 Hz	378	.09	.03	73.42	.42	3.02	9.59
4	144.00 Hz	378	.08	.00	80.05	.40	2.83	-27.54
5	96.00 Hz	191	.09	.22	80.64	.25	6.00	-16.18
6	72.00 Hz	191	.10	.18	88.58	.77	1.74	26.10
7	48.00 Hz	288	.08	.10	78.89	.63	2.82	-17.56
8	36.00 Hz	288	.12	.05	85.95	.54	3.34	-10.25
9	24.00 Hz	384	.11	.00	85.69	.91	1.46	-29.16
10	18.00 Hz	192	.19	.31	94.46	.83	1.88	-4.19
11	12.00 Hz	382	.10	.08	85.09	.72	1.46	2.90
12	9.00 Hz	286	.08	.05	82.38	.87	1.58	-8.63
13	6.00 Hz	192	.18	.02	93.23	.71	.67	155.72
14	4.50 Hz	192	.14	.09	85.84	.56	2.15	9.47
15	3.00 Hz	2367	.10	.10	89.10	.34	1.01	88.37
16	2.25 Hz	6016	.03	.21	83.90	.30	2.69	90.51
17	1.50 Hz	1600	.11	.09	82.99	.39	.84	68.86
18	1.13 Hz	1712	.13	.01	80.47	.28	.67	69.32
19	1.33 Sec	432	.10	.11	77.97	.29	.79	52.42
20	1.78 Sec	432	.01	.26	71.66	.13	.37	50.48
21	2.67 Sec	192	.20	.05	75.18	.82	1.04	47.98
22	3.56 Sec	468	.02	.18	61.56	.56	.51	50.43
23	5.33 Sec	108	.07	.16	65.10	.00	.16	56.74
24	7.11 Sec	204	.06	.32	73.19	.36	.25	64.72
25	10.67 Sec	108	.13	.18	65.58	.94	.70	69.02
26	14.22 Sec	126	.11	.43	77.57	.33	1.68	47.84
27	21.33 Sec	244	.06	.49	102.84	.76	.50	30.26
28	28.44 Sec	250	.05	.56	103.79	.74	.55	33.95
29	42.67 Sec	202	.07	.23	99.37	.86	.57	20.57
30	56.89 Sec	244	.08	.10	102.21	.86	.66	8.27
31	85.33 Sec	114	.10	.02	109.13	.34	.54	-7.10
32	113.78 Sec	51	.12	.24	105.91	.57	.32	15.86
33	170.67 Sec	15	.10	.01	84.77	.67	.70	-30.08
34	227.56 Sec	18	.10	.01	87.88	.46	.50	-55.34
35	341.33 Sec	6	.24	.86	135.71	.42	.22	-34.63
36	455.11 Sec	3	.26	.55	176.10	.57	.87	-17.04

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E







PHOENIX GEOSCIENCE

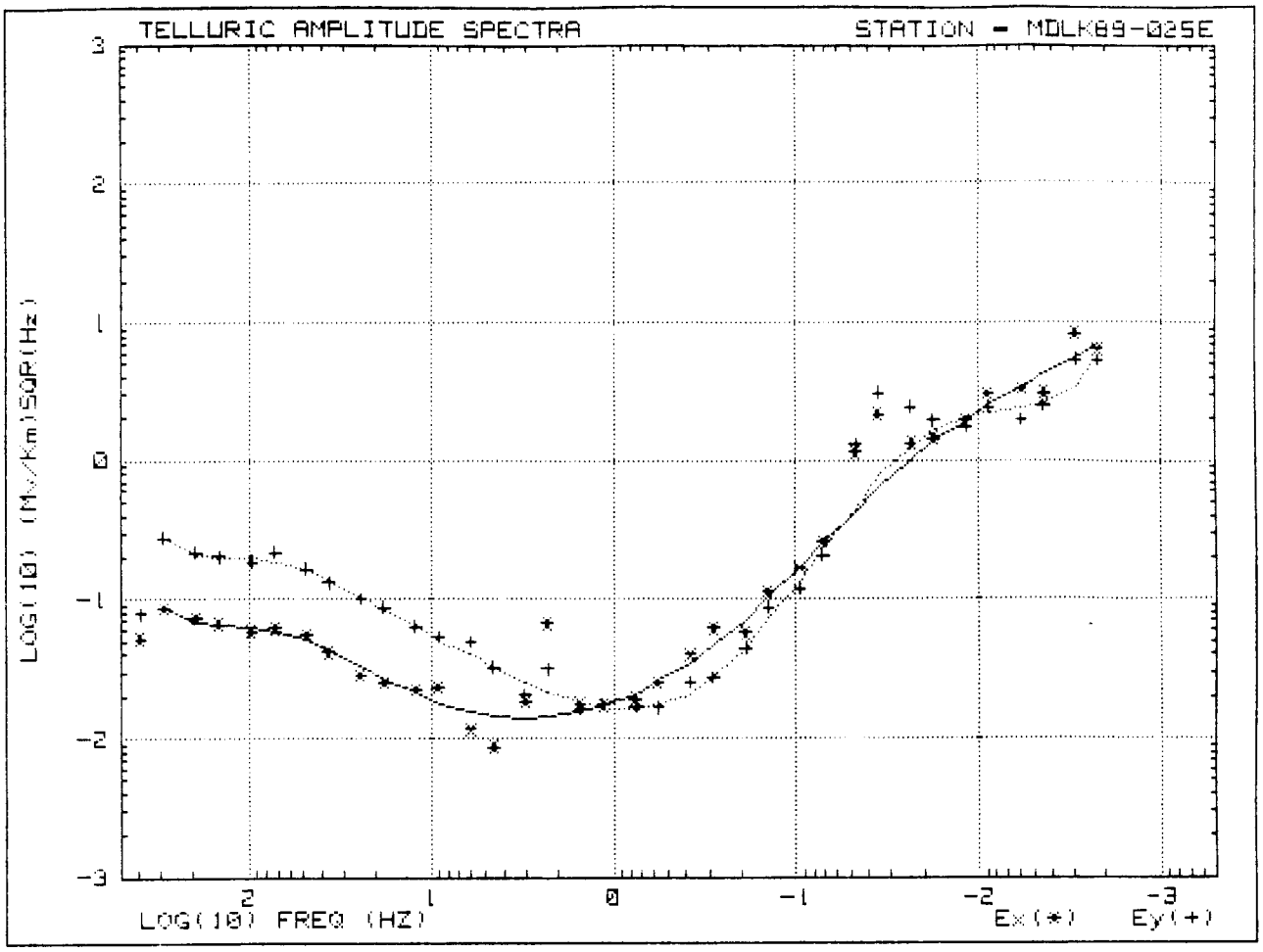
MT Site: MDLK89-025E

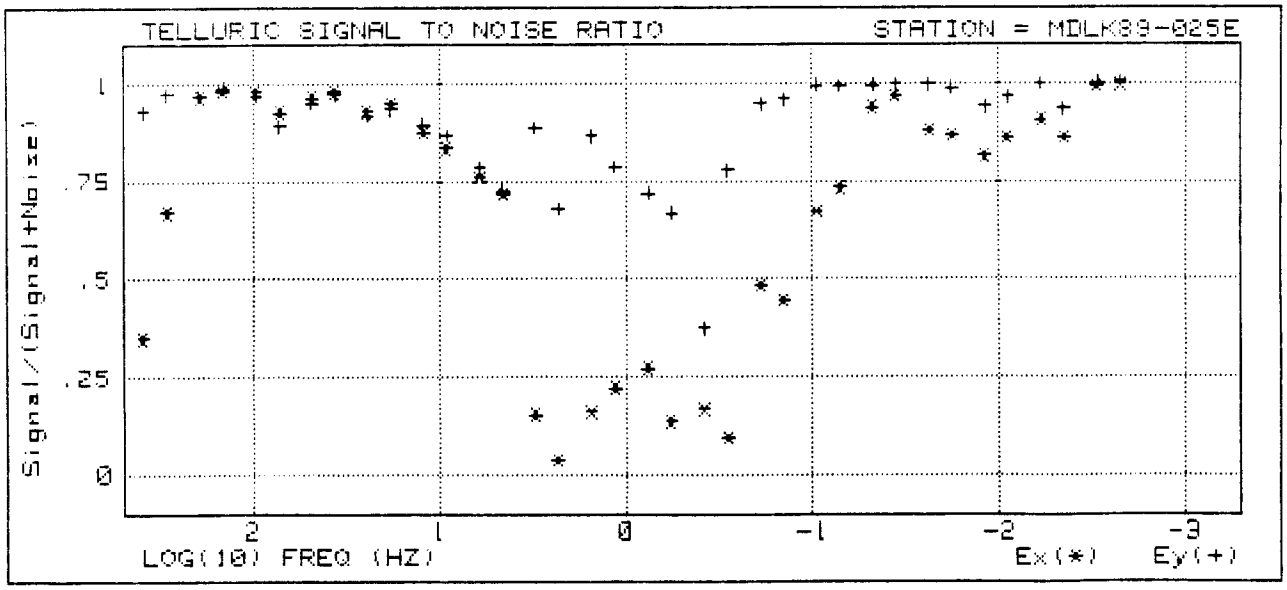
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	127	.50	.88	.91	.63	.88	.50
2	288.00 Hz	251	.66	.94	.94	.78	.93	.64
3	192.00 Hz	378	.80	.95	.95	.84	.95	.78
4	144.00 Hz	378	.96	.99	.99	.97	.99	.92
5	96.00 Hz	191	.94	.98	.98	.96	.98	.92
6	72.00 Hz	191	.92	.93	.93	.93	.93	.91
7	48.00 Hz	288	.90	.96	.96	.92	.96	.89
8	36.00 Hz	288	.93	.95	.95	.95	.95	.92
9	24.00 Hz	384	.92	.95	.95	.94	.95	.89
10	18.00 Hz	192	.94	.92	.91	.95	.91	.91
11	12.00 Hz	382	.92	.94	.93	.93	.93	.89
12	9.00 Hz	286	.90	.92	.92	.92	.92	.87
13	6.00 Hz	192	.86	.88	.88	.88	.88	.80
14	4.50 Hz	192	.78	.83	.83	.80	.83	.73
15	3.00 Hz	2367	.38	.88	.88	.45	.88	.37
16	2.25 Hz	6016	.19	.75	.76	.34	.75	.18
17	1.50 Hz	1600	.38	.84	.84	.47	.84	.37
18	1.13 Hz	1712	.45	.75	.75	.47	.75	.43
19	1.33 Sec	432	.50	.68	.67	.52	.67	.50
20	1.78 Sec	432	.34	.50	.48	.39	.48	.34
21	2.67 Sec	192	.39	.34	.30	.41	.29	.38
22	3.56 Sec	468	.28	.57	.56	.29	.56	.28
23	5.33 Sec	108	.68	.72	.72	.68	.72	.67
24	7.11 Sec	204	.65	.71	.70	.67	.70	.65
25	10.67 Sec	108	.80	.84	.84	.79	.84	.79
26	14.22 Sec	126	.85	.88	.88	.84	.88	.83
27	21.33 Sec	244	.97	.99	.99	.96	.98	.96
28	28.44 Sec	250	.98	1.00	1.00	.98	.99	.98
29	42.67 Sec	202	.94	.99	.99	.93	.99	.92
30	56.89 Sec	244	.93	.98	.98	.93	.98	.92
31	85.33 Sec	114	.90	.95	.95	.91	.94	.90
32	113.78 Sec	51	.93	.97	.97	.94	.97	.92
33	170.67 Sec	15	.95	.96	.94	.95	.93	.95
34	227.56 Sec	18	.93	.94	.94	.93	.93	.92
35	341.33 Sec	6	1.00	1.00	1.00	1.00	.99	.99
36	455.11 Sec	3	1.00	1.00	1.00	1.00	.99	.99

PHOENIX GEOSCIENCE

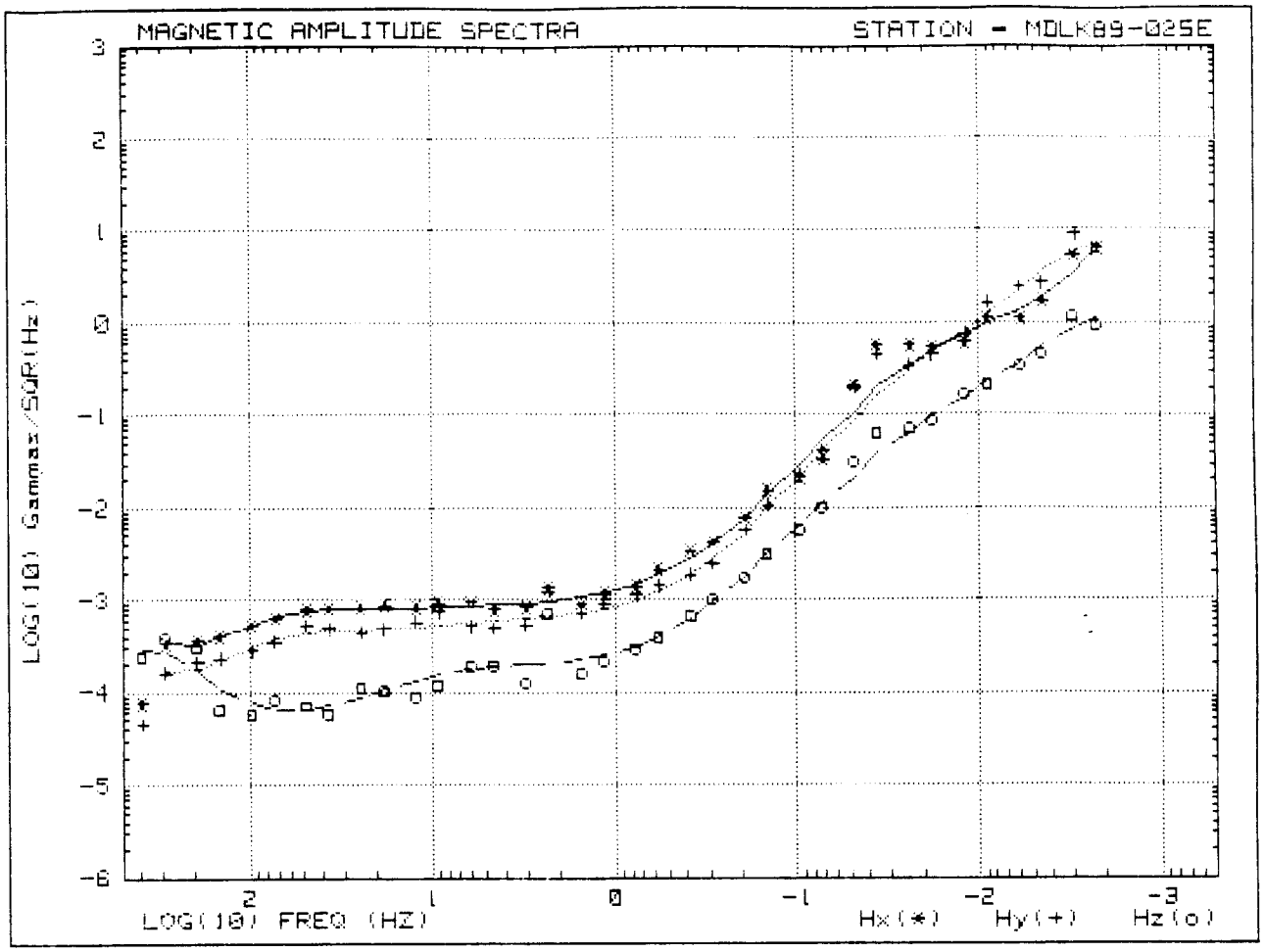
MT Site: MDLK89-025E

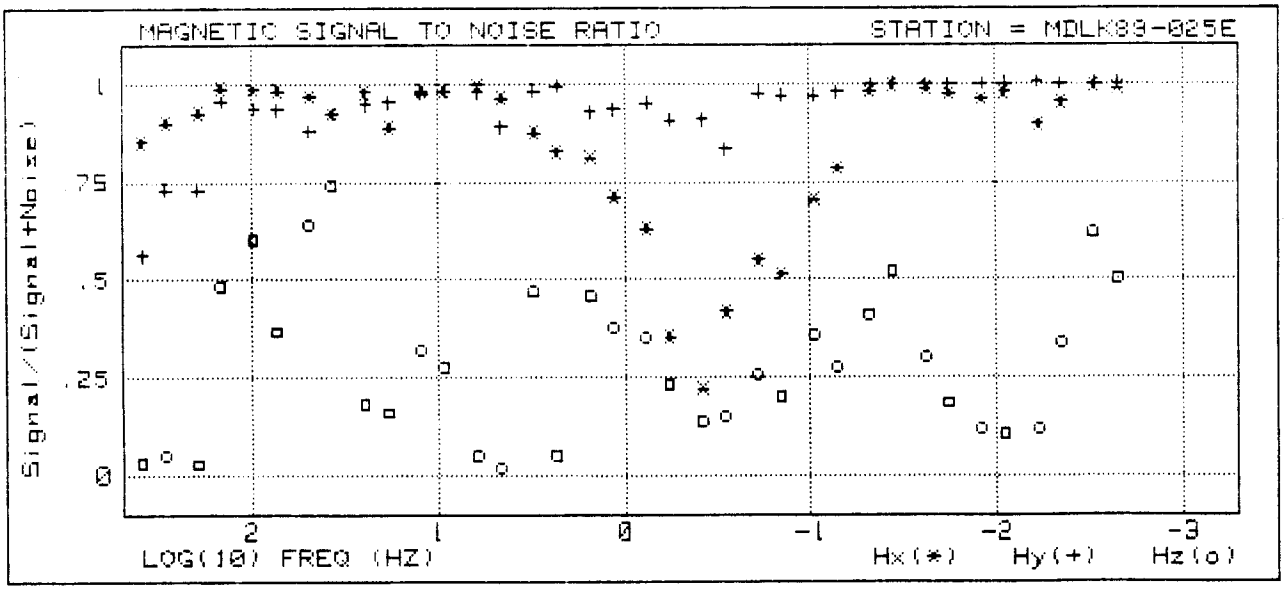




PHOENIX GEOSCIENCE

MT Site: MDLK89-025E





PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	127	7.50E-05	4.40E-05	2.52E-04	5.15E-02	7.75E-02
2	288.00 Hz	251	3.32E-04	1.60E-04	4.07E-04	8.48E-02	2.76E-01
3	192.00 Hz	378	3.65E-04	2.08E-04	3.17E-04	7.29E-02	2.17E-01
4	144.00 Hz	378	3.96E-04	2.29E-04	6.66E-05	6.53E-02	2.03E-01
5	96.00 Hz	191	5.14E-04	2.78E-04	6.08E-05	5.79E-02	1.85E-01
6	72.00 Hz	191	6.16E-04	3.43E-04	8.59E-05	6.10E-02	2.16E-01
7	48.00 Hz	288	7.71E-04	5.13E-04	7.45E-05	5.51E-02	1.64E-01
8	36.00 Hz	288	7.88E-04	4.82E-04	6.18E-05	4.07E-02	1.31E-01
9	24.00 Hz	384	8.09E-04	4.37E-04	1.15E-04	2.79E-02	9.98E-02
10	18.00 Hz	192	8.52E-04	4.74E-04	1.08E-04	2.46E-02	8.60E-02
11	12.00 Hz	382	8.04E-04	5.55E-04	9.11E-05	2.20E-02	6.26E-02
12	9.00 Hz	286	9.03E-04	7.26E-04	1.27E-04	2.29E-02	5.31E-02
13	6.00 Hz	192	9.42E-04	5.09E-04	2.01E-04	1.14E-02	4.85E-02
14	4.50 Hz	192	7.73E-04	4.89E-04	2.06E-04	8.49E-03	3.18E-02
15	3.00 Hz	2367	8.19E-04	5.22E-04	1.31E-04	1.79E-02	2.01E-02
16	2.25 Hz	6016	1.32E-03	1.23E-03	7.30E-04	6.62E-02	3.11E-02
17	1.50 Hz	1600	8.84E-04	7.11E-04	1.65E-04	1.75E-02	1.59E-02
18	1.13 Hz	1712	1.14E-03	8.95E-04	2.24E-04	1.71E-02	1.72E-02
19	1.33 Sec	432	1.37E-03	1.11E-03	3.11E-04	1.90E-02	1.68E-02
20	1.78 Sec	432	2.09E-03	1.41E-03	4.16E-04	2.46E-02	1.64E-02
21	2.67 Sec	192	3.38E-03	1.85E-03	6.90E-04	3.93E-02	2.49E-02
22	3.56 Sec	468	4.21E-03	2.47E-03	1.06E-03	6.08E-02	2.69E-02
23	5.33 Sec	108	7.57E-03	5.64E-03	1.80E-03	5.67E-02	4.37E-02
24	7.11 Sec	204	1.50E-02	1.05E-02	3.43E-03	1.13E-01	8.59E-02
25	10.67 Sec	108	2.06E-02	2.15E-02	5.99E-03	1.68E-01	1.18E-01
26	14.22 Sec	126	3.31E-02	3.98E-02	1.07E-02	2.59E-01	2.08E-01
27	21.33 Sec	244	2.05E-01	1.98E-01	3.21E-02	1.13E+00	1.27E+00
28	28.44 Sec	250	5.67E-01	4.54E-01	6.50E-02	2.10E+00	3.02E+00
29	42.67 Sec	202	5.58E-01	3.36E-01	7.32E-02	1.31E+00	2.38E+00
30	56.89 Sec	244	5.23E-01	4.38E-01	9.03E-02	1.40E+00	1.88E+00
31	85.33 Sec	114	5.97E-01	7.36E-01	1.72E-01	1.89E+00	1.72E+00
32	113.78 Sec	51	1.07E+00	1.60E+00	2.20E-01	2.98E+00	2.38E+00
33	170.67 Sec	15	1.07E+00	2.38E+00	3.52E-01	3.23E+00	1.91E+00
34	227.56 Sec	18	1.70E+00	2.63E+00	4.83E-01	3.02E+00	2.42E+00
35	341.33 Sec	6	5.18E+00	8.77E+00	1.23E+00	8.11E+00	5.29E+00
36	455.11 Sec	3	6.12E+00	6.27E+00	9.97E-01	6.24E+00	5.17E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	127	.852	.561	.035	.347	.927
2	288.00 Hz	251	.900	.728	.056	.667	.970
3	192.00 Hz	378	.925	.729	.033	.964	.967
4	144.00 Hz	378	.987	.954	.488	.979	.987
5	96.00 Hz	191	.986	.934	.611	.979	.966
6	72.00 Hz	191	.982	.932	.372	.925	.888
7	48.00 Hz	288	.966	.879	.648	.963	.948
8	36.00 Hz	288	.922	.921	.747	.977	.971
9	24.00 Hz	384	.977	.946	.189	.927	.919
10	18.00 Hz	192	.887	.953	.164	.948	.933
11	12.00 Hz	382	.980	.975	.324	.872	.892
12	9.00 Hz	286	.982	.979	.281	.832	.865
13	6.00 Hz	192	.996	.976	.053	.758	.782
14	4.50 Hz	192	.961	.889	.025	.714	.723
15	3.00 Hz	2367	.875	.981	.474	.150	.885
16	2.25 Hz	6016	.826	.994	.057	.035	.677
17	1.50 Hz	1600	.812	.926	.461	.158	.865
18	1.13 Hz	1712	.710	.932	.380	.220	.784
19	1.33 Sec	432	.628	.949	.357	.269	.716
20	1.78 Sec	432	.351	.905	.236	.133	.667
21	2.67 Sec	192	.219	.908	.144	.164	.372
22	3.56 Sec	468	.417	.832	.156	.091	.775
23	5.33 Sec	108	.549	.975	.262	.482	.945
24	7.11 Sec	204	.514	.968	.206	.444	.958
25	10.67 Sec	108	.704	.969	.363	.671	.994
26	14.22 Sec	126	.784	.976	.283	.732	.991
27	21.33 Sec	244	.978	.998	.416	.937	.993
28	28.44 Sec	250	.995	1.000	.524	.966	.995
29	42.67 Sec	202	.988	.997	.307	.878	.995
30	56.89 Sec	244	.973	.997	.190	.865	.987
31	85.33 Sec	114	.960	.997	.126	.813	.939
32	113.78 Sec	51	.977	1.000	.111	.860	.964
33	170.67 Sec	15	.895	1.000	.124	.906	.997
34	227.56 Sec	18	.952	.998	.345	.860	.933
35	341.33 Sec	6	.996	1.000	.625	.992	1.000
36	455.11 Sec	3	.987	1.000	.510	.996	1.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-025E

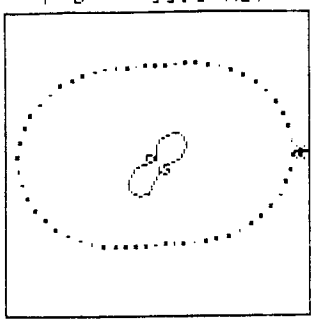
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

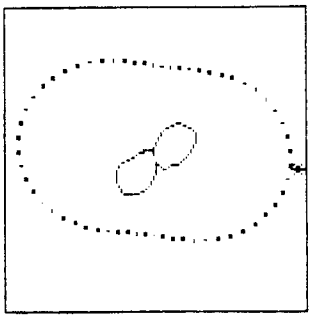
*=Rotation Direction

Zxy = ...
Zxx = ___

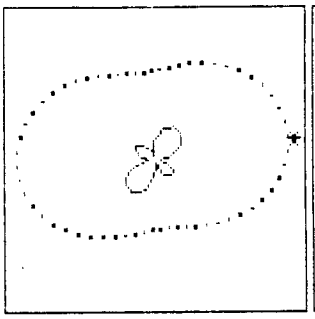
F=8 (36.0 Hz)



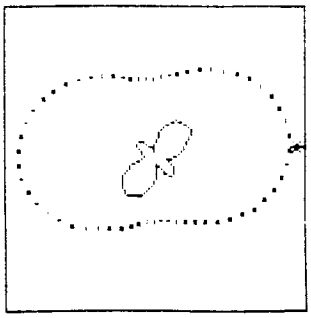
F=10 (18.0 Hz)



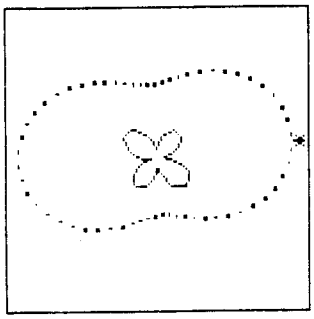
F=12 (9.0 Hz)



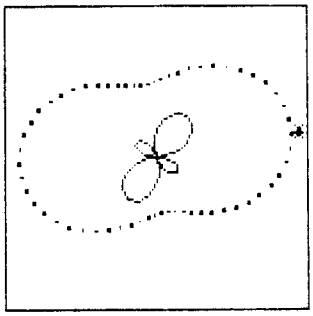
F=14 (4.5 Hz)



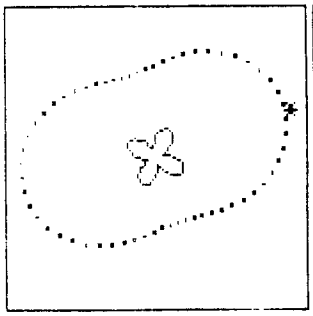
F=16 (2.3 Hz)



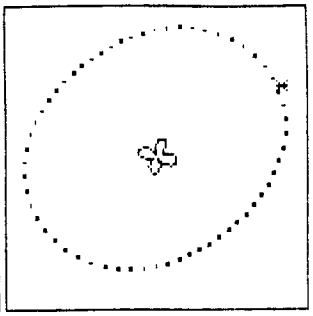
F=18 (1.1 Hz)



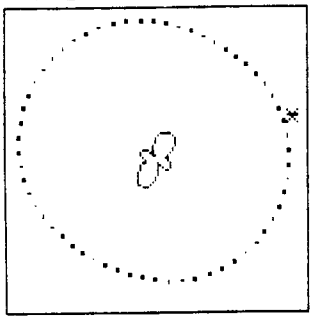
F=20 (.5625 Hz)



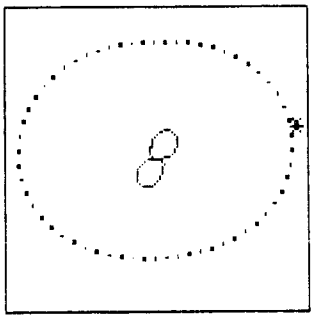
F=22 (.2813 Hz)



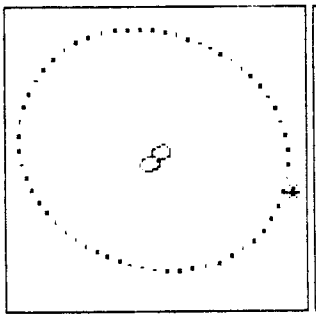
F=24 (.1406 Hz)



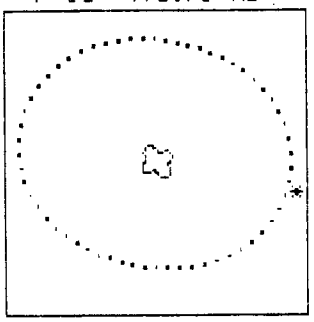
F=26 (.0703 Hz)



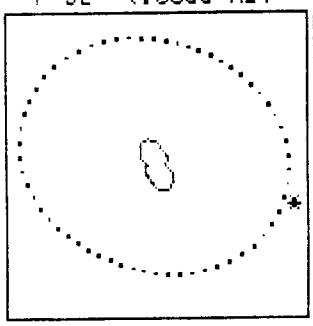
F=28 (.0352 Hz)



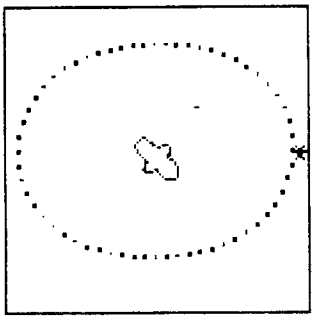
F=30 (.0176 Hz)



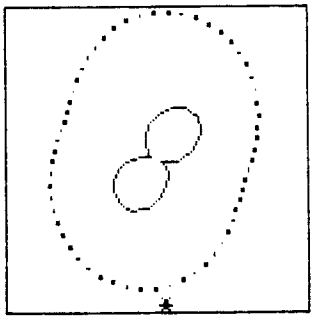
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



GM 34.07a

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-024s/025s/026s/

Operator:M. SNOW
Date: 29 Aug 1989
Time: 14:58:08

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#432-16Aug89-01
Sens-Ch02: C#235-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#431-16Aug89-01
Sens-Ch08: L#333-02Jul89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 3

Stn Number:MDLK89-026s
Site Desc:T43N R4E
41,34,37 N 121,33,15 W
Elevation:6920 FT
Reference:MDLK89-025s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL452	+0 DEG
Hy	12	COIL210	+90 DEG
Hz	13	LOOP405	
Ex	14	173 M	+0 DEG
Ey	15	170 M	+90 DEG
Rx	6	COIL430	+0 DEG
Ry	7	COIL431	+90 DEG

Ex Pot Resist: 8.0 K Ohms
Ex Voltage: AC=21.0 mv, DC=48.0 mv
Ey Pot Resist: 11.0K Ohms
AC=13.0 mv, DC=573.0_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

OPERATOR LOG FOR MT SITES MDLK89-024s/025s/026s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-024a/025a/026a/
Run STARTED: 14:58:08 29 Aug 1989
Run QUIT: 02:45:00 30 Aug 1989
Run Start and Stop Time for MDLK89-024b/025b/026b/
Run STARTED: 03:20:28 30 Aug 1989
Run QUIT: 08:35:36 30 Aug 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
MEGA-LIGHTNING STORM FROM 2100hrs. TO 2400hrs. WITH RAIN AND WINDS
Other Factors:
NONE

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

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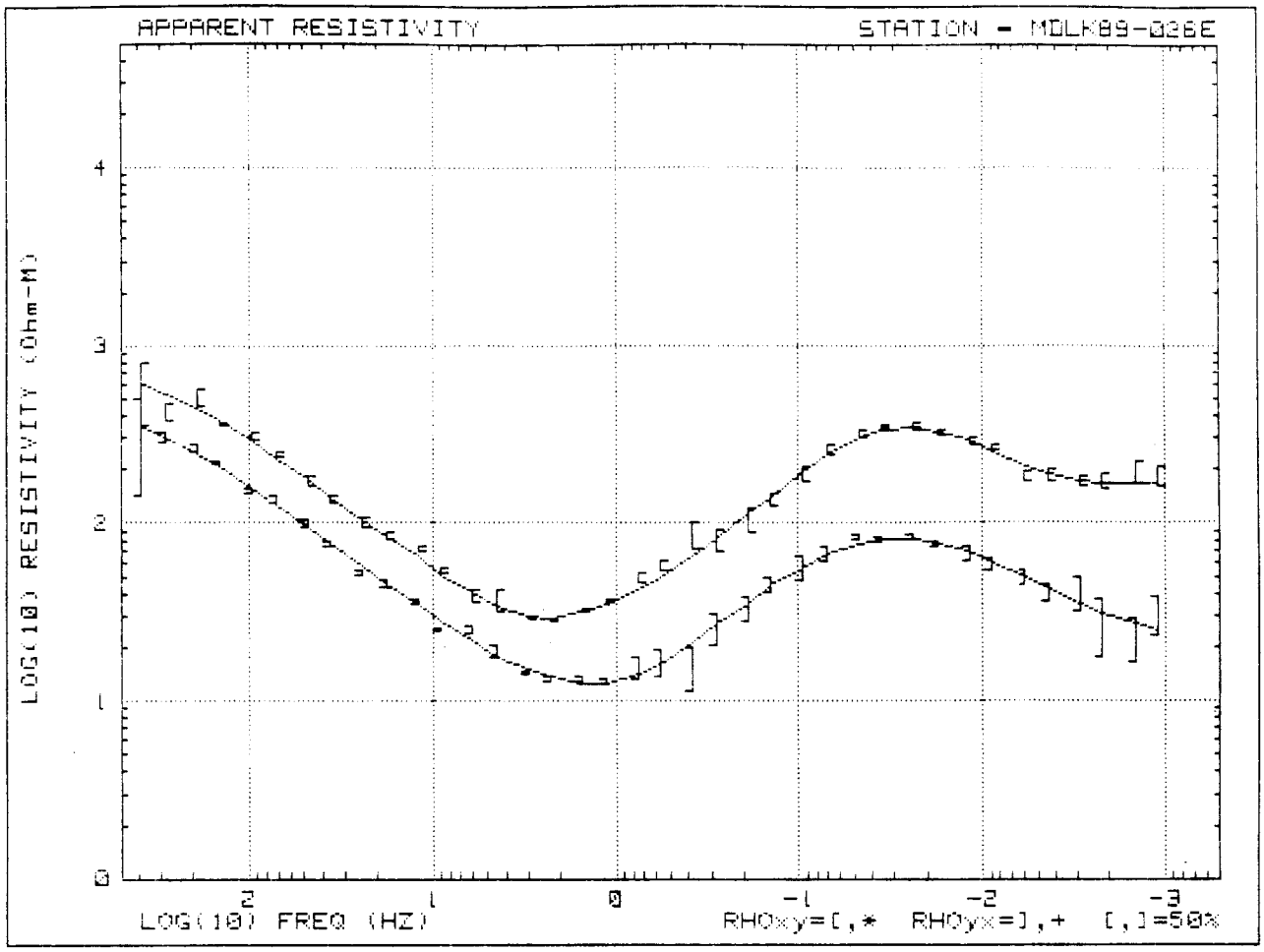
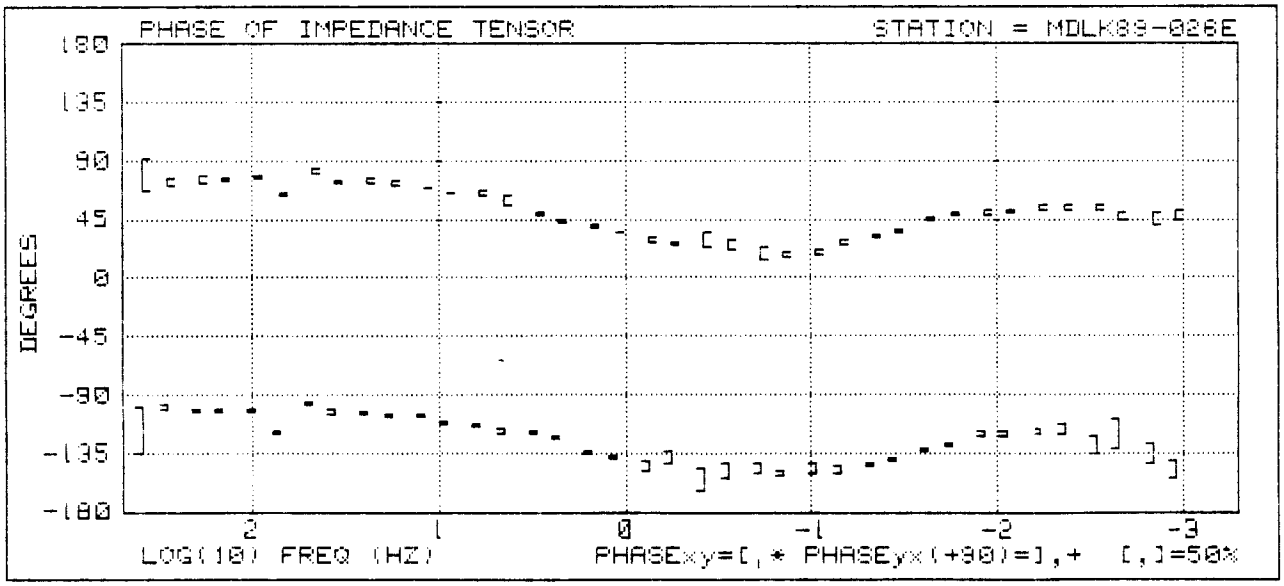
MT Site: MDLK89-026E





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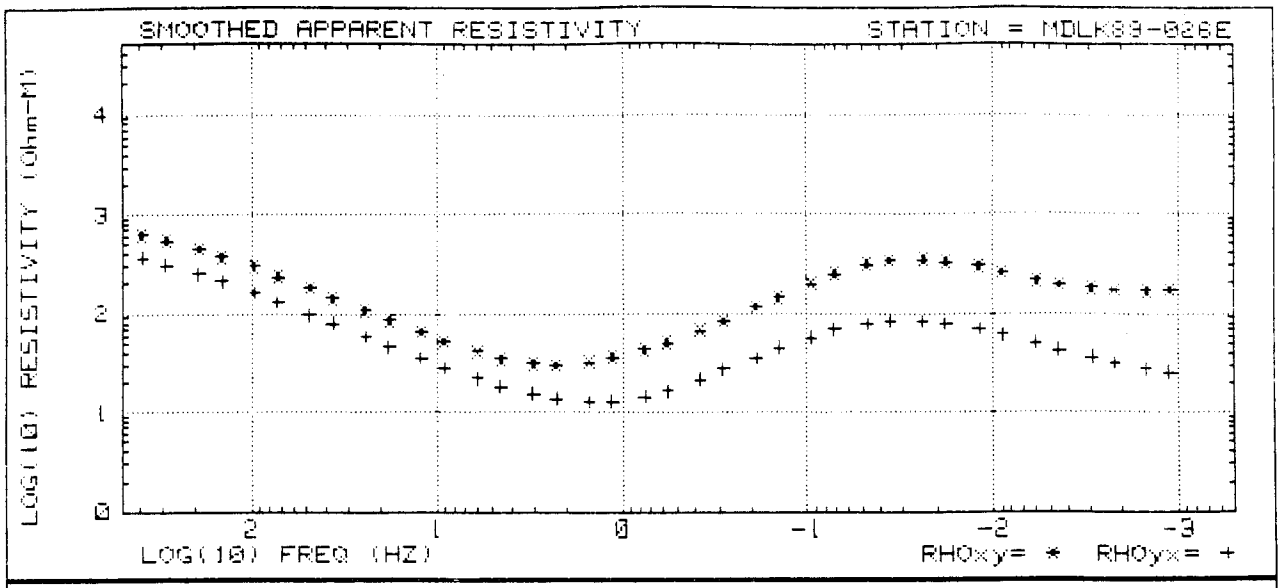
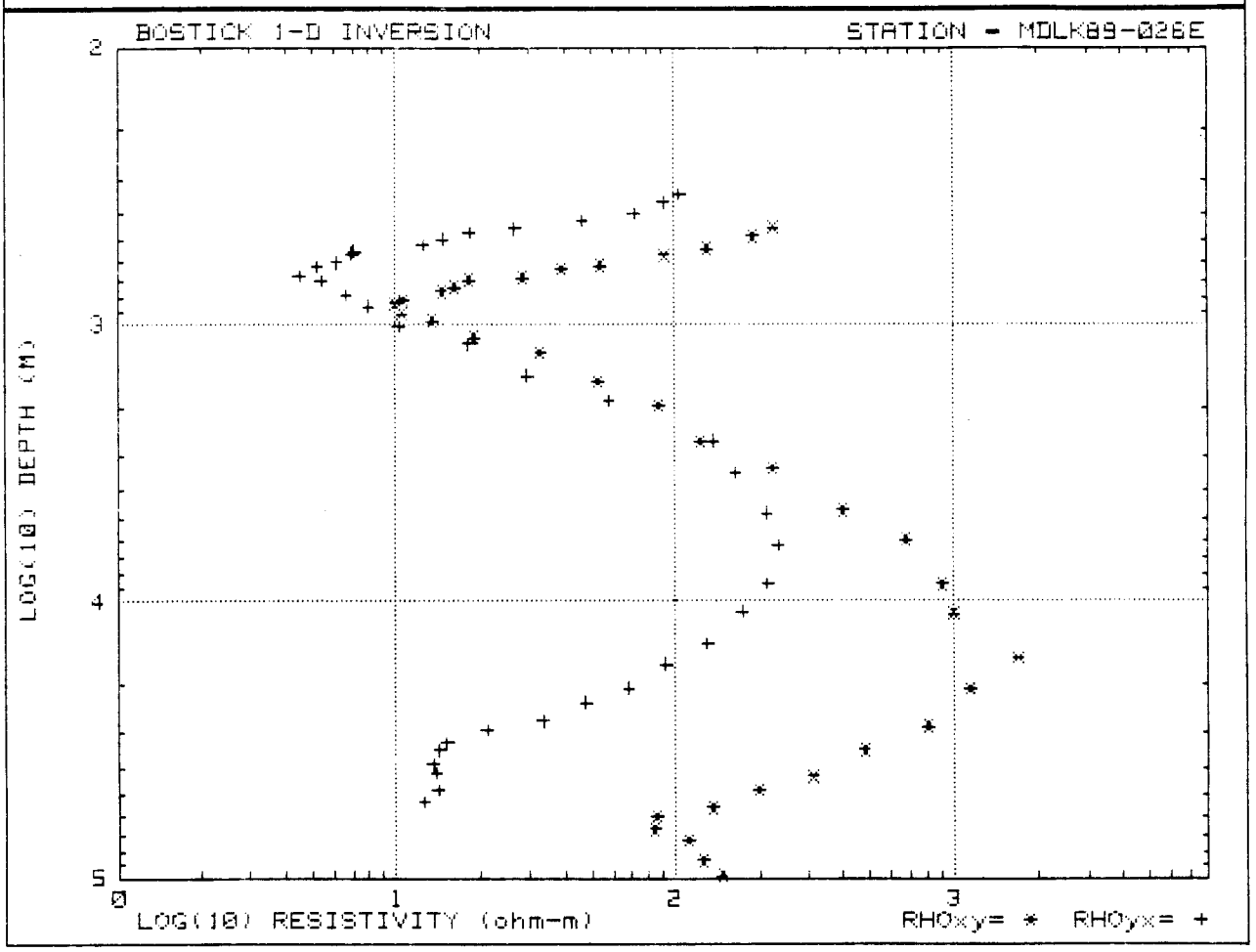
MT Site: MDLK89-026E





PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	251	526.3	83.5	267.7	99.9	79.2	17.4	-117.3	26.2
2	288.00 Hz	190	420.1	18.2	304.2	8.5	73.6	4.8	-98.8	2.3
3	192.00 Hz	188	511.5	16.9	260.8	6.7	74.9	4.5	-101.9	1.8
4	144.00 Hz	189	357.1	3.7	214.9	2.3	75.6	1.0	-101.7	.6
5	96.00 Hz	96	306.6	7.0	150.5	5.1	77.7	1.9	-101.2	1.4
6	72.00 Hz	285	242.0	5.8	135.8	5.4	64.1	1.6	-118.2	1.5
7	48.00 Hz	384	174.0	9.9	99.5	5.6	81.4	2.7	-96.4	1.6
8	36.00 Hz	384	137.0	8.0	75.7	5.3	73.5	2.2	-103.0	1.5
9	24.00 Hz	384	100.8	8.3	52.6	6.1	74.7	2.3	-104.6	1.7
10	18.00 Hz	96	85.9	7.5	46.0	6.4	72.9	2.1	-105.6	1.8
11	12.00 Hz	190	71.5	4.5	36.2	4.4	69.0	1.3	-106.3	1.2
12	9.00 Hz	286	54.4	3.2	25.1	3.8	64.8	.9	-111.3	1.1
13	6.00 Hz	192	39.5	12.0	25.2	6.7	65.4	3.2	-113.2	1.9
14	4.50 Hz	192	36.2	23.1	18.9	11.5	59.1	5.9	-118.1	3.1
15	3.00 Hz	6592	29.4	3.0	14.3	3.4	48.8	.8	-119.3	1.0
16	2.25 Hz	5504	28.6	2.8	13.2	4.4	43.7	.8	-123.4	1.2
17	1.50 Hz	5423	32.2	3.3	13.4	5.4	39.0	.9	-134.7	1.5
18	1.13 Hz	6213	36.6	2.9	12.8	5.6	34.7	.8	-137.5	1.6
19	1.33 Sec	1930	49.1	8.7	15.3	21.4	29.6	2.4	-144.6	5.6
20	1.78 Sec	1738	57.9	8.7	16.2	29.9	26.5	2.4	-138.6	7.5
21	2.67 Sec	480	84.8	30.2	14.9	51.9	29.0	7.6	-155.4	12.0
22	3.56 Sec	828	79.2	22.9	25.0	34.5	24.9	5.9	-148.8	8.5
23	5.33 Sec	156	105.5	27.0	32.4	26.5	19.0	6.8	-146.4	6.7
24	7.11 Sec	483	136.3	13.8	44.8	13.9	18.0	3.7	-150.1	3.7
25	10.67 Sec	252	188.3	15.2	56.0	24.8	19.9	4.1	-146.2	6.3
26	14.22 Sec	504	259.0	9.8	68.1	15.5	26.7	2.7	-146.8	4.1
27	21.33 Sec	214	316.9	5.9	83.0	5.1	31.3	1.6	-143.2	1.4
28	28.44 Sec	250	344.4	2.8	81.5	2.6	35.4	.8	-139.4	.7
29	42.67 Sec	208	348.2	5.2	84.2	4.7	44.4	1.5	-131.5	1.3
30	56.89 Sec	214	320.9	5.7	76.9	6.3	48.6	1.6	-128.1	1.8
31	85.33 Sec	114	290.9	7.9	67.3	13.1	50.3	2.2	-119.9	3.5
32	113.78 Sec	105	268.4	5.0	59.4	12.2	50.3	1.4	-119.5	3.3
33	170.67 Sec	54	183.6	9.4	49.2	14.1	53.8	2.6	-118.2	3.8
34	227.56 Sec	30	187.7	11.4	40.3	19.3	54.1	3.1	-116.1	5.1
35	341.33 Sec	21	171.8	10.0	40.0	38.0	54.4	2.7	-128.6	9.2
36	455.11 Sec	24	171.4	15.3	25.9	76.3	46.4	4.1	-119.8	16.3
37	682.67 Sec	6	192.5	23.5	21.7	51.4	45.0	6.0	-135.5	11.9
38	910.22 Sec	6	184.7	19.7	29.8	44.4	48.3	5.2	-146.9	10.5

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	251	614.4	357.5	228.4	450	104.9	343
2	288.00 Hz	190	538.5	305.5	192.1	487	91.9	367
3	192.00 Hz	188	442.3	246.3	132.4	540	72.1	403
4	144.00 Hz	189	370.6	209.1	92.7	571	47.0	429
5	96.00 Hz	96	291.8	158.8	54.4	620	26.8	458
6	72.00 Hz	285	230.4	127.8	39.3	637	18.4	474
7	48.00 Hz	384	178.6	94.6	28.5	686	14.9	500
8	36.00 Hz	384	139.4	77.1	18.5	700	12.6	521
9	24.00 Hz	384	105.0	57.5	16.4	744	7.1	551
10	18.00 Hz	96	84.0	44.9	14.7	769	7.0	562
11	12.00 Hz	190	64.5	34.6	10.7	825	6.2	605
12	9.00 Hz	286	51.2	27.7	10.0	849	5.2	624
13	6.00 Hz	192	40.5	21.6	10.6	924	4.5	675
14	4.50 Hz	192	34.1	17.6	13.7	980	5.4	704
15	3.00 Hz	6592	30.1	15.0	19.3	1127	6.7	795
16	2.25 Hz	5504	29.3	13.5	33.3	1285	8.0	873
17	1.50 Hz	5423	31.4	12.5	53.1	1629	10.3	1028
18	1.13 Hz	6213	35.0	12.6	88.4	1986	18.3	1193
19	1.33 Sec	1930	42.4	14.2	124.8	2676	29.7	1549
20	1.78 Sec	1738	49.3	16.1	225.4	3332	58.3	1907
21	2.67 Sec	480	66.1	21.0	406.2	4725	137.2	2666
22	3.56 Sec	828	81.2	26.9	680.1	6048	165.6	3478
23	5.33 Sec	156	114.0	34.7	923.7	8776	214.6	4841
24	7.11 Sec	483	139.5	44.3	1009.2	11209	236.6	6316
25	10.67 Sec	252	192.7	55.8	1699.5	16136	216.5	8679
26	14.22 Sec	504	242.3	66.7	1147.4	20890	175.2	10961
27	21.33 Sec	214	302.7	76.1	814.7	28598	131.2	14339
28	28.44 Sec	250	332.8	80.2	480.9	34628	93.3	16997
29	42.67 Sec	208	343.4	80.2	315.0	43076	68.7	20816
30	56.89 Sec	214	323.0	76.0	200.5	48245	48.1	23403
31	85.33 Sec	114	292.0	68.6	136.6	56172	33.8	27230
32	113.78 Sec	105	251.3	60.1	86.1	60174	21.3	29426
33	170.67 Sec	54	207.9	49.3	85.3	67042	15.4	32651
34	227.56 Sec	30	188.1	41.8	112.2	73618	14.4	34692
35	341.33 Sec	21	174.5	35.2	126.9	86865	13.7	39015
36	455.11 Sec	24	168.6	30.8	147.3	98569	14.0	42123
37	682.67 Sec	6	166.6	27.2	167.1	120020	14.2	48479
38	910.22 Sec	6	168.7	24.8	184.3	139470	12.7	53454

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	251	-57.00	118.69	999.99	187.82	987.53	999.99
2	288.00 Hz	190	13.10	10.64	999.99	219.68	746.07	999.99
3	192.00 Hz	188	-1.54	22.62	650.14	182.65	676.54	999.99
4	144.00 Hz	189	-7.75	-11.93	33.50	126.12	491.14	165.62
5	96.00 Hz	96	-13.89	-8.19	48.02	81.61	374.86	335.62
6	72.00 Hz	285	-25.70	-10.14	25.44	128.98	265.49	139.64
7	48.00 Hz	384	-4.01	-8.77	18.77	30.54	202.04	186.58
8	36.00 Hz	384	-7.87	-8.38	9.92	44.67	150.54	73.55
9	24.00 Hz	384	-5.98	-7.84	5.50	28.99	106.10	38.78
10	18.00 Hz	96	-6.44	-5.77	3.62	25.81	84.05	20.08
11	12.00 Hz	190	-4.67	-3.06	1.00	23.53	61.13	4.21
12	9.00 Hz	286	-2.92	-1.83	.52	21.06	44.79	1.25
13	6.00 Hz	192	-5.64	-3.07	1.39	14.30	31.30	7.59
14	4.50 Hz	192	-2.62	-1.45	3.79	14.64	24.51	17.56
15	3.00 Hz	6592	-1.79	-.64	.15	13.84	15.79	.19
16	2.25 Hz	5504	-1.67	-.92	.13	12.96	12.39	.12
17	1.50 Hz	5423	-.89	-1.42	.14	12.07	9.79	.13
18	1.13 Hz	6213	-1.00	-1.72	.09	11.81	8.16	.09
19	1.33 Sec	1930	.369	-2.512	.994	11.794	6.705	.644
20	1.78 Sec	1738	.370	-3.314	1.756	11.422	5.694	.567
21	2.67 Sec	480	-.934	-2.908	3.186	11.031	6.108	5.525
22	3.56 Sec	828	.678	-1.663	4.573	9.576	4.438	2.361
23	5.33 Sec	156	.161	-1.080	7.935	9.405	3.236	2.825
24	7.11 Sec	483	.484	-1.768	1.386	9.311	3.020	.803
25	10.67 Sec	252	.766	-1.720	1.674	8.836	3.190	.886
26	14.22 Sec	504	.717	-.898	.611	8.525	4.286	.397
27	21.33 Sec	214	.701	-.424	.041	7.366	4.476	.121
28	28.44 Sec	250	.536	-.294	.011	6.339	4.511	.023
29	42.67 Sec	208	.525	-.102	.018	4.563	4.470	.052
30	56.89 Sec	214	.184	.119	.022	3.509	3.986	.044
31	85.33 Sec	114	.477	.051	.057	2.637	3.177	.050
32	113.78 Sec	105	.309	.025	.025	2.194	2.642	.014
33	170.67 Sec	54	.078	.182	.013	1.368	1.873	.022
34	227.56 Sec	30	.044	.064	.022	1.192	1.644	.024
35	341.33 Sec	21	.026	-.017	.022	.924	1.290	.011
36	455.11 Sec	24	.083	.045	.039	.946	.994	.019
37	682.67 Sec	6	.042	.107	.012	.839	.840	.031
38	910.22 Sec	6	.124	.163	.013	.670	.752	.016

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	251	-329.02	-637.04	999.99	-71.61	112.81	999.99
2	288.00 Hz	190	-101.51	-654.04	999.99	28.32	-8.91	999.99
3	192.00 Hz	188	-102.80	-489.65	520.05	13.01	16.41	999.99
4	144.00 Hz	189	-80.04	-385.16	39.81	-4.54	-13.33	196.81
5	96.00 Hz	96	-52.24	-263.65	88.93	-31.50	-3.54	621.52
6	72.00 Hz	285	-104.43	-194.91	68.43	-6.39	-16.86	375.58
7	48.00 Hz	384	-17.19	-153.60	35.80	-2.32	-9.24	355.77
8	36.00 Hz	384	-26.19	-113.74	18.06	-7.43	-8.60	133.98
9	24.00 Hz	384	-20.09	-76.87	11.21	-3.11	-8.71	79.06
10	18.00 Hz	96	-17.33	-61.93	8.06	-3.41	-6.93	44.72
11	12.00 Hz	190	-13.05	-44.75	2.05	-3.13	-4.05	8.69
12	9.00 Hz	286	-12.21	-31.32	.77	.64	-4.17	1.86
13	6.00 Hz	192	-10.81	-25.26	1.60	-2.78	-4.72	8.72
14	4.50 Hz	192	-9.71	-18.22	2.52	-2.92	-1.21	11.71
15	3.00 Hz	6592	-7.17	-12.75	.12	-1.25	-1.82	.15
16	2.25 Hz	5504	-6.70	-10.16	.14	-1.49	-1.43	.13
17	1.50 Hz	5423	-7.06	-7.13	.14	-1.25	-.75	.13
18	1.13 Hz	6213	-6.26	-5.73	.11	-1.54	-.50	.10
19	1.33 Sec	1930	-6.185	-4.394	1.080	-.714	.116	.700
20	1.78 Sec	1738	-5.067	-4.470	1.561	-.284	.084	.505
21	2.67 Sec	480	-4.806	-2.201	2.445	-2.484	-.437	4.240
22	3.56 Sec	828	-5.075	-3.074	1.549	-.059	.767	.800
23	5.33 Sec	156	-4.595	-3.047	.837	.106	.347	.298
24	7.11 Sec	483	-4.865	-2.802	.266	.384	.276	.154
25	10.67 Sec	252	-4.259	-2.849	.643	.613	.349	.340
26	14.22 Sec	504	-4.095	-2.679	.247	.294	.268	.161
27	21.33 Sec	214	-3.532	-2.643	.024	.490	.018	.071
28	28.44 Sec	250	-2.875	-2.462	.005	.296	.113	.009
29	42.67 Sec	208	-2.082	-2.351	.010	.332	.124	.030
30	56.89 Sec	214	-1.604	-2.045	.013	.281	.024	.026
31	85.33 Sec	114	-.990	-1.721	.030	.348	.197	.026
32	113.78 Sec	105	-.796	-1.406	.017	.239	.104	.010
33	170.67 Sec	54	-.567	-1.058	.013	.171	.090	.022
34	227.56 Sec	30	-.415	-.845	.014	.090	.019	.015
35	341.33 Sec	21	-.478	-.598	.030	.029	-.019	.016
36	455.11 Sec	24	-.265	-.462	.046	.089	.038	.022
37	682.67 Sec	6	-.284	-.279	.014	.058	.090	.035
38	910.22 Sec	6	-.339	-.221	.011	.027	.223	.014

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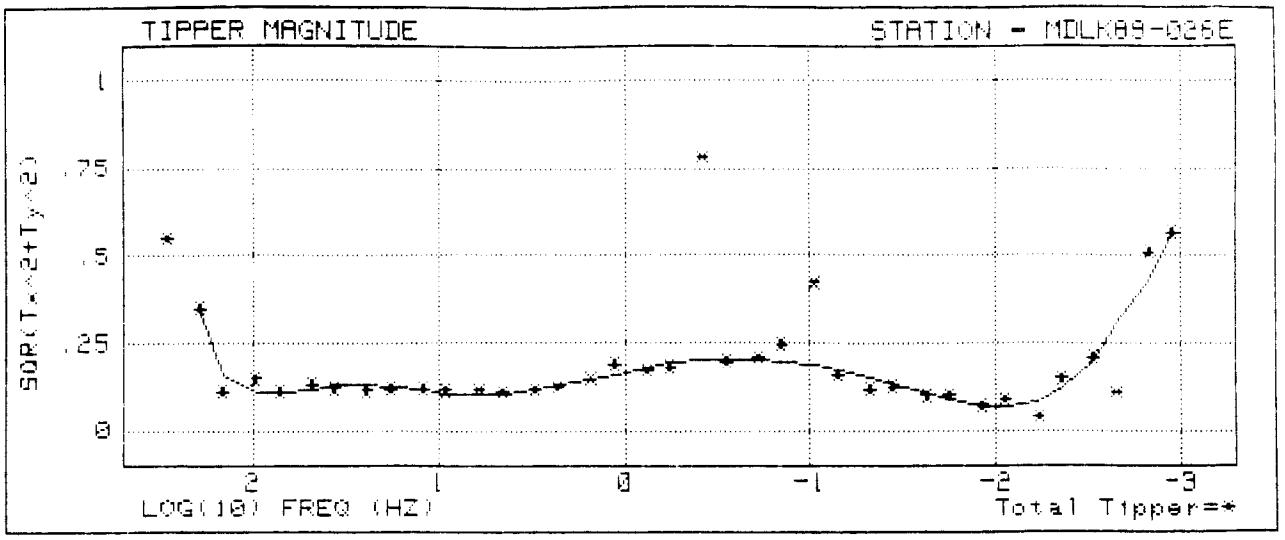
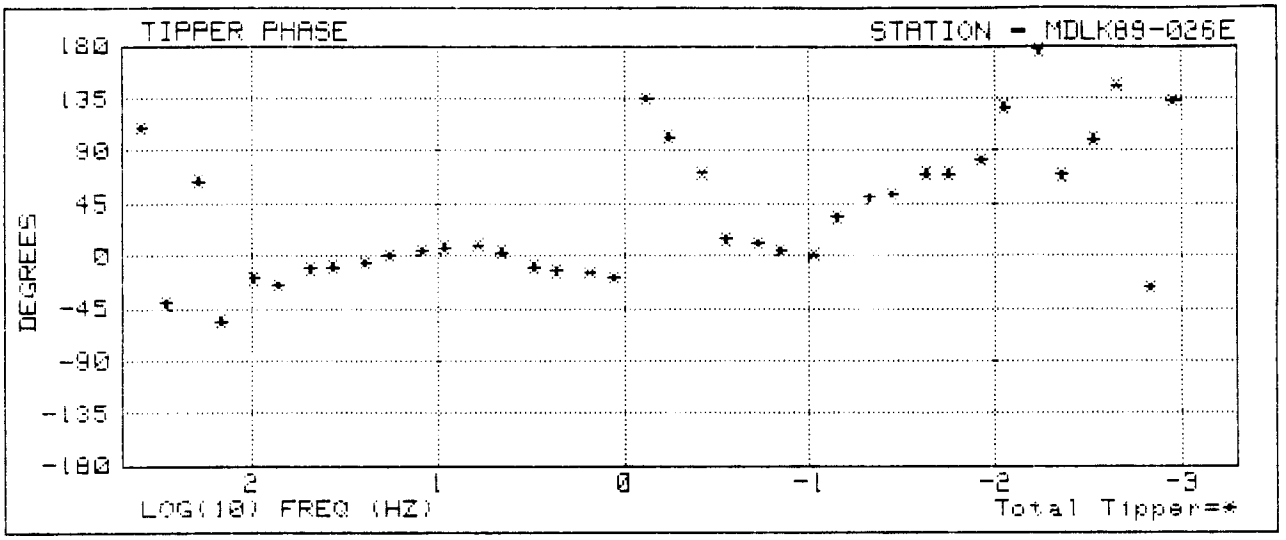
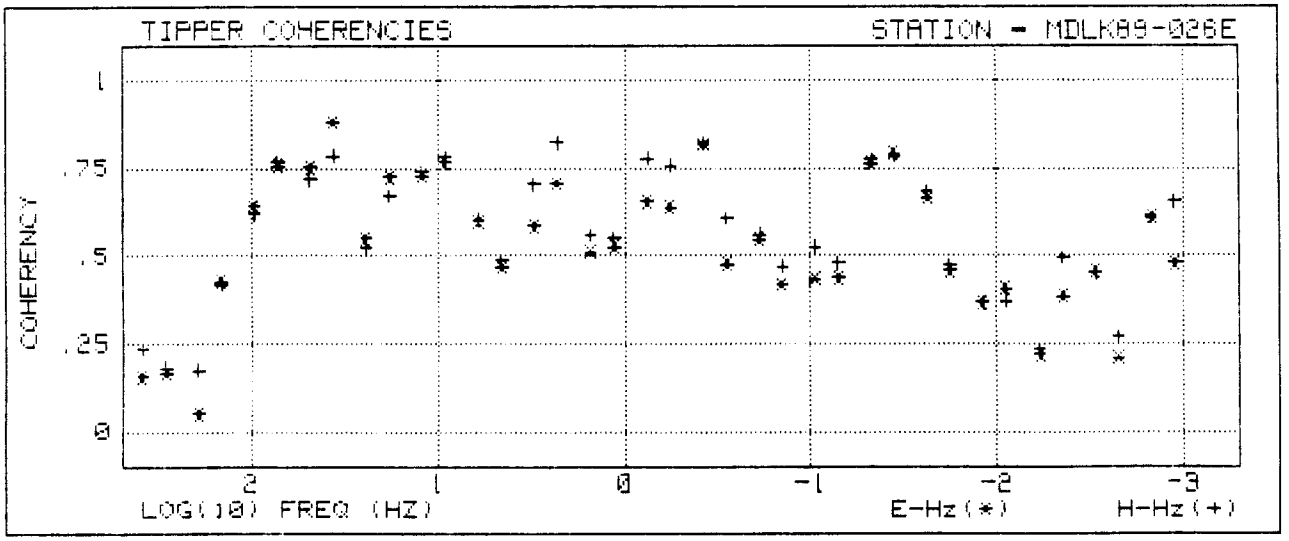
MT Site: MDLK89-026E







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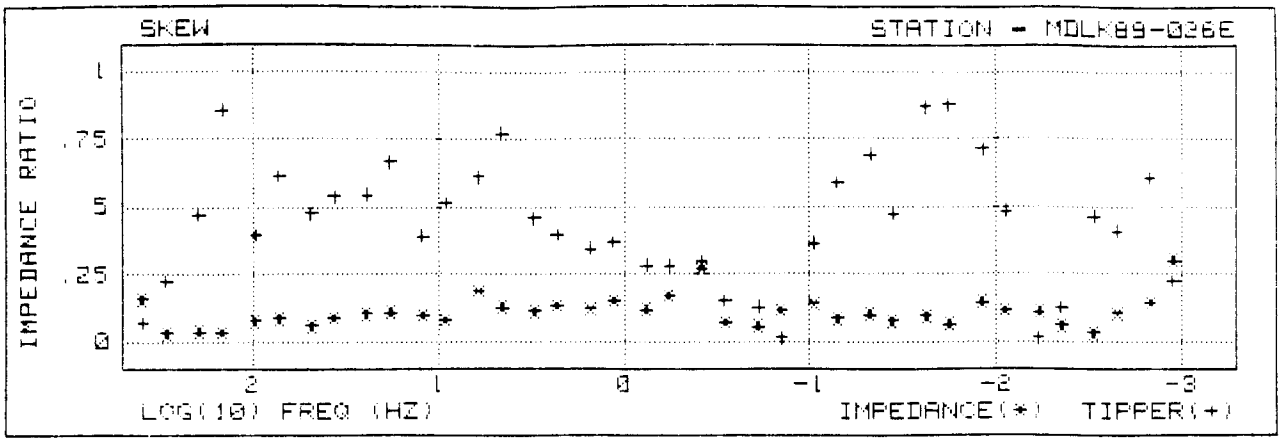
MT Site: MDLK89-026E

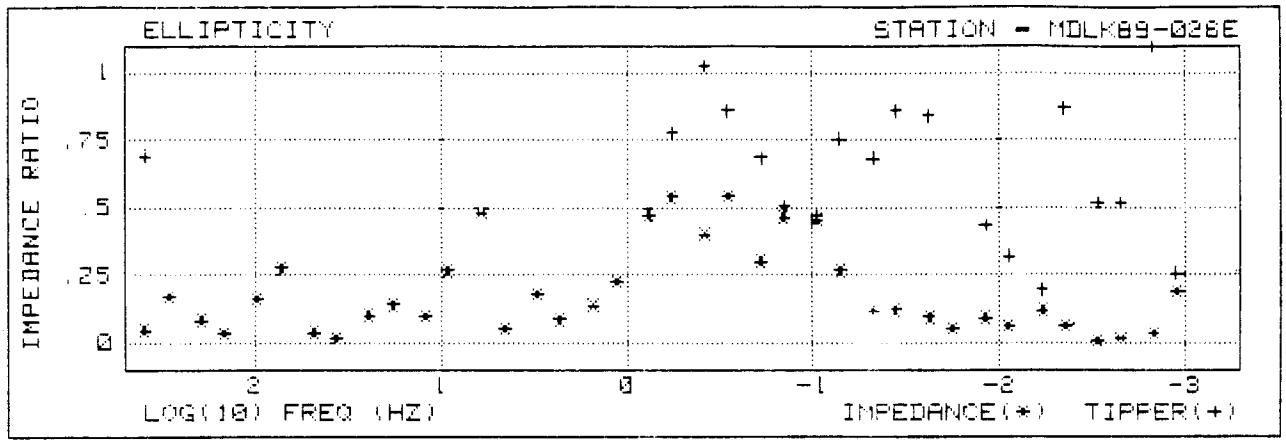
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

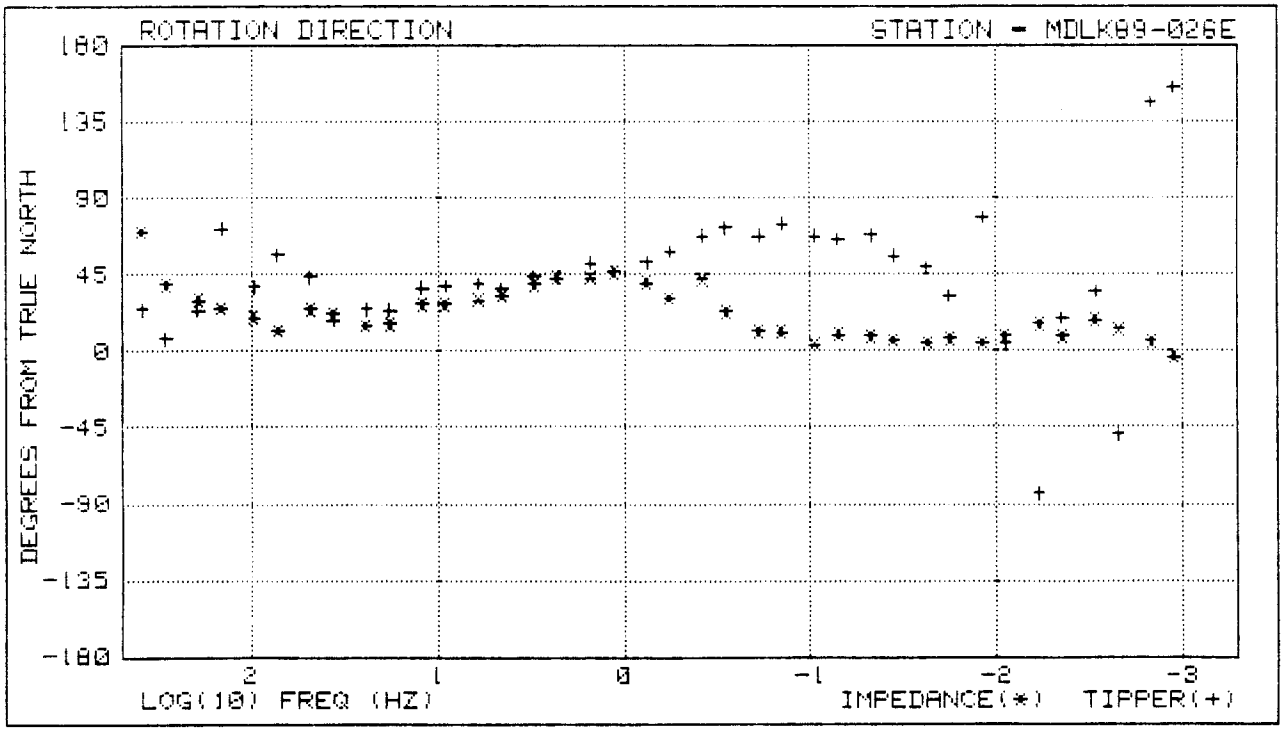
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	251	7.69	108.65	.15	.23
2	288.00 Hz	190	.55	-41.42	.16	.18
3	192.00 Hz	188	.35	63.19	.05	.17
4	144.00 Hz	189	.11	-56.85	.42	.42
5	96.00 Hz	96	.15	-20.06	.64	.61
6	72.00 Hz	285	.11	-25.72	.75	.76
7	48.00 Hz	384	.13	-11.70	.75	.71
8	36.00 Hz	384	.12	-10.24	.88	.78
9	24.00 Hz	384	.11	-6.38	.54	.52
10	18.00 Hz	96	.12	-.43	.72	.67
11	12.00 Hz	190	.12	4.02	.72	.74
12	9.00 Hz	286	.11	6.65	.76	.78
13	6.00 Hz	192	.11	8.56	.59	.60
14	4.50 Hz	192	.11	2.42	.46	.48
15	3.00 Hz	6592	.11	-10.53	.58	.70
16	2.25 Hz	5504	.12	-13.84	.70	.82
17	1.50 Hz	5423	.14	-15.34	.51	.55
18	1.13 Hz	6213	.18	-19.01	.52	.55
19	1.33 Sec	1930	.17	134.05	.65	.77
20	1.78 Sec	1738	.18	101.45	.63	.75
21	2.67 Sec	480	.78	70.23	.81	.82
22	3.56 Sec	828	.19	13.25	.47	.60
23	5.33 Sec	156	.21	10.04	.54	.56
24	7.11 Sec	483	.24	3.46	.41	.47
25	10.67 Sec	252	.42	-.02	.43	.52
26	14.22 Sec	504	.16	32.34	.43	.47
27	21.33 Sec	214	.12	49.68	.76	.77
28	28.44 Sec	250	.12	52.26	.79	.78
29	42.67 Sec	208	.10	69.67	.66	.68
30	56.89 Sec	214	.10	69.51	.45	.47
31	85.33 Sec	114	.07	81.84	.36	.36
32	113.78 Sec	105	.09	126.46	.40	.37
33	170.67 Sec	54	.03	175.83	.22	.23
34	227.56 Sec	30	.15	68.17	.38	.49
35	341.33 Sec	21	.21	99.46	.45	.45
36	455.11 Sec	24	.11	145.74	.21	.26
37	682.67 Sec	6	.51	-27.84	.61	.60
38	910.22 Sec	6	.56	131.85	.47	.65

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E







PHOENIX GEOSCIENCE

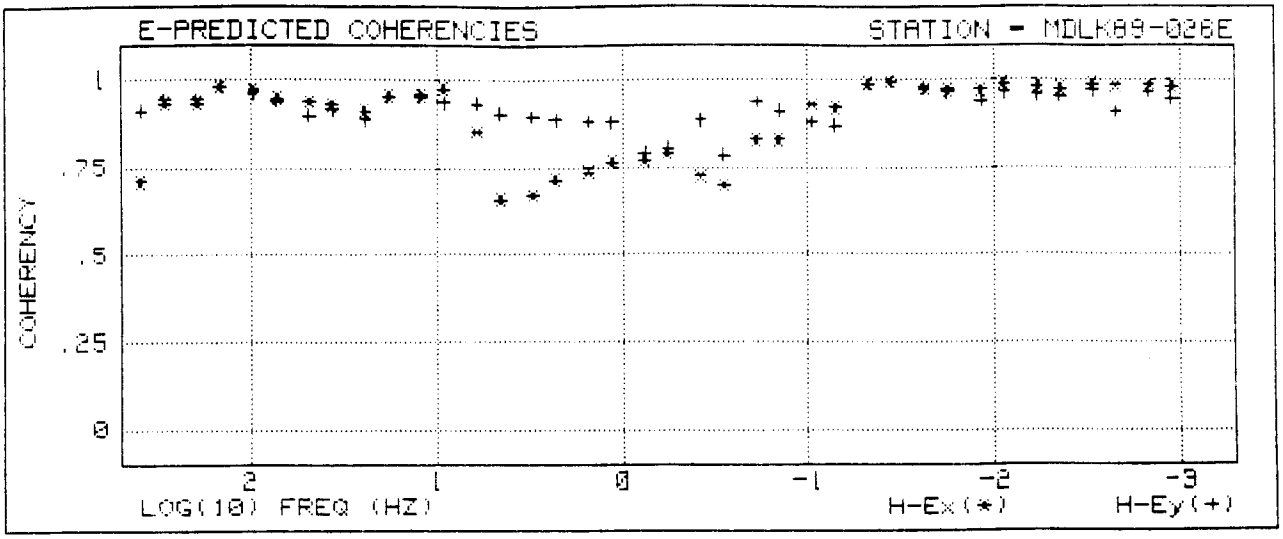
MT Site: MDLK89-026E

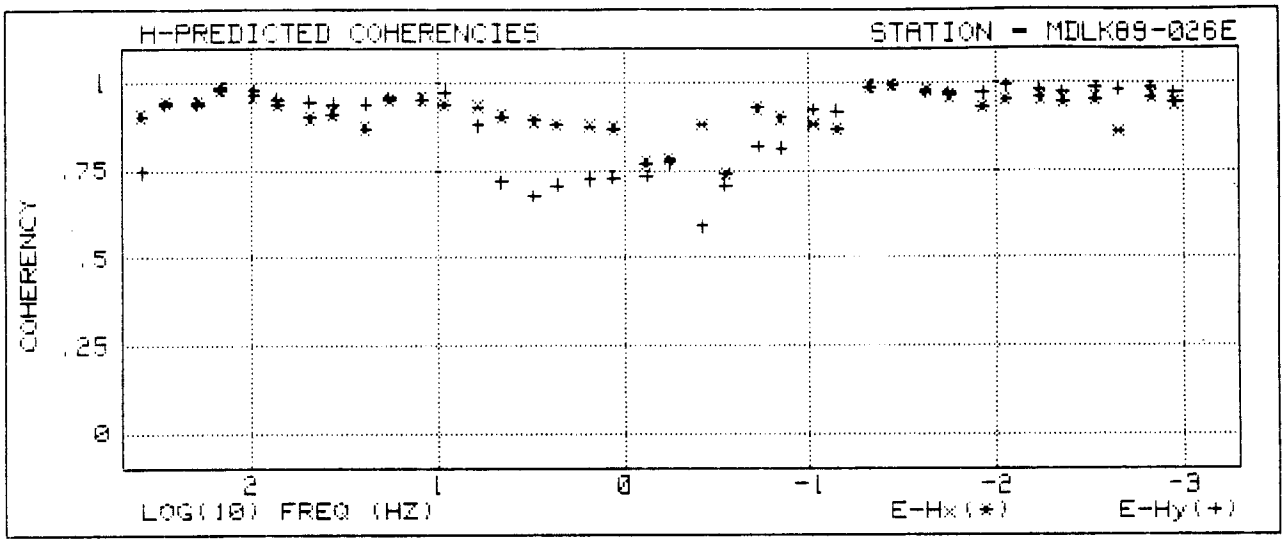
SKEW, ELLIPTICITY AND STRIKE

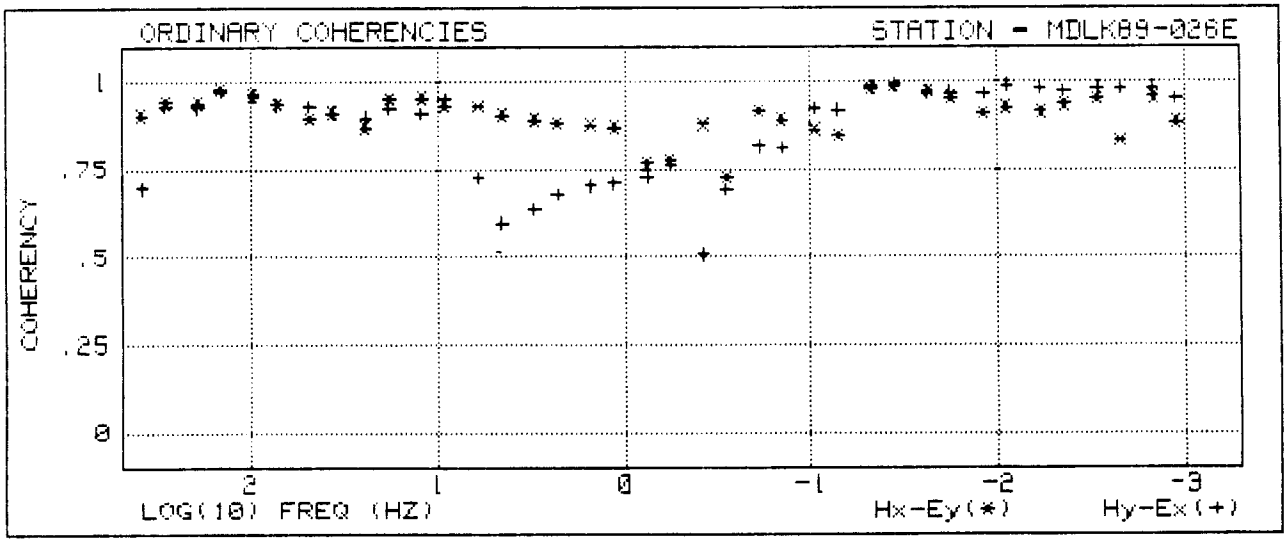
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	251	.16	.04	69.26	.07	.69	23.83
2	288.00 Hz	190	.03	.17	38.64	.22	1.59	6.47
3	192.00 Hz	188	.03	.08	29.29	.47	2.05	23.04
4	144.00 Hz	189	.03	.03	24.38	.85	1.63	71.06
5	96.00 Hz	96	.07	.16	19.09	.39	4.82	36.95
6	72.00 Hz	285	.08	.27	11.33	.61	2.76	55.78
7	48.00 Hz	384	.05	.03	23.98	.47	3.91	42.95
8	36.00 Hz	384	.08	.01	20.85	.54	3.13	17.16
9	24.00 Hz	384	.10	.10	14.55	.54	2.17	24.13
10	18.00 Hz	96	.11	.14	15.47	.66	2.07	23.46
11	12.00 Hz	190	.09	.09	26.66	.39	3.40	36.71
12	9.00 Hz	286	.08	.26	26.68	.51	2.69	37.50
13	6.00 Hz	192	.19	.47	29.10	.61	2.39	38.74
14	4.50 Hz	192	.12	.05	31.89	.77	1.91	35.83
15	3.00 Hz	6592	.11	.18	38.53	.46	2.72	42.56
16	2.25 Hz	5504	.13	.08	42.36	.39	3.05	42.48
17	1.50 Hz	5423	.12	.13	42.06	.34	2.02	50.83
18	1.13 Hz	6213	.15	.22	45.40	.37	2.12	46.23
19	1.33 Sec	1930	.11	.47	39.57	.28	.47	51.40
20	1.78 Sec	1738	.17	.53	30.11	.28	.77	57.54
21	2.67 Sec	480	.27	.40	41.13	.29	1.02	66.76
22	3.56 Sec	828	.07	.54	22.30	.15	.85	71.86
23	5.33 Sec	156	.05	.30	10.99	.13	.68	66.85
24	7.11 Sec	483	.11	.46	10.54	.01	.50	73.99
25	10.67 Sec	252	.13	.45	3.10	.36	.46	66.93
26	14.22 Sec	504	.08	.26	8.82	.58	.75	64.86
27	21.33 Sec	214	.10	.12	7.97	.69	.68	67.32
28	28.44 Sec	250	.07	.12	5.45	.47	.85	55.31
29	42.67 Sec	208	.09	.09	4.05	.86	.83	48.46
30	56.89 Sec	214	.06	.05	6.49	.87	1.23	31.46
31	85.33 Sec	114	.14	.09	4.36	.71	.43	77.71
32	113.78 Sec	105	.11	.06	8.00	.48	.31	3.83
33	170.67 Sec	54	.11	.11	15.30	.01	.19	-84.50
34	227.56 Sec	30	.05	.06	8.29	.12	.86	18.54
35	341.33 Sec	21	.03	.00	17.73	.46	.51	34.74
36	455.11 Sec	24	.10	.01	12.30	.41	.51	-49.61
37	682.67 Sec	6	.14	.03	5.16	.60	1.09	145.93
38	910.22 Sec	6	.30	.18	-3.81	.22	.25	154.47

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E







PHOENIX GEOSCIENCE

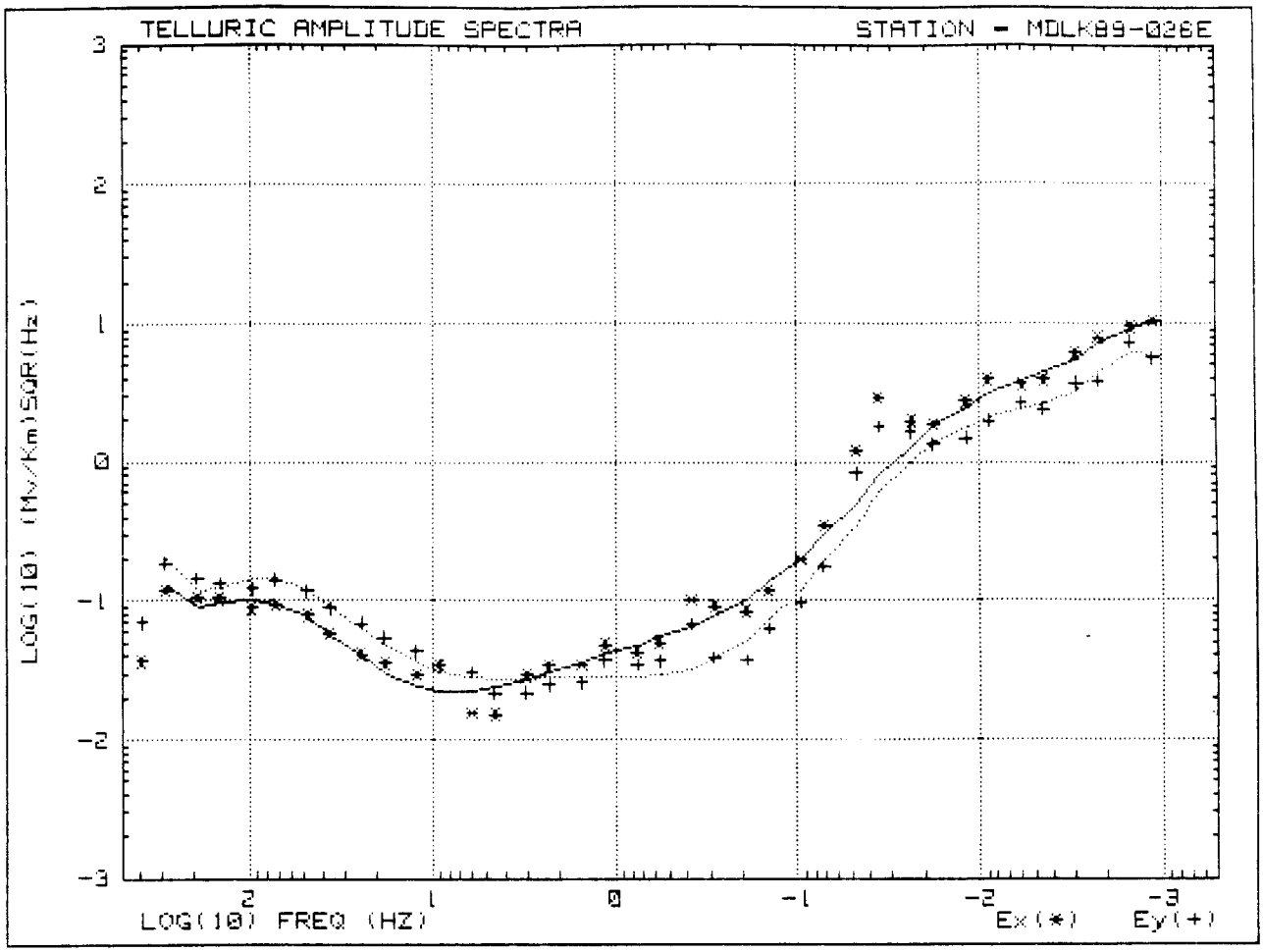
MT Site: MDLK89-026E

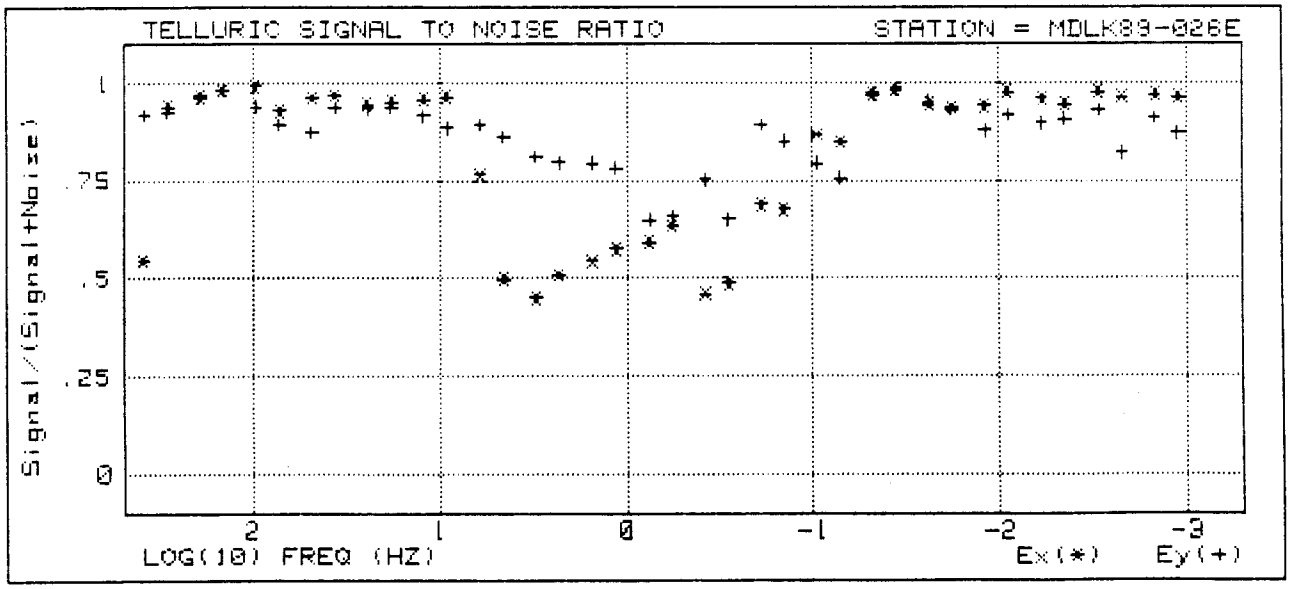
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	251	.71	.91	.90	.74	.90	.69
2	288.00 Hz	190	.93	.94	.94	.93	.94	.93
3	192.00 Hz	188	.93	.94	.94	.93	.93	.92
4	144.00 Hz	189	.98	.98	.98	.98	.98	.97
5	96.00 Hz	96	.97	.96	.96	.97	.96	.96
6	72.00 Hz	285	.94	.93	.94	.95	.93	.93
7	48.00 Hz	384	.93	.89	.90	.94	.89	.93
8	36.00 Hz	384	.92	.91	.91	.94	.91	.91
9	24.00 Hz	384	.91	.88	.87	.93	.87	.89
10	18.00 Hz	96	.95	.95	.95	.96	.95	.92
11	12.00 Hz	190	.95	.95	.95	.95	.95	.90
12	9.00 Hz	286	.97	.93	.93	.97	.93	.95
13	6.00 Hz	192	.85	.93	.93	.87	.93	.72
14	4.50 Hz	192	.66	.90	.90	.71	.90	.59
15	3.00 Hz	6592	.67	.89	.89	.67	.89	.63
16	2.25 Hz	5504	.71	.88	.88	.70	.88	.67
17	1.50 Hz	5423	.73	.88	.87	.72	.87	.70
18	1.13 Hz	6213	.76	.87	.87	.73	.86	.71
19	1.33 Sec	1930	.77	.79	.77	.73	.76	.73
20	1.78 Sec	1738	.79	.80	.78	.77	.77	.76
21	2.67 Sec	480	.72	.88	.88	.59	.87	.50
22	3.56 Sec	828	.69	.78	.74	.70	.72	.69
23	5.33 Sec	156	.82	.93	.92	.81	.91	.81
24	7.11 Sec	483	.82	.91	.90	.81	.89	.81
25	10.67 Sec	252	.93	.88	.88	.92	.86	.92
26	14.22 Sec	504	.92	.87	.86	.91	.84	.91
27	21.33 Sec	214	.98	.98	.98	.98	.97	.98
28	28.44 Sec	250	.99	.99	.99	.99	.98	.99
29	42.67 Sec	208	.97	.97	.97	.97	.97	.96
30	56.89 Sec	214	.96	.96	.96	.96	.95	.96
31	85.33 Sec	114	.97	.94	.93	.97	.91	.96
32	113.78 Sec	105	.99	.96	.95	.99	.92	.99
33	170.67 Sec	54	.98	.95	.95	.98	.91	.98
34	227.56 Sec	30	.97	.95	.94	.97	.93	.97
35	341.33 Sec	21	.99	.97	.95	.98	.95	.98
36	455.11 Sec	24	.98	.90	.86	.98	.83	.98
37	682.67 Sec	6	.98	.96	.96	.98	.95	.98
38	910.22 Sec	6	.98	.94	.94	.97	.88	.95

PHOENIX GEOSCIENCE

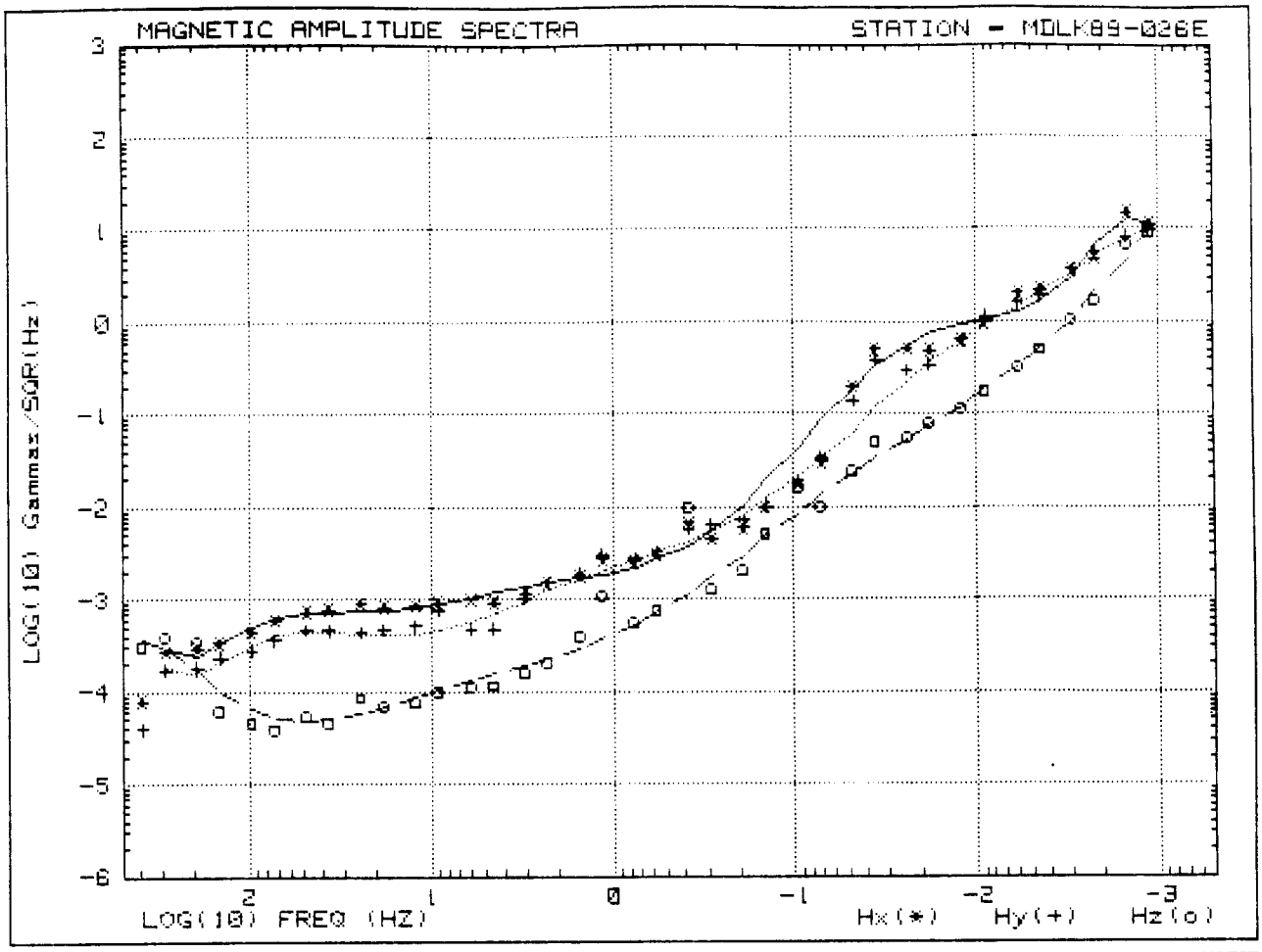
MT Site: MDLK89-026E

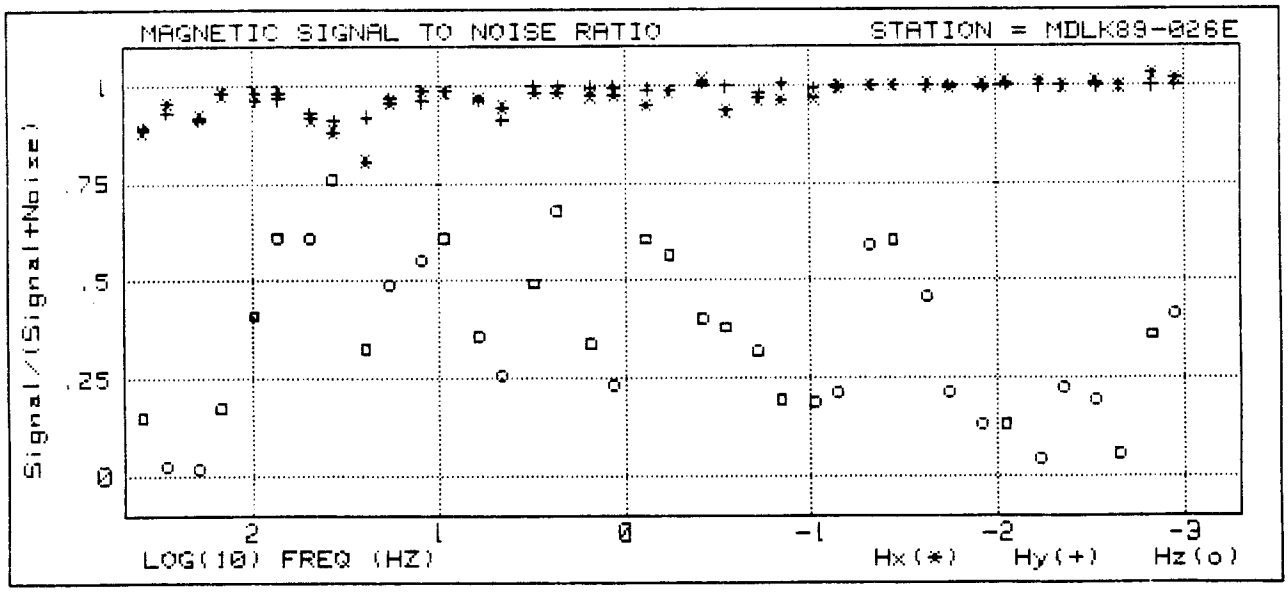




PHOENIX GEOSCIENCE

MT Site: MDLK89-026E





PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	251	7.73E-05	3.84E-05	3.20E-04	3.64E-02	6.86E-02
2	288.00 Hz	190	2.70E-04	1.70E-04	4.06E-04	1.18E-01	1.84E-01
3	192.00 Hz	188	2.89E-04	1.80E-04	3.61E-04	1.05E-01	1.44E-01
4	144.00 Hz	189	3.32E-04	2.29E-04	6.45E-05	1.03E-01	1.33E-01
5	96.00 Hz	96	4.35E-04	2.72E-04	4.74E-05	8.76E-02	1.21E-01
6	72.00 Hz	285	5.85E-04	3.53E-04	4.09E-05	9.21E-02	1.39E-01
7	48.00 Hz	384	7.10E-04	4.62E-04	5.57E-05	7.73E-02	1.15E-01
8	36.00 Hz	384	7.53E-04	4.51E-04	4.73E-05	5.71E-02	8.79E-02
9	24.00 Hz	384	8.87E-04	4.33E-04	8.95E-05	4.03E-02	6.75E-02
10	18.00 Hz	96	8.01E-04	4.54E-04	7.37E-05	3.49E-02	5.37E-02
11	12.00 Hz	190	8.29E-04	5.08E-04	8.00E-05	2.90E-02	4.26E-02
12	9.00 Hz	286	9.04E-04	7.55E-04	1.02E-04	3.38E-02	3.35E-02
13	6.00 Hz	192	9.73E-04	4.64E-04	1.16E-04	1.54E-02	3.00E-02
14	4.50 Hz	192	9.07E-04	4.65E-04	1.21E-04	1.48E-02	2.15E-02
15	3.00 Hz	6592	1.15E-03	1.01E-03	1.64E-04	2.85E-02	2.13E-02
16	2.25 Hz	5504	1.48E-03	1.50E-03	2.12E-04	3.38E-02	2.45E-02
17	1.50 Hz	5423	1.79E-03	1.85E-03	4.06E-04	3.42E-02	2.54E-02
18	1.13 Hz	6213	2.70E-03	2.96E-03	1.12E-03	4.72E-02	3.62E-02
19	1.33 Sec	1930	2.56E-03	2.70E-03	5.74E-04	4.20E-02	3.42E-02
20	1.78 Sec	1738	3.00E-03	3.21E-03	7.75E-04	4.91E-02	3.64E-02
21	2.67 Sec	480	6.82E-03	5.79E-03	1.04E-02	9.94E-02	6.69E-02
22	3.56 Sec	828	4.44E-03	6.33E-03	1.33E-03	9.03E-02	3.82E-02
23	5.33 Sec	156	5.95E-03	7.05E-03	2.15E-03	8.31E-02	3.70E-02
24	7.11 Sec	483	9.64E-03	9.81E-03	5.32E-03	1.17E-01	6.20E-02
25	10.67 Sec	252	1.68E-02	1.88E-02	1.70E-02	1.98E-01	9.59E-02
26	14.22 Sec	504	2.96E-02	3.29E-02	1.06E-02	3.43E-01	1.74E-01
27	21.33 Sec	214	1.93E-01	1.35E-01	2.50E-02	1.18E+00	8.14E-01
28	28.44 Sec	250	4.91E-01	3.77E-01	5.22E-02	2.86E+00	1.77E+00
29	42.67 Sec	208	5.01E-01	2.96E-01	5.93E-02	1.93E+00	1.62E+00
30	56.89 Sec	214	4.86E-01	3.39E-01	8.45E-02	1.84E+00	1.32E+00
31	85.33 Sec	114	6.24E-01	6.33E-01	1.21E-01	2.71E+00	1.48E+00
32	113.78 Sec	105	9.55E-01	1.12E+00	1.88E-01	3.87E+00	1.94E+00
33	170.67 Sec	54	1.97E+00	1.55E+00	3.30E-01	3.56E+00	2.62E+00
34	227.56 Sec	30	2.17E+00	1.84E+00	5.27E-01	3.86E+00	2.37E+00
35	341.33 Sec	21	3.58E+00	3.62E+00	1.10E+00	6.04E+00	3.68E+00
36	455.11 Sec	24	4.75E+00	5.64E+00	1.76E+00	7.82E+00	3.81E+00
37	682.67 Sec	6	1.46E+01	8.01E+00	6.97E+00	9.32E+00	7.29E+00
38	910.22 Sec	6	1.09E+01	9.75E+00	9.36E+00	1.02E+01	5.56E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	251	.881	.891	.154	.545	.917
2	288.00 Hz	190	.954	.929	.029	.936	.923
3	192.00 Hz	188	.917	.910	.022	.965	.960
4	144.00 Hz	189	.976	.979	.178	.978	.978
5	96.00 Hz	96	.981	.961	.416	.989	.937
6	72.00 Hz	285	.980	.964	.617	.927	.890
7	48.00 Hz	384	.913	.928	.614	.960	.872
8	36.00 Hz	384	.880	.909	.767	.966	.935
9	24.00 Hz	384	.804	.919	.330	.944	.933
10	18.00 Hz	96	.955	.965	.494	.951	.937
11	12.00 Hz	190	.986	.958	.559	.957	.915
12	9.00 Hz	286	.984	.984	.616	.961	.883
13	6.00 Hz	192	.965	.960	.363	.762	.891
14	4.50 Hz	192	.944	.910	.263	.497	.860
15	3.00 Hz	6592	.981	.998	.498	.447	.809
16	2.25 Hz	5504	.978	.998	.683	.507	.794
17	1.50 Hz	5423	.971	.993	.342	.542	.793
18	1.13 Hz	6213	.974	.994	.239	.574	.779
19	1.33 Sec	1930	.948	.987	.611	.590	.647
20	1.78 Sec	1738	.983	.985	.571	.632	.655
21	2.67 Sec	480	1.000	1.000	.405	.459	.750
22	3.56 Sec	828	.933	.996	.385	.485	.650
23	5.33 Sec	156	.964	.980	.323	.686	.891
24	7.11 Sec	483	.961	1.000	.201	.675	.848
25	10.67 Sec	252	.964	.991	.194	.867	.791
26	14.22 Sec	504	.994	.996	.219	.846	.754
27	21.33 Sec	214	.998	.999	.598	.971	.968
28	28.44 Sec	250	.999	.997	.610	.982	.980
29	42.67 Sec	208	.999	.995	.462	.943	.949
30	56.89 Sec	214	.992	.997	.219	.934	.930
31	85.33 Sec	114	1.000	.993	.135	.938	.875
32	113.78 Sec	105	1.000	.998	.137	.974	.916
33	170.67 Sec	54	1.000	.997	.049	.958	.896
34	227.56 Sec	30	.995	.996	.229	.944	.905
35	341.33 Sec	21	1.000	.995	.199	.975	.929
36	455.11 Sec	24	.996	.997	.059	.963	.820
37	682.67 Sec	6	1.000	.995	.366	.969	.909
38	910.22 Sec	6	1.000	1.000	.420	.963	.869

PHOENIX GEOSCIENCE

MT Site: MDLK89-026E

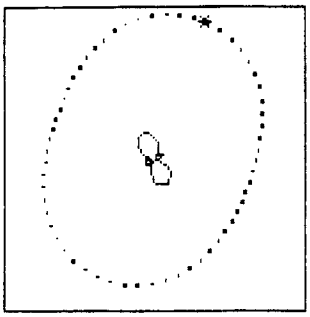
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

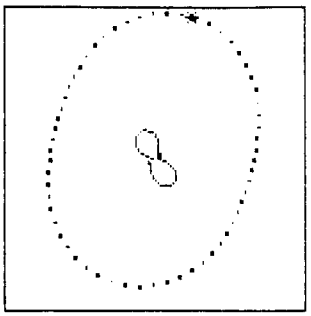
*=Rotation Direction

Zxy = ...
Zxx = ____

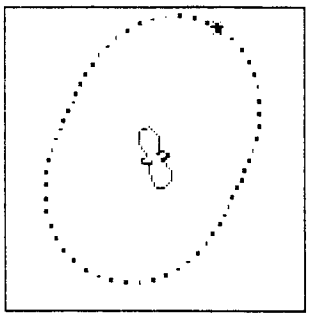
F=8 (36.0 Hz)



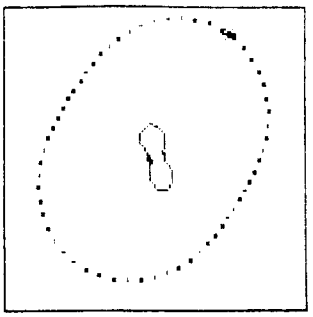
F=10 (18.0 Hz)



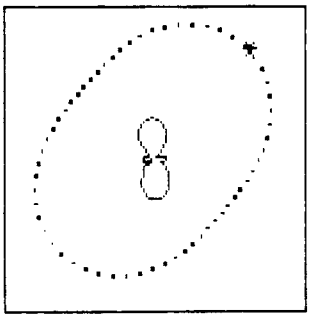
F=12 (9.0 Hz)



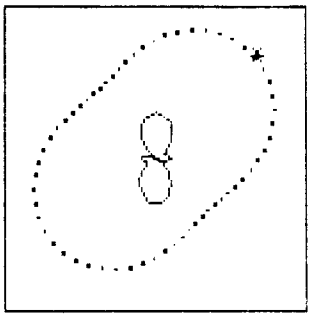
F=14 (4.5 Hz)



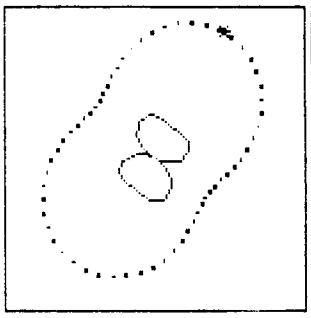
F=16 (2.3 Hz)



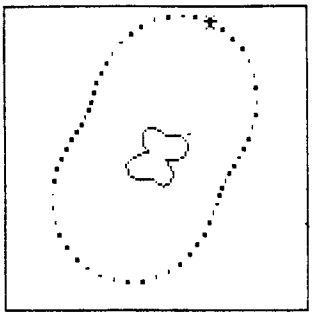
F=18 (1.1 Hz)



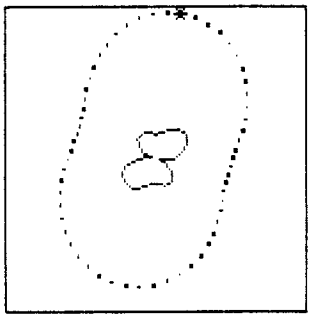
F=20 (.5625 Hz)



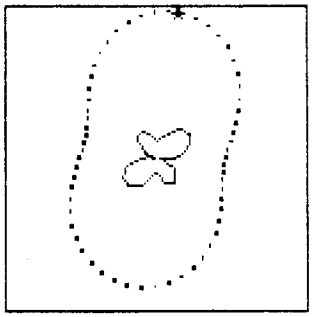
F=22 (.2813 Hz)



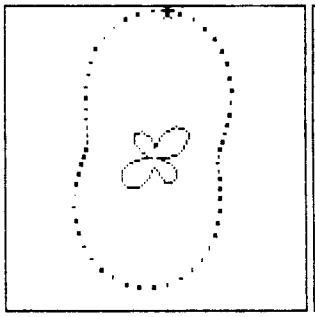
F=24 (.1406 Hz)



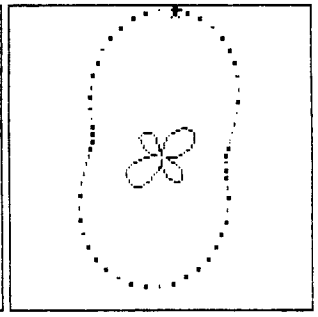
F=26 (.0703 Hz)



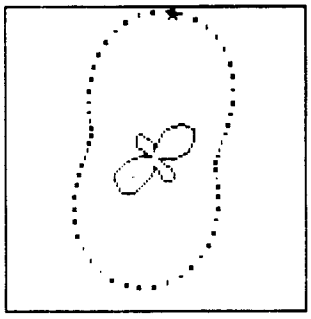
F=28 (.0352 Hz)



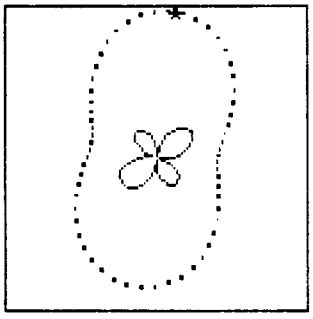
F=30 (.0176 Hz)



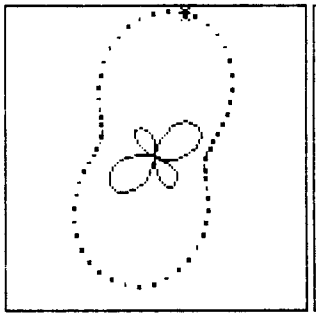
F=32 (.0088 Hz)



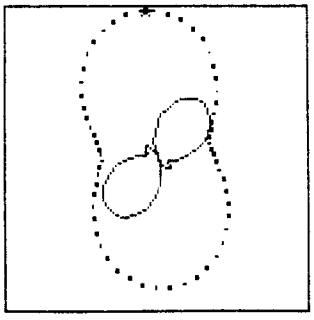
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-027s/028s/032s/

Operator:STEWART
Date: 30 Aug 1989
Time: 12:12:41

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-027s
Site Desc:T43N R4E
41,35,33 N 121,33,40 W
Elevation:6750 FT
Reference:MDLK89-028s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL430	+45 DEG
Hy	2	COIL431	+135 DEG
Hz	3	LOOP333	
Ex	4	169 M	+45 DEG
Ey	5	192 M	+135 DEG
Rx	6	COIL235	+45 DEG
Ry	7	COIL432	+135 DEG

Ex Pot Resist: 12_ K Ohms
Ex Voltage: AC=8.4_ mv, DC=_218 mv
Ey Pot Resist: 8.0 K Ohms
Ey Voltage: AC=13.2 mv, DC=129_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

OPERATOR LOG FOR MT SITES MDLK89-027a/028a/032a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-027a/028a/032a/
Run STARTED: 12:12:41 30 Aug 1989
Run QUIT: 03:29:38 31 Aug 1989
Run Start and Stop Time for MDLK89-027b/028b/032b/
Run STARTED: 04:06:36 31 Aug 1989
Run QUIT: 09:46:06 31 Aug 1989

Operator:STEWART

Cultural Factors:
NONE
Weather Conditions:
CALM, COOL, DRY
Other Factors:

PHOENIX GEOSCIENCE

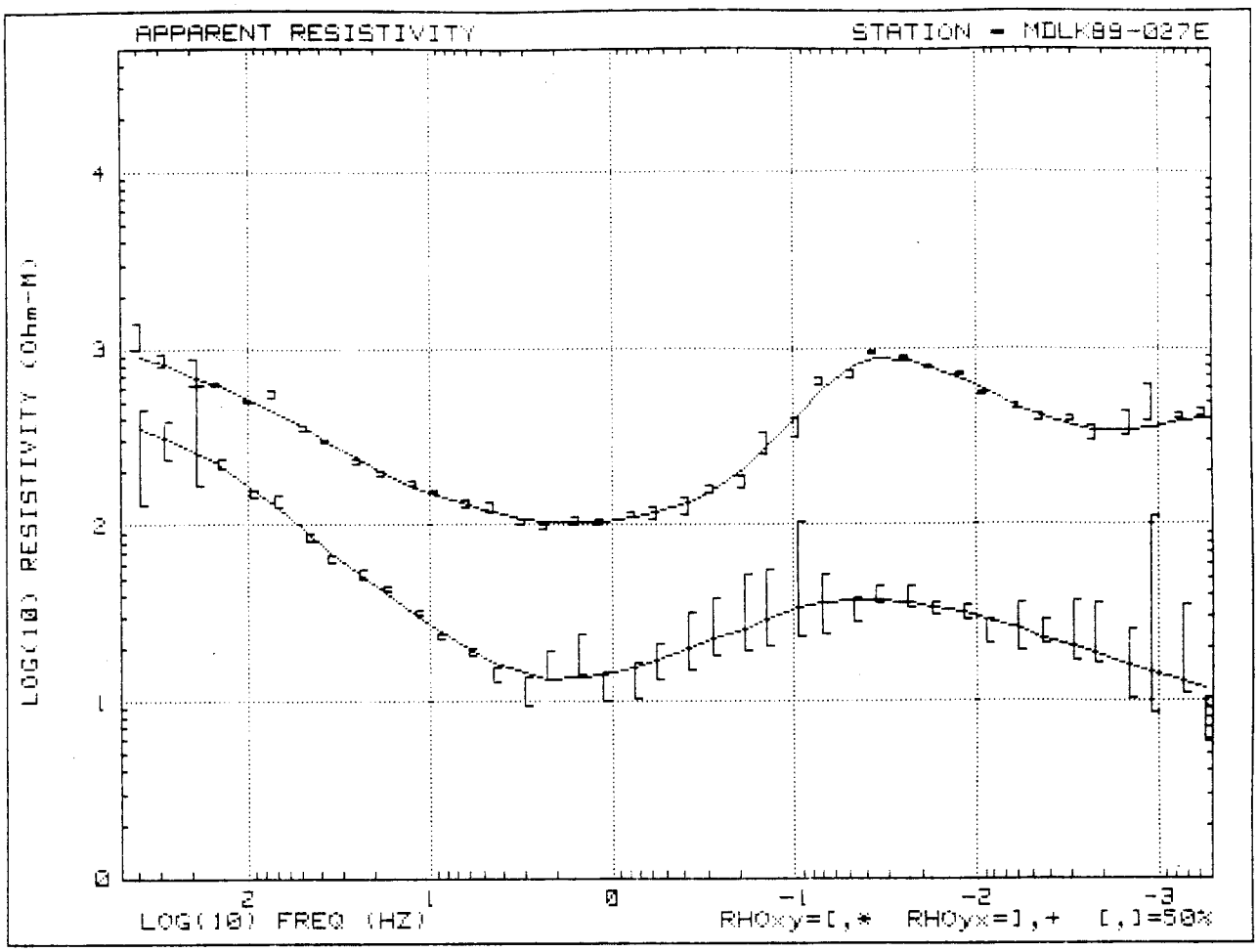
MT Site: MDLK89-027E

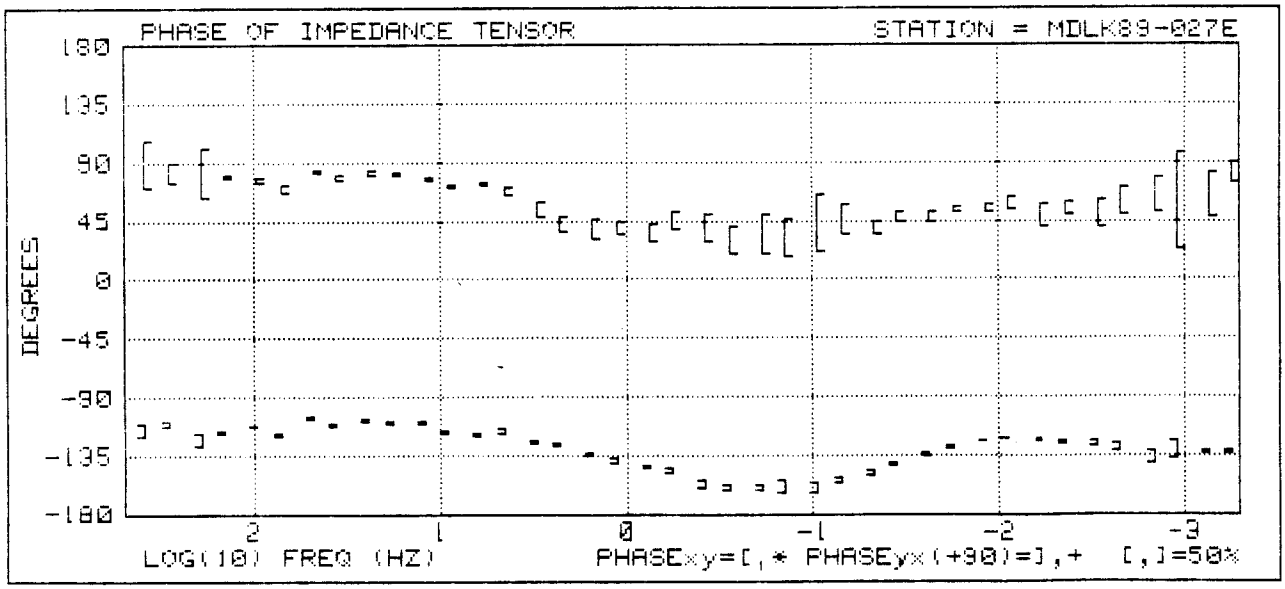
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

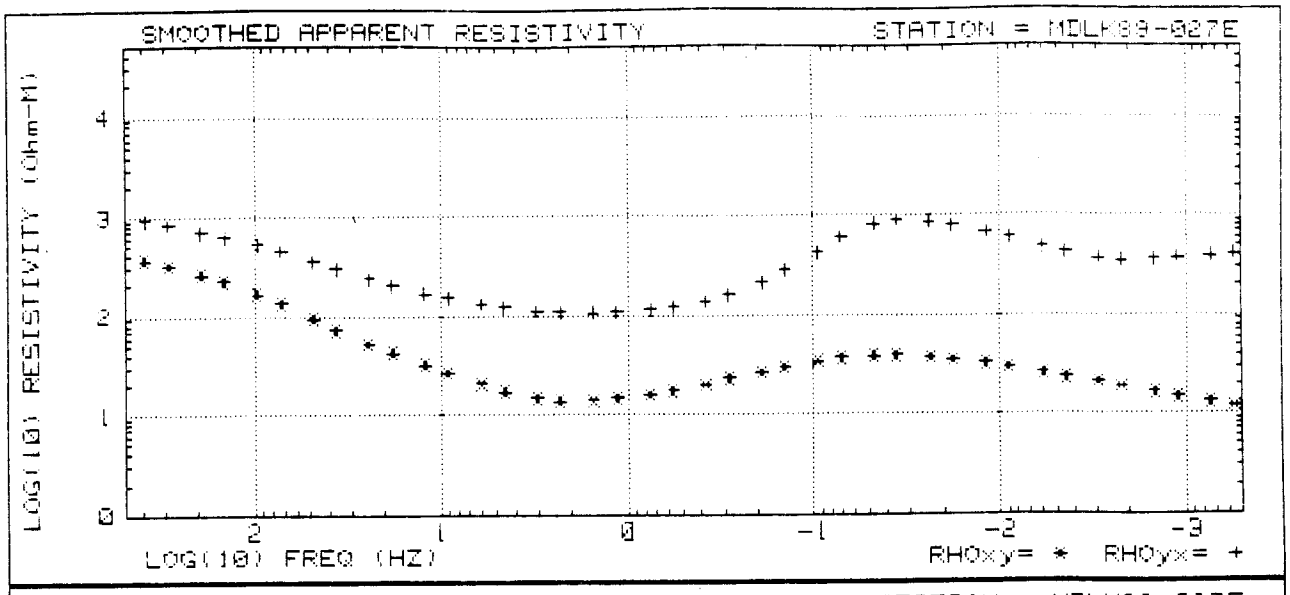
MT Site: MDLK89-027E

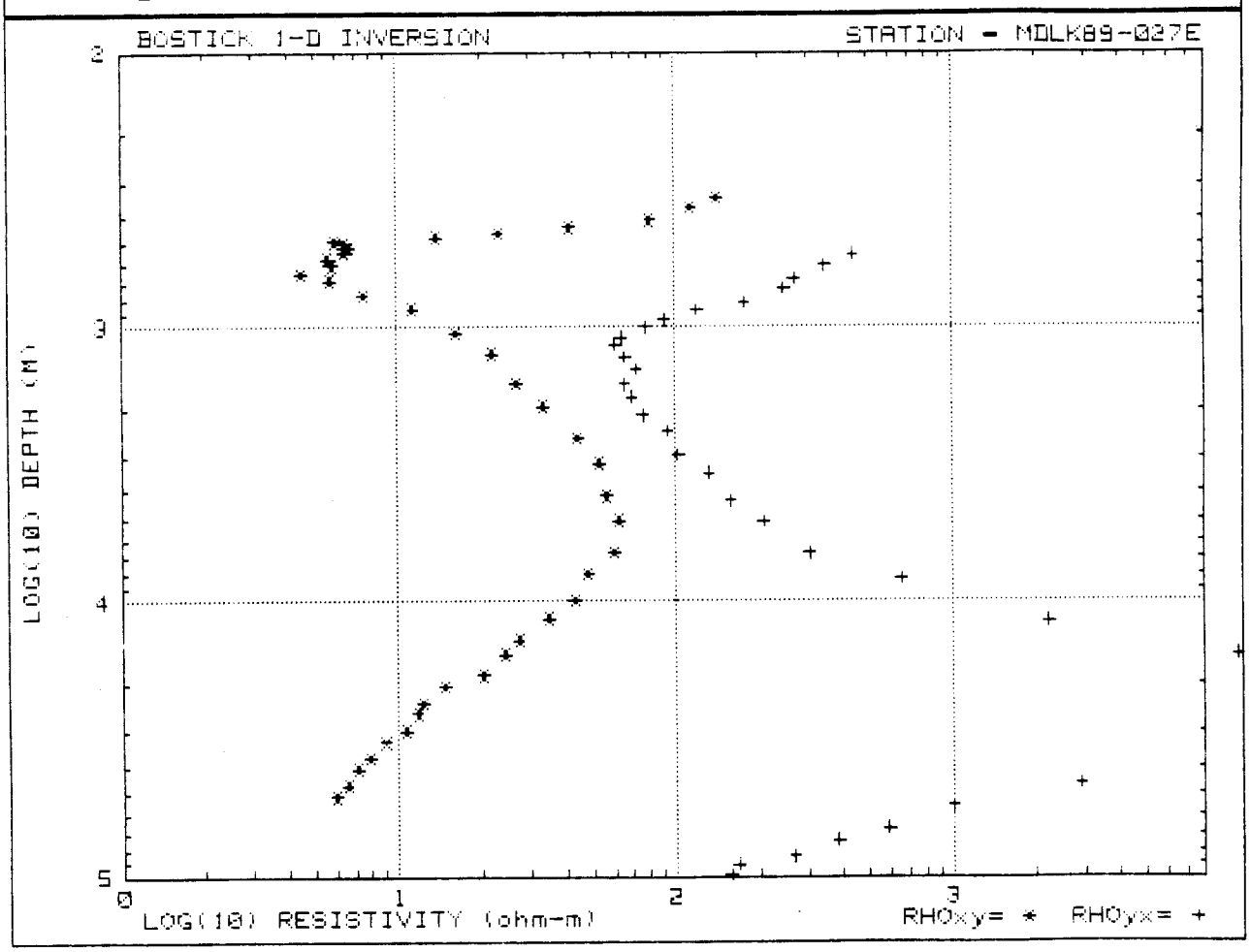




PHOENIX GEOSCIENCE

MT Site: MDLK89-027E





PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	111	244.0	99.9	1190.8	28.9	88.6	27.0	-115.0	7.3
2	288.00 Hz	365	302.8	44.7	861.2	12.9	82.0	10.6	-110.5	3.5
3	192.00 Hz	473	321.9	99.9	743.4	30.0	82.0	28.6	-122.7	7.5
4	144.00 Hz	473	220.9	8.0	629.0	3.5	79.6	2.2	-117.7	1.0
5	96.00 Hz	476	151.2	7.7	512.9	2.6	76.2	2.1	-112.6	.7
6	72.00 Hz	478	135.3	12.5	553.7	5.9	69.8	3.4	-118.6	1.6
7	48.00 Hz	379	84.4	6.7	351.7	3.9	83.5	1.9	-105.7	1.1
8	36.00 Hz	667	64.4	9.1	297.7	2.7	78.9	2.5	-111.7	.8
9	24.00 Hz	288	52.0	9.9	228.8	5.0	82.6	2.7	-108.2	1.4
10	18.00 Hz	384	43.1	5.5	195.6	4.4	81.7	1.5	-110.2	1.2
11	12.00 Hz	576	32.2	4.9	173.8	3.8	78.1	1.4	-109.7	1.1
12	9.00 Hz	576	23.4	3.6	153.4	2.9	71.9	1.0	-117.4	.8
13	6.00 Hz	384	19.3	7.3	132.9	5.9	73.2	2.0	-118.4	1.6
14	4.50 Hz	288	14.1	13.8	126.0	9.2	67.5	3.7	-116.6	2.5
15	3.00 Hz	1238	11.3	33.1	104.7	6.0	53.9	8.2	-125.1	1.7
16	2.25 Hz	4182	15.9	32.9	98.4	6.0	43.0	8.1	-127.0	1.7
17	1.50 Hz	2557	18.3	48.1	107.1	8.1	38.2	11.3	-133.8	2.2
18	1.13 Hz	1984	12.0	30.4	104.5	5.7	40.1	7.6	-138.9	1.6
19	1.33 Sec	1289	13.1	41.5	115.2	5.4	35.7	10.0	-143.8	1.5
20	1.78 Sec	569	16.9	42.5	116.4	11.8	45.6	10.2	-146.0	3.2
21	2.67 Sec	534	22.0	76.4	127.1	16.4	39.6	16.3	-156.5	4.3
22	3.56 Sec	2389	26.7	75.1	159.4	6.6	30.5	16.0	-159.9	1.8
23	5.33 Sec	1179	31.6	99.9	176.6	12.9	34.7	21.5	-159.5	3.5
24	7.11 Sec	180	34.0	99.9	290.9	22.4	31.7	21.4	-158.8	5.8
25	10.67 Sec	767	49.5	99.9	357.7	20.1	43.1	31.9	-159.3	5.2
26	14.22 Sec	635	35.7	80.1	652.7	9.1	46.3	16.9	-153.6	2.5
27	21.33 Sec	381	32.9	29.1	719.7	7.1	39.2	7.3	-148.6	2.0
28	28.44 Sec	258	40.2	19.7	940.5	3.0	47.6	5.1	-141.9	.8
29	42.67 Sec	102	38.9	24.6	884.6	2.9	48.4	6.3	-133.6	.8
30	56.89 Sec	300	33.6	10.8	785.9	2.9	54.4	2.9	-128.2	.8
31	85.33 Sec	102	32.2	14.8	708.0	2.3	54.5	4.0	-124.1	.7
32	113.78 Sec	42	24.8	24.9	559.0	3.6	58.0	6.4	-121.7	1.0
33	170.67 Sec	24	26.6	59.2	472.0	3.8	49.2	13.3	-122.4	1.1
34	227.56 Sec	24	24.7	25.0	406.9	7.1	54.8	6.4	-125.1	2.0
35	341.33 Sec	36	25.2	75.2	400.7	7.2	50.9	16.1	-125.4	2.0
36	455.11 Sec	21	24.4	78.2	331.2	13.0	60.4	16.6	-128.9	3.5
37	682.67 Sec	9	16.4	96.6	378.8	27.8	64.8	19.4	-136.4	7.0
38	910.22 Sec	3	30.8	99.9	496.2	42.0	60.8	54.6	-131.1	10.1
39	1365.33 Sec	3	19.6	99.9	411.6	6.3	64.7	25.1	-131.8	1.8
40	1820.44 Sec	3	7.8	50.2	431.3	5.6	82.2	11.7	-132.5	1.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	111	357.1	913.9	142.2	343	443.6	549
2	288.00 Hz	365	315.5	827.2	115.4	372	351.6	603
3	192.00 Hz	473	258.8	690.9	82.0	413	272.7	675
4	144.00 Hz	473	220.2	612.3	42.0	440	248.5	734
5	96.00 Hz	476	161.6	515.5	23.3	462	179.7	825
6	72.00 Hz	478	131.1	438.1	13.9	480	121.4	878
7	48.00 Hz	379	92.3	348.2	6.0	494	91.8	959
8	36.00 Hz	667	71.3	292.5	6.5	501	78.4	1014
9	24.00 Hz	288	51.8	233.4	6.8	523	64.1	1110
10	18.00 Hz	384	41.9	197.2	6.5	543	61.1	1178
11	12.00 Hz	576	31.2	162.0	5.6	574	66.3	1308
12	9.00 Hz	576	25.9	147.4	5.8	603	72.8	1440
13	6.00 Hz	384	20.2	128.1	4.5	652	65.8	1644
14	4.50 Hz	288	16.7	118.0	5.7	685	69.8	1822
15	3.00 Hz	1238	14.4	107.2	7.6	779	76.6	2128
16	2.25 Hz	4182	13.5	105.1	11.5	871	94.5	2433
17	1.50 Hz	2557	13.6	103.3	16.4	1071	103.5	2954
18	1.13 Hz	1984	14.4	105.2	21.9	1272	132.9	3441
19	1.33 Sec	1289	15.7	112.0	27.0	1629	159.6	4349
20	1.78 Sec	569	17.3	118.8	33.7	1971	209.8	5171
21	2.67 Sec	534	19.7	135.7	44.9	2576	307.5	6771
22	3.56 Sec	2389	22.6	155.4	53.1	3192	655.6	8365
23	5.33 Sec	1179	26.0	208.1	56.7	4189	2223.0	11857
24	7.11 Sec	180	29.3	276.0	62.8	5135	10763.5	15766
25	10.67 Sec	767	33.4	408.3	60.1	6721	15922.3	23485
26	14.22 Sec	635	35.7	586.5	48.7	8015	22875.1	32504
27	21.33 Sec	381	37.2	797.8	43.6	10027	2919.6	46429
28	28.44 Sec	258	37.7	871.2	34.8	11650	1007.2	56022
29	42.67 Sec	102	36.2	838.9	27.3	13987	589.9	67328
30	56.89 Sec	300	34.2	772.1	24.4	15695	388.7	74584
31	85.33 Sec	102	32.2	667.2	20.4	18662	268.8	84920
32	113.78 Sec	42	29.2	574.8	14.7	20526	168.4	91012
33	170.67 Sec	24	25.6	456.8	12.3	23543	158.1	99363
34	227.56 Sec	24	22.9	410.5	11.8	25704	205.0	108765
35	341.33 Sec	36	20.5	362.4	10.8	29784	212.4	125170
36	455.11 Sec	21	18.5	342.5	9.0	32632	299.1	140515
37	682.67 Sec	9	16.2	345.8	7.9	37395	390.9	172914
38	910.22 Sec	3	14.6	357.4	7.2	40961	485.0	202975
39	1365.33 Sec	3	12.8	384.1	6.6	47003	554.3	257721
40	1820.44 Sec	3	11.7	405.3	6.0	51840	590.9	305675

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	111	107.36	-359.28	999.99	16.99	684.23	999.99
2	288.00 Hz	365	-109.77	-39.58	999.99	92.25	653.85	999.99
3	192.00 Hz	473	-57.89	-30.53	999.99	77.61	550.42	999.99
4	144.00 Hz	473	-52.45	-36.81	61.57	72.27	392.23	471.99
5	96.00 Hz	476	-5.05	-9.48	16.52	64.25	261.60	202.12
6	72.00 Hz	478	-9.09	.76	38.74	76.20	207.08	339.34
7	48.00 Hz	379	-7.75	-10.15	8.08	16.07	141.41	42.80
8	36.00 Hz	667	-14.35	-10.82	15.76	20.65	105.67	44.06
9	24.00 Hz	288	-10.25	-9.01	9.66	10.13	78.31	27.57
10	18.00 Hz	384	-5.77	-4.23	2.05	8.97	61.67	5.48
11	12.00 Hz	576	-7.27	-4.78	1.69	9.08	43.00	2.24
12	9.00 Hz	576	-2.48	-3.98	.34	10.09	30.85	.65
13	6.00 Hz	384	-4.80	-3.78	.68	6.94	23.01	1.42
14	4.50 Hz	288	-5.26	-4.09	1.09	6.81	16.45	2.64
15	3.00 Hz	1238	-.84	-2.76	2.35	7.68	10.52	6.93
16	2.25 Hz	4182	-.23	-1.73	2.75	9.78	9.11	7.23
17	1.50 Hz	2557	-.58	-.18	5.07	9.20	7.24	10.57
18	1.13 Hz	1984	-.40	-2.26	1.37	6.29	5.30	2.39
19	1.33 Sec	1289	-1.108	-2.189	1.846	5.698	4.091	2.971
20	1.78 Sec	569	-.748	-2.063	2.137	4.825	4.927	2.989
21	2.67 Sec	534	-1.431	-.419	4.185	4.951	4.093	6.652
22	3.56 Sec	2389	-1.285	-2.074	1.987	5.280	3.112	5.889
23	5.33 Sec	1179	-1.539	-1.382	2.320	4.475	3.101	8.378
24	7.11 Sec	180	-.635	-.599	6.036	4.158	2.571	6.657
25	10.67 Sec	767	-.955	-.547	4.040	3.516	3.290	14.335
26	14.22 Sec	635	-1.261	-1.450	1.753	2.448	2.561	2.173
27	21.33 Sec	381	-.805	-.719	.099	2.151	1.754	.252
28	28.44 Sec	258	-.804	-1.171	.033	1.794	1.964	.114
29	42.67 Sec	102	-.628	-1.009	.065	1.416	1.597	.110
30	56.89 Sec	300	-.336	-.792	.009	.999	1.397	.016
31	85.33 Sec	102	-.277	-.623	.019	.797	1.118	.018
32	113.78 Sec	42	-.002	-.525	.043	.553	.885	.027
33	170.67 Sec	24	-.208	-.357	.053	.577	.668	.084
34	227.56 Sec	24	-.234	-.298	.027	.425	.601	.013
35	341.33 Sec	36	-.000	-.256	.059	.383	.472	.058
36	455.11 Sec	21	-.087	-.198	.035	.256	.450	.045
37	682.67 Sec	9	-.201	-.143	.034	.148	.314	.027
38	910.22 Sec	3	-.043	.115	1.420	.201	.359	.307
39	1365.33 Sec	3	.085	-.125	.027	.114	.242	.028
40	1820.44 Sec	3	-.073	-.087	.002	.020	.145	.002

PHOENIX GEOSCIENCE

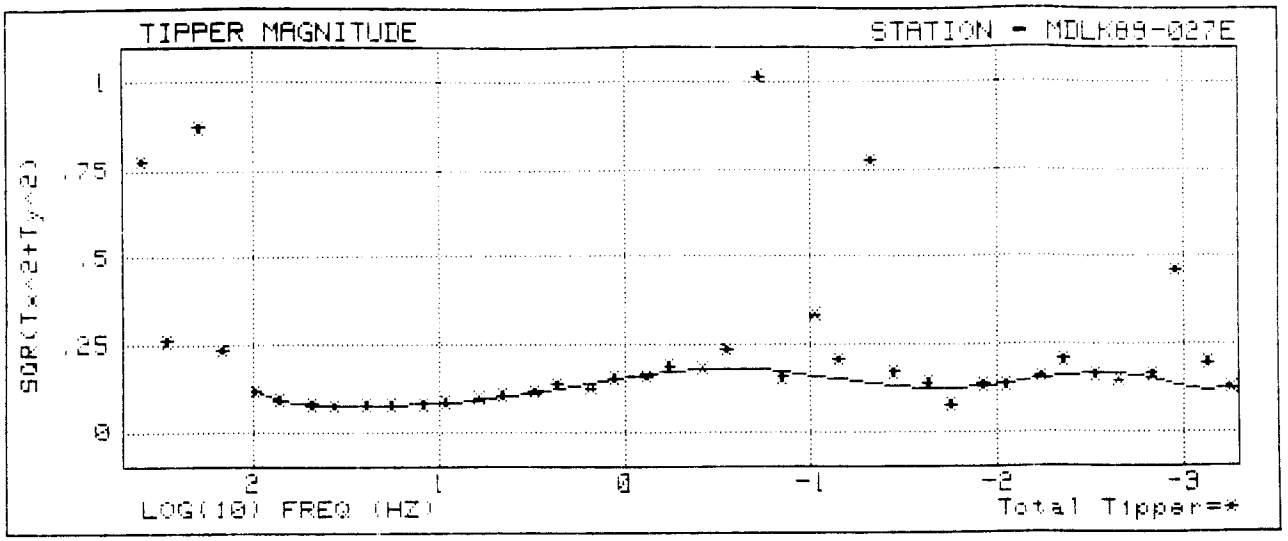
MT Site: MDLK89-027E

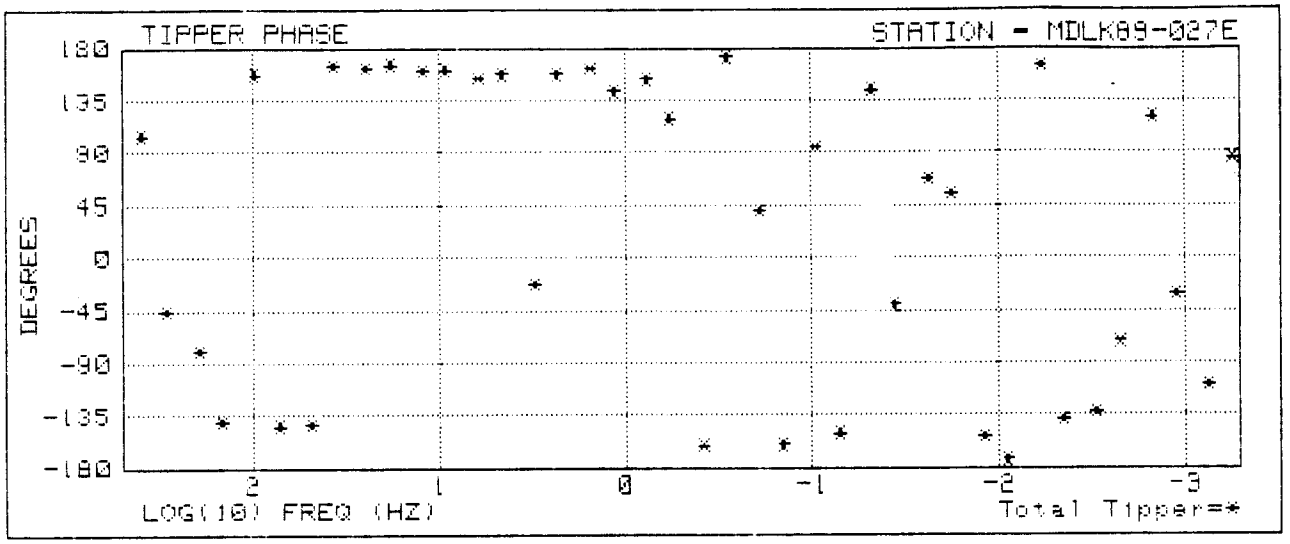
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

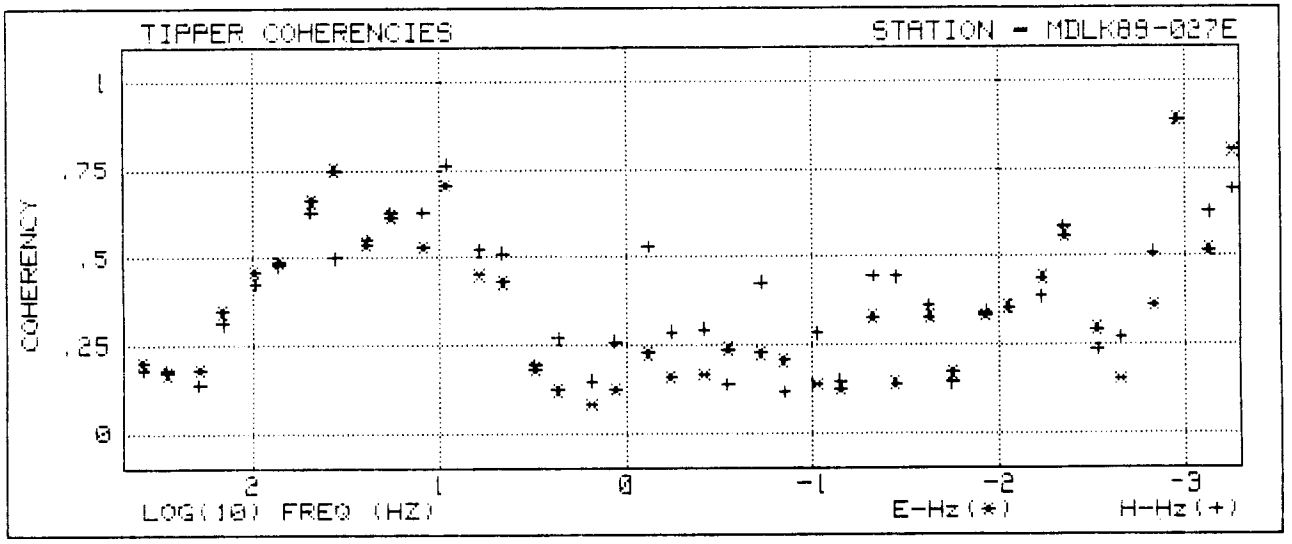
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	111	-639.48	-999.99	999.99	-218.96	-63.17	999.99
2	288.00 Hz	365	-389.65	-999.99	999.99	-88.93	-55.50	999.99
3	192.00 Hz	473	-456.37	-710.88	999.99	-48.52	-52.63	999.99
4	144.00 Hz	473	-313.20	-595.65	272.09	-118.57	41.51	999.99
5	96.00 Hz	476	-190.58	-458.10	78.34	5.37	-16.18	958.61
6	72.00 Hz	478	-213.87	-391.93	323.43	21.63	-22.12	999.99
7	48.00 Hz	379	-78.53	-279.70	60.29	-21.14	-4.11	319.43
8	36.00 Hz	667	-85.61	-215.06	18.84	-8.97	-14.01	52.66
9	24.00 Hz	288	-51.87	-157.39	32.20	1.15	-15.03	91.93
10	18.00 Hz	384	-45.75	-124.54	16.20	-5.09	-4.63	43.34
11	12.00 Hz	576	-34.39	-96.15	7.35	1.21	-8.81	9.76
12	9.00 Hz	576	-38.22	-73.77	2.75	-.77	-5.10	5.31
13	6.00 Hz	384	-30.08	-55.53	6.52	-3.92	-4.41	13.72
14	4.50 Hz	288	-23.87	-47.60	11.03	.17	-7.06	26.69
15	3.00 Hz	1238	-22.76	-32.44	2.64	-1.16	-2.54	7.78
16	2.25 Hz	4182	-20.02	-26.58	1.85	-1.04	-1.25	4.86
17	1.50 Hz	2557	-19.64	-20.44	2.45	-3.04	1.76	5.11
18	1.13 Hz	1984	-18.28	-15.92	.91	-3.50	1.23	1.59
19	1.33 Sec	1289	-16.782	-12.270	.590	-3.443	.976	.950
20	1.78 Sec	569	-14.994	-10.132	2.051	-2.638	1.628	2.868
21	2.67 Sec	534	-14.160	-6.145	2.746	-1.843	1.429	4.365
22	3.56 Sec	2389	-14.061	-5.143	.457	-2.211	1.929	1.353
23	5.33 Sec	1179	-12.053	-4.505	1.222	-1.984	1.022	4.413
24	7.11 Sec	180	-13.334	-5.173	4.196	-.823	.065	4.627
25	10.67 Sec	767	-12.109	-4.586	2.809	-.849	-1.248	9.964
26	14.22 Sec	635	-13.570	-6.732	.865	-1.393	-1.098	1.072
27	21.33 Sec	381	-11.090	-6.758	.392	-.939	-.479	.993
28	28.44 Sec	258	-10.116	-7.936	.072	-1.227	-.582	.252
29	42.67 Sec	102	-7.023	-7.372	.041	-.752	-.888	.071
30	56.89 Sec	300	-5.143	-6.529	.029	-.438	-.709	.052
31	85.33 Sec	102	-3.611	-5.334	.011	-.390	-.547	.011
32	113.78 Sec	42	-2.602	-4.218	.015	-.359	-.306	.009
33	170.67 Sec	24	-1.991	-3.141	.010	-.367	-.266	.015
34	227.56 Sec	24	-1.718	-2.448	.021	-.323	-.236	.011
35	341.33 Sec	36	-1.405	-1.974	.014	-.167	-.143	.014
36	455.11 Sec	21	-1.198	-1.484	.027	-.282	-.020	.035
37	682.67 Sec	9	-1.207	-1.148	.084	-.141	-.219	.067
38	910.22 Sec	3	-1.085	-1.244	.168	.129	-.057	.036
39	1365.33 Sec	3	-.818	-.915	.003	-.051	.017	.003
40	1820.44 Sec	3	-.735	-.803	.002	.070	-.243	.002

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E







PHOENIX GEOSCIENCE

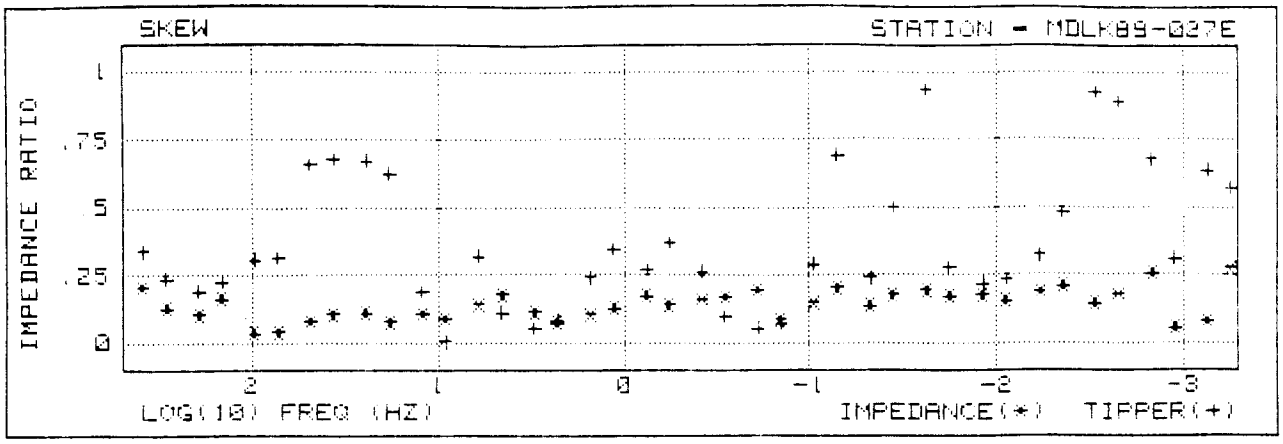
MT Site: MDLK89-027E

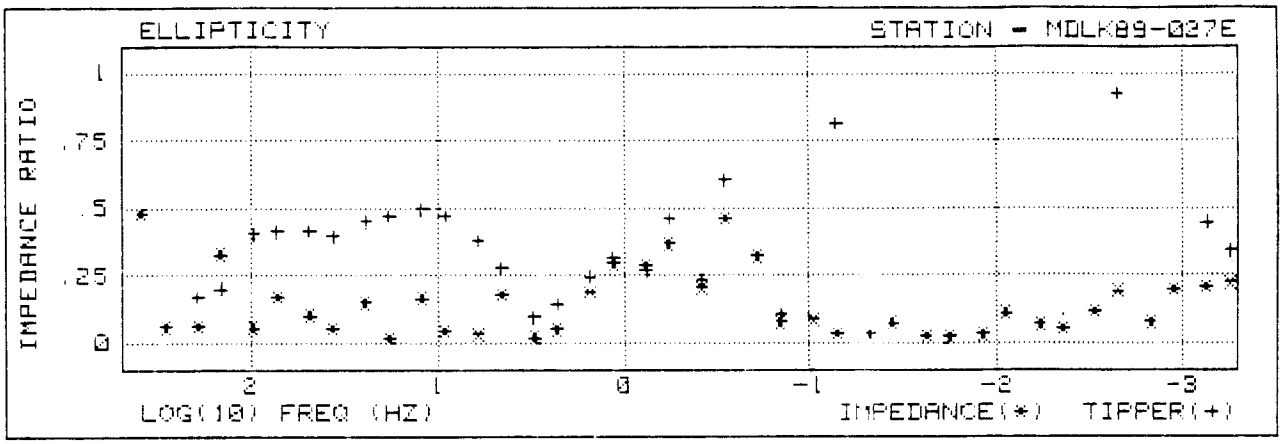
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

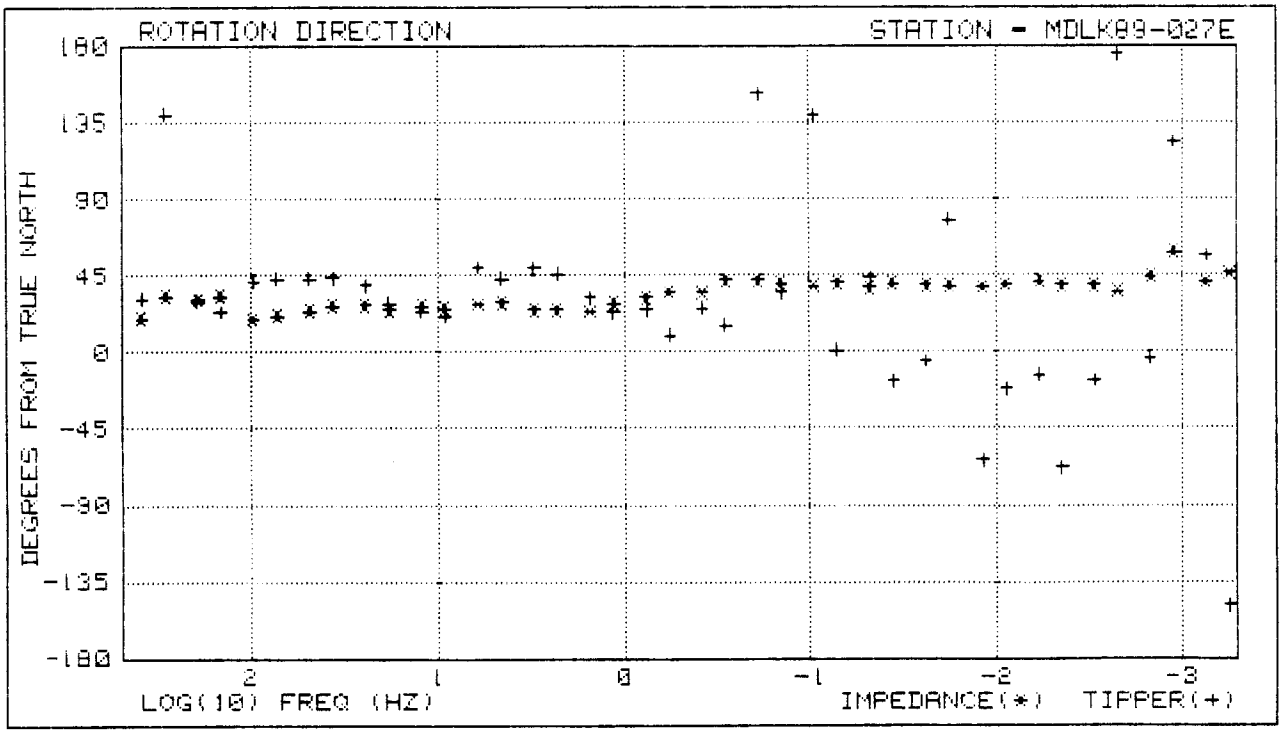
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	111	.77	103.51	.20	.18
2	288.00 Hz	365	.26	-46.57	.17	.18
3	192.00 Hz	473	.87	-80.52	.18	.13
4	144.00 Hz	473	.23	-141.24	.34	.31
5	96.00 Hz	476	.11	155.74	.46	.42
6	72.00 Hz	478	.09	-144.72	.48	.48
7	48.00 Hz	379	.08	-143.53	.66	.63
8	36.00 Hz	667	.07	163.45	.75	.50
9	24.00 Hz	288	.07	161.51	.54	.55
10	18.00 Hz	384	.07	164.37	.61	.62
11	12.00 Hz	576	.07	159.52	.53	.62
12	9.00 Hz	576	.08	160.06	.70	.76
13	6.00 Hz	384	.09	153.40	.45	.52
14	4.50 Hz	288	.10	156.70	.43	.51
15	3.00 Hz	1238	.11	-23.80	.18	.19
16	2.25 Hz	4182	.13	156.47	.12	.26
17	1.50 Hz	2557	.12	161.27	.08	.14
18	1.13 Hz	1984	.15	142.09	.12	.25
19	1.33 Sec	1289	.16	152.67	.22	.53
20	1.78 Sec	569	.19	117.96	.15	.28
21	2.67 Sec	534	.18	-161.74	.16	.29
22	3.56 Sec	2389	.23	171.13	.23	.13
23	5.33 Sec	1179	1.01	39.71	.22	.42
24	7.11 Sec	180	.15	-161.15	.20	.11
25	10.67 Sec	767	.33	94.49	.13	.28
26	14.22 Sec	635	.20	-151.13	.12	.14
27	21.33 Sec	381	.77	143.10	.33	.44
28	28.44 Sec	258	.17	-40.80	.14	.44
29	42.67 Sec	102	.14	67.08	.33	.36
30	56.89 Sec	300	.07	54.61	.17	.14
31	85.33 Sec	102	.13	-153.69	.33	.34
32	113.78 Sec	42	.13	-173.35	.35	.35
33	170.67 Sec	24	.16	163.62	.44	.38
34	227.56 Sec	24	.20	-139.33	.56	.58
35	341.33 Sec	36	.16	-132.73	.29	.23
36	455.11 Sec	21	.14	-72.90	.15	.27
37	682.67 Sec	9	.16	120.46	.36	.51
38	910.22 Sec	3	.46	-31.80	.89	.89
39	1365.33 Sec	3	.19	-109.48	.52	.62
40	1820.44 Sec	3	.12	84.71	.80	.69

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E







PHOENIX GEOSCIENCE

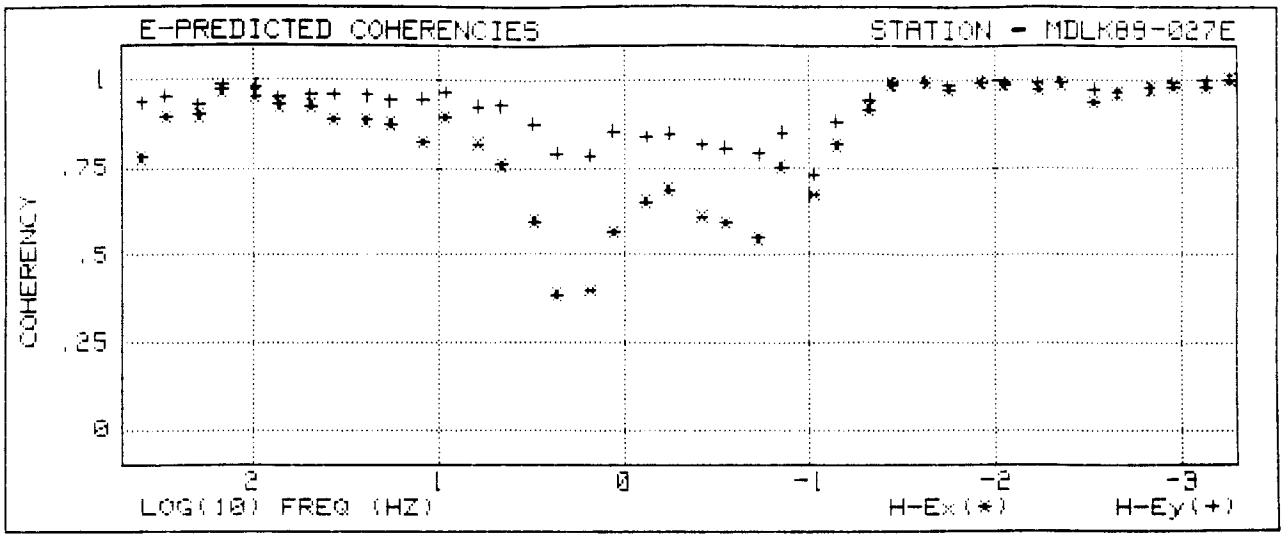
MT Site: MDLK89-027E

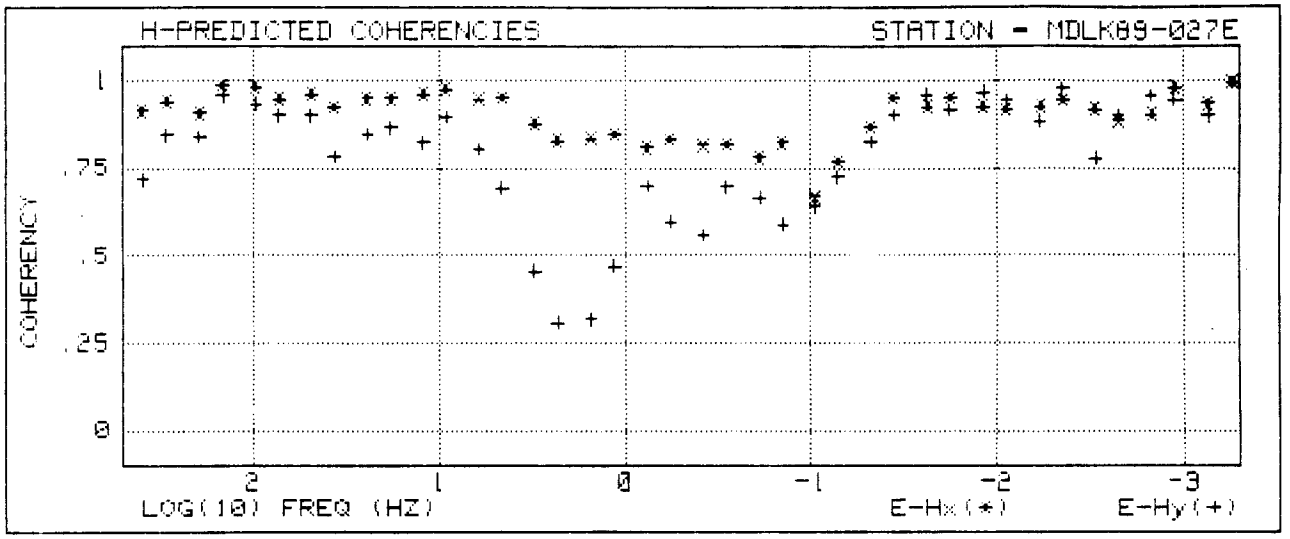
SKEW, ELLIPTICITY AND STRIKE

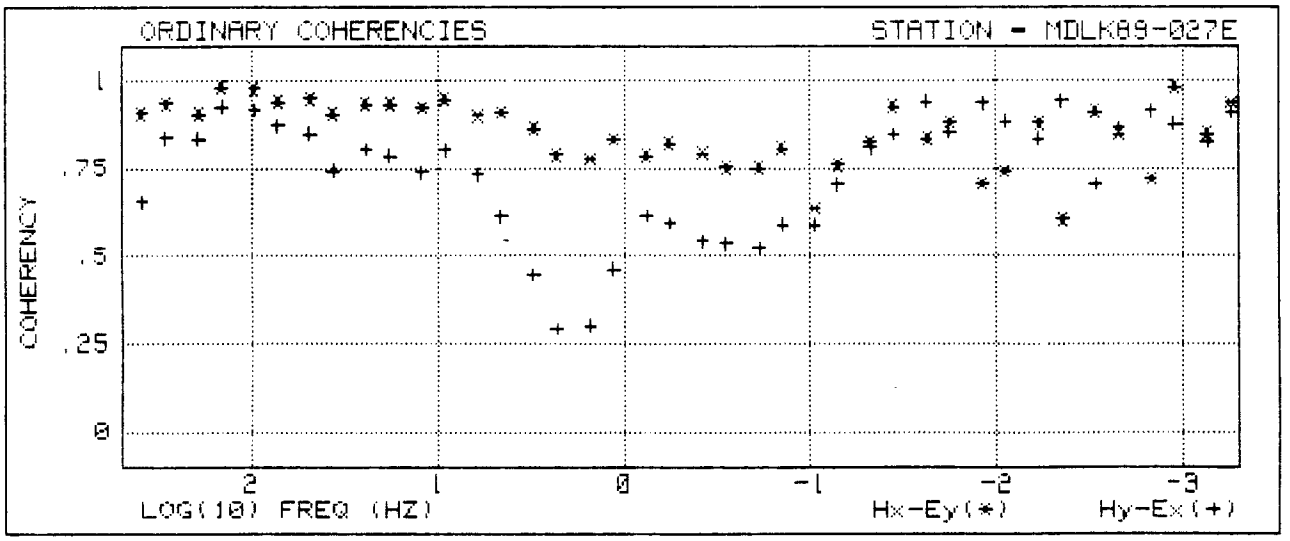
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	111	.20	.48	18.97	.34	2.76	30.49
2	288.00 Hz	365	.12	.05	32.28	.23	1.13	139.32
3	192.00 Hz	473	.10	.06	30.20	.19	.17	29.13
4	144.00 Hz	473	.16	.33	32.06	.22	.20	22.90
5	96.00 Hz	476	.03	.05	18.43	.31	.40	40.77
6	72.00 Hz	478	.04	.17	20.76	.31	.41	42.17
7	48.00 Hz	379	.07	.10	23.58	.66	.41	42.32
8	36.00 Hz	667	.10	.05	26.15	.67	.39	42.79
9	24.00 Hz	288	.11	.14	26.96	.67	.44	38.18
10	18.00 Hz	384	.07	.01	24.11	.62	.47	27.83
11	12.00 Hz	576	.10	.16	26.43	.18	.49	23.69
12	9.00 Hz	576	.08	.04	25.06	.00	.47	20.81
13	6.00 Hz	384	.14	.03	27.47	.32	.37	48.81
14	4.50 Hz	288	.17	.17	28.51	.11	.27	42.06
15	3.00 Hz	1238	.11	.01	24.01	.05	.09	48.32
16	2.25 Hz	4182	.07	.05	24.00	.08	.14	45.07
17	1.50 Hz	2557	.10	.19	22.91	.24	.24	31.00
18	1.13 Hz	1984	.12	.29	27.79	.34	.31	22.72
19	1.33 Sec	1289	.17	.29	31.29	.27	.26	23.86
20	1.78 Sec	569	.14	.36	34.79	.37	.46	8.91
21	2.67 Sec	534	.16	.20	33.95	.26	.23	24.76
22	3.56 Sec	2389	.17	.46	41.26	.09	.60	15.03
23	5.33 Sec	1179	.19	.32	41.13	.05	2.74	151.13
24	7.11 Sec	180	.08	.07	39.29	.07	.10	33.97
25	10.67 Sec	767	.15	.08	37.87	.29	3.40	138.62
26	14.22 Sec	635	.20	.03	39.88	.69	.81	.57
27	21.33 Sec	381	.13	.03	37.04	.24	1.68	43.08
28	28.44 Sec	258	.17	.07	39.58	.49	1.29	-17.83
29	42.67 Sec	102	.19	.02	38.57	.93	1.34	-5.70
30	56.89 Sec	300	.17	.02	38.12	.28	1.55	77.06
31	85.33 Sec	102	.17	.03	37.37	.22	4.26	-64.23
32	113.78 Sec	42	.15	.11	38.95	.23	1.81	-22.25
33	170.67 Sec	24	.18	.06	40.71	.32	2.86	-14.04
34	227.56 Sec	24	.21	.05	38.46	.48	2.36	-68.63
35	341.33 Sec	36	.14	.11	38.65	.92	1.19	-17.43
36	455.11 Sec	21	.18	.19	35.23	.88	.92	174.54
37	682.67 Sec	9	.25	.07	43.86	.67	2.58	-3.94
38	910.22 Sec	3	.05	.19	58.35	.30	2.22	122.66
39	1365.33 Sec	3	.08	.20	40.49	.63	.44	56.25
40	1820.44 Sec	3	.27	.22	45.42	.57	.34	-149.39

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E







PHOENIX GEOSCIENCE

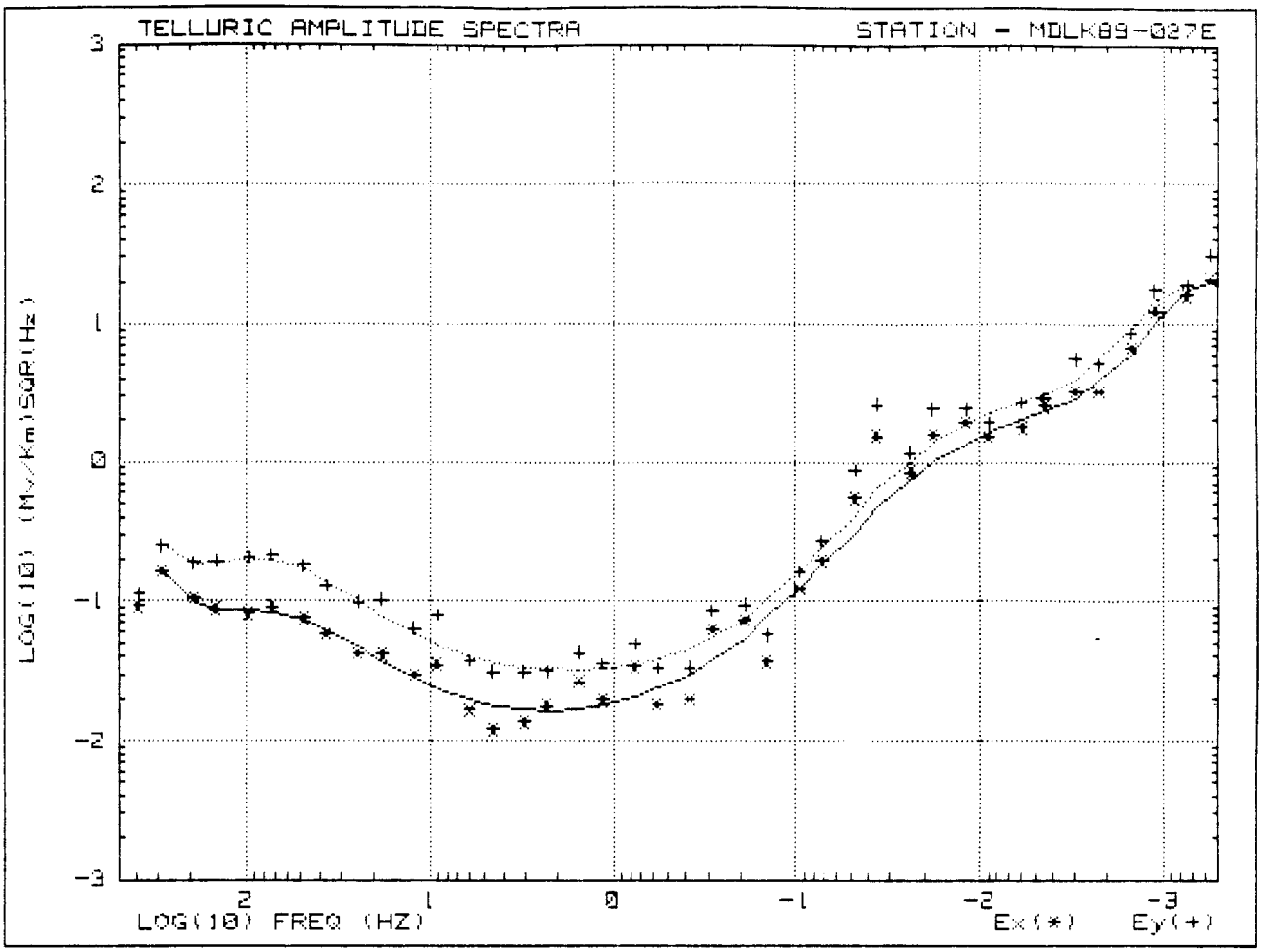
MT Site: MDLK89-027E

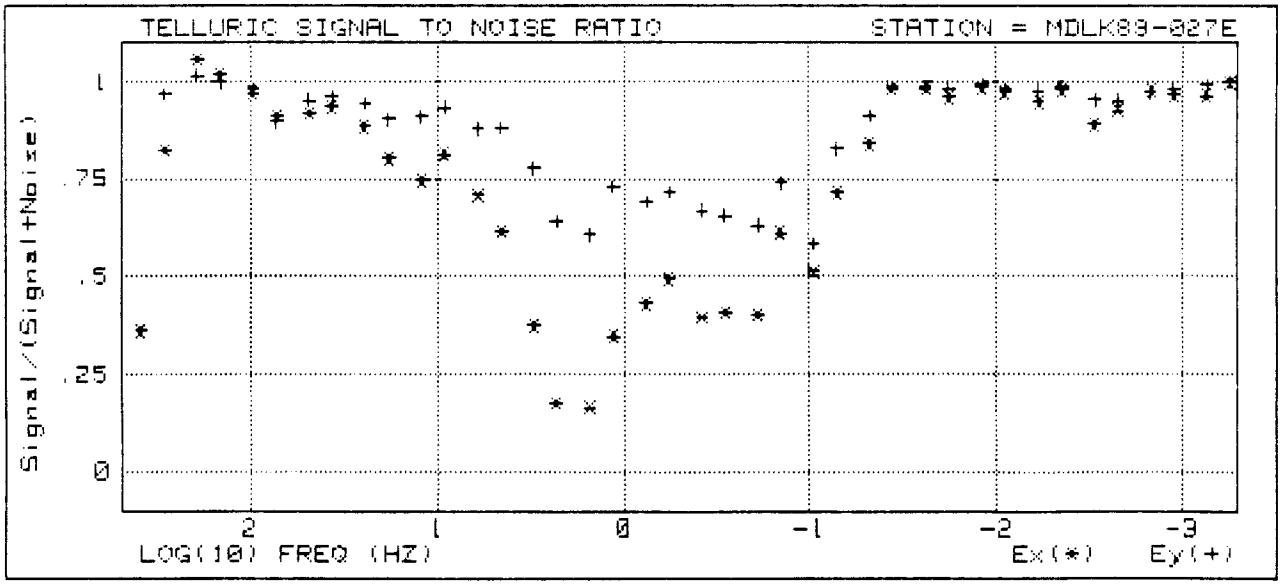
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	111	.78	.93	.91	.71	.90	.65
2	288.00 Hz	365	.89	.95	.93	.84	.93	.83
3	192.00 Hz	473	.90	.93	.90	.83	.90	.83
4	144.00 Hz	473	.97	.98	.98	.95	.98	.92
5	96.00 Hz	476	.95	.98	.98	.93	.97	.91
6	72.00 Hz	478	.92	.95	.94	.90	.94	.87
7	48.00 Hz	379	.92	.95	.96	.89	.95	.85
8	36.00 Hz	667	.89	.95	.92	.78	.90	.74
9	24.00 Hz	288	.88	.95	.94	.84	.93	.80
10	18.00 Hz	384	.87	.94	.94	.86	.93	.78
11	12.00 Hz	576	.82	.94	.96	.82	.92	.74
12	9.00 Hz	576	.89	.96	.97	.89	.94	.80
13	6.00 Hz	384	.82	.92	.94	.80	.90	.73
14	4.50 Hz	288	.76	.92	.95	.69	.91	.61
15	3.00 Hz	1238	.59	.87	.87	.45	.86	.44
16	2.25 Hz	4182	.38	.79	.82	.31	.78	.29
17	1.50 Hz	2557	.39	.78	.83	.31	.77	.30
18	1.13 Hz	1984	.56	.85	.84	.46	.83	.46
19	1.33 Sec	1289	.65	.84	.81	.70	.78	.61
20	1.78 Sec	569	.68	.84	.83	.59	.82	.59
21	2.67 Sec	534	.61	.81	.81	.55	.79	.54
22	3.56 Sec	2389	.59	.80	.81	.69	.75	.53
23	5.33 Sec	1179	.55	.78	.78	.66	.75	.52
24	7.11 Sec	180	.75	.84	.82	.59	.80	.58
25	10.67 Sec	767	.67	.72	.66	.64	.63	.59
26	14.22 Sec	635	.81	.88	.76	.72	.76	.70
27	21.33 Sec	381	.92	.94	.86	.82	.82	.81
28	28.44 Sec	258	.98	.99	.95	.90	.92	.84
29	42.67 Sec	102	.99	.99	.92	.96	.83	.93
30	56.89 Sec	300	.97	.98	.95	.91	.88	.85
31	85.33 Sec	102	.99	.99	.92	.96	.70	.93
32	113.78 Sec	42	.98	.99	.91	.94	.74	.88
33	170.67 Sec	24	.97	.99	.92	.88	.88	.83
34	227.56 Sec	24	.99	.99	.94	.97	.60	.94
35	341.33 Sec	36	.93	.97	.91	.77	.91	.70
36	455.11 Sec	21	.96	.96	.88	.90	.84	.86
37	682.67 Sec	9	.97	.97	.90	.95	.72	.91
38	910.22 Sec	3	.98	.99	.98	.94	.98	.87
39	1365.33 Sec	3	.98	1.00	.93	.90	.85	.82
40	1820.44 Sec	3	1.00	1.00	.99	.99	.93	.91

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E





PHOENIX GEOSCIENCE

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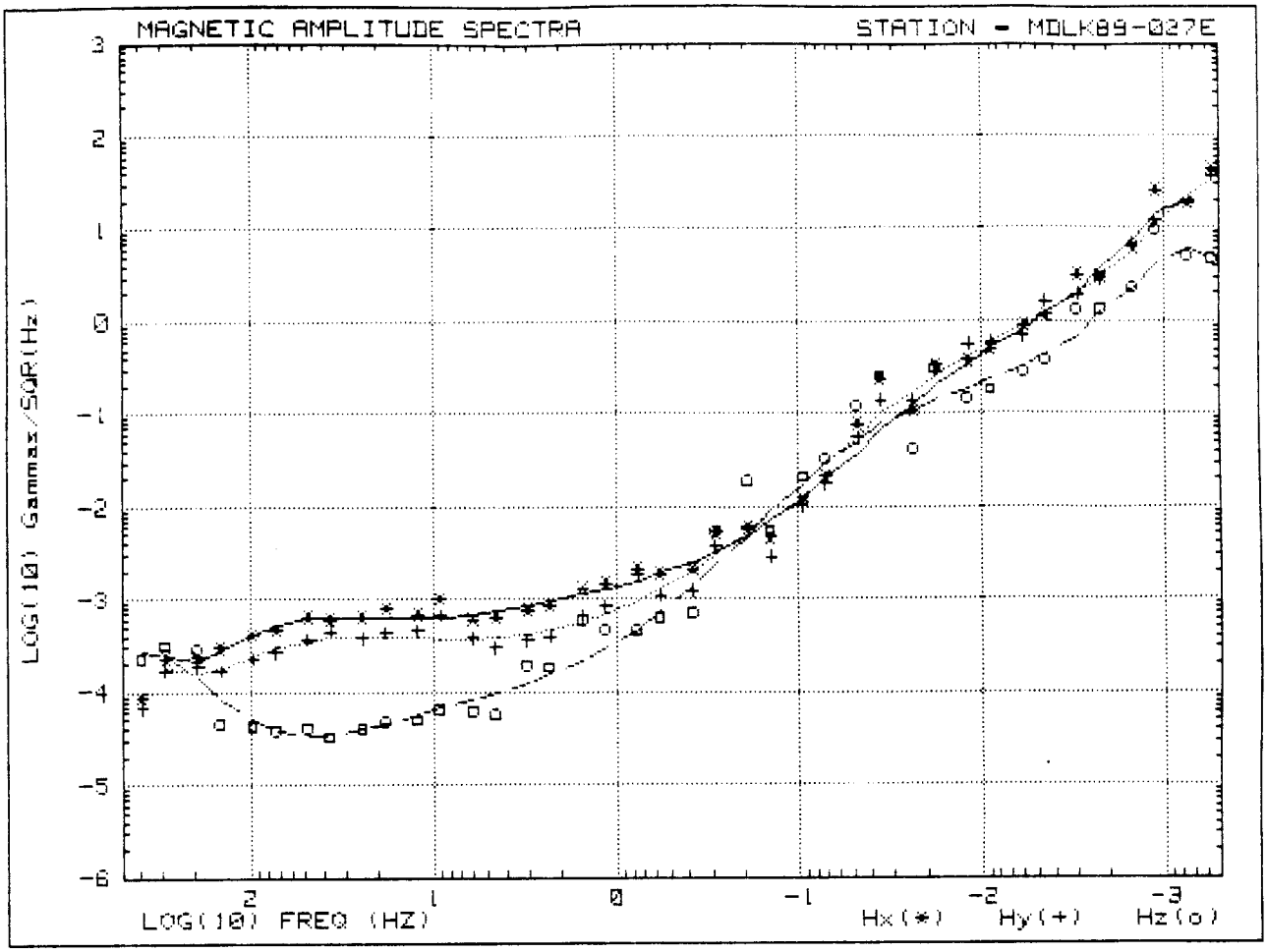
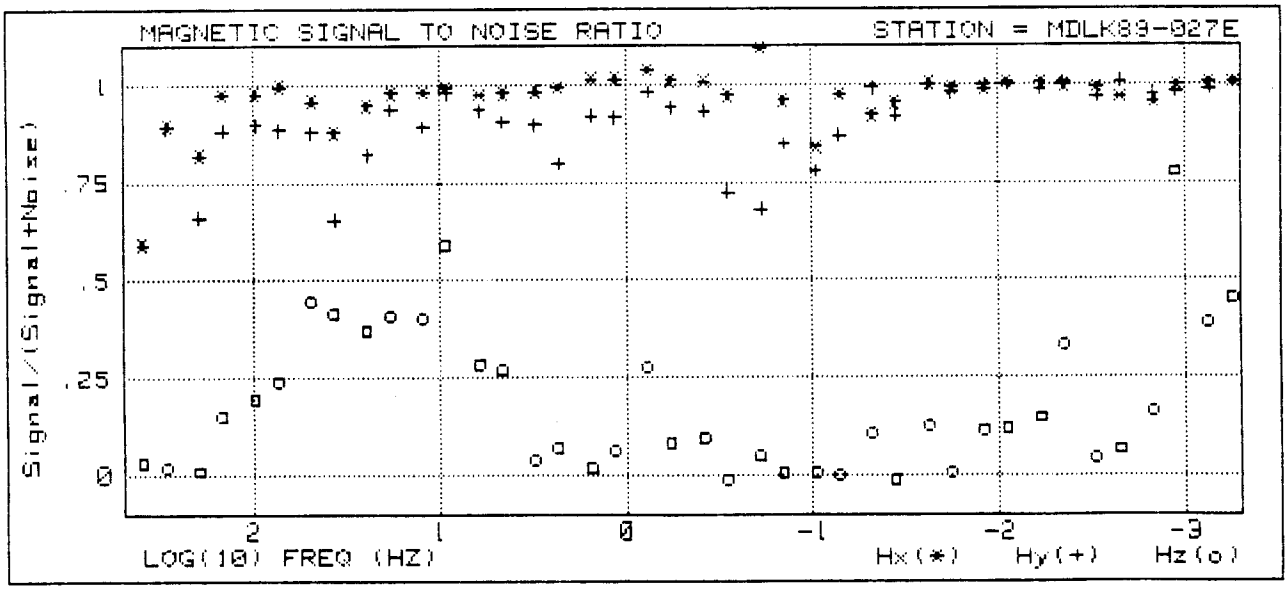




PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	111	8.51E-05	6.58E-05	2.38E-04	9.15E-02	1.12E-01
2	288.00 Hz	365	2.28E-04	1.70E-04	3.32E-04	1.62E-01	2.47E-01
3	192.00 Hz	473	2.37E-04	1.87E-04	3.06E-04	1.05E-01	1.87E-01
4	144.00 Hz	473	2.94E-04	1.67E-04	4.81E-05	8.62E-02	1.92E-01
5	96.00 Hz	476	4.07E-04	2.24E-04	4.37E-05	8.05E-02	2.05E-01
6	72.00 Hz	478	4.54E-04	2.62E-04	4.06E-05	8.94E-02	2.13E-01
7	48.00 Hz	379	6.26E-04	3.62E-04	4.34E-05	7.50E-02	1.79E-01
8	36.00 Hz	667	5.98E-04	4.39E-04	3.43E-05	5.72E-02	1.27E-01
9	24.00 Hz	288	6.29E-04	3.77E-04	4.29E-05	4.13E-02	9.79E-02
10	18.00 Hz	384	7.84E-04	4.33E-04	5.06E-05	4.10E-02	1.02E-01
11	12.00 Hz	576	6.76E-04	4.54E-04	5.22E-05	2.91E-02	6.30E-02
12	9.00 Hz	576	9.92E-04	6.61E-04	6.83E-05	3.43E-02	7.90E-02
13	6.00 Hz	384	6.00E-04	3.77E-04	6.59E-05	1.65E-02	3.68E-02
14	4.50 Hz	288	6.27E-04	2.93E-04	5.92E-05	1.20E-02	3.08E-02
15	3.00 Hz	1238	7.50E-04	3.54E-04	2.05E-04	1.34E-02	3.04E-02
16	2.25 Hz	4182	8.28E-04	3.80E-04	1.95E-04	1.74E-02	3.08E-02
17	1.50 Hz	2557	1.29E-03	6.59E-04	6.27E-04	2.62E-02	4.21E-02
18	1.13 Hz	1984	1.45E-03	8.26E-04	4.92E-04	1.91E-02	3.56E-02
19	1.33 Sec	1289	2.09E-03	1.78E-03	4.81E-04	3.34E-02	4.90E-02
20	1.78 Sec	569	1.87E-03	1.07E-03	6.59E-04	1.81E-02	3.26E-02
21	2.67 Sec	534	2.10E-03	1.21E-03	7.53E-04	1.94E-02	3.30E-02
22	3.56 Sec	2389	5.21E-03	3.72E-03	5.79E-03	6.17E-02	8.52E-02
23	5.33 Sec	1179	5.95E-03	5.70E-03	1.97E-02	7.24E-02	9.39E-02
24	7.11 Sec	180	4.66E-03	2.84E-03	5.83E-03	3.65E-02	5.67E-02
25	10.67 Sec	767	1.22E-02	1.02E-02	2.20E-02	1.21E-01	1.62E-01
26	14.22 Sec	635	2.07E-02	1.72E-02	3.52E-02	1.94E-01	2.68E-01
27	21.33 Sec	381	7.60E-02	5.42E-02	1.29E-01	5.49E-01	8.63E-01
28	28.44 Sec	258	2.36E-01	1.37E-01	2.71E-01	1.54E+00	2.56E+00
29	42.67 Sec	102	1.06E-01	1.33E-01	4.32E-02	8.37E-01	1.15E+00
30	56.89 Sec	300	3.23E-01	2.76E-01	3.36E-01	1.56E+00	2.40E+00
31	85.33 Sec	102	3.68E-01	5.49E-01	1.55E-01	1.90E+00	2.40E+00
32	113.78 Sec	42	4.89E-01	5.77E-01	1.90E-01	1.50E+00	1.89E+00
33	170.67 Sec	24	8.75E-01	6.67E-01	2.92E-01	1.75E+00	2.63E+00
34	227.56 Sec	24	1.14E+00	1.60E+00	4.00E-01	2.49E+00	2.85E+00
35	341.33 Sec	36	3.13E+00	1.94E+00	1.43E+00	3.20E+00	5.54E+00
36	455.11 Sec	21	2.98E+00	2.82E+00	1.45E+00	3.20E+00	5.15E+00
37	682.67 Sec	9	6.11E+00	6.81E+00	2.42E+00	6.59E+00	8.42E+00
38	910.22 Sec	3	2.51E+01	1.21E+01	1.02E+01	1.22E+01	1.70E+01
39	1365.33 Sec	3	1.82E+01	1.93E+01	5.36E+00	1.56E+01	1.85E+01
40	1820.44 Sec	3	4.35E+01	3.58E+01	5.05E+00	2.04E+01	3.05E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	111	.591	1.000	.038	.360	1.000
2	288.00 Hz	365	.894	.889	.022	.821	.967
3	192.00 Hz	473	.817	.660	.014	1.000	1.000
4	144.00 Hz	473	.973	.880	.157	1.000	.995
5	96.00 Hz	476	.974	.894	.201	.969	.978
6	72.00 Hz	478	.993	.882	.246	.909	.896
7	48.00 Hz	379	.955	.876	.452	.916	.950
8	36.00 Hz	667	.876	.654	.421	.934	.960
9	24.00 Hz	288	.945	.818	.373	.882	.942
10	18.00 Hz	384	.976	.935	.413	.801	.901
11	12.00 Hz	576	.979	.890	.406	.743	.907
12	9.00 Hz	576	.993	.977	.594	.810	.931
13	6.00 Hz	384	.972	.932	.290	.706	.876
14	4.50 Hz	288	.976	.903	.273	.615	.878
15	3.00 Hz	1238	.980	.896	.041	.372	.776
16	2.25 Hz	4182	.991	.796	.074	.172	.638
17	1.50 Hz	2557	1.000	.918	.021	.163	.605
18	1.13 Hz	1984	1.000	.913	.068	.345	.727
19	1.33 Sec	1289	1.000	.980	.282	.429	.690
20	1.78 Sec	569	1.000	.940	.085	.493	.715
21	2.67 Sec	534	1.000	.931	.100	.394	.666
22	3.56 Sec	2389	.970	.722	0.000	.405	.653
23	5.33 Sec	1179	1.000	.679	.052	.399	.630
24	7.11 Sec	180	.958	.846	.010	.609	.738
25	10.67 Sec	767	.839	.777	.009	.511	.582
26	14.22 Sec	635	.972	.867	.004	.712	.826
27	21.33 Sec	381	.921	.990	.112	.838	.911
28	28.44 Sec	258	.952	.918	0.000	.978	.986
29	42.67 Sec	102	1.000	.997	.130	.981	.986
30	56.89 Sec	300	.990	.976	.009	.958	.981
31	85.33 Sec	102	.988	.997	.120	.983	.989
32	113.78 Sec	42	1.000	.998	.121	.970	.978
33	170.67 Sec	24	1.000	.988	.152	.945	.974
34	227.56 Sec	24	.995	1.000	.339	.976	.984
35	341.33 Sec	36	.991	.966	.050	.889	.952
36	455.11 Sec	21	.967	1.000	.070	.925	.949
37	682.67 Sec	9	.955	.974	.168	.975	.970
38	910.22 Sec	3	.998	.982	.781	.964	.977
39	1365.33 Sec	3	1.000	.987	.396	.962	.989
40	1820.44 Sec	3	1.000	1.000	.456	.996	.998

PHOENIX GEOSCIENCE

MT Site: MDLK89-027E

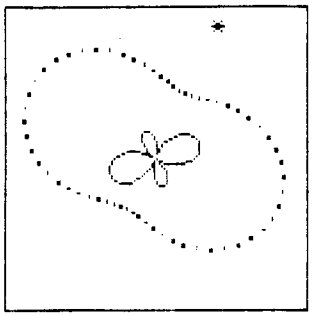
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

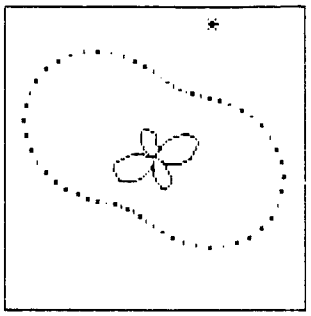
*=Rotation Direction

Zxy = ...
Zxx = ____

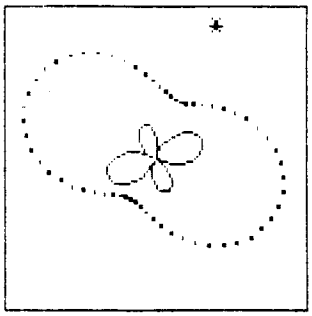
F=8 (36.0 Hz)



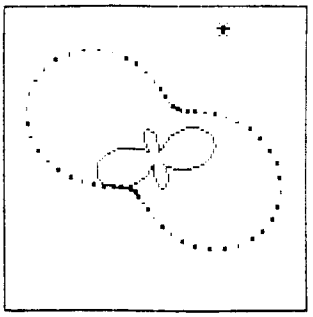
F=10 (18.0 Hz)



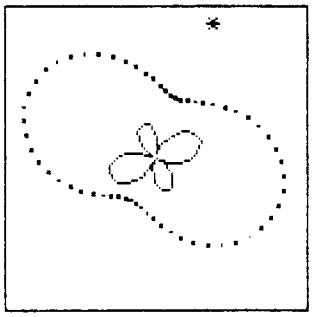
F=12 (9.0 Hz)



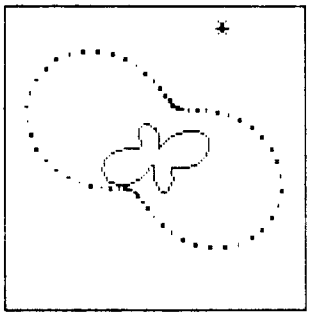
F=14 (4.5 Hz)



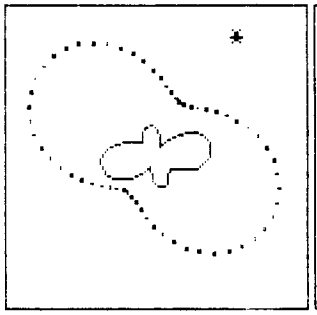
F=16 (2.3 Hz)



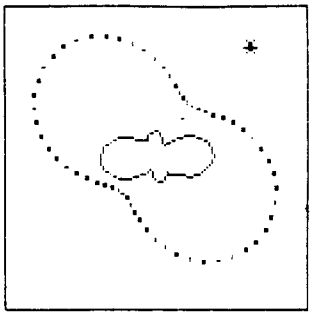
F=18 (1.1 Hz)



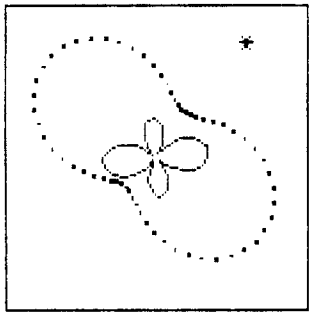
F=20 (.5625 Hz)



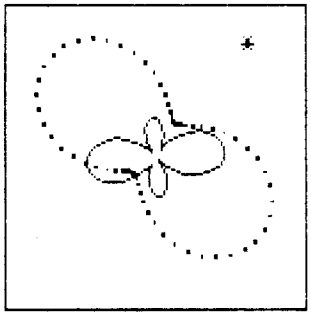
F=22 (.2813 Hz)



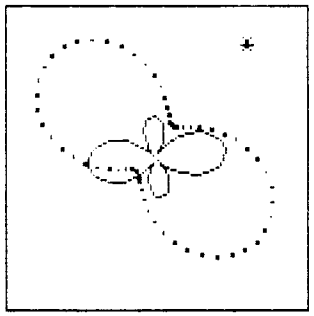
F=24 (.1406 Hz)



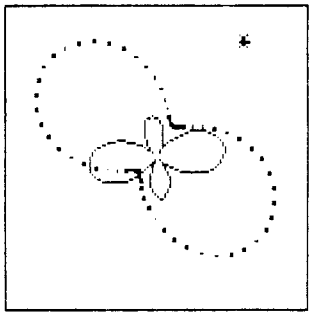
F=26 (.0703 Hz)



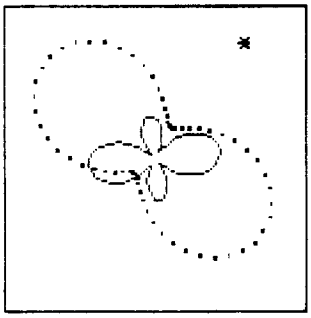
F=28 (.0352 Hz)



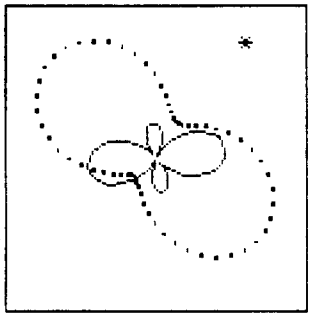
F=30 (.0176 Hz)



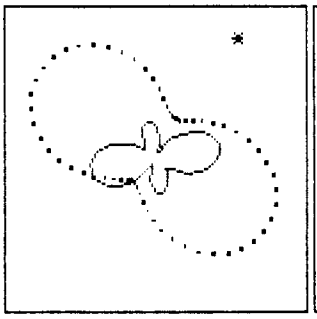
F=32 (.0088 Hz)



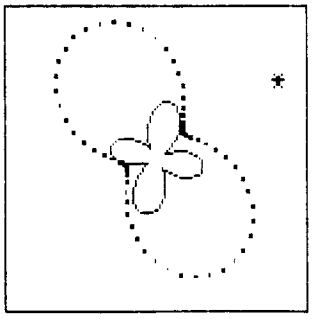
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-027s/028s/032s/

Operator:STEWART
Date: 30 Aug 1989
Time: 12:12:41

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-028s
Site Desc:T43N R3E SEC12 SE4
41,34,39 N 121,34,18 W
Elevation:6890 FT
Reference:MDLK89-027s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL235	+45 DEG
Hy	7	COIL432	+135 DEG
Hz	8	LOOP005	
Ex	9	190 M	+45 DEG
Ey	10	180 M	+135 DEG
Rx	1	COIL430	+45 DEG
Ry	2	COIL431	+135 DEG

Ex Pot Resist: 8.0 K Ohms
Ex Voltage: AC=13.8 mv, DC=____ mv
Ey Pot Resist: 9.0 K Ohms
Ey Voltage: AC=_19_ mv, DC=_212 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

OPERATOR LOG FOR MT SITES MDLK89-027a/028a/032a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-027a/028a/032a/
Run STARTED: 12:12:41 30 Aug 1989
Run QUIT: 03:29:38 31 Aug 1989
Run Start and Stop Time for MDLK89-027b/028b/032b/
Run STARTED: 04:06:36 31 Aug 1989
Run QUIT: 09:46:06 31 Aug 1989

Operator:STEWART

Cultural Factors:
NONE
Weather Conditions:
CALM, COOL, DRY
Other Factors:

PHOENIX GEOSCIENCE

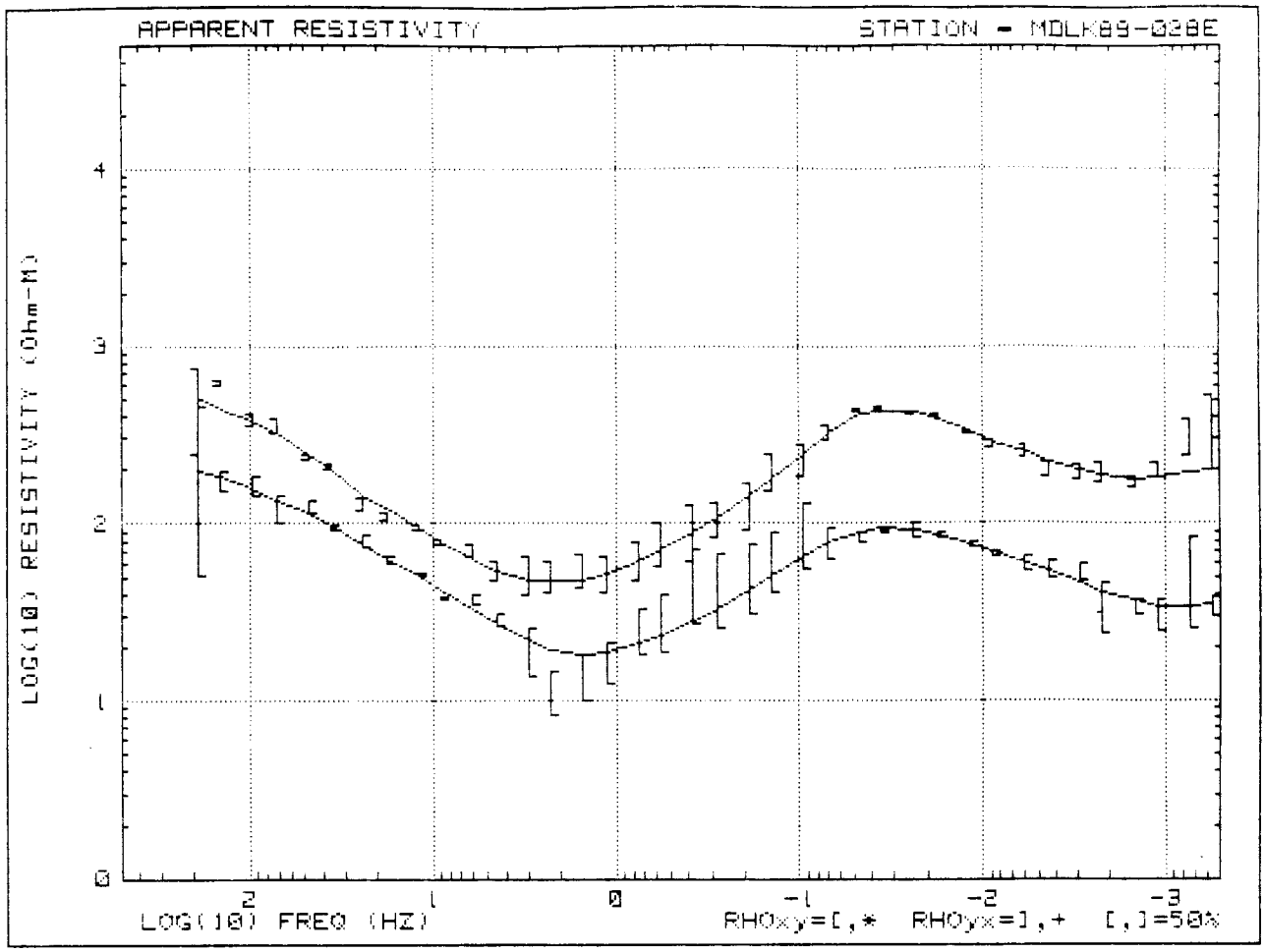
MT Site: MDLK89-028E

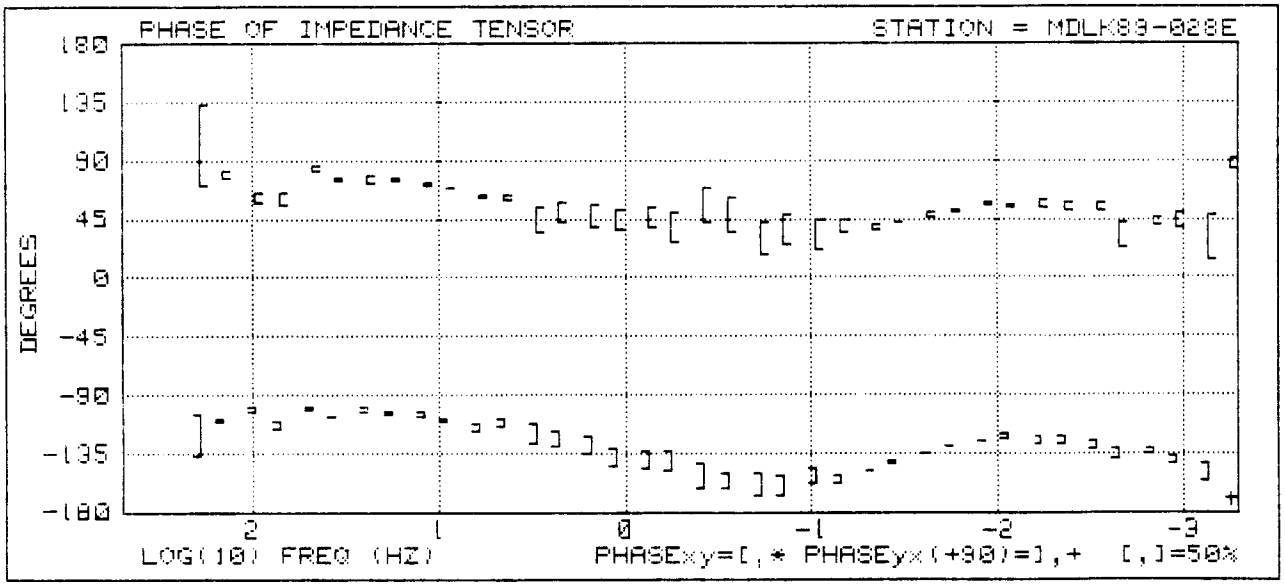
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

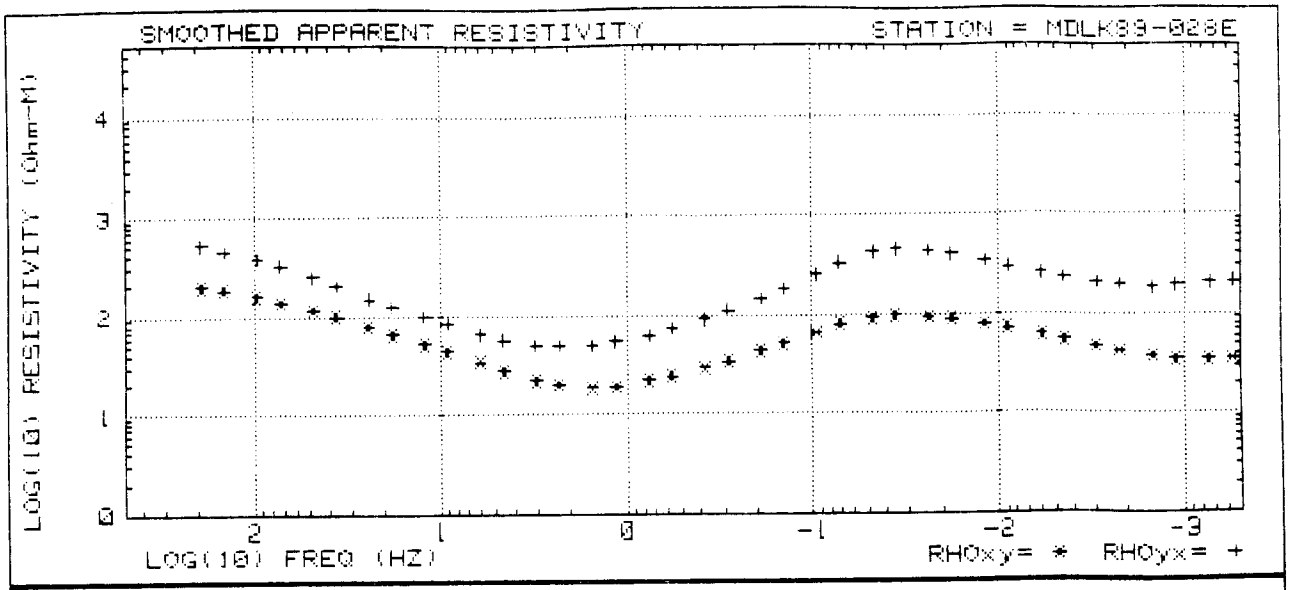
MT Site: MDLK89-028E

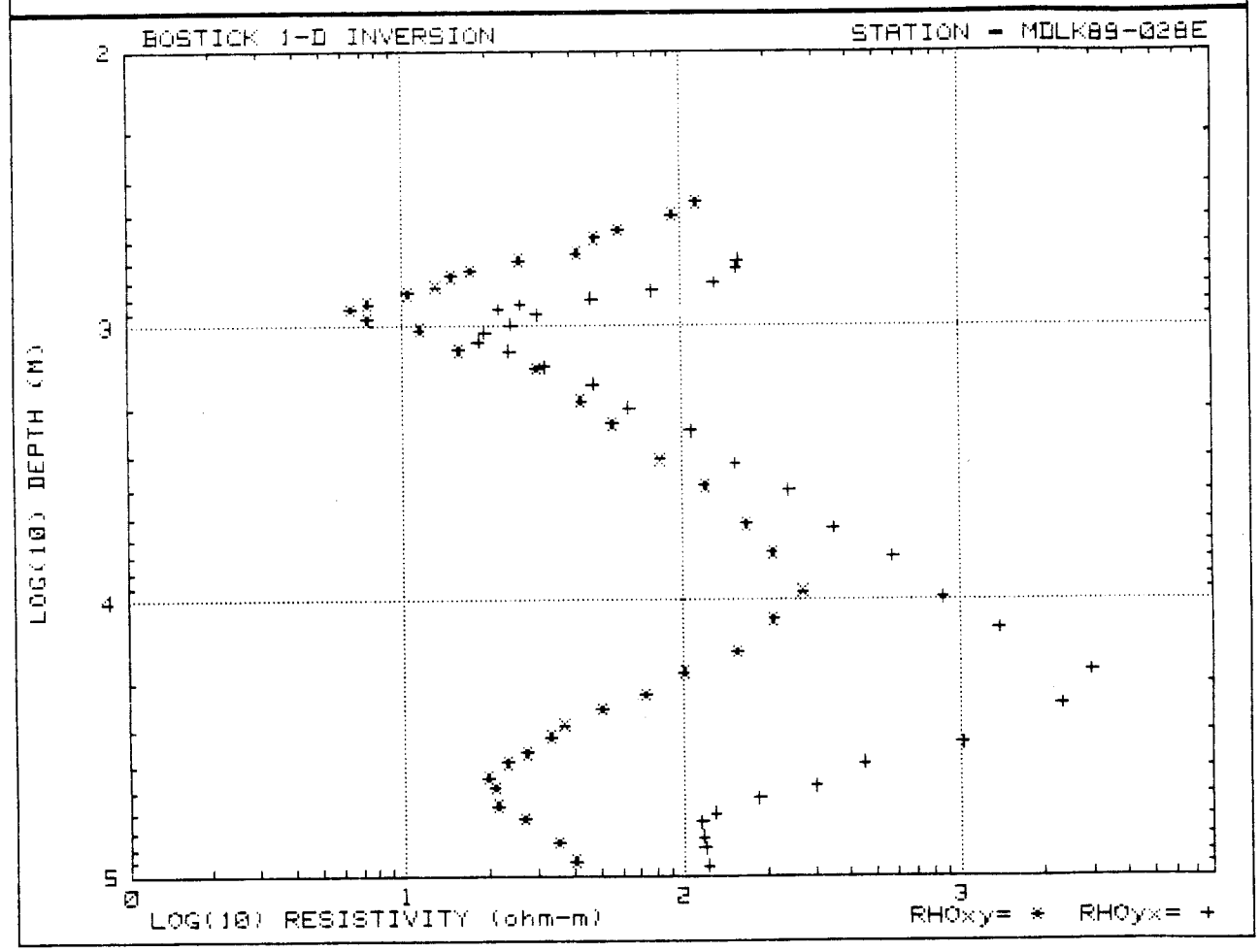




PHOENIX GEOSCIENCE

MT Site: MDLK89-028E





PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	189	153.4	99.9	428.0	99.9	102.5	46.7	-121.4	24.1
4	144.00 Hz	378	171.7	18.5	620.9	6.1	78.8	4.9	-109.5	1.7
5	96.00 Hz	286	161.8	18.5	385.9	12.0	60.9	4.9	-101.2	3.2
6	72.00 Hz	382	120.7	27.0	357.9	15.4	59.6	6.8	-113.8	4.1
7	48.00 Hz	288	124.6	10.5	234.6	6.3	83.1	2.9	-100.6	1.7
8	36.00 Hz	475	95.4	4.4	208.7	3.5	75.0	1.2	-106.5	1.0
9	24.00 Hz	288	79.8	11.5	127.7	11.1	75.5	3.1	-100.6	3.0
10	18.00 Hz	672	62.7	6.0	108.5	6.7	75.3	1.7	-104.2	1.9
11	12.00 Hz	480	52.2	3.0	95.6	6.1	72.1	.9	-104.7	1.7
12	9.00 Hz	480	38.2	2.7	79.3	3.9	68.6	.8	-109.7	1.1
13	6.00 Hz	96	37.0	8.7	69.7	12.3	62.0	2.4	-115.2	3.3
14	4.50 Hz	192	28.6	12.9	53.8	20.1	61.5	3.5	-111.3	5.2
15	3.00 Hz	2752	18.8	60.3	50.9	46.4	44.2	13.5	-119.6	10.9
16	2.25 Hz	8320	11.0	49.6	50.7	34.9	49.6	11.5	-123.8	8.6
17	1.50 Hz	7917	13.5	56.3	54.7	39.5	47.1	12.8	-129.0	9.5
18	1.13 Hz	5074	16.4	47.9	52.0	41.1	43.9	11.2	-138.1	9.9
19	1.33 Sec	3622	24.4	55.0	61.2	45.5	46.2	12.5	-139.6	10.7
20	1.78 Sec	2793	27.3	78.3	76.9	50.8	38.2	16.6	-141.0	11.8
21	2.67 Sec	1921	44.4	99.9	87.4	68.8	55.6	20.2	-151.9	15.0
22	3.56 Sec	1566	41.8	99.9	105.5	38.1	48.1	20.6	-156.0	9.3
23	5.33 Sec	687	48.6	93.7	122.9	54.9	30.7	18.9	-158.5	12.5
24	7.11 Sec	507	60.4	77.3	190.6	43.0	36.3	16.4	-159.8	10.3
25	10.67 Sec	701	85.5	84.7	227.5	34.9	33.4	17.6	-151.4	8.6
26	14.22 Sec	719	77.5	33.2	322.9	13.7	39.5	8.2	-154.8	3.7
27	21.33 Sec	279	84.4	10.3	432.9	3.7	38.4	2.8	-148.2	1.0
28	28.44 Sec	321	90.0	3.2	451.1	1.7	42.1	.9	-141.5	.5
29	42.67 Sec	270	91.2	14.6	420.1	3.5	47.9	3.9	-134.9	1.0
30	56.89 Sec	144	86.7	5.5	403.8	3.3	50.4	1.5	-129.4	.9
31	85.33 Sec	105	77.1	4.4	325.1	2.2	56.1	1.2	-125.4	.6
32	113.78 Sec	36	67.5	5.3	276.4	7.3	53.9	1.5	-121.6	2.0
33	170.67 Sec	39	59.3	16.1	252.6	12.6	57.5	4.3	-124.6	3.4
34	227.56 Sec	30	54.8	16.1	201.7	12.9	55.2	4.3	-124.9	3.5
35	341.33 Sec	12	53.0	16.9	193.4	15.4	54.3	4.5	-128.3	4.1
36	455.11 Sec	15	33.4	62.7	193.6	21.5	33.5	13.9	-134.8	5.6
37	682.67 Sec	6	34.0	13.2	172.0	9.9	43.4	3.5	-133.6	2.7
38	910.22 Sec	9	30.6	34.8	201.7	15.6	44.5	8.5	-139.0	4.2
39	1365.33 Sec	3	46.2	99.9	304.6	43.0	30.7	25.6	-149.9	10.2
40	1820.44 Sec	6	34.4	20.3	326.8	99.9	87.5	5.3	-170.4	21.3

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	189	197.0	518.8	114.7	360	161.2	585
4	144.00 Hz	378	182.6	446.0	93.0	401	159.4	626
5	96.00 Hz	286	157.2	373.7	59.8	455	131.7	702
6	72.00 Hz	382	133.8	320.0	49.6	485	79.2	750
7	48.00 Hz	288	114.4	246.0	42.5	549	48.0	806
8	36.00 Hz	475	97.4	200.6	26.5	585	26.8	840
9	24.00 Hz	288	77.0	144.8	17.7	637	22.3	874
10	18.00 Hz	672	63.1	120.7	15.0	666	30.4	922
11	12.00 Hz	480	50.2	95.7	13.2	728	24.5	1005
12	9.00 Hz	480	42.1	80.1	10.5	770	19.9	1062
13	6.00 Hz	96	33.1	63.1	7.5	836	18.8	1154
14	4.50 Hz	192	27.2	55.1	6.5	875	24.3	1245
15	3.00 Hz	2752	21.6	48.2	7.5	955	32.5	1427
16	2.25 Hz	8320	19.4	48.1	11.5	1046	48.5	1645
17	1.50 Hz	7917	18.1	48.4	16.0	1236	64.8	2021
18	1.13 Hz	5074	18.6	53.2	30.5	1448	108.1	2447
19	1.33 Sec	3622	21.4	61.2	44.1	1901	156.6	3216
20	1.78 Sec	2793	23.7	72.0	56.6	2308	244.5	4028
21	2.67 Sec	1921	28.4	89.3	83.9	3100	351.9	5493
22	3.56 Sec	1566	33.3	108.8	120.6	3873	577.8	7000
23	5.33 Sec	687	42.1	143.4	170.2	5336	878.8	9843
24	7.11 Sec	507	50.6	179.2	211.3	6750	1386.0	12703
25	10.67 Sec	701	64.5	244.8	273.7	9334	2994.1	18185
26	14.22 Sec	719	77.7	322.7	214.8	11829	2331.0	24110
27	21.33 Sec	279	89.3	413.6	158.7	15529	1019.4	33430
28	28.44 Sec	321	94.3	432.6	100.7	18435	451.9	39476
29	42.67 Sec	270	91.3	419.9	73.4	22209	303.0	47637
30	56.89 Sec	144	87.5	386.7	51.1	25105	188.9	52784
31	85.33 Sec	105	76.1	330.9	37.6	28674	130.6	59805
32	113.78 Sec	36	69.2	286.2	33.8	31570	116.3	64220
33	170.67 Sec	39	60.0	247.0	27.4	36006	117.6	73064
34	227.56 Sec	30	53.4	223.8	23.5	39231	119.7	80315
35	341.33 Sec	12	45.8	200.2	20.1	44494	122.9	93029
36	455.11 Sec	15	40.7	189.6	21.0	48455	130.8	104551
37	682.67 Sec	6	36.7	176.3	21.5	56336	162.4	123457
38	910.22 Sec	9	34.0	184.3	26.9	62603	257.4	145766
39	1365.33 Sec	3	33.9	197.7	35.9	76541	267.3	184900
40	1820.44 Sec	6	34.7	204.5	40.9	89436	258.6	217125

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	189	154.49	168.02	999.99	-83.23	374.62	999.99
4	144.00 Hz	378	46.04	101.38	735.73	68.06	344.96	999.99
5	96.00 Hz	286	-4.34	31.09	284.16	135.60	243.51	999.99
6	72.00 Hz	382	7.70	20.25	302.49	105.37	179.85	999.99
7	48.00 Hz	288	3.76	13.93	49.27	20.74	171.68	150.32
8	36.00 Hz	475	-.61	8.47	5.21	33.97	126.59	15.67
9	24.00 Hz	288	-1.81	-1.30	19.24	24.48	94.75	57.10
10	18.00 Hz	672	.97	2.66	4.51	19.11	72.68	9.62
11	12.00 Hz	480	-.17	1.66	2.04	17.24	53.26	1.39
12	9.00 Hz	480	1.94	1.99	.47	15.12	38.62	.62
13	6.00 Hz	96	-1.48	.98	3.33	15.62	29.41	3.86
14	4.50 Hz	192	-.43	-.01	3.98	12.12	22.27	4.75
15	3.00 Hz	2752	-1.73	-2.38	21.23	12.04	11.69	31.30
16	2.25 Hz	8320	-.43	-1.30	9.92	7.23	8.49	10.07
17	1.50 Hz	7917	1.65	-.27	6.53	6.85	7.36	10.08
18	1.13 Hz	5074	1.24	.05	4.38	6.92	6.67	7.08
19	1.33 Sec	3622	.726	-1.056	6.205	6.615	6.896	8.758
20	1.78 Sec	2793	1.111	-1.331	7.672	6.880	5.421	12.840
21	2.67 Sec	1921	-1.771	.587	14.893	5.147	7.530	20.755
22	3.56 Sec	1566	-1.581	.045	7.467	5.115	5.709	15.165
23	5.33 Sec	687	1.136	-.689	7.916	5.805	3.441	9.954
24	7.11 Sec	507	.348	-.896	6.339	5.250	3.863	6.961
25	10.67 Sec	701	.853	.479	3.657	5.287	3.485	7.545
26	14.22 Sec	719	.836	.317	.969	4.030	3.318	1.120
27	21.33 Sec	279	.915	.131	.031	3.488	2.760	.095
28	28.44 Sec	321	.698	.246	.005	2.951	2.666	.008
29	42.67 Sec	270	.674	.275	.207	2.193	2.426	.099
30	56.89 Sec	144	.566	.293	.025	1.758	2.127	.011
31	85.33 Sec	105	.490	.355	.002	1.184	1.764	.004
32	113.78 Sec	36	.253	.235	.028	1.015	1.391	.004
33	170.67 Sec	39	.310	.131	.044	.708	1.111	.019
34	227.56 Sec	30	.258	.148	.022	.626	.901	.013
35	341.33 Sec	12	.161	.174	.011	.514	.716	.010
36	455.11 Sec	15	-.044	.087	.050	.505	.334	.043
37	682.67 Sec	6	.019	.133	.002	.363	.343	.002
38	910.22 Sec	9	.027	.027	.011	.292	.288	.007
39	1365.33 Sec	3	-.031	.078	.067	.353	.210	.067
40	1820.44 Sec	6	.197	.150	.054	.013	.307	.002

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	189	-334.33	-546.91	999.99	244.80	-50.85	999.99
4	144.00 Hz	378	-223.56	-630.15	785.17	62.52	92.99	999.99
5	96.00 Hz	286	-83.28	-422.23	999.99	19.83	38.17	999.99
6	72.00 Hz	382	-144.60	-328.56	999.99	-27.63	29.57	999.99
7	48.00 Hz	288	-43.66	-233.23	104.24	7.56	12.52	318.04
8	36.00 Hz	475	-55.04	-185.84	22.25	-4.54	9.87	66.95
9	24.00 Hz	288	-22.82	-121.67	85.41	4.95	-.88	253.48
10	18.00 Hz	672	-24.22	-95.79	20.75	-.80	3.05	44.21
11	12.00 Hz	480	-19.26	-73.24	10.09	1.99	1.44	6.87
12	9.00 Hz	480	-20.16	-56.23	2.59	3.65	1.50	3.40
13	6.00 Hz	96	-19.49	-41.37	14.05	-1.14	.87	16.30
14	4.50 Hz	192	-12.62	-32.41	20.24	1.58	-.11	24.16
15	3.00 Hz	2752	-13.63	-24.03	55.38	9.04	-3.77	81.66
16	2.25 Hz	8320	-13.29	-19.84	25.59	3.08	-3.18	25.96
17	1.50 Hz	7917	-12.75	-15.73	22.72	1.21	.04	35.06
18	1.13 Hz	5074	-12.72	-11.43	17.37	.33	1.16	28.06
19	1.33 Sec	3622	-11.528	-9.823	16.149	-.385	.808	22.792
20	1.78 Sec	2793	-11.431	-9.255	18.264	-.564	.657	30.568
21	2.67 Sec	1921	-11.296	-6.022	22.480	-1.559	1.453	31.327
22	3.56 Sec	1566	-11.125	-4.957	7.740	-1.481	.850	15.721
23	5.33 Sec	687	-9.985	-3.938	11.023	1.082	-.236	13.861
24	7.11 Sec	507	-10.865	-3.996	8.588	.325	.079	9.429
25	10.67 Sec	701	-9.070	-4.936	4.789	1.275	-.624	9.883
26	14.22 Sec	719	-9.638	-4.543	.930	.867	.172	1.075
27	21.33 Sec	279	-8.559	-5.311	.067	.958	.045	.203
28	28.44 Sec	321	-6.968	-5.545	.012	.709	.232	.020
29	42.67 Sec	270	-4.954	-4.969	.029	.539	.422	.014
30	56.89 Sec	144	-3.783	-4.602	.019	.475	.368	.008
31	85.33 Sec	105	-2.529	-3.557	.004	.374	.442	.008
32	113.78 Sec	36	-1.827	-2.968	.030	.158	.284	.004
33	170.67 Sec	39	-1.546	-2.238	.052	.144	.255	.023
34	227.56 Sec	30	-1.206	-1.725	.032	.090	.266	.019
35	341.33 Sec	12	-1.044	-1.321	.029	.121	.209	.024
36	455.11 Sec	15	-1.028	-1.034	.040	.100	-.021	.035
37	682.67 Sec	6	-.774	-.813	.006	.075	.084	.005
38	910.22 Sec	9	-.795	-.690	.012	.023	.032	.008
39	1365.33 Sec	3	-.914	-.530	.071	.038	-.042	.072
40	1820.44 Sec	6	-.934	-.158	.247	.095	-.482	.007

PHOENIX GEOSCIENCE

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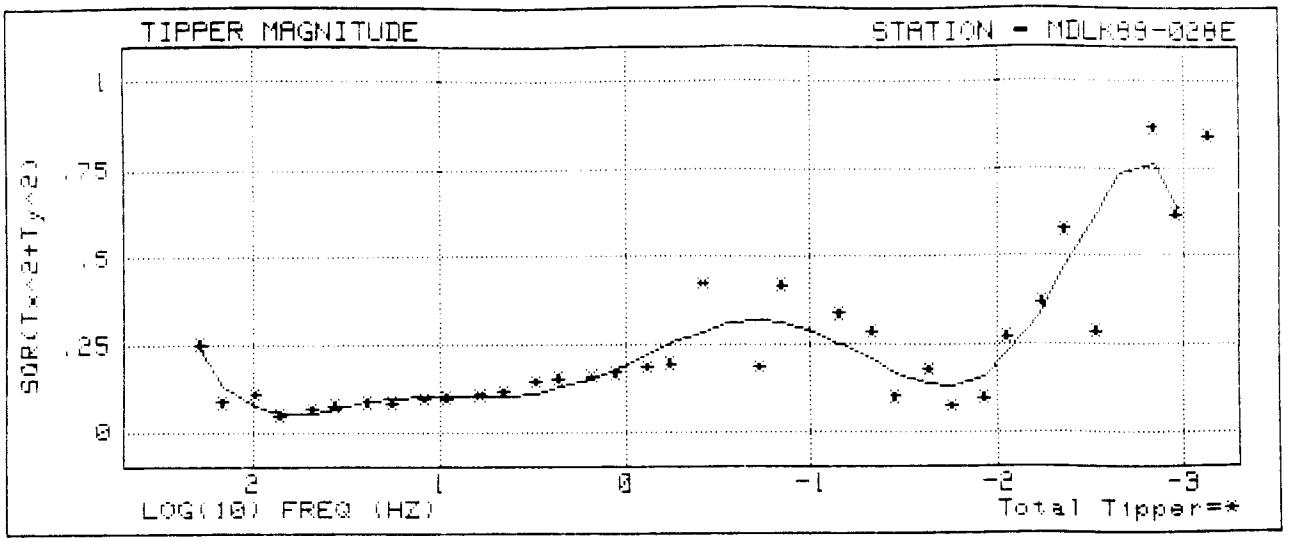

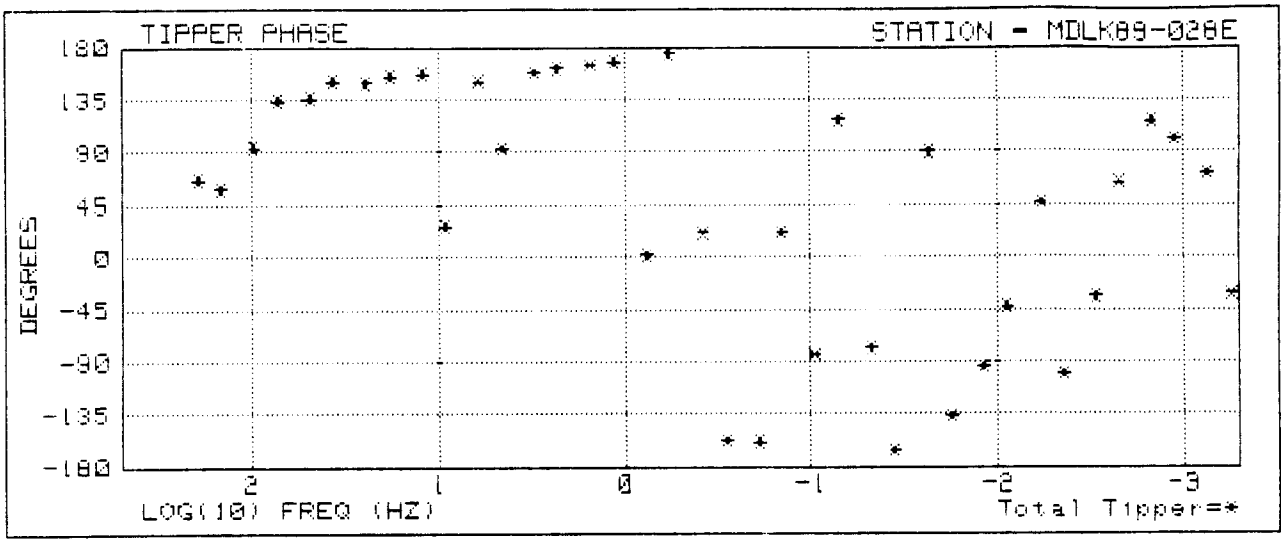

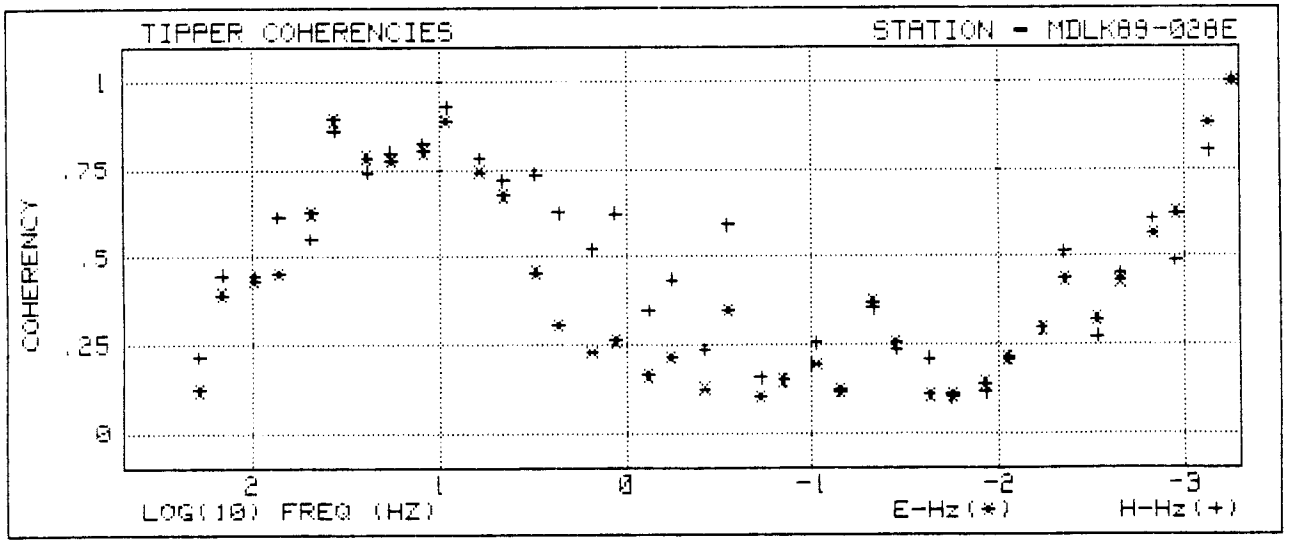

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	189	.25	65.38	.12	.21
4	144.00 Hz	378	.08	57.64	.39	.45
5	96.00 Hz	286	.11	93.01	.43	.44
6	72.00 Hz	382	.05	132.50	.45	.61
7	48.00 Hz	288	.06	134.71	.62	.55
8	36.00 Hz	475	.07	149.55	.89	.86
9	24.00 Hz	288	.08	148.21	.78	.74
10	18.00 Hz	672	.08	153.50	.77	.79
11	12.00 Hz	480	.09	156.03	.80	.82
12	9.00 Hz	480	.09	25.17	.88	.92
13	6.00 Hz	96	.10	149.46	.74	.78
14	4.50 Hz	192	.11	92.17	.67	.71
15	3.00 Hz	2752	.14	156.98	.45	.73
16	2.25 Hz	8320	.15	160.66	.30	.62
17	1.50 Hz	7917	.16	163.57	.22	.52
18	1.13 Hz	5074	.17	166.54	.26	.62
19	1.33 Sec	3622	.18	1.27	.16	.35
20	1.78 Sec	2793	.19	173.47	.21	.43
21	2.67 Sec	1921	.42	19.83	.12	.23
22	3.56 Sec	1566	1.23	-157.86	.34	.59
23	5.33 Sec	687	.18	-159.31	.10	.15
24	7.11 Sec	507	.42	20.89	.15	.15
25	10.67 Sec	701	1.90	-84.52	.19	.25
26	14.22 Sec	719	.33	116.49	.12	.11
27	21.33 Sec	279	.28	-78.88	.37	.35
28	28.44 Sec	321	.10	-166.78	.25	.23
29	42.67 Sec	270	.18	89.64	.10	.21
30	56.89 Sec	144	.07	-137.26	.10	.10
31	85.33 Sec	105	.09	-95.22	.14	.11
32	113.78 Sec	36	.27	-43.67	.21	.21
33	170.67 Sec	39	.37	45.63	.29	.29
34	227.56 Sec	30	.57	-101.35	.43	.51
35	341.33 Sec	12	.28	-34.79	.32	.27
36	455.11 Sec	15	1.28	63.54	.43	.45
37	682.67 Sec	6	.86	115.70	.56	.60
38	910.22 Sec	9	.61	100.66	.62	.49
39	1365.33 Sec	3	.84	71.11	.88	.80
40	1820.44 Sec	6	26.27	-33.02	1.00	1.00

PHOENIX GEOSCIENCE

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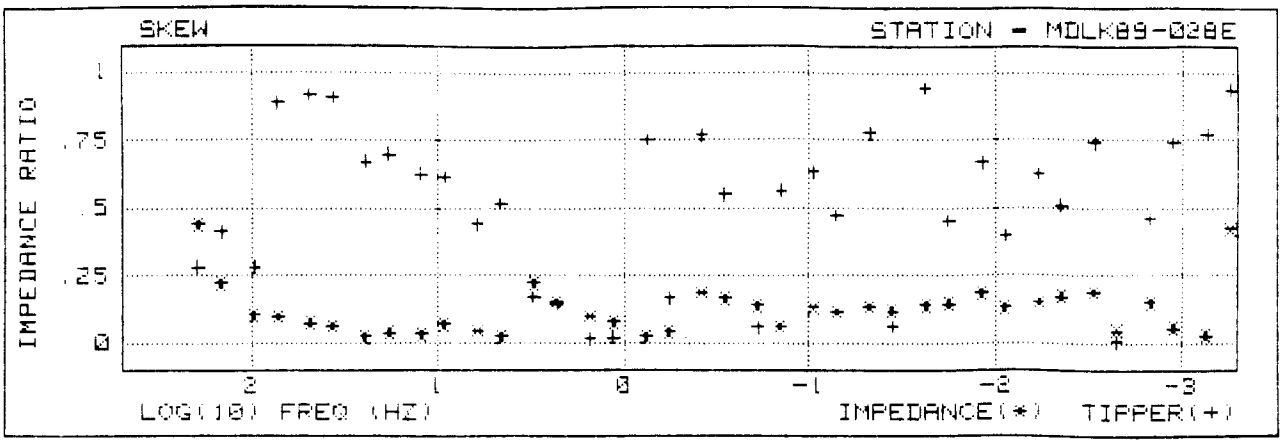
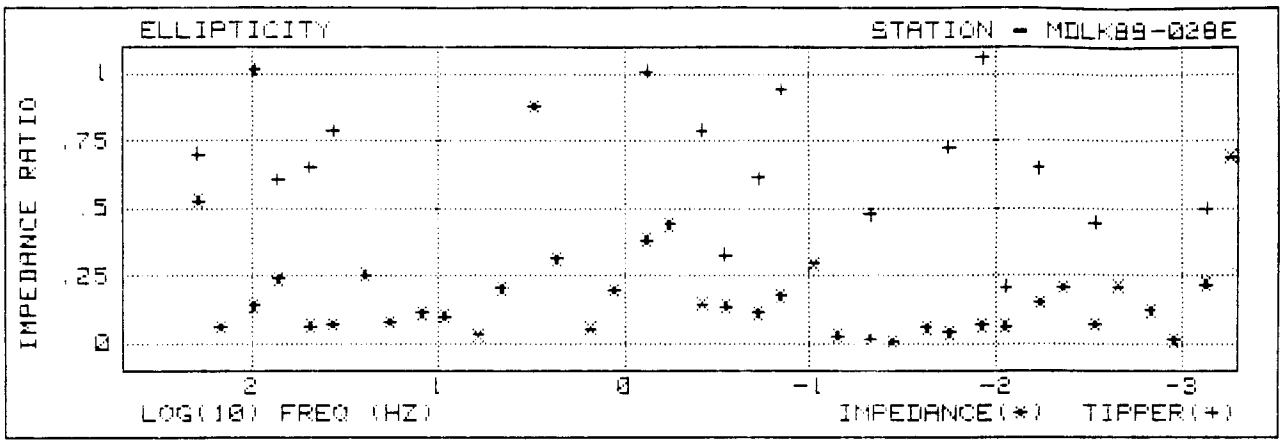
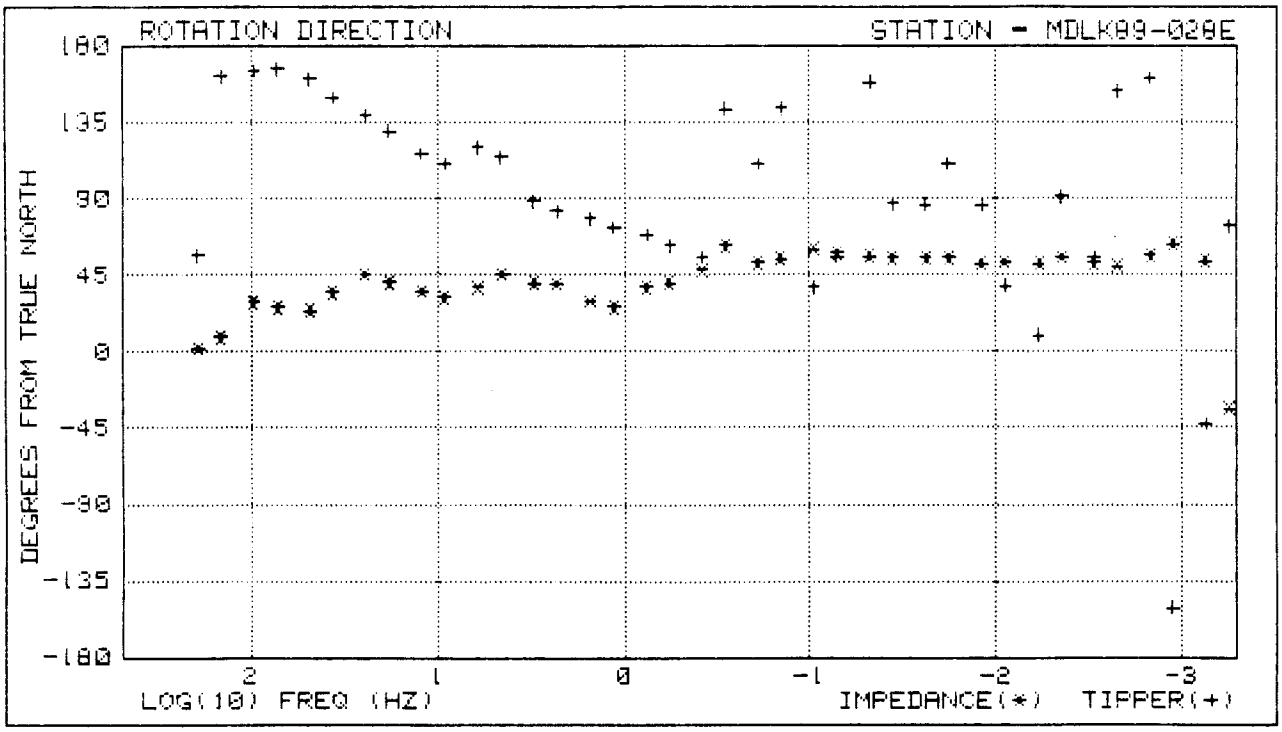






PHOENIX GEOSCIENCE

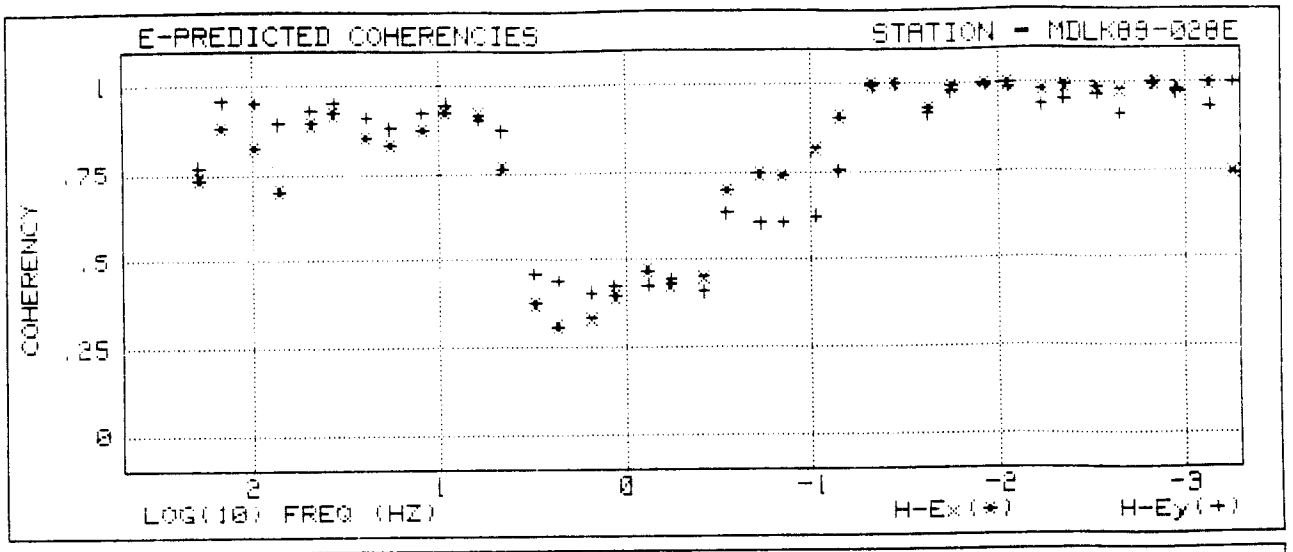
MT Site: MDLK89-028E

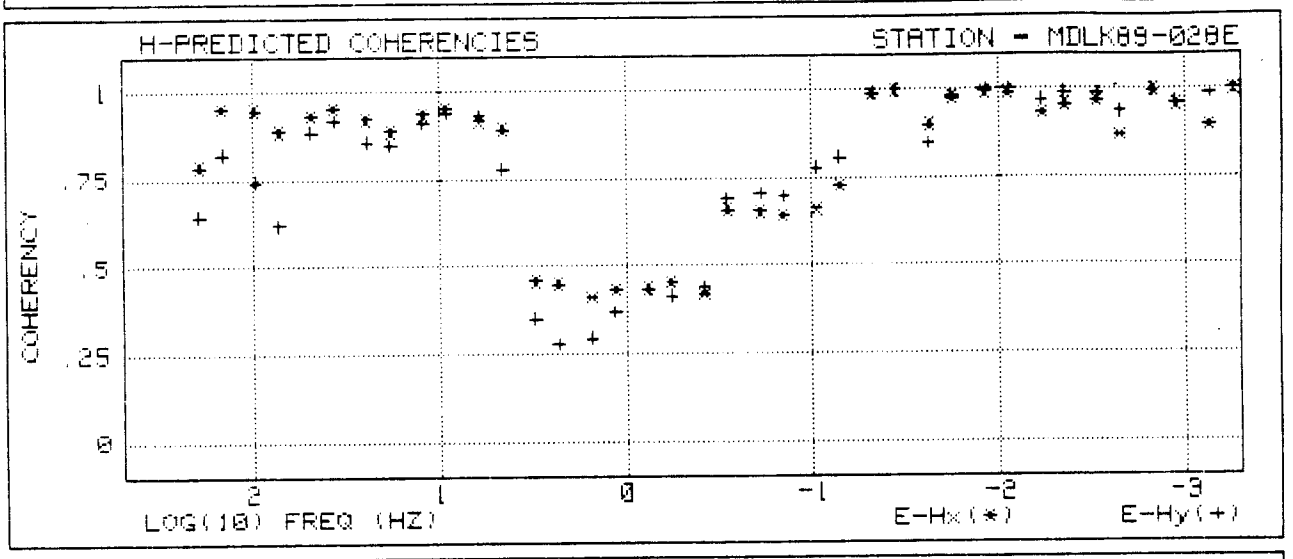
SKEW, ELLIPTICITY AND STRIKE

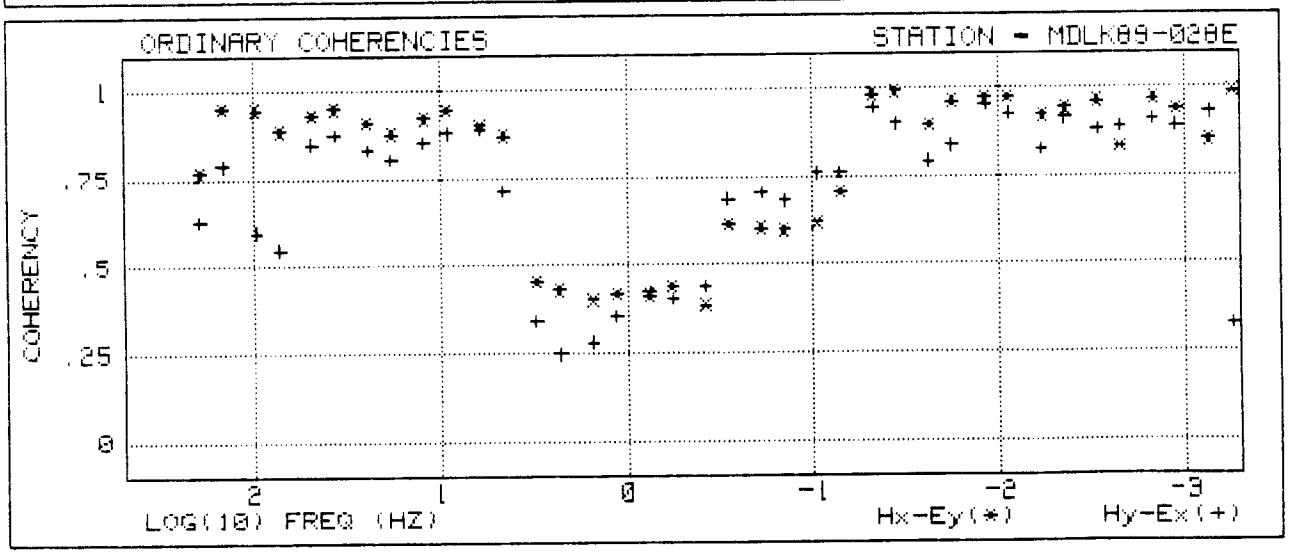
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	189	.44	.52	1.28	.28	.70	55.69
4	144.00 Hz	378	.22	.06	8.11	.41	1.76	161.43
5	96.00 Hz	286	.10	.14	28.20	.28	1.01	164.51
6	72.00 Hz	382	.09	.24	25.29	.88	.60	165.87
7	48.00 Hz	288	.07	.06	23.24	.91	.65	159.92
8	36.00 Hz	475	.06	.07	33.87	.90	.78	148.94
9	24.00 Hz	288	.02	.25	44.69	.67	1.44	138.30
10	18.00 Hz	672	.03	.08	39.98	.70	1.17	128.82
11	12.00 Hz	480	.03	.11	34.69	.62	1.18	115.36
12	9.00 Hz	480	.07	.10	31.43	.61	1.33	109.98
13	6.00 Hz	96	.04	.03	37.17	.44	1.60	119.16
14	4.50 Hz	192	.02	.20	44.59	.51	2.24	113.68
15	3.00 Hz	2752	.22	.87	39.21	.17	2.66	87.81
16	2.25 Hz	8320	.15	.31	38.83	.14	2.36	81.96
17	1.50 Hz	7917	.09	.05	28.76	.01	1.48	77.29
18	1.13 Hz	5074	.07	.19	25.20	.02	1.32	72.14
19	1.33 Sec	3622	.02	.38	36.78	.75	1.00	68.05
20	1.78 Sec	2793	.04	.44	39.33	.16	2.07	61.52
21	2.67 Sec	1921	.18	.14	47.06	.76	.79	54.98
22	3.56 Sec	1566	.16	.13	61.74	.55	.32	142.02
23	5.33 Sec	687	.14	.11	51.24	.06	.61	109.97
24	7.11 Sec	507	.06	.17	53.94	.56	.94	142.77
25	10.67 Sec	701	.13	.29	59.77	.63	1.93	37.08
26	14.22 Sec	719	.11	.03	57.15	.47	1.75	54.76
27	21.33 Sec	279	.13	.02	55.16	.77	.47	157.82
28	28.44 Sec	321	.12	.00	54.40	.06	1.61	86.24
29	42.67 Sec	270	.14	.05	54.44	.94	1.43	85.74
30	56.89 Sec	144	.14	.04	54.44	.45	.72	109.79
31	85.33 Sec	105	.18	.06	50.75	.66	1.05	85.52
32	113.78 Sec	36	.13	.06	52.07	.39	.20	37.83
33	170.67 Sec	39	.15	.15	51.13	.62	.65	8.98
34	227.56 Sec	30	.17	.20	54.72	.51	1.23	90.37
35	341.33 Sec	12	.19	.07	51.41	.74	.44	54.38
36	455.11 Sec	15	.04	.21	49.46	.00	1.49	152.69
37	682.67 Sec	6	.15	.12	55.86	.46	3.53	160.17
38	910.22 Sec	9	.05	.01	62.40	.74	1.22	-151.35
39	1365.33 Sec	3	.02	.21	52.38	.77	.50	-43.35
40	1820.44 Sec	6	.42	.69	-34.25	.93	1.34	73.23

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E







PHOENIX GEOSCIENCE

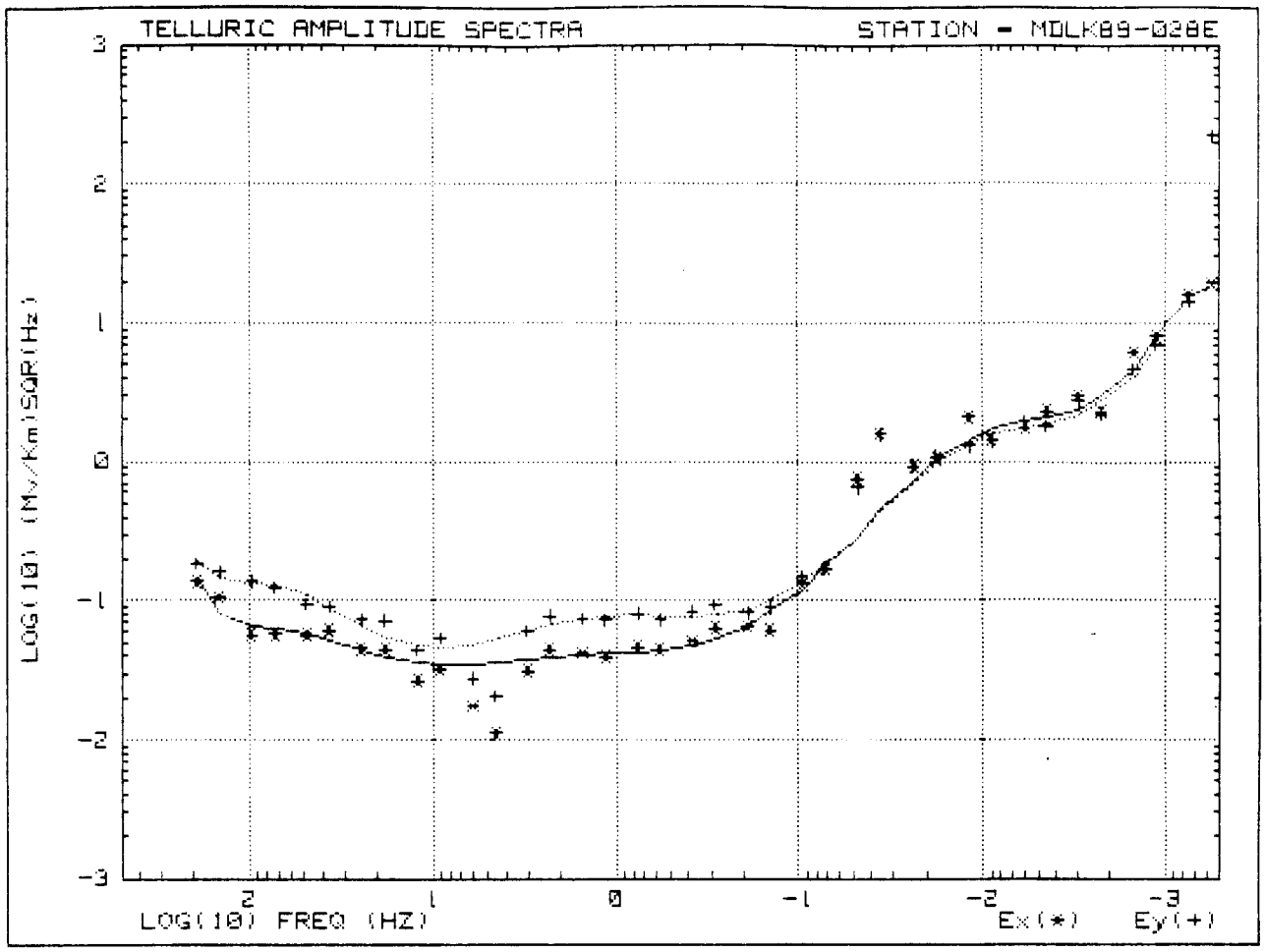
MT Site: MDLK89-028E

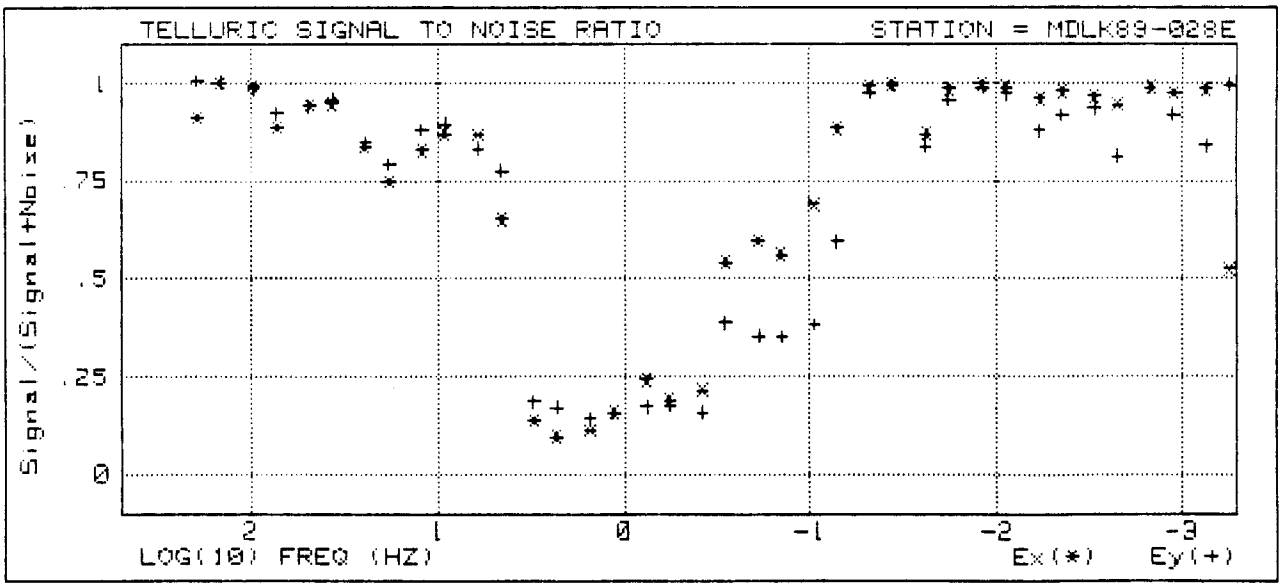
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	189	.73	.77	.78	.64	.76	.62
4	144.00 Hz	378	.88	.95	.95	.82	.95	.78
5	96.00 Hz	286	.82	.95	.94	.74	.94	.59
6	72.00 Hz	382	.70	.89	.88	.61	.88	.54
7	48.00 Hz	288	.89	.93	.93	.88	.93	.84
8	36.00 Hz	475	.92	.95	.95	.91	.94	.87
9	24.00 Hz	288	.85	.91	.92	.85	.90	.83
10	18.00 Hz	672	.83	.87	.88	.84	.87	.80
11	12.00 Hz	480	.87	.92	.93	.91	.92	.85
12	9.00 Hz	480	.92	.94	.95	.93	.94	.88
13	6.00 Hz	96	.92	.90	.91	.92	.90	.88
14	4.50 Hz	192	.76	.87	.89	.77	.87	.71
15	3.00 Hz	2752	.37	.46	.45	.35	.45	.34
16	2.25 Hz	8320	.31	.44	.44	.27	.43	.24
17	1.50 Hz	7917	.33	.40	.41	.29	.40	.28
18	1.13 Hz	5074	.39	.42	.43	.37	.42	.35
19	1.33 Sec	3622	.47	.42	.43	.43	.41	.42
20	1.78 Sec	2793	.43	.44	.45	.41	.44	.40
21	2.67 Sec	1921	.45	.41	.41	.44	.38	.43
22	3.56 Sec	1566	.69	.63	.66	.69	.61	.68
23	5.33 Sec	687	.74	.60	.65	.70	.60	.70
24	7.11 Sec	507	.74	.60	.64	.70	.59	.68
25	10.67 Sec	701	.81	.62	.66	.78	.62	.76
26	14.22 Sec	719	.90	.75	.72	.80	.70	.76
27	21.33 Sec	279	.99	.99	.98	.99	.98	.94
28	28.44 Sec	321	1.00	1.00	.99	.99	.99	.90
29	42.67 Sec	270	.93	.91	.89	.84	.89	.79
30	56.89 Sec	144	.99	.97	.97	.98	.96	.83
31	85.33 Sec	105	1.00	.99	.99	1.00	.97	.95
32	113.78 Sec	36	.99	.98	.99	.99	.97	.92
33	170.67 Sec	39	.98	.93	.93	.96	.92	.82
34	227.56 Sec	30	.99	.95	.95	.98	.94	.91
35	341.33 Sec	12	.98	.96	.96	.98	.96	.88
36	455.11 Sec	15	.97	.91	.86	.93	.83	.88
37	682.67 Sec	6	.99	.99	.99	.99	.96	.91
38	910.22 Sec	9	.98	.97	.95	.96	.93	.89
39	1365.33 Sec	3	.99	.93	.89	.98	.85	.92
40	1820.44 Sec	6	.74	1.00	.99	1.00	.99	.32

PHOENIX GEOSCIENCE

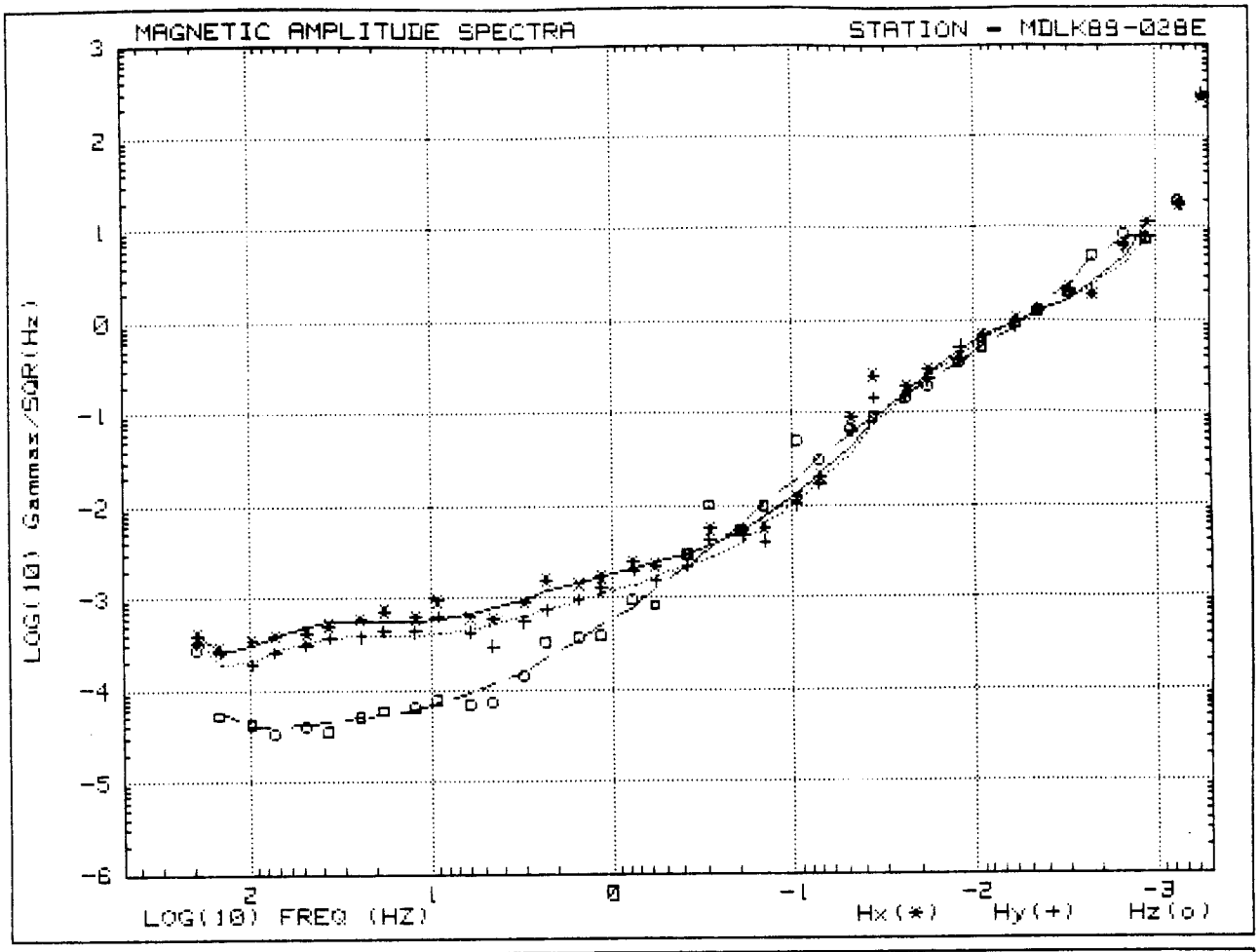
MT Site: MDLK89-028E

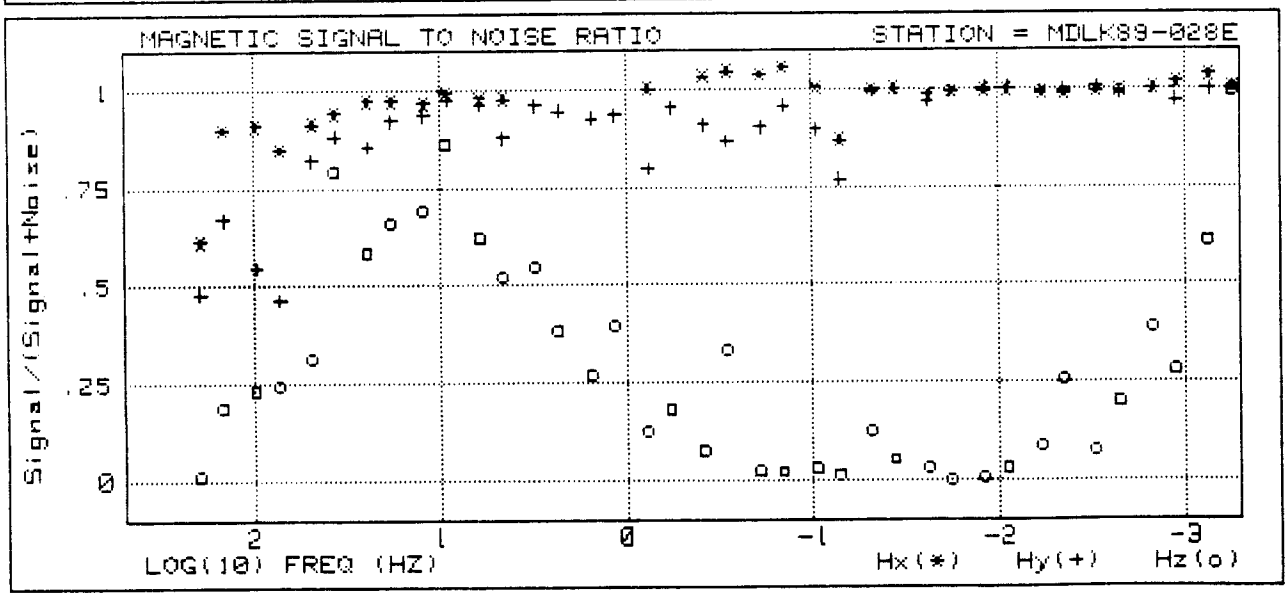




PHOENIX GEOSCIENCE

MT Site: MDLK89-028E





PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	189	3.92E-04	3.23E-04	2.88E-04	1.36E-01	1.83E-01
4	144.00 Hz	378	2.71E-04	2.50E-04	5.53E-05	1.04E-01	1.62E-01
5	96.00 Hz	286	3.43E-04	1.88E-04	4.57E-05	5.58E-02	1.35E-01
6	72.00 Hz	382	3.83E-04	2.52E-04	3.57E-05	5.61E-02	1.22E-01
7	48.00 Hz	288	4.12E-04	3.04E-04	4.25E-05	5.57E-02	9.24E-02
8	36.00 Hz	475	5.02E-04	3.61E-04	3.66E-05	6.00E-02	8.89E-02
9	24.00 Hz	288	5.87E-04	3.75E-04	5.40E-05	4.43E-02	7.14E-02
10	18.00 Hz	672	7.08E-04	4.31E-04	6.25E-05	4.38E-02	7.05E-02
11	12.00 Hz	480	6.09E-04	4.20E-04	6.69E-05	2.60E-02	4.33E-02
12	9.00 Hz	480	9.21E-04	6.24E-04	7.96E-05	3.16E-02	5.25E-02
13	6.00 Hz	96	6.05E-04	4.15E-04	7.19E-05	1.73E-02	2.72E-02
14	4.50 Hz	192	5.86E-04	2.89E-04	7.82E-05	1.10E-02	2.01E-02
15	3.00 Hz	2752	8.93E-04	5.39E-04	1.47E-04	3.07E-02	5.92E-02
16	2.25 Hz	8320	1.55E-03	7.22E-04	3.50E-04	4.38E-02	7.68E-02
17	1.50 Hz	7917	1.41E-03	9.33E-04	3.90E-04	4.17E-02	7.30E-02
18	1.13 Hz	5074	1.68E-03	1.24E-03	4.03E-04	3.91E-02	7.20E-02
19	1.33 Sec	3622	2.39E-03	1.95E-03	9.85E-04	4.56E-02	7.97E-02
20	1.78 Sec	2793	2.20E-03	1.49E-03	8.71E-04	4.37E-02	7.20E-02
21	2.67 Sec	1921	2.95E-03	2.20E-03	3.10E-03	5.07E-02	8.24E-02
22	3.56 Sec	1566	5.59E-03	4.16E-03	1.07E-02	6.25E-02	9.23E-02
23	5.33 Sec	687	5.37E-03	4.71E-03	5.87E-03	6.41E-02	8.08E-02
24	7.11 Sec	507	5.82E-03	4.07E-03	1.03E-02	6.00E-02	8.74E-02
25	10.67 Sec	701	1.20E-02	1.00E-02	5.23E-02	1.29E-01	1.47E-01
26	14.22 Sec	719	2.01E-02	1.68E-02	3.28E-02	1.69E-01	1.69E-01
27	21.33 Sec	279	8.95E-02	6.19E-02	7.03E-02	7.44E-01	6.47E-01
28	28.44 Sec	321	2.52E-01	1.44E-01	9.61E-02	1.56E+00	1.55E+00
29	42.67 Sec	270	1.93E-01	1.52E-01	1.53E-01	9.06E-01	9.13E-01
30	56.89 Sec	144	2.93E-01	2.29E-01	2.08E-01	1.04E+00	1.07E+00
31	85.33 Sec	105	3.83E-01	5.12E-01	3.82E-01	2.04E+00	1.26E+00
32	113.78 Sec	36	6.80E-01	6.75E-01	5.47E-01	1.42E+00	1.38E+00
33	170.67 Sec	39	9.96E-01	8.28E-01	9.86E-01	1.72E+00	1.88E+00
34	227.56 Sec	30	1.23E+00	1.32E+00	1.31E+00	2.29E+00	1.77E+00
35	341.33 Sec	12	2.17E+00	1.94E+00	2.09E+00	2.98E+00	2.70E+00
36	455.11 Sec	15	1.89E+00	1.91E+00	5.40E+00	2.28E+00	2.19E+00
37	682.67 Sec	6	6.47E+00	6.13E+00	8.97E+00	6.09E+00	4.64E+00
38	910.22 Sec	9	1.13E+01	7.77E+00	7.80E+00	7.94E+00	6.83E+00
39	1365.33 Sec	3	1.78E+01	1.76E+01	2.04E+01	1.56E+01	1.43E+01
40	1820.44 Sec	6	2.55E+02	2.78E+02	1.00E+03	1.92E+01	2.18E+02

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	189	.612	.478	.017	.909	1.000
4	144.00 Hz	378	.897	.669	.192	.997	1.000
5	96.00 Hz	286	.907	.544	.238	.992	.982
6	72.00 Hz	382	.847	.462	.252	.885	.921
7	48.00 Hz	288	.912	.820	.320	.942	.940
8	36.00 Hz	475	.939	.880	.798	.946	.956
9	24.00 Hz	288	.970	.853	.587	.833	.848
10	18.00 Hz	672	.970	.921	.665	.746	.790
11	12.00 Hz	480	.964	.934	.695	.825	.878
12	9.00 Hz	480	.992	.974	.867	.868	.894
13	6.00 Hz	96	.977	.963	.625	.866	.831
14	4.50 Hz	192	.975	.876	.526	.649	.774
15	3.00 Hz	2752	1.000	.958	.552	.135	.183
16	2.25 Hz	8320	1.000	.943	.390	.093	.168
17	1.50 Hz	7917	1.000	.925	.274	.110	.140
18	1.13 Hz	5074	1.000	.934	.403	.156	.155
19	1.33 Sec	3622	.999	.797	.131	.240	.170
20	1.78 Sec	2793	1.000	.953	.186	.187	.172
21	2.67 Sec	1921	1.000	.908	.079	.213	.157
22	3.56 Sec	1566	1.000	.866	.337	.541	.385
23	5.33 Sec	687	1.000	.902	.027	.594	.351
24	7.11 Sec	507	1.000	.955	.026	.559	.349
25	10.67 Sec	701	1.000	.896	.033	.687	.381
26	14.22 Sec	719	.868	.767	.019	.882	.592
27	21.33 Sec	279	.998	.992	.129	.989	.973
28	28.44 Sec	321	1.000	.998	.057	.995	.991
29	42.67 Sec	270	.984	.966	.036	.869	.835
30	56.89 Sec	144	.991	.992	.005	.983	.955
31	85.33 Sec	105	.994	1.000	.011	.996	.984
32	113.78 Sec	36	.995	1.000	.035	.988	.970
33	170.67 Sec	39	.987	.991	.091	.958	.876
34	227.56 Sec	30	.986	.994	.261	.977	.915
35	341.33 Sec	12	.992	1.000	.079	.964	.932
36	455.11 Sec	15	.994	.988	.203	.943	.810
37	682.67 Sec	6	.999	.997	.396	.987	.984
38	910.22 Sec	9	1.000	.969	.285	.973	.919
39	1365.33 Sec	3	1.000	.996	.617	.984	.838
40	1820.44 Sec	6	1.000	1.000	.999	.523	.994

PHOENIX GEOSCIENCE

MT Site: MDLK89-028E

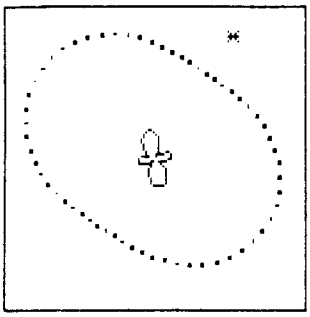
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

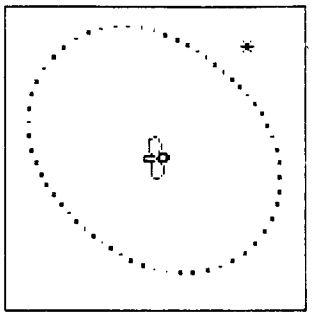
*=Rotation Direction

Zxy = ...
Zxx = ___

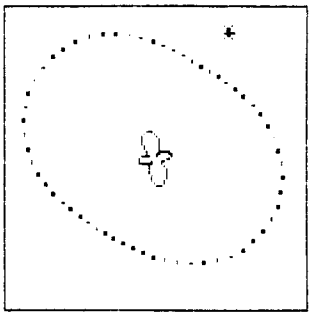
F=8 (36.0 Hz)



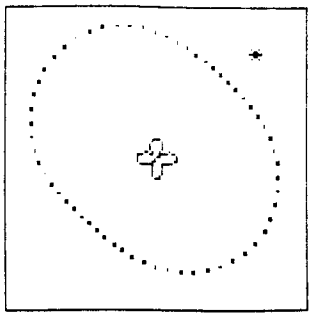
F=10 (18.0 Hz)



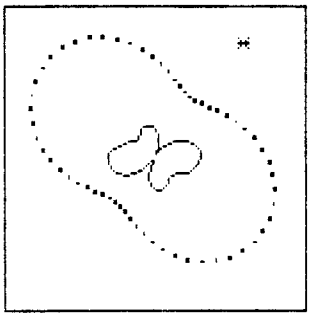
F=12 (9.0 Hz)



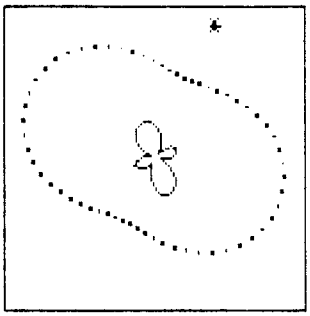
F=14 (4.5 Hz)



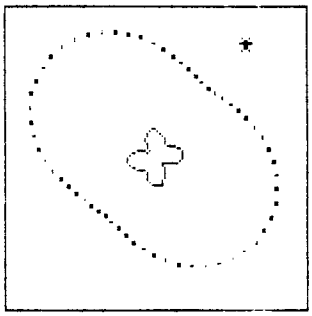
F=16 (2.3 Hz)



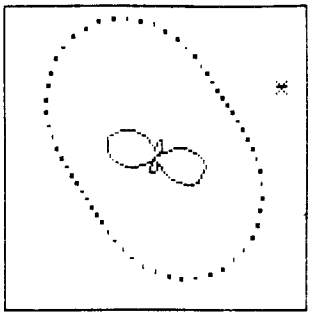
F=18 (1.1 Hz)



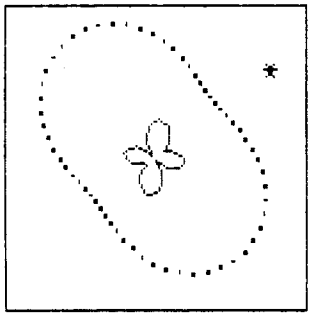
F=20 (.5625 Hz)



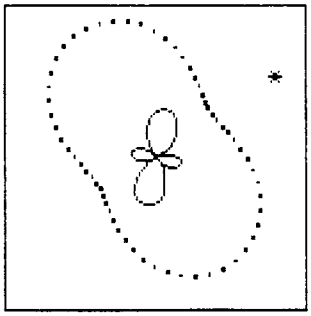
F=22 (.2813 Hz)



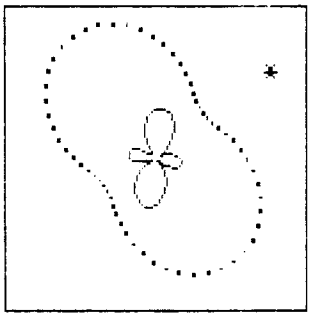
F=24 (.1406 Hz)



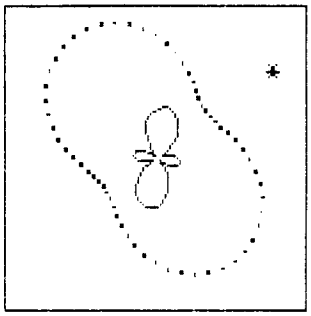
F=26 (.0703 Hz)



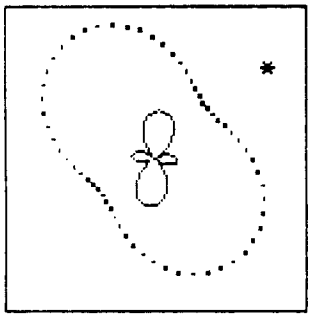
F=28 (.0352 Hz)



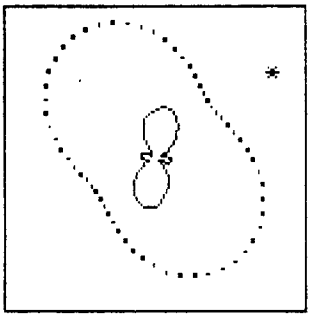
F=30 (.0176 Hz)



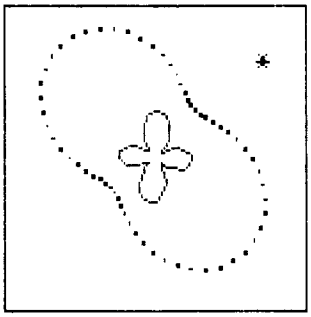
F=32 (.0088 Hz)



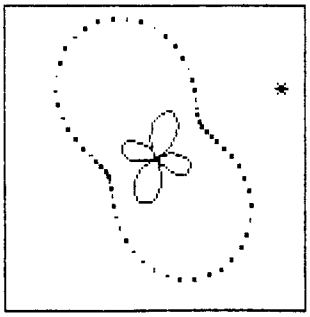
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-029s/030s/

Operator:STEWART
Date: 2 Sep 1989
Time: 10:55:34

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#432-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#452-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-029s
Site Desc:T43N R3E SEC1 SE4
41,35,42 N 121,34,14 W
Elevation:6700 FT
Reference:MDLK89-030s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL432	+0 DEG
Hy	2	COIL431	+90 DEG
Hz	3	LOOP005	
Ex	4	180 M	+0 DEG
Ey	5	168 M	+90 DEG
Rx	6	COIL452	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 20_ K Ohms
Ex Voltage: AC=_14_ mv, DC=_50_ mv
Ey Pot Resist: _9_ K Ohms
Ey Voltage: AC=_7.2 mv, DC=_24_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

OPERATOR LOG FOR MT SITES MDLK89-029s/030s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-029a/030a/

Run STARTED:	10:55:34	2 Sep 1989
Run QUIT:	03:27:09	3 Sep 1989

Run Start and Stop Time for MDLK89-029b/030b/

Run STARTED:	03:51:25	3 Sep 1989
Run QUIT:	11:02:49	3 Sep 1989

Operator:STEWART

Cultural Factors:
AUTOMOBILE TRAFFIC NEAR STATION #2
Weather Conditions:
CALM, DRY WITH TEMPS 50 TO 80
Other Factors:

PHOENIX GEOSCIENCE

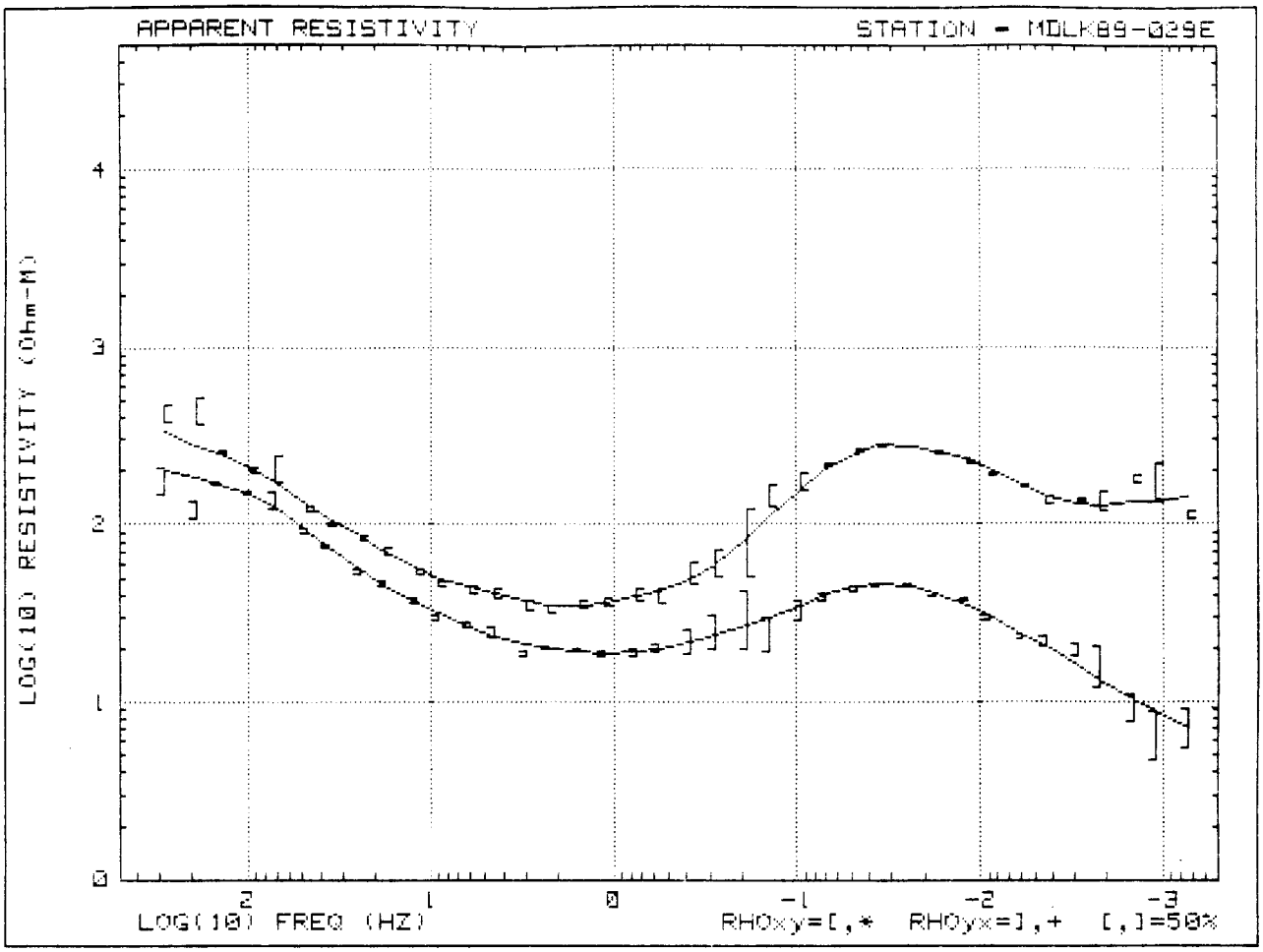
MT Site: MDLK89-029E

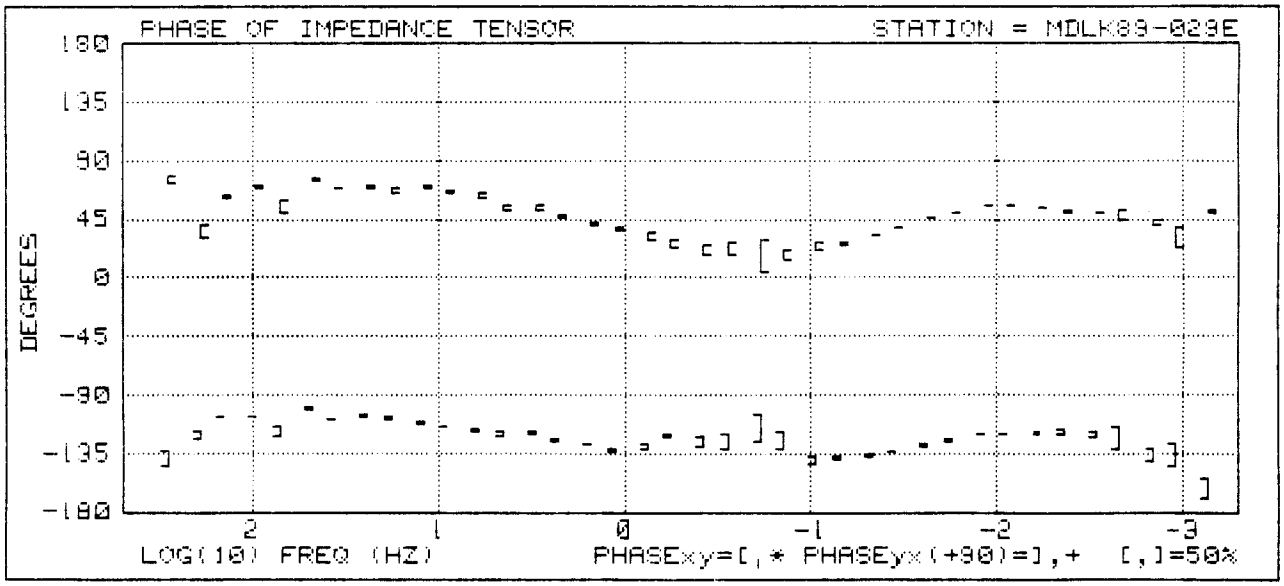
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E





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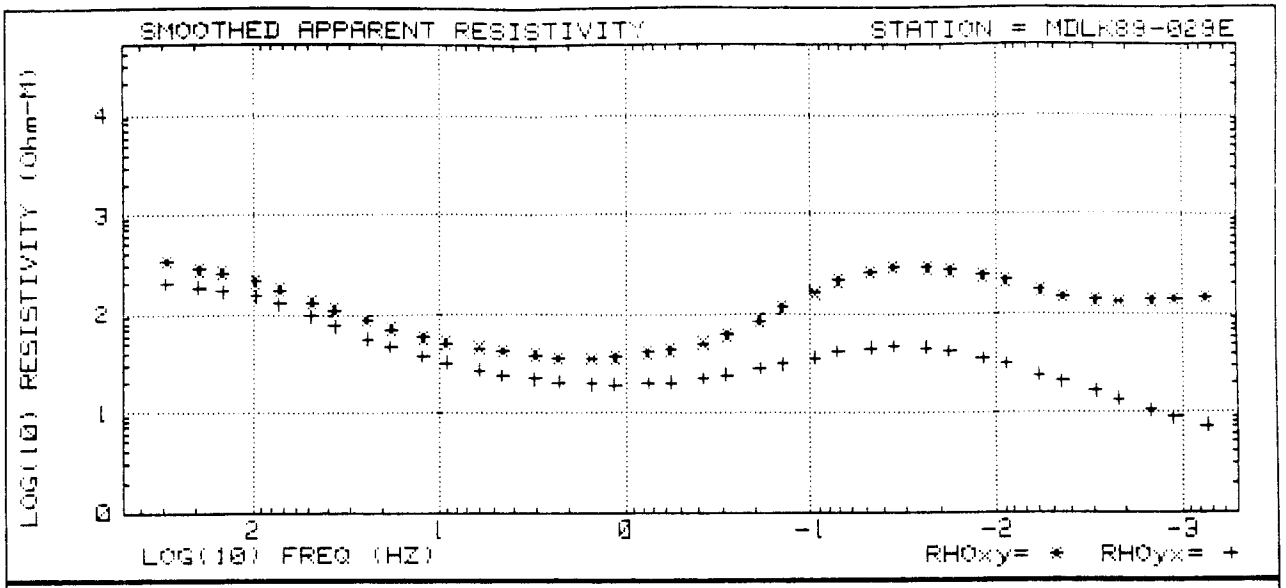
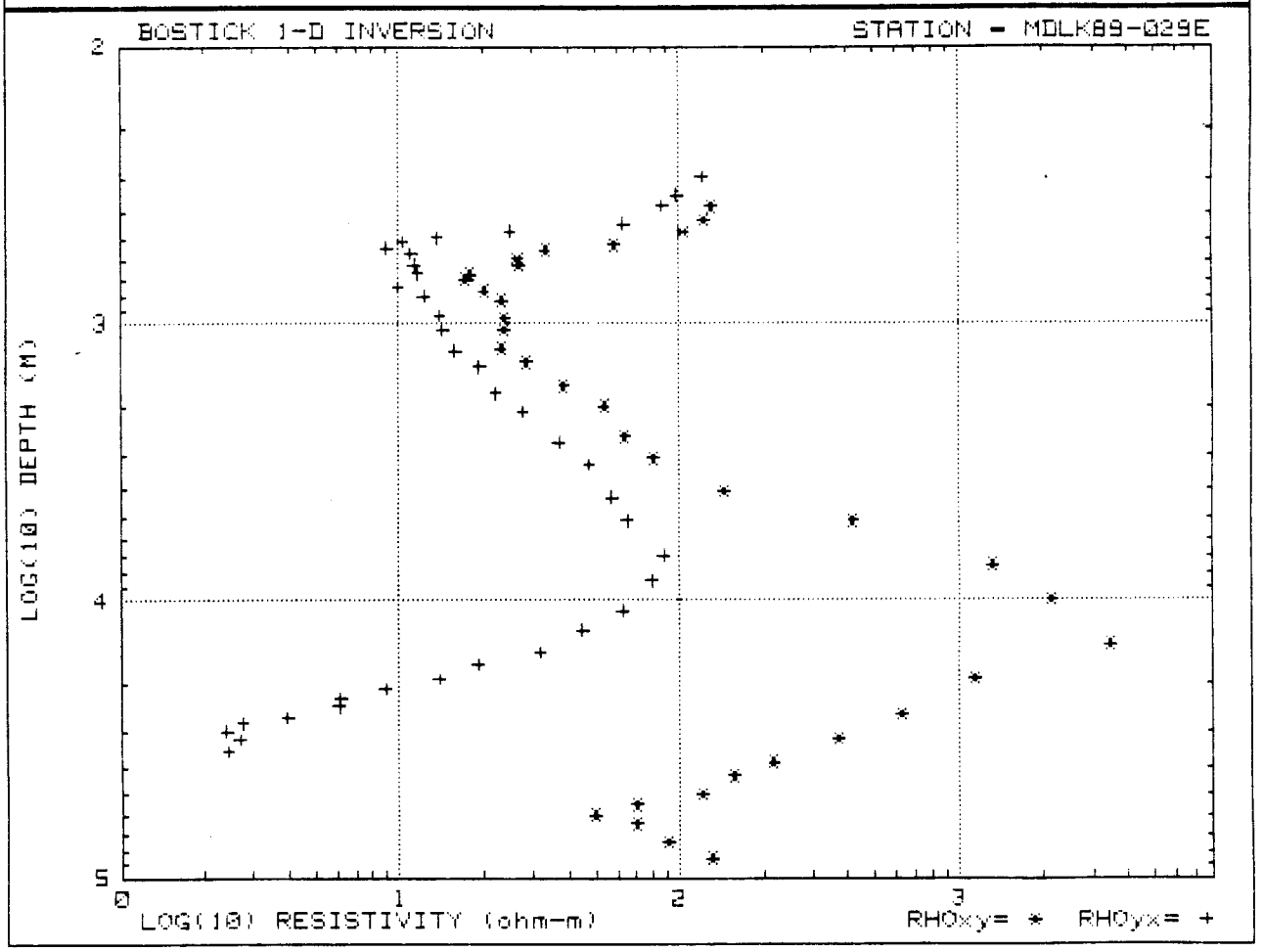
MT Site: MDLK89-029E





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MT Site: MDLK89-029E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	127	418.6	17.4	174.5	30.9	75.7	4.6	-138.7	7.7
3	192.00 Hz	381	430.1	28.2	121.4	16.6	36.2	7.1	-120.7	4.4
4	144.00 Hz	573	254.4	4.0	172.0	2.3	62.6	1.1	-106.8	.6
5	96.00 Hz	573	203.6	5.6	149.7	2.4	69.4	1.6	-107.1	.7
6	72.00 Hz	189	203.4	31.0	137.9	18.4	54.9	7.7	-118.3	4.8
7	48.00 Hz	570	123.7	5.1	92.2	3.8	75.5	1.4	-99.6	1.1
8	36.00 Hz	762	99.8	2.5	75.6	2.3	69.2	.7	-108.3	.6
9	24.00 Hz	768	83.0	5.2	54.2	2.8	70.3	1.4	-105.6	.8
10	18.00 Hz	384	71.0	6.4	47.0	4.7	67.0	1.8	-108.0	1.3
11	12.00 Hz	768	54.4	5.0	37.7	4.2	69.8	1.4	-111.5	1.2
12	9.00 Hz	768	45.9	4.4	30.0	3.7	66.5	1.2	-114.2	1.0
13	6.00 Hz	576	42.7	6.8	27.0	5.2	63.1	1.9	-118.0	1.5
14	4.50 Hz	384	41.2	9.9	24.7	8.6	54.5	2.7	-119.7	2.4
15	3.00 Hz	2624	35.2	10.1	18.5	4.6	54.3	2.8	-118.8	1.3
16	2.25 Hz	4603	33.6	7.1	20.1	3.5	46.7	2.0	-124.7	1.0
17	1.50 Hz	6096	35.7	7.7	19.8	3.4	41.5	2.1	-127.8	.9
18	1.13 Hz	7184	36.6	7.9	18.5	4.8	37.6	2.2	-131.8	1.4
19	1.33 Sec	3808	40.7	12.9	18.8	7.3	31.9	3.5	-129.4	2.0
20	1.78 Sec	1872	40.0	14.3	20.2	9.0	26.9	3.8	-121.1	2.5
21	2.67 Sec	1696	53.1	23.6	21.8	24.9	21.8	6.1	-125.3	6.4
22	3.56 Sec	600	60.7	28.4	25.1	39.5	22.1	7.2	-125.6	9.5
23	5.33 Sec	240	79.2	89.2	29.3	74.7	16.5	18.3	-115.8	16.0
24	7.11 Sec	180	146.1	22.1	24.2	40.1	17.9	5.7	-125.1	9.7
25	10.67 Sec	159	175.3	19.7	32.9	18.9	24.5	5.1	-139.9	5.0
26	14.22 Sec	255	218.8	4.0	38.9	5.7	27.1	1.1	-138.2	1.6
27	21.33 Sec	150	264.0	1.8	43.3	3.2	32.6	.5	-135.5	.9
28	28.44 Sec	144	281.3	1.7	45.6	2.1	38.6	.5	-133.5	.6
29	42.67 Sec	96	275.3	1.4	45.2	1.9	46.4	.4	-128.3	.5
30	56.89 Sec	232	254.7	1.2	39.6	1.5	50.3	.3	-124.9	.4
31	85.33 Sec	33	225.4	2.8	38.0	2.7	55.3	.8	-120.1	.8
32	113.78 Sec	57	194.1	1.7	30.0	3.7	55.3	.5	-120.1	1.1
33	170.67 Sec	45	164.0	3.0	23.5	5.9	53.8	.8	-118.3	1.6
34	227.56 Sec	60	137.1	8.4	22.1	9.7	50.7	2.3	-118.9	2.7
35	341.33 Sec	6	136.7	2.7	19.6	12.4	50.3	.8	-120.1	3.4
36	455.11 Sec	6	135.5	21.5	15.7	51.1	48.3	5.6	-122.5	11.8
37	682.67 Sec	6	181.1	8.5	9.3	29.3	42.5	2.3	-136.4	7.4
38	910.22 Sec	3	174.1	42.5	6.5	58.4	31.2	10.1	-135.7	13.2
39	1365.33 Sec	3	113.6	6.4	7.0	45.9	51.5	1.8	-162.0	10.8

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	127	331.4	202.1	132.4	382	121.5	298
3	192.00 Hz	381	278.5	182.7	123.9	429	99.2	347
4	144.00 Hz	573	254.0	164.6	104.4	473	88.1	380
5	96.00 Hz	573	208.6	148.1	59.0	525	63.9	442
6	72.00 Hz	189	172.4	125.0	33.3	551	25.2	469
7	48.00 Hz	570	130.6	93.5	26.7	587	13.8	497
8	36.00 Hz	762	109.1	74.7	27.1	619	10.4	513
9	24.00 Hz	768	86.0	55.4	18.0	674	9.1	540
10	18.00 Hz	384	69.3	45.4	17.5	698	11.1	565
11	12.00 Hz	768	56.9	36.3	20.2	775	11.4	619
12	9.00 Hz	768	49.8	31.7	23.4	837	11.7	667
13	6.00 Hz	576	44.3	26.4	24.1	967	10.0	747
14	4.50 Hz	384	40.6	23.1	23.8	1069	12.4	807
15	3.00 Hz	2624	37.0	21.4	23.2	1249	14.0	951
16	2.25 Hz	4603	34.7	20.0	28.8	1397	14.5	1062
17	1.50 Hz	6096	34.6	19.1	39.0	1710	16.0	1271
18	1.13 Hz	7184	36.1	18.8	54.1	2017	19.5	1455
19	1.33 Sec	3808	39.8	19.4	64.4	2592	22.3	1809
20	1.78 Sec	1872	42.6	19.8	80.9	3095	27.7	2109
21	2.67 Sec	1696	49.3	21.8	146.3	4081	37.2	2711
22	3.56 Sec	600	60.0	23.7	425.1	5198	47.9	3266
23	5.33 Sec	240	83.1	27.5	1323.2	7492	57.7	4311
24	7.11 Sec	180	110.6	30.3	2157.9	9979	65.4	5222
25	10.67 Sec	159	155.3	35.5	3444.7	14487	88.5	6924
26	14.22 Sec	255	208.3	40.7	1156.2	19371	80.1	8566
27	21.33 Sec	150	251.4	44.5	633.9	26064	62.9	10963
28	28.44 Sec	144	281.0	45.9	372.6	31818	45.3	12855
29	42.67 Sec	96	277.1	44.3	219.2	38693	32.0	15470
30	56.89 Sec	232	259.2	41.0	156.9	43216	19.3	17195
31	85.33 Sec	33	233.7	34.5	122.0	50253	14.0	19311
32	113.78 Sec	57	208.5	30.6	70.5	54813	9.0	20993
33	170.67 Sec	45	165.8	23.6	50.1	59873	6.2	22604
34	227.56 Sec	60	143.8	20.4	70.8	64374	6.1	24254
35	341.33 Sec	6	131.0	16.3	91.9	75257	4.0	26522
36	455.11 Sec	6	127.3	13.4	131.7	85663	2.8	27806
37	682.67 Sec	6	132.6	10.3	160.4	107057	2.4	29862
38	910.22 Sec	3	136.0	8.7	169.1	125196	2.7	31722
39	1365.33 Sec	3	142.9	7.2	183.2	157218	2.4	35176

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	127	273.50	176.58	999.99	192.22	752.22	999.99
3	192.00 Hz	381	123.51	47.52	999.99	518.20	379.92	999.99
4	144.00 Hz	573	30.46	6.82	52.92	196.81	380.01	137.57
5	96.00 Hz	573	4.41	5.34	22.28	109.88	292.63	143.69
6	72.00 Hz	189	32.67	13.97	571.71	155.76	221.26	999.99
7	48.00 Hz	570	7.19	1.41	10.39	43.05	166.83	36.84
8	36.00 Hz	762	3.49	1.57	1.92	47.55	125.29	5.60
9	24.00 Hz	768	2.90	2.55	2.99	33.64	93.98	12.74
10	18.00 Hz	384	2.39	.73	3.94	31.25	73.56	12.43
11	12.00 Hz	768	1.41	1.51	1.82	19.76	53.59	3.92
12	9.00 Hz	768	2.05	1.42	.98	18.16	41.69	1.93
13	6.00 Hz	576	1.68	.50	.86	16.18	31.93	2.78
14	4.50 Hz	384	.86	.73	1.46	17.70	24.79	4.10
15	3.00 Hz	2624	.51	-1.01	.47	13.42	18.65	2.45
16	2.25 Hz	4603	.38	-.91	.27	13.34	14.15	.88
17	1.50 Hz	6096	.29	-.69	.26	12.26	10.84	.73
18	1.13 Hz	7184	.40	-.53	.20	11.37	8.76	.60
19	1.33 Sec	3808	.274	-1.073	.414	10.486	6.530	1.121
20	1.78 Sec	1872	-.167	-1.261	.202	9.461	4.794	1.010
21	2.67 Sec	1696	.288	-1.618	1.208	9.269	3.706	2.237
22	3.56 Sec	600	.360	-1.898	1.898	8.558	3.476	2.666
23	5.33 Sec	240	-.023	-1.730	4.350	8.259	2.453	15.081
24	7.11 Sec	180	2.154	-1.234	1.102	9.644	3.114	2.040
25	10.67 Sec	159	1.450	-.631	.228	8.247	3.762	1.326
26	14.22 Sec	255	1.706	.012	.025	7.808	3.995	.059
27	21.33 Sec	150	1.494	.233	.012	6.630	4.233	.010
28	28.44 Sec	144	1.186	.584	.005	5.499	4.384	.007
29	42.67 Sec	96	.930	.630	.004	3.917	4.113	.003
30	56.89 Sec	232	.647	.646	.001	3.022	3.641	.002
31	85.33 Sec	33	.509	.549	.003	2.068	2.989	.005
32	113.78 Sec	57	.369	.483	.002	1.664	2.400	.001
33	170.67 Sec	45	.236	.376	.002	1.296	1.768	.002
34	227.56 Sec	60	.174	.251	.015	1.100	1.343	.010
35	341.33 Sec	6	.168	.216	.001	.903	1.089	.001
36	455.11 Sec	6	.178	.223	.053	.811	.911	.028
37	682.67 Sec	6	.215	.116	.003	.849	.778	.004
38	910.22 Sec	3	.009	.162	.068	.836	.507	.060
39	1365.33 Sec	3	.124	.151	.003	.402	.505	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	127	-376.32	-331.18	999.99	-38.68	40.08	999.99
3	192.00 Hz	381	-174.08	-293.60	999.99	104.86	121.89	999.99
4	144.00 Hz	573	-101.88	-336.85	31.77	14.95	40.93	82.59
5	96.00 Hz	573	-78.97	-256.20	20.22	2.85	6.66	130.40
6	72.00 Hz	189	-105.53	-196.23	705.83	16.13	47.14	999.99
7	48.00 Hz	570	-24.76	-146.67	15.53	-1.32	9.14	55.03
8	36.00 Hz	762	-36.70	-110.72	3.47	1.69	2.92	10.10
9	24.00 Hz	768	-21.66	-77.70	2.48	1.84	3.33	10.59
10	18.00 Hz	384	-20.16	-61.86	4.40	-.17	3.16	13.89
11	12.00 Hz	768	-17.42	-44.23	1.88	-1.89	2.33	4.04
12	9.00 Hz	768	-15.06	-33.51	.90	.72	1.92	1.77
13	6.00 Hz	576	-13.37	-25.12	1.06	-.29	1.31	3.42
14	4.50 Hz	384	-11.68	-20.46	1.88	.81	.79	5.28
15	3.00 Hz	2624	-8.02	-14.60	.29	-1.94	2.26	1.48
16	2.25 Hz	4603	-8.57	-12.36	.13	-.43	1.25	.43
17	1.50 Hz	6096	-7.46	-9.62	.08	-.10	.85	.23
18	1.13 Hz	7184	-6.81	-7.60	.12	-.29	2.22	.35
19	1.33 Sec	3808	-5.336	-6.494	.176	.262	.713	.478
20	1.78 Sec	1872	-3.899	-6.455	.210	.365	.522	1.052
21	2.67 Sec	1696	-3.694	-5.224	1.012	1.041	1.148	1.873
22	3.56 Sec	600	-3.462	-4.828	1.959	1.240	1.421	2.751
23	5.33 Sec	240	-2.278	-4.721	4.277	.896	.695	14.825
24	7.11 Sec	180	-2.372	-3.372	.967	2.218	.551	1.789
25	10.67 Sec	159	-3.001	-2.532	.230	1.209	.398	1.338
26	14.22 Sec	255	-2.758	-2.463	.021	1.533	.583	.050
27	21.33 Sec	150	-2.274	-2.233	.005	1.292	.672	.005
28	28.44 Sec	144	-1.948	-2.056	.002	1.116	.690	.003
29	42.67 Sec	96	-1.427	-1.806	.001	.871	.694	.001
30	56.89 Sec	232	-1.066	-1.531	.000	.692	.605	.001
31	85.33 Sec	33	-.749	-1.291	.001	.531	.532	.001
32	113.78 Sec	57	-.576	-.993	.001	.423	.441	.001
33	170.67 Sec	45	-.393	-.731	.001	.306	.316	.001
34	227.56 Sec	60	-.336	-.610	.002	.223	.200	.001
35	341.33 Sec	6	-.269	-.464	.002	.189	.195	.001
36	455.11 Sec	6	-.223	-.350	.015	.197	.204	.008
37	682.67 Sec	6	-.189	-.180	.002	.152	.185	.003
38	910.22 Sec	3	-.135	-.132	.004	.052	.082	.003
39	1365.33 Sec	3	-.153	-.050	.002	.135	.145	.001

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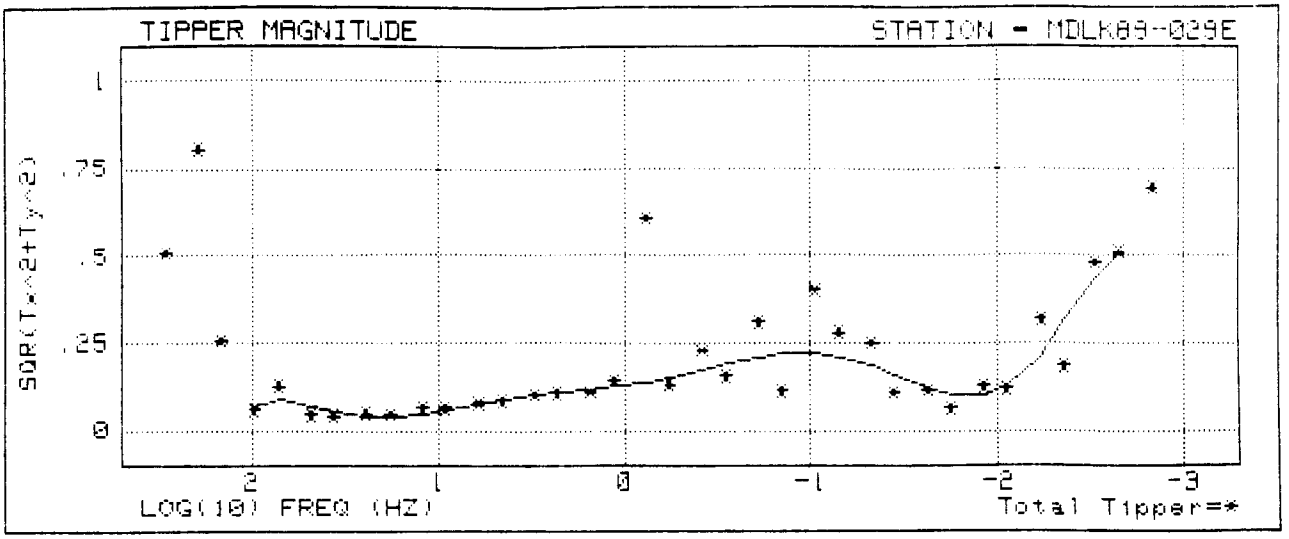
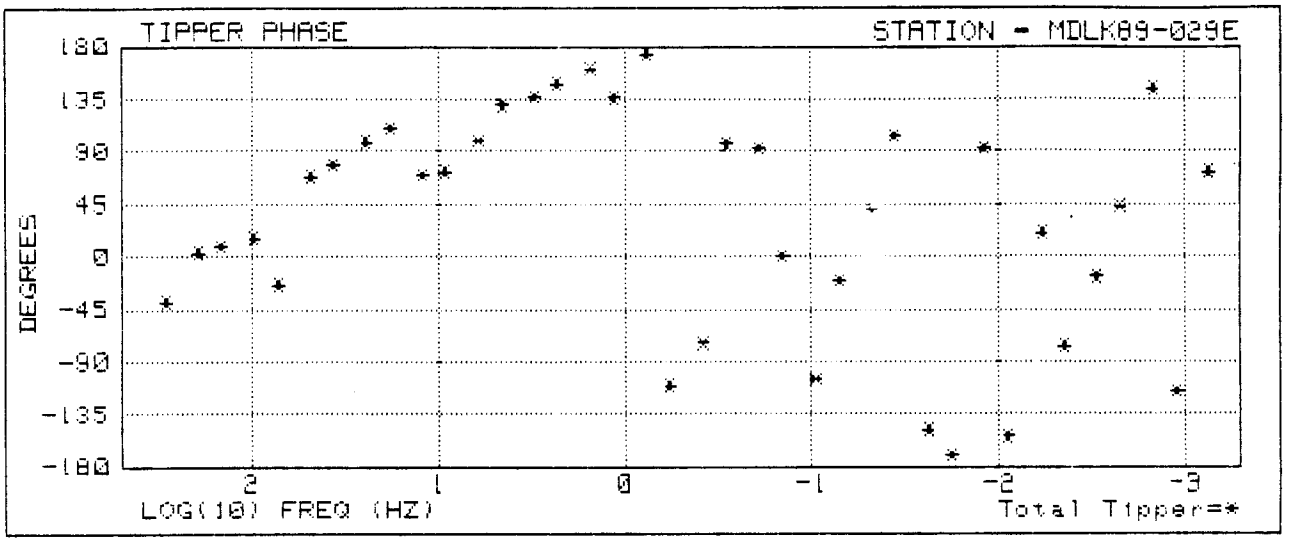
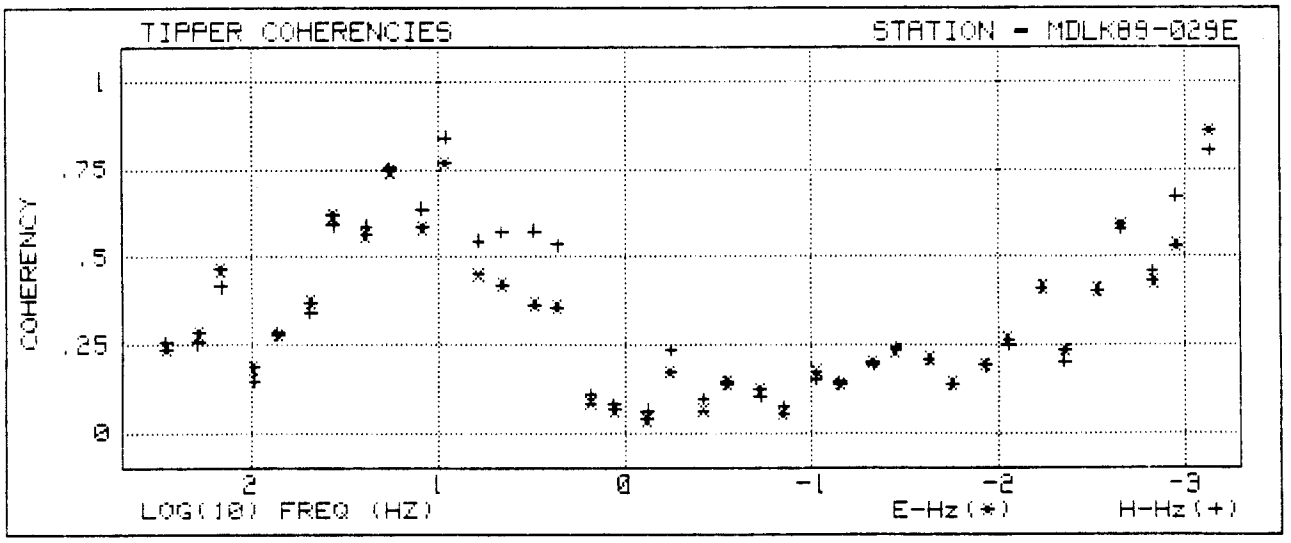
MT Site: MDLK89-029E







PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	127	.51	-39.62	.23	.25
3	192.00 Hz	381	.80	2.49	.28	.25
4	144.00 Hz	573	.25	7.93	.46	.41
5	96.00 Hz	573	.06	15.14	.18	.14
6	72.00 Hz	189	.12	-24.74	.27	.28
7	48.00 Hz	570	.04	67.38	.37	.34
8	36.00 Hz	762	.04	77.57	.62	.59
9	24.00 Hz	768	.04	97.19	.56	.58
10	18.00 Hz	384	.04	109.25	.74	.75
11	12.00 Hz	768	.06	68.71	.58	.64
12	9.00 Hz	768	.06	71.65	.77	.84
13	6.00 Hz	576	.08	98.18	.45	.54
14	4.50 Hz	384	.08	129.05	.42	.57
15	3.00 Hz	2624	.10	136.57	.36	.57
16	2.25 Hz	4603	.10	147.22	.35	.53
17	1.50 Hz	6096	.11	159.93	.08	.11
18	1.13 Hz	7184	.14	135.72	.06	.08
19	1.33 Sec	3808	.60	172.46	.03	.06
20	1.78 Sec	1872	.13	-111.33	.17	.23
21	2.67 Sec	1696	.22	-74.95	.06	.09
22	3.56 Sec	600	.15	95.84	.14	.14
23	5.33 Sec	240	.31	91.86	.12	.10
24	7.11 Sec	180	.11	-.12	.05	.07
25	10.67 Sec	159	.40	-105.58	.17	.15
26	14.22 Sec	255	.28	-21.18	.13	.14
27	21.33 Sec	150	.25	39.34	.20	.19
28	28.44 Sec	144	.11	102.72	.23	.24
29	42.67 Sec	96	.11	-149.20	.21	.20
30	56.89 Sec	232	.06	-170.93	.14	.13
31	85.33 Sec	33	.12	91.96	.19	.19
32	113.78 Sec	57	.12	-154.78	.26	.25
33	170.67 Sec	45	.31	19.38	.41	.41
34	227.56 Sec	60	.18	-77.64	.23	.20
35	341.33 Sec	6	.48	-17.71	.40	.40
36	455.11 Sec	6	.51	42.06	.59	.58
37	682.67 Sec	6	.69	142.96	.43	.45
38	910.22 Sec	3	2.73	-116.22	.53	.67
39	1365.33 Sec	3	2.07	71.69	.86	.80

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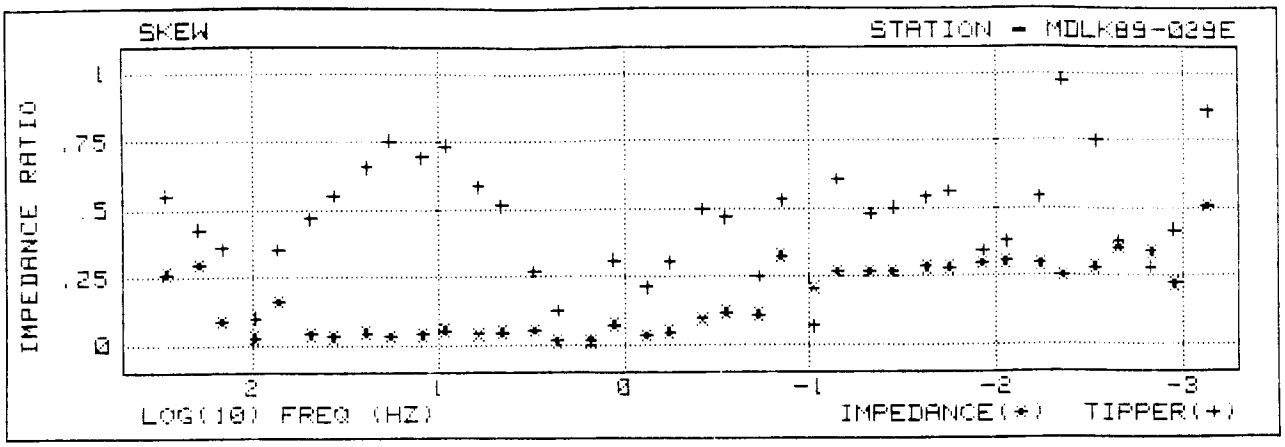
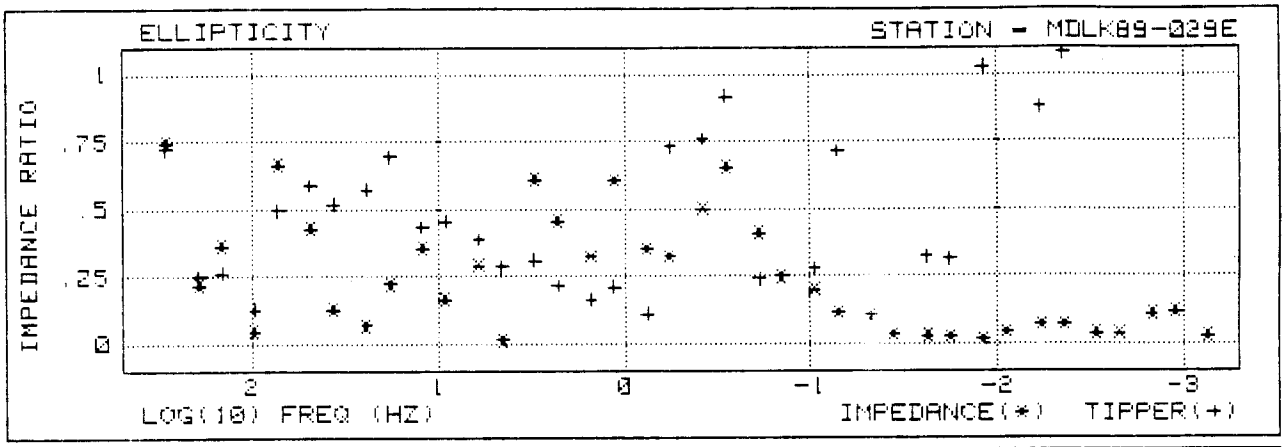
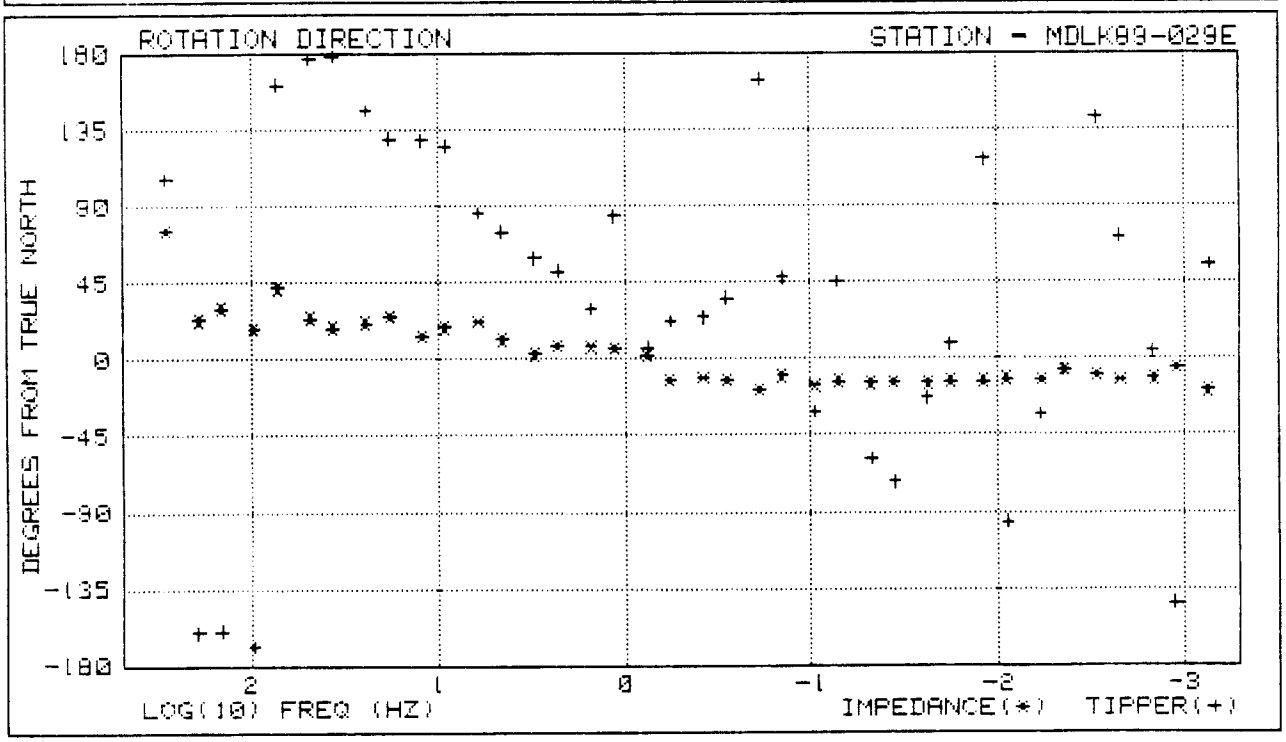






PHOENIX GEOSCIENCE

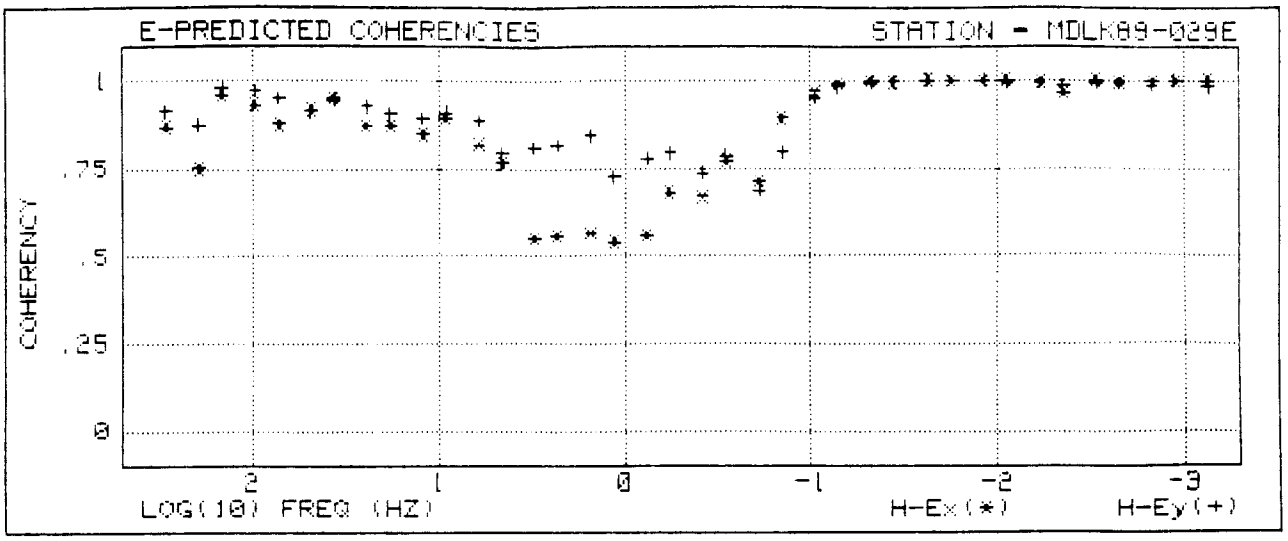
MT Site: MDLK89-029E

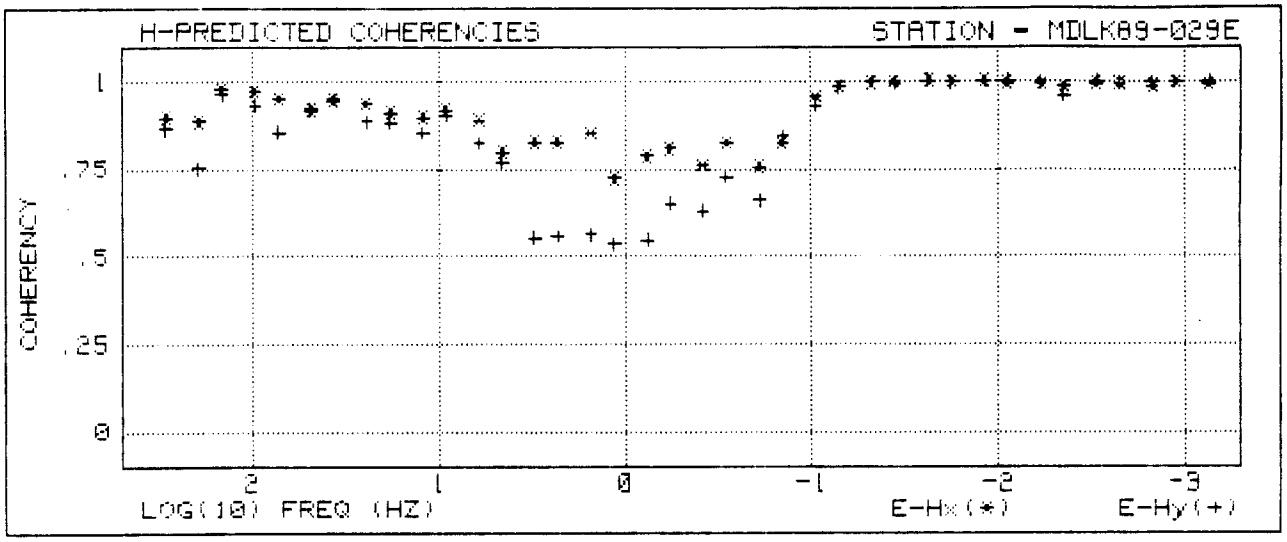
SKEW, ELLIPTICITY AND STRIKE

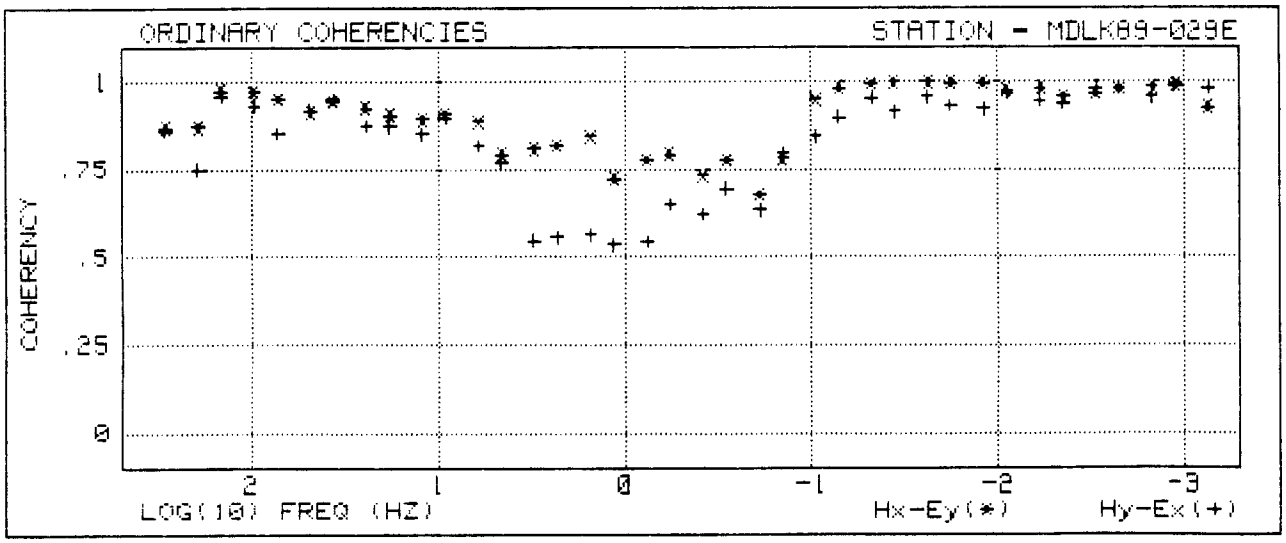
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	127	.26	.74	74.94	.55	.72	105.20
3	192.00 Hz	381	.29	.22	22.37	.42	.25	-161.33
4	144.00 Hz	573	.08	.36	29.20	.35	.26	-160.10
5	96.00 Hz	573	.02	.04	17.32	.10	.13	-169.27
6	72.00 Hz	189	.16	.66	41.36	.35	.49	161.07
7	48.00 Hz	570	.04	.42	23.42	.46	.58	176.18
8	36.00 Hz	762	.03	.12	17.81	.55	.51	177.66
9	24.00 Hz	768	.04	.06	20.75	.65	.57	145.90
10	18.00 Hz	384	.03	.22	24.33	.75	.69	129.19
11	12.00 Hz	768	.04	.35	12.65	.69	.43	128.27
12	9.00 Hz	768	.05	.16	18.25	.73	.45	124.89
13	6.00 Hz	576	.04	.29	21.63	.58	.38	85.13
14	4.50 Hz	384	.04	.01	10.92	.51	.28	73.98
15	3.00 Hz	2624	.05	.61	2.32	.27	.31	58.54
16	2.25 Hz	4603	.01	.45	6.92	.12	.21	50.98
17	1.50 Hz	6096	.01	.32	6.70	.01	.16	28.77
18	1.13 Hz	7184	.07	.60	5.56	.31	.21	83.20
19	1.33 Sec	3808	.03	.35	1.29	.21	.11	5.89
20	1.78 Sec	1872	.04	.32	-12.96	.30	.73	21.67
21	2.67 Sec	1696	.09	.50	-11.88	.49	.75	23.73
22	3.56 Sec	600	.11	.65	-13.19	.46	.91	35.24
23	5.33 Sec	240	.11	.41	-18.79	.25	.24	163.63
24	7.11 Sec	180	.32	.25	-10.70	.53	1.49	46.88
25	10.67 Sec	159	.21	.20	-16.71	.06	.28	-32.06
26	14.22 Sec	255	.27	.11	-14.11	.60	.71	44.80
27	21.33 Sec	150	.27	.10	-15.21	.47	1.29	-59.41
28	28.44 Sec	144	.27	.03	-14.69	.50	1.96	-72.72
29	42.67 Sec	96	.28	.03	-15.20	.54	.32	-23.96
30	56.89 Sec	232	.28	.02	-14.10	.56	.31	7.96
31	85.33 Sec	33	.29	.01	-14.33	.34	1.02	116.60
32	113.78 Sec	57	.30	.04	-12.80	.37	4.27	-96.70
33	170.67 Sec	45	.29	.07	-13.35	.54	.87	-33.60
34	227.56 Sec	60	.25	.07	-7.33	.97	1.07	-7.51
35	341.33 Sec	6	.28	.03	-10.08	.75	2.05	140.97
36	455.11 Sec	6	.35	.03	-13.02	.38	4.52	71.25
37	682.67 Sec	6	.34	.11	-12.19	.28	1.21	3.53
38	910.22 Sec	3	.22	.11	-6.12	.42	1.33	-144.11
39	1365.33 Sec	3	.50	.02	-19.54	.85	1.39	54.74

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E







PHOENIX GEOSCIENCE

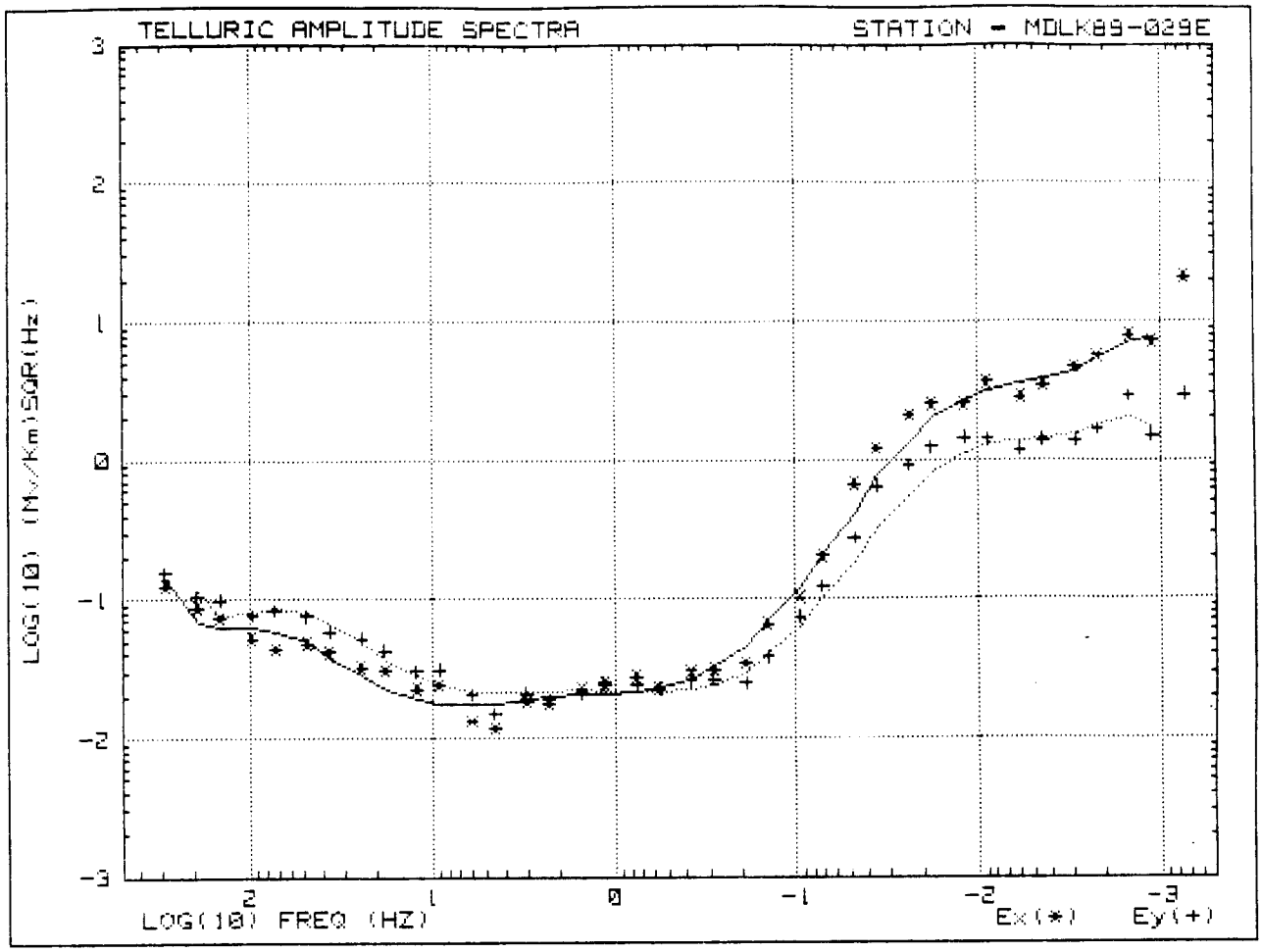
MT Site: MDLK89-029E

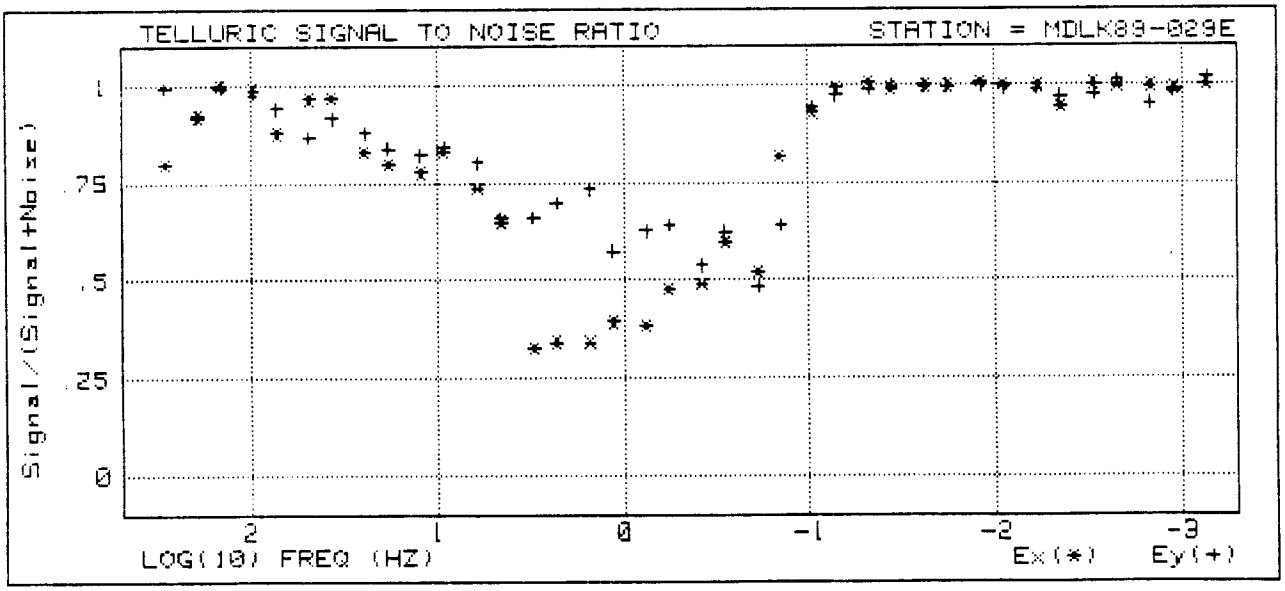
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	127	.87	.91	.89	.86	.86	.86
3	192.00 Hz	381	.75	.87	.88	.75	.87	.75
4	144.00 Hz	573	.96	.97	.98	.96	.97	.96
5	96.00 Hz	573	.93	.97	.97	.93	.97	.93
6	72.00 Hz	189	.87	.95	.95	.85	.95	.85
7	48.00 Hz	570	.92	.91	.91	.92	.91	.92
8	36.00 Hz	762	.95	.94	.94	.95	.94	.95
9	24.00 Hz	768	.87	.92	.93	.88	.92	.87
10	18.00 Hz	384	.87	.90	.91	.88	.90	.87
11	12.00 Hz	768	.85	.89	.89	.85	.89	.85
12	9.00 Hz	768	.89	.91	.92	.90	.91	.89
13	6.00 Hz	576	.82	.88	.89	.82	.88	.81
14	4.50 Hz	384	.76	.79	.80	.77	.79	.76
15	3.00 Hz	2624	.55	.81	.82	.55	.80	.54
16	2.25 Hz	4603	.56	.81	.82	.55	.81	.55
17	1.50 Hz	6096	.56	.84	.85	.56	.84	.56
18	1.13 Hz	7184	.54	.72	.72	.53	.72	.53
19	1.33 Sec	3808	.56	.77	.78	.54	.77	.54
20	1.78 Sec	1872	.68	.79	.80	.65	.79	.65
21	2.67 Sec	1696	.66	.73	.76	.63	.73	.62
22	3.56 Sec	600	.77	.78	.82	.73	.77	.69
23	5.33 Sec	240	.71	.68	.75	.66	.67	.63
24	7.11 Sec	180	.89	.79	.82	.84	.78	.79
25	10.67 Sec	159	.97	.95	.95	.93	.94	.84
26	14.22 Sec	255	.99	.98	.98	.98	.98	.89
27	21.33 Sec	150	1.00	.99	.99	1.00	.99	.95
28	28.44 Sec	144	.99	1.00	1.00	.99	.99	.91
29	42.67 Sec	96	1.00	1.00	1.00	1.00	.99	.95
30	56.89 Sec	232	1.00	1.00	1.00	.99	.99	.93
31	85.33 Sec	33	1.00	1.00	1.00	1.00	.99	.92
32	113.78 Sec	57	1.00	.99	.99	1.00	.97	.96
33	170.67 Sec	45	1.00	.99	.99	.99	.98	.94
34	227.56 Sec	60	.96	.98	.98	.96	.95	.94
35	341.33 Sec	6	1.00	.99	.99	1.00	.96	.98
36	455.11 Sec	6	.99	.99	.99	.99	.97	.97
37	682.67 Sec	6	1.00	.99	.98	1.00	.98	.95
38	910.22 Sec	3	1.00	1.00	1.00	1.00	.99	.99
39	1365.33 Sec	3	1.00	.98	.99	1.00	.92	.98

PHOENIX GEOSCIENCE

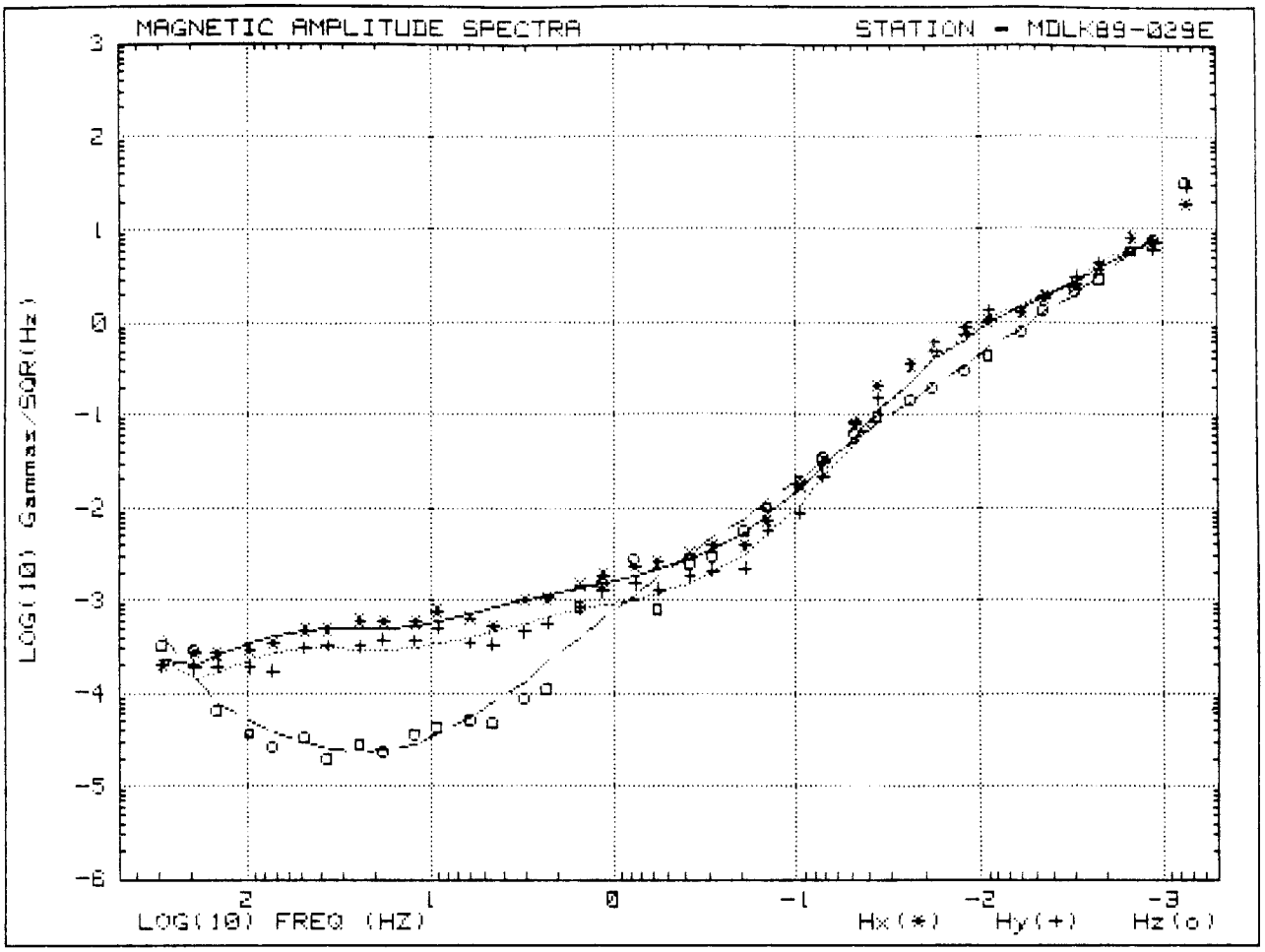
MT Site: MDLK89-029E

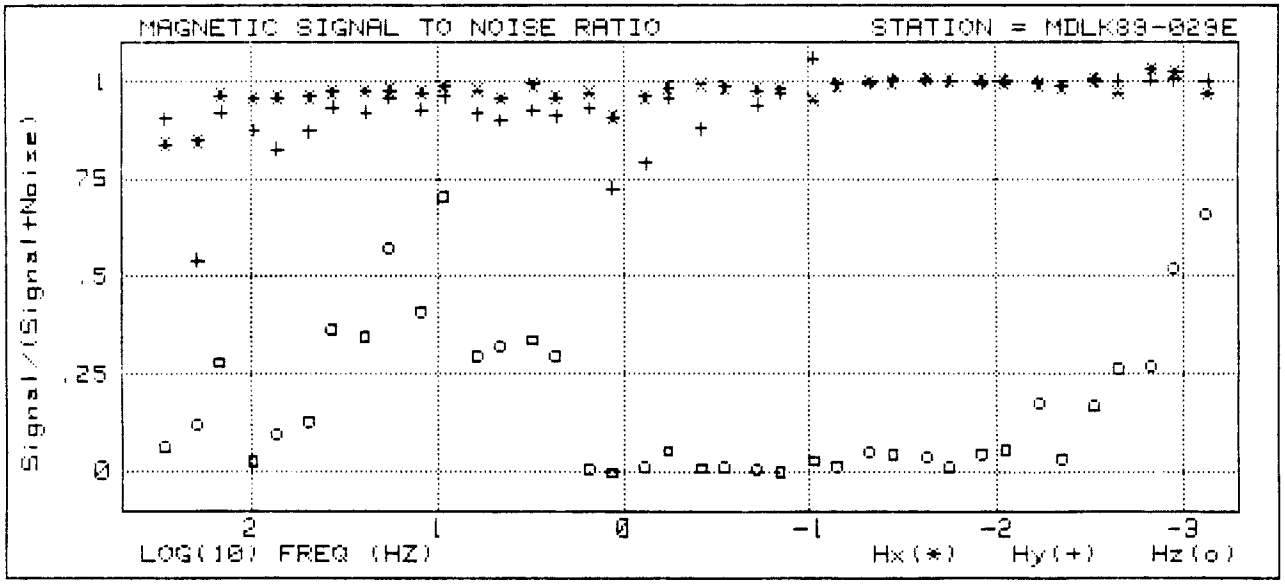




PHOENIX GEOSCIENCE

MT Site: MDLK89-029E





PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	127	1.98E-04	1.93E-04	3.36E-04	1.24E-01	1.53E-01
3	192.00 Hz	381	2.68E-04	1.90E-04	3.08E-04	8.59E-02	1.04E-01
4	144.00 Hz	573	2.65E-04	1.92E-04	6.83E-05	7.27E-02	9.71E-02
5	96.00 Hz	573	2.89E-04	1.82E-04	3.86E-05	5.16E-02	7.58E-02
6	72.00 Hz	189	3.43E-04	1.71E-04	2.81E-05	4.31E-02	8.13E-02
7	48.00 Hz	570	4.67E-04	3.04E-04	3.45E-05	4.73E-02	7.44E-02
8	36.00 Hz	762	4.78E-04	3.18E-04	2.09E-05	4.09E-02	5.76E-02
9	24.00 Hz	768	5.97E-04	3.14E-04	2.88E-05	3.17E-02	5.13E-02
10	18.00 Hz	384	5.85E-04	3.67E-04	2.47E-05	3.03E-02	4.20E-02
11	12.00 Hz	768	5.69E-04	3.60E-04	3.83E-05	2.22E-02	2.97E-02
12	9.00 Hz	768	7.52E-04	5.01E-04	4.59E-05	2.36E-02	3.05E-02
13	6.00 Hz	576	6.29E-04	3.40E-04	5.27E-05	1.30E-02	2.03E-02
14	4.50 Hz	384	5.18E-04	3.27E-04	4.94E-05	1.16E-02	1.48E-02
15	3.00 Hz	2624	9.94E-04	4.53E-04	9.04E-05	1.78E-02	2.04E-02
16	2.25 Hz	4603	1.04E-03	5.44E-04	1.15E-04	1.74E-02	1.87E-02
17	1.50 Hz	6096	1.46E-03	8.12E-04	8.89E-04	2.23E-02	2.09E-02
18	1.13 Hz	7184	1.84E-03	1.24E-03	1.60E-03	2.45E-02	2.41E-02
19	1.33 Sec	3808	2.30E-03	1.47E-03	3.00E-03	2.72E-02	2.40E-02
20	1.78 Sec	1872	2.54E-03	1.29E-03	8.47E-04	2.22E-02	2.24E-02
21	2.67 Sec	1696	3.19E-03	1.86E-03	2.59E-03	2.98E-02	2.55E-02
22	3.56 Sec	600	3.92E-03	2.10E-03	3.11E-03	3.07E-02	2.60E-02
23	5.33 Sec	240	3.91E-03	2.22E-03	5.93E-03	3.41E-02	2.43E-02
24	7.11 Sec	180	7.24E-03	5.67E-03	1.07E-02	6.53E-02	3.77E-02
25	10.67 Sec	159	1.72E-02	8.67E-03	2.00E-02	1.01E-01	7.33E-02
26	14.22 Sec	255	3.10E-02	2.16E-02	3.68E-02	2.03E-01	1.22E-01
27	21.33 Sec	150	7.67E-02	8.46E-02	6.62E-02	6.57E-01	2.70E-01
28	28.44 Sec	144	2.05E-01	1.49E-01	1.01E-01	1.19E+00	6.31E-01
29	42.67 Sec	96	3.45E-01	3.44E-01	1.56E-01	2.07E+00	8.96E-01
30	56.89 Sec	232	5.95E-01	4.73E-01	2.10E-01	2.50E+00	1.22E+00
31	85.33 Sec	33	8.54E-01	7.27E-01	3.11E-01	2.49E+00	1.41E+00
32	113.78 Sec	57	1.02E+00	1.28E+00	4.55E-01	3.59E+00	1.38E+00
33	170.67 Sec	45	1.23E+00	1.28E+00	8.17E-01	2.76E+00	1.15E+00
34	227.56 Sec	60	1.82E+00	1.87E+00	1.42E+00	3.40E+00	1.35E+00
35	341.33 Sec	6	2.47E+00	3.09E+00	2.33E+00	4.61E+00	1.35E+00
36	455.11 Sec	6	3.73E+00	4.25E+00	3.01E+00	5.56E+00	1.63E+00
37	682.67 Sec	6	7.91E+00	8.14E+00	6.11E+00	7.81E+00	2.85E+00
38	910.22 Sec	3	6.85E+00	5.91E+00	8.09E+00	7.03E+00	1.47E+00
39	1365.33 Sec	3	1.82E+01	2.82E+01	3.37E+01	2.03E+01	2.89E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	127	.837	.901	.064	.796	.992
3	192.00 Hz	381	.845	.541	.122	.921	.919
4	144.00 Hz	573	.963	.918	.285	.997	.993
5	96.00 Hz	573	.954	.872	.030	.987	.984
6	72.00 Hz	189	.955	.823	.098	.876	.938
7	48.00 Hz	570	.958	.870	.133	.965	.866
8	36.00 Hz	762	.971	.930	.369	.966	.914
9	24.00 Hz	768	.973	.917	.350	.828	.876
10	18.00 Hz	384	.974	.954	.577	.796	.837
11	12.00 Hz	768	.969	.925	.416	.775	.820
12	9.00 Hz	768	.985	.959	.707	.828	.838
13	6.00 Hz	576	.976	.913	.301	.733	.801
14	4.50 Hz	384	.954	.897	.327	.647	.655
15	3.00 Hz	2624	.989	.922	.341	.324	.659
16	2.25 Hz	4603	.955	.907	.300	.339	.695
17	1.50 Hz	6096	.967	.929	.012	.340	.730
18	1.13 Hz	7184	.905	.724	.001	.391	.573
19	1.33 Sec	3808	.958	.787	.016	.381	.625
20	1.78 Sec	1872	.982	.955	.057	.476	.638
21	2.67 Sec	1696	.990	.876	.013	.487	.537
22	3.56 Sec	600	.983	.982	.018	.594	.623
23	5.33 Sec	240	.974	.938	.012	.518	.484
24	7.11 Sec	180	.978	.966	.005	.814	.640
25	10.67 Sec	159	.950	1.000	.032	.926	.940
26	14.22 Sec	255	.990	.990	.019	.990	.971
27	21.33 Sec	150	.999	.991	.054	1.000	.987
28	28.44 Sec	144	.996	1.000	.050	.987	.995
29	42.67 Sec	96	1.000	1.000	.044	.996	.993
30	56.89 Sec	232	.999	.998	.019	.995	.993
31	85.33 Sec	33	.999	.993	.051	1.000	.997
32	113.78 Sec	57	.994	1.000	.064	.997	.988
33	170.67 Sec	45	.989	.997	.179	.995	.987
34	227.56 Sec	60	.983	.985	.038	.940	.969
35	341.33 Sec	6	1.000	1.000	.172	.999	.976
36	455.11 Sec	6	.969	1.000	.266	.992	1.000
37	682.67 Sec	6	1.000	1.000	.275	.993	.949
38	910.22 Sec	3	1.000	1.000	.528	.987	.980
39	1365.33 Sec	3	.966	.999	.665	1.000	1.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-029E

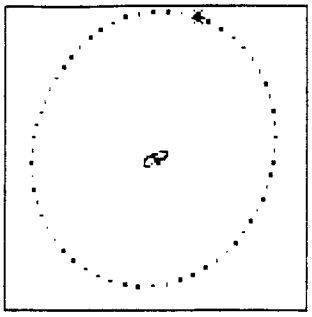
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

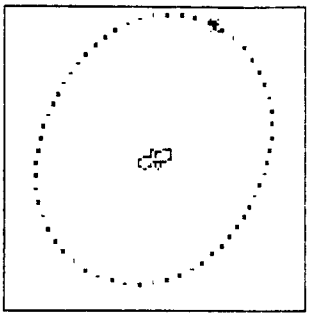
*=Rotation Direction

Zxy = ...
Zxx = ___

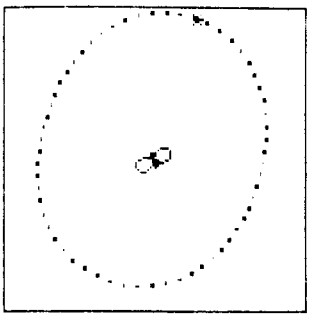
F=8 (36.0 Hz)



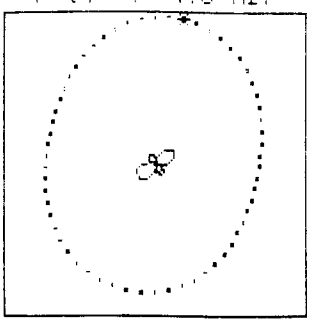
F=10 (18.0 Hz)



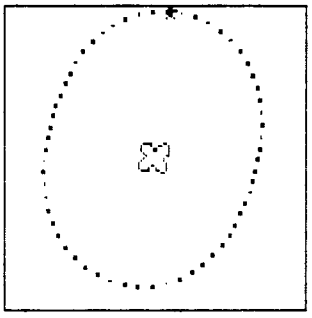
F=12 (9.0 Hz)



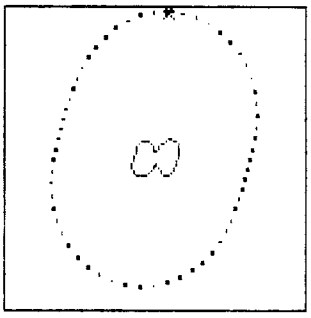
F=14 (4.5 Hz)



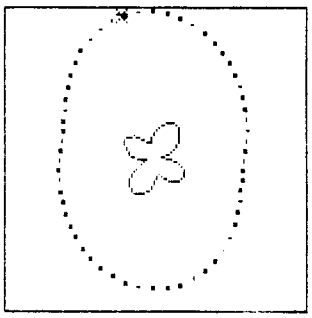
F=16 (2.3 Hz)



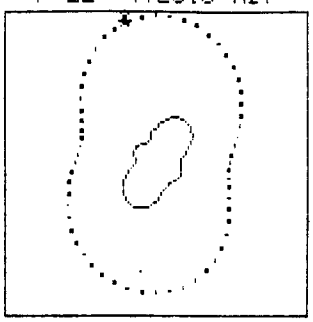
F=18 (1.1 Hz)



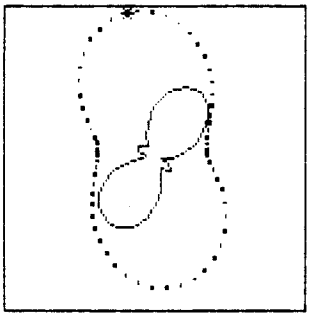
F=20 (.5625 Hz)



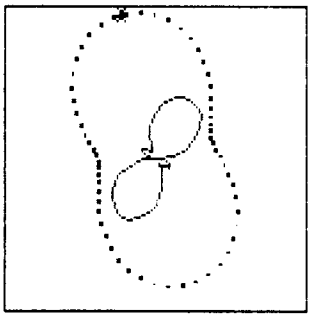
F=22 (.2813 Hz)



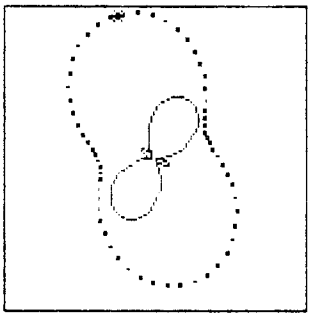
F=24 (.1406 Hz)



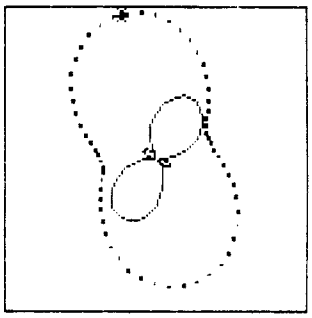
F=26 (.0703 Hz)



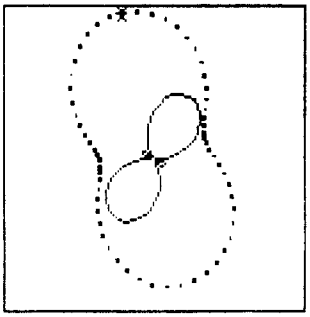
F=28 (.0352 Hz)



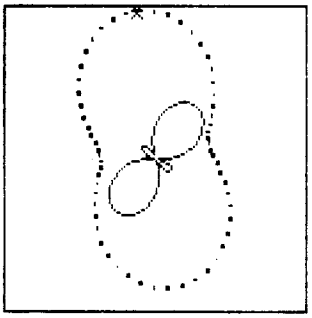
F=30 (.0176 Hz)



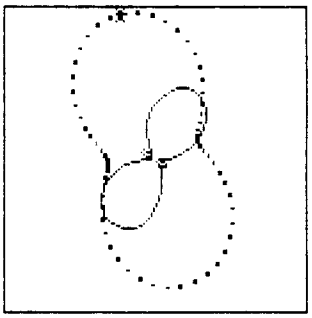
F=32 (.0088 Hz)



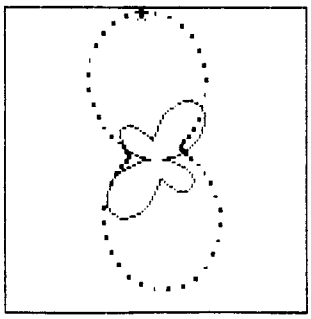
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-029s/030s/

Operator:STEWART
Date: 3 Sep 1989
Time: 03:51:25

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#432-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#452-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-030s
Site Desc:T43N R3E SEC12 NW4
41,35,15 N 121,34,59 W
Elevation:6785 FT
Reference:MDLK89-029s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL452	+0 DEG
Hy	7	COIL235	+90 DEG
Hz	8	LOOP405	
Ex	9	150 M	+0 DEG
Ey	10	134 M	+90 DEG
Rx	1	COIL432	+0 DEG
Ry	2	COIL431	+90 DEG

Ex Pot Resist: _9_ K Ohms
Ex Voltage: AC=12.6 mv, DC=_4.8 mv
Ey Pot Resist: 10_ K Ohms
Ey Voltage: AC=_5.0 mv, DC=47.1 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

OPERATOR LOG FOR MT SITES MDLK89-029a/030a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-029a/030a/

Run STARTED:	10:55:34	2 Sep 1989
Run QUIT:	03:27:09	3 Sep 1989

Run Start and Stop Time for MDLK89-029b/030b/

Run STARTED:	03:51:25	3 Sep 1989
Run QUIT:	11:02:49	3 Sep 1989

Operator:OJALA

Cultural Factors:
MODERATELY TRAVELED FOREST SERVICE ROAD NEAR SITE 030. NO OTHER CULTURE APPARENT.

Weather Conditions:
CLEAR AND WARM WITH LIGHT WINDS.

Other Factors:
WILL MOVE TO NEXT SETUP.

PHOENIX GEOSCIENCE

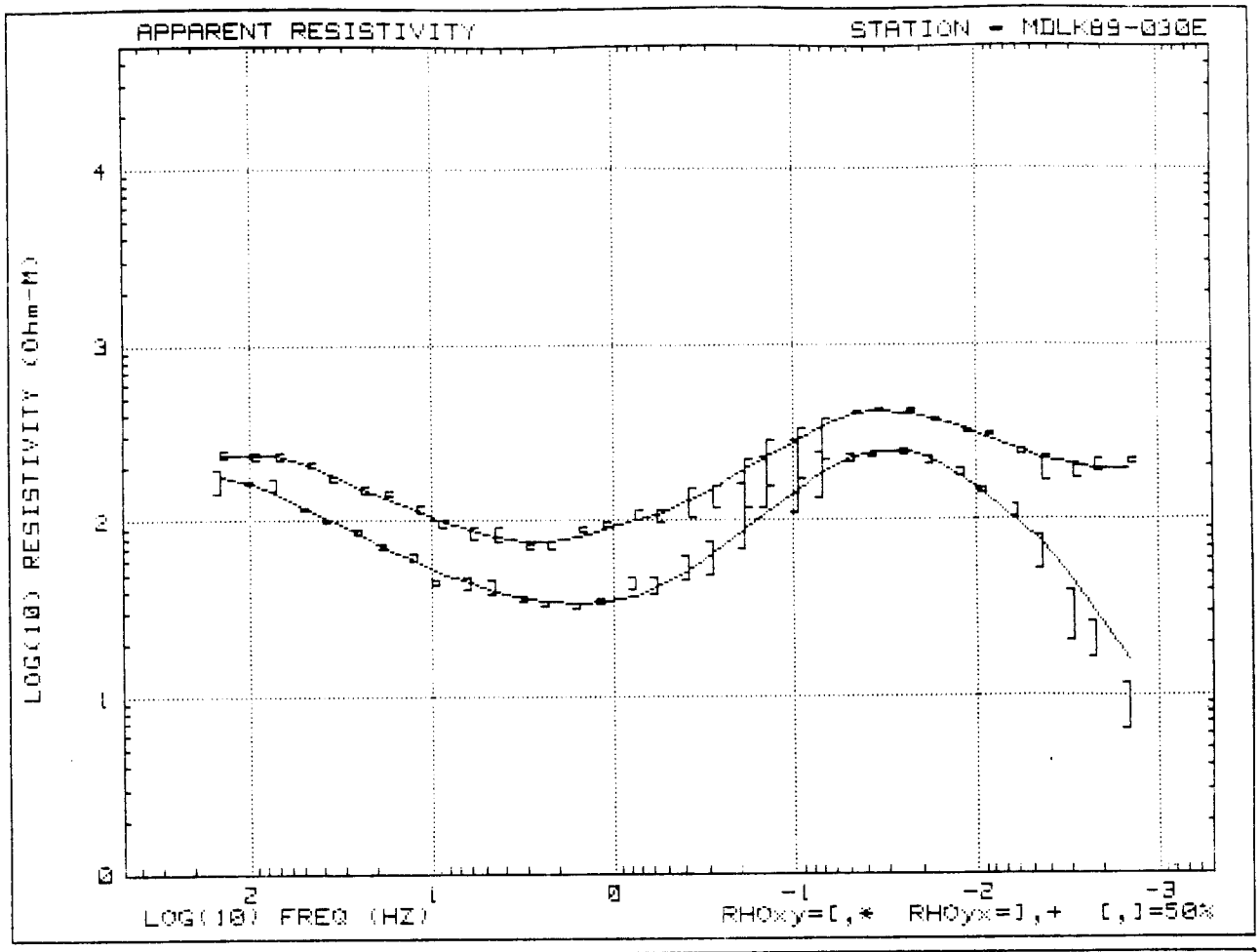
MT Site: MDLK89-030E

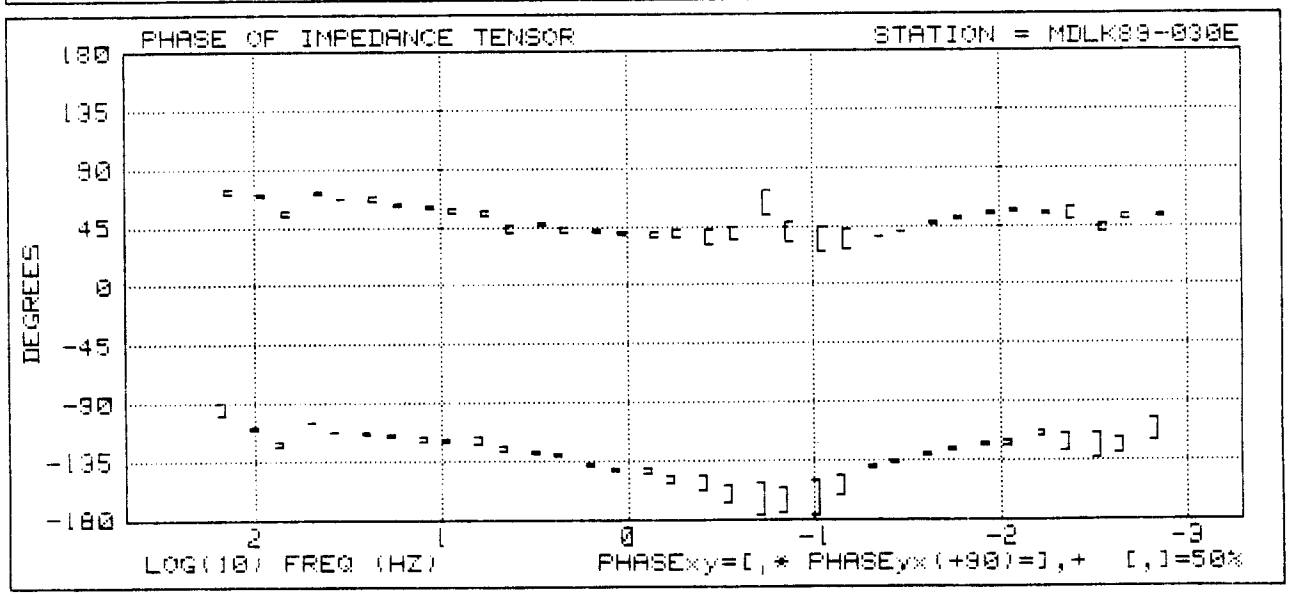
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

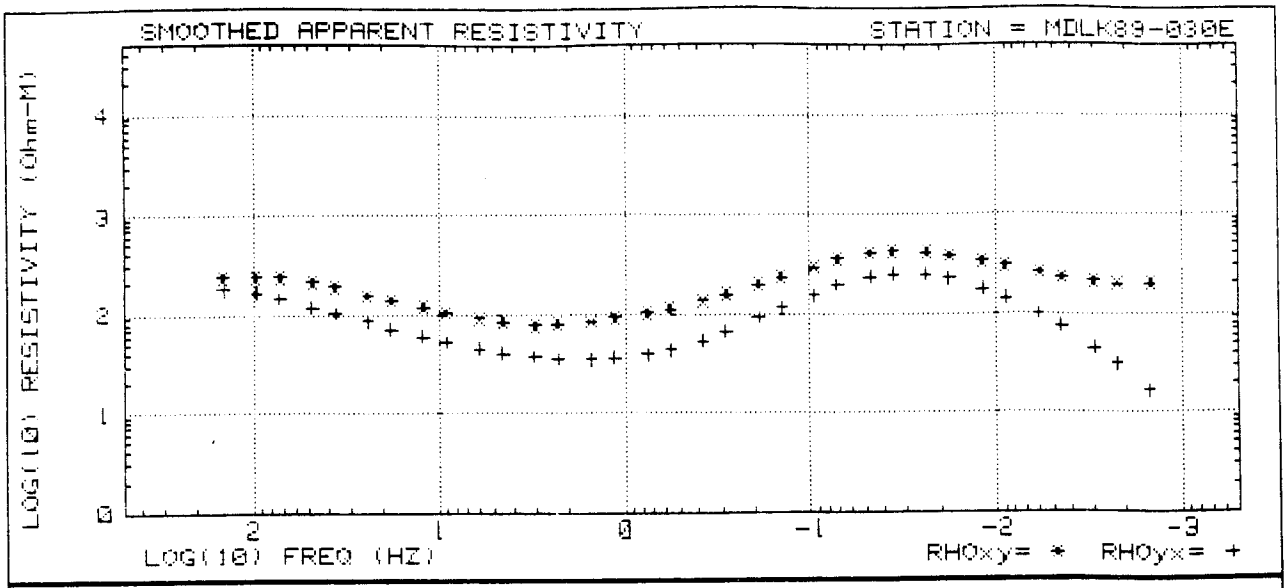
MT Site: MDLK89-030E

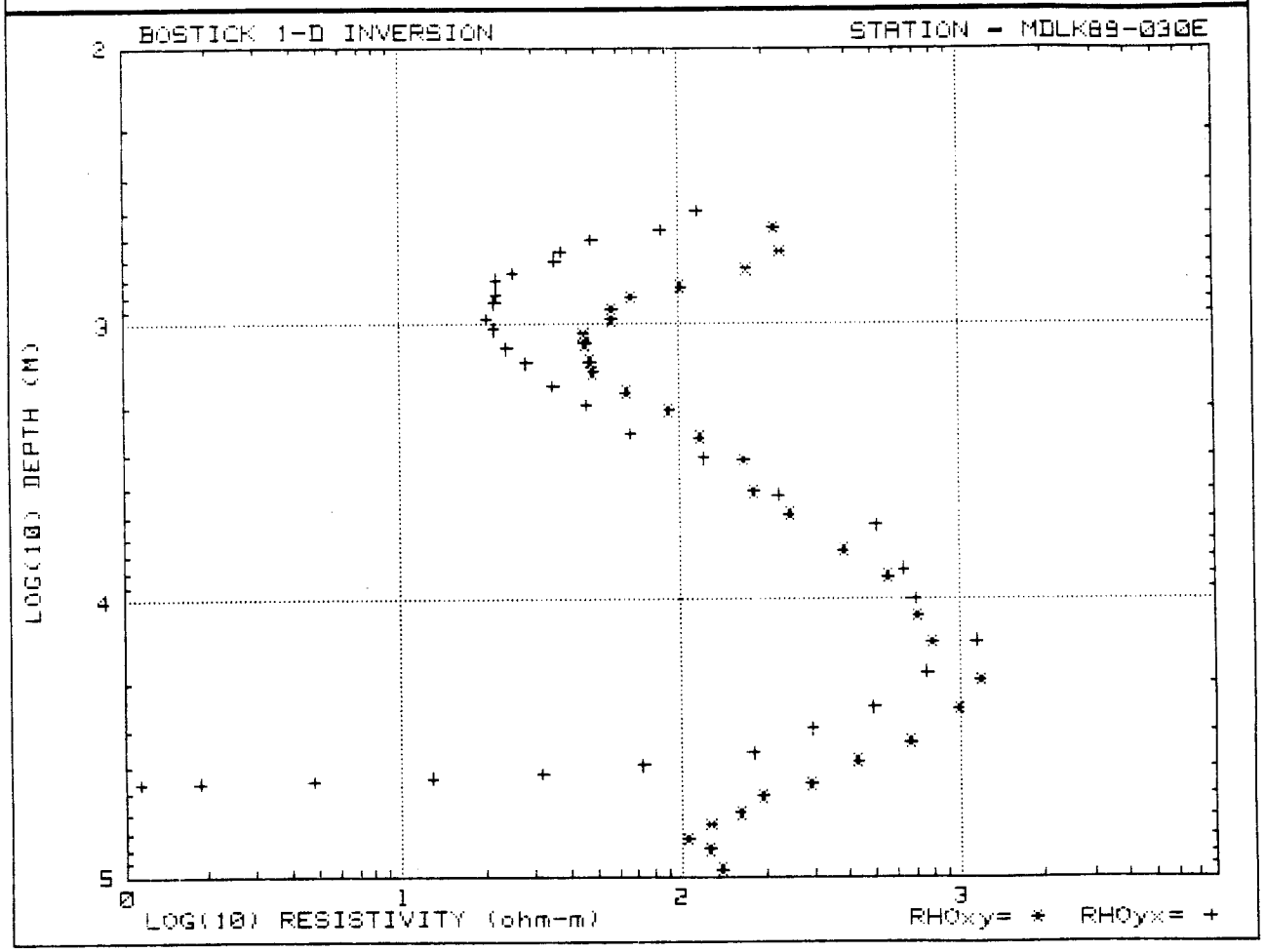




PHOENIX GEOSCIENCE

MT Site: MDLK89-030E





PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	189	236.6	6.7	168.8	26.7	72.4	1.9	-94.8	6.8
5	96.00 Hz	762	233.5	6.6	165.6	3.1	70.1	1.8	-109.3	.9
6	72.00 Hz	384	233.3	7.1	159.7	11.3	55.4	2.0	-121.3	3.1
7	48.00 Hz	762	207.5	5.8	117.3	2.9	71.2	1.6	-105.2	.8
8	36.00 Hz	573	172.7	3.7	98.7	2.6	66.8	1.0	-112.7	.7
9	24.00 Hz	384	151.7	7.0	87.0	4.5	67.3	1.9	-113.7	1.3
10	18.00 Hz	768	141.9	5.6	71.8	3.9	62.7	1.6	-115.4	1.1
11	12.00 Hz	384	116.3	8.2	63.0	6.6	60.2	2.3	-117.9	1.8
12	9.00 Hz	576	95.9	6.7	45.1	5.6	57.3	1.9	-118.6	1.6
13	6.00 Hz	384	86.5	12.4	43.9	12.0	56.1	3.4	-119.2	3.2
14	4.50 Hz	576	84.1	17.4	42.3	14.5	43.9	4.6	-125.6	3.9
15	3.00 Hz	8059	72.0	5.7	35.8	3.9	46.8	1.6	-128.0	1.1
16	2.25 Hz	8539	73.1	5.8	34.1	5.1	42.3	1.6	-130.0	1.4
17	1.50 Hz	6528	88.3	4.9	33.0	5.2	40.9	1.4	-138.3	1.5
18	1.13 Hz	4512	94.6	5.0	35.0	6.0	39.4	1.4	-141.7	1.7
19	1.33 Sec	3264	107.6	9.0	44.1	10.9	38.5	2.5	-143.3	3.0
20	1.78 Sec	3200	106.3	13.7	43.0	18.1	39.5	3.7	-149.4	4.8
21	2.67 Sec	892	127.0	31.6	54.2	28.9	36.7	7.9	-152.1	7.3
22	3.56 Sec	792	136.4	24.9	61.7	39.2	39.6	6.4	-160.0	9.5
23	5.33 Sec	576	161.8	62.9	105.8	84.2	62.5	14.0	-164.3	17.5
24	7.11 Sec	204	211.1	53.3	165.0	63.5	40.7	12.2	-165.9	14.1
25	10.67 Sec	63	238.3	60.6	179.9	99.9	35.4	13.6	-163.3	20.1
26	14.22 Sec	96	292.9	48.8	182.9	55.3	35.6	11.4	-153.9	12.6
27	21.33 Sec	76	407.2	4.0	225.0	7.5	36.7	1.1	-139.4	2.1
28	28.44 Sec	90	417.8	2.1	233.1	2.4	40.1	.6	-136.0	.7
29	42.67 Sec	108	423.2	3.2	241.1	3.6	47.6	.9	-130.4	1.0
30	56.89 Sec	304	370.6	2.9	217.2	5.5	51.3	.8	-126.4	1.5
31	85.33 Sec	96	319.0	2.5	187.7	6.3	54.3	.7	-122.6	1.7
32	113.78 Sec	117	305.7	3.2	147.4	6.8	56.5	.9	-121.7	1.9
33	170.67 Sec	33	244.4	5.8	114.2	12.2	53.9	1.6	-114.6	3.3
34	227.56 Sec	36	196.2	27.0	65.1	40.2	54.5	6.8	-120.5	9.7
35	341.33 Sec	12	185.7	13.3	28.7	62.8	42.9	3.6	-124.2	14.0
36	455.11 Sec	3	205.7	13.2	20.8	39.6	51.9	3.5	-123.8	9.6
37	682.67 Sec	6	214.6	5.1	8.8	56.5	52.0	1.4	-110.7	12.8

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	189	235.0	177.2	220.8	455	117.1	395
5	96.00 Hz	762	232.1	163.1	233.3	553	86.5	464
6	72.00 Hz	384	235.5	143.2	176.2	644	49.0	502
7	48.00 Hz	762	210.0	116.1	102.2	744	38.2	554
8	36.00 Hz	573	185.3	100.9	67.8	807	36.3	596
9	24.00 Hz	384	152.3	83.8	57.5	896	25.6	665
10	18.00 Hz	768	135.5	69.8	57.9	977	22.4	701
11	12.00 Hz	384	115.3	58.6	45.9	1103	22.3	787
12	9.00 Hz	576	100.6	51.2	46.7	1190	22.0	849
13	6.00 Hz	384	89.5	44.5	48.2	1374	20.6	969
14	4.50 Hz	576	81.7	39.7	49.6	1516	21.9	1056
15	3.00 Hz	8059	75.5	36.4	64.7	1786	24.4	1240
16	2.25 Hz	8539	77.4	34.6	92.5	2088	28.6	1395
17	1.50 Hz	6528	80.3	34.1	118.1	2604	35.5	1697
18	1.13 Hz	4512	88.4	35.1	170.4	3154	47.0	1987
19	1.33 Sec	3264	100.0	37.7	185.5	4110	67.4	2524
20	1.78 Sec	3200	108.8	42.6	248.4	4949	122.9	3099
21	2.67 Sec	892	131.2	52.8	385.8	6656	226.5	4223
22	3.56 Sec	792	153.0	65.6	558.9	8301	507.4	5437
23	5.33 Sec	576	194.7	90.1	716.4	11469	634.7	7801
24	7.11 Sec	204	227.6	110.5	798.8	14316	700.4	9976
25	10.67 Sec	63	286.4	149.2	1188.8	19670	1156.2	14195
26	14.22 Sec	96	347.7	188.6	990.7	25027	768.7	18432
27	21.33 Sec	76	399.6	227.0	673.3	32857	494.5	24767
28	28.44 Sec	90	415.0	243.9	433.8	38666	296.1	29640
29	42.67 Sec	108	405.7	242.8	293.7	46825	182.2	36219
30	56.89 Sec	304	371.4	220.9	197.1	51728	73.5	39899
31	85.33 Sec	96	328.1	171.5	162.8	59544	32.2	43057
32	113.78 Sec	117	294.1	137.5	127.8	65098	13.0	44512
33	170.67 Sec	33	249.6	96.7	106.4	73454	4.8	45708
34	227.56 Sec	36	222.5	73.4	126.8	80083	1.9	46165
35	341.33 Sec	12	206.4	44.5	140.0	94471	1.1	46627
36	455.11 Sec	3	194.8	30.3	158.8	105968	.78	47093
37	682.67 Sec	6	192.4	16.1	180.7	128967	.41	47564

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	189	28.66	-1.51	845.43	124.64	393.46	358.47
5	96.00 Hz	762	-2.67	1.63	60.28	113.80	314.82	227.83
6	72.00 Hz	384	-9.64	-7.37	327.70	164.75	238.44	198.74
7	48.00 Hz	762	5.60	-8.75	31.56	72.02	211.20	80.40
8	36.00 Hz	573	-10.22	1.18	10.88	69.44	162.09	20.45
9	24.00 Hz	384	-7.92	-4.13	15.48	52.05	124.47	41.95
10	18.00 Hz	768	-3.40	-2.42	10.77	51.82	100.44	18.79
11	12.00 Hz	384	-.52	-1.44	15.88	41.50	72.50	21.59
12	9.00 Hz	576	-1.83	.75	6.87	35.49	55.26	9.03
13	6.00 Hz	384	-4.47	.93	16.26	28.39	42.28	17.76
14	4.50 Hz	576	.33	-1.66	17.82	31.35	30.15	24.30
15	3.00 Hz	8059	-2.05	-1.35	1.52	22.50	23.96	1.67
16	2.25 Hz	8539	-1.45	-1.46	1.75	21.19	19.31	1.31
17	1.50 Hz	6528	-1.27	-.78	1.34	19.44	16.85	.76
18	1.13 Hz	4512	-.50	-1.83	1.10	17.83	14.63	.62
19	1.33 Sec	3264	-.142	-1.954	1.972	15.716	12.508	1.492
20	1.78 Sec	3200	.275	-1.641	3.868	13.352	10.989	2.480
21	2.67 Sec	892	2.270	-2.908	7.066	12.375	9.222	8.979
22	3.56 Sec	792	1.979	-1.065	4.926	10.673	8.830	4.729
23	5.33 Sec	576	2.183	3.090	30.262	5.680	10.928	18.050
24	7.11 Sec	204	3.452	-.766	19.255	9.234	7.947	13.550
25	10.67 Sec	63	2.465	.633	8.350	8.611	6.129	12.532
26	14.22 Sec	96	1.858	-.980	3.074	8.249	5.911	8.133
27	21.33 Sec	76	1.467	-.248	.082	7.831	5.840	.075
28	28.44 Sec	90	1.061	.235	.003	6.557	5.518	.015
29	42.67 Sec	108	.825	.418	.015	4.745	5.203	.024
30	56.89 Sec	304	.650	.445	.009	3.572	4.451	.013
31	85.33 Sec	96	.533	.354	.013	2.522	3.511	.006
32	113.78 Sec	117	.356	.356	.012	2.024	3.056	.007
33	170.67 Sec	33	.261	.209	.009	1.575	2.163	.011
34	227.56 Sec	36	.171	.129	.083	1.205	1.690	.123
35	341.33 Sec	12	-.277	-.550	.010	1.209	1.122	.021
36	455.11 Sec	3	.007	.045	.005	.928	1.183	.017
37	682.67 Sec	6	.154	.175	.001	.772	.988	.002

PHOENIX GEOSCIENCE

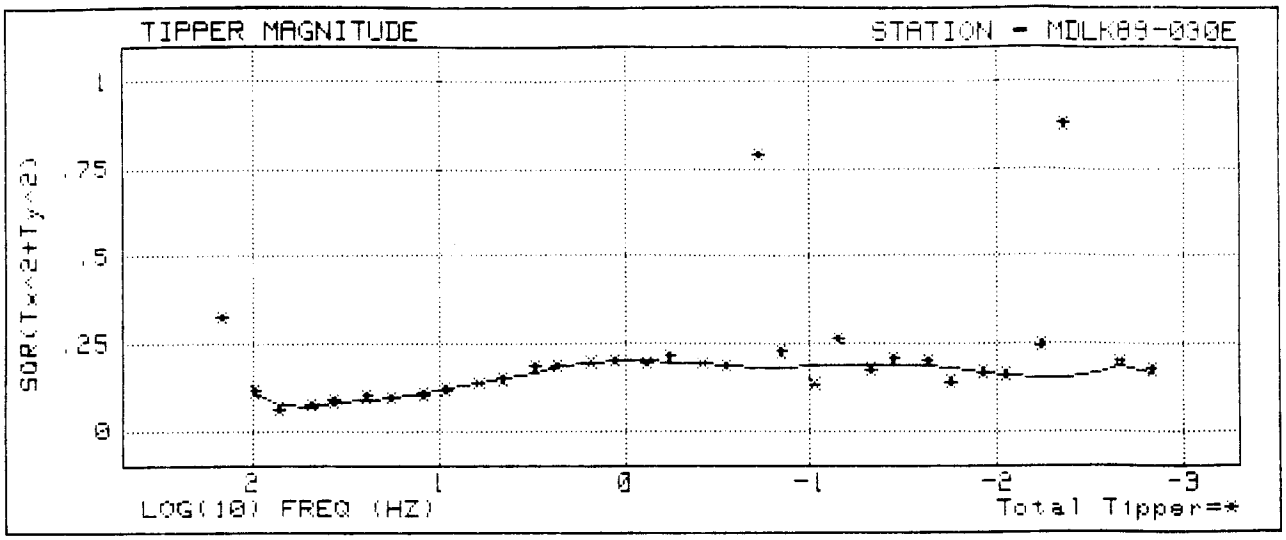
MT Site: MDLK89-030E

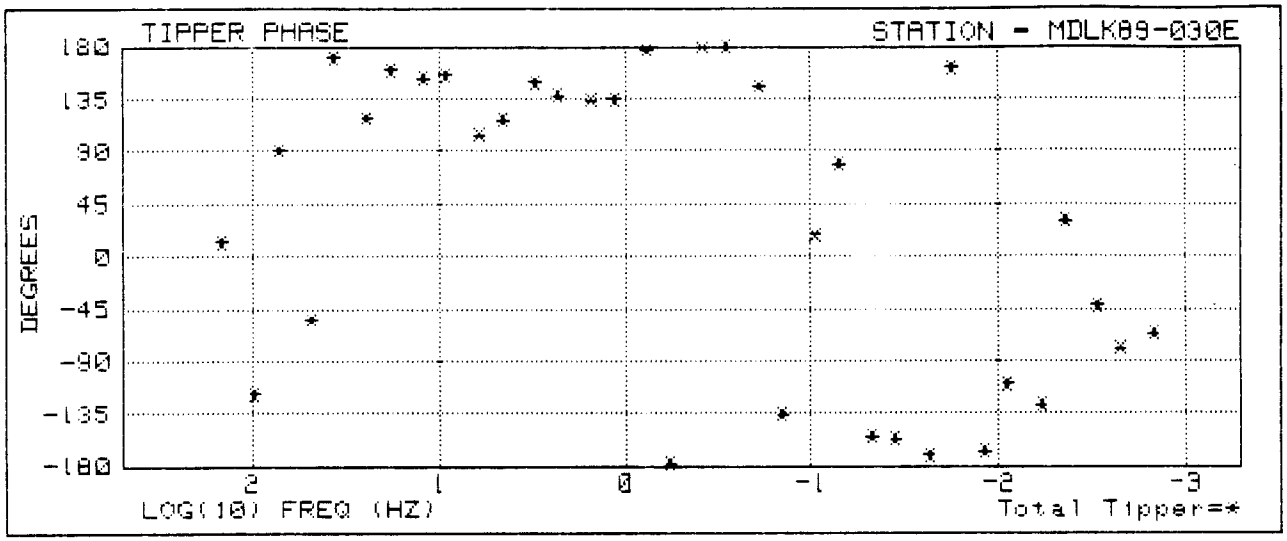
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

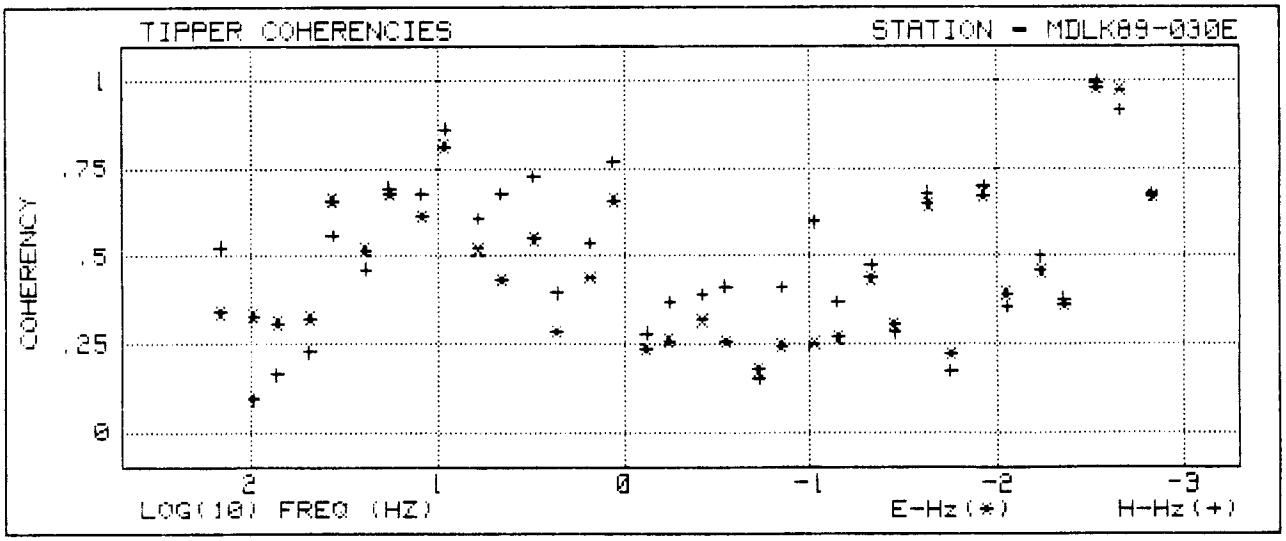
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	189	-28.94	-347.41	999.99	21.15	14.10	999.99
5	96.00 Hz	762	-93.12	-266.14	37.57	.39	.33	142.00
6	72.00 Hz	384	-124.75	-204.77	328.66	-9.94	-7.01	199.32
7	48.00 Hz	762	-43.99	-161.91	11.76	-.78	-5.12	29.95
8	36.00 Hz	573	-51.54	-122.94	6.02	2.85	-4.30	11.31
9	24.00 Hz	384	-41.04	-93.58	10.19	.54	-7.14	27.61
10	18.00 Hz	768	-34.51	-72.61	4.71	-.26	-4.37	8.22
11	12.00 Hz	384	-28.75	-54.35	7.61	-1.04	-1.07	10.35
12	9.00 Hz	576	-21.54	-39.55	3.01	2.56	-3.14	3.95
13	6.00 Hz	384	-17.70	-31.68	8.42	-.95	-2.62	9.20
14	4.50 Hz	576	-17.95	-25.10	8.71	.10	-1.06	11.88
15	3.00 Hz	8059	-14.28	-18.26	.38	-1.31	-2.42	.42
16	2.25 Hz	8539	-12.60	-15.00	.47	-1.12	-2.13	.35
17	1.50 Hz	6528	-11.76	-10.46	.32	-.95	-1.16	.18
18	1.13 Hz	4512	-11.01	-8.69	.33	-1.37	-.83	.19
19	1.33 Sec	3264	-10.314	-7.677	.879	-1.469	-.471	.665
20	1.78 Sec	3200	-9.466	-5.607	1.677	-1.689	-.222	1.075
21	2.67 Sec	892	-8.910	-4.716	3.271	-1.287	-.173	4.156
22	3.56 Sec	792	-8.750	-3.185	4.752	-1.056	-.031	4.562
23	5.33 Sec	576	-9.591	-2.693	18.530	-2.655	.792	11.053
24	7.11 Sec	204	-10.446	-2.624	14.027	-.885	-1.754	9.871
25	10.67 Sec	63	-8.794	-2.646	20.813	.140	.510	31.239
26	14.22 Sec	96	-7.204	-3.522	6.228	.282	-.292	16.481
27	21.33 Sec	76	-5.514	-4.727	.138	1.037	.647	.126
28	28.44 Sec	90	-4.606	-4.445	.012	.838	.640	.058
29	42.67 Sec	108	-3.445	-4.048	.018	.749	.503	.029
30	56.89 Sec	304	-2.594	-3.515	.027	.603	.494	.038
31	85.33 Sec	96	-1.786	-2.794	.020	.444	.446	.009
32	113.78 Sec	117	-1.339	-2.165	.014	.379	.338	.008
33	170.67 Sec	33	-.762	-1.663	.022	.186	.332	.028
34	227.56 Sec	36	-.608	-1.030	.082	.065	.225	.122
35	341.33 Sec	12	-.365	-.536	.050	-.228	-.620	.111
36	455.11 Sec	3	-.266	-.397	.013	-.208	.226	.045
37	682.67 Sec	6	-.090	-.237	.006	-.280	.570	.009

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E







PHOENIX GEOSCIENCE

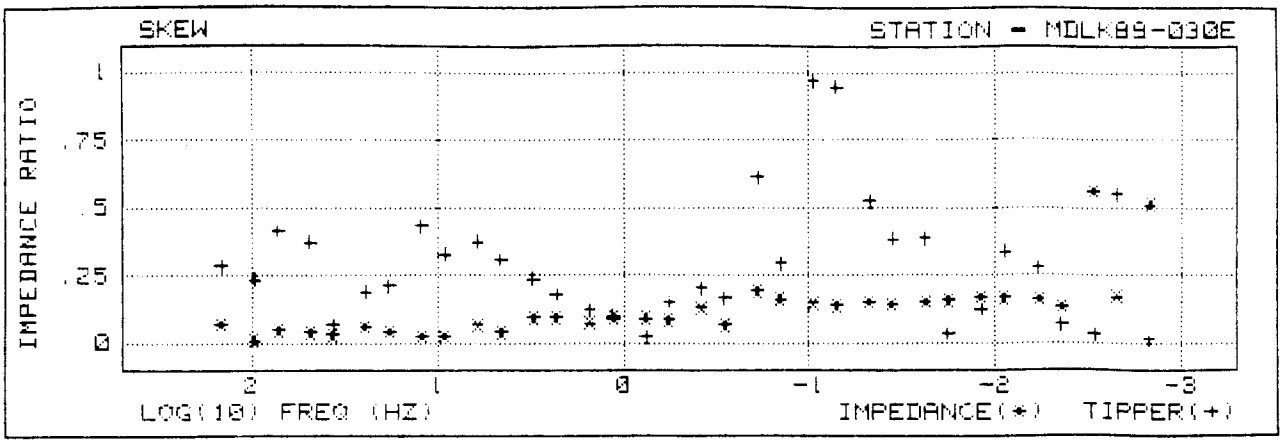
MT Site: MDLK89-030E

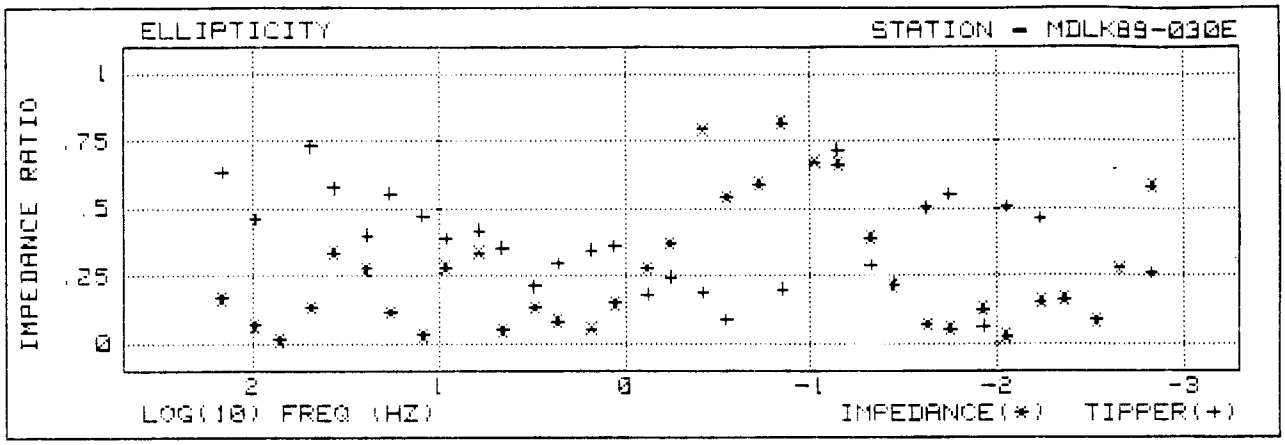
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

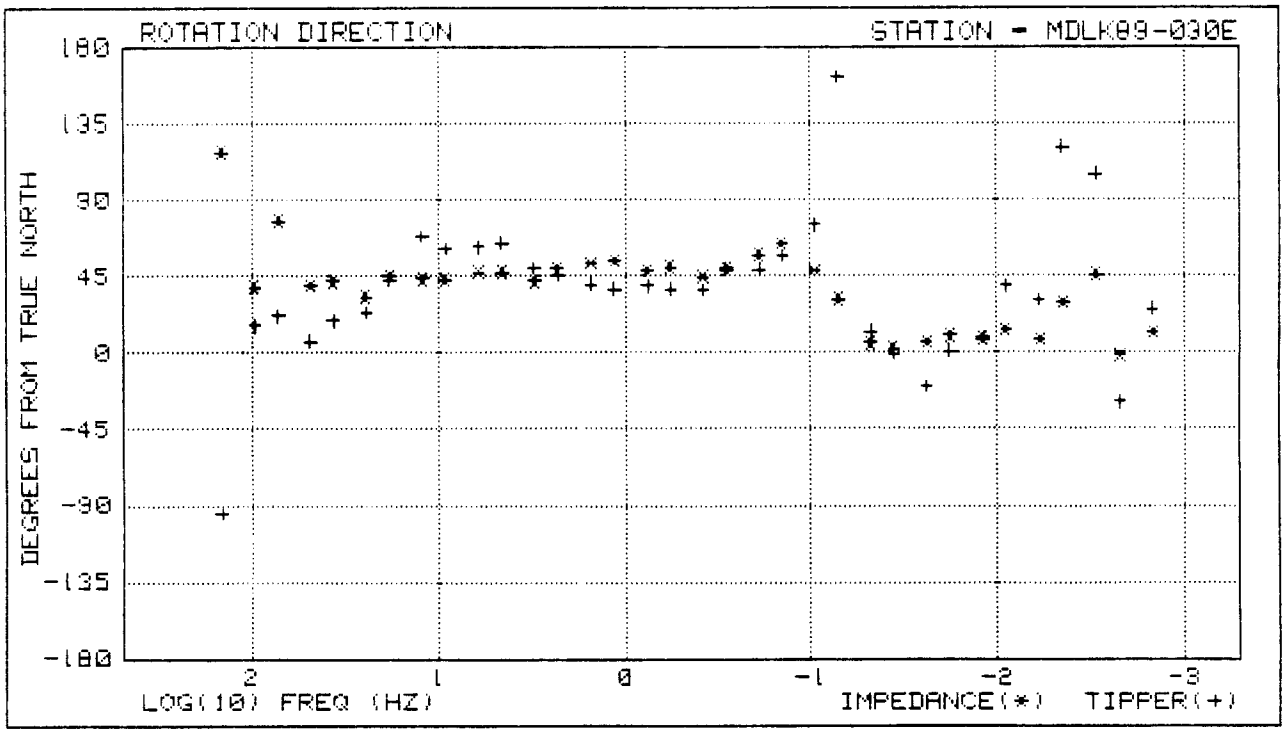
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	189	.32	11.36	.34	.52
5	96.00 Hz	762	.11	-118.60	.33	.09
6	72.00 Hz	384	.06	90.28	.30	.16
7	48.00 Hz	762	.07	-55.27	.32	.22
8	36.00 Hz	573	.08	169.25	.66	.55
9	24.00 Hz	384	.10	117.63	.51	.46
10	18.00 Hz	768	.09	158.61	.67	.69
11	12.00 Hz	384	.10	151.68	.61	.67
12	9.00 Hz	576	.11	154.49	.81	.86
13	6.00 Hz	384	.14	103.68	.52	.60
14	4.50 Hz	576	.15	116.07	.43	.67
15	3.00 Hz	8059	.18	148.56	.54	.72
16	2.25 Hz	8539	.18	137.12	.28	.39
17	1.50 Hz	6528	.19	132.46	.43	.53
18	1.13 Hz	4512	.20	133.20	.65	.76
19	1.33 Sec	3264	.19	176.02	.23	.28
20	1.78 Sec	3200	.21	-178.30	.26	.37
21	2.67 Sec	892	.19	178.37	.31	.39
22	3.56 Sec	792	.18	178.95	.25	.41
23	5.33 Sec	576	.79	144.68	.17	.15
24	7.11 Sec	204	.22	-136.14	.24	.41
25	10.67 Sec	63	.13	17.66	.25	.59
26	14.22 Sec	96	.26	78.00	.27	.37
27	21.33 Sec	76	.17	-155.41	.43	.47
28	28.44 Sec	90	.20	-157.15	.30	.28
29	42.67 Sec	108	.20	-171.72	.64	.68
30	56.89 Sec	304	.14	160.95	.22	.17
31	85.33 Sec	96	.16	-168.10	.67	.69
32	113.78 Sec	117	.16	-110.56	.39	.35
33	170.67 Sec	33	.24	-127.89	.45	.50
34	227.56 Sec	36	.88	30.00	.36	.37
35	341.33 Sec	12	5.21	-43.33	.98	.99
36	455.11 Sec	3	.20	-79.64	.97	.91
37	682.67 Sec	6	.17	-66.94	.67	.67

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E







PHOENIX GEOSCIENCE

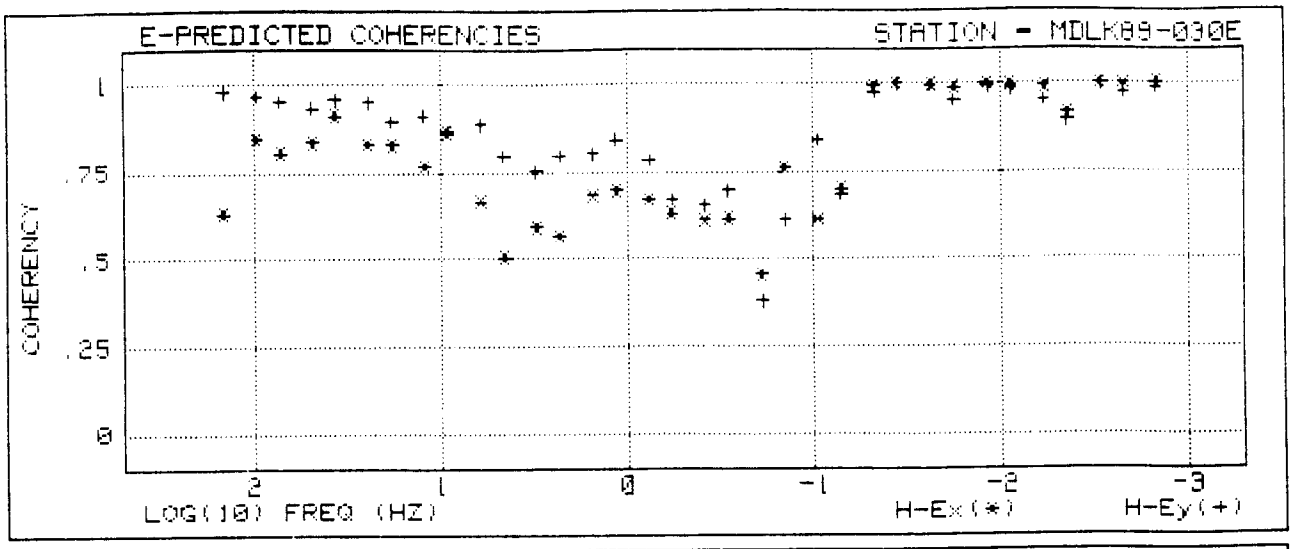
MT Site: MDLK89-030E

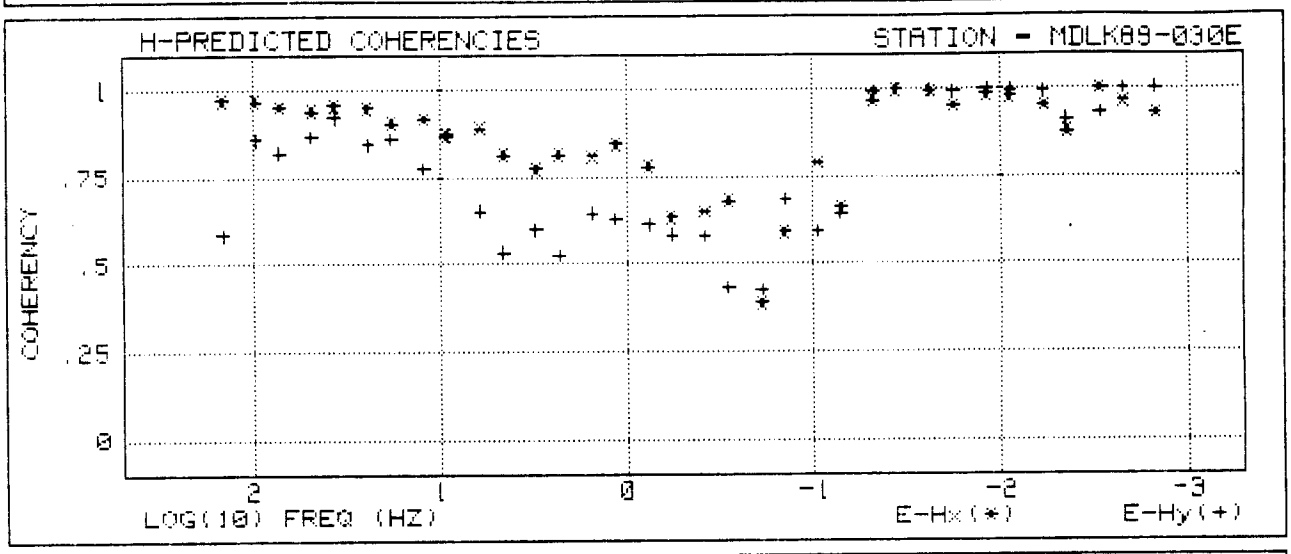
SKEW, ELLIPTICITY AND STRIKE

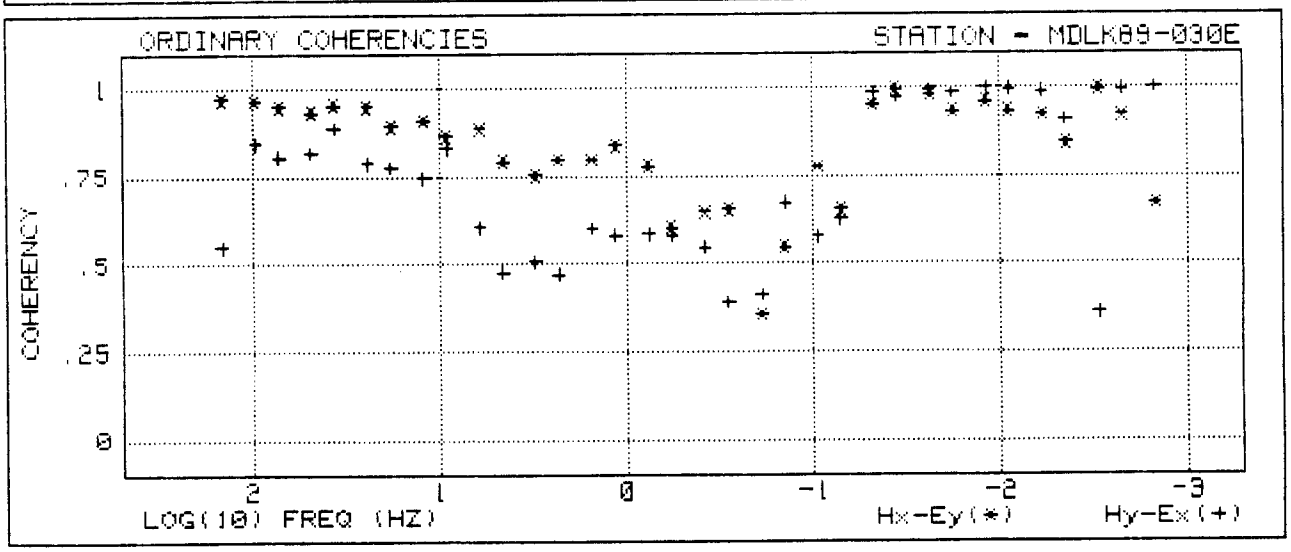
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00 Hz	189	.07	.16	117.26	.28	.63	-94.89
5	96.00 Hz	762	.00	.06	37.74	.23	.46	15.32
6	72.00 Hz	384	.05	.01	76.92	.41	1.79	20.82
7	48.00 Hz	762	.04	.13	38.68	.37	.73	6.35
8	36.00 Hz	573	.03	.33	41.45	.07	.57	18.11
9	24.00 Hz	384	.06	.27	32.27	.19	.40	22.98
10	18.00 Hz	768	.04	.11	44.52	.21	.55	41.72
11	12.00 Hz	384	.02	.03	42.63	.43	.47	67.76
12	9.00 Hz	576	.02	.28	42.39	.32	.39	60.81
13	6.00 Hz	384	.07	.33	46.74	.37	.41	61.44
14	4.50 Hz	576	.04	.04	46.56	.30	.35	64.12
15	3.00 Hz	8059	.09	.13	41.20	.23	.21	48.85
16	2.25 Hz	8539	.09	.08	48.41	.18	.30	44.78
17	1.50 Hz	6528	.07	.05	52.10	.12	.34	39.27
18	1.13 Hz	4512	.09	.15	53.47	.10	.36	36.38
19	1.33 Sec	3264	.09	.27	47.56	.02	.18	38.36
20	1.78 Sec	3200	.08	.36	49.51	.15	.24	36.29
21	2.67 Sec	892	.13	.79	43.65	.20	.18	36.15
22	3.56 Sec	792	.06	.54	48.40	.16	.08	48.13
23	5.33 Sec	576	.19	.59	56.75	.61	2.02	48.11
24	7.11 Sec	204	.16	.81	63.58	.29	.20	56.26
25	10.67 Sec	63	.15	.67	47.77	.96	1.30	74.41
26	14.22 Sec	96	.14	.66	30.78	.94	.71	161.63
27	21.33 Sec	76	.15	.39	4.92	.52	.28	11.85
28	28.44 Sec	90	.14	.21	1.85	.38	.21	-1.69
29	42.67 Sec	108	.15	.07	5.80	.38	.50	-20.55
30	56.89 Sec	304	.16	.05	9.62	.03	.55	.14
31	85.33 Sec	96	.17	.13	7.63	.12	.06	8.48
32	113.78 Sec	117	.16	.03	13.00	.33	.50	38.54
33	170.67 Sec	33	.16	.15	7.06	.27	.46	30.38
34	227.56 Sec	36	.13	.16	28.94	.06	23.59	120.54
35	341.33 Sec	12	.56	.08	45.22	.03	1.67	104.28
36	455.11 Sec	3	.17	.27	-1.86	.55	1.18	-29.73
37	682.67 Sec	6	.50	.58	11.56	.01	.26	24.70

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E







PHOENIX GEOSCIENCE

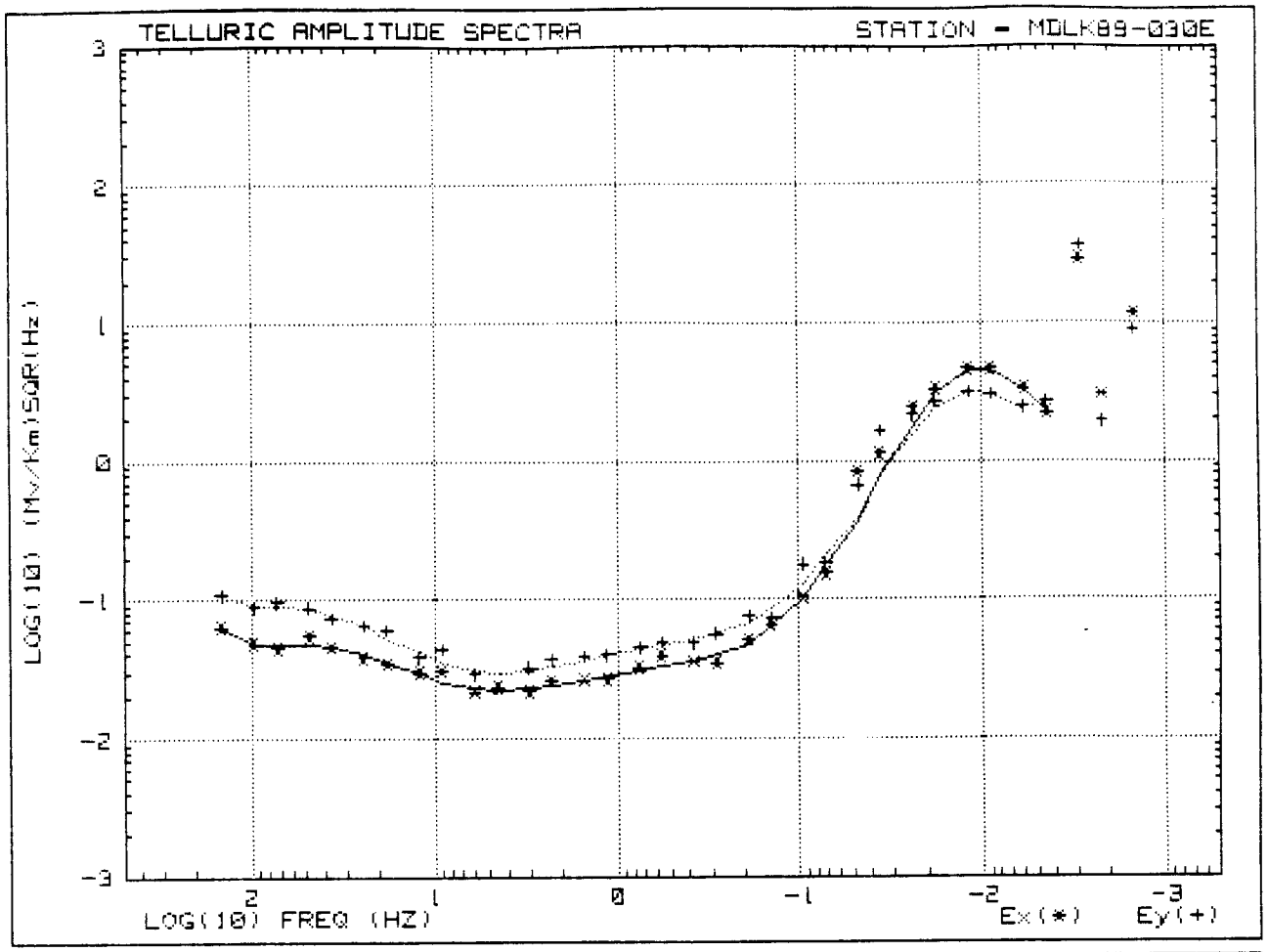
MT Site: MDLK89-030E

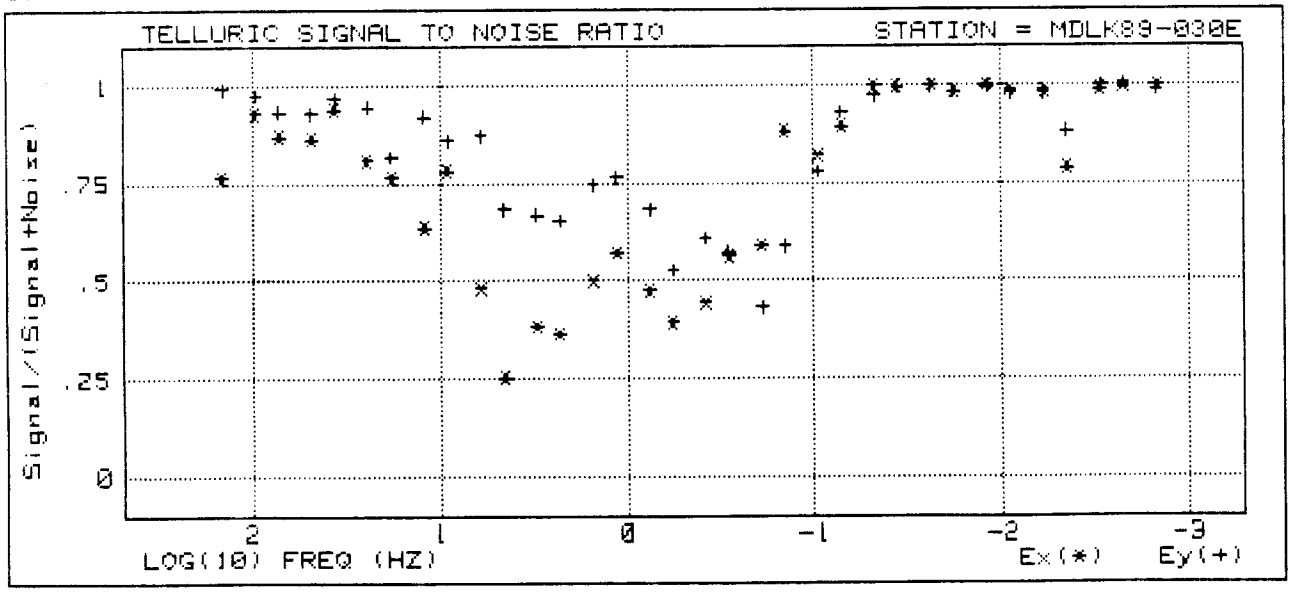
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	189	.63	.97	.97	.58	.96	.55
5	96.00 Hz	762	.84	.96	.96	.85	.96	.84
6	72.00 Hz	384	.80	.95	.95	.82	.95	.80
7	48.00 Hz	762	.83	.93	.94	.86	.93	.82
8	36.00 Hz	573	.91	.95	.95	.92	.95	.88
9	24.00 Hz	384	.83	.94	.94	.84	.94	.78
10	18.00 Hz	768	.83	.89	.90	.86	.89	.77
11	12.00 Hz	384	.77	.91	.91	.77	.91	.74
12	9.00 Hz	576	.86	.86	.87	.87	.86	.83
13	6.00 Hz	384	.66	.88	.89	.65	.88	.60
14	4.50 Hz	576	.50	.79	.81	.53	.79	.47
15	3.00 Hz	8059	.59	.75	.77	.59	.75	.50
16	2.25 Hz	8539	.56	.79	.81	.52	.79	.47
17	1.50 Hz	6528	.68	.80	.80	.64	.79	.60
18	1.13 Hz	4512	.69	.84	.84	.63	.83	.58
19	1.33 Sec	3264	.67	.78	.78	.61	.77	.58
20	1.78 Sec	3200	.63	.67	.63	.58	.60	.58
21	2.67 Sec	892	.61	.65	.65	.58	.64	.54
22	3.56 Sec	792	.61	.69	.68	.43	.65	.39
23	5.33 Sec	576	.45	.38	.38	.42	.35	.41
24	7.11 Sec	204	.76	.61	.59	.68	.54	.67
25	10.67 Sec	63	.61	.84	.79	.59	.77	.57
26	14.22 Sec	96	.70	.68	.66	.64	.65	.62
27	21.33 Sec	76	.99	.97	.96	.99	.95	.98
28	28.44 Sec	90	1.00	.99	.99	1.00	.99	.97
29	42.67 Sec	108	.99	.99	.99	.99	.98	.99
30	56.89 Sec	304	.99	.95	.95	.99	.93	.98
31	85.33 Sec	96	1.00	.99	.98	1.00	.96	.99
32	113.78 Sec	117	.99	.98	.97	.99	.93	.99
33	170.67 Sec	33	.99	.95	.95	.99	.92	.98
34	227.56 Sec	36	.91	.89	.87	.91	.84	.90
35	341.33 Sec	12	1.00	.99	1.00	.93	.99	.36
36	455.11 Sec	3	1.00	.97	.96	1.00	.92	.99
37	682.67 Sec	6	1.00	.98	.93	1.00	.67	1.00

PHOENIX GEOSCIENCE

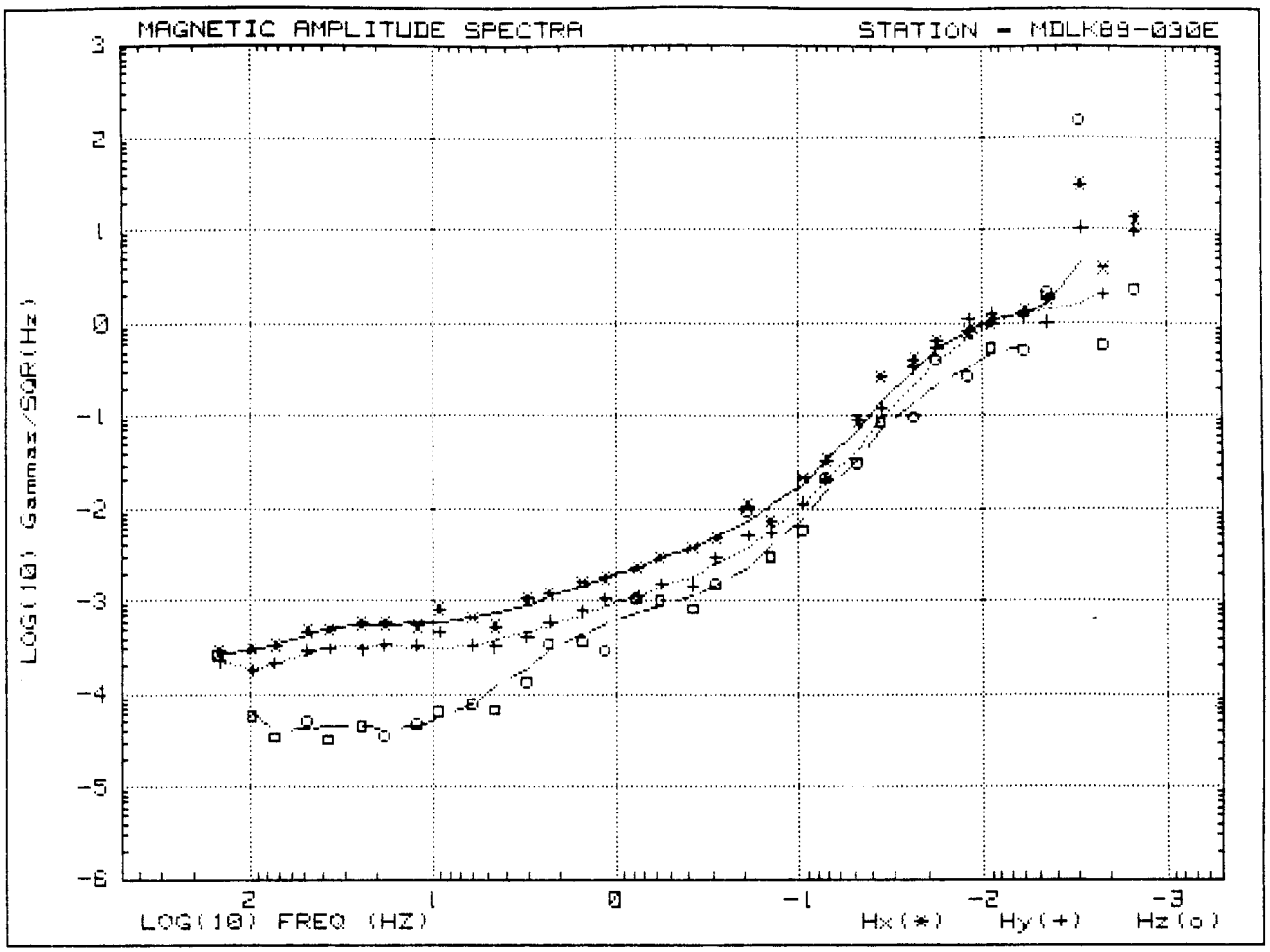
MT Site: MDLK89-030E

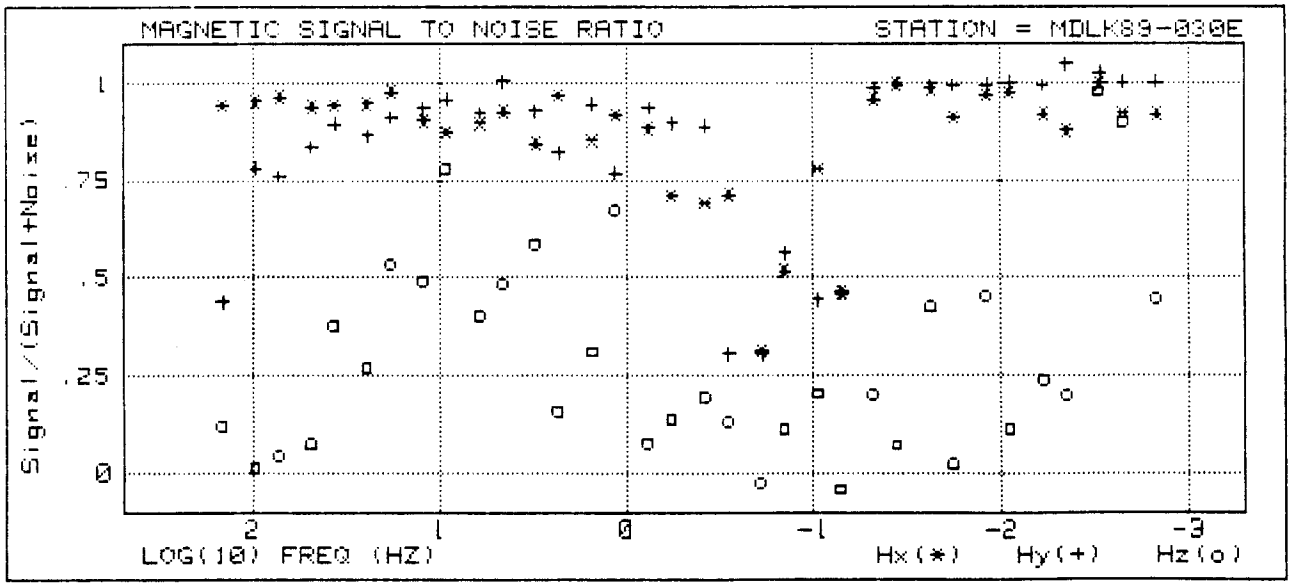




PHOENIX GEOSCIENCE

MT Site: MDLK89-030E





PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	189	2.76E-04	2.20E-04	2.77E-04	6.26E-02	1.06E-01
5	96.00 Hz	762	3.01E-04	1.77E-04	6.18E-05	4.78E-02	8.77E-02
6	72.00 Hz	384	3.24E-04	2.12E-04	3.63E-05	4.45E-02	9.46E-02
7	48.00 Hz	762	4.65E-04	2.92E-04	5.37E-05	5.40E-02	8.66E-02
8	36.00 Hz	573	4.90E-04	3.03E-04	3.43E-05	4.52E-02	7.24E-02
9	24.00 Hz	384	5.77E-04	2.97E-04	4.71E-05	3.77E-02	6.41E-02
10	18.00 Hz	768	5.75E-04	3.33E-04	3.81E-05	3.39E-02	5.93E-02
11	12.00 Hz	384	5.41E-04	3.28E-04	4.92E-05	2.93E-02	3.81E-02
12	9.00 Hz	576	8.06E-04	4.62E-04	6.98E-05	3.02E-02	4.31E-02
13	6.00 Hz	384	6.52E-04	3.25E-04	8.21E-05	2.12E-02	2.87E-02
14	4.50 Hz	576	5.32E-04	3.17E-04	7.04E-05	2.30E-02	2.29E-02
15	3.00 Hz	8059	1.03E-03	4.07E-04	1.43E-04	2.18E-02	3.17E-02
16	2.25 Hz	8539	1.21E-03	5.96E-04	3.66E-04	2.58E-02	3.62E-02
17	1.50 Hz	6528	1.60E-03	7.72E-04	3.77E-04	2.61E-02	3.81E-02
18	1.13 Hz	4512	1.79E-03	1.04E-03	3.03E-04	2.64E-02	3.95E-02
19	1.33 Sec	3264	2.31E-03	1.12E-03	1.11E-03	3.20E-02	4.46E-02
20	1.78 Sec	3200	2.91E-03	1.52E-03	1.05E-03	3.91E-02	4.86E-02
21	2.67 Sec	892	3.74E-03	1.45E-03	8.71E-04	3.52E-02	4.81E-02
22	3.56 Sec	792	4.73E-03	2.87E-03	1.59E-03	3.45E-02	5.59E-02
23	5.33 Sec	576	1.05E-02	5.04E-03	9.71E-03	5.08E-02	7.56E-02
24	7.11 Sec	204	7.26E-03	5.40E-03	3.06E-03	6.54E-02	7.13E-02
25	10.67 Sec	63	2.10E-02	1.12E-02	6.20E-03	1.03E-01	1.78E-01
26	14.22 Sec	96	3.27E-02	2.03E-02	2.21E-02	1.53E-01	1.80E-01
27	21.33 Sec	76	8.71E-02	8.67E-02	3.33E-02	8.23E-01	6.64E-01
28	28.44 Sec	90	2.61E-01	1.21E-01	9.09E-02	1.12E+00	1.63E+00
29	42.67 Sec	108	4.01E-01	3.28E-01	1.02E-01	2.41E+00	2.13E+00
30	56.89 Sec	304	6.30E-01	5.49E-01	4.23E-01	3.26E+00	2.64E+00
31	85.33 Sec	96	7.96E-01	1.07E+00	2.77E-01	4.52E+00	3.08E+00
32	113.78 Sec	117	9.96E-01	1.26E+00	5.80E-01	4.57E+00	2.97E+00
33	170.67 Sec	33	1.34E+00	1.19E+00	5.48E-01	3.25E+00	2.41E+00
34	227.56 Sec	36	1.79E+00	1.00E+00	2.23E+00	2.18E+00	2.63E+00
35	341.33 Sec	12	3.02E+01	1.02E+01	1.62E+02	2.80E+01	3.54E+01
36	455.11 Sec	3	3.82E+00	1.99E+00	6.04E-01	2.97E+00	1.90E+00
37	682.67 Sec	6	1.34E+01	9.76E+00	2.47E+00	1.16E+01	8.68E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	189	.940	.436	.123	.763	.989
5	96.00 Hz	762	.951	.779	.016	.927	.973
6	72.00 Hz	384	.961	.758	.047	.867	.931
7	48.00 Hz	762	.937	.834	.077	.861	.926
8	36.00 Hz	573	.941	.893	.383	.938	.964
9	24.00 Hz	384	.946	.863	.277	.807	.943
10	18.00 Hz	768	.974	.910	.540	.763	.816
11	12.00 Hz	384	.901	.933	.498	.634	.918
12	9.00 Hz	576	.873	.956	.782	.779	.857
13	6.00 Hz	384	.894	.922	.405	.479	.870
14	4.50 Hz	576	.925	1.000	.488	.251	.682
15	3.00 Hz	8059	.842	.926	.592	.381	.666
16	2.25 Hz	8539	.967	.820	.164	.363	.651
17	1.50 Hz	6528	.852	.943	.316	.498	.744
18	1.13 Hz	4512	.917	.767	.678	.569	.762
19	1.33 Sec	3264	.883	.935	.082	.473	.682
20	1.78 Sec	3200	.708	.894	.145	.392	.526
21	2.67 Sec	892	.690	.886	.198	.441	.607
22	3.56 Sec	792	.711	.302	.138	.562	.572
23	5.33 Sec	576	.311	.302	0.000	.589	.430
24	7.11 Sec	204	.516	.560	.119	.880	.587
25	10.67 Sec	63	.777	.441	.209	.819	.778
26	14.22 Sec	96	.458	.460	0.000	.893	.929
27	21.33 Sec	76	.956	.984	.207	.996	.971
28	28.44 Sec	90	.994	.999	.077	.995	.993
29	42.67 Sec	108	.982	.988	.430	.997	.995
30	56.89 Sec	304	.910	.992	.027	.981	.982
31	85.33 Sec	96	.967	.995	.459	.998	.994
32	113.78 Sec	117	.974	.999	.117	.986	.977
33	170.67 Sec	33	.918	.992	.245	.983	.978
34	227.56 Sec	36	.877	1.000	.205	.785	.881
35	341.33 Sec	12	.996	1.000	.983	.988	.995
36	455.11 Sec	3	.922	1.000	.907	.992	1.000
37	682.67 Sec	6	.917	1.000	.451	.997	.987

PHOENIX GEOSCIENCE

MT Site: MDLK89-030E

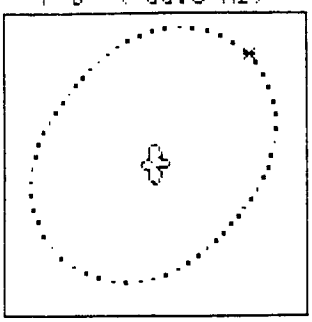
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

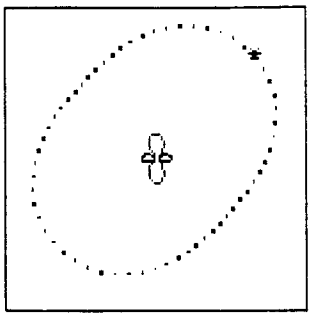
*=Rotation Direction

Zxy = ...
Zxx = ___

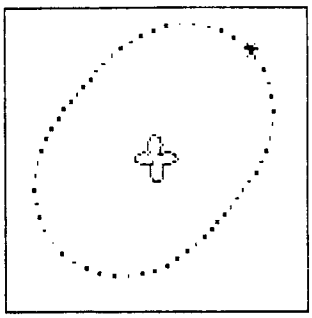
F=8 (36.0 Hz)



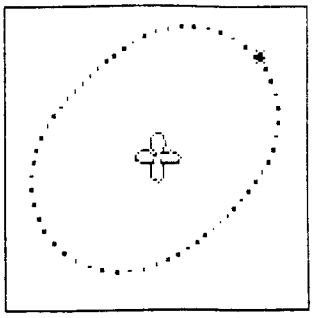
F=10 (18.0 Hz)



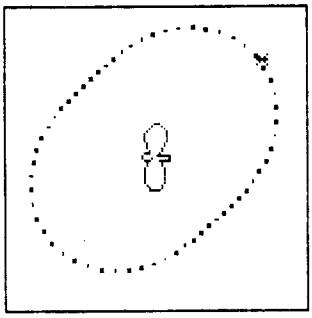
F=12 (9.0 Hz)



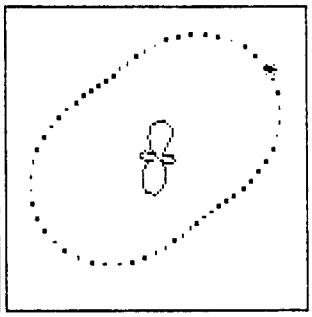
F=14 (4.5 Hz)



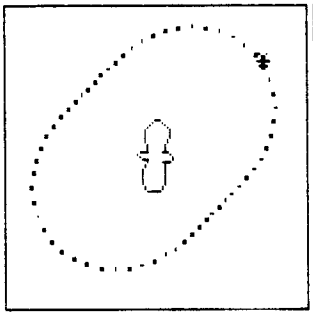
F=16 (2.3 Hz)



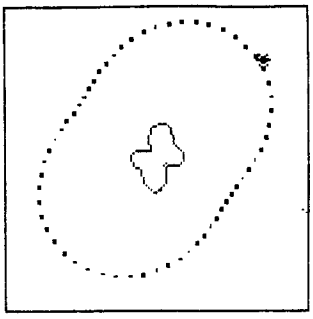
F=18 (1.1 Hz)



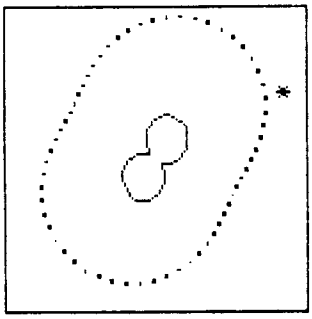
F=20 (.5625 Hz)



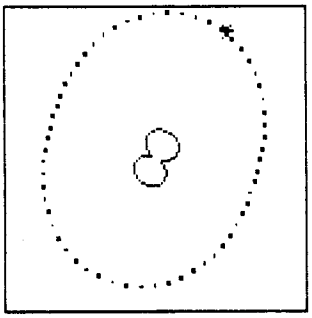
F=22 (.2813 Hz)



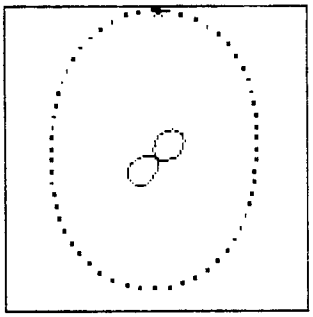
F=24 (.1406 Hz)



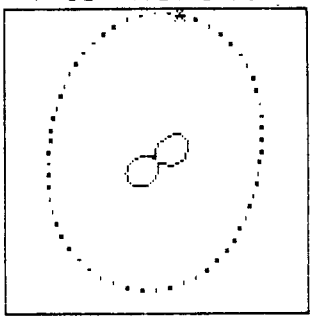
F=26 (.0703 Hz)



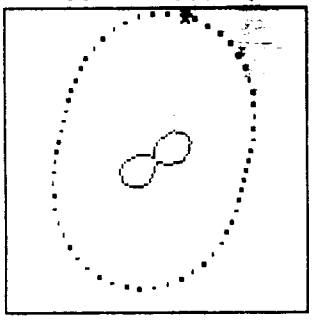
F=28 (.0352 Hz)



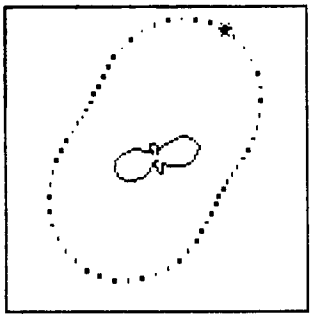
F=30 (.0176 Hz)



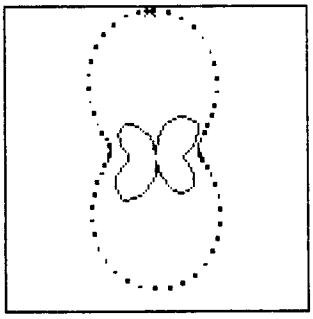
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-031a/048a/

Operator:OJALA
Date: 6 Sep 1989
Time: 18:07:28

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#445-05Sep89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#210-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 1

Stn Number:MDLK89-031a
Site Desc:T43N R3E SEC11 NW4
41,35,18 N 121,35,54 W
Elevation:6685 FT
Reference:MDLK89-048a
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: SNOW
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL205	+0 DEG
Hy	2	COIL445	+90 DEG
Hz	3	LOOP333	
Ex	4	138 M	+0 DEG
Ey	5	168 M	+90 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL210	+90 DEG

Ex Pot Resist: 21.0K Ohms
Ex Voltage: AC=3.0 mv, DC=65.9 mv
Ey Pot Resist: 17.0K Ohms
Ey Voltage: AC=2.3 mv, DC=37.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

OPERATOR LOG FOR MT SITES MDLK89-031a/048a/
Run Chronology

Run STARTED:	18:07:28	6 Sep 1989
Data Acquisition Begun:	18:16:57	6 Sep 1989
Entered LO Range:	18:17:07	6 Sep 1989
Began LO X#2:	19:23:52	6 Sep 1989
Exited LO Range:	19:56:48	6 Sep 1989
Entered LO Range:	19:56:54	6 Sep 1989
Began LO X#3:	20:30:44	6 Sep 1989
Began LO X#4:	21:37:27	6 Sep 1989
Began LO X#5:	23:06:23	6 Sep 1989
Began LO X#6:	00:35:14	7 Sep 1989
Began LO X#7:	02:04:10	7 Sep 1989
Began LO X#8:	03:33:03	7 Sep 1989
Began LO X#9:	05:01:54	7 Sep 1989
Began LO X#10:	06:30:47	7 Sep 1989
Exited LO Range:	08:44:06	7 Sep 1989
Entered HI Range:	08:52:21	7 Sep 1989
Began HI X#2:	08:57:37	7 Sep 1989
Began HI X#3:	09:03:25	7 Sep 1989
Began HI X#4:	09:09:12	7 Sep 1989
Began HI X#5:	09:15:00	7 Sep 1989
Began HI X#6:	09:20:47	7 Sep 1989
Began HI X#7:	09:26:35	7 Sep 1989
Began HI X#8:	09:33:35	7 Sep 1989
Exited HI Range:	09:33:47	7 Sep 1989
Run QUIT:	09:33:49	7 Sep 1989

Operator:OJALA (oplog by Snow)

Cultural Factors:
NONE
Weather Conditions:
CLEAR AND COLD
Other Factors:
LIGHT TRAFFIC NEAR SITE 031

PHOENIX GEOSCIENCE

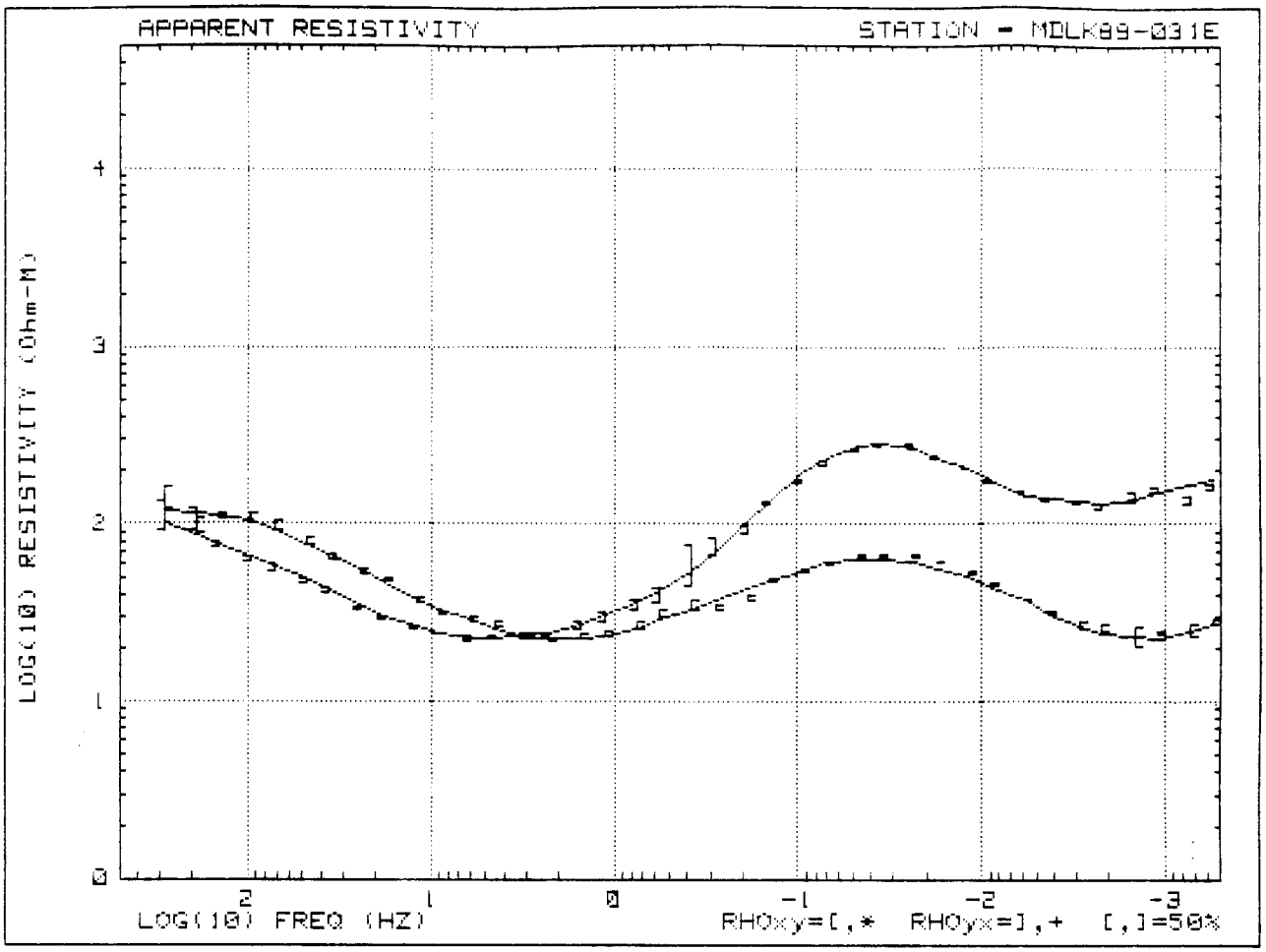
MT Site: MDLK89-031E

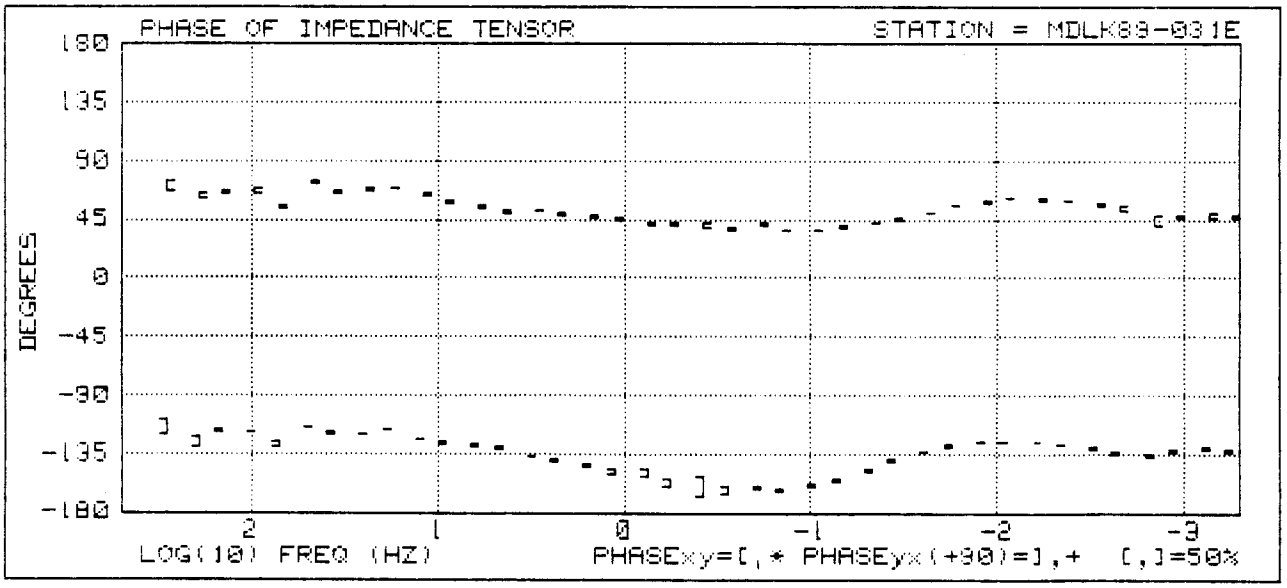
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

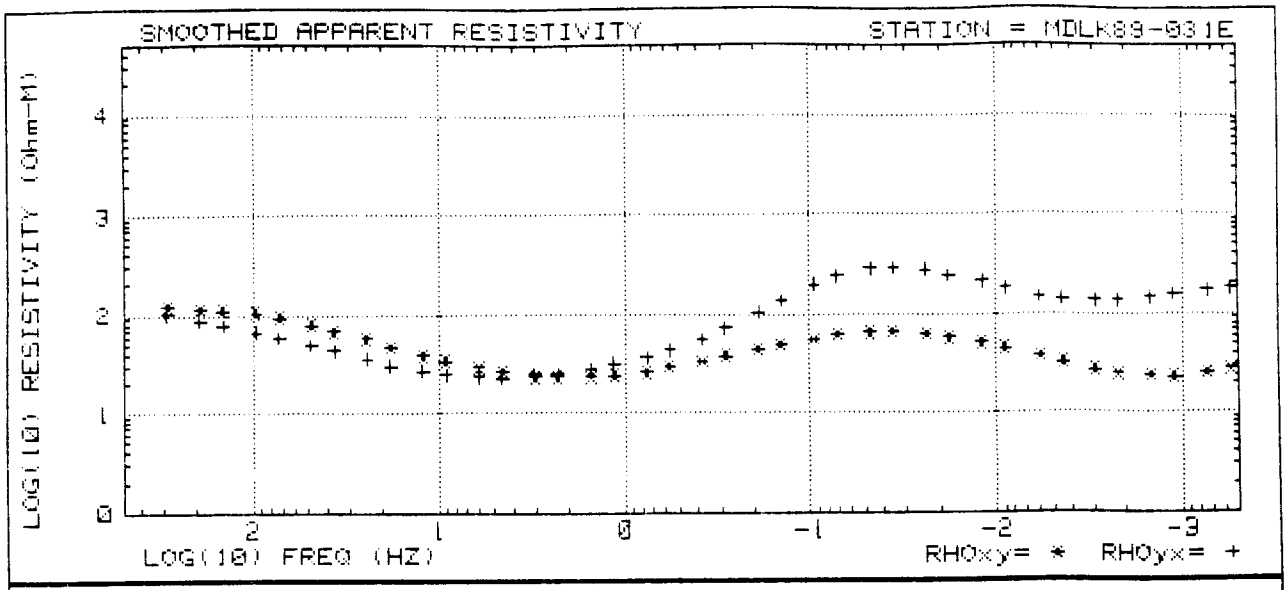
MT Site: MDLK89-031E

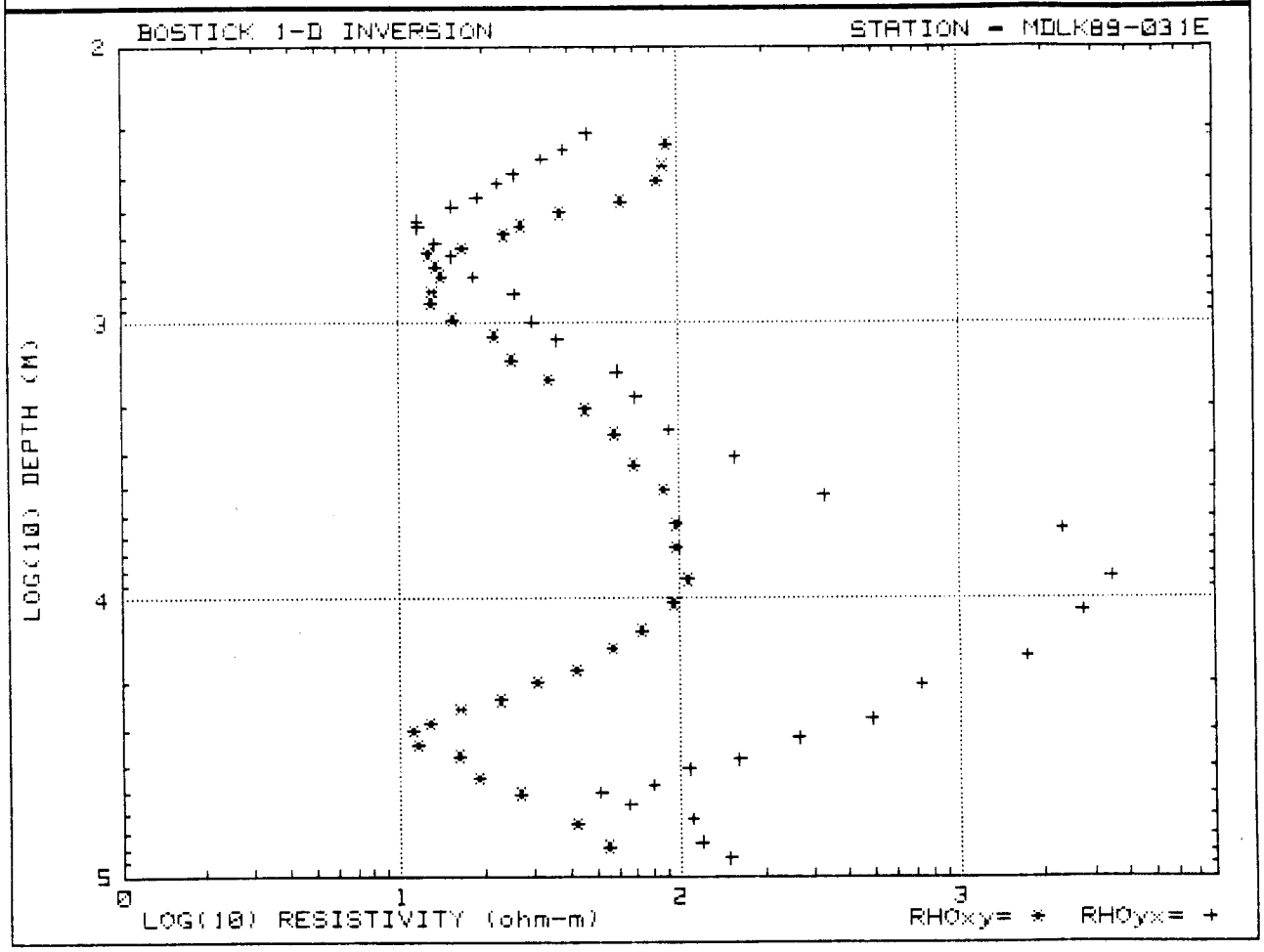




PHOENIX GEOSCIENCE

MT Site: MDLK89-031E





PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	128	140.1	23.7	112.5	33.1	70.7	6.1	-114.0	8.2
3	192.00 Hz	478	98.7	13.8	106.7	22.1	63.5	3.7	-125.3	5.7
4	144.00 Hz	382	111.9	6.0	75.6	4.3	66.2	1.7	-117.3	1.2
5	96.00 Hz	288	107.9	7.4	63.0	3.8	67.2	2.0	-118.0	1.1
6	72.00 Hz	192	98.1	8.6	57.0	8.7	54.4	2.4	-128.0	2.4
7	48.00 Hz	384	81.2	7.0	47.8	3.4	73.9	1.9	-114.4	1.0
8	36.00 Hz	288	65.9	4.8	41.9	3.6	65.5	1.4	-119.6	1.0
9	24.00 Hz	192	54.5	5.5	33.4	3.8	67.3	1.5	-120.0	1.1
10	18.00 Hz	480	48.8	3.5	29.2	2.5	68.6	1.0	-116.2	.7
11	12.00 Hz	480	37.1	3.2	26.2	2.0	63.6	.9	-123.4	.6
12	9.00 Hz	288	31.1	2.4	24.1	1.7	58.5	.7	-126.7	.5
13	6.00 Hz	192	28.7	4.9	22.5	3.4	55.1	1.4	-128.7	1.0
14	4.50 Hz	384	27.5	4.3	22.9	3.3	50.2	1.2	-130.1	.9
15	3.00 Hz	7470	23.7	2.8	22.8	2.1	51.8	.8	-137.0	.6
16	2.25 Hz	10478	22.3	3.1	23.9	2.9	48.8	.9	-139.5	.8
17	1.50 Hz	9718	23.2	4.3	26.8	6.3	46.7	1.2	-143.9	1.8
18	1.13 Hz	8966	23.8	4.8	29.9	8.6	45.2	1.4	-148.3	2.4
19	1.33 Sec	1739	26.8	6.1	35.2	11.1	41.9	1.7	-149.3	3.0
20	1.78 Sec	2251	31.2	6.1	39.4	16.2	42.0	1.7	-157.3	4.3
21	2.67 Sec	632	34.9	10.1	59.0	49.1	39.8	2.8	-160.1	11.4
22	3.56 Sec	632	34.3	4.4	75.0	17.3	38.4	1.2	-163.1	4.6
23	5.33 Sec	532	38.5	4.5	94.6	7.1	41.0	1.3	-160.9	2.0
24	7.11 Sec	1216	48.3	2.6	132.7	3.2	36.6	.7	-162.2	.9
25	10.67 Sec	498	54.5	2.7	176.0	3.6	36.9	.8	-158.4	1.0
26	14.22 Sec	606	59.8	2.9	220.3	3.2	39.2	.8	-154.8	.9
27	21.33 Sec	258	65.9	2.4	261.9	3.7	42.1	.7	-146.9	1.0
28	28.44 Sec	300	66.9	2.0	279.5	2.9	45.4	.6	-139.9	.8
29	42.67 Sec	300	66.4	1.1	279.6	1.3	50.5	.3	-133.0	.4
30	56.89 Sec	222	61.3	1.5	239.5	3.5	55.2	.4	-128.1	1.0
31	85.33 Sec	147	53.0	1.3	207.7	1.1	58.5	.4	-125.9	.3
32	113.78 Sec	111	45.8	2.1	176.1	1.4	61.0	.6	-125.1	.4
33	170.67 Sec	69	37.3	1.6	149.1	1.8	60.5	.4	-125.5	.5
34	227.56 Sec	72	31.5	3.0	134.4	1.8	59.8	.8	-127.7	.5
35	341.33 Sec	21	26.9	6.8	132.2	3.8	57.1	1.9	-130.8	1.1
36	455.11 Sec	33	25.9	6.0	126.4	3.8	53.6	1.7	-134.4	1.1
37	682.67 Sec	12	23.5	21.9	143.0	9.6	45.0	5.7	-136.2	2.6
38	910.22 Sec	12	24.5	4.1	155.5	5.0	47.1	1.2	-133.1	1.4
39	1365.33 Sec	3	25.0	12.2	137.4	7.5	48.4	3.3	-130.8	2.1
40	1820.44 Sec	6	28.0	6.0	163.0	5.8	47.9	1.7	-132.2	1.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	128	119.6	100.1	91.4	229	47.5	210
3	192.00 Hz	478	113.3	86.6	89.1	273	39.0	239
4	144.00 Hz	382	110.1	77.0	85.1	311	32.9	260
5	96.00 Hz	288	103.7	65.6	62.8	370	26.0	294
6	72.00 Hz	192	92.9	57.0	37.9	404	22.7	317
7	48.00 Hz	384	77.5	48.7	27.3	452	19.2	358
8	36.00 Hz	288	66.7	42.2	24.0	484	15.6	385
9	24.00 Hz	192	55.9	35.4	17.1	543	11.7	432
10	18.00 Hz	480	46.1	29.8	12.7	570	11.8	458
11	12.00 Hz	480	37.7	26.2	13.6	631	13.6	526
12	9.00 Hz	288	33.2	23.9	14.3	684	15.6	580
13	6.00 Hz	192	28.6	22.7	13.2	777	18.7	691
14	4.50 Hz	384	25.8	22.4	13.1	852	26.0	793
15	3.00 Hz	7470	22.9	23.9	15.8	982	30.1	1004
16	2.25 Hz	10478	22.7	24.2	21.9	1130	37.2	1168
17	1.50 Hz	9718	22.6	27.6	25.5	1381	60.4	1528
18	1.13 Hz	8966	23.7	31.4	34.6	1633	70.5	1879
19	1.33 Sec	1739	25.7	36.1	46.4	2083	93.0	2468
20	1.78 Sec	2251	28.9	42.6	58.9	2551	159.4	3096
21	2.67 Sec	632	32.6	53.9	69.0	3316	333.6	4265
22	3.56 Sec	632	37.1	70.2	88.9	4085	2339.9	5623
23	5.33 Sec	532	43.3	103.5	97.5	5409	3476.2	8360
24	7.11 Sec	1216	48.4	134.9	97.8	6601	2739.2	11022
25	10.67 Sec	498	54.8	193.9	108.4	8600	1733.7	16185
26	14.22 Sec	606	60.8	234.7	95.0	10462	731.5	20559
27	21.33 Sec	258	63.8	276.9	74.0	13125	488.2	27354
28	28.44 Sec	300	64.0	284.2	57.4	15182	267.2	31995
29	42.67 Sec	300	61.4	271.1	42.7	18216	163.2	38274
30	56.89 Sec	222	56.5	239.2	31.1	20176	108.3	41514
31	85.33 Sec	147	50.2	208.8	23.1	23293	80.7	47502
32	113.78 Sec	111	43.7	176.0	16.5	25102	52.2	50365
33	170.67 Sec	69	36.7	143.3	12.9	28162	66.4	55664
34	227.56 Sec	72	31.3	136.5	11.1	30056	110.7	62719
35	341.33 Sec	21	26.4	133.3	11.6	33758	119.7	75920
36	455.11 Sec	33	23.9	131.5	16.3	37146	151.5	87052
37	682.67 Sec	12	23.1	140.0	19.3	44707	208.7	110030
38	910.22 Sec	12	22.5	150.7	26.8	50922	255.5	131807
39	1365.33 Sec	3	24.6	167.4	42.7	65174	268.8	170155
40	1820.44 Sec	6	27.1	177.0	55.6	79079	262.3	202039

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	128	36.04	48.07	999.99	148.14	424.06	999.99
3	192.00 Hz	478	3.69	75.55	999.99	137.35	275.42	795.39
4	144.00 Hz	382	12.00	30.29	94.98	114.76	259.60	138.72
5	96.00 Hz	288	17.68	21.63	45.65	88.18	209.80	131.87
6	72.00 Hz	192	5.21	17.72	74.69	109.38	152.79	119.26
7	48.00 Hz	384	9.05	17.57	15.84	38.63	134.14	44.08
8	36.00 Hz	288	6.43	10.90	7.17	45.19	99.12	13.24
9	24.00 Hz	192	6.58	7.91	3.73	31.19	74.62	9.35
10	18.00 Hz	480	1.95	7.96	.70	24.16	61.74	2.53
11	12.00 Hz	480	2.56	6.39	.29	20.94	42.26	1.07
12	9.00 Hz	288	3.01	4.03	.14	19.51	31.89	.39
13	6.00 Hz	192	2.14	4.06	.34	16.78	24.10	.99
14	4.50 Hz	384	1.15	3.33	.16	15.94	19.11	.55
15	3.00 Hz	7470	1.84	1.54	.09	11.67	14.81	.13
16	2.25 Hz	10478	2.09	1.71	.11	10.42	11.92	.12
17	1.50 Hz	9718	2.03	1.53	.18	9.05	9.60	.16
18	1.13 Hz	8966	2.00	1.37	.20	8.16	8.21	.15
19	1.33 Sec	1739	1.956	1.038	.283	7.455	6.693	.176
20	1.78 Sec	2251	2.126	.578	.391	6.969	6.264	.155
21	2.67 Sec	632	1.485	1.132	.931	6.210	5.176	.303
22	3.56 Sec	632	2.051	.717	.162	5.446	4.318	.044
23	5.33 Sec	532	2.174	.729	.050	4.529	3.942	.035
24	7.11 Sec	1216	2.260	.695	.010	4.679	3.478	.011
25	10.67 Sec	498	2.285	.798	.008	4.043	3.032	.009
26	14.22 Sec	606	2.192	.932	.008	3.550	2.899	.009
27	21.33 Sec	258	1.887	1.065	.008	2.918	2.632	.004
28	28.44 Sec	300	1.645	1.058	.003	2.407	2.444	.002
29	42.67 Sec	300	1.274	1.054	.001	1.773	2.153	.000
30	56.89 Sec	222	.981	.956	.002	1.324	1.906	.001
31	85.33 Sec	147	.739	.757	.000	.922	1.502	.000
32	113.78 Sec	111	.608	.603	.000	.689	1.241	.000
33	170.67 Sec	69	.432	.469	.000	.516	.910	.000
34	227.56 Sec	72	.365	.369	.000	.419	.719	.000
35	341.33 Sec	21	.327	.304	.001	.342	.527	.001
36	455.11 Sec	33	.262	.250	.001	.316	.429	.000
37	682.67 Sec	12	.194	.208	.002	.293	.293	.003
38	910.22 Sec	12	.192	.172	.000	.250	.269	.000
39	1365.33 Sec	3	.156	.191	.001	.201	.227	.001
40	1820.44 Sec	6	.127	.179	.000	.186	.206	.000

PHOENIX GEOSCIENCE

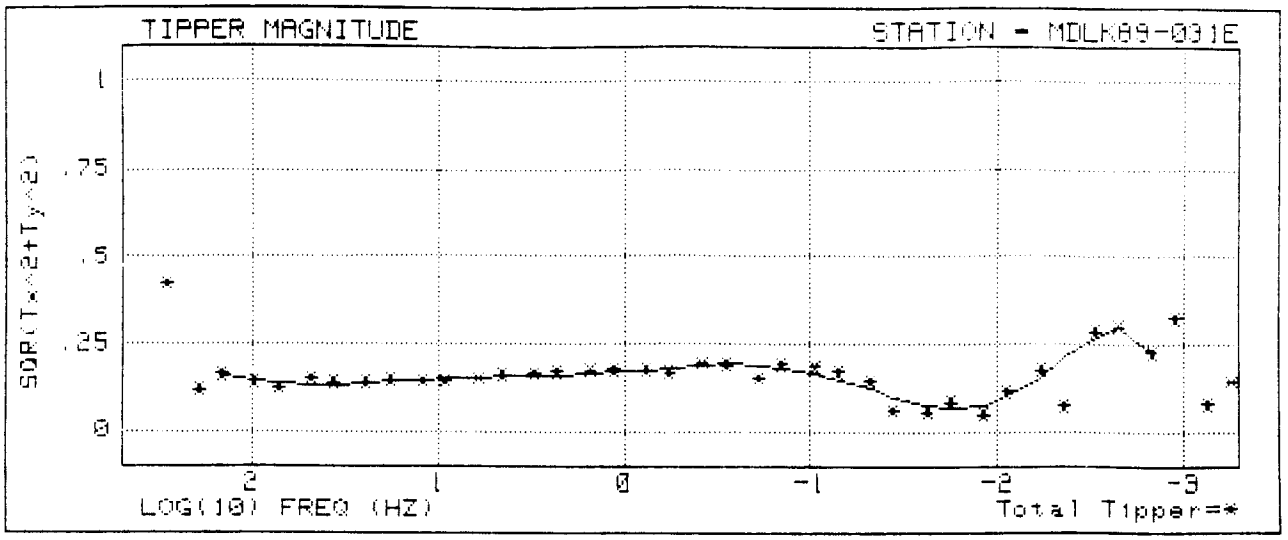
MT Site: MDLK89-031E

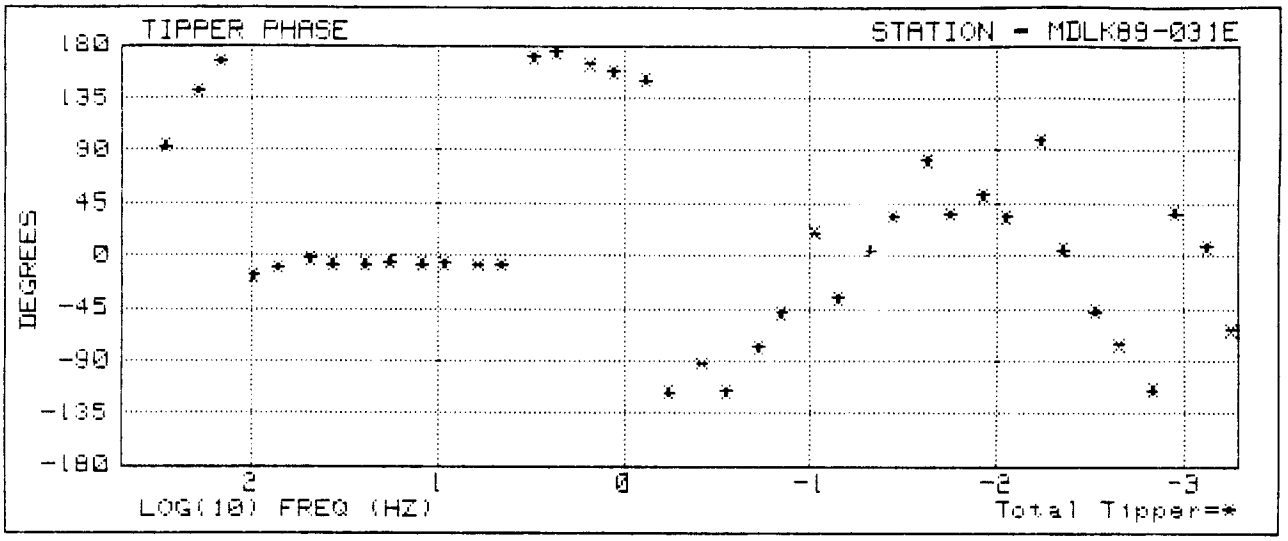
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

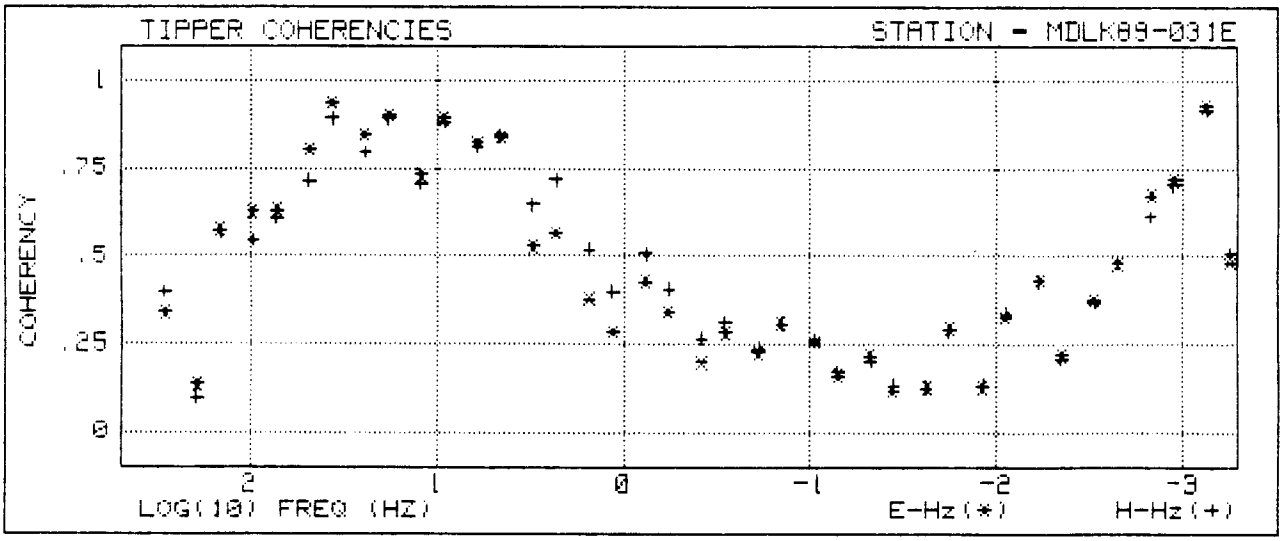
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	128	-163.94	-367.57	999.99	-6.22	36.24	796.41
3	192.00 Hz	478	-184.80	-261.22	999.99	-3.23	52.43	873.89
4	144.00 Hz	382	-107.06	-207.31	48.23	5.03	31.31	70.44
5	96.00 Hz	288	-81.70	-153.45	20.60	6.87	22.87	59.52
6	72.00 Hz	192	-88.23	-112.82	71.92	4.28	18.21	114.83
7	48.00 Hz	384	-44.18	-97.53	6.58	2.41	16.57	18.31
8	36.00 Hz	288	-42.85	-75.57	4.72	6.14	10.93	8.71
9	24.00 Hz	192	-31.68	-54.82	2.80	3.91	7.84	7.03
10	18.00 Hz	480	-22.62	-46.03	.77	7.91	7.38	2.81
11	12.00 Hz	480	-21.83	-33.05	.31	4.46	6.58	1.15
12	9.00 Hz	288	-19.69	-26.42	.16	4.73	4.08	.45
13	6.00 Hz	192	-16.23	-20.27	.38	1.91	4.09	1.10
14	4.50 Hz	384	-14.63	-17.37	.27	2.16	2.56	.92
15	3.00 Hz	7470	-13.52	-12.61	.08	2.67	2.24	.11
16	2.25 Hz	10478	-12.47	-10.65	.11	1.85	1.31	.12
17	1.50 Hz	9718	-11.46	-8.35	.38	1.55	.61	.32
18	1.13 Hz	8966	-11.04	-6.81	.58	1.30	-.09	.43
19	1.33 Sec	1739	-9.881	-5.858	.737	1.572	-.077	.459
20	1.78 Sec	2251	-9.711	-4.059	1.246	1.164	-.619	.492
21	2.67 Sec	632	-9.890	-3.571	8.808	.801	-.438	2.871
22	3.56 Sec	632	-9.826	-2.984	1.341	1.677	-.513	.363
23	5.33 Sec	532	-8.897	-3.083	.208	1.950	-.410	.144
24	7.11 Sec	1216	-9.197	-2.955	.046	2.136	-.373	.054
25	10.67 Sec	498	-8.447	-3.338	.052	2.340	-.001	.059
26	14.22 Sec	606	-7.964	-3.744	.038	2.284	.451	.039
27	21.33 Sec	258	-6.566	-4.274	.040	2.022	.764	.020
28	28.44 Sec	300	-5.364	-4.511	.021	1.722	.947	.014
29	42.67 Sec	300	-3.904	-4.186	.003	1.253	1.076	.002
30	56.89 Sec	222	-2.830	-3.611	.013	.938	.994	.004
31	85.33 Sec	147	-2.045	-2.826	.001	.673	.814	.001
32	113.78 Sec	111	-1.599	-2.277	.001	.488	.709	.001
33	170.67 Sec	69	-1.215	-1.701	.001	.351	.541	.001
34	227.56 Sec	72	-1.051	-1.359	.000	.304	.428	.001
35	341.33 Sec	21	-.910	-1.053	.001	.306	.327	.002
36	455.11 Sec	33	-.824	-.843	.001	.246	.270	.001
37	682.67 Sec	12	-.738	-.709	.004	.222	.178	.009
38	910.22 Sec	12	-.631	-.675	.001	.179	.184	.002
39	1365.33 Sec	3	-.463	-.537	.001	.200	.154	.001
40	1820.44 Sec	6	-.450	-.496	.001	.188	.123	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E







PHOENIX GEOSCIENCE

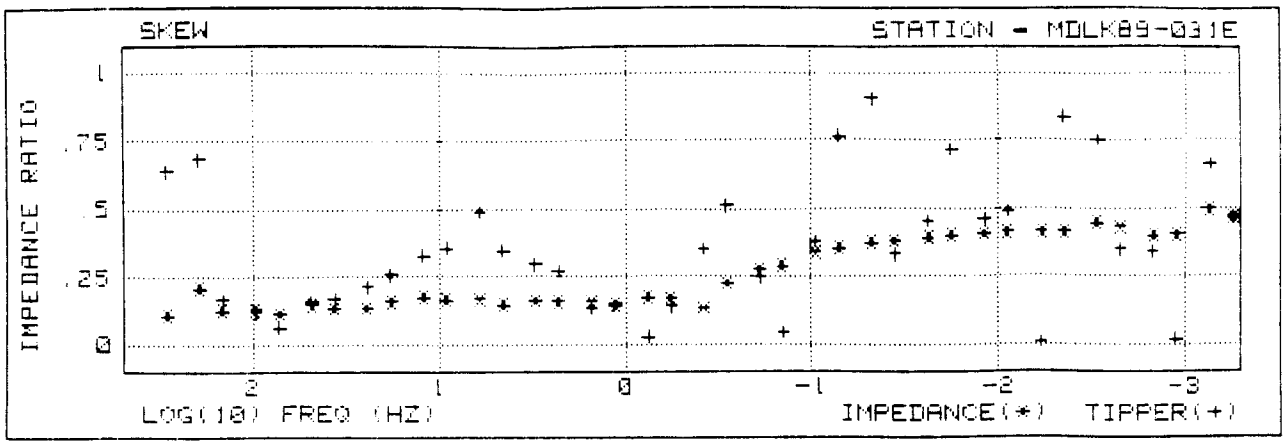
MT Site: MDLK89-031E

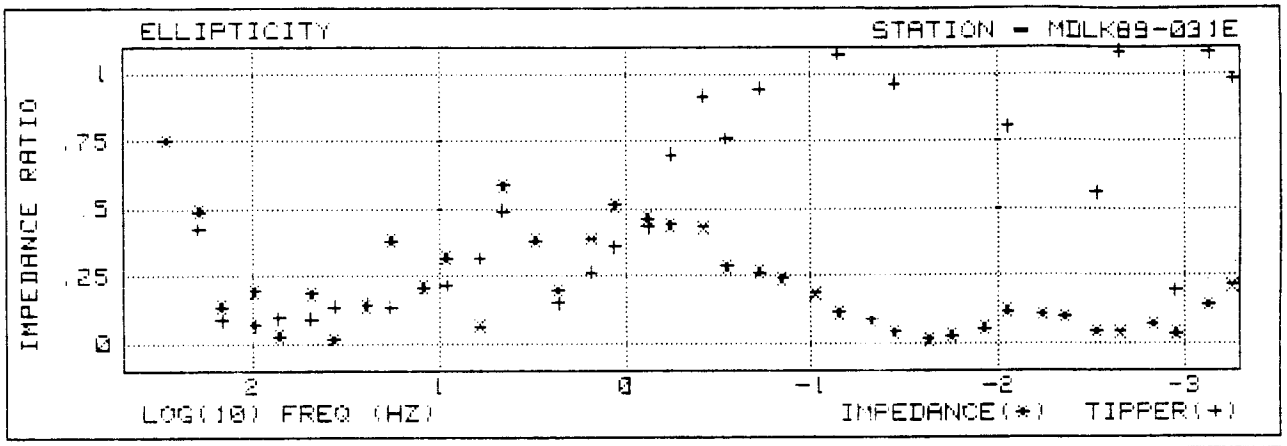
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

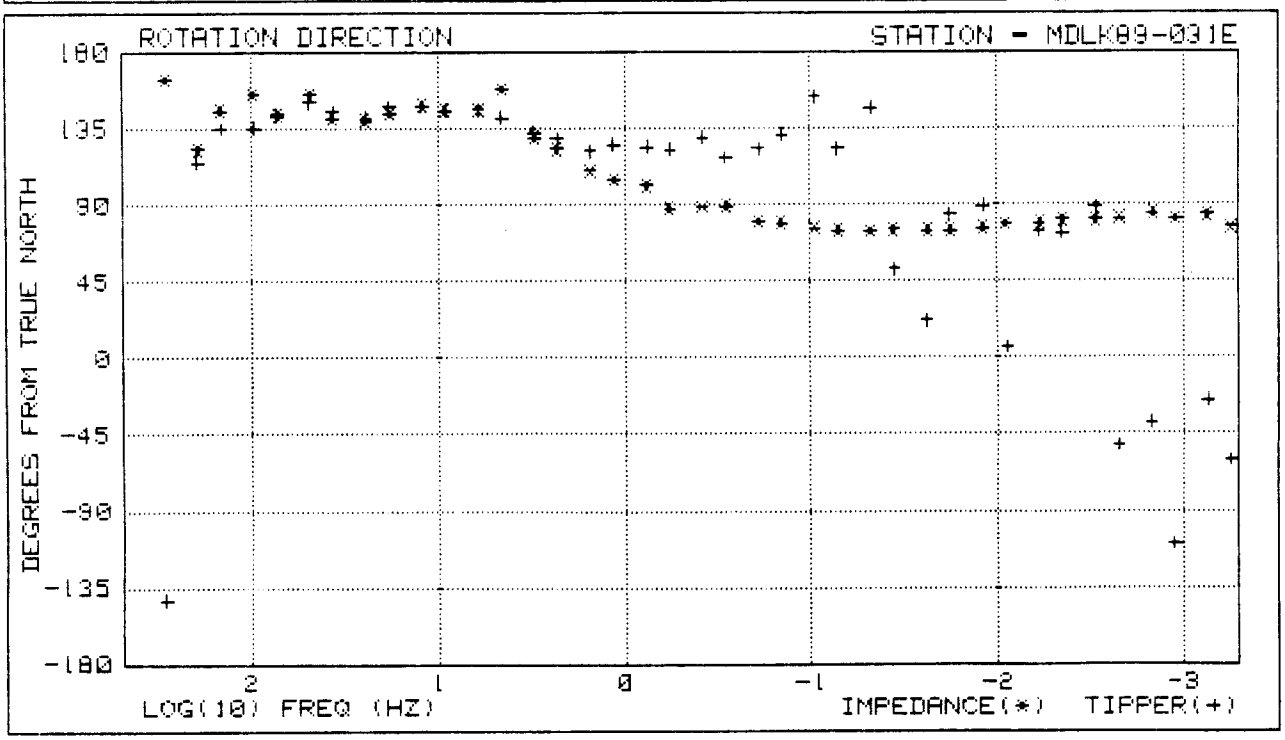
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	128	.42	92.64	.34	.39
3	192.00 Hz	478	.12	140.36	.13	.09
4	144.00 Hz	382	.16	165.98	.57	.57
5	96.00 Hz	288	.14	-18.29	.62	.54
6	72.00 Hz	192	.12	-11.26	.63	.61
7	48.00 Hz	384	.15	-3.27	.80	.71
8	36.00 Hz	288	.14	-7.80	.93	.89
9	24.00 Hz	192	.14	-8.25	.84	.79
10	18.00 Hz	480	.14	-5.69	.90	.89
11	12.00 Hz	480	.14	-8.10	.73	.70
12	9.00 Hz	288	.14	-7.72	.89	.88
13	6.00 Hz	192	.15	-8.87	.82	.81
14	4.50 Hz	384	.16	-8.68	.84	.84
15	3.00 Hz	7470	.16	169.44	.52	.64
16	2.25 Hz	10478	.17	173.14	.56	.71
17	1.50 Hz	9718	.17	162.68	.38	.52
18	1.13 Hz	8966	.17	156.38	.28	.40
19	1.33 Sec	1739	.17	149.62	.42	.50
20	1.78 Sec	2251	.16	-117.74	.34	.40
21	2.67 Sec	632	.19	-92.82	.19	.26
22	3.56 Sec	632	.18	-116.50	.28	.31
23	5.33 Sec	532	.15	-78.85	.22	.23
24	7.11 Sec	1216	.19	-49.21	.31	.31
25	10.67 Sec	498	.18	18.89	.25	.26
26	14.22 Sec	606	.17	-37.19	.16	.17
27	21.33 Sec	258	.14	4.57	.21	.20
28	28.44 Sec	300	.06	33.22	.11	.13
29	42.67 Sec	300	.05	80.85	.12	.12
30	56.89 Sec	222	.08	35.60	.29	.29
31	85.33 Sec	147	.04	51.20	.13	.13
32	113.78 Sec	111	.11	32.28	.32	.33
33	170.67 Sec	69	.17	97.89	.43	.43
34	227.56 Sec	72	.07	4.37	.22	.21
35	341.33 Sec	21	.28	-47.81	.37	.36
36	455.11 Sec	33	.30	-76.83	.48	.48
37	682.67 Sec	12	.22	-115.52	.67	.61
38	910.22 Sec	12	.32	36.10	.71	.70
39	1365.33 Sec	3	.08	7.02	.92	.92
40	1820.44 Sec	6	.14	-64.01	.48	.50

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E







PHOENIX GEOSCIENCE

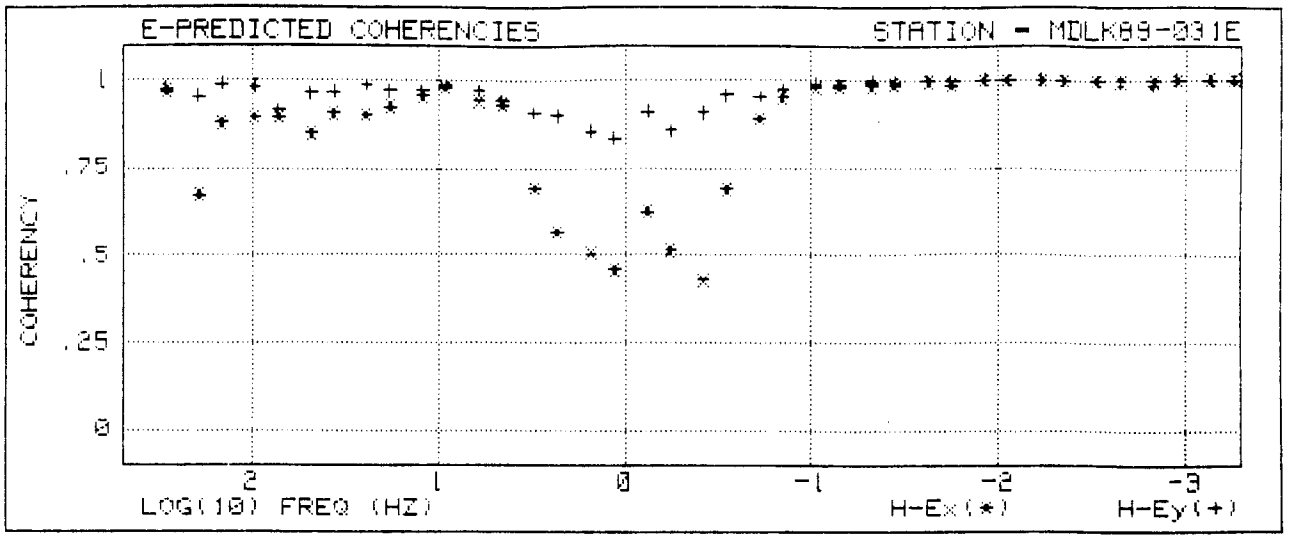
MT Site: MDLK89-031E

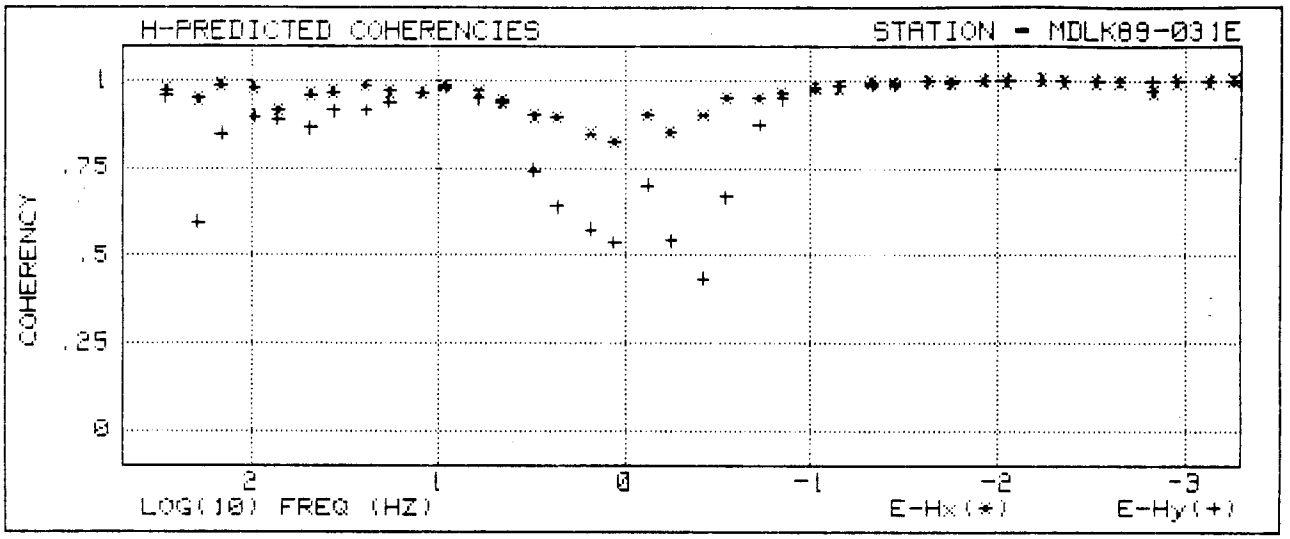
SKEW, ELLIPTICITY AND STRIKE

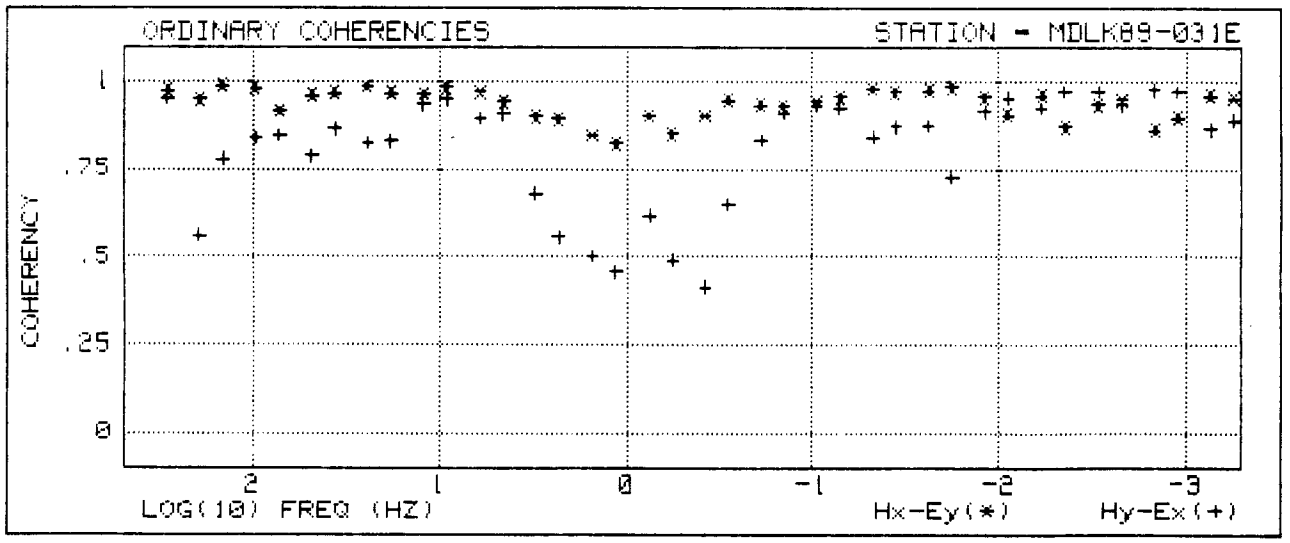
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	128	.11	.75	163.04	.64	1.13	-142.94
3	192.00 Hz	478	.20	.49	122.30	.68	.42	114.79
4	144.00 Hz	382	.12	.13	145.08	.16	.08	134.23
5	96.00 Hz	288	.13	.19	154.77	.12	.06	134.84
6	72.00 Hz	192	.11	.02	142.39	.06	.09	141.90
7	48.00 Hz	384	.15	.18	154.16	.15	.09	149.89
8	36.00 Hz	288	.13	.01	140.58	.16	.13	143.96
9	24.00 Hz	192	.13	.14	139.04	.21	.14	140.71
10	18.00 Hz	480	.16	.38	142.88	.26	.13	147.46
11	12.00 Hz	480	.17	.21	147.68	.32	.20	147.20
12	9.00 Hz	288	.16	.31	144.71	.35	.21	144.92
13	6.00 Hz	192	.16	.06	145.37	.48	.31	145.20
14	4.50 Hz	384	.14	.58	157.37	.34	.49	140.76
15	3.00 Hz	7470	.16	.38	129.15	.29	6.68	132.05
16	2.25 Hz	10478	.15	.19	122.40	.27	.14	128.49
17	1.50 Hz	9718	.15	.39	109.43	.13	.26	120.67
18	1.13 Hz	8966	.15	.51	104.17	.14	.35	124.72
19	1.33 Sec	1739	.17	.46	100.56	.03	.43	123.24
20	1.78 Sec	2251	.17	.44	87.10	.14	.70	122.05
21	2.67 Sec	632	.13	.43	88.21	.35	.91	128.90
22	3.56 Sec	632	.22	.28	88.35	.51	.76	117.03
23	5.33 Sec	532	.27	.26	79.55	.24	.94	122.50
24	7.11 Sec	1216	.29	.24	78.44	.04	1.28	130.34
25	10.67 Sec	498	.33	.18	75.76	.37	3.30	152.44
26	14.22 Sec	606	.35	.11	74.04	.76	1.06	122.10
27	21.33 Sec	258	.37	.08	73.71	.90	1.40	146.39
28	28.44 Sec	300	.38	.04	74.78	.33	.96	51.40
29	42.67 Sec	300	.39	.01	74.16	.45	1.39	21.04
30	56.89 Sec	222	.40	.03	74.13	.71	1.16	83.03
31	85.33 Sec	147	.40	.05	75.47	.45	1.33	88.68
32	113.78 Sec	111	.41	.12	77.87	.48	.80	5.62
33	170.67 Sec	69	.41	.10	78.65	.00	2.20	73.46
34	227.56 Sec	72	.41	.09	80.37	.83	1.14	72.66
35	341.33 Sec	21	.44	.04	80.36	.75	.55	87.78
36	455.11 Sec	33	.43	.04	81.22	.34	1.08	-51.96
37	682.67 Sec	12	.39	.07	84.36	.34	1.41	-38.80
38	910.22 Sec	12	.40	.03	80.85	.01	.19	-109.90
39	1365.33 Sec	3	.49	.14	83.14	.66	1.07	-25.64
40	1820.44 Sec	6	.46	.21	75.83	.46	.97	-60.91

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E







PHOENIX GEOSCIENCE

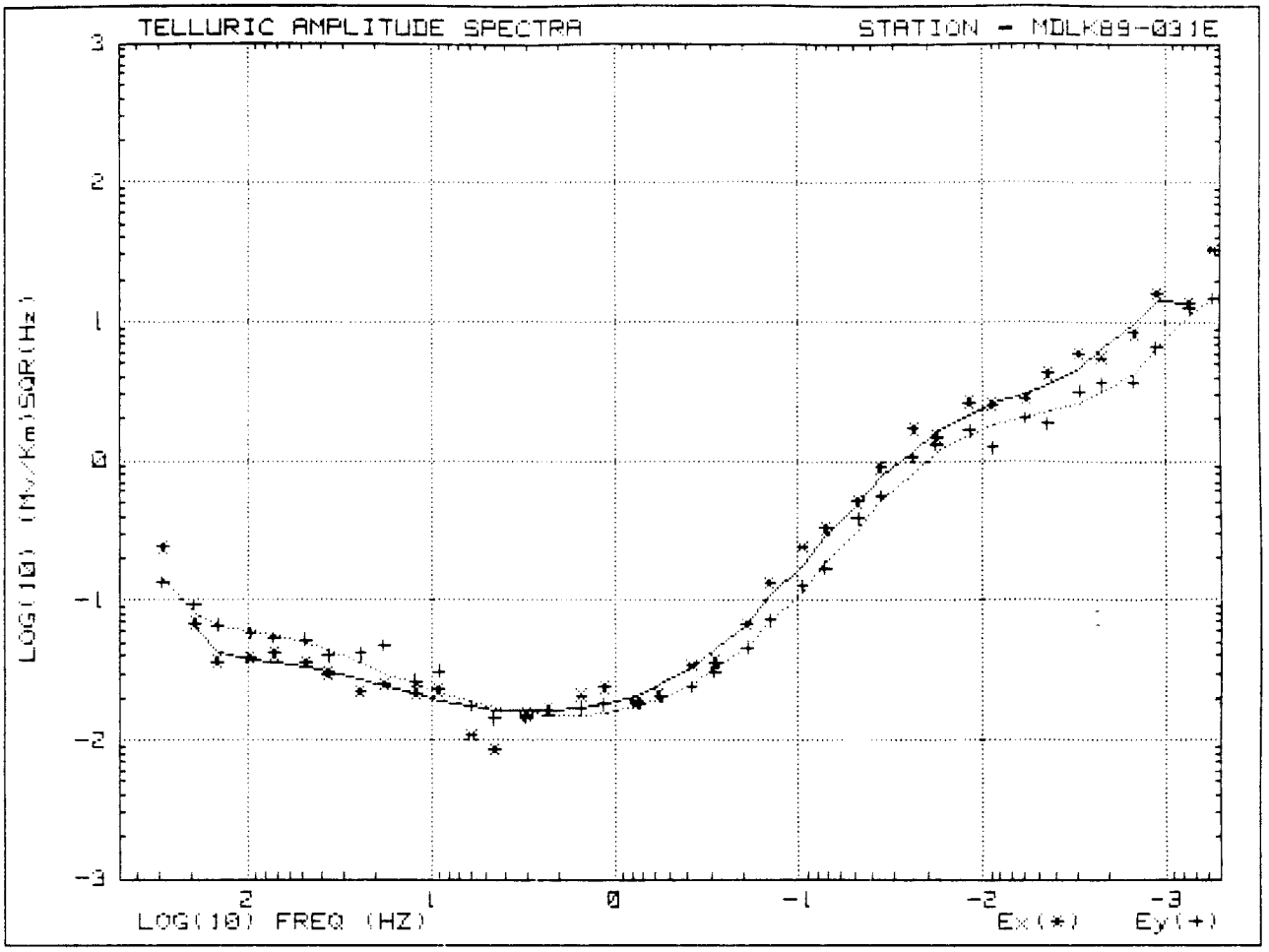
MT Site: MDLK89-031E

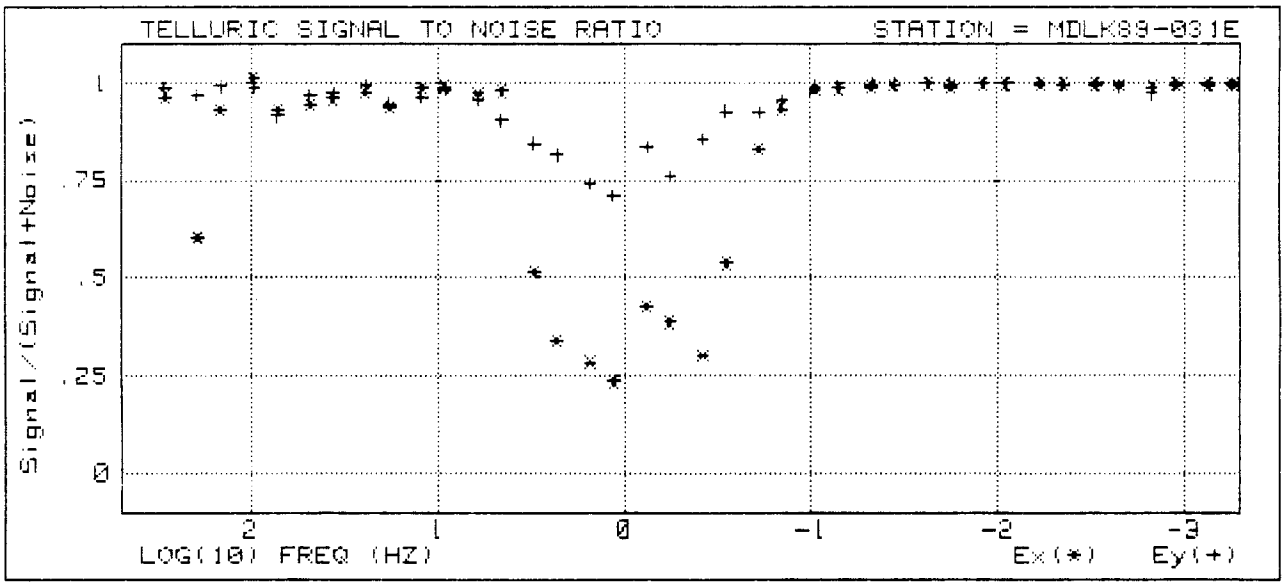
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	128	.96	.97	.97	.95	.97	.95
3	192.00 Hz	478	.67	.95	.95	.59	.95	.56
4	144.00 Hz	382	.88	.98	.98	.85	.98	.77
5	96.00 Hz	288	.89	.98	.98	.89	.98	.84
6	72.00 Hz	192	.89	.91	.91	.89	.91	.84
7	48.00 Hz	384	.85	.96	.96	.86	.96	.78
8	36.00 Hz	288	.90	.96	.96	.91	.96	.86
9	24.00 Hz	192	.90	.98	.98	.91	.98	.82
10	18.00 Hz	480	.92	.97	.97	.93	.96	.83
11	12.00 Hz	480	.95	.97	.96	.96	.96	.93
12	9.00 Hz	288	.98	.98	.98	.98	.98	.95
13	6.00 Hz	192	.94	.97	.97	.94	.97	.89
14	4.50 Hz	384	.93	.94	.94	.93	.94	.90
15	3.00 Hz	7470	.69	.90	.90	.74	.90	.68
16	2.25 Hz	10478	.56	.90	.89	.64	.89	.55
17	1.50 Hz	9718	.50	.85	.84	.57	.84	.50
18	1.13 Hz	8966	.46	.83	.82	.53	.82	.45
19	1.33 Sec	1739	.62	.91	.90	.70	.90	.61
20	1.78 Sec	2251	.51	.85	.85	.54	.85	.49
21	2.67 Sec	632	.43	.90	.90	.43	.90	.41
22	3.56 Sec	632	.69	.95	.95	.66	.94	.65
23	5.33 Sec	532	.88	.95	.95	.87	.93	.83
24	7.11 Sec	1216	.95	.97	.96	.95	.93	.91
25	10.67 Sec	498	.97	.98	.98	.97	.94	.93
26	14.22 Sec	606	.98	.98	.98	.98	.95	.92
27	21.33 Sec	258	.98	.99	.99	.98	.97	.84
28	28.44 Sec	300	.98	.99	.99	.99	.97	.87
29	42.67 Sec	300	1.00	1.00	1.00	.99	.97	.87
30	56.89 Sec	222	.99	.99	.99	.99	.98	.72
31	85.33 Sec	147	1.00	1.00	1.00	1.00	.95	.91
32	113.78 Sec	111	1.00	1.00	.99	1.00	.90	.95
33	170.67 Sec	69	1.00	1.00	1.00	1.00	.96	.92
34	227.56 Sec	72	1.00	1.00	.99	1.00	.87	.97
35	341.33 Sec	21	1.00	1.00	.99	1.00	.93	.97
36	455.11 Sec	33	1.00	.99	.99	1.00	.94	.93
37	682.67 Sec	12	.99	.98	.97	1.00	.86	.97
38	910.22 Sec	12	1.00	1.00	.99	1.00	.89	.97
39	1365.33 Sec	3	1.00	1.00	1.00	1.00	.96	.86
40	1820.44 Sec	6	1.00	1.00	1.00	1.00	.95	.89

PHOENIX GEOSCIENCE

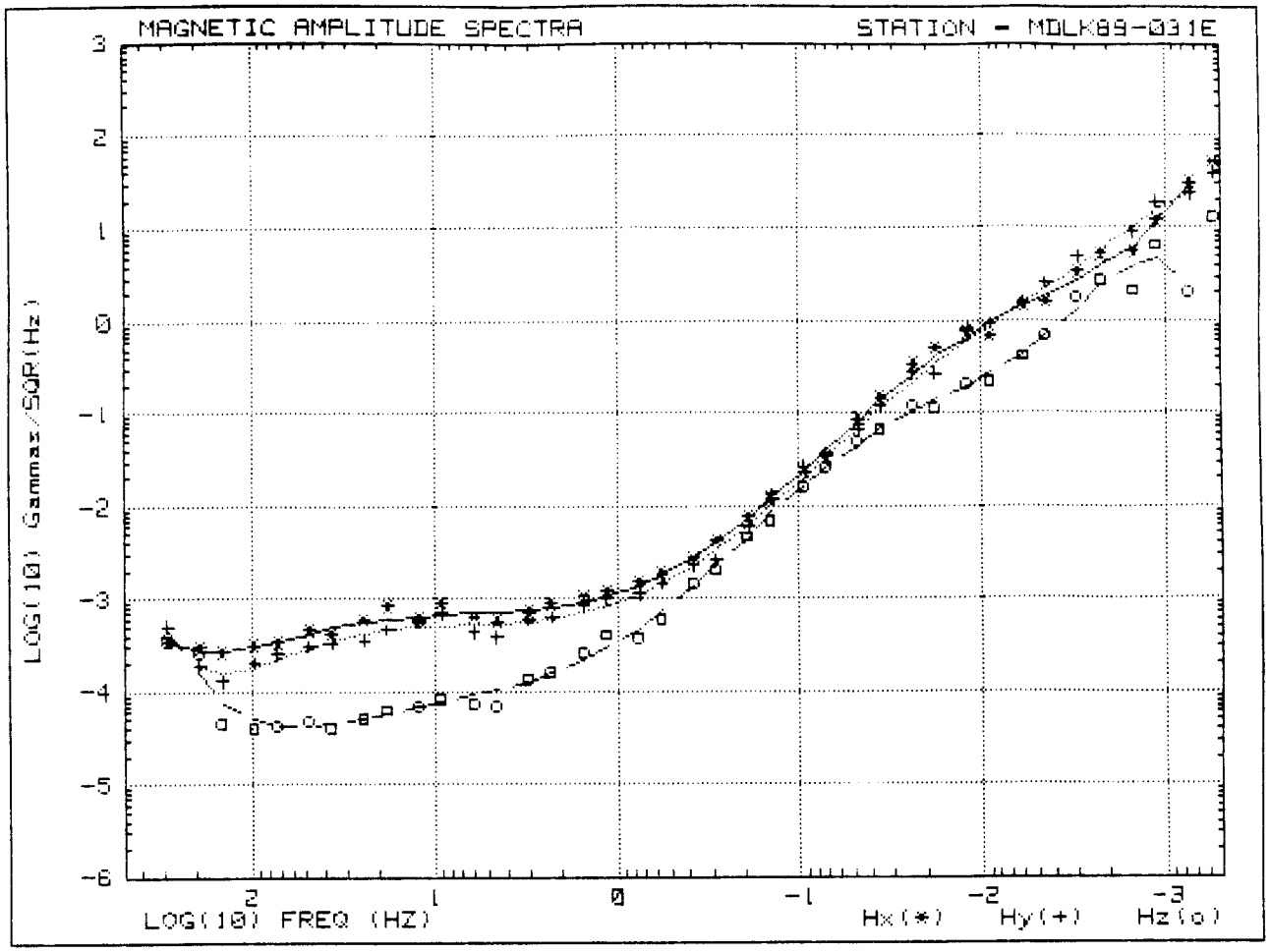
MT Site: MDLK89-031E

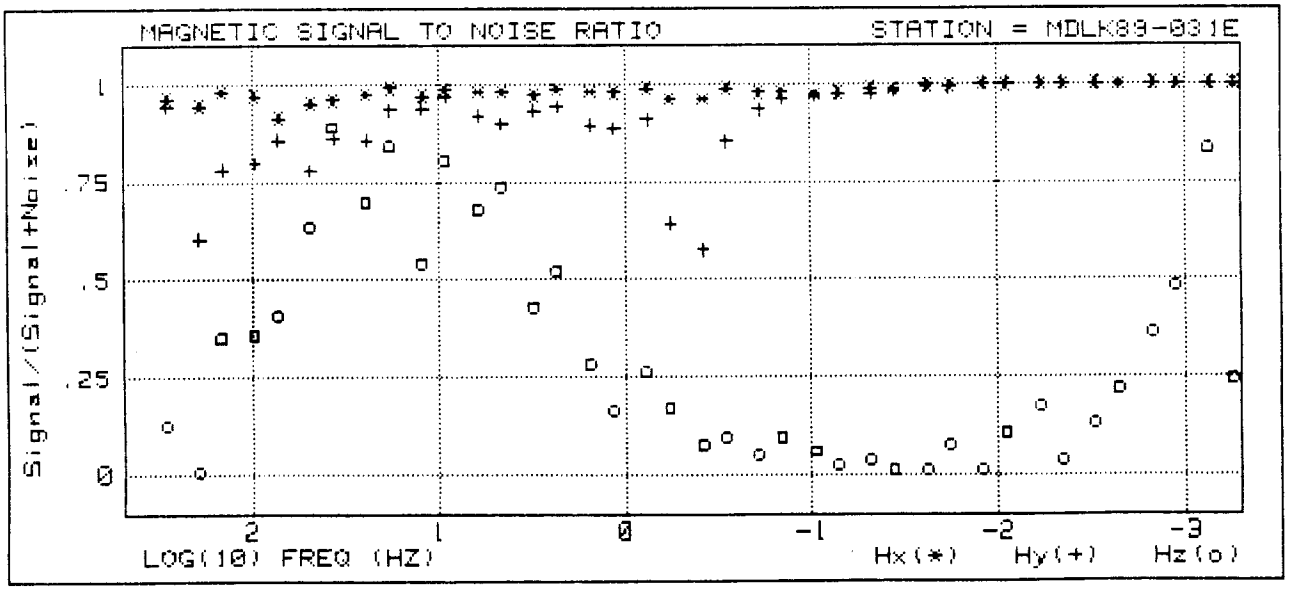




PHOENIX GEOSCIENCE

MT Site: MDLK89-031E





PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	128	3.44E-04	4.93E-04	3.73E-04	2.36E-01	1.32E-01
3	192.00 Hz	478	2.94E-04	1.89E-04	2.72E-04	6.80E-02	9.20E-02
4	144.00 Hz	382	2.63E-04	1.29E-04	4.83E-05	3.61E-02	6.56E-02
5	96.00 Hz	288	3.10E-04	2.00E-04	4.28E-05	3.83E-02	5.69E-02
6	72.00 Hz	192	3.33E-04	2.48E-04	4.47E-05	4.09E-02	5.29E-02
7	48.00 Hz	384	4.50E-04	3.01E-04	5.01E-05	3.55E-02	5.14E-02
8	36.00 Hz	288	4.10E-04	3.22E-04	4.23E-05	2.96E-02	3.92E-02
9	24.00 Hz	192	5.78E-04	3.49E-04	5.29E-05	2.19E-02	4.08E-02
10	18.00 Hz	480	8.13E-04	4.62E-04	6.64E-05	2.47E-02	4.69E-02
11	12.00 Hz	480	5.98E-04	5.51E-04	7.13E-05	2.15E-02	2.61E-02
12	9.00 Hz	288	8.82E-04	6.79E-04	8.68E-05	2.27E-02	3.07E-02
13	6.00 Hz	192	6.13E-04	4.21E-04	7.55E-05	1.07E-02	1.73E-02
14	4.50 Hz	384	5.62E-04	3.78E-04	7.28E-05	8.37E-03	1.39E-02
15	3.00 Hz	7470	7.10E-04	5.99E-04	1.43E-04	1.50E-02	1.44E-02
16	2.25 Hz	10478	8.65E-04	6.20E-04	1.63E-04	1.62E-02	1.60E-02
17	1.50 Hz	9718	1.03E-03	8.54E-04	2.75E-04	2.06E-02	1.67E-02
18	1.13 Hz	8966	1.20E-03	9.77E-04	4.22E-04	2.35E-02	1.77E-02
19	1.33 Sec	1739	1.53E-03	1.11E-03	3.96E-04	1.78E-02	1.83E-02
20	1.78 Sec	2251	1.84E-03	1.46E-03	6.25E-04	2.07E-02	2.02E-02
21	2.67 Sec	632	2.74E-03	2.25E-03	1.53E-03	3.39E-02	2.36E-02
22	3.56 Sec	632	4.20E-03	2.55E-03	2.14E-03	3.61E-02	3.02E-02
23	5.33 Sec	532	7.70E-03	5.99E-03	4.93E-03	6.72E-02	4.57E-02
24	7.11 Sec	1216	1.19E-02	1.28E-02	7.36E-03	1.32E-01	7.19E-02
25	10.67 Sec	498	2.30E-02	2.58E-02	1.71E-02	2.42E-01	1.27E-01
26	14.22 Sec	606	3.38E-02	3.55E-02	2.72E-02	3.25E-01	1.71E-01
27	21.33 Sec	258	8.60E-02	6.75E-02	5.20E-02	5.09E-01	3.82E-01
28	28.44 Sec	300	1.48E-01	1.19E-01	7.08E-02	8.85E-01	5.52E-01
29	42.67 Sec	300	3.37E-01	2.71E-01	1.30E-01	1.68E+00	1.05E+00
30	56.89 Sec	222	5.05E-01	2.67E-01	1.19E-01	1.46E+00	1.30E+00
31	85.33 Sec	147	7.48E-01	7.96E-01	2.23E-01	2.56E+00	1.62E+00
32	113.78 Sec	111	6.74E-01	9.19E-01	2.30E-01	2.46E+00	1.21E+00
33	170.67 Sec	69	1.45E+00	1.54E+00	4.40E-01	2.74E+00	1.99E+00
34	227.56 Sec	72	1.59E+00	2.56E+00	7.32E-01	4.19E+00	1.82E+00
35	341.33 Sec	21	3.37E+00	4.84E+00	1.87E+00	5.87E+00	3.12E+00
36	455.11 Sec	33	5.14E+00	5.20E+00	2.83E+00	5.49E+00	3.58E+00
37	682.67 Sec	12	5.46E+00	8.74E+00	2.21E+00	8.30E+00	3.67E+00
38	910.22 Sec	12	1.19E+01	1.88E+01	6.87E+00	1.58E+01	6.54E+00
39	1365.33 Sec	3	3.01E+01	2.29E+01	2.17E+00	1.35E+01	1.23E+01
40	1820.44 Sec	6	5.05E+01	3.81E+01	1.36E+01	3.26E+01	1.47E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-031E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	128	.961	.944	.131	.961	.983
3	192.00 Hz	478	.942	.603	.011	.602	.966
4	144.00 Hz	382	.978	.779	.354	.929	.990
5	96.00 Hz	288	.968	.796	.363	1.000	.985
6	72.00 Hz	192	.911	.855	.415	.929	.913
7	48.00 Hz	384	.950	.778	.639	.942	.966
8	36.00 Hz	288	.958	.859	.895	.958	.970
9	24.00 Hz	192	.973	.856	.700	.972	.991
10	18.00 Hz	480	.989	.932	.845	.934	.943
11	12.00 Hz	480	.968	.936	.548	.985	.963
12	9.00 Hz	288	.986	.970	.811	.987	.980
13	6.00 Hz	192	.980	.918	.686	.973	.955
14	4.50 Hz	384	.980	.896	.740	.977	.901
15	3.00 Hz	7470	.970	.932	.435	.512	.842
16	2.25 Hz	10478	.985	.940	.525	.336	.814
17	1.50 Hz	9718	.979	.893	.287	.282	.740
18	1.13 Hz	8966	.976	.884	.168	.235	.708
19	1.33 Sec	1739	.988	.907	.266	.424	.833
20	1.78 Sec	2251	.960	.641	.179	.385	.759
21	2.67 Sec	632	.961	.573	.079	.299	.853
22	3.56 Sec	632	.987	.851	.099	.537	.924
23	5.33 Sec	532	.976	.933	.055	.829	.921
24	7.11 Sec	1216	.977	.960	.098	.931	.952
25	10.67 Sec	498	.972	.967	.064	.982	.987
26	14.22 Sec	606	.975	.975	.029	.983	.987
27	21.33 Sec	258	.988	.976	.040	.988	.995
28	28.44 Sec	300	.986	.980	.015	.991	.994
29	42.67 Sec	300	.996	.994	.015	.996	.998
30	56.89 Sec	222	.993	.989	.078	.987	.994
31	85.33 Sec	147	.997	.999	.017	.996	.998
32	113.78 Sec	111	.995	.999	.111	.996	.995
33	170.67 Sec	69	.999	1.000	.182	.994	.998
34	227.56 Sec	72	.997	1.000	.044	.994	.993
35	341.33 Sec	21	.999	.999	.135	.995	.994
36	455.11 Sec	33	.998	.999	.225	.992	.989
37	682.67 Sec	12	.999	.999	.370	.987	.970
38	910.22 Sec	12	1.000	.999	.490	.994	.996
39	1365.33 Sec	3	1.000	1.000	.839	.996	.994
40	1820.44 Sec	6	1.000	1.000	.250	.996	.994

PHOENIX GEOSCIENCE

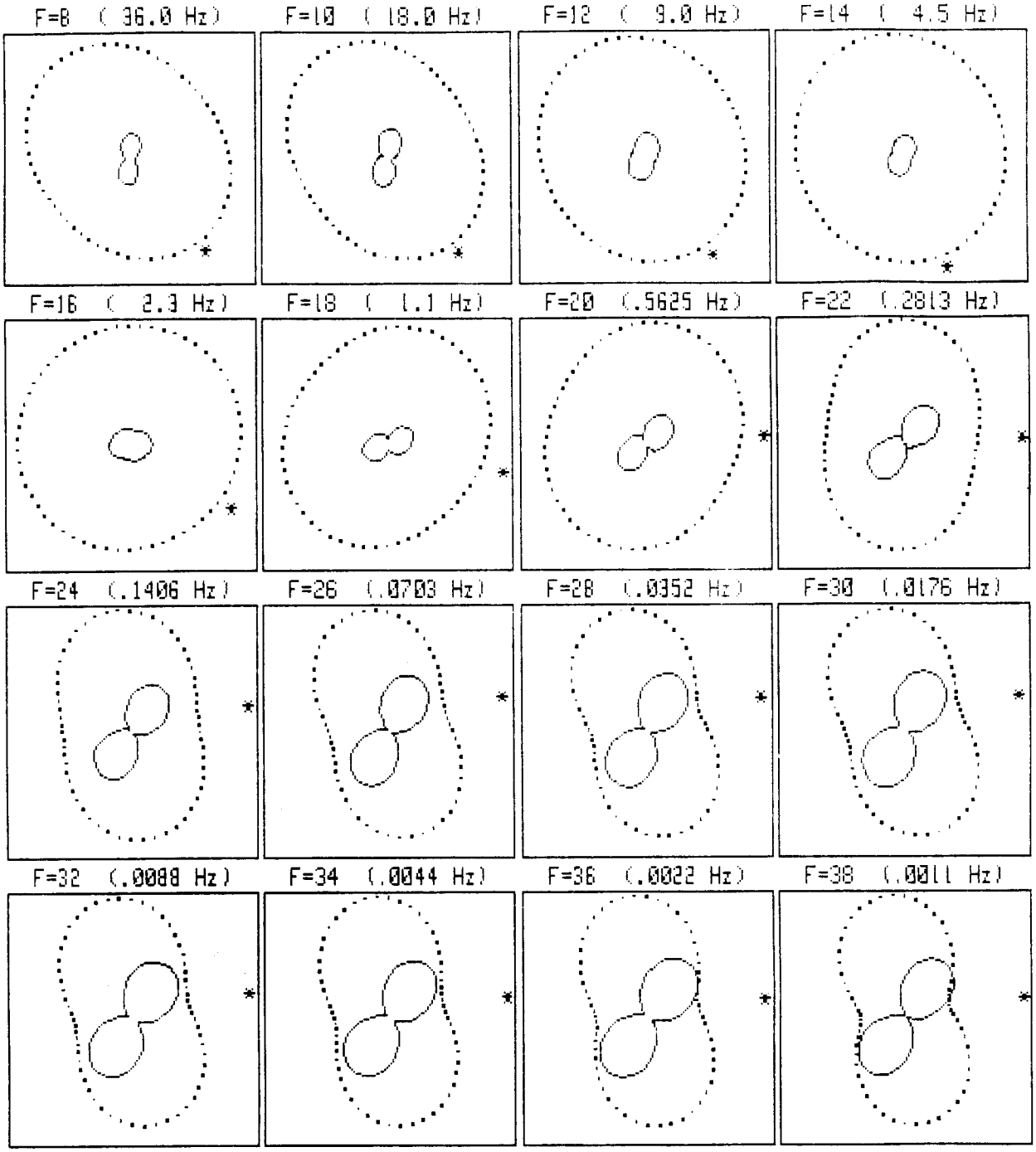
MT Site: MDLK89-031E

IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

*=Rotation Direction

Zxy = ...
Zxx = ___



PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-027s/028s/032s/

Operator:STEWART
Date: 30 Aug 1989
Time: 12:12:41

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#430-16Aug89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#452-16Aug89-01
Sens-Ch12: C#210-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 3

Stn Number:MDLK89-032s
Site Desc:T43N R4E
41,35,47 N 121,33,12 W
Elevation:6800 FT
Reference:MDLK89-027s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL452	+45 DEG
Hy	12	COIL210	+135 DEG
Hz	13	LOOP405	
Ex	14	157 M	+45 DEG
Ey	15	146 M	+135 DEG
Rx	1	COIL430	+45 DEG
Ry	2	COIL431	+135 DEG

Ex Pot Resist: 12_ K Ohms
Ex Voltage: AC=_8.6 mv, DC=90.6 mv
Ey Pot Resist: 12_ K Ohms
Ey Voltage: AC=_7.7 mv, DC=_24_ mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

OPERATOR LOG FOR MT SITES MDLK89-027s/028s/032s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-027a/028a/032a/
Run STARTED: 12:12:41 30 Aug 1989
Run QUIT: 03:29:38 31 Aug 1989
Run Start and Stop Time for MDLK89-027b/028b/032b/
Run STARTED: 04:06:36 31 Aug 1989
Run QUIT: 09:46:06 31 Aug 1989

Operator:STEWART

Cultural Factors:
NONE
Weather Conditions:
CALM, COOL, DRY
Other Factors:

PHOENIX GEOSCIENCE

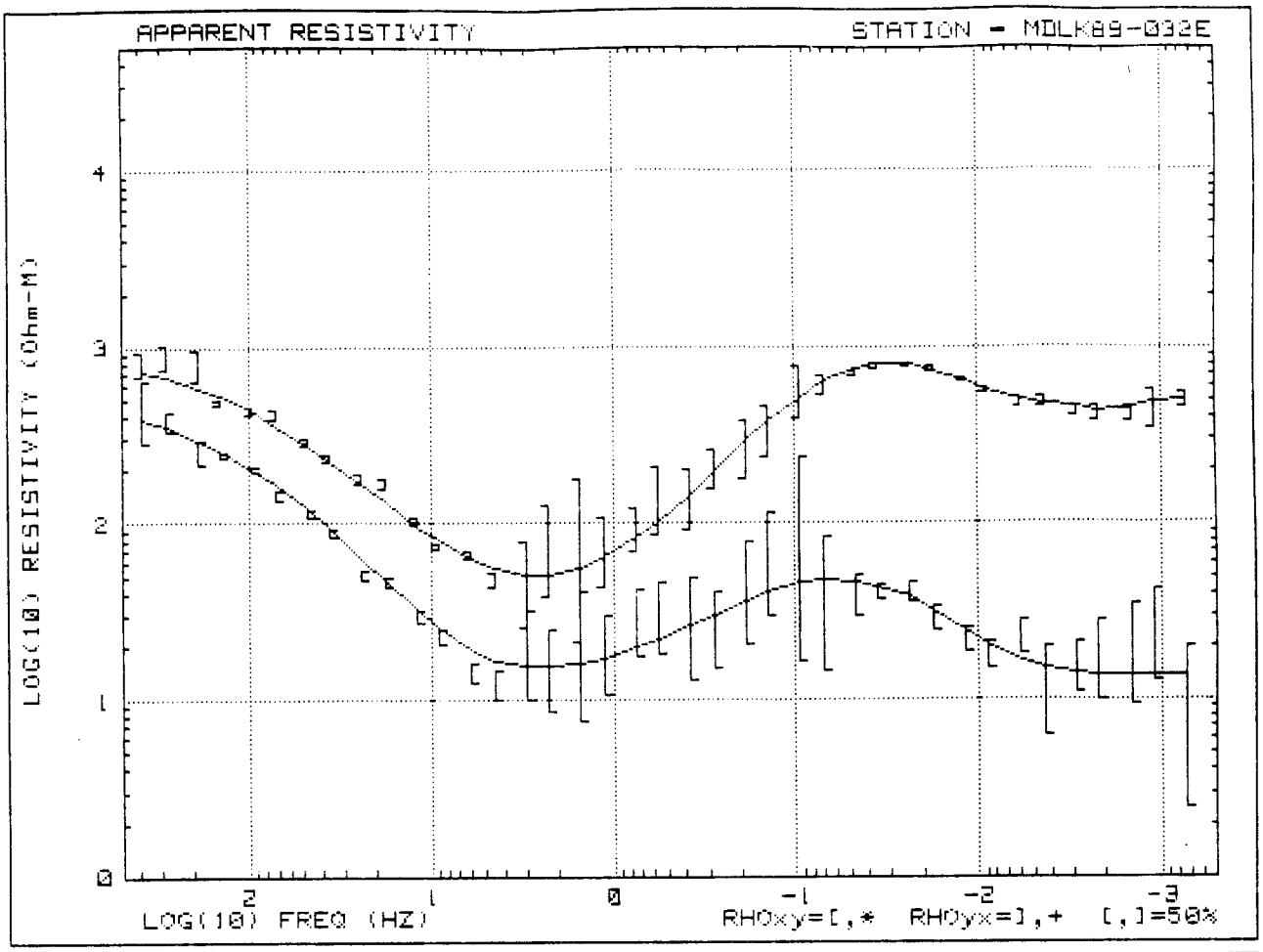
MT Site: MDLK89-032E

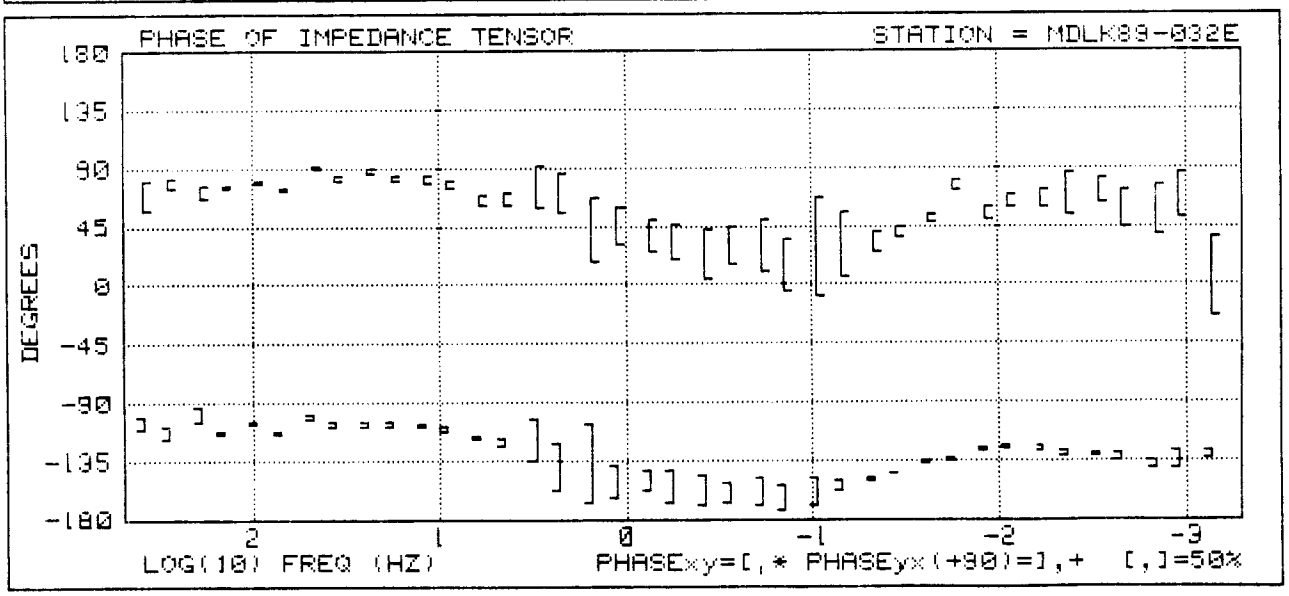
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

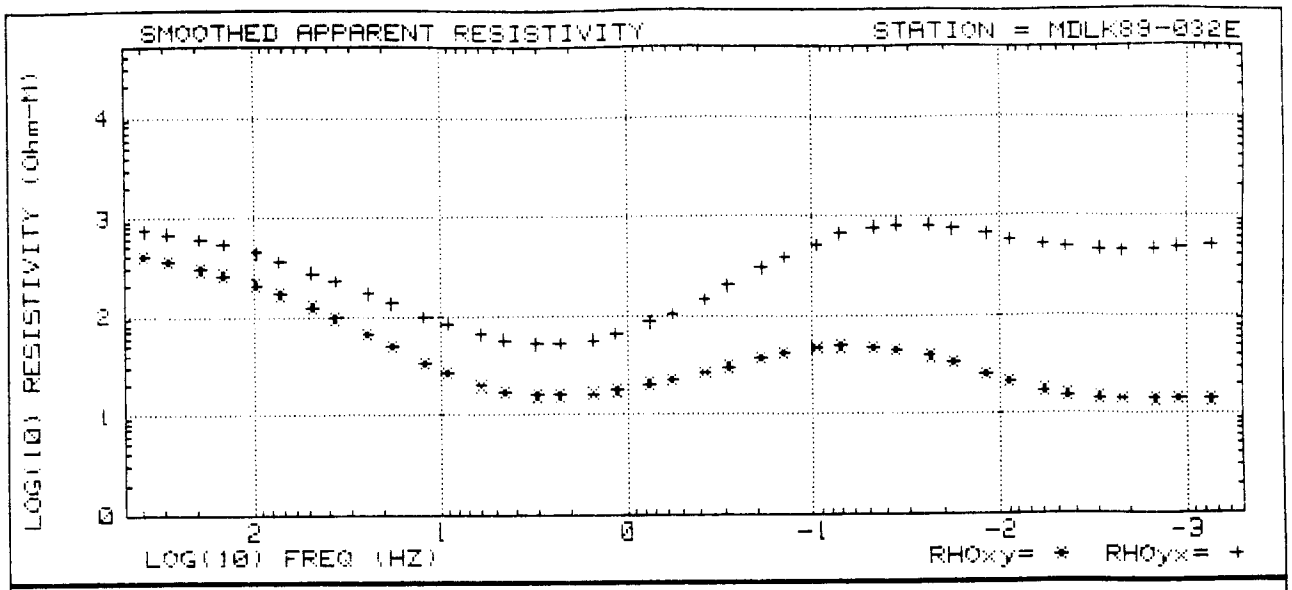
MT Site: MDLK89-032E

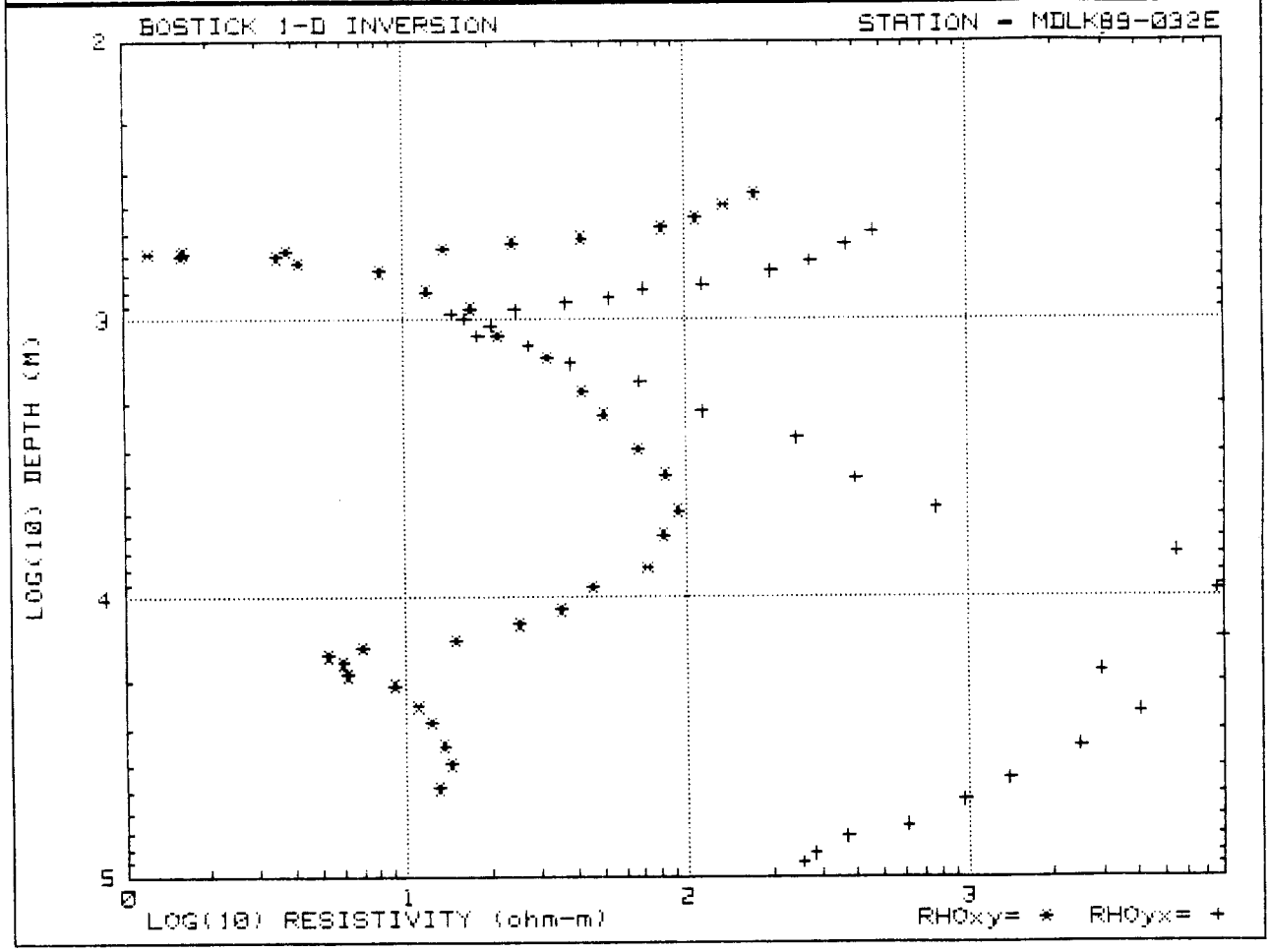




PHOENIX GEOSCIENCE

MT Site: MDLK89-032E





PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	301	430.4	84.3	795.7	26.8	69.0	17.5	-106.0	6.8
2	288.00 Hz	301	376.3	18.1	875.6	27.4	78.5	4.8	-114.0	6.9
3	192.00 Hz	567	250.8	26.0	790.0	36.3	71.3	6.6	-98.7	8.9
4	144.00 Hz	189	243.1	4.9	480.6	5.4	76.1	1.4	-112.7	1.5
5	96.00 Hz	190	200.6	5.5	433.9	7.2	79.2	1.5	-106.3	2.0
6	72.00 Hz	380	141.8	9.2	412.3	7.8	73.5	2.5	-113.5	2.1
7	48.00 Hz	187	112.3	7.0	287.3	6.3	90.3	2.0	-101.2	1.7
8	36.00 Hz	187	88.6	7.4	232.1	9.0	82.2	2.1	-107.3	2.5
9	24.00 Hz	192	51.5	10.0	179.4	10.5	87.0	2.7	-106.3	2.9
10	18.00 Hz	192	46.5	8.6	168.8	9.7	82.5	2.4	-107.4	2.6
11	12.00 Hz	288	29.3	13.7	104.0	7.6	81.3	3.7	-107.5	2.1
12	9.00 Hz	288	22.6	15.1	74.2	6.4	77.3	4.0	-110.5	1.8
13	6.00 Hz	96	14.1	20.5	65.8	7.5	64.6	5.3	-117.0	2.1
14	4.50 Hz	96	12.2	31.2	47.6	13.8	65.9	7.8	-121.2	3.7
15	3.00 Hz	3222	18.0	99.9	44.4	99.9	74.9	24.3	-119.3	24.0
16	2.25 Hz	2976	14.7	99.9	70.1	99.9	71.2	22.4	-139.7	25.7
17	1.50 Hz	880	17.5	99.9	61.7	99.9	43.0	36.2	-136.2	45.3
18	1.13 Hz	2432	17.8	99.9	68.3	96.7	45.4	21.6	-151.4	19.4
19	1.33 Sec	2678	27.1	91.2	91.7	52.0	37.8	18.6	-150.5	12.0
20	1.78 Sec	3823	29.2	99.9	133.1	90.4	33.0	20.0	-155.1	18.4
21	2.67 Sec	2053	25.3	99.9	136.0	76.6	22.8	28.3	-158.1	16.3
22	3.56 Sec	1891	24.6	99.9	200.9	47.4	30.8	21.3	-160.3	11.1
23	5.33 Sec	1275	40.2	99.9	258.5	74.9	29.6	29.3	-158.5	16.0
24	7.11 Sec	432	59.3	99.9	325.1	64.3	15.1	28.8	-164.1	14.2
25	10.67 Sec	240	61.8	99.9	544.6	69.4	29.1	56.8	-158.9	15.1
26	14.22 Sec	564	35.5	99.9	603.3	18.6	31.5	37.4	-153.8	4.9
27	21.33 Sec	249	39.0	47.2	698.5	6.1	33.3	11.1	-149.2	1.7
28	28.44 Sec	261	41.0	16.7	775.3	3.4	40.6	4.4	-144.5	1.0
29	42.67 Sec	246	41.1	18.8	787.9	4.0	51.0	4.9	-136.5	1.1
30	56.89 Sec	318	29.2	25.1	739.3	4.3	76.4	6.4	-134.4	1.2
31	85.33 Sec	75	22.0	26.5	649.9	2.0	55.1	6.7	-126.5	.6
32	113.78 Sec	117	17.7	28.7	562.0	5.2	64.5	7.2	-123.9	1.5
33	170.67 Sec	75	22.3	38.5	486.4	9.0	65.7	9.3	-125.8	2.5
34	227.56 Sec	15	11.3	99.9	487.8	10.8	69.6	24.8	-130.3	2.9
35	341.33 Sec	30	15.3	66.1	427.4	7.7	73.1	14.5	-130.6	2.1
36	455.11 Sec	24	16.8	99.9	415.8	14.7	58.9	21.8	-132.2	3.9
37	682.67 Sec	15	18.1	99.9	409.6	13.6	57.7	28.0	-138.1	3.7
38	910.22 Sec	15	23.4	99.9	439.8	45.3	69.2	25.2	-134.0	10.7
39	1365.33 Sec	3	7.1	99.9	498.0	14.4	7.2	44.7	-130.8	3.9

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	301	394.4	719.7	178.6	361	469.0	487
2	288.00 Hz	301	353.9	677.4	138.5	395	375.6	546
3	192.00 Hz	567	291.3	590.0	109.3	438	280.4	624
4	144.00 Hz	189	258.3	529.3	82.5	477	203.8	682
5	96.00 Hz	190	203.7	433.7	43.1	518	116.2	756
6	72.00 Hz	380	164.5	354.7	24.5	538	71.3	790
7	48.00 Hz	187	121.9	273.5	14.0	567	53.8	849
8	36.00 Hz	187	94.9	222.7	3.9	578	37.9	885
9	24.00 Hz	192	64.4	167.3	1.7	584	24.9	940
10	18.00 Hz	192	48.3	133.3	1.2	589	14.9	968
11	12.00 Hz	288	32.6	96.1	1.6	595	16.4	1007
12	9.00 Hz	288	25.8	81.6	3.6	603	20.4	1072
13	6.00 Hz	96	19.3	63.4	4.2	638	18.3	1157
14	4.50 Hz	96	16.6	55.7	8.3	683	27.7	1252
15	3.00 Hz	3222	15.3	50.3	12.2	804	39.0	1457
16	2.25 Hz	2976	15.3	51.0	17.3	928	69.0	1695
17	1.50 Hz	880	16.0	55.8	21.7	1162	115.1	2170
18	1.13 Hz	2432	17.0	64.9	32.3	1383	249.0	2703
19	1.33 Sec	2678	19.8	83.7	43.2	1829	404.3	3760
20	1.78 Sec	3823	22.0	102.4	50.9	2224	775.1	4801
21	2.67 Sec	2053	26.1	142.4	67.5	2968	5555.1	6936
22	3.56 Sec	1891	29.9	198.0	84.9	3667	7723.3	9443
23	5.33 Sec	1275	36.4	291.9	94.4	4957	8071.0	14041
24	7.11 Sec	432	40.6	377.4	83.1	6048	2982.3	18435
25	10.67 Sec	240	46.1	499.6	72.9	7895	4124.1	25979
26	14.22 Sec	564	47.5	649.7	46.4	9246	2505.6	34210
27	21.33 Sec	249	45.8	751.0	35.8	11121	1398.4	45046
28	28.44 Sec	261	43.6	800.6	25.5	12531	977.3	53704
29	42.67 Sec	246	38.2	804.6	15.2	14366	611.9	65938
30	56.89 Sec	318	32.3	728.6	7.0	15260	373.3	72452
31	85.33 Sec	75	24.5	643.4	5.3	16256	285.4	83390
32	113.78 Sec	117	20.7	557.7	6.0	17257	257.6	89648
33	170.67 Sec	75	16.7	498.5	6.2	19016	297.1	103806
34	227.56 Sec	15	15.0	468.0	9.1	20815	346.5	116134
35	341.33 Sec	30	14.1	449.6	11.0	24712	356.2	139409
36	455.11 Sec	24	13.8	431.9	12.3	28215	445.7	157776
37	682.67 Sec	15	13.6	454.5	13.8	34245	607.1	198230
38	910.22 Sec	15	13.9	477.1	14.4	39998	610.9	234527
39	1365.33 Sec	3	13.8	494.9	13.1	48764	593.1	292541

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	301	-29.14	49.20	999.99	326.30	848.44	999.99
2	288.00 Hz	301	-91.30	-89.82	999.99	146.53	721.44	999.99
3	192.00 Hz	567	-22.46	-92.08	999.99	157.33	464.80	999.99
4	144.00 Hz	189	17.35	2.10	213.25	100.82	406.06	204.22
5	96.00 Hz	190	28.15	7.49	276.11	58.17	304.82	136.17
6	72.00 Hz	380	.77	-2.47	168.34	64.13	216.62	199.33
7	48.00 Hz	187	-.66	2.44	120.93	-.91	164.14	62.47
8	36.00 Hz	187	3.59	8.19	96.67	17.06	125.12	41.06
9	24.00 Hz	192	.76	-1.91	82.08	4.10	78.52	28.30
10	18.00 Hz	192	-2.66	6.31	58.47	8.43	64.17	14.28
11	12.00 Hz	288	7.44	-.25	28.03	6.38	41.46	14.55
12	9.00 Hz	288	-.04	1.67	12.71	7.01	31.09	10.05
13	6.00 Hz	96	2.43	-5.55	10.25	8.81	18.58	7.33
14	4.50 Hz	96	1.99	-1.50	13.59	6.76	15.10	10.07
15	3.00 Hz	3222	5.14	.05	422.64	4.28	15.84	96.92
16	2.25 Hz	2976	6.65	2.19	247.65	4.15	12.16	50.48
17	1.50 Hz	880	1.14	1.29	238.18	8.37	7.80	104.83
18	1.13 Hz	2432	2.30	.18	64.20	7.04	7.13	28.57
19	1.33 Sec	2678	-.917	1.752	20.409	7.972	6.184	21.376
20	1.78 Sec	3823	.662	1.089	34.556	7.601	4.930	19.956
21	2.67 Sec	2053	-.421	.756	35.008	6.348	2.665	23.112
22	3.56 Sec	1891	.810	1.656	19.048	5.050	3.006	9.577
23	5.33 Sec	1275	.429	.889	37.513	5.335	3.034	19.650
24	7.11 Sec	432	.909	.148	28.430	6.235	1.677	21.017
25	10.67 Sec	240	1.610	.423	48.129	4.701	2.619	57.002
26	14.22 Sec	564	1.461	1.034	7.526	3.010	1.847	10.613
27	21.33 Sec	249	1.244	-.155	.593	2.528	1.661	.683
28	28.44 Sec	261	1.431	.367	.092	2.038	1.748	.086
29	42.67 Sec	246	1.156	.617	.083	1.380	1.705	.071
30	56.89 Sec	318	.440	.681	.041	.377	1.557	.065
31	85.33 Sec	75	.711	.695	.014	.648	.931	.036
32	113.78 Sec	117	.452	.611	.051	.380	.796	.025
33	170.67 Sec	75	.170	.499	.103	.333	.737	.035
34	227.56 Sec	15	.587	.327	.150	.173	.467	.093
35	341.33 Sec	30	.322	.160	.034	.138	.453	.029
36	455.11 Sec	24	.089	.291	.061	.222	.368	.054
37	682.67 Sec	15	.204	.038	.045	.195	.308	.063
38	910.22 Sec	15	.184	.140	.151	.128	.335	.050
39	1365.33 Sec	3	.133	.139	.031	.160	.020	.031

PHOENIX GEOSCIENCE

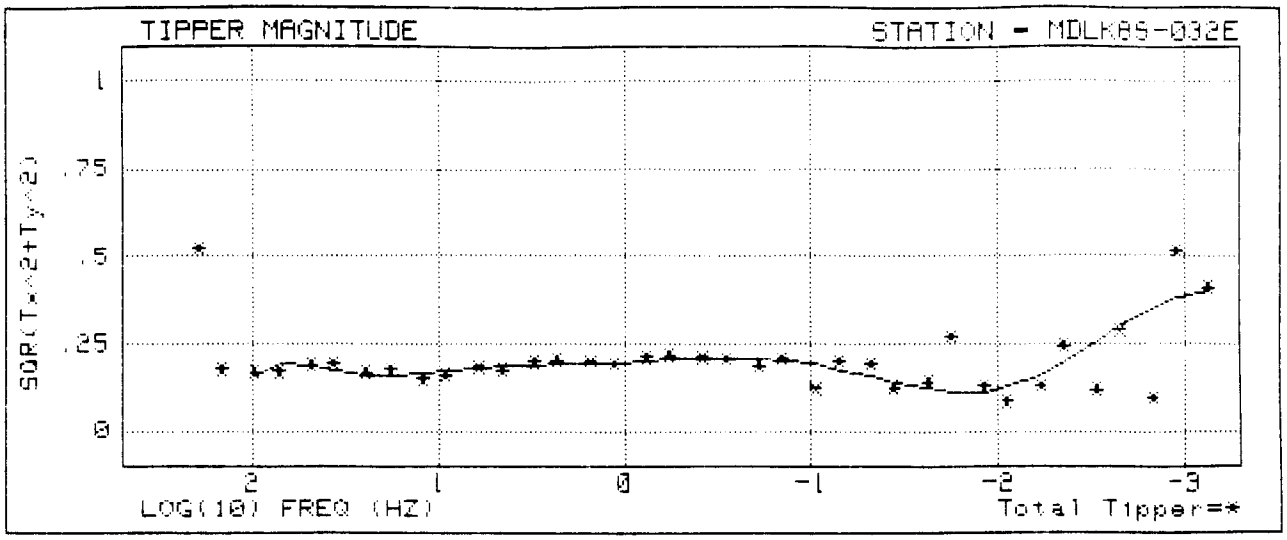
MT Site: MDLK89-032E

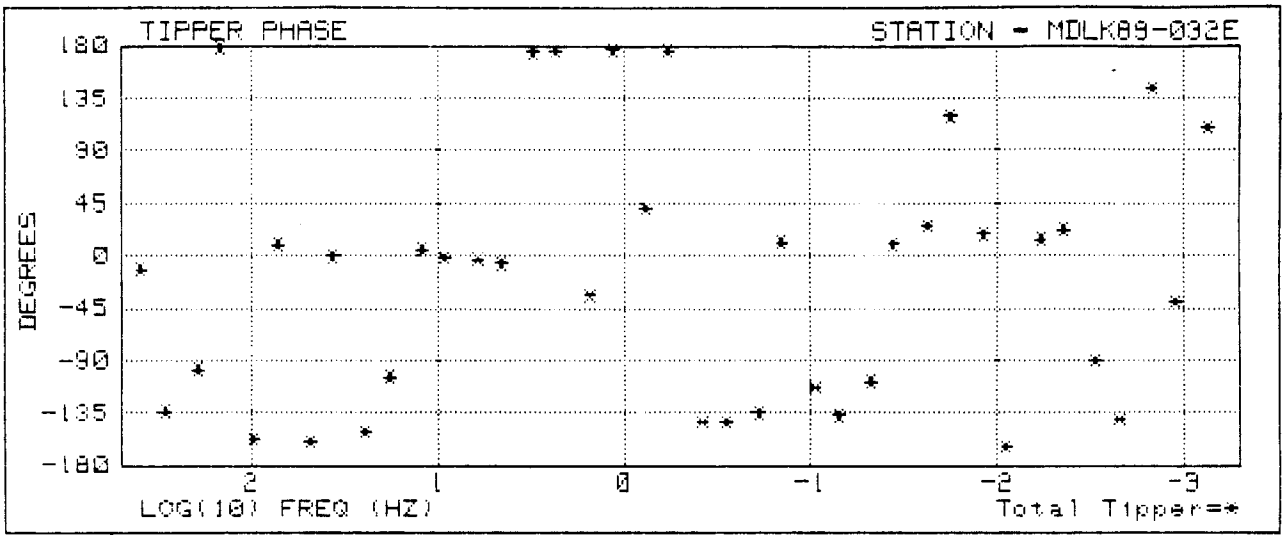
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

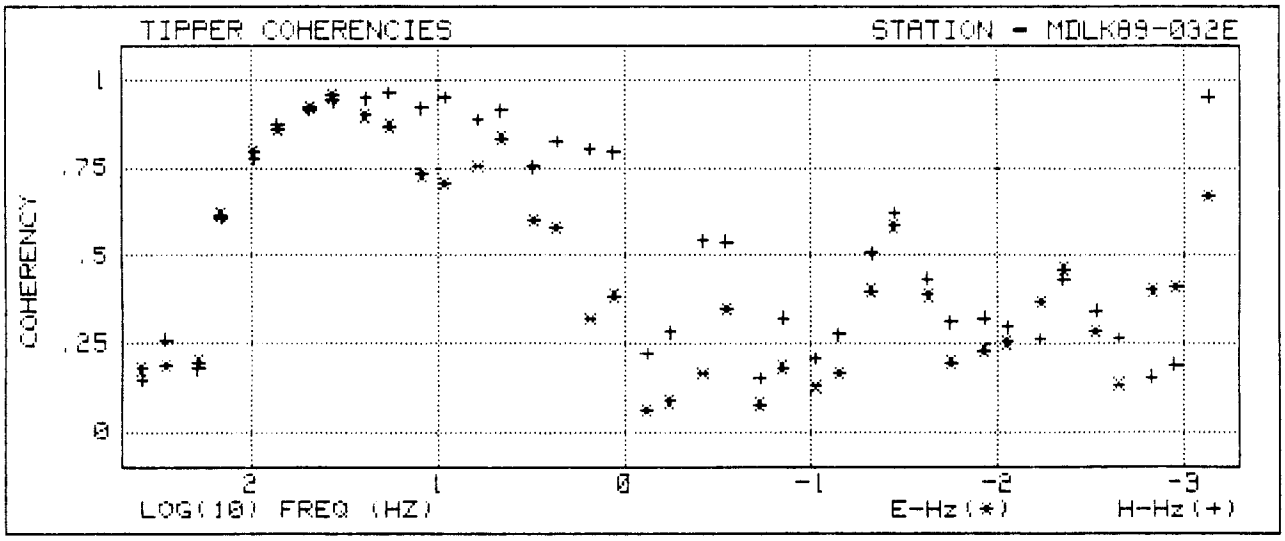
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	301	-339.77	-999.99	999.99	-337.85	61.43	999.99
2	288.00 Hz	301	-457.60	-999.99	999.99	-212.40	34.10	999.99
3	192.00 Hz	567	-130.99	-860.94	999.99	154.26	-80.33	999.99
4	144.00 Hz	189	-227.25	-542.59	470.93	-24.04	40.43	450.98
5	96.00 Hz	190	-128.30	-437.98	505.68	16.32	13.72	249.38
6	72.00 Hz	380	-153.33	-353.46	413.75	33.95	-24.09	489.92
7	48.00 Hz	187	-50.83	-257.63	127.09	7.98	-2.34	65.65
8	36.00 Hz	187	-60.93	-195.12	155.25	12.35	2.69	65.93
9	24.00 Hz	192	-41.22	-140.81	106.84	5.68	-4.84	36.84
10	18.00 Hz	192	-36.91	-117.60	64.71	4.07	2.72	15.81
11	12.00 Hz	288	-23.70	-75.35	16.55	2.86	2.10	8.59
12	9.00 Hz	288	-20.20	-54.14	6.44	4.66	-1.02	5.09
13	6.00 Hz	96	-20.16	-39.60	5.19	-2.88	-2.68	3.71
14	4.50 Hz	96	-16.96	-27.97	8.89	-.00	.08	6.59
15	3.00 Hz	3222	-12.62	-22.51	233.56	4.94	.29	53.56
16	2.25 Hz	2976	-21.41	-18.18	317.54	6.60	2.32	64.73
17	1.50 Hz	880	-15.53	-14.89	578.29	.28	2.16	254.52
18	1.13 Hz	2432	-17.21	-9.40	87.95	2.14	.88	39.14
19	1.33 Sec	2678	-16.137	-9.137	30.155	.059	-.946	31.585
20	1.78 Sec	3823	-17.546	-8.155	77.618	1.194	-.552	44.823
21	2.67 Sec	2053	-14.817	-5.952	41.221	.093	-.570	27.213
22	3.56 Sec	1891	-15.825	-5.663	21.297	1.455	-.959	10.707
23	5.33 Sec	1275	-14.480	-5.712	37.842	1.075	-1.317	19.823
24	7.11 Sec	432	-14.541	-4.141	28.203	.919	.113	20.849
25	10.67 Sec	240	-14.908	-5.746	35.460	2.179	-1.435	41.997
26	14.22 Sec	564	-13.067	-6.430	3.077	1.802	.286	4.340
27	21.33 Sec	249	-10.987	-6.557	.288	1.207	-.092	.332
28	28.44 Sec	261	-9.506	-6.777	.077	1.439	.355	.072
29	42.67 Sec	246	-6.967	-6.617	.072	1.145	.629	.062
30	56.89 Sec	318	-5.640	-5.759	.059	.215	.962	.093
31	85.33 Sec	75	-3.673	-4.959	.008	.485	.865	.020
32	113.78 Sec	117	-2.772	-4.125	.032	.434	.624	.015
33	170.67 Sec	75	-2.210	-3.061	.053	.313	.383	.018
34	227.56 Sec	15	-2.116	-2.498	.056	.335	.568	.035
35	341.33 Sec	30	-1.629	-1.900	.017	.276	.207	.015
36	455.11 Sec	24	-1.436	-1.583	.043	.296	.085	.038
37	682.67 Sec	15	-1.289	-1.157	.024	.139	.121	.034
38	910.22 Sec	15	-1.080	-1.118	.169	.218	.098	.056
39	1365.33 Sec	3	-.882	-1.022	.017	.195	.094	.017

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E







PHOENIX GEOSCIENCE

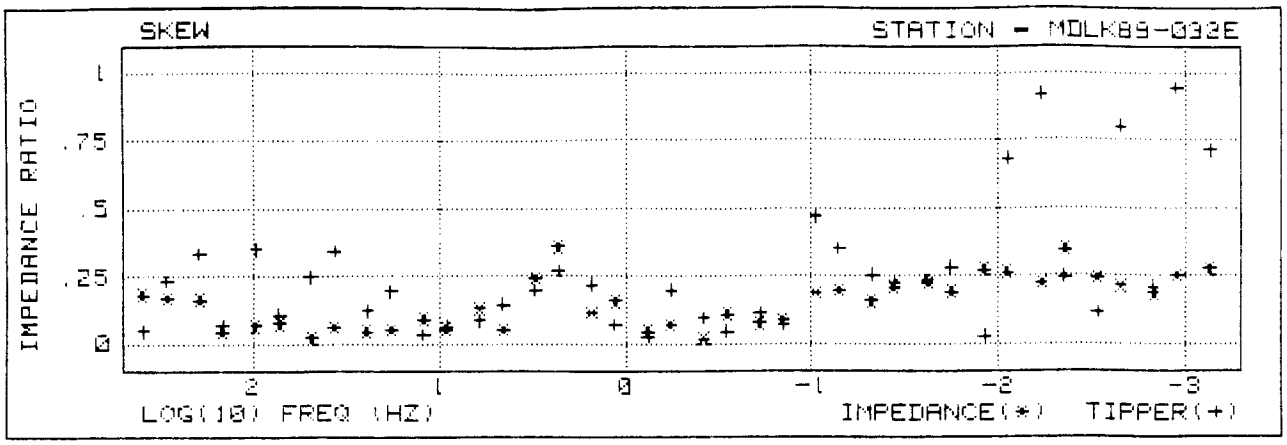
MT Site: MDLK89-032E

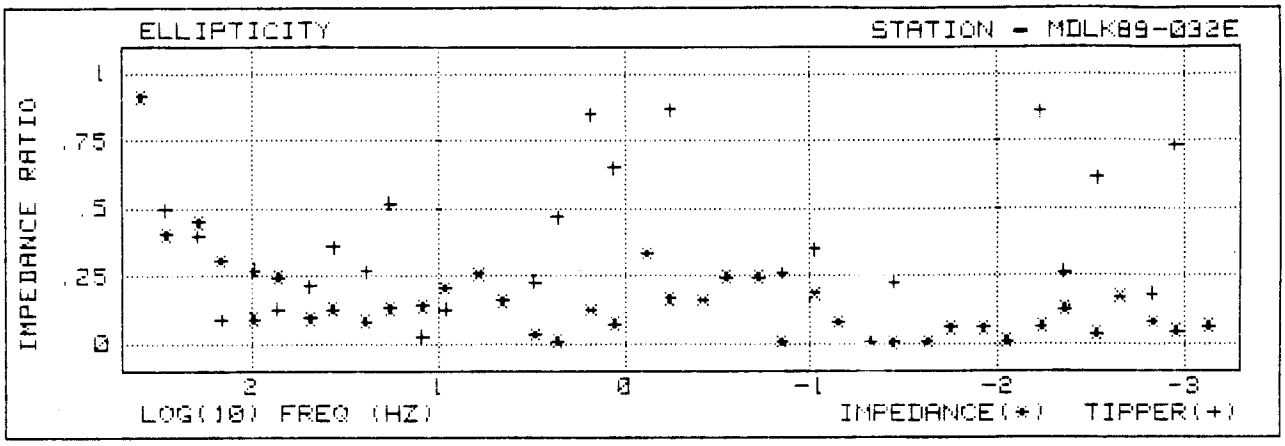
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

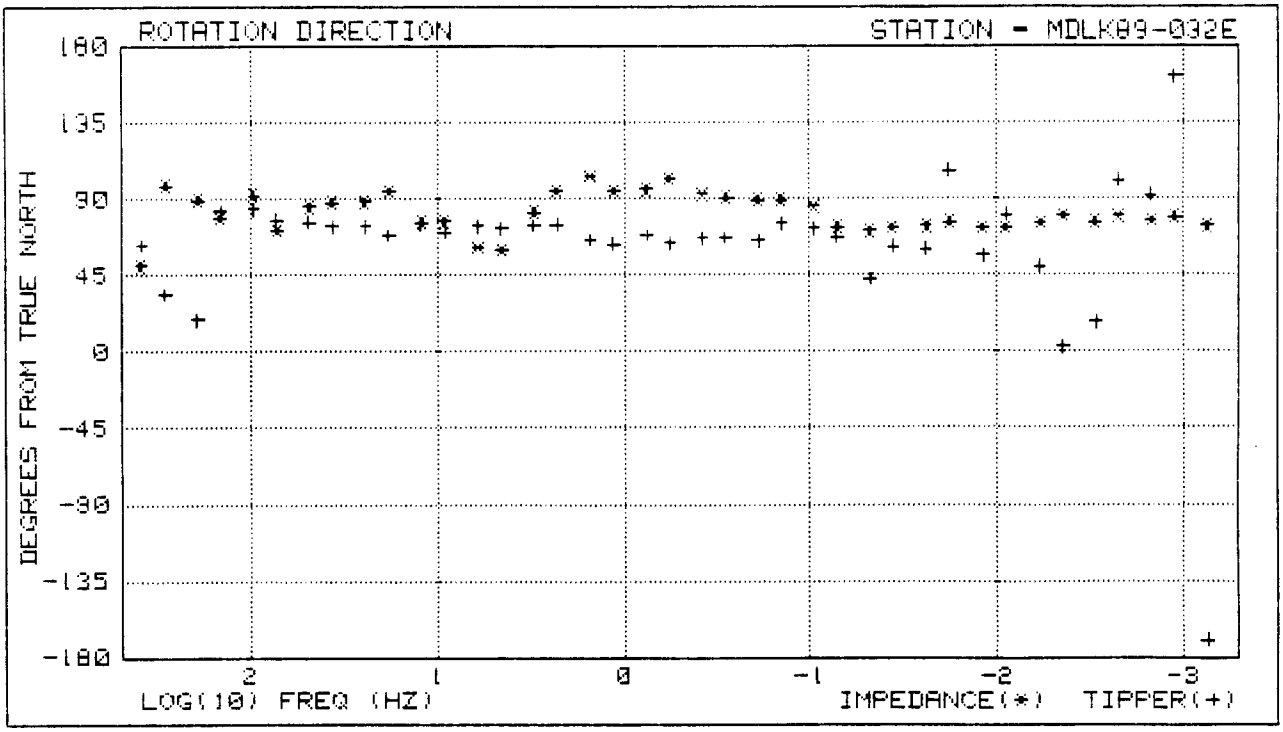
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	301	3.15	-12.06	.17	.14
2	288.00 Hz	301	1.45	-134.38	.18	.25
3	192.00 Hz	567	.52	-98.40	.19	.17
4	144.00 Hz	189	.17	177.55	.61	.60
5	96.00 Hz	190	.16	-158.26	.79	.78
6	72.00 Hz	380	.17	8.85	.86	.87
7	48.00 Hz	187	.19	-160.18	.92	.91
8	36.00 Hz	187	.19	-.85	.95	.94
9	24.00 Hz	192	.16	-151.53	.90	.94
10	18.00 Hz	192	.17	-104.95	.87	.96
11	12.00 Hz	288	.15	4.24	.73	.92
12	9.00 Hz	288	.16	-2.79	.70	.95
13	6.00 Hz	96	.18	-4.17	.75	.88
14	4.50 Hz	96	.17	-7.71	.83	.91
15	3.00 Hz	3222	.20	173.20	.60	.75
16	2.25 Hz	2976	.20	174.19	.58	.82
17	1.50 Hz	880	.20	-34.54	.32	.80
18	1.13 Hz	2432	.19	175.49	.38	.79
19	1.33 Sec	2678	.21	39.63	.06	.22
20	1.78 Sec	3823	.21	174.60	.08	.28
21	2.67 Sec	2053	.21	-143.80	.16	.54
22	3.56 Sec	1891	.21	-143.73	.34	.53
23	5.33 Sec	1275	.19	-135.78	.07	.15
24	7.11 Sec	432	.21	10.88	.18	.32
25	10.67 Sec	240	.12	-113.66	.13	.20
26	14.22 Sec	564	.20	-137.81	.16	.27
27	21.33 Sec	249	.19	-108.87	.39	.50
28	28.44 Sec	261	.12	9.76	.58	.62
29	42.67 Sec	246	.14	25.00	.38	.43
30	56.89 Sec	318	.27	119.06	.19	.31
31	85.33 Sec	75	.13	17.96	.23	.32
32	113.78 Sec	117	.08	-164.27	.25	.29
33	170.67 Sec	75	.13	13.02	.36	.26
34	227.56 Sec	15	.24	21.11	.46	.43
35	341.33 Sec	30	.12	-91.08	.28	.34
36	455.11 Sec	24	.29	-141.43	.13	.26
37	682.67 Sec	15	.09	142.37	.40	.15
38	910.22 Sec	15	.51	-40.66	.41	.19
39	1365.33 Sec	3	.41	108.94	.67	.95

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E







PHOENIX GEOSCIENCE

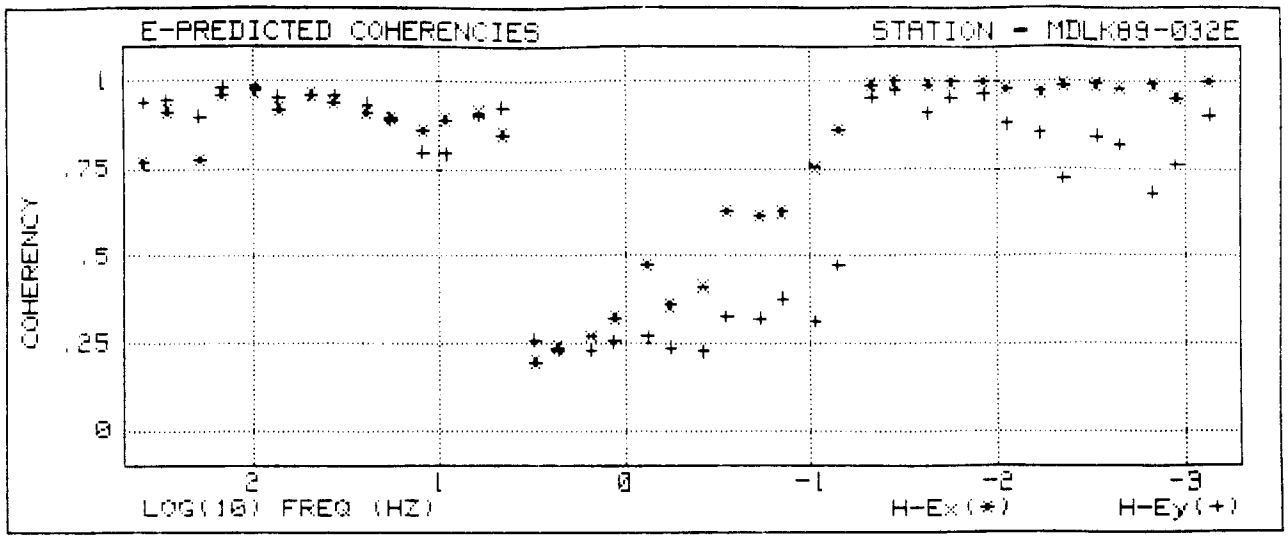
MT Site: MDLK89-032E

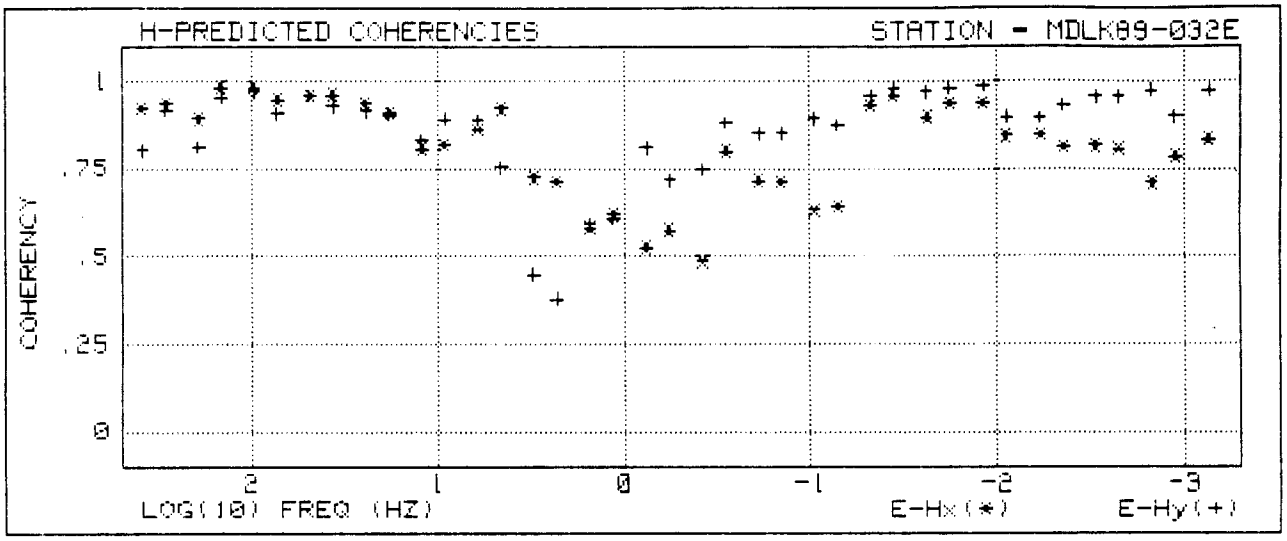
SKEW, ELLIPTICITY AND STRIKE

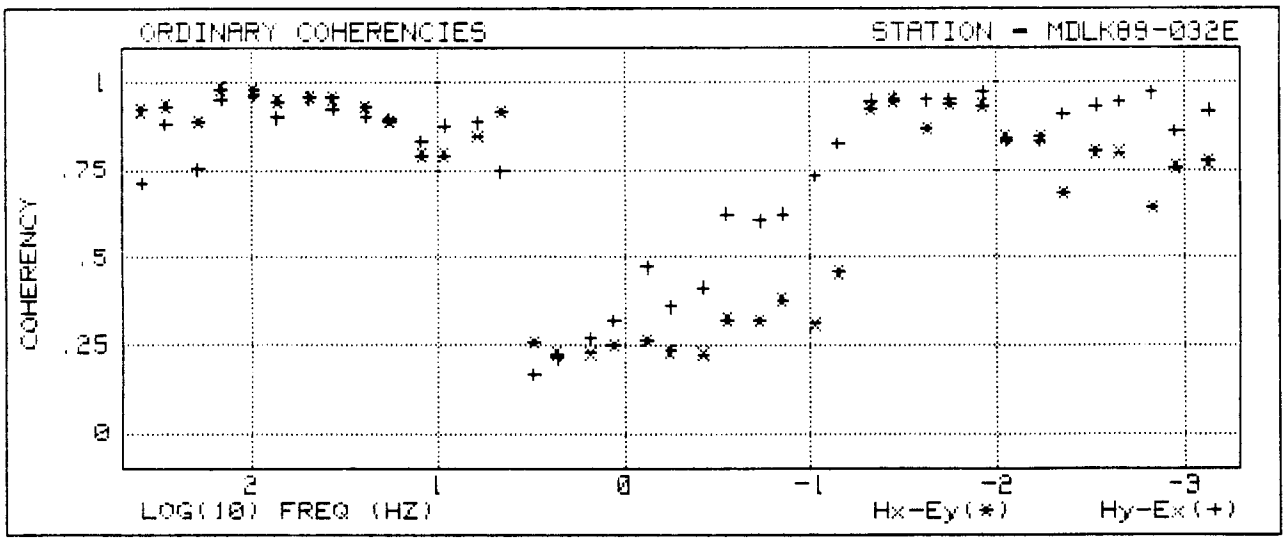
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	301	.18	.91	49.85	.05	4.10	61.94
2	288.00 Hz	301	.17	.40	97.05	.23	.49	32.89
3	192.00 Hz	567	.16	.45	88.34	.33	.39	18.04
4	144.00 Hz	189	.04	.30	77.85	.06	.08	82.10
5	96.00 Hz	190	.06	.09	91.36	.35	.27	83.41
6	72.00 Hz	380	.07	.24	70.80	.11	.12	77.17
7	48.00 Hz	187	.02	.09	84.57	.25	.21	75.70
8	36.00 Hz	187	.06	.13	87.26	.34	.35	72.89
9	24.00 Hz	192	.04	.08	87.50	.12	.26	73.22
10	18.00 Hz	192	.05	.13	93.71	.19	.51	67.76
11	12.00 Hz	288	.09	.14	75.61	.03	.02	74.58
12	9.00 Hz	288	.05	.20	76.01	.06	.12	69.68
13	6.00 Hz	96	.13	.25	60.62	.08	4.94	73.07
14	4.50 Hz	96	.05	.16	58.90	.14	5.97	71.62
15	3.00 Hz	3222	.24	.03	81.15	.19	.22	73.61
16	2.25 Hz	2976	.35	.01	93.80	.27	.46	74.06
17	1.50 Hz	880	.11	.12	102.30	.21	.84	64.85
18	1.13 Hz	2432	.16	.07	93.85	.07	.64	62.37
19	1.33 Sec	2678	.04	.33	95.00	.02	1.66	67.70
20	1.78 Sec	3823	.07	.16	100.93	.20	.86	63.20
21	2.67 Sec	2053	.02	.16	91.86	.09	2.05	66.07
22	3.56 Sec	1891	.10	.24	89.93	.04	2.31	66.54
23	5.33 Sec	1275	.07	.24	88.70	.11	2.21	64.55
24	7.11 Sec	432	.09	.00	88.67	.07	.26	74.40
25	10.67 Sec	240	.18	.18	84.54	.46	.34	71.53
26	14.22 Sec	564	.19	.07	72.49	.35	4.87	66.99
27	21.33 Sec	249	.16	.01	70.20	.25	1.80	41.82
28	28.44 Sec	261	.21	.00	72.19	.22	.23	60.86
29	42.67 Sec	246	.22	.00	73.02	.23	3.81	59.79
30	56.89 Sec	318	.19	.05	75.36	.28	2.31	105.71
31	85.33 Sec	75	.27	.06	72.22	.02	3.43	55.99
32	113.78 Sec	117	.26	.01	72.32	.68	2.53	79.65
33	170.67 Sec	75	.22	.06	74.92	.91	.85	49.36
34	227.56 Sec	15	.34	.12	79.46	.24	.26	2.31
35	341.33 Sec	30	.24	.03	75.59	.11	.61	16.74
36	455.11 Sec	24	.21	.17	79.06	.80	1.72	100.16
37	682.67 Sec	15	.18	.08	76.60	.21	.18	91.61
38	910.22 Sec	15	.25	.04	78.67	.94	.73	161.12
39	1365.33 Sec	3	.27	.06	73.18	.71	2.41	-170.37

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E







PHOENIX GEOSCIENCE

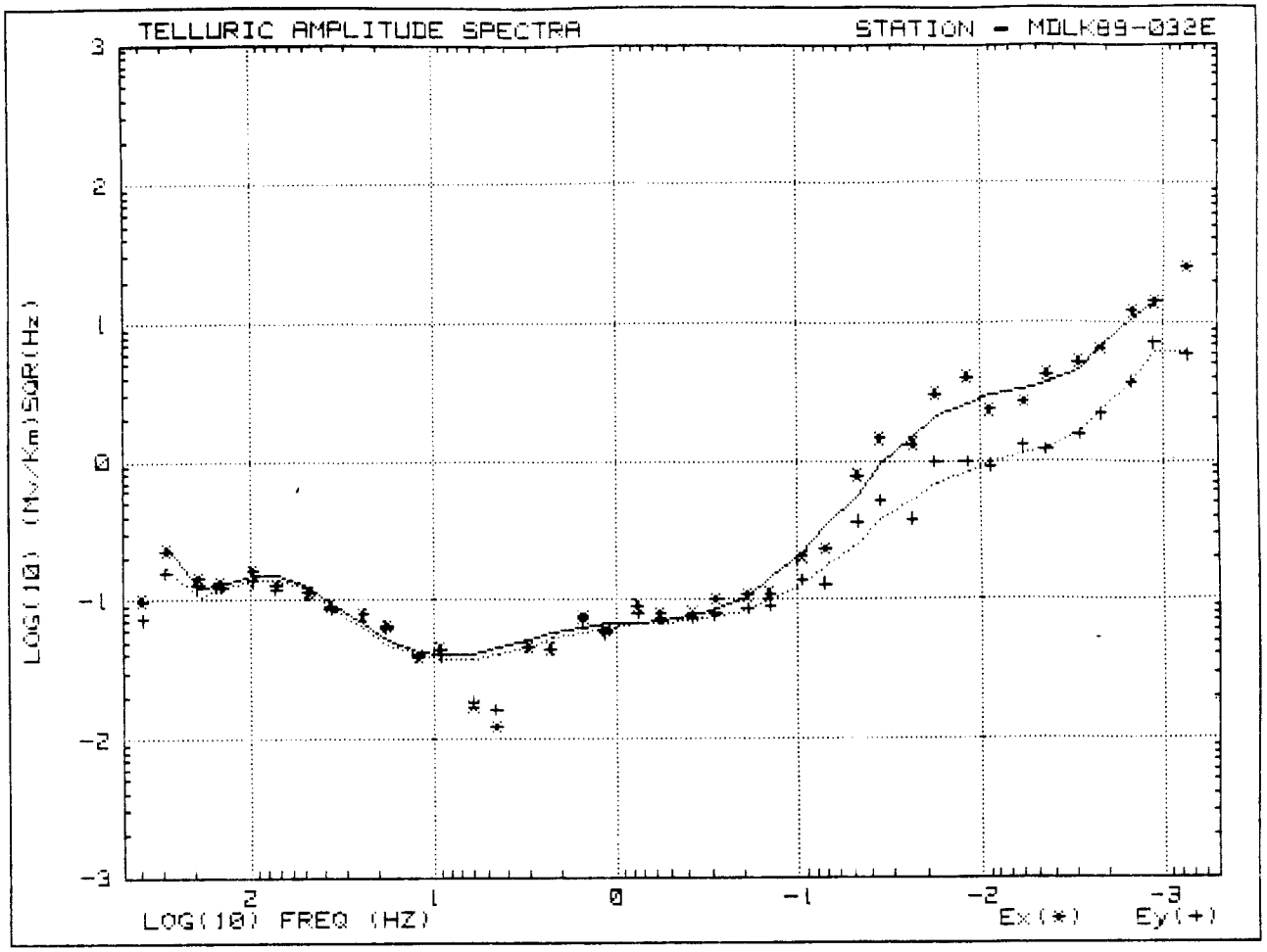
MT Site: MDLK89-032E

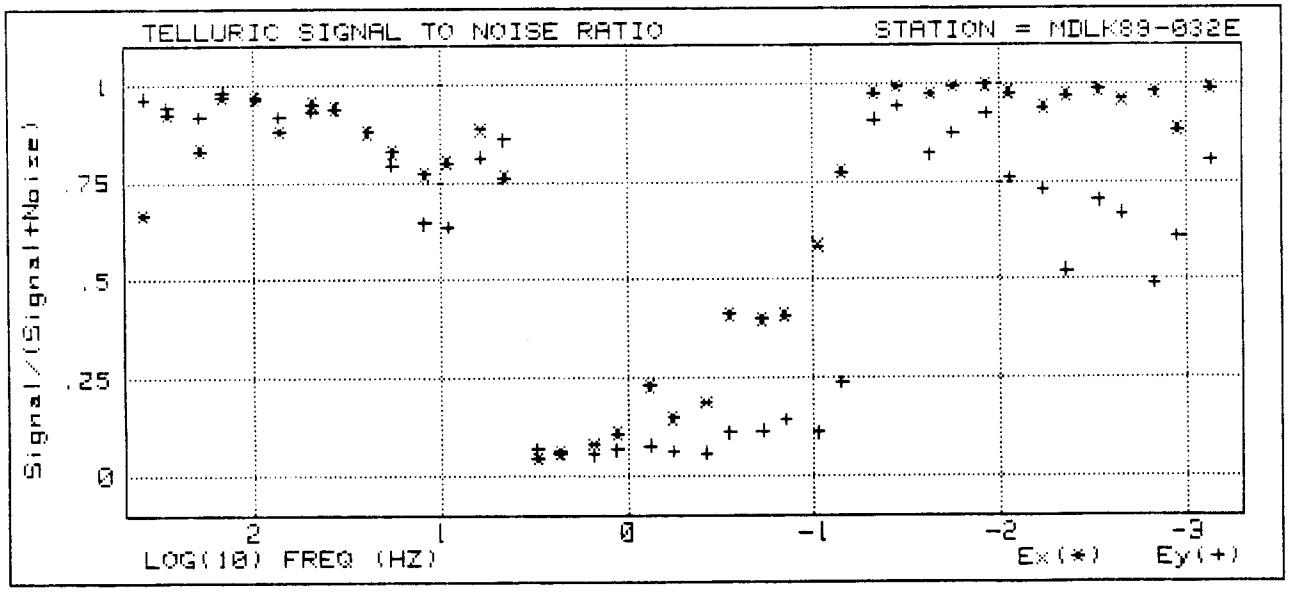
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	301	.76	.93	.92	.80	.92	.71
2	288.00 Hz	301	.91	.94	.93	.91	.93	.88
3	192.00 Hz	567	.77	.89	.89	.81	.88	.75
4	144.00 Hz	189	.96	.98	.98	.95	.98	.95
5	96.00 Hz	190	.97	.97	.98	.96	.97	.96
6	72.00 Hz	380	.91	.95	.94	.90	.94	.90
7	48.00 Hz	187	.96	.95	.95	.95	.95	.95
8	36.00 Hz	187	.93	.95	.96	.93	.95	.92
9	24.00 Hz	192	.91	.93	.93	.91	.93	.90
10	18.00 Hz	192	.89	.89	.91	.90	.89	.89
11	12.00 Hz	288	.86	.79	.80	.83	.79	.83
12	9.00 Hz	288	.89	.79	.81	.89	.79	.87
13	6.00 Hz	96	.91	.90	.86	.88	.84	.88
14	4.50 Hz	96	.84	.92	.92	.75	.91	.74
15	3.00 Hz	3222	.19	.25	.72	.44	.25	.16
16	2.25 Hz	2976	.23	.23	.71	.38	.22	.21
17	1.50 Hz	880	.27	.23	.58	.59	.22	.27
18	1.13 Hz	2432	.32	.25	.62	.60	.25	.32
19	1.33 Sec	2678	.47	.27	.52	.80	.26	.47
20	1.78 Sec	3823	.36	.24	.57	.71	.23	.35
21	2.67 Sec	2053	.41	.22	.48	.74	.22	.41
22	3.56 Sec	1891	.62	.32	.79	.88	.32	.62
23	5.33 Sec	1275	.61	.32	.71	.85	.32	.60
24	7.11 Sec	432	.62	.38	.71	.85	.37	.62
25	10.67 Sec	240	.75	.31	.63	.89	.31	.73
26	14.22 Sec	564	.86	.47	.64	.87	.45	.82
27	21.33 Sec	249	.99	.95	.93	.95	.92	.94
28	28.44 Sec	261	.99	.97	.96	.98	.94	.95
29	42.67 Sec	246	.99	.90	.89	.96	.86	.95
30	56.89 Sec	318	.99	.95	.93	.97	.93	.95
31	85.33 Sec	75	1.00	.96	.93	.98	.93	.97
32	113.78 Sec	117	.97	.87	.84	.89	.84	.83
33	170.67 Sec	75	.97	.85	.84	.89	.84	.83
34	227.56 Sec	15	.99	.72	.81	.93	.68	.91
35	341.33 Sec	30	.99	.84	.81	.95	.80	.93
36	455.11 Sec	24	.98	.81	.80	.95	.80	.94
37	682.67 Sec	15	.99	.68	.71	.97	.64	.97
38	910.22 Sec	15	.95	.76	.78	.90	.75	.86
39	1365.33 Sec	3	1.00	.90	.83	.97	.77	.91

PHOENIX GEOSCIENCE

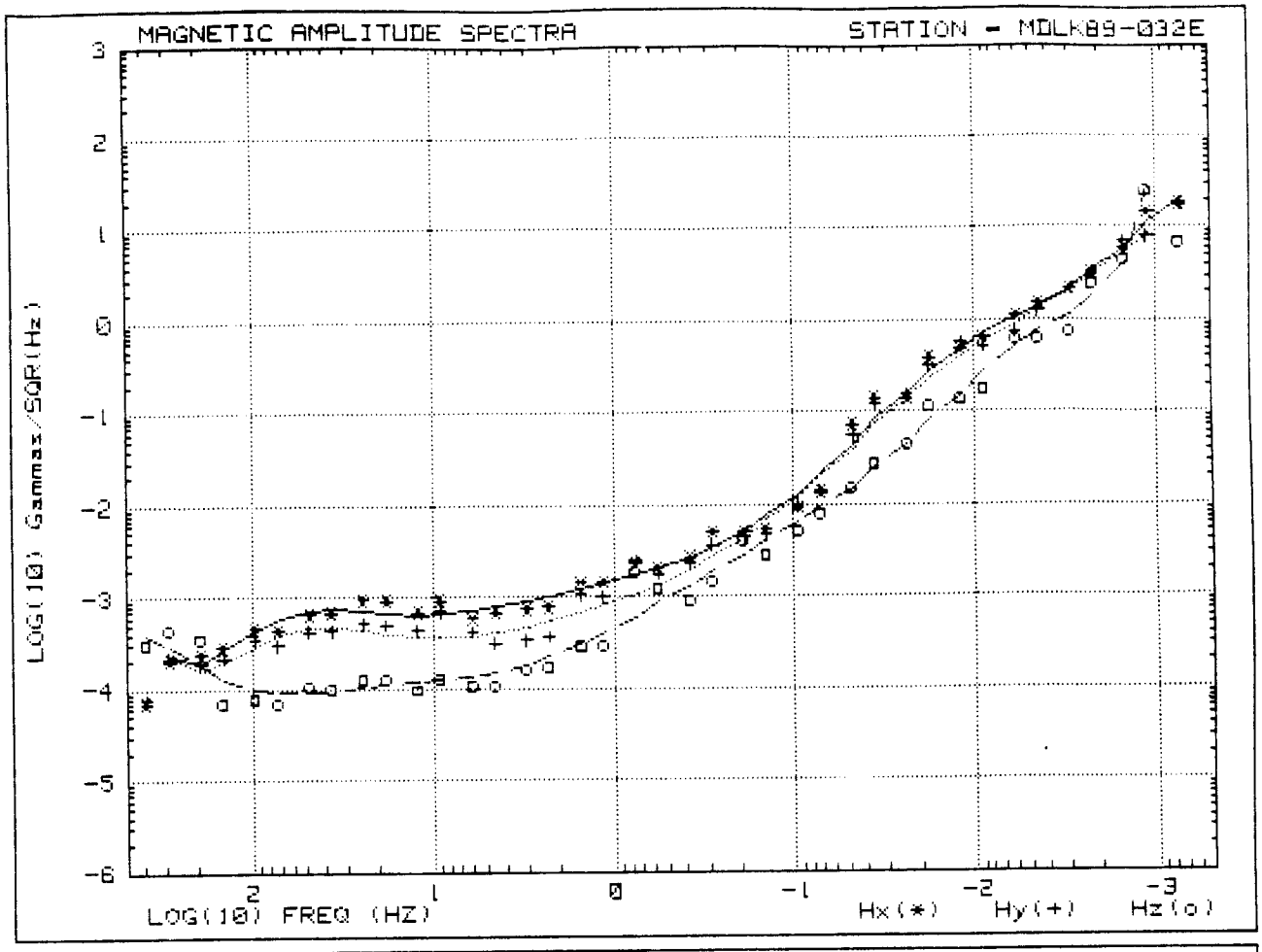
MT Site: MDLK89-032E

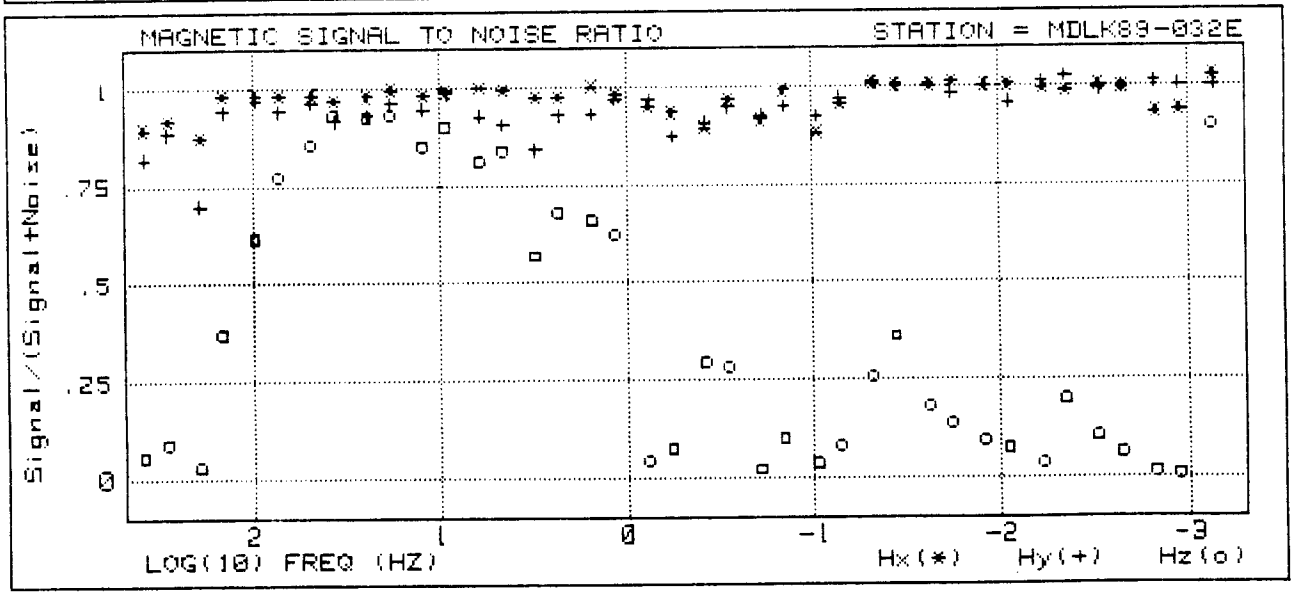




PHOENIX GEOSCIENCE

MT Site: MDLK89-032E





PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	301	6.94E-05	7.42E-05	3.19E-04	9.74E-02	7.17E-02
2	288.00 Hz	301	2.02E-04	2.13E-04	4.57E-04	2.25E-01	1.56E-01
3	192.00 Hz	567	2.33E-04	1.85E-04	3.73E-04	1.43E-01	1.25E-01
4	144.00 Hz	189	2.80E-04	2.09E-04	7.23E-05	1.31E-01	1.24E-01
5	96.00 Hz	190	4.52E-04	3.36E-04	8.05E-05	1.59E-01	1.37E-01
6	72.00 Hz	380	4.29E-04	2.96E-04	7.15E-05	1.26E-01	1.18E-01
7	48.00 Hz	187	6.45E-04	4.11E-04	1.09E-04	1.12E-01	1.11E-01
8	36.00 Hz	187	6.72E-04	4.21E-04	1.04E-04	8.97E-02	8.48E-02
9	24.00 Hz	192	9.19E-04	5.19E-04	1.31E-04	7.81E-02	7.80E-02
10	18.00 Hz	192	8.95E-04	4.89E-04	1.32E-04	6.47E-02	6.27E-02
11	12.00 Hz	288	6.76E-04	4.32E-04	1.00E-04	3.93E-02	3.81E-02
12	9.00 Hz	288	9.12E-04	6.87E-04	1.33E-04	4.40E-02	3.95E-02
13	6.00 Hz	96	5.77E-04	4.09E-04	1.09E-04	1.68E-02	1.81E-02
14	4.50 Hz	96	6.67E-04	3.10E-04	1.10E-04	1.21E-02	1.58E-02
15	3.00 Hz	3222	7.20E-04	3.31E-04	1.70E-04	4.50E-02	4.56E-02
16	2.25 Hz	2976	7.65E-04	3.64E-04	1.75E-04	4.38E-02	4.39E-02
17	1.50 Hz	880	1.42E-03	1.04E-03	2.97E-04	7.44E-02	7.14E-02
18	1.13 Hz	2432	1.42E-03	9.77E-04	3.09E-04	5.92E-02	5.63E-02
19	1.33 Sec	2678	2.25E-03	2.38E-03	1.96E-03	8.98E-02	7.98E-02
20	1.78 Sec	3823	2.04E-03	1.73E-03	1.30E-03	7.90E-02	7.34E-02
21	2.67 Sec	2053	2.68E-03	2.25E-03	9.35E-04	7.95E-02	7.28E-02
22	3.56 Sec	1891	5.00E-03	3.59E-03	1.52E-03	9.94E-02	7.75E-02
23	5.33 Sec	1275	5.05E-03	4.34E-03	4.24E-03	1.07E-01	8.55E-02
24	7.11 Sec	432	5.36E-03	4.60E-03	3.02E-03	1.10E-01	8.90E-02
25	10.67 Sec	240	9.06E-03	9.35E-03	5.35E-03	2.03E-01	1.37E-01
26	14.22 Sec	564	1.35E-02	1.40E-02	8.36E-03	2.32E-01	1.29E-01
27	21.33 Sec	249	7.13E-02	5.35E-02	1.58E-02	7.77E-01	3.61E-01
28	28.44 Sec	261	1.39E-01	1.22E-01	2.86E-02	1.43E+00	5.10E-01
29	42.67 Sec	246	1.34E-01	1.54E-01	4.71E-02	1.30E+00	3.80E-01
30	56.89 Sec	318	3.83E-01	3.15E-01	1.18E-01	3.01E+00	9.77E-01
31	85.33 Sec	75	4.75E-01	5.64E-01	1.41E-01	3.97E+00	9.77E-01
32	113.78 Sec	117	6.43E-01	5.00E-01	1.89E-01	2.32E+00	9.03E-01
33	170.67 Sec	75	1.11E+00	7.35E-01	6.47E-01	2.62E+00	1.26E+00
34	227.56 Sec	15	1.47E+00	1.21E+00	6.50E-01	4.12E+00	1.18E+00
35	341.33 Sec	30	2.13E+00	2.12E+00	7.67E-01	5.07E+00	1.52E+00
36	455.11 Sec	24	3.14E+00	3.10E+00	2.62E+00	6.35E+00	2.12E+00
37	682.67 Sec	15	5.73E+00	6.82E+00	4.60E+00	1.18E+01	3.65E+00
38	910.22 Sec	15	1.43E+01	7.82E+00	2.59E+01	1.39E+01	7.03E+00
39	1365.33 Sec	3	1.81E+01	1.78E+01	7.28E+00	2.45E+01	5.79E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	301	.893	.818	.061	.664	.962
2	288.00 Hz	301	.917	.883	.095	.924	.942
3	192.00 Hz	567	.871	.698	.033	.830	.916
4	144.00 Hz	189	.980	.940	.377	.967	.977
5	96.00 Hz	190	.982	.965	.624	.963	.967
6	72.00 Hz	380	.980	.939	.778	.879	.916
7	48.00 Hz	187	.981	.959	.862	.949	.928
8	36.00 Hz	187	.967	.915	.937	.938	.938
9	24.00 Hz	192	.977	.926	.932	.876	.878
10	18.00 Hz	192	.993	.961	.937	.826	.793
11	12.00 Hz	288	.978	.942	.857	.769	.643
12	9.00 Hz	288	.990	.984	.906	.799	.632
13	6.00 Hz	96	.998	.924	.815	.883	.812
14	4.50 Hz	96	.992	.904	.844	.760	.858
15	3.00 Hz	3222	.973	.839	.574	.041	.066
16	2.25 Hz	2976	.972	.927	.683	.058	.054
17	1.50 Hz	880	1.000	.928	.663	.078	.052
18	1.13 Hz	2432	.977	.966	.628	.105	.065
19	1.33 Sec	2678	.949	.965	.046	.228	.074
20	1.78 Sec	3823	.933	.871	.080	.146	.059
21	2.67 Sec	2053	.892	.905	.298	.186	.055
22	3.56 Sec	1891	.966	.946	.289	.410	.108
23	5.33 Sec	1275	.914	.925	.026	.397	.111
24	7.11 Sec	432	.989	.948	.105	.408	.142
25	10.67 Sec	240	.880	.923	.040	.585	.108
26	14.22 Sec	564	.955	.969	.086	.774	.236
27	21.33 Sec	249	1.000	1.000	.263	.976	.906
28	28.44 Sec	261	1.000	.999	.366	.992	.942
29	42.67 Sec	246	.999	1.000	.187	.973	.820
30	56.89 Sec	318	1.000	.978	.144	.992	.872
31	85.33 Sec	75	.999	.999	.099	.995	.923
32	113.78 Sec	117	1.000	.956	.082	.974	.759
33	170.67 Sec	75	.994	1.000	.043	.937	.728
34	227.56 Sec	15	.986	1.000	.203	.968	.521
35	341.33 Sec	30	1.000	.990	.109	.982	.701
36	455.11 Sec	24	.996	.993	.068	.959	.667
37	682.67 Sec	15	.931	1.000	.019	.976	.488
38	910.22 Sec	15	.938	.999	.013	.880	.607
39	1365.33 Sec	3	1.000	.998	.906	.988	.803

PHOENIX GEOSCIENCE

MT Site: MDLK89-032E

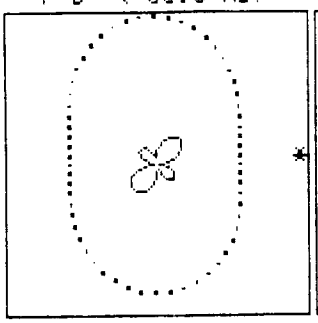
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

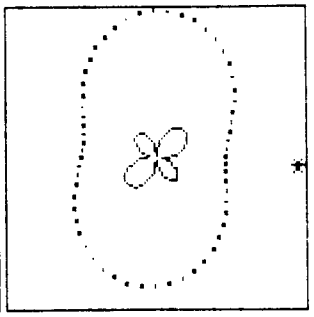
*=Rotation Direction

Zxy = ...
Zxx = ____

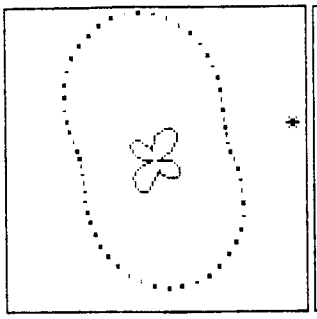
F=8 (36.0 Hz)



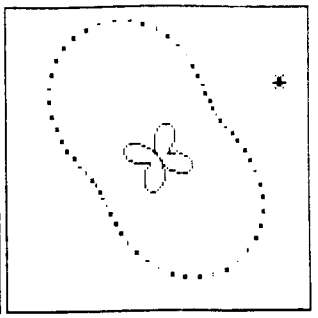
F=10 (18.0 Hz)



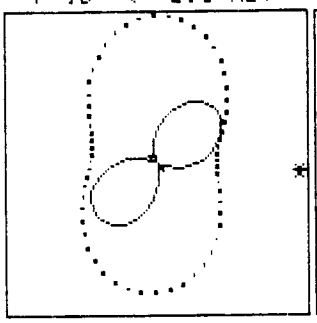
F=12 (9.0 Hz)



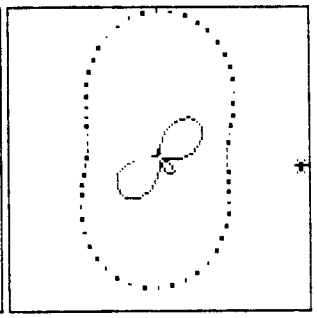
F=14 (4.5 Hz)



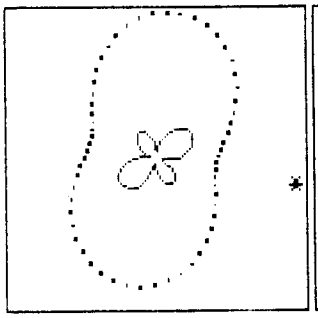
F=16 (2.3 Hz)



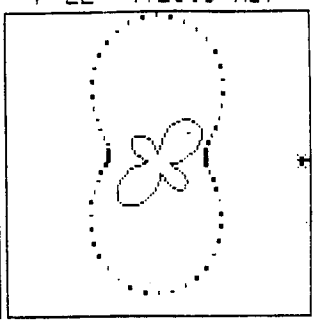
F=18 (1.1 Hz)



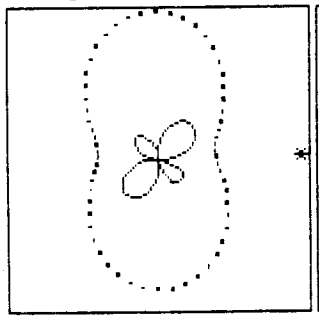
F=20 (.5625 Hz)



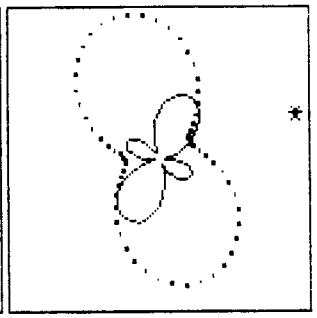
F=22 (.2813 Hz)



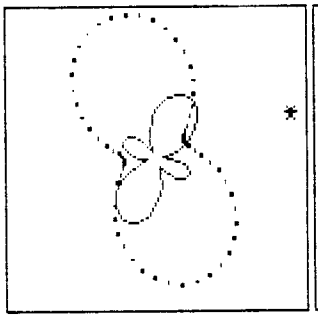
F=24 (.1406 Hz)



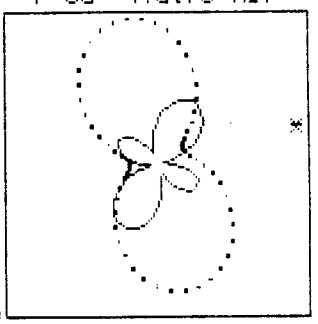
F=26 (.0703 Hz)



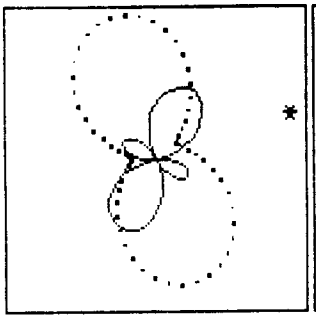
F=28 (.0352 Hz)



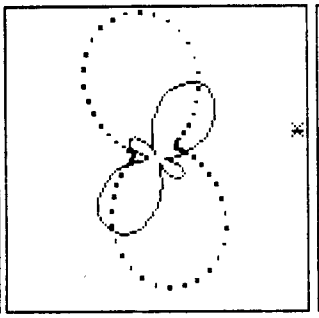
F=30 (.0176 Hz)



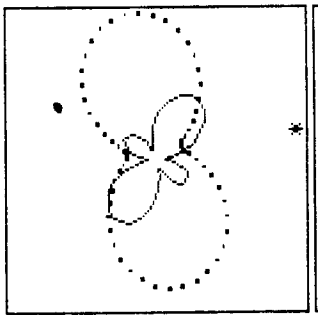
F=32 (.0088 Hz)



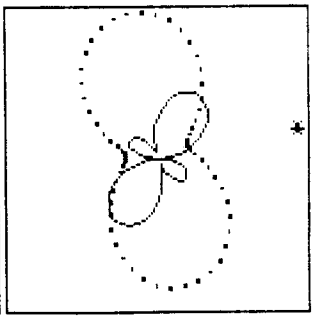
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-033s/034s/

Operator:OJALA
Date: 31 Aug 1989
Time: 11:51:38

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#335-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#210-16Aug89-01*
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#430-16Aug89-01
Sens-Ch08: L#333-02Jul89-01

* = Changed During the Run

Station 1

Stn Number:MDLK89-033s
Site Desc:T44N R4E SEC32 NW4
41,36,56 N 121,32,40 W
Elevation:7440 FT
Reference:MDLK89-034s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL452	+0 DEG
Hy	2	COIL210*	+90 DEG
Hz	3	LOOP405	Doubled
Ex	4	155 M	+0 DEG
Ey	5	145 M	+90 DEG
Rx	6	COIL431	+0 DEG
Ry	7	COIL430	+90 DEG

Ex Pot Resist: 16.0K Ohms
Ex Voltage: AC=7.0 mv, DC=29.9 mv
Ey Pot Resist: 17.0K Ohms
Ey Voltage: AC=11.0 mv, DC=174.3 mv

* = Changed During the Run

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

OPERATOR LOG FOR MT SITES MDLK89-033a/034a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-033a/034a/		
Run STARTED:	11:51:38	31 Aug 1989
Run QUIT:	21:40:20	31 Aug 1989
Run Start and Stop Time for MDLK89-033b/034b/		
Run STARTED:	22:14:35	31 Aug 1989
Run QUIT:	09:37:19	1 Sep 1989
Run Start and Stop Time for MDLK89-033c/034c/		
Run STARTED:	10:08:48	1 Sep 1989
Run QUIT:	21:02:38	1 Sep 1989
Run Start and Stop Time for MDLK89-033d/034d/		
Run STARTED:	21:29:32	1 Sep 1989
Run QUIT:	04:08:42	2 Sep 1989

Operator:OJALA

Cultural Factors:
FOREST SERVICE ROADS NEAR ALL SITES. NO OTHER CULTURE APPARENT.
Weather Conditions:
CLEAR AND WARM WITH NO WIND.
Other Factors:
WILL START A 'b' RUN.

PHOENIX GEOSCIENCE

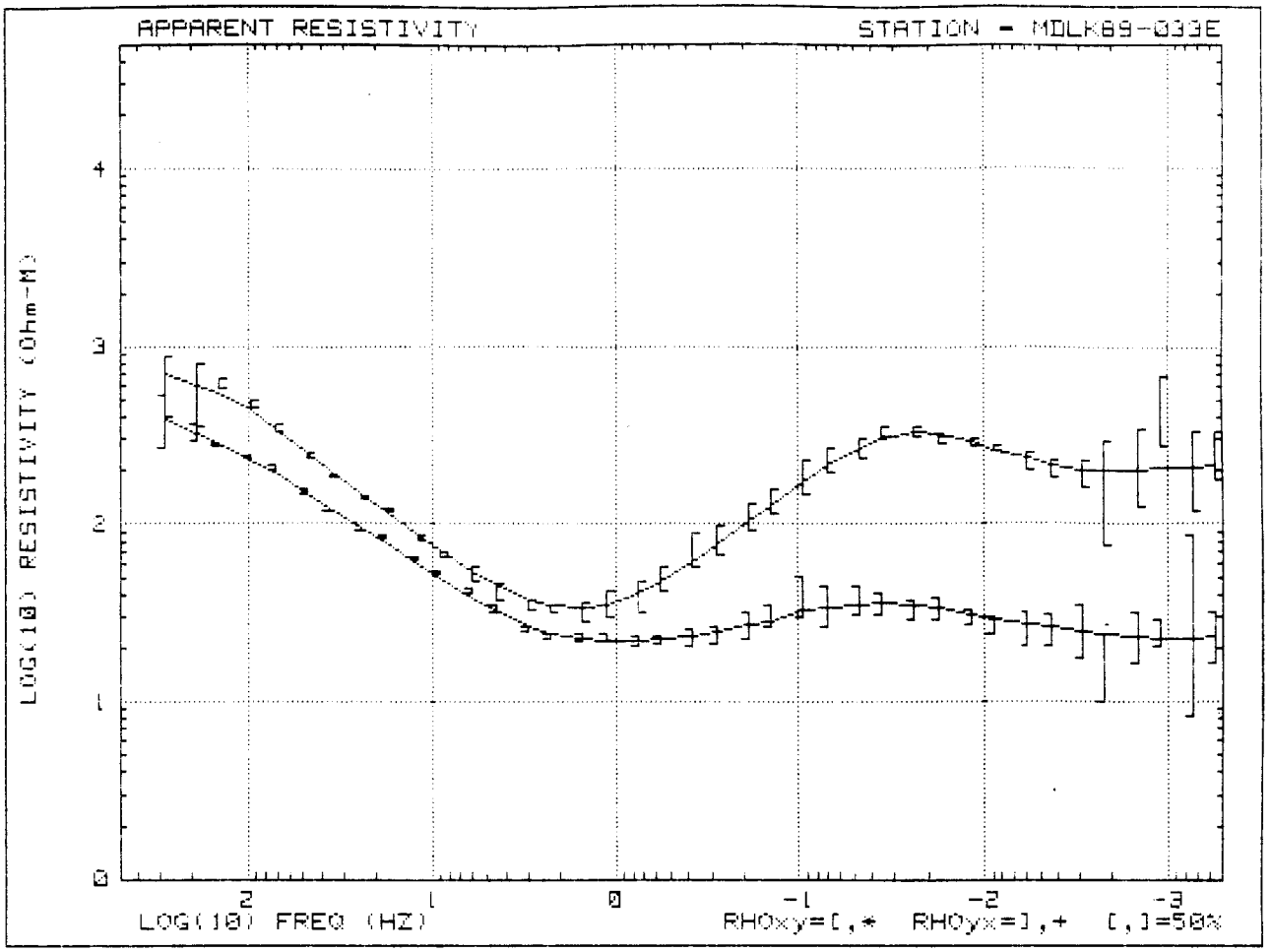
MT Site: MDLK89-033E

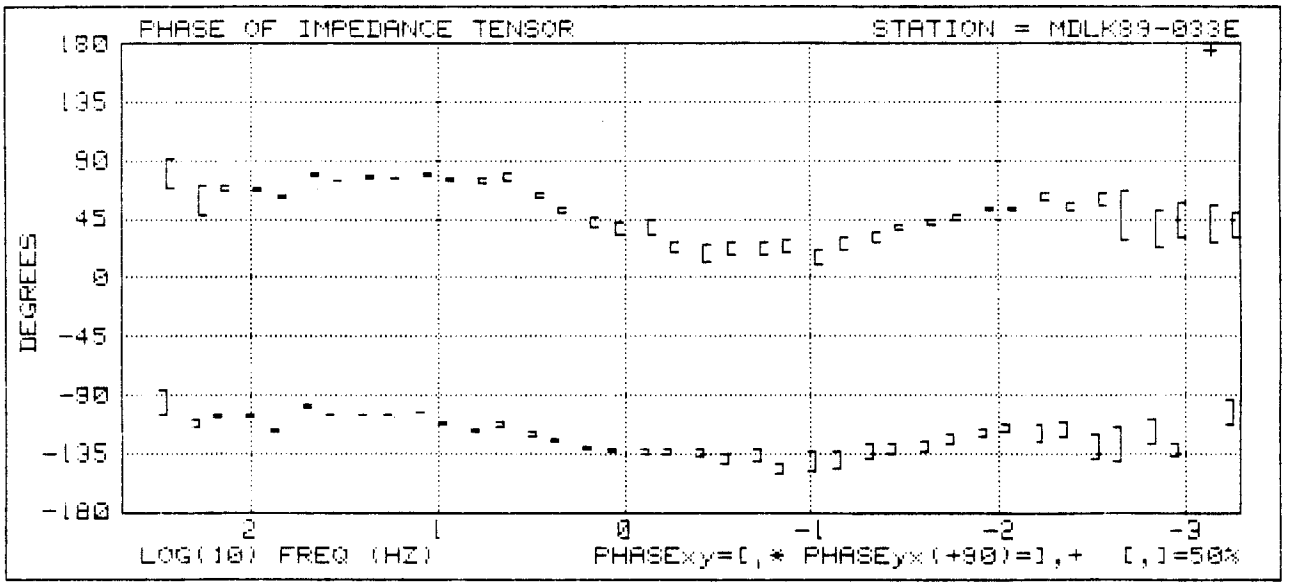
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

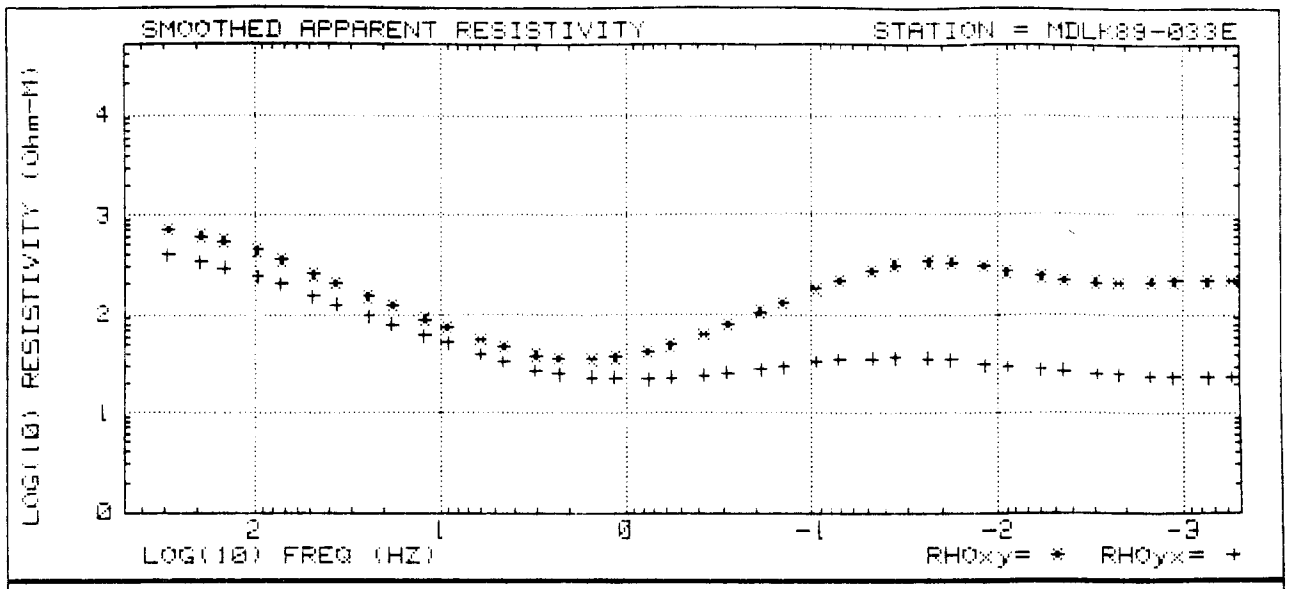
MT Site: MDLK89-033E

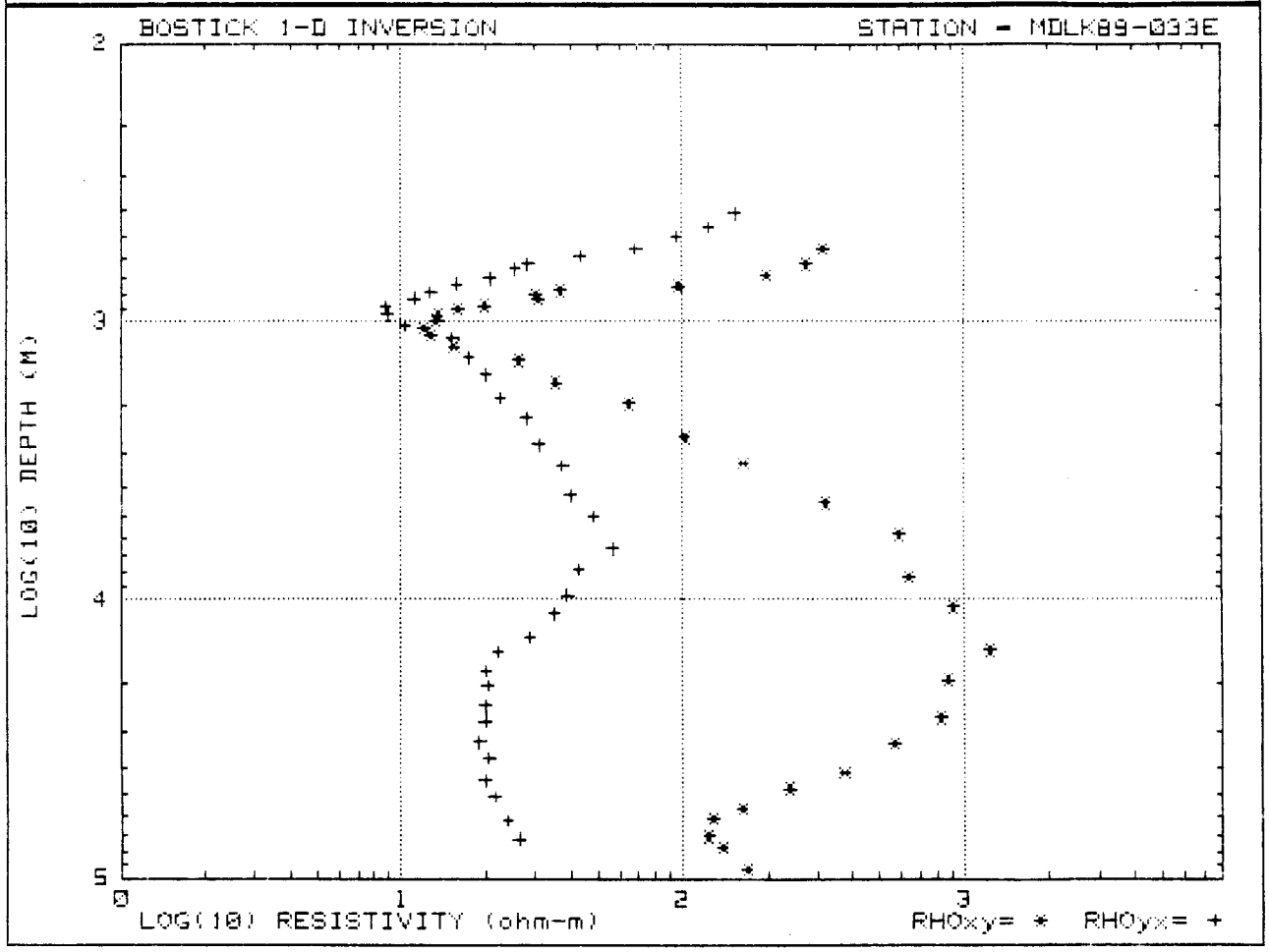




PHOENIX GEOSCIENCE

MT Site: MDLK89-033E





PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
2	288.00 Hz	128	592.6	82.5	376.8	65.0	79.5	17.2	-95.2	14.3
3	192.00 Hz	191	534.3	85.7	326.1	18.9	59.8	17.7	-111.6	5.0
4	144.00 Hz	559	616.1	10.2	280.1	3.4	68.4	2.8	-106.4	1.0
5	96.00 Hz	569	473.5	6.2	237.8	1.9	67.6	1.7	-106.1	.5
6	72.00 Hz	862	352.1	6.9	205.6	4.2	62.5	1.9	-117.0	1.2
7	48.00 Hz	384	241.1	4.5	151.5	3.3	79.5	1.3	-97.9	.9
8	36.00 Hz	1151	187.2	2.1	118.7	1.6	74.3	.6	-104.3	.4
9	24.00 Hz	1376	140.3	2.1	92.6	1.4	77.3	.6	-104.4	.4
10	18.00 Hz	1407	119.5	2.2	84.4	2.0	76.5	.6	-104.9	.6
11	12.00 Hz	823	84.6	3.5	64.3	2.2	78.8	1.0	-103.4	.6
12	9.00 Hz	183	67.3	3.8	53.3	3.0	76.0	1.1	-111.1	.8
13	6.00 Hz	576	52.7	13.1	42.5	4.6	75.0	3.5	-117.3	1.3
14	4.50 Hz	800	41.6	15.1	33.6	7.8	76.9	4.0	-112.4	2.1
15	3.00 Hz	7392	34.8	9.1	25.8	5.9	63.2	2.5	-120.1	1.6
16	2.25 Hz	5344	33.3	8.1	23.6	5.2	52.4	2.2	-125.2	1.5
17	1.50 Hz	800	32.0	19.8	23.0	5.2	42.1	5.2	-129.8	1.5
18	1.13 Hz	9213	35.3	28.2	23.2	6.8	37.6	7.1	-132.0	1.9
19	1.33 Sec	1936	39.1	34.5	21.8	10.4	38.2	8.5	-132.8	2.8
20	1.78 Sec	3152	49.4	23.8	22.3	8.0	23.0	6.1	-133.5	2.2
21	2.67 Sec	2132	71.9	37.7	23.1	18.0	19.2	9.2	-134.5	4.7
22	3.56 Sec	2380	81.8	31.5	23.8	18.2	22.6	7.8	-138.7	4.8
23	5.33 Sec	667	109.7	27.8	27.1	30.1	22.0	7.0	-135.7	7.5
24	7.11 Sec	656	133.9	26.1	30.3	24.3	24.0	6.7	-146.1	6.2
25	10.67 Sec	309	181.6	39.2	39.1	50.6	15.7	9.5	-140.2	11.7
26	14.22 Sec	411	229.4	26.5	34.7	47.6	26.2	6.7	-139.8	11.2
27	21.33 Sec	157	264.7	19.9	37.4	32.5	30.7	5.2	-133.7	8.1
28	28.44 Sec	193	327.9	10.0	35.4	25.3	38.6	2.7	-131.0	6.5
29	42.67 Sec	147	332.5	9.3	32.8	21.8	42.3	2.5	-128.8	5.7
30	56.89 Sec	229	294.9	7.7	33.2	23.9	46.5	2.1	-123.6	6.1
31	85.33 Sec	96	287.4	7.4	30.1	16.6	53.0	2.0	-119.6	4.4
32	113.78 Sec	75	266.1	5.9	26.7	16.6	53.6	1.6	-115.4	4.4
33	170.67 Sec	33	224.9	17.7	25.3	38.7	61.7	4.7	-119.6	9.4
34	227.56 Sec	66	205.0	19.5	25.2	33.3	55.0	5.1	-116.1	8.2
35	341.33 Sec	21	193.2	28.9	24.7	66.4	59.8	7.3	-129.1	14.6
36	455.11 Sec	15	148.6	99.9	15.6	93.4	48.3	28.5	-127.5	18.9
37	682.67 Sec	9	209.8	99.9	23.0	64.5	37.8	21.2	-117.5	14.3
38	910.22 Sec	12	428.8	97.3	24.5	28.3	43.7	19.5	-132.5	7.1
39	1365.33 Sec	9	197.1	99.9	26.9	99.9	41.5	22.5	174.2	50.1
40	1820.44 Sec	6	242.4	60.2	22.9	62.4	40.2	13.5	-103.2	13.9

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
2	288.00 Hz	128	696.4	387.7	316.7	553	155.5	413
3	192.00 Hz	191	598.2	326.0	277.2	628	125.0	464
4	144.00 Hz	559	540.1	284.7	199.2	689	96.7	500
5	96.00 Hz	569	434.6	231.6	97.0	757	69.0	553
6	72.00 Hz	862	347.8	195.6	37.2	782	43.8	587
7	48.00 Hz	384	248.4	149.2	30.4	810	28.5	628
8	36.00 Hz	1151	202.3	122.2	31.0	844	25.6	656
9	24.00 Hz	1376	149.3	94.9	20.1	888	20.8	708
10	18.00 Hz	1407	119.2	78.4	15.9	916	15.9	743
11	12.00 Hz	823	87.9	59.9	13.5	963	12.8	795
12	9.00 Hz	183	71.7	50.0	13.3	1005	11.2	839
13	6.00 Hz	576	54.6	38.6	12.0	1074	8.8	903
14	4.50 Hz	800	46.1	32.4	12.9	1139	9.0	955
15	3.00 Hz	7392	37.0	26.1	15.5	1249	10.4	1049
16	2.25 Hz	5344	34.7	24.1	26.4	1398	15.3	1164
17	1.50 Hz	800	33.6	22.4	36.0	1685	17.5	1374
18	1.13 Hz	9213	35.5	22.1	65.4	2000	20.2	1578
19	1.33 Sec	1936	41.3	21.7	102.7	2640	22.7	1913
20	1.78 Sec	3152	47.8	22.5	166.0	3279	28.2	2250
21	2.67 Sec	2132	60.6	23.4	322.3	4523	31.1	2814
22	3.56 Sec	2380	76.7	24.8	593.3	5877	37.8	3342
23	5.33 Sec	667	103.4	27.1	645.2	8356	40.4	4277
24	7.11 Sec	656	126.7	28.4	915.9	10682	48.6	5061
25	10.67 Sec	309	174.7	32.5	1237.9	15362	57.0	6624
26	14.22 Sec	411	213.5	34.4	880.2	19609	43.2	7871
27	21.33 Sec	157	266.6	35.1	836.4	26837	39.4	9743
28	28.44 Sec	193	305.4	35.8	566.0	33168	35.4	11354
29	42.67 Sec	147	328.0	35.0	377.3	42099	29.0	13752
30	56.89 Sec	229	320.5	33.5	238.9	48058	22.4	15546
31	85.33 Sec	96	296.4	30.5	162.7	56601	20.1	18147
32	113.78 Sec	75	262.0	29.1	128.6	61441	20.5	20484
33	170.67 Sec	33	233.9	27.0	124.8	71111	20.0	24159
34	227.56 Sec	66	212.2	26.3	138.8	78200	20.0	27513
35	341.33 Sec	21	202.4	24.6	169.5	93533	19.1	32592
36	455.11 Sec	15	199.6	24.1	202.7	107253	20.7	37265
37	682.67 Sec	9	203.4	23.3	231.2	132628	20.0	44881
38	910.22 Sec	12	208.6	22.9	226.7	155073	21.7	51330
39	1365.33 Sec	9	209.4	22.9	223.1	190293	24.2	62886
40	1820.44 Sec	6	213.2	23.3	241.8	221724	26.6	73307

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
2	288.00 Hz	128	36.18	119.61	999.99	168.21	908.29	999.99
3	192.00 Hz	191	6.10	74.54	999.99	360.74	618.70	999.99
4	144.00 Hz	559	52.22	60.46	819.50	245.47	619.16	999.99
5	96.00 Hz	569	27.65	30.27	109.64	181.32	440.91	415.87
6	72.00 Hz	862	29.11	21.14	87.46	164.61	315.66	285.02
7	48.00 Hz	384	11.63	19.21	31.30	43.67	236.56	56.44
8	36.00 Hz	1151	10.82	10.65	3.91	49.73	176.69	7.47
9	24.00 Hz	1376	10.19	9.77	1.39	28.54	126.57	3.54
10	18.00 Hz	1407	9.34	8.37	1.49	24.24	100.82	2.56
11	12.00 Hz	823	4.98	7.63	1.36	13.81	69.89	2.96
12	9.00 Hz	183	5.86	7.43	.88	13.33	53.39	2.07
13	6.00 Hz	576	3.47	5.99	1.92	10.29	38.43	11.99
14	4.50 Hz	800	2.72	3.50	4.48	6.95	29.79	9.27
15	3.00 Hz	7392	3.11	1.24	1.56	10.28	20.39	1.97
16	2.25 Hz	5344	1.57	1.36	.70	11.82	15.34	1.15
17	1.50 Hz	800	1.36	.99	1.77	11.50	10.38	3.91
18	1.13 Hz	9213	1.21	.43	2.07	11.17	8.61	6.13
19	1.33 Sec	1936	1.334	-.550	3.373	9.508	7.489	6.442
20	1.78 Sec	3152	1.056	.299	1.687	10.854	4.612	3.158
21	2.67 Sec	2132	.770	-.662	4.528	10.966	3.809	6.897
22	3.56 Sec	2380	1.311	-.698	2.618	9.905	4.121	4.317
23	5.33 Sec	667	1.346	-1.159	4.555	9.400	3.799	3.100
24	7.11 Sec	656	1.516	-1.935	3.026	8.864	3.943	2.537
25	10.67 Sec	309	1.593	.003	5.752	8.880	2.501	4.650
26	14.22 Sec	411	2.033	.644	3.591	8.059	3.965	2.236
27	21.33 Sec	157	1.045	.896	1.279	6.776	4.017	1.019
28	28.44 Sec	193	1.516	.635	.236	5.929	4.742	.262
29	42.67 Sec	147	.728	1.098	.179	4.613	4.205	.153
30	56.89 Sec	229	.665	1.044	.148	3.505	3.693	.071
31	85.33 Sec	96	.371	.684	.057	2.472	3.276	.043
32	113.78 Sec	75	.316	.721	.033	2.030	2.752	.019
33	170.67 Sec	33	.163	.610	.134	1.217	2.260	.088
34	227.56 Sec	66	.151	.281	.066	1.218	1.738	.072
35	341.33 Sec	21	.314	.428	.021	.847	1.454	.091
36	455.11 Sec	15	.025	.167	.249	.850	.954	.807
37	682.67 Sec	9	.202	.098	.056	.980	.759	.421
38	910.22 Sec	12	.246	.136	.020	1.109	1.061	.544
39	1365.33 Sec	9	.073	-.008	.204	.637	.562	.222
40	1820.44 Sec	6	.202	-.020	.032	.623	.527	.074

PHOENIX GEOSCIENCE

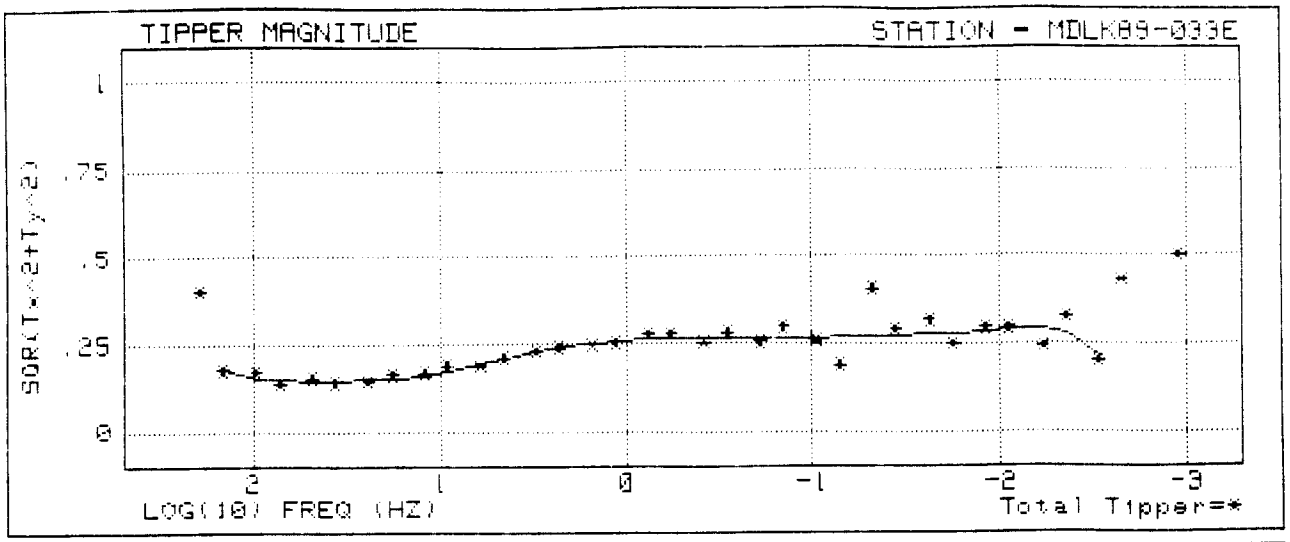
MT Site: MDLK89-033E

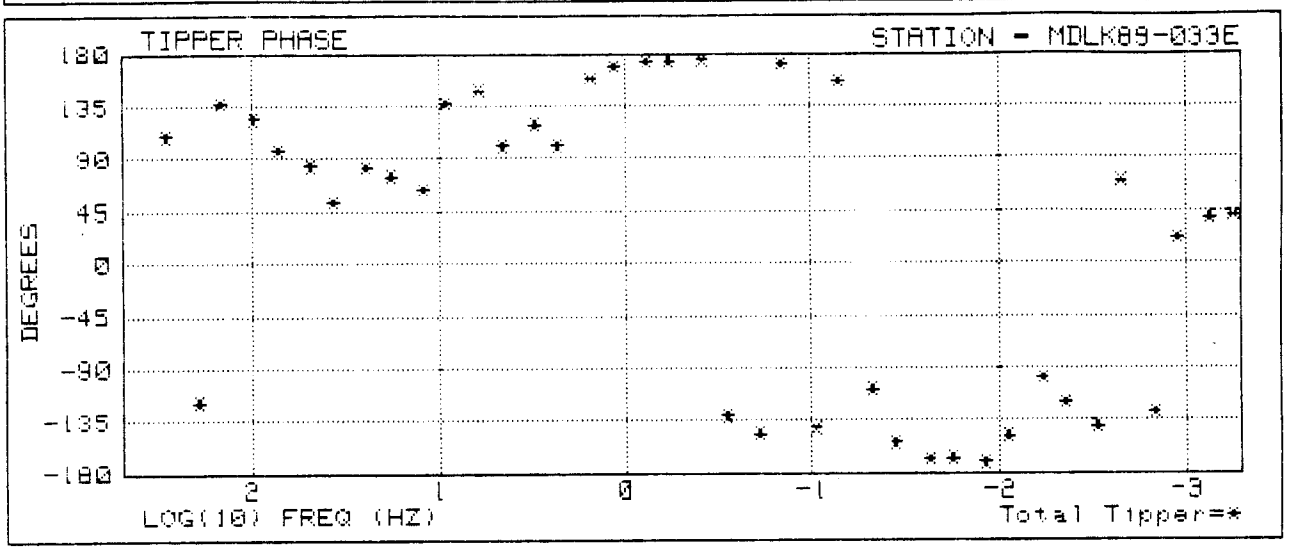
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

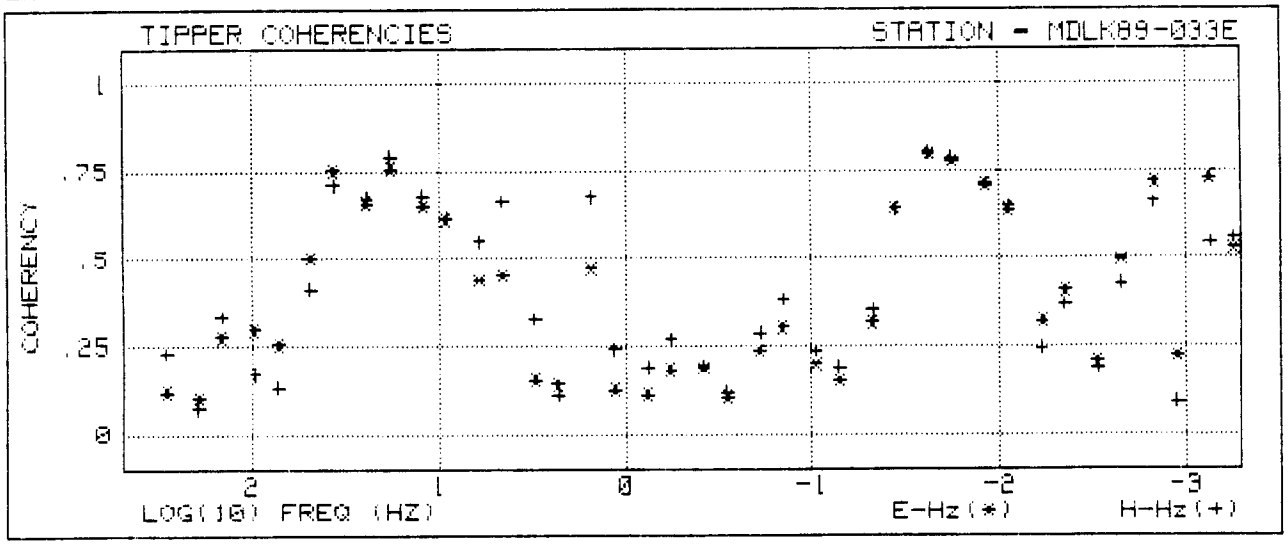
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
2	288.00 Hz	128	-66.67	-733.58	999.99	126.72	67.00	999.99
3	192.00 Hz	191	-206.28	-520.05	999.99	36.61	26.77	999.99
4	144.00 Hz	559	-126.91	-430.76	115.49	33.56	72.20	293.80
5	96.00 Hz	569	-93.47	-324.67	19.50	14.66	40.09	73.97
6	72.00 Hz	862	-123.67	-242.33	62.68	5.14	34.53	204.27
7	48.00 Hz	384	-26.12	-188.91	18.68	2.69	22.50	33.68
8	36.00 Hz	1151	-36.13	-141.62	2.55	-3.26	16.10	4.87
9	24.00 Hz	1376	-26.17	-102.10	1.13	-.79	10.84	2.88
10	18.00 Hz	1407	-22.43	-84.24	1.42	.80	9.31	2.44
11	12.00 Hz	823	-14.41	-60.42	.91	-.23	7.30	1.97
12	9.00 Hz	183	-17.59	-45.69	1.01	4.14	6.47	2.40
13	6.00 Hz	576	-16.40	-31.74	1.27	.48	3.26	7.95
14	4.50 Hz	800	-10.48	-25.41	2.13	1.03	2.14	4.40
15	3.00 Hz	7392	-9.88	-17.01	.64	2.25	1.34	.81
16	2.25 Hz	5344	-9.39	-13.30	.34	2.45	.32	.56
17	1.50 Hz	800	-8.41	-10.07	.22	1.41	.49	.49
18	1.13 Hz	9213	-7.64	-8.50	.29	1.20	.90	.85
19	1.33 Sec	1936	-6.145	-6.635	.397	1.110	.333	.759
20	1.78 Sec	3152	-5.458	-5.746	.184	1.078	.401	.345
21	2.67 Sec	2132	-4.612	-4.698	.593	.928	.471	.903
22	3.56 Sec	2380	-4.347	-3.826	.468	1.288	-.261	.772
23	5.33 Sec	667	-3.608	-3.520	.882	1.260	.630	.600
24	7.11 Sec	656	-3.833	-2.578	.505	.896	.351	.423
25	10.67 Sec	309	-3.293	-2.740	1.538	1.604	.262	1.244
26	14.22 Sec	411	-2.669	-2.254	.925	2.033	.645	.576
27	21.33 Sec	157	-2.046	-2.142	.347	1.365	.089	.277
28	28.44 Sec	193	-1.637	-1.884	.158	1.354	.878	.176
29	42.67 Sec	147	-1.230	-1.528	.075	.983	.776	.064
30	56.89 Sec	229	-.945	-1.425	.067	.926	.749	.032
31	85.33 Sec	96	-.657	-1.154	.021	.544	.536	.016
32	113.78 Sec	75	-.465	-.978	.014	.560	.506	.008
33	170.67 Sec	33	-.425	-.749	.040	.391	.491	.026
34	227.56 Sec	66	-.328	-.669	.023	.179	.259	.025
35	341.33 Sec	21	-.379	-.466	.047	.134	.513	.202
36	455.11 Sec	15	-.253	-.329	.037	.103	.092	.121
37	682.67 Sec	9	-.190	-.364	.021	.033	.437	.158
38	910.22 Sec	12	-.248	-.270	.004	.188	.200	.115
39	1365.33 Sec	9	-.312	.032	.150	.381	-.176	.164
40	1820.44 Sec	6	-.057	-.244	.007	.052	.281	.017

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E







PHOENIX GEOSCIENCE

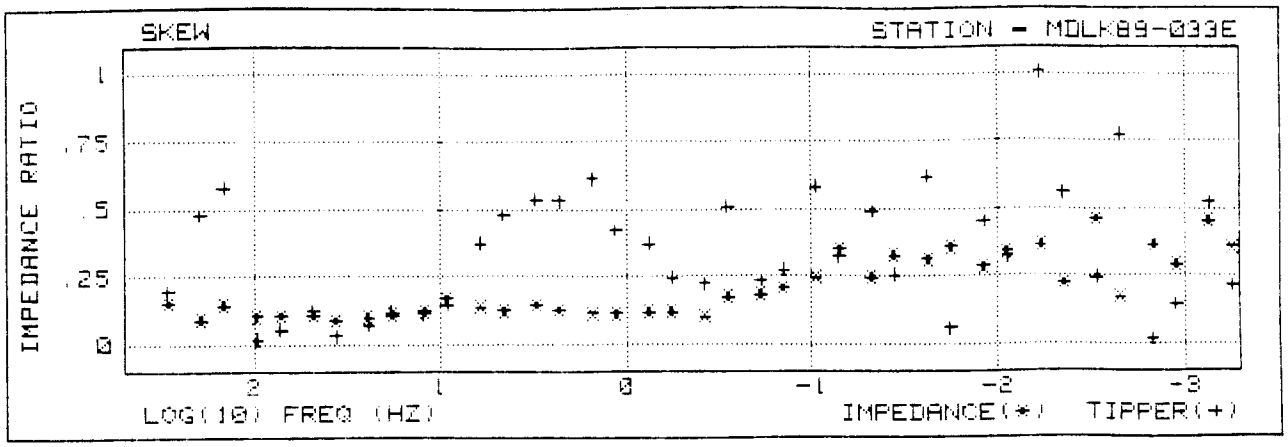
MT Site: MDLK89-033E

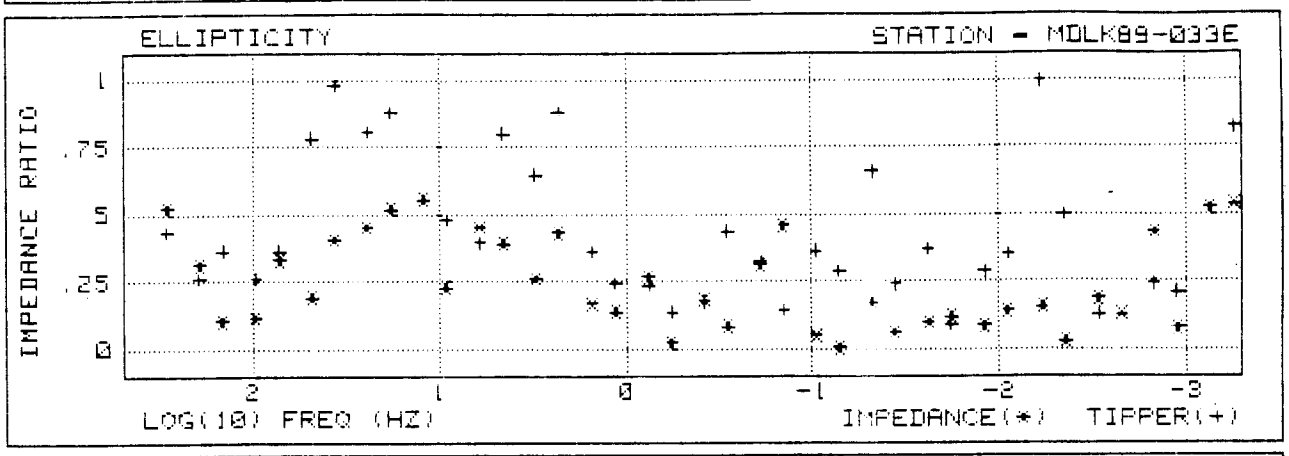
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

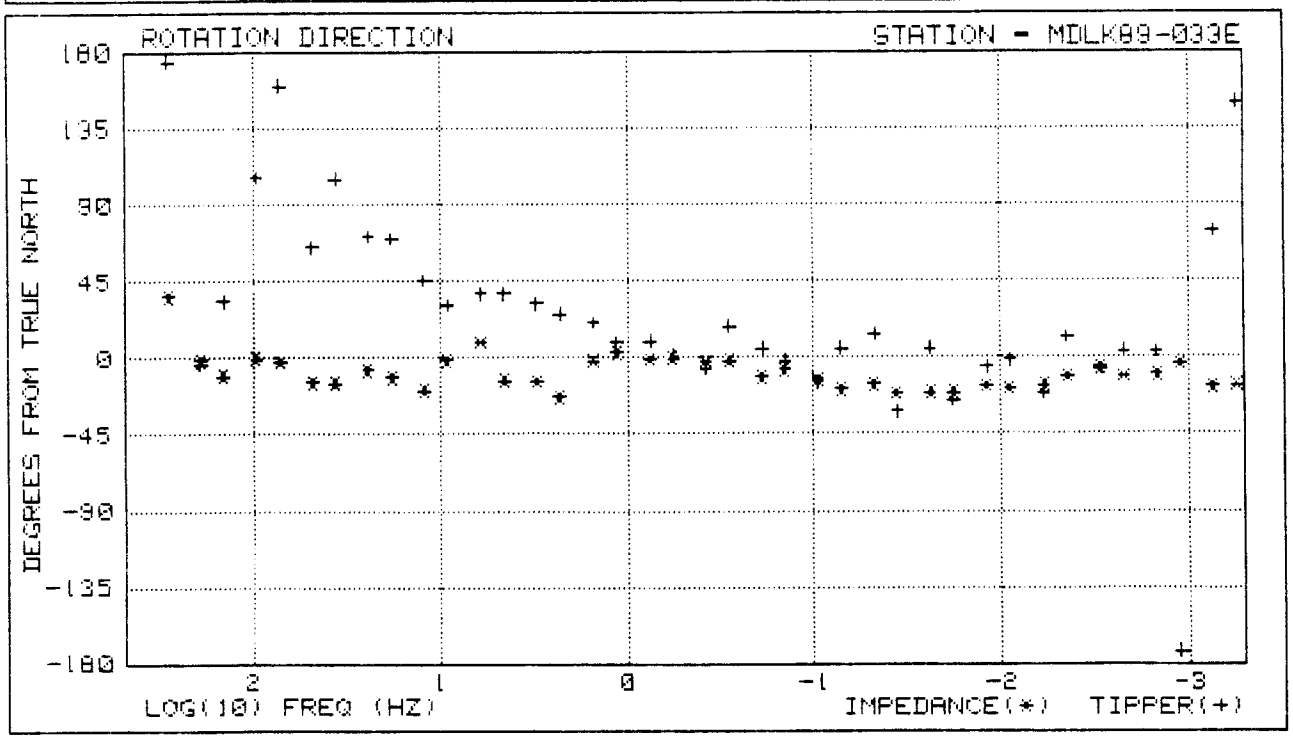
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
2	288.00 Hz	128	1.88	108.15	.11	.23
3	192.00 Hz	191	.40	-119.30	.10	.07
4	144.00 Hz	559	.17	136.07	.27	.33
5	96.00 Hz	569	.17	123.06	.29	.17
6	72.00 Hz	862	.13	96.54	.25	.13
7	48.00 Hz	384	.15	83.36	.50	.41
8	36.00 Hz	1151	.14	52.02	.75	.71
9	24.00 Hz	1376	.14	81.67	.65	.67
10	18.00 Hz	1407	.16	73.89	.75	.79
11	12.00 Hz	823	.17	62.81	.65	.68
12	9.00 Hz	183	.18	136.27	.61	.61
13	6.00 Hz	576	.18	147.32	.44	.54
14	4.50 Hz	800	.21	100.09	.45	.66
15	3.00 Hz	7392	.22	117.77	.15	.32
16	2.25 Hz	5344	.23	99.78	.14	.11
17	1.50 Hz	800	.24	157.11	.47	.67
18	1.13 Hz	9213	.25	167.88	.12	.24
19	1.33 Sec	1936	.27	172.02	.11	.19
20	1.78 Sec	3152	.27	172.81	.18	.26
21	2.67 Sec	2132	.25	173.81	.18	.19
22	3.56 Sec	2380	.28	-131.53	.10	.12
23	5.33 Sec	667	.25	-147.21	.23	.28
24	7.11 Sec	656	.29	170.06	.30	.38
25	10.67 Sec	309	.26	-142.29	.20	.23
26	14.22 Sec	411	.19	155.20	.15	.19
27	21.33 Sec	157	.40	-108.81	.31	.35
28	28.44 Sec	193	.29	-154.96	.64	.64
29	42.67 Sec	147	.31	-168.77	.79	.80
30	56.89 Sec	229	.25	-168.32	.77	.78
31	85.33 Sec	96	.29	-171.60	.70	.71
32	113.78 Sec	75	.29	-149.00	.63	.65
33	170.67 Sec	33	.24	-99.24	.32	.24
34	227.56 Sec	66	.32	-120.35	.40	.36
35	341.33 Sec	21	.20	-140.80	.20	.18
36	455.11 Sec	15	.43	70.03	.49	.42
37	682.67 Sec	9	1.66	-129.04	.71	.66
38	910.22 Sec	12	.50	20.72	.22	.09
39	1365.33 Sec	9	5.47	37.93	.73	.54
40	1820.44 Sec	6	1.61	39.45	.52	.56

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E







PHOENIX GEOSCIENCE

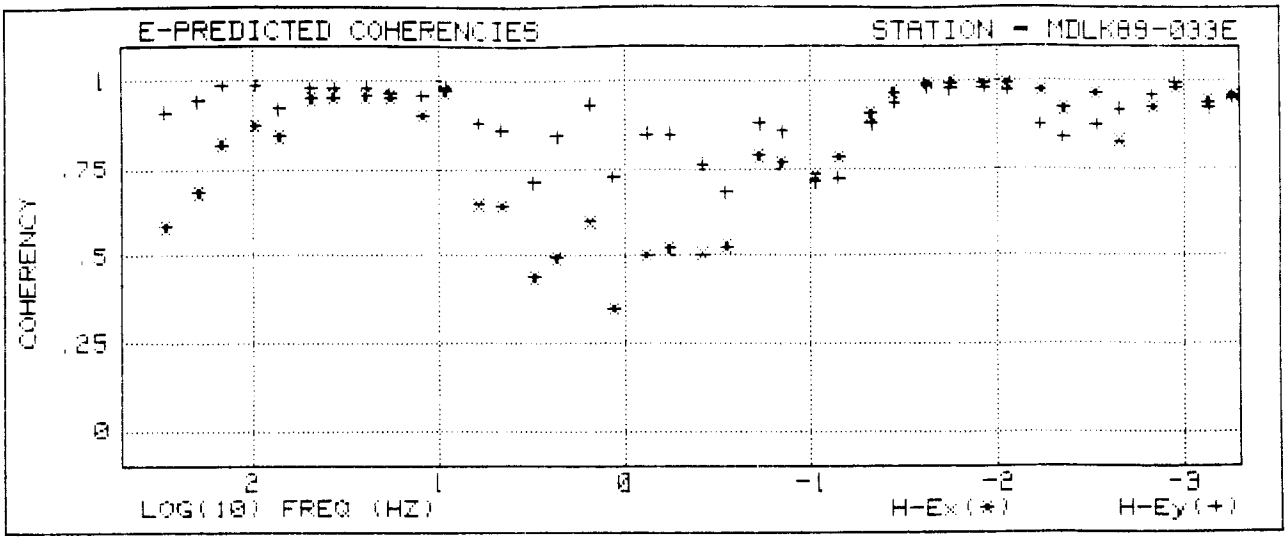
MT Site: MDLK89-033E

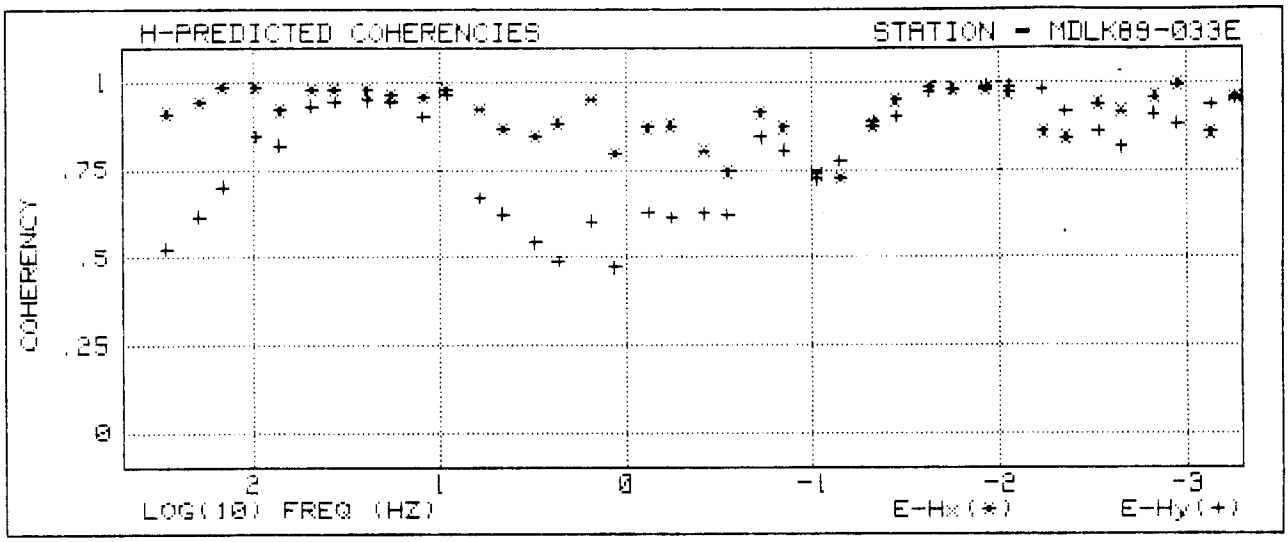
SKEW, ELLIPTICITY AND STRIKE

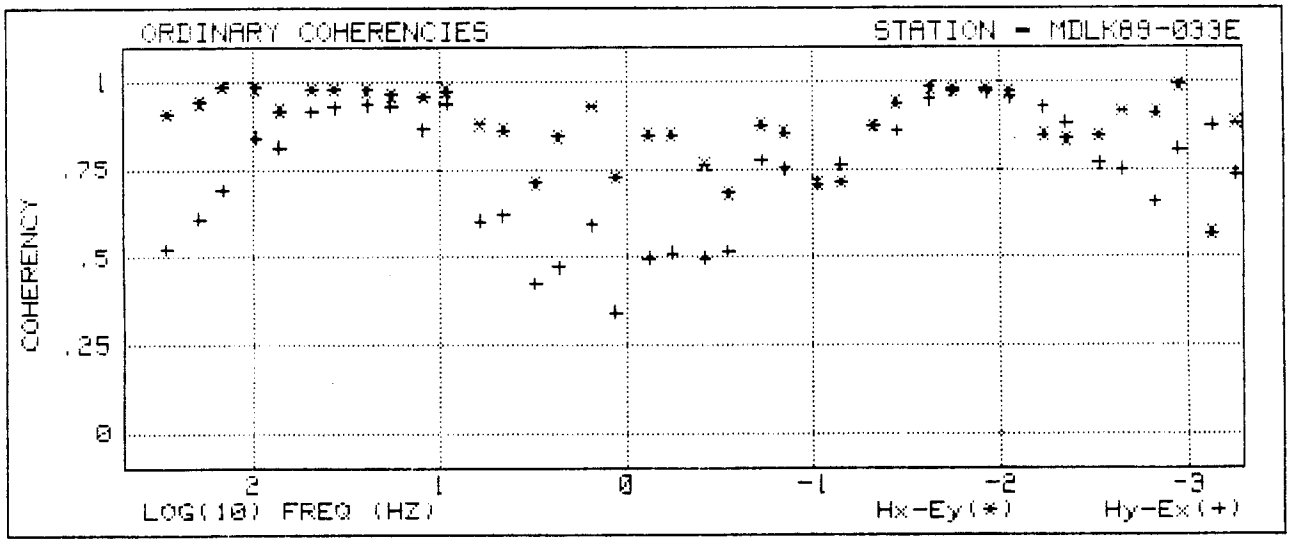
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
2	288.00 Hz	128	.15	.52	35.63	.19	.43	174.06
3	192.00 Hz	191	.09	.31	-2.07	.47	.26	-4.56
4	144.00 Hz	559	.14	.10	-11.30	.58	.36	32.77
5	96.00 Hz	569	.10	.11	-.97	.02	.26	105.63
6	72.00 Hz	862	.10	.33	-2.90	.05	.36	159.34
7	48.00 Hz	384	.10	.19	-15.24	.12	.78	64.38
8	36.00 Hz	1151	.08	.40	-15.35	.03	.97	104.41
9	24.00 Hz	1376	.10	.45	-7.68	.07	.80	70.65
10	18.00 Hz	1407	.11	.52	-11.96	.11	.88	69.34
11	12.00 Hz	823	.12	.55	-20.03	.11	1.11	44.78
12	9.00 Hz	183	.16	.22	-1.94	.14	.48	30.08
13	6.00 Hz	576	.13	.45	8.53	.37	.39	37.09
14	4.50 Hz	800	.12	.39	-14.23	.48	.80	36.98
15	3.00 Hz	7392	.14	.26	-14.79	.53	.64	31.22
16	2.25 Hz	5344	.12	.43	-23.90	.53	.87	24.79
17	1.50 Hz	800	.11	.16	-2.64	.61	.36	20.25
18	1.13 Hz	9213	.11	.13	2.15	.42	.24	7.93
19	1.33 Sec	1936	.12	.26	-1.81	.37	.23	9.04
20	1.78 Sec	3152	.12	.02	-1.14	.24	.13	.19
21	2.67 Sec	2132	.10	.18	-3.21	.22	.17	-7.03
22	3.56 Sec	2380	.17	.08	-2.66	.50	.43	17.83
23	5.33 Sec	667	.18	.31	-12.19	.23	.32	4.62
24	7.11 Sec	656	.20	.45	-7.97	.27	.14	-2.77
25	10.67 Sec	309	.24	.05	-13.48	.58	.36	-15.29
26	14.22 Sec	411	.34	.00	-19.48	.32	.29	4.88
27	21.33 Sec	157	.24	.17	-16.69	.48	.65	13.21
28	28.44 Sec	193	.32	.06	-21.84	.25	.24	-32.51
29	42.67 Sec	147	.31	.10	-21.44	.61	.37	4.58
30	56.89 Sec	229	.35	.12	-21.41	.05	.09	-26.26
31	85.33 Sec	96	.28	.08	-17.56	.45	.28	-6.43
32	113.78 Sec	75	.34	.14	-18.72	.32	.35	-2.30
33	170.67 Sec	33	.36	.15	-16.86	1.00	.99	-22.04
34	227.56 Sec	66	.22	.03	-11.61	.55	.49	11.63
35	341.33 Sec	21	.46	.18	-6.63	.24	.12	-7.19
36	455.11 Sec	15	.17	.13	-11.75	.77	1.79	3.27
37	682.67 Sec	9	.36	.43	-10.80	.01	.24	2.55
38	910.22 Sec	12	.29	.07	-4.33	.14	.20	-173.42
39	1365.33 Sec	9	.45	.52	-18.02	.52	1.38	73.36
40	1820.44 Sec	6	.35	.53	-17.01	.21	.82	149.34

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E







PHOENIX GEOSCIENCE

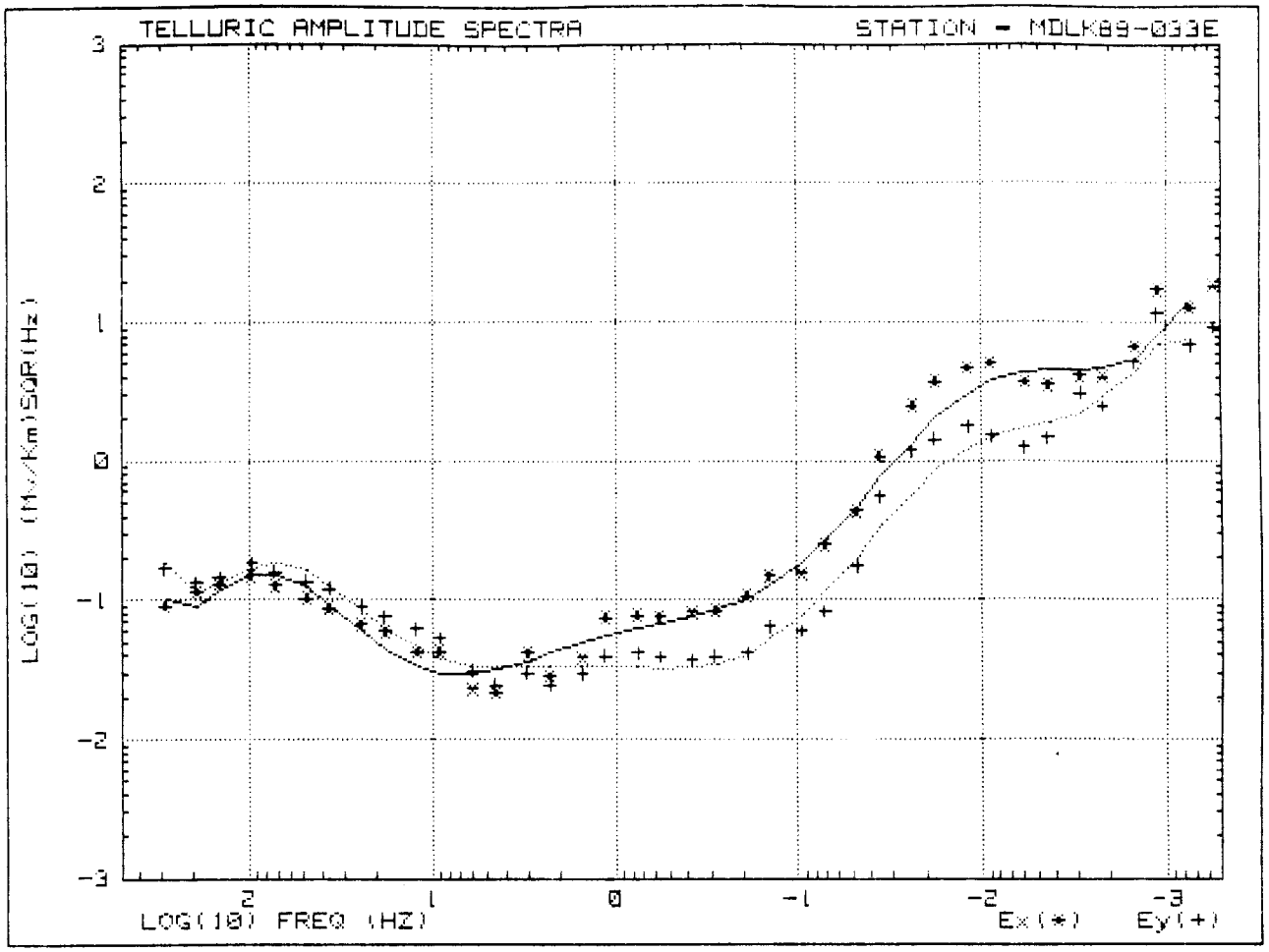
MT Site: MDLK89-033E

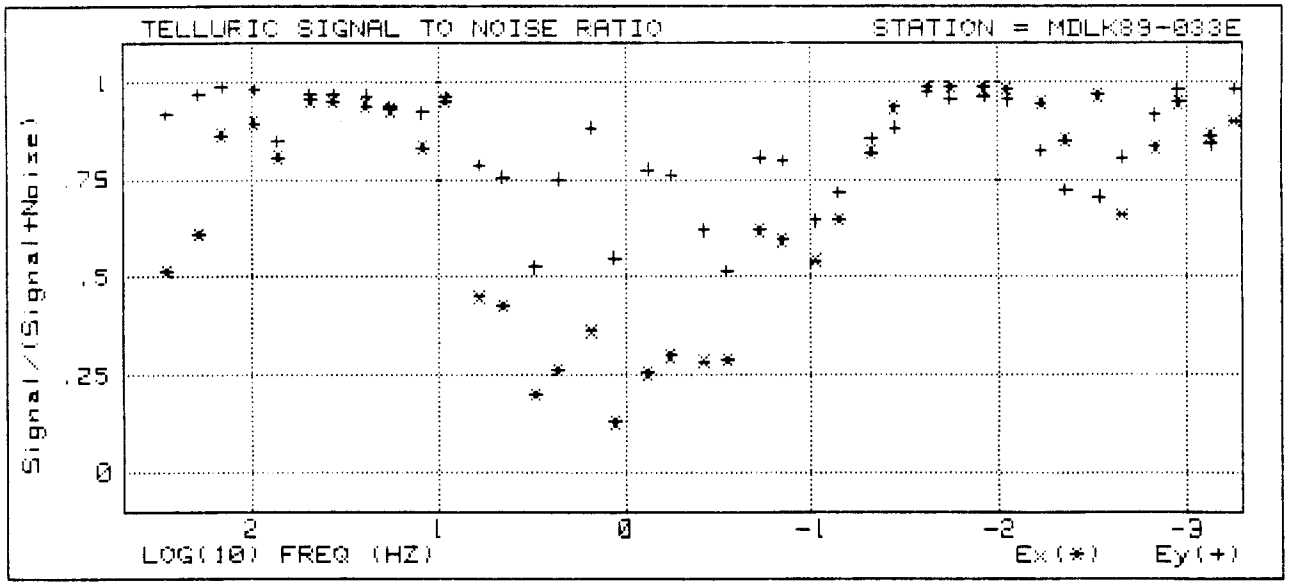
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
2	288.00 Hz	128	.58	.91	.91	.52	.91	.52
3	192.00 Hz	191	.68	.94	.94	.61	.94	.61
4	144.00 Hz	559	.82	.98	.98	.70	.98	.69
5	96.00 Hz	569	.87	.98	.98	.84	.98	.84
6	72.00 Hz	862	.84	.92	.92	.82	.92	.81
7	48.00 Hz	384	.94	.97	.97	.93	.97	.91
8	36.00 Hz	1151	.95	.98	.98	.94	.98	.92
9	24.00 Hz	1376	.95	.97	.97	.94	.97	.93
10	18.00 Hz	1407	.95	.96	.96	.94	.96	.93
11	12.00 Hz	823	.90	.95	.95	.90	.95	.86
12	9.00 Hz	183	.97	.97	.98	.96	.97	.94
13	6.00 Hz	576	.64	.88	.92	.67	.87	.60
14	4.50 Hz	800	.64	.86	.86	.62	.86	.62
15	3.00 Hz	7392	.43	.71	.84	.54	.71	.42
16	2.25 Hz	5344	.49	.84	.88	.48	.84	.47
17	1.50 Hz	800	.59	.93	.95	.60	.93	.59
18	1.13 Hz	9213	.34	.72	.79	.47	.72	.34
19	1.33 Sec	1936	.50	.84	.87	.62	.84	.49
20	1.78 Sec	3152	.52	.85	.87	.61	.84	.51
21	2.67 Sec	2132	.50	.76	.80	.62	.76	.49
22	3.56 Sec	2380	.52	.68	.74	.62	.68	.51
23	5.33 Sec	667	.78	.87	.91	.84	.87	.77
24	7.11 Sec	656	.76	.85	.87	.80	.85	.75
25	10.67 Sec	309	.73	.71	.74	.72	.70	.70
26	14.22 Sec	411	.78	.72	.72	.77	.71	.76
27	21.33 Sec	157	.90	.88	.87	.88	.87	.87
28	28.44 Sec	193	.96	.94	.94	.90	.93	.86
29	42.67 Sec	147	.99	.98	.98	.97	.98	.95
30	56.89 Sec	229	.99	.97	.98	.98	.97	.97
31	85.33 Sec	96	.99	.98	.98	.98	.98	.97
32	113.78 Sec	75	.99	.97	.97	.98	.97	.95
33	170.67 Sec	33	.97	.87	.85	.98	.84	.92
34	227.56 Sec	66	.92	.83	.84	.91	.83	.88
35	341.33 Sec	21	.96	.87	.93	.86	.84	.76
36	455.11 Sec	15	.82	.91	.91	.81	.91	.75
37	682.67 Sec	9	.92	.95	.96	.91	.91	.65
38	910.22 Sec	12	.97	.99	.99	.88	.99	.80
39	1365.33 Sec	9	.94	.92	.85	.93	.56	.87
40	1820.44 Sec	6	.95	.95	.95	.95	.88	.73

PHOENIX GEOSCIENCE

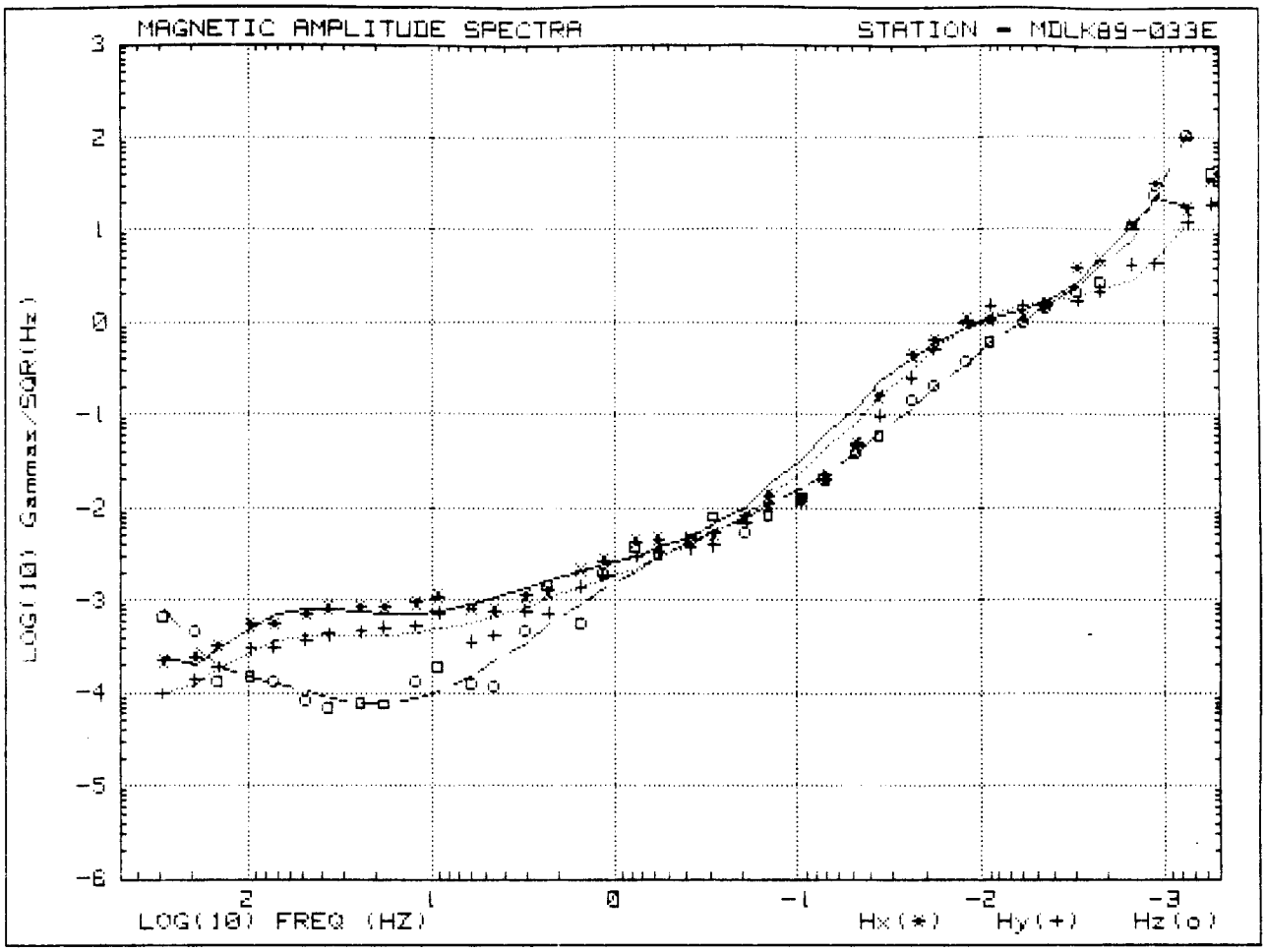
MT Site: MDLK89-033E

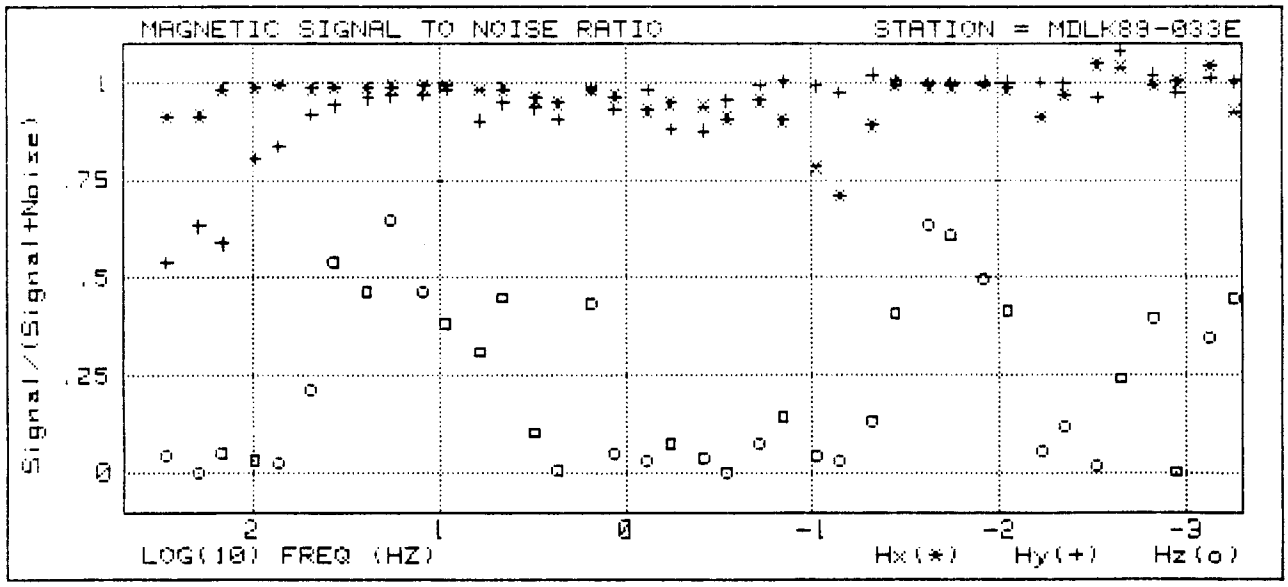




PHOENIX GEOSCIENCE

MT Site: MDLK89-033E





PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	128	2.18E-04	9.59E-05	6.86E-04	8.96E-02	1.65E-01
3	192.00 Hz	191	2.42E-04	1.36E-04	4.96E-04	1.13E-01	1.30E-01
4	144.00 Hz	559	3.21E-04	1.87E-04	1.39E-04	1.26E-01	1.43E-01
5	96.00 Hz	569	5.43E-04	2.97E-04	1.59E-04	1.48E-01	1.78E-01
6	72.00 Hz	862	5.46E-04	3.10E-04	1.40E-04	1.26E-01	1.57E-01
7	48.00 Hz	384	6.99E-04	3.66E-04	8.51E-05	1.01E-01	1.35E-01
8	36.00 Hz	1151	7.97E-04	4.23E-04	7.27E-05	8.64E-02	1.19E-01
9	24.00 Hz	1376	8.33E-04	4.52E-04	8.15E-05	6.62E-02	8.79E-02
10	18.00 Hz	1407	8.39E-04	4.93E-04	7.94E-05	5.87E-02	7.46E-02
11	12.00 Hz	823	9.30E-04	5.16E-04	1.43E-04	4.13E-02	6.12E-02
12	9.00 Hz	183	1.09E-03	7.12E-04	2.02E-04	4.23E-02	5.30E-02
13	6.00 Hz	576	7.80E-04	3.49E-04	1.32E-04	2.24E-02	3.05E-02
14	4.50 Hz	800	7.58E-04	4.11E-04	1.23E-04	2.10E-02	2.40E-02
15	3.00 Hz	7392	1.10E-03	7.49E-04	4.89E-04	4.12E-02	2.92E-02
16	2.25 Hz	5344	1.25E-03	7.12E-04	1.56E-03	2.79E-02	2.39E-02
17	1.50 Hz	800	2.08E-03	1.38E-03	5.92E-04	3.79E-02	2.87E-02
18	1.13 Hz	9213	2.65E-03	1.81E-03	2.11E-03	7.40E-02	3.87E-02
19	1.33 Sec	1936	4.29E-03	2.96E-03	3.91E-03	7.63E-02	4.09E-02
20	1.78 Sec	3152	4.54E-03	3.35E-03	3.35E-03	7.43E-02	3.84E-02
21	2.67 Sec	2132	4.77E-03	3.67E-03	4.77E-03	8.10E-02	3.64E-02
22	3.56 Sec	2380	5.27E-03	3.88E-03	8.42E-03	8.31E-02	3.88E-02
23	5.33 Sec	667	7.93E-03	6.82E-03	5.70E-03	1.05E-01	4.10E-02
24	7.11 Sec	656	1.33E-02	1.09E-02	8.71E-03	1.47E-01	6.38E-02
25	10.67 Sec	309	1.21E-02	1.17E-02	1.34E-02	1.53E-01	5.93E-02
26	14.22 Sec	411	1.98E-02	2.27E-02	2.12E-02	2.45E-01	8.20E-02
27	21.33 Sec	157	4.66E-02	4.75E-02	4.10E-02	4.34E-01	1.72E-01
28	28.44 Sec	193	1.60E-01	9.73E-02	6.33E-02	1.07E+00	5.46E-01
29	42.67 Sec	147	4.42E-01	2.47E-01	1.53E-01	2.48E+00	1.18E+00
30	56.89 Sec	229	6.43E-01	5.00E-01	2.21E-01	3.66E+00	1.42E+00
31	85.33 Sec	96	1.05E+00	9.94E-01	3.93E-01	4.60E+00	1.74E+00
32	113.78 Sec	75	1.05E+00	1.52E+00	6.41E-01	4.97E+00	1.49E+00
33	170.67 Sec	33	1.05E+00	1.46E+00	1.06E+00	3.62E+00	1.22E+00
34	227.56 Sec	66	1.54E+00	1.51E+00	1.50E+00	3.43E+00	1.43E+00
35	341.33 Sec	21	3.88E+00	1.66E+00	2.27E+00	4.01E+00	3.02E+00
36	455.11 Sec	15	4.70E+00	2.15E+00	2.94E+00	3.97E+00	2.43E+00
37	682.67 Sec	9	1.14E+01	4.23E+00	1.18E+01	6.63E+00	5.14E+00
38	910.22 Sec	12	3.15E+01	4.31E+00	2.48E+01	1.69E+01	1.14E+01
39	1365.33 Sec	9	1.68E+01	1.23E+01	1.09E+02	1.24E+01	6.81E+00
40	1820.44 Sec	6	3.31E+01	1.86E+01	4.29E+01	1.81E+01	9.04E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
2	288.00 Hz	128	.910	.537	.048	.512	.917
3	192.00 Hz	191	.912	.630	.006	.608	.966
4	144.00 Hz	559	.980	.586	.053	.862	.984
5	96.00 Hz	569	.986	.802	.033	.893	.979
6	72.00 Hz	862	.992	.834	.030	.805	.847
7	48.00 Hz	384	.984	.916	.219	.951	.965
8	36.00 Hz	1151	.985	.940	.545	.947	.967
9	24.00 Hz	1376	.985	.958	.471	.936	.962
10	18.00 Hz	1407	.988	.965	.651	.926	.932
11	12.00 Hz	823	.990	.969	.470	.831	.921
12	9.00 Hz	183	.992	.980	.386	.950	.959
13	6.00 Hz	576	.979	.900	.316	.449	.784
14	4.50 Hz	800	.981	.946	.454	.426	.754
15	3.00 Hz	7392	.959	.933	.108	.198	.523
16	2.25 Hz	5344	.945	.903	.012	.261	.747
17	1.50 Hz	800	.979	.984	.440	.359	.879
18	1.13 Hz	9213	.962	.929	.056	.126	.547
19	1.33 Sec	1936	.926	.980	.038	.253	.773
20	1.78 Sec	3152	.945	.879	.076	.296	.759
21	2.67 Sec	2132	.938	.873	.041	.281	.617
22	3.56 Sec	2380	.906	.952	.007	.287	.512
23	5.33 Sec	667	.952	.993	.081	.619	.804
24	7.11 Sec	656	.900	1.000	.150	.592	.797
25	10.67 Sec	309	.781	.990	.049	.540	.644
26	14.22 Sec	411	.709	.974	.036	.646	.714
27	21.33 Sec	157	.889	1.000	.139	.818	.853
28	28.44 Sec	193	.993	1.000	.414	.933	.881
29	42.67 Sec	147	.989	.997	.640	.984	.972
30	56.89 Sec	229	.989	.998	.612	.985	.956
31	85.33 Sec	96	.992	1.000	.503	.982	.960
32	113.78 Sec	75	.984	1.000	.417	.978	.951
33	170.67 Sec	33	.910	.997	.061	.942	.822
34	227.56 Sec	66	.966	.995	.123	.848	.721
35	341.33 Sec	21	1.000	.960	.025	.964	.705
36	455.11 Sec	15	1.000	1.000	.247	.658	.804
37	682.67 Sec	9	.991	1.000	.403	.831	.914
38	910.22 Sec	12	1.000	.975	.007	.945	.978
39	1365.33 Sec	9	1.000	1.000	.351	.861	.838
40	1820.44 Sec	6	.923	1.000	.453	.898	.979

PHOENIX GEOSCIENCE

MT Site: MDLK89-033E

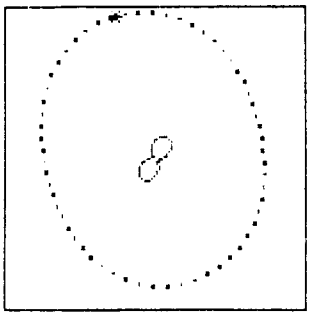
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

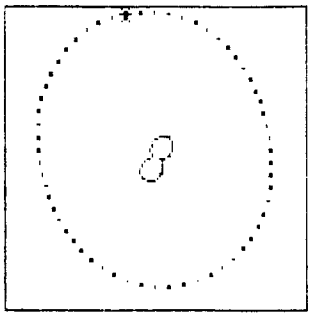
*=Rotation Direction

Zxy = ...
Zxx = ___

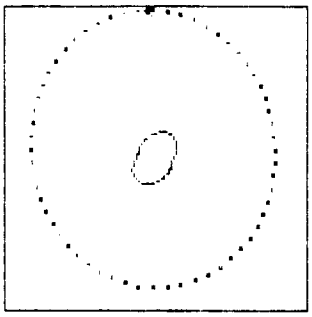
F=8 (36.0 Hz)



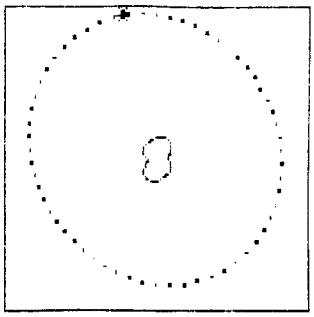
F=10 (18.0 Hz)



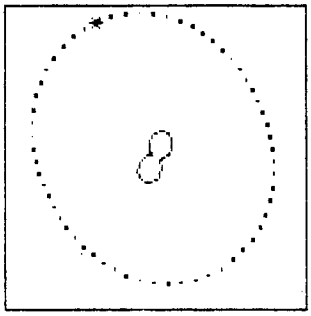
F=12 (9.0 Hz)



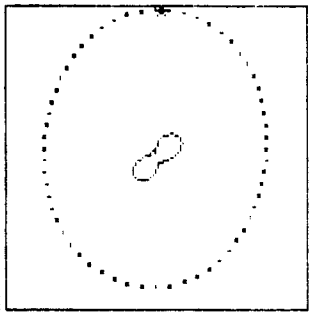
F=14 (4.5 Hz)



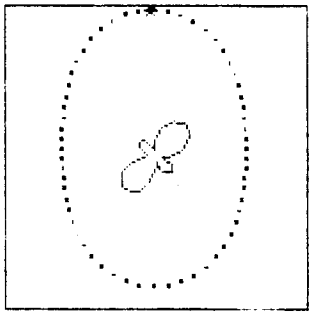
F=16 (2.3 Hz)



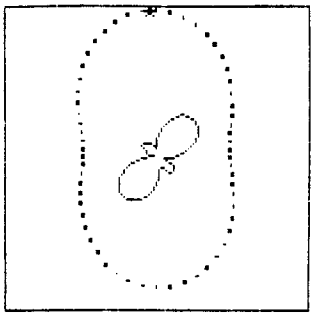
F=18 (1.1 Hz)



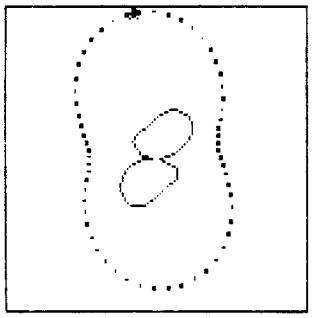
F=20 (.5625 Hz)



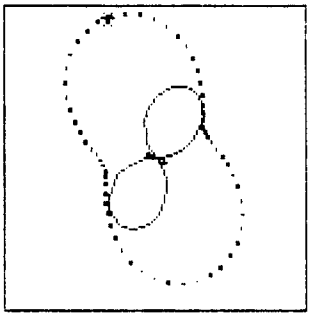
F=22 (.2813 Hz)



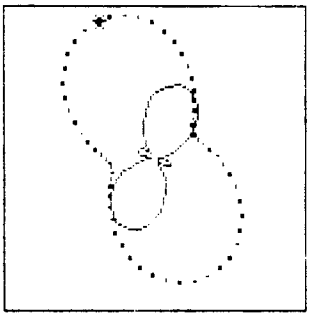
F=24 (.1406 Hz)



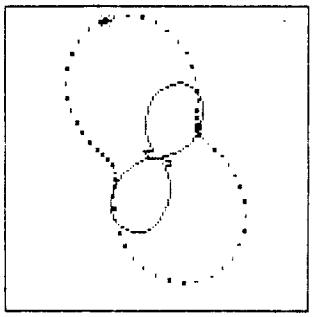
F=26 (.0703 Hz)



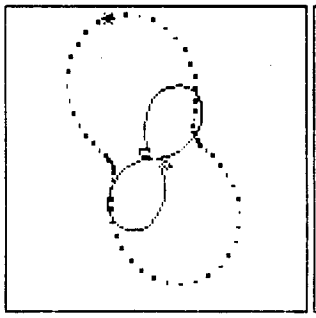
F=28 (.0352 Hz)



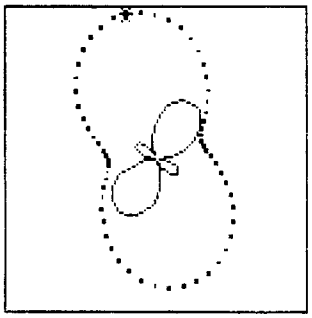
F=30 (.0176 Hz)



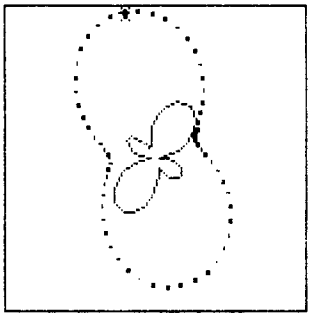
F=32 (.0088 Hz)



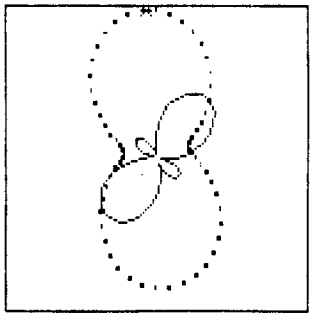
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-033s/034s/

Operator:OJALA
Date: 31 Aug 1989
Time: 11:51:38

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#335-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#210-16Aug89-01*
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#430-16Aug89-01
Sens-Ch08: L#333-02Jul89-01

* = Changed During the Run

Station 2

Stn Number:MDLK89-034s
Site Desc:T44N R4E SEC32 SW4
41,36,24 N 121,32,33 W
Elevation:7270 FT
Reference:MDLK89-033s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL431	+0 DEG
Hy	7	COIL430	+90 DEG
Hz	8	LOOP333	Doubled
Ex	9	172 M	+0 DEG
Ey	10	180 M	+90 DEG
Rx	1	COIL452	+0 DEG
Ry	2	COIL210*	+90 DEG

Ex Pot Resist: 22.0 K Ohms
Ex Voltage: AC=18.5 mv, DC=235.0 mv
Ey Pot Resist: 21.0 K Ohms
Ey Voltage: AC=13.0 mv, DC=51.0 mv
* = Changed During the Run

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

OPERATOR LOG FOR MT SITES MDLK89-033s/034s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-033a/034a/
Run STARTED: 11:51:38 31 Aug 1989
Run QUIT: 21:40:20 31 Aug 1989
Run Start and Stop Time for MDLK89-033b/034b/
Run STARTED: 22:14:35 31 Aug 1989
Run QUIT: 09:37:19 1 Sep 1989
Run Start and Stop Time for MDLK89-033c/034c/
Run STARTED: 10:08:48 1 Sep 1989
Run QUIT: 21:02:38 1 Sep 1989
Run Start and Stop Time for MDLK89-033d/034d/
Run STARTED: 21:29:32 1 Sep 1989
Run QUIT: 04:08:42 2 Sep 1989

Operator:OJALA

Cultural Factors:
FOREST SERVICE ROADS NEAR ALL SITES. NO OTHER CULTURE APPARENT.
Weather Conditions:
CLEAR AND WARM WITH NO WIND.
Other Factors:
WILL START A 'b' RUN.

PHOENIX GEOSCIENCE

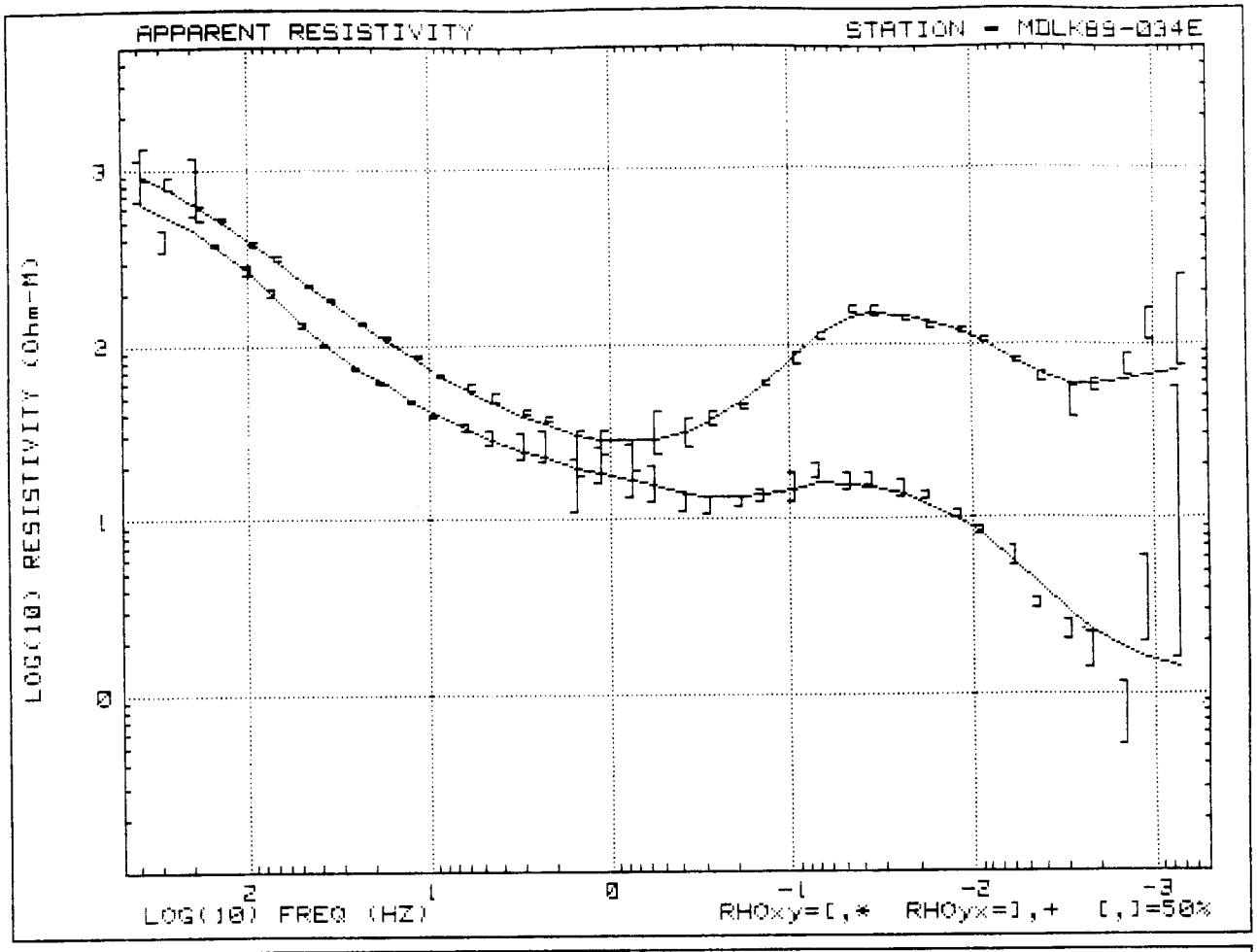
MT Site: MDLK89-034E

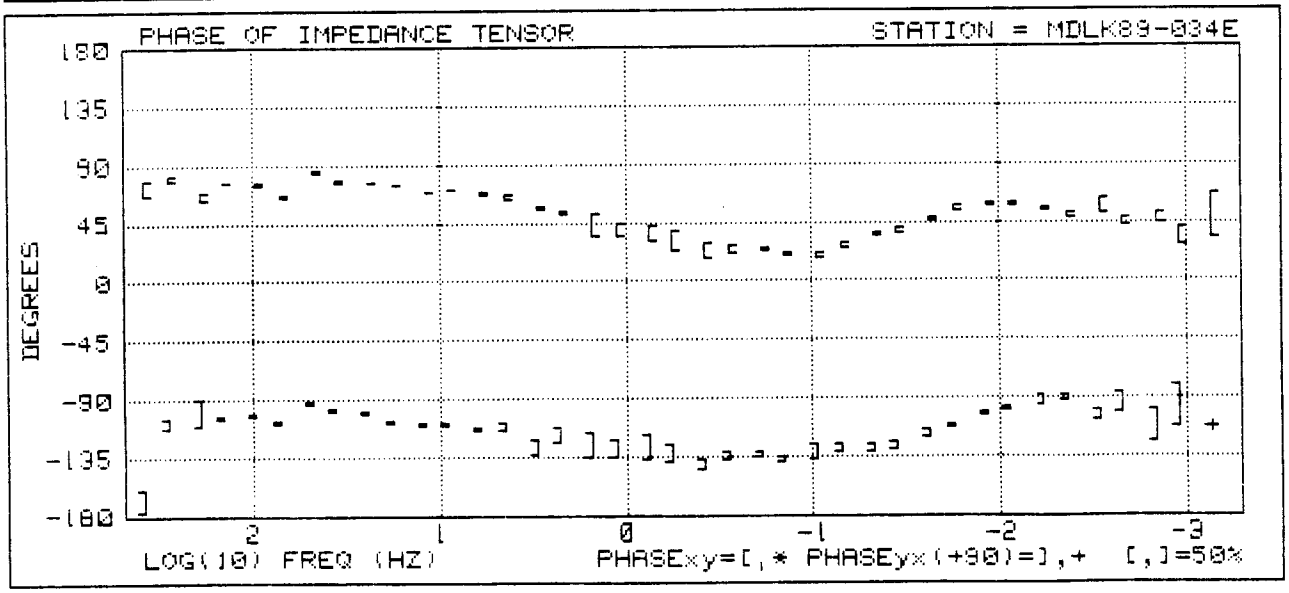
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

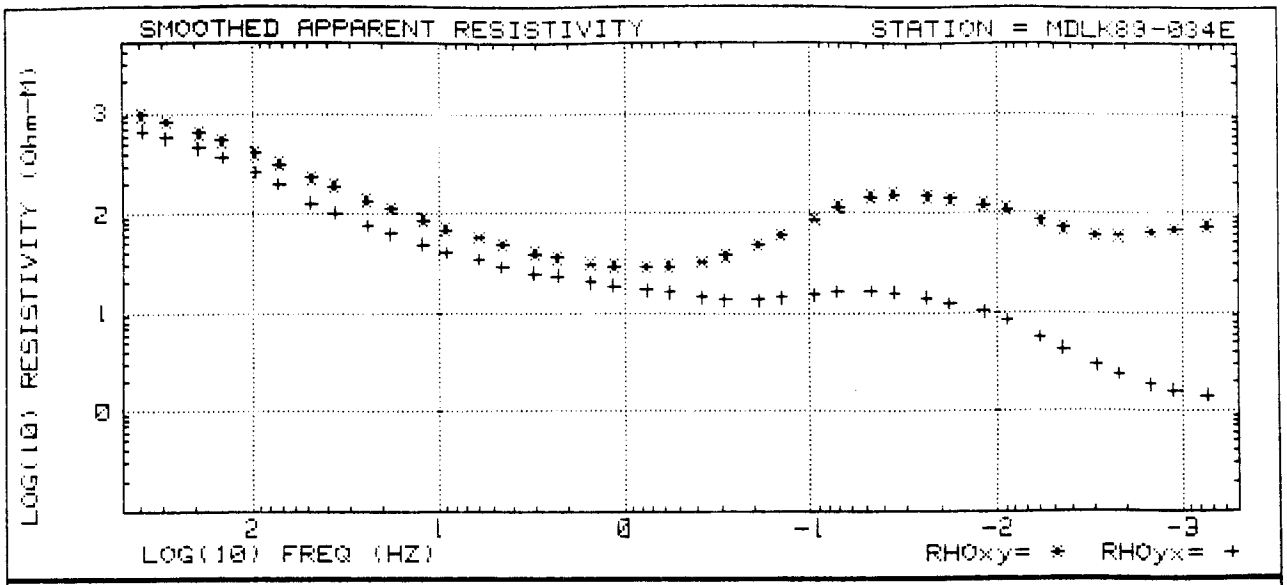
MT Site: MDLK89-034E

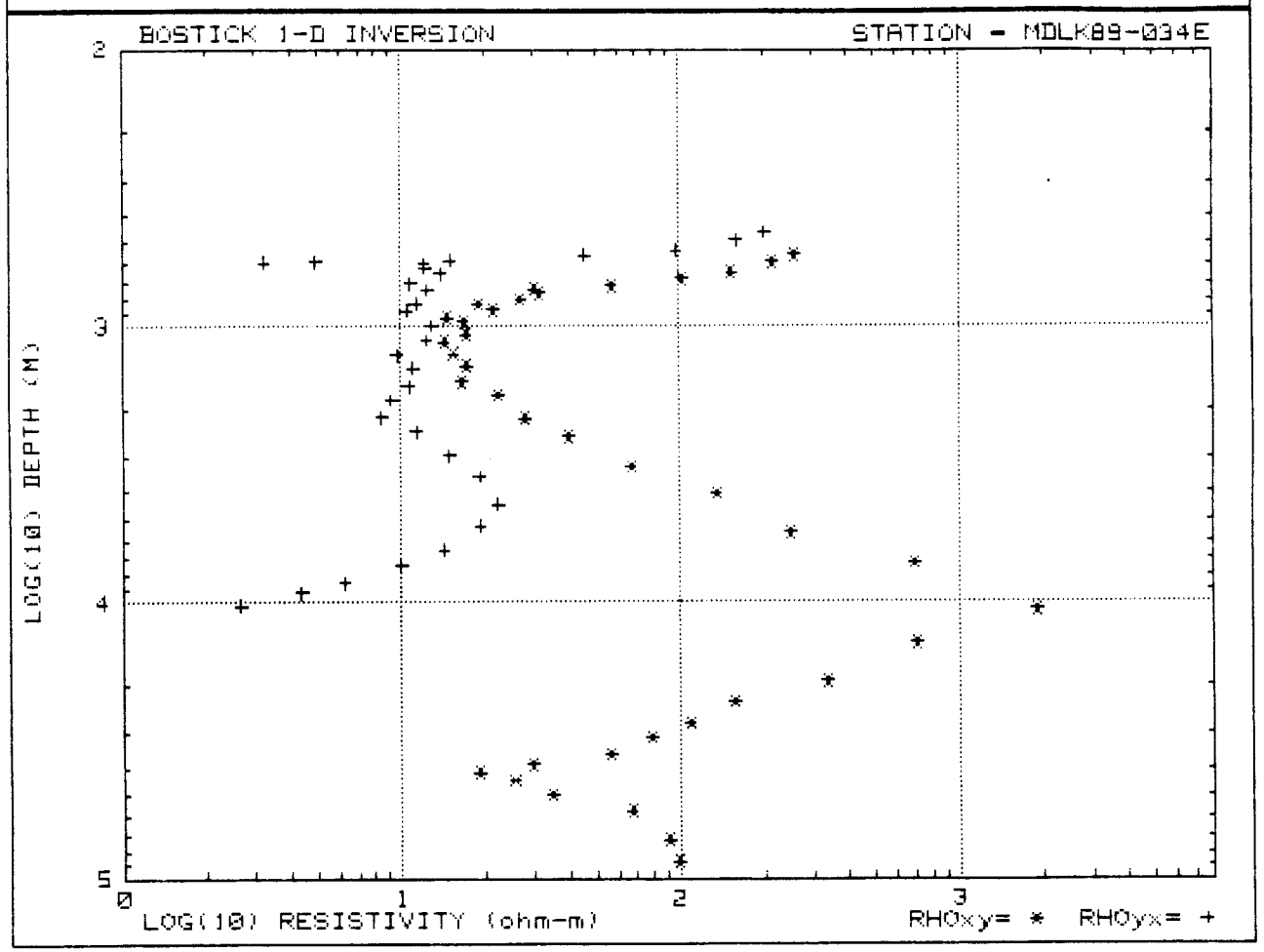




PHOENIX GEOSCIENCE

MT Site: MDLK89-034E





PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	667	1078.9	34.7	868.6	50.5	73.3	8.5	-168.1	11.7
2	288.00 Hz	1319	843.6	11.2	395.7	23.9	80.6	3.0	-108.7	6.1
3	192.00 Hz	191	573.4	15.3	803.6	78.6	66.7	4.1	-100.3	16.6
4	144.00 Hz	378	530.7	2.6	373.5	3.6	76.5	.7	-103.8	1.0
5	96.00 Hz	96	384.7	4.8	269.1	8.5	75.4	1.3	-101.8	2.3
6	72.00 Hz	1141	313.7	3.2	200.2	5.3	65.6	.9	-108.2	1.5
7	48.00 Hz	448	222.5	2.7	131.1	4.0	84.5	.8	-92.7	1.1
8	36.00 Hz	831	182.1	1.7	99.7	2.2	77.3	.5	-98.6	.6
9	24.00 Hz	1408	133.5	1.7	73.1	2.8	76.9	.5	-100.2	.8
10	18.00 Hz	1343	111.3	2.3	61.5	3.8	74.7	.7	-107.1	1.1
11	12.00 Hz	791	86.9	2.8	47.1	3.2	69.2	.8	-109.9	.9
12	9.00 Hz	567	67.4	2.4	39.6	2.9	70.4	.7	-109.6	.8
13	6.00 Hz	288	57.9	6.4	33.5	8.3	67.4	1.8	-113.1	2.3
14	4.50 Hz	288	49.4	9.7	29.2	13.8	64.8	2.7	-112.0	3.7
15	3.00 Hz	4544	41.1	5.2	26.5	30.0	55.7	1.5	-127.3	7.5
16	2.25 Hz	12128	38.1	4.5	26.4	33.9	52.0	1.3	-119.0	8.4
17	1.50 Hz	1536	24.0	56.0	15.6	69.1	43.7	12.7	-125.5	15.0
18	1.13 Hz	10048	27.4	25.3	20.5	41.0	39.9	6.5	-128.0	9.9
19	1.33 Sec	928	23.1	34.7	18.9	64.0	37.6	8.5	-128.2	14.2
20	1.78 Sec	992	31.4	51.0	15.9	42.2	30.8	11.8	-131.8	10.1
21	2.67 Sec	480	30.9	32.2	12.6	22.0	23.1	8.0	-140.2	5.7
22	3.56 Sec	888	37.6	13.6	11.9	17.5	24.1	3.6	-134.6	4.6
23	5.33 Sec	396	44.4	4.0	12.6	10.0	24.1	1.1	-134.0	2.7
24	7.11 Sec	396	60.4	4.8	13.7	11.4	21.4	1.3	-136.6	3.1
25	10.67 Sec	246	84.0	11.6	15.1	31.7	20.1	3.2	-131.0	7.9
26	14.22 Sec	198	111.2	8.7	19.0	13.9	26.9	2.4	-128.9	3.7
27	21.33 Sec	102	155.2	6.8	16.4	19.1	35.4	1.9	-128.6	5.0
28	28.44 Sec	100	153.7	7.7	16.9	13.9	38.8	2.1	-127.2	3.7
29	42.67 Sec	192	141.1	4.9	14.9	17.9	47.5	1.4	-117.1	4.7
30	56.89 Sec	240	128.4	5.9	13.7	7.2	55.7	1.6	-111.2	2.0
31	85.33 Sec	105	119.9	5.6	10.6	5.3	57.7	1.6	-102.9	1.5
32	113.78 Sec	60	105.5	6.4	8.5	7.2	58.2	1.8	-98.4	2.0
33	170.67 Sec	18	79.2	5.4	6.2	20.9	54.3	1.5	-91.1	5.4
34	227.56 Sec	27	63.6	9.2	3.3	11.4	50.3	2.5	-90.3	3.1
35	341.33 Sec	9	46.3	33.2	2.3	21.8	57.2	8.2	-102.2	5.7
36	455.11 Sec	9	57.6	13.5	1.8	43.4	44.7	3.6	-93.5	10.3
37	682.67 Sec	6	75.2	22.8	.77	82.9	47.8	5.9	-111.7	17.3
38	910.22 Sec	3	128.1	35.8	3.5	99.9	34.1	8.8	-97.2	24.1
39	1365.33 Sec	6	134.4	99.9	9.5	99.9	49.3	25.6	-113.4	76.3

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	667	938.0	648.4	260.6	556	204.6	462
2	288.00 Hz	1319	797.2	558.3	218.5	592	161.8	495
3	192.00 Hz	191	632.0	442.7	155.6	646	98.5	540
4	144.00 Hz	378	524.2	359.3	104.0	679	46.1	562
5	96.00 Hz	96	397.5	259.1	57.3	724	15.2	585
6	72.00 Hz	1141	312.2	194.0	30.5	741	5.0	591
7	48.00 Hz	448	224.9	126.5	31.8	770	3.2	596
8	36.00 Hz	831	185.4	100.3	27.2	808	12.2	602
9	24.00 Hz	1408	134.3	73.5	19.0	842	12.3	623
10	18.00 Hz	1343	110.1	61.2	21.6	880	14.0	656
11	12.00 Hz	791	84.3	47.6	14.7	943	10.9	709
12	9.00 Hz	567	67.7	39.6	16.9	976	12.6	747
13	6.00 Hz	288	55.6	33.2	17.2	1083	11.4	837
14	4.50 Hz	288	47.0	28.3	14.4	1150	10.5	892
15	3.00 Hz	4544	38.4	24.2	15.6	1274	13.1	1011
16	2.25 Hz	12128	35.0	23.0	17.3	1404	12.4	1137
17	1.50 Hz	1536	30.4	19.7	16.7	1602	9.7	1289
18	1.13 Hz	10048	28.6	18.2	22.6	1794	11.1	1430
19	1.33 Sec	928	28.0	16.7	28.1	2176	10.8	1677
20	1.78 Sec	992	28.6	15.7	40.5	2538	9.3	1877
21	2.67 Sec	480	31.6	13.9	67.3	3266	8.6	2170
22	3.56 Sec	888	36.7	13.3	136.0	4068	11.4	2445
23	5.33 Sec	396	47.0	13.2	251.2	5636	15.0	2991
24	7.11 Sec	396	59.1	13.9	697.6	7294	19.2	3535
25	10.67 Sec	246	84.4	14.8	1888.2	10678	22.4	4472
26	14.22 Sec	198	111.3	16.0	712.3	14161	19.4	5365
27	21.33 Sec	102	140.0	15.8	338.4	19447	14.3	6538
28	28.44 Sec	100	148.4	15.4	156.9	23123	10.0	7457
29	42.67 Sec	192	142.7	13.7	109.0	27767	6.3	8590
30	56.89 Sec	240	135.3	12.0	79.5	31219	4.4	9281
31	85.33 Sec	105	119.2	9.9	56.6	35886	2.7	10354
32	113.78 Sec	60	105.7	8.0	29.7	39023	.53	10757
33	170.67 Sec	18	80.7	5.4	19.2	41774	.15	10864
34	227.56 Sec	27	68.9	4.2	25.7	44575	.18	10973
35	341.33 Sec	9	58.8	2.9	34.9	50413	.26	11121
36	455.11 Sec	9	57.8	2.3	67.4	57696	.49	11605
37	682.67 Sec	6	62.0	1.8	91.8	73226	.52	12552
38	910.22 Sec	3	66.0	1.6	99.2	87252	.74	13525
39	1365.33 Sec	6	71.3	1.4	104.3	111012	.79	15640

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	667	777.35	912.44	999.99	414.43	999.99	999.99
2	288.00 Hz	1319	-37.74	177.83	999.99	180.85	999.99	999.99
3	192.00 Hz	191	37.38	120.16	999.99	293.27	681.50	999.99
4	144.00 Hz	378	10.66	11.74	203.13	144.08	601.14	127.70
5	96.00 Hz	96	14.62	9.30	621.43	108.64	415.74	204.57
6	72.00 Hz	1141	20.02	-2.13	344.37	139.06	305.94	56.08
7	48.00 Hz	448	7.30	5.08	64.11	22.04	230.03	18.85
8	36.00 Hz	831	-.38	.45	11.35	39.65	176.64	4.64
9	24.00 Hz	1408	2.64	.11	4.43	28.69	123.30	2.39
10	18.00 Hz	1343	5.13	-1.77	5.46	26.43	96.52	2.67
11	12.00 Hz	791	2.27	.02	2.09	25.61	67.49	2.01
12	9.00 Hz	567	6.39	1.71	1.64	18.46	51.90	.89
13	6.00 Hz	288	2.81	1.30	6.58	16.01	38.48	3.37
14	4.50 Hz	288	.33	2.10	10.53	14.21	30.14	4.76
15	3.00 Hz	4544	1.76	.98	.92	13.97	20.52	.81
16	2.25 Hz	12128	.59	1.83	.99	12.75	16.31	.42
17	1.50 Hz	1536	-.02	1.92	15.18	9.69	9.28	17.79
18	1.13 Hz	10048	1.12	1.24	2.72	9.52	7.96	3.91
19	1.33 Sec	928	1.582	.647	4.263	7.377	5.675	3.838
20	1.78 Sec	992	1.199	.810	4.028	8.072	4.806	7.489
21	2.67 Sec	480	1.321	-.068	.946	6.996	2.989	2.256
22	3.56 Sec	888	1.168	-.250	.234	6.638	2.965	.428
23	5.33 Sec	396	1.188	-.366	.070	5.890	2.629	.033
24	7.11 Sec	396	1.459	-.289	.081	6.067	2.373	.046
25	10.67 Sec	246	1.609	-.036	.415	5.895	2.152	.239
26	14.22 Sec	198	1.425	.463	.146	5.575	2.829	.136
27	21.33 Sec	102	1.302	.905	.089	4.917	3.491	.079
28	28.44 Sec	100	.946	1.345	.037	4.048	3.259	.075
29	42.67 Sec	192	.349	1.184	.025	2.747	2.997	.019
30	56.89 Sec	240	.120	.889	.007	1.891	2.777	.019
31	85.33 Sec	105	-.137	.810	.003	1.416	2.241	.010
32	113.78 Sec	60	-.140	.627	.003	1.134	1.831	.009
33	170.67 Sec	18	-.021	.377	.004	.890	1.236	.003
34	227.56 Sec	27	-.019	.238	.002	.756	.909	.005
35	341.33 Sec	9	-.035	.115	.004	.446	.692	.028
36	455.11 Sec	9	.020	.086	.002	.565	.560	.005
37	682.67 Sec	6	.043	.095	.002	.499	.550	.012
38	910.22 Sec	3	.144	.079	.006	.695	.470	.033
39	1365.33 Sec	6	.070	.086	.020	.458	.532	.197

PHOENIX GEOSCIENCE

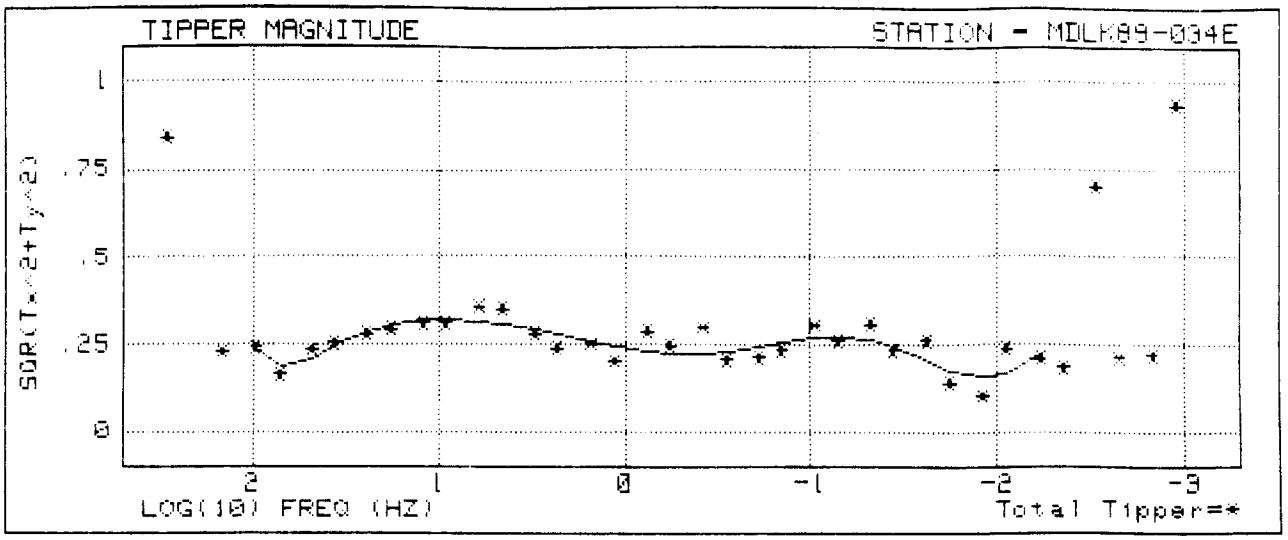
MT Site: MDLK89-034E

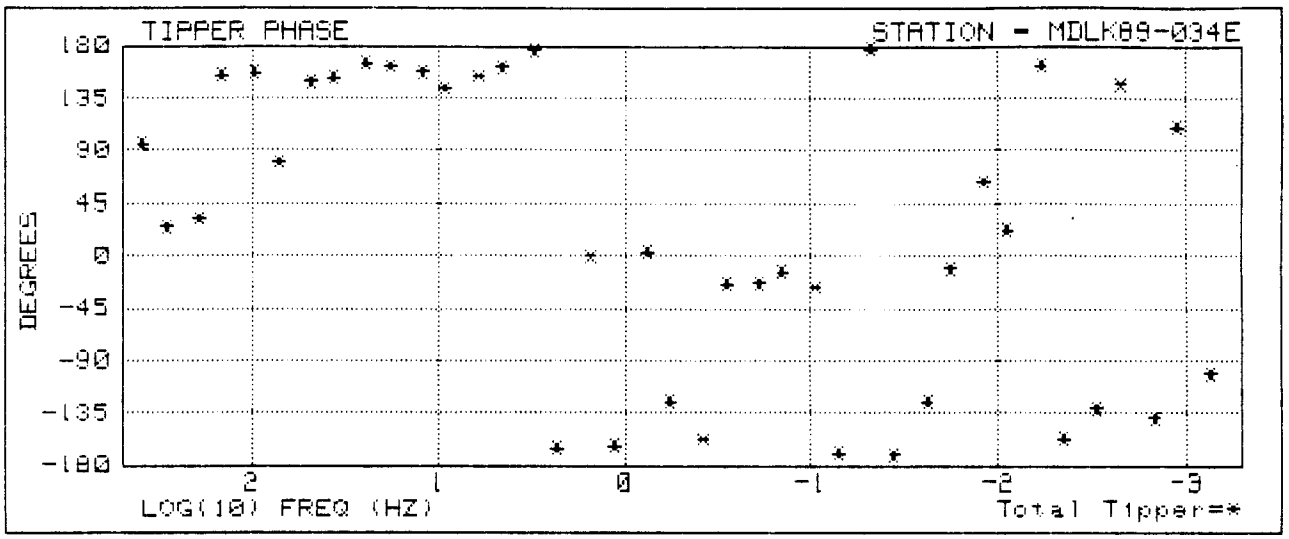
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

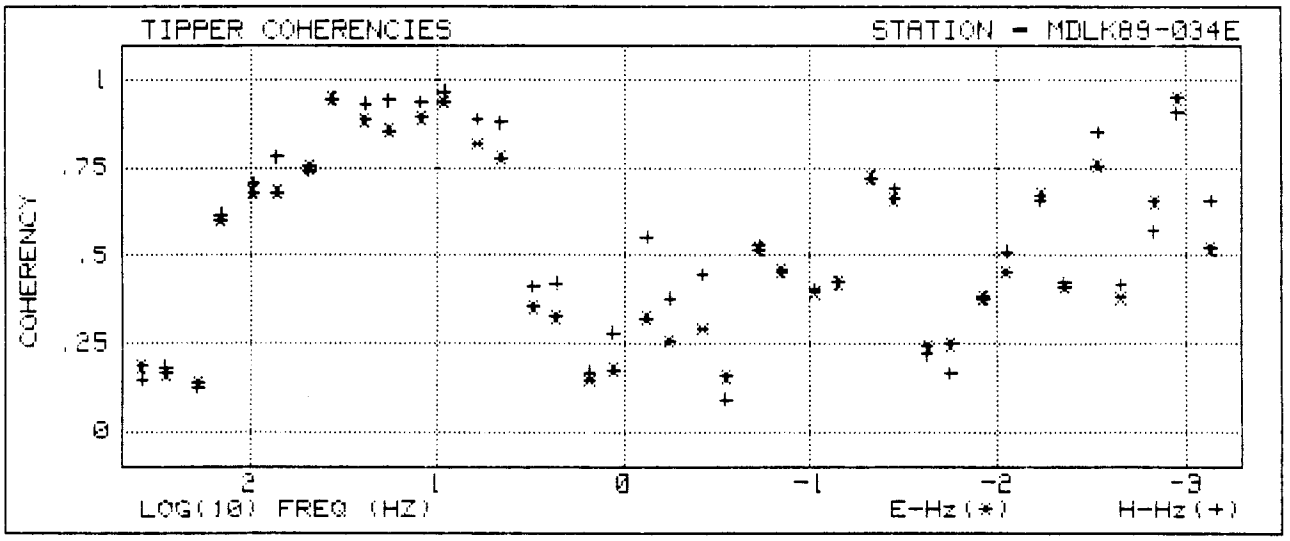
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	667	-999.99	-267.13	999.99	-70.66	264.47	999.99
2	288.00 Hz	1319	-241.78	-715.05	999.99	53.97	192.85	999.99
3	192.00 Hz	191	-157.39	-864.08	999.99	11.36	100.79	999.99
4	144.00 Hz	378	-123.97	-503.53	170.15	19.70	9.88	106.96
5	96.00 Hz	96	-73.57	-351.82	426.75	3.18	15.58	140.48
6	72.00 Hz	1141	-83.79	-255.02	94.54	-1.69	21.43	15.39
7	48.00 Hz	448	-8.38	-177.20	24.35	3.49	6.07	7.16
8	36.00 Hz	831	-20.10	-132.43	4.32	1.24	-.27	1.77
9	24.00 Hz	1408	-16.52	-92.18	3.26	1.90	.40	1.76
10	18.00 Hz	1343	-21.88	-71.09	3.85	5.10	-1.76	1.88
11	12.00 Hz	791	-18.12	-50.01	1.44	1.09	.52	1.38
12	9.00 Hz	567	-14.20	-39.78	.72	1.79	3.33	.39
13	6.00 Hz	288	-12.44	-29.15	3.16	1.63	1.76	1.62
14	4.50 Hz	288	-9.61	-23.75	5.48	1.24	1.44	2.48
15	3.00 Hz	4544	-12.09	-15.86	13.72	4.49	-.13	12.02
16	2.25 Hz	12128	-8.34	-15.07	12.67	.60	1.80	5.33
17	1.50 Hz	1536	-6.29	-8.81	16.16	.24	.03	18.94
18	1.13 Hz	10048	-6.61	-8.48	6.83	1.02	.73	9.82
19	1.33 Sec	928	-5.207	-6.621	8.682	1.572	.626	7.816
20	1.78 Sec	992	-4.460	-4.982	2.776	1.174	.303	5.162
21	2.67 Sec	480	-3.739	-3.112	.468	1.331	.217	1.116
22	3.56 Sec	888	-2.873	-2.910	.217	1.167	-.208	.397
23	5.33 Sec	396	-2.389	-2.473	.053	1.153	.405	.025
24	7.11 Sec	396	-2.252	-2.128	.056	1.425	.256	.032
25	10.67 Sec	246	-1.745	-2.004	.268	1.596	.331	.154
26	14.22 Sec	198	-1.624	-2.010	.057	1.435	.416	.053
27	21.33 Sec	102	-1.221	-1.532	.059	1.423	.676	.052
28	28.44 Sec	100	-1.041	-1.373	.025	1.347	.706	.051
29	42.67 Sec	192	-.601	-1.175	.023	.886	.552	.018
30	56.89 Sec	240	-.396	-1.022	.003	.654	.434	.008
31	85.33 Sec	105	-.176	-.768	.001	.474	.296	.003
32	113.78 Sec	60	-.090	-.606	.001	.301	.251	.003
33	170.67 Sec	18	-.008	-.426	.003	.184	.154	.003
34	227.56 Sec	27	-.001	-.269	.000	.129	.064	.001
35	341.33 Sec	9	-.039	-.181	.001	.053	.045	.004
36	455.11 Sec	9	-.009	-.140	.001	.084	.001	.004
37	682.67 Sec	6	-.028	-.070	.001	.064	.075	.006
38	910.22 Sec	3	-.018	-.139	.007	.180	.005	.038
39	1365.33 Sec	6	-.074	-.171	.124	.109	.044	1.197

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E







PHOENIX GEOSCIENCE

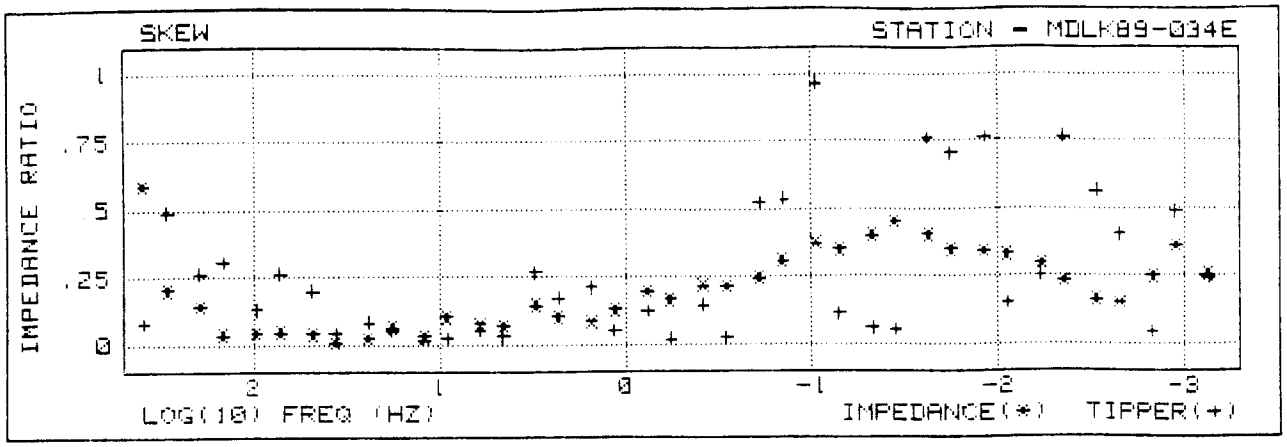
MT Site: MDLK89-034E

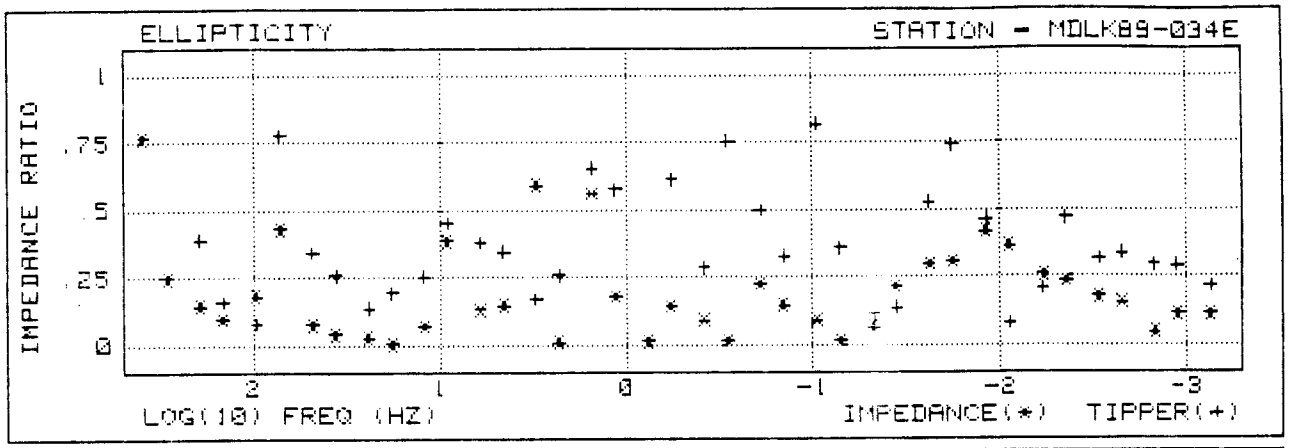
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

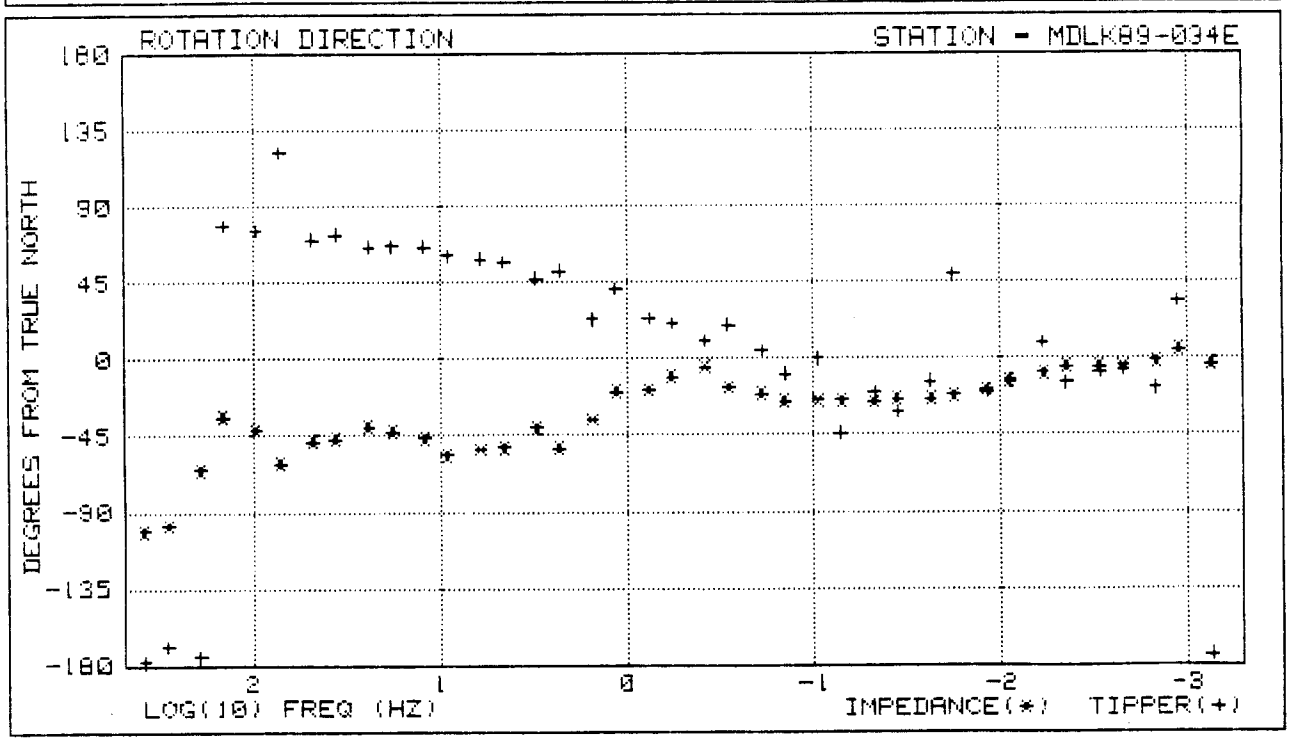
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	667	2.68	95.04	.18	.14
2	288.00 Hz	1319	.84	23.95	.16	.18
3	192.00 Hz	191	1.58	31.06	.13	.12
4	144.00 Hz	378	.23	153.86	.60	.61
5	96.00 Hz	96	.24	156.18	.68	.70
6	72.00 Hz	1141	.16	79.43	.68	.78
7	48.00 Hz	448	.23	148.55	.75	.74
8	36.00 Hz	831	.25	151.66	.94	.94
9	24.00 Hz	1408	.28	164.52	.88	.93
10	18.00 Hz	1343	.29	161.27	.85	.94
11	12.00 Hz	791	.31	156.95	.89	.93
12	9.00 Hz	567	.31	142.88	.93	.96
13	6.00 Hz	288	.35	153.16	.81	.88
14	4.50 Hz	288	.35	160.93	.77	.87
15	3.00 Hz	4544	.28	175.63	.35	.41
16	2.25 Hz	12128	.23	-165.98	.32	.42
17	1.50 Hz	1536	.25	-1.42	.14	.16
18	1.13 Hz	10048	.20	-163.58	.17	.28
19	1.33 Sec	928	.28	2.19	.32	.55
20	1.78 Sec	992	.24	-125.72	.25	.38
21	2.67 Sec	480	.29	-157.94	.29	.44
22	3.56 Sec	888	.20	-24.89	.15	.09
23	5.33 Sec	396	.21	-23.93	.52	.53
24	7.11 Sec	396	.23	-14.23	.45	.45
25	10.67 Sec	246	.30	-27.76	.39	.40
26	14.22 Sec	198	.26	-169.93	.42	.42
27	21.33 Sec	102	.30	176.68	.72	.72
28	28.44 Sec	100	.23	-171.50	.66	.68
29	42.67 Sec	192	.26	-125.69	.24	.22
30	56.89 Sec	240	.14	-11.71	.24	.16
31	85.33 Sec	105	.10	62.83	.38	.38
32	113.78 Sec	60	.23	21.36	.45	.51
33	170.67 Sec	18	.21	162.32	.67	.65
34	227.56 Sec	27	.18	-157.37	.41	.42
35	341.33 Sec	9	.70	-131.44	.75	.85
36	455.11 Sec	9	.21	146.03	.38	.42
37	682.67 Sec	6	.22	-140.08	.65	.57
38	910.22 Sec	3	.93	109.74	.94	.90
39	1365.33 Sec	6	2.12	-102.28	.52	.65

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E







PHOENIX GEOSCIENCE

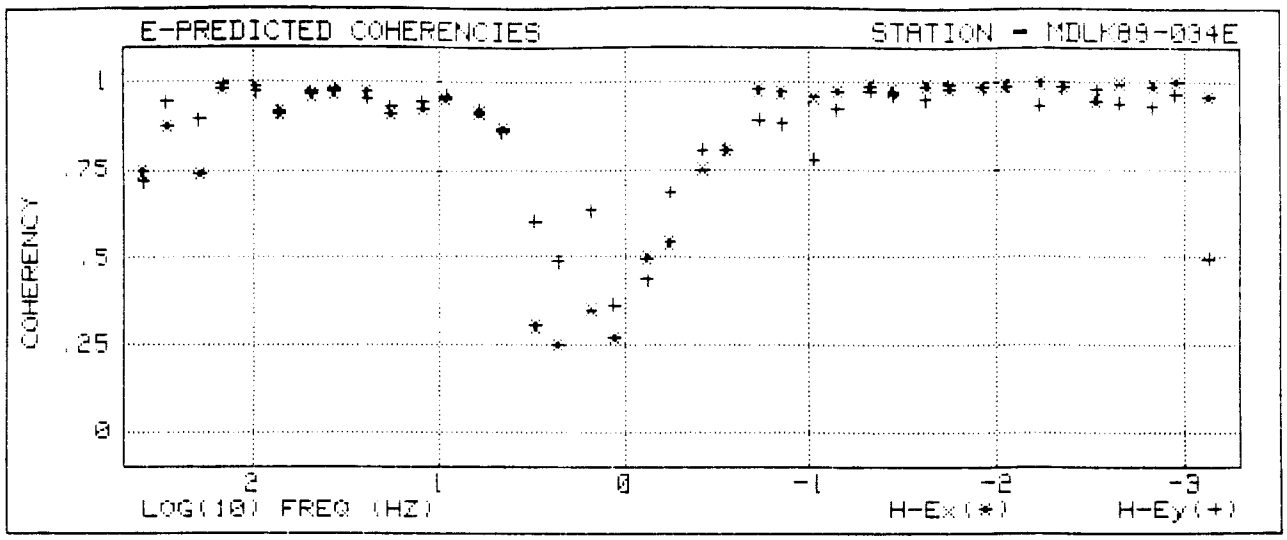
MT Site: MDLK89-034E

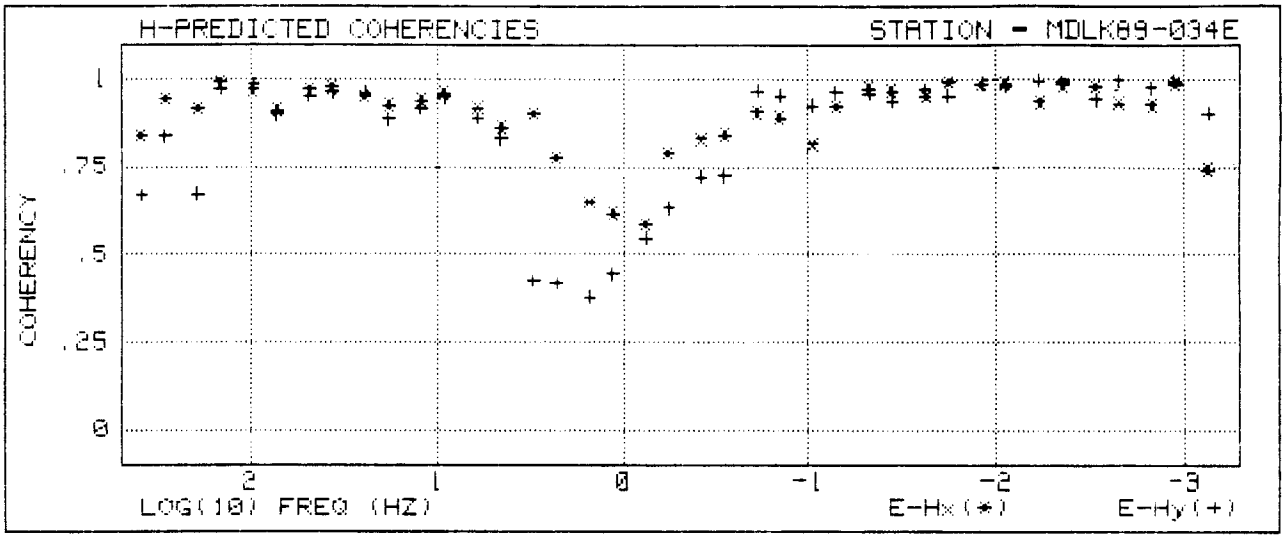
SKEW, ELLIPTICITY AND STRIKE

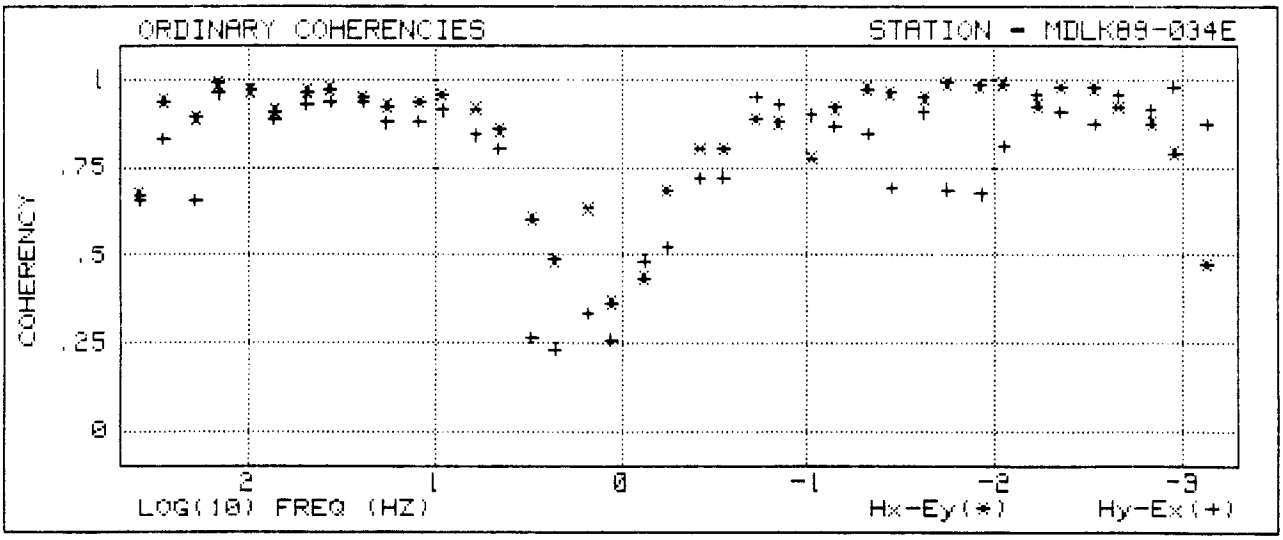
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	667	.58	.76	-101.81	.08	3.64	-178.28
2	288.00 Hz	1319	.20	.25	-98.66	.49	2.42	-169.56
3	192.00 Hz	191	.14	.14	-65.82	.26	.39	-175.72
4	144.00 Hz	378	.03	.09	-34.33	.30	.16	78.12
5	96.00 Hz	96	.04	.18	-42.11	.13	.08	75.07
6	72.00 Hz	1141	.04	.43	-61.81	.26	.77	121.54
7	48.00 Hz	448	.04	.07	-48.65	.20	.34	69.84
8	36.00 Hz	831	.00	.04	-47.50	.04	.25	72.86
9	24.00 Hz	1408	.02	.02	-40.28	.08	.13	65.43
10	18.00 Hz	1343	.06	.00	-43.24	.05	.19	65.86
11	12.00 Hz	791	.03	.07	-46.79	.01	.25	65.50
12	9.00 Hz	567	.10	.38	-56.95	.02	.45	59.88
13	6.00 Hz	288	.07	.13	-53.44	.05	.38	58.37
14	4.50 Hz	288	.07	.14	-52.66	.03	.34	56.18
15	3.00 Hz	4544	.14	.59	-40.95	.26	.17	46.53
16	2.25 Hz	12128	.10	.01	-53.03	.17	.25	50.74
17	1.50 Hz	1536	.08	.56	-36.20	.21	.65	22.45
18	1.13 Hz	10048	.13	.18	-20.13	.05	.57	40.11
19	1.33 Sec	928	.19	.01	-19.14	.12	1.10	23.19
20	1.78 Sec	992	.16	.14	-11.20	.01	.61	20.14
21	2.67 Sec	480	.22	.09	-5.57	.14	.28	9.75
22	3.56 Sec	888	.21	.01	-17.64	.02	.75	19.31
23	5.33 Sec	396	.24	.22	-21.53	.52	.49	3.96
24	7.11 Sec	396	.30	.14	-25.58	.53	.33	-9.70
25	10.67 Sec	246	.37	.09	-25.20	.96	.81	-.59
26	14.22 Sec	198	.34	.01	-25.04	.11	.35	-44.33
27	21.33 Sec	102	.40	.06	-26.36	.06	.11	-20.22
28	28.44 Sec	100	.45	.21	-24.31	.05	.13	-31.75
29	42.67 Sec	192	.40	.29	-24.08	.76	.52	-14.29
30	56.89 Sec	240	.35	.30	-22.12	.70	.73	49.22
31	85.33 Sec	105	.34	.41	-18.88	.76	.46	-19.98
32	113.78 Sec	60	.33	.36	-14.15	.15	.07	-13.62
33	170.67 Sec	18	.29	.25	-9.42	.25	.20	8.41
34	227.56 Sec	27	.23	.23	-5.55	.76	.46	-15.05
35	341.33 Sec	9	.16	.17	-5.54	.56	.31	-8.95
36	455.11 Sec	9	.15	.15	-4.52	.40	.33	-7.40
37	682.67 Sec	6	.25	.04	-2.10	.04	.29	-18.20
38	910.22 Sec	3	.36	.11	4.82	.48	.29	33.18
39	1365.33 Sec	6	.25	.11	-4.24	.24	.21	-174.40

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E







PHOENIX GEOSCIENCE

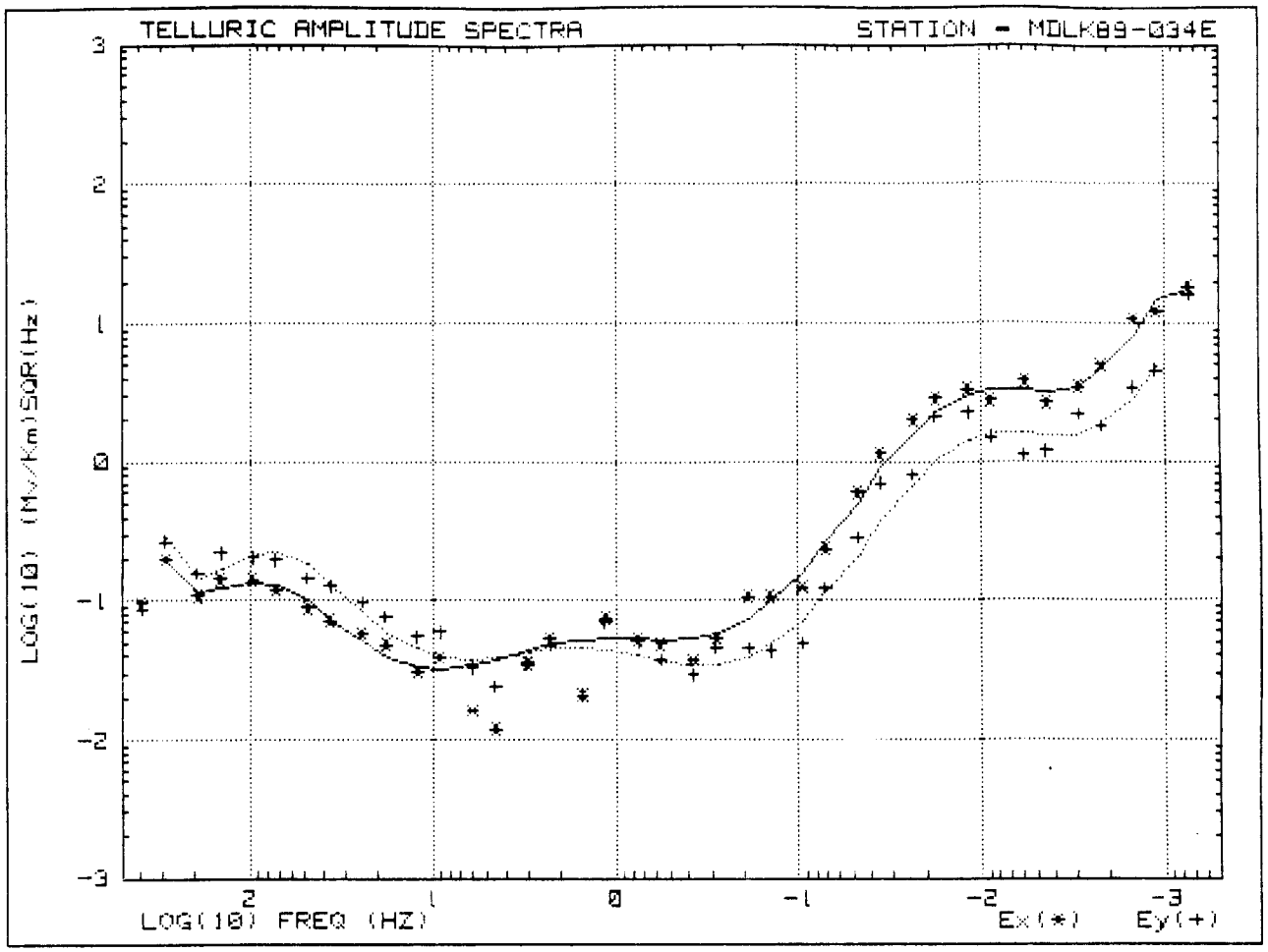
MT Site: MDLK89-034E

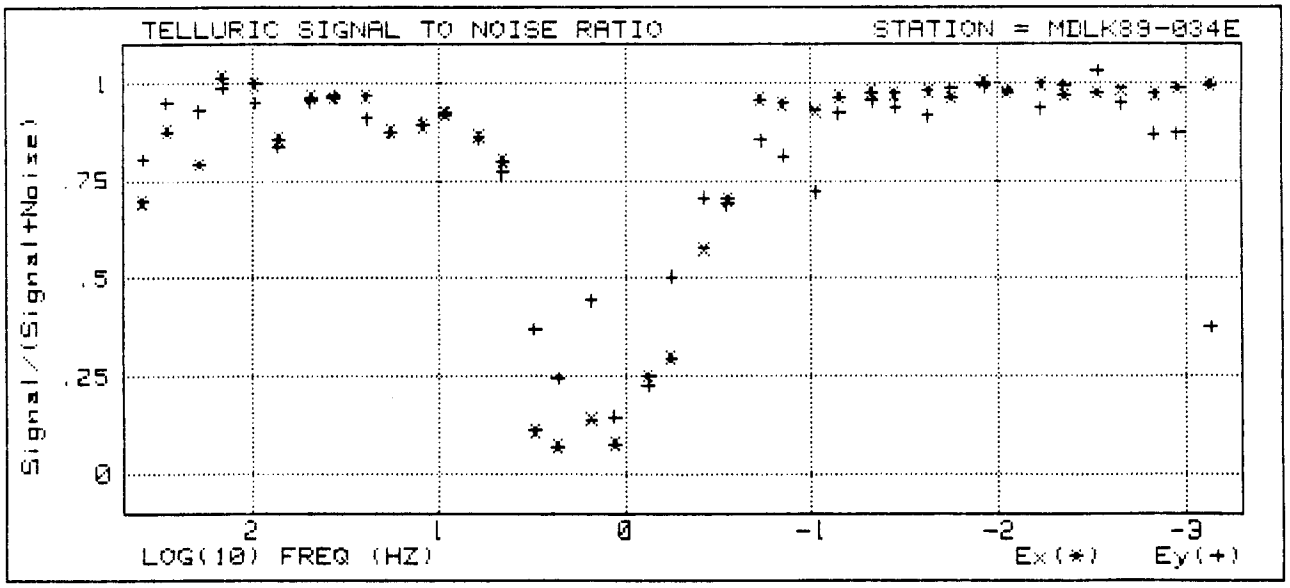
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	667	.74	.71	.84	.67	.67	.65
2	288.00 Hz	1319	.87	.94	.94	.83	.94	.83
3	192.00 Hz	191	.74	.89	.91	.67	.89	.65
4	144.00 Hz	378	.98	.99	.99	.97	.99	.96
5	96.00 Hz	96	.98	.97	.97	.98	.97	.97
6	72.00 Hz	1141	.91	.91	.91	.90	.91	.89
7	48.00 Hz	448	.96	.97	.96	.95	.96	.93
8	36.00 Hz	831	.97	.97	.97	.96	.97	.93
9	24.00 Hz	1408	.97	.95	.95	.96	.95	.93
10	18.00 Hz	1343	.90	.93	.92	.88	.92	.87
11	12.00 Hz	791	.92	.94	.94	.91	.93	.88
12	9.00 Hz	567	.95	.96	.96	.94	.95	.91
13	6.00 Hz	288	.91	.92	.92	.88	.91	.84
14	4.50 Hz	288	.86	.85	.86	.83	.85	.80
15	3.00 Hz	4544	.30	.60	.90	.42	.60	.26
16	2.25 Hz	12128	.25	.48	.77	.42	.48	.23
17	1.50 Hz	1536	.35	.63	.65	.37	.63	.33
18	1.13 Hz	10048	.27	.36	.61	.44	.36	.26
19	1.33 Sec	928	.49	.43	.58	.54	.43	.48
20	1.78 Sec	992	.54	.68	.79	.63	.68	.52
21	2.67 Sec	480	.75	.80	.83	.72	.80	.72
22	3.56 Sec	888	.80	.80	.84	.72	.80	.72
23	5.33 Sec	396	.97	.89	.90	.96	.89	.95
24	7.11 Sec	396	.97	.87	.89	.95	.87	.93
25	10.67 Sec	246	.95	.77	.81	.92	.77	.90
26	14.22 Sec	198	.97	.92	.92	.96	.92	.86
27	21.33 Sec	102	.98	.97	.97	.96	.97	.84
28	28.44 Sec	100	.97	.96	.96	.93	.96	.69
29	42.67 Sec	192	.99	.95	.95	.97	.95	.90
30	56.89 Sec	240	.98	.99	.99	.95	.99	.68
31	85.33 Sec	105	.98	.98	.98	.98	.98	.67
32	113.78 Sec	60	.98	.99	.99	.98	.99	.81
33	170.67 Sec	18	.99	.93	.93	.99	.92	.95
34	227.56 Sec	27	.98	.98	.98	.99	.97	.91
35	341.33 Sec	9	.94	.97	.97	.94	.97	.87
36	455.11 Sec	9	.99	.94	.93	.99	.92	.95
37	682.67 Sec	6	.99	.92	.92	.97	.87	.91
38	910.22 Sec	3	1.00	.96	.99	.99	.79	.98
39	1365.33 Sec	6	.96	.49	.74	.90	.47	.87

PHOENIX GEOSCIENCE

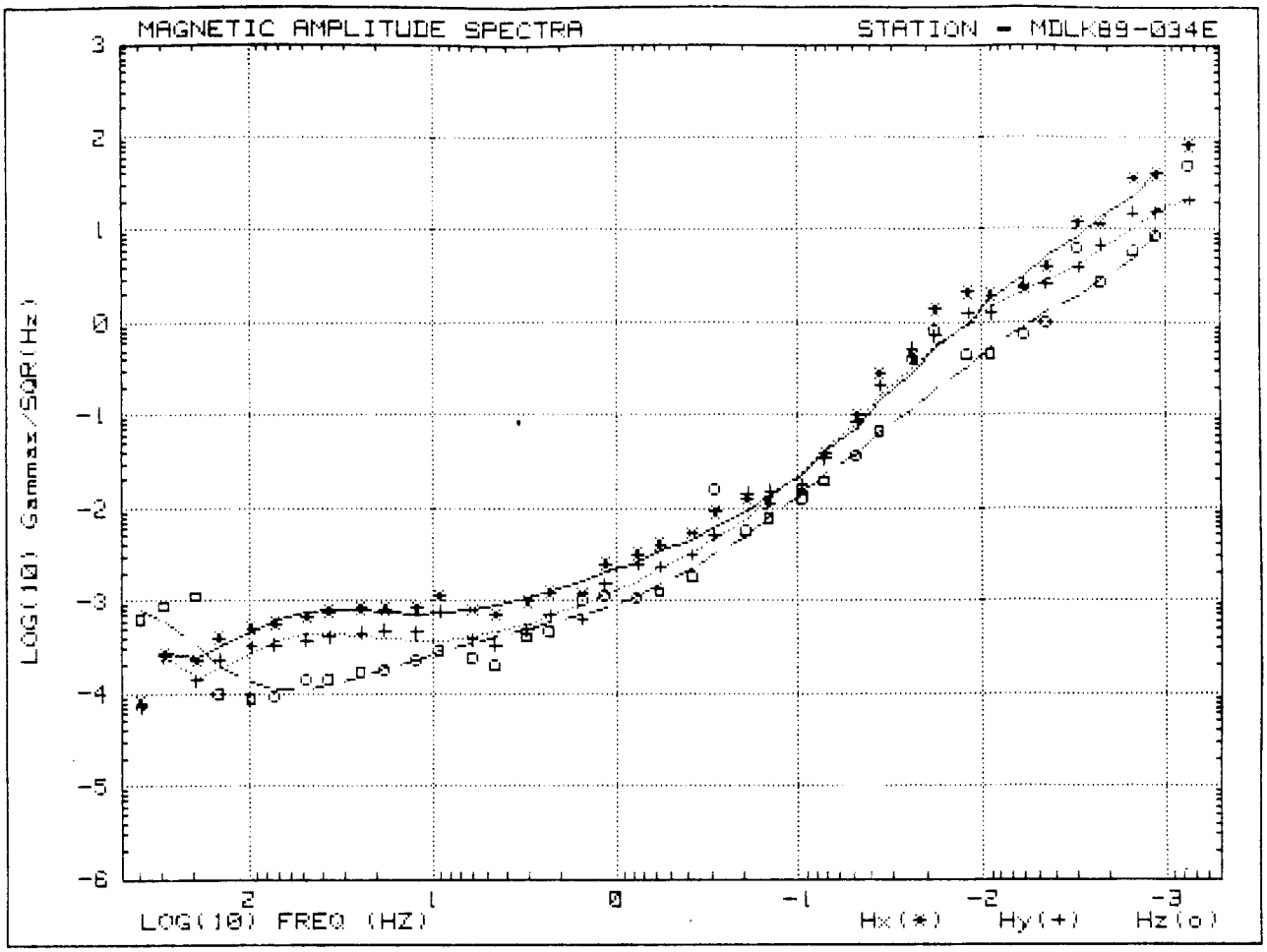
MT Site: MDLK89-034E

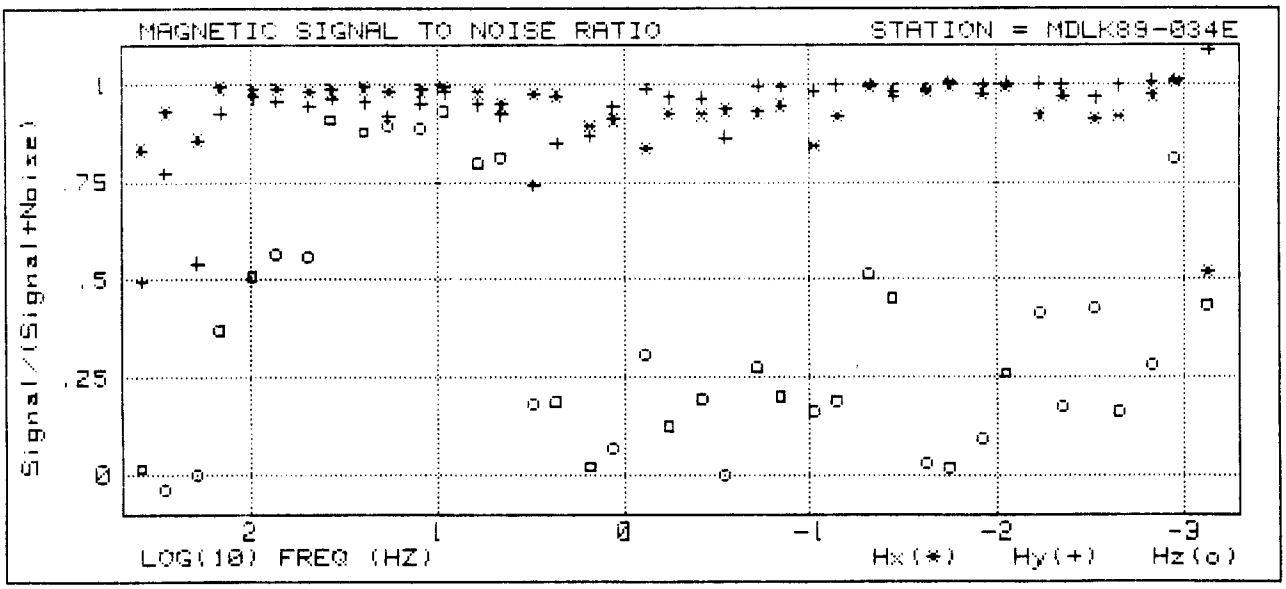




PHOENIX GEOSCIENCE

MT Site: MDLK89-034E





PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	667	7.73E-05	7.05E-05	6.52E-04	9.48E-02	8.66E-02
2	288.00 Hz	1319	2.61E-04	2.47E-04	9.20E-04	1.96E-01	2.65E-01
3	192.00 Hz	191	2.25E-04	1.36E-04	1.17E-03	1.06E-01	1.55E-01
4	144.00 Hz	378	3.89E-04	2.28E-04	1.02E-04	1.41E-01	2.18E-01
5	96.00 Hz	96	4.99E-04	3.14E-04	9.24E-05	1.39E-01	2.02E-01
6	72.00 Hz	1141	5.57E-04	3.28E-04	9.74E-05	1.17E-01	1.95E-01
7	48.00 Hz	448	6.59E-04	3.71E-04	1.50E-04	8.79E-02	1.43E-01
8	36.00 Hz	831	7.49E-04	3.95E-04	1.47E-04	7.10E-02	1.25E-01
9	24.00 Hz	1408	8.23E-04	4.40E-04	1.80E-04	5.72E-02	9.57E-02
10	18.00 Hz	1343	7.98E-04	4.64E-04	1.87E-04	4.73E-02	7.59E-02
11	12.00 Hz	791	8.20E-04	4.50E-04	2.37E-04	3.00E-02	5.44E-02
12	9.00 Hz	567	1.12E-03	7.54E-04	3.01E-04	3.86E-02	5.88E-02
13	6.00 Hz	288	7.88E-04	3.76E-04	2.56E-04	1.59E-02	3.22E-02
14	4.50 Hz	288	6.95E-04	3.27E-04	2.08E-04	1.18E-02	2.38E-02
15	3.00 Hz	4544	9.81E-04	4.80E-04	4.22E-04	3.47E-02	3.48E-02
16	2.25 Hz	12128	1.22E-03	6.98E-04	4.83E-04	5.23E-02	4.73E-02
17	1.50 Hz	1536	1.19E-03	6.19E-04	1.06E-03	2.04E-02	2.05E-02
18	1.13 Hz	10048	2.51E-03	1.49E-03	1.20E-03	7.34E-02	6.84E-02
19	1.33 Sec	928	3.15E-03	2.43E-03	1.11E-03	5.11E-02	5.02E-02
20	1.78 Sec	992	4.03E-03	2.32E-03	1.32E-03	4.78E-02	3.68E-02
21	2.67 Sec	480	5.30E-03	3.11E-03	1.91E-03	3.70E-02	2.86E-02
22	3.56 Sec	888	8.95E-03	5.06E-03	1.68E-02	5.30E-02	4.57E-02
23	5.33 Sec	396	1.23E-02	1.42E-02	5.95E-03	1.06E-01	4.48E-02
24	7.11 Sec	396	1.12E-02	1.50E-02	8.00E-03	1.05E-01	4.28E-02
25	10.67 Sec	246	1.47E-02	1.78E-02	1.35E-02	1.23E-01	4.85E-02
26	14.22 Sec	198	3.86E-02	3.35E-02	2.07E-02	2.35E-01	1.22E-01
27	21.33 Sec	102	9.92E-02	8.29E-02	3.85E-02	5.97E-01	2.81E-01
28	28.44 Sec	100	2.79E-01	2.04E-01	7.05E-02	1.12E+00	6.88E-01
29	42.67 Sec	192	4.10E-01	5.10E-01	4.32E-01	1.95E+00	7.97E-01
30	56.89 Sec	240	1.37E+00	7.14E-01	8.69E-01	2.82E+00	2.08E+00
31	85.33 Sec	105	2.08E+00	1.25E+00	4.69E-01	3.25E+00	2.21E+00
32	113.78 Sec	60	1.91E+00	1.20E+00	4.69E-01	2.69E+00	1.47E+00
33	170.67 Sec	18	2.23E+00	2.42E+00	7.71E-01	3.70E+00	1.08E+00
34	227.56 Sec	27	3.92E+00	2.53E+00	1.06E+00	2.60E+00	1.16E+00
35	341.33 Sec	9	1.18E+01	3.88E+00	6.58E+00	3.39E+00	2.16E+00
36	455.11 Sec	9	1.17E+01	6.81E+00	2.91E+00	4.95E+00	1.76E+00
37	682.67 Sec	6	3.53E+01	1.46E+01	6.17E+00	1.06E+01	3.40E+00
38	910.22 Sec	3	3.89E+01	1.51E+01	8.85E+00	1.20E+01	4.46E+00
39	1365.33 Sec	6	8.00E+01	2.07E+01	5.25E+01	1.82E+01	1.60E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	667	.830	.494	.020	.694	.802
2	288.00 Hz	1319	.927	.772	0.000	.875	.947
3	192.00 Hz	191	.855	.540	.006	.790	.926
4	144.00 Hz	378	.989	.925	.374	1.000	.985
5	96.00 Hz	96	.986	.964	.514	.997	.947
6	72.00 Hz	1141	.985	.953	.571	.855	.836
7	48.00 Hz	448	.979	.941	.565	.963	.952
8	36.00 Hz	831	.984	.960	.914	.961	.963
9	24.00 Hz	1408	.990	.953	.882	.965	.908
10	18.00 Hz	1343	.980	.914	.897	.874	.873
11	12.00 Hz	791	.983	.950	.890	.888	.893
12	9.00 Hz	567	.992	.977	.938	.918	.922
13	6.00 Hz	288	.978	.944	.801	.862	.857
14	4.50 Hz	288	.946	.921	.819	.798	.770
15	3.00 Hz	4544	.972	.740	.186	.109	.369
16	2.25 Hz	12128	.969	.847	.190	.067	.241
17	1.50 Hz	1536	.890	.866	.026	.138	.442
18	1.13 Hz	10048	.907	.938	.075	.074	.143
19	1.33 Sec	928	.834	.984	.314	.249	.224
20	1.78 Sec	992	.923	.965	.132	.294	.502
21	2.67 Sec	480	.921	.962	.197	.574	.703
22	3.56 Sec	888	.934	.861	.004	.700	.687
23	5.33 Sec	396	.926	.994	.279	.957	.850
24	7.11 Sec	396	.943	.992	.205	.945	.811
25	10.67 Sec	246	.841	.981	.167	.927	.719
26	14.22 Sec	198	.915	.995	.196	.962	.920
27	21.33 Sec	102	.991	.998	.519	.975	.952
28	28.44 Sec	100	.982	.967	.459	.971	.938
29	42.67 Sec	192	.978	.986	.037	.977	.914
30	56.89 Sec	240	.995	1.000	.025	.959	.982
31	85.33 Sec	105	.974	.995	.099	1.000	.989
32	113.78 Sec	60	.992	1.000	.265	.974	.978
33	170.67 Sec	18	.921	1.000	.420	.995	.933
34	227.56 Sec	27	.968	.998	.179	.967	.991
35	341.33 Sec	9	.910	.964	.432	.972	1.000
36	455.11 Sec	9	.915	.995	.169	.984	.946
37	682.67 Sec	6	.971	1.000	.289	.970	.867
38	910.22 Sec	3	1.000	1.000	.815	.985	.870
39	1365.33 Sec	6	.518	1.000	.441	.993	.375

PHOENIX GEOSCIENCE

MT Site: MDLK89-034E

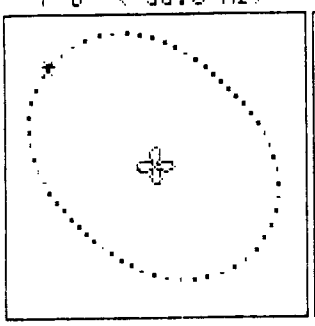
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

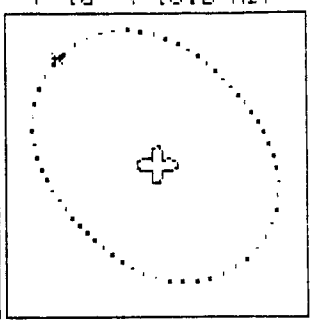
*=Rotation Direction

Zxy = ...
Zxx = ___

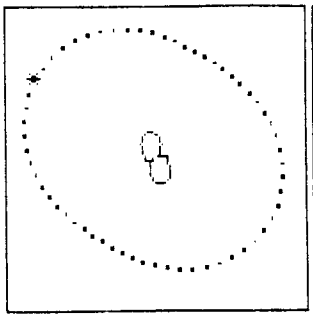
F=8 (36.0 Hz)



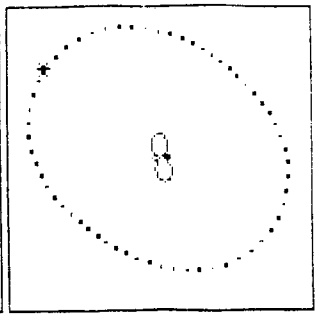
F=10 (18.0 Hz)



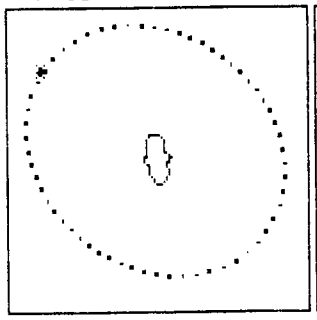
F=12 (9.0 Hz)



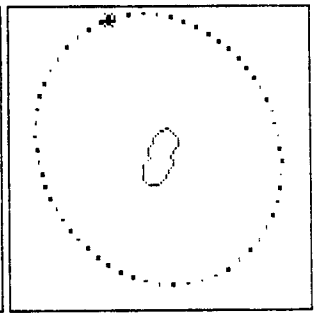
F=14 (4.5 Hz)



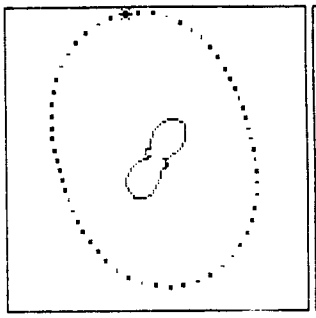
F=16 (2.3 Hz)



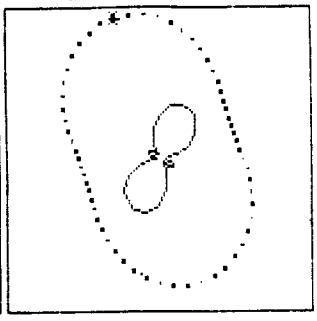
F=18 (1.1 Hz)



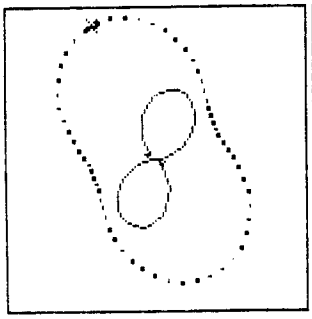
F=20 (.5625 Hz)



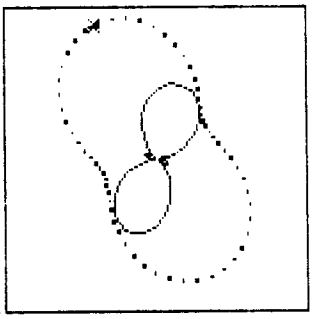
F=22 (.2813 Hz)



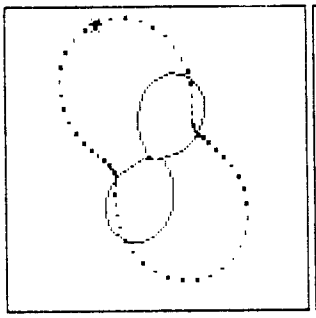
F=24 (.1406 Hz)



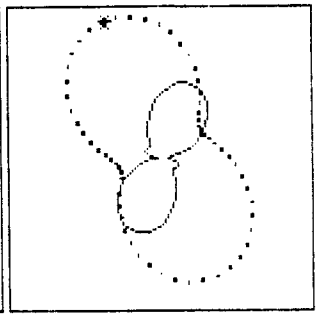
F=26 (.0703 Hz)



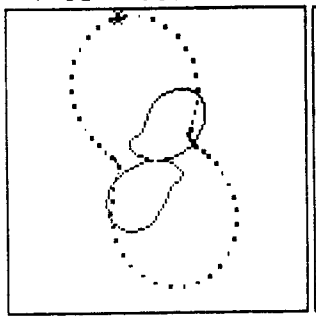
F=28 (.0352 Hz)



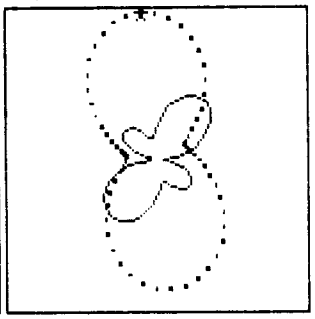
F=30 (.0176 Hz)



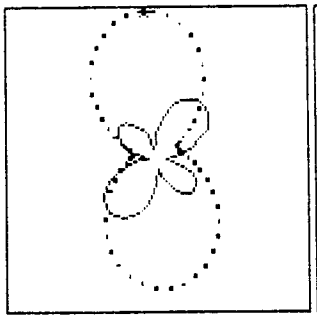
F=32 (.0088 Hz)



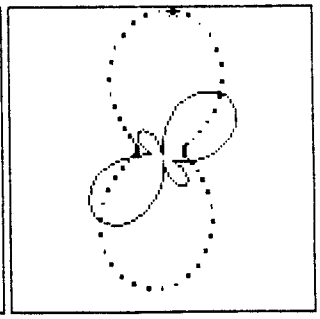
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-036s/035s/

Operator:M. SNOW
Date: 4 Sep 1989
Time: 15:07:33

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#210-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-035s
Site Desc:T44N R4E SEC30 SW4
41,37,10 N 121,33,47 W
Elevation:7480 FT
Reference:MDLK89-036s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: STEWART
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL431	+45 DEG
Hy	7	COIL432	+135 DEG
Hz	8	LOOP405	Doubled
Ex	9	181 M	+45 DEG
Ey	10	177 M	+135 DEG
Rx	1	COIL210	+10 DEG
Ry	2	COIL430	+100 DEG

Ex Pot Resist: 16.0K Ohms
Ex Voltage: AC=21.0 mv, DC=418.0 mv
Ey Pot Resist: 18.0K Ohms
Ey Voltage: AC=22.0 mv, DC=638.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

OPERATOR LOG FOR MT SITES MDLK89-036s/035s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-036a/035a/		
Run STARTED:	15:07:33	4 Sep 1989
Run QUIT:	00:32:26	5 Sep 1989
Run Start and Stop Time for MDLK89-036b/035b/		
Run STARTED:	00:57:31	5 Sep 1989
Run QUIT:	08:39:08	5 Sep 1989
Run Start and Stop Time for MDLK89-036c/035c/		
Run STARTED:	12:48:03	5 Sep 1989
Run QUIT:	01:53:29	6 Sep 1989
Run Start and Stop Time for MDLK89-036d/035d/		
Run STARTED:	02:21:01	6 Sep 1989
Run QUIT:	11:22:49	6 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR NIGHT WITH SLIGHT BREEZE
Other Factors:
NONE

PHOENIX GEOSCIENCE

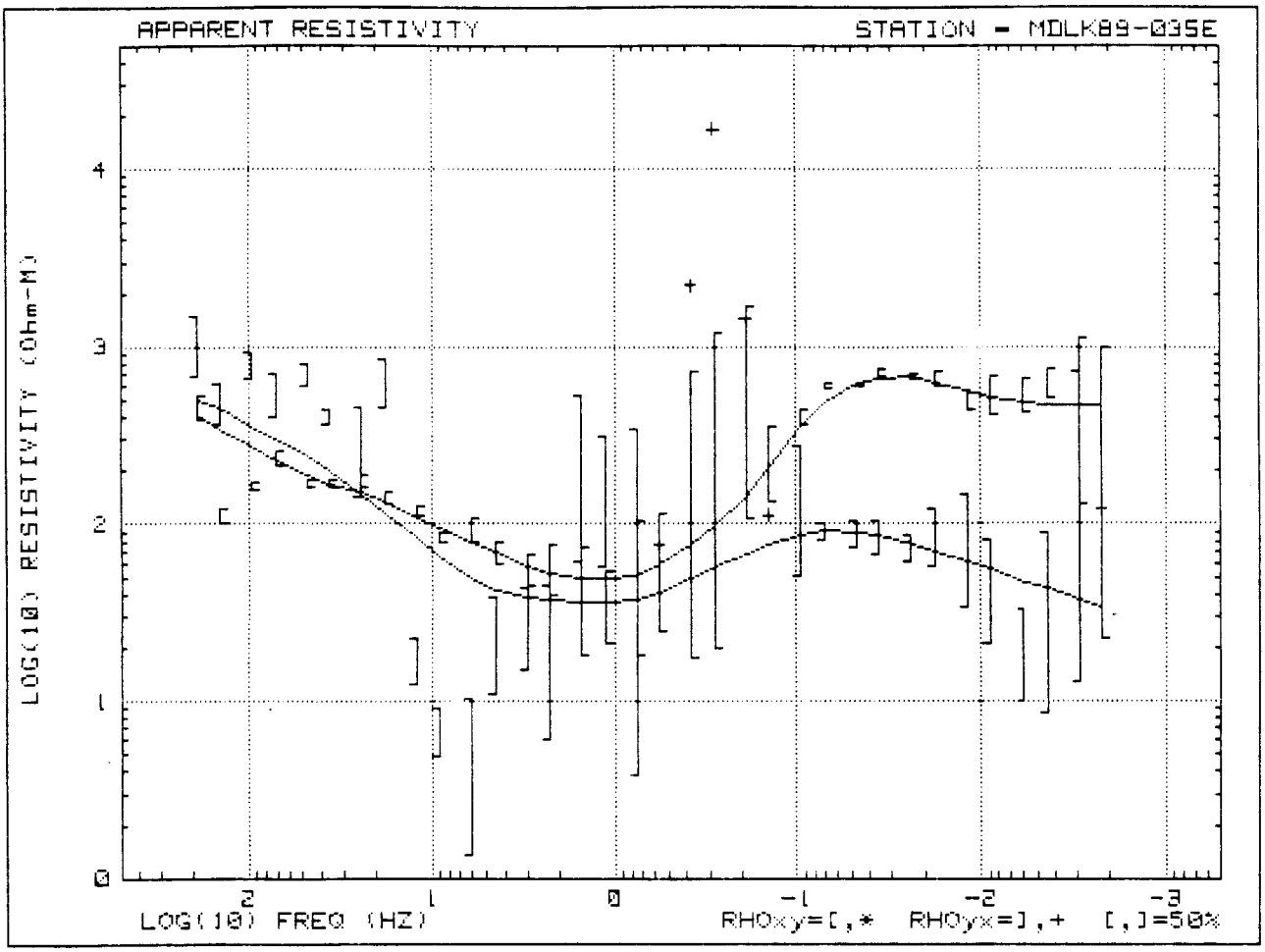
MT Site: MDLK89-035E

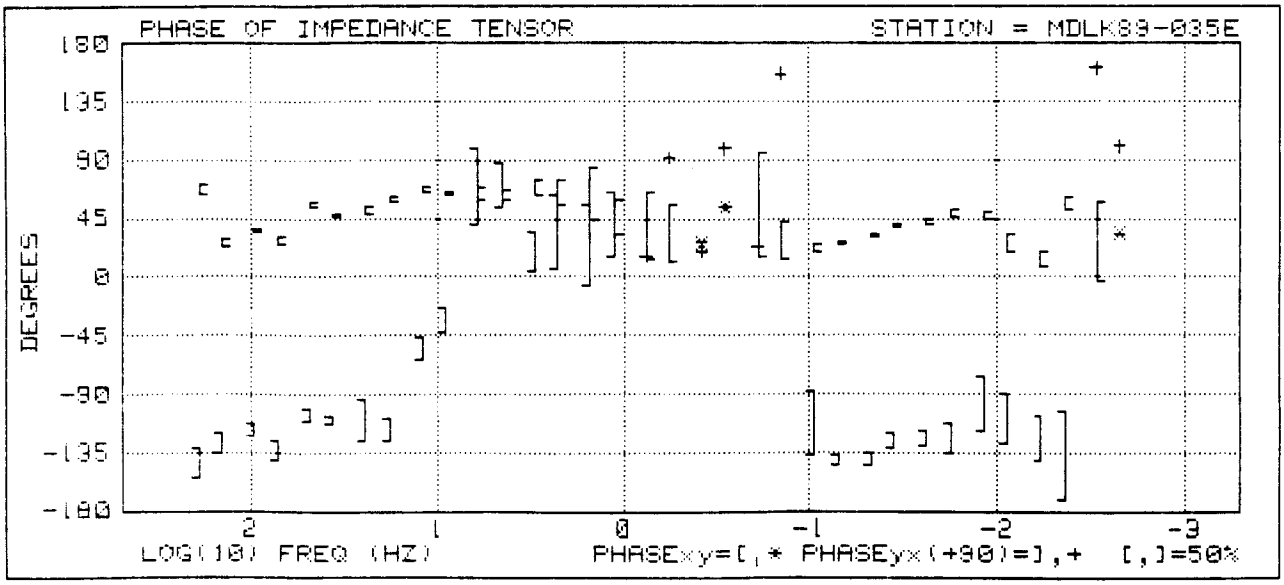
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

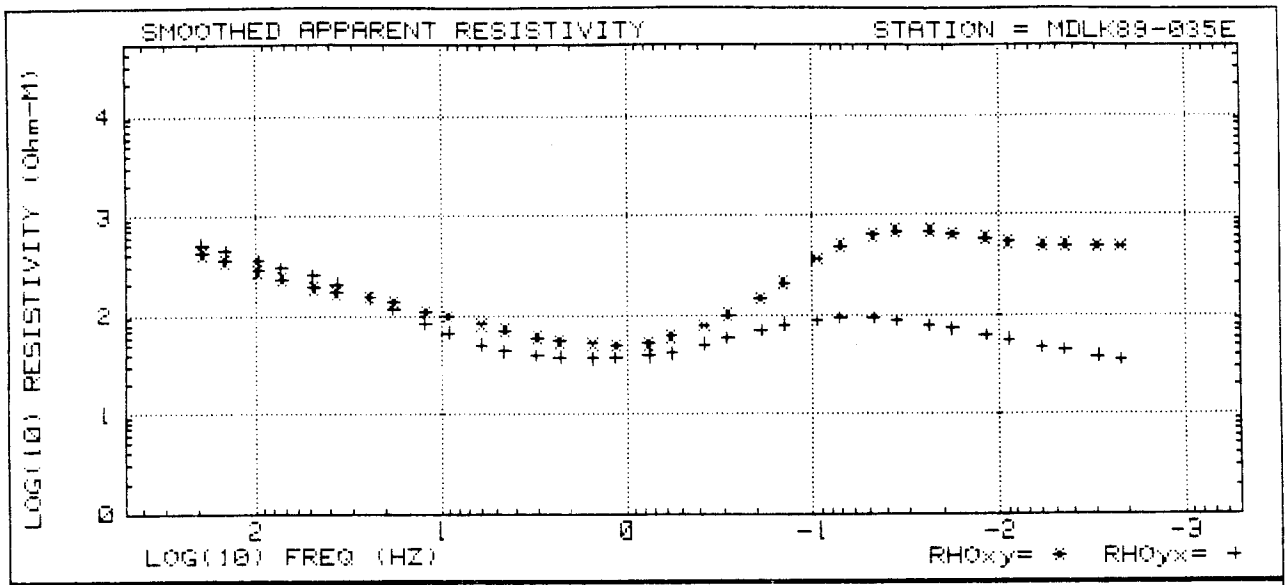
MT Site: MDLK89-035E

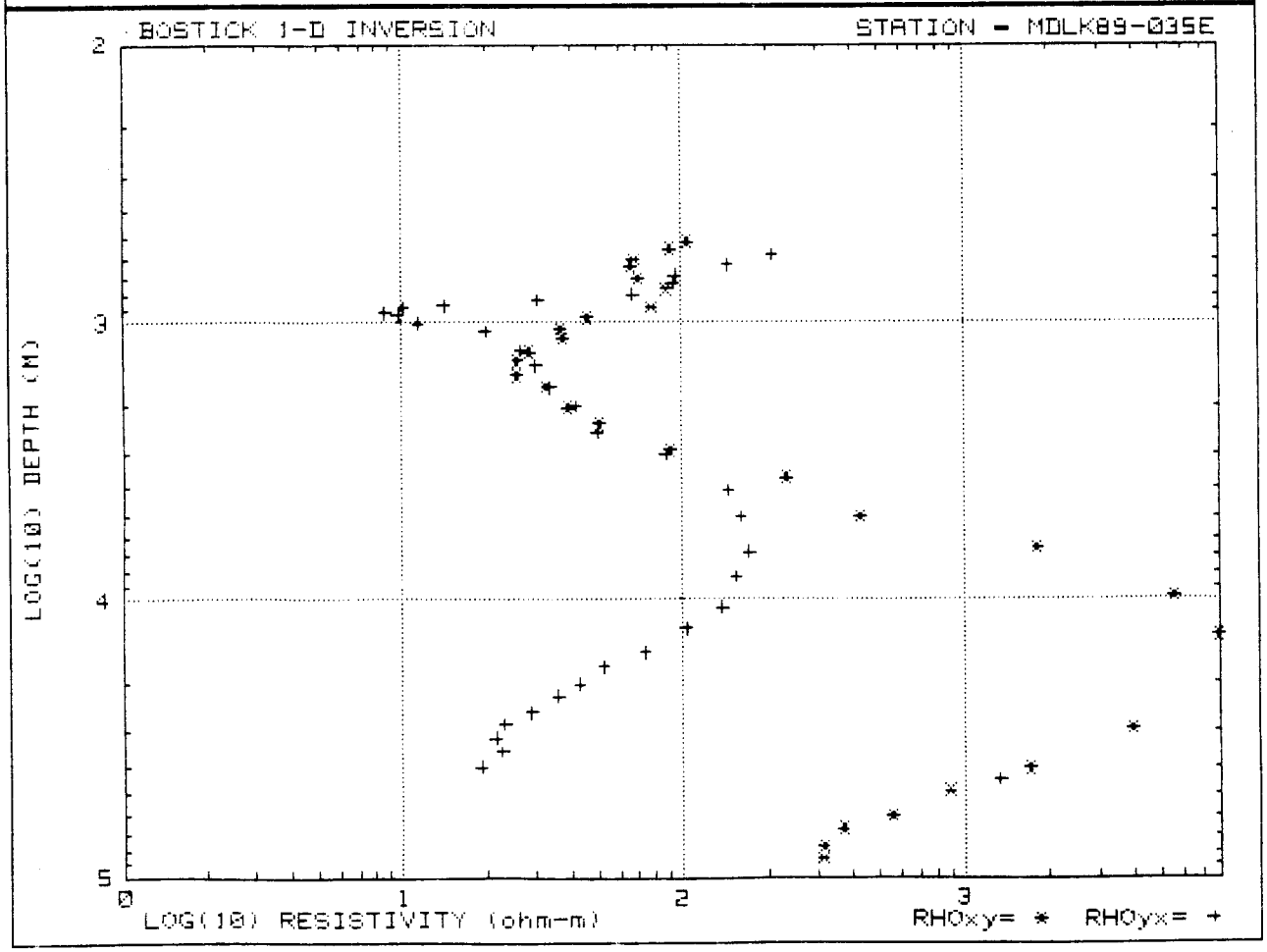




PHOENIX GEOSCIENCE

MT Site: MDLK89-035E





PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	185	454.0	23.4	999.6	79.2	67.0	6.0	-143.2	16.7
4	144.00 Hz	94	110.0	14.9	477.9	49.0	26.1	4.0	-127.7	11.4
5	96.00 Hz	96	165.7	6.4	782.8	29.3	35.4	1.8	-117.6	7.4
6	72.00 Hz	96	234.7	14.3	530.9	49.2	28.2	3.8	-133.8	11.5
7	48.00 Hz	95	169.5	8.1	683.3	23.8	55.3	2.2	-105.7	6.1
8	36.00 Hz	95	169.0	6.1	401.5	16.3	47.4	1.7	-108.7	4.3
9	24.00 Hz	95	176.4	12.2	255.5	99.9	51.2	3.3	-109.3	24.5
10	18.00 Hz	95	140.3	14.1	623.0	59.6	59.3	3.8	-116.7	13.4
11	12.00 Hz	288	118.7	10.4	17.0	55.6	66.1	2.8	-54.3	12.7
12	9.00 Hz	288	83.2	9.4	6.8	59.7	64.1	2.6	-33.2	13.4
13	6.00 Hz	192	91.2	26.9	3.8	99.9	63.6	6.8	69.5	43.4
14	4.50 Hz	384	68.6	25.9	20.5	99.9	63.1	6.6	70.8	26.5
15	3.00 Hz	3328	54.2	35.4	25.7	99.9	68.2	8.7	20.3	23.0
16	2.25 Hz	1472	54.3	63.2	16.5	99.9	66.0	14.0	34.5	42.5
17	1.50 Hz	1472	36.4	99.9	178.8	99.9	64.0	29.9	24.5	45.9
18	1.13 Hz	2555	34.2	99.9	133.4	99.9	46.1	20.1	40.1	36.3
19	1.33 Sec	576	43.3	99.9	36.1	99.9	39.6	37.3	15.0	96.3
20	1.78 Sec	1296	52.9	99.9	75.7	99.9	34.3	32.6	90.7	99.9
21	2.67 Sec	252	113.0	99.9	2183.7	99.9	26.1	80.0	19.3	99.9
22	3.56 Sec	240	154.9	99.9	16490.8	99.9	52.8	88.0	97.6	83.1
23	5.33 Sec	1408	421.6	99.9	1428.0	99.9	56.2	58.7	22.8	99.9
24	7.11 Sec	60	216.5	99.9	111.5	99.9	28.9	21.0	155.4	99.9
25	10.67 Sec	150	399.8	14.6	118.0	99.9	22.4	3.9	-112.6	36.3
26	14.22 Sec	423	607.5	4.0	90.0	18.5	25.8	1.1	-140.4	4.9
27	21.33 Sec	198	614.4	3.4	87.6	27.7	31.5	1.0	-139.3	7.0
28	28.44 Sec	156	709.7	5.9	83.4	39.2	39.9	1.6	-125.6	9.5
29	42.67 Sec	210	687.2	5.5	73.9	29.2	42.4	1.5	-123.6	7.3
30	56.89 Sec	246	661.2	13.0	84.6	75.3	49.3	3.5	-124.0	16.1
31	85.33 Sec	114	491.3	18.3	71.2	99.9	46.9	4.8	-97.3	31.5
32	113.78 Sec	9	525.4	45.3	41.4	99.9	26.6	10.7	-108.3	29.1
33	170.67 Sec	3	525.9	38.1	18.1	99.9	14.0	9.2	-124.0	25.3
34	227.56 Sec	6	616.2	31.0	28.0	99.9	56.5	7.7	-136.9	50.3
35	341.33 Sec	15	383.0	99.9	96.1	99.9	27.3	46.2	160.3	86.6
36	455.11 Sec	15	150.9	99.9	119.1	99.9	32.8	80.9	99.8	99.9

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	185	410.4	503.7	106.4	520	210.7	576
4	144.00 Hz	94	346.5	447.6	91.5	552	146.6	627
5	96.00 Hz	96	274.1	354.5	68.7	601	95.7	684
6	72.00 Hz	96	228.7	300.5	66.2	634	93.9	727
7	48.00 Hz	95	187.1	246.5	70.8	703	67.7	807
8	36.00 Hz	95	167.3	202.5	89.1	767	31.0	844
9	24.00 Hz	95	151.5	148.2	78.9	894	14.3	884
10	18.00 Hz	95	134.5	114.4	46.3	973	10.2	897
11	12.00 Hz	288	108.0	83.0	37.3	1068	8.8	936
12	9.00 Hz	288	96.0	65.3	37.8	1162	9.8	959
13	6.00 Hz	192	79.9	49.7	28.5	1299	11.5	1024
14	4.50 Hz	384	69.1	42.4	26.1	1394	20.1	1092
15	3.00 Hz	3328	58.5	38.8	25.8	1571	26.9	1280
16	2.25 Hz	1472	52.8	37.4	33.2	1725	30.3	1451
17	1.50 Hz	1472	49.9	36.1	39.8	2053	34.1	1745
18	1.13 Hz	2555	48.9	36.7	51.5	2345	42.0	2032
19	1.33 Sec	576	50.8	37.8	92.1	2930	50.4	2527
20	1.78 Sec	1296	59.7	40.5	234.7	3666	88.7	3019
21	2.67 Sec	252	76.7	49.0	429.4	5091	147.2	4067
22	3.56 Sec	240	96.7	57.3	1837.1	6600	162.2	5078
23	5.33 Sec	1408	143.2	68.2	5584.9	9835	174.2	6789
24	7.11 Sec	60	205.3	77.5	8004.8	13596	156.5	8356
25	10.67 Sec	150	354.8	86.2	13837.8	21894	139.4	10792
26	14.22 Sec	423	481.3	91.3	3982.6	29443	103.6	12823
27	21.33 Sec	198	611.1	90.1	1723.7	40635	74.5	15601
28	28.44 Sec	156	669.6	85.5	893.8	49116	52.8	17550
29	42.67 Sec	210	675.0	76.5	561.9	60394	43.4	20329
30	56.89 Sec	246	628.5	70.6	370.5	67295	36.3	22552
31	85.33 Sec	114	564.3	61.2	315.8	78096	29.2	25722
32	113.78 Sec	9	516.8	55.2	315.4	86298	23.4	28206
33	170.67 Sec	3	477.2	46.2	374.0	101560	21.7	31608
34	227.56 Sec	6	475.2	43.0	453.7	117025	22.9	35201
35	341.33 Sec	15	469.6	37.4	458.1	142478	19.2	40205
36	455.11 Sec	15	471.1	34.4	617.1	164793	1342.0	44536

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	185	70.68	506.72	999.99	257.64	607.85	999.99
4	144.00 Hz	94	-58.69	-40.29	999.99	252.88	123.65	765.61
5	96.00 Hz	96	11.60	-39.74	999.99	229.97	163.32	155.34
6	72.00 Hz	96	-22.96	-36.32	999.99	256.07	137.54	756.23
7	48.00 Hz	95	20.26	3.27	808.27	114.72	165.86	123.26
8	36.00 Hz	95	9.81	-6.01	118.06	117.99	128.44	53.42
9	24.00 Hz	95	-8.01	-12.68	676.22	91.25	113.30	139.54
10	18.00 Hz	95	15.40	9.69	796.90	57.39	96.63	109.96
11	12.00 Hz	288	11.54	6.03	113.98	34.24	77.14	34.55
12	9.00 Hz	288	5.09	7.79	40.81	26.75	55.03	15.01
13	6.00 Hz	192	-4.17	5.69	245.64	23.29	46.83	77.68
14	4.50 Hz	384	6.91	-2.97	173.14	17.77	35.04	40.95
15	3.00 Hz	3328	-6.43	1.36	134.82	10.61	26.47	37.33
16	2.25 Hz	1472	-.61	-2.89	282.32	10.06	22.57	73.14
17	1.50 Hz	1472	-7.60	-.08	612.01	7.25	14.85	149.16
18	1.13 Hz	2555	-4.04	-3.80	197.57	9.61	10.00	47.30
19	1.33 Sec	576	-4.058	3.877	99.999	9.817	8.116	99.999
20	1.78 Sec	1296	-5.923	2.006	99.999	10.075	6.880	96.137
21	2.67 Sec	252	-9.660	1.690	99.999	13.070	6.411	99.999
22	3.56 Sec	240	-9.355	-12.078	99.999	8.920	11.757	99.999
23	5.33 Sec	1408	-19.656	-6.444	99.999	11.053	16.524	99.999
24	7.11 Sec	60	.556	.418	99.999	10.799	5.964	40.960
25	10.67 Sec	150	.419	-.647	5.570	12.653	5.225	1.735
26	14.22 Sec	423	1.707	.615	.189	13.154	6.367	.162
27	21.33 Sec	198	1.412	.187	.133	10.231	6.272	.083
28	28.44 Sec	156	1.357	.705	.248	8.575	7.158	.206
29	42.67 Sec	210	.612	.754	.078	6.628	6.050	.114
30	56.89 Sec	246	.638	.433	.322	4.973	5.778	.431
31	85.33 Sec	114	.462	.383	.356	3.665	3.918	.408
32	113.78 Sec	9	-.027	1.922	1.095	4.298	2.150	1.609
33	170.67 Sec	3	-.223	1.215	.288	3.808	.951	.803
34	227.56 Sec	6	.478	.622	.330	2.031	3.068	.492
35	341.33 Sec	15	1.398	-.663	7.130	2.105	1.086	7.311
36	455.11 Sec	15	1.230	-.090	34.528	1.082	.698	6.608

PHOENIX GEOSCIENCE

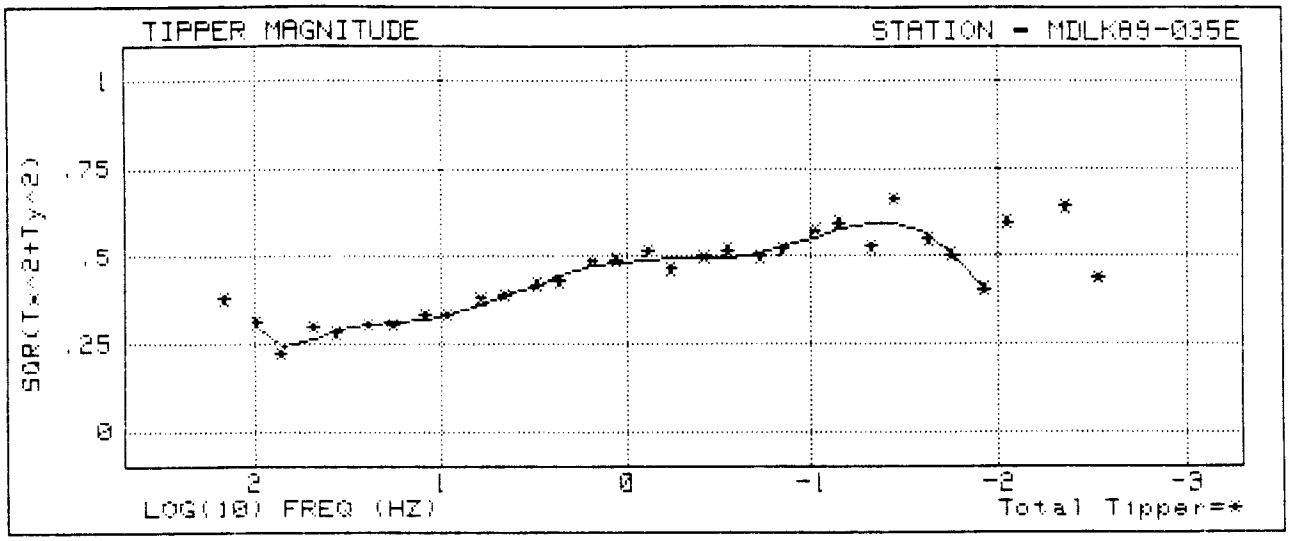
MT Site: MDLK89-035E

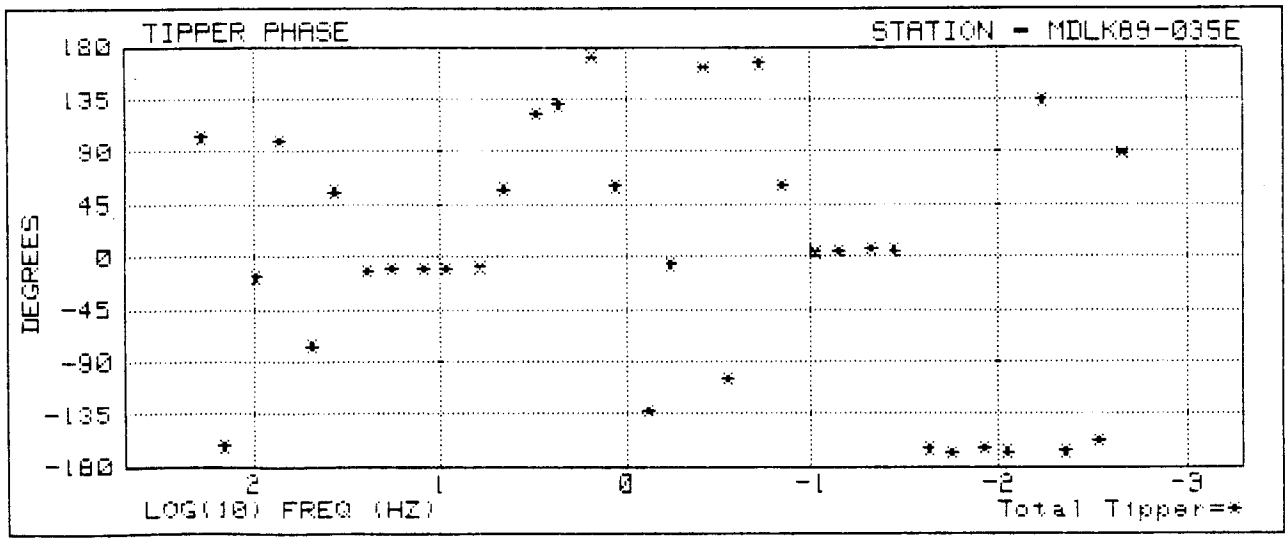
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

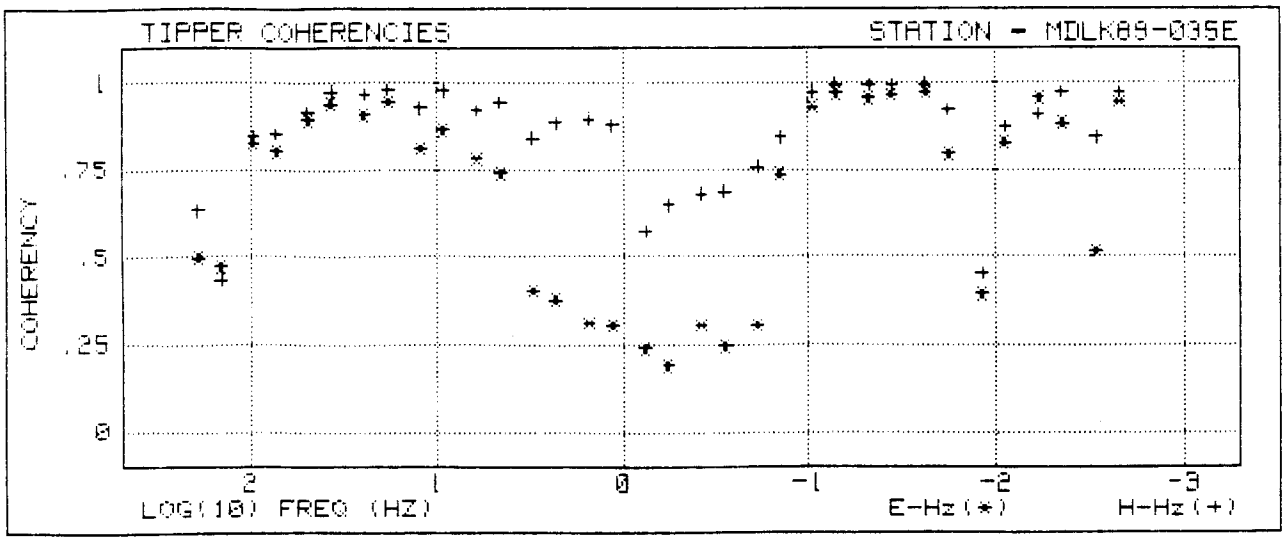
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	185	-784.34	-586.86	999.99	56.34	146.91	999.99
4	144.00 Hz	94	-359.09	-463.81	999.99	-56.33	-41.02	999.99
5	96.00 Hz	96	-284.45	-542.98	999.99	30.40	-42.44	999.99
6	72.00 Hz	96	-302.34	-315.78	999.99	16.07	-46.45	999.99
7	48.00 Hz	95	-109.53	-389.87	999.99	73.65	4.50	568.71
8	36.00 Hz	95	-86.39	-254.58	826.68	28.10	-1.43	374.06
9	24.00 Hz	95	-57.86	-165.25	999.99	21.53	6.31	999.99
10	18.00 Hz	95	-106.45	-211.50	999.99	37.45	.27	845.32
11	12.00 Hz	288	18.63	-25.90	99.40	1.95	15.93	30.13
12	9.00 Hz	288	14.59	-9.53	33.29	1.34	11.20	12.25
13	6.00 Hz	192	3.74	9.97	130.19	.49	3.47	41.17
14	4.50 Hz	384	7.06	20.30	198.20	-1.96	1.01	46.88
15	3.00 Hz	3328	18.40	6.82	124.53	-.82	-3.53	34.48
16	2.25 Hz	1472	11.24	7.71	204.71	-2.64	-1.46	53.04
17	1.50 Hz	1472	33.33	15.16	999.99	-4.94	-3.67	420.08
18	1.13 Hz	2555	20.94	17.66	603.07	-4.99	-2.76	144.39
19	1.33 Sec	576	11.236	3.005	99.999	-.951	-2.007	99.999
20	1.78 Sec	1296	-.170	14.588	99.999	-1.550	-.012	99.999
21	2.67 Sec	252	60.399	21.127	99.999	-8.706	-.854	99.999
22	3.56 Sec	240	-20.107	99.999	99.999	-17.263	-12.622	99.999
23	5.33 Sec	1408	33.728	14.183	99.999	-2.376	-31.644	99.999
24	7.11 Sec	60	-8.051	3.683	99.999	-4.649	1.901	99.999
25	10.67 Sec	150	-2.854	-6.868	44.515	.721	1.154	13.867
26	14.22 Sec	423	-4.331	-3.587	.457	1.387	1.632	.392
27	21.33 Sec	198	-3.436	-2.954	.612	.994	1.042	.380
28	28.44 Sec	156	-2.231	-3.111	.801	1.263	.852	.665
29	42.67 Sec	210	-1.628	-2.452	.285	.753	.557	.418
30	56.89 Sec	246	-1.524	-2.262	1.173	.293	.772	1.568
31	85.33 Sec	114	-.258	-2.026	2.523	1.089	-.745	2.886
32	113.78 Sec	9	-.424	-1.281	.937	.199	.918	1.378
33	170.67 Sec	3	-.407	-.605	.208	-.181	.802	.579
34	227.56 Sec	6	-.572	-.536	.946	.242	.759	1.412
35	341.33 Sec	15	-1.117	.400	6.434	.962	-.374	6.597
36	455.11 Sec	15	-.195	1.127	24.123	-.505	.753	4.616

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E







PHOENIX GEOSCIENCE

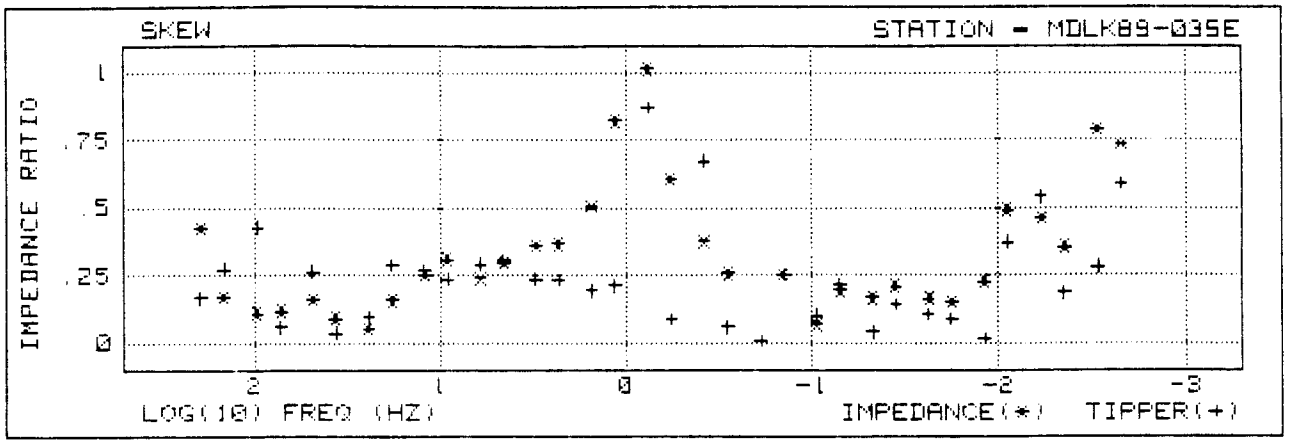
MT Site: MDLK89-035E

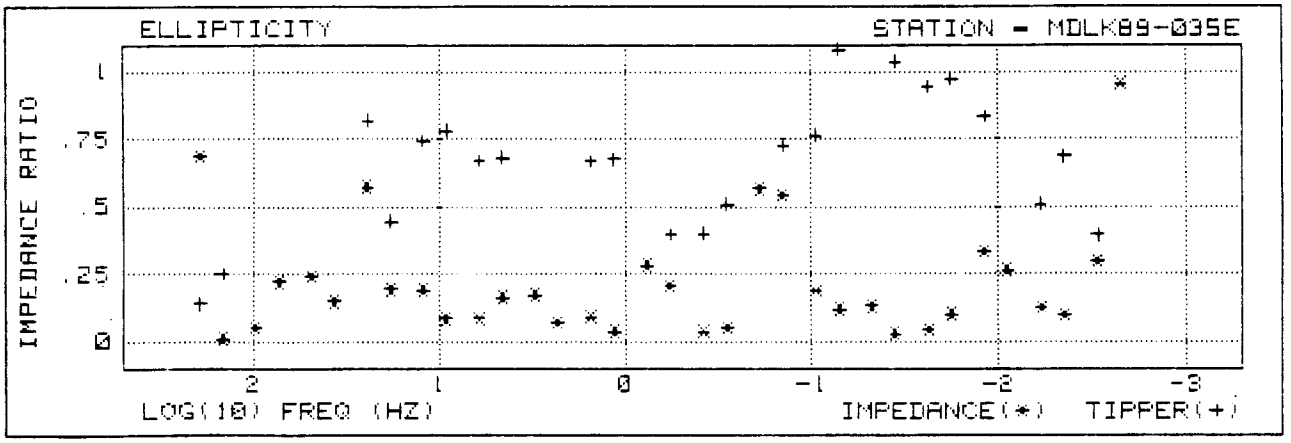
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

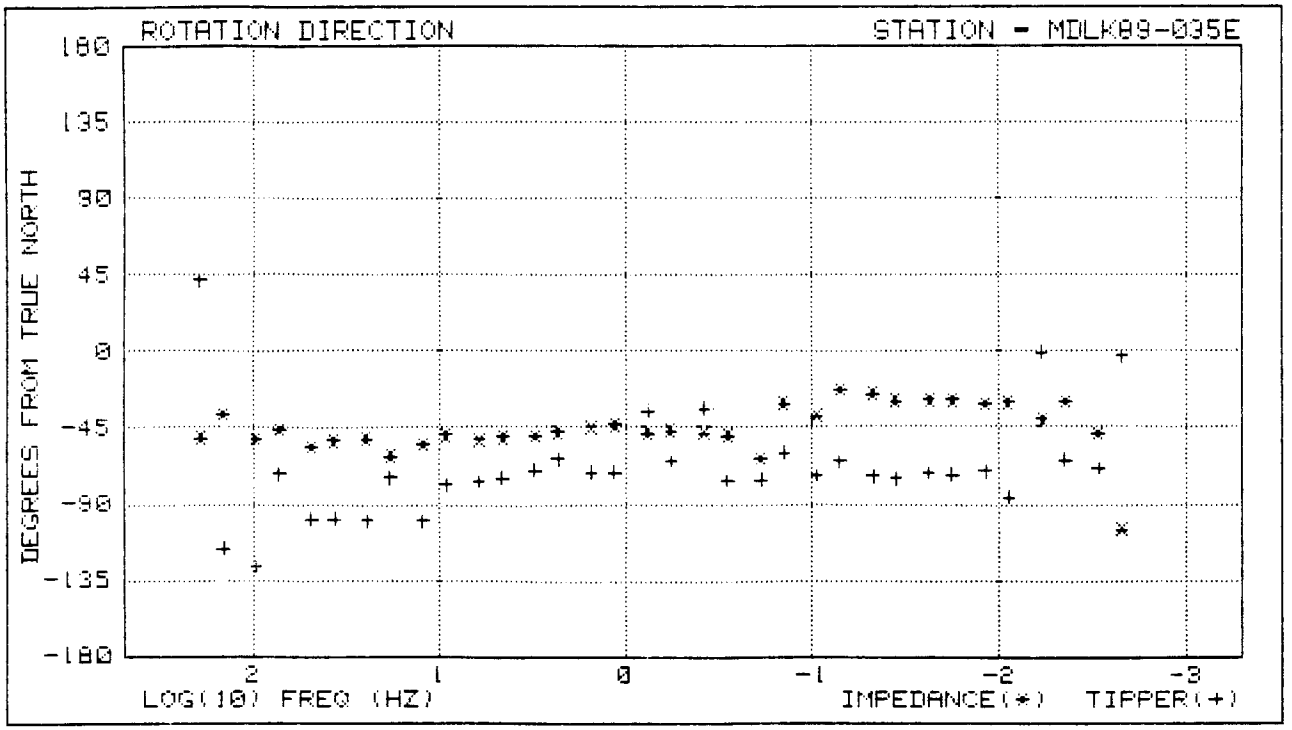
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	185	9.93	101.72	.49	.63
4	144.00 Hz	94	.38	-162.76	.47	.43
5	96.00 Hz	96	.31	-18.25	.82	.84
6	72.00 Hz	96	.22	98.27	.80	.85
7	48.00 Hz	95	.30	-77.40	.89	.91
8	36.00 Hz	95	.28	54.99	.94	.97
9	24.00 Hz	95	.30	-13.29	.90	.96
10	18.00 Hz	95	.30	-10.82	.94	.97
11	12.00 Hz	288	.33	-10.98	.81	.92
12	9.00 Hz	288	.33	-10.60	.86	.97
13	6.00 Hz	192	.38	-9.29	.78	.92
14	4.50 Hz	384	.39	56.92	.73	.94
15	3.00 Hz	3328	.42	121.27	.40	.84
16	2.25 Hz	1472	.43	129.16	.37	.88
17	1.50 Hz	1472	.48	170.29	.31	.89
18	1.13 Hz	2555	.49	59.81	.30	.87
19	1.33 Sec	576	.51	-133.08	.24	.57
20	1.78 Sec	1296	.46	-7.48	.19	.64
21	2.67 Sec	252	.50	161.74	.30	.68
22	3.56 Sec	240	.51	-105.62	.24	.68
23	5.33 Sec	1408	.50	165.23	.30	.75
24	7.11 Sec	60	.52	60.49	.73	.84
25	10.67 Sec	150	.57	3.00	.93	.97
26	14.22 Sec	423	.59	3.56	.97	.99
27	21.33 Sec	198	.52	5.65	.95	.99
28	28.44 Sec	156	.66	4.23	.96	.99
29	42.67 Sec	210	.54	-165.35	.97	.99
30	56.89 Sec	246	.50	-168.95	.79	.92
31	85.33 Sec	114	.40	-164.40	.39	.45
32	113.78 Sec	9	.59	-168.19	.82	.87
33	170.67 Sec	3	4.05	133.22	.95	.91
34	227.56 Sec	6	.64	-167.61	.88	.97
35	341.33 Sec	15	.44	-158.00	.51	.84
36	455.11 Sec	15	2.59	88.15	.94	.97

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E







PHOENIX GEOSCIENCE

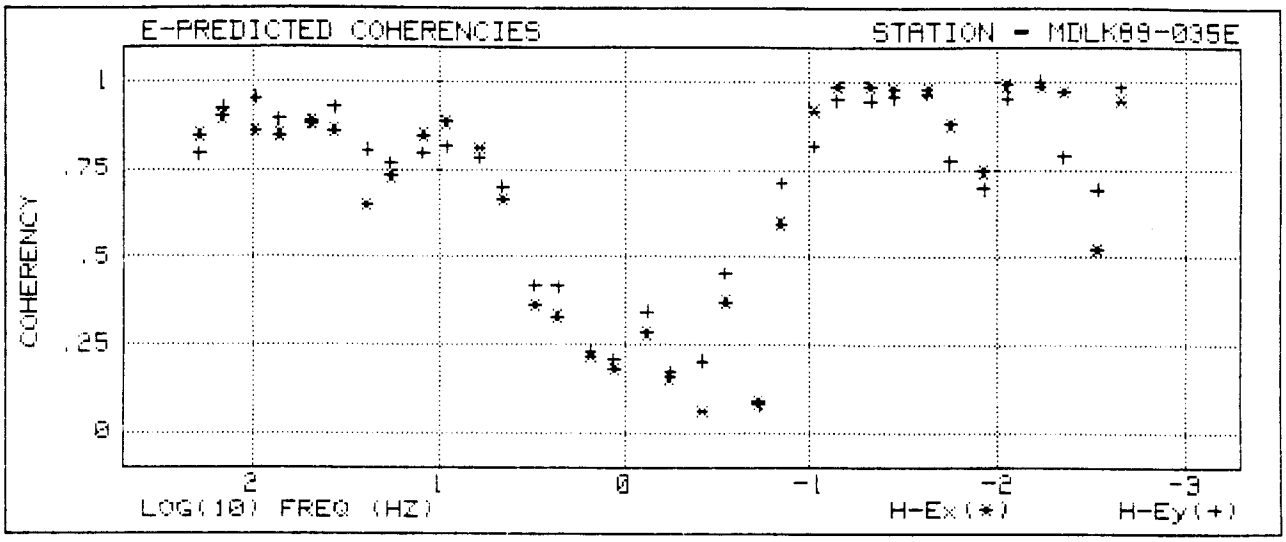
MT Site: MDLK89-035E

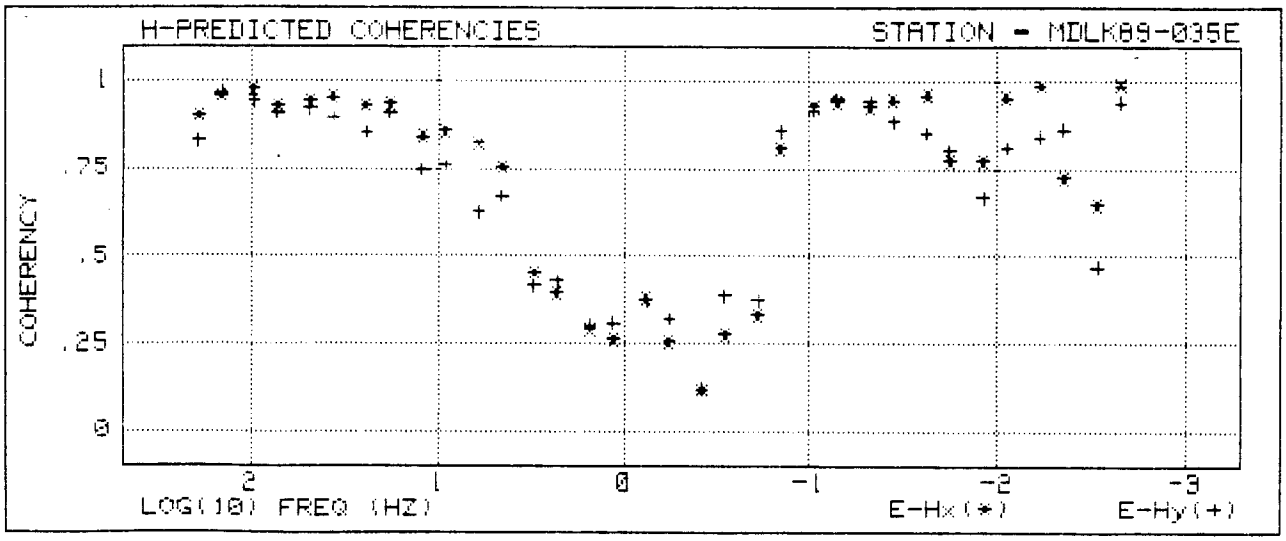
SKEW, ELLIPTICITY AND STRIKE

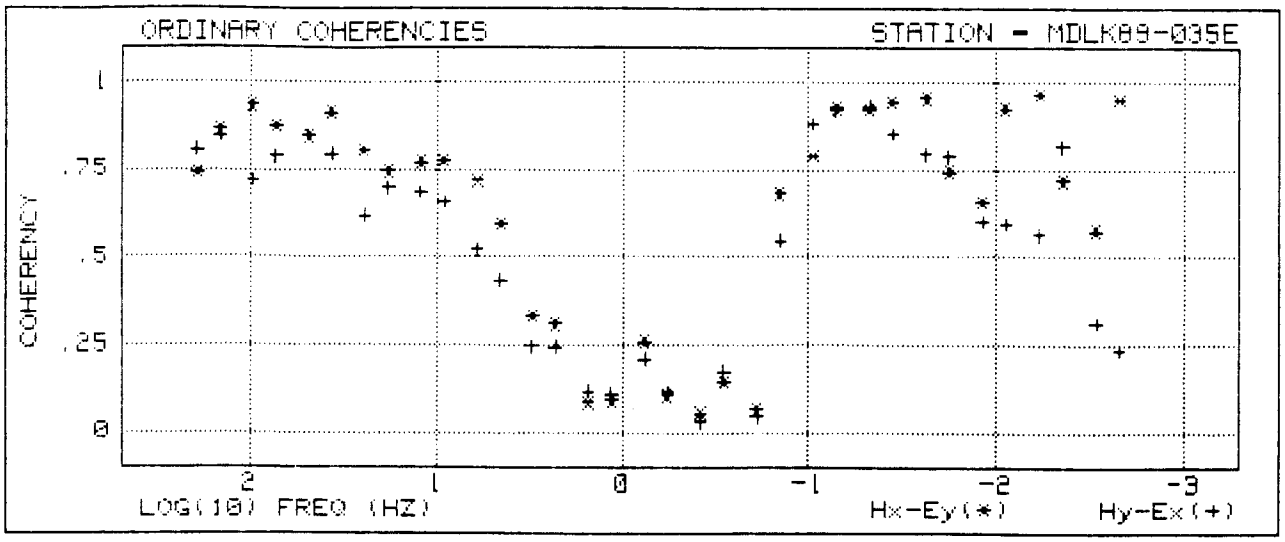
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	185	.42	.68	-51.57	.16	.13	41.14
4	144.00 Hz	94	.17	.01	-37.96	.27	.25	-116.80
5	96.00 Hz	96	.11	.05	-52.05	.42	1.16	-127.28
6	72.00 Hz	96	.12	.22	-46.42	.06	1.29	-72.76
7	48.00 Hz	95	.16	.24	-56.66	.26	1.21	-99.30
8	36.00 Hz	95	.09	.14	-52.83	.03	1.29	-99.25
9	24.00 Hz	95	.05	.57	-51.52	.09	.82	-100.52
10	18.00 Hz	95	.15	.19	-62.04	.28	.44	-74.20
11	12.00 Hz	288	.25	.19	-54.98	.27	.74	-100.32
12	9.00 Hz	288	.31	.08	-49.74	.23	.78	-78.72
13	6.00 Hz	192	.24	.08	-52.52	.29	.66	-76.63
14	4.50 Hz	384	.29	.16	-51.21	.30	.68	-75.10
15	3.00 Hz	3328	.36	.17	-50.72	.23	1.69	-70.63
16	2.25 Hz	1472	.36	.07	-48.29	.23	1.93	-64.06
17	1.50 Hz	1472	.50	.09	-45.40	.19	.67	-71.92
18	1.13 Hz	2555	.82	.03	-44.19	.21	.67	-71.79
19	1.33 Sec	576	1.01	.28	-48.79	.86	1.24	-35.77
20	1.78 Sec	1296	.60	.20	-47.34	.09	.39	-65.38
21	2.67 Sec	252	.37	.03	-49.01	.67	.40	-34.27
22	3.56 Sec	240	.26	.05	-50.10	.05	.51	-76.86
23	5.33 Sec	1408	1.93	.56	-63.67	.00	4.08	-76.29
24	7.11 Sec	60	.25	.54	-31.39	.25	.72	-60.30
25	10.67 Sec	150	.06	.18	-38.60	.10	.76	-74.03
26	14.22 Sec	423	.19	.12	-23.10	.21	1.08	-65.53
27	21.33 Sec	198	.16	.13	-25.69	.04	1.14	-74.50
28	28.44 Sec	156	.20	.02	-30.11	.14	1.03	-75.85
29	42.67 Sec	210	.16	.04	-29.45	.10	.94	-72.61
30	56.89 Sec	246	.15	.10	-29.37	.08	.97	-73.39
31	85.33 Sec	114	.22	.33	-31.79	.01	.83	-71.48
32	113.78 Sec	9	.49	.26	-31.13	.37	1.46	-86.59
33	170.67 Sec	3	.46	.12	-41.13	.54	.50	-1.11
34	227.56 Sec	6	.35	.09	-30.62	.18	.68	-64.60
35	341.33 Sec	15	.78	.29	-49.43	.28	.39	-69.58
36	455.11 Sec	15	.73	.95	-105.44	.58	2.21	-3.76

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E







PHOENIX GEOSCIENCE

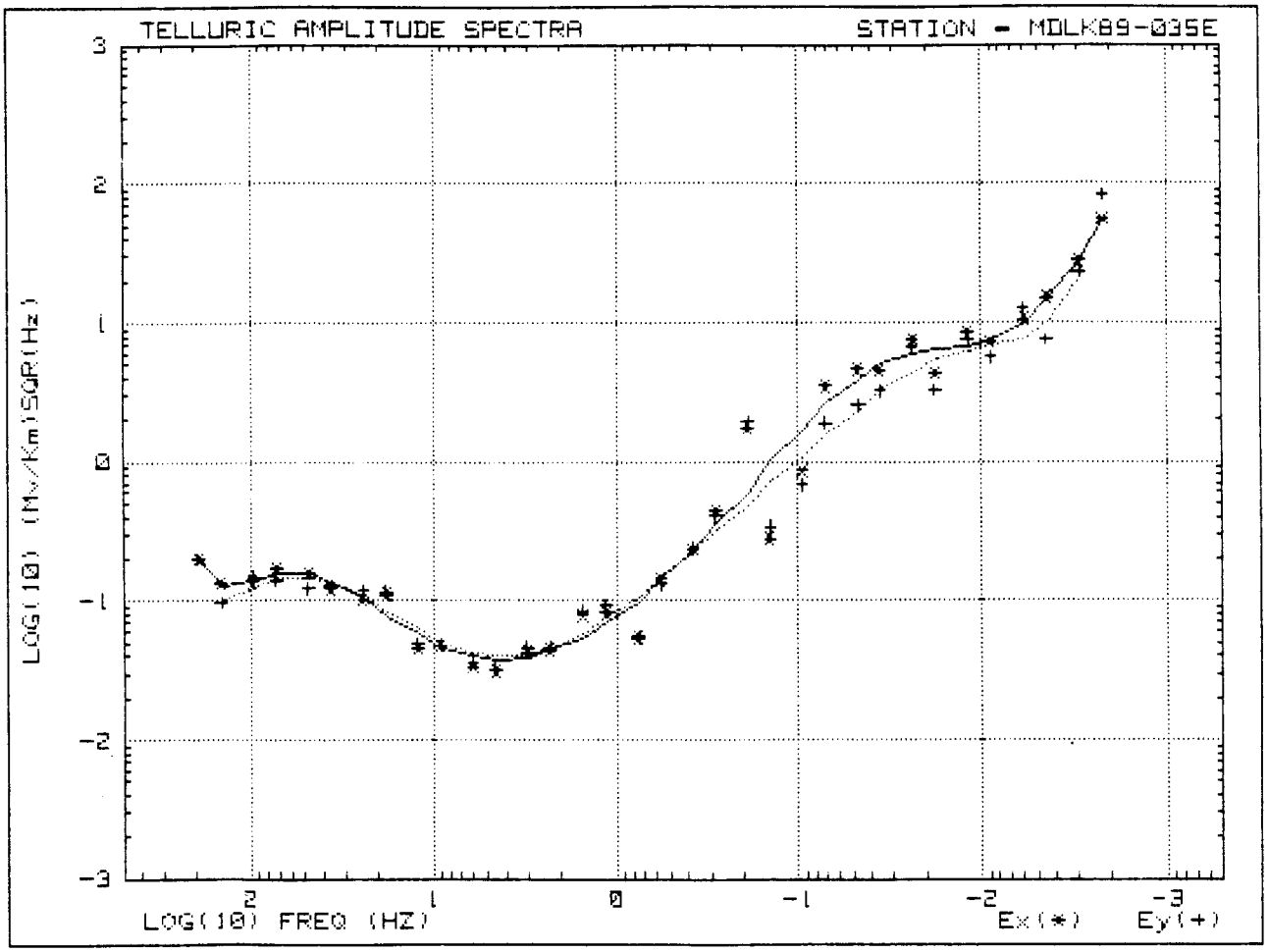
MT Site: MDLK89-035E

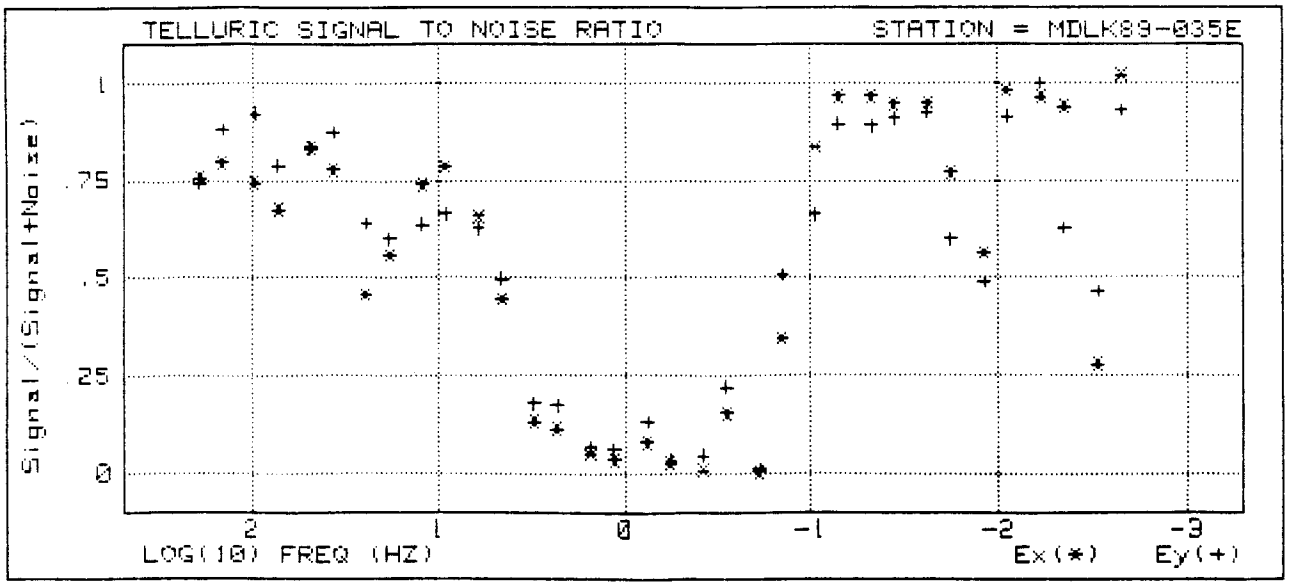
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	185	.84	.79	.90	.82	.74	.80
4	144.00 Hz	94	.90	.92	.95	.96	.86	.84
5	96.00 Hz	96	.86	.95	.97	.94	.93	.72
6	72.00 Hz	96	.84	.89	.93	.90	.87	.78
7	48.00 Hz	95	.88	.88	.94	.92	.84	.84
8	36.00 Hz	95	.86	.92	.95	.89	.91	.79
9	24.00 Hz	95	.64	.80	.93	.85	.80	.61
10	18.00 Hz	95	.73	.76	.93	.90	.74	.69
11	12.00 Hz	288	.85	.79	.84	.74	.77	.68
12	9.00 Hz	288	.88	.81	.85	.76	.77	.65
13	6.00 Hz	192	.81	.78	.82	.62	.71	.52
14	4.50 Hz	384	.66	.70	.75	.67	.59	.43
15	3.00 Hz	3328	.36	.41	.45	.41	.33	.24
16	2.25 Hz	1472	.33	.41	.39	.43	.31	.24
17	1.50 Hz	1472	.21	.23	.28	.30	.08	.11
18	1.13 Hz	2555	.18	.20	.26	.31	.09	.11
19	1.33 Sec	576	.28	.34	.37	.37	.25	.21
20	1.78 Sec	1296	.15	.17	.25	.32	.10	.11
21	2.67 Sec	252	.06	.20	.11	.11	.05	.03
22	3.56 Sec	240	.37	.45	.27	.38	.14	.17
23	5.33 Sec	1408	.08	.07	.33	.37	.06	.04
24	7.11 Sec	60	.59	.71	.80	.85	.68	.54
25	10.67 Sec	150	.91	.81	.92	.91	.79	.88
26	14.22 Sec	423	.98	.94	.94	.94	.92	.92
27	21.33 Sec	198	.98	.94	.92	.94	.92	.93
28	28.44 Sec	156	.97	.95	.94	.88	.94	.85
29	42.67 Sec	210	.97	.96	.96	.85	.95	.79
30	56.89 Sec	246	.87	.77	.77	.80	.74	.78
31	85.33 Sec	114	.74	.69	.77	.67	.65	.60
32	113.78 Sec	9	.99	.95	.95	.81	.92	.59
33	170.67 Sec	3	.98	1.00	.98	.84	.96	.56
34	227.56 Sec	6	.97	.78	.72	.86	.71	.81
35	341.33 Sec	15	.52	.69	.64	.47	.57	.31
36	455.11 Sec	15	.94	.98	.99	.93	.95	.23

PHOENIX GEOSCIENCE

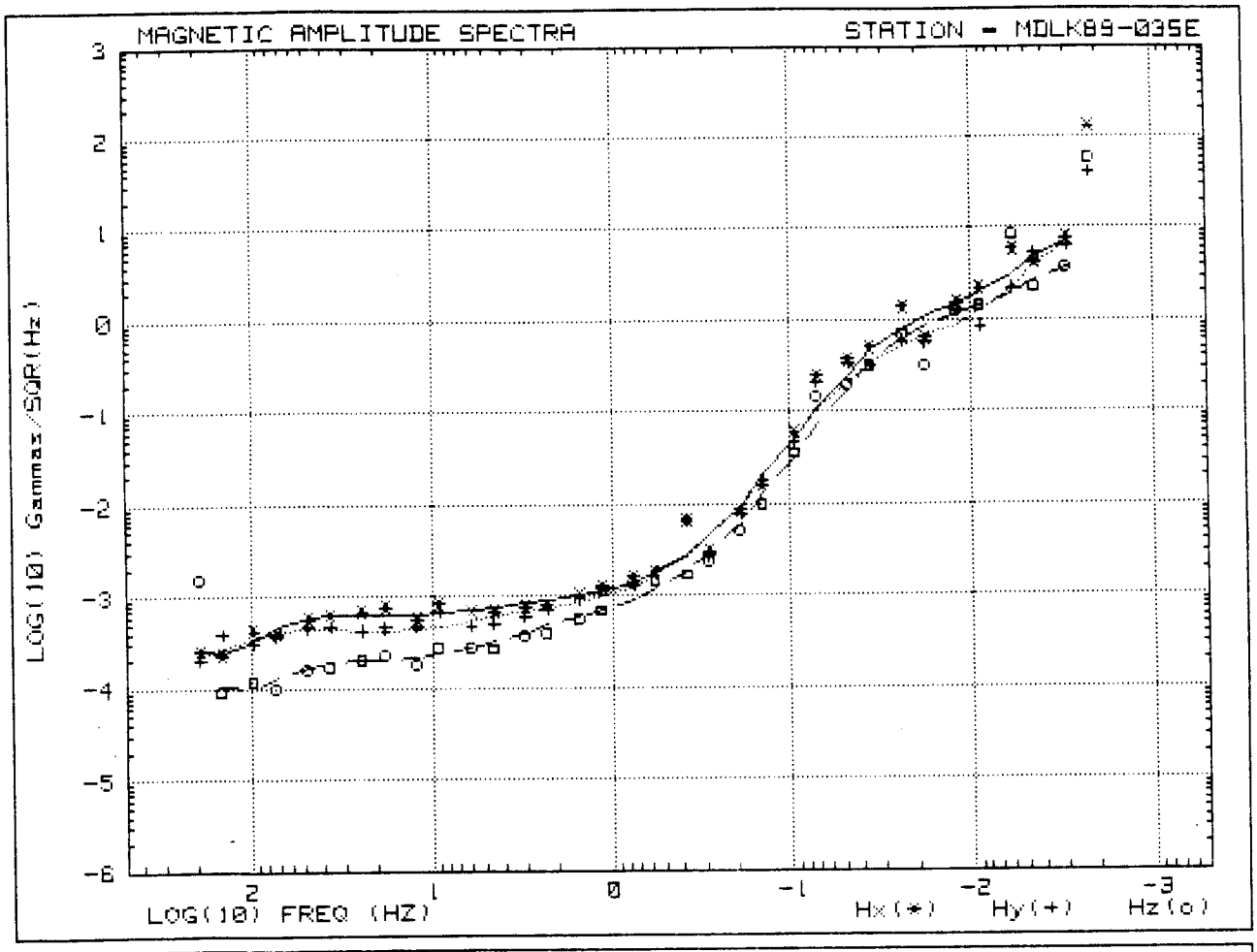
MT Site: MDLK89-035E

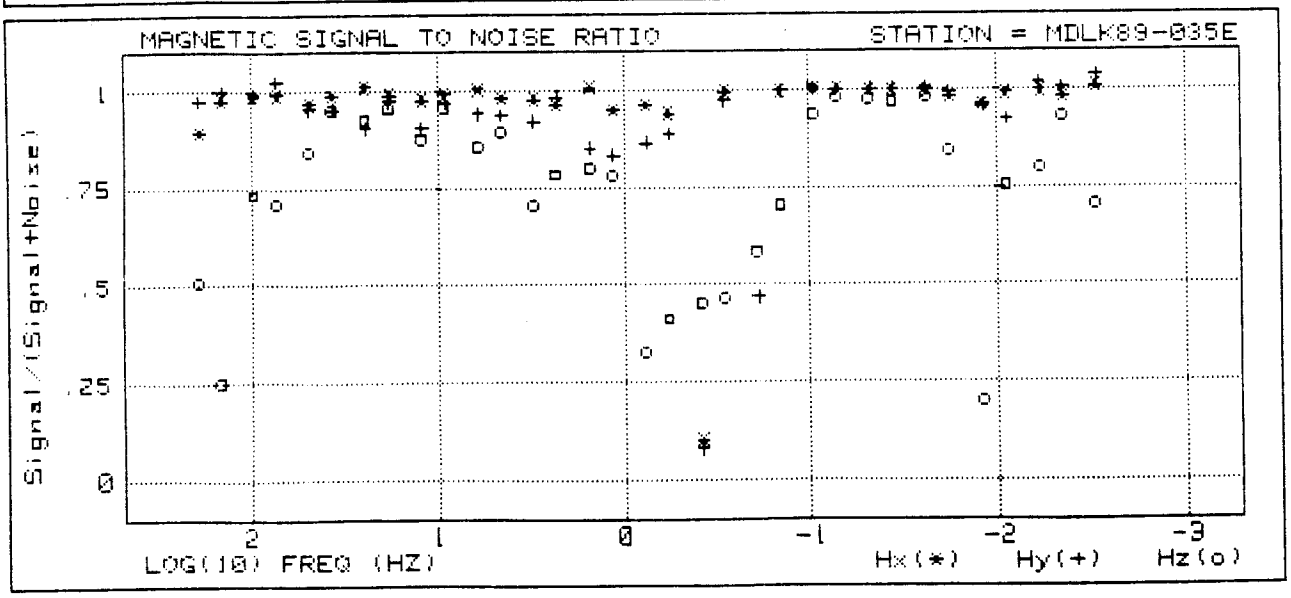




PHOENIX GEOSCIENCE

MT Site: MDLK89-035E





PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	185	2.53E-04	2.03E-04	1.62E-03	1.96E-01	1.96E-01
4	144.00 Hz	94	2.30E-04	3.80E-04	9.52E-05	1.33E-01	9.60E-02
5	96.00 Hz	96	4.17E-04	3.00E-04	1.27E-04	1.36E-01	1.45E-01
6	72.00 Hz	96	3.84E-04	3.65E-04	1.03E-04	1.67E-01	1.40E-01
7	48.00 Hz	95	5.58E-04	4.50E-04	1.67E-04	1.55E-01	1.21E-01
8	36.00 Hz	95	6.21E-04	4.55E-04	1.75E-04	1.20E-01	1.27E-01
9	24.00 Hz	95	6.70E-04	4.11E-04	2.08E-04	9.98E-02	1.15E-01
10	18.00 Hz	95	7.58E-04	4.54E-04	2.39E-04	1.09E-01	1.14E-01
11	12.00 Hz	288	5.54E-04	4.68E-04	1.91E-04	4.48E-02	4.83E-02
12	9.00 Hz	288	8.20E-04	6.55E-04	2.84E-04	4.66E-02	4.75E-02
13	6.00 Hz	192	6.86E-04	4.72E-04	2.85E-04	3.28E-02	3.55E-02
14	4.50 Hz	384	6.71E-04	4.98E-04	2.79E-04	3.08E-02	3.17E-02
15	3.00 Hz	3328	7.56E-04	5.99E-04	3.84E-04	4.21E-02	4.56E-02
16	2.25 Hz	1472	7.92E-04	7.09E-04	4.13E-04	4.40E-02	4.56E-02
17	1.50 Hz	1472	1.02E-03	9.21E-04	5.91E-04	7.79E-02	8.29E-02
18	1.13 Hz	2555	1.25E-03	1.18E-03	7.28E-04	8.05E-02	9.05E-02
19	1.33 Sec	576	1.58E-03	1.30E-03	1.42E-03	5.34E-02	5.45E-02
20	1.78 Sec	1296	1.82E-03	1.76E-03	1.50E-03	1.41E-01	1.30E-01
21	2.67 Sec	252	6.68E-03	6.56E-03	1.79E-03	2.31E-01	2.33E-01
22	3.56 Sec	240	2.99E-03	2.70E-03	2.51E-03	4.37E-01	3.97E-01
23	5.33 Sec	1408	8.36E-03	7.69E-03	5.39E-03	1.71E+00	1.89E+00
24	7.11 Sec	60	1.56E-02	1.72E-02	1.07E-02	2.74E-01	3.37E-01
25	10.67 Sec	150	5.92E-02	4.67E-02	3.77E-02	8.54E-01	6.68E-01
26	14.22 Sec	423	2.48E-01	2.08E-01	1.54E-01	3.43E+00	1.87E+00
27	21.33 Sec	198	3.67E-01	3.39E-01	2.10E-01	4.54E+00	2.52E+00
28	28.44 Sec	156	4.90E-01	3.13E-01	3.36E-01	4.43E+00	3.17E+00
29	42.67 Sec	210	1.36E+00	5.86E-01	7.46E-01	7.47E+00	6.64E+00
30	56.89 Sec	246	6.24E-01	5.58E-01	3.32E-01	4.27E+00	3.23E+00
31	85.33 Sec	114	1.52E+00	1.23E+00	1.32E+00	8.25E+00	7.29E+00
32	113.78 Sec	9	2.17E+00	8.23E-01	1.47E+00	7.13E+00	5.51E+00
33	170.67 Sec	3	5.77E+00	2.16E+00	8.83E+00	1.04E+01	1.23E+01
34	227.56 Sec	6	4.12E+00	5.16E+00	2.35E+00	1.49E+01	7.48E+00
35	341.33 Sec	15	7.57E+00	6.19E+00	3.88E+00	2.73E+01	2.29E+01
36	455.11 Sec	15	1.28E+02	3.97E+01	6.14E+01	5.49E+01	8.18E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	185	.892	.972	.515	.755	.740
4	144.00 Hz	94	.974	.996	.256	.795	.878
5	96.00 Hz	96	.986	.990	.738	.742	.918
6	72.00 Hz	96	.989	1.000	.718	.673	.786
7	48.00 Hz	95	.965	.951	.847	.833	.829
8	36.00 Hz	95	.986	.950	.953	.776	.872
9	24.00 Hz	95	1.000	.900	.931	.457	.639
10	18.00 Hz	95	.987	.970	.959	.557	.599
11	12.00 Hz	288	.975	.904	.882	.737	.636
12	9.00 Hz	288	.990	.969	.959	.784	.662
13	6.00 Hz	192	1.000	.939	.862	.657	.624
14	4.50 Hz	384	.979	.936	.898	.443	.497
15	3.00 Hz	3328	.975	.919	.709	.131	.178
16	2.25 Hz	1472	.960	.980	.788	.111	.172
17	1.50 Hz	1472	1.000	.848	.805	.047	.067
18	1.13 Hz	2555	.948	.829	.785	.031	.060
19	1.33 Sec	576	.960	.861	.331	.076	.129
20	1.78 Sec	1296	.936	.884	.416	.024	.031
21	2.67 Sec	252	.099	.076	.457	.005	.044
22	3.56 Sec	240	.994	.971	.468	.152	.220
23	5.33 Sec	1408	1.000	.468	.592	.002	.009
24	7.11 Sec	60	.996	.996	.709	.343	.507
25	10.67 Sec	150	1.000	1.000	.943	.835	.662
26	14.22 Sec	423	.999	.999	.985	.964	.893
27	21.33 Sec	198	.999	1.000	.978	.964	.888
28	28.44 Sec	156	.998	1.000	.976	.946	.908
29	42.67 Sec	210	.996	1.000	.986	.947	.925
30	56.89 Sec	246	.982	.989	.848	.768	.600
31	85.33 Sec	114	.959	.956	.204	.564	.489
32	113.78 Sec	9	.989	.922	.761	.978	.912
33	170.67 Sec	3	.995	1.000	.804	.961	.999
34	227.56 Sec	6	.978	1.000	.935	.937	.625
35	341.33 Sec	15	1.000	1.000	.710	.276	.462
36	455.11 Sec	15	1.000	1.000	1.000	1.000	.930

PHOENIX GEOSCIENCE

MT Site: MDLK89-035E

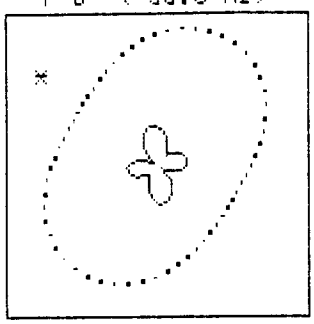
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

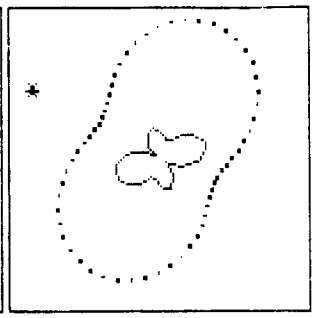
*=Rotation Direction

Zxy = ...
Zxx = ___

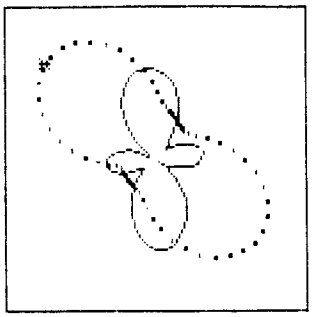
F=8 (36.0 Hz)



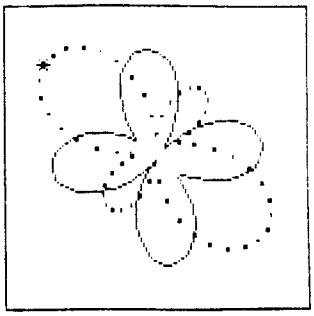
F=10 (18.0 Hz)



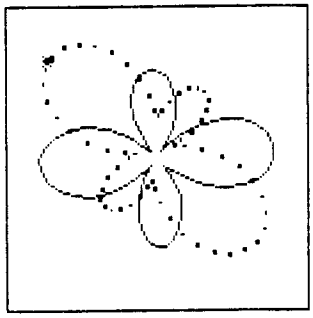
F=12 (9.0 Hz)



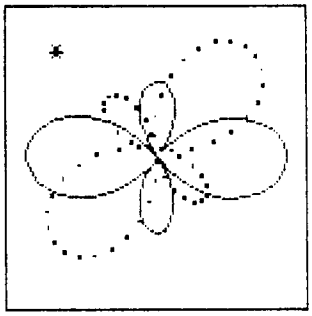
F=14 (4.5 Hz)



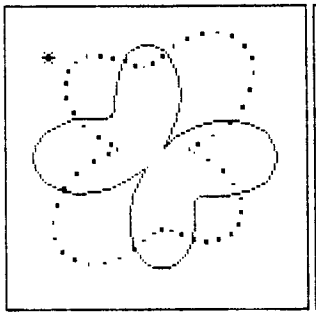
F=16 (2.3 Hz)



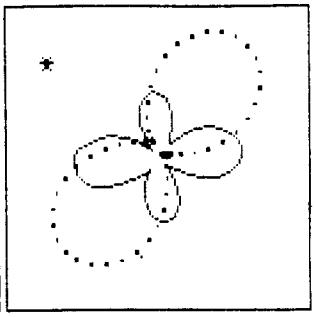
F=18 (1.1 Hz)



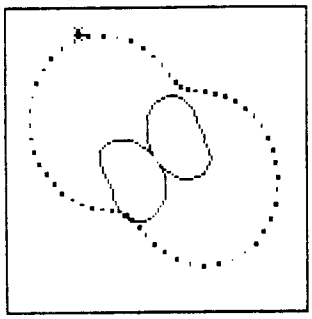
F=20 (.5625 Hz)



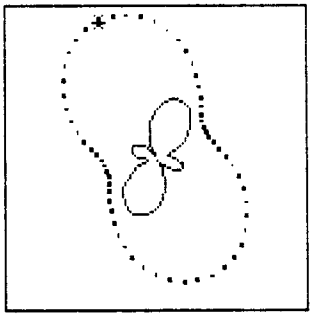
F=22 (.2813 Hz)



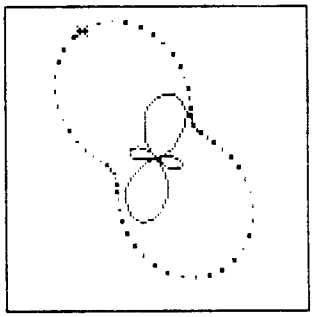
F=24 (.1406 Hz)



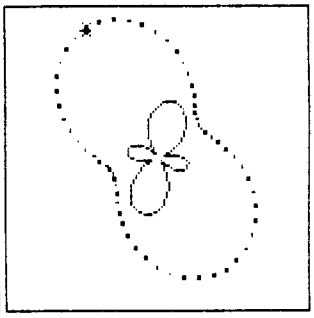
F=26 (.0703 Hz)



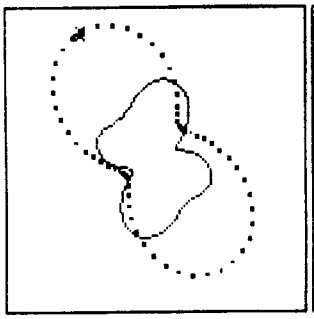
F=28 (.0352 Hz)



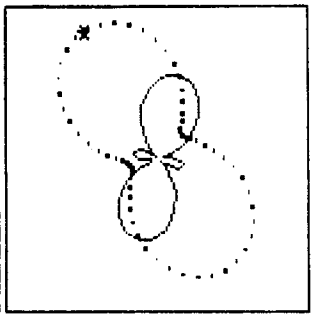
F=30 (.0176 Hz)



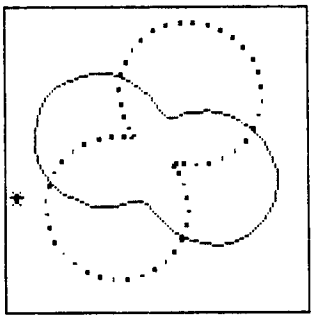
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-036s/035s/

Operator:M. SNOW
Date: 4 Sep 1989
Time: 15:07:33

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#210-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#431-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-036s
Site Desc:T44N R3E SEC36 SW4
41,36,40 N 121,34,27 W
Elevation:6850 FT
Reference:MDLK89-035s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: ELDRIDGE
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL210	+10 DEG
Hy	2	COIL430	+100 DEG
Hz	3	LOOP005	
Ex	4	165 M	+10 DEG
Ey	5	180 M	+100 DEG
Rx	6	COIL431	+45 DEG
Ry	7	COIL432	+135 DEG

Ex Pot Resist: 14.0K Ohms
Ex Voltage: AC=13.7 mv, DC=196.0 mv
Ey Pot Resist: 27.0K Ohms
Ey Voltage: AC=5.40 mv, DC=28.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

OPERATOR LOG FOR MT SITES MDLK89-036s/035s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-036a/035a/		
Run STARTED:	15:07:33	4 Sep 1989
Run QUIT:	00:32:26	5 Sep 1989
Run Start and Stop Time for MDLK89-036b/035b/		
Run STARTED:	00:57:31	5 Sep 1989
Run QUIT:	08:39:08	5 Sep 1989
Run Start and Stop Time for MDLK89-036c/035c/		
Run STARTED:	12:48:03	5 Sep 1989
Run QUIT:	01:53:29	6 Sep 1989
Run Start and Stop Time for MDLK89-036d/035d/		
Run STARTED:	02:21:01	6 Sep 1989
Run QUIT:	11:22:49	6 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR NIGHT WITH SLIGHT BREEZE
Other Factors:
NONE

PHOENIX GEOSCIENCE

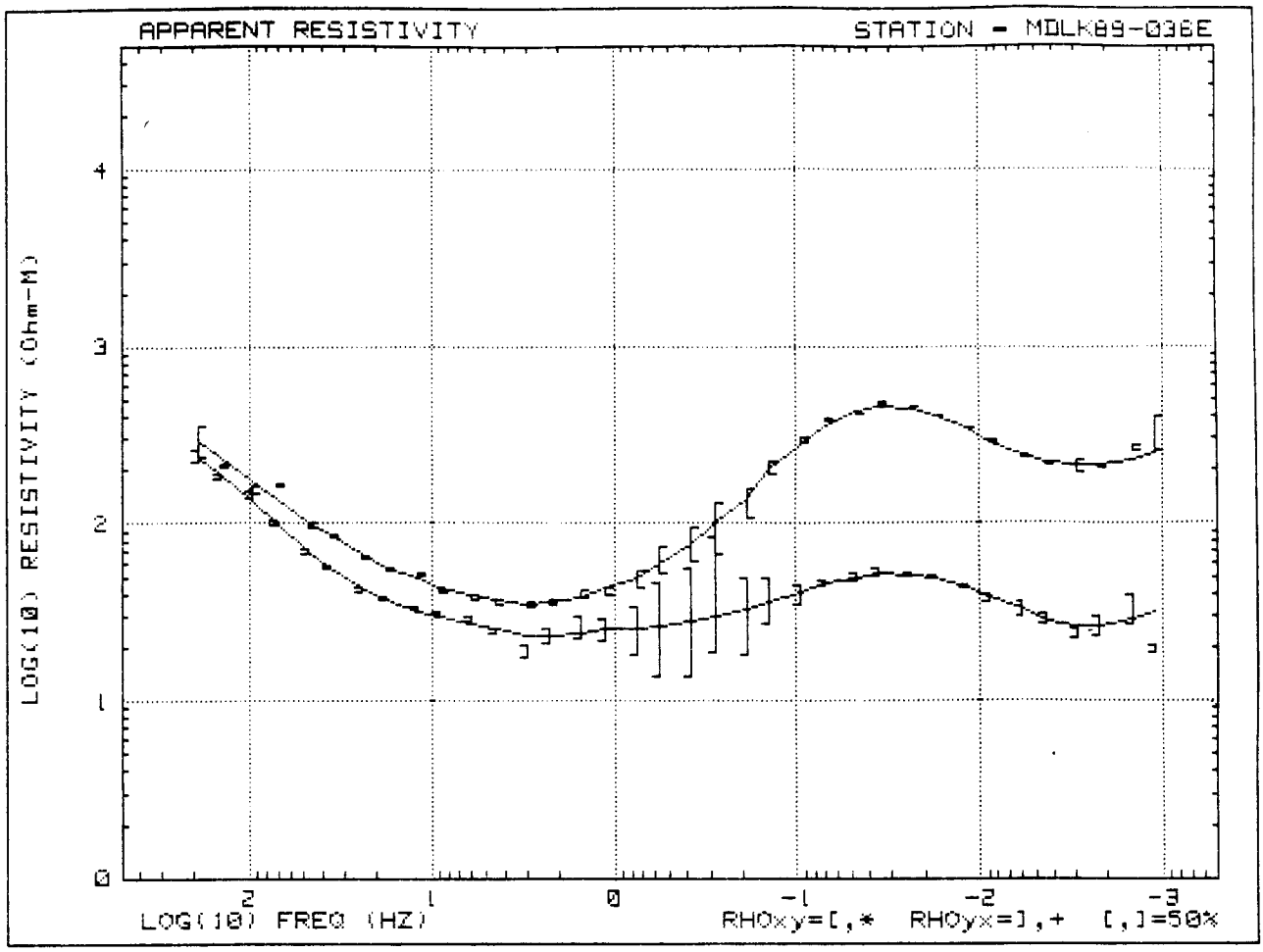
MT Site: MDLK89-036E

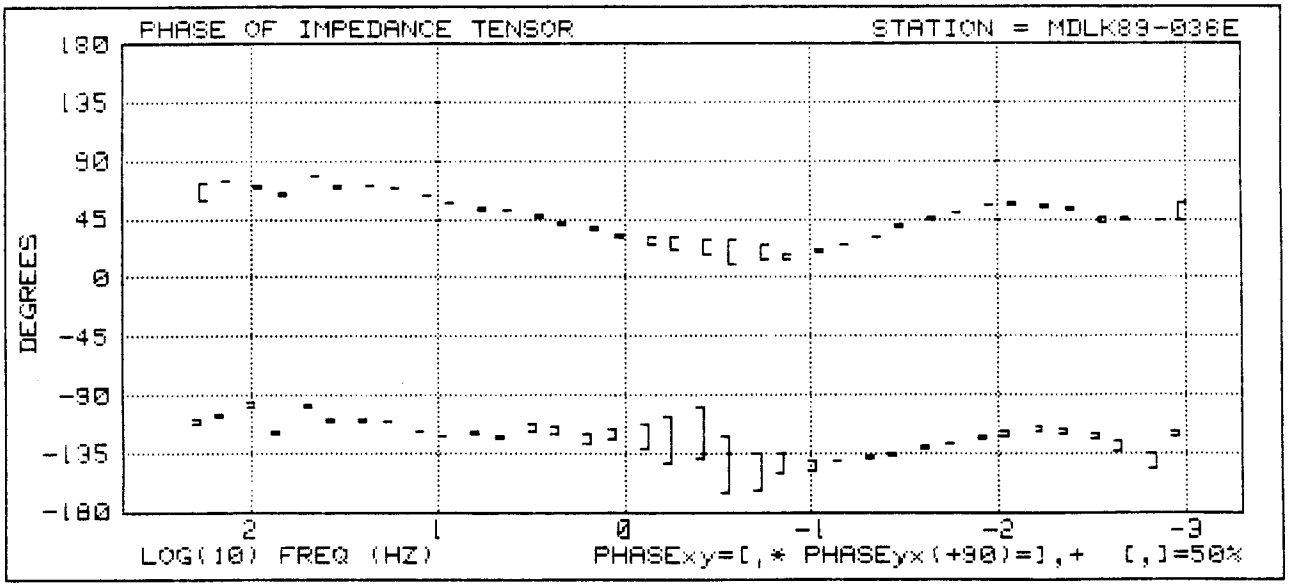
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

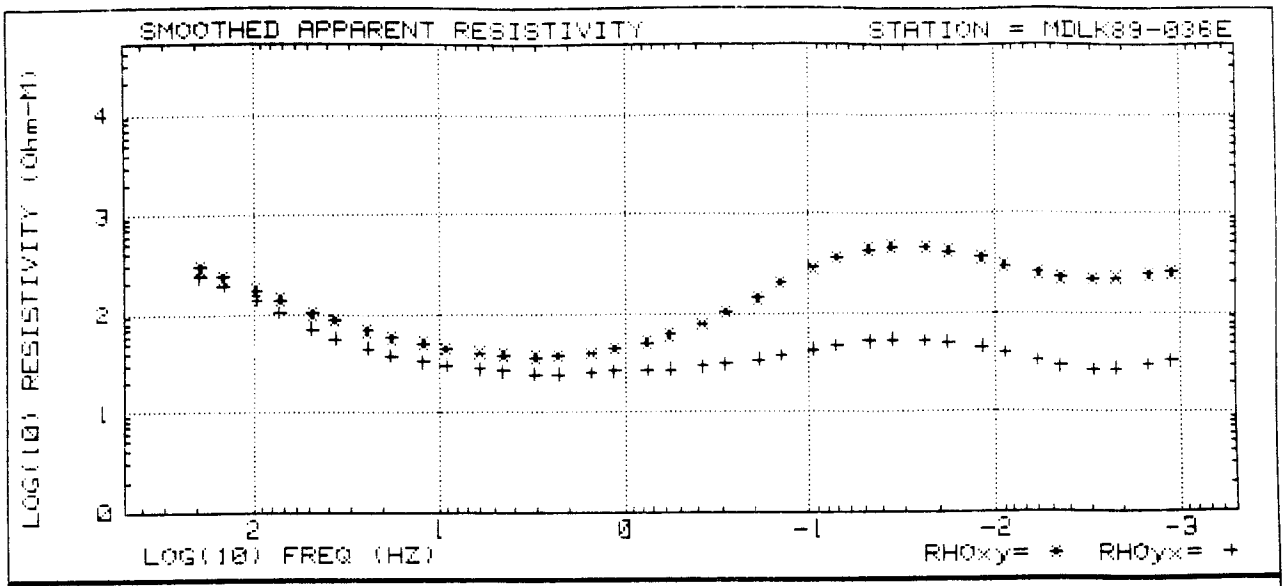
MT Site: MDLK89-036E

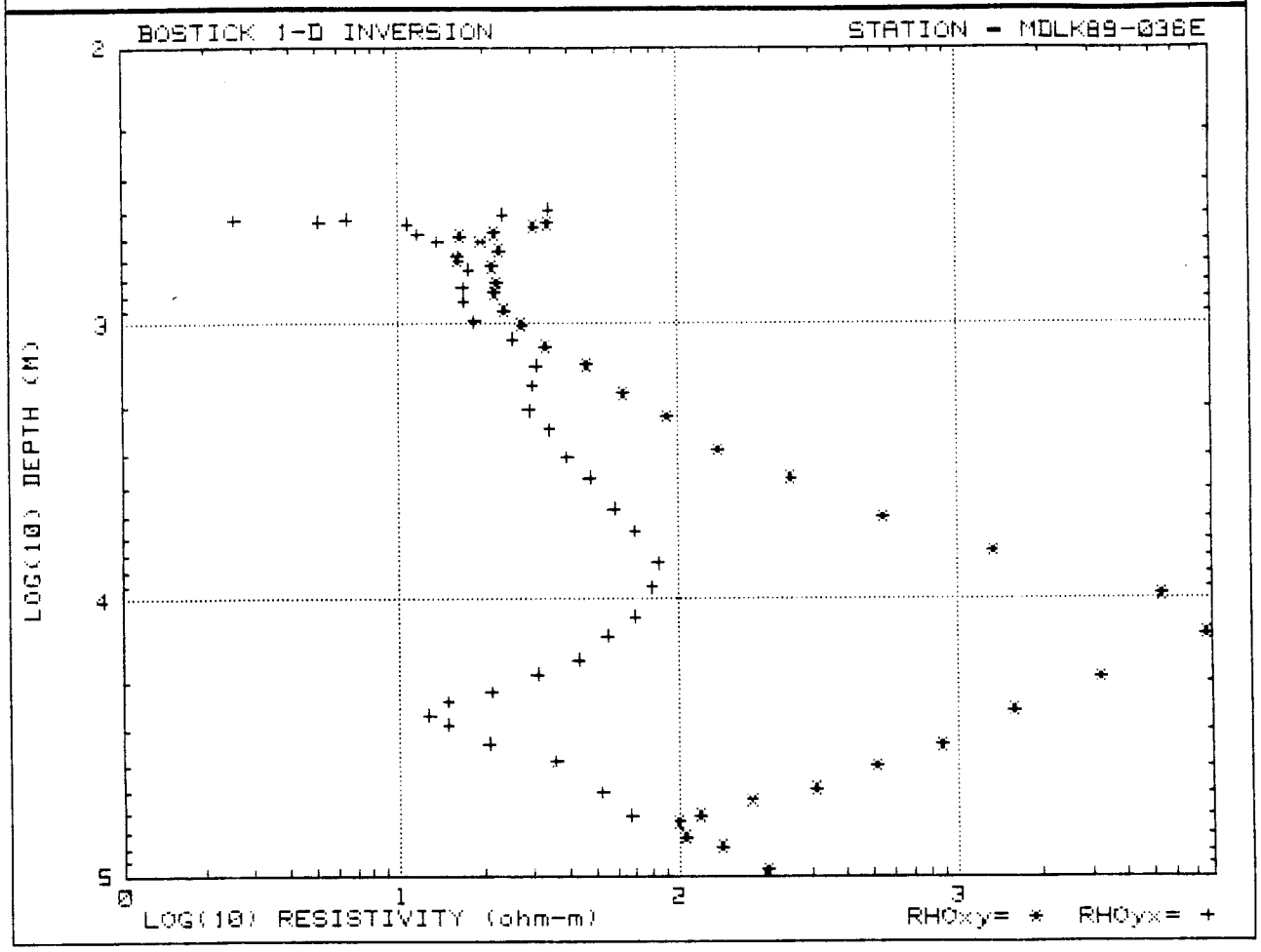




PHOENIX GEOSCIENCE

MT Site: MDLK89-036E





PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	655	288.1	37.9	238.1	13.5	65.5	9.2	-110.6	3.6
4	144.00 Hz	464	213.9	2.0	183.7	5.4	74.4	.6	-106.3	1.5
5	96.00 Hz	190	153.9	5.6	143.5	7.5	70.5	1.6	-97.2	2.1
6	72.00 Hz	1048	164.6	3.5	102.1	4.6	63.8	1.0	-118.5	1.3
7	48.00 Hz	953	98.1	3.5	69.3	3.8	78.1	1.0	-97.6	1.1
8	36.00 Hz	664	85.2	2.8	56.3	3.3	70.2	.8	-109.2	.9
9	24.00 Hz	863	65.0	2.6	42.2	3.3	70.7	.7	-109.1	.9
10	18.00 Hz	479	54.6	2.7	38.1	3.4	69.1	.8	-110.4	1.0
11	12.00 Hz	1632	51.8	1.7	33.5	2.5	62.9	.5	-118.5	.7
12	9.00 Hz	1152	41.8	1.6	31.3	2.2	57.9	.5	-121.7	.6
13	6.00 Hz	1152	38.6	3.0	28.7	4.1	52.8	.8	-118.5	1.2
14	4.50 Hz	1824	36.2	2.9	25.0	4.9	51.5	.8	-122.6	1.4
15	3.00 Hz	2976	34.8	5.4	19.1	11.6	48.0	1.5	-115.1	3.1
16	2.25 Hz	6688	36.4	4.3	23.3	15.6	41.8	1.2	-116.6	4.2
17	1.50 Hz	3760	40.5	6.7	26.0	22.1	37.2	1.9	-123.9	5.7
18	1.13 Hz	6016	41.5	5.9	25.2	23.4	32.6	1.6	-119.7	6.0
19	1.33 Sec	4229	49.1	17.7	24.8	62.2	28.0	4.7	-122.4	13.8
20	1.78 Sec	2912	62.6	27.3	25.3	99.9	26.8	6.9	-124.7	25.5
21	2.67 Sec	2396	76.0	39.0	27.8	99.9	23.3	9.4	-119.9	29.6
22	3.56 Sec	2336	93.9	62.3	39.6	99.9	19.5	13.9	-142.8	32.4
23	5.33 Sec	756	129.6	31.3	29.8	99.9	19.4	7.8	-149.8	21.5
24	7.11 Sec	396	202.6	11.9	36.9	54.0	15.5	3.2	-142.7	12.4
25	10.67 Sec	693	292.4	5.9	39.8	22.1	21.1	1.6	-144.2	5.7
26	14.22 Sec	555	382.7	1.6	46.6	3.3	25.5	.4	-141.0	.9
27	21.33 Sec	297	411.6	1.3	50.2	5.6	31.3	.4	-138.5	1.6
28	28.44 Sec	285	476.1	2.2	53.2	6.1	39.4	.6	-135.6	1.7
29	42.67 Sec	213	452.8	1.5	51.6	3.2	45.5	.4	-130.7	.9
30	56.89 Sec	72	403.0	1.1	49.7	1.6	50.4	.3	-127.3	.5
31	85.33 Sec	36	342.5	1.2	44.2	4.2	55.3	.3	-123.3	1.2
32	113.78 Sec	105	291.3	1.9	37.8	9.1	56.4	.5	-120.0	2.5
33	170.67 Sec	24	240.1	3.4	33.2	14.2	54.3	1.0	-116.2	3.8
34	227.56 Sec	36	217.9	2.8	29.0	11.1	52.4	.8	-118.1	3.0
35	341.33 Sec	6	209.8	12.7	23.9	8.9	44.3	3.4	-121.6	2.5
36	455.11 Sec	12	211.1	3.8	26.2	19.4	45.6	1.1	-129.4	5.1
37	682.67 Sec	3	267.2	2.9	32.8	31.3	44.3	.8	-140.3	7.8
38	910.22 Sec	3	317.5	38.6	19.4	7.7	50.5	9.3	-119.6	2.1

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	655	292.1	233.6	34.4	439	34.6	393
4	144.00 Hz	464	232.8	188.7	30.6	452	23.6	407
5	96.00 Hz	190	171.6	136.2	22.2	476	6.5	424
6	72.00 Hz	1048	136.4	100.5	16.7	490	2.6	428
7	48.00 Hz	953	99.9	70.0	19.8	513	5.2	432
8	36.00 Hz	664	85.8	55.3	23.0	549	10.8	441
9	24.00 Hz	863	66.9	43.9	16.5	594	11.8	481
10	18.00 Hz	479	56.4	37.1	21.5	630	13.9	511
11	12.00 Hz	1632	49.1	32.0	22.7	720	16.4	581
12	9.00 Hz	1152	43.7	29.6	22.2	784	17.9	646
13	6.00 Hz	1152	39.2	27.0	24.0	909	17.1	754
14	4.50 Hz	1824	37.0	25.4	27.7	1020	17.2	845
15	3.00 Hz	2976	35.4	23.6	33.5	1223	18.8	998
16	2.25 Hz	6688	36.3	23.5	47.0	1429	25.7	1149
17	1.50 Hz	3760	38.8	24.4	63.9	1809	31.1	1435
18	1.13 Hz	6016	43.0	25.5	91.2	2200	30.2	1694
19	1.33 Sec	4229	49.7	25.8	139.0	2897	29.3	2089
20	1.78 Sec	2912	59.7	26.6	257.1	3666	34.8	2449
21	2.67 Sec	2396	76.6	28.3	545.9	5085	40.1	3092
22	3.56 Sec	2336	100.7	30.0	1340.3	6733	48.6	3677
23	5.33 Sec	756	139.0	33.3	5420.4	9689	59.1	4746
24	7.11 Sec	396	198.7	36.4	7749.1	13377	69.8	5727
25	10.67 Sec	693	275.5	41.5	3275.6	19293	84.8	7485
26	14.22 Sec	555	356.9	46.2	1591.0	25354	80.7	9123
27	21.33 Sec	297	427.5	50.1	884.7	33985	70.0	11631
28	28.44 Sec	285	454.4	51.8	512.1	40458	55.9	13666
29	42.67 Sec	213	445.5	51.4	313.2	49067	43.8	16665
30	56.89 Sec	72	402.6	49.0	183.4	53859	31.1	18798
31	85.33 Sec	36	343.8	44.0	119.7	60955	21.3	21808
32	113.78 Sec	105	288.0	38.5	100.1	64418	14.9	23561
33	170.67 Sec	24	245.8	32.4	105.9	72892	12.8	26466
34	227.56 Sec	36	218.6	28.5	141.8	79368	14.9	28658
35	341.33 Sec	6	212.1	26.1	208.3	95753	20.8	33576
36	455.11 Sec	12	217.2	26.4	279.8	111898	36.4	38982
37	682.67 Sec	3	231.4	29.1	343.9	141458	53.1	50189
38	910.22 Sec	3	248.8	32.3	415.3	169341	67.9	60995

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	655	39.54	64.57	999.99	217.73	478.76	999.99
4	144.00 Hz	464	1.51	41.21	269.47	105.81	377.89	30.78
5	96.00 Hz	190	-3.36	34.45	304.37	90.72	256.18	110.31
6	72.00 Hz	1048	9.42	18.32	110.84	107.45	218.43	34.60
7	48.00 Hz	953	2.21	16.06	24.41	31.73	150.15	13.79
8	36.00 Hz	664	4.78	11.14	9.63	41.94	116.51	5.66
9	24.00 Hz	863	5.84	6.39	4.69	29.19	83.33	2.59
10	18.00 Hz	479	7.03	5.44	3.63	24.99	65.46	1.72
11	12.00 Hz	1632	3.60	4.15	.57	25.38	49.65	.43
12	9.00 Hz	1152	5.01	3.13	.26	23.07	36.71	.24
13	6.00 Hz	1152	1.93	4.67	1.36	20.56	27.10	.49
14	4.50 Hz	1824	2.57	2.45	1.31	17.75	22.35	.33
15	3.00 Hz	2976	1.02	1.96	1.58	15.29	16.97	.72
16	2.25 Hz	6688	.95	2.70	1.18	15.10	13.49	.36
17	1.50 Hz	3760	1.21	2.28	1.28	13.90	10.53	.65
18	1.13 Hz	6016	.87	1.64	1.00	12.86	8.23	.39
19	1.33 Sec	4229	1.102	1.724	5.512	11.974	6.371	2.438
20	1.78 Sec	2912	.910	.122	12.268	11.839	5.987	5.133
21	2.67 Sec	2396	1.586	.539	15.342	10.969	4.715	7.718
22	3.56 Sec	2336	1.540	.112	15.730	10.829	3.838	15.480
23	5.33 Sec	756	1.788	-.424	3.252	10.397	3.666	4.519
24	7.11 Sec	396	1.760	-.301	.986	11.501	3.191	.904
25	10.67 Sec	693	2.058	.211	.391	10.920	4.221	.223
26	14.22 Sec	555	1.754	.816	.017	10.472	4.990	.017
27	21.33 Sec	297	1.569	.633	.019	8.389	5.107	.008
28	28.44 Sec	285	1.514	.903	.026	7.074	5.802	.020
29	42.67 Sec	213	.919	1.051	.004	5.105	5.196	.006
30	56.89 Sec	72	.756	.866	.001	3.790	4.589	.002
31	85.33 Sec	36	.553	.639	.002	2.547	3.685	.001
32	113.78 Sec	105	.423	.545	.005	1.981	2.979	.002
33	170.67 Sec	24	.349	.402	.006	1.549	2.153	.004
34	227.56 Sec	36	.249	.314	.003	1.336	1.733	.002
35	341.33 Sec	6	.237	.280	.010	1.255	1.225	.022
36	455.11 Sec	12	.182	.294	.005	1.066	1.087	.002
37	682.67 Sec	3	.247	.258	.000	1.002	.976	.001
38	910.22 Sec	3	.189	.063	.023	.840	1.019	.093

PHOENIX GEOSCIENCE

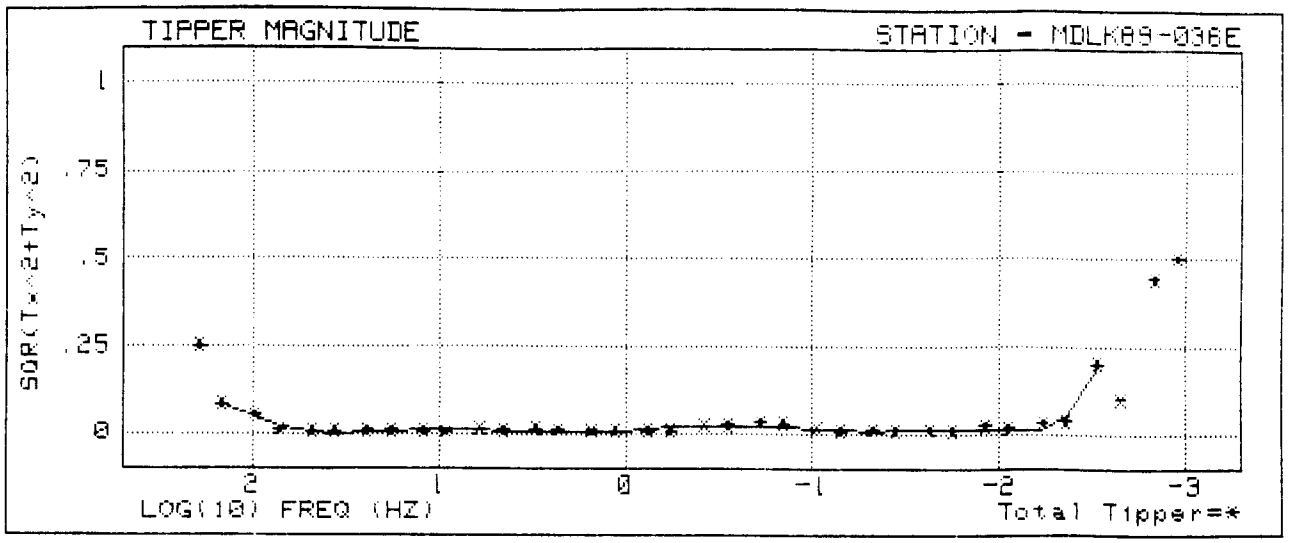
MT Site: MDLK89-036E

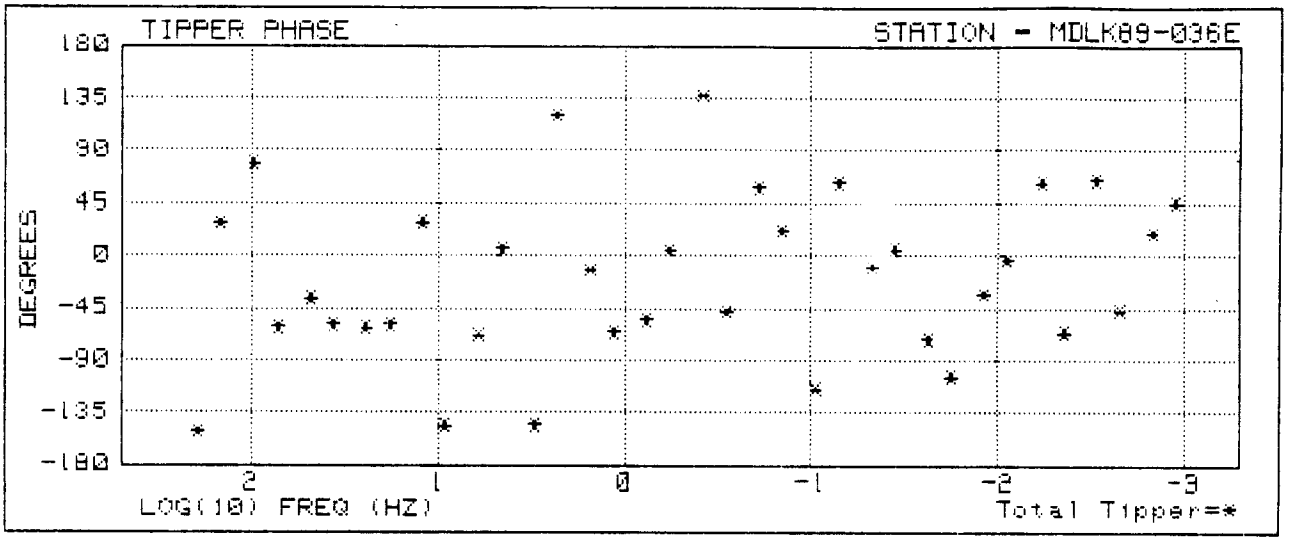
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

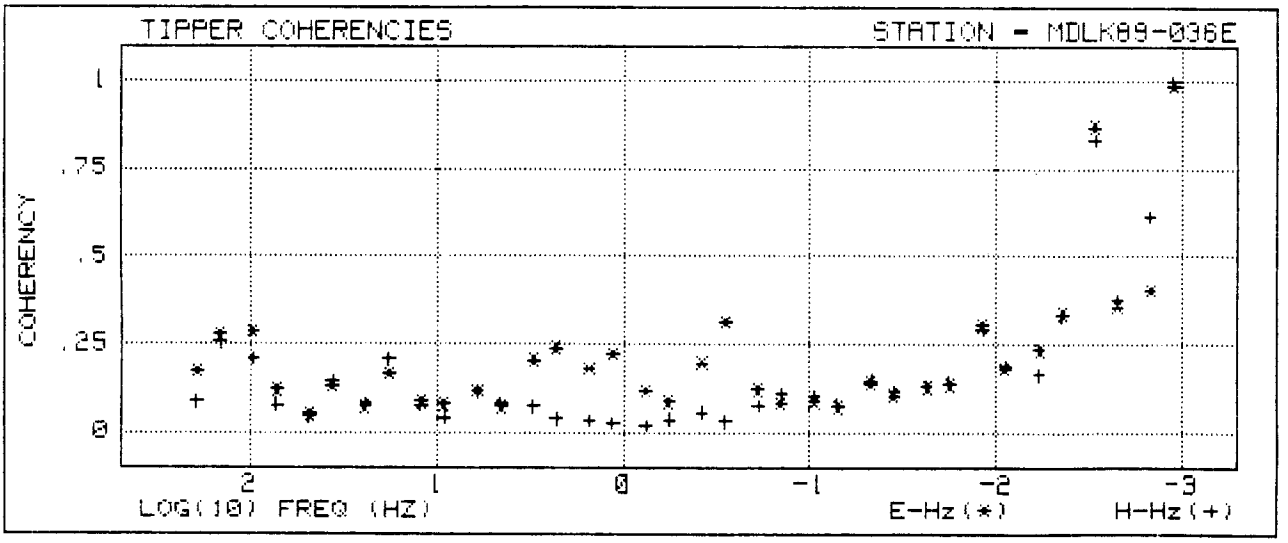
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	655	-168.53	-447.46	999.99	45.50	55.20	999.99
4	144.00 Hz	464	-102.27	-349.04	185.64	18.72	39.10	21.20
5	96.00 Hz	190	-32.95	-260.39	181.21	-2.61	44.74	65.67
6	72.00 Hz	1048	-91.55	-168.46	37.58	16.81	15.97	11.73
7	48.00 Hz	953	-16.97	-127.82	11.75	5.25	14.05	6.64
8	36.00 Hz	664	-33.19	-95.04	5.24	4.99	11.06	3.08
9	24.00 Hz	863	-23.29	-67.27	2.71	2.85	7.49	1.49
10	18.00 Hz	479	-20.37	-54.86	1.96	.58	8.25	.93
11	12.00 Hz	1632	-21.36	-39.40	.62	2.57	4.55	.47
12	9.00 Hz	1152	-19.72	-31.90	.34	3.86	3.93	.32
13	6.00 Hz	1152	-14.02	-25.80	.71	2.16	3.48	.25
14	4.50 Hz	1824	-12.76	-19.98	.65	2.47	2.66	.16
15	3.00 Hz	2976	-7.17	-15.33	1.73	1.09	1.64	.79
16	2.25 Hz	6688	-7.25	-14.49	2.77	.85	1.91	.86
17	1.50 Hz	3760	-7.80	-11.59	3.91	1.00	1.04	1.98
18	1.13 Hz	6016	-5.90	-10.33	3.14	.64	.90	1.21
19	1.33 Sec	4229	-5.160	-8.137	10.847	.837	.702	4.799
20	1.78 Sec	2912	-4.803	-6.926	28.249	.843	-.382	11.819
21	2.67 Sec	2396	-3.605	-6.259	27.917	1.281	-.913	14.043
22	3.56 Sec	2336	-5.937	-4.513	35.679	1.537	.086	35.112
23	5.33 Sec	756	-4.566	-2.662	7.899	1.848	-.770	10.978
24	7.11 Sec	396	-4.052	-3.088	2.421	1.742	1.017	2.218
25	10.67 Sec	693	-3.503	-2.528	.373	2.005	.440	.213
26	14.22 Sec	555	-3.145	-2.549	.008	1.763	.787	.008
27	21.33 Sec	297	-2.569	-2.275	.017	1.518	.737	.007
28	28.44 Sec	285	-2.185	-2.138	.016	1.528	.884	.012
29	42.67 Sec	213	-1.605	-1.863	.003	1.103	.857	.005
30	56.89 Sec	72	-1.266	-1.663	.001	.867	.770	.001
31	85.33 Sec	36	-.883	-1.344	.002	.578	.621	.002
32	113.78 Sec	105	-.645	-1.116	.006	.464	.515	.003
33	170.67 Sec	24	-.435	-.885	.009	.383	.372	.005
34	227.56 Sec	36	-.376	-.705	.004	.312	.256	.002
35	341.33 Sec	6	-.310	-.504	.001	.278	.227	.003
36	455.11 Sec	12	-.341	-.414	.005	.247	.224	.002
37	682.67 Sec	3	-.377	-.313	.009	.189	.313	.031
38	910.22 Sec	3	-.161	-.284	.000	.059	.183	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E







PHOENIX GEOSCIENCE

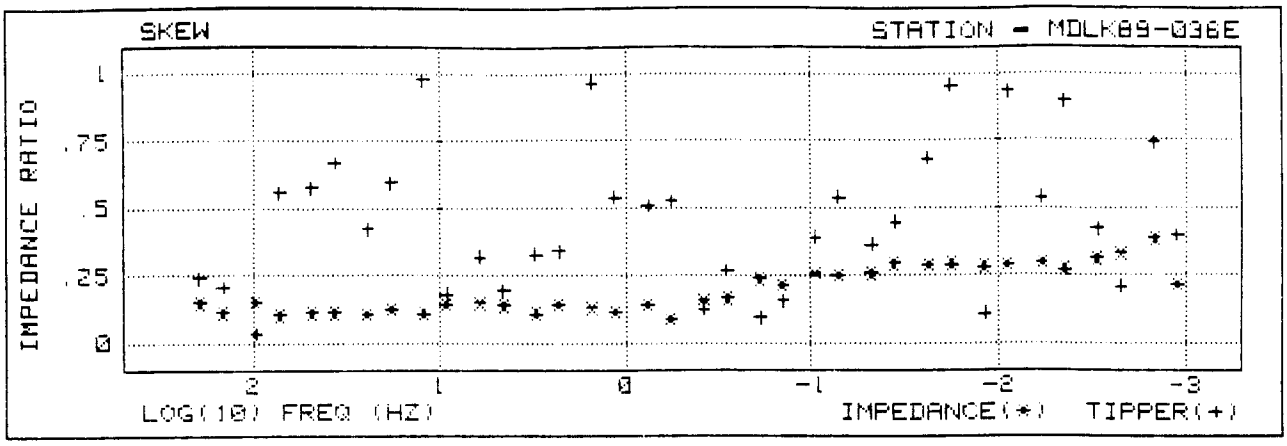
MT Site: MDLK89-036E

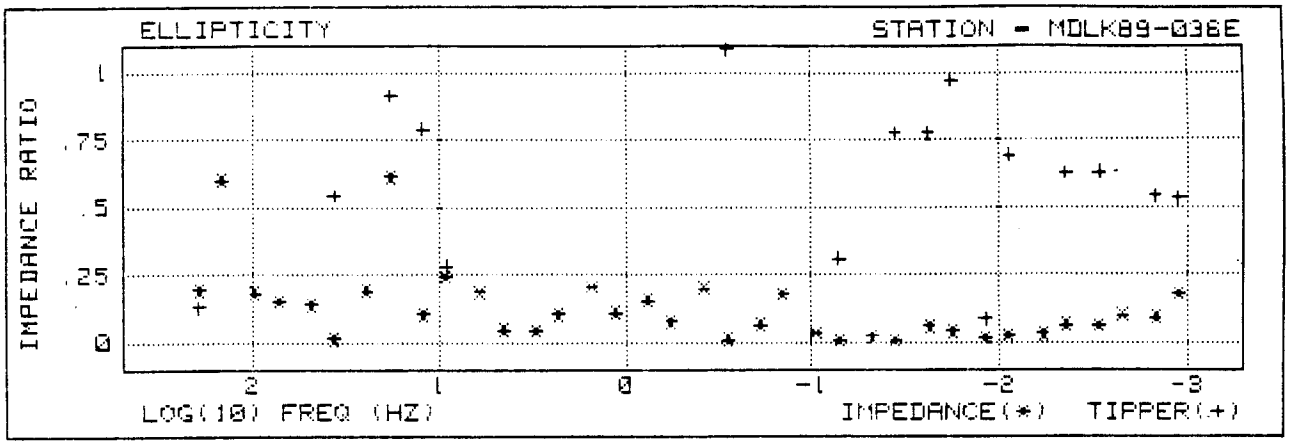
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

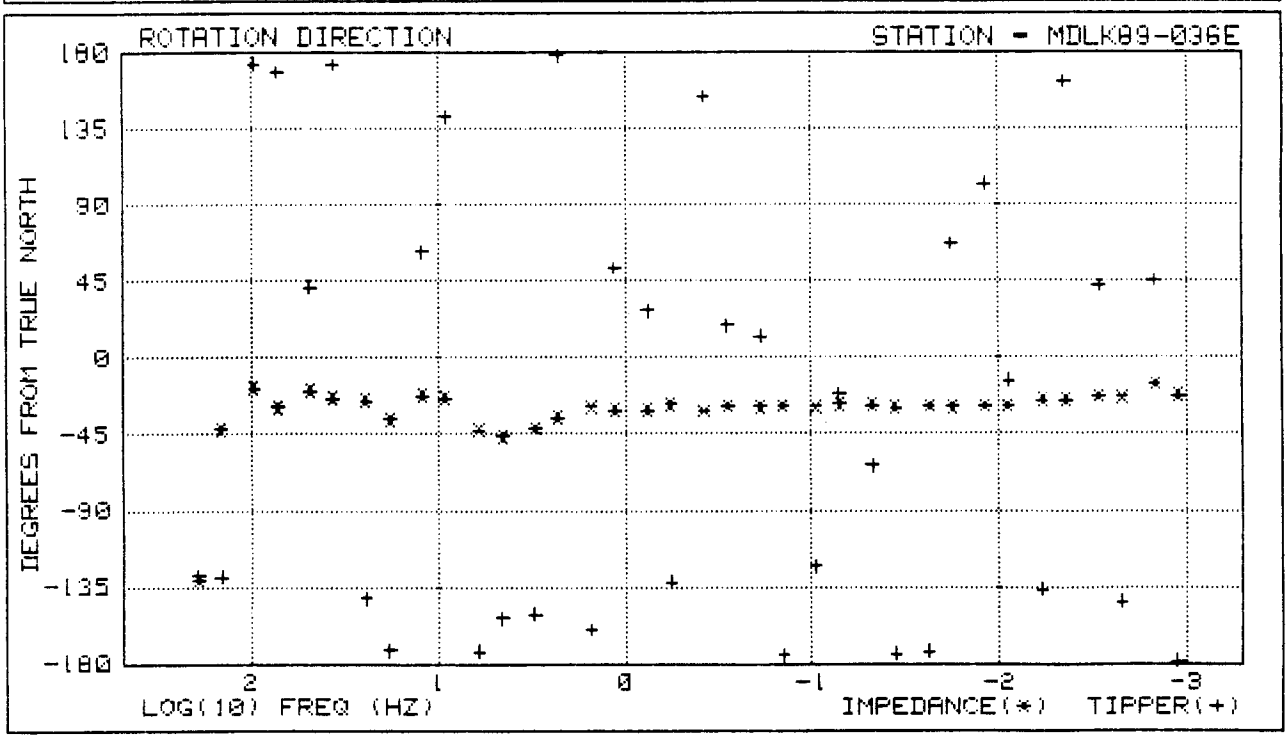
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	655	.25	-151.53	.17	.08
4	144.00 Hz	464	.08	27.06	.27	.25
5	96.00 Hz	190	.05	78.39	.28	.20
6	72.00 Hz	1048	.01	-61.93	.12	.07
7	48.00 Hz	953	.00	-37.25	.05	.04
8	36.00 Hz	664	.00	-59.75	.13	.14
9	24.00 Hz	863	.00	-62.92	.07	.08
10	18.00 Hz	479	.01	-59.75	.16	.20
11	12.00 Hz	1632	.00	27.66	.08	.07
12	9.00 Hz	1152	.00	-146.71	.08	.04
13	6.00 Hz	1152	.01	-68.80	.11	.11
14	4.50 Hz	1824	.01	5.15	.07	.08
15	3.00 Hz	2976	.01	-146.02	.20	.07
16	2.25 Hz	6688	.01	119.52	.24	.03
17	1.50 Hz	3760	.00	-13.04	.18	.03
18	1.13 Hz	6016	.00	-66.33	.22	.02
19	1.33 Sec	4229	.00	-55.53	.11	.01
20	1.78 Sec	2912	.00	3.46	.08	.03
21	2.67 Sec	2396	.02	136.54	.19	.05
22	3.56 Sec	2336	.02	-49.01	.31	.03
23	5.33 Sec	756	.03	57.62	.12	.07
24	7.11 Sec	396	.02	20.42	.08	.10
25	10.67 Sec	693	.01	-115.19	.08	.10
26	14.22 Sec	555	.00	61.79	.07	.07
27	21.33 Sec	297	.01	-10.76	.14	.14
28	28.44 Sec	285	.01	4.44	.10	.11
29	42.67 Sec	213	.01	-72.92	.12	.13
30	56.89 Sec	72	.01	-105.18	.13	.14
31	85.33 Sec	36	.02	-33.95	.30	.29
32	113.78 Sec	105	.01	-4.94	.18	.18
33	170.67 Sec	24	.03	61.27	.23	.16
34	227.56 Sec	36	.03	-67.17	.33	.33
35	341.33 Sec	6	.20	63.76	.87	.83
36	455.11 Sec	12	.10	-47.93	.35	.37
37	682.67 Sec	3	.44	18.84	.40	.61
38	910.22 Sec	3	.50	44.77	.98	.99

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E







PHOENIX GEOSCIENCE

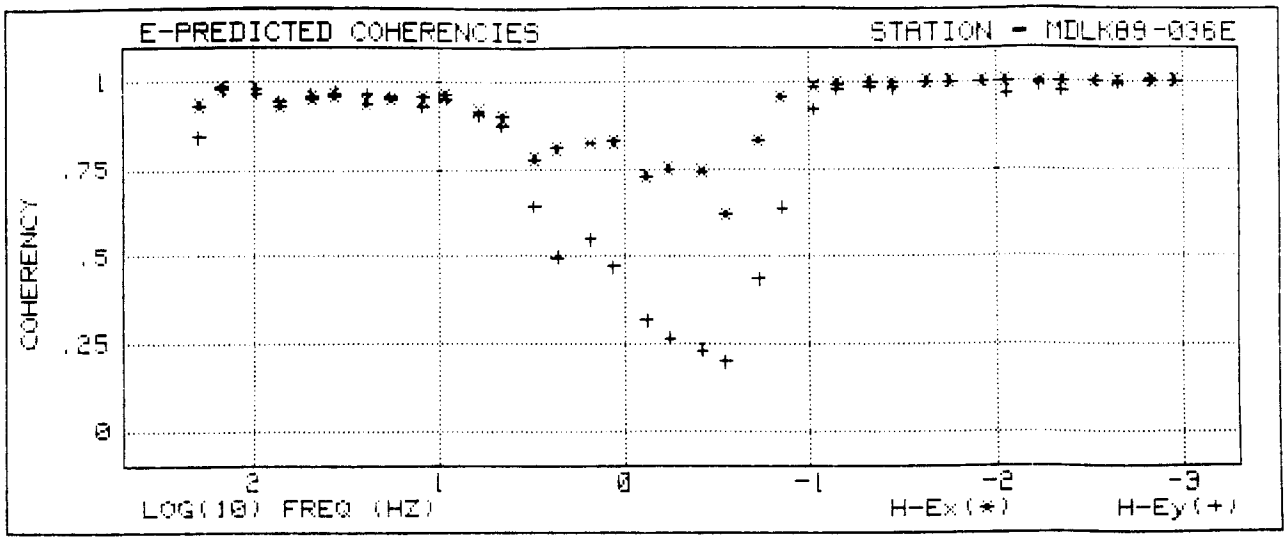
MT Site: MDLK89-036E

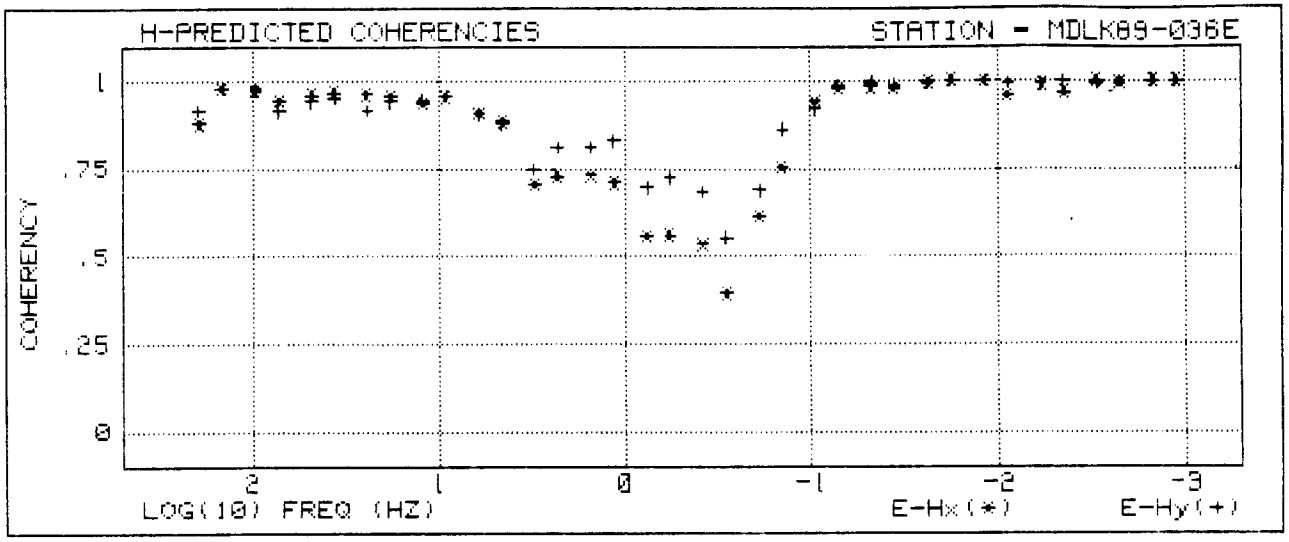
SKEW, ELLIPTICITY AND STRIKE

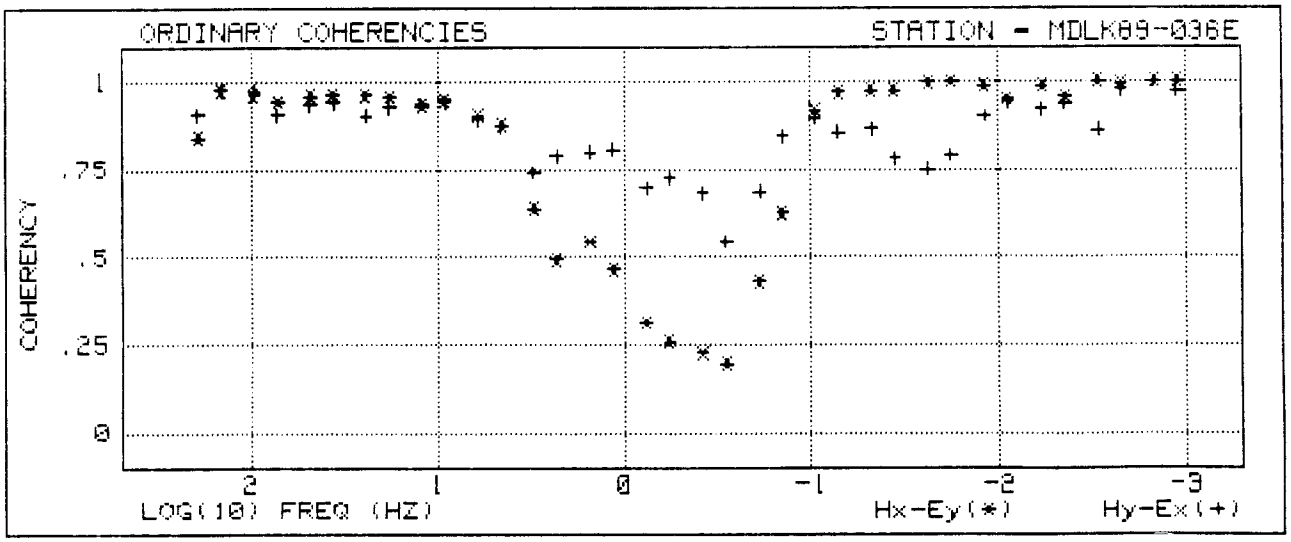
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	655	.15	.19	-131.72	.23	.13	-129.32
4	144.00 Hz	464	.11	.60	-42.40	.20	8.94	-129.76
5	96.00 Hz	190	.15	.18	-18.65	.03	1.78	172.30
6	72.00 Hz	1048	.10	.15	-29.47	.55	2.09	167.61
7	48.00 Hz	953	.11	.14	-19.87	.57	1.39	40.77
8	36.00 Hz	664	.11	.01	-24.16	.67	.54	171.79
9	24.00 Hz	863	.10	.19	-25.77	.42	3.15	-142.52
10	18.00 Hz	479	.12	.61	-36.87	.59	.91	-172.90
11	12.00 Hz	1632	.11	.10	-22.91	.97	.79	61.39
12	9.00 Hz	1152	.14	.24	-24.22	.18	.28	140.99
13	6.00 Hz	1152	.14	.18	-43.12	.32	1.28	-173.25
14	4.50 Hz	1824	.14	.04	-46.96	.19	3.89	-154.15
15	3.00 Hz	2976	.11	.04	-42.18	.32	2.50	-151.38
16	2.25 Hz	6688	.14	.10	-35.89	.33	1.95	177.14
17	1.50 Hz	3760	.13	.20	-29.60	.96	1.22	-160.64
18	1.13 Hz	6016	.11	.11	-31.42	.53	2.69	51.70
19	1.33 Sec	4229	.14	.15	-31.47	.50	2.44	26.86
20	1.78 Sec	2912	.08	.07	-28.18	.52	2.78	-132.53
21	2.67 Sec	2396	.16	.20	-32.01	.12	10.58	153.32
22	3.56 Sec	2336	.16	.01	-29.29	.27	1.08	17.94
23	5.33 Sec	756	.24	.06	-29.57	.09	1.88	11.93
24	7.11 Sec	396	.21	.18	-29.09	.15	1.78	-175.49
25	10.67 Sec	693	.26	.03	-29.51	.39	4.69	-123.64
26	14.22 Sec	555	.25	.00	-28.14	.53	.31	-21.71
27	21.33 Sec	297	.26	.02	-28.60	.36	1.13	-64.48
28	28.44 Sec	285	.29	.00	-30.20	.44	.77	-174.52
29	42.67 Sec	213	.29	.06	-29.07	.68	.77	-173.37
30	56.89 Sec	72	.29	.04	-29.36	.95	.97	66.18
31	85.33 Sec	36	.28	.01	-28.85	.11	.08	101.48
32	113.78 Sec	105	.28	.02	-29.25	.93	.69	-14.20
33	170.67 Sec	24	.29	.03	-25.62	.53	2.00	-136.88
34	227.56 Sec	36	.27	.06	-25.45	.89	.62	161.96
35	341.33 Sec	6	.31	.06	-23.43	.42	.62	42.01
36	455.11 Sec	12	.33	.10	-23.54	.21	1.68	-144.34
37	682.67 Sec	3	.38	.09	-16.27	.73	.53	45.27
38	910.22 Sec	3	.21	.18	-22.94	.39	.53	-178.93

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E







PHOENIX GEOSCIENCE

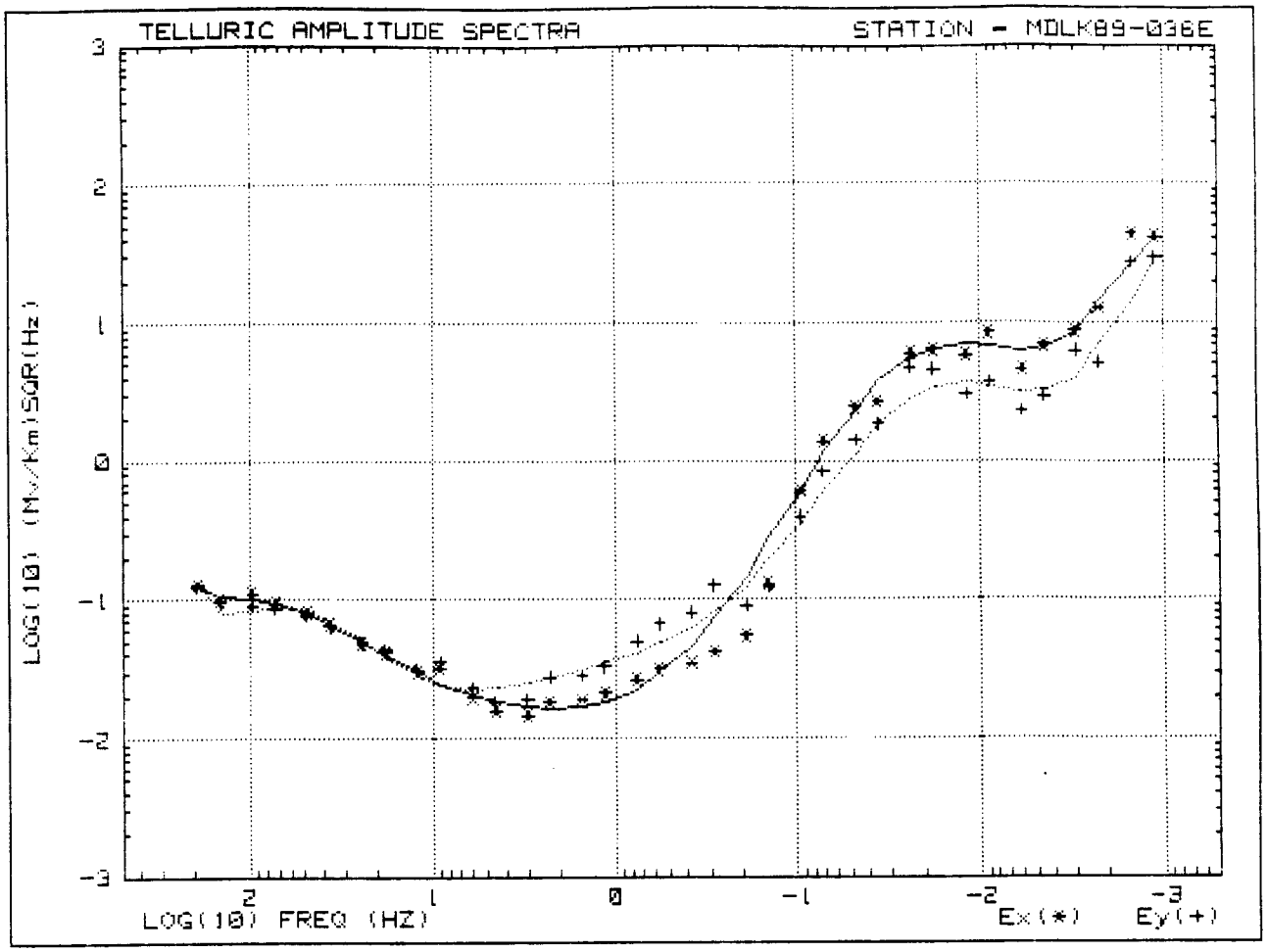
MT Site: MDLK89-036E

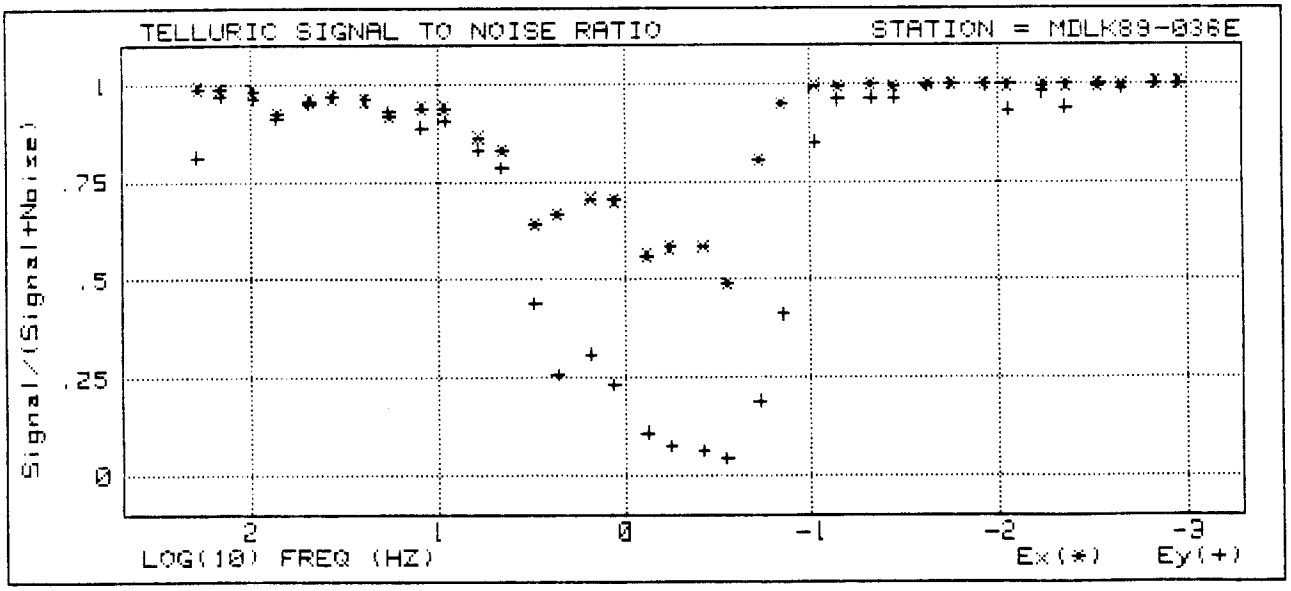
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	655	.93	.84	.88	.91	.84	.90
4	144.00 Hz	464	.98	.97	.97	.98	.97	.97
5	96.00 Hz	190	.98	.96	.97	.97	.96	.97
6	72.00 Hz	1048	.93	.94	.94	.91	.94	.90
7	48.00 Hz	953	.95	.96	.96	.94	.96	.93
8	36.00 Hz	664	.96	.96	.96	.95	.96	.94
9	24.00 Hz	863	.93	.96	.96	.91	.96	.90
10	18.00 Hz	479	.95	.95	.95	.94	.95	.92
11	12.00 Hz	1632	.95	.93	.93	.94	.93	.93
12	9.00 Hz	1152	.96	.95	.95	.95	.94	.94
13	6.00 Hz	1152	.92	.90	.91	.90	.90	.89
14	4.50 Hz	1824	.90	.87	.88	.87	.87	.87
15	3.00 Hz	2976	.77	.64	.70	.74	.63	.74
16	2.25 Hz	6688	.80	.49	.72	.81	.49	.78
17	1.50 Hz	3760	.82	.54	.73	.81	.54	.80
18	1.13 Hz	6016	.83	.47	.71	.82	.46	.80
19	1.33 Sec	4229	.73	.31	.55	.69	.31	.69
20	1.78 Sec	2912	.75	.26	.56	.72	.26	.72
21	2.67 Sec	2396	.74	.23	.53	.68	.22	.68
22	3.56 Sec	2336	.62	.19	.39	.55	.19	.54
23	5.33 Sec	756	.83	.43	.61	.69	.43	.68
24	7.11 Sec	396	.95	.63	.75	.86	.62	.84
25	10.67 Sec	693	.98	.92	.94	.92	.91	.89
26	14.22 Sec	555	.99	.98	.97	.98	.97	.85
27	21.33 Sec	297	1.00	.98	.98	.99	.97	.86
28	28.44 Sec	285	.99	.98	.98	.98	.97	.78
29	42.67 Sec	213	1.00	1.00	.99	.99	.99	.75
30	56.89 Sec	72	1.00	1.00	1.00	1.00	1.00	.79
31	85.33 Sec	36	1.00	1.00	1.00	1.00	.99	.90
32	113.78 Sec	105	1.00	.96	.95	.99	.95	.94
33	170.67 Sec	24	1.00	.99	.99	.99	.99	.92
34	227.56 Sec	36	1.00	.97	.96	.99	.96	.93
35	341.33 Sec	6	1.00	1.00	1.00	.99	1.00	.86
36	455.11 Sec	12	1.00	.99	.99	1.00	.99	.97
37	682.67 Sec	3	1.00	1.00	1.00	1.00	1.00	1.00
38	910.22 Sec	3	1.00	1.00	1.00	1.00	1.00	.97

PHOENIX GEOSCIENCE

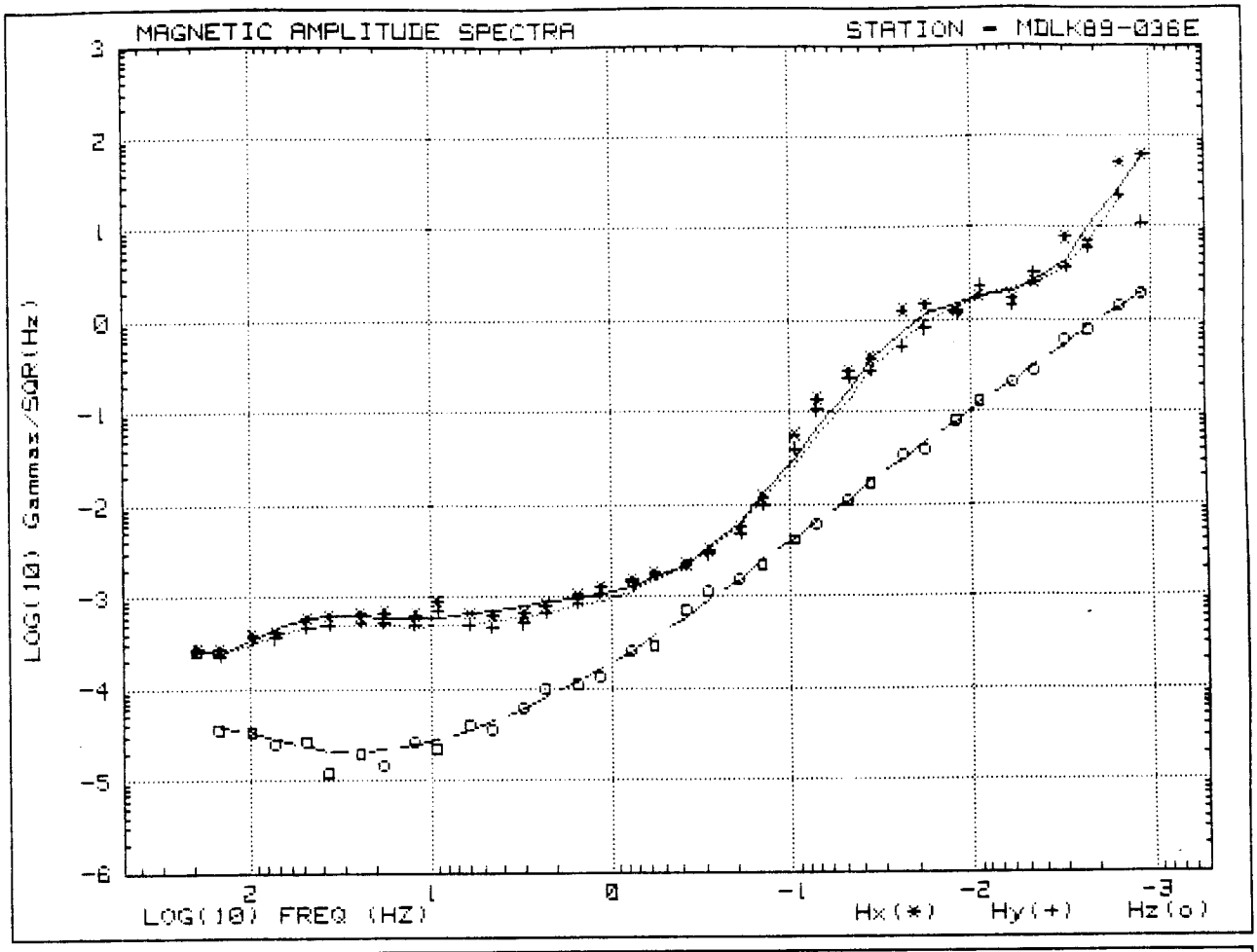
MT Site: MDLK89-036E

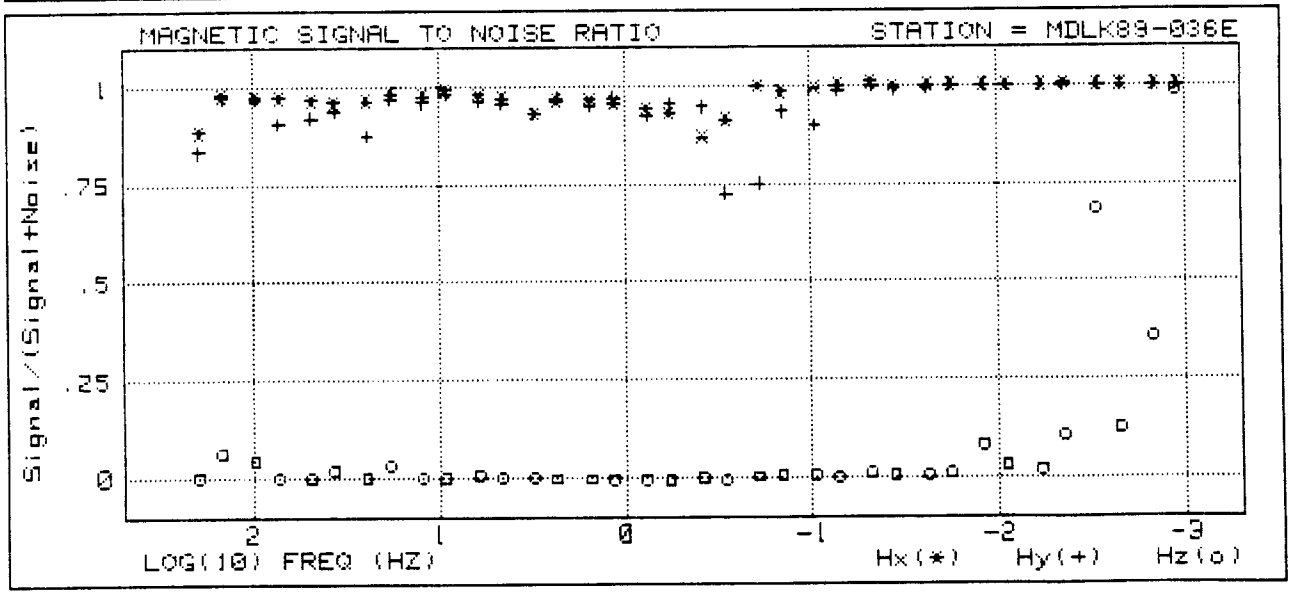




PHOENIX GEOSCIENCE

MT Site: MDLK89-036E





PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	655	2.66E-04	2.55E-04	2.64E-04	1.27E-01	1.22E-01
4	144.00 Hz	464	2.65E-04	2.26E-04	3.83E-05	9.77E-02	9.52E-02
5	96.00 Hz	190	3.76E-04	3.60E-04	3.48E-05	1.09E-01	8.81E-02
6	72.00 Hz	1048	4.03E-04	3.51E-04	2.63E-05	9.40E-02	8.47E-02
7	48.00 Hz	953	5.81E-04	4.66E-04	2.85E-05	7.95E-02	7.52E-02
8	36.00 Hz	664	6.18E-04	4.86E-04	1.25E-05	6.56E-02	6.33E-02
9	24.00 Hz	863	6.38E-04	5.23E-04	2.10E-05	4.83E-02	4.72E-02
10	18.00 Hz	479	6.74E-04	5.26E-04	1.51E-05	4.08E-02	4.28E-02
11	12.00 Hz	1632	6.36E-04	4.87E-04	2.79E-05	2.99E-02	3.07E-02
12	9.00 Hz	1152	8.92E-04	6.78E-04	2.35E-05	3.15E-02	3.50E-02
13	6.00 Hz	1152	6.58E-04	4.98E-04	4.19E-05	1.93E-02	2.24E-02
14	4.50 Hz	1824	6.17E-04	4.60E-04	3.82E-05	1.56E-02	1.76E-02
15	3.00 Hz	2976	6.46E-04	5.06E-04	6.52E-05	1.44E-02	1.86E-02
16	2.25 Hz	6688	8.00E-04	6.70E-04	1.05E-04	1.80E-02	2.71E-02
17	1.50 Hz	3760	1.05E-03	8.33E-04	1.16E-04	1.86E-02	2.79E-02
18	1.13 Hz	6016	1.24E-03	1.07E-03	1.38E-04	2.09E-02	3.24E-02
19	1.33 Sec	4229	1.51E-03	1.40E-03	2.66E-04	2.60E-02	4.95E-02
20	1.78 Sec	2912	1.81E-03	1.70E-03	3.02E-04	3.10E-02	6.66E-02
21	2.67 Sec	2396	2.28E-03	2.16E-03	7.62E-04	3.46E-02	7.98E-02
22	3.56 Sec	2336	3.18E-03	2.86E-03	1.22E-03	4.16E-02	1.25E-01
23	5.33 Sec	756	5.56E-03	4.70E-03	1.62E-03	5.40E-02	8.83E-02
24	7.11 Sec	396	1.18E-02	9.68E-03	2.31E-03	1.28E-01	1.23E-01
25	10.67 Sec	693	5.61E-02	3.94E-02	4.39E-03	6.13E-01	3.93E-01
26	14.22 Sec	555	1.38E-01	1.04E-01	6.54E-03	1.36E+00	8.32E-01
27	21.33 Sec	297	2.73E-01	2.38E-01	1.18E-02	2.40E+00	1.40E+00
28	28.44 Sec	285	3.85E-01	2.75E-01	1.80E-02	2.63E+00	1.81E+00
29	42.67 Sec	213	1.26E+00	5.14E-01	3.62E-02	5.95E+00	4.67E+00
30	56.89 Sec	72	1.46E+00	7.96E-01	4.08E-02	6.23E+00	4.50E+00
31	85.33 Sec	36	1.24E+00	1.20E+00	8.66E-02	5.70E+00	2.98E+00
32	113.78 Sec	105	1.76E+00	2.29E+00	1.35E-01	8.29E+00	3.63E+00
33	170.67 Sec	24	1.65E+00	1.40E+00	2.25E-01	4.51E+00	2.25E+00
34	227.56 Sec	36	2.55E+00	3.18E+00	3.01E-01	6.78E+00	2.88E+00
35	341.33 Sec	6	7.72E+00	3.64E+00	6.48E-01	8.66E+00	6.14E+00
36	455.11 Sec	12	6.95E+00	6.04E+00	8.12E-01	1.25E+01	5.02E+00
37	682.67 Sec	3	5.07E+01	2.20E+01	1.52E+00	4.26E+01	2.66E+01
38	910.22 Sec	3	6.11E+01	1.10E+01	2.04E+00	4.01E+01	2.86E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	655	.883	.831	.007	.987	.812
4	144.00 Hz	464	.976	.970	.069	.985	.969
5	96.00 Hz	190	.973	.966	.048	.981	.961
6	72.00 Hz	1048	.970	.903	.004	.922	.913
7	48.00 Hz	953	.965	.919	.002	.956	.947
8	36.00 Hz	664	.958	.934	.022	.964	.968
9	24.00 Hz	863	.962	.871	.007	.958	.957
10	18.00 Hz	479	.981	.969	.038	.916	.928
11	12.00 Hz	1632	.974	.959	.005	.936	.886
12	9.00 Hz	1152	.990	.981	.001	.937	.904
13	6.00 Hz	1152	.980	.960	.012	.862	.831
14	4.50 Hz	1824	.969	.955	.004	.827	.785
15	3.00 Hz	2976	.928	.928	.005	.639	.438
16	2.25 Hz	6688	.962	.968	.001	.665	.255
17	1.50 Hz	3760	.966	.947	.001	.705	.307
18	1.13 Hz	6016	.955	.969	.001	.700	.229
19	1.33 Sec	4229	.941	.925	.000	.560	.105
20	1.78 Sec	2912	.928	.954	.000	.580	.073
21	2.67 Sec	2396	.867	.945	.002	.581	.059
22	3.56 Sec	2336	.912	.723	0.000	.487	.041
23	5.33 Sec	756	.998	.749	.007	.802	.187
24	7.11 Sec	396	.983	.932	.009	.947	.409
25	10.67 Sec	693	.994	.897	.010	.994	.848
26	14.22 Sec	555	.999	.985	.005	.993	.959
27	21.33 Sec	297	1.000	.999	.017	.998	.963
28	28.44 Sec	285	.998	.990	.008	.992	.961
29	42.67 Sec	213	1.000	.991	.012	.998	.991
30	56.89 Sec	72	1.000	1.000	.018	.998	.997
31	85.33 Sec	36	1.000	.999	.088	.998	.995
32	113.78 Sec	105	1.000	.997	.037	.996	.930
33	170.67 Sec	24	.999	.999	.026	.994	.977
34	227.56 Sec	36	1.000	.999	.111	.995	.937
35	341.33 Sec	6	1.000	.999	.690	.993	.997
36	455.11 Sec	12	.999	1.000	.130	.998	.986
37	682.67 Sec	3	1.000	1.000	.362	1.000	1.000
38	910.22 Sec	3	1.000	.999	.991	.999	1.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-036E

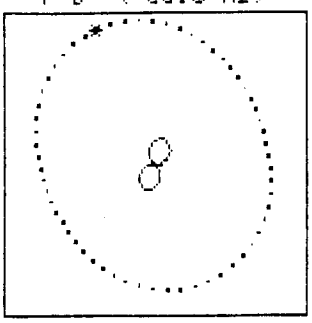
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

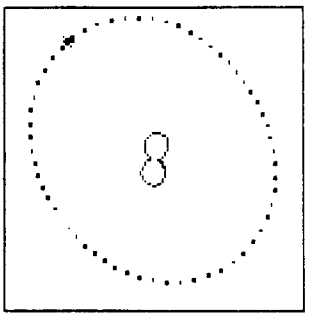
*=Rotation Direction

Zxy = ...
Zxx = ___

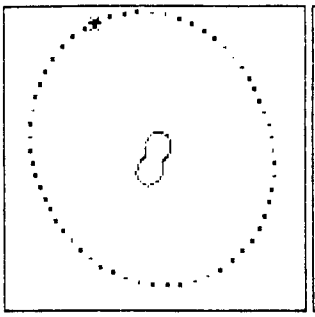
F=8 (36.0 Hz)



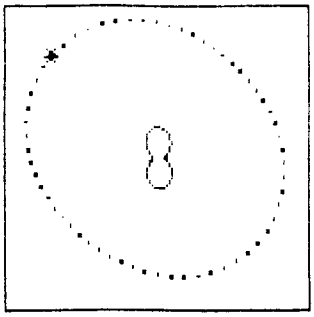
F=10 (18.0 Hz)



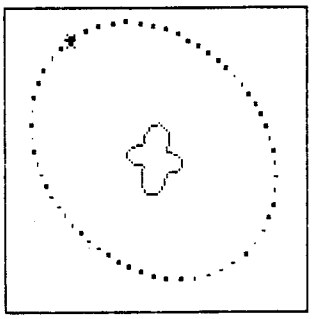
F=12 (9.0 Hz)



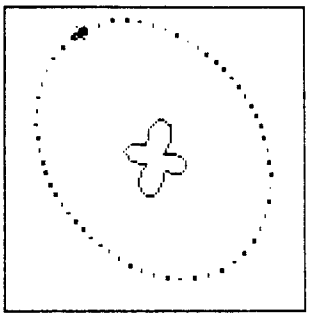
F=14 (4.5 Hz)



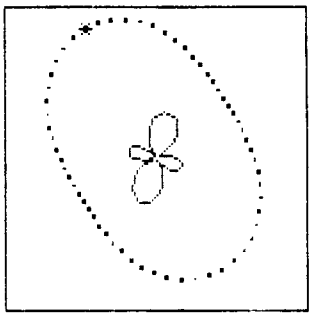
F=16 (2.3 Hz)



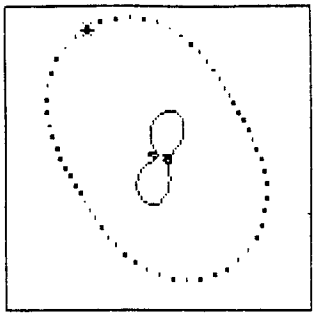
F=18 (1.1 Hz)



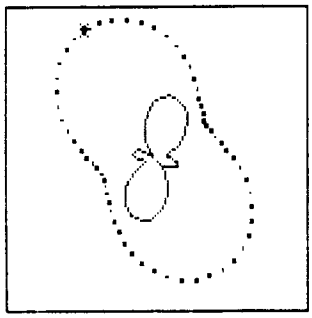
F=20 (.5625 Hz)



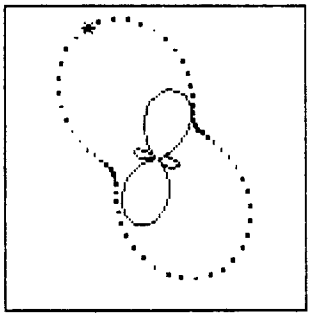
F=22 (.2813 Hz)



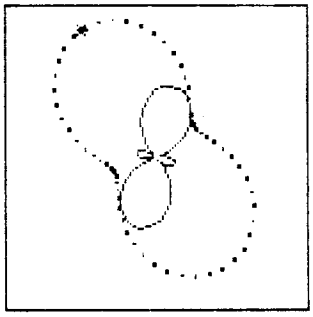
F=24 (.1406 Hz)



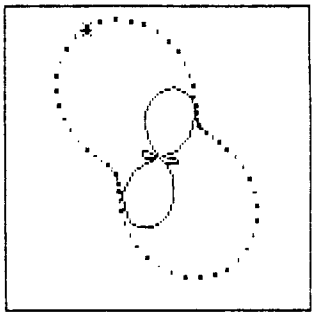
F=26 (.0703 Hz)



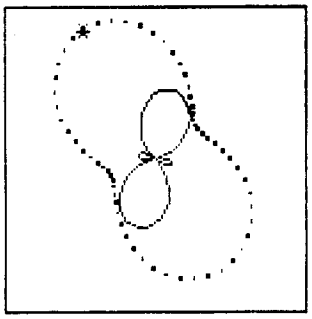
F=28 (.0352 Hz)



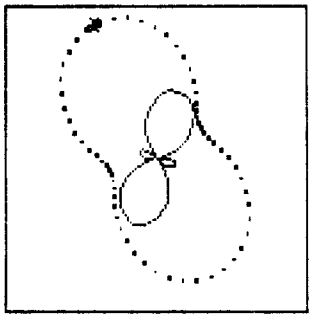
F=30 (.0176 Hz)



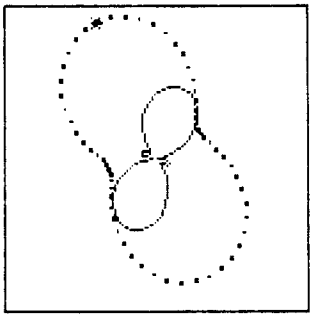
F=32 (.0088 Hz)



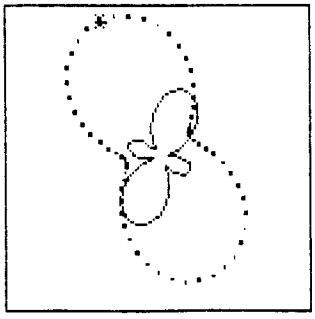
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-037s/038s/

Operator:STEWART
Date: 8 Sep 1989
Time: 13:57:57

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#210-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 1

Stn Number:MDLK89-037s
Site Desc:T44N R4E SEC33 SW4
41,36,22 N 121,31,22 W
Elevation:7090 FT
Reference:MDLK89-038s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL205	+0 DEG
Hy	2	COIL431	+90 DEG
Hz	3	LOOP333	Doubled
Ex	4	175 M	+0 DEG
Ey	5	167 M	+90 DEG
Rx	6	COIL432	+0 DEG
Ry	7	COIL210	+90 DEG

Ex Pot Resist: 20_ K Ohms
Ex Voltage: AC=_4.0 mv, DC=151_ mv
Ey Pot Resist: 25_ K Ohms
Ey Voltage: AC=_2.0 mv, DC=40.1 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

OPERATOR LOG FOR MT SITES MDLK89-037s/038s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-037a/038a/		
Run STARTED:	13:57:57	8 Sep 1989
Run QUIT:	03:13:49	9 Sep 1989
Run Start and Stop Time for MDLK89-037b/038b/		
Run STARTED:	03:36:37	9 Sep 1989
Run QUIT:	10:07:20	9 Sep 1989
Run Start and Stop Time for MDLK89-037d/038d/		
Run STARTED:	21:18:07	9 Sep 1989
Run QUIT:	09:00:38	10 Sep 1989
Run QUIT:	09:00:38	10 Sep 1989
Run QUIT:	09:11:02	10 Sep 1989
Run Start and Stop Time for MDLK89-037e/038e/		
Run STARTED:	09:37:37	10 Sep 1989
Run QUIT:	17:21:41	10 Sep 1989
Run Start and Stop Time for MDLK89-037f/038f/		
Run STARTED:	17:43:56	10 Sep 1989
Run QUIT:	02:47:37	11 Sep 1989

Operator:STEWART

Cultural Factors:
NONE APPARENT
Weather Conditions:
CALM, DRY, TEMP 50-70
Other Factors:

PHOENIX GEOSCIENCE

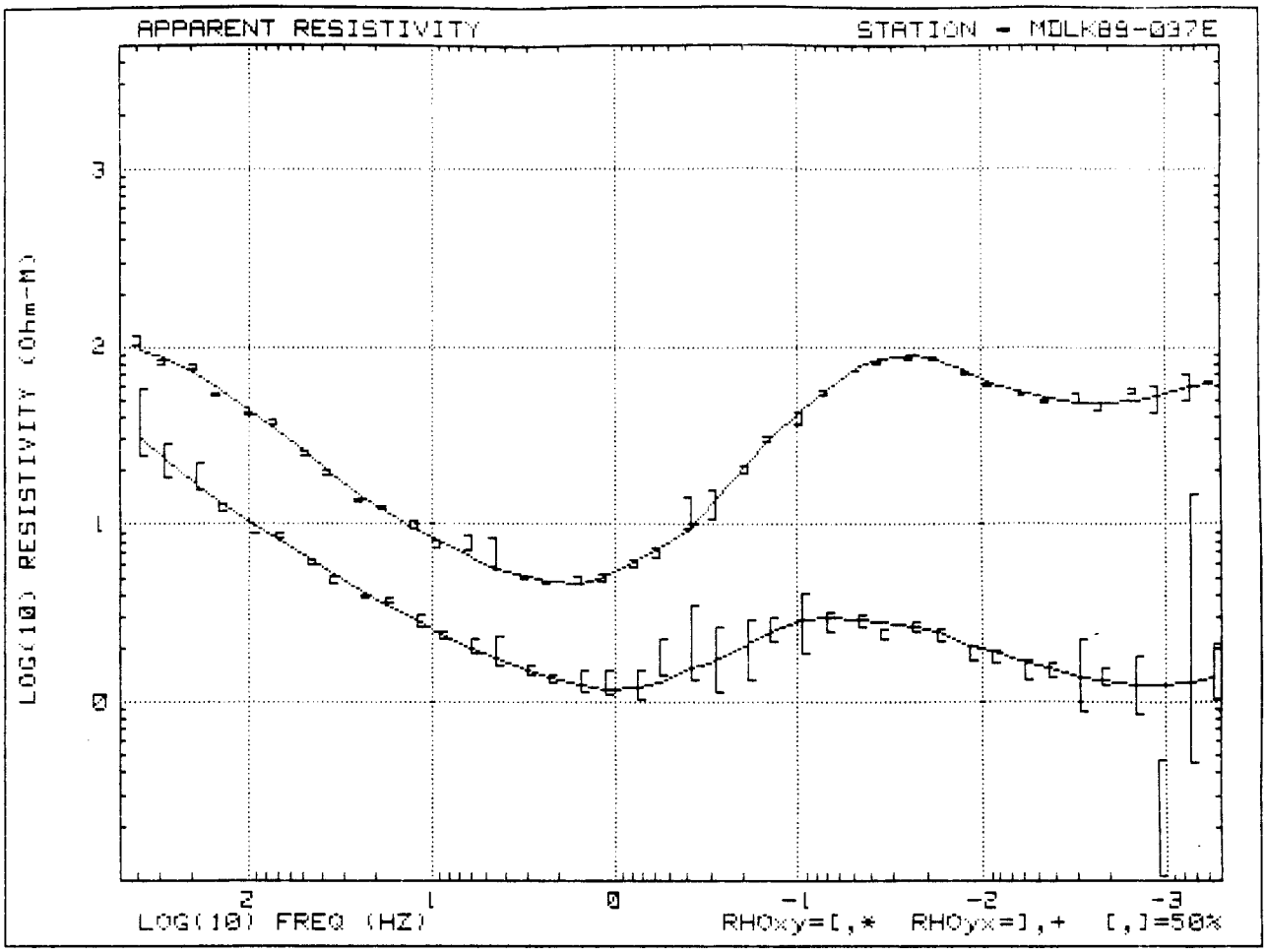
MT Site: MDLK89-037E

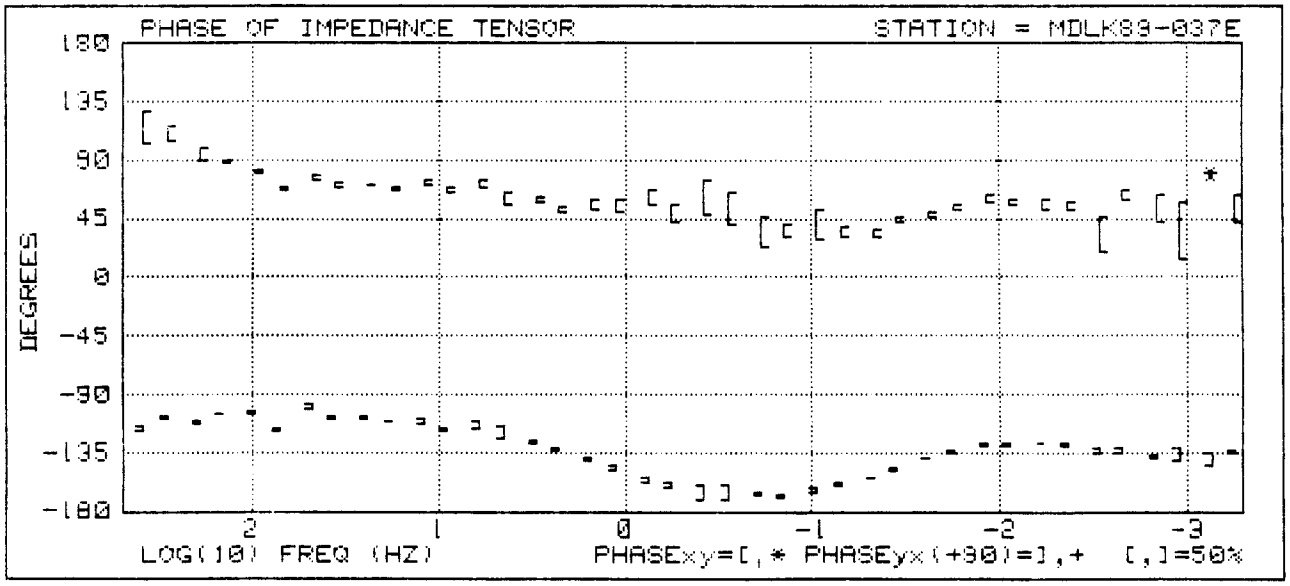
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

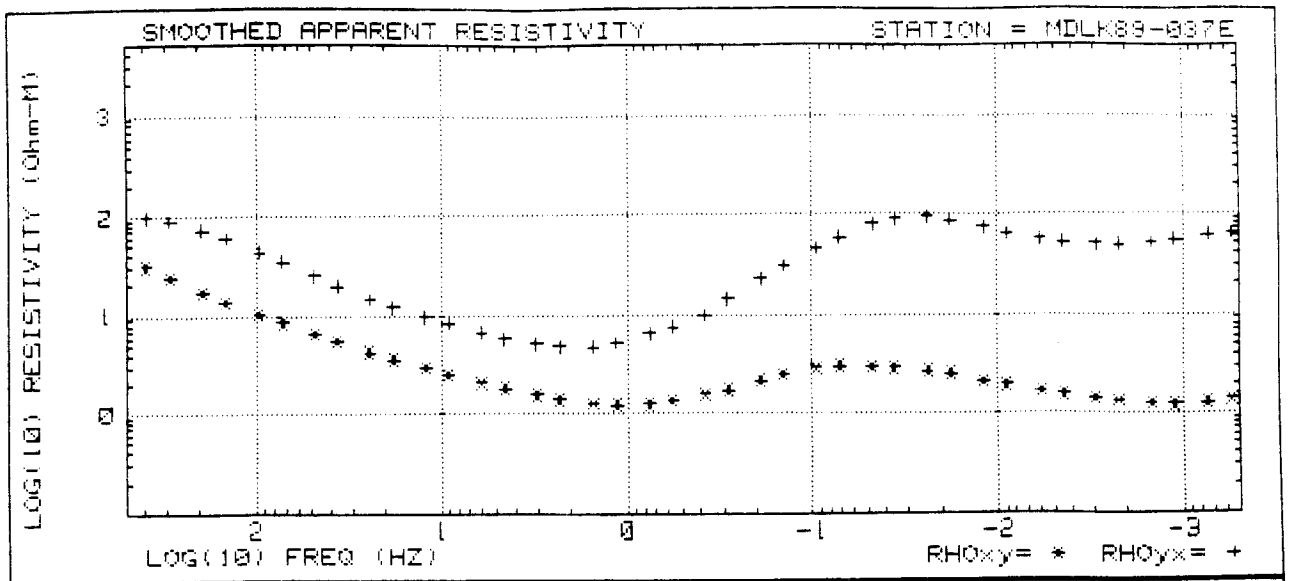
MT Site: MDLK89-037E

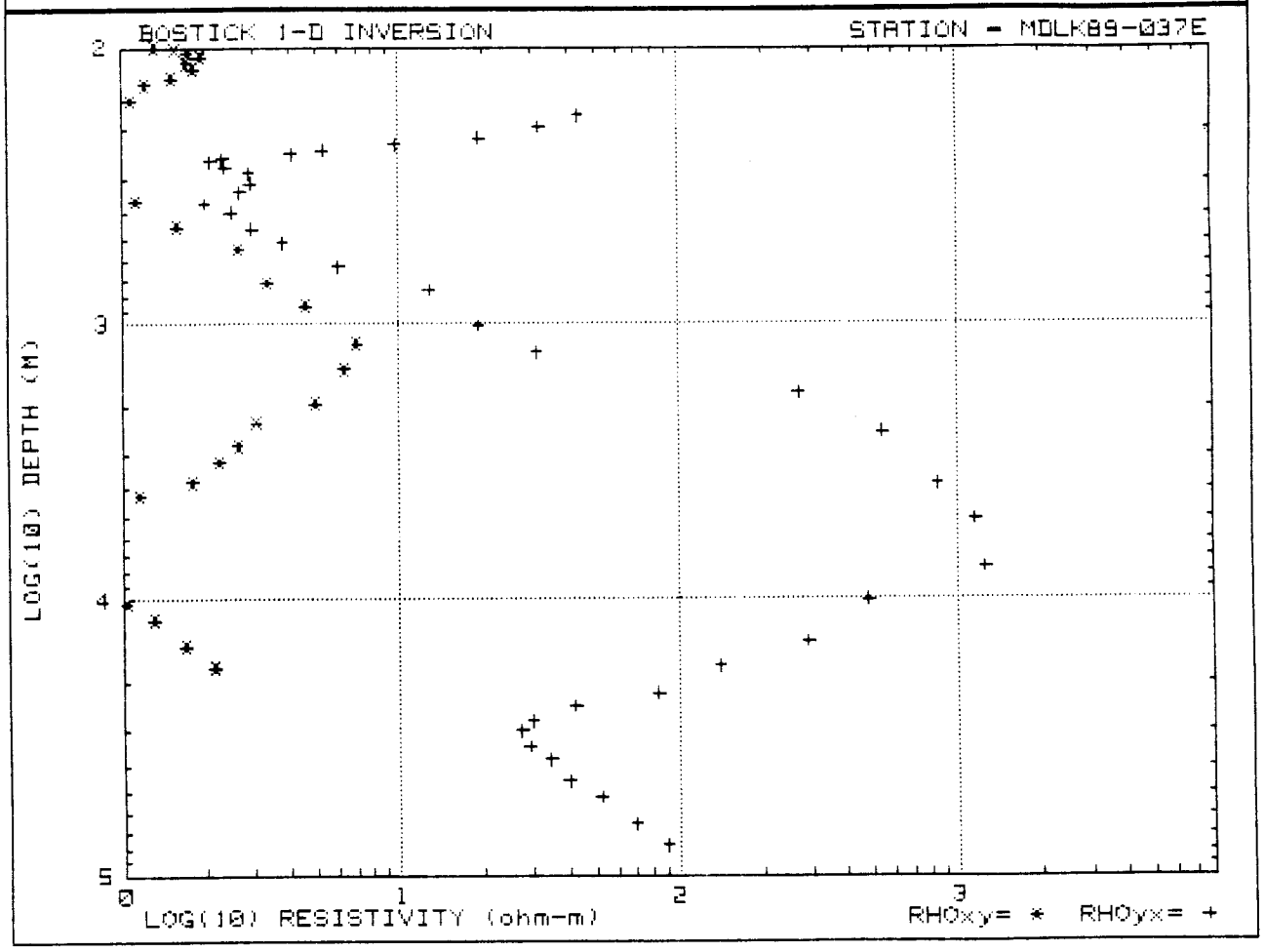




PHOENIX GEOSCIENCE

MT Site: MDLK89-037E





PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	367	37.7	91.1	108.9	12.0	115.8	18.6	-116.0	3.2
2	288.00 Hz	367	22.9	37.3	81.9	5.8	110.6	9.1	-107.4	1.6
3	192.00 Hz	1026	18.8	28.1	77.7	5.6	93.8	7.1	-110.8	1.6
4	144.00 Hz	348	12.4	5.4	54.1	1.9	88.3	1.5	-105.4	.5
5	96.00 Hz	541	8.9	2.3	41.9	1.8	81.3	.6	-103.9	.5
6	72.00 Hz	288	8.7	5.7	37.2	5.0	68.3	1.6	-117.1	1.4
7	48.00 Hz	192	6.1	5.9	25.3	5.7	76.4	1.7	-99.1	1.6
8	36.00 Hz	285	4.9	5.6	19.4	4.9	70.8	1.6	-107.1	1.4
9	24.00 Hz	1042	3.9	4.4	13.8	2.7	70.8	1.2	-107.3	.8
10	18.00 Hz	756	3.7	5.2	12.3	3.1	68.4	1.5	-110.4	.9
11	12.00 Hz	752	2.9	11.3	9.9	8.1	72.6	3.1	-110.5	2.2
12	9.00 Hz	382	2.4	8.3	7.7	6.5	66.5	2.3	-116.7	1.8
13	6.00 Hz	1042	2.0	16.4	7.9	15.2	70.9	4.3	-113.4	4.1
14	4.50 Hz	473	1.9	30.8	6.9	30.9	60.0	7.7	-119.2	7.7
15	3.00 Hz	15648	1.5	8.4	5.1	2.4	58.9	2.3	-126.6	.7
16	2.25 Hz	16736	1.4	7.5	4.7	2.3	51.7	2.1	-132.2	.7
17	1.50 Hz	6288	1.3	24.5	4.8	7.6	55.6	6.3	-140.1	2.1
18	1.13 Hz	7280	1.3	26.5	5.0	7.5	55.0	6.7	-146.2	2.1
19	1.33 Sec	5034	1.2	31.5	6.0	8.6	61.3	7.8	-156.1	2.4
20	1.78 Sec	5690	1.8	41.7	7.0	10.5	49.3	10.0	-159.5	2.9
21	2.67 Sec	1560	2.2	99.9	11.6	35.0	61.6	20.5	-165.5	8.6
22	3.56 Sec	3315	1.7	88.8	13.0	33.8	52.8	18.2	-166.1	8.3
23	5.33 Sec	936	2.0	81.2	20.6	6.3	34.3	17.0	-166.8	1.7
24	7.11 Sec	1524	2.5	26.6	30.0	4.5	35.2	6.8	-167.9	1.3
25	10.67 Sec	233	2.8	83.3	39.5	11.4	40.6	17.4	-163.2	3.1
26	14.22 Sec	738	2.8	22.4	54.8	2.9	35.2	5.8	-158.6	.8
27	21.33 Sec	306	2.8	12.6	72.8	1.5	33.9	3.4	-154.2	.4
28	28.44 Sec	384	2.4	9.5	81.3	1.5	44.6	2.6	-147.4	.4
29	42.67 Sec	357	2.6	9.1	87.0	2.0	48.5	2.5	-139.3	.6
30	56.89 Sec	330	2.4	10.6	87.1	2.3	53.7	2.9	-134.5	.7
31	85.33 Sec	138	1.9	14.9	71.2	3.1	60.7	4.0	-128.1	.9
32	113.78 Sec	153	1.8	11.4	61.4	3.0	56.9	3.1	-128.1	.8
33	170.67 Sec	63	1.5	20.2	53.9	2.4	55.0	5.3	-127.6	.7
34	227.56 Sec	54	1.5	16.1	49.6	2.6	54.1	4.3	-128.6	.7
35	341.33 Sec	9	1.4	99.9	51.4	12.1	33.1	19.9	-133.1	3.3
36	455.11 Sec	6	1.4	18.9	46.3	7.7	62.8	4.9	-133.1	2.1
37	682.67 Sec	12	1.3	72.7	56.4	4.5	53.1	15.7	-137.4	1.3
38	910.22 Sec	18	.22	99.9	50.5	27.5	36.4	32.6	-136.8	7.0
39	1365.33 Sec	3	2.6	99.9	58.9	28.6	79.1	74.5	-139.1	7.2
40	1820.44 Sec	3	1.5	72.7	62.5	1.3	52.6	15.7	-134.3	.4

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	367	31.1	97.2	1.3	101	44.2	179
2	288.00 Hz	367	23.9	87.3	1.6	102	32.1	196
3	192.00 Hz	1026	16.9	70.6	1.7	106	19.5	216
4	144.00 Hz	348	13.6	58.9	1.9	109	9.7	228
5	96.00 Hz	541	10.1	42.9	1.7	115	5.3	238
6	72.00 Hz	288	8.3	34.3	1.8	121	4.1	246
7	48.00 Hz	192	6.5	24.9	1.5	131	2.3	256
8	36.00 Hz	285	5.4	19.3	1.2	138	2.1	261
9	24.00 Hz	1042	4.2	14.3	1.0	148	2.4	274
10	18.00 Hz	756	3.5	11.8	1.1	158	2.9	288
11	12.00 Hz	752	2.9	9.4	.86	175	2.9	314
12	9.00 Hz	382	2.4	8.2	.76	185	2.7	339
13	6.00 Hz	1042	2.0	6.6	.74	206	2.0	373
14	4.50 Hz	473	1.8	5.7	.74	223	2.5	399
15	3.00 Hz	15648	1.5	5.0	.71	253	3.0	461
16	2.25 Hz	16736	1.4	4.7	.73	278	3.8	516
17	1.50 Hz	6288	1.2	4.7	.81	322	6.1	628
18	1.13 Hz	7280	1.2	5.2	1.1	366	12.9	763
19	1.33 Sec	5034	1.2	6.3	1.6	452	19.3	1030
20	1.78 Sec	5690	1.3	7.4	2.6	542	31.4	1287
21	2.67 Sec	1560	1.5	9.7	3.4	719	272.1	1806
22	3.56 Sec	3315	1.7	14.0	4.6	872	547.1	2513
23	5.33 Sec	936	2.1	22.0	7.1	1195	857.1	3853
24	7.11 Sec	1524	2.5	29.9	6.3	1488	1166.7	5191
25	10.67 Sec	233	2.9	44.2	5.0	1970	1265.9	7726
26	14.22 Sec	738	3.0	57.1	3.1	2311	483.1	10141
27	21.33 Sec	306	2.9	76.3	2.6	2801	292.1	14360
28	28.44 Sec	384	2.9	85.7	2.2	3208	141.3	17570
29	42.67 Sec	357	2.7	90.5	1.8	3800	84.5	22109
30	56.89 Sec	330	2.5	83.7	1.2	4235	42.7	24556
31	85.33 Sec	138	2.1	72.3	.96	4740	30.1	27944
32	113.78 Sec	153	1.9	62.9	1.0	5274	27.4	30102
33	170.67 Sec	63	1.7	55.0	.85	5998	29.3	34493
34	227.56 Sec	54	1.5	50.9	.91	6663	35.0	38305
35	341.33 Sec	9	1.4	48.4	.87	7755	40.4	45743
36	455.11 Sec	6	1.3	47.8	.96	8691	52.3	52514
37	682.67 Sec	12	1.2	49.9	1.0	10389	69.9	65707
38	910.22 Sec	18	1.2	53.7	1.3	11904	90.9	78678
39	1365.33 Sec	3	1.3	59.7	1.7	14840	92.1	101595
40	1820.44 Sec	3	1.4	62.3	2.1	17695	83.7	119817

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	367	-40.69	1.13	999.99	-117.17	242.00	999.99
2	288.00 Hz	367	-22.75	25.04	567.81	-63.90	169.86	999.99
3	192.00 Hz	1026	-11.12	18.70	348.20	-9.01	133.99	554.63
4	144.00 Hz	348	-.91	14.92	5.70	2.81	94.30	12.36
5	96.00 Hz	541	-2.39	7.18	.73	9.86	64.78	1.07
6	72.00 Hz	288	1.68	7.34	2.85	20.74	52.15	4.89
7	48.00 Hz	192	2.43	2.46	1.64	9.02	37.30	2.45
8	36.00 Hz	285	1.80	3.05	.80	9.71	27.92	1.32
9	24.00 Hz	1042	1.01	2.66	.30	7.11	20.44	.42
10	18.00 Hz	756	1.56	2.10	.27	6.75	17.04	.43
11	12.00 Hz	752	-.29	1.17	1.02	3.92	12.51	.99
12	9.00 Hz	382	.75	.54	.27	4.12	9.45	.34
13	6.00 Hz	1042	-.52	.77	1.15	2.56	7.40	.71
14	4.50 Hz	473	1.01	.03	2.68	3.31	5.72	1.57
15	3.00 Hz	15648	.14	.10	.06	2.45	4.07	.07
16	2.25 Hz	16736	.11	.07	.04	2.42	3.07	.04
17	1.50 Hz	6288	-.12	-.08	.24	1.77	2.59	.24
18	1.13 Hz	7280	-.13	-.21	.20	1.54	2.20	.20
19	1.33 Sec	5034	-.174	-.006	.266	1.034	1.887	.174
20	1.78 Sec	5690	.043	-.111	.234	1.466	1.704	.308
21	2.67 Sec	1560	-.077	.215	1.203	.960	1.772	1.045
22	3.56 Sec	3315	.168	.045	.432	.945	1.245	.493
23	5.33 Sec	936	.116	-.130	.101	1.123	.767	.327
24	7.11 Sec	1524	.191	.006	.023	1.090	.769	.050
25	10.67 Sec	233	.308	.087	.287	.866	.741	.238
26	14.22 Sec	738	.298	-.007	.012	.814	.575	.020
27	21.33 Sec	306	.291	.094	.003	.678	.456	.005
28	28.44 Sec	384	.287	.059	.002	.463	.457	.002
29	42.67 Sec	357	.265	.147	.001	.369	.417	.001
30	56.89 Sec	330	.144	.097	.002	.271	.368	.001
31	85.33 Sec	138	.130	.087	.003	.163	.291	.001
32	113.78 Sec	153	.095	.077	.001	.153	.235	.000
33	170.67 Sec	63	.064	.067	.001	.120	.171	.001
34	227.56 Sec	54	.073	.029	.001	.107	.148	.000
35	341.33 Sec	9	.077	.030	.004	.120	.078	.005
36	455.11 Sec	6	.042	.046	.000	.056	.110	.000
37	682.67 Sec	12	.041	.053	.001	.058	.076	.001
38	910.22 Sec	18	.009	.013	.001	.028	.021	.001
39	1365.33 Sec	3	.049	-.033	.020	.018	.096	.032
40	1820.44 Sec	3	.048	.019	.001	.039	.050	.001

PHOENIX GEOSCIENCE

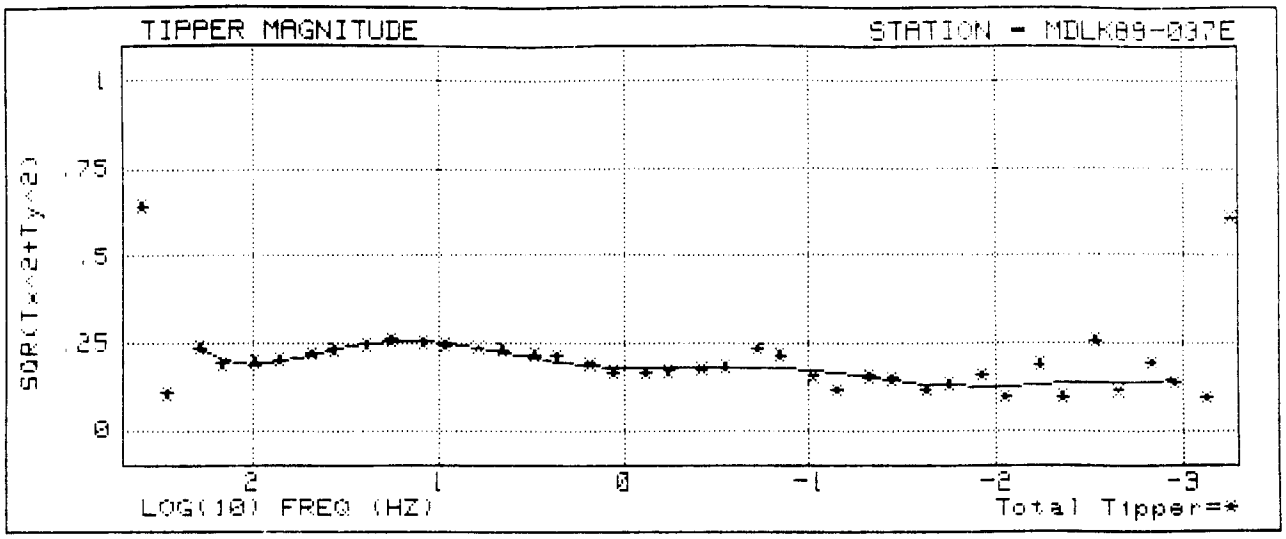
MT Site: MDLK89-037E

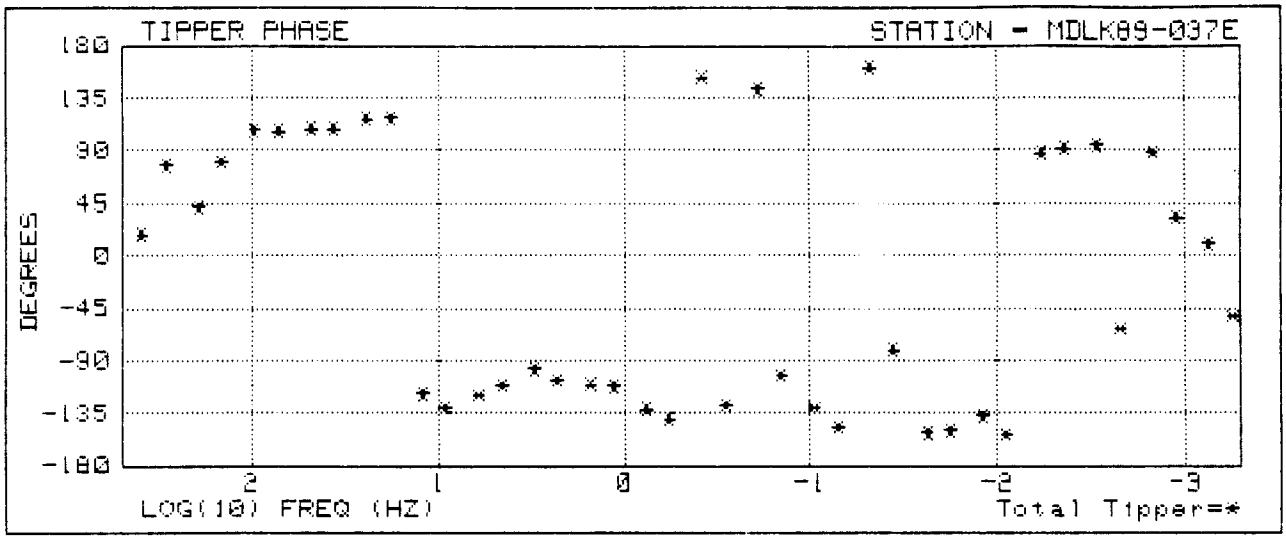
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

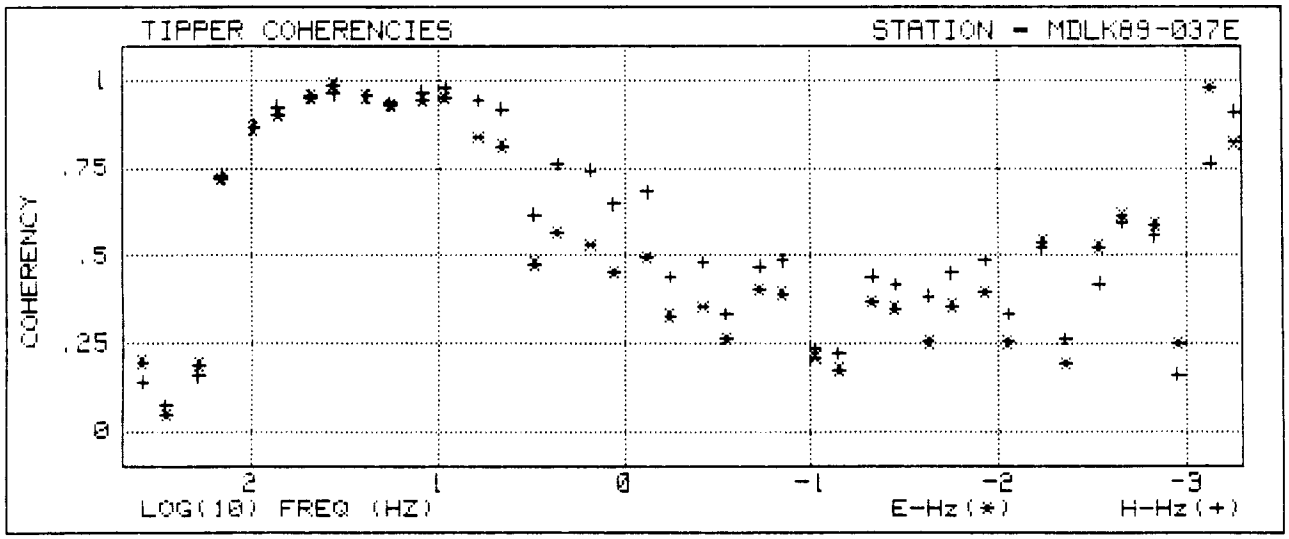
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	367	-200.70	-410.78	999.99	-42.14	3.85	999.99
2	288.00 Hz	367	-102.91	-327.75	190.70	-3.04	4.22	554.83
3	192.00 Hz	1026	-97.19	-255.23	110.08	3.59	5.81	175.35
4	144.00 Hz	348	-52.42	-190.24	6.72	8.41	10.10	14.58
5	96.00 Hz	541	-34.12	-137.62	3.37	3.87	5.09	4.95
6	72.00 Hz	288	-52.68	-103.10	15.66	-.63	8.79	26.81
7	48.00 Hz	192	-12.33	-76.93	9.28	-1.35	2.77	13.87
8	36.00 Hz	285	-17.36	-56.44	3.97	-.40	3.64	6.53
9	24.00 Hz	1042	-12.09	-38.87	.60	.31	2.85	.86
10	18.00 Hz	756	-11.61	-31.17	.51	-.67	2.87	.81
11	12.00 Hz	752	-8.56	-22.84	1.81	-.29	1.17	1.74
12	9.00 Hz	382	-8.37	-16.67	.70	-.57	1.32	.87
13	6.00 Hz	1042	-6.09	-14.09	2.36	-.28	.65	1.45
14	4.50 Hz	473	-6.08	-10.88	5.63	-.35	.76	3.30
15	3.00 Hz	15648	-5.19	-6.99	.02	-.26	.47	.03
16	2.25 Hz	16736	-4.91	-5.41	.01	-.30	.50	.02
17	1.50 Hz	6288	-4.61	-3.85	.10	-.38	.51	.10
18	1.13 Hz	7280	-4.39	-2.94	.07	-.24	.23	.07
19	1.33 Sec	5034	-4.345	-1.926	.077	-.176	.177	.050
20	1.78 Sec	5690	-4.142	-1.552	.098	.050	.015	.129
21	2.67 Sec	1560	-4.507	-1.170	.979	-.110	.022	.850
22	3.56 Sec	3315	-4.157	-1.028	.776	.156	-.141	.886
23	5.33 Sec	936	-4.280	-1.005	.036	.128	-.283	.116
24	7.11 Sec	1524	-4.495	-.960	.020	.217	-.455	.045
25	10.67 Sec	233	-4.118	-1.241	.108	.354	-.210	.090
26	14.22 Sec	738	-4.084	-1.603	.008	.358	-.199	.013
27	21.33 Sec	306	-3.719	-1.795	.002	.340	-.016	.003
28	28.44 Sec	384	-3.184	-2.036	.002	.282	.068	.001
29	42.67 Sec	357	-2.421	-2.080	.002	.256	.158	.002
30	56.89 Sec	330	-1.939	-1.973	.002	.108	.135	.001
31	85.33 Sec	138	-1.261	-1.607	.002	.083	.126	.001
32	113.78 Sec	153	-1.013	-1.292	.001	.054	.111	.000
33	170.67 Sec	63	-.766	-.996	.000	.043	.085	.000
34	227.56 Sec	54	-.651	-.816	.000	.032	.062	.000
35	341.33 Sec	9	-.593	-.634	.005	.046	.056	.006
36	455.11 Sec	6	-.487	-.521	.001	.077	.009	.001
37	682.67 Sec	12	-.473	-.435	.000	.059	.032	.001
38	910.22 Sec	18	-.384	-.361	.008	.017	.005	.008
39	1365.33 Sec	3	-.351	-.304	.007	.039	-.018	.011
40	1820.44 Sec	3	-.289	-.297	.000	.075	-.008	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E







PHOENIX GEOSCIENCE

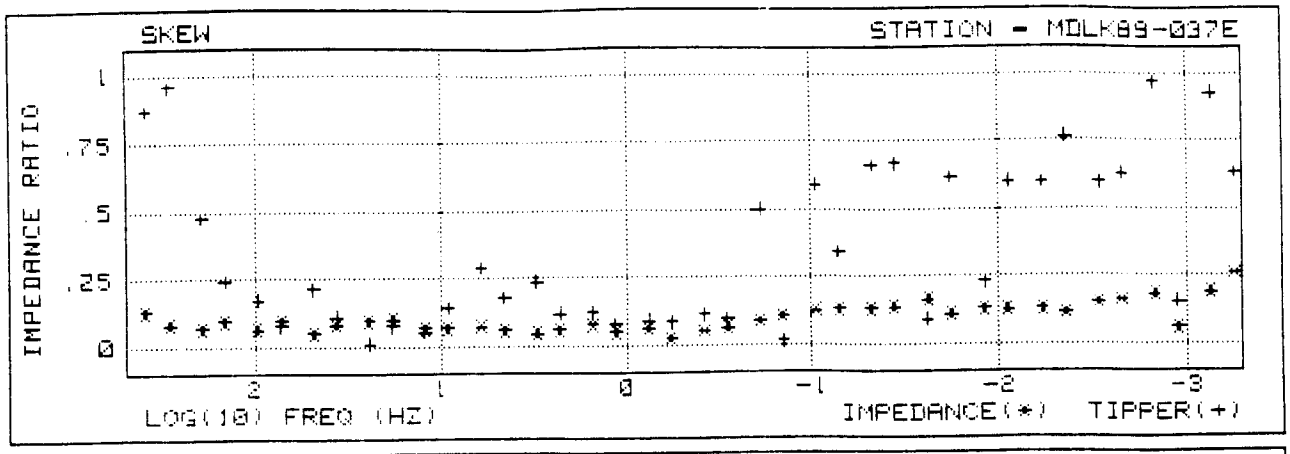
MT Site: MDLK89-037E

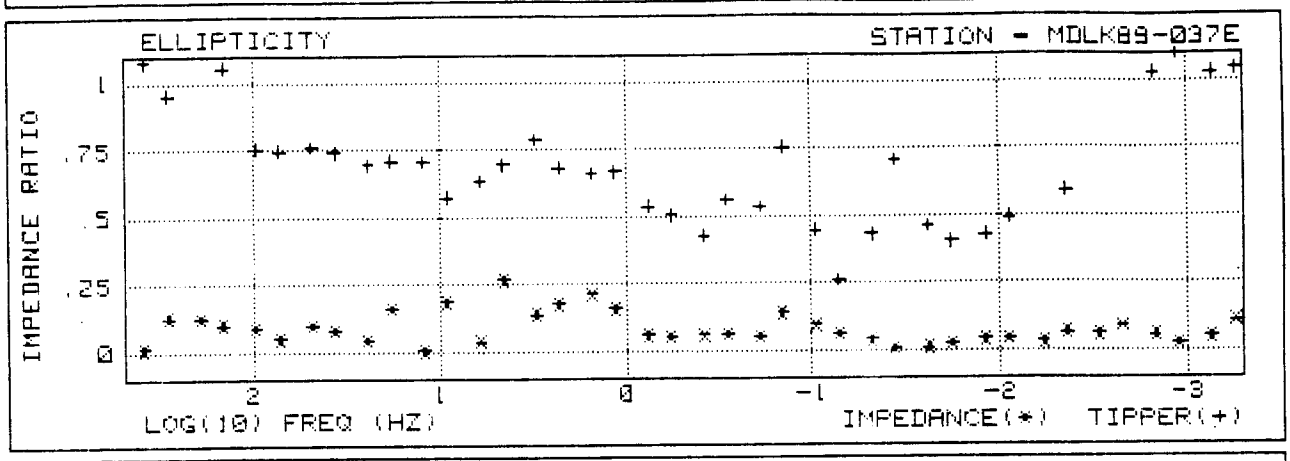
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

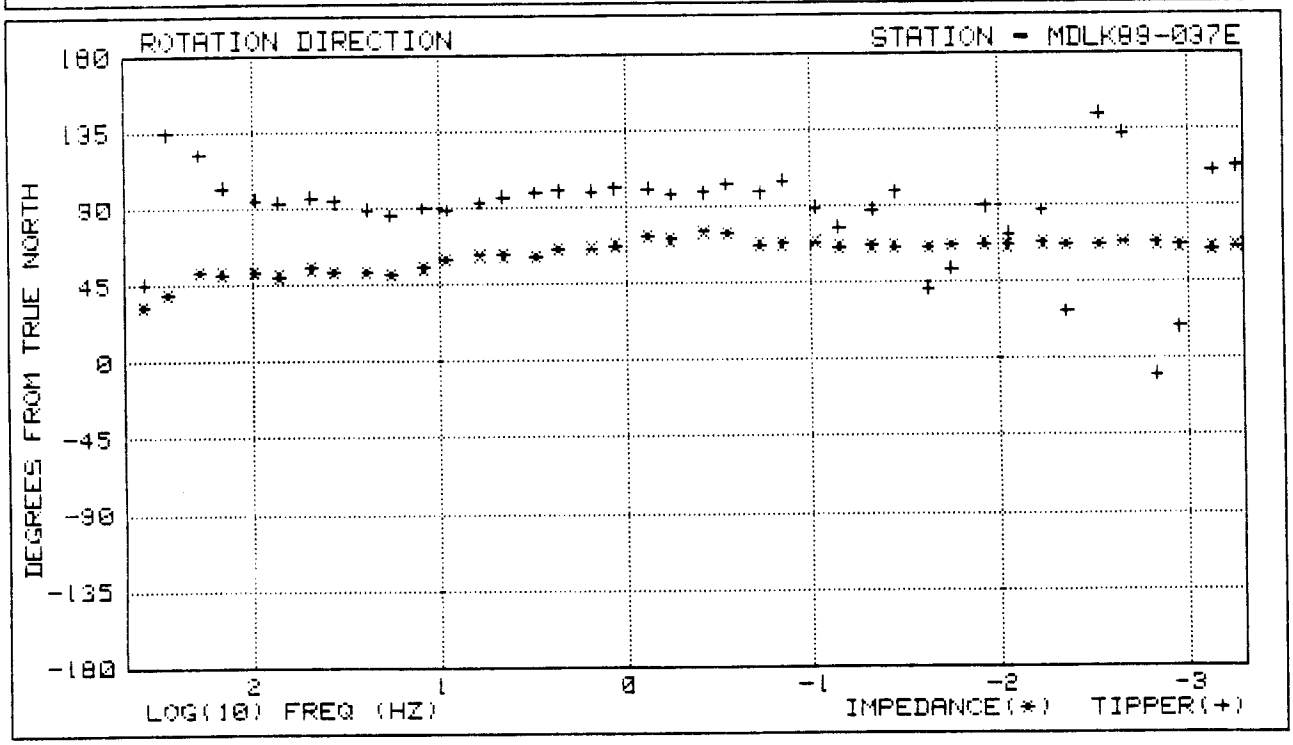
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	367	.64	17.09	.19	.14
2	288.00 Hz	367	.10	76.93	.04	.07
3	192.00 Hz	1026	.24	40.84	.18	.15
4	144.00 Hz	348	.19	79.37	.72	.72
5	96.00 Hz	541	.19	106.17	.86	.87
6	72.00 Hz	288	.20	105.24	.90	.92
7	48.00 Hz	192	.22	107.22	.95	.95
8	36.00 Hz	285	.23	107.54	.98	.96
9	24.00 Hz	1042	.24	115.95	.95	.95
10	18.00 Hz	756	.26	116.95	.93	.93
11	12.00 Hz	752	.25	-119.22	.94	.96
12	9.00 Hz	382	.24	-130.88	.95	.98
13	6.00 Hz	1042	.23	-120.13	.83	.94
14	4.50 Hz	473	.23	-111.85	.81	.91
15	3.00 Hz	15648	.21	-98.01	.47	.61
16	2.25 Hz	16736	.21	-107.94	.56	.76
17	1.50 Hz	6288	.19	-111.31	.53	.74
18	1.13 Hz	7280	.16	-112.55	.45	.64
19	1.33 Sec	5034	.16	-132.23	.49	.68
20	1.78 Sec	5690	.17	-140.67	.32	.44
21	2.67 Sec	1560	.17	151.55	.35	.48
22	3.56 Sec	3315	.18	-128.84	.26	.33
23	5.33 Sec	936	.23	141.78	.40	.47
24	7.11 Sec	1524	.21	-103.75	.39	.48
25	10.67 Sec	233	.15	-130.66	.21	.23
26	14.22 Sec	738	.11	-147.62	.17	.22
27	21.33 Sec	306	.15	160.33	.36	.44
28	28.44 Sec	384	.15	-81.44	.35	.42
29	42.67 Sec	357	.11	-152.73	.25	.38
30	56.89 Sec	330	.13	-150.78	.35	.45
31	85.33 Sec	138	.16	-137.49	.39	.48
32	113.78 Sec	153	.09	-153.81	.25	.33
33	170.67 Sec	63	.19	86.30	.54	.52
34	227.56 Sec	54	.10	90.41	.19	.26
35	341.33 Sec	9	.25	93.58	.52	.42
36	455.11 Sec	6	.11	-63.87	.61	.59
37	682.67 Sec	12	.19	87.67	.58	.55
38	910.22 Sec	18	.13	31.49	.25	.16
39	1365.33 Sec	3	.09	9.38	.97	.76
40	1820.44 Sec	3	.61	-52.71	.82	.91

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E







PHOENIX GEOSCIENCE

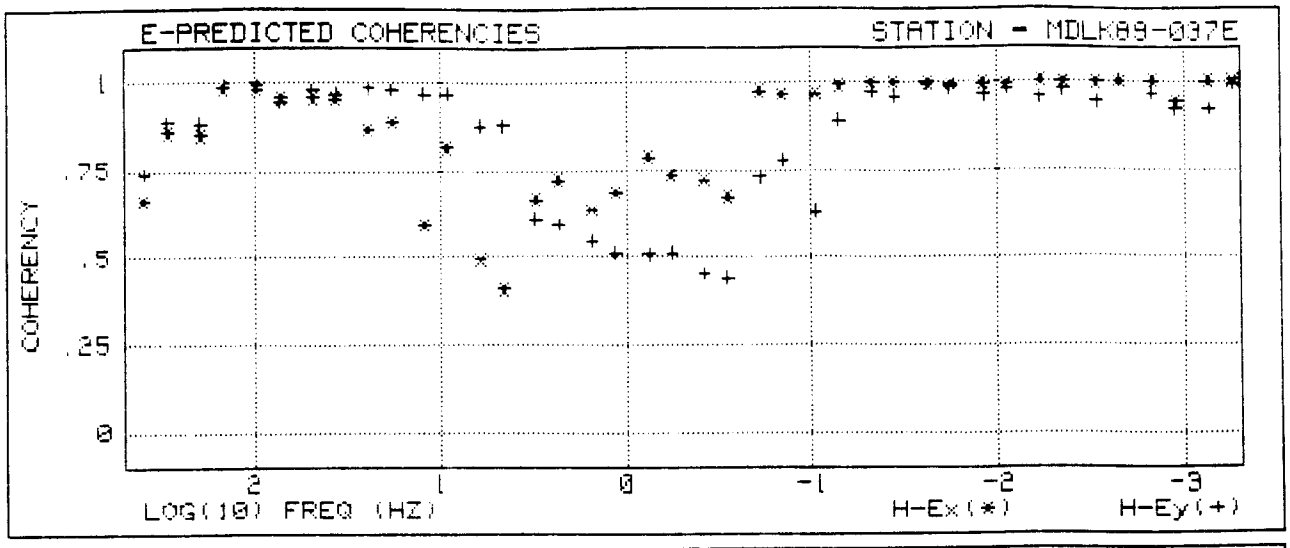
MT Site: MDLK89-037E

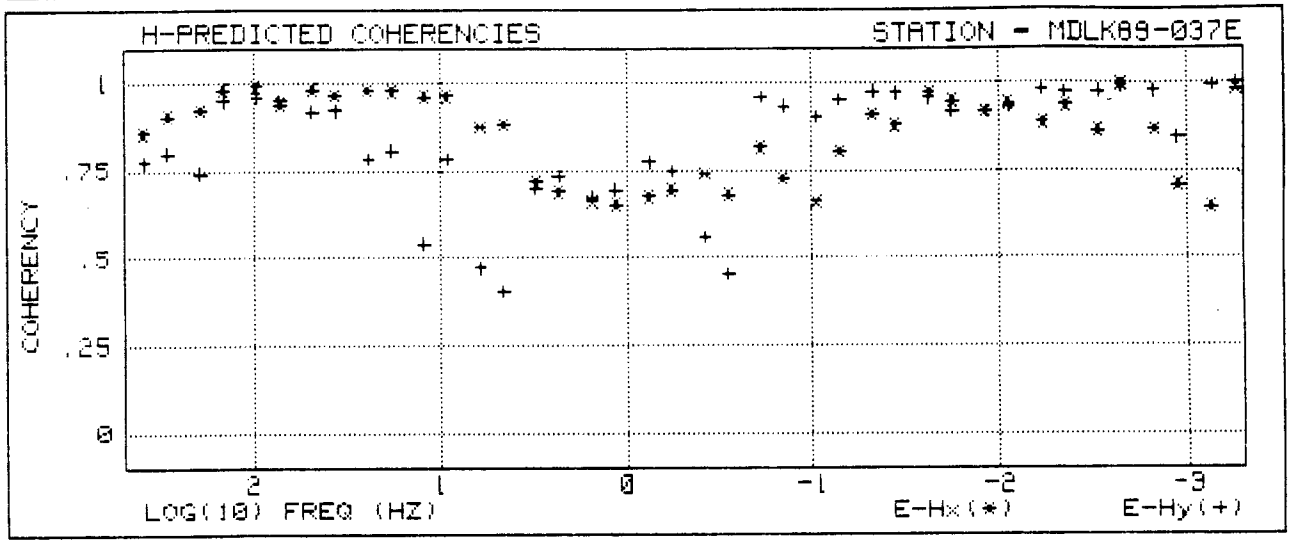
SKEW, ELLIPTICITY AND STRIKE

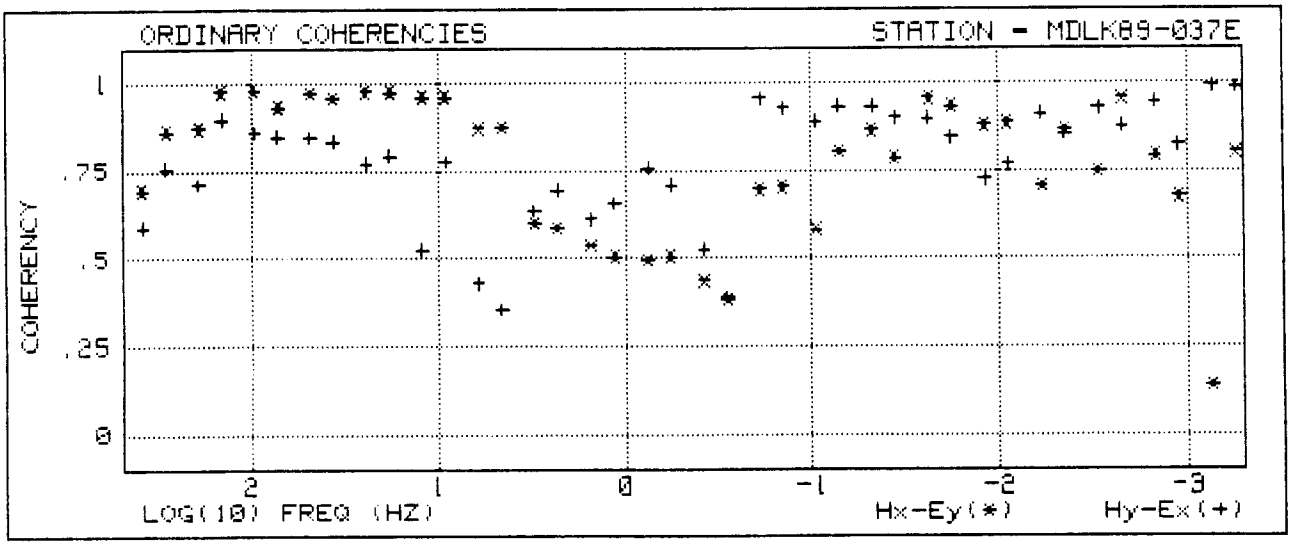
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	367	.13	.01	31.66	.87	1.07	45.35
2	288.00 Hz	367	.08	.12	39.00	.95	.95	133.83
3	192.00 Hz	1026	.06	.12	51.72	.48	1.75	121.27
4	144.00 Hz	348	.09	.10	51.15	.24	1.05	101.76
5	96.00 Hz	541	.06	.09	52.07	.17	.75	94.31
6	72.00 Hz	288	.09	.05	49.59	.07	.74	92.94
7	48.00 Hz	192	.05	.10	54.53	.21	.76	95.99
8	36.00 Hz	285	.08	.08	51.82	.11	.73	93.35
9	24.00 Hz	1042	.09	.04	51.88	.01	.69	88.41
10	18.00 Hz	756	.10	.16	50.63	.07	.70	84.93
11	12.00 Hz	752	.06	.00	54.38	.05	.70	89.42
12	9.00 Hz	382	.06	.18	58.97	.14	.57	88.30
13	6.00 Hz	1042	.07	.03	61.65	.28	.63	92.59
14	4.50 Hz	473	.05	.26	61.49	.17	.69	95.74
15	3.00 Hz	15648	.04	.13	60.61	.23	.78	98.24
16	2.25 Hz	16736	.05	.17	64.86	.11	.68	98.91
17	1.50 Hz	6288	.07	.21	65.43	.12	.66	98.62
18	1.13 Hz	7280	.05	.15	66.85	.07	.66	100.40
19	1.33 Sec	5034	.06	.06	72.23	.09	.53	100.17
20	1.78 Sec	5690	.02	.05	70.30	.08	.50	96.69
21	2.67 Sec	1560	.05	.05	74.49	.11	.42	97.69
22	3.56 Sec	3315	.06	.06	73.40	.09	.56	102.37
23	5.33 Sec	936	.08	.05	67.09	.50	.53	97.78
24	7.11 Sec	1524	.10	.14	67.38	.01	.75	104.27
25	10.67 Sec	233	.13	.09	68.42	.59	.44	88.37
26	14.22 Sec	738	.13	.06	65.60	.34	.26	76.87
27	21.33 Sec	306	.13	.04	65.67	.66	.43	87.03
28	28.44 Sec	384	.13	.00	65.44	.66	.70	97.84
29	42.67 Sec	357	.16	.01	65.07	.09	.46	40.63
30	56.89 Sec	330	.11	.02	66.38	.61	.40	52.57
31	85.33 Sec	138	.13	.04	67.00	.23	.43	89.08
32	113.78 Sec	153	.12	.04	65.81	.60	.49	72.56
33	170.67 Sec	63	.13	.03	67.16	.59	2.20	86.72
34	227.56 Sec	54	.11	.06	66.45	.76	.59	27.52
35	341.33 Sec	9	.15	.05	66.44	.59	1.64	143.47
36	455.11 Sec	6	.16	.08	67.68	.62	2.73	131.77
37	682.67 Sec	12	.18	.05	67.11	.96	1.02	-9.71
38	910.22 Sec	18	.06	.02	65.87	.15	1.09	18.33
39	1365.33 Sec	3	.19	.05	63.93	.92	1.02	109.69
40	1820.44 Sec	3	.26	.11	65.38	.63	1.03	112.07

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E







PHOENIX GEOSCIENCE

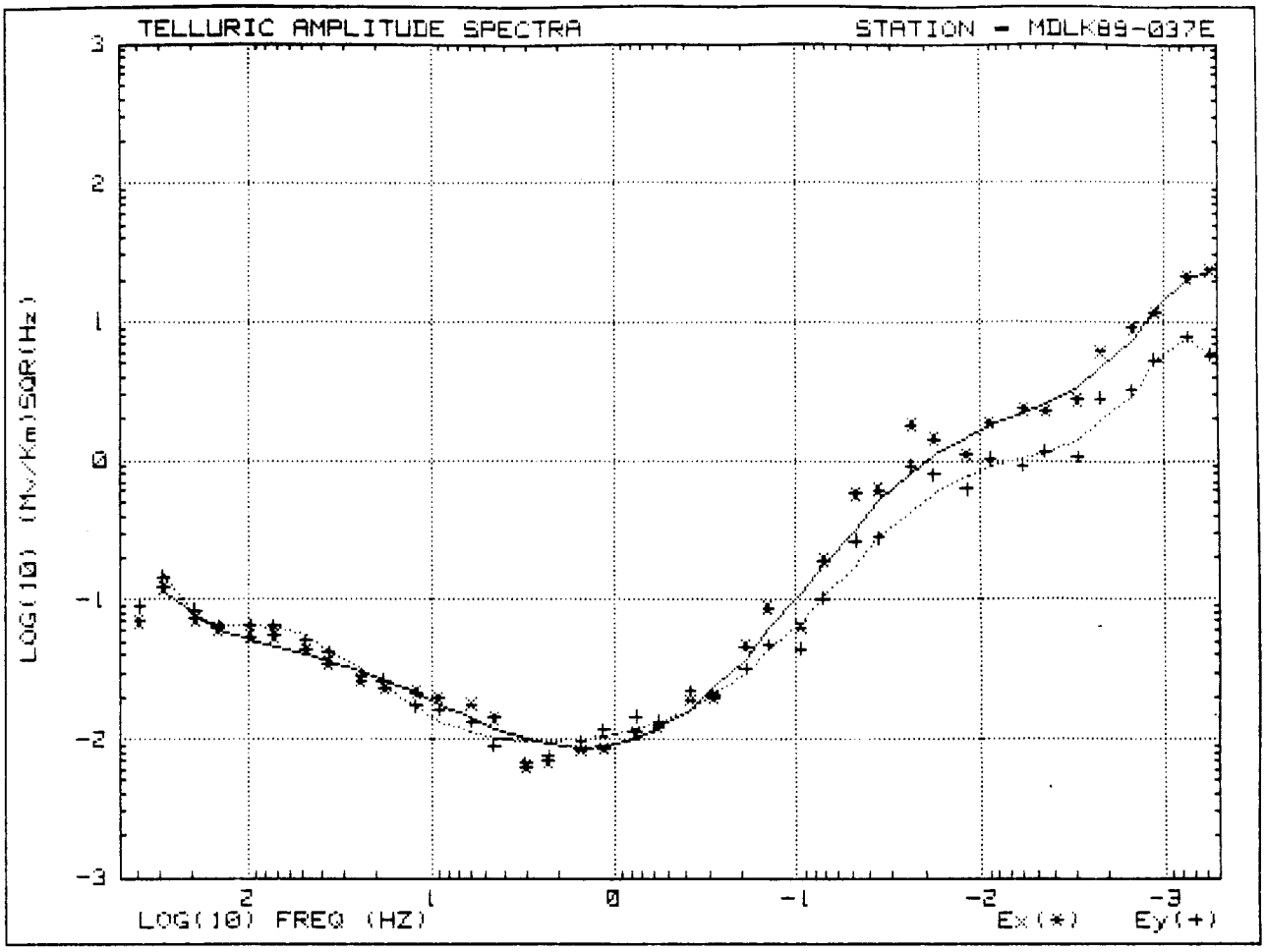
MT Site: MDLK89-037E

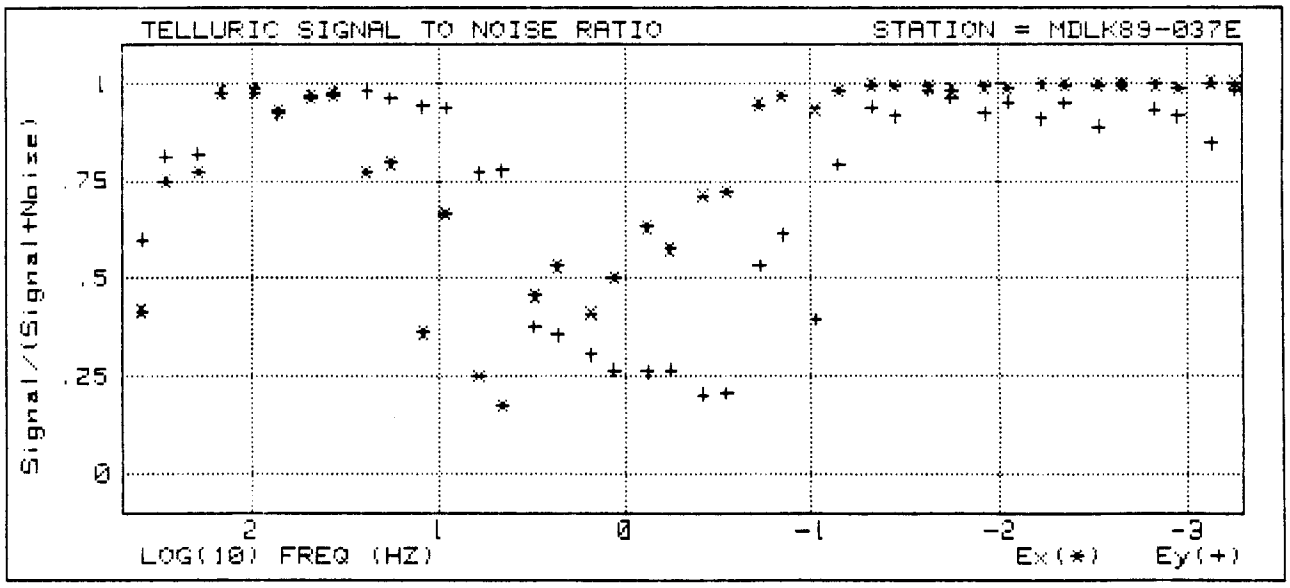
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	367	.66	.74	.85	.77	.69	.59
2	288.00 Hz	367	.85	.88	.90	.80	.86	.75
3	192.00 Hz	1026	.85	.88	.92	.74	.87	.71
4	144.00 Hz	348	.98	.98	.98	.95	.97	.89
5	96.00 Hz	541	.98	.99	.99	.96	.98	.86
6	72.00 Hz	288	.95	.94	.94	.95	.93	.84
7	48.00 Hz	192	.95	.98	.98	.91	.97	.84
8	36.00 Hz	285	.95	.96	.96	.92	.96	.83
9	24.00 Hz	1042	.86	.98	.98	.78	.97	.77
10	18.00 Hz	756	.88	.98	.97	.80	.97	.79
11	12.00 Hz	752	.59	.96	.96	.54	.96	.52
12	9.00 Hz	382	.81	.96	.96	.78	.96	.77
13	6.00 Hz	1042	.49	.87	.87	.47	.87	.43
14	4.50 Hz	473	.41	.88	.88	.40	.87	.35
15	3.00 Hz	15648	.66	.61	.71	.70	.60	.63
16	2.25 Hz	16736	.72	.59	.69	.73	.58	.69
17	1.50 Hz	6288	.63	.54	.66	.67	.53	.61
18	1.13 Hz	7280	.68	.51	.65	.69	.50	.65
19	1.33 Sec	5034	.78	.50	.67	.77	.49	.75
20	1.78 Sec	5690	.73	.51	.69	.74	.50	.70
21	2.67 Sec	1560	.72	.45	.74	.56	.43	.52
22	3.56 Sec	3315	.67	.44	.68	.45	.38	.39
23	5.33 Sec	936	.97	.73	.81	.95	.69	.95
24	7.11 Sec	1524	.96	.77	.72	.93	.70	.92
25	10.67 Sec	233	.96	.63	.66	.90	.58	.89
26	14.22 Sec	738	.99	.89	.80	.95	.80	.93
27	21.33 Sec	306	1.00	.97	.91	.97	.86	.93
28	28.44 Sec	384	1.00	.96	.88	.97	.78	.90
29	42.67 Sec	357	.99	.99	.97	.95	.95	.89
30	56.89 Sec	330	.99	.98	.94	.92	.93	.84
31	85.33 Sec	138	.99	.96	.91	.91	.88	.72
32	113.78 Sec	153	.99	.98	.94	.93	.88	.76
33	170.67 Sec	63	1.00	.95	.88	.98	.70	.91
34	227.56 Sec	54	1.00	.97	.93	.97	.86	.85
35	341.33 Sec	9	.99	.94	.86	.97	.75	.92
36	455.11 Sec	6	1.00	1.00	.99	.99	.95	.87
37	682.67 Sec	12	1.00	.96	.86	.97	.79	.94
38	910.22 Sec	18	.94	.92	.71	.84	.67	.82
39	1365.33 Sec	3	1.00	.92	.64	.99	.13	.99
40	1820.44 Sec	3	1.00	.99	.98	1.00	.80	.98

PHOENIX GEOSCIENCE

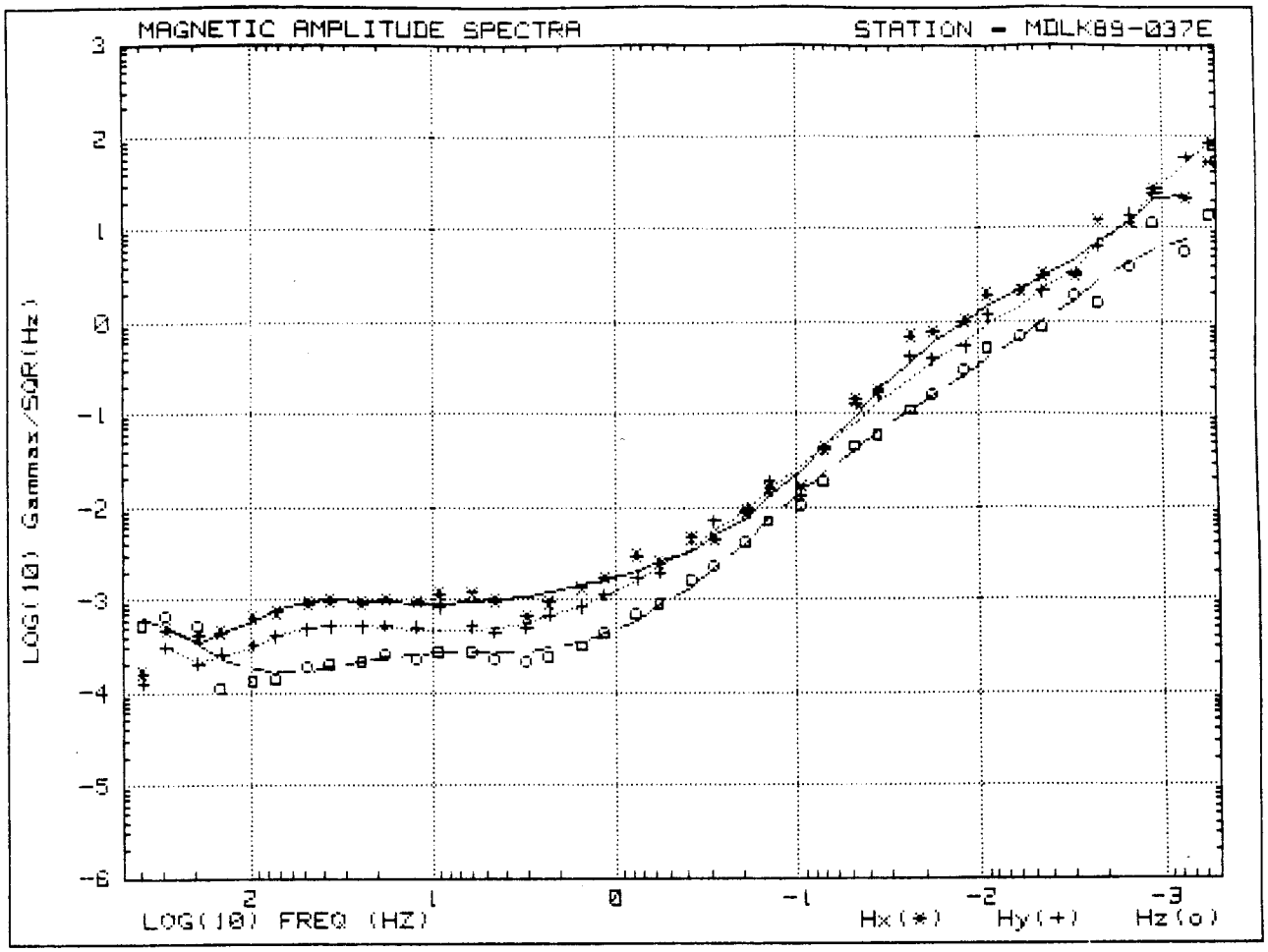
MT Site: MDLK89-037E

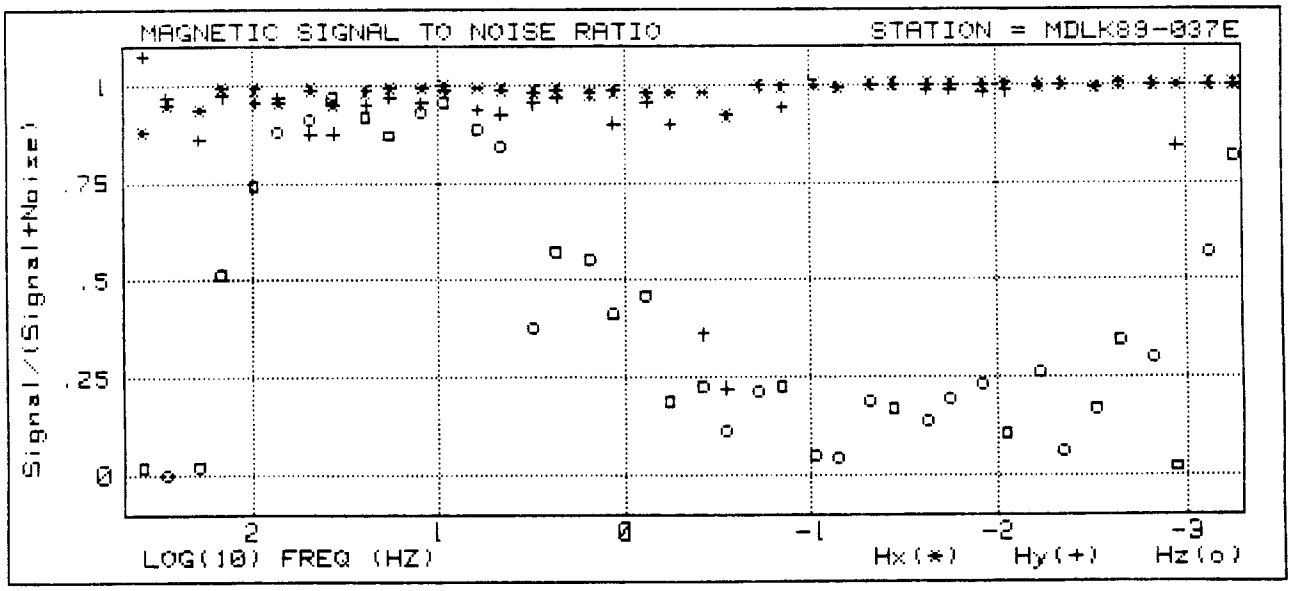




PHOENIX GEOSCIENCE

MT Site: MDLK89-037E





PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	367	1.59E-04	1.25E-04	5.45E-04	6.90E-02	8.72E-02
2	288.00 Hz	367	4.65E-04	3.00E-04	7.10E-04	1.21E-01	1.44E-01
3	192.00 Hz	1026	3.98E-04	2.04E-04	5.56E-04	7.21E-02	8.30E-02
4	144.00 Hz	348	4.38E-04	2.58E-04	1.18E-04	6.10E-02	6.45E-02
5	96.00 Hz	541	6.26E-04	3.20E-04	1.38E-04	5.32E-02	6.39E-02
6	72.00 Hz	288	7.19E-04	4.02E-04	1.45E-04	5.40E-02	6.40E-02
7	48.00 Hz	192	8.99E-04	4.80E-04	2.03E-04	4.30E-02	5.08E-02
8	36.00 Hz	285	9.60E-04	5.11E-04	2.16E-04	3.46E-02	4.14E-02
9	24.00 Hz	1042	9.12E-04	5.10E-04	2.26E-04	2.62E-02	2.77E-02
10	18.00 Hz	756	1.00E-03	5.20E-04	2.71E-04	2.27E-02	2.60E-02
11	12.00 Hz	752	9.46E-04	5.01E-04	2.43E-04	2.12E-02	1.71E-02
12	9.00 Hz	382	1.15E-03	8.16E-04	2.85E-04	1.96E-02	1.60E-02
13	6.00 Hz	1042	1.16E-03	5.07E-04	2.88E-04	1.75E-02	1.30E-02
14	4.50 Hz	473	9.68E-04	4.32E-04	2.38E-04	1.40E-02	8.92E-03
15	3.00 Hz	15648	6.52E-04	4.83E-04	2.26E-04	6.24E-03	6.50E-03
16	2.25 Hz	16736	9.19E-04	6.74E-04	2.56E-04	6.82E-03	7.45E-03
17	1.50 Hz	6288	1.31E-03	8.22E-04	3.33E-04	8.05E-03	9.47E-03
18	1.13 Hz	7280	1.71E-03	1.12E-03	4.52E-04	8.43E-03	1.14E-02
19	1.33 Sec	5034	2.98E-03	1.67E-03	7.32E-04	1.09E-02	1.44E-02
20	1.78 Sec	5690	2.52E-03	1.97E-03	9.75E-04	1.21E-02	1.33E-02
21	2.67 Sec	1560	4.67E-03	4.64E-03	1.73E-03	1.87E-02	2.21E-02
22	3.56 Sec	3315	4.57E-03	7.03E-03	2.46E-03	1.94E-02	2.05E-02
23	5.33 Sec	936	8.71E-03	9.24E-03	4.41E-03	4.53E-02	3.15E-02
24	7.11 Sec	1524	1.53E-02	1.85E-02	7.47E-03	8.58E-02	4.69E-02
25	10.67 Sec	233	1.67E-02	1.34E-02	1.10E-02	6.26E-02	4.40E-02
26	14.22 Sec	738	4.27E-02	4.09E-02	1.97E-02	1.92E-01	1.01E-01
27	21.33 Sec	306	1.40E-01	1.31E-01	4.81E-02	5.74E-01	2.65E-01
28	28.44 Sec	384	1.80E-01	1.68E-01	6.20E-02	6.12E-01	2.79E-01
29	42.67 Sec	357	6.94E-01	4.10E-01	1.18E-01	1.78E+00	9.09E-01
30	56.89 Sec	330	7.70E-01	3.86E-01	1.74E-01	1.41E+00	7.83E-01
31	85.33 Sec	138	9.91E-01	5.24E-01	3.15E-01	1.09E+00	6.19E-01
32	113.78 Sec	153	1.93E+00	1.14E+00	5.45E-01	1.84E+00	1.03E+00
33	170.67 Sec	63	2.12E+00	2.13E+00	7.22E-01	2.30E+00	8.94E-01
34	227.56 Sec	54	3.07E+00	2.09E+00	9.07E-01	2.26E+00	1.16E+00
35	341.33 Sec	9	3.07E+00	3.23E+00	2.03E+00	2.70E+00	1.05E+00
36	455.11 Sec	6	1.19E+01	6.40E+00	1.68E+00	5.97E+00	2.78E+00
37	682.67 Sec	12	1.16E+01	1.39E+01	4.21E+00	8.99E+00	3.17E+00
38	910.22 Sec	18	2.63E+01	2.35E+01	1.23E+01	1.16E+01	5.25E+00
39	1365.33 Sec	3	2.07E+01	5.68E+01	5.83E+00	2.06E+01	7.70E+00
40	1820.44 Sec	3	5.06E+01	8.03E+01	1.49E+01	2.33E+01	5.67E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	367	.879	1.000	.023	.415	.597
2	288.00 Hz	367	.949	.965	.004	.748	.811
3	192.00 Hz	1026	.934	.859	.026	.772	.818
4	144.00 Hz	348	.992	.971	.518	.974	.974
5	96.00 Hz	541	.990	.955	.750	.974	.985
6	72.00 Hz	288	.953	.966	.887	.927	.920
7	48.00 Hz	192	.987	.873	.916	.961	.966
8	36.00 Hz	285	.949	.874	.971	.969	.974
9	24.00 Hz	1042	.982	.945	.922	.771	.976
10	18.00 Hz	756	.991	.966	.876	.795	.960
11	12.00 Hz	752	.991	.951	.938	.360	.940
12	9.00 Hz	382	.996	.986	.960	.665	.935
13	6.00 Hz	1042	.992	.935	.890	.249	.769
14	4.50 Hz	473	.987	.924	.847	.173	.775
15	3.00 Hz	15648	.981	.952	.382	.454	.374
16	2.25 Hz	16736	.986	.969	.580	.529	.353
17	1.50 Hz	6288	.977	.977	.559	.407	.302
18	1.13 Hz	7280	.983	.899	.417	.501	.264
19	1.33 Sec	5034	.979	.956	.466	.630	.259
20	1.78 Sec	5690	.979	.897	.195	.573	.264
21	2.67 Sec	1560	.980	.360	.230	.709	.200
22	3.56 Sec	3315	.920	.220	.119	.722	.205
23	5.33 Sec	936	.997	.996	.218	.943	.531
24	7.11 Sec	1524	.997	.941	.233	.967	.613
25	10.67 Sec	233	.999	.997	.055	.933	.393
26	14.22 Sec	738	.991	.992	.049	.979	.791
27	21.33 Sec	306	1.000	.997	.193	.994	.937
28	28.44 Sec	384	.999	.999	.173	.991	.915
29	42.67 Sec	357	1.000	.988	.144	.990	.981
30	56.89 Sec	330	1.000	.985	.200	.981	.961
31	85.33 Sec	138	.999	.980	.236	.989	.921
32	113.78 Sec	153	1.000	.984	.109	.984	.950
33	170.67 Sec	63	.994	1.000	.268	.996	.908
34	227.56 Sec	54	.999	1.000	.068	.994	.947
35	341.33 Sec	9	.992	.992	.177	.995	.888
36	455.11 Sec	6	1.000	1.000	.352	.994	.996
37	682.67 Sec	12	.998	.999	.305	.995	.930
38	910.22 Sec	18	.997	.843	.026	.986	.914
39	1365.33 Sec	3	1.000	1.000	.576	1.000	.844
40	1820.44 Sec	3	1.000	1.000	.823	1.000	.980

PHOENIX GEOSCIENCE

MT Site: MDLK89-037E

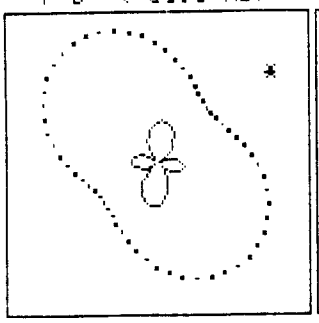
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

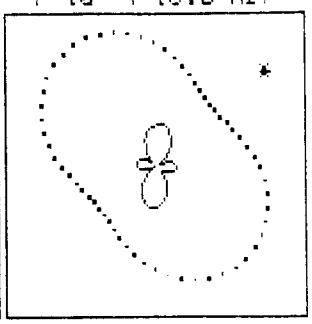
*=Rotation Direction

Zxy = ...
Zxx = ____

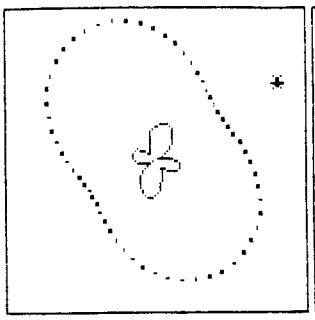
F=8 (36.0 Hz)



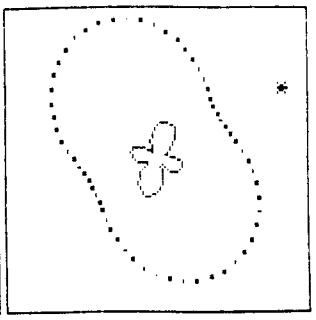
F=10 (18.0 Hz)



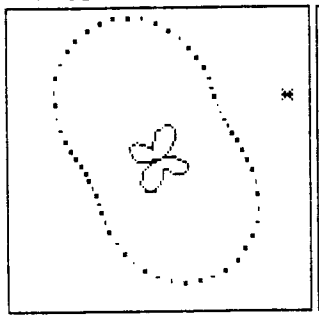
F=12 (9.0 Hz)



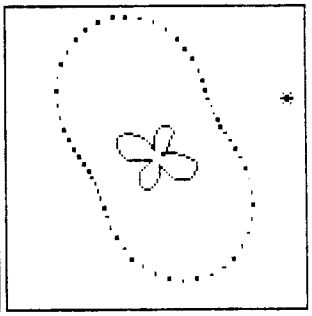
F=14 (4.5 Hz)



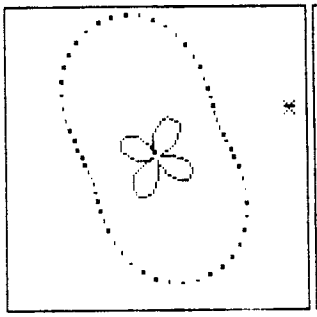
F=16 (2.3 Hz)



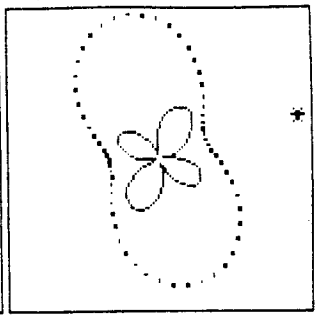
F=18 (1.1 Hz)



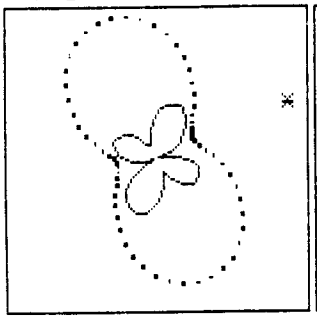
F=20 (.5625 Hz)



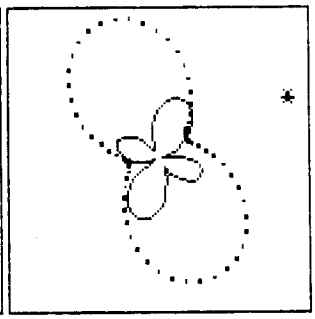
F=22 (.2813 Hz)



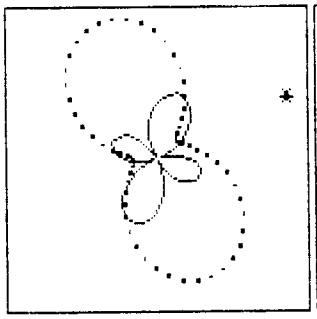
F=24 (.1406 Hz)



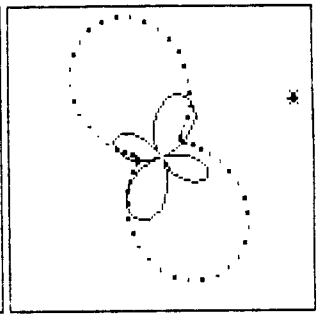
F=26 (.0703 Hz)



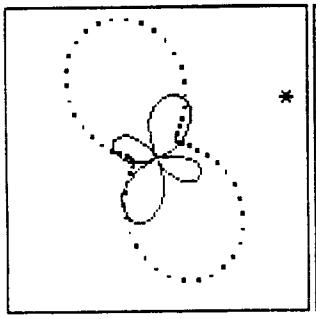
F=28 (.0352 Hz)



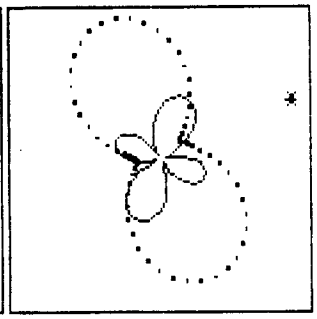
F=30 (.0176 Hz)



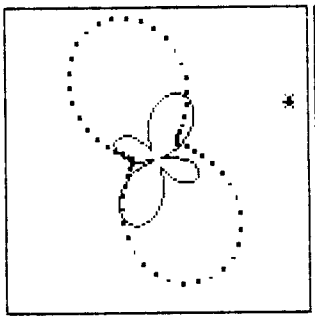
F=32 (.0088 Hz)



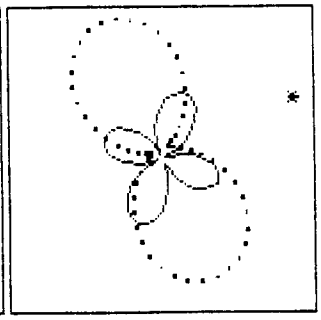
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-037s/038s/

Operator:STEWART
Date: 8 Sep 1989
Time: 13:57:57

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#210-16Aug89-01
Sens-Ch08: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-038s
Site Desc:T44N R4E SEC32 SE4
41,36,23 N 121,31,46 W
Elevation:7165 FT
Reference:MDLK89-037s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL432	+0 DEG
Hy	7	COIL210	+90 DEG
Hz	8	LOOP405	Doubled
Ex	9	140 M	+0 DEG
Ey	10	151 M	+90 DEG
Rx	1	COIL205	+0 DEG
Ry	2	COIL431	+90 DEG

Ex Pot Resist: 20_ K Ohms
Ex Voltage: AC=3.4_ mv, DC=57.9 mv
Ey Pot Resist: 14_ K Ohms
Ey Voltage: AC=6.2_ mv, DC=_200 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

OPERATOR LOG FOR MT SITES MDLK89-037a/038a/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-037a/038a/		
Run STARTED:	13:57:57	8 Sep 1989
Run QUIT:	03:13:49	9 Sep 1989
Run Start and Stop Time for MDLK89-037c/038c/		
Run STARTED:	11:23:14	9 Sep 1989
Run QUIT:	20:41:56	9 Sep 1989
Run Start and Stop Time for MDLK89-037e/038e/		
Run STARTED:	09:37:37	10 Sep 1989
Run QUIT:	17:21:41	10 Sep 1989
Run Start and Stop Time for MDLK89-037f/038f/		
Run STARTED:	17:43:56	10 Sep 1989
Run QUIT:	02:47:37	11 Sep 1989

Operator:STEWART

Cultural Factors:
NONE APPARENT
Weather Conditions:
CALM, DRY, TEMP 50-70
Other Factors:

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MT Site: MDLK89-038E

MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

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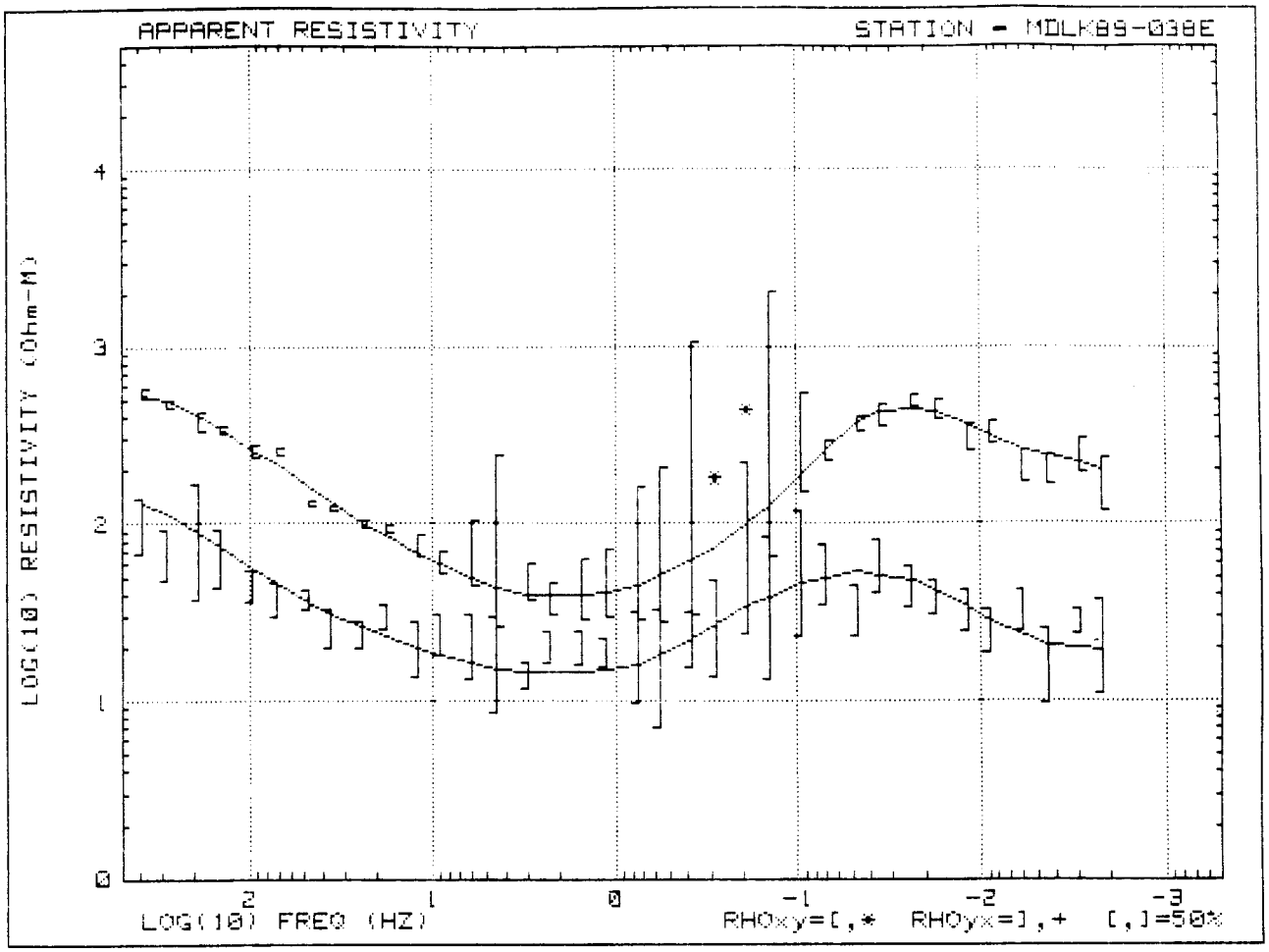
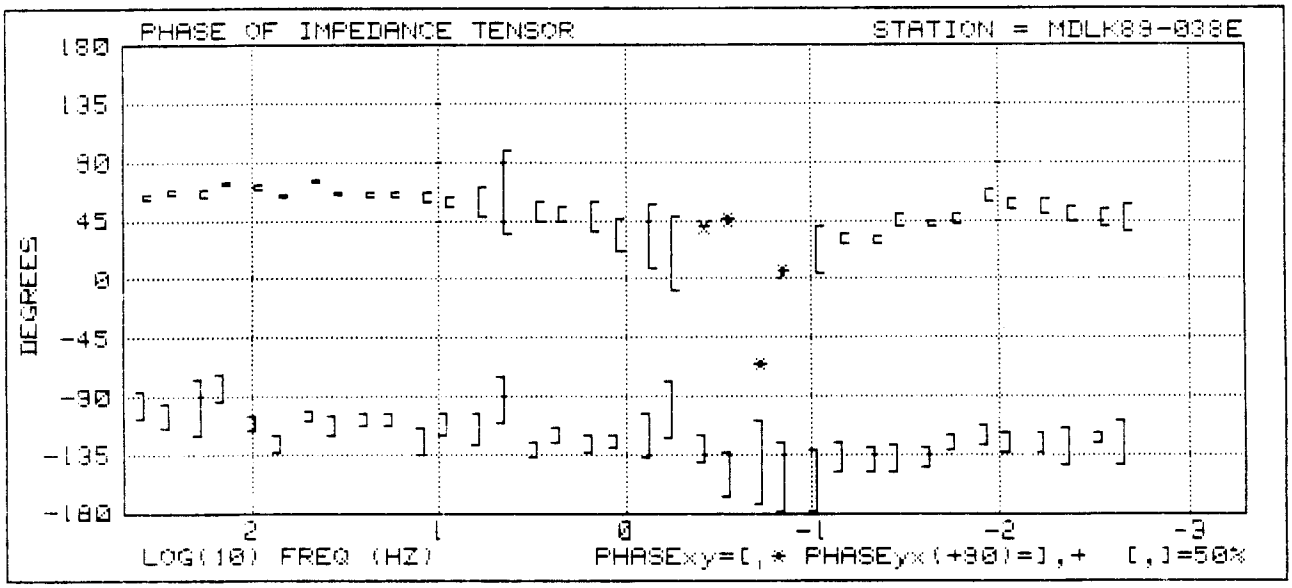
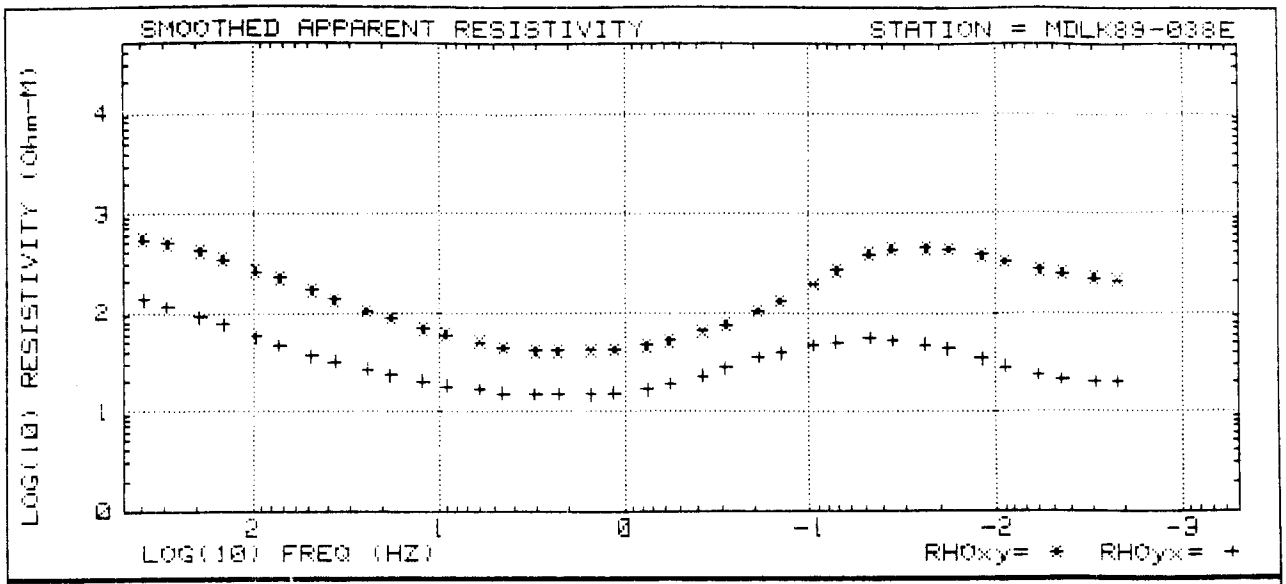
MT Site: MDLK89-038E

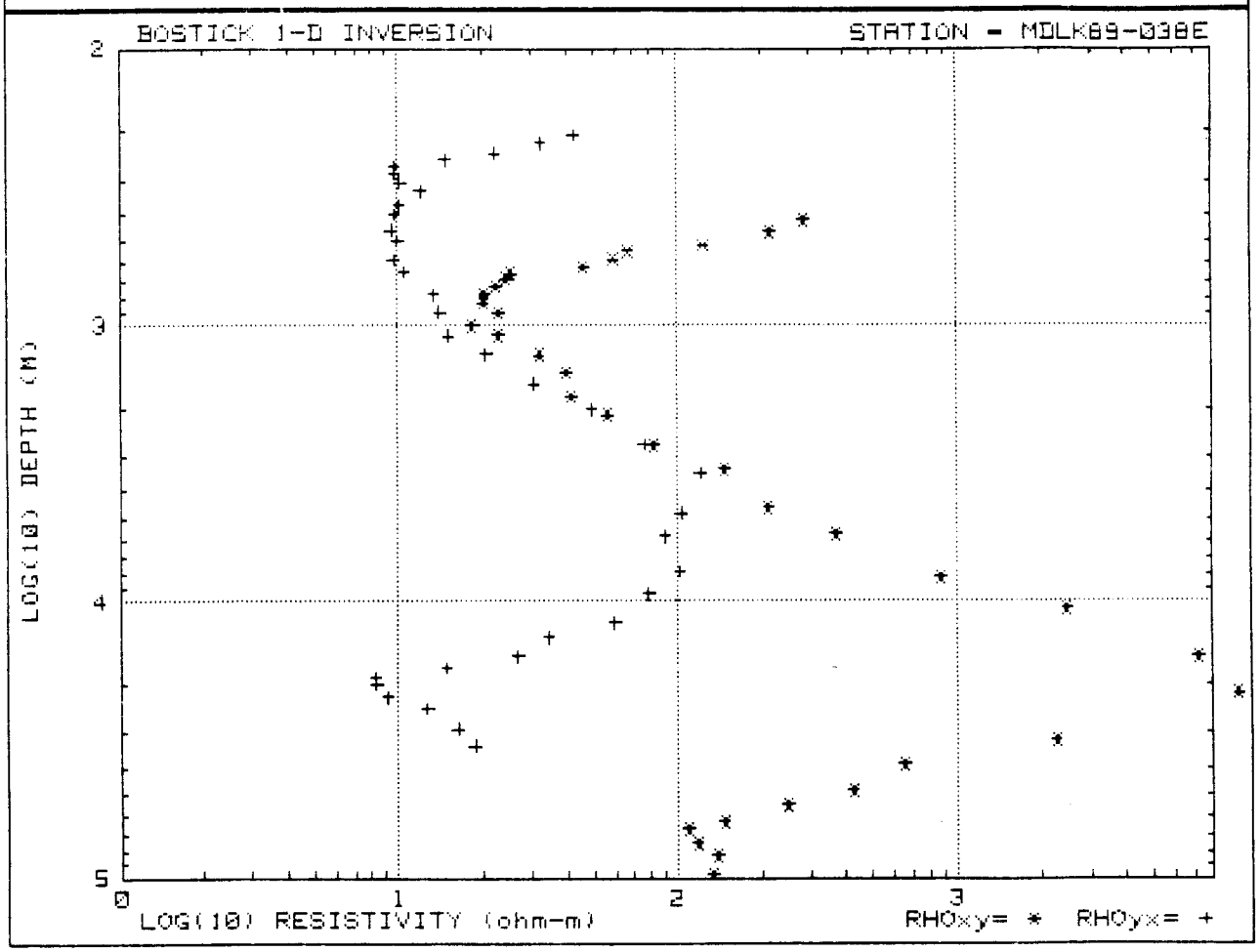




PHOENIX GEOSCIENCE

MT Site: MDLK89-038E





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MT Site: MDLK89-038E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHA	%SD	PHAyx	%SD
1	384.00 Hz	493	550.1	10.7	96.0	70.5	63.9	2.9	-97.2	15.3
2	288.00 Hz	493	470.6	6.7	66.6	62.1	67.1	1.9	-105.1	13.8
3	192.00 Hz	287	378.1	20.5	79.1	99.9	65.9	5.3	-98.1	32.1
4	144.00 Hz	192	336.9	6.7	64.0	75.8	73.5	1.9	-82.7	16.2
5	96.00 Hz	253	256.6	11.3	44.4	34.2	70.1	3.1	-110.1	8.4
6	72.00 Hz	718	255.9	7.5	37.4	38.2	64.4	2.1	-126.3	9.3
7	48.00 Hz	1032	129.9	3.6	37.4	21.6	74.8	1.0	-104.9	5.6
8	36.00 Hz	465	121.1	4.9	25.5	44.0	65.4	1.4	-112.8	10.5
9	24.00 Hz	1042	100.2	6.5	23.7	29.2	65.3	1.8	-107.0	7.3
10	18.00 Hz	1042	94.1	8.9	30.2	25.7	65.1	2.4	-107.4	6.5
11	12.00 Hz	464	75.2	21.8	19.6	68.7	64.0	5.6	-125.2	15.0
12	9.00 Hz	1038	60.5	22.0	23.9	48.9	60.3	5.7	-111.6	11.4
13	6.00 Hz	1042	68.4	87.9	20.6	87.5	59.6	18.1	-116.0	18.0
14	4.50 Hz	476	80.3	99.9	16.1	99.9	67.1	47.7	-93.1	26.7
15	3.00 Hz	5545	47.2	44.7	14.0	28.7	51.6	10.6	-131.4	7.2
16	2.25 Hz	12073	38.0	34.1	20.2	34.1	49.8	8.4	-120.8	8.4
17	1.50 Hz	5280	43.3	80.6	19.8	38.7	47.2	16.9	-126.9	9.4
18	1.13 Hz	5296	46.1	90.3	18.8	32.8	33.1	18.4	-124.9	8.1
19	1.33 Sec	2832	68.0	99.9	17.7	99.9	33.4	37.0	-119.6	25.2
20	1.78 Sec	1992	76.1	99.9	15.2	99.9	19.8	43.1	-99.8	32.6
21	2.67 Sec	612	180.7	99.9	22.3	71.3	39.1	75.8	-130.2	15.4
22	3.56 Sec	1194	179.1	99.9	25.6	99.9	44.7	99.9	-150.3	26.2
23	5.33 Sec	666	435.6	99.9	72.6	99.9	-65.8	99.9	-141.3	47.4
24	7.11 Sec	762	367.2	99.9	33.7	99.9	5.1	73.7	-152.3	39.2
25	10.67 Sec	348	290.1	99.9	52.8	99.9	22.2	27.2	-154.6	34.6
26	14.22 Sec	414	257.3	21.0	52.3	78.3	31.8	5.5	-136.7	16.6
27	21.33 Sec	192	365.5	14.8	32.5	64.3	30.9	4.0	-138.1	14.2
28	28.44 Sec	126	404.5	23.3	57.6	65.6	45.0	6.0	-138.0	14.5
29	42.67 Sec	191	489.6	12.8	44.6	49.5	42.6	3.4	-137.6	11.5
30	56.89 Sec	167	439.8	19.1	38.3	38.5	45.9	5.0	-125.6	9.3
31	85.33 Sec	72	307.9	28.1	32.3	49.2	63.6	7.1	-120.4	11.5
32	113.78 Sec	87	328.8	24.6	25.0	52.4	57.1	6.3	-125.5	12.1
33	170.67 Sec	39	210.4	35.8	32.6	48.1	54.9	8.8	-126.3	11.2
34	227.56 Sec	45	204.2	32.1	15.9	99.9	49.4	8.0	-128.1	20.5
35	341.33 Sec	15	242.6	39.5	28.1	25.0	47.8	9.5	-122.2	6.4
36	455.11 Sec	9	166.7	68.3	20.3	99.9	47.7	14.9	-125.2	25.8

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MT Site: MDLK89-038E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	493	537.2	131.3	286.7	421	42.8	209
2	288.00 Hz	493	492.2	113.4	217.1	465	32.6	223
3	192.00 Hz	287	410.6	89.4	125.1	520	22.3	243
4	144.00 Hz	192	340.2	74.8	67.2	547	14.8	256
5	96.00 Hz	253	258.0	56.3	59.6	583	9.8	272
6	72.00 Hz	718	220.6	45.9	46.7	623	9.8	284
7	48.00 Hz	1032	164.4	35.9	25.6	659	10.2	308
8	36.00 Hz	465	133.0	31.2	24.3	684	12.1	331
9	24.00 Hz	1042	101.9	26.4	22.6	733	10.2	374
10	18.00 Hz	1042	85.5	23.0	20.5	776	9.8	402
11	12.00 Hz	464	66.6	20.0	20.2	839	9.6	460
12	9.00 Hz	1038	59.0	18.0	23.0	911	10.1	503
13	6.00 Hz	1042	49.1	16.5	18.6	1018	9.7	590
14	4.50 Hz	476	43.2	15.0	23.1	1102	10.6	651
15	3.00 Hz	5545	39.8	14.6	32.1	1296	13.5	786
16	2.25 Hz	12073	40.1	14.6	40.5	1502	14.1	907
17	1.50 Hz	5280	40.0	14.5	41.9	1837	15.2	1105
18	1.13 Hz	5296	40.7	14.9	56.5	2141	20.7	1294
19	1.33 Sec	2832	44.7	16.2	83.5	2749	30.7	1654
20	1.78 Sec	1992	50.2	18.4	148.6	3362	49.7	2037
21	2.67 Sec	612	63.0	22.3	214.6	4615	76.9	2742
22	3.56 Sec	1194	73.3	27.0	375.6	5745	121.6	3486
23	5.33 Sec	666	100.6	34.6	884.5	8241	103.7	4836
24	7.11 Sec	762	127.2	38.1	2481.3	10705	90.9	5861
25	10.67 Sec	348	188.0	46.0	7330.2	15935	102.4	7880
26	14.22 Sec	414	259.4	49.7	10116.1	21615	79.6	9457
27	21.33 Sec	192	378.8	54.0	2257.8	31993	60.1	12077
28	28.44 Sec	126	425.1	51.5	651.8	39133	34.7	13626
29	42.67 Sec	191	438.3	47.1	426.9	48670	27.0	15961
30	56.89 Sec	167	421.2	42.7	248.6	55089	14.9	17534
31	85.33 Sec	72	366.7	33.7	147.5	62950	8.4	19095
32	113.78 Sec	87	313.4	28.1	109.3	67207	8.4	20124
33	170.67 Sec	39	262.3	23.2	118.1	75304	9.2	22403
34	227.56 Sec	45	241.0	20.8	139.1	83346	12.8	24508
35	341.33 Sec	15	217.9	19.7	133.9	97049	16.4	29148
36	455.11 Sec	9	204.3	19.6	129.5	108511	18.9	33577

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	493	92.25	260.22	999.99	452.26	922.83	999.99
2	288.00 Hz	493	35.87	179.61	999.99	320.30	758.31	999.99
3	192.00 Hz	287	85.58	126.78	999.99	246.17	549.93	999.99
4	144.00 Hz	192	50.71	110.25	999.99	140.05	472.17	507.66
5	96.00 Hz	253	59.71	48.59	999.99	119.75	329.91	700.48
6	72.00 Hz	718	15.76	62.95	999.99	131.34	273.63	242.68
7	48.00 Hz	1032	-11.47	15.95	132.32	46.23	170.42	19.08
8	36.00 Hz	465	3.69	16.40	222.74	61.49	134.23	25.08
9	24.00 Hz	1042	2.88	17.26	88.52	45.87	99.62	23.79
10	18.00 Hz	1042	1.12	9.25	92.51	38.77	83.46	30.67
11	12.00 Hz	464	-12.36	10.39	202.21	29.40	60.39	87.70
12	9.00 Hz	1038	-1.92	6.44	117.62	25.82	45.32	53.83
13	6.00 Hz	1042	-6.26	3.22	381.99	22.95	39.04	407.79
14	4.50 Hz	476	-2.85	-6.11	999.99	16.52	39.16	999.99
15	3.00 Hz	5545	-2.64	-1.77	35.28	16.53	20.86	48.28
16	2.25 Hz	12073	-1.34	-2.75	23.99	13.35	15.79	18.44
17	1.50 Hz	5280	-.92	-1.57	43.97	12.24	13.22	56.74
18	1.13 Hz	5296	-2.58	-.76	33.32	13.50	8.79	53.75
19	1.33 Sec	2832	-1.991	-.723	99.999	13.333	8.792	99.999
20	1.78 Sec	1992	-2.656	2.779	99.999	13.767	4.963	99.999
21	2.67 Sec	612	-.433	-4.778	99.999	14.284	11.606	99.999
22	3.56 Sec	1194	-.857	-4.388	99.999	11.280	11.162	99.999
23	5.33 Sec	666	3.687	6.000	99.999	8.299	-18.425	99.999
24	7.11 Sec	762	-2.962	.365	99.999	16.006	1.415	99.999
25	10.67 Sec	348	-2.594	1.022	99.999	10.797	4.405	61.512
26	14.22 Sec	414	-.733	-2.195	7.563	8.085	5.011	1.645
27	21.33 Sec	192	-.112	-.563	1.474	7.943	4.752	.820
28	28.44 Sec	126	-.970	-.377	2.847	5.958	5.967	1.557
29	42.67 Sec	191	-.410	-.069	1.013	5.572	5.132	.414
30	56.89 Sec	167	-.486	-.456	.545	4.325	4.466	.593
31	85.33 Sec	72	-.036	-.545	.274	1.889	3.804	.552
32	113.78 Sec	87	-.009	-.017	.196	2.067	3.191	.348
33	170.67 Sec	39	-.539	-.072	.216	1.426	2.032	.288
34	227.56 Sec	45	-.253	.036	.214	1.379	1.608	.173
35	341.33 Sec	15	-.156	.024	.050	1.265	1.397	.197
36	455.11 Sec	9	-.051	-.295	.262	.911	1.001	.248

PHOENIX GEOSCIENCE

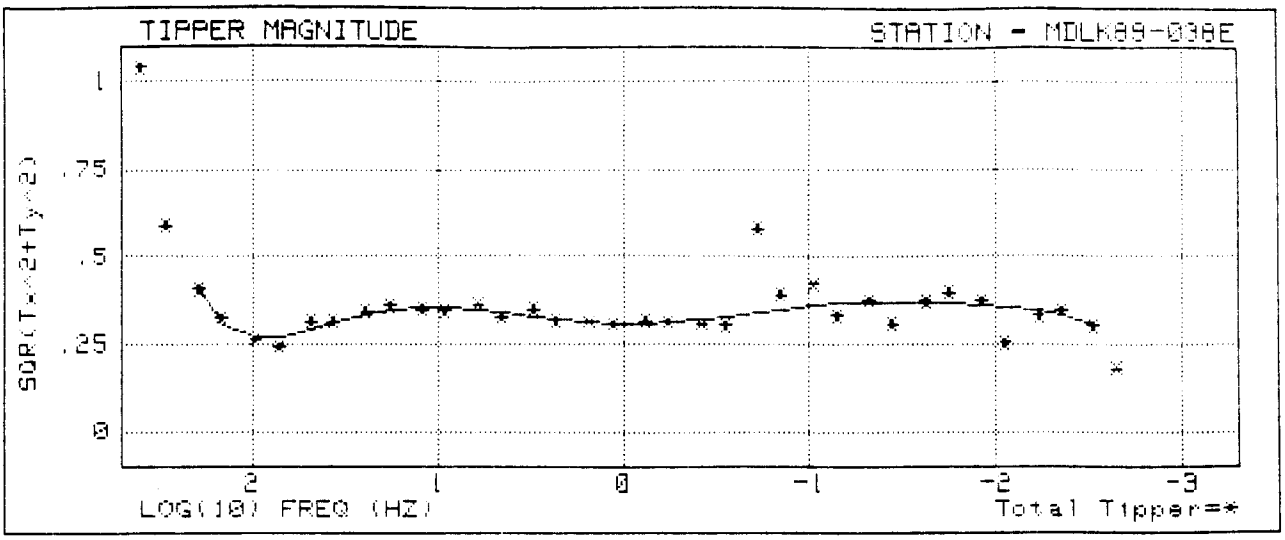
MT Site: MDLK89-038E

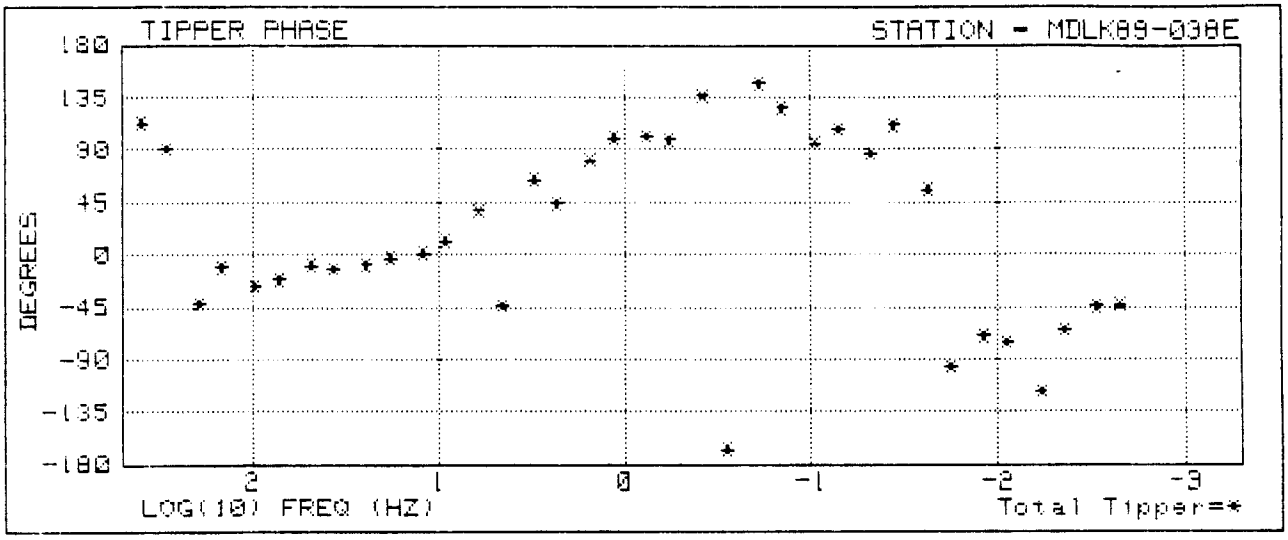
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

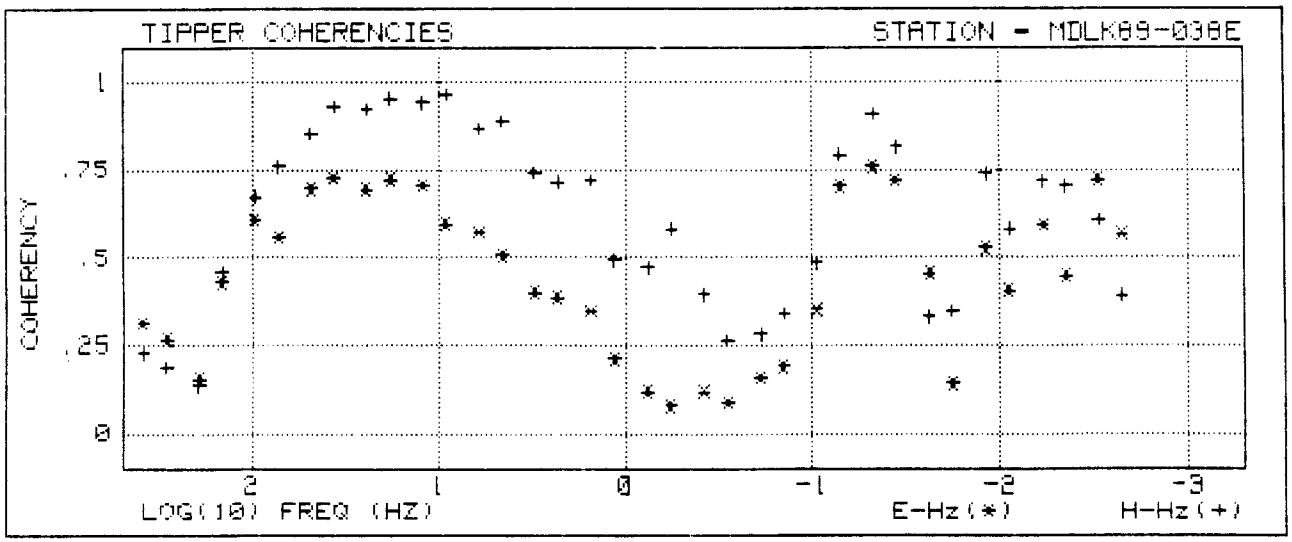
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	493	-53.46	-425.98	999.99	175.69	193.24	999.99
2	288.00 Hz	493	-80.68	-298.91	999.99	79.47	156.87	999.99
3	192.00 Hz	287	-38.68	-272.76	999.99	58.86	146.78	999.99
4	144.00 Hz	192	27.12	-213.01	999.99	22.17	128.66	735.45
5	96.00 Hz	253	-50.22	-137.15	925.16	23.06	61.82	258.38
6	72.00 Hz	718	-68.74	-93.42	704.99	6.41	66.20	134.57
7	48.00 Hz	1032	-24.42	-91.48	171.59	9.95	10.03	24.75
8	36.00 Hz	465	-26.25	-62.40	305.18	17.03	9.85	34.36
9	24.00 Hz	1042	-15.60	-50.95	93.31	10.77	12.35	25.08
10	18.00 Hz	1042	-15.58	-49.79	71.06	5.18	6.45	23.56
11	12.00 Hz	464	-19.74	-28.02	160.66	8.89	4.05	69.68
12	9.00 Hz	1038	-12.04	-30.49	85.16	.55	4.15	38.97
13	6.00 Hz	1042	-10.89	-22.32	121.88	-2.71	.67	130.11
14	4.50 Hz	476	-1.04	-19.03	157.69	-7.73	-2.37	349.86
15	3.00 Hz	5545	-9.59	-10.87	6.70	-1.28	-2.71	9.17
16	2.25 Hz	12073	-7.71	-12.94	9.75	-2.15	-1.16	7.49
17	1.50 Hz	5280	-7.31	-9.74	7.92	-1.90	-.17	10.22
18	1.13 Hz	5296	-5.89	-8.44	4.26	-2.58	-.77	6.86
19	1.33 Sec	2832	-4.023	-7.072	25.569	-2.218	.510	37.393
20	1.78 Sec	1992	-1.106	-6.436	27.625	-2.953	.223	38.369
21	2.67 Sec	612	-4.176	-4.941	6.062	-3.647	.096	13.900
22	3.56 Sec	1194	-5.213	-2.975	15.040	-4.374	-1.782	56.230
23	5.33 Sec	666	-6.434	-5.161	93.302	-5.367	5.284	99.999
24	7.11 Sec	762	-4.309	-2.264	22.205	-3.083	-1.306	23.885
25	10.67 Sec	348	-4.494	-2.138	18.103	-2.132	-.263	7.513
26	14.22 Sec	414	-3.120	-2.941	3.074	-1.669	.050	.668
27	21.33 Sec	192	-2.054	-1.846	.940	-.342	-.097	.523
28	28.44 Sec	126	-2.365	-2.126	1.288	-1.447	.069	.705
29	42.67 Sec	191	-1.688	-1.542	.422	-.232	-.262	.173
30	56.89 Sec	167	-1.067	-1.492	.179	-.241	-.725	.194
31	85.33 Sec	72	-.697	-1.187	.151	-.368	-.394	.305
32	113.78 Sec	87	-.608	-.853	.097	.017	-.033	.173
33	170.67 Sec	39	-.579	-.787	.074	-.223	-.287	.098
34	227.56 Sec	45	-.365	-.465	.090	.057	-.239	.073
35	341.33 Sec	15	-.342	-.542	.010	-.089	-.048	.041
36	455.11 Sec	9	-.272	-.386	.090	-.079	-.266	.085

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E







PHOENIX GEOSCIENCE

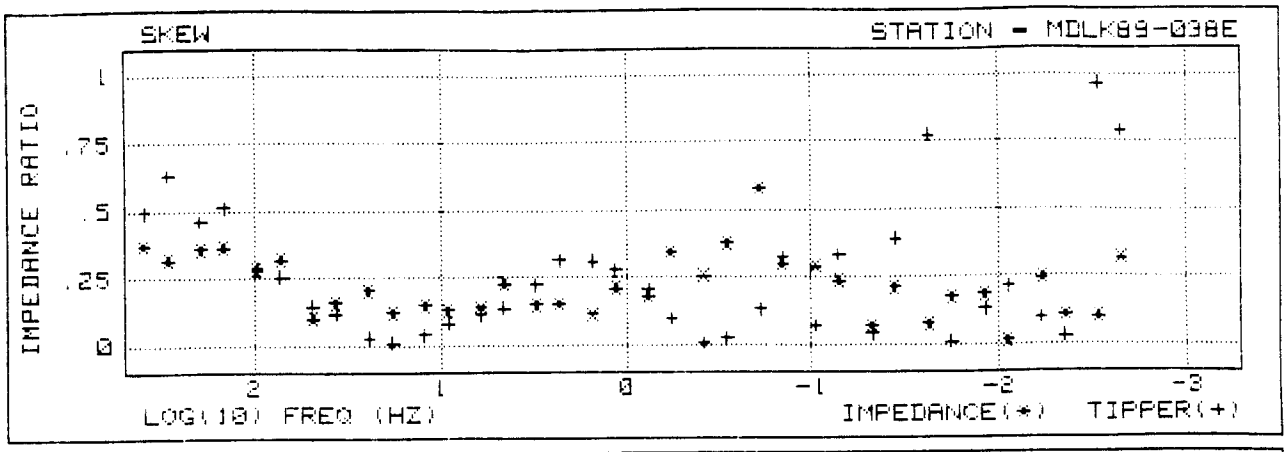
MT Site: MDLK89-038E

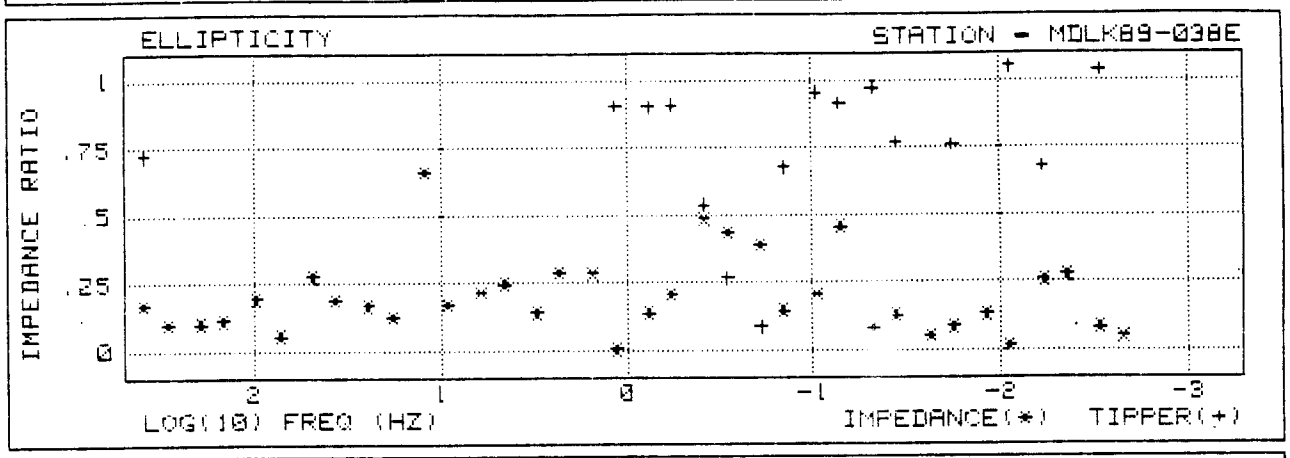
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

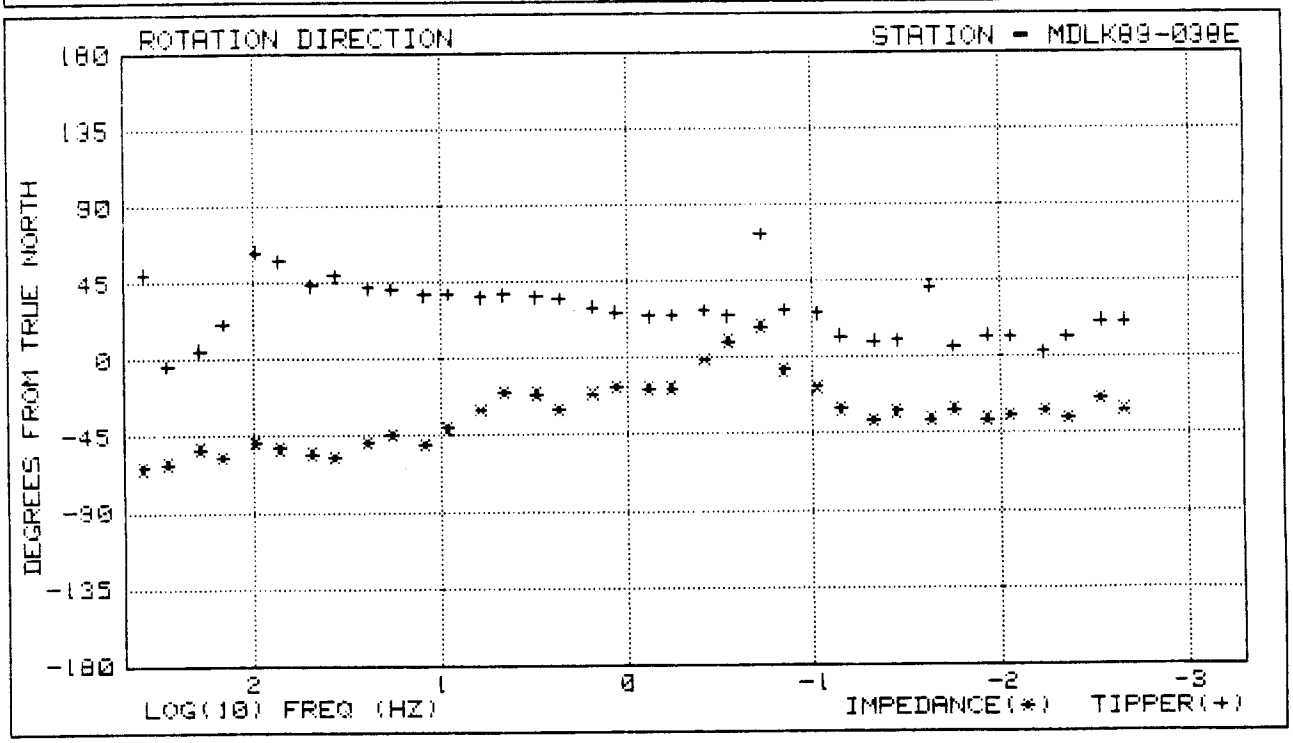
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	493	1.04	111.41	.31	.22
2	288.00 Hz	493	.58	89.94	.26	.18
3	192.00 Hz	287	.41	-42.27	.15	.13
4	144.00 Hz	192	.32	-11.47	.43	.45
5	96.00 Hz	253	.26	-28.09	.60	.67
6	72.00 Hz	718	.24	-22.38	.56	.76
7	48.00 Hz	1032	.31	-10.22	.69	.85
8	36.00 Hz	465	.31	-13.33	.72	.93
9	24.00 Hz	1042	.34	-9.39	.69	.92
10	18.00 Hz	1042	.36	-4.16	.72	.95
11	12.00 Hz	464	.35	-.01	.70	.94
12	9.00 Hz	1038	.34	10.58	.59	.96
13	6.00 Hz	1042	.36	36.70	.57	.86
14	4.50 Hz	476	.32	-44.82	.50	.88
15	3.00 Hz	5545	.35	63.66	.40	.74
16	2.25 Hz	12073	.31	42.75	.38	.71
17	1.50 Hz	5280	.31	79.92	.34	.72
18	1.13 Hz	5296	.30	99.48	.21	.49
19	1.33 Sec	2832	.31	100.82	.12	.47
20	1.78 Sec	1992	.31	97.62	.08	.58
21	2.67 Sec	612	.30	135.52	.11	.39
22	3.56 Sec	1194	.30	-168.15	.09	.26
23	5.33 Sec	666	.58	146.33	.16	.28
24	7.11 Sec	762	.39	125.08	.19	.34
25	10.67 Sec	348	.42	94.97	.35	.48
26	14.22 Sec	414	.33	106.86	.70	.79
27	21.33 Sec	192	.37	85.60	.76	.90
28	28.44 Sec	126	.30	110.26	.72	.81
29	42.67 Sec	191	.37	54.79	.45	.33
30	56.89 Sec	167	.40	-97.08	.14	.34
31	85.33 Sec	72	.37	-70.45	.53	.74
32	113.78 Sec	87	.25	-76.42	.40	.58
33	170.67 Sec	39	.33	-118.13	.59	.71
34	227.56 Sec	45	.34	-65.54	.45	.70
35	341.33 Sec	15	.30	-45.02	.72	.60
36	455.11 Sec	9	.18	-44.19	.56	.39

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E







PHOENIX GEOSCIENCE

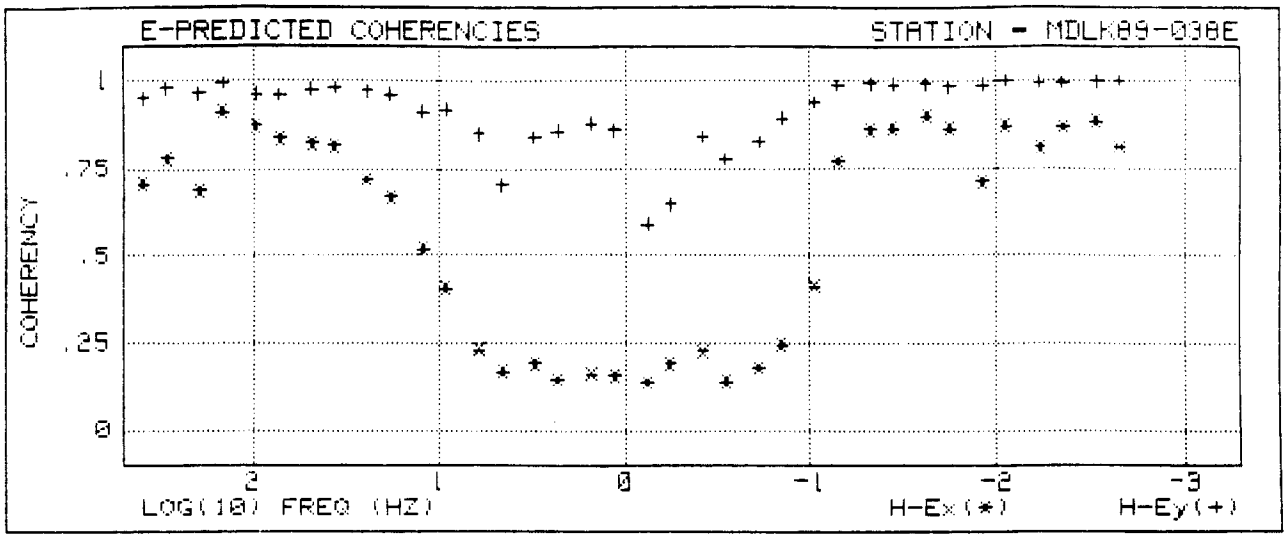
MT Site: MDLK89-038E

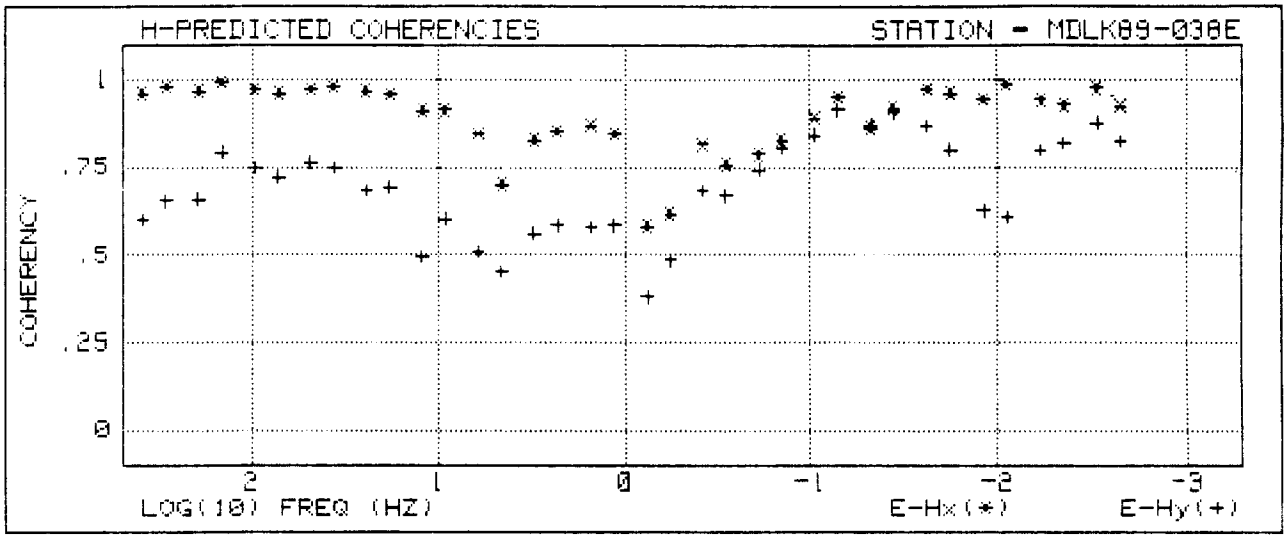
SKEW, ELLIPTICITY AND STRIKE

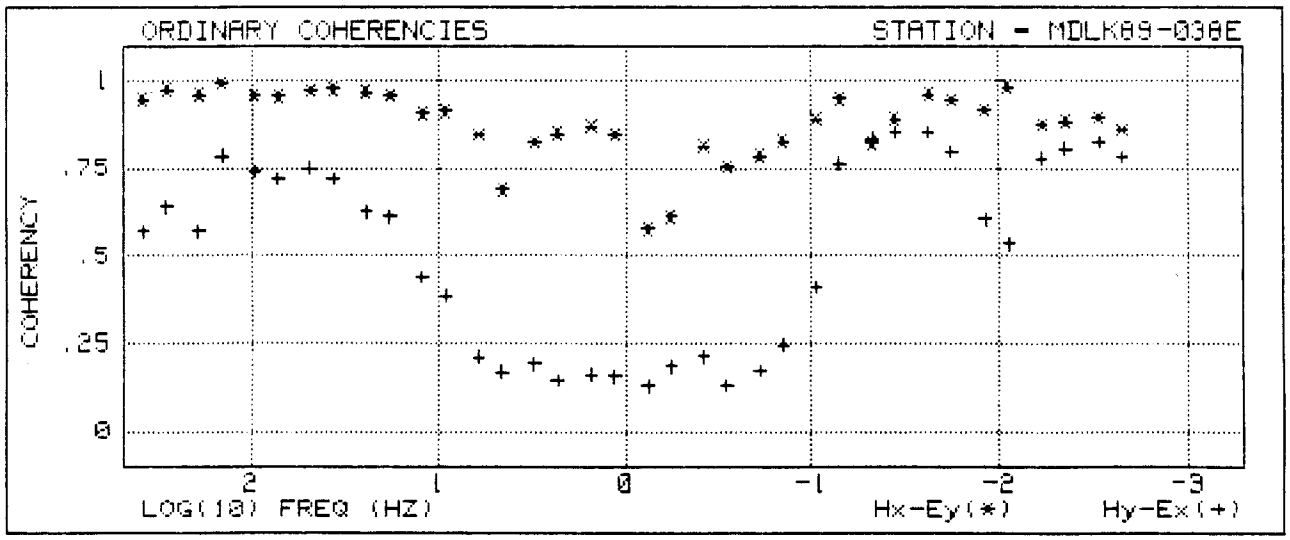
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	493	.37	.17	-64.14	.49	.72	49.51
2	288.00 Hz	493	.31	.09	-61.89	.63	1.31	-4.56
3	192.00 Hz	287	.36	.10	-53.10	.46	1.81	4.89
4	144.00 Hz	192	.36	.11	-58.12	.51	3.53	19.89
5	96.00 Hz	253	.28	.19	-49.40	.28	5.23	62.55
6	72.00 Hz	718	.31	.05	-52.83	.25	7.22	57.27
7	48.00 Hz	1032	.10	.27	-56.23	.14	11.75	42.78
8	36.00 Hz	465	.16	.19	-58.07	.11	7.92	48.41
9	24.00 Hz	1042	.20	.16	-49.10	.02	15.77	41.45
10	18.00 Hz	1042	.12	.12	-45.04	.01	7.92	40.43
11	12.00 Hz	464	.15	.66	-50.91	.04	26.01	37.19
12	9.00 Hz	1038	.13	.17	-41.30	.08	4.90	37.42
13	6.00 Hz	1042	.14	.21	-30.36	.11	2.23	35.72
14	4.50 Hz	476	.22	.24	-20.53	.13	1.57	37.12
15	3.00 Hz	5545	.14	.14	-21.20	.22	1.48	35.35
16	2.25 Hz	12073	.15	.28	-30.60	.31	1.95	34.42
17	1.50 Hz	5280	.11	.28	-21.35	.31	1.15	29.40
18	1.13 Hz	5296	.21	.00	-17.39	.27	.90	26.21
19	1.33 Sec	2832	.18	.13	-18.57	.20	.90	23.99
20	1.78 Sec	1992	.34	.20	-18.23	.09	.90	24.27
21	2.67 Sec	612	.25	.48	-1.77	.00	.53	27.50
22	3.56 Sec	1194	.37	.43	9.10	.02	.26	23.82
23	5.33 Sec	666	.58	.38	17.47	.13	.08	72.20
24	7.11 Sec	762	.30	.14	-7.78	.32	.67	27.52
25	10.67 Sec	348	.29	.20	-18.19	.07	.95	25.45
26	14.22 Sec	414	.23	.45	-31.05	.33	.91	12.10
27	21.33 Sec	192	.07	.08	-37.85	.04	.97	9.19
28	28.44 Sec	126	.21	.12	-32.51	.39	.77	9.40
29	42.67 Sec	191	.07	.05	-37.34	.77	1.72	40.72
30	56.89 Sec	167	.17	.08	-31.29	.01	.76	5.80
31	85.33 Sec	72	.18	.13	-37.36	.13	1.15	11.74
32	113.78 Sec	87	.01	.01	-34.89	.21	1.04	11.59
33	170.67 Sec	39	.24	.25	-31.83	.09	.67	2.02
34	227.56 Sec	45	.10	.27	-36.31	.02	1.11	11.57
35	341.33 Sec	15	.10	.08	-24.80	.96	1.03	20.51
36	455.11 Sec	9	.32	.05	-31.32	.78	1.12	20.48

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E







PHOENIX GEOSCIENCE

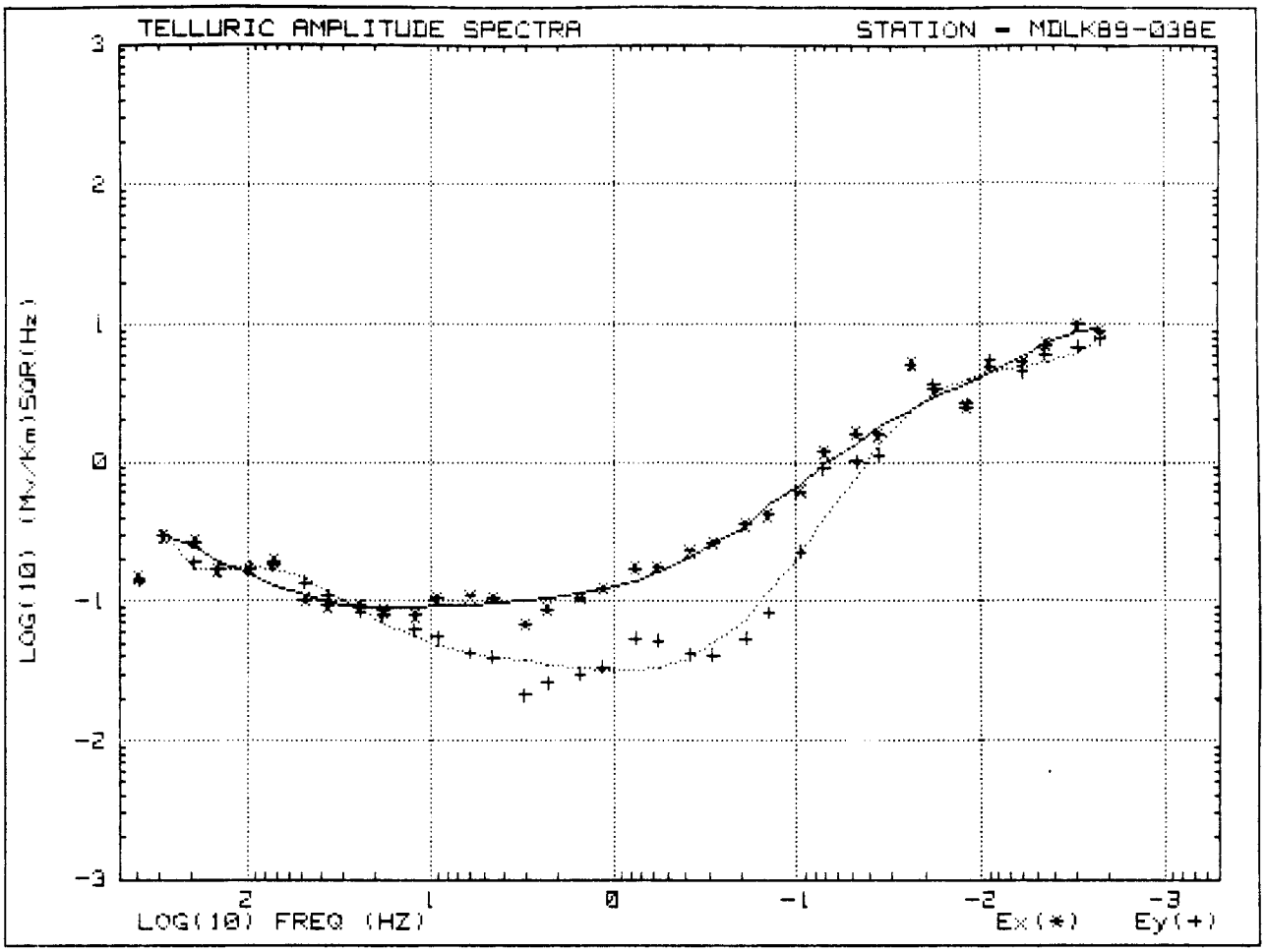
MT Site: MDLK89-038E

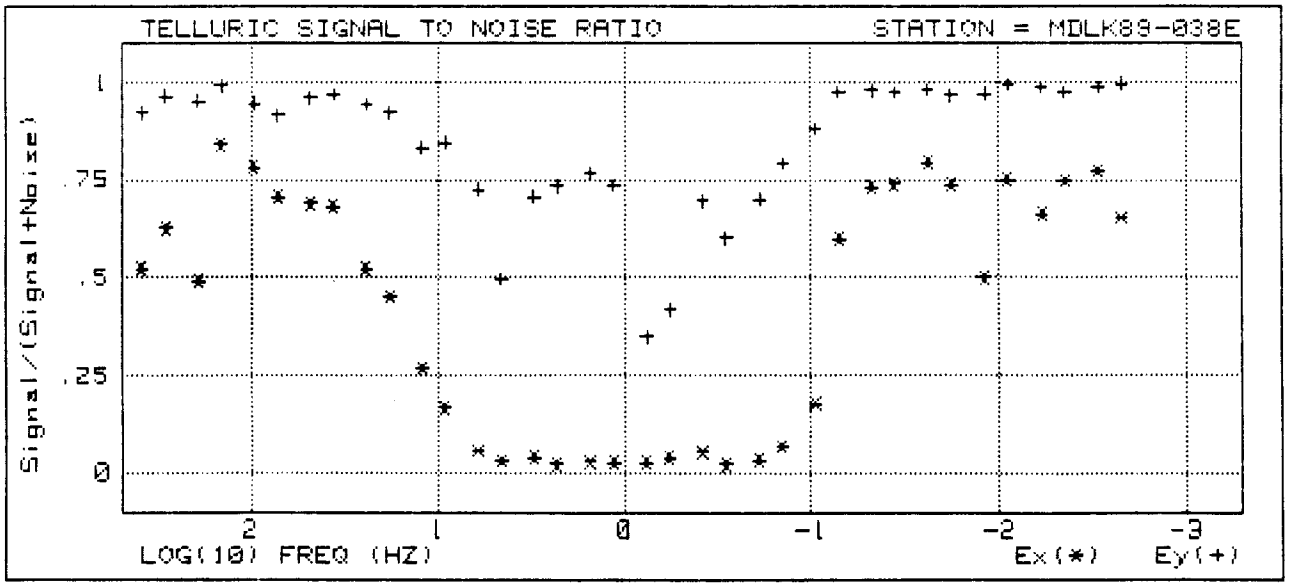
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	493	.70	.94	.96	.60	.94	.57
2	288.00 Hz	493	.78	.97	.98	.65	.97	.64
3	192.00 Hz	287	.69	.96	.96	.66	.96	.57
4	144.00 Hz	192	.91	.99	.99	.79	.99	.78
5	96.00 Hz	253	.87	.96	.97	.74	.95	.74
6	72.00 Hz	718	.83	.95	.96	.72	.95	.72
7	48.00 Hz	1032	.82	.97	.97	.76	.97	.75
8	36.00 Hz	465	.81	.98	.97	.74	.97	.72
9	24.00 Hz	1042	.72	.97	.96	.68	.96	.62
10	18.00 Hz	1042	.67	.96	.95	.69	.95	.61
11	12.00 Hz	464	.51	.91	.91	.49	.90	.44
12	9.00 Hz	1038	.40	.91	.91	.60	.91	.38
13	6.00 Hz	1042	.23	.85	.84	.51	.84	.21
14	4.50 Hz	476	.16	.70	.70	.45	.69	.16
15	3.00 Hz	5545	.19	.83	.82	.56	.82	.19
16	2.25 Hz	12073	.14	.85	.85	.58	.85	.14
17	1.50 Hz	5280	.16	.87	.87	.58	.87	.16
18	1.13 Hz	5296	.15	.85	.84	.58	.84	.15
19	1.33 Sec	2832	.13	.58	.58	.38	.57	.13
20	1.78 Sec	1992	.19	.64	.61	.48	.61	.18
21	2.67 Sec	612	.22	.83	.81	.68	.81	.21
22	3.56 Sec	1194	.14	.77	.75	.67	.75	.13
23	5.33 Sec	666	.18	.82	.78	.74	.78	.17
24	7.11 Sec	762	.24	.89	.82	.80	.82	.24
25	10.67 Sec	348	.41	.93	.89	.84	.89	.41
26	14.22 Sec	414	.77	.98	.95	.91	.94	.76
27	21.33 Sec	192	.85	.99	.86	.87	.82	.83
28	28.44 Sec	126	.86	.98	.91	.90	.89	.85
29	42.67 Sec	191	.89	.99	.97	.86	.96	.85
30	56.89 Sec	167	.86	.98	.96	.80	.94	.79
31	85.33 Sec	72	.71	.98	.94	.62	.91	.60
32	113.78 Sec	87	.86	1.00	.98	.60	.98	.53
33	170.67 Sec	39	.80	.99	.94	.79	.87	.77
34	227.56 Sec	45	.86	.99	.92	.81	.88	.80
35	341.33 Sec	15	.88	.99	.97	.87	.89	.82
36	455.11 Sec	9	.81	1.00	.92	.82	.86	.78

PHOENIX GEOSCIENCE

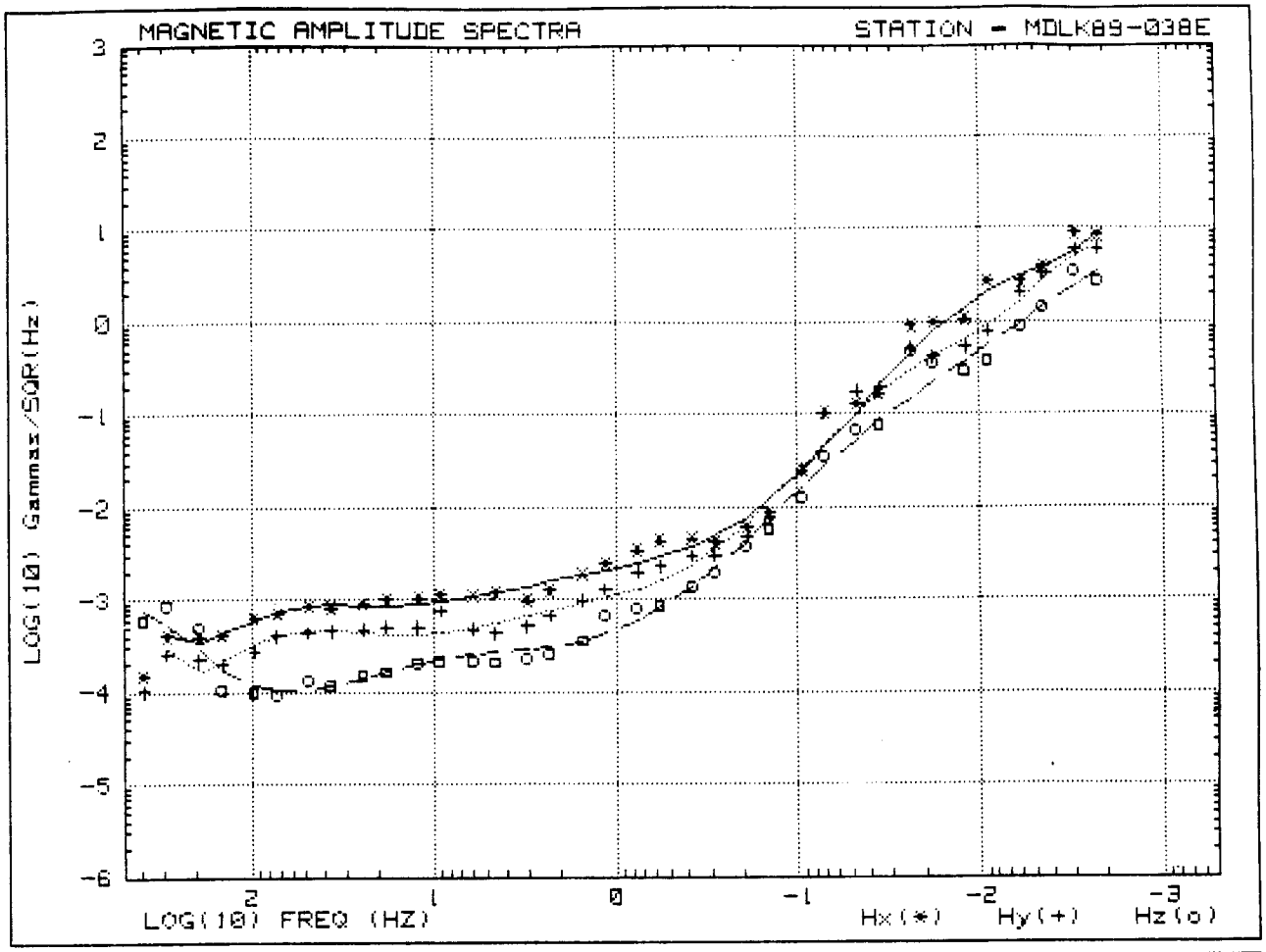
MT Site: MDLK89-038E

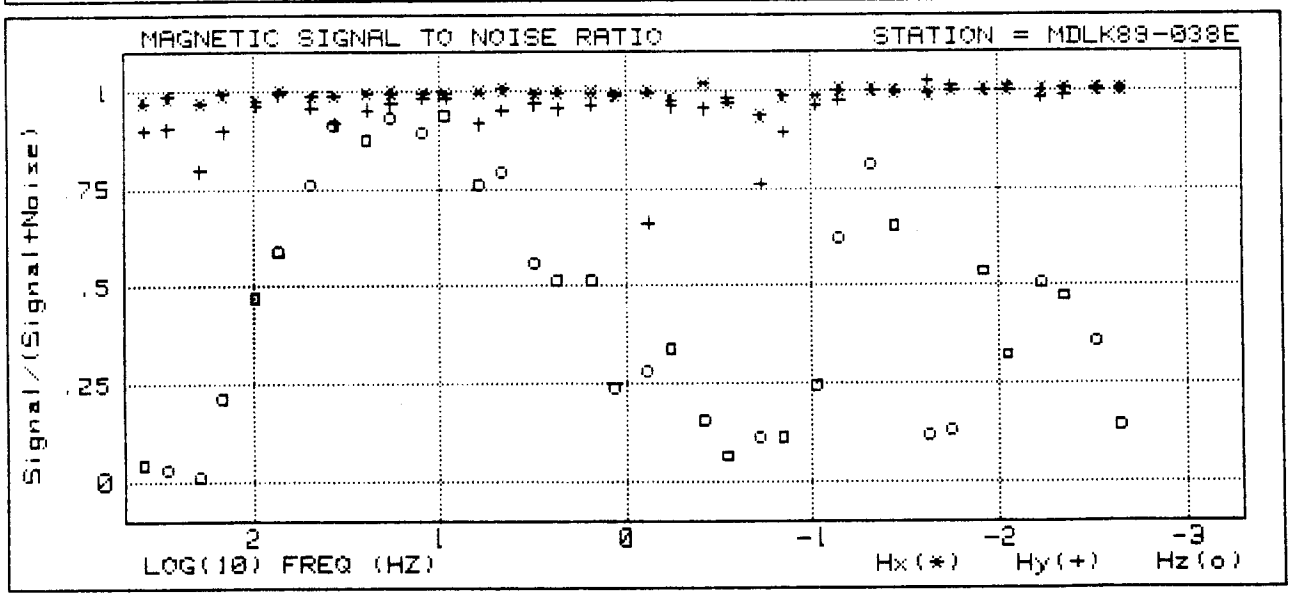




PHOENIX GEOSCIENCE

MT Site: MDLK89-038E





PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	493	1.47E-04	9.97E-05	6.23E-04	1.44E-01	1.37E-01
2	288.00 Hz	493	3.99E-04	2.54E-04	9.13E-04	2.90E-01	2.90E-01
3	192.00 Hz	287	3.88E-04	2.19E-04	5.20E-04	2.65E-01	1.87E-01
4	144.00 Hz	192	4.05E-04	1.98E-04	1.09E-04	1.65E-01	1.65E-01
5	96.00 Hz	253	6.13E-04	2.76E-04	1.05E-04	1.67E-01	1.70E-01
6	72.00 Hz	718	6.99E-04	3.98E-04	9.99E-05	1.93E-01	1.79E-01
7	48.00 Hz	1032	8.29E-04	4.36E-04	1.37E-04	1.01E-01	1.35E-01
8	36.00 Hz	465	8.09E-04	4.53E-04	1.21E-04	9.05E-02	1.09E-01
9	24.00 Hz	1042	8.87E-04	4.63E-04	1.56E-04	9.14E-02	8.20E-02
10	18.00 Hz	1042	9.80E-04	4.97E-04	1.73E-04	8.41E-02	7.78E-02
11	12.00 Hz	464	1.02E-03	4.98E-04	2.18E-04	7.77E-02	6.14E-02
12	9.00 Hz	1038	1.12E-03	7.35E-04	2.26E-04	1.02E-01	5.41E-02
13	6.00 Hz	1042	1.09E-03	4.64E-04	2.26E-04	1.07E-01	4.18E-02
14	4.50 Hz	476	1.16E-03	4.27E-04	2.19E-04	1.04E-01	3.87E-02
15	3.00 Hz	5545	9.69E-04	5.04E-04	2.36E-04	6.72E-02	2.09E-02
16	2.25 Hz	12073	1.24E-03	6.52E-04	2.71E-04	8.60E-02	2.55E-02
17	1.50 Hz	5280	1.84E-03	9.53E-04	3.76E-04	1.05E-01	2.89E-02
18	1.13 Hz	5296	2.45E-03	1.26E-03	6.94E-04	1.21E-01	3.32E-02
19	1.33 Sec	2832	3.37E-03	1.98E-03	8.49E-04	1.70E-01	5.34E-02
20	1.78 Sec	1992	4.25E-03	2.24E-03	9.15E-04	1.75E-01	5.14E-02
21	2.67 Sec	612	4.52E-03	2.93E-03	1.43E-03	2.26E-01	4.11E-02
22	3.56 Sec	1194	4.12E-03	2.97E-03	2.10E-03	2.59E-01	4.06E-02
23	5.33 Sec	666	6.03E-03	4.69E-03	4.07E-03	3.55E-01	5.33E-02
24	7.11 Sec	762	8.41E-03	7.68E-03	6.17E-03	4.12E-01	8.16E-02
25	10.67 Sec	348	2.41E-02	2.41E-02	1.32E-02	6.07E-01	2.26E-01
26	14.22 Sec	414	1.02E-01	1.00E-01	3.69E-02	1.17E+00	8.87E-01
27	21.33 Sec	192	1.26E-01	1.76E-01	7.05E-02	1.59E+00	9.97E-01
28	28.44 Sec	126	1.66E-01	1.91E-01	7.79E-02	1.55E+00	1.11E+00
29	42.67 Sec	191	8.97E-01	5.13E-01	5.08E-01	5.02E+00	4.96E+00
30	56.89 Sec	167	9.67E-01	4.11E-01	3.73E-01	3.31E+00	3.60E+00
31	85.33 Sec	72	1.06E+00	5.27E-01	3.09E-01	2.46E+00	2.63E+00
32	113.78 Sec	87	2.70E+00	7.88E-01	3.96E-01	4.85E+00	5.40E+00
33	170.67 Sec	39	2.63E+00	2.00E+00	9.10E-01	5.21E+00	4.35E+00
34	227.56 Sec	45	3.83E+00	3.17E+00	1.49E+00	6.93E+00	5.86E+00
35	341.33 Sec	15	8.74E+00	5.80E+00	3.65E+00	9.69E+00	6.68E+00
36	455.11 Sec	9	8.18E+00	6.04E+00	2.89E+00	8.84E+00	7.59E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	493	.968	.896	.050	.522	.921
2	288.00 Hz	493	.984	.902	.036	.625	.963
3	192.00 Hz	287	.966	.794	.019	.489	.950
4	144.00 Hz	192	.990	.895	.219	.839	.988
5	96.00 Hz	253	.973	.963	.474	.779	.943
6	72.00 Hz	718	.998	.989	.593	.705	.913
7	48.00 Hz	1032	.985	.956	.765	.686	.957
8	36.00 Hz	465	.985	.915	.919	.678	.967
9	24.00 Hz	1042	.992	.950	.881	.522	.941
10	18.00 Hz	1042	.994	.964	.934	.451	.920
11	12.00 Hz	464	.992	.980	.900	.268	.830
12	9.00 Hz	1038	.992	.979	.943	.165	.843
13	6.00 Hz	1042	.994	.915	.767	.054	.724
14	4.50 Hz	476	1.000	.947	.798	.028	.495
15	3.00 Hz	5545	.992	.964	.563	.037	.703
16	2.25 Hz	12073	.993	.952	.519	.021	.731
17	1.50 Hz	5280	.994	.962	.521	.025	.763
18	1.13 Hz	5296	.989	.986	.246	.024	.734
19	1.33 Sec	2832	.995	.660	.289	.024	.348
20	1.78 Sec	1992	.975	.958	.344	.036	.417
21	2.67 Sec	612	1.000	.951	.163	.052	.695
22	3.56 Sec	1194	.967	.978	.071	.020	.600
23	5.33 Sec	666	.932	.759	.118	.030	.697
24	7.11 Sec	762	.983	.891	.115	.066	.789
25	10.67 Sec	348	.985	.961	.252	.176	.879
26	14.22 Sec	414	.999	.975	.628	.597	.972
27	21.33 Sec	192	1.000	.998	.818	.729	.976
28	28.44 Sec	126	.994	.997	.657	.737	.972
29	42.67 Sec	191	.990	1.000	.123	.791	.978
30	56.89 Sec	167	.997	1.000	.135	.735	.965
31	85.33 Sec	72	1.000	.998	.542	.499	.969
32	113.78 Sec	87	1.000	1.000	.329	.748	.991
33	170.67 Sec	39	.999	.979	.512	.660	.985
34	227.56 Sec	45	1.000	.986	.480	.745	.973
35	341.33 Sec	15	1.000	1.000	.364	.771	.985
36	455.11 Sec	9	1.000	1.000	.150	.651	.993

PHOENIX GEOSCIENCE

MT Site: MDLK89-038E

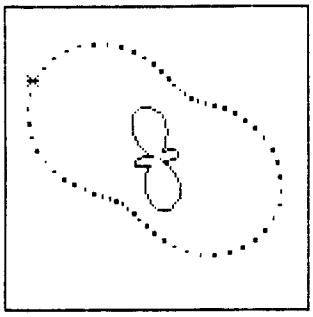
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

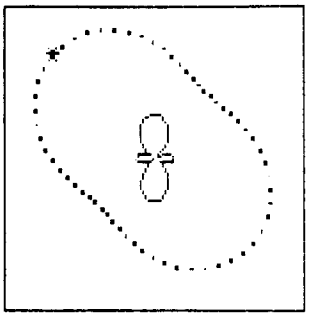
*=Rotation Direction

Zxy = ...
Zxx = ___

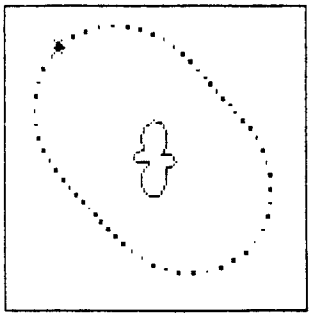
F=8 (36.0 Hz)



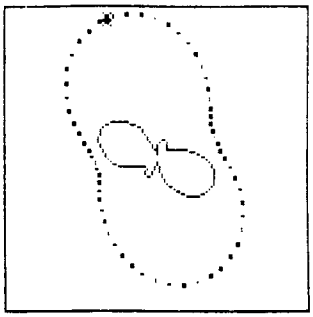
F=10 (18.0 Hz)



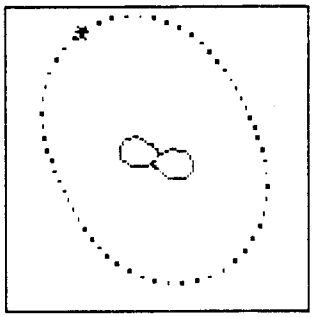
F=12 (9.0 Hz)



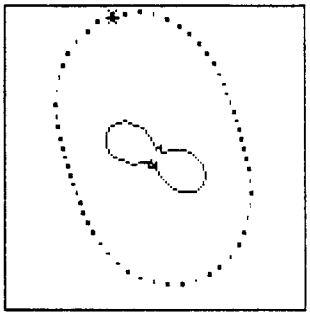
F=14 (4.5 Hz)



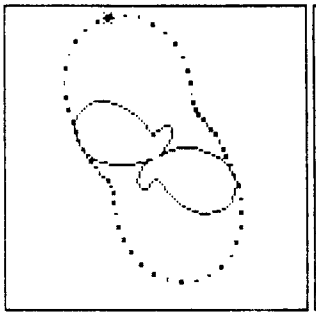
F=16 (2.3 Hz)



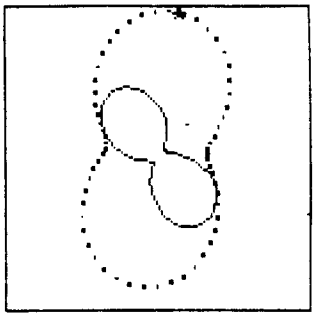
F=18 (1.1 Hz)



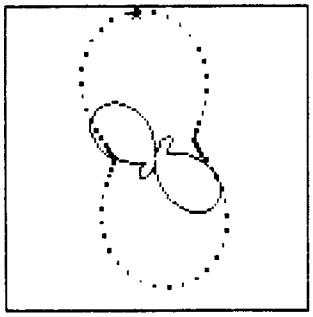
F=20 (.5625 Hz)



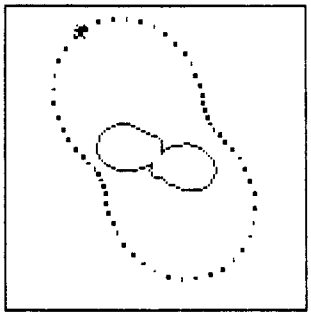
F=22 (.2813 Hz)



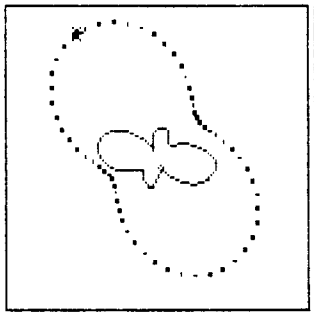
F=24 (.1406 Hz)



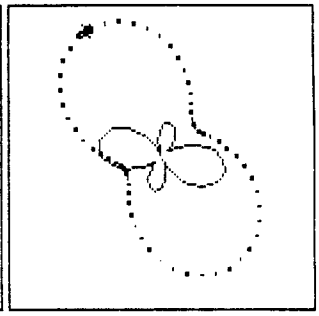
F=26 (.0703 Hz)



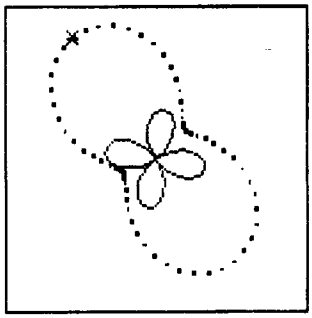
F=28 (.0352 Hz)



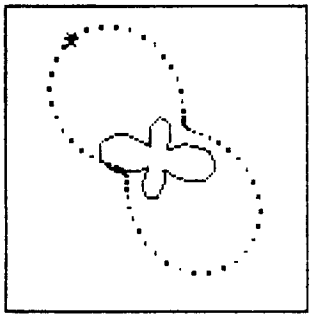
F=30 (.0176 Hz)



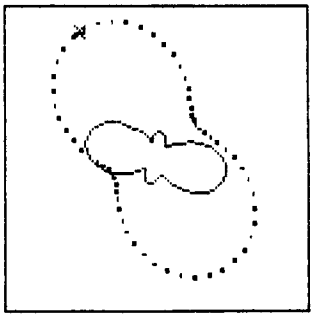
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-039s/040s/

Operator:M. SNOW
Date: 7 Sep 1989
Time: 12:13:51

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#452-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 1

Stn Number:MDLK89-039s
Site Desc:T44N R4E SEC28 NW4
41,37,38 N 121,31,31 W
Elevation:6515 FT
Reference:MDLK89-040s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL205	+45 DEG
Hy	2	COIL431	+135 DEG
Hz	3	LOOP333	Doubled
Ex	4	126 M	+45 DEG
Ey	5	133 M	+135 DEG
Rx	6	COIL452	+0 DEG
Ry	7	COIL235	+90 DEG

Ex Pot Resist: 20.0K Ohms
Ex Voltage: AC=7.60 mv, DC=100.0 mv
Ey Pot Resist: 18.0K Ohms
Ey Voltage: AC=6.30 mv, DC=51.6 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

OPERATOR LOG FOR MT SITES MDLK89-039s/040s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-039a/040a/

Run STARTED:	12:13:51	7 Sep 1989
Run QUIT:	20:20:29	7 Sep 1989

Run Start and Stop Time for MDLK89-039b/040b/

Run STARTED:	20:46:08	7 Sep 1989
Run QUIT:	09:51:57	8 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE

Weather Conditions:
LOVELY DAY, CLEAR WITH SLIGHT BREEZE. GREAT DAY TO BE OUTSIDE WORKING ON A MT CREW!

Other Factors:
NONE

PHOENIX GEOSCIENCE

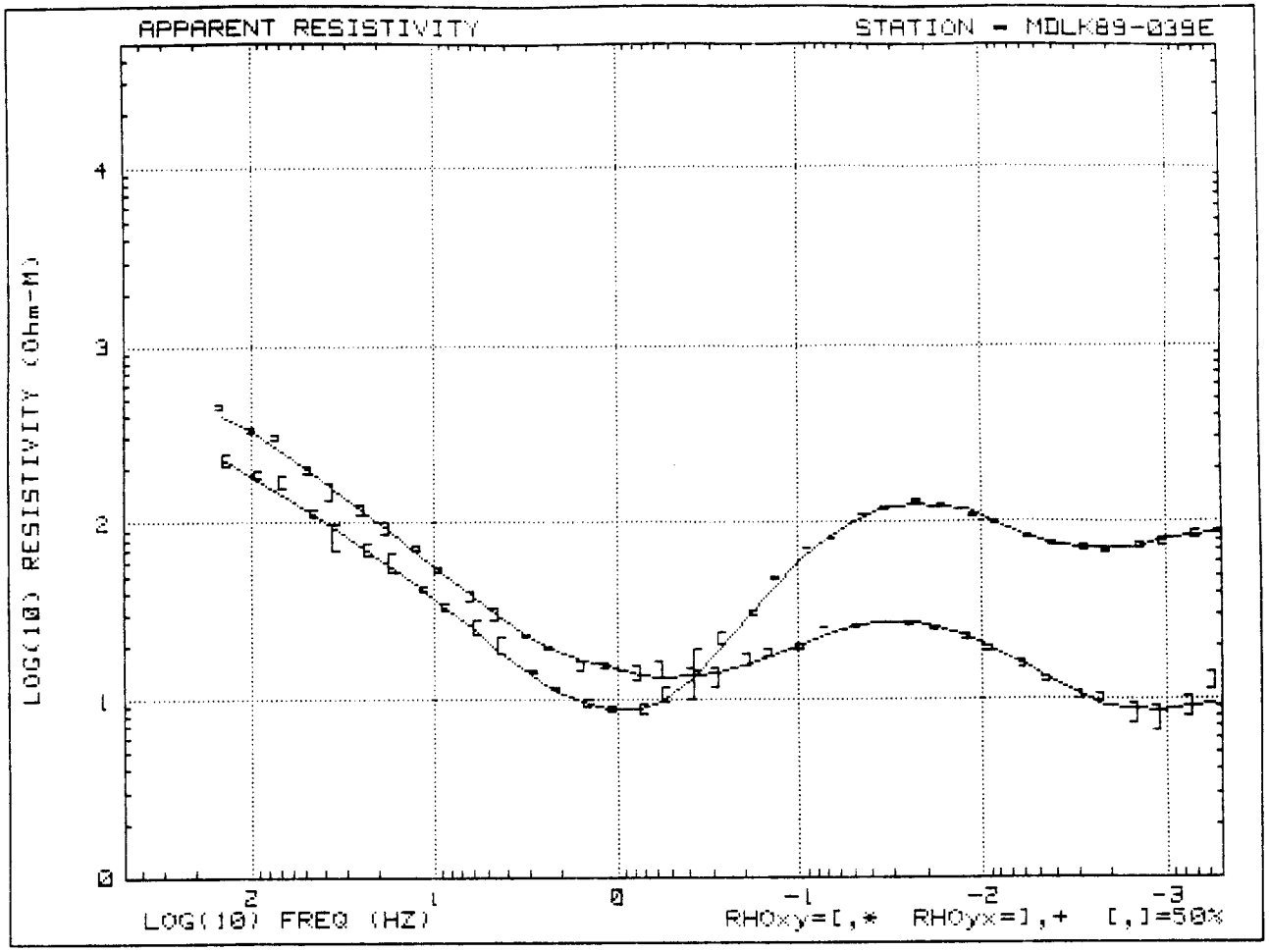
MT Site: MDLK89-039E

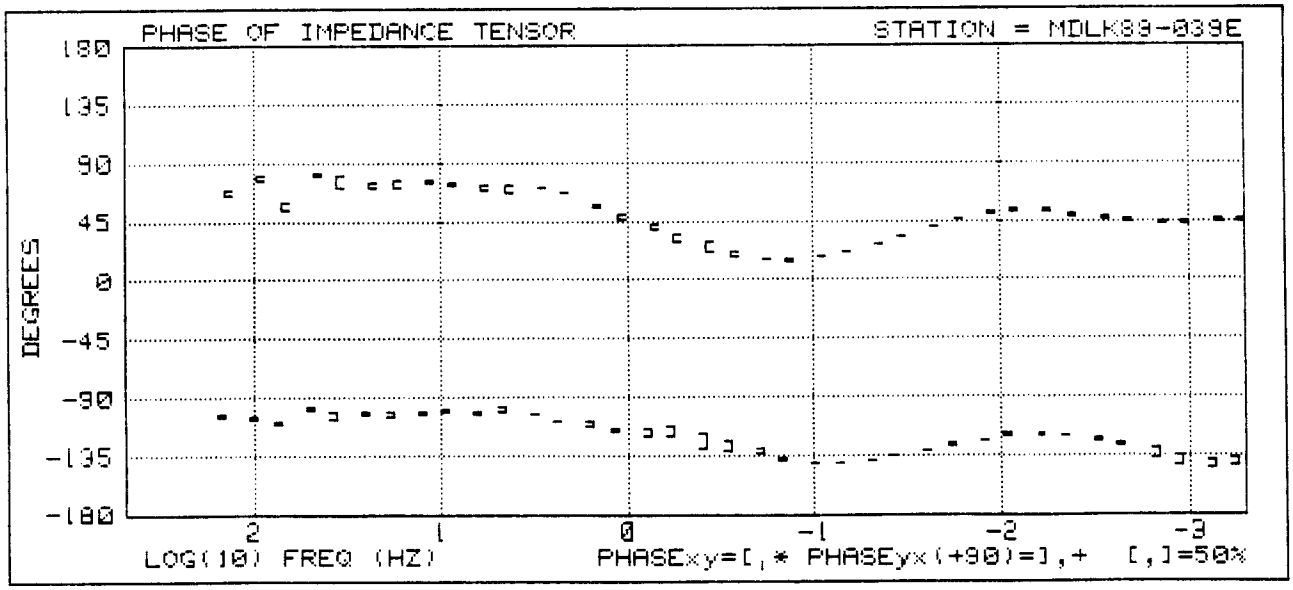
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

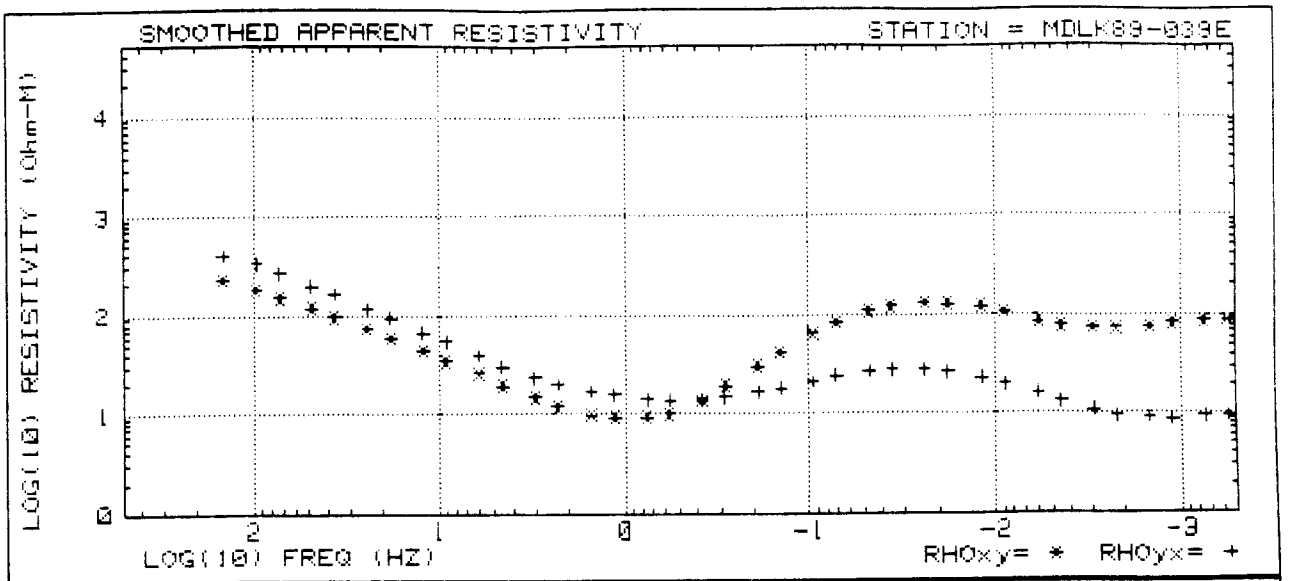
MT Site: MDLK89-039E

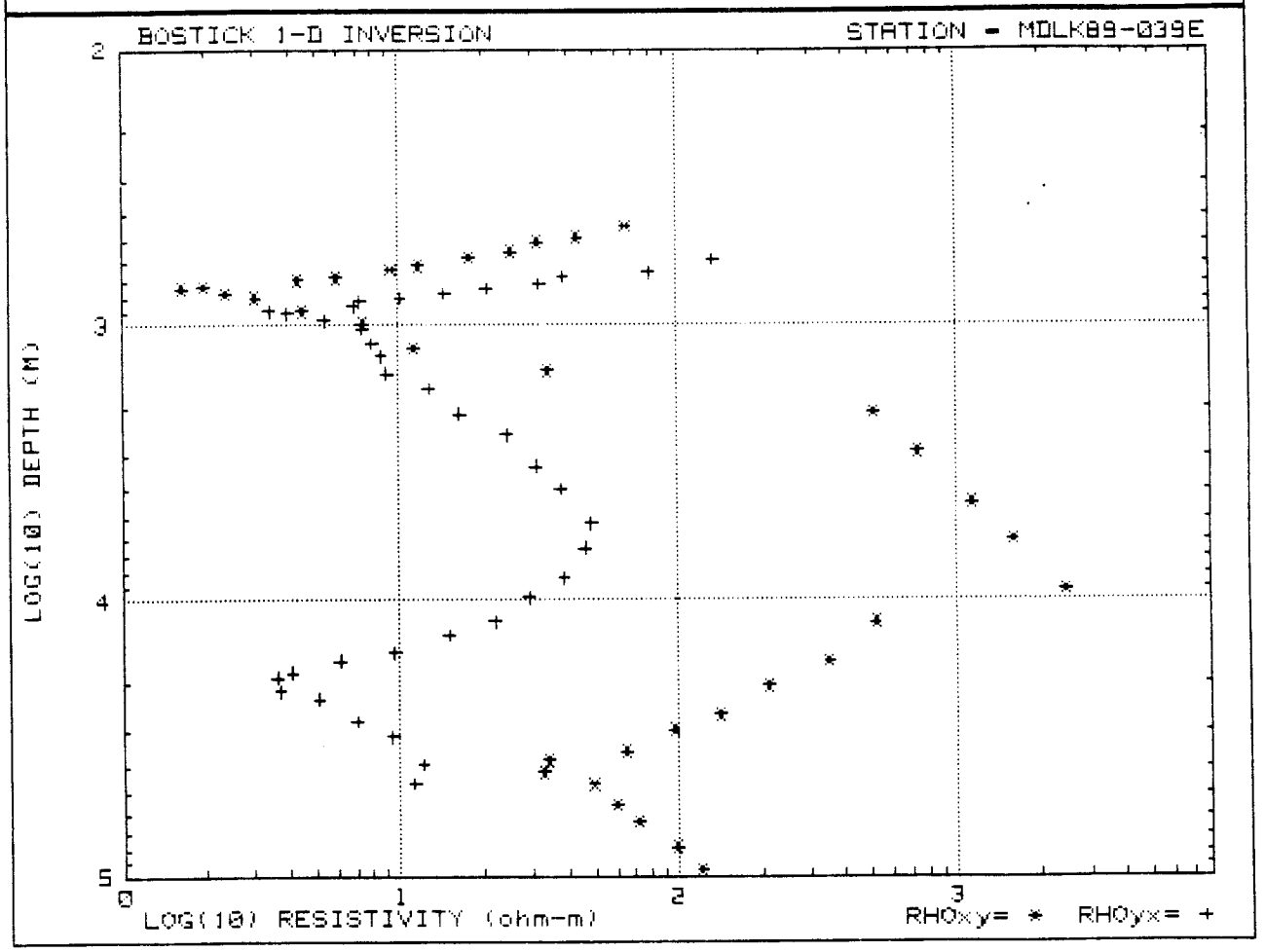




PHOENIX GEOSCIENCE

MT Site: MDLK89-039E





PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	948	224.9	13.1	460.8	4.9	66.6	3.5	-104.6	1.4
5	96.00 Hz	384	185.8	7.0	333.0	4.9	78.1	1.9	-105.4	1.4
6	72.00 Hz	480	169.9	13.5	302.8	7.0	57.0	3.6	-109.8	1.9
7	48.00 Hz	480	114.4	6.9	199.7	5.9	81.0	1.9	-98.3	1.6
8	36.00 Hz	671	82.8	26.7	149.6	16.2	75.9	6.8	-103.7	4.3
9	24.00 Hz	288	70.8	11.8	118.9	8.5	72.5	3.2	-102.3	2.3
10	18.00 Hz	768	59.6	20.2	94.3	13.9	73.8	5.3	-102.8	3.7
11	12.00 Hz	672	42.3	6.3	71.1	4.8	76.2	1.7	-101.2	1.4
12	9.00 Hz	864	33.7	6.7	54.8	5.0	73.5	1.8	-100.4	1.4
13	6.00 Hz	672	25.8	14.5	38.4	9.0	70.6	3.9	-102.2	2.5
14	4.50 Hz	768	20.4	16.6	30.1	11.9	69.9	4.4	-99.0	3.2
15	3.00 Hz	9322	14.3	3.3	22.7	3.1	70.5	.9	-103.3	.9
16	2.25 Hz	17934	11.5	2.6	19.5	2.7	67.1	.7	-108.8	.8
17	1.50 Hz	3312	9.6	6.7	15.7	10.4	56.1	1.9	-109.8	2.8
18	1.13 Hz	10933	8.9	5.8	15.6	6.7	48.1	1.6	-115.3	1.9
19	1.33 Sec	3880	8.9	11.1	14.1	15.9	39.8	3.0	-117.2	4.2
20	1.78 Sec	3368	10.7	15.9	15.0	18.0	31.3	4.2	-116.0	4.7
21	2.67 Sec	1740	16.9	22.8	12.2	34.9	26.0	5.9	-123.8	8.6
22	3.56 Sec	2256	22.3	11.9	13.4	20.9	19.3	3.2	-127.9	5.4
23	5.33 Sec	1528	30.8	4.0	16.7	13.2	15.8	1.1	-131.1	3.6
24	7.11 Sec	1396	48.5	1.9	18.6	6.6	15.3	.5	-137.6	1.8
25	10.67 Sec	816	71.9	.7	20.0	2.9	18.6	.2	-141.0	.8
26	14.22 Sec	816	81.8	.6	25.5	.9	21.1	.2	-140.2	.2
27	21.33 Sec	382	110.6	.6	26.0	1.3	28.0	.2	-139.0	.4
28	28.44 Sec	388	123.1	.8	27.4	1.3	33.0	.2	-135.4	.4
29	42.67 Sec	348	132.5	.8	26.8	1.6	41.3	.2	-130.8	.4
30	56.89 Sec	360	125.0	.7	25.4	1.2	46.2	.2	-126.7	.3
31	85.33 Sec	192	110.4	1.4	22.5	3.7	51.1	.4	-123.7	1.1
32	113.78 Sec	198	98.8	1.7	19.3	5.0	52.7	.5	-119.5	1.4
33	170.67 Sec	84	83.2	2.6	15.6	7.0	52.5	.7	-119.6	1.9
34	227.56 Sec	63	74.2	1.9	12.8	4.3	48.8	.5	-120.1	1.2
35	341.33 Sec	6	71.6	3.1	10.5	5.0	47.6	.9	-122.4	1.4
36	455.11 Sec	48	68.6	3.4	10.2	7.1	45.0	1.0	-126.8	2.0
37	682.67 Sec	12	74.5	4.4	8.3	21.6	43.5	1.2	-133.2	5.6
38	910.22 Sec	12	78.6	7.0	7.7	25.8	42.9	1.9	-138.7	6.6
39	1365.33 Sec	9	85.3	6.4	9.1	19.7	45.4	1.8	-141.5	5.1
40	1820.44 Sec	9	86.9	2.7	12.6	17.5	44.9	.8	-140.2	4.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	948	224.9	396.2	65.9	445	136.6	590
5	96.00 Hz	384	180.2	325.2	44.0	488	80.2	655
6	72.00 Hz	480	147.6	260.6	31.7	510	39.2	677
7	48.00 Hz	480	115.1	194.9	25.4	551	32.3	717
8	36.00 Hz	671	94.8	158.7	18.2	578	20.9	747
9	24.00 Hz	288	72.0	114.5	11.9	616	14.7	777
10	18.00 Hz	768	57.7	92.9	9.4	637	10.2	809
11	12.00 Hz	672	43.7	65.7	6.0	679	7.3	832
12	9.00 Hz	864	34.1	53.4	4.4	693	6.9	867
13	6.00 Hz	672	25.6	38.5	2.0	735	3.4	901
14	4.50 Hz	768	18.9	29.9	1.7	742	4.0	917
15	3.00 Hz	9322	14.3	22.7	2.4	777	5.4	978
16	2.25 Hz	17934	11.5	19.5	3.1	804	7.4	1049
17	1.50 Hz	3312	9.6	16.6	4.5	899	8.0	1184
18	1.13 Hz	10933	9.0	15.4	7.5	1005	8.7	1315
19	1.33 Sec	3880	9.0	13.7	11.4	1232	9.1	1520
20	1.78 Sec	3368	9.8	13.3	34.5	1482	12.9	1734
21	2.67 Sec	1740	13.2	13.5	516.6	2115	16.6	2138
22	3.56 Sec	2256	19.0	14.3	741.2	2925	24.5	2540
23	5.33 Sec	1528	29.6	16.2	1154.2	4471	31.1	3310
24	7.11 Sec	1396	41.2	17.8	1605.1	6088	38.0	4006
25	10.67 Sec	816	63.0	20.8	2457.2	9226	49.2	5305
26	14.22 Sec	816	81.5	23.6	521.6	12119	46.4	6519
27	21.33 Sec	382	104.5	26.1	354.6	16801	39.2	8399
28	28.44 Sec	388	119.0	27.1	213.0	20701	29.4	9882
29	42.67 Sec	348	127.1	26.8	142.3	26212	22.2	12042
30	56.89 Sec	360	123.7	25.4	96.6	29852	15.1	13521
31	85.33 Sec	192	116.8	22.5	65.4	35523	9.6	15600
32	113.78 Sec	198	101.7	19.2	34.5	38290	6.1	16645
33	170.67 Sec	84	83.0	15.7	33.1	42345	4.1	18449
34	227.56 Sec	63	75.6	12.8	49.8	46667	3.6	19221
35	341.33 Sec	6	71.9	10.7	59.8	55760	3.7	21509
36	455.11 Sec	48	70.9	9.2	71.8	63933	5.2	23005
37	682.67 Sec	12	72.2	8.8	99.0	79033	7.1	27604
38	910.22 Sec	12	79.0	8.5	122.4	95439	9.5	31318
39	1365.33 Sec	9	83.9	9.1	104.9	120426	12.2	39760
40	1820.44 Sec	9	85.4	9.4	96.4	140282	11.3	46536

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	948	-10.14	30.30	141.02	159.64	369.35	999.99
5	96.00 Hz	384	5.31	29.56	70.23	61.58	292.23	206.12
6	72.00 Hz	480	-5.21	27.99	107.04	134.72	207.39	490.54
7	48.00 Hz	480	3.45	8.54	30.84	25.83	163.68	61.70
8	36.00 Hz	671	2.29	4.58	249.22	29.64	118.40	418.15
9	24.00 Hz	288	.16	3.80	27.48	27.73	87.90	52.68
10	18.00 Hz	768	-1.43	4.79	37.81	20.44	70.32	90.94
11	12.00 Hz	672	-.65	2.67	1.93	12.02	48.95	4.73
12	9.00 Hz	864	-.46	2.63	1.34	11.03	37.36	3.15
13	6.00 Hz	672	-.13	1.86	2.90	9.23	26.22	7.05
14	4.50 Hz	768	-2.05	.90	1.50	7.37	20.15	5.44
15	3.00 Hz	9322	-.53	.59	.03	4.88	13.78	.11
16	2.25 Hz	17934	-.16	.70	.02	4.42	10.46	.04
17	1.50 Hz	3312	-.31	.03	.06	4.73	7.05	.15
18	1.13 Hz	10933	-.30	.16	.03	4.73	5.27	.08
19	1.33 Sec	3880	-.278	.013	.119	4.425	3.692	.185
20	1.78 Sec	3368	-.284	-.037	.161	4.692	2.854	.328
21	2.67 Sec	1740	-.064	-.652	.253	5.066	2.468	.670
22	3.56 Sec	2256	-.075	-.273	.099	5.280	1.852	.197
23	5.33 Sec	1528	.216	-.117	.029	5.170	1.465	.022
24	7.11 Sec	1396	.247	-.226	.007	5.633	1.541	.006
25	10.67 Sec	816	.417	-.158	.004	5.504	1.848	.001
26	14.22 Sec	816	.411	-.012	.001	5.001	1.932	.001
27	21.33 Sec	382	.420	.096	.001	4.495	2.393	.000
28	28.44 Sec	388	.287	.231	.001	3.901	2.536	.001
29	42.67 Sec	348	.224	.289	.000	2.960	2.601	.000
30	56.89 Sec	360	.175	.216	.000	2.295	2.392	.000
31	85.33 Sec	192	.102	.207	.000	1.598	1.979	.001
32	113.78 Sec	198	.123	.163	.000	1.263	1.658	.001
33	170.67 Sec	84	.087	.150	.000	.950	1.239	.001
34	227.56 Sec	63	.102	.127	.000	.841	.961	.000
35	341.33 Sec	6	.070	.093	.000	.691	.756	.000
36	455.11 Sec	48	.068	.051	.000	.614	.614	.000
37	682.67 Sec	12	.087	.044	.000	.536	.508	.001
38	910.22 Sec	12	.045	.045	.000	.481	.448	.001
39	1365.33 Sec	9	.073	.033	.000	.392	.398	.001
40	1820.44 Sec	9	.068	-.007	.000	.346	.345	.000

PHOENIX GEOSCIENCE

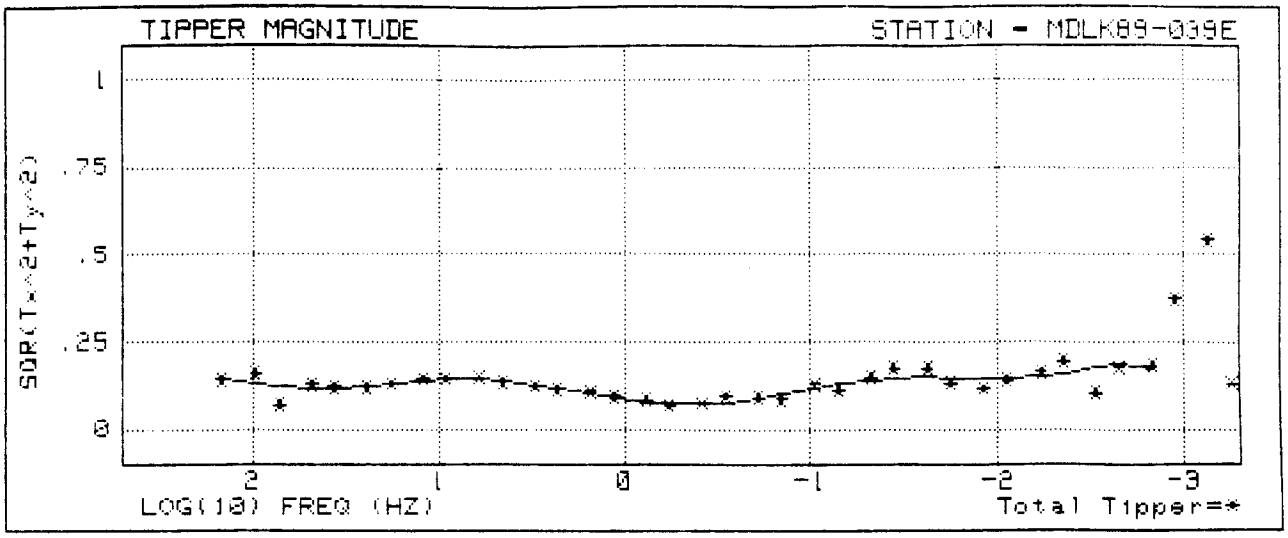
MT Site: MDLK89-039E

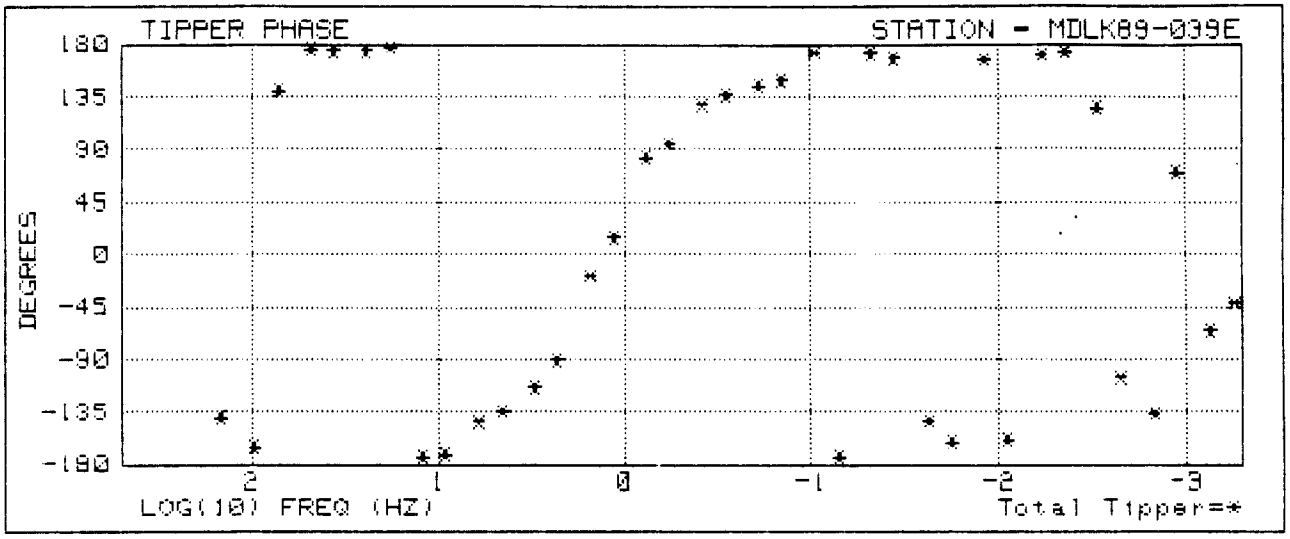
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

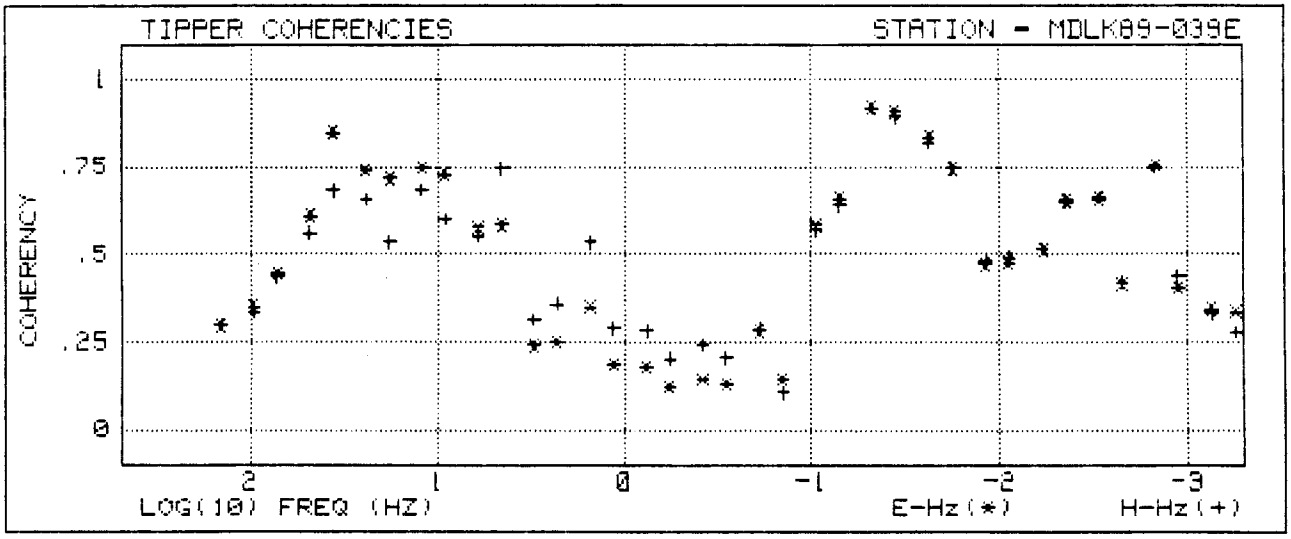
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	948	-144.72	-557.54	378.85	-42.06	27.77	999.99
5	96.00 Hz	384	-106.00	-385.51	186.28	36.11	14.89	546.75
6	72.00 Hz	480	-111.81	-310.63	250.40	7.90	30.90	999.99
7	48.00 Hz	480	-31.73	-216.60	78.03	19.47	6.75	156.09
8	36.00 Hz	671	-38.77	-159.44	301.98	-1.67	5.46	506.67
9	24.00 Hz	288	-25.49	-116.69	47.69	-2.79	3.57	91.42
10	18.00 Hz	768	-20.36	-89.84	71.43	1.31	4.80	171.80
11	12.00 Hz	672	-12.65	-64.06	4.76	-4.05	2.82	11.62
12	9.00 Hz	864	-9.01	-48.85	2.94	4.36	3.47	6.91
13	6.00 Hz	672	-7.17	-33.18	4.30	.01	1.91	10.45
14	4.50 Hz	768	-4.09	-25.69	4.27	-.21	1.99	15.49
15	3.00 Hz	9322	-4.24	-17.97	.16	-.13	.65	.54
16	2.25 Hz	17934	-4.79	-14.03	.08	.97	.58	.18
17	1.50 Hz	3312	-3.67	-10.21	.57	1.17	.53	1.45
18	1.13 Hz	10933	-4.00	-8.46	.18	.62	.37	.43
19	1.33 Sec	3880	-3.321	-6.473	.576	.185	.197	.894
20	1.78 Sec	3368	-2.844	-5.838	.577	.427	.403	1.177
21	2.67 Sec	1740	-2.667	-3.981	1.029	.547	.317	2.727
22	3.56 Sec	2256	-2.665	-3.428	.341	.023	-.110	.676
23	5.33 Sec	1528	-2.604	-2.982	.121	.430	.245	.091
24	7.11 Sec	1396	-2.672	-2.439	.027	.282	-.110	.022
25	10.67 Sec	816	-2.378	-1.923	.004	.419	-.089	.001
26	14.22 Sec	816	-2.300	-1.917	.000	.411	.032	.000
27	21.33 Sec	382	-1.863	-1.620	.000	.442	.022	.000
28	28.44 Sec	388	-1.563	-1.542	.000	.377	.019	.000
29	42.67 Sec	348	-1.157	-1.342	.000	.367	.083	.001
30	56.89 Sec	360	-.892	-1.197	.000	.281	.090	.000
31	85.33 Sec	192	-.636	-.955	.001	.235	.082	.001
32	113.78 Sec	198	-.453	-.801	.001	.190	.100	.001
33	170.67 Sec	84	-.334	-.588	.001	.143	.097	.003
34	227.56 Sec	63	-.266	-.459	.000	.147	.075	.000
35	341.33 Sec	6	-.210	-.331	.000	.103	.056	.000
36	455.11 Sec	48	-.200	-.267	.000	.079	.038	.001
37	682.67 Sec	12	-.169	-.180	.001	.091	.039	.002
38	910.22 Sec	12	-.155	-.136	.001	.048	.041	.003
39	1365.33 Sec	9	-.143	-.114	.001	.052	.051	.001
40	1820.44 Sec	9	-.143	-.119	.000	.052	.008	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E







PHOENIX GEOSCIENCE

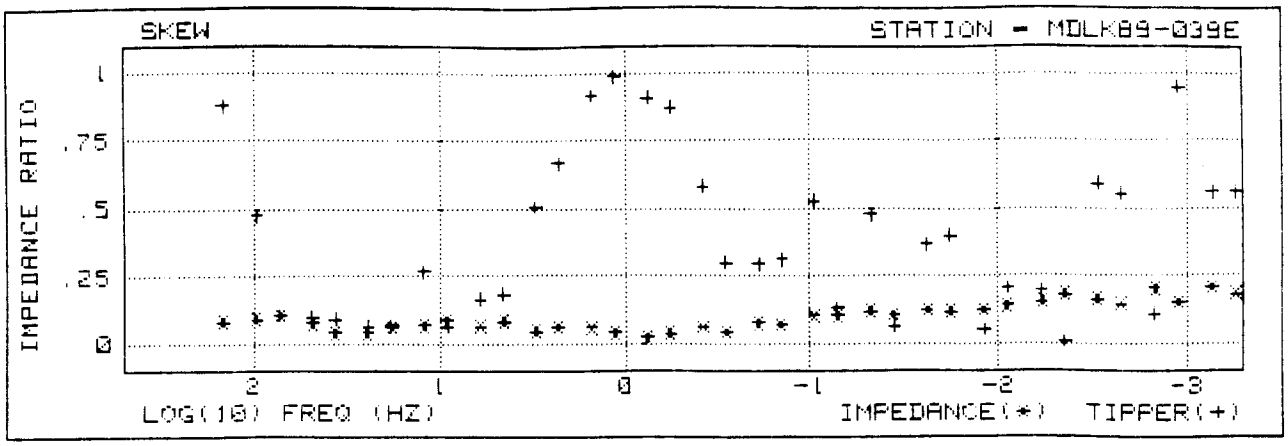
MT Site: MDLK89-039E

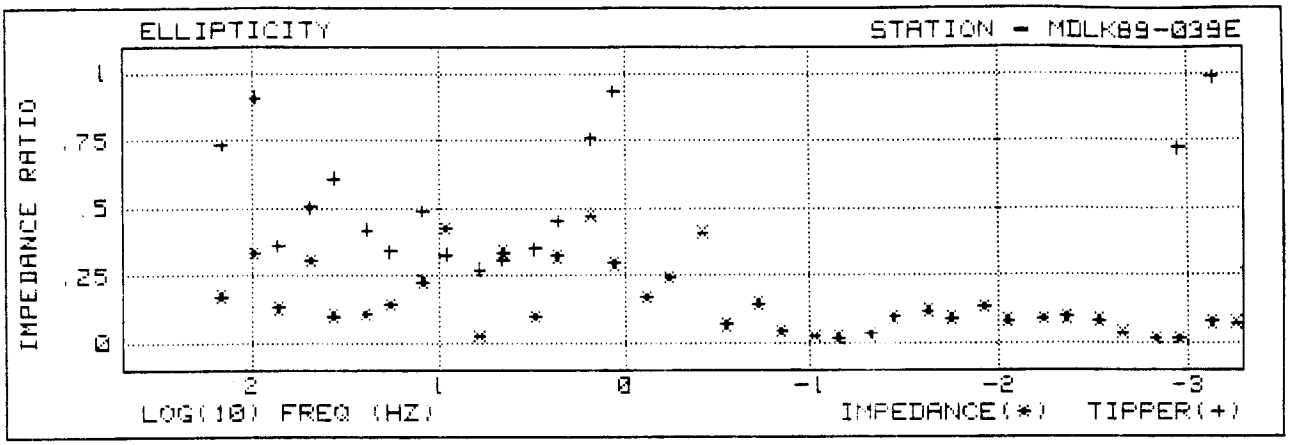
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

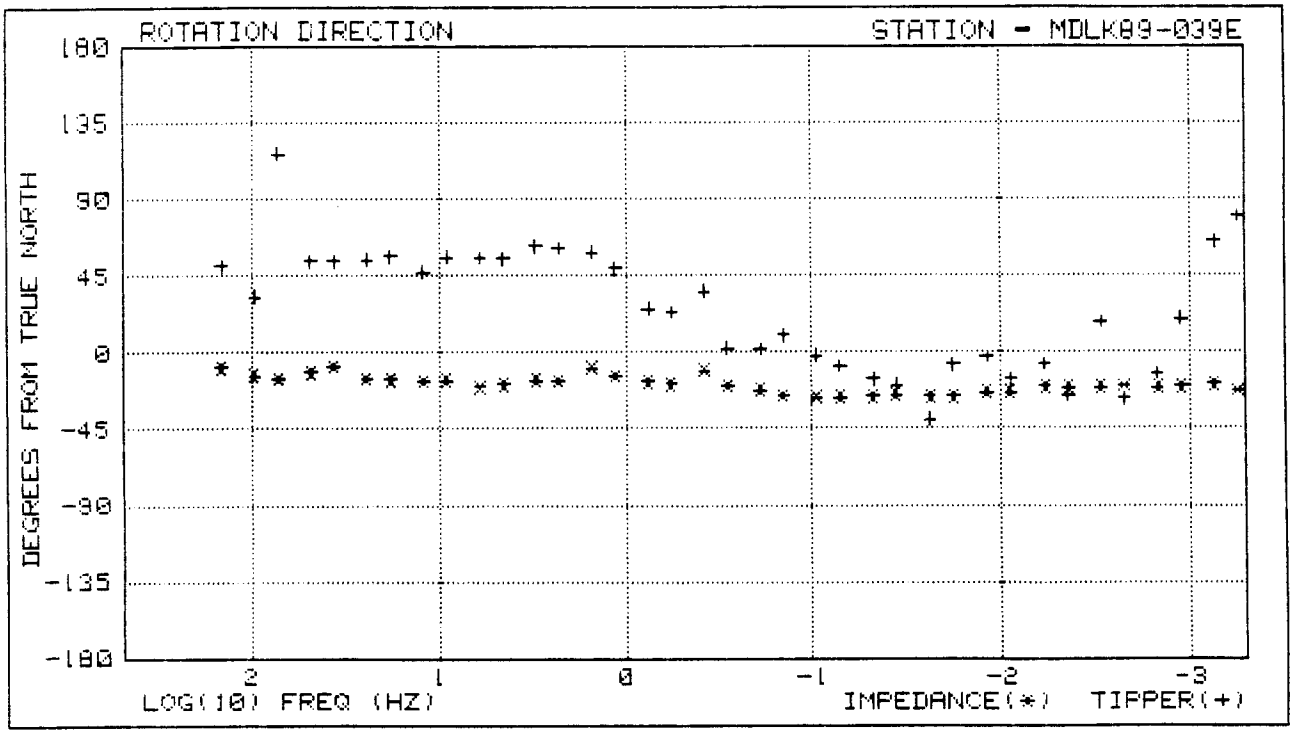
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	948	.14	-140.78	.29	.29
5	96.00 Hz	384	.16	-165.70	.35	.33
6	72.00 Hz	480	.07	139.20	.44	.43
7	48.00 Hz	480	.12	174.80	.61	.56
8	36.00 Hz	671	.12	173.76	.84	.68
9	24.00 Hz	288	.12	173.15	.74	.65
10	18.00 Hz	768	.13	176.48	.71	.53
11	12.00 Hz	672	.14	-174.36	.74	.68
12	9.00 Hz	864	.14	-171.85	.73	.60
13	6.00 Hz	672	.14	-144.25	.57	.55
14	4.50 Hz	768	.13	-135.00	.58	.74
15	3.00 Hz	9322	.12	-114.99	.24	.31
16	2.25 Hz	17934	.11	-91.47	.25	.35
17	1.50 Hz	3312	.10	-19.25	.35	.53
18	1.13 Hz	10933	.09	13.72	.18	.29
19	1.33 Sec	3880	.08	82.01	.18	.28
20	1.78 Sec	3368	.06	94.07	.12	.20
21	2.67 Sec	1740	.07	127.13	.14	.24
22	3.56 Sec	2256	.09	135.86	.13	.20
23	5.33 Sec	1528	.09	143.19	.28	.28
24	7.11 Sec	1396	.08	148.14	.14	.10
25	10.67 Sec	816	.12	171.96	.58	.57
26	14.22 Sec	816	.11	-174.19	.66	.64
27	21.33 Sec	382	.14	171.35	.91	.91
28	28.44 Sec	388	.17	167.35	.90	.89
29	42.67 Sec	348	.17	-143.36	.83	.82
30	56.89 Sec	360	.13	-161.34	.74	.74
31	85.33 Sec	192	.11	165.77	.47	.47
32	113.78 Sec	198	.14	-159.34	.47	.49
33	170.67 Sec	84	.16	169.77	.51	.51
34	227.56 Sec	63	.19	171.85	.65	.65
35	341.33 Sec	6	.10	124.70	.65	.66
36	455.11 Sec	48	.17	-106.27	.41	.42
37	682.67 Sec	12	.18	-137.39	.75	.74
38	910.22 Sec	12	.37	69.57	.40	.43
39	1365.33 Sec	9	.54	-66.03	.34	.33
40	1820.44 Sec	9	.13	-42.66	.33	.27

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E







PHOENIX GEOSCIENCE

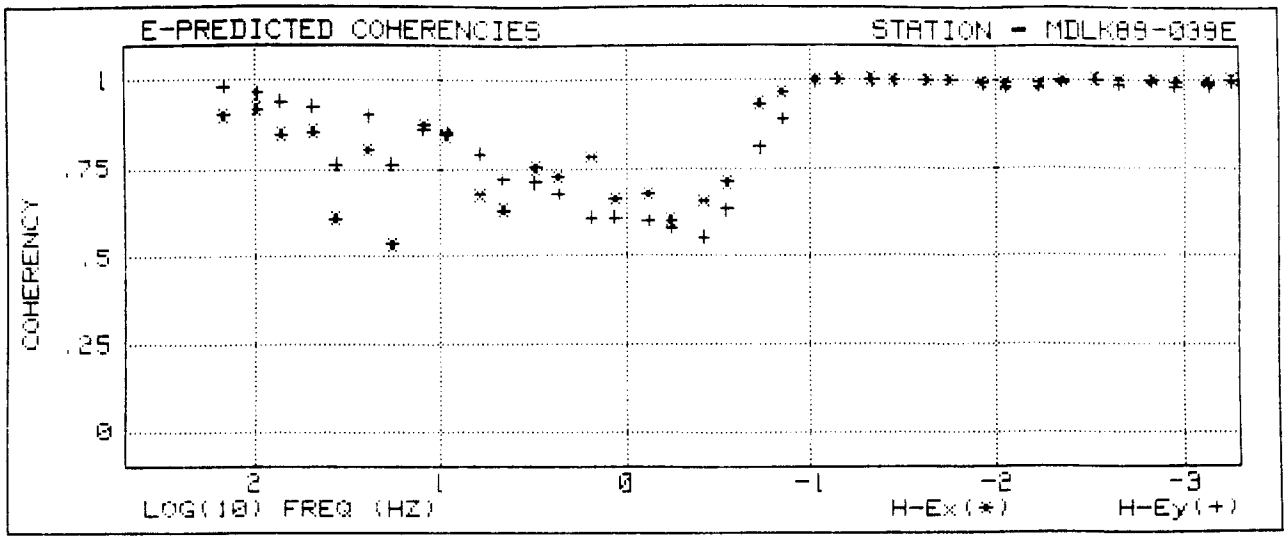
MT Site: MDLK89-039E

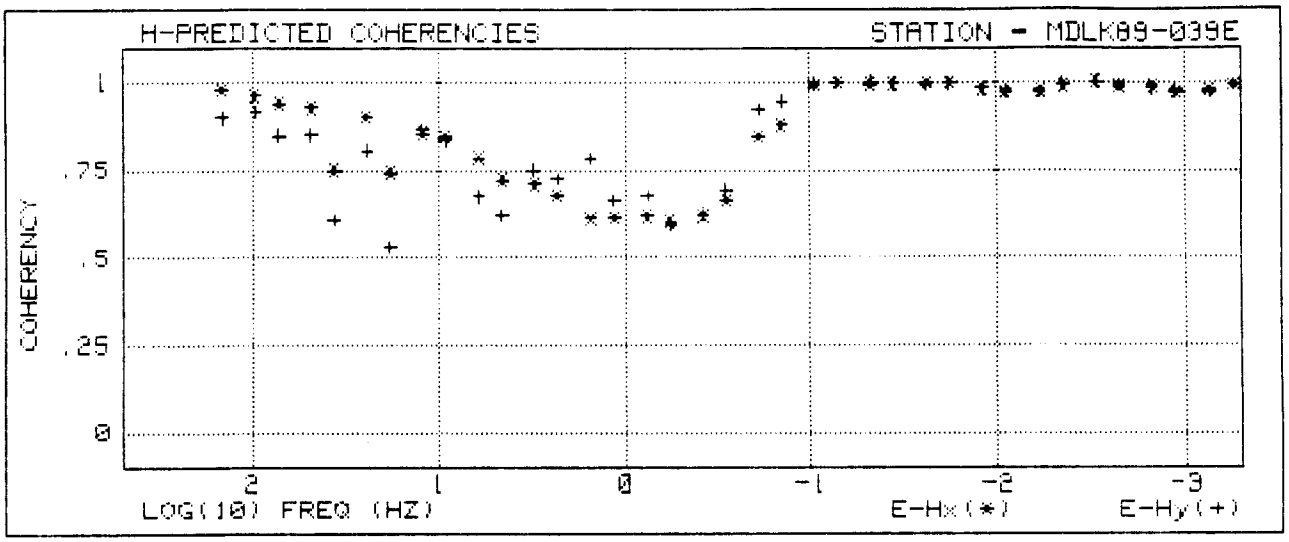
SKEW, ELLIPTICITY AND STRIKE

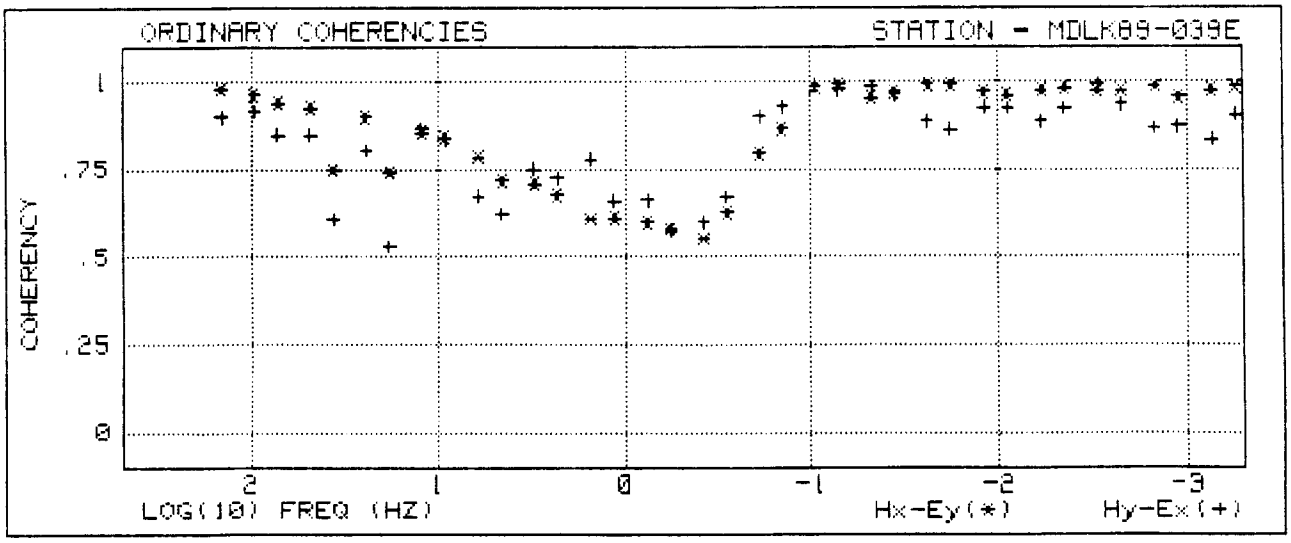
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00 Hz	948	.08	.17	-9.49	.87	.73	50.02
5	96.00 Hz	384	.09	.33	-14.10	.47	.90	32.36
6	72.00 Hz	480	.10	.13	-15.90	.10	.36	116.01
7	48.00 Hz	480	.07	.30	-12.36	.10	.50	53.06
8	36.00 Hz	671	.04	.10	-8.64	.09	.60	52.74
9	24.00 Hz	288	.04	.10	-16.19	.06	.42	54.06
10	18.00 Hz	768	.06	.14	-16.60	.06	.33	55.81
11	12.00 Hz	672	.06	.23	-17.36	.26	.49	46.85
12	9.00 Hz	864	.08	.42	-16.81	.06	.32	55.28
13	6.00 Hz	672	.06	.02	-20.72	.16	.27	54.92
14	4.50 Hz	768	.08	.33	-19.41	.18	.30	54.54
15	3.00 Hz	9322	.04	.09	-16.85	.50	.35	61.71
16	2.25 Hz	17934	.06	.32	-17.52	.66	.45	60.37
17	1.50 Hz	3312	.05	.47	-9.78	.91	.75	58.14
18	1.13 Hz	10933	.04	.29	-14.52	.98	.93	48.54
19	1.33 Sec	3880	.02	.17	-18.06	.90	1.52	24.76
20	1.78 Sec	3368	.03	.24	-19.38	.87	1.72	22.88
21	2.67 Sec	1740	.06	.40	-11.22	.58	3.12	35.06
22	3.56 Sec	2256	.04	.06	-20.30	.30	2.85	1.60
23	5.33 Sec	1528	.07	.14	-23.01	.29	3.66	1.13
24	7.11 Sec	1396	.07	.04	-26.20	.31	6.30	9.37
25	10.67 Sec	816	.10	.02	-27.21	.52	3.35	-2.70
26	14.22 Sec	816	.10	.02	-27.35	.13	2.97	-8.95
27	21.33 Sec	382	.12	.03	-26.85	.47	3.73	-16.32
28	28.44 Sec	388	.10	.09	-25.74	.06	18.91	-20.07
29	42.67 Sec	348	.12	.11	-26.48	.36	3.34	-40.13
30	56.89 Sec	360	.11	.09	-26.42	.40	4.58	-7.70
31	85.33 Sec	192	.12	.13	-24.43	.05	5.36	-2.98
32	113.78 Sec	198	.14	.08	-24.12	.20	5.84	-16.52
33	170.67 Sec	84	.15	.09	-20.89	.19	6.64	-7.15
34	227.56 Sec	63	.18	.09	-21.23	.00	8.77	-25.87
35	341.33 Sec	6	.16	.08	-21.31	.59	2.78	17.38
36	455.11 Sec	48	.14	.03	-20.50	.55	3.03	-27.95
37	682.67 Sec	12	.20	.01	-21.19	.11	6.51	-12.99
38	910.22 Sec	12	.15	.01	-21.01	.94	.72	19.15
39	1365.33 Sec	9	.20	.07	-19.22	.55	.98	64.57
40	1820.44 Sec	9	.18	.07	-23.15	.56	2.56	79.24

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E







PHOENIX GEOSCIENCE

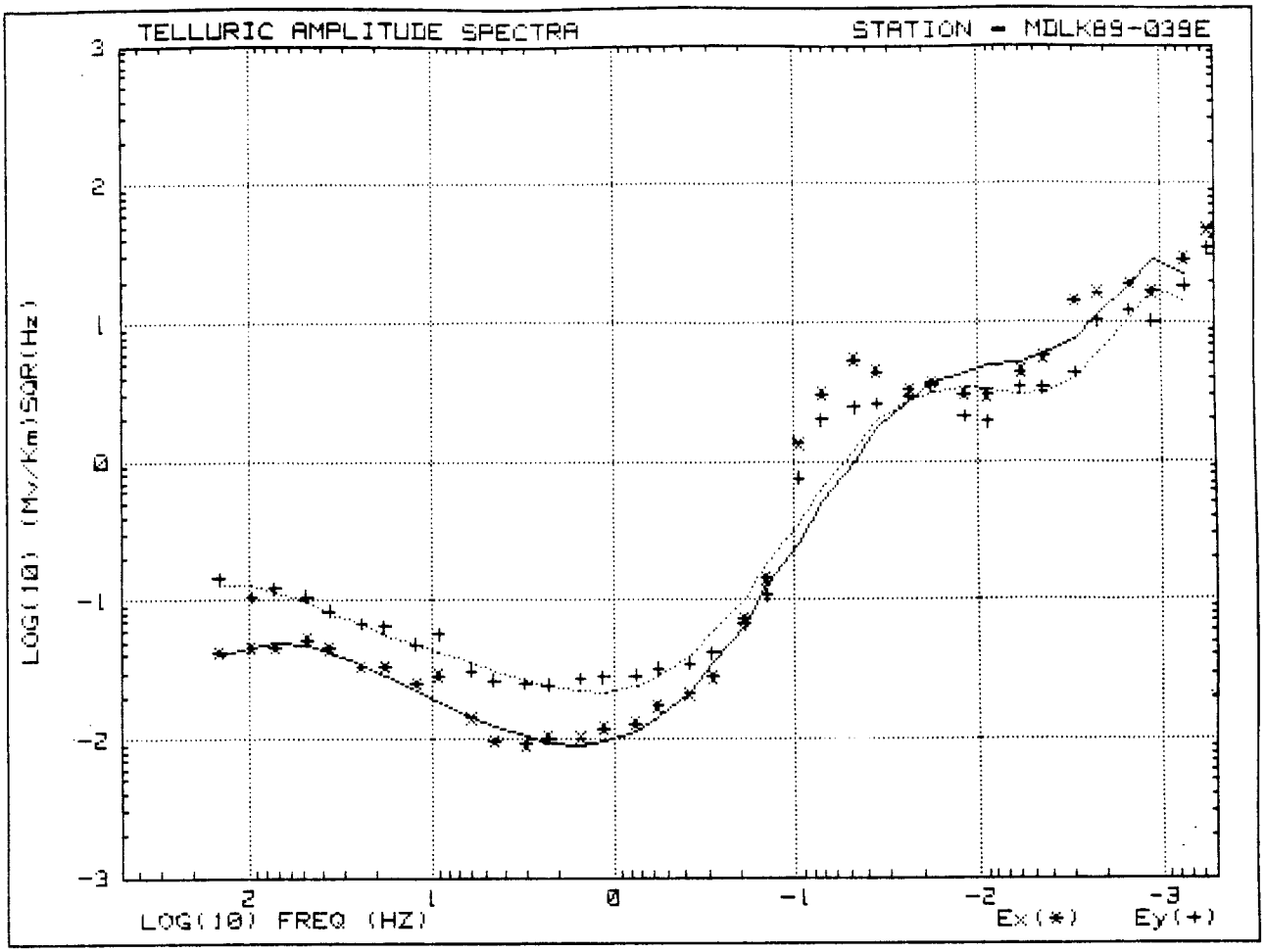
MT Site: MDLK89-039E

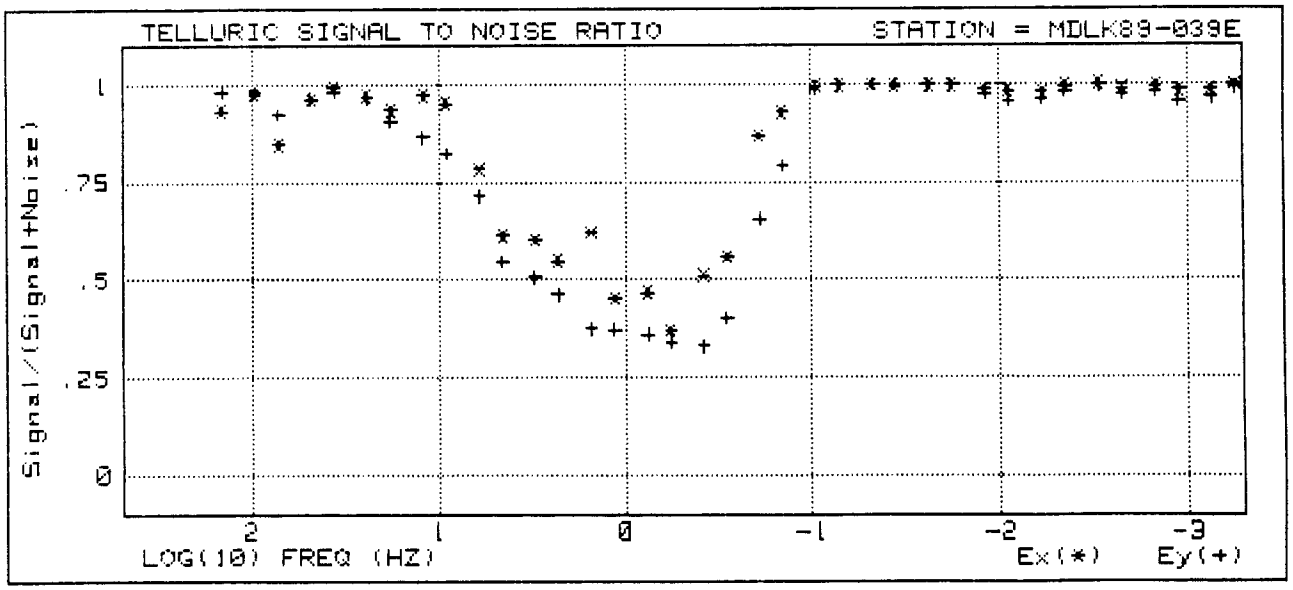
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	948	.90	.97	.98	.90	.97	.89
5	96.00 Hz	384	.91	.96	.96	.91	.96	.91
6	72.00 Hz	480	.85	.93	.93	.84	.93	.84
7	48.00 Hz	480	.85	.92	.92	.85	.92	.85
8	36.00 Hz	671	.61	.76	.75	.60	.74	.60
9	24.00 Hz	288	.80	.90	.90	.80	.90	.80
10	18.00 Hz	768	.53	.76	.74	.53	.74	.53
11	12.00 Hz	672	.87	.86	.85	.86	.85	.86
12	9.00 Hz	864	.84	.85	.84	.83	.84	.83
13	6.00 Hz	672	.67	.79	.78	.67	.78	.67
14	4.50 Hz	768	.63	.72	.72	.62	.71	.62
15	3.00 Hz	9322	.75	.71	.71	.75	.71	.75
16	2.25 Hz	17934	.72	.67	.67	.72	.67	.72
17	1.50 Hz	3312	.78	.61	.61	.78	.60	.77
18	1.13 Hz	10933	.66	.61	.61	.66	.61	.65
19	1.33 Sec	3880	.67	.60	.61	.67	.60	.66
20	1.78 Sec	3368	.60	.58	.60	.59	.58	.57
21	2.67 Sec	1740	.65	.55	.62	.62	.55	.60
22	3.56 Sec	2256	.71	.63	.66	.69	.62	.67
23	5.33 Sec	1528	.93	.81	.84	.92	.79	.90
24	7.11 Sec	1396	.96	.88	.87	.94	.86	.92
25	10.67 Sec	816	1.00	.99	.99	.99	.98	.99
26	14.22 Sec	816	1.00	1.00	1.00	1.00	.99	.97
27	21.33 Sec	382	1.00	.99	.99	1.00	.95	.98
28	28.44 Sec	388	1.00	.99	.99	1.00	.97	.96
29	42.67 Sec	348	1.00	1.00	1.00	.99	.99	.88
30	56.89 Sec	360	1.00	1.00	1.00	.99	.99	.86
31	85.33 Sec	192	.99	.99	.98	.98	.97	.92
32	113.78 Sec	198	.99	.98	.97	.97	.96	.92
33	170.67 Sec	84	.99	.98	.97	.97	.97	.88
34	227.56 Sec	63	1.00	.99	.99	.99	.98	.92
35	341.33 Sec	6	1.00	1.00	1.00	1.00	.97	.99
36	455.11 Sec	48	.99	.99	.98	.99	.97	.93
37	682.67 Sec	12	1.00	.99	.99	.98	.98	.86
38	910.22 Sec	12	.99	.98	.97	.97	.95	.87
39	1365.33 Sec	9	.99	.98	.98	.97	.97	.83
40	1820.44 Sec	9	1.00	.99	.99	.99	.98	.90

PHOENIX GEOSCIENCE

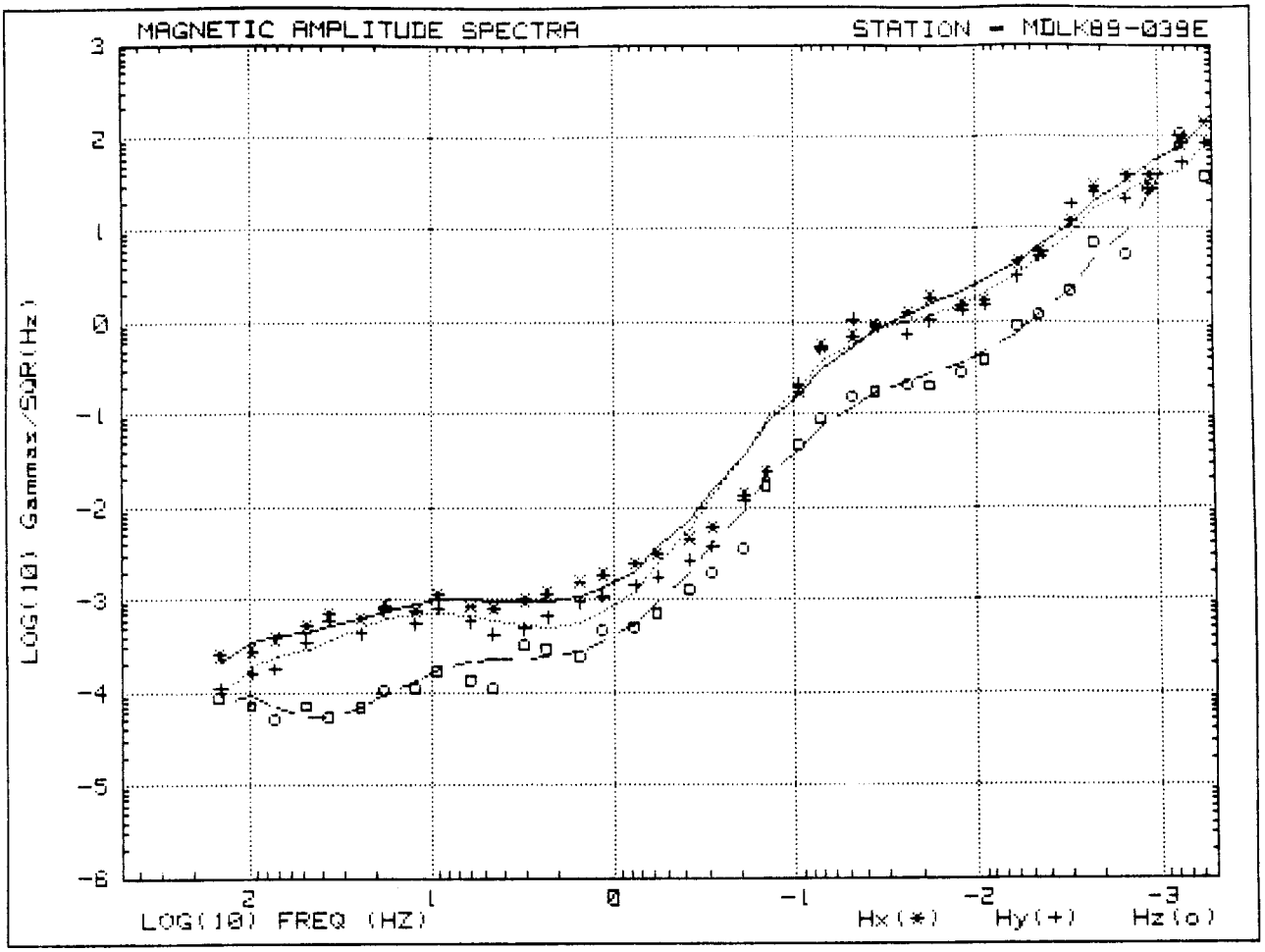
MT Site: MDLK89-039E

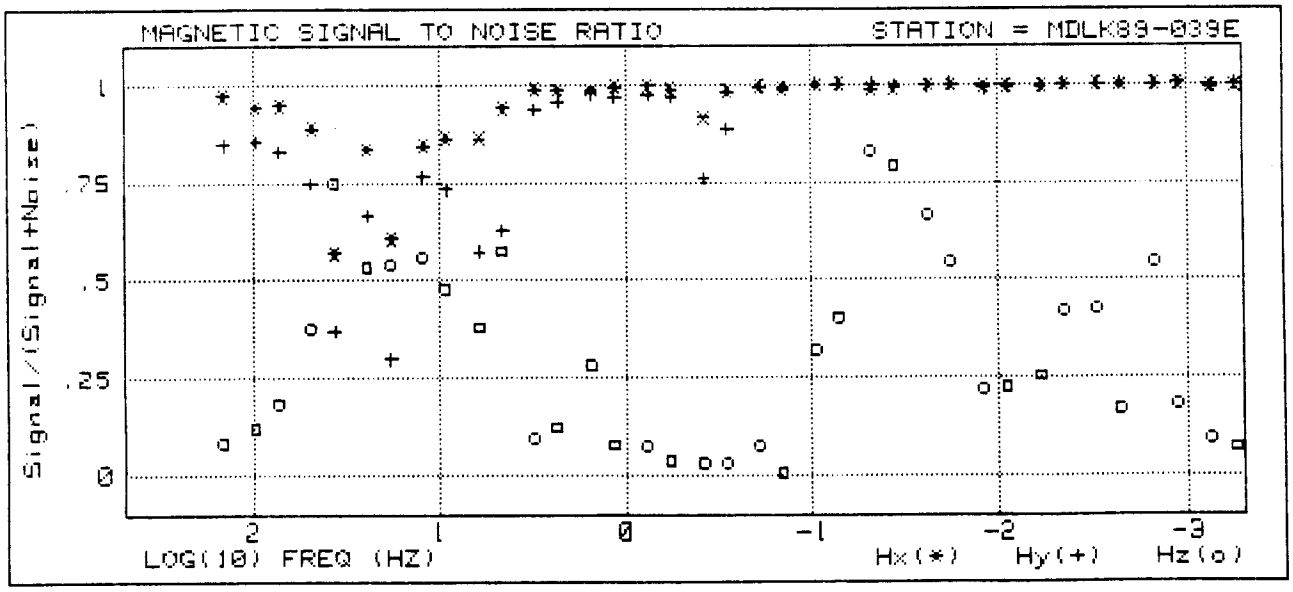




PHOENIX GEOSCIENCE

MT Site: MDLK89-039E





PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	948	2.49E-04	1.08E-04	8.97E-05	4.14E-02	1.41E-01
5	96.00 Hz	384	2.73E-04	1.57E-04	7.45E-05	4.48E-02	1.04E-01
6	72.00 Hz	480	3.73E-04	1.77E-04	5.47E-05	4.48E-02	1.20E-01
7	48.00 Hz	480	5.16E-04	3.49E-04	7.48E-05	5.13E-02	1.05E-01
8	36.00 Hz	671	6.79E-04	5.95E-04	5.62E-05	4.43E-02	8.35E-02
9	24.00 Hz	288	6.18E-04	4.23E-04	7.26E-05	3.26E-02	6.73E-02
10	18.00 Hz	768	8.48E-04	7.70E-04	1.09E-04	3.27E-02	6.36E-02
11	12.00 Hz	672	7.35E-04	5.33E-04	1.18E-04	2.47E-02	4.74E-02
12	9.00 Hz	864	1.13E-03	8.03E-04	1.79E-04	2.83E-02	5.62E-02
13	6.00 Hz	672	8.32E-04	5.73E-04	1.43E-04	1.39E-02	3.05E-02
14	4.50 Hz	768	7.84E-04	4.15E-04	1.15E-04	9.54E-03	2.60E-02
15	3.00 Hz	9322	9.78E-04	4.80E-04	3.36E-04	9.04E-03	2.48E-02
16	2.25 Hz	17934	1.14E-03	6.47E-04	3.12E-04	1.00E-02	2.41E-02
17	1.50 Hz	3312	1.54E-03	9.15E-04	2.59E-04	1.01E-02	2.66E-02
18	1.13 Hz	10933	1.86E-03	1.07E-03	4.84E-04	1.17E-02	2.74E-02
19	1.33 Sec	3880	2.44E-03	1.43E-03	5.33E-04	1.27E-02	2.81E-02
20	1.78 Sec	3368	3.10E-03	1.73E-03	7.52E-04	1.71E-02	3.18E-02
21	2.67 Sec	1740	4.58E-03	2.63E-03	1.33E-03	2.08E-02	3.43E-02
22	3.56 Sec	2256	6.04E-03	3.76E-03	2.08E-03	2.76E-02	4.12E-02
23	5.33 Sec	1528	1.34E-02	1.19E-02	3.76E-03	7.17E-02	6.61E-02
24	7.11 Sec	1396	2.35E-02	2.38E-02	1.75E-02	1.41E-01	1.07E-01
25	10.67 Sec	816	1.74E-01	2.09E-01	4.99E-02	1.32E+00	7.41E-01
26	14.22 Sec	816	5.47E-01	5.10E-01	9.34E-02	3.01E+00	1.96E+00
27	21.33 Sec	382	7.01E-01	1.06E+00	1.62E-01	5.24E+00	2.39E+00
28	28.44 Sec	388	8.85E-01	9.25E-01	1.88E-01	4.28E+00	2.53E+00
29	42.67 Sec	348	1.23E+00	7.25E-01	2.18E-01	3.20E+00	2.85E+00
30	56.89 Sec	360	1.82E+00	1.02E+00	2.13E-01	3.62E+00	3.46E+00
31	85.33 Sec	192	1.50E+00	1.34E+00	2.99E-01	3.02E+00	2.06E+00
32	113.78 Sec	198	1.68E+00	1.51E+00	4.11E-01	2.91E+00	1.89E+00
33	170.67 Sec	84	4.26E+00	2.98E+00	9.10E-01	4.32E+00	3.37E+00
34	227.56 Sec	63	5.46E+00	5.04E+00	1.24E+00	5.52E+00	3.32E+00
35	341.33 Sec	6	1.18E+01	1.82E+01	2.33E+00	1.41E+01	4.28E+00
36	455.11 Sec	48	2.84E+01	2.47E+01	7.55E+00	1.61E+01	1.01E+01
37	682.67 Sec	12	3.69E+01	2.05E+01	5.65E+00	1.87E+01	1.21E+01
38	910.22 Sec	12	3.78E+01	2.65E+01	2.76E+01	1.63E+01	9.97E+00
39	1365.33 Sec	9	8.01E+01	4.99E+01	1.12E+02	2.83E+01	1.80E+01
40	1820.44 Sec	9	1.39E+02	8.18E+01	3.84E+01	4.60E+01	3.36E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	948	.971	.845	.085	.930	.979
5	96.00 Hz	384	.941	.853	.124	.973	.979
6	72.00 Hz	480	.946	.828	.189	.844	.923
7	48.00 Hz	480	.887	.746	.382	.960	.962
8	36.00 Hz	671	.568	.367	.755	.992	.980
9	24.00 Hz	288	.835	.665	.540	.968	.964
10	18.00 Hz	768	.606	.298	.546	.933	.903
11	12.00 Hz	672	.843	.764	.562	.972	.864
12	9.00 Hz	864	.862	.732	.485	.950	.822
13	6.00 Hz	672	.860	.571	.385	.782	.712
14	4.50 Hz	768	.940	.626	.580	.612	.544
15	3.00 Hz	9322	.987	.936	.098	.600	.505
16	2.25 Hz	17934	.986	.955	.127	.547	.460
17	1.50 Hz	3312	.986	.977	.285	.620	.373
18	1.13 Hz	10933	.994	.969	.083	.451	.371
19	1.33 Sec	3880	.996	.975	.078	.466	.359
20	1.78 Sec	3368	.988	.969	.039	.368	.339
21	2.67 Sec	1740	.914	.758	.037	.508	.329
22	3.56 Sec	2256	.981	.886	.034	.557	.400
23	5.33 Sec	1528	.993	.993	.081	.865	.654
24	7.11 Sec	1396	.986	.991	.012	.927	.791
25	10.67 Sec	816	.999	.999	.325	.994	.989
26	14.22 Sec	816	1.000	.999	.409	.996	.995
27	21.33 Sec	382	.987	1.000	.835	.998	.998
28	28.44 Sec	388	.989	.998	.796	.994	.998
29	42.67 Sec	348	.998	.995	.672	.995	.995
30	56.89 Sec	360	.999	.999	.551	.995	.996
31	85.33 Sec	192	.996	.990	.225	.985	.976
32	113.78 Sec	198	.996	.994	.232	.980	.956
33	170.67 Sec	84	.997	.995	.259	.977	.959
34	227.56 Sec	63	.998	.999	.425	.993	.980
35	341.33 Sec	6	1.000	1.000	.433	.999	.997
36	455.11 Sec	48	.998	1.000	.173	.988	.973
37	682.67 Sec	12	1.000	1.000	.551	.994	.982
38	910.22 Sec	12	1.000	1.000	.188	.984	.955
39	1365.33 Sec	9	.995	.993	.100	.985	.964
40	1820.44 Sec	9	.996	1.000	.076	.997	.990

PHOENIX GEOSCIENCE

MT Site: MDLK89-039E

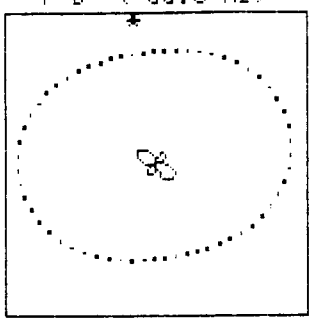
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

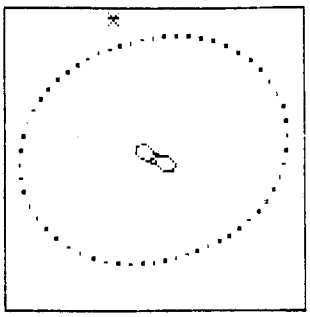
*=Rotation Direction

Zxy = ...
Zxx = ____

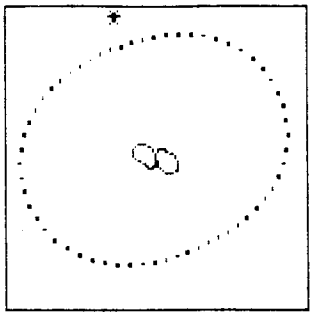
F=8 (36.0 Hz)



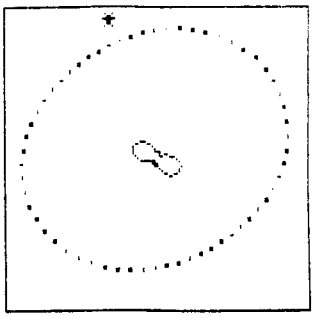
F=10 (18.0 Hz)



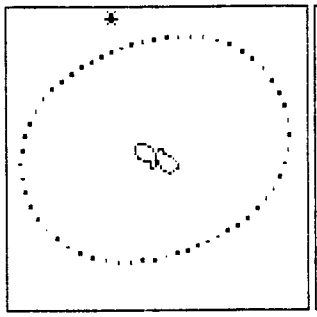
F=12 (9.0 Hz)



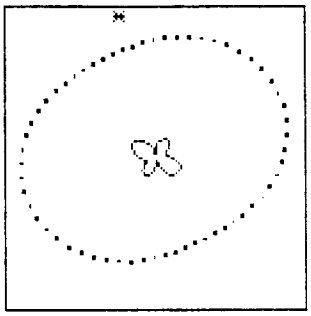
F=14 (4.5 Hz)



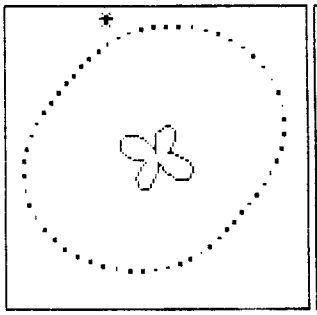
F=16 (2.3 Hz)



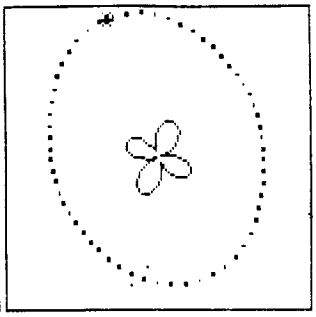
F=18 (1.1 Hz)



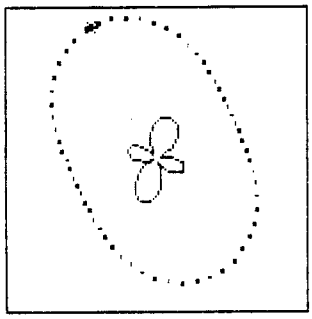
F=20 (.5625 Hz)



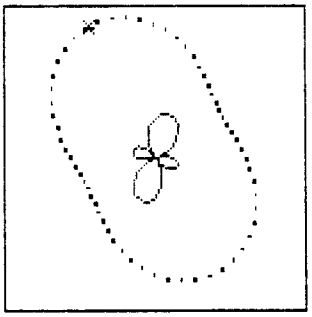
F=22 (.2813 Hz)



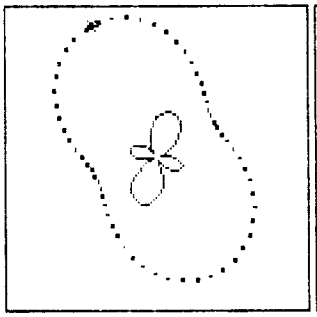
F=24 (.1406 Hz)



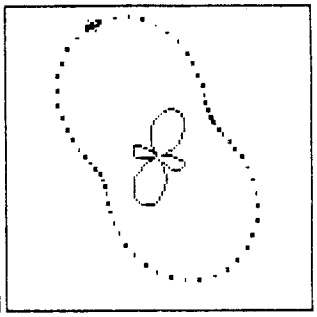
F=26 (.0703 Hz)



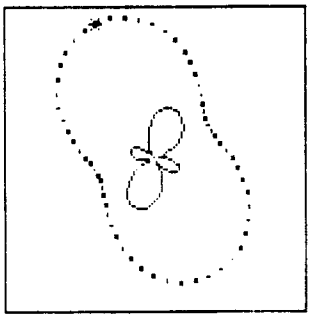
F=28 (.0352 Hz)



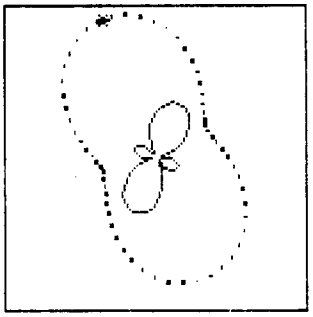
F=30 (.0176 Hz)



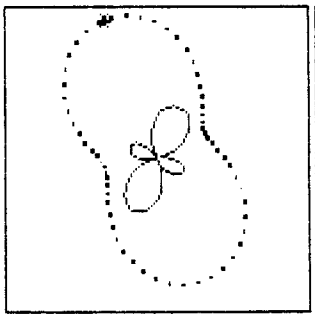
F=32 (.0088 Hz)



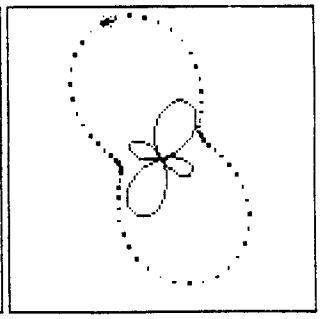
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-039s/040s/

Operator:M. SNOW
Date: 7 Sep 1989
Time: 12:13:51

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#431-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#452-16Aug89-01
Sens-Ch07: C#235-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 2

Stn Number:MDLK89-040s
Site Desc:T44N R4E SEC29 NE4
41,37,44 N 121,31,59 W
Elevation:6600 FT
Reference:MDLK89-039s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL452	+0 DEG
Hy	7	COIL235	+90 DEG
Hz	8	LOOP005	Doubled
Ex	9	162 M	+0 DEG
Ey	10	175 M	+90 DEG
Rx	1	COIL205	+45 DEG
Ry	2	COIL431	+135 DEG

Ex Pot Resist: 10.0K Ohms
Ex Voltage: AC=8.90 mv, DC=59.9 mv
Ey Pot Resist: 12.0K Ohms
Ey Voltage: AC=6.30 mv, DC=119.4 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

OPERATOR LOG FOR MT SITES MDLK89-039s/040s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-039a/040a/

Run STARTED:	12:13:51	7 Sep 1989
Run QUIT:	20:20:29	7 Sep 1989

Run Start and Stop Time for MDLK89-039b/040b/

Run STARTED:	20:46:08	7 Sep 1989
Run QUIT:	09:51:57	8 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE

Weather Conditions:
LOVELY DAY, CLEAR WITH SLIGHT BREEZE. GREAT DAY TO BE OUTSIDE WORKING ON A MT CREW!

Other Factors:
NONE

PHOENIX GEOSCIENCE

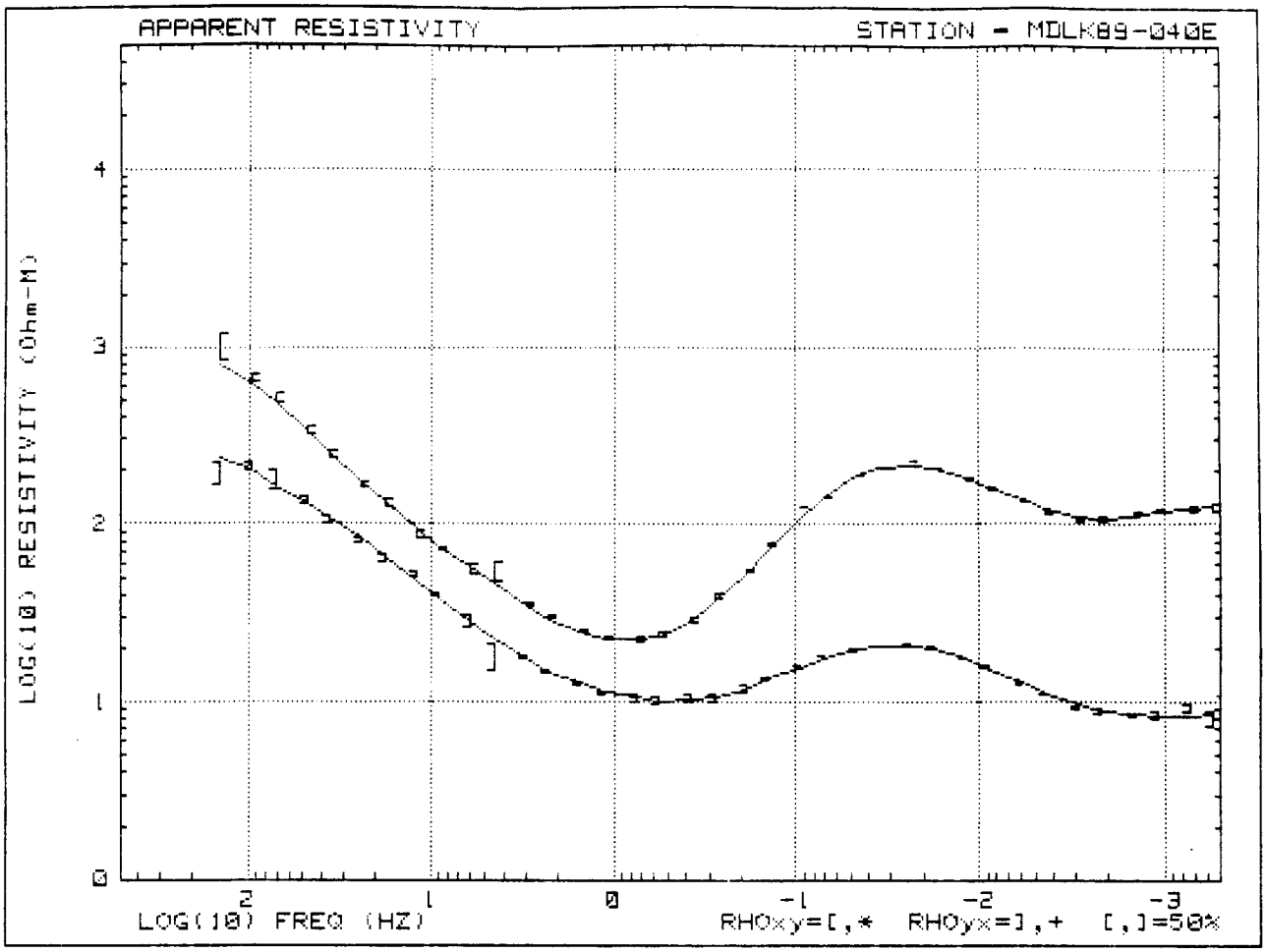
MT Site: MDLK89-040E

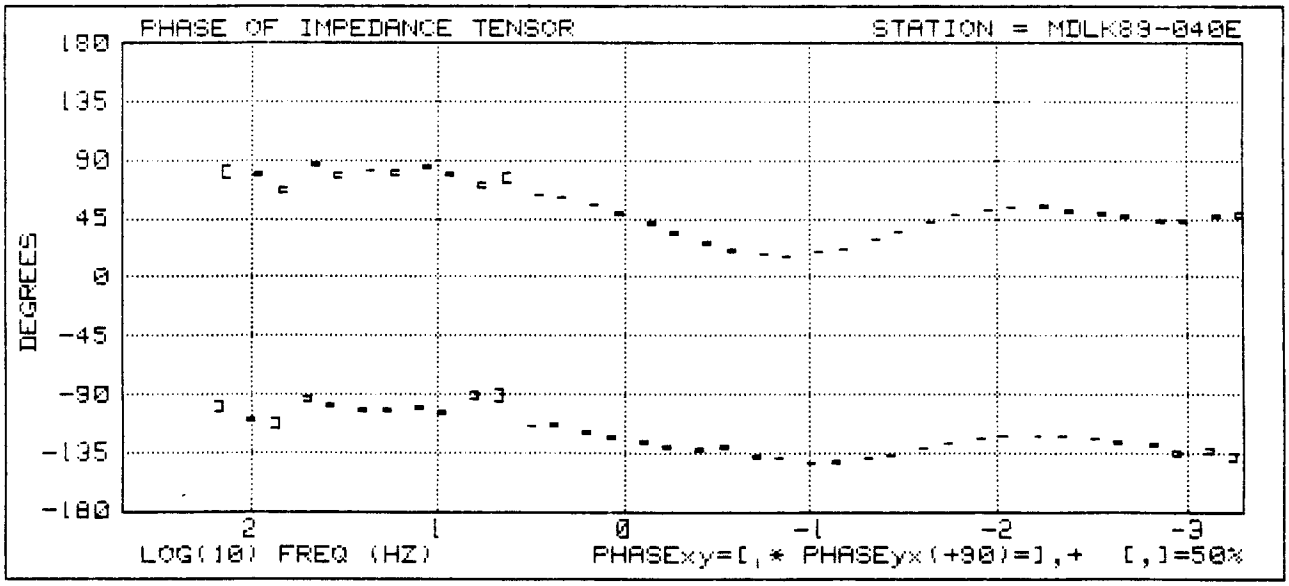
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

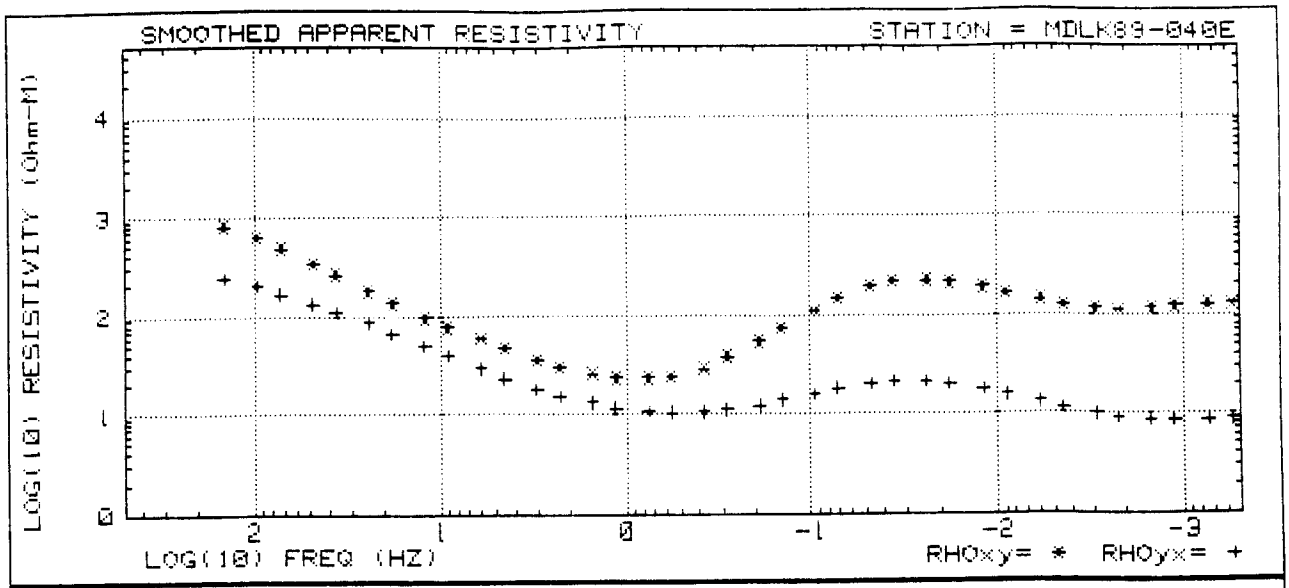
MT Site: MDLK89-040E

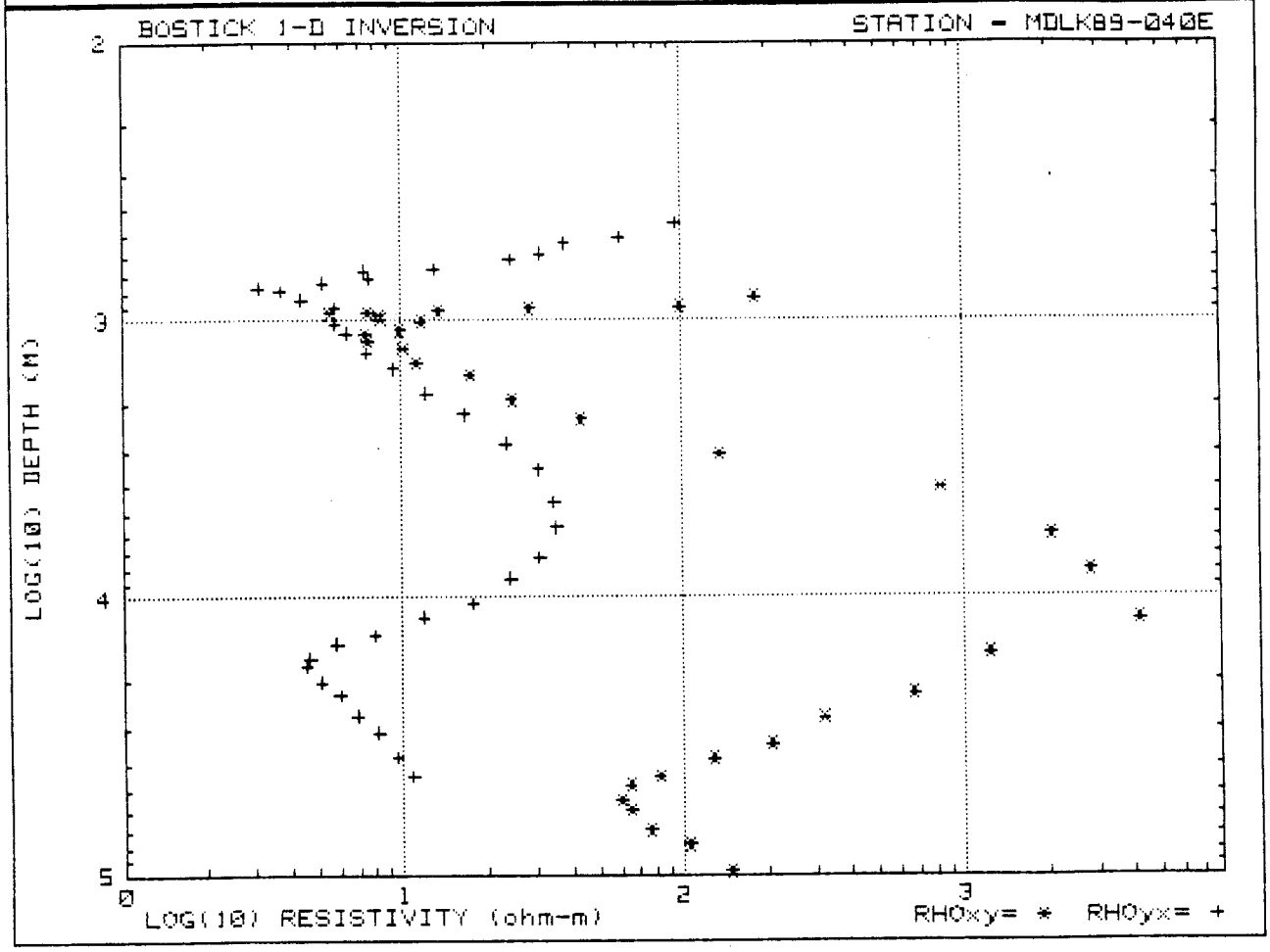




PHOENIX GEOSCIENCE

MT Site: MDLK89-040E





PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	571	1015.4	29.8	192.0	24.6	80.9	7.5	-98.8	6.3
5	96.00 Hz	960	664.2	6.5	211.5	5.3	78.6	1.8	-109.2	1.5
6	72.00 Hz	480	511.4	11.3	177.9	21.9	67.4	3.1	-113.0	5.7
7	48.00 Hz	480	335.5	6.2	136.7	6.2	87.0	1.7	-93.4	1.7
8	36.00 Hz	862	249.1	7.6	106.1	7.1	78.4	2.1	-98.7	2.0
9	24.00 Hz	768	167.6	3.8	81.3	3.5	81.9	1.1	-101.4	1.0
10	18.00 Hz	384	131.1	6.5	64.8	6.7	80.1	1.8	-102.6	1.9
11	12.00 Hz	960	87.4	6.2	52.9	4.2	84.3	1.7	-100.5	1.2
12	9.00 Hz	864	73.0	4.5	40.1	3.3	79.6	1.3	-103.7	.9
13	6.00 Hz	672	56.3	10.7	28.7	12.5	71.0	2.9	-90.9	3.4
14	4.50 Hz	480	53.9	22.1	17.7	29.8	75.9	5.7	-91.0	7.5
15	3.00 Hz	5834	35.9	2.4	17.9	3.8	63.5	.7	-114.2	1.1
16	2.25 Hz	7818	30.7	1.5	14.8	2.8	61.4	.4	-113.6	.8
17	1.50 Hz	7157	25.0	2.1	12.8	2.8	56.0	.6	-119.0	.8
18	1.13 Hz	11429	22.8	1.7	11.3	2.6	49.3	.5	-122.4	.7
19	1.33 Sec	3608	22.8	4.0	10.5	5.9	41.0	1.1	-126.6	1.6
20	1.78 Sec	2352	24.2	4.4	10.2	7.9	33.9	1.2	-130.8	2.2
21	2.67 Sec	2272	29.2	4.0	10.6	7.8	26.5	1.1	-132.0	2.2
22	3.56 Sec	2508	39.7	3.2	10.5	6.5	21.1	.9	-130.8	1.8
23	5.33 Sec	296	54.9	2.2	12.0	7.5	18.0	.6	-137.8	2.1
24	7.11 Sec	800	77.6	1.0	13.4	2.6	16.4	.3	-139.2	.7
25	10.67 Sec	786	124.5	.4	15.9	1.1	19.4	.1	-142.0	.3
26	14.22 Sec	816	142.4	.4	18.3	.4	21.8	.1	-141.7	.1
27	21.33 Sec	406	188.2	.4	19.7	.4	28.6	.1	-139.2	.1
28	28.44 Sec	406	210.2	.6	20.5	.5	34.2	.2	-136.8	.2
29	42.67 Sec	384	228.1	.6	20.9	.7	42.3	.2	-131.4	.2
30	56.89 Sec	336	210.3	.5	20.2	.6	47.6	.1	-128.0	.2
31	85.33 Sec	186	180.9	.7	17.7	.9	52.6	.2	-123.5	.3
32	113.78 Sec	186	159.4	1.4	15.7	1.6	54.0	.4	-121.6	.5
33	170.67 Sec	45	133.9	1.2	12.7	2.3	54.5	.3	-121.5	.6
34	227.56 Sec	54	117.1	2.1	11.0	1.9	50.5	.6	-122.2	.5
35	341.33 Sec	30	107.2	1.6	9.3	2.4	49.1	.4	-123.9	.7
36	455.11 Sec	42	108.1	3.9	8.9	4.3	46.8	1.1	-126.3	1.2
37	682.67 Sec	12	115.4	2.8	8.4	3.2	43.6	.8	-128.1	.9
38	910.22 Sec	12	120.6	3.4	8.4	7.8	43.4	.9	-135.6	2.2
39	1365.33 Sec	6	122.9	5.4	9.3	8.5	46.7	1.5	-133.3	2.3
40	1820.44 Sec	9	122.6	7.7	7.9	15.0	47.7	2.1	-138.0	4.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	571	797.1	235.8	185.8	837	95.5	455
5	96.00 Hz	960	619.4	198.6	98.8	904	60.6	512
6	72.00 Hz	480	482.3	163.0	29.9	921	38.4	535
7	48.00 Hz	480	334.9	129.4	13.6	940	31.4	584
8	36.00 Hz	862	254.5	106.8	7.6	949	24.5	613
9	24.00 Hz	768	174.4	83.7	5.6	959	13.1	665
10	18.00 Hz	384	132.9	64.5	8.3	969	7.4	674
11	12.00 Hz	960	94.6	48.3	8.5	999	7.7	714
12	9.00 Hz	864	74.5	39.0	11.8	1024	5.3	741
13	6.00 Hz	672	57.2	28.5	10.0	1098	3.1	775
14	4.50 Hz	480	45.8	22.3	7.5	1135	3.7	793
15	3.00 Hz	5834	34.7	17.4	7.6	1211	4.4	856
16	2.25 Hz	7818	29.4	14.8	10.2	1285	5.8	913
17	1.50 Hz	7157	24.8	12.8	11.4	1447	5.8	1040
18	1.13 Hz	11429	22.7	11.4	17.6	1599	6.4	1132
19	1.33 Sec	3608	22.7	10.5	24.7	1958	7.6	1334
20	1.78 Sec	2352	23.4	10.2	44.0	2294	9.4	1512
21	2.67 Sec	2272	28.1	10.3	137.7	3080	12.3	1862
22	3.56 Sec	2508	37.0	10.8	842.3	4080	16.7	2207
23	5.33 Sec	296	53.0	11.9	2066.4	5982	23.5	2836
24	7.11 Sec	800	72.7	13.6	2833.9	8090	30.7	3496
25	10.67 Sec	786	108.3	15.6	4224.1	12096	34.9	4585
26	14.22 Sec	816	142.3	17.7	1248.6	16012	35.6	5647
27	21.33 Sec	406	188.0	19.6	673.8	22536	31.0	7285
28	28.44 Sec	406	210.4	20.7	321.7	27531	24.2	8632
29	42.67 Sec	384	217.3	20.7	210.2	34267	17.9	10589
30	56.89 Sec	336	208.0	19.7	129.1	38712	12.0	11902
31	85.33 Sec	186	184.8	17.5	82.3	44688	8.0	13765
32	113.78 Sec	186	159.4	15.2	64.7	47926	5.8	14793
33	170.67 Sec	45	137.8	12.9	60.0	54584	4.7	16685
34	227.56 Sec	54	121.4	11.0	65.3	59139	4.6	17799
35	341.33 Sec	30	111.9	9.7	77.1	69564	5.1	20447
36	455.11 Sec	42	106.8	8.9	105.7	78453	6.0	22638
37	682.67 Sec	12	111.5	8.5	147.7	98201	6.9	27031
38	910.22 Sec	12	117.6	8.3	158.1	116444	8.2	30933
39	1365.33 Sec	6	123.5	8.4	144.9	146122	9.6	38153
40	1820.44 Sec	9	124.3	8.7	130.3	169299	10.9	44767

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	571	124.37	156.36	999.99	135.31	844.26	999.99
5	96.00 Hz	960	22.30	39.49	395.03	111.57	553.48	639.27
6	72.00 Hz	480	51.83	42.80	999.99	165.07	396.07	999.99
7	48.00 Hz	480	-1.73	22.13	149.54	14.72	283.37	145.39
8	36.00 Hz	862	-11.05	22.35	123.71	42.45	207.47	119.87
9	24.00 Hz	768	3.03	8.99	13.86	20.06	140.38	13.82
10	18.00 Hz	384	1.17	7.07	40.93	18.68	107.01	23.45
11	12.00 Hz	960	-2.29	5.33	3.54	7.16	72.05	9.58
12	9.00 Hz	864	2.35	4.68	2.91	10.36	56.36	3.17
13	6.00 Hz	672	-3.38	4.52	3.45	13.38	38.86	8.80
14	4.50 Hz	480	-4.54	1.31	10.01	8.50	33.77	24.13
15	3.00 Hz	5834	.21	1.30	.19	10.36	20.76	.15
16	2.25 Hz	7818	.61	1.17	.12	8.88	16.31	.04
17	1.50 Hz	7157	-.07	1.53	.08	7.65	11.36	.04
18	1.13 Hz	11429	-.29	1.46	.03	7.37	8.58	.02
19	1.33 Sec	3608	-.230	1.360	.094	6.977	6.059	.067
20	1.78 Sec	2352	-.053	.888	.080	6.844	4.606	.063
21	2.67 Sec	2272	.137	.618	.046	6.620	3.307	.042
22	3.56 Sec	2508	-.114	.505	.021	6.974	2.692	.027
23	5.33 Sec	296	.078	.343	.022	6.820	2.217	.012
24	7.11 Sec	800	.092	.217	.003	7.089	2.081	.003
25	10.67 Sec	786	.217	.058	.003	7.204	2.544	.001
26	14.22 Sec	816	.222	.243	.001	6.571	2.624	.000
27	21.33 Sec	406	.222	.089	.001	5.830	3.180	.000
28	28.44 Sec	406	.078	.261	.001	5.027	3.419	.001
29	42.67 Sec	384	.033	.256	.001	3.826	3.477	.001
30	56.89 Sec	336	.064	.173	.000	2.896	3.177	.000
31	85.33 Sec	186	.016	.139	.000	1.977	2.586	.000
32	113.78 Sec	186	.008	.121	.000	1.557	2.140	.001
33	170.67 Sec	45	.004	.097	.000	1.150	1.613	.000
34	227.56 Sec	54	.001	.101	.000	1.019	1.239	.001
35	341.33 Sec	30	.011	.064	.000	.821	.947	.000
36	455.11 Sec	42	.014	.028	.000	.746	.794	.001
37	682.67 Sec	12	.036	.019	.000	.666	.634	.000
38	910.22 Sec	12	.035	.025	.000	.592	.559	.000
39	1365.33 Sec	6	.086	-.019	.001	.460	.488	.001
40	1820.44 Sec	9	.079	-.031	.001	.390	.429	.001

PHOENIX GEOSCIENCE

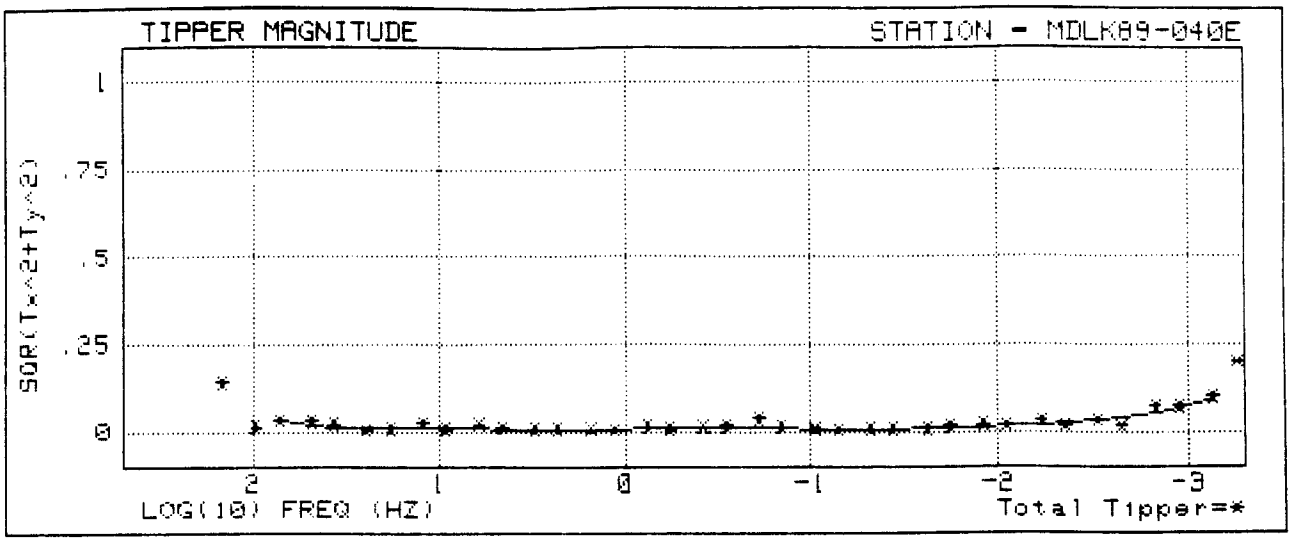
MT Site: MDLK89-040E

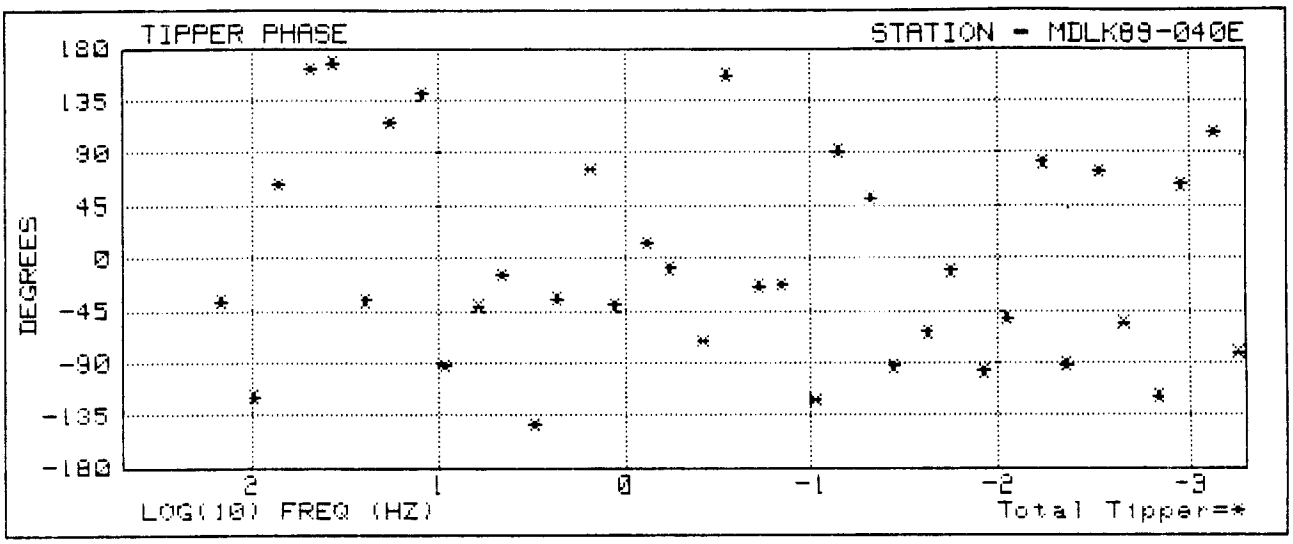
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

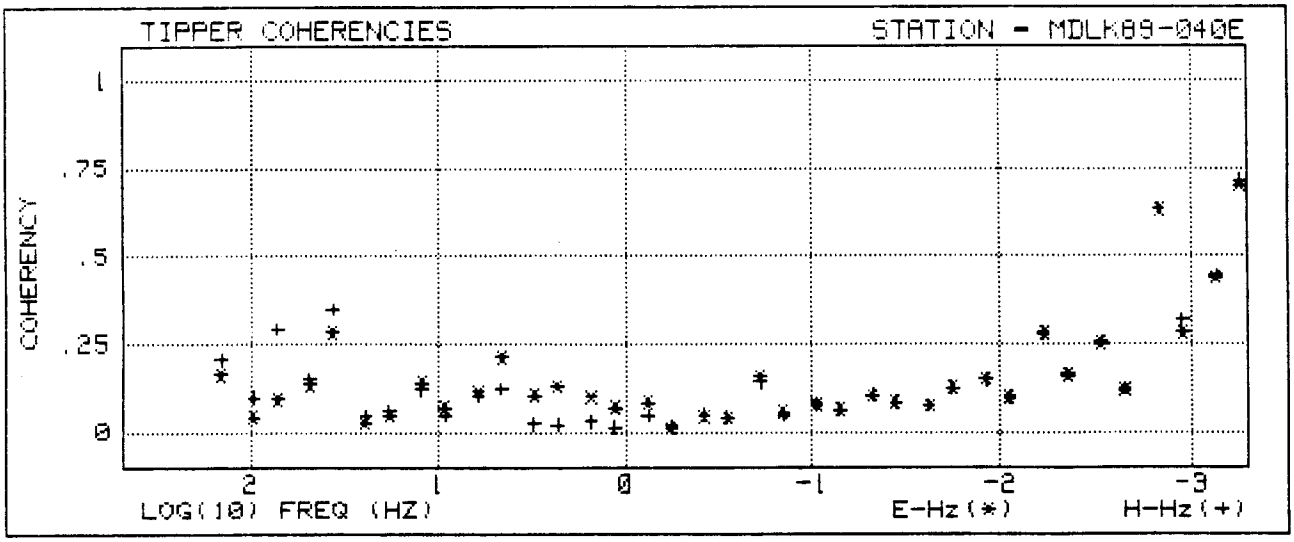
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	571	-56.66	-367.48	999.99	1.24	176.68	999.99
5	96.00 Hz	960	-104.66	-300.97	133.92	2.33	40.04	216.73
6	72.00 Hz	480	-98.75	-233.04	999.99	23.27	54.42	532.73
7	48.00 Hz	480	-10.75	-180.83	59.49	-.35	22.07	57.83
8	36.00 Hz	862	-20.94	-136.58	44.66	-.46	19.14	43.28
9	24.00 Hz	768	-19.51	-96.82	5.86	4.88	8.96	5.85
10	18.00 Hz	384	-16.70	-74.50	12.17	3.21	6.94	6.97
11	12.00 Hz	960	-10.26	-55.38	2.70	9.74	7.57	7.30
12	9.00 Hz	864	-10.04	-41.26	.97	3.95	4.65	1.06
13	6.00 Hz	672	-.45	-29.35	5.97	-2.22	2.94	15.24
14	4.50 Hz	480	-.35	-19.93	13.51	3.32	-3.32	32.57
15	3.00 Hz	5834	-6.71	-14.95	.19	.19	1.31	.15
16	2.25 Hz	7818	-5.17	-11.82	.07	.30	1.43	.02
17	1.50 Hz	7157	-4.76	-8.58	.04	.66	.77	.02
18	1.13 Hz	11429	-4.28	-6.74	.02	.47	.18	.01
19	1.33 Sec	3608	-3.749	-5.046	.065	.302	-.335	.046
20	1.78 Sec	2352	-3.499	-4.060	.083	.171	-.486	.065
21	2.67 Sec	2272	-2.977	-3.312	.057	.136	-.434	.051
22	3.56 Sec	2508	-2.506	-2.903	.029	-.158	-.419	.039
23	5.33 Sec	296	-2.486	-2.252	.029	.073	-.274	.016
24	7.11 Sec	800	-2.322	-2.005	.003	.099	-.228	.003
25	10.67 Sec	786	-2.153	-1.683	.000	.258	-.181	.000
26	14.22 Sec	816	-1.994	-1.574	.000	.298	-.088	.000
27	21.33 Sec	406	-1.626	-1.402	.000	.290	-.072	.000
28	28.44 Sec	406	-1.385	-1.298	.000	.257	-.046	.000
29	42.67 Sec	384	-1.034	-1.173	.000	.236	.011	.000
30	56.89 Sec	336	-.821	-1.050	.000	.211	.030	.000
31	85.33 Sec	186	-.562	-.850	.000	.161	.021	.000
32	113.78 Sec	186	-.436	-.708	.000	.136	.022	.000
33	170.67 Sec	45	-.319	-.519	.000	.112	.015	.000
34	227.56 Sec	54	-.262	-.416	.000	.097	.014	.000
35	341.33 Sec	30	-.206	-.306	.000	.065	.013	.000
36	455.11 Sec	42	-.185	-.251	.000	.036	.007	.000
37	682.67 Sec	12	-.153	-.195	.000	.030	.026	.000
38	910.22 Sec	12	-.153	-.151	.000	.046	.013	.000
39	1365.33 Sec	6	-.126	-.134	.000	.037	.027	.000
40	1820.44 Sec	9	-.110	-.099	.000	.023	.016	.000

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E







PHOENIX GEOSCIENCE

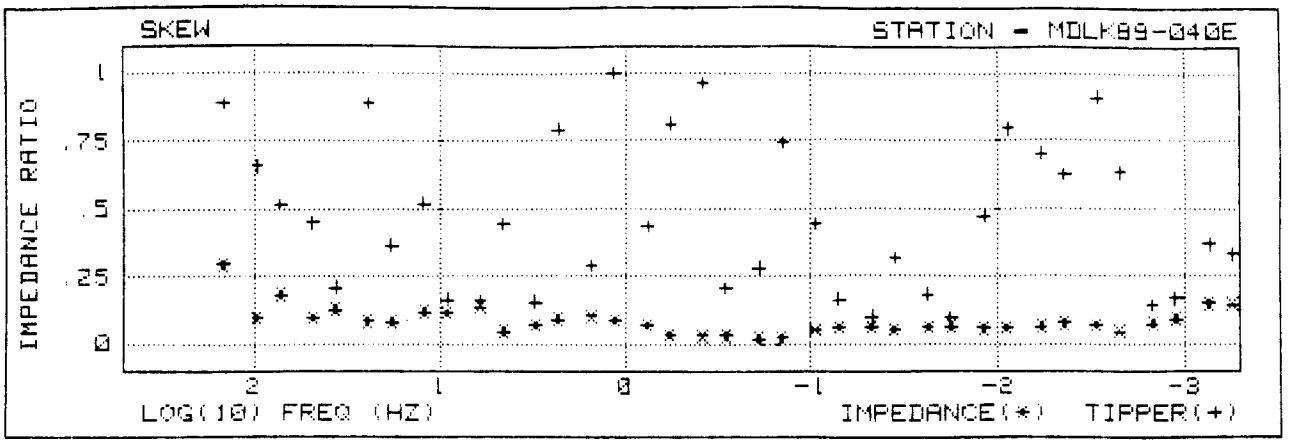
MT Site: MDLK89-040E

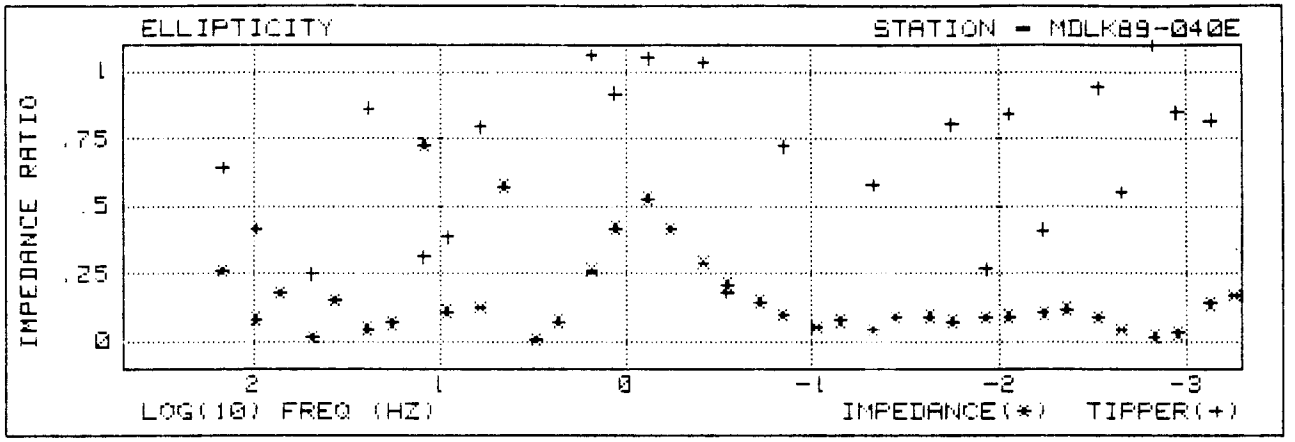
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

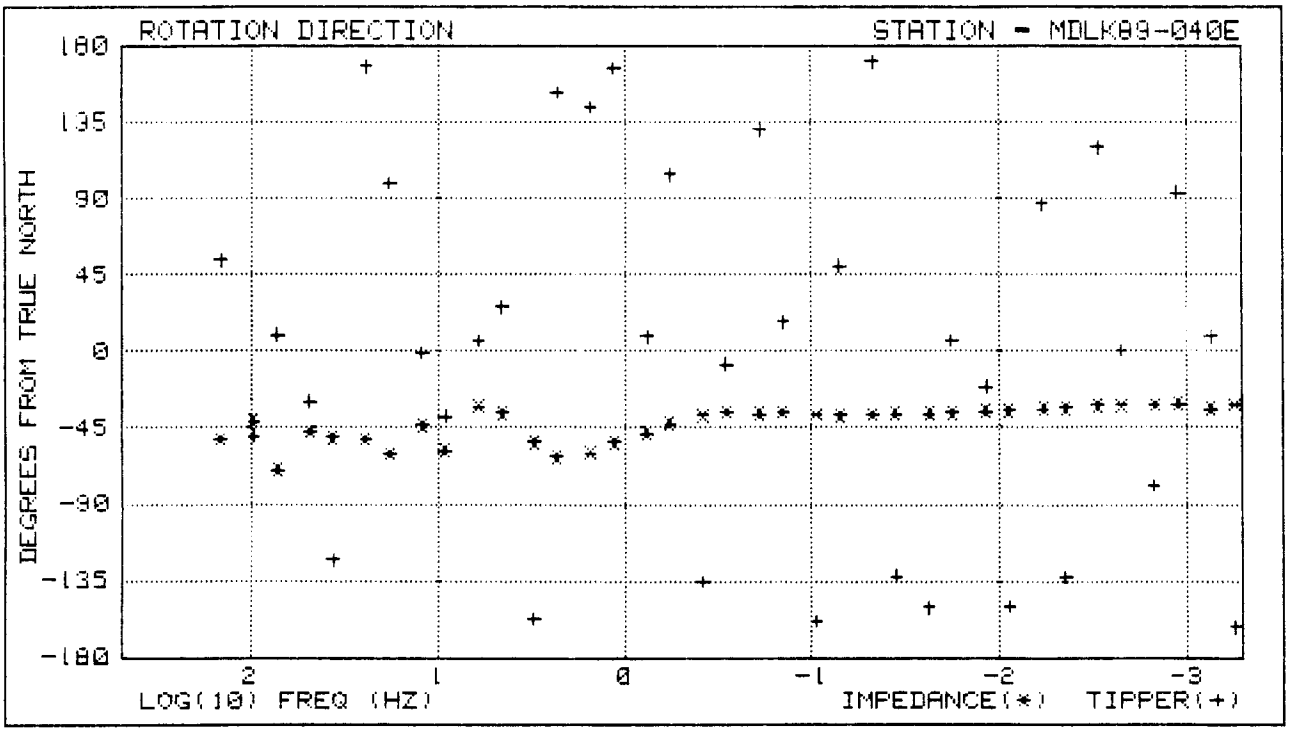
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	571	.14	-37.76	.16	.20
5	96.00 Hz	960	.01	-119.30	.04	.09
6	72.00 Hz	480	.03	63.01	.09	.29
7	48.00 Hz	480	.03	161.85	.13	.14
8	36.00 Hz	862	.02	166.60	.28	.34
9	24.00 Hz	768	.00	-37.18	.02	.04
10	18.00 Hz	384	.01	115.48	.04	.06
11	12.00 Hz	960	.02	139.60	.14	.12
12	9.00 Hz	864	.00	-93.07	.07	.04
13	6.00 Hz	672	.02	-41.85	.11	.10
14	4.50 Hz	480	.01	-15.40	.21	.12
15	3.00 Hz	5834	.00	-143.49	.10	.02
16	2.25 Hz	7818	.00	-35.36	.13	.02
17	1.50 Hz	7157	.00	75.22	.10	.03
18	1.13 Hz	11429	.00	-40.74	.07	.01
19	1.33 Sec	3608	.01	12.37	.08	.04
20	1.78 Sec	2352	.00	-9.56	.01	.01
21	2.67 Sec	2272	.01	-71.76	.04	.05
22	3.56 Sec	2508	.01	155.87	.04	.04
23	5.33 Sec	296	.03	-24.68	.16	.14
24	7.11 Sec	800	.01	-23.30	.05	.05
25	10.67 Sec	786	.01	-122.37	.07	.07
26	14.22 Sec	816	.00	90.44	.06	.06
27	21.33 Sec	406	.00	51.00	.10	.10
28	28.44 Sec	406	.00	-93.88	.08	.08
29	42.67 Sec	384	.01	-64.50	.07	.07
30	56.89 Sec	336	.01	-11.62	.12	.12
31	85.33 Sec	186	.02	-97.99	.15	.15
32	113.78 Sec	186	.01	-52.29	.09	.10
33	170.67 Sec	45	.03	80.84	.28	.28
34	227.56 Sec	54	.02	-92.02	.16	.16
35	341.33 Sec	30	.03	73.05	.25	.25
36	455.11 Sec	42	.01	-56.59	.11	.12
37	682.67 Sec	12	.07	-119.27	.63	.63
38	910.22 Sec	12	.07	61.97	.28	.31
39	1365.33 Sec	6	.10	107.08	.44	.44
40	1820.44 Sec	9	.20	-81.63	.70	.71

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E







PHOENIX GEOSCIENCE

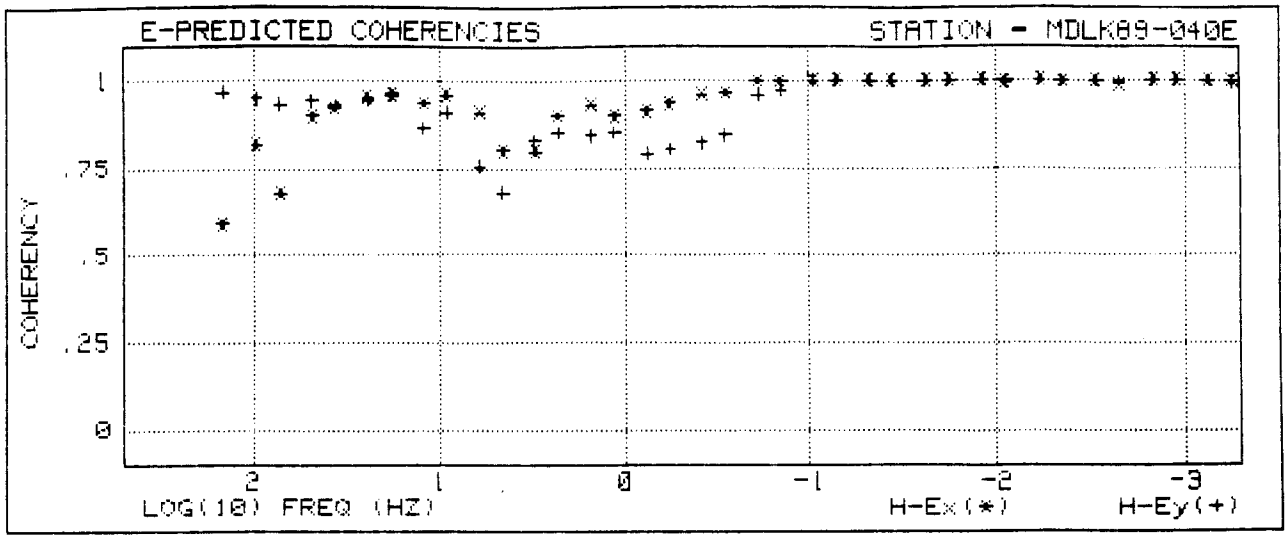
MT Site: MDLK89-040E

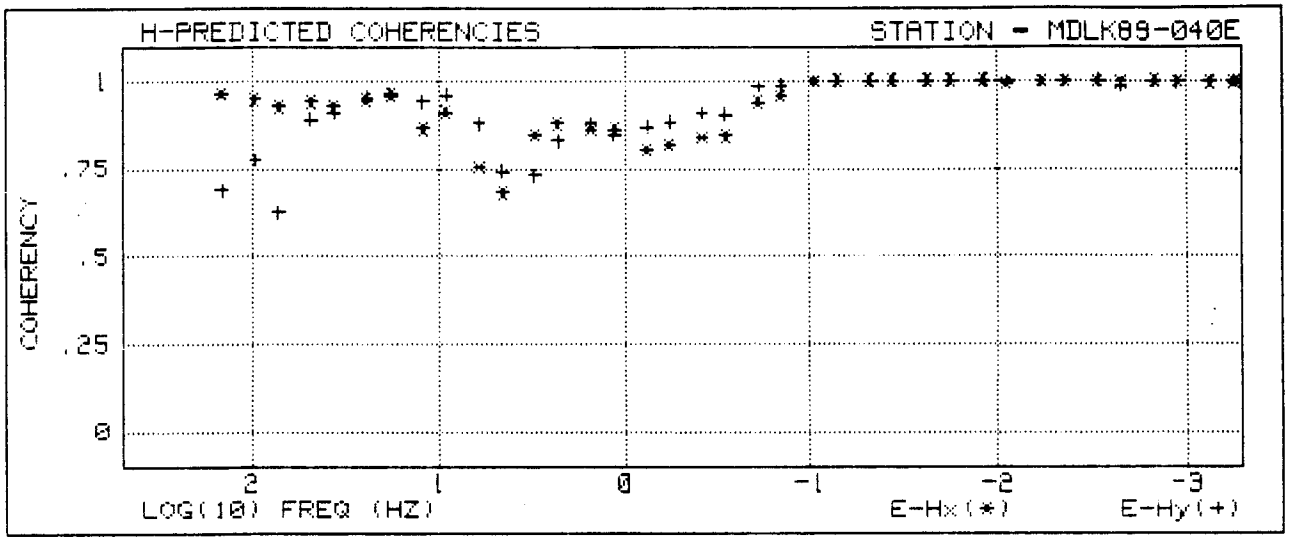
SKEW, ELLIPTICITY AND STRIKE

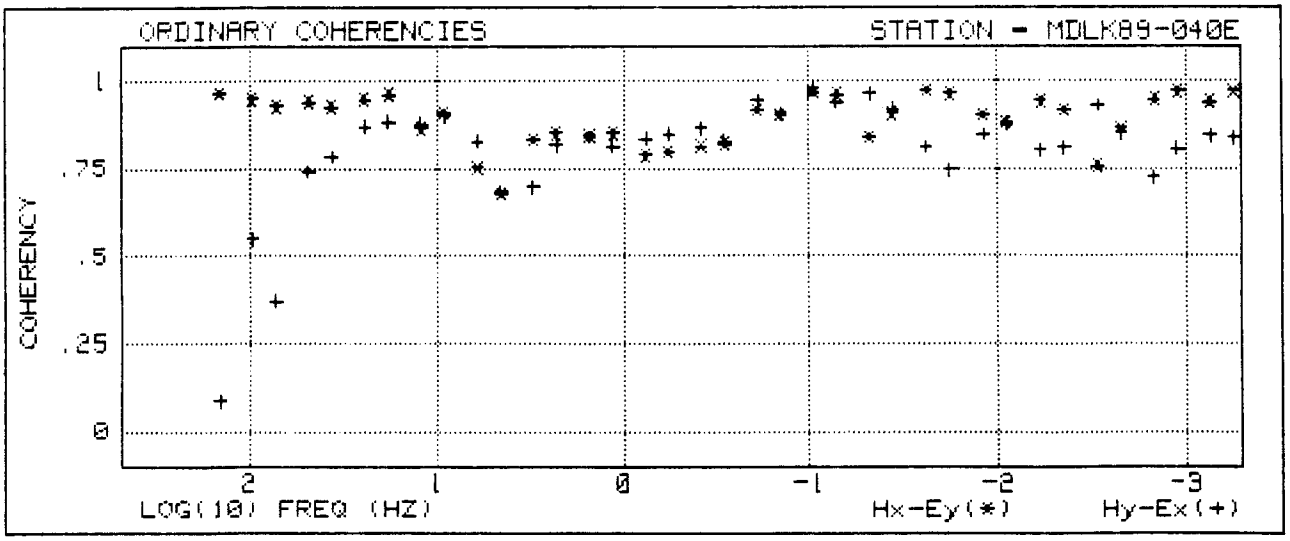
F#	Frq/Prd		STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00	Hz	571	.29	.26	-52.16	.88	.64	52.94
5	96.00	Hz	960	.09	.08	-41.51	.65	.41	-50.50
6	72.00	Hz	480	.18	.18	-70.29	.51	3.00	8.84
7	48.00	Hz	480	.10	.01	-47.63	.44	.25	-29.85
8	36.00	Hz	862	.12	.15	-51.43	.21	1.79	-123.75
9	24.00	Hz	768	.08	.04	-51.97	.88	.86	167.23
10	18.00	Hz	384	.08	.06	-60.82	.36	2.95	98.31
11	12.00	Hz	960	.12	.72	-43.91	.51	.31	-1.53
12	9.00	Hz	864	.11	.11	-58.93	.16	.38	-38.53
13	6.00	Hz	672	.13	.12	-32.70	.16	.79	5.51
14	4.50	Hz	480	.04	.57	-36.78	.44	1.80	25.53
15	3.00	Hz	5834	.07	.00	-54.17	.15	3.96	-157.70
16	2.25	Hz	7818	.09	.07	-62.59	.79	1.77	151.59
17	1.50	Hz	7157	.10	.26	-60.32	.29	1.06	143.12
18	1.13	Hz	11429	.09	.41	-54.24	.99	.91	166.24
19	1.33	Sec	3608	.07	.52	-48.71	.43	1.04	7.91
20	1.78	Sec	2352	.03	.41	-42.82	.81	1.69	103.29
21	2.67	Sec	2272	.03	.29	-38.19	.96	1.03	-136.11
22	3.56	Sec	2508	.03	.21	-36.14	.20	.18	-8.36
23	5.33	Sec	296	.02	.14	-37.19	.28	2.64	129.67
24	7.11	Sec	800	.02	.09	-36.17	.74	.72	16.83
25	10.67	Sec	786	.05	.05	-37.69	.44	1.66	-159.10
26	14.22	Sec	816	.06	.07	-38.13	.16	11.88	49.34
27	21.33	Sec	406	.06	.04	-37.68	.10	.57	169.98
28	28.44	Sec	406	.05	.08	-37.31	.31	6.06	-132.82
29	42.67	Sec	384	.06	.09	-37.16	.18	2.24	-151.10
30	56.89	Sec	336	.06	.07	-36.96	.09	.80	5.63
31	85.33	Sec	186	.06	.08	-36.05	.47	.26	-21.52
32	113.78	Sec	186	.06	.09	-35.26	.79	.84	-150.53
33	170.67	Sec	45	.06	.10	-34.41	.70	.41	86.31
34	227.56	Sec	54	.07	.12	-34.00	.62	2.54	-133.05
35	341.33	Sec	30	.07	.08	-32.51	.91	.93	119.46
36	455.11	Sec	42	.04	.04	-32.48	.63	.55	-.23
37	682.67	Sec	12	.07	.01	-31.96	.14	1.09	-79.50
38	910.22	Sec	12	.09	.03	-31.69	.16	.84	92.81
39	1365.33	Sec	6	.14	.14	-34.15	.36	.81	8.16
40	1820.44	Sec	9	.14	.17	-31.92	.33	1.13	-162.67

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E







PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	571	.59	.96	.96	.69	.96	.08
5	96.00 Hz	960	.82	.94	.95	.77	.94	.54
6	72.00 Hz	480	.68	.93	.93	.62	.92	.37
7	48.00 Hz	480	.90	.94	.94	.89	.94	.74
8	36.00 Hz	862	.92	.93	.92	.91	.92	.78
9	24.00 Hz	768	.95	.94	.94	.95	.94	.87
10	18.00 Hz	384	.96	.96	.96	.96	.96	.88
11	12.00 Hz	960	.93	.86	.86	.94	.86	.87
12	9.00 Hz	864	.96	.91	.91	.96	.91	.90
13	6.00 Hz	672	.91	.75	.75	.87	.75	.82
14	4.50 Hz	480	.80	.68	.68	.74	.67	.68
15	3.00 Hz	5834	.80	.83	.84	.73	.83	.69
16	2.25 Hz	7818	.90	.85	.87	.83	.85	.81
17	1.50 Hz	7157	.93	.84	.86	.87	.84	.84
18	1.13 Hz	11429	.90	.85	.86	.84	.85	.81
19	1.33 Sec	3608	.91	.79	.80	.86	.78	.83
20	1.78 Sec	2352	.93	.80	.82	.88	.79	.85
21	2.67 Sec	2272	.96	.82	.84	.91	.81	.86
22	3.56 Sec	2508	.96	.84	.84	.90	.82	.82
23	5.33 Sec	296	1.00	.96	.94	.98	.91	.94
24	7.11 Sec	800	1.00	.97	.95	.99	.90	.90
25	10.67 Sec	786	1.00	1.00	1.00	1.00	.96	.97
26	14.22 Sec	816	1.00	1.00	1.00	1.00	.96	.94
27	21.33 Sec	406	1.00	1.00	1.00	1.00	.83	.96
28	28.44 Sec	406	1.00	1.00	1.00	1.00	.90	.91
29	42.67 Sec	384	1.00	1.00	1.00	1.00	.97	.81
30	56.89 Sec	336	1.00	1.00	1.00	1.00	.96	.74
31	85.33 Sec	186	1.00	1.00	1.00	1.00	.90	.84
32	113.78 Sec	186	1.00	.99	.99	1.00	.88	.87
33	170.67 Sec	45	1.00	1.00	1.00	1.00	.94	.80
34	227.56 Sec	54	1.00	1.00	1.00	1.00	.91	.81
35	341.33 Sec	30	1.00	1.00	1.00	1.00	.75	.93
36	455.11 Sec	42	.99	1.00	.99	.98	.86	.85
37	682.67 Sec	12	1.00	1.00	1.00	1.00	.94	.72
38	910.22 Sec	12	1.00	1.00	1.00	.99	.97	.80
39	1365.33 Sec	6	1.00	1.00	.99	1.00	.94	.84
40	1820.44 Sec	9	1.00	.99	.99	1.00	.97	.83

PHOENIX GEOSCIENCE

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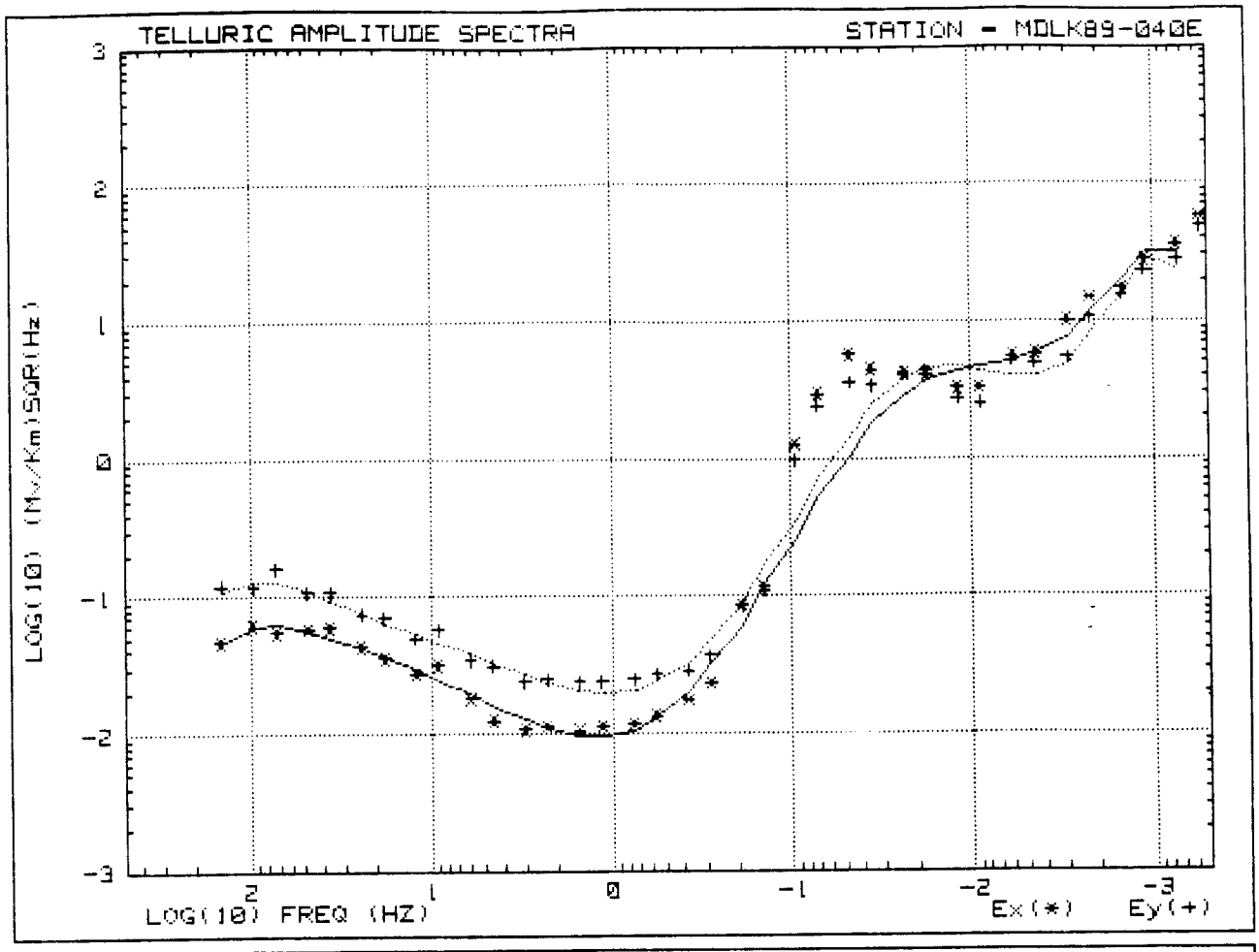
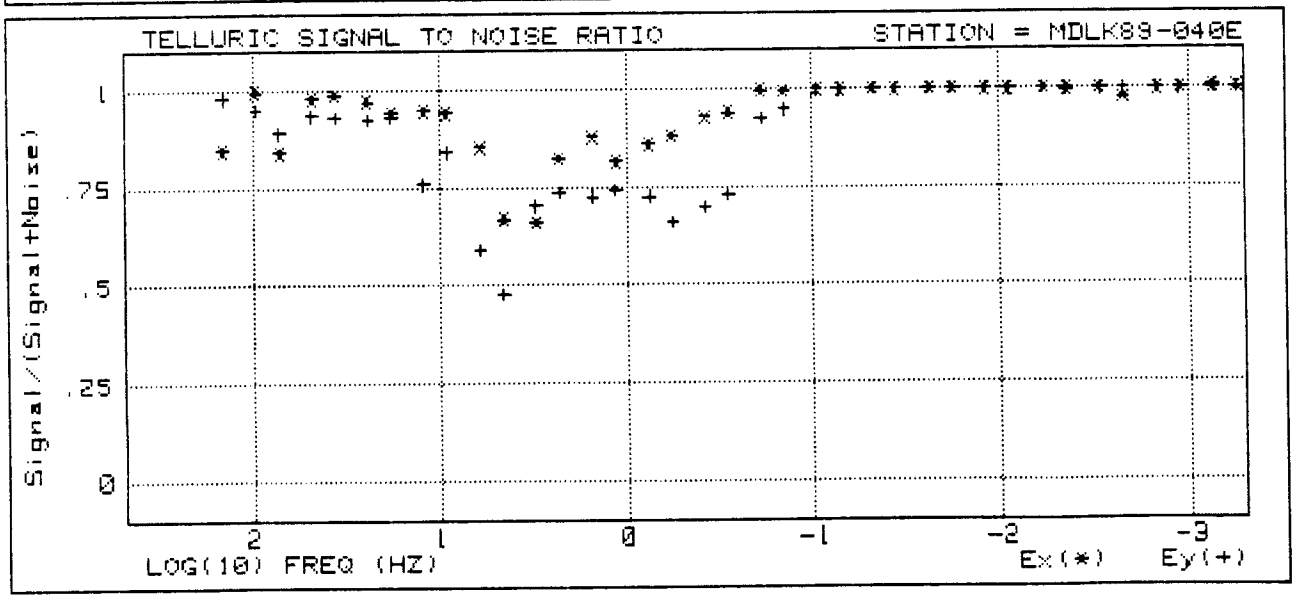
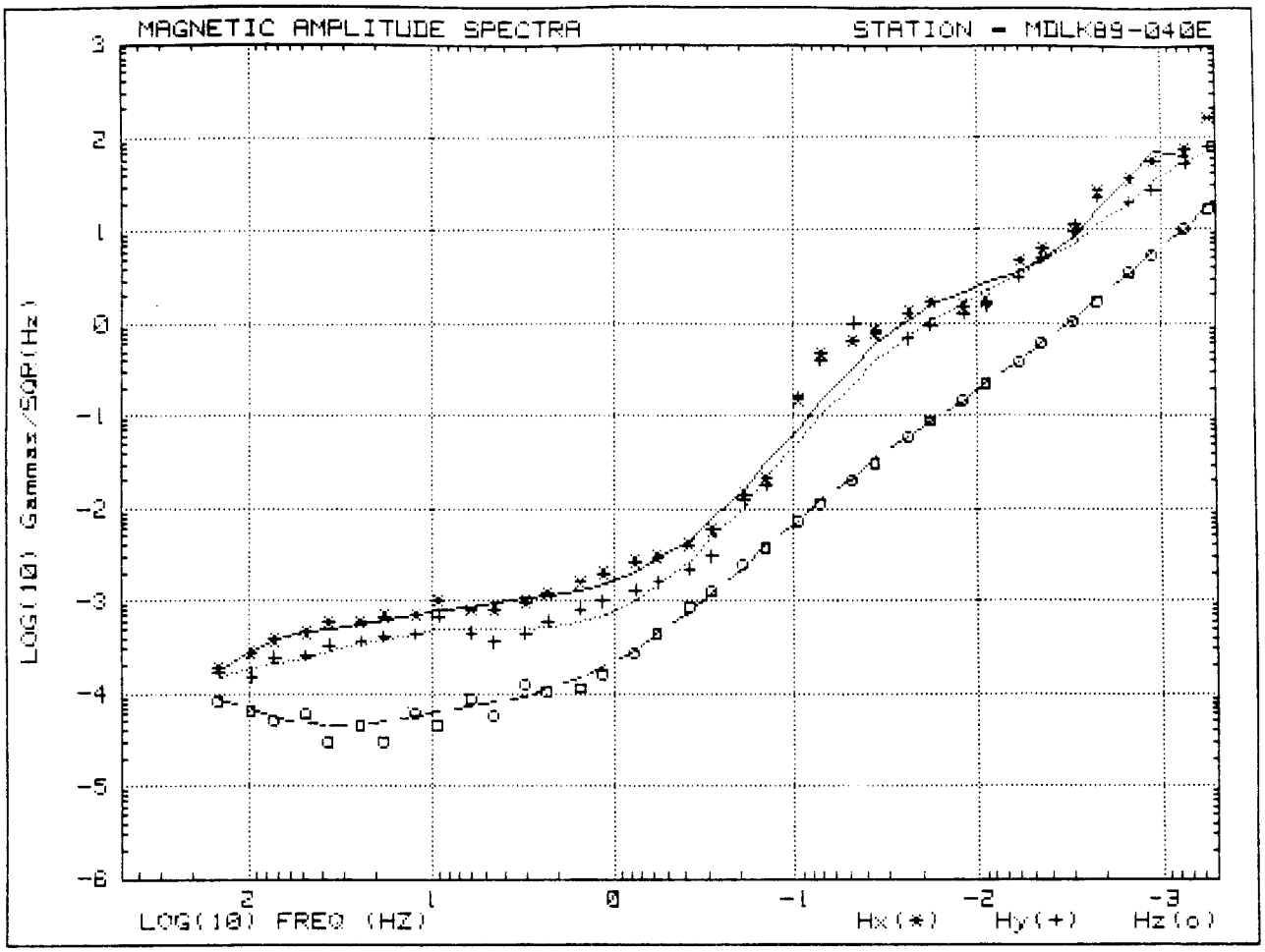
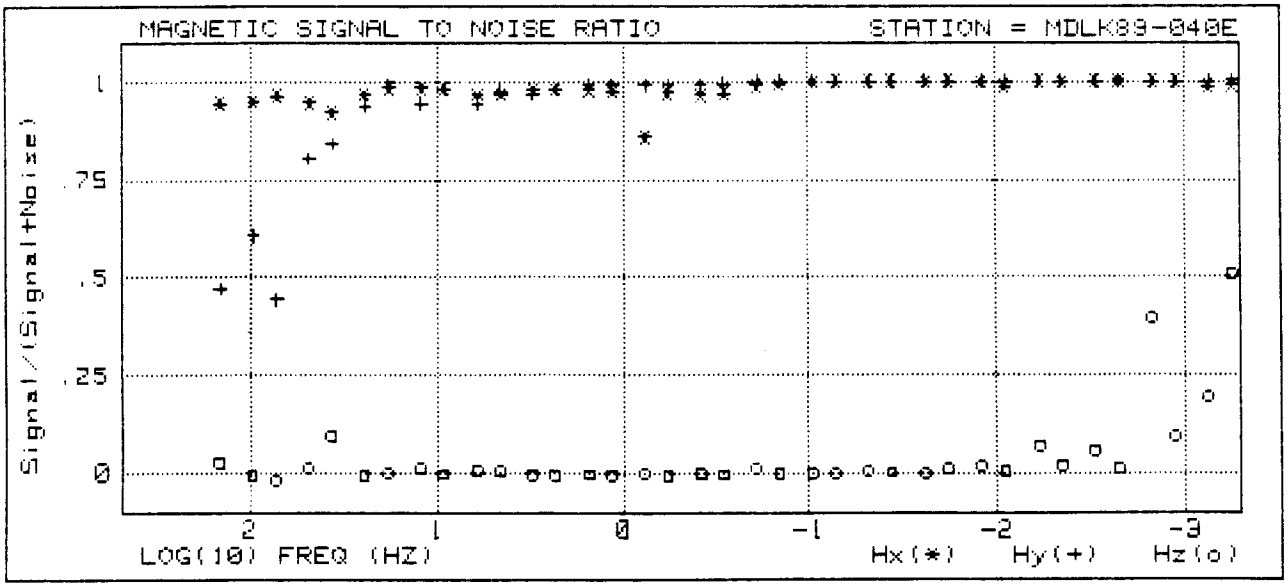




PHOENIX GEOSCIENCE

MT Site: MDLK89-040E





PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	571	1.87E-04	1.69E-04	8.77E-05	4.64E-02	1.18E-01
5	96.00 Hz	960	2.72E-04	1.50E-04	6.95E-05	6.05E-02	1.15E-01
6	72.00 Hz	480	3.73E-04	2.42E-04	5.37E-05	5.44E-02	1.59E-01
7	48.00 Hz	480	4.50E-04	2.51E-04	6.26E-05	5.74E-02	1.07E-01
8	36.00 Hz	862	5.82E-04	3.30E-04	3.19E-05	5.85E-02	1.07E-01
9	24.00 Hz	768	5.81E-04	3.63E-04	4.65E-05	4.28E-02	7.41E-02
10	18.00 Hz	384	6.72E-04	4.03E-04	3.21E-05	3.48E-02	6.91E-02
11	12.00 Hz	960	6.91E-04	4.34E-04	6.42E-05	2.69E-02	4.89E-02
12	9.00 Hz	864	9.97E-04	6.64E-04	4.74E-05	3.12E-02	5.65E-02
13	6.00 Hz	672	7.81E-04	4.37E-04	9.09E-05	1.76E-02	3.36E-02
14	4.50 Hz	480	8.05E-04	3.51E-04	5.98E-05	1.22E-02	3.04E-02
15	3.00 Hz	5834	9.62E-04	4.40E-04	1.30E-04	1.06E-02	2.36E-02
16	2.25 Hz	7818	1.20E-03	5.89E-04	1.13E-04	1.12E-02	2.42E-02
17	1.50 Hz	7157	1.57E-03	8.08E-04	1.20E-04	1.04E-02	2.36E-02
18	1.13 Hz	11429	1.95E-03	9.88E-04	1.71E-04	1.11E-02	2.35E-02
19	1.33 Sec	3608	2.67E-03	1.29E-03	2.90E-04	1.16E-02	2.44E-02
20	1.78 Sec	2352	3.01E-03	1.58E-03	4.66E-04	1.33E-02	2.63E-02
21	2.67 Sec	2272	4.03E-03	2.23E-03	9.15E-04	1.73E-02	2.82E-02
22	3.56 Sec	2508	5.86E-03	3.07E-03	1.33E-03	2.28E-02	3.61E-02
23	5.33 Sec	296	1.43E-02	1.27E-02	2.61E-03	8.53E-02	8.39E-02
24	7.11 Sec	800	2.10E-02	1.81E-02	4.09E-03	1.17E-01	1.08E-01
25	10.67 Sec	786	1.50E-01	1.62E-01	7.83E-03	1.26E+00	9.60E-01
26	14.22 Sec	816	4.73E-01	4.02E-01	1.20E-02	2.88E+00	2.37E+00
27	21.33 Sec	406	6.44E-01	1.00E+00	2.10E-02	5.52E+00	3.49E+00
28	28.44 Sec	406	7.92E-01	7.90E-01	3.29E-02	4.30E+00	3.31E+00
29	42.67 Sec	384	1.25E+00	6.61E-01	6.31E-02	3.95E+00	4.02E+00
30	56.89 Sec	336	1.68E+00	9.29E-01	9.27E-02	3.99E+00	4.19E+00
31	85.33 Sec	186	1.50E+00	1.27E+00	1.51E-01	3.16E+00	2.63E+00
32	113.78 Sec	186	1.70E+00	1.55E+00	2.37E-01	3.22E+00	2.46E+00
33	170.67 Sec	45	4.66E+00	3.11E+00	4.07E-01	5.49E+00	5.01E+00
34	227.56 Sec	54	6.25E+00	4.91E+00	6.42E-01	5.66E+00	4.82E+00
35	341.33 Sec	30	9.28E+00	1.13E+01	1.09E+00	1.00E+01	5.33E+00
36	455.11 Sec	42	2.56E+01	2.18E+01	1.84E+00	1.46E+01	1.05E+01
37	682.67 Sec	12	3.48E+01	1.95E+01	3.60E+00	1.69E+01	1.52E+01
38	910.22 Sec	12	5.43E+01	2.63E+01	5.68E+00	2.72E+01	2.31E+01
39	1365.33 Sec	6	7.16E+01	5.12E+01	1.09E+01	3.57E+01	2.73E+01
40	1820.44 Sec	9	1.59E+02	7.71E+01	1.78E+01	5.69E+01	4.79E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	571	.944	.468	.032	.845	.977
5	96.00 Hz	960	.948	.606	.000	.994	.947
6	72.00 Hz	480	.963	.442	0.000	.838	.888
7	48.00 Hz	480	.945	.803	.018	.977	.932
8	36.00 Hz	862	.921	.841	.098	.985	.929
9	24.00 Hz	768	.966	.937	0.000	.968	.923
10	18.00 Hz	384	.982	.988	.003	.942	.930
11	12.00 Hz	960	.982	.942	.015	.944	.757
12	9.00 Hz	864	.981	.982	.001	.939	.838
13	6.00 Hz	672	.967	.943	.009	.851	.589
14	4.50 Hz	480	.967	.975	.008	.666	.476
15	3.00 Hz	5834	.979	.969	.000	.658	.701
16	2.25 Hz	7818	.980	.980	.000	.822	.734
17	1.50 Hz	7157	.977	.989	.001	.877	.722
18	1.13 Hz	11429	.973	.991	.000	.813	.739
19	1.33 Sec	3608	.857	.990	.002	.858	.723
20	1.78 Sec	2352	.970	.989	.000	.878	.657
21	2.67 Sec	2272	.965	.990	.002	.927	.695
22	3.56 Sec	2508	.967	.994	.001	.936	.727
23	5.33 Sec	296	.989	1.000	.019	.993	.923
24	7.11 Sec	800	.992	1.000	.002	.992	.945
25	10.67 Sec	786	.999	1.000	.006	.997	.996
26	14.22 Sec	816	1.000	1.000	.004	.996	.997
27	21.33 Sec	406	.999	1.000	.010	.998	.998
28	28.44 Sec	406	.999	1.000	.007	.996	.997
29	42.67 Sec	384	.998	1.000	.005	.997	.998
30	56.89 Sec	336	.999	1.000	.015	.997	.998
31	85.33 Sec	186	.999	1.000	.022	.997	.998
32	113.78 Sec	186	.987	1.000	.010	.995	.996
33	170.67 Sec	45	1.000	1.000	.076	.998	.997
34	227.56 Sec	54	.999	1.000	.025	.993	.995
35	341.33 Sec	30	.999	1.000	.063	.998	.995
36	455.11 Sec	42	1.000	1.000	.014	.973	.996
37	682.67 Sec	12	1.000	1.000	.402	.997	.999
38	910.22 Sec	12	1.000	1.000	.098	.997	.996
39	1365.33 Sec	6	.987	1.000	.200	.999	1.000
40	1820.44 Sec	9	.989	1.000	.514	.999	.998

PHOENIX GEOSCIENCE

MT Site: MDLK89-040E

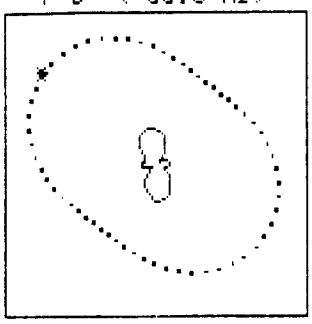
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

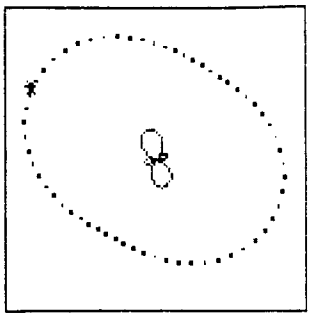
*=Rotation Direction

Zxy = ...
Zxx = ____

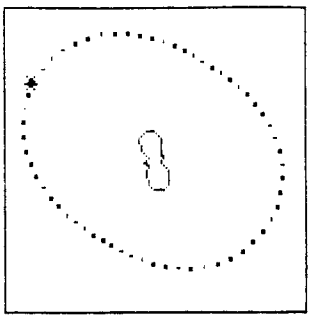
F=8 (36.0 Hz)



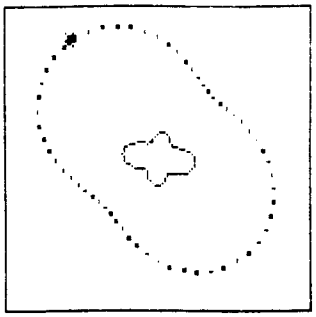
F=10 (18.0 Hz)



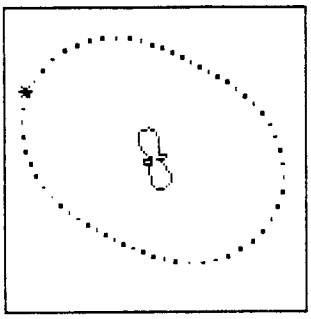
F=12 (9.0 Hz)



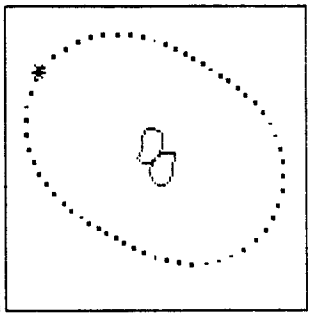
F=14 (4.5 Hz)



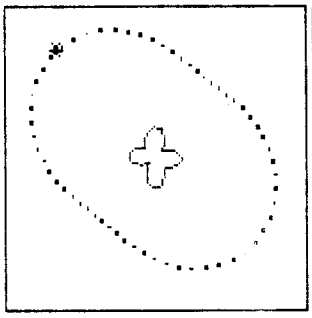
F=16 (2.3 Hz)



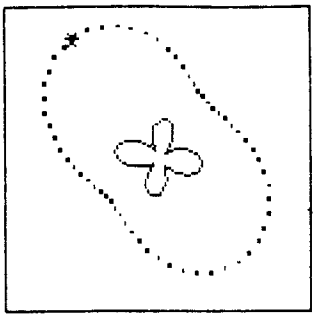
F=18 (1.1 Hz)



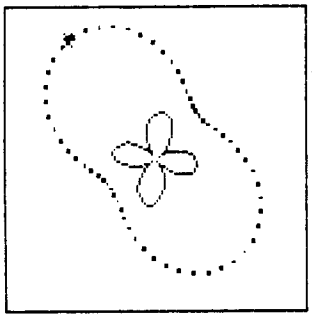
F=20 (.5625 Hz)



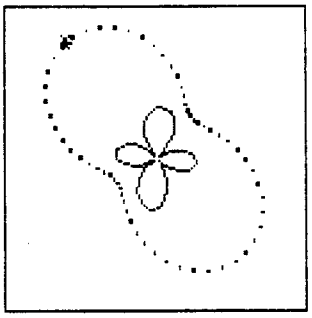
F=22 (.2813 Hz)



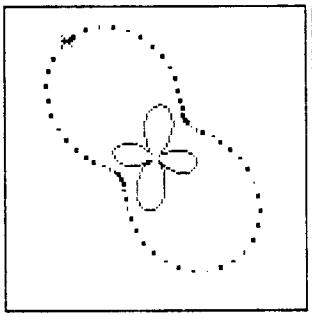
F=24 (.1406 Hz)



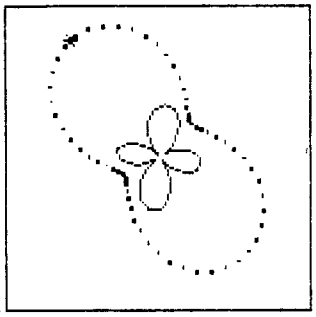
F=26 (.0703 Hz)



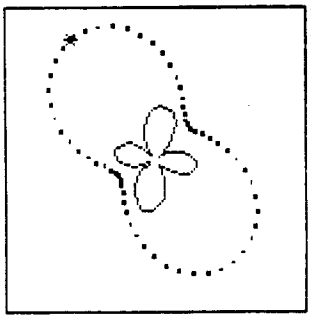
F=28 (.0352 Hz)



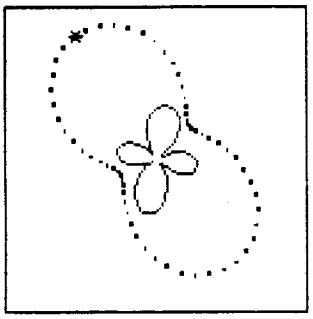
F=30 (.0176 Hz)



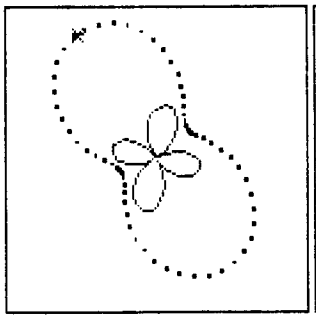
F=32 (.0088 Hz)



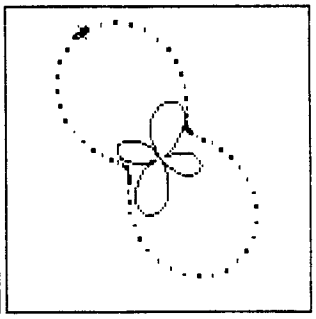
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-022s/041s/010f/

Operator:M. SNOW
Date: 21 Aug 1989
Time: 19:39:23

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#507-15Aug89-05
SP--Stn03: B#335-15Aug89-05
Sens-Ch01: C#452-16Aug89-01
Sens-Ch02: C#205-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#235-16Aug89-01
Sens-Ch07: C#432-16Aug89-01
Sens-Ch08: L#405-02Jul89-01
Sens-Ch11: C#431-16Aug89-01
Sens-Ch12: C#430-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 2

Stn Number:MDLK89-041s
Site Desc:T43N R4E
41,34,12 N 121,30,37 W
Elevation:7160 FT
Reference:MDLK89-010s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL235	+45 DEG
Hy	7	COIL432	+135 DEG
Hz	8	LOOP405	
Ex	9	179 M	+45 DEG
Ey	10	177 M	+135 DEG
Rx	11	COIL431	+45 DEG
Ry	12	COIL430	+135 DEG

Ex Pot Resist: 10.0K Ohms
Ex Voltage: AC=24.5 mv, DC=140.7mv
Ey Pot Resist: 5.0 K Ohms
Ey Voltage: AC=24.7 mv, DC=9.50 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

OPERATOR LOG FOR MDLK89-022s/041E/010s/

Recorded XPR Files:

X#1 - SUM OF RUNS: a, b, c, and d.
X#2 - SUM OF RUNS: a, b, c, and d.
X#3 - SUM OF RUNS: a, b, c, and d.
X#4 - SUM OF RUNS: a, b, c, and d.
X#5 - SUM OF RUNS: a, b, c, and d.
X#6 - SUM OF RUNS: a, b, c, and d.
X#7 - SUM OF RUNS: a, b, c, and d.
X#8 - SUM OF RUNS: a, b, c, and d.
X#9 - SUM OF RUNS: a, b, c, and d.
X#10 - SUM OF RUNS: a, b, c, and d.
X#11 - SUM OF RUNS: a, b, c, and d.
X#12 - SUM OF RUNS: a, b, c, and d.
X#13 - SUM OF RUNS: a, b, c, and d.
X#14 - SUM OF RUNS: a, b, c, and d.
X#15 - SUM OF RUNS: a, b, c, and d.
X#16 - SUM OF RUNS: a, b, c, and d.
X#17 - SUM OF RUNS: a, b, c, and d.
X#18 - SUM OF RUNS: a, b, c, and d.
X#19 - SUM OF RUNS: a, b, c, and d.
X#20 - SUM OF RUNS: a, b, c, and d.

Operator:SNOW/WUNDERMAN/STEWART

Cultural Factors:
SEISMIC MONITOR STA. WITH RADIO REPEATER 1mi. NW OF STA.

Weather Conditions:
CLEAR WITH MODERATE TEMPS.

Other Factors:
LOW SIGNAL

PHOENIX GEOSCIENCE

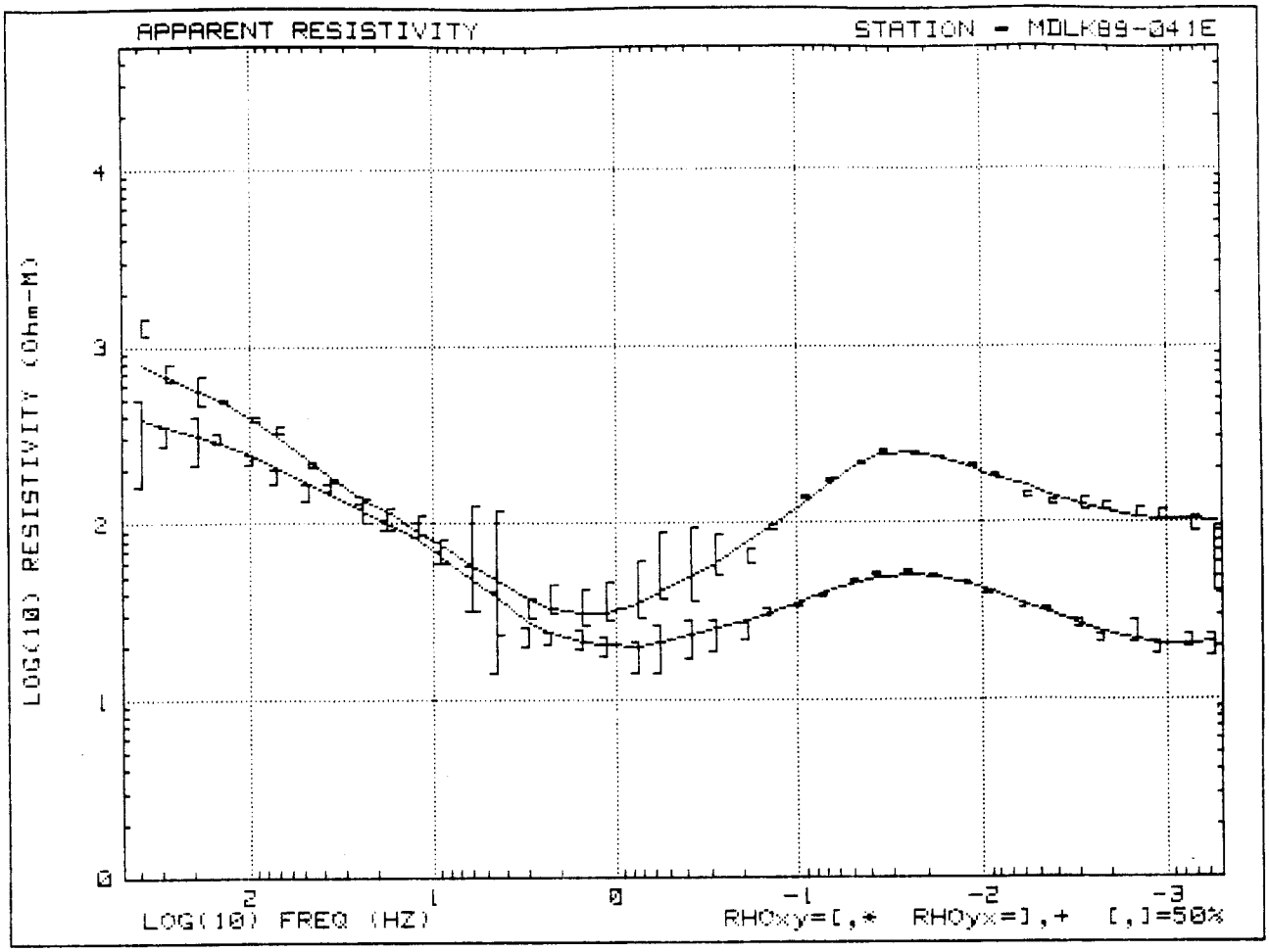
MT Site: MDLK89-041E

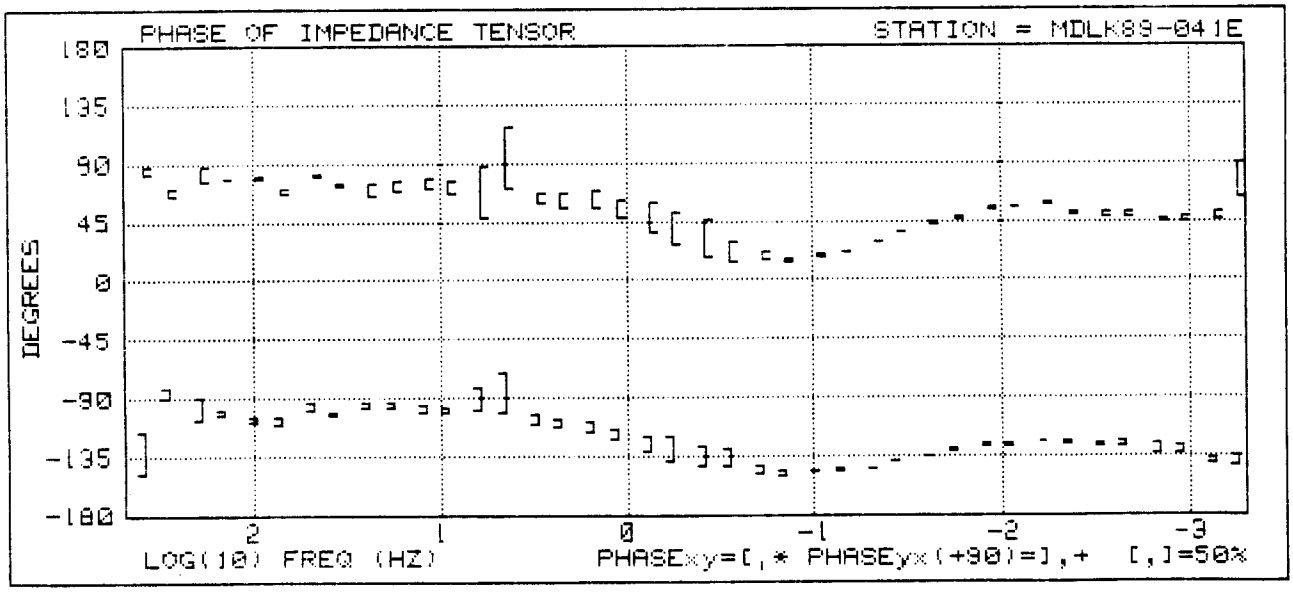
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

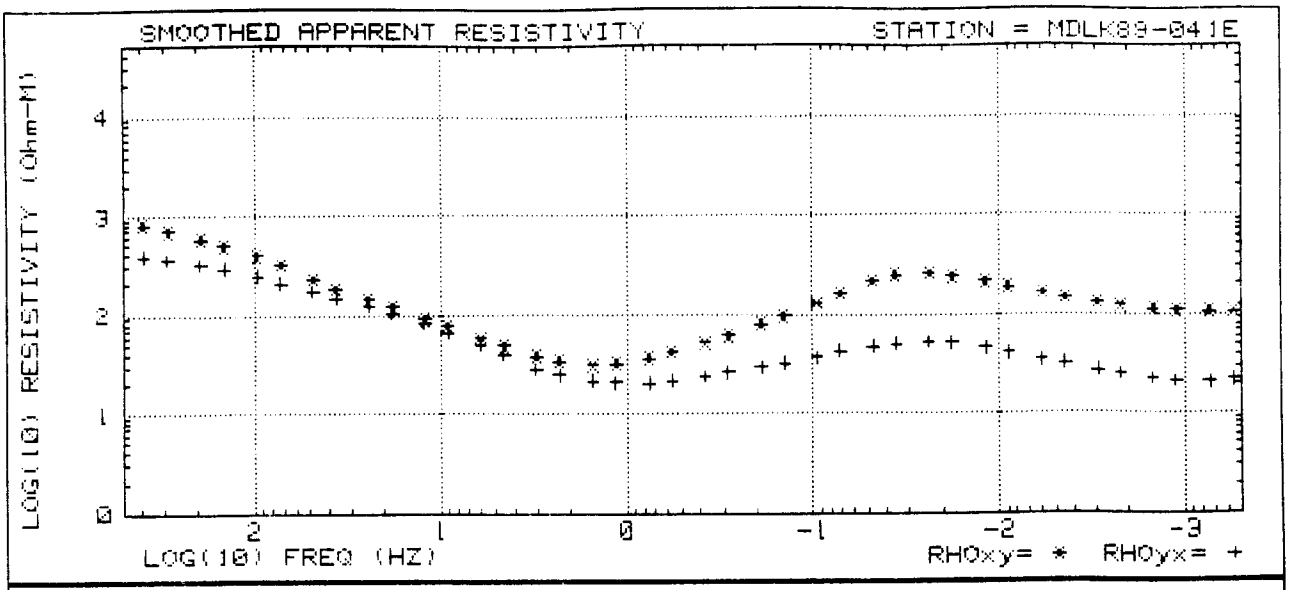
MT Site: MDLK89-041E

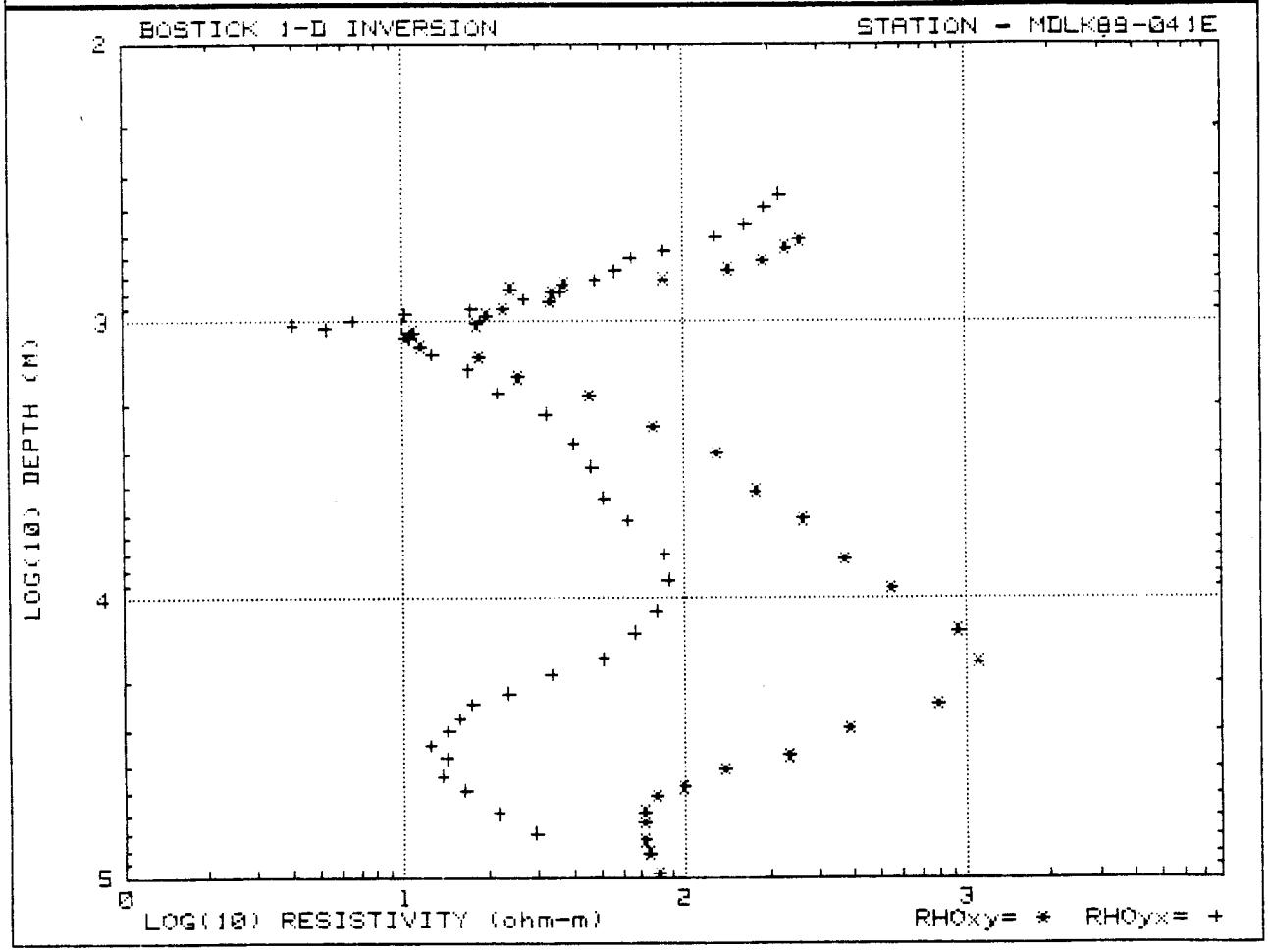




PHOENIX GEOSCIENCE

MT Site: MDLK89-041E





PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	286	1291.4	18.7	287.6	99.9	85.0	4.9	-132.1	24.2
2	288.00 Hz	477	711.2	16.1	313.5	21.0	68.1	4.3	-85.4	5.5
3	192.00 Hz	616	570.9	32.2	291.5	61.0	82.4	8.0	-98.5	13.6
4	144.00 Hz	1599	491.5	3.2	305.9	10.3	78.2	.9	-100.6	2.8
5	96.00 Hz	969	383.6	4.6	229.7	9.0	79.1	1.3	-106.4	2.5
6	72.00 Hz	659	336.6	9.1	182.6	15.2	69.3	2.5	-108.1	4.1
7	48.00 Hz	664	214.0	6.3	149.9	17.5	81.2	1.8	-96.7	4.6
8	36.00 Hz	1363	175.6	3.5	158.5	6.9	73.7	1.0	-102.1	1.9
9	24.00 Hz	1129	118.8	26.3	136.5	9.4	70.2	6.7	-96.0	2.6
10	18.00 Hz	566	106.1	24.8	97.4	8.9	72.3	6.3	-95.1	2.4
11	12.00 Hz	2684	98.0	21.6	91.1	14.9	74.7	5.6	-98.4	4.0
12	9.00 Hz	2684	68.8	26.8	65.2	12.7	71.6	6.8	-99.6	3.4
13	6.00 Hz	1823	62.8	99.9	42.9	52.7	67.3	29.3	-90.3	12.1
14	4.50 Hz	2576	51.9	99.9	23.9	99.9	94.5	34.8	-86.4	22.5
15	3.00 Hz	14165	32.8	22.0	22.9	20.3	63.9	5.7	-107.4	5.3
16	2.25 Hz	11381	37.2	30.6	22.4	13.7	61.2	7.6	-109.8	3.7
17	1.50 Hz	12991	33.4	42.8	21.9	20.1	62.0	10.2	-112.5	5.2
18	1.13 Hz	13919	36.2	44.6	20.0	21.1	55.1	10.6	-118.0	5.5
19	1.33 Sec	6718	42.0	75.6	17.4	34.0	47.7	16.1	-125.9	8.4
20	1.78 Sec	5840	57.6	92.1	19.3	59.6	39.8	18.7	-129.3	13.4
21	2.67 Sec	3060	59.2	99.9	22.0	47.2	31.4	20.7	-135.8	11.1
22	3.56 Sec	1104	66.5	51.4	22.8	36.9	22.1	11.9	-136.3	9.0
23	5.33 Sec	1651	65.8	14.8	24.4	16.1	18.7	4.0	-144.6	4.3
24	7.11 Sec	604	96.3	5.2	31.3	7.7	15.3	1.5	-148.0	2.1
25	10.67 Sec	855	141.6	1.9	34.4	2.2	18.5	.5	-146.9	.6
26	14.22 Sec	969	174.6	1.2	38.9	1.2	21.1	.3	-145.7	.3
27	21.33 Sec	600	216.6	2.3	46.6	2.6	29.2	.6	-144.2	.7
28	28.44 Sec	516	255.0	1.2	51.3	1.7	36.1	.3	-139.0	.5
29	42.67 Sec	526	242.2	1.2	53.2	1.6	43.5	.3	-135.3	.5
30	56.89 Sec	496	235.2	1.2	50.1	1.3	47.2	.3	-130.4	.4
31	85.33 Sec	255	210.4	1.6	46.2	1.8	54.5	.5	-126.7	.5
32	113.78 Sec	264	186.0	2.4	39.9	1.7	56.1	.7	-126.7	.5
33	170.67 Sec	120	144.2	5.1	34.1	3.1	57.8	1.4	-124.0	.9
34	227.56 Sec	102	130.7	4.3	32.3	2.7	51.0	1.2	-124.8	.8
35	341.33 Sec	60	127.6	11.8	26.8	7.8	49.8	3.2	-126.6	2.2
36	455.11 Sec	51	123.0	8.1	22.3	8.5	49.8	2.2	-125.5	2.3
37	682.67 Sec	12	114.6	8.1	24.3	23.5	45.2	2.2	-129.5	6.0
38	910.22 Sec	9	111.1	7.5	19.8	12.5	46.4	2.1	-130.7	3.4
39	1365.33 Sec	6	97.7	13.4	21.7	12.9	49.3	3.6	-138.8	3.5
40	1820.44 Sec	9	62.2	90.0	20.3	23.8	76.4	18.4	-138.9	6.1

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	286	800.0	383.0	260.3	514	220.9	355
2	288.00 Hz	477	691.1	354.5	232.6	551	196.1	395
3	192.00 Hz	616	567.2	313.8	193.6	612	166.5	455
4	144.00 Hz	1599	491.7	286.7	144.6	658	130.8	502
5	96.00 Hz	969	388.6	242.2	85.5	716	86.1	565
6	72.00 Hz	659	315.7	206.2	37.6	745	65.6	602
7	48.00 Hz	664	225.2	169.3	24.3	771	57.7	668
8	36.00 Hz	1363	180.6	146.7	34.5	797	48.6	718
9	24.00 Hz	1129	140.7	119.5	33.4	862	36.6	794
10	18.00 Hz	566	117.9	101.5	22.9	911	27.3	845
11	12.00 Hz	2684	88.2	80.2	20.0	965	17.6	920
12	9.00 Hz	2684	76.1	65.2	18.3	1035	10.2	958
13	6.00 Hz	1823	57.7	48.4	10.9	1103	6.6	1011
14	4.50 Hz	2576	47.4	38.5	10.3	1155	4.0	1041
15	3.00 Hz	14165	36.9	27.6	11.7	1249	5.3	1079
16	2.25 Hz	11381	33.1	24.1	18.8	1365	10.6	1164
17	1.50 Hz	12991	30.5	21.1	25.9	1605	12.8	1335
18	1.13 Hz	13919	31.3	20.3	46.5	1877	17.2	1512
19	1.33 Sec	6718	34.9	19.9	78.1	2429	22.0	1835
20	1.78 Sec	5840	40.8	21.0	131.1	3029	32.5	2176
21	2.67 Sec	3060	50.3	23.1	179.9	4122	40.7	2795
22	3.56 Sec	1104	60.2	25.5	266.1	5207	47.3	3386
23	5.33 Sec	1651	77.9	28.5	376.1	7255	52.0	4385
24	7.11 Sec	604	94.9	31.2	551.9	9246	63.2	5301
25	10.67 Sec	855	127.1	36.0	945.3	13106	85.5	6974
26	14.22 Sec	969	161.1	41.4	1115.0	17032	88.5	8633
27	21.33 Sec	600	213.5	46.3	796.5	24016	80.1	11184
28	28.44 Sec	516	240.3	49.8	385.9	29422	66.8	13394
29	42.67 Sec	526	250.8	51.2	235.3	36815	51.7	16638
30	56.89 Sec	496	235.0	49.9	139.3	41151	33.8	18970
31	85.33 Sec	255	210.1	44.8	100.3	47650	23.8	22008
32	113.78 Sec	264	183.9	40.4	79.3	51480	17.7	24132
33	170.67 Sec	120	159.5	34.2	71.8	58716	15.8	27173
34	227.56 Sec	102	141.4	31.3	72.0	63839	14.4	30052
35	341.33 Sec	60	127.3	26.5	72.6	74178	12.5	33817
36	455.11 Sec	51	117.0	24.4	75.0	82121	14.2	37532
37	682.67 Sec	12	109.4	22.0	81.0	97236	13.8	43645
38	910.22 Sec	9	105.5	20.8	90.7	110285	16.6	49011
39	1365.33 Sec	6	103.8	20.4	96.5	133973	21.8	59343
40	1820.44 Sec	9	102.9	21.3	96.6	153999	29.7	70151

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	286	-15.30	469.78	999.99	136.02	999.99	999.99
2	288.00 Hz	477	-82.72	-66.40	999.99	377.19	939.05	999.99
3	192.00 Hz	616	-22.94	67.15	999.99	97.66	733.88	999.99
4	144.00 Hz	1599	-26.48	38.00	181.80	121.76	582.27	171.21
5	96.00 Hz	969	-5.26	20.47	129.46	81.25	421.32	187.61
6	72.00 Hz	659	4.05	16.33	378.16	122.99	325.68	460.64
7	48.00 Hz	664	10.98	8.72	230.98	34.50	224.01	96.35
8	36.00 Hz	1363	3.94	6.75	72.06	49.79	170.67	18.29
9	24.00 Hz	1129	2.34	7.00	999.99	40.36	112.35	389.20
10	18.00 Hz	566	-2.31	2.75	569.01	29.65	93.11	234.45
11	12.00 Hz	2684	.18	-.41	251.12	20.25	73.94	111.93
12	9.00 Hz	2684	1.78	2.71	161.95	17.54	52.83	87.10
13	6.00 Hz	1823	-3.57	4.19	804.42	16.75	40.05	984.34
14	4.50 Hz	2576	-.90	-5.17	604.20	-2.71	34.08	860.73
15	3.00 Hz	14165	1.02	-.43	13.85	9.74	19.92	9.73
16	2.25 Hz	11381	-.36	-.40	11.71	9.87	17.93	14.90
17	1.50 Hz	12991	1.07	-.29	13.78	7.43	13.98	15.91
18	1.13 Hz	13919	.68	-.19	10.24	8.17	11.69	13.83
19	1.33 Sec	6718	.239	-.217	13.838	9.445	9.287	24.994
20	1.78 Sec	5840	.550	-.381	18.646	9.776	8.154	34.527
21	2.67 Sec	3060	.371	.092	14.909	8.987	5.494	28.905
22	3.56 Sec	1104	-.410	.175	6.856	8.962	3.632	8.034
23	5.33 Sec	1651	-.268	.389	.817	7.439	2.511	.588
24	7.11 Sec	604	-.085	.046	.194	7.938	2.177	.088
25	10.67 Sec	855	-.092	-.140	.026	7.724	2.591	.011
26	14.22 Sec	969	-.051	.031	.015	7.309	2.822	.005
27	21.33 Sec	600	.124	-.281	.011	6.218	3.479	.013
28	28.44 Sec	516	.220	.025	.006	5.411	3.943	.003
29	42.67 Sec	526	.175	-.036	.002	3.867	3.664	.002
30	56.89 Sec	496	.174	.029	.001	3.086	3.338	.001
31	85.33 Sec	255	.144	.088	.001	2.040	2.858	.002
32	113.78 Sec	264	.072	.055	.001	1.596	2.373	.002
33	170.67 Sec	120	.120	.094	.002	1.096	1.739	.005
34	227.56 Sec	102	-.003	.101	.001	1.067	1.316	.003
35	341.33 Sec	60	.002	.102	.005	.882	1.045	.012
36	455.11 Sec	51	-.036	.046	.002	.751	.887	.004
37	682.67 Sec	12	.079	-.025	.005	.646	.650	.003
38	910.22 Sec	9	.086	-.021	.001	.539	.565	.002
39	1365.33 Sec	6	.045	.001	.001	.390	.453	.003
40	1820.44 Sec	9	.059	-.025	.008	.097	.402	.035

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MT Site: MDLK89-041E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	286	-498.70	-550.96	999.99	-729.67	215.22	999.99
2	288.00 Hz	477	54.01	-669.69	999.99	-237.89	182.00	999.99
3	192.00 Hz	616	-78.22	-523.22	999.99	156.94	50.56	999.99
4	144.00 Hz	1599	-86.73	-461.26	999.99	48.09	16.41	992.05
5	96.00 Hz	969	-93.84	-318.49	407.99	-.45	21.06	591.24
6	72.00 Hz	659	-79.54	-243.76	659.34	33.75	.57	803.14
7	48.00 Hz	664	-22.15	-188.38	468.42	7.77	9.83	195.39
8	36.00 Hz	1363	-35.30	-165.21	63.34	6.71	-.60	16.07
9	24.00 Hz	1129	-13.27	-127.31	66.12	-1.52	.01	19.58
10	18.00 Hz	566	-8.39	-93.24	31.80	-2.34	-2.36	13.10
11	12.00 Hz	2684	-10.79	-73.13	52.62	.08	.77	23.45
12	9.00 Hz	2684	-9.03	-53.41	20.83	1.63	.51	11.20
13	6.00 Hz	1823	-.19	-35.89	115.37	-1.58	-3.75	141.18
14	4.50 Hz	2576	1.45	-23.14	166.44	-1.63	-5.25	237.10
15	3.00 Hz	14165	-5.53	-17.68	5.85	1.01	-.40	4.11
16	2.25 Hz	11381	-5.38	-14.94	2.07	-.70	.11	2.63
17	1.50 Hz	12991	-4.90	-11.85	2.75	-.00	.99	3.17
18	1.13 Hz	13919	-4.98	-9.38	2.06	-.10	.90	2.78
19	1.33 Sec	6718	-4.742	-6.547	2.802	-.236	.424	5.061
20	1.78 Sec	5840	-4.671	-5.705	5.939	-.010	.785	10.997
21	2.67 Sec	3060	-4.609	-4.478	3.082	.266	.543	5.976
22	3.56 Sec	1104	-4.096	-3.916	1.586	-.366	.930	1.858
23	5.33 Sec	1651	-3.899	-2.773	.255	-.305	-.110	.184
24	7.11 Sec	604	-3.980	-2.487	.061	-.102	-.178	.028
25	10.67 Sec	855	-3.366	-2.193	.004	-.090	-.159	.002
26	14.22 Sec	969	-3.053	-2.087	.001	-.026	-.113	.000
27	21.33 Sec	600	-2.679	-1.936	.004	.053	-.119	.004
28	28.44 Sec	516	-2.265	-1.970	.001	.245	-.015	.001
29	42.67 Sec	526	-1.774	-1.756	.001	.139	.003	.001
30	56.89 Sec	496	-1.361	-1.598	.000	.174	.029	.001
31	85.33 Sec	255	-.983	-1.320	.000	.196	.053	.001
32	113.78 Sec	264	-.791	-1.062	.000	.146	.010	.001
33	170.67 Sec	120	-.559	-.828	.000	.142	.080	.001
34	227.56 Sec	102	-.481	-.692	.000	.087	.017	.001
35	341.33 Sec	60	-.374	-.503	.001	.053	.054	.002
36	455.11 Sec	51	-.288	-.402	.001	.053	-.040	.002
37	682.67 Sec	12	-.268	-.326	.004	.020	.044	.002
38	910.22 Sec	9	-.215	-.250	.001	.020	.047	.001
39	1365.33 Sec	6	-.212	-.186	.001	.042	.003	.001
40	1820.44 Sec	9	-.178	-.155	.001	.093	-.014	.006

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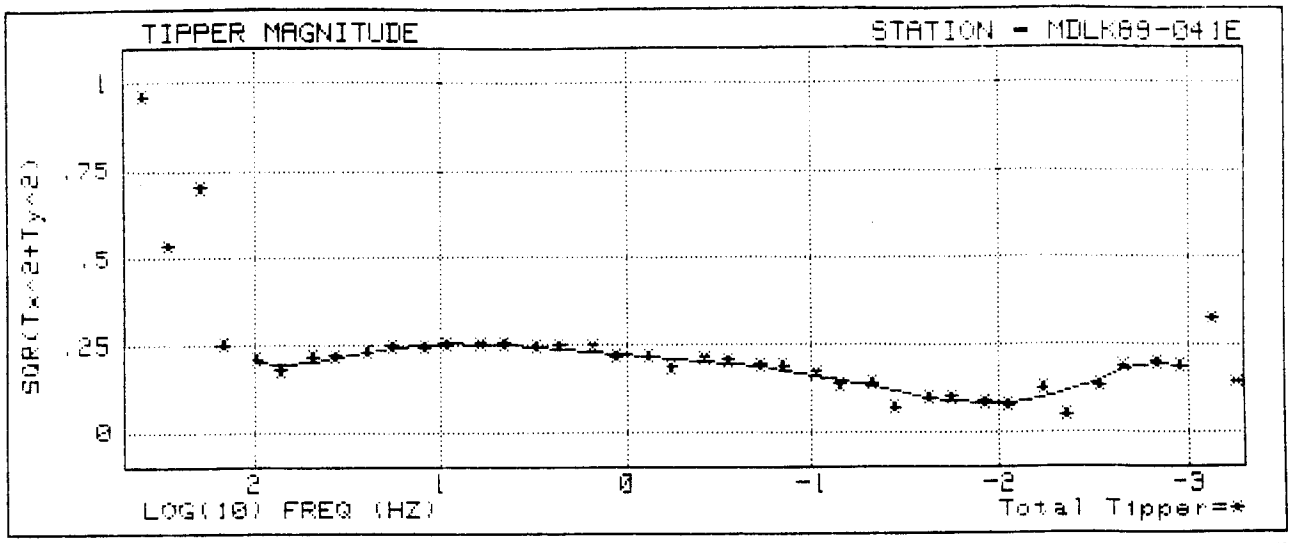

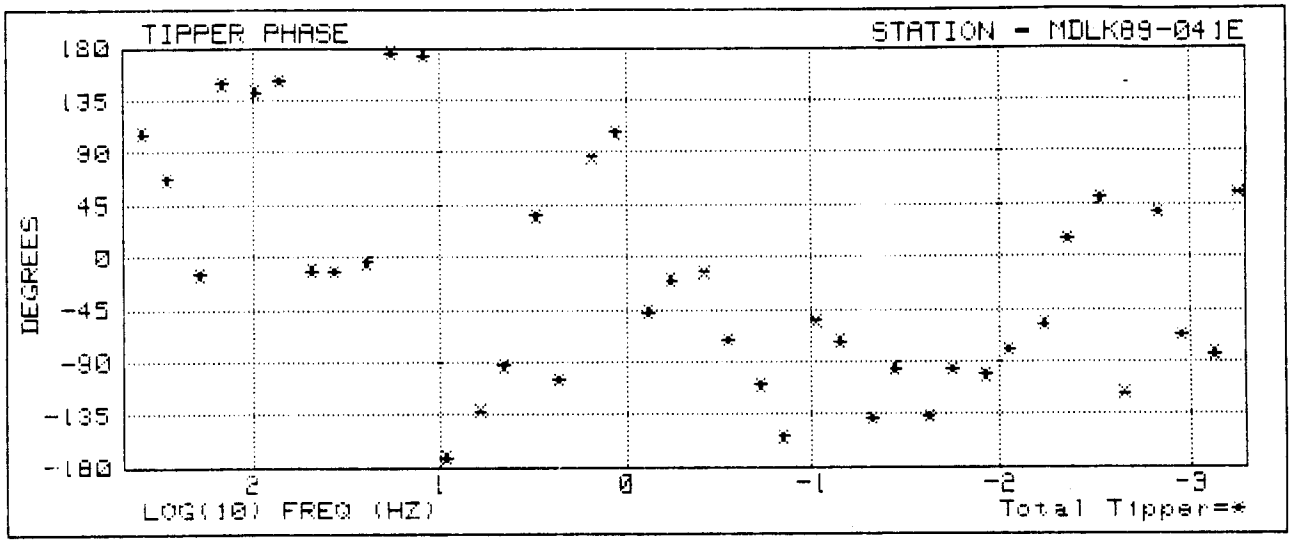

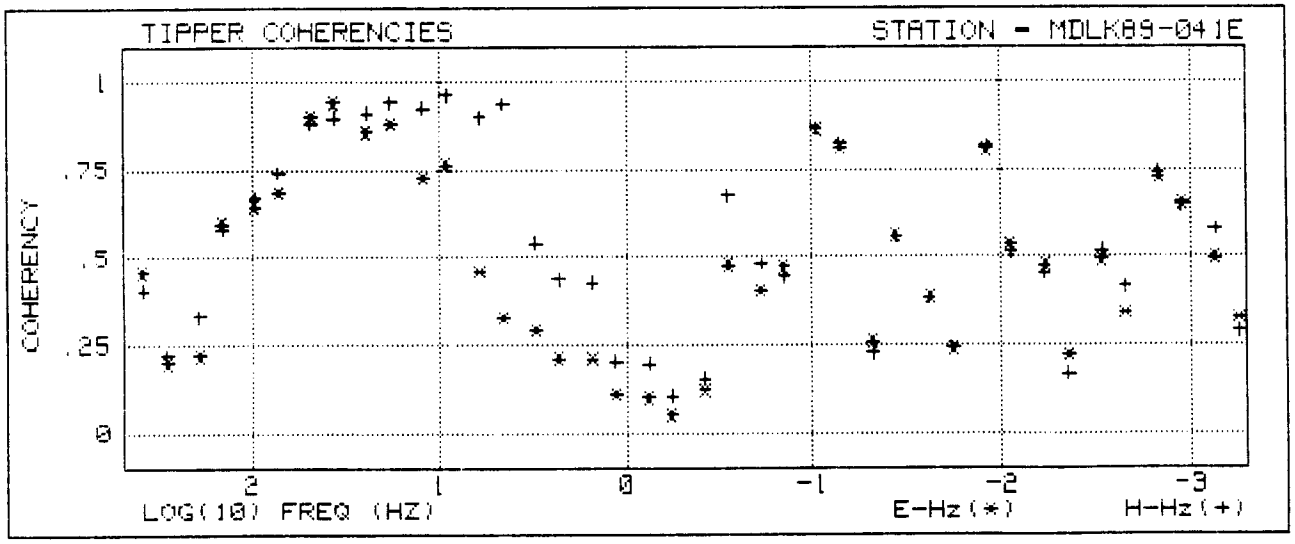

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MT Site: MDLK89-041E

ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	286	.96	105.68	.45	.40
2	288.00 Hz	477	.53	65.89	.20	.22
3	192.00 Hz	616	.70	-16.13	.21	.33
4	144.00 Hz	1599	.25	148.56	.59	.58
5	96.00 Hz	969	.21	141.51	.64	.67
6	72.00 Hz	659	.17	151.22	.68	.74
7	48.00 Hz	664	.21	-12.41	.90	.88
8	36.00 Hz	1363	.22	-13.16	.94	.89
9	24.00 Hz	1129	.23	-5.13	.85	.91
10	18.00 Hz	566	.24	174.82	.88	.94
11	12.00 Hz	2684	.24	172.45	.72	.92
12	9.00 Hz	2684	.25	-171.97	.76	.96
13	6.00 Hz	1823	.25	-131.95	.46	.90
14	4.50 Hz	2576	.25	-93.35	.32	.93
15	3.00 Hz	14165	.24	34.76	.29	.54
16	2.25 Hz	11381	.25	-105.84	.21	.43
17	1.50 Hz	12991	.24	85.18	.21	.42
18	1.13 Hz	13919	.21	106.44	.11	.20
19	1.33 Sec	6718	.21	-48.37	.10	.19
20	1.78 Sec	5840	.18	-20.90	.05	.10
21	2.67 Sec	3060	.21	-13.53	.12	.15
22	3.56 Sec	1104	.20	-72.16	.47	.67
23	5.33 Sec	1651	.19	-110.41	.40	.48
24	7.11 Sec	604	.18	-154.88	.47	.44
25	10.67 Sec	855	.17	-55.92	.86	.86
26	14.22 Sec	969	.13	-73.00	.81	.82
27	21.33 Sec	600	.14	-139.21	.26	.22
28	28.44 Sec	516	.07	-96.72	.56	.55
29	42.67 Sec	526	.09	-137.31	.38	.38
30	56.89 Sec	496	.10	-97.42	.24	.24
31	85.33 Sec	255	.08	-101.86	.81	.81
32	113.78 Sec	264	.07	-80.40	.53	.51
33	170.67 Sec	120	.12	-58.28	.47	.45
34	227.56 Sec	102	.04	14.16	.22	.16
35	341.33 Sec	60	.13	49.46	.49	.52
36	455.11 Sec	51	.18	-117.32	.34	.41
37	682.67 Sec	12	.19	37.37	.72	.74
38	910.22 Sec	9	.18	-67.69	.65	.64
39	1365.33 Sec	6	.32	-83.92	.49	.58
40	1820.44 Sec	9	.14	54.60	.32	.29

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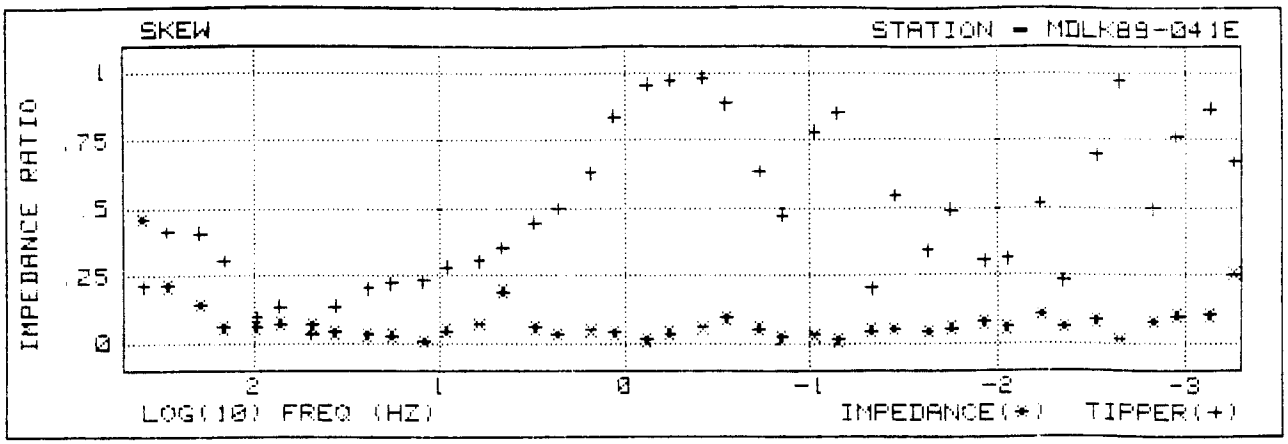

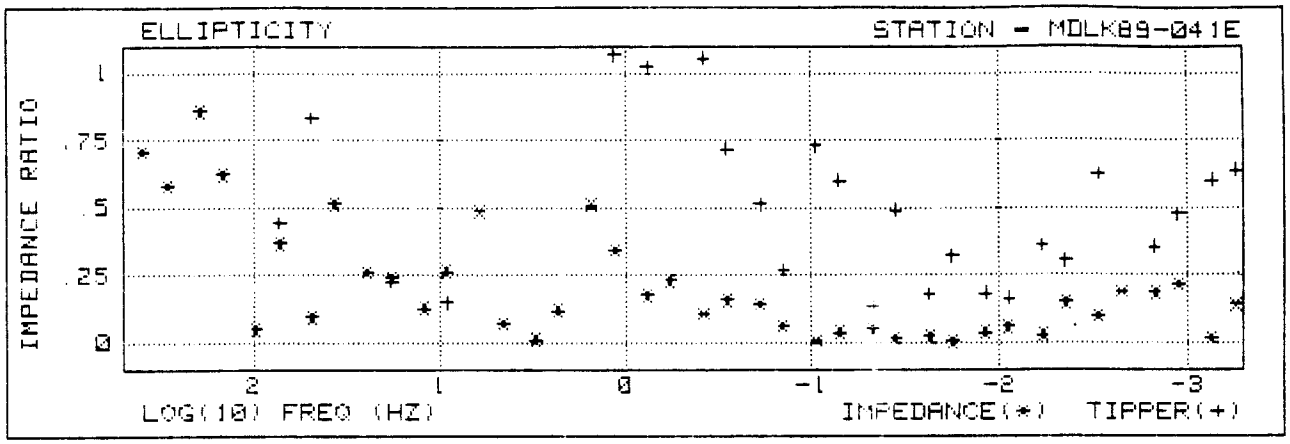

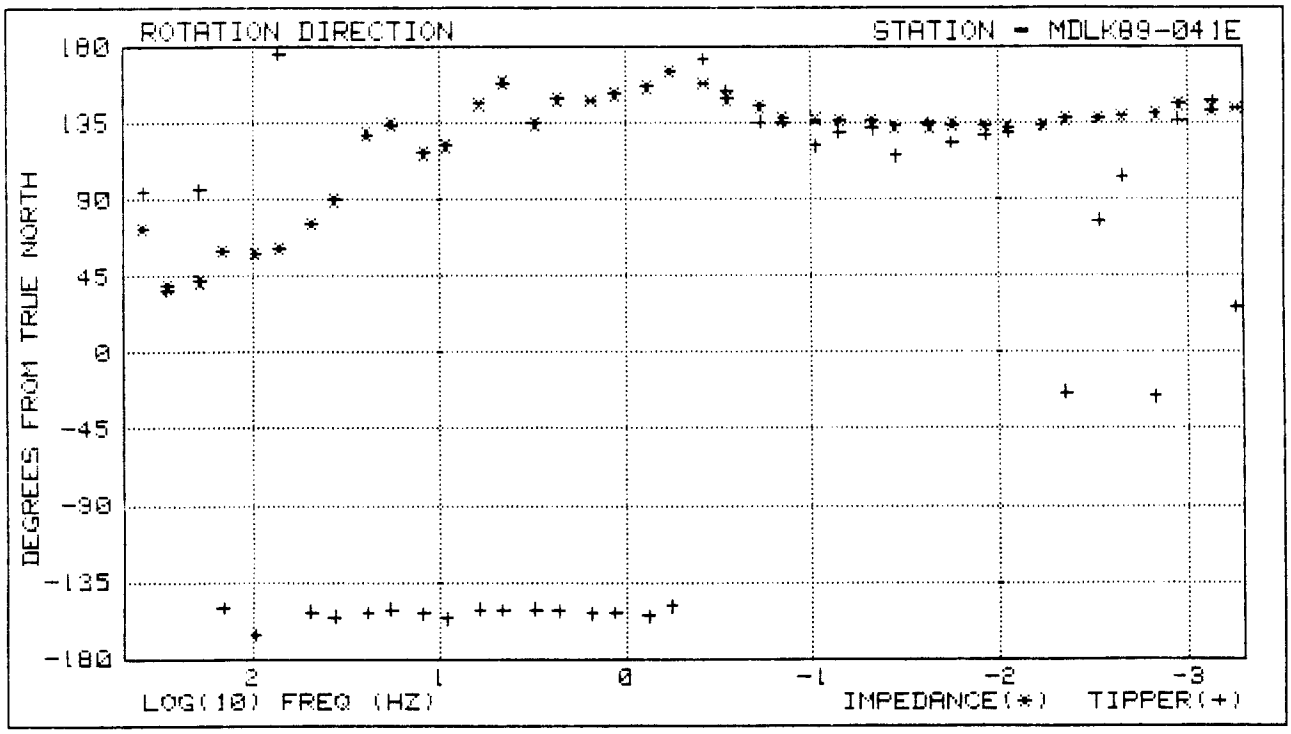

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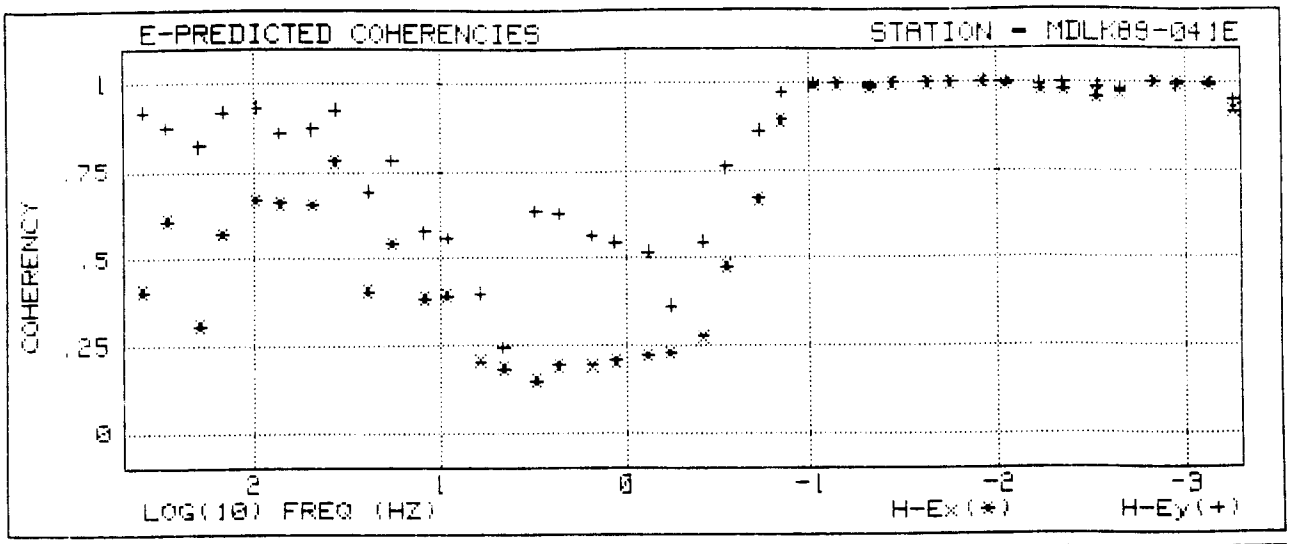
MT Site: MDLK89-041E

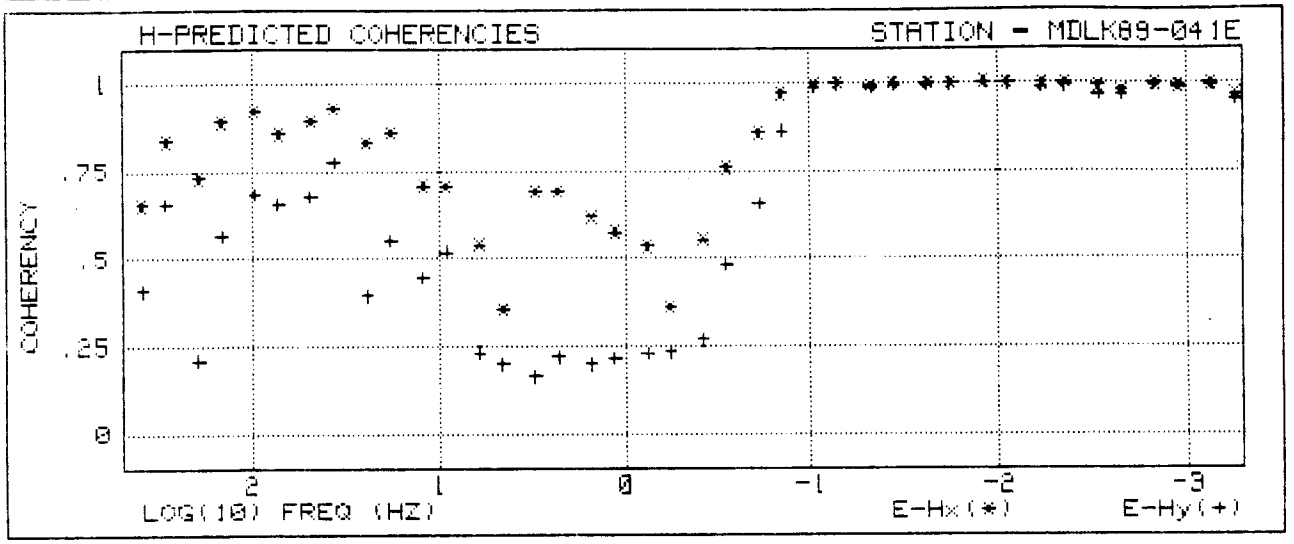
SKEW, ELLIPTICITY AND STRIKE

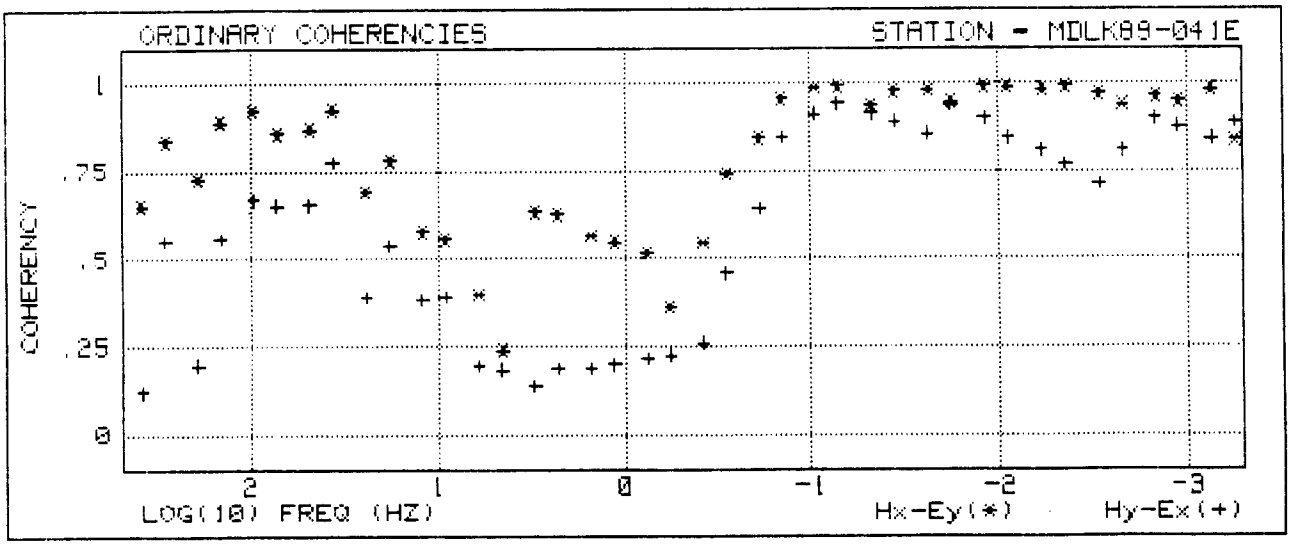
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	286	.46	.70	72.32	.21	1.79	93.61
2	288.00 Hz	477	.21	.58	38.41	.41	4.46	35.96
3	192.00 Hz	616	.14	.85	41.38	.41	2.07	94.71
4	144.00 Hz	1599	.06	.62	59.00	.30	2.93	-150.42
5	96.00 Hz	969	.06	.05	57.59	.09	3.20	-166.21
6	72.00 Hz	659	.07	.36	60.43	.13	.44	174.81
7	48.00 Hz	664	.06	.09	75.22	.03	.83	-152.79
8	36.00 Hz	1363	.04	.51	88.99	.13	1.40	-155.76
9	24.00 Hz	1129	.03	.26	127.56	.20	7.25	-153.38
10	18.00 Hz	566	.02	.24	133.52	.22	.23	-151.54
11	12.00 Hz	2684	.00	.12	116.27	.23	7.70	-153.78
12	9.00 Hz	2684	.04	.26	121.00	.28	.15	-156.96
13	6.00 Hz	1823	.07	.48	145.57	.30	1.82	-151.43
14	4.50 Hz	2576	.19	.07	157.78	.35	1.13	-152.18
15	3.00 Hz	14165	.05	.01	133.88	.44	2.62	-151.38
16	2.25 Hz	11381	.03	.11	148.51	.49	1.45	-152.66
17	1.50 Hz	12991	.04	.51	147.46	.63	1.36	-153.80
18	1.13 Hz	13919	.04	.34	151.15	.83	1.06	-153.64
19	1.33 Sec	6718	.01	.17	155.58	.95	1.02	-155.57
20	1.78 Sec	5840	.03	.23	164.72	.97	1.14	-149.39
21	2.67 Sec	3060	.05	.10	157.53	.98	1.05	171.76
22	3.56 Sec	1104	.09	.16	148.49	.88	.71	153.31
23	5.33 Sec	1651	.05	.14	144.06	.63	.51	134.57
24	7.11 Sec	604	.02	.06	136.65	.47	.27	135.02
25	10.67 Sec	855	.03	.00	136.46	.78	.73	120.71
26	14.22 Sec	969	.01	.03	135.86	.84	.59	129.10
27	21.33 Sec	600	.04	.05	135.30	.20	.13	130.72
28	28.44 Sec	516	.05	.01	132.57	.54	.49	114.95
29	42.67 Sec	526	.04	.02	132.43	.34	.17	133.96
30	56.89 Sec	496	.05	.00	133.45	.49	.32	122.74
31	85.33 Sec	255	.07	.03	132.76	.30	.18	127.01
32	113.78 Sec	264	.05	.06	131.72	.31	.16	129.25
33	170.67 Sec	120	.10	.03	133.05	.51	.36	132.82
34	227.56 Sec	102	.06	.14	136.76	.23	.30	-24.31
35	341.33 Sec	60	.08	.09	137.08	.69	.62	76.79
36	455.11 Sec	51	.01	.19	138.26	.96	1.14	102.93
37	682.67 Sec	12	.07	.18	139.66	.49	.35	-26.54
38	910.22 Sec	9	.10	.21	145.60	.76	.47	136.38
39	1365.33 Sec	6	.10	.01	142.28	.86	.60	147.48
40	1820.44 Sec	9	.25	.14	143.17	.66	.63	26.12

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E







PHOENIX GEOSCIENCE

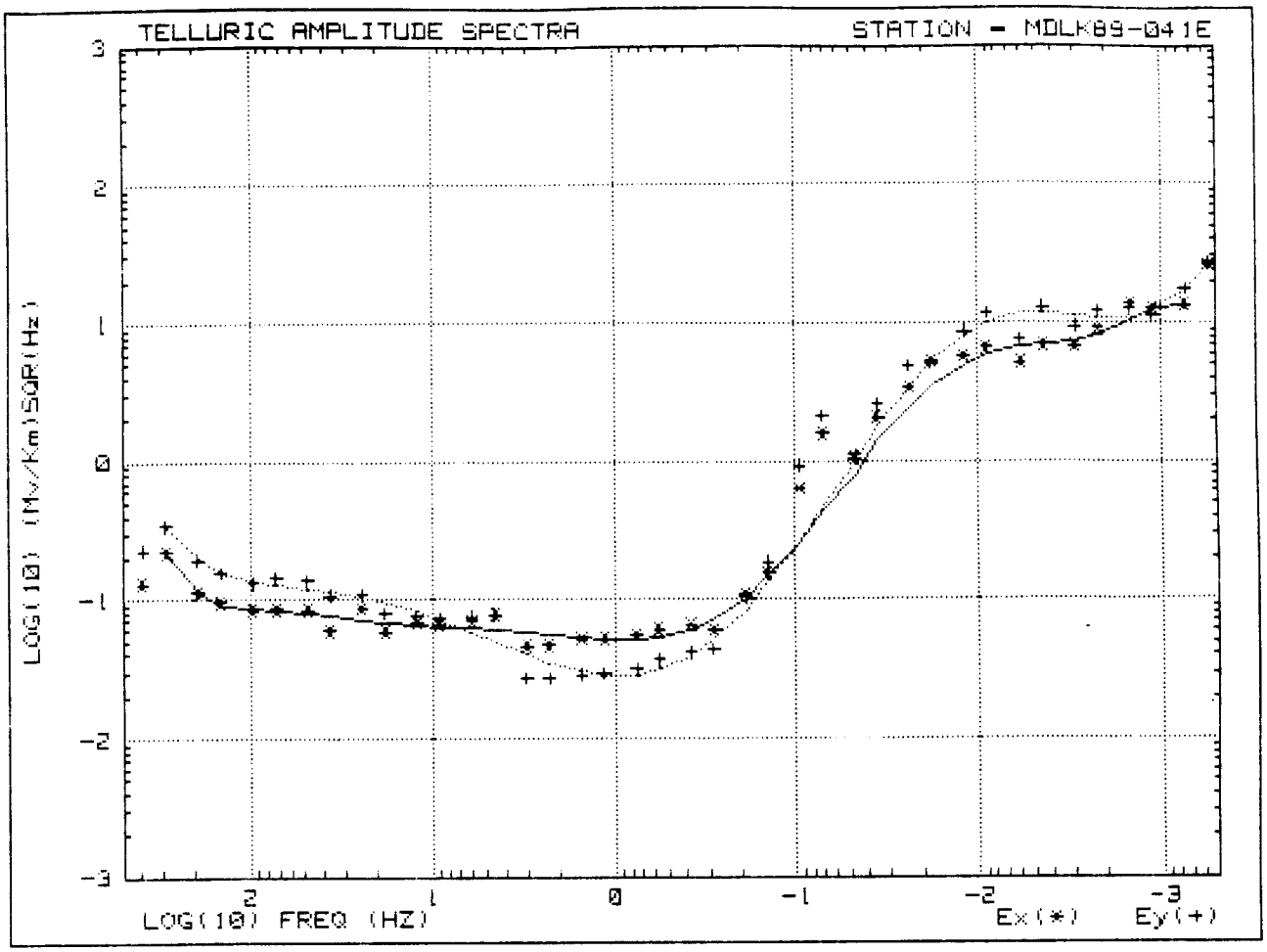
MT Site: MDLK89-041E

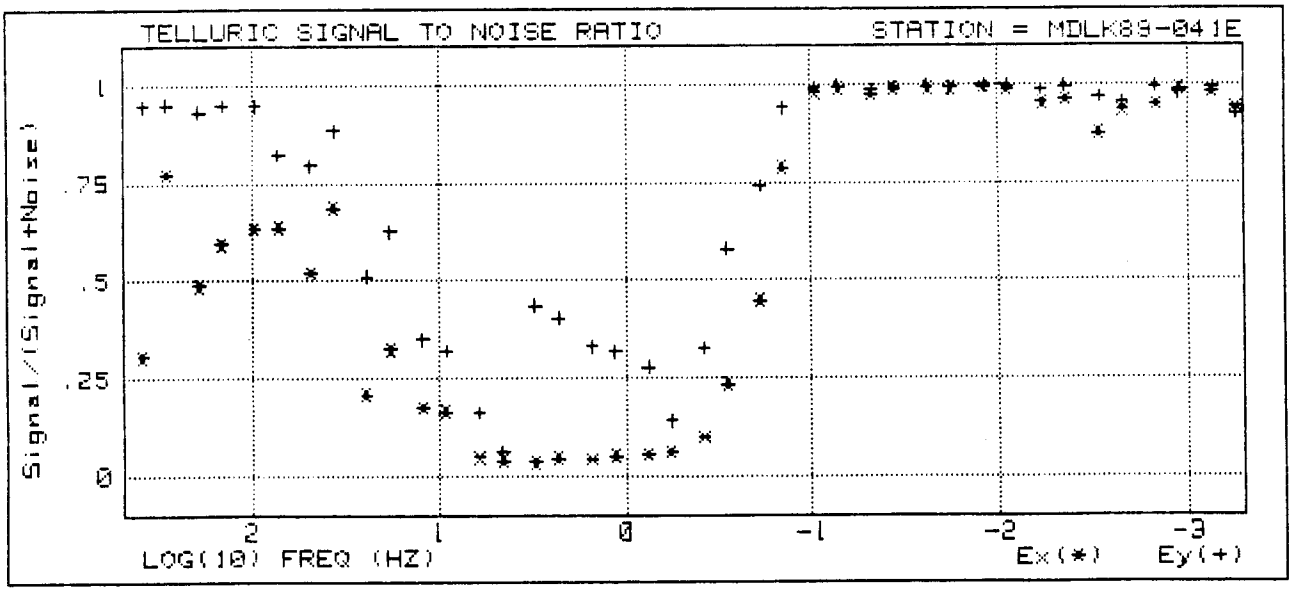
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	286	.40	.91	.65	.41	.65	.12
2	288.00 Hz	477	.61	.87	.83	.65	.83	.55
3	192.00 Hz	616	.30	.82	.73	.21	.72	.19
4	144.00 Hz	1599	.57	.91	.89	.56	.89	.56
5	96.00 Hz	969	.67	.93	.92	.68	.92	.66
6	72.00 Hz	659	.66	.86	.85	.65	.85	.65
7	48.00 Hz	664	.65	.87	.89	.67	.87	.65
8	36.00 Hz	1363	.78	.92	.93	.77	.92	.77
9	24.00 Hz	1129	.40	.69	.83	.39	.69	.39
10	18.00 Hz	566	.54	.78	.86	.55	.78	.53
11	12.00 Hz	2684	.38	.57	.71	.44	.57	.38
12	9.00 Hz	2684	.39	.55	.70	.51	.55	.39
13	6.00 Hz	1823	.20	.40	.54	.23	.39	.19
14	4.50 Hz	2576	.18	.24	.35	.20	.23	.18
15	3.00 Hz	14165	.14	.63	.69	.16	.63	.13
16	2.25 Hz	11381	.19	.62	.69	.22	.62	.18
17	1.50 Hz	12991	.19	.56	.62	.19	.56	.18
18	1.13 Hz	13919	.20	.54	.57	.21	.54	.20
19	1.33 Sec	6718	.22	.52	.53	.23	.51	.21
20	1.78 Sec	5840	.22	.36	.36	.23	.36	.22
21	2.67 Sec	3060	.27	.54	.55	.27	.54	.26
22	3.56 Sec	1104	.47	.76	.76	.48	.74	.45
23	5.33 Sec	1651	.66	.86	.85	.65	.84	.64
24	7.11 Sec	604	.89	.97	.97	.86	.95	.84
25	10.67 Sec	855	.99	1.00	1.00	.98	.98	.91
26	14.22 Sec	969	1.00	1.00	1.00	.99	.99	.94
27	21.33 Sec	600	.98	.99	.99	.98	.93	.91
28	28.44 Sec	516	.99	1.00	1.00	.99	.97	.89
29	42.67 Sec	526	.99	1.00	1.00	.99	.98	.85
30	56.89 Sec	496	1.00	1.00	1.00	1.00	.94	.93
31	85.33 Sec	255	1.00	1.00	1.00	1.00	.99	.90
32	113.78 Sec	264	.99	1.00	1.00	.99	.98	.84
33	170.67 Sec	120	.98	.99	.99	.98	.98	.80
34	227.56 Sec	102	.98	1.00	1.00	.99	.99	.77
35	341.33 Sec	60	.96	.98	.99	.96	.97	.71
36	455.11 Sec	51	.97	.98	.97	.96	.94	.80
37	682.67 Sec	12	1.00	1.00	.99	.99	.96	.90
38	910.22 Sec	9	.99	.99	.98	.99	.95	.87
39	1365.33 Sec	6	.99	1.00	1.00	.99	.98	.84
40	1820.44 Sec	9	.91	.95	.96	.95	.83	.88

PHOENIX GEOSCIENCE

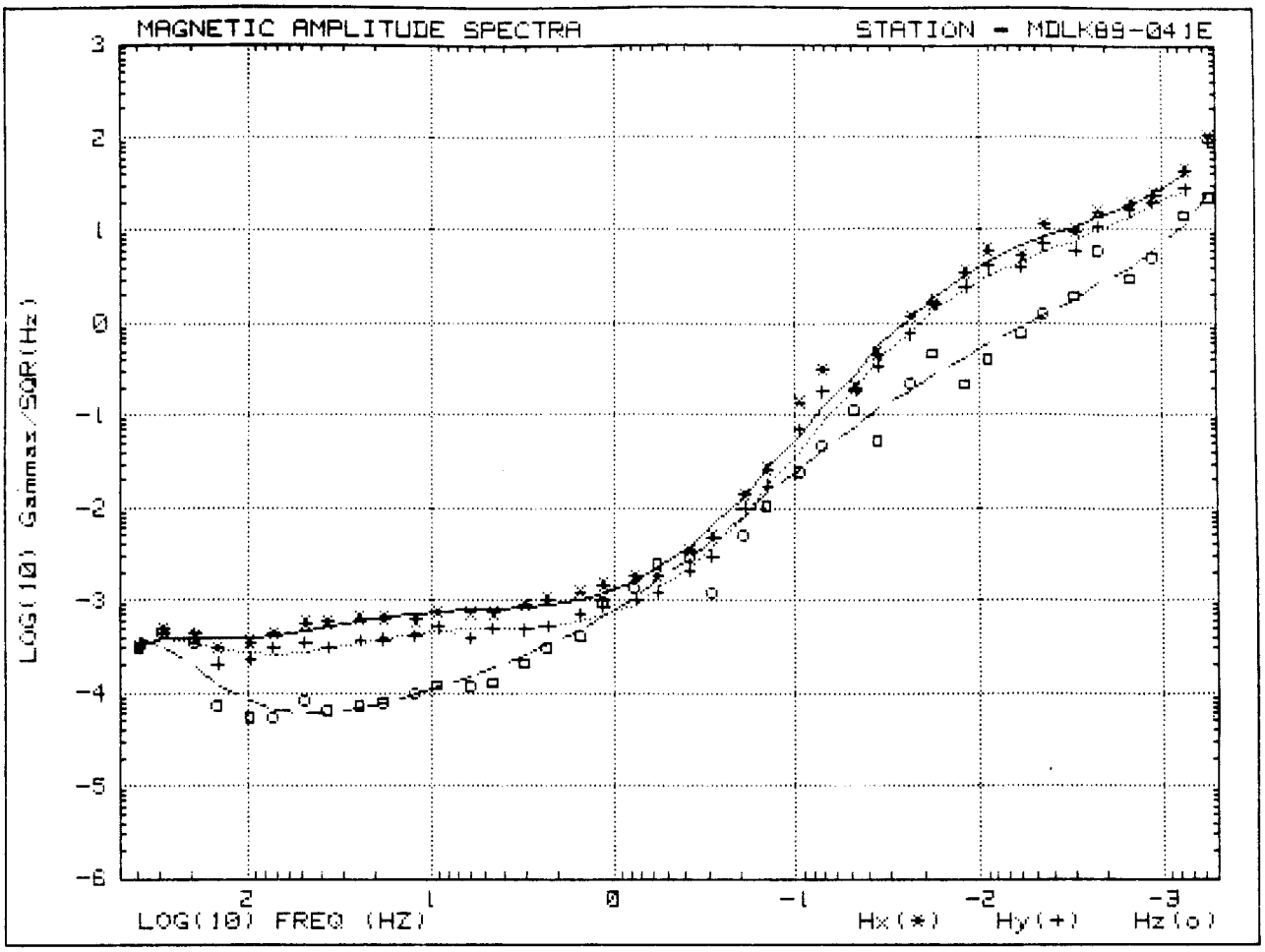
MT Site: MDLK89-041E

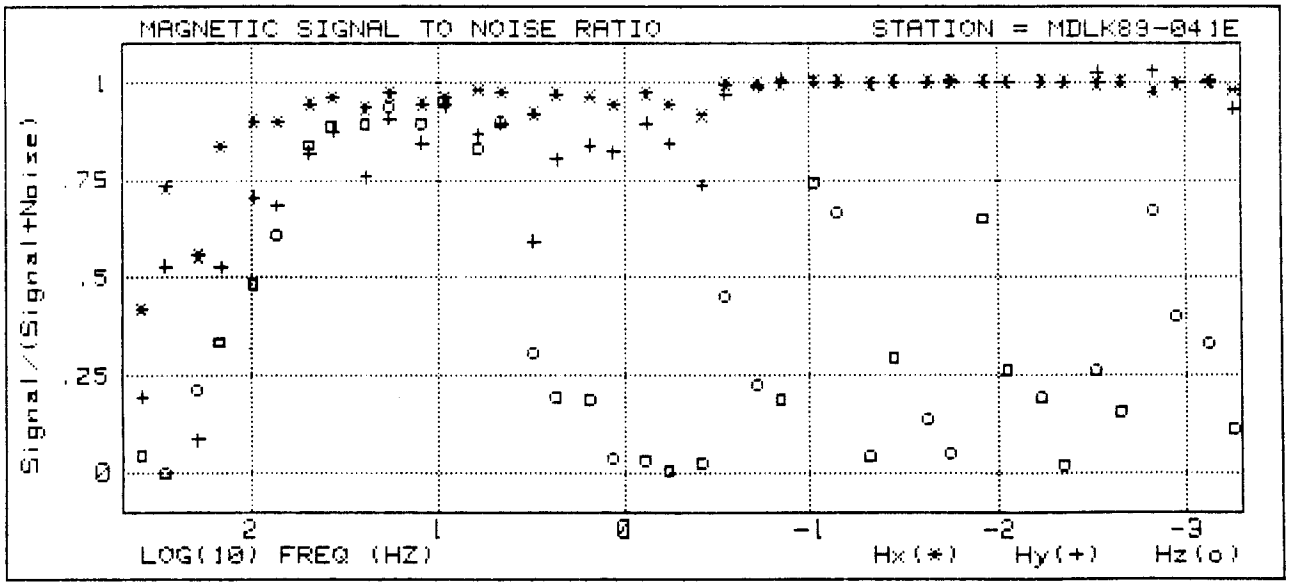




PHOENIX GEOSCIENCE

MT Site: MDLK89-041E





PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	286	3.05E-04	3.13E-04	3.21E-04	1.29E-01	2.24E-01
2	288.00 Hz	477	4.89E-04	4.44E-04	4.60E-04	2.18E-01	3.38E-01
3	192.00 Hz	616	3.93E-04	4.20E-04	3.67E-04	1.11E-01	1.91E-01
4	144.00 Hz	1599	3.04E-04	2.03E-04	7.77E-05	9.48E-02	1.56E-01
5	96.00 Hz	969	3.48E-04	2.30E-04	5.71E-05	8.28E-02	1.30E-01
6	72.00 Hz	659	4.36E-04	3.03E-04	5.73E-05	8.36E-02	1.41E-01
7	48.00 Hz	664	5.57E-04	3.41E-04	8.68E-05	8.27E-02	1.36E-01
8	36.00 Hz	1363	5.74E-04	3.04E-04	6.80E-05	5.89E-02	1.05E-01
9	24.00 Hz	1129	6.34E-04	3.62E-04	7.76E-05	8.46E-02	1.06E-01
10	18.00 Hz	566	6.37E-04	3.68E-04	8.33E-05	5.81E-02	7.86E-02
11	12.00 Hz	2684	6.05E-04	4.04E-04	1.04E-04	6.72E-02	7.54E-02
12	9.00 Hz	2684	7.47E-04	5.08E-04	1.28E-04	6.43E-02	7.30E-02
13	6.00 Hz	1823	7.20E-04	3.85E-04	1.25E-04	6.87E-02	7.32E-02
14	4.50 Hz	2576	7.26E-04	4.82E-04	1.36E-04	7.66E-02	7.66E-02
15	3.00 Hz	14165	8.91E-04	4.78E-04	2.19E-04	4.56E-02	2.66E-02
16	2.25 Hz	11381	1.01E-03	5.17E-04	3.25E-04	4.62E-02	2.69E-02
17	1.50 Hz	12991	1.22E-03	6.96E-04	4.27E-04	5.15E-02	2.81E-02
18	1.13 Hz	13919	1.47E-03	8.45E-04	9.84E-04	5.16E-02	2.89E-02
19	1.33 Sec	6718	1.83E-03	1.02E-03	1.47E-03	5.47E-02	3.08E-02
20	1.78 Sec	5840	1.81E-03	1.21E-03	2.61E-03	6.06E-02	3.64E-02
21	2.67 Sec	3060	3.44E-03	2.08E-03	3.23E-03	6.54E-02	4.10E-02
22	3.56 Sec	1104	4.80E-03	2.99E-03	1.29E-03	5.97E-02	4.32E-02
23	5.33 Sec	1651	1.38E-02	9.90E-03	5.28E-03	1.09E-01	1.03E-01
24	7.11 Sec	604	2.57E-02	1.69E-02	1.09E-02	1.53E-01	1.85E-01
25	10.67 Sec	855	1.37E-01	7.06E-02	2.51E-02	6.28E-01	9.12E-01
26	14.22 Sec	969	3.16E-01	1.79E-01	4.88E-02	1.54E+00	2.07E+00
27	21.33 Sec	600	1.99E-01	1.86E-01	1.21E-01	1.03E+00	1.08E+00
28	28.44 Sec	516	4.59E-01	3.29E-01	5.55E-02	2.03E+00	2.51E+00
29	42.67 Sec	526	1.16E+00	7.54E-01	2.38E-01	3.35E+00	4.78E+00
30	56.89 Sec	496	1.56E+00	1.72E+00	4.95E-01	5.20E+00	4.98E+00
31	85.33 Sec	255	3.48E+00	2.42E+00	2.26E-01	5.63E+00	8.50E+00
32	113.78 Sec	264	6.00E+00	4.00E+00	4.35E-01	6.50E+00	1.15E+01
33	170.67 Sec	120	5.10E+00	3.89E+00	8.03E-01	5.08E+00	7.29E+00
34	227.56 Sec	102	1.13E+01	6.91E+00	1.33E+00	6.78E+00	1.26E+01
35	341.33 Sec	60	9.75E+00	6.02E+00	2.07E+00	6.65E+00	9.16E+00
36	455.11 Sec	51	1.55E+01	1.06E+01	6.28E+00	8.91E+00	1.19E+01
37	682.67 Sec	12	1.88E+01	1.60E+01	3.17E+00	1.35E+01	1.24E+01
38	910.22 Sec	9	2.36E+01	1.97E+01	5.39E+00	1.26E+01	1.09E+01
39	1365.33 Sec	6	4.29E+01	2.71E+01	1.50E+01	1.31E+01	1.71E+01
40	1820.44 Sec	9	1.05E+02	8.80E+01	2.41E+01	2.57E+01	2.62E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	286	.419	.193	.049	.304	.946
2	288.00 Hz	477	.731	.527	.002	.771	.949
3	192.00 Hz	616	.556	.083	.219	.485	.930
4	144.00 Hz	1599	.834	.526	.341	.593	.947
5	96.00 Hz	969	.900	.705	.489	.634	.946
6	72.00 Hz	659	.896	.684	.614	.634	.822
7	48.00 Hz	664	.944	.818	.844	.519	.795
8	36.00 Hz	1363	.961	.874	.894	.685	.883
9	24.00 Hz	1129	.932	.757	.898	.207	.508
10	18.00 Hz	566	.971	.905	.944	.322	.624
11	12.00 Hz	2684	.943	.842	.901	.173	.348
12	9.00 Hz	2684	.958	.939	.956	.163	.319
13	6.00 Hz	1823	.979	.863	.837	.045	.160
14	4.50 Hz	2576	.973	.891	.902	.036	.060
15	3.00 Hz	14165	.918	.591	.312	.033	.432
16	2.25 Hz	11381	.968	.800	.198	.043	.403
17	1.50 Hz	12991	.962	.836	.191	.042	.328
18	1.13 Hz	13919	.941	.820	.044	.050	.315
19	1.33 Sec	6718	.970	.893	.038	.053	.276
20	1.78 Sec	5840	.940	.841	.010	.059	.139
21	2.67 Sec	3060	.914	.733	.027	.098	.324
22	3.56 Sec	1104	.994	.969	.458	.231	.579
23	5.33 Sec	1651	.994	.984	.230	.445	.740
24	7.11 Sec	604	.996	1.000	.191	.787	.940
25	10.67 Sec	855	.999	.999	.750	.977	.991
26	14.22 Sec	969	1.000	1.000	.672	.990	.994
27	21.33 Sec	600	.995	.995	.046	.973	.986
28	28.44 Sec	516	1.000	1.000	.302	.988	.992
29	42.67 Sec	526	.999	.999	.144	.990	.995
30	56.89 Sec	496	1.000	1.000	.053	.990	.990
31	85.33 Sec	255	1.000	1.000	.656	.992	.996
32	113.78 Sec	264	.999	.998	.268	.985	.994
33	170.67 Sec	120	.999	1.000	.197	.952	.985
34	227.56 Sec	102	1.000	.997	.025	.961	.994
35	341.33 Sec	60	.996	1.000	.268	.874	.967
36	455.11 Sec	51	.999	1.000	.164	.932	.952
37	682.67 Sec	12	.975	1.000	.677	.948	.994
38	910.22 Sec	9	.996	.998	.408	.987	.978
39	1365.33 Sec	6	1.000	1.000	.339	.979	.991
40	1820.44 Sec	9	.978	.931	.116	.940	.922

PHOENIX GEOSCIENCE

MT Site: MDLK89-041E

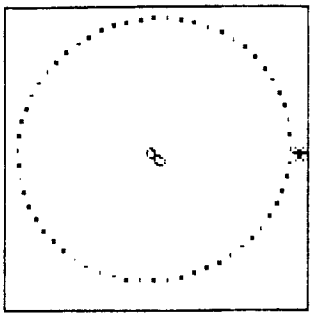
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

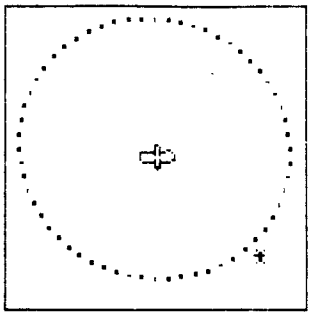
*=Rotation Direction

Zxy = ...
Zxx = ___

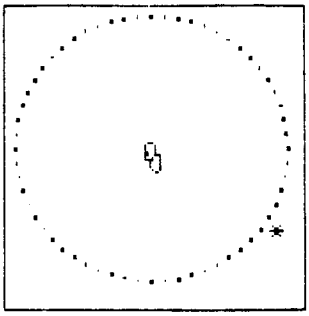
F=8 (36.0 Hz)



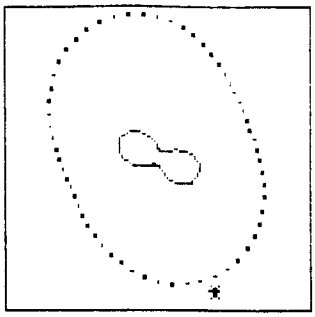
F=10 (18.0 Hz)



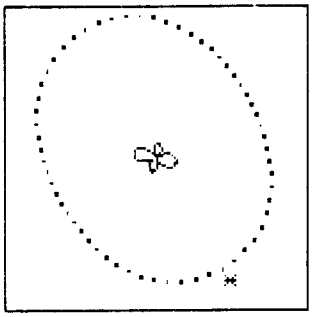
F=12 (9.0 Hz)



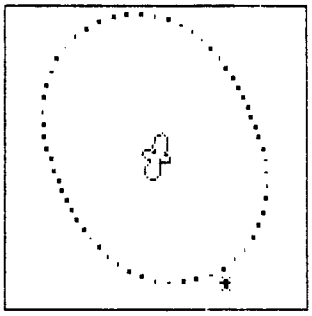
F=14 (4.5 Hz)



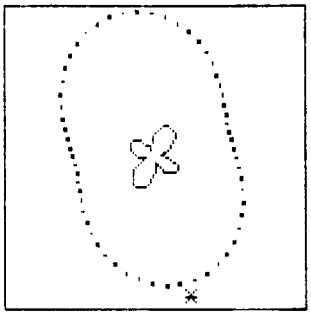
F=16 (2.3 Hz)



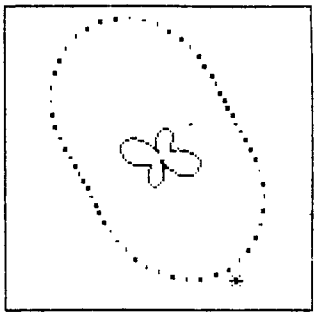
F=18 (1.1 Hz)



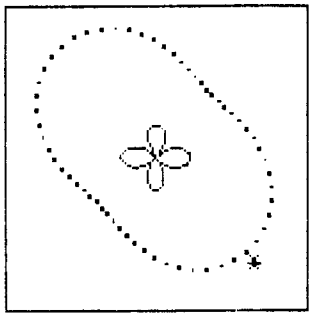
F=20 (.5625 Hz)



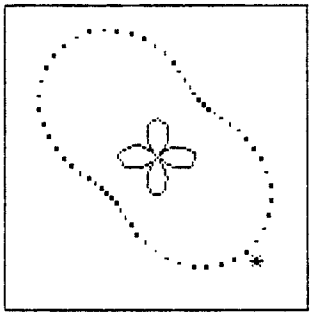
F=22 (.2813 Hz)



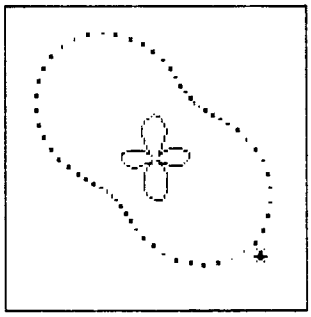
F=24 (.1406 Hz)



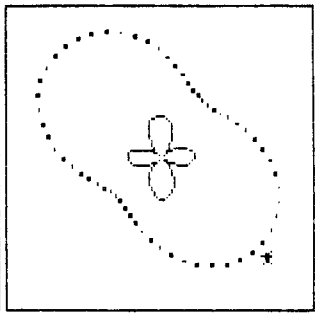
F=26 (.0703 Hz)



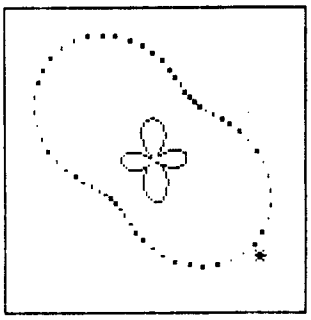
F=28 (.0352 Hz)



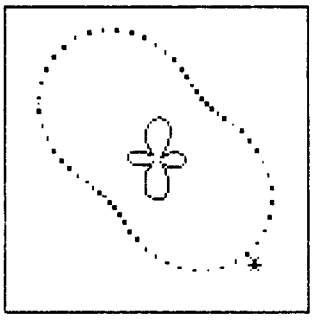
F=30 (.0176 Hz)



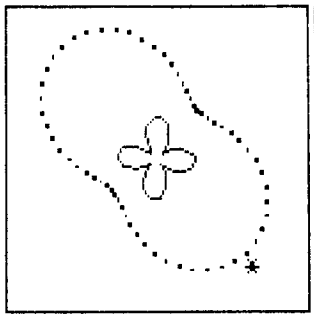
F=32 (.0088 Hz)



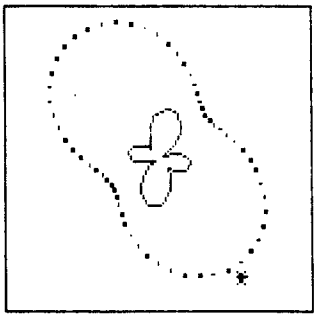
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL
Run:MDLK89-005j/042s/009j/

Operator:M. SNOW
Date: 16 Aug 1989
Time: 19:59:56

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#222-14Aug89-05
SP--Stn02: B#335-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#430-16Aug89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#205-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#210-16Aug89-01
Sens-Ch12: C#432-16Aug89-01
Sens-Ch13: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-042s
Site Desc:T43N R3E SEC24 SE4
41,33,08 N 121,34,00 W
Elevation:6620ft
Reference:MDLK89-009s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: ELDRIDGE
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL205	+0 DEG
Hy	7	COIL452	+90 DEG
Hz	8	LOOP005	
Ex	9	183 M	+0 DEG
Ey	10	195 M	+90 DEG
Rx	11	COIL210	+45 DEG
Ry	12	COIL432	+135 DEG

Ex Pot Resist: 7.5 K Ohms
Ex Voltage: AC=0.20 mv, DC=30.5 mv
Ey Pot Resist: 15.0K Ohms
Ey Voltage: AC=2.00 mv, DC=30.5 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

OPERATOR LOG FOR MDLK89-005s/042E/009s/

Recorded XPR Files:

X#1 - SUM OF RUNS: b, and c.
X#2 - SUM OF RUNS: b, and c.
X#3 - SUM OF RUNS: b, and c.
X#4 - SUM OF RUNS: b, and c.
X#5 - SUM OF RUNS: b, and c.
X#6 - SUM OF RUNS: b, and c.
X#7 - SUM OF RUNS: b, and c.
X#8 - SUM OF RUNS: b, and c.
X#9 - SUM OF RUNS: b, and c.
X#10 - SUM OF RUNS: b, and c.
X#11 - SUM OF RUNS: b, and c.
X#12 - SUM OF RUNS: b, and c.
X#13 - SUM OF RUNS: b, and c.
X#14 - SUM OF RUNS: b, and c.
X#15 - SUM OF RUNS: b, and c.
X#16 - SUM OF RUNS: b, and c.
X#17 - SUM OF RUNS: b, and c.
X#18 - SUM OF RUNS: b, and c.
X#19 - SUM OF RUNS: b, and c.
X#20 - SUM OF RUNS: b, and c.

Operator:SNOW/STEWART

Cultural Factors:
NONE
Weather Conditions:
LIGHT WINDS WITH MODERATE TEMPS.
Other Factors:
NONE

PHOENIX GEOSCIENCE

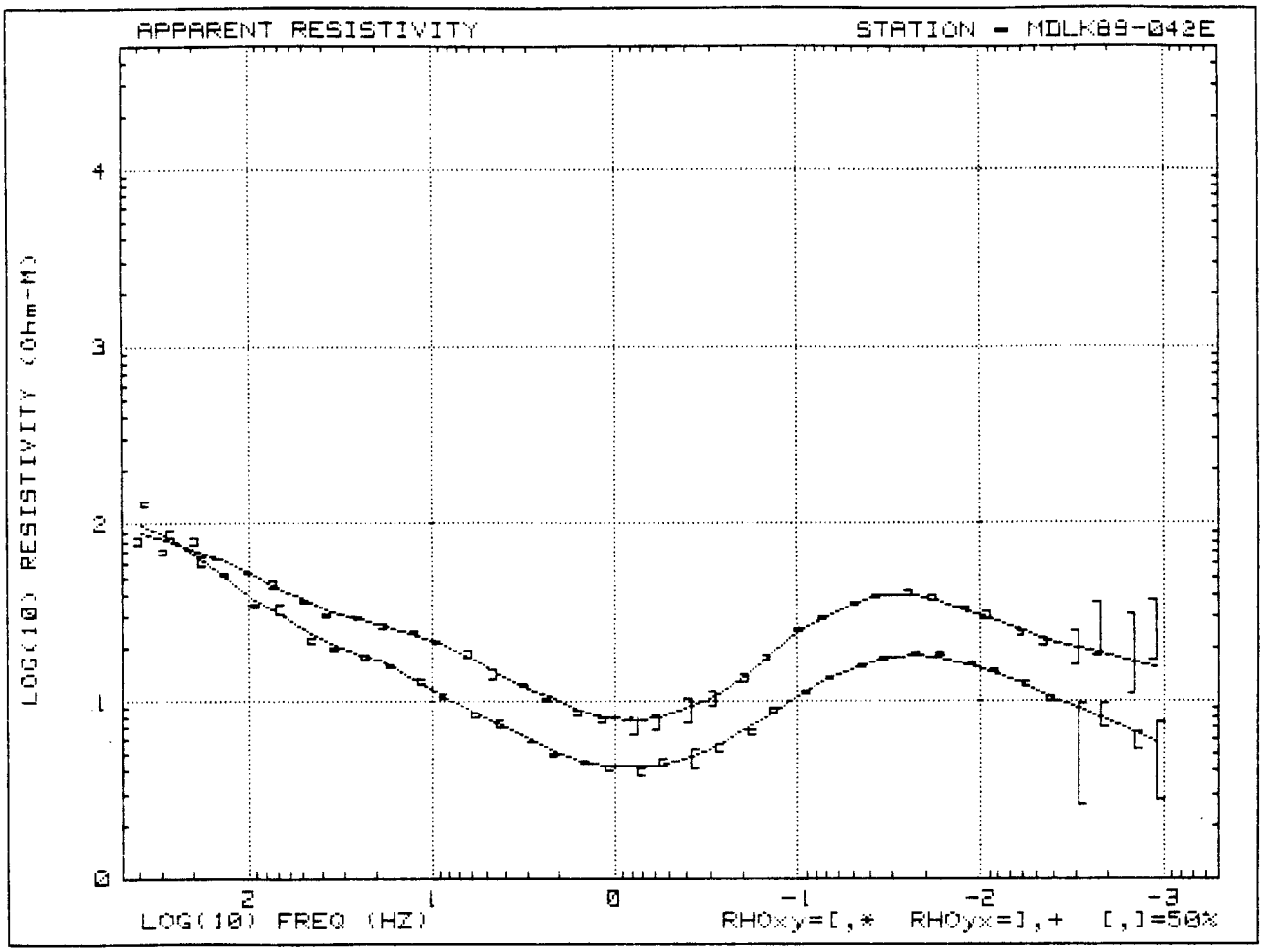
MT Site: MDLK89-042E

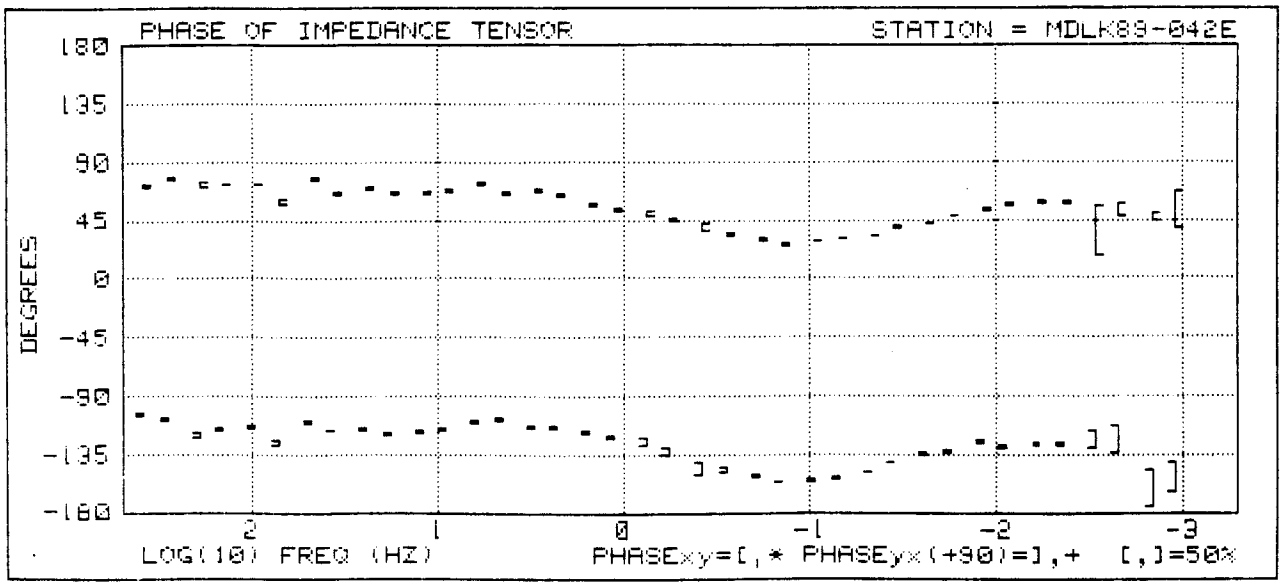
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

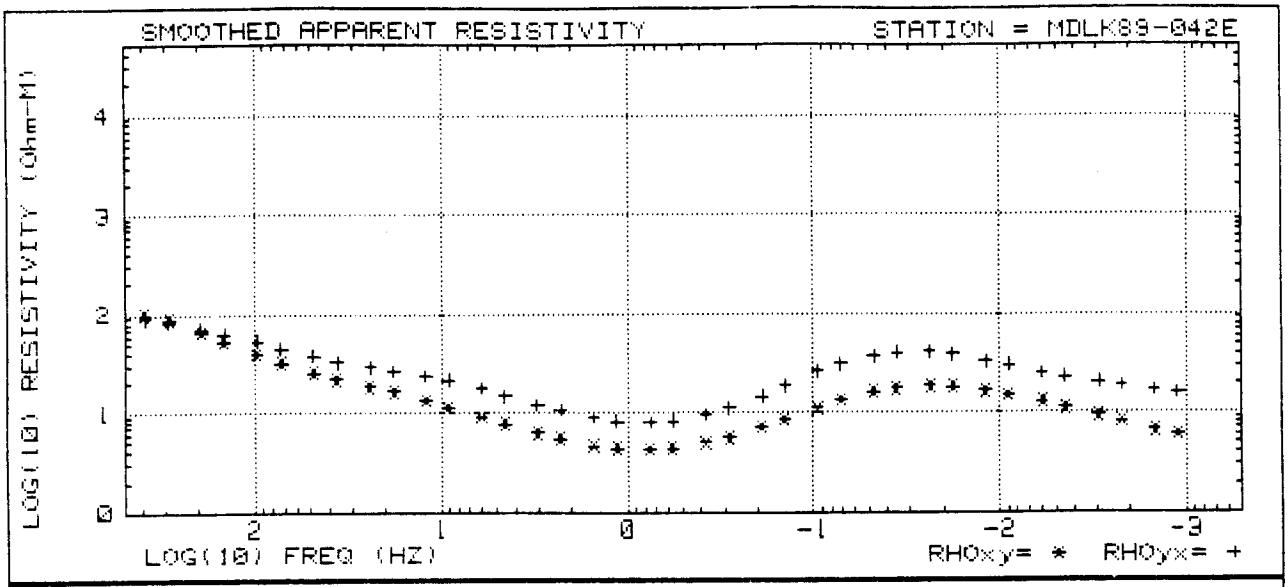
MT Site: MDLK89-042E

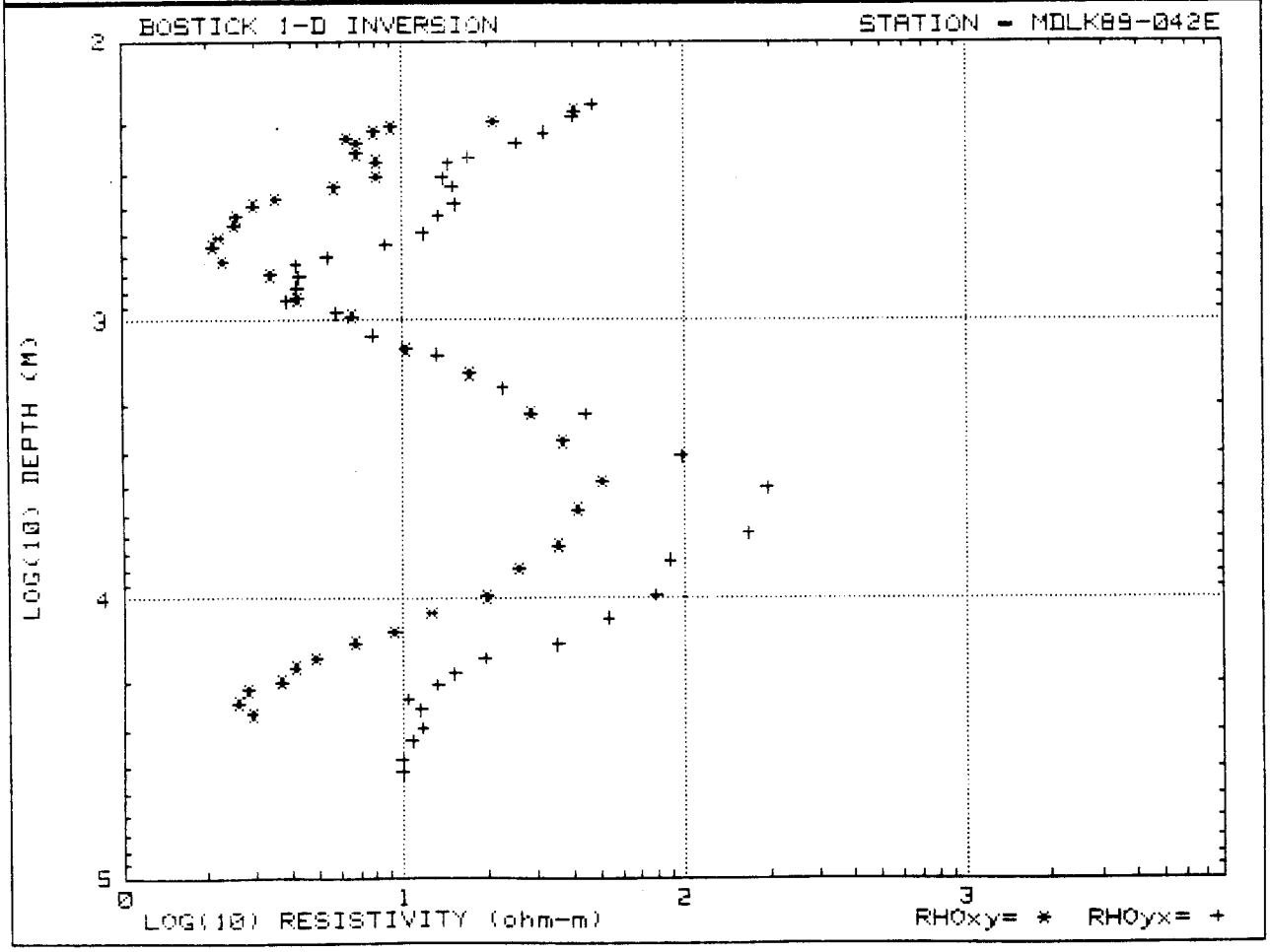




PHOENIX GEOSCIENCE

MT Site: MDLK89-042E





PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	435	129.0	4.8	80.5	7.3	71.1	1.4	-103.9	2.0
2	288.00 Hz	435	87.8	5.7	69.1	5.8	77.4	1.6	-107.0	1.6
3	192.00 Hz	556	61.5	8.1	80.2	7.1	72.7	2.2	-120.1	2.0
4	144.00 Hz	746	51.5	1.9	63.3	2.1	72.1	.5	-115.3	.6
5	96.00 Hz	759	34.5	3.9	52.5	2.3	72.8	1.1	-113.0	.7
6	72.00 Hz	94	32.7	9.0	45.9	8.2	59.7	2.5	-125.3	2.2
7	48.00 Hz	757	21.7	4.3	36.8	3.1	76.7	1.2	-109.9	.9
8	36.00 Hz	763	19.5	2.9	30.5	2.4	66.2	.8	-116.6	.7
9	24.00 Hz	562	17.6	4.9	29.4	3.7	70.7	1.4	-115.0	1.0
10	18.00 Hz	562	15.8	4.4	26.5	3.3	65.4	1.2	-118.5	.9
11	12.00 Hz	469	12.8	3.6	24.7	2.8	66.3	1.0	-116.7	.8
12	9.00 Hz	757	10.8	3.8	21.3	3.0	68.2	1.1	-115.1	.9
13	6.00 Hz	669	8.4	4.6	18.4	5.8	74.1	1.3	-109.7	1.6
14	4.50 Hz	667	7.4	7.5	14.2	9.4	65.8	2.1	-107.6	2.6
15	3.00 Hz	14604	5.9	1.7	12.2	2.3	67.7	.5	-113.6	.7
16	2.25 Hz	16076	5.0	2.1	10.1	2.2	64.5	.6	-113.7	.6
17	1.50 Hz	8322	4.5	3.2	8.6	4.5	57.1	.9	-116.7	1.2
18	1.13 Hz	8277	4.2	3.8	7.8	5.5	52.7	1.1	-121.4	1.5
19	1.33 Sec	4125	4.0	8.5	7.2	16.7	49.6	2.3	-125.4	4.4
20	1.78 Sec	3037	4.5	7.1	7.6	14.5	44.8	2.0	-131.8	3.9
21	2.67 Sec	1944	4.7	18.8	8.9	26.7	39.2	4.9	-145.0	6.8
22	3.56 Sec	1116	5.4	6.3	10.3	12.8	34.1	1.8	-146.2	3.5
23	5.33 Sec	807	6.7	4.9	13.6	8.2	30.3	1.4	-151.5	2.3
24	7.11 Sec	360	8.8	3.0	17.8	4.4	26.5	.9	-155.8	1.2
25	10.67 Sec	569	11.2	1.7	25.3	4.2	29.6	.5	-155.0	1.2
26	14.22 Sec	593	13.6	1.2	29.9	2.3	31.6	.3	-153.0	.6
27	21.33 Sec	256	15.7	1.7	35.2	2.5	33.6	.5	-148.0	.7
28	28.44 Sec	268	17.5	1.6	39.1	1.7	39.5	.4	-141.2	.5
29	42.67 Sec	231	18.6	1.4	40.7	3.9	42.5	.4	-134.2	1.1
30	56.89 Sec	213	18.5	2.5	38.7	4.8	48.3	.7	-132.3	1.3
31	85.33 Sec	84	16.2	3.7	33.3	4.4	52.4	1.0	-125.0	1.2
32	113.78 Sec	138	14.9	2.2	30.3	5.6	56.3	.6	-127.8	1.6
33	170.67 Sec	60	12.5	4.4	23.8	5.2	58.0	1.2	-127.4	1.5
34	227.56 Sec	66	10.4	4.8	21.8	8.1	57.7	1.3	-126.8	2.2
35	341.33 Sec	33	5.1	99.9	19.7	38.5	36.9	28.2	-122.5	9.3
36	455.11 Sec	33	8.2	26.5	25.8	67.2	53.3	6.7	-123.0	14.7
37	682.67 Sec	6	5.9	17.0	18.5	99.9	47.8	4.5	-160.5	22.0
38	910.22 Sec	9	4.6	99.9	24.9	79.4	53.4	21.4	-152.3	16.7

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	435	98.5	88.1	41.4	180	47.4	170
2	288.00 Hz	435	87.6	80.8	21.3	196	40.5	189
3	192.00 Hz	556	64.6	70.0	9.1	206	32.0	215
4	144.00 Hz	746	51.9	62.4	8.0	214	25.6	234
5	96.00 Hz	759	38.8	52.3	6.4	226	17.2	263
6	72.00 Hz	94	31.6	44.0	6.9	236	14.6	278
7	48.00 Hz	757	24.9	37.0	6.9	256	14.0	312
8	36.00 Hz	763	21.3	32.2	8.1	274	15.1	337
9	24.00 Hz	562	18.2	28.8	8.1	310	15.4	390
10	18.00 Hz	562	16.3	26.1	5.7	339	13.5	429
11	12.00 Hz	469	13.1	23.1	3.6	371	11.9	493
12	9.00 Hz	757	11.0	20.9	3.0	393	8.7	543
13	6.00 Hz	669	8.8	17.3	2.6	430	5.4	605
14	4.50 Hz	667	7.5	14.6	2.5	460	4.2	640
15	3.00 Hz	14604	6.2	11.8	2.2	512	4.3	707
16	2.25 Hz	16076	5.4	10.6	2.1	552	4.2	771
17	1.50 Hz	8322	4.6	8.8	2.3	623	3.9	863
18	1.13 Hz	8277	4.3	8.1	3.4	696	5.8	954
19	1.33 Sec	4125	4.2	7.9	4.3	847	7.8	1154
20	1.78 Sec	3037	4.3	8.1	6.7	985	13.3	1348
21	2.67 Sec	1944	4.9	9.3	10.3	1290	22.8	1777
22	3.56 Sec	1116	5.5	10.8	17.2	1575	44.6	2203
23	5.33 Sec	807	7.0	14.3	28.6	2182	97.6	3105
24	7.11 Sec	360	8.4	18.1	37.4	2746	196.9	4033
25	10.67 Sec	569	10.9	25.4	51.0	3844	168.6	5858
26	14.22 Sec	593	13.1	30.1	42.2	4859	89.3	7367
27	21.33 Sec	256	15.7	35.8	35.6	6523	79.4	9836
28	28.44 Sec	268	17.1	39.2	26.0	7857	53.8	11879
29	42.67 Sec	231	18.2	39.9	19.9	9905	35.5	14690
30	56.89 Sec	213	17.7	37.6	12.7	11291	19.7	16463
31	85.33 Sec	84	16.2	32.1	9.3	13232	15.3	18638
32	113.78 Sec	138	14.7	29.4	6.8	14533	13.3	20586
33	170.67 Sec	60	12.6	24.8	4.9	16475	10.4	23133
34	227.56 Sec	66	10.8	22.1	4.1	17672	11.6	25262
35	341.33 Sec	33	9.2	19.9	3.7	19955	11.8	29351
36	455.11 Sec	33	8.1	18.5	2.8	21566	10.8	32676
37	682.67 Sec	6	6.6	16.6	2.6	23860	9.9	37872
38	910.22 Sec	9	6.0	15.6	2.9	26208	9.9	42360

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	435	23.31	56.21	356.36	161.15	470.83	275.70
2	288.00 Hz	435	-12.06	12.84	111.23	77.67	346.95	195.21
3	192.00 Hz	556	7.19	14.00	93.86	72.15	231.98	179.95
4	144.00 Hz	746	6.33	-.85	2.50	59.01	183.25	6.59
5	96.00 Hz	759	5.93	4.77	2.15	38.01	122.85	12.09
6	72.00 Hz	94	2.46	2.14	16.78	54.72	93.76	43.53
7	48.00 Hz	757	.17	-1.73	1.86	16.59	70.18	4.56
8	36.00 Hz	763	1.32	-.14	.62	23.89	54.15	1.42
9	24.00 Hz	562	.70	1.30	1.35	15.20	43.39	2.41
10	18.00 Hz	562	1.68	-.51	.88	15.71	34.26	1.33
11	12.00 Hz	469	.71	-.49	.27	11.16	25.42	.49
12	9.00 Hz	757	.67	1.02	.20	8.17	20.44	.35
13	6.00 Hz	669	-.65	.03	.30	4.35	15.28	.26
14	4.50 Hz	667	1.08	-.57	.40	5.28	11.73	.43
15	3.00 Hz	14604	.69	-.07	.01	3.56	8.69	.01
16	2.25 Hz	16076	.47	.04	.01	3.22	6.76	.01
17	1.50 Hz	8322	.48	-.09	.02	3.15	4.87	.02
18	1.13 Hz	8277	.34	-.07	.02	2.95	3.87	.02
19	1.33 Sec	4125	.411	-.183	.065	2.514	2.950	.049
20	1.78 Sec	3037	.132	-.206	.055	2.531	2.511	.030
21	2.67 Sec	1944	.125	-.169	.241	2.308	1.885	.131
22	3.56 Sec	1116	.133	-.002	.030	2.284	1.549	.014
23	5.33 Sec	807	-.025	-.007	.008	2.160	1.264	.007
24	7.11 Sec	360	.066	.122	.003	2.230	1.112	.003
25	10.67 Sec	569	.066	.200	.003	1.996	1.135	.001
26	14.22 Sec	593	.051	.211	.001	1.860	1.143	.000
27	21.33 Sec	256	.133	.150	.001	1.600	1.062	.001
28	28.44 Sec	268	.110	.097	.000	1.353	1.114	.000
29	42.67 Sec	231	.158	.052	.002	1.088	.997	.000
30	56.89 Sec	213	.163	.074	.002	.848	.951	.000
31	85.33 Sec	84	.117	.069	.001	.595	.772	.001
32	113.78 Sec	138	.134	.065	.001	.449	.674	.000
33	170.67 Sec	60	.069	.025	.000	.321	.513	.000
34	227.56 Sec	66	.095	.043	.000	.256	.405	.000
35	341.33 Sec	33	.153	.023	.029	.218	.164	.036
36	455.11 Sec	33	-.023	.062	.031	.180	.241	.003
37	682.67 Sec	6	.152	.091	.002	.140	.154	.001
38	910.22 Sec	9	.028	.037	.005	.095	.128	.007

PHOENIX GEOSCIENCE

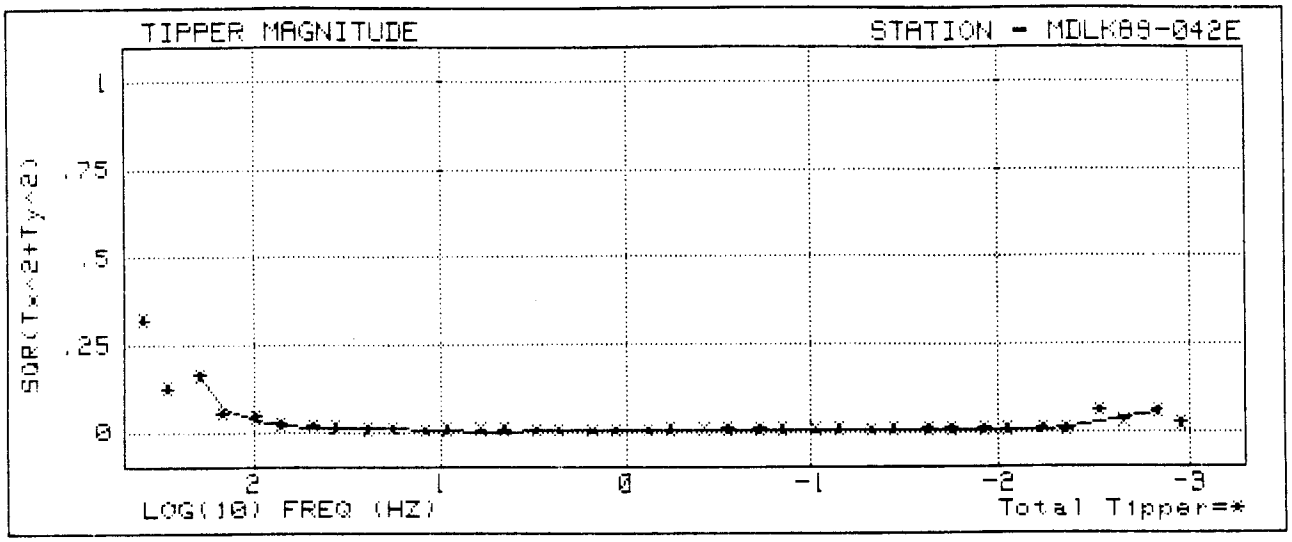
MT Site: MDLK89-042E

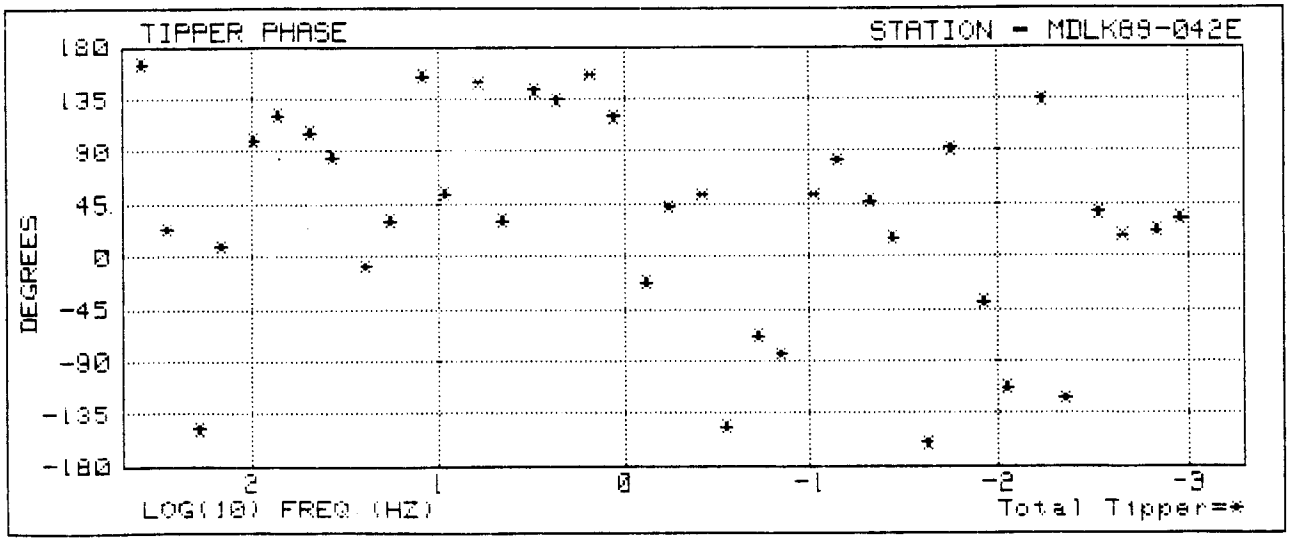
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

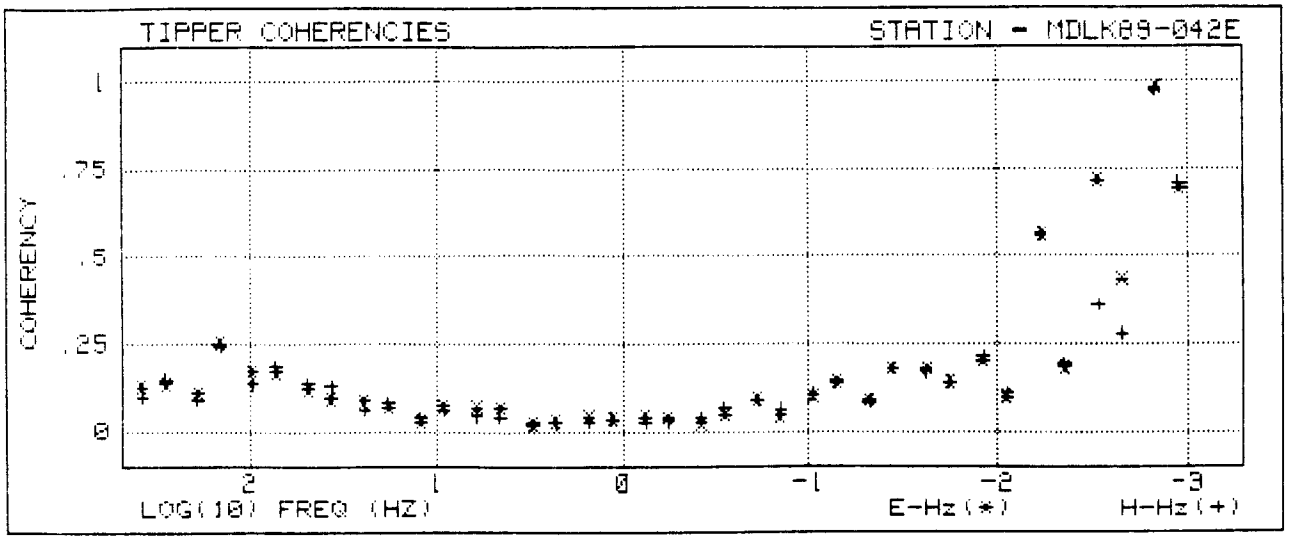
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	435	-94.20	-381.76	387.99	49.99	36.15	300.18
2	288.00 Hz	435	-92.32	-301.69	157.89	13.19	21.01	277.09
3	192.00 Hz	556	-139.16	-240.11	182.70	6.75	17.63	350.28
4	144.00 Hz	746	-91.32	-193.01	9.82	3.26	9.31	25.84
5	96.00 Hz	759	-61.95	-146.23	6.66	.54	10.28	37.40
6	72.00 Hz	94	-74.25	-104.87	50.77	-.82	7.90	131.68
7	48.00 Hz	757	-31.99	-88.39	4.04	-.31	-1.33	9.90
8	36.00 Hz	763	-33.14	-66.29	1.57	-2.16	2.51	3.59
9	24.00 Hz	562	-25.05	-53.82	2.35	1.18	.85	4.18
10	18.00 Hz	562	-23.30	-42.91	1.22	.77	.29	1.85
11	12.00 Hz	469	-17.28	-34.40	.58	-1.26	.85	1.05
12	9.00 Hz	757	-13.14	-28.06	.43	1.07	.75	.76
13	6.00 Hz	669	-7.91	-22.12	.88	-1.05	.24	.74
14	4.50 Hz	667	-5.41	-17.07	1.30	-.43	-.53	1.41
15	3.00 Hz	14604	-5.41	-12.37	.05	.11	.22	.04
16	2.25 Hz	16076	-4.29	-9.77	.03	.22	.13	.03
17	1.50 Hz	8322	-3.61	-7.19	.06	.03	.00	.06
18	1.13 Hz	8277	-3.45	-5.65	.06	-.01	.03	.05
19	1.33 Sec	4125	-3.013	-4.235	.322	-.063	.001	.246
20	1.78 Sec	3037	-3.082	-3.450	.196	.039	-.151	.108
21	2.67 Sec	1944	-3.342	-2.338	.465	.126	-.170	.253
22	3.56 Sec	1116	-3.170	-2.122	.106	.207	-.116	.051
23	5.33 Sec	807	-3.141	-1.704	.040	.112	-.311	.034
24	7.11 Sec	360	-3.226	-1.447	.012	.211	-.310	.011
25	10.67 Sec	569	-3.118	-1.457	.010	.197	-.255	.003
26	14.22 Sec	593	-2.887	-1.472	.003	.181	-.195	.001
27	21.33 Sec	256	-2.436	-1.524	.003	.268	-.094	.001
28	28.44 Sec	268	-2.043	-1.644	.001	.253	-.090	.001
29	42.67 Sec	231	-1.523	-1.564	.004	.220	.004	.000
30	56.89 Sec	213	-1.242	-1.363	.004	.188	.051	.001
31	85.33 Sec	84	-.802	-1.145	.002	.118	.069	.002
32	113.78 Sec	138	-.708	-.912	.002	.109	.093	.000
33	170.67 Sec	60	-.507	-.664	.001	.039	.062	.001
34	227.56 Sec	66	-.414	-.554	.001	.070	.069	.001
35	341.33 Sec	33	-.288	-.453	.015	.043	.050	.019
36	455.11 Sec	33	-.290	-.446	.037	.045	.025	.003
37	682.67 Sec	6	-.347	-.123	.040	.139	.004	.010
38	910.22 Sec	9	-.327	-.172	.023	.038	-.019	.036

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E







PHOENIX GEOSCIENCE

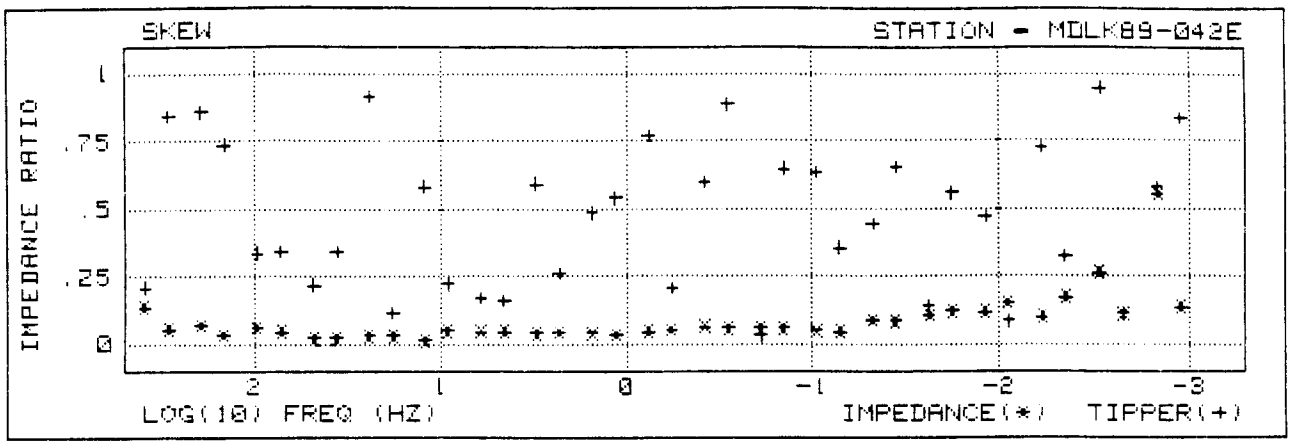
MT Site: MDLK89-042E

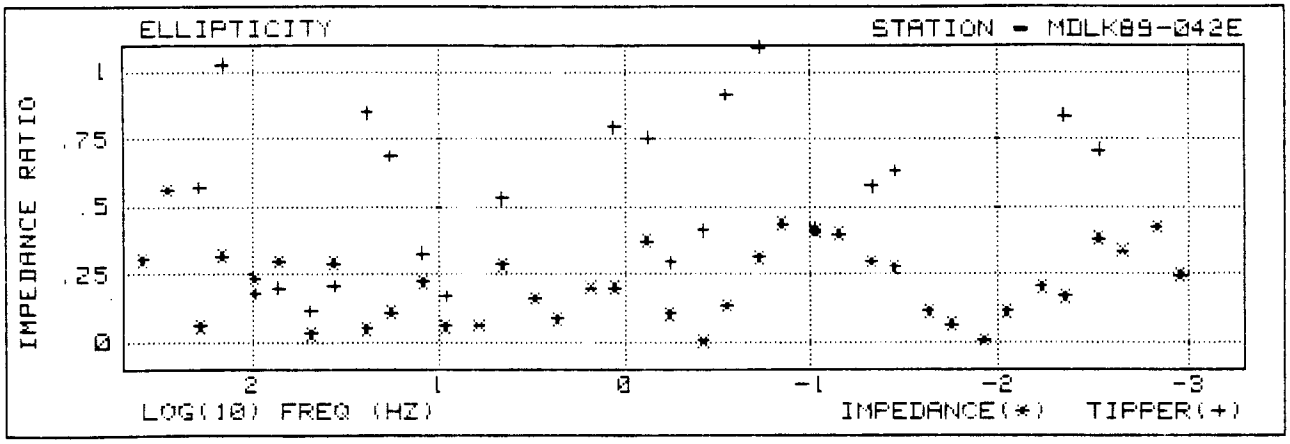
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

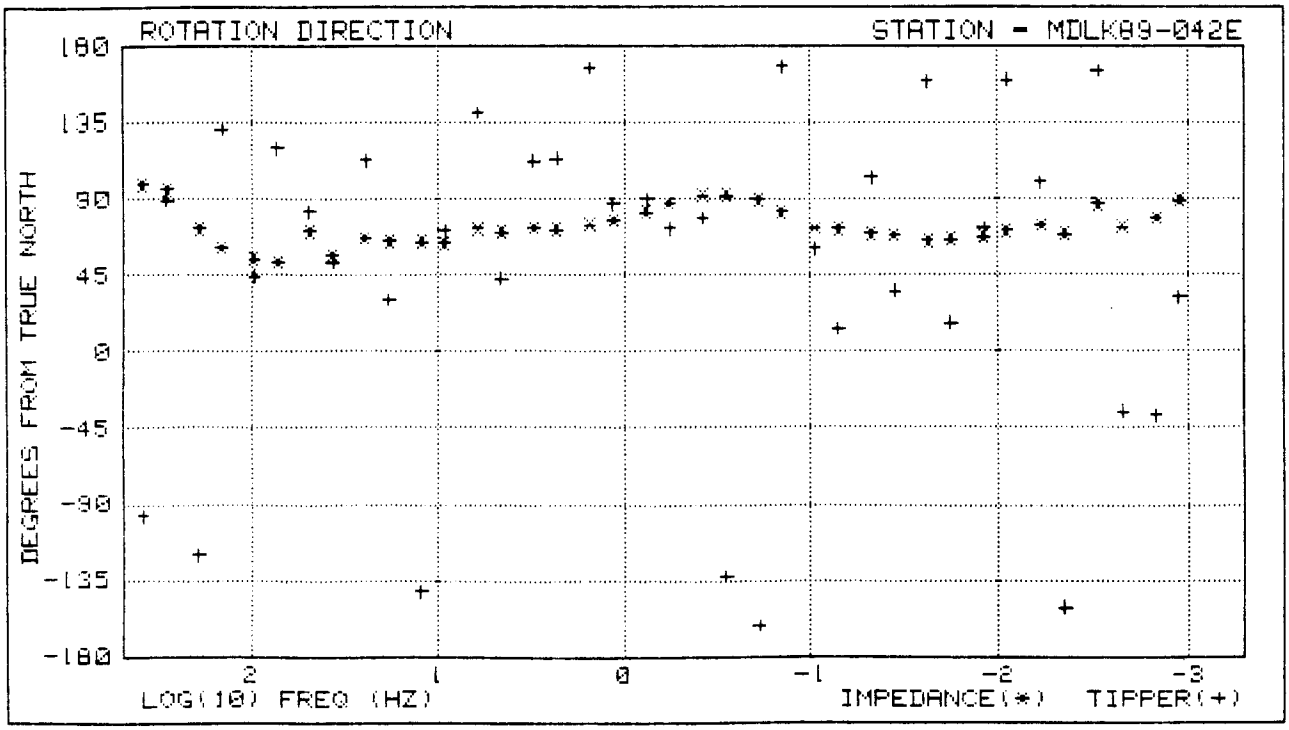
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	435	.32	164.54	.12	.09
2	288.00 Hz	435	.12	22.54	.13	.14
3	192.00 Hz	556	.16	-148.12	.11	.09
4	144.00 Hz	746	.05	7.88	.25	.24
5	96.00 Hz	759	.04	99.21	.17	.13
6	72.00 Hz	94	.02	120.03	.17	.18
7	48.00 Hz	757	.01	105.47	.12	.13
8	36.00 Hz	763	.01	84.63	.09	.12
9	24.00 Hz	562	.00	-8.60	.08	.06
10	18.00 Hz	562	.01	29.47	.06	.08
11	12.00 Hz	469	.00	153.98	.02	.04
12	9.00 Hz	757	.00	53.16	.07	.06
13	6.00 Hz	669	.00	147.86	.07	.04
14	4.50 Hz	667	.00	29.89	.06	.04
15	3.00 Hz	14604	.00	142.08	.02	.02
16	2.25 Hz	16076	.00	133.63	.02	.02
17	1.50 Hz	8322	.00	155.54	.04	.02
18	1.13 Hz	8277	.00	118.73	.03	.03
19	1.33 Sec	4125	.00	-22.64	.04	.02
20	1.78 Sec	3037	.00	41.83	.04	.03
21	2.67 Sec	1944	.00	52.36	.02	.03
22	3.56 Sec	1116	.01	-146.99	.04	.06
23	5.33 Sec	807	.01	-68.85	.09	.09
24	7.11 Sec	360	.00	-84.82	.04	.06
25	10.67 Sec	569	.00	52.11	.10	.10
26	14.22 Sec	593	.00	81.89	.14	.14
27	21.33 Sec	256	.00	46.64	.08	.08
28	28.44 Sec	268	.00	15.02	.18	.18
29	42.67 Sec	231	.00	-160.72	.18	.17
30	56.89 Sec	213	.00	91.75	.14	.14
31	85.33 Sec	84	.01	-39.36	.20	.21
32	113.78 Sec	138	.00	-113.36	.09	.11
33	170.67 Sec	60	.01	133.23	.56	.56
34	227.56 Sec	66	.00	-122.35	.18	.19
35	341.33 Sec	33	.06	36.85	.71	.36
36	455.11 Sec	33	.03	16.78	.43	.28
37	682.67 Sec	6	.06	21.50	.98	.97
38	910.22 Sec	9	.02	31.50	.69	.70

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E







PHOENIX GEOSCIENCE

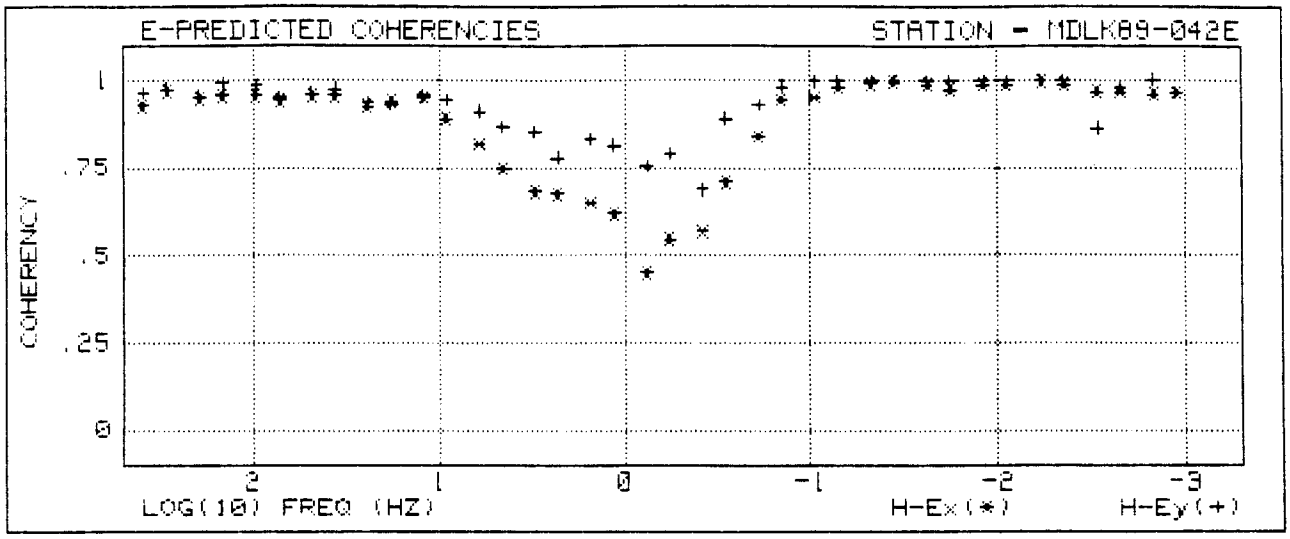
MT Site: MDLK89-042E

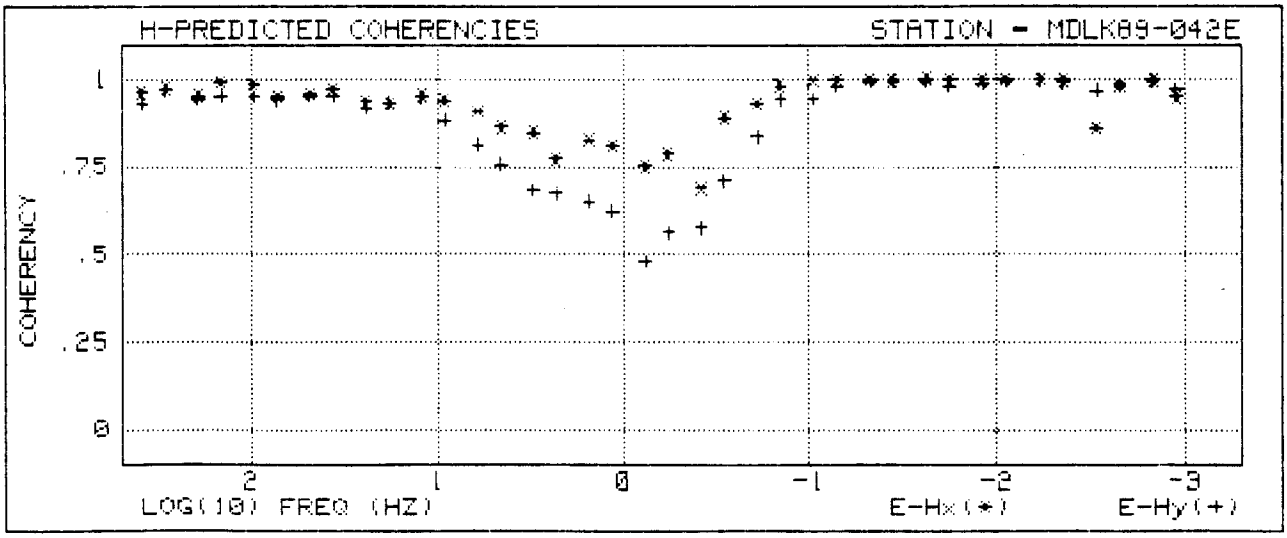
SKEW, ELLIPTICITY AND STRIKE

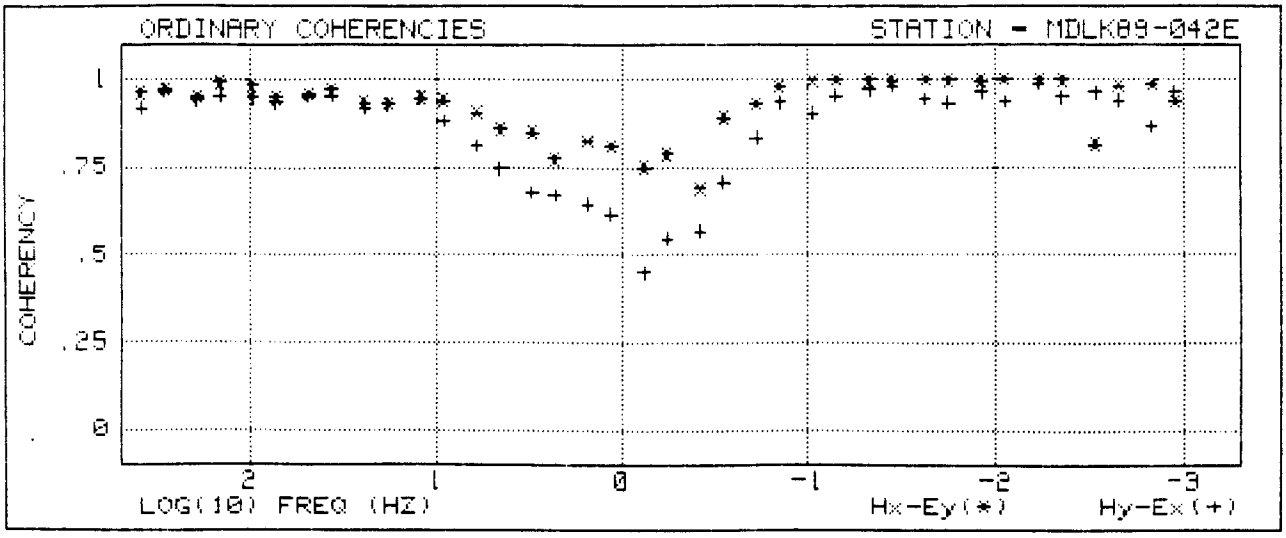
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	435	.13	.30	97.90	.20	4.14	-97.71
2	288.00 Hz	435	.05	.56	94.64	.84	1.79	88.19
3	192.00 Hz	556	.07	.05	71.84	.85	.57	-120.72
4	144.00 Hz	746	.03	.31	60.66	.73	1.02	129.89
5	96.00 Hz	759	.06	.23	53.84	.33	.18	43.60
6	72.00 Hz	94	.04	.29	51.79	.34	.20	119.25
7	48.00 Hz	757	.02	.03	70.03	.21	.11	81.63
8	36.00 Hz	763	.02	.29	56.46	.34	.20	51.84
9	24.00 Hz	562	.03	.05	66.56	.91	.84	112.35
10	18.00 Hz	562	.03	.10	64.63	.11	.68	30.32
11	12.00 Hz	469	.01	.22	64.06	.58	.32	-142.53
12	9.00 Hz	757	.05	.05	63.23	.22	.17	70.31
13	6.00 Hz	669	.04	.06	71.76	.17	1.71	140.28
14	4.50 Hz	667	.04	.28	69.63	.16	.53	42.11
15	3.00 Hz	14604	.04	.16	71.93	.59	2.65	111.84
16	2.25 Hz	16076	.04	.08	71.36	.26	2.56	112.89
17	1.50 Hz	8322	.04	.20	73.93	.48	1.11	166.17
18	1.13 Hz	8277	.03	.20	76.40	.53	.79	86.36
19	1.33 Sec	4125	.04	.37	81.55	.76	.75	88.83
20	1.78 Sec	3037	.05	.10	86.85	.20	.29	71.68
21	2.67 Sec	1944	.06	.00	91.44	.59	.41	77.81
22	3.56 Sec	1116	.05	.13	91.65	.88	.91	-133.12
23	5.33 Sec	807	.05	.31	88.96	.03	1.09	-161.87
24	7.11 Sec	360	.06	.43	81.71	.64	2.62	167.35
25	10.67 Sec	569	.05	.41	72.24	.63	.41	60.28
26	14.22 Sec	593	.04	.40	71.52	.35	1.52	12.92
27	21.33 Sec	256	.08	.29	68.94	.44	.57	102.06
28	28.44 Sec	268	.08	.27	67.72	.65	.63	35.02
29	42.67 Sec	231	.10	.11	64.60	.14	10.38	158.48
30	56.89 Sec	213	.12	.06	65.34	.55	2.28	16.03
31	85.33 Sec	84	.12	.00	67.06	.47	2.61	71.84
32	113.78 Sec	138	.15	.11	69.99	.08	23.52	159.41
33	170.67 Sec	60	.10	.20	73.76	.72	2.28	99.32
34	227.56 Sec	66	.17	.16	68.12	.32	.83	-151.45
35	341.33 Sec	33	.26	.38	86.32	.94	.71	164.62
36	455.11 Sec	33	.11	.33	72.48	.11	3.01	-35.64
37	682.67 Sec	6	.55	.42	77.79	.57	1.62	-38.33
38	910.22 Sec	9	.13	.24	88.67	.83	1.42	31.01

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E







PHOENIX GEOSCIENCE

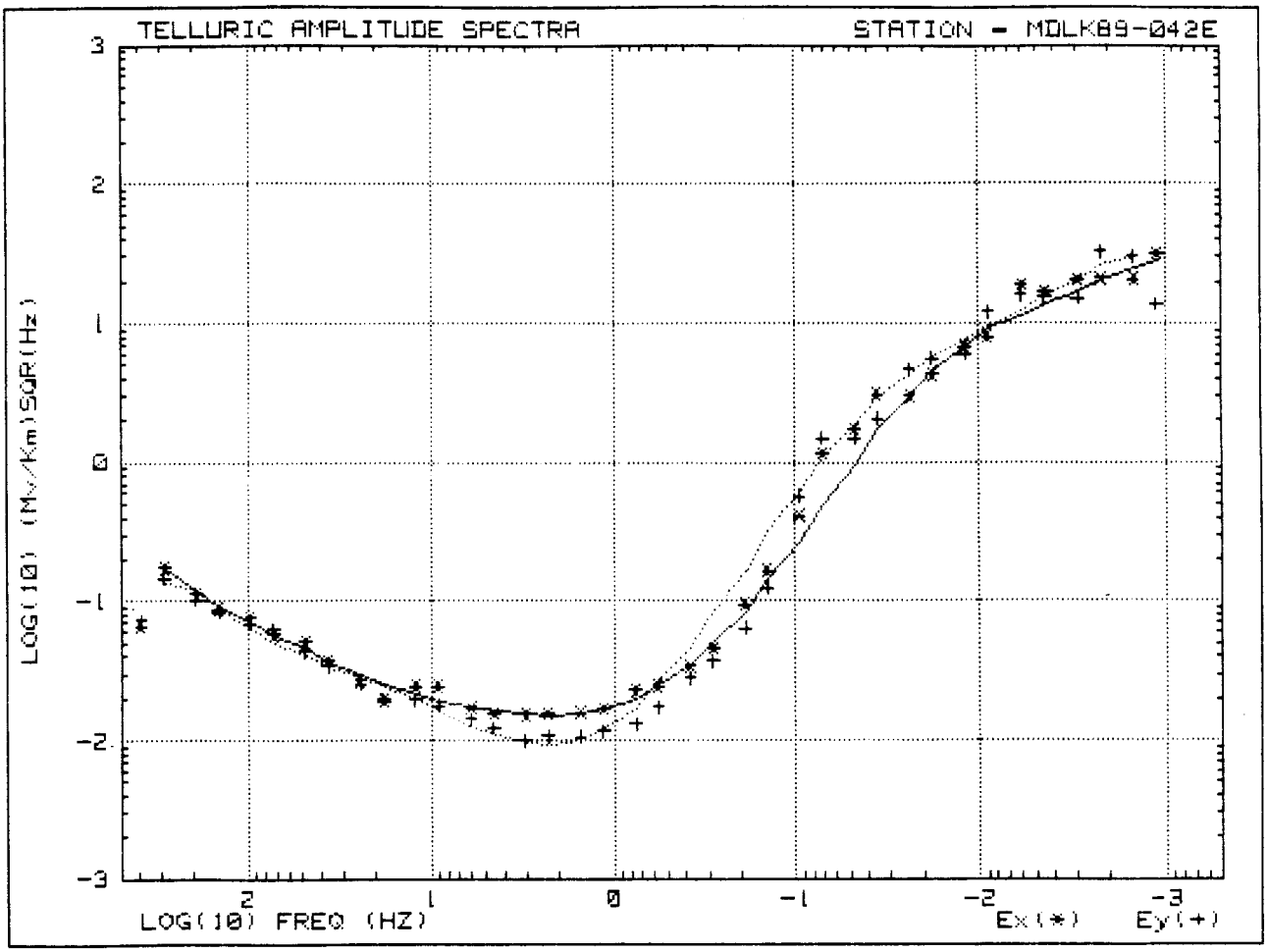
MT Site: MDLK89-042E

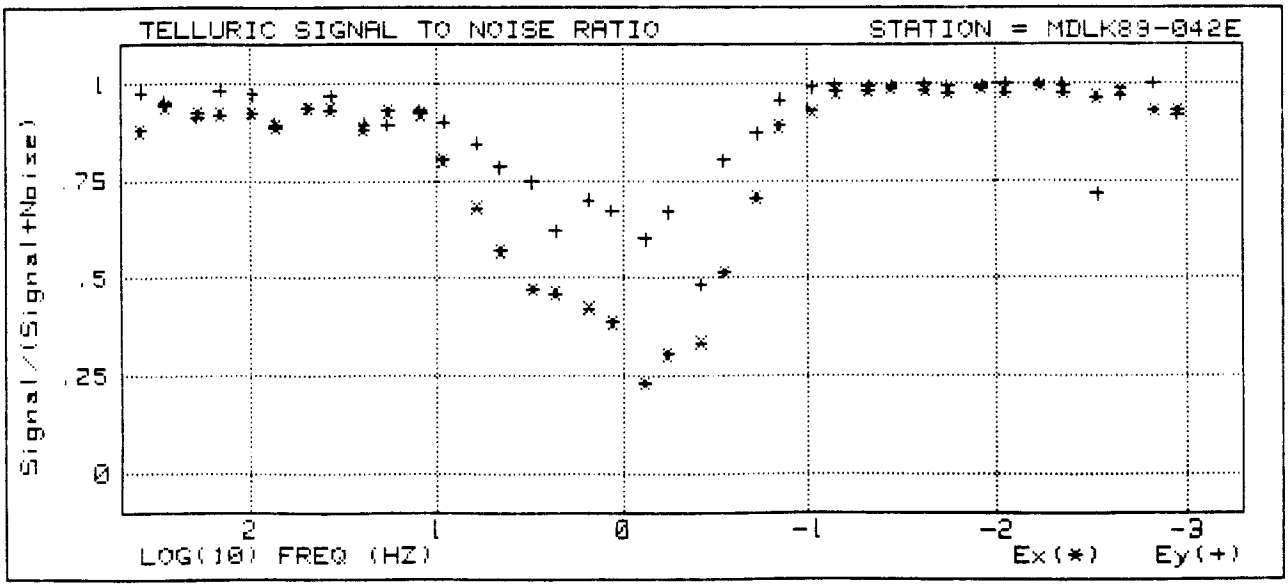
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	435	.92	.96	.96	.93	.96	.91
2	288.00 Hz	435	.97	.97	.97	.97	.97	.96
3	192.00 Hz	556	.94	.95	.95	.94	.95	.94
4	144.00 Hz	746	.95	.99	.99	.95	.99	.95
5	96.00 Hz	759	.95	.98	.98	.95	.98	.94
6	72.00 Hz	94	.94	.95	.95	.94	.95	.93
7	48.00 Hz	757	.95	.96	.95	.95	.95	.95
8	36.00 Hz	763	.95	.97	.97	.95	.97	.95
9	24.00 Hz	562	.92	.93	.93	.91	.93	.91
10	18.00 Hz	562	.93	.93	.93	.93	.93	.92
11	12.00 Hz	469	.95	.95	.95	.94	.94	.94
12	9.00 Hz	757	.89	.94	.94	.88	.94	.88
13	6.00 Hz	669	.81	.91	.91	.81	.90	.81
14	4.50 Hz	667	.74	.86	.86	.75	.85	.74
15	3.00 Hz	14604	.68	.85	.84	.68	.84	.67
16	2.25 Hz	16076	.67	.77	.77	.67	.77	.67
17	1.50 Hz	8322	.64	.83	.82	.65	.82	.64
18	1.13 Hz	8277	.61	.81	.81	.62	.81	.61
19	1.33 Sec	4125	.45	.75	.75	.48	.75	.45
20	1.78 Sec	3037	.54	.79	.78	.56	.78	.54
21	2.67 Sec	1944	.57	.69	.69	.57	.68	.56
22	3.56 Sec	1116	.71	.89	.89	.71	.89	.70
23	5.33 Sec	807	.84	.93	.93	.83	.93	.83
24	7.11 Sec	360	.94	.98	.98	.94	.98	.93
25	10.67 Sec	569	.95	.99	.99	.94	.99	.90
26	14.22 Sec	593	.98	1.00	1.00	.98	1.00	.95
27	21.33 Sec	256	.99	1.00	1.00	.99	.99	.97
28	28.44 Sec	268	.99	1.00	1.00	.99	.99	.98
29	42.67 Sec	231	.98	1.00	1.00	.99	1.00	.94
30	56.89 Sec	213	.97	.99	.99	.98	.99	.93
31	85.33 Sec	84	.99	.99	.99	.98	.99	.96
32	113.78 Sec	138	.98	1.00	1.00	.99	1.00	.93
33	170.67 Sec	60	.99	1.00	1.00	.99	1.00	.98
34	227.56 Sec	66	.98	1.00	1.00	.99	.99	.94
35	341.33 Sec	33	.96	.86	.86	.96	.81	.96
36	455.11 Sec	33	.96	.98	.98	.98	.98	.94
37	682.67 Sec	6	.96	1.00	.99	.99	.98	.86
38	910.22 Sec	9	.96	.96	.94	.97	.93	.96

PHOENIX GEOSCIENCE

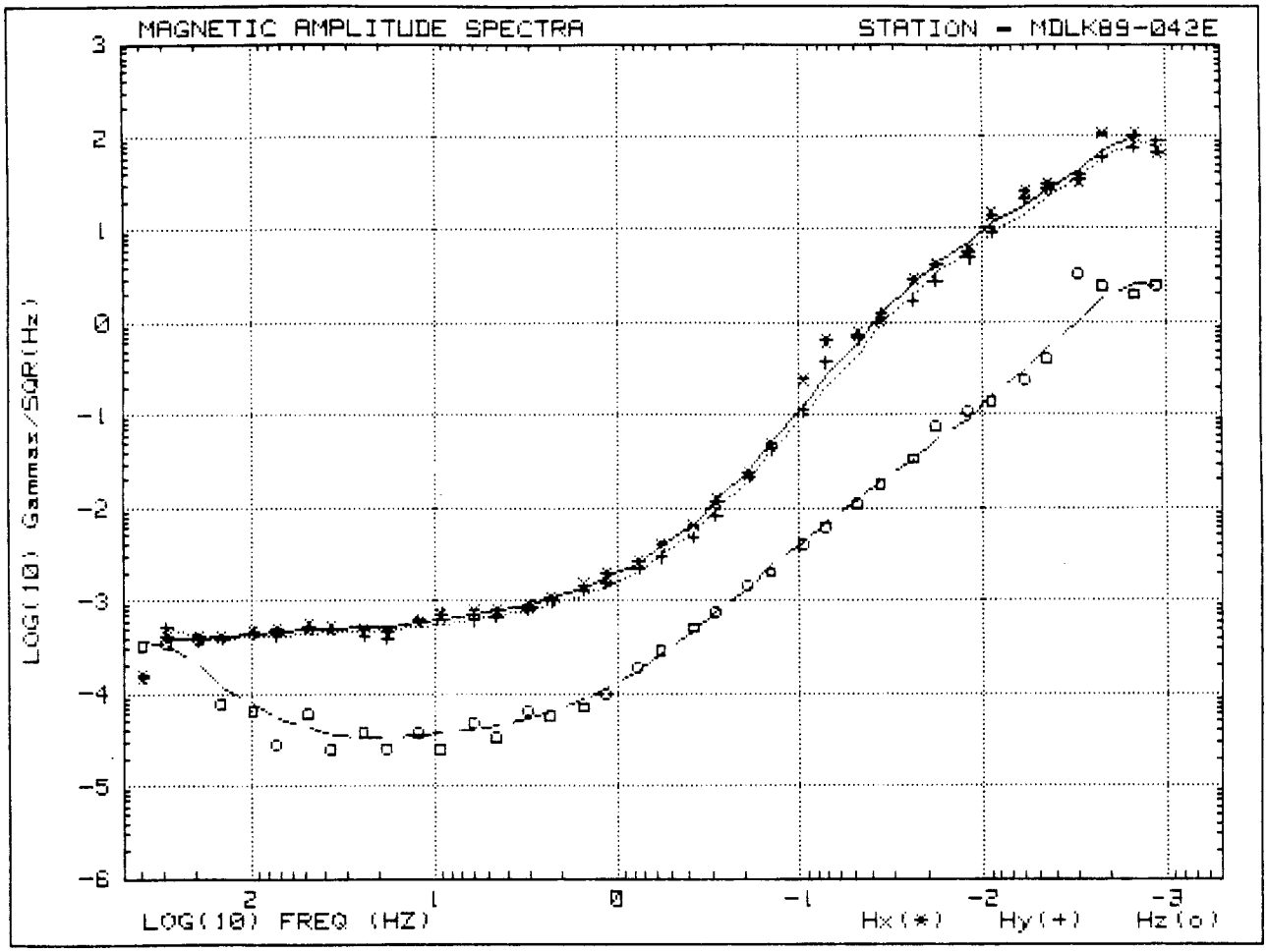
MT Site: MDLK89-042E

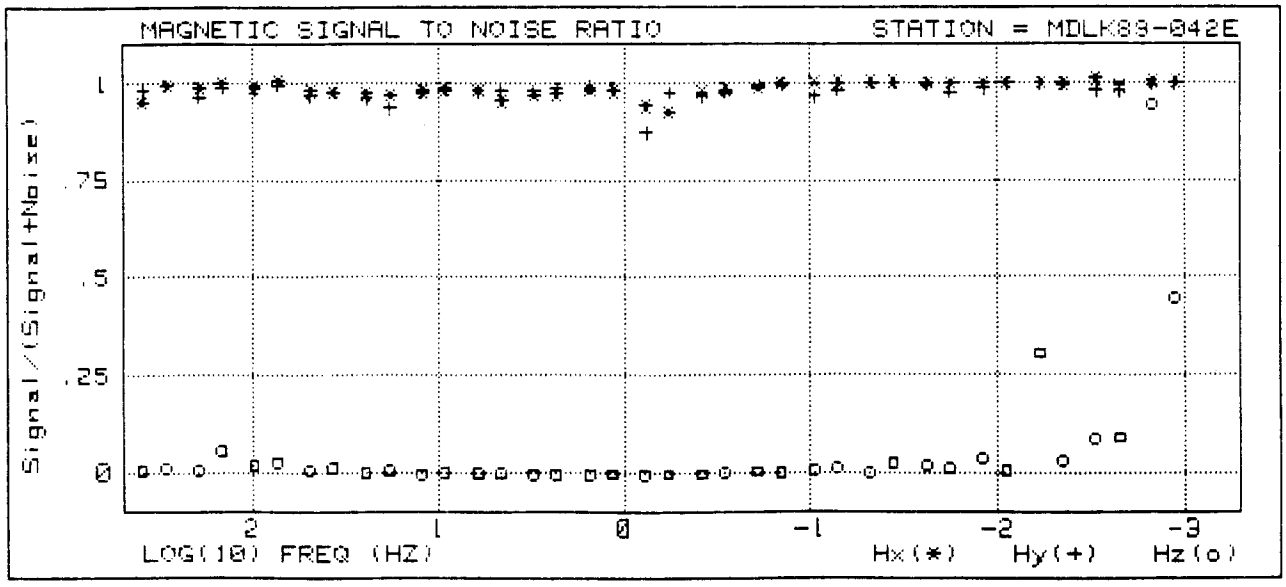




PHOENIX GEOSCIENCE

MT Site: MDLK89-042E





PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	435	1.52E-04	1.48E-04	3.51E-04	6.53E-02	7.24E-02
2	288.00 Hz	435	4.03E-04	5.13E-04	3.66E-04	1.73E-01	1.44E-01
3	192.00 Hz	556	3.97E-04	3.74E-04	4.17E-04	1.11E-01	1.01E-01
4	144.00 Hz	746	4.07E-04	3.84E-04	8.21E-05	8.58E-02	8.34E-02
5	96.00 Hz	759	4.60E-04	4.50E-04	6.69E-05	7.45E-02	6.67E-02
6	72.00 Hz	94	4.87E-04	4.21E-04	2.99E-05	5.63E-02	6.18E-02
7	48.00 Hz	757	5.26E-04	5.19E-04	6.29E-05	5.01E-02	4.26E-02
8	36.00 Hz	763	4.98E-04	4.92E-04	2.67E-05	3.69E-02	3.36E-02
9	24.00 Hz	562	4.78E-04	4.17E-04	4.03E-05	2.66E-02	2.46E-02
10	18.00 Hz	562	4.54E-04	3.84E-04	2.68E-05	1.90E-02	1.95E-02
11	12.00 Hz	469	5.88E-04	6.21E-04	3.88E-05	2.41E-02	1.91E-02
12	9.00 Hz	757	6.80E-04	7.08E-04	2.66E-05	2.41E-02	1.76E-02
13	6.00 Hz	669	7.63E-04	6.04E-04	4.98E-05	1.68E-02	1.40E-02
14	4.50 Hz	667	7.81E-04	6.59E-04	3.46E-05	1.53E-02	1.21E-02
15	3.00 Hz	14604	8.55E-04	7.82E-04	6.76E-05	1.50E-02	9.74E-03
16	2.25 Hz	16076	1.06E-03	9.85E-04	5.91E-05	1.52E-02	1.06E-02
17	1.50 Hz	8322	1.46E-03	1.27E-03	7.47E-05	1.56E-02	1.04E-02
18	1.13 Hz	8277	1.89E-03	1.56E-03	1.03E-04	1.66E-02	1.14E-02
19	1.33 Sec	4125	2.62E-03	2.21E-03	1.97E-04	2.25E-02	1.29E-02
20	1.78 Sec	3037	3.99E-03	2.88E-03	3.04E-04	2.40E-02	1.69E-02
21	2.67 Sec	1944	6.41E-03	4.76E-03	5.38E-04	3.37E-02	2.75E-02
22	3.56 Sec	1116	1.19E-02	8.35E-03	7.91E-04	4.48E-02	3.65E-02
23	5.33 Sec	807	2.34E-02	2.15E-02	1.54E-03	9.30E-02	6.23E-02
24	7.11 Sec	360	4.82E-02	4.27E-02	2.13E-03	1.63E-01	1.23E-01
25	10.67 Sec	569	2.40E-01	1.13E-01	4.30E-03	4.12E-01	5.66E-01
26	14.22 Sec	593	6.32E-01	3.67E-01	6.60E-03	1.14E+00	1.47E+00
27	21.33 Sec	256	7.32E-01	6.65E-01	1.17E-02	1.71E+00	1.47E+00
28	28.44 Sec	268	1.09E+00	1.22E+00	1.91E-02	3.00E+00	2.01E+00
29	42.67 Sec	231	2.88E+00	1.72E+00	3.54E-02	2.93E+00	4.55E+00
30	56.89 Sec	213	4.08E+00	2.73E+00	7.76E-02	4.21E+00	5.48E+00
31	85.33 Sec	84	5.67E+00	4.78E+00	1.15E-01	6.73E+00	5.84E+00
32	113.78 Sec	138	1.39E+01	8.90E+00	1.42E-01	7.79E+00	1.19E+01
33	170.67 Sec	60	2.45E+01	2.12E+01	2.49E-01	1.85E+01	1.56E+01
34	227.56 Sec	66	2.91E+01	2.65E+01	4.17E-01	1.65E+01	1.51E+01
35	341.33 Sec	33	3.29E+01	3.70E+01	3.49E+00	2.01E+01	1.48E+01
36	455.11 Sec	33	1.04E+02	5.66E+01	2.51E+00	2.06E+01	3.23E+01
37	682.67 Sec	6	1.00E+02	7.41E+01	2.09E+00	2.05E+01	2.95E+01
38	910.22 Sec	9	6.54E+01	8.45E+01	2.63E+00	3.11E+01	1.35E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	435	.948	.977	.012	.875	.975
2	288.00 Hz	435	.991	.992	.018	.940	.950
3	192.00 Hz	556	.986	.960	.012	.921	.909
4	144.00 Hz	746	.997	.988	.062	.918	.978
5	96.00 Hz	759	.990	.983	.026	.921	.971
6	72.00 Hz	94	1.000	.994	.032	.887	.894
7	48.00 Hz	757	.977	.964	.012	.934	.936
8	36.00 Hz	763	.973	.972	.017	.931	.966
9	24.00 Hz	562	.971	.958	.002	.881	.893
10	18.00 Hz	562	.966	.934	.008	.927	.891
11	12.00 Hz	469	.978	.974	.001	.920	.927
12	9.00 Hz	757	.982	.982	.003	.800	.899
13	6.00 Hz	669	.978	.977	.002	.678	.842
14	4.50 Hz	667	.952	.980	.002	.567	.782
15	3.00 Hz	14604	.966	.978	.000	.470	.744
16	2.25 Hz	16076	.970	.984	.000	.459	.617
17	1.50 Hz	8322	.981	.986	.001	.421	.697
18	1.13 Hz	8277	.978	.981	.001	.385	.670
19	1.33 Sec	4125	.939	.869	.000	.230	.599
20	1.78 Sec	3037	.923	.973	.001	.303	.668
21	2.67 Sec	1944	.975	.963	.001	.332	.482
22	3.56 Sec	1116	.981	.975	.004	.512	.800
23	5.33 Sec	807	.985	.991	.007	.705	.871
24	7.11 Sec	360	.997	.993	.004	.889	.957
25	10.67 Sec	569	1.000	.964	.011	.927	.990
26	14.22 Sec	593	1.000	.979	.018	.976	.995
27	21.33 Sec	256	1.000	.997	.006	.979	.992
28	28.44 Sec	268	.999	.997	.031	.985	.991
29	42.67 Sec	231	.998	.994	.023	.980	.997
30	56.89 Sec	213	.997	.975	.019	.974	.991
31	85.33 Sec	84	.998	.983	.041	.986	.991
32	113.78 Sec	138	.997	.995	.012	.974	.997
33	170.67 Sec	60	.998	.997	.310	.991	.997
34	227.56 Sec	66	.996	.995	.036	.976	.994
35	341.33 Sec	33	1.000	.977	.093	.963	.713
36	455.11 Sec	33	.989	.977	.095	.982	.966
37	682.67 Sec	6	1.000	.992	.948	.928	.998
38	910.22 Sec	9	.999	.995	.453	.928	.916

PHOENIX GEOSCIENCE

MT Site: MDLK89-042E

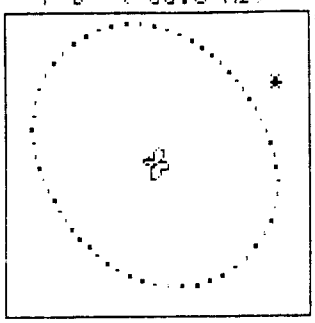
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

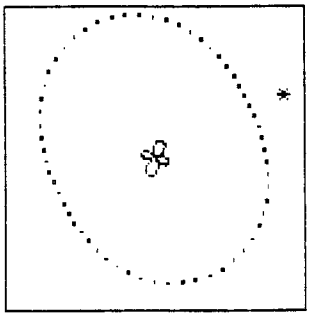
*=Rotation Direction

Zxy = ...
Zxx = ___

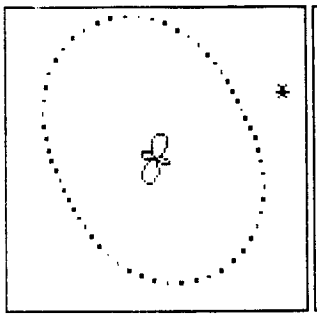
F=8 (36.0 Hz)



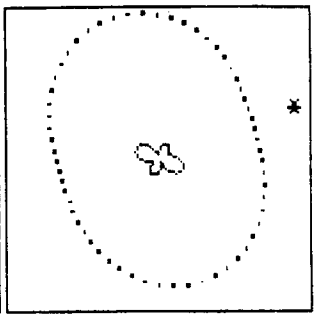
F=10 (18.0 Hz)



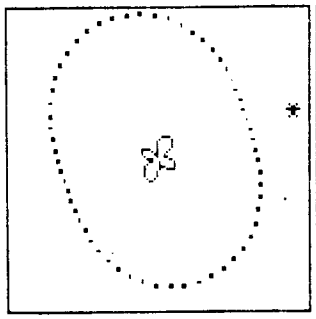
F=12 (9.0 Hz)



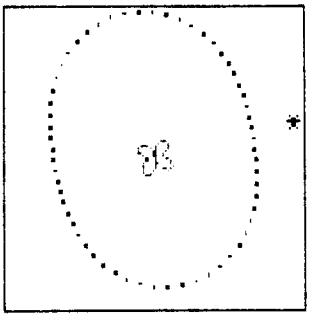
F=14 (4.5 Hz)



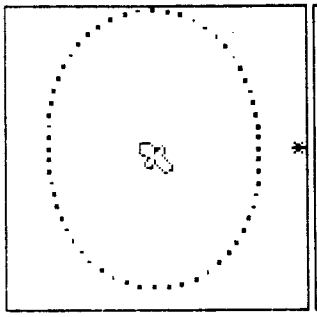
F=16 (2.3 Hz)



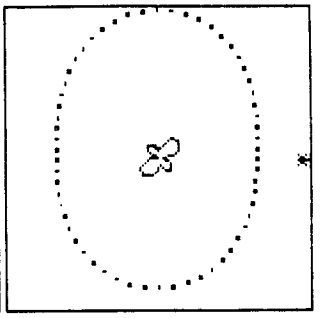
F=18 (1.1 Hz)



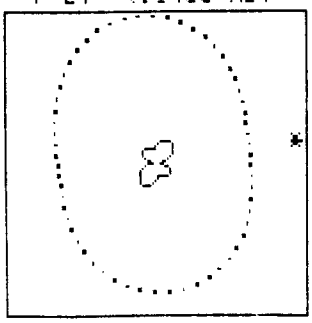
F=20 (.5625 Hz)



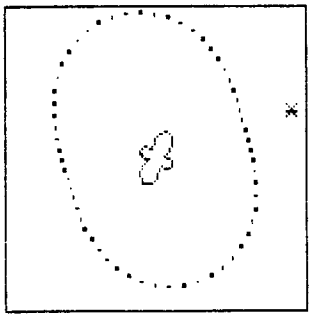
F=22 (.2813 Hz)



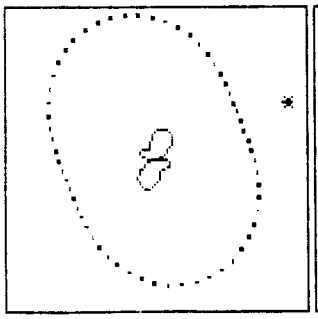
F=24 (.1406 Hz)



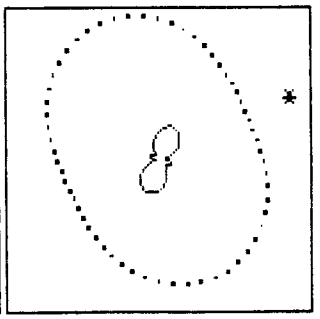
F=26 (.0703 Hz)



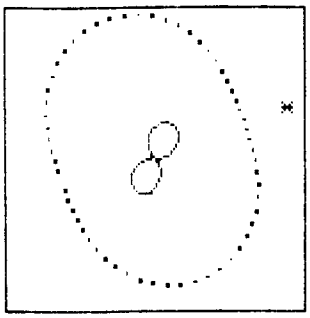
F=28 (.0352 Hz)



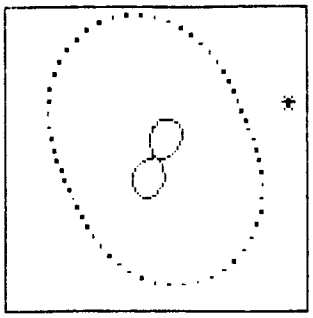
F=30 (.0176 Hz)



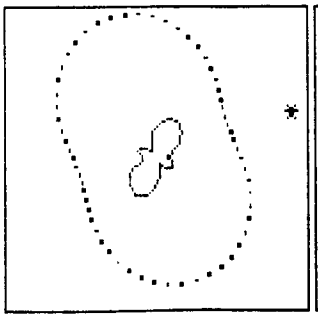
F=32 (.0088 Hz)



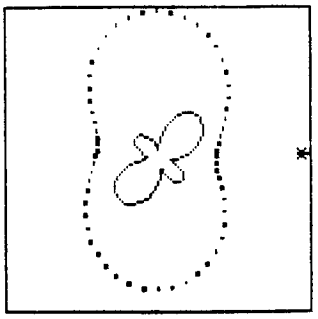
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-043s/044s/045s/

Operator:M. SNOW
Date: 13 Sep 1989
Time: 16:29:06

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#335-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#210-16Aug89-01
Sens-Ch02: C#432-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#205-05Sep89-01
Sens-Ch12: C#431-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 1

Stn Number:MDLK89-043s
Site Desc:T44N R3E SEC34 NE4
41,36,40 N 121,36,39 W
Elevation:7000 FT
Reference:MDLK89-044s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL210	+0 DEG
Hy	2	COIL432	+90 DEG
Hz	3	LOOP405	
Ex	4	128 M	+0 DEG
Ey	5	180 M	+90 DEG
Rx	6	COIL430	+0 DEG
Ry	7	COIL452	+90 DEG

Ex Pot Resist: 25.0K Ohms
Ex Voltage: AC=11.5 mv, DC=140.0 mv
Ey Pot Resist: 25.0K Ohms
Ey Voltage: AC=6.20 mv, DC=93.9 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

OPERATOR LOG FOR MT SITES MDLK89-043s/044s/045s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-043a/044a/045a/

Run STARTED:	16:29:06	13 Sep 1989
Run QUIT:	03:44:20	14 Sep 1989

Run Start and Stop Time for MDLK89-043b/044b/045b/

Run STARTED:	04:19:52	14 Sep 1989
Run QUIT:	14:16:00	14 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR
Other Factors:
NONE

PHOENIX GEOSCIENCE

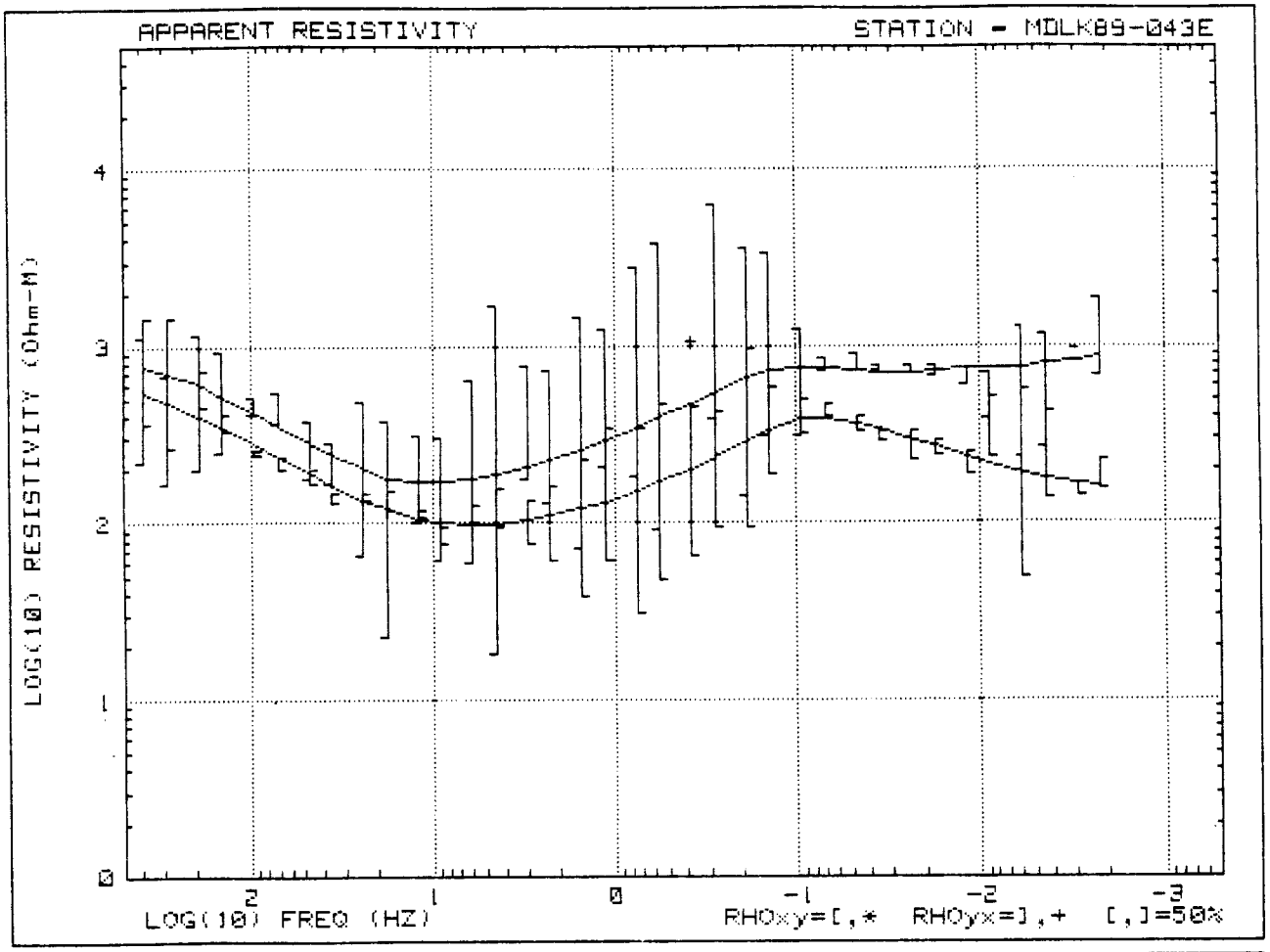
MT Site: MDLK89-043E

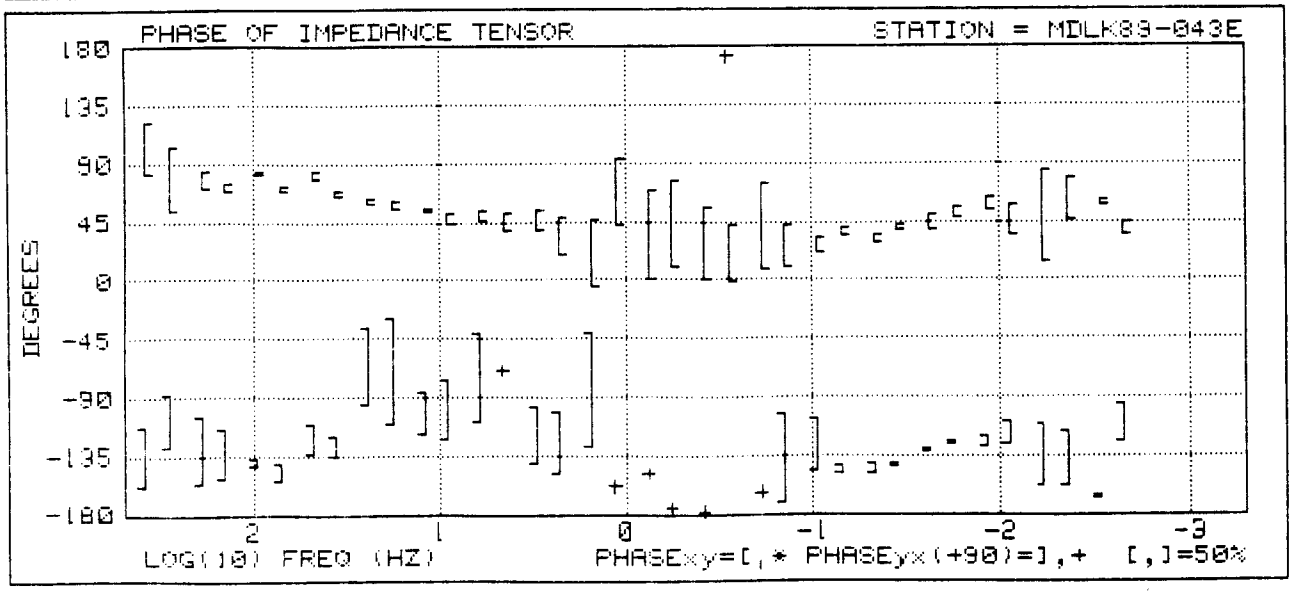
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

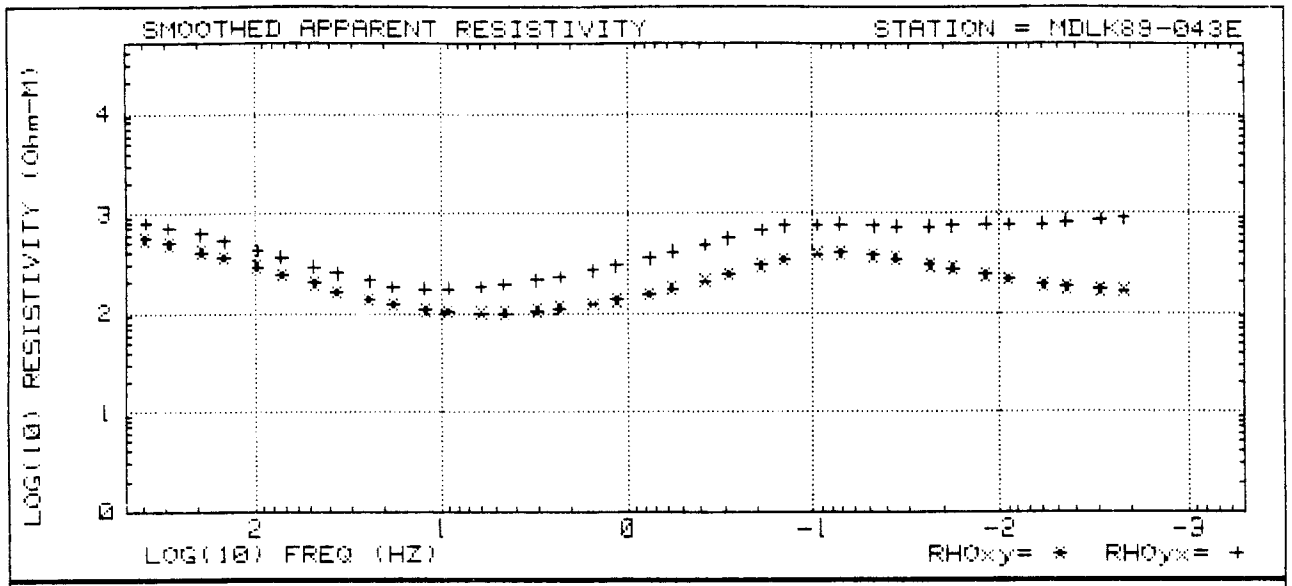
MT Site: MDLK89-043E

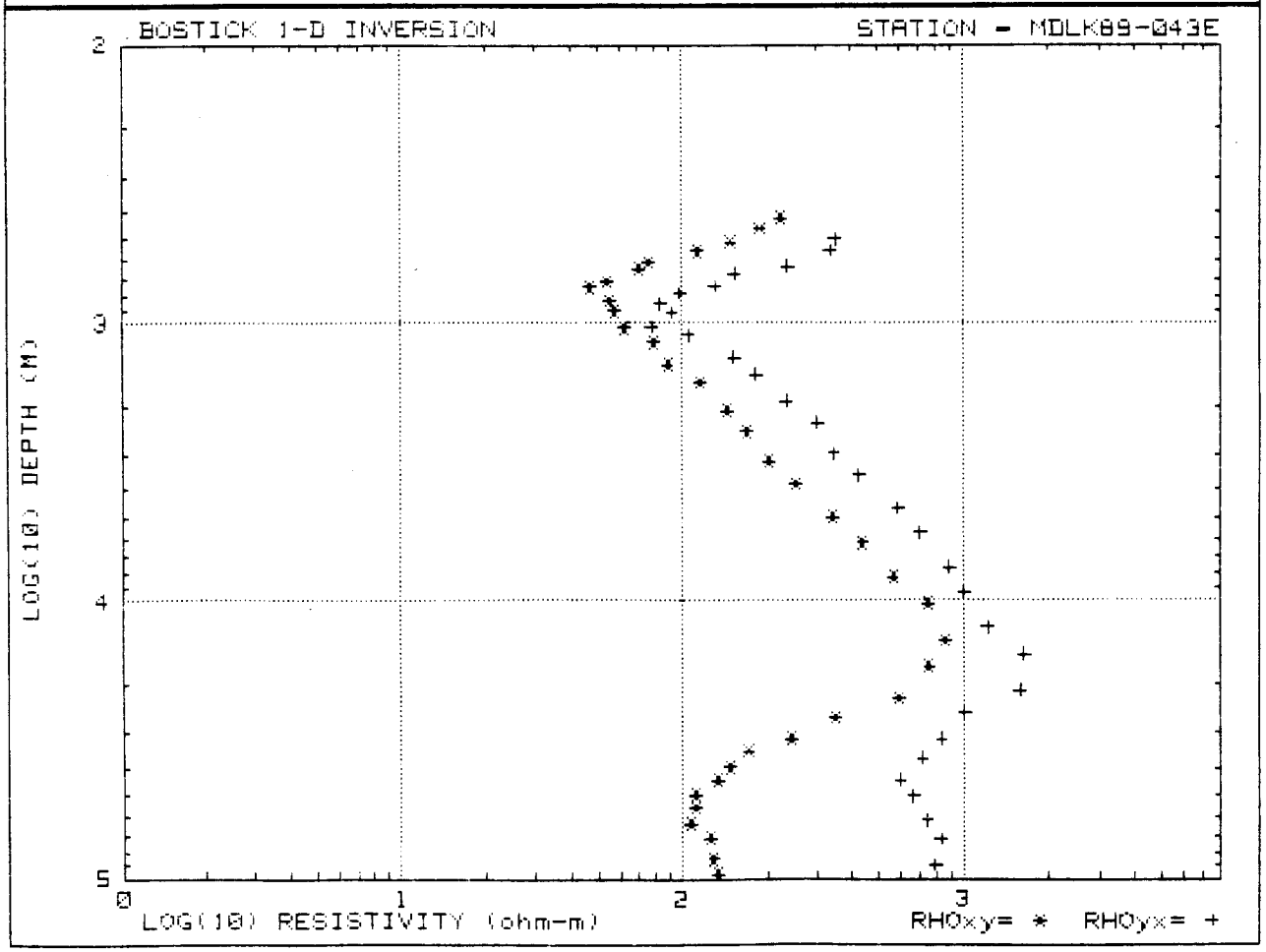




PHOENIX GEOSCIENCE

MT Site: MDLK89-043E





PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	355	730.6	99.9	500.2	99.9	102.0	29.6	-135.2	34.8
2	288.00 Hz	610	619.2	99.9	334.0	99.9	78.1	35.5	-108.1	30.0
3	192.00 Hz	550	573.5	39.3	479.2	99.9	77.5	9.5	-130.3	37.2
4	144.00 Hz	95	373.5	18.9	487.4	99.9	71.3	5.0	-133.1	28.2
5	96.00 Hz	636	250.8	5.8	460.3	19.7	82.4	1.6	-139.7	5.1
6	72.00 Hz	811	216.4	12.8	440.6	35.6	70.3	3.4	-147.4	8.7
7	48.00 Hz	542	181.1	15.4	258.8	78.4	80.3	4.1	-122.1	16.6
8	36.00 Hz	363	137.9	10.9	216.5	48.5	66.3	3.0	-126.7	11.3
9	24.00 Hz	190	139.8	7.4	179.9	99.9	61.6	2.0	-66.2	42.6
10	18.00 Hz	288	133.9	20.8	91.4	99.9	58.4	5.4	-70.0	60.4
11	12.00 Hz	960	113.1	6.1	177.2	99.9	54.8	1.7	-102.6	23.9
12	9.00 Hz	576	85.6	18.9	135.6	99.9	48.2	5.0	-99.8	34.0
13	6.00 Hz	670	113.7	16.9	194.2	99.9	49.9	4.5	-73.8	50.9
14	4.50 Hz	480	120.6	45.5	175.7	99.9	45.6	10.7	-69.8	96.5
15	3.00 Hz	8864	100.4	51.5	368.7	99.9	46.4	11.9	-118.7	31.6
16	2.25 Hz	6048	100.3	99.9	307.0	99.9	33.5	21.1	-125.0	36.1
17	1.50 Hz	1424	94.2	99.9	321.0	99.9	20.0	38.2	-84.2	64.0
18	1.13 Hz	4352	146.6	99.9	506.7	99.9	67.9	36.8	-159.3	37.8
19	1.33 Sec	5500	102.7	99.9	715.1	99.9	34.8	50.9	-148.9	58.0
20	1.78 Sec	2944	148.9	99.9	593.6	99.9	43.7	48.5	-176.3	79.8
21	2.67 Sec	756	173.0	99.9	1029.9	99.9	28.1	41.3	-178.5	99.9
22	3.56 Sec	1468	199.7	99.9	1542.1	99.9	20.5	32.0	171.4	59.6
23	5.33 Sec	437	304.1	99.9	712.5	99.9	41.7	49.7	-163.4	68.7
24	7.11 Sec	389	334.2	99.9	1022.5	99.9	26.3	23.8	-136.6	50.5
25	10.67 Sec	288	403.2	39.5	616.3	99.9	27.3	9.5	-126.3	29.4
26	14.22 Sec	162	431.6	11.1	782.7	11.8	37.7	3.0	-145.4	3.2
27	21.33 Sec	84	364.6	14.4	807.0	19.9	32.4	3.9	-144.3	5.2
28	28.44 Sec	124	310.3	8.7	746.7	5.9	40.3	2.4	-141.2	1.7
29	42.67 Sec	120	275.3	32.0	736.4	7.1	44.8	7.9	-130.6	2.0
30	56.89 Sec	18	266.5	17.2	723.0	9.0	51.7	4.5	-125.0	2.5
31	85.33 Sec	18	215.4	24.1	668.2	19.5	58.5	6.2	-123.5	5.1
32	113.78 Sec	69	350.2	79.4	522.0	54.9	46.5	16.8	-116.6	12.5
33	170.67 Sec	12	168.0	99.9	550.2	99.9	48.8	51.8	-134.1	36.1
34	227.56 Sec	27	243.8	99.9	557.0	99.9	62.3	23.8	-136.3	31.3
35	341.33 Sec	3	152.3	12.2	956.8	1.4	58.9	3.3	-166.1	.4
36	455.11 Sec	3	189.0	30.4	1125.0	99.9	40.1	7.6	-109.2	22.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	355	550.5	776.0	227.2	426	352.4	506
2	288.00 Hz	610	488.4	696.6	190.9	463	339.5	553
3	192.00 Hz	550	406.3	611.1	150.0	518	239.6	635
4	144.00 Hz	95	354.9	514.6	114.3	559	155.5	673
5	96.00 Hz	636	284.8	421.5	76.3	613	132.5	746
6	72.00 Hz	811	237.8	358.5	71.1	647	99.3	794
7	48.00 Hz	542	195.9	284.7	54.4	719	84.3	867
8	36.00 Hz	363	160.7	246.0	47.3	752	92.7	930
9	24.00 Hz	190	134.2	208.0	55.5	842	78.1	1048
10	18.00 Hz	288	120.5	179.6	58.0	921	105.6	1124
11	12.00 Hz	960	105.3	173.8	62.5	1054	153.5	1354
12	9.00 Hz	576	101.0	172.1	80.3	1192	185.0	1556
13	6.00 Hz	670	97.3	178.2	89.3	1433	236.1	1939
14	4.50 Hz	480	98.0	189.6	117.4	1661	305.5	2310
15	3.00 Hz	8864	103.5	209.6	145.2	2090	347.9	2975
16	2.25 Hz	6048	110.1	225.2	171.7	2490	428.9	3560
17	1.50 Hz	1424	120.4	260.1	204.0	3189	589.6	4686
18	1.13 Hz	4352	131.6	294.6	256.7	3850	708.9	5759
19	1.33 Sec	5500	150.6	346.3	342.7	5043	900.7	7647
20	1.78 Sec	2944	172.4	401.0	442.2	6231	1014.2	9502
21	2.67 Sec	756	204.1	467.6	564.9	8303	1222.8	12566
22	3.56 Sec	1468	238.7	546.5	753.0	10368	1647.6	15688
23	5.33 Sec	437	292.4	662.1	863.1	14054	1590.6	21147
24	7.11 Sec	389	336.2	727.3	760.4	17400	1019.0	25593
25	10.67 Sec	288	382.3	743.3	596.4	22727	842.6	31689
26	14.22 Sec	162	391.2	759.5	349.9	26546	718.4	36988
27	21.33 Sec	84	367.8	729.2	244.9	31525	599.8	44386
28	28.44 Sec	124	340.4	710.0	172.7	35019	666.6	50574
29	42.67 Sec	120	293.3	713.4	149.2	39809	747.5	62089
30	56.89 Sec	18	271.6	721.6	134.8	44240	834.4	72103
31	85.33 Sec	18	232.2	750.2	112.7	50096	799.2	90044
32	113.78 Sec	69	213.7	737.5	112.7	55488	757.2	103092
33	170.67 Sec	12	187.4	757.1	107.6	63641	927.5	127922
34	227.56 Sec	27	177.1	791.1	126.7	71448	1023.2	150996
35	341.33 Sec	3	167.0	827.2	129.9	84970	1063.7	189109
36	455.11 Sec	3	162.4	862.7	133.9	96765	1157.7	222999

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	355	-410.61	840.25	999.99	-246.88	999.99	999.99
2	288.00 Hz	610	-71.47	210.78	999.99	194.16	924.13	999.99
3	192.00 Hz	550	-198.18	64.16	999.99	160.38	724.47	999.99
4	144.00 Hz	95	-54.66	55.22	999.99	166.15	491.26	999.99
5	96.00 Hz	636	-136.08	73.50	999.99	46.03	343.88	193.81
6	72.00 Hz	811	-88.81	75.44	999.99	94.16	262.75	562.92
7	48.00 Hz	542	-46.41	20.32	999.99	35.17	205.52	447.27
8	36.00 Hz	363	-24.06	22.97	999.99	63.36	144.22	132.19
9	24.00 Hz	190	-4.67	13.62	155.46	61.55	113.96	42.63
10	18.00 Hz	288	11.72	14.45	946.23	57.48	93.55	214.89
11	12.00 Hz	960	-2.22	2.78	21.99	47.52	67.30	11.83
12	9.00 Hz	576	6.97	-3.84	184.96	41.40	46.23	57.85
13	6.00 Hz	670	-8.09	4.90	96.95	37.63	44.67	41.61
14	4.50 Hz	480	-8.11	4.79	463.49	36.45	37.20	190.55
15	3.00 Hz	8864	.45	-7.01	115.67	26.75	28.12	129.91
16	2.25 Hz	6048	2.56	6.38	242.68	28.02	18.54	305.01
17	1.50 Hz	1424	13.01	-12.21	999.99	24.98	9.09	626.96
18	1.13 Hz	4352	-18.45	1.04	999.99	10.81	26.61	681.01
19	1.33 Sec	5500	-8.980	-5.156	99.999	16.111	11.210	99.999
20	1.78 Sec	2944	-9.765	6.989	99.999	14.786	14.149	99.999
21	2.67 Sec	756	-1.399	-.602	99.999	15.886	8.486	99.999
22	3.56 Sec	1468	-3.590	4.317	99.999	15.694	5.879	99.999
23	5.33 Sec	437	2.356	-.306	99.999	12.604	11.236	99.999
24	7.11 Sec	389	-3.011	-3.652	61.047	13.743	6.791	81.300
25	10.67 Sec	288	-2.000	-2.505	17.080	12.215	6.307	10.470
26	14.22 Sec	162	-.853	-.193	.301	9.740	7.541	.848
27	21.33 Sec	84	1.217	-.518	1.520	7.809	4.947	.776
28	28.44 Sec	124	1.021	.270	.220	5.631	4.779	.188
29	42.67 Sec	120	.894	.427	.834	4.029	4.003	1.240
30	56.89 Sec	18	.462	.307	.331	2.996	3.800	.294
31	85.33 Sec	18	.636	.719	.765	1.857	3.029	.295
32	113.78 Sec	69	.549	.248	1.354	2.700	2.846	2.630
33	170.67 Sec	12	1.177	-.120	9.702	1.462	1.669	8.036
34	227.56 Sec	27	.189	.169	1.967	1.074	2.050	1.856
35	341.33 Sec	3	.651	-.082	.029	.771	1.279	.015
36	455.11 Sec	3	.315	-.093	.124	1.102	.928	.073

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	355	-695.92	-689.93	999.99	-530.61	598.76	999.99
2	288.00 Hz	610	-215.43	-659.25	999.99	-11.65	215.58	999.99
3	192.00 Hz	550	-438.84	-517.20	999.99	-57.46	253.22	999.99
4	144.00 Hz	95	-404.42	-432.83	999.99	-29.66	157.16	999.99
5	96.00 Hz	636	-358.33	-304.19	999.99	-138.34	55.73	670.77
6	72.00 Hz	811	-335.38	-214.81	999.99	-98.45	26.93	999.99
7	48.00 Hz	542	-132.50	-211.09	999.99	-46.50	21.91	999.99
8	36.00 Hz	363	-118.01	-158.27	999.99	-21.05	11.28	365.16
9	24.00 Hz	190	59.25	-134.44	999.99	1.70	51.21	999.99
10	18.00 Hz	288	31.01	-85.21	999.99	9.67	36.23	999.99
11	12.00 Hz	960	-22.48	-100.64	999.99	-9.69	-2.82	999.99
12	9.00 Hz	576	-13.34	-76.95	999.99	-9.45	-18.84	999.99
13	6.00 Hz	670	21.27	-73.30	999.99	-8.76	3.52	999.99
14	4.50 Hz	480	21.72	-59.00	999.99	-15.25	-14.27	999.99
15	3.00 Hz	8864	-35.77	-65.20	999.99	-20.39	-1.95	999.99
16	2.25 Hz	6048	-33.68	-48.17	999.99	.24	6.83	999.99
17	1.50 Hz	1424	4.99	-48.81	999.99	.22	-21.85	999.99
18	1.13 Hz	4352	-49.93	-18.90	999.99	-15.55	15.77	999.99
19	1.33 Sec	5500	-44.363	-26.712	99.999	-8.664	-5.733	99.999
20	1.78 Sec	2944	-40.774	-2.665	99.999	-10.193	6.019	99.999
21	2.67 Sec	756	-43.929	-1.168	99.999	-1.290	-.184	99.999
22	3.56 Sec	1468	-46.044	6.968	99.999	-11.395	-14.123	99.999
23	5.33 Sec	437	-24.769	-7.378	99.999	.308	-6.766	99.999
24	7.11 Sec	389	-19.473	-18.433	99.999	-2.804	-3.754	99.999
25	10.67 Sec	288	-10.056	-13.702	99.999	3.409	-.925	93.212
26	14.22 Sec	162	-13.657	-9.416	1.721	.389	-2.788	4.848
27	21.33 Sec	84	-11.171	-8.021	3.126	.845	-.111	1.596
28	28.44 Sec	124	-8.932	-7.174	.218	1.098	.165	.186
29	42.67 Sec	120	-6.050	-7.049	.201	.500	.688	.299
30	56.89 Sec	18	-4.567	-6.534	.234	.770	.129	.208
31	85.33 Sec	18	-3.451	-5.219	.618	.741	.643	.238
32	113.78 Sec	69	-2.148	-4.281	2.195	.163	.099	4.264
33	170.67 Sec	12	-2.793	-2.885	12.822	.355	.781	10.620
34	227.56 Sec	27	-2.530	-2.417	7.283	-.005	.940	6.872
35	341.33 Sec	3	-3.634	-.900	.001	.719	.425	.001
36	455.11 Sec	3	-1.158	-3.319	3.635	-.308	-.078	2.153

PHOENIX GEOSCIENCE

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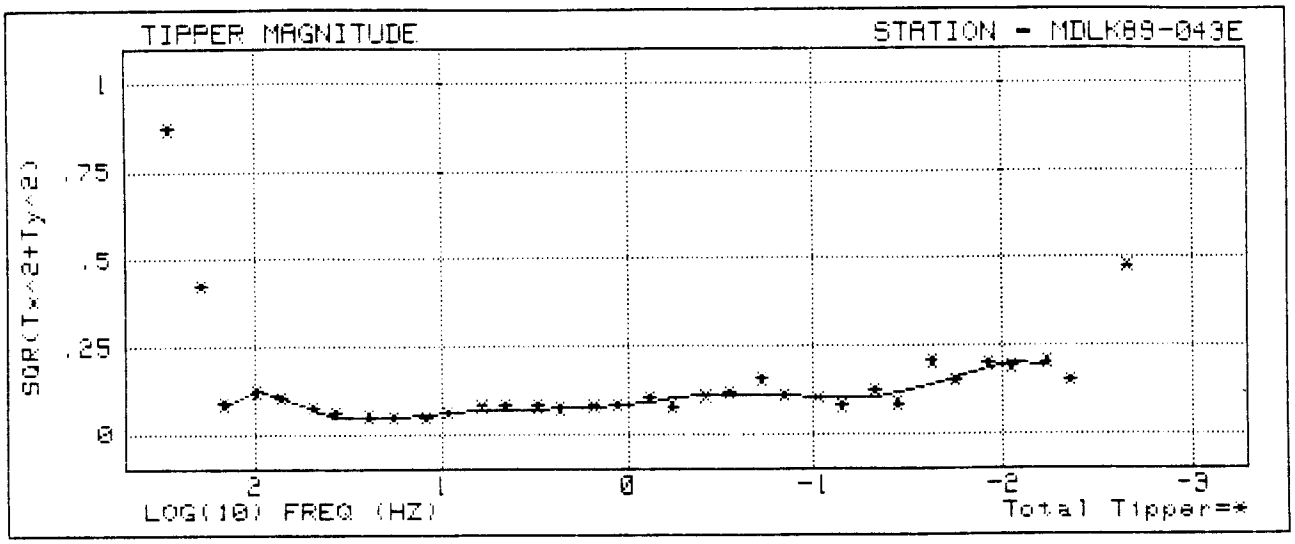
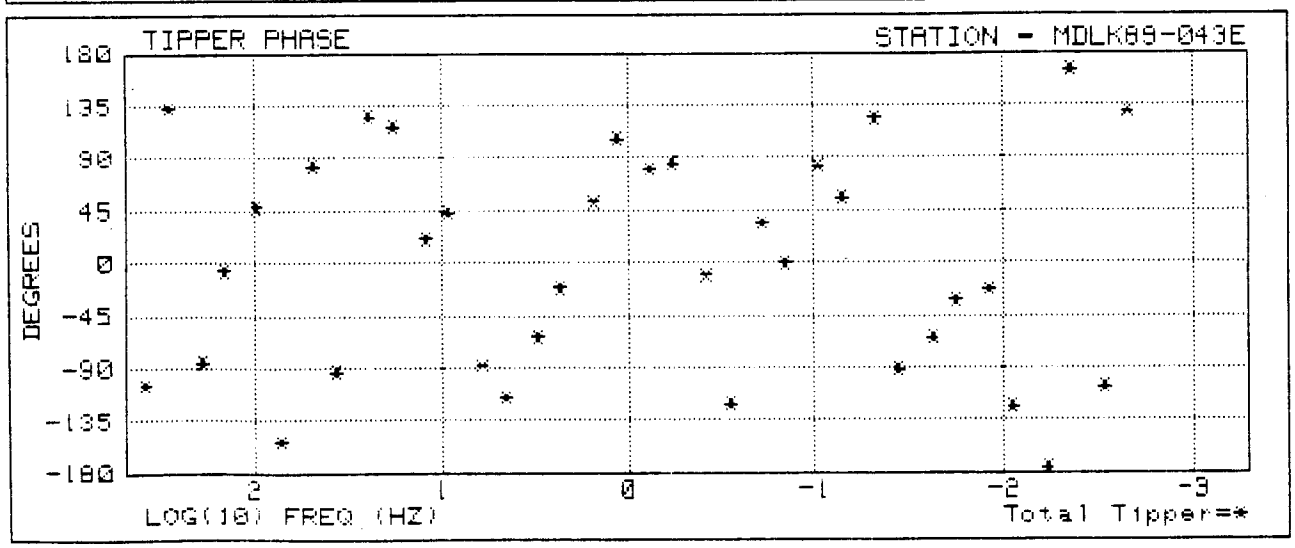
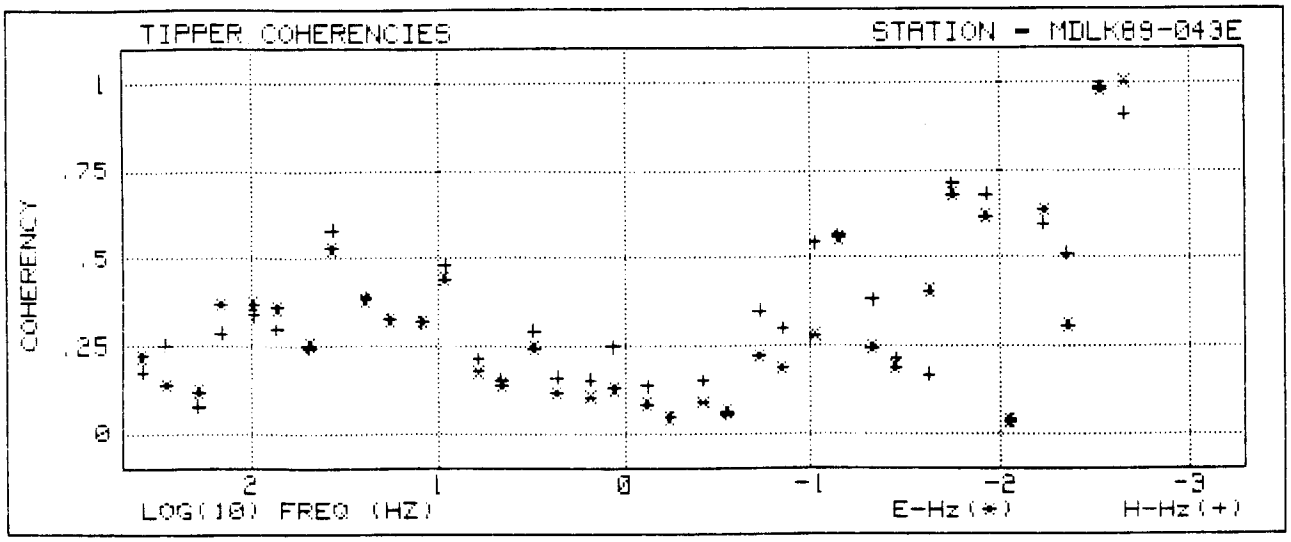






PHOENIX GEOSCIENCE

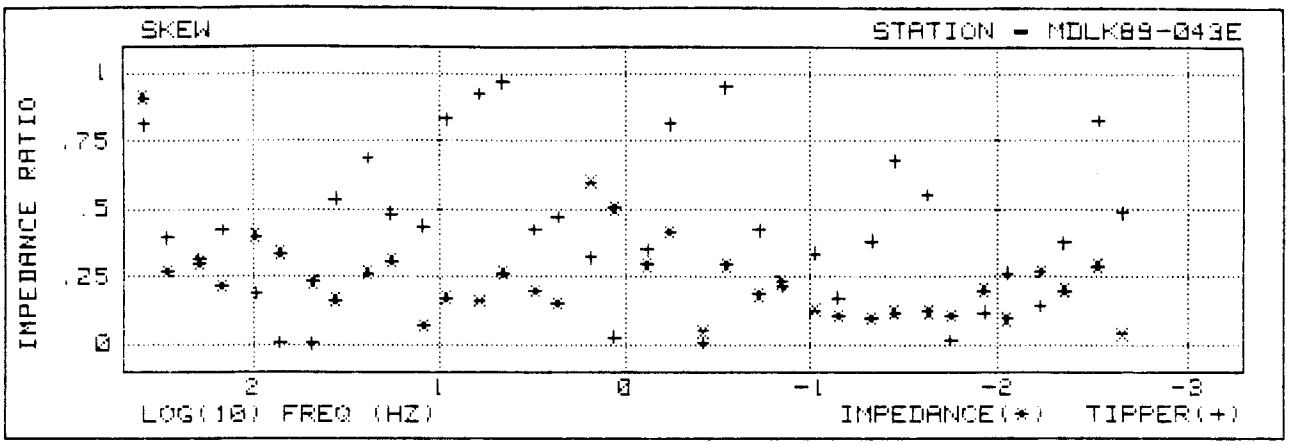
MT Site: MDLK89-043E

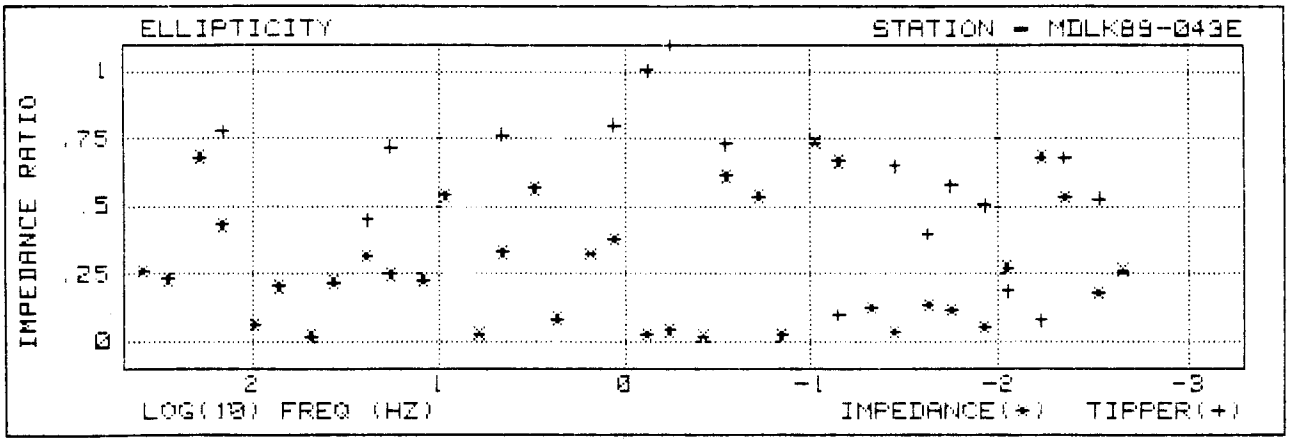
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

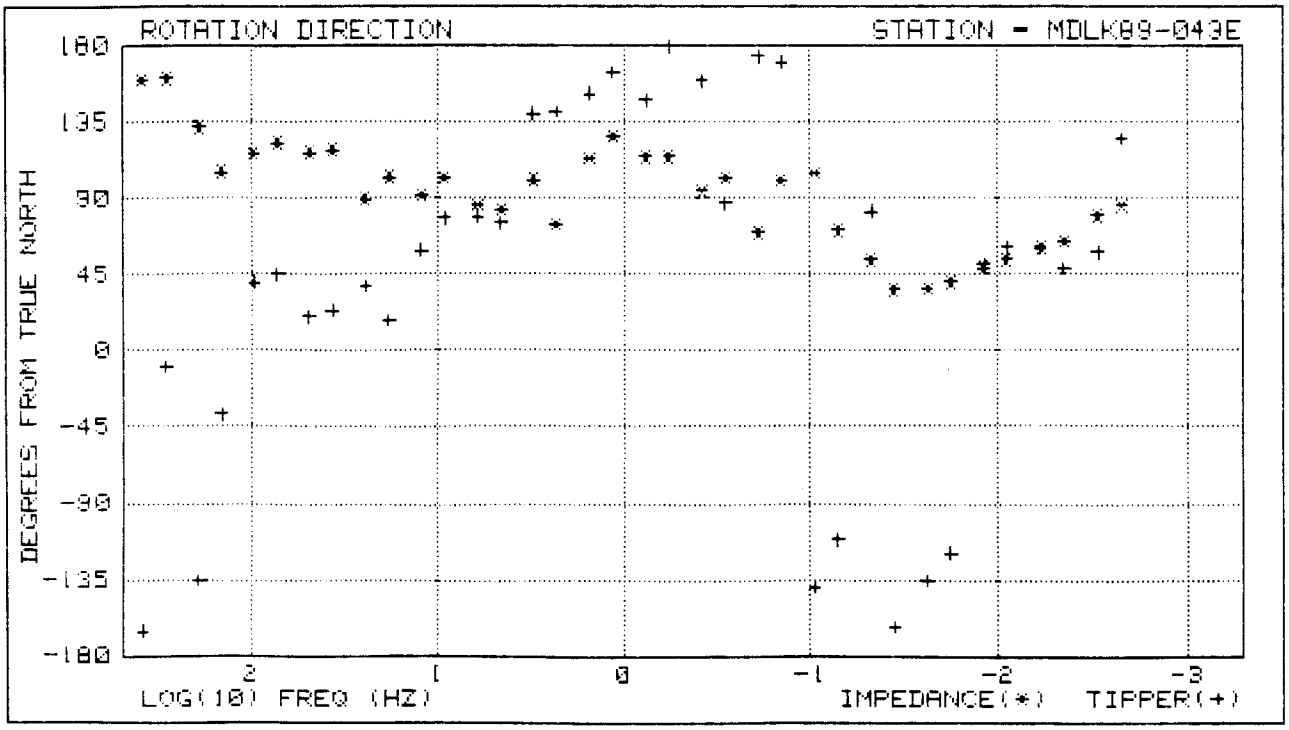
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	355	2.88	-105.88	.22	.17
2	288.00 Hz	610	.87	132.00	.13	.25
3	192.00 Hz	550	.42	-85.77	.12	.07
4	144.00 Hz	95	.08	-7.77	.37	.28
5	96.00 Hz	636	.12	47.13	.37	.34
6	72.00 Hz	811	.10	-154.12	.36	.29
7	48.00 Hz	542	.07	82.17	.25	.24
8	36.00 Hz	363	.06	-94.34	.52	.58
9	24.00 Hz	190	.04	124.35	.38	.39
10	18.00 Hz	288	.04	116.18	.32	.32
11	12.00 Hz	960	.04	19.73	.32	.31
12	9.00 Hz	576	.06	42.67	.44	.48
13	6.00 Hz	670	.08	-88.45	.17	.21
14	4.50 Hz	480	.08	-115.87	.14	.15
15	3.00 Hz	8864	.08	-64.44	.24	.29
16	2.25 Hz	6048	.07	-22.37	.11	.16
17	1.50 Hz	1424	.08	51.58	.10	.15
18	1.13 Hz	4352	.08	105.47	.12	.24
19	1.33 Sec	5500	.10	79.59	.08	.13
20	1.78 Sec	2944	.07	84.44	.04	.04
21	2.67 Sec	756	.10	-11.37	.09	.15
22	3.56 Sec	1468	.11	-121.74	.06	.05
23	5.33 Sec	437	.15	33.06	.22	.35
24	7.11 Sec	389	.11	-1.41	.18	.30
25	10.67 Sec	288	.10	82.52	.28	.54
26	14.22 Sec	162	.07	55.00	.55	.56
27	21.33 Sec	84	.12	122.79	.24	.38
28	28.44 Sec	124	.08	-92.35	.18	.21
29	42.67 Sec	120	.20	-65.03	.40	.16
30	56.89 Sec	18	.15	-32.33	.68	.71
31	85.33 Sec	18	.19	-23.52	.61	.68
32	113.78 Sec	69	.19	-124.07	.03	.03
33	170.67 Sec	12	.20	-176.52	.63	.59
34	227.56 Sec	27	.15	164.43	.30	.51
35	341.33 Sec	3	2.82	-106.78	.98	.98
36	455.11 Sec	3	.47	128.46	1.00	.91

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E







PHOENIX GEOSCIENCE

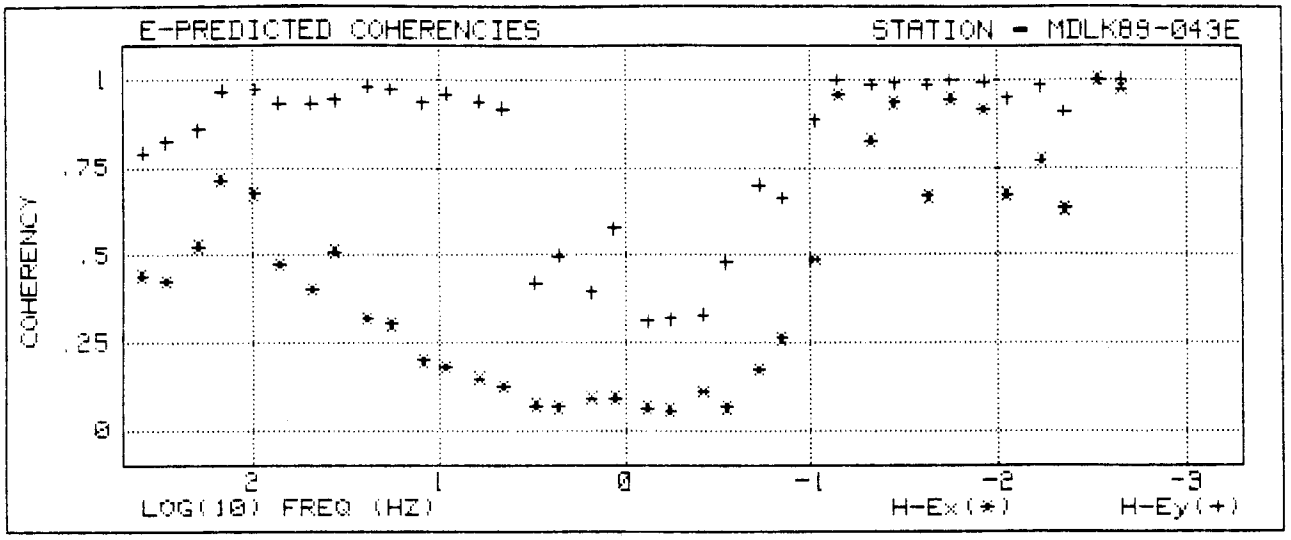
MT Site: MDLK89-043E

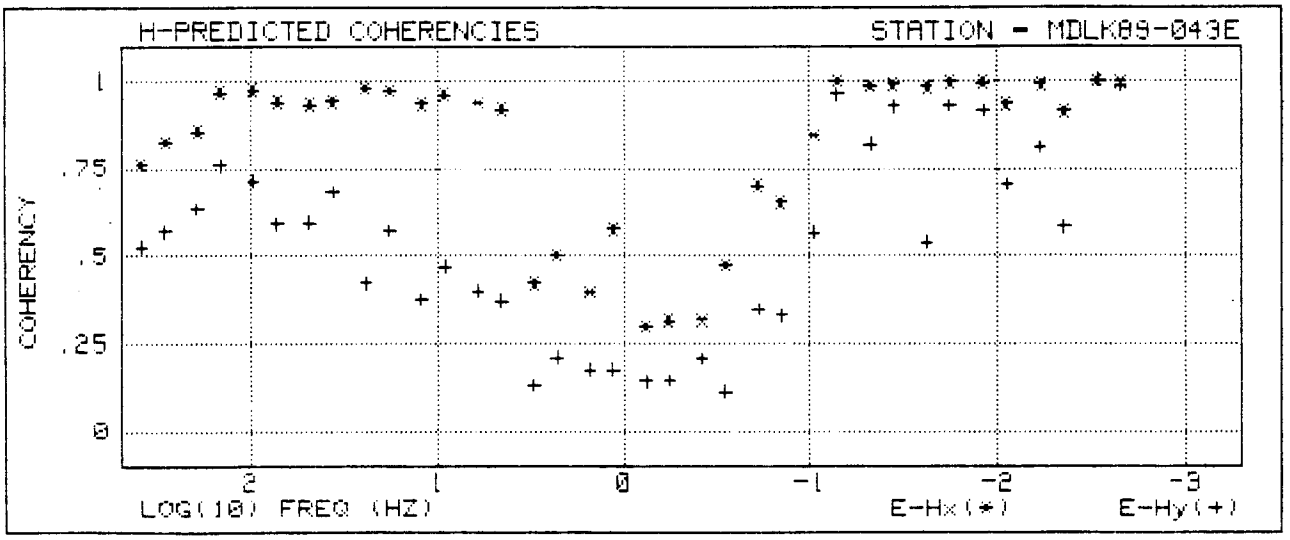
SKEW, ELLIPTICITY AND STRIKE

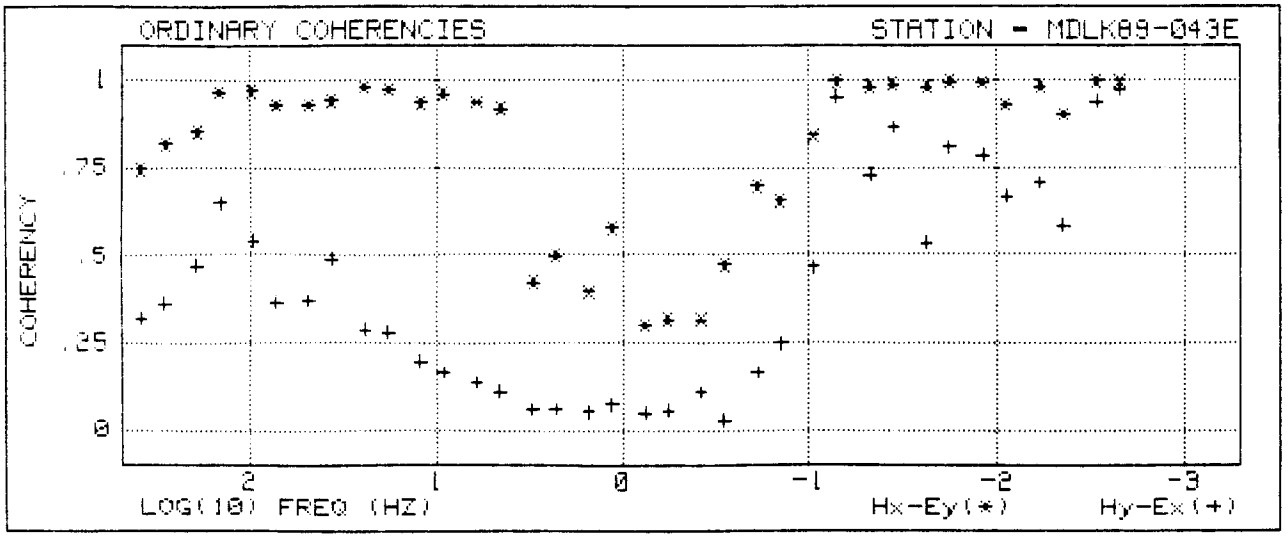
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	355	.90	.26	159.12	.81	1.96	-165.78
2	288.00 Hz	610	.27	.23	160.04	.39	2.89	-10.34
3	192.00 Hz	550	.30	.68	130.83	.31	5.09	-136.14
4	144.00 Hz	95	.21	.43	104.46	.42	.78	-38.06
5	96.00 Hz	636	.40	.06	115.32	.18	3.78	39.25
6	72.00 Hz	811	.33	.20	121.67	.00	4.49	44.22
7	48.00 Hz	542	.23	.02	116.09	.00	8.82	19.63
8	36.00 Hz	363	.16	.21	117.58	.53	3.29	23.53
9	24.00 Hz	190	.26	.31	88.53	.68	.45	37.49
10	18.00 Hz	288	.30	.25	101.37	.48	.71	17.08
11	12.00 Hz	960	.07	.22	90.88	.43	1.36	58.21
12	9.00 Hz	576	.17	.53	100.85	.83	1.14	77.60
13	6.00 Hz	670	.16	.02	85.08	.92	1.35	78.59
14	4.50 Hz	480	.26	.33	82.17	.96	.76	74.49
15	3.00 Hz	8864	.19	.56	100.04	.42	1.66	139.15
16	2.25 Hz	6048	.15	.08	73.46	.47	4.00	140.31
17	1.50 Hz	1424	.60	.32	112.79	.32	1.31	150.68
18	1.13 Hz	4352	.50	.38	125.79	.02	.80	163.03
19	1.33 Sec	5500	.29	.02	113.80	.35	1.00	146.71
20	1.78 Sec	2944	.41	.04	113.70	.81	1.09	178.84
21	2.67 Sec	756	.05	.01	93.20	.00	5.72	158.42
22	3.56 Sec	1468	.29	.61	101.24	.94	.73	86.35
23	5.33 Sec	437	.18	.53	68.75	.42	3.04	172.92
24	7.11 Sec	389	.23	.02	99.86	.22	2.61	169.54
25	10.67 Sec	288	.12	.73	103.92	.33	1.89	-140.50
26	14.22 Sec	162	.10	.66	70.16	.17	.09	-112.07
27	21.33 Sec	84	.09	.12	53.06	.38	4.07	81.17
28	28.44 Sec	124	.11	.03	35.53	.67	.64	-163.60
29	42.67 Sec	120	.12	.13	35.84	.55	.39	-135.99
30	56.89 Sec	18	.10	.11	39.89	.01	.57	-119.64
31	85.33 Sec	18	.20	.05	47.82	.12	.50	50.48
32	113.78 Sec	69	.09	.27	53.03	.26	.18	60.13
33	170.67 Sec	12	.27	.68	60.30	.14	.07	59.10
34	227.56 Sec	27	.20	.53	63.33	.37	.68	47.52
35	341.33 Sec	3	.29	.18	78.73	.82	.52	57.18
36	455.11 Sec	3	.04	.26	84.82	.48	1.92	124.36

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E







PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	355	.44	.79	.76	.52	.74	.32
2	288.00 Hz	610	.42	.82	.82	.57	.81	.36
3	192.00 Hz	550	.52	.85	.85	.63	.85	.47
4	144.00 Hz	95	.71	.96	.96	.76	.96	.64
5	96.00 Hz	636	.67	.97	.97	.71	.97	.54
6	72.00 Hz	811	.47	.93	.93	.59	.93	.36
7	48.00 Hz	542	.40	.93	.93	.59	.93	.36
8	36.00 Hz	363	.51	.94	.94	.68	.94	.49
9	24.00 Hz	190	.32	.98	.98	.42	.98	.28
10	18.00 Hz	288	.30	.97	.97	.57	.97	.28
11	12.00 Hz	960	.19	.93	.93	.37	.93	.19
12	9.00 Hz	576	.18	.96	.96	.47	.96	.16
13	6.00 Hz	670	.14	.93	.93	.40	.93	.13
14	4.50 Hz	480	.12	.91	.91	.37	.91	.11
15	3.00 Hz	8864	.07	.42	.42	.13	.42	.06
16	2.25 Hz	6048	.06	.49	.50	.21	.49	.06
17	1.50 Hz	1424	.09	.39	.39	.17	.39	.05
18	1.13 Hz	4352	.09	.57	.57	.17	.57	.07
19	1.33 Sec	5500	.06	.31	.30	.14	.30	.04
20	1.78 Sec	2944	.05	.31	.31	.14	.31	.05
21	2.67 Sec	756	.11	.33	.32	.20	.31	.11
22	3.56 Sec	1468	.06	.47	.47	.11	.47	.03
23	5.33 Sec	437	.17	.70	.70	.34	.69	.16
24	7.11 Sec	389	.26	.66	.65	.33	.65	.24
25	10.67 Sec	288	.49	.88	.84	.56	.84	.46
26	14.22 Sec	162	.95	1.00	1.00	.96	.99	.95
27	21.33 Sec	84	.82	.98	.98	.82	.98	.73
28	28.44 Sec	124	.93	.99	.99	.92	.98	.86
29	42.67 Sec	120	.66	.98	.98	.54	.98	.53
30	56.89 Sec	18	.94	1.00	1.00	.93	.99	.80
31	85.33 Sec	18	.91	.99	.99	.91	.99	.78
32	113.78 Sec	69	.67	.95	.93	.70	.93	.66
33	170.67 Sec	12	.77	.98	.99	.81	.98	.70
34	227.56 Sec	27	.63	.91	.91	.58	.90	.58
35	341.33 Sec	3	1.00	1.00	1.00	1.00	.99	.94
36	455.11 Sec	3	.97	1.00	1.00	.98	.99	.97

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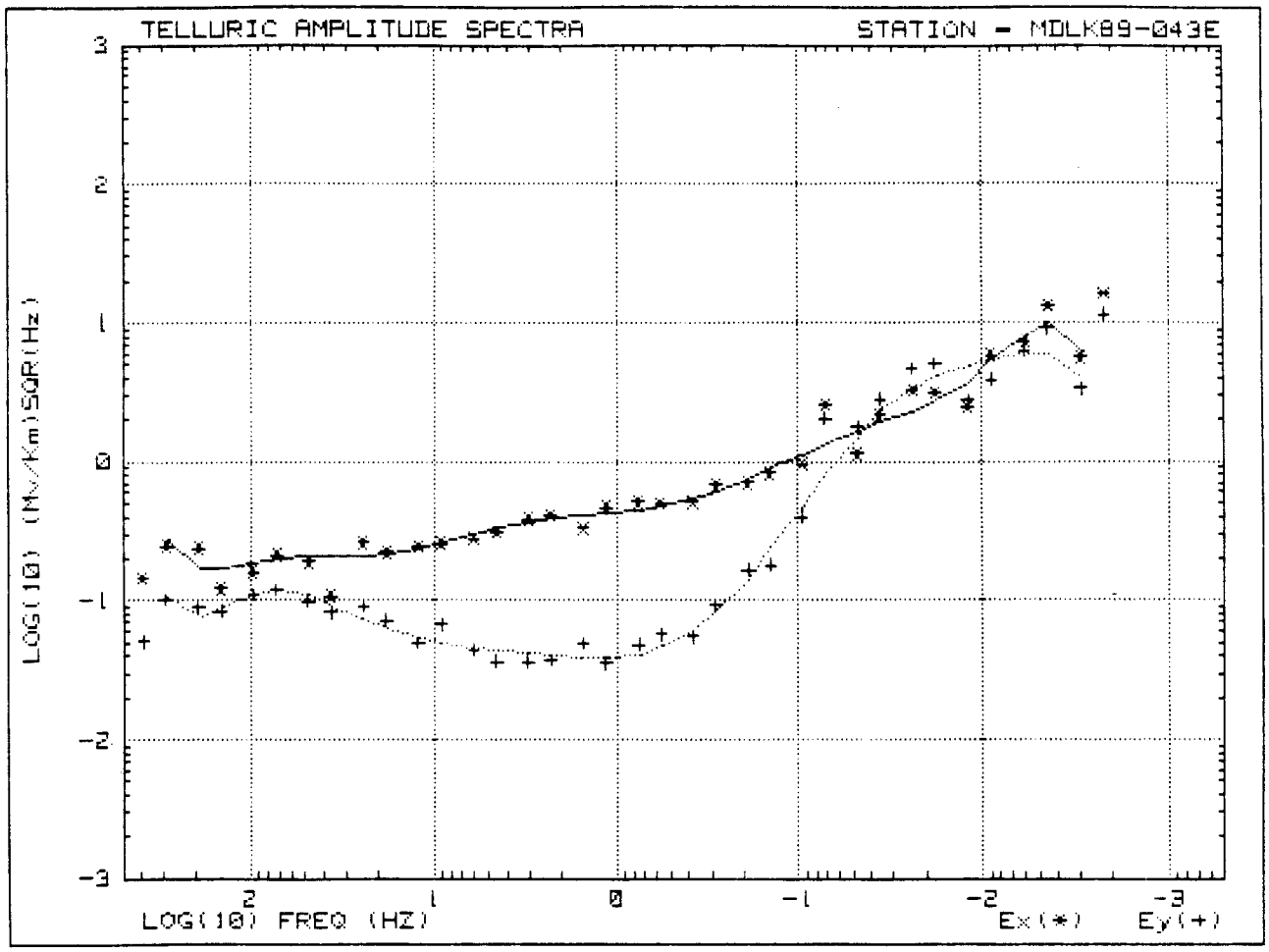
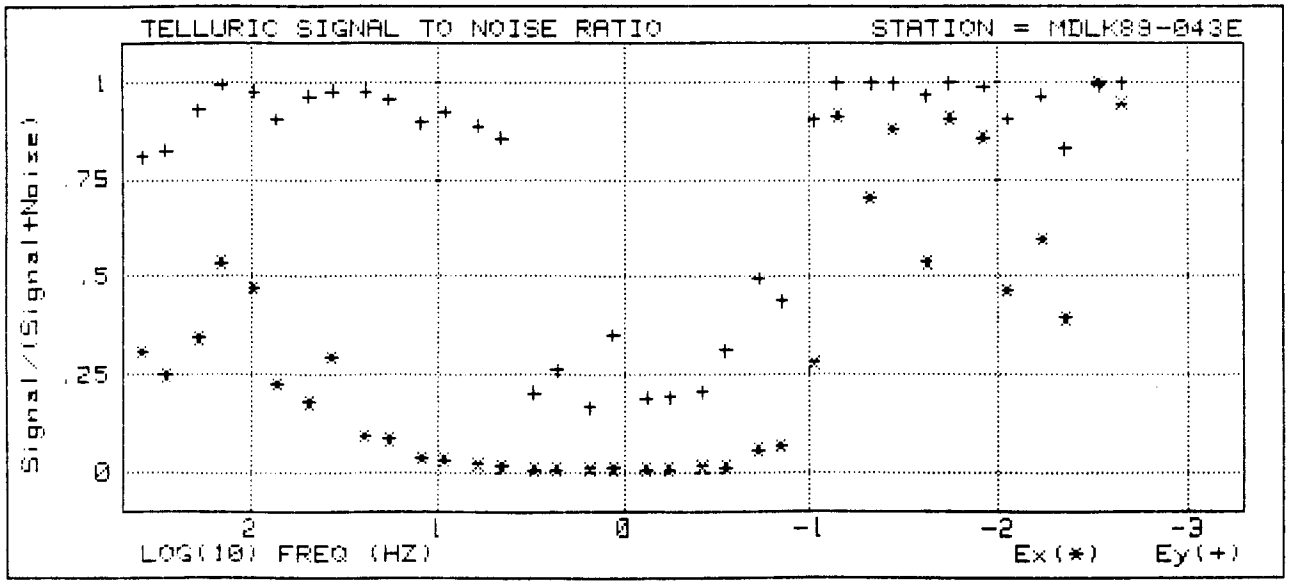
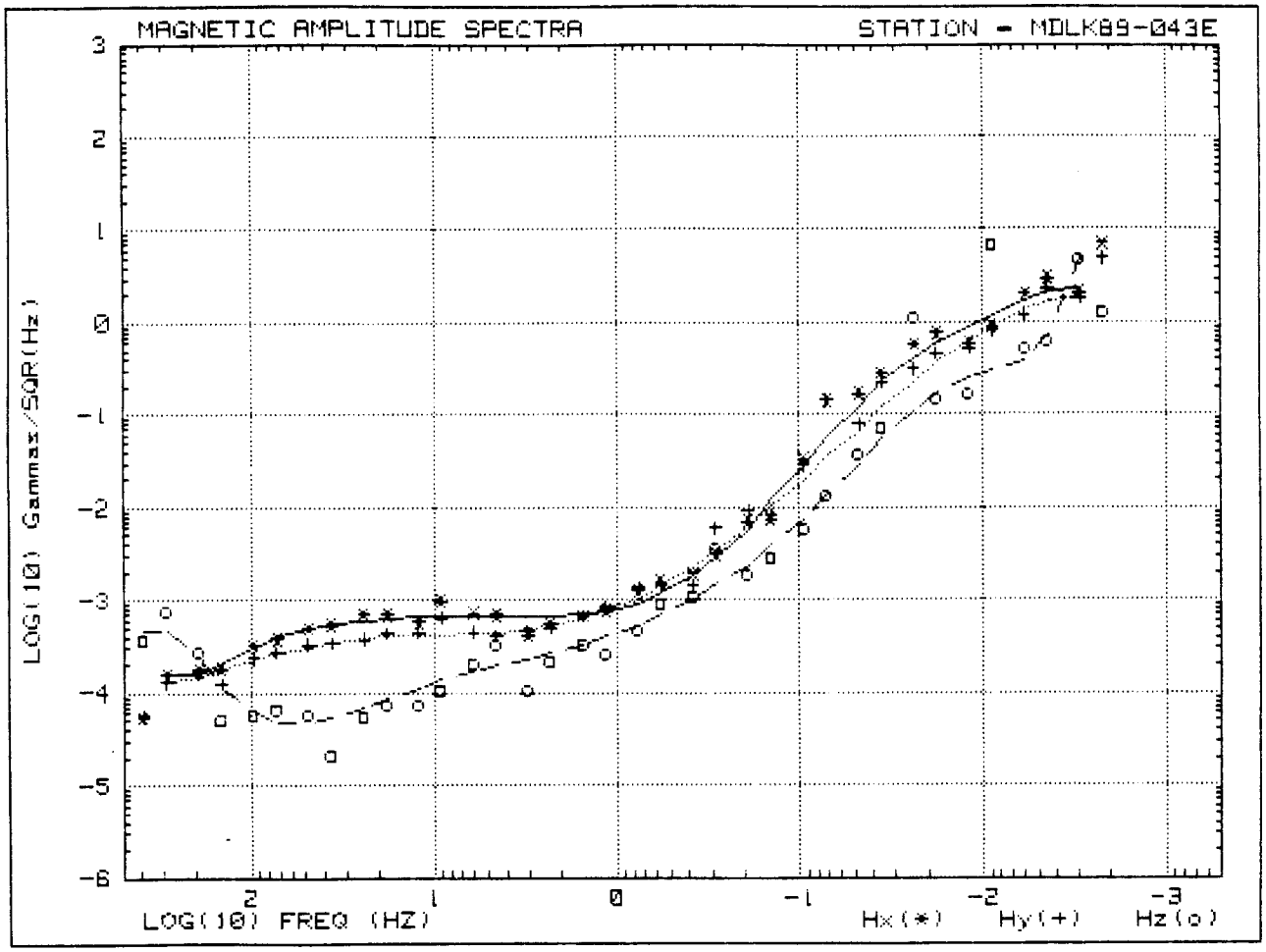
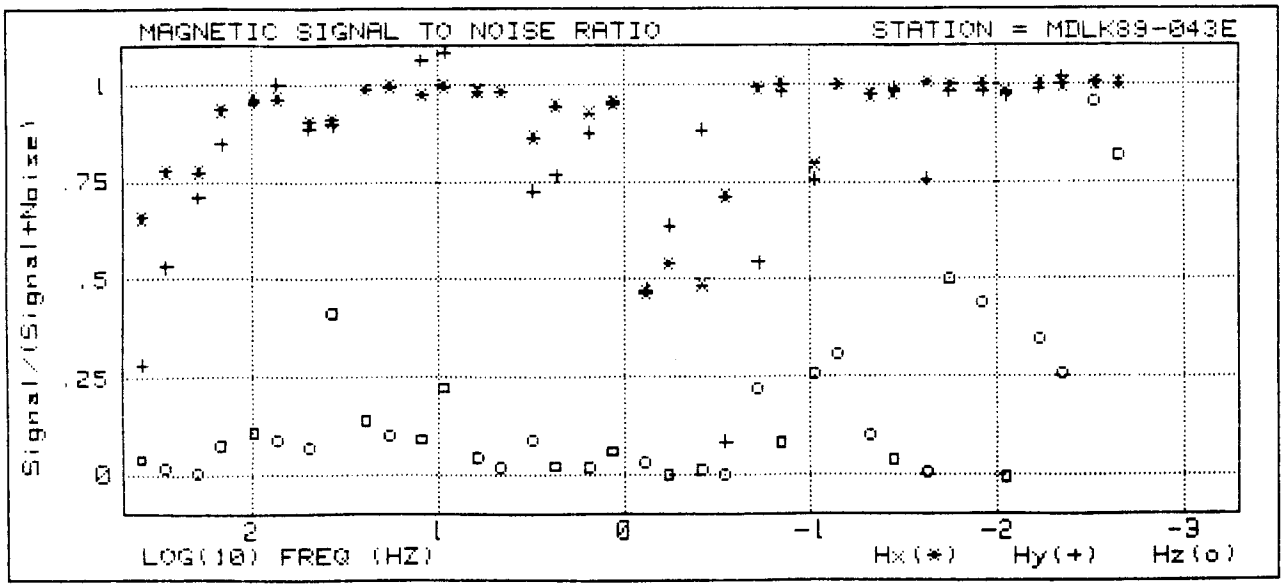




PHOENIX GEOSCIENCE

MT Site: MDLK89-043E





PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	355	5.27E-05	5.55E-05	3.80E-04	1.43E-01	4.99E-02
2	288.00 Hz	610	1.54E-04	1.29E-04	7.92E-04	2.43E-01	9.96E-02
3	192.00 Hz	550	1.74E-04	1.63E-04	2.90E-04	2.35E-01	8.86E-02
4	144.00 Hz	95	1.80E-04	1.23E-04	5.25E-05	1.21E-01	8.28E-02
5	96.00 Hz	636	3.20E-04	2.34E-04	6.14E-05	1.58E-01	1.08E-01
6	72.00 Hz	811	3.78E-04	2.67E-04	6.98E-05	2.07E-01	1.17E-01
7	48.00 Hz	542	4.83E-04	3.26E-04	6.04E-05	1.87E-01	9.58E-02
8	36.00 Hz	363	5.27E-04	3.38E-04	2.23E-05	1.06E-01	8.12E-02
9	24.00 Hz	190	6.98E-04	3.67E-04	5.85E-05	2.58E-01	8.99E-02
10	18.00 Hz	288	6.90E-04	4.33E-04	7.62E-05	2.19E-01	7.08E-02
11	12.00 Hz	960	5.71E-04	4.31E-04	7.78E-05	2.40E-01	4.90E-02
12	9.00 Hz	576	9.68E-04	6.25E-04	1.08E-04	2.54E-01	6.61E-02
13	6.00 Hz	670	7.08E-04	4.44E-04	2.14E-04	2.76E-01	4.37E-02
14	4.50 Hz	480	6.88E-04	4.08E-04	3.42E-04	3.06E-01	3.60E-02
15	3.00 Hz	8864	4.14E-04	4.47E-04	1.09E-04	3.78E-01	3.59E-02
16	2.25 Hz	6048	5.49E-04	4.92E-04	2.24E-04	4.05E-01	3.68E-02
17	1.50 Hz	1424	6.61E-04	6.57E-04	3.39E-04	3.26E-01	4.84E-02
18	1.13 Hz	4352	7.66E-04	8.37E-04	2.67E-04	4.59E-01	3.49E-02
19	1.33 Sec	5500	1.24E-03	1.31E-03	4.94E-04	5.08E-01	4.75E-02
20	1.78 Sec	2944	1.54E-03	1.44E-03	9.73E-04	4.95E-01	5.68E-02
21	2.67 Sec	756	1.90E-03	1.44E-03	1.15E-03	5.10E-01	5.40E-02
22	3.56 Sec	1468	3.06E-03	5.88E-03	3.69E-03	6.66E-01	9.04E-02
23	5.33 Sec	437	6.87E-03	9.22E-03	1.95E-03	6.92E-01	1.64E-01
24	7.11 Sec	389	7.36E-03	7.95E-03	2.89E-03	8.19E-01	1.77E-01
25	10.67 Sec	288	3.25E-02	2.78E-02	5.99E-03	9.48E-01	3.92E-01
26	14.22 Sec	162	1.41E-01	1.40E-01	1.39E-02	2.52E+00	2.03E+00
27	21.33 Sec	84	1.65E-01	7.71E-02	3.95E-02	1.12E+00	1.74E+00
28	28.44 Sec	124	2.78E-01	2.17E-01	7.61E-02	2.12E+00	2.78E+00
29	42.67 Sec	120	5.65E-01	3.04E-01	1.18E+00	3.23E+00	4.63E+00
30	56.89 Sec	18	7.46E-01	4.51E-01	1.54E-01	3.08E+00	5.00E+00
31	85.33 Sec	18	5.83E-01	5.07E-01	1.73E-01	2.44E+00	2.71E+00
32	113.78 Sec	69	8.79E-01	8.03E-01	6.92E+00	5.70E+00	3.83E+00
33	170.67 Sec	12	1.99E+00	1.19E+00	5.52E-01	7.21E+00	6.11E+00
34	227.56 Sec	27	2.92E+00	2.27E+00	6.59E-01	1.31E+01	8.92E+00
35	341.33 Sec	3	2.02E+00	1.77E+00	5.02E+00	5.51E+00	3.32E+00
36	455.11 Sec	3	6.86E+00	4.78E+00	1.30E+00	1.58E+01	1.13E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	355	.656	.282	.045	.306	.807
2	288.00 Hz	610	.775	.531	.023	.246	.825
3	192.00 Hz	550	.774	.709	.009	.342	.926
4	144.00 Hz	95	.932	.846	.082	.533	.992
5	96.00 Hz	636	.962	.954	.113	.469	.975
6	72.00 Hz	811	.963	1.000	.094	.224	.903
7	48.00 Hz	542	.901	.885	.073	.177	.962
8	36.00 Hz	363	.907	.895	.421	.292	.974
9	24.00 Hz	190	.986	1.000	.141	.092	.975
10	18.00 Hz	288	.993	1.000	.104	.082	.953
11	12.00 Hz	960	.973	1.000	.095	.035	.895
12	9.00 Hz	576	.993	1.000	.227	.030	.922
13	6.00 Hz	670	.980	.979	.047	.020	.887
14	4.50 Hz	480	.978	1.000	.021	.013	.856
15	3.00 Hz	8864	.861	.722	.091	.005	.200
16	2.25 Hz	6048	.943	.764	.026	.005	.259
17	1.50 Hz	1424	.925	.874	.023	.008	.165
18	1.13 Hz	4352	.950	.954	.064	.008	.349
19	1.33 Sec	5500	.465	.471	.037	.006	.187
20	1.78 Sec	2944	.538	.636	.005	.005	.189
21	2.67 Sec	756	.483	.880	.015	.013	.202
22	3.56 Sec	1468	.711	.081	.004	.011	.309
23	5.33 Sec	437	.990	.543	.226	.055	.495
24	7.11 Sec	389	1.000	.982	.088	.066	.435
25	10.67 Sec	288	.794	.754	.262	.277	.900
26	14.22 Sec	162	.998	.997	.311	.911	.996
27	21.33 Sec	84	.970	.973	.104	.701	.995
28	28.44 Sec	124	.978	.988	.043	.879	.995
29	42.67 Sec	120	1.000	.754	.010	.536	.964
30	56.89 Sec	18	.998	.979	.505	.905	.995
31	85.33 Sec	18	1.000	.978	.446	.855	.985
32	113.78 Sec	69	.979	.970	.000	.462	.903
33	170.67 Sec	12	.999	.985	.351	.594	.961
34	227.56 Sec	27	.996	1.000	.260	.392	.825
35	341.33 Sec	3	1.000	1.000	.960	.999	.990
36	455.11 Sec	3	1.000	1.000	.823	.943	.995

PHOENIX GEOSCIENCE

MT Site: MDLK89-043E

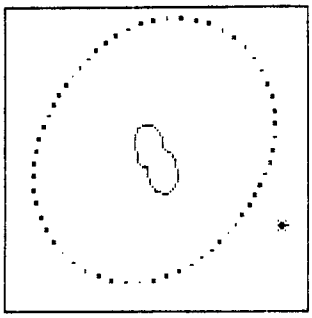
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

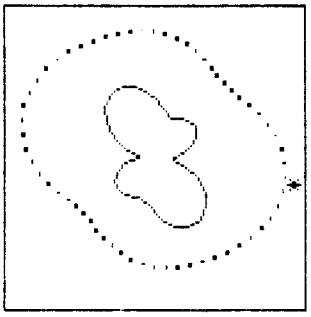
*=Rotation Direction

Zxy = ...
Zxx = ___

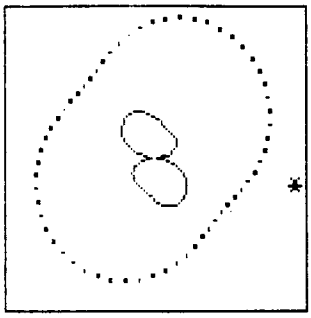
F=8 (36.0 Hz)



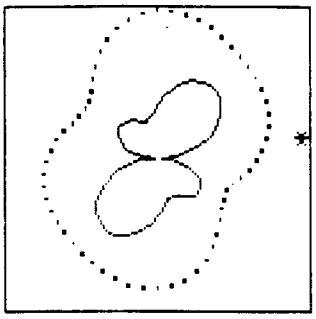
F=10 (18.0 Hz)



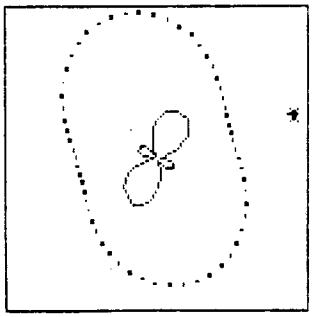
F=12 (9.0 Hz)



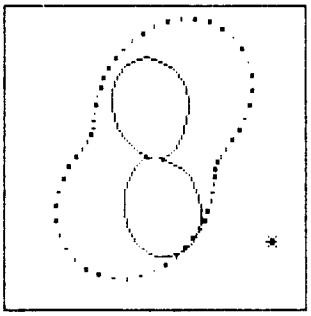
F=14 (4.5 Hz)



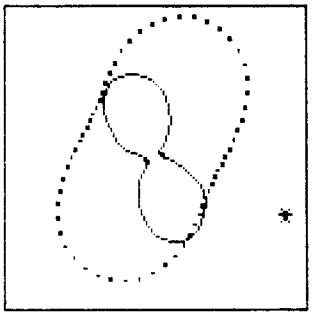
F=16 (2.3 Hz)



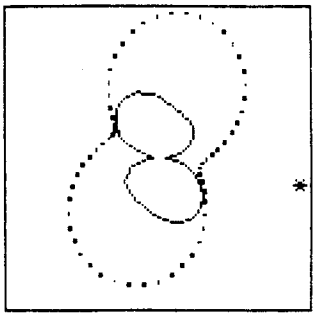
F=18 (1.1 Hz)



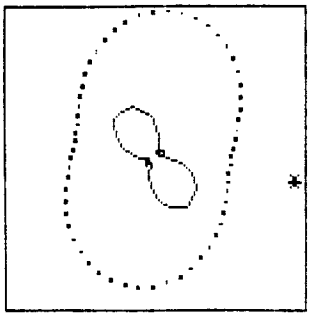
F=20 (.5625 Hz)



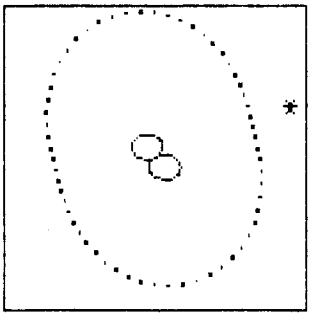
F=22 (.2813 Hz)



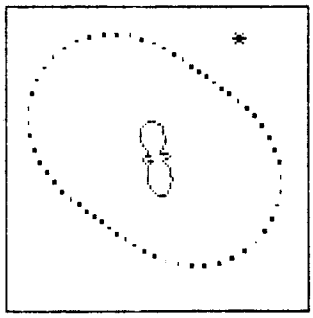
F=24 (.1406 Hz)



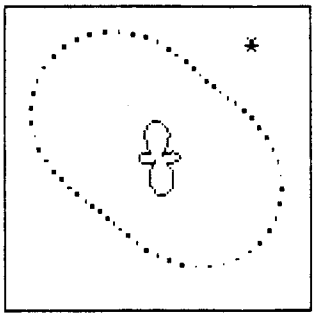
F=26 (.0703 Hz)



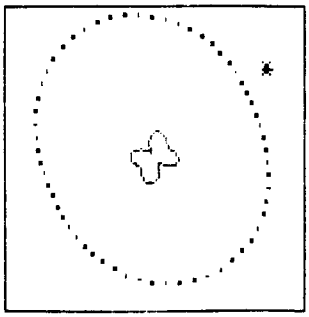
F=28 (.0352 Hz)



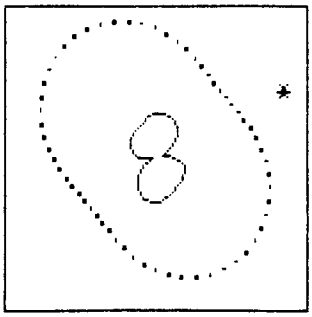
F=30 (.0176 Hz)



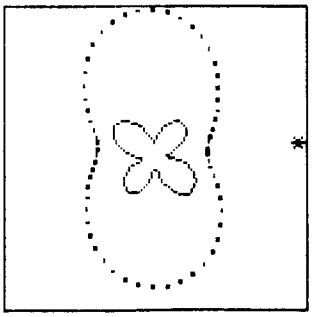
F=32 (.0088 Hz)



F=34 (.0044 Hz)



F=36 (.0022 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-043s/044s/045s/

Operator:M. SNOW
Date: 13 Sep 1989
Time: 16:29:06

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#335-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#210-16Aug89-01
Sens-Ch02: C#432-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#205-05Sep89-01
Sens-Ch12: C#431-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 2

Stn Number:MDLK89-044s
Site Desc:T43N R3E SEC4 NE4
41,36,09 N 121,37,45 W
Elevation:7120 FT
Reference:MDLK89-043s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: SNOW
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL430	+0 DEG
Hy	7	COIL452	+90 DEG
Hz	8	LOOP005	
Ex	9	180 M	+0 DEG
Ey	10	137 M	+90 DEG
Rx	1	COIL210	+0 DEG
Ry	2	COIL432	+90 DEG

Ex Pot Resist: 25.0K Ohms
Ex Voltage: AC=19.0 mv, DC=67.5 mv
Ey Pot Resist: 32.0K Ohms
Ey Voltage: AC=4.50 mv, DC=56.4 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

OPERATOR LOG FOR MT SITES MDLK89-043s/044s/045s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-043a/044a/045a/

Run STARTED:	16:29:06	13 Sep 1989
Run QUIT:	03:44:20	14 Sep 1989

Run Start and Stop Time for MDLK89-043b/044b/045b/

Run STARTED:	04:19:52	14 Sep 1989
Run QUIT:	14:16:00	14 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR
Other Factors:
NONE

PHOENIX GEOSCIENCE

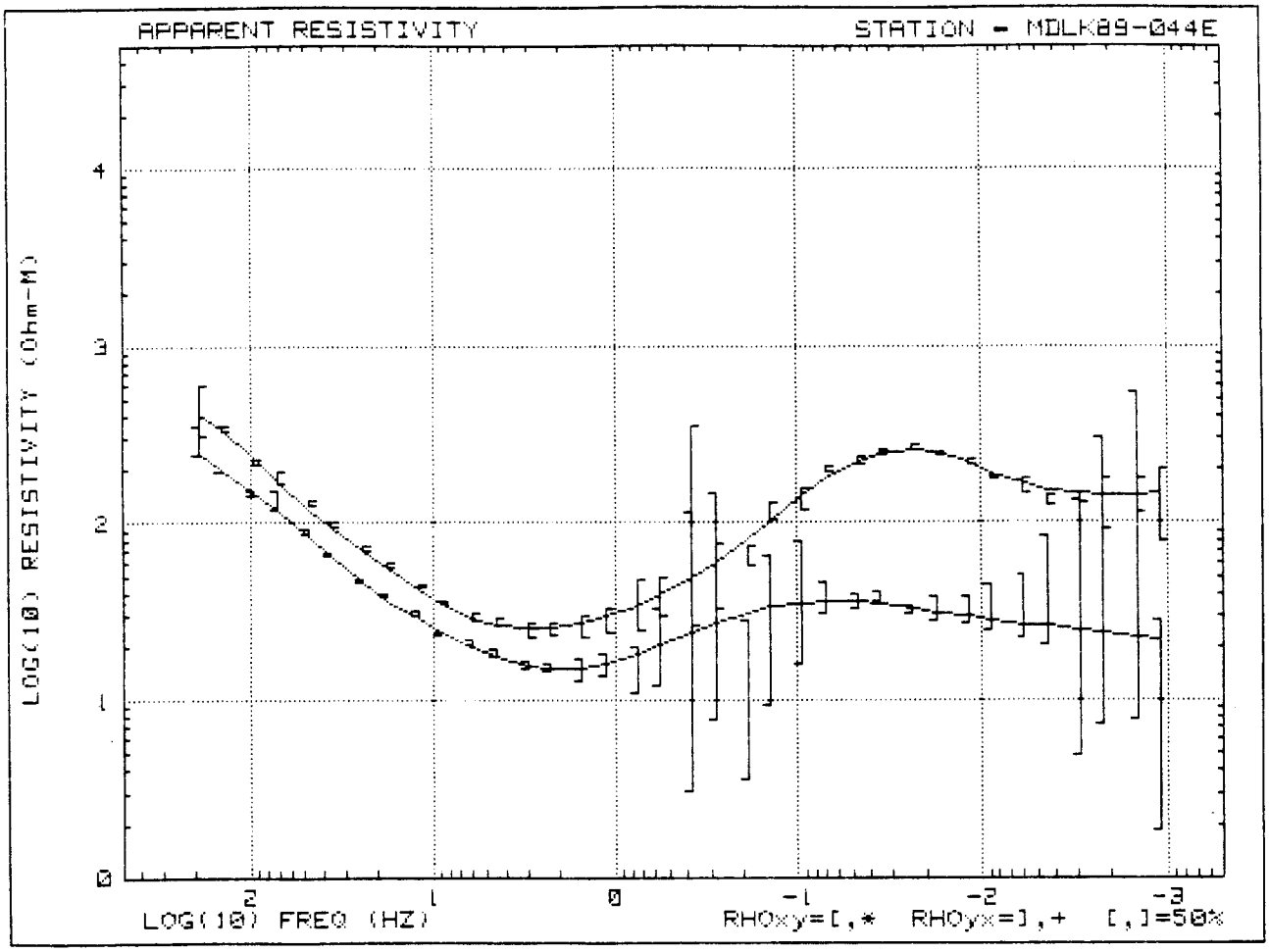
MT Site: MDLK89-044E

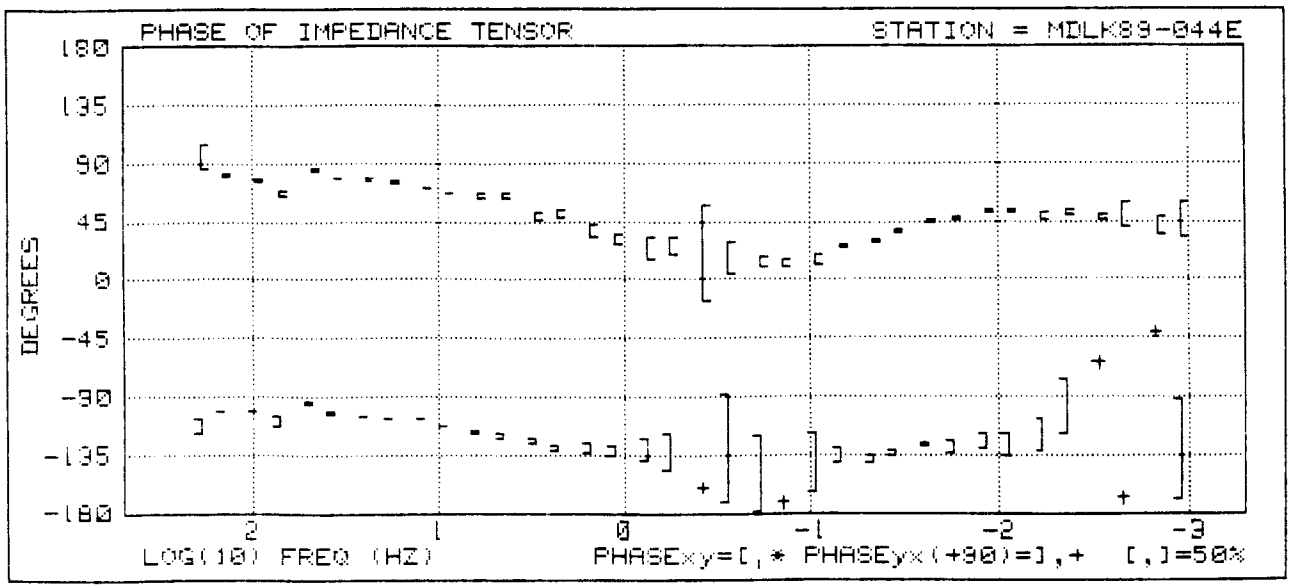
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

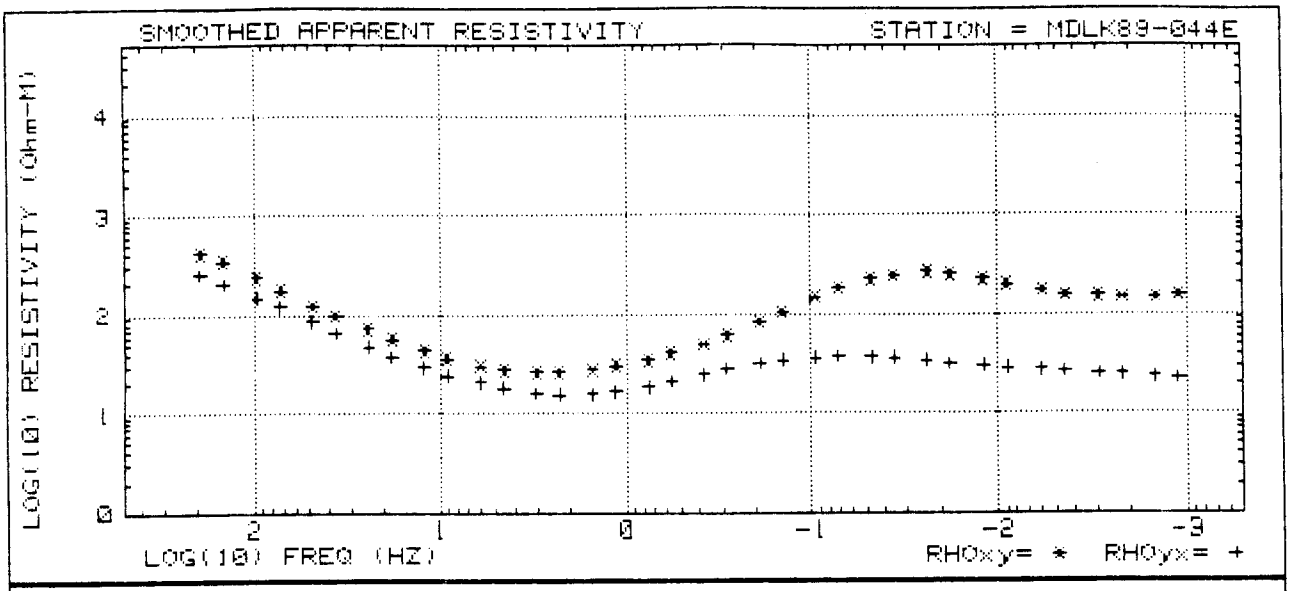
MT Site: MDLK89-044E

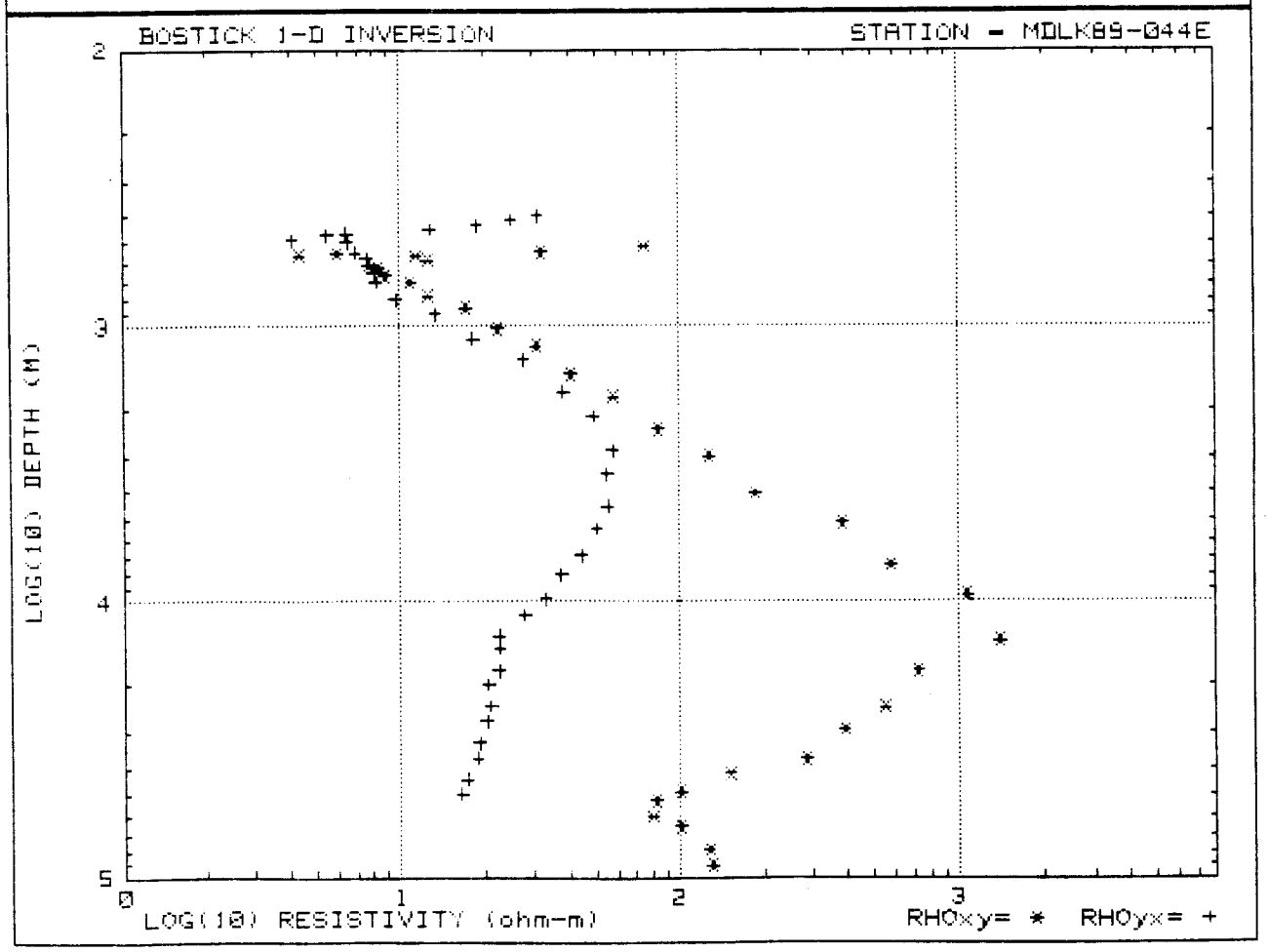




PHOENIX GEOSCIENCE

MT Site: MDLK89-044E





PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
3	192.00 Hz	372	433.6	65.7	295.8	32.2	95.3	14.5	-112.1	8.0
4	144.00 Hz	925	340.0	4.0	195.1	1.8	80.4	1.1	-101.3	.5
5	96.00 Hz	457	222.0	4.3	147.1	3.0	77.3	1.2	-100.8	.8
6	72.00 Hz	85	181.9	11.0	133.8	20.5	66.9	3.0	-108.0	5.3
7	48.00 Hz	636	129.3	5.1	89.3	3.4	85.2	1.4	-94.4	1.0
8	36.00 Hz	906	98.3	2.6	66.2	2.4	78.7	.7	-102.1	.7
9	24.00 Hz	475	71.4	3.3	46.8	2.3	77.0	.9	-104.9	.7
10	18.00 Hz	287	57.1	4.3	39.1	3.7	76.3	1.2	-106.6	1.0
11	12.00 Hz	864	44.6	2.5	30.8	2.8	70.8	.7	-107.1	.8
12	9.00 Hz	480	35.7	2.6	23.6	3.4	67.1	.7	-112.4	1.0
13	6.00 Hz	576	29.4	5.6	21.2	5.4	65.1	1.6	-117.8	1.5
14	4.50 Hz	384	27.8	8.0	18.5	8.8	64.6	2.2	-120.3	2.4
15	3.00 Hz	6976	24.6	14.2	15.8	5.9	49.5	3.8	-123.9	1.7
16	2.25 Hz	6144	25.4	12.4	15.2	8.1	50.9	3.3	-129.2	2.2
17	1.50 Hz	2240	26.2	22.8	14.9	23.0	37.6	5.9	-130.1	5.9
18	1.13 Hz	2064	28.3	24.2	15.8	21.8	31.5	6.2	-130.5	5.6
19	1.33 Sec	608	34.3	62.9	14.7	53.9	24.5	14.0	-129.8	12.4
20	1.78 Sec	2560	38.1	45.7	19.9	99.9	26.1	10.8	-132.7	22.0
21	2.67 Sec	1296	97.0	99.9	18.8	99.9	21.3	55.4	-160.1	77.1
22	3.56 Sec	312	50.3	87.6	34.1	99.9	17.0	18.0	-129.0	62.6
23	5.33 Sec	1133	65.5	22.7	9.9	99.9	14.4	5.9	-149.0	44.0
24	7.11 Sec	1150	118.0	18.3	25.1	99.9	12.9	4.8	-172.6	41.5
25	10.67 Sec	618	137.0	23.6	35.7	99.9	15.8	6.1	-140.6	33.9
26	14.22 Sec	636	199.4	4.9	37.5	35.2	26.5	1.4	-134.9	8.6
27	21.33 Sec	180	224.4	5.7	36.5	14.9	30.0	1.6	-138.3	4.0
28	28.44 Sec	310	252.0	3.0	38.8	10.4	37.5	.8	-133.0	2.8
29	42.67 Sec	150	266.9	4.4	32.4	6.8	45.0	1.2	-126.4	1.9
30	56.89 Sec	298	246.6	3.7	33.2	27.4	47.0	1.1	-129.1	6.9
31	85.33 Sec	141	220.3	4.6	32.6	29.4	53.0	1.3	-123.9	7.4
32	113.78 Sec	129	180.2	4.1	33.4	54.8	52.2	1.2	-125.9	12.5
33	170.67 Sec	36	162.1	14.3	33.7	84.5	49.4	3.8	-119.1	17.5
34	227.56 Sec	72	134.8	9.0	41.4	99.9	51.6	2.5	-96.9	30.3
35	341.33 Sec	30	137.8	9.7	25.4	99.9	47.6	2.7	-65.0	71.0
36	455.11 Sec	39	126.8	64.0	46.8	99.9	50.8	14.2	-168.5	79.2
37	682.67 Sec	9	143.6	38.4	65.0	99.9	41.1	9.3	-41.5	90.8
38	910.22 Sec	3	125.8	97.6	7.2	99.9	46.3	19.5	-130.0	57.9

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
3	192.00 Hz	372	413.5	249.9	75.9	522	31.3	406
4	144.00 Hz	925	339.0	199.8	32.4	546	25.1	419
5	96.00 Hz	457	233.3	145.9	6.0	555	18.9	439
6	72.00 Hz	85	171.1	117.2	4.4	560	12.9	454
7	48.00 Hz	636	120.1	83.6	11.5	566	6.5	470
8	36.00 Hz	906	96.5	64.7	12.7	583	5.5	477
9	24.00 Hz	475	70.6	46.6	7.8	610	4.1	496
10	18.00 Hz	287	55.4	36.2	8.4	624	6.5	505
11	12.00 Hz	864	42.4	28.8	9.0	669	7.0	551
12	9.00 Hz	480	35.3	23.7	11.0	705	7.6	578
13	6.00 Hz	576	29.5	20.2	12.7	789	8.1	653
14	4.50 Hz	384	26.8	17.7	17.4	868	8.3	705
15	3.00 Hz	6976	25.4	15.7	22.5	1036	9.8	815
16	2.25 Hz	6144	25.7	15.0	30.8	1203	13.5	919
17	1.50 Hz	2240	27.1	15.2	41.0	1512	18.3	1131
18	1.13 Hz	2064	29.6	16.0	58.4	1826	27.7	1344
19	1.33 Sec	608	33.9	18.2	84.6	2394	38.7	1755
20	1.78 Sec	2560	39.9	20.6	129.0	2996	49.5	2152
21	2.67 Sec	1296	48.9	24.3	189.8	4065	58.2	2864
22	3.56 Sec	312	60.0	27.4	388.9	5198	55.2	3510
23	5.33 Sec	1133	81.3	30.7	582.5	7411	55.8	4553
24	7.11 Sec	1150	101.2	33.5	1090.8	9549	50.7	5490
25	10.67 Sec	618	144.6	35.4	1409.3	13975	44.8	6913
26	14.22 Sec	636	178.0	36.3	730.9	17905	37.9	8085
27	21.33 Sec	180	220.4	35.9	552.1	24403	33.4	9849
28	28.44 Sec	310	239.7	35.4	393.8	29385	28.0	11289
29	42.67 Sec	150	260.9	33.1	288.6	37547	22.6	13382
30	56.89 Sec	298	248.2	31.0	153.2	42290	22.7	14953
31	85.33 Sec	141	221.4	29.8	101.7	48917	22.6	17933
32	113.78 Sec	129	192.0	28.2	82.8	52603	20.7	20172
33	170.67 Sec	36	168.1	26.7	80.6	60276	21.2	24044
34	227.56 Sec	72	150.5	26.1	101.9	65851	20.5	27403
35	341.33 Sec	30	147.1	24.6	128.1	79741	19.3	32617
36	455.11 Sec	39	143.4	23.9	131.7	90929	19.0	37150
37	682.67 Sec	9	142.8	22.7	161.1	111122	17.4	44307
38	910.22 Sec	3	149.5	21.8	206.4	131297	16.6	50174

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
3	192.00 Hz	372	71.27	-60.27	999.99	-59.75	642.38	999.99
4	144.00 Hz	925	-5.16	17.65	32.27	82.35	487.91	192.76
5	96.00 Hz	457	14.52	9.37	35.34	71.53	318.48	95.81
6	72.00 Hz	85	18.16	-10.76	999.99	100.47	235.39	359.46
7	48.00 Hz	636	-1.82	4.36	11.99	14.83	175.51	38.02
8	36.00 Hz	906	-2.86	4.93	3.03	26.03	130.44	5.97
9	24.00 Hz	475	-.60	4.26	1.98	20.83	90.22	4.51
10	18.00 Hz	287	-1.95	1.76	2.41	17.00	69.62	4.51
11	12.00 Hz	864	-.29	1.73	.60	17.04	48.84	.80
12	9.00 Hz	480	2.30	1.36	.42	15.60	36.94	.52
13	6.00 Hz	576	-1.07	1.44	.83	12.52	26.96	1.33
14	4.50 Hz	384	.33	1.29	1.98	10.74	22.60	1.86
15	3.00 Hz	6976	1.09	-.77	1.39	12.49	14.60	3.27
16	2.25 Hz	6144	1.46	-.45	.88	10.67	13.12	1.95
17	1.50 Hz	2240	.61	-1.87	3.85	11.11	8.54	4.13
18	1.13 Hz	2064	-.11	-1.94	5.73	10.75	6.59	3.74
19	1.33 Sec	608	-.323	-.185	20.905	10.319	4.694	15.293
20	1.78 Sec	2560	.252	-2.037	14.123	9.298	4.550	7.602
21	2.67 Sec	1296	1.560	-1.030	99.999	12.562	4.909	99.999
22	3.56 Sec	312	.840	-2.295	99.999	8.045	2.457	14.004
23	5.33 Sec	1133	.824	-1.317	2.560	7.588	1.948	1.287
24	7.11 Sec	1150	1.333	-1.908	3.940	8.879	2.035	1.167
25	10.67 Sec	618	1.157	-.409	3.063	7.711	2.188	1.443
26	14.22 Sec	636	1.432	-.361	.216	7.492	3.740	.079
27	21.33 Sec	180	1.231	.311	.029	6.279	3.630	.081
28	28.44 Sec	310	1.196	.539	.009	5.277	4.055	.019
29	42.67 Sec	150	.693	.658	.010	3.956	3.953	.028
30	56.89 Sec	298	.567	.680	.011	3.173	3.407	.015
31	85.33 Sec	141	.417	.473	.010	2.162	2.870	.013
32	113.78 Sec	129	.395	.477	.010	1.726	2.223	.006
33	170.67 Sec	36	.348	.373	.021	1.418	1.655	.043
34	227.56 Sec	72	.296	.334	.020	1.068	1.350	.011
35	341.33 Sec	30	.263	.327	.010	.957	1.050	.009
36	455.11 Sec	39	.309	.073	.219	.745	.915	.170
37	682.67 Sec	9	.436	.296	.038	.773	.674	.056
38	910.22 Sec	3	.103	.054	.706	.575	.600	.160

PHOENIX GEOSCIENCE

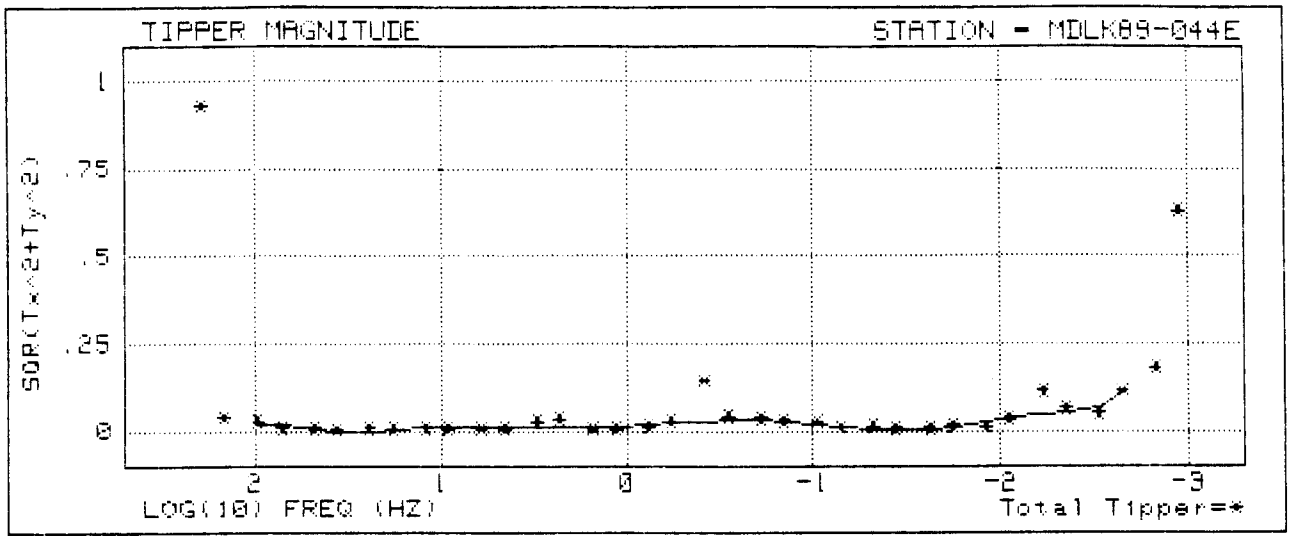
MT Site: MDLK89-044E

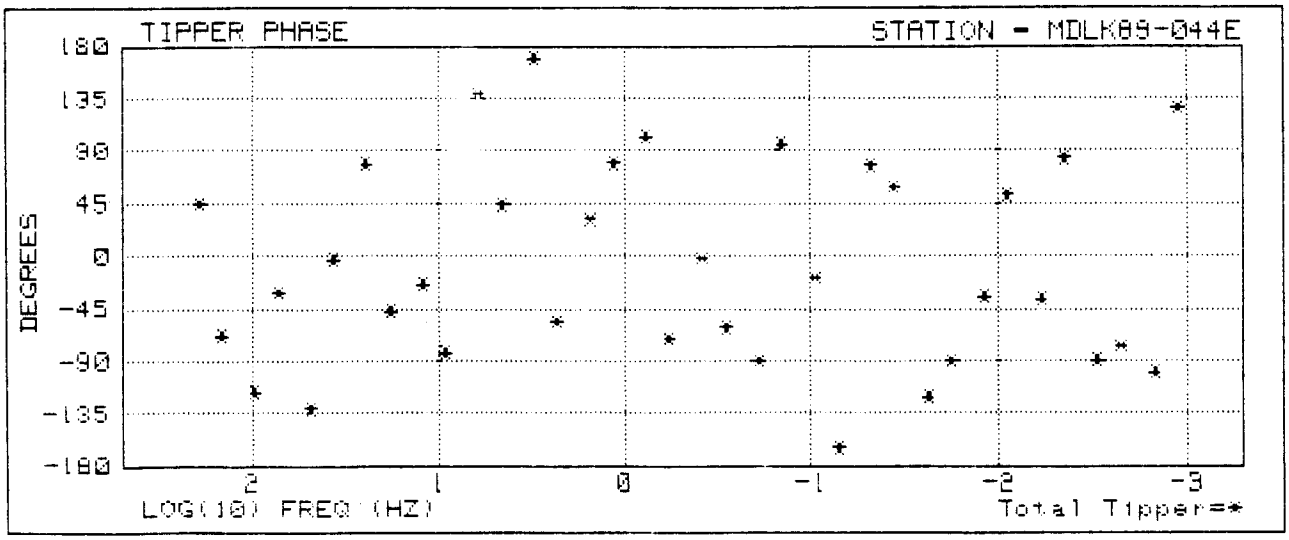
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

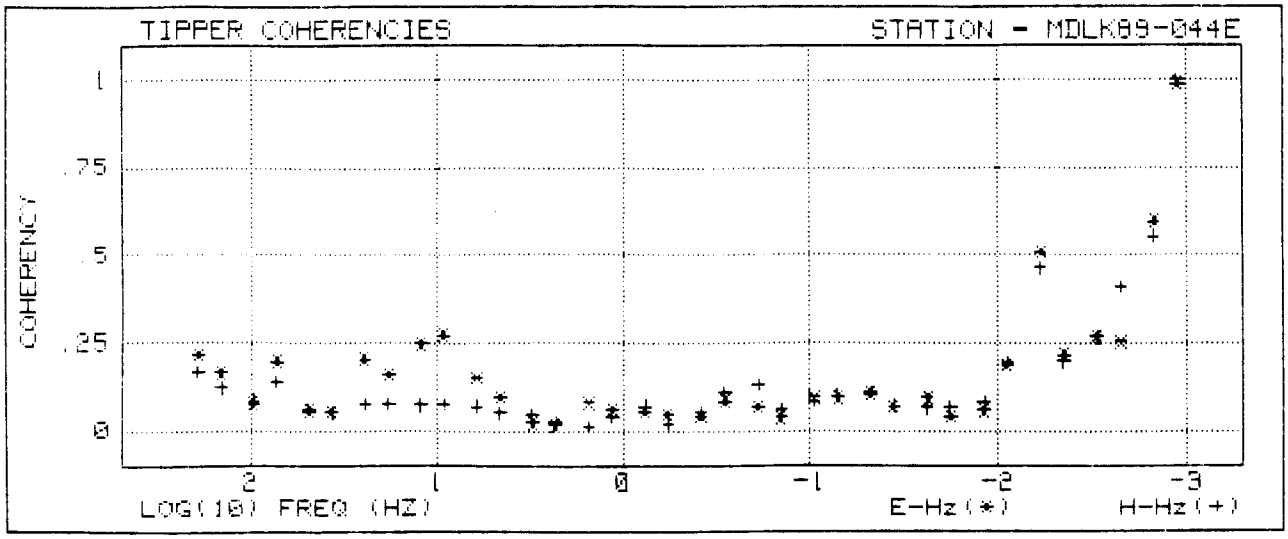
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
3	192.00 Hz	372	-200.48	-493.76	999.99	121.07	26.94	999.99
4	144.00 Hz	925	-73.56	-367.53	23.31	11.69	16.42	139.27
5	96.00 Hz	457	-49.62	-261.05	29.99	-2.49	15.86	81.31
6	72.00 Hz	85	-67.71	-208.79	835.16	.74	10.70	269.42
7	48.00 Hz	636	-11.21	-145.96	11.96	-1.43	4.31	37.92
8	36.00 Hz	906	-22.97	-106.74	3.23	3.55	4.10	6.37
9	24.00 Hz	475	-19.33	-72.40	1.46	2.56	4.00	3.34
10	18.00 Hz	287	-16.94	-56.87	2.36	-.44	1.75	4.42
11	12.00 Hz	864	-12.62	-41.11	.69	.99	1.00	.92
12	9.00 Hz	480	-12.41	-30.14	.60	2.38	1.32	.74
13	6.00 Hz	576	-11.78	-22.32	.90	.31	1.22	1.43
14	4.50 Hz	384	-10.28	-17.61	1.47	-.15	1.33	1.38
15	3.00 Hz	6976	-8.58	-12.77	.39	.13	1.29	.92
16	2.25 Hz	6144	-8.27	-10.15	.52	-.30	.98	1.15
17	1.50 Hz	2240	-6.81	-8.09	2.40	.31	.99	2.58
18	1.13 Hz	2064	-6.12	-7.16	1.72	.26	1.05	1.12
19	1.33 Sec	608	-4.759	-5.703	5.134	-.146	.793	3.756
20	1.78 Sec	2560	-5.072	-5.506	16.475	1.059	1.533	8.867
21	2.67 Sec	1296	-5.579	-2.020	99.999	1.286	-.370	99.999
22	3.56 Sec	312	-4.360	-5.383	99.999	2.064	-.754	13.763
23	5.33 Sec	1133	-2.610	-1.571	10.969	.663	.813	5.516
24	7.11 Sec	1150	-4.169	-.538	18.534	.574	.480	5.492
25	10.67 Sec	618	-3.163	-2.596	11.700	1.231	.421	5.514
26	14.22 Sec	636	-2.562	-2.576	.601	1.181	.702	.220
27	21.33 Sec	180	-2.184	-1.945	.083	1.148	.512	.230
28	28.44 Sec	310	-1.781	-1.910	.033	1.183	.562	.070
29	42.67 Sec	150	-1.157	-1.567	.008	.773	.564	.022
30	56.89 Sec	298	-1.077	-1.326	.086	.758	.488	.116
31	85.33 Sec	141	-.771	-1.147	.063	.500	.406	.081
32	113.78 Sec	129	-.709	-.981	.140	.393	.479	.089
33	170.67 Sec	36	-.484	-.868	.185	.197	.551	.384
34	227.56 Sec	72	-.114	-.947	.508	.317	.285	.281
35	341.33 Sec	30	.258	-.552	1.140	.262	.329	1.027
36	455.11 Sec	39	-.702	-.143	1.962	.532	.060	1.528
37	682.67 Sec	9	.517	-.457	2.392	.542	-.333	3.463
38	910.22 Sec	3	-.128	-.153	.081	.094	.064	.018

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E







PHOENIX GEOSCIENCE

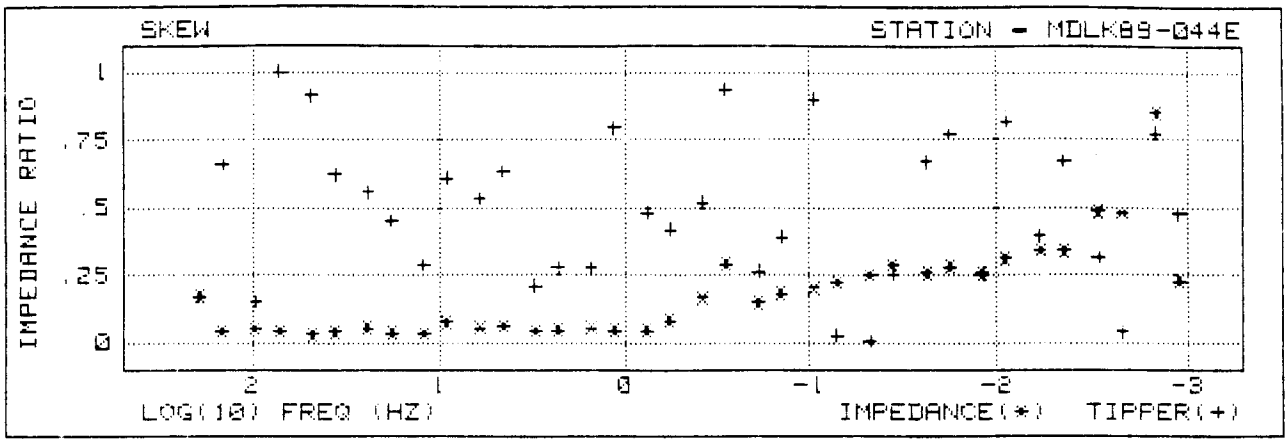
MT Site: MDLK89-044E

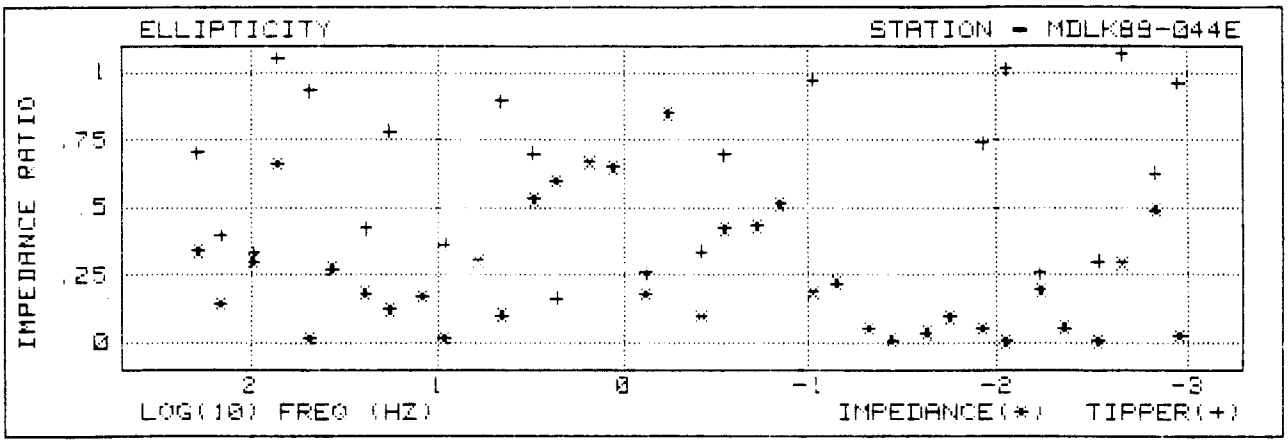
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

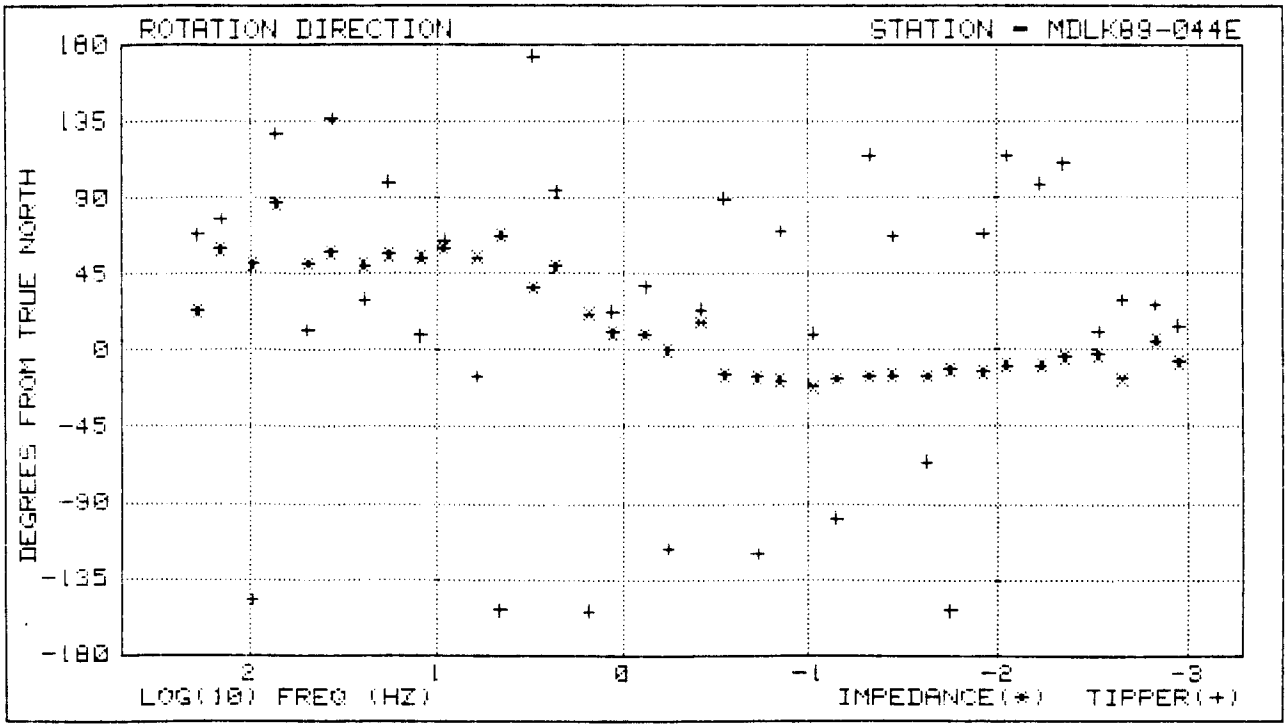
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
3	192.00 Hz	372	.93	44.00	.21	.16
4	144.00 Hz	925	.04	-68.88	.16	.12
5	96.00 Hz	457	.02	-117.54	.07	.08
6	72.00 Hz	85	.01	-32.14	.19	.13
7	48.00 Hz	636	.00	-131.83	.05	.06
8	36.00 Hz	906	.00	-3.85	.05	.05
9	24.00 Hz	475	.00	78.15	.20	.07
10	18.00 Hz	287	.00	-48.33	.15	.07
11	12.00 Hz	864	.01	-25.06	.24	.07
12	9.00 Hz	480	.00	-83.93	.27	.07
13	6.00 Hz	576	.00	138.55	.15	.07
14	4.50 Hz	384	.00	42.89	.09	.05
15	3.00 Hz	6976	.02	168.54	.02	.04
16	2.25 Hz	6144	.03	-57.25	.01	.02
17	1.50 Hz	2240	.00	30.19	.08	.01
18	1.13 Hz	2064	.00	78.88	.06	.04
19	1.33 Sec	608	.01	101.44	.05	.07
20	1.78 Sec	2560	.02	-71.59	.04	.01
21	2.67 Sec	1296	.14	-2.48	.04	.05
22	3.56 Sec	312	.04	-61.92	.08	.10
23	5.33 Sec	1133	.03	-90.56	.06	.13
24	7.11 Sec	1150	.03	95.17	.03	.05
25	10.67 Sec	618	.02	-19.25	.09	.08
26	14.22 Sec	636	.01	-165.18	.09	.09
27	21.33 Sec	180	.01	76.37	.10	.11
28	28.44 Sec	310	.01	58.35	.06	.07
29	42.67 Sec	150	.01	-121.88	.09	.06
30	56.89 Sec	298	.01	-90.86	.04	.06
31	85.33 Sec	141	.01	-35.69	.05	.08
32	113.78 Sec	129	.03	51.76	.18	.19
33	170.67 Sec	36	.11	-37.42	.51	.46
34	227.56 Sec	72	.06	82.69	.21	.19
35	341.33 Sec	30	.05	-90.05	.27	.26
36	455.11 Sec	39	.11	-78.45	.25	.41
37	682.67 Sec	9	.18	-100.89	.59	.55
38	910.22 Sec	3	.63	125.47	.99	1.00

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E







PHOENIX GEOSCIENCE

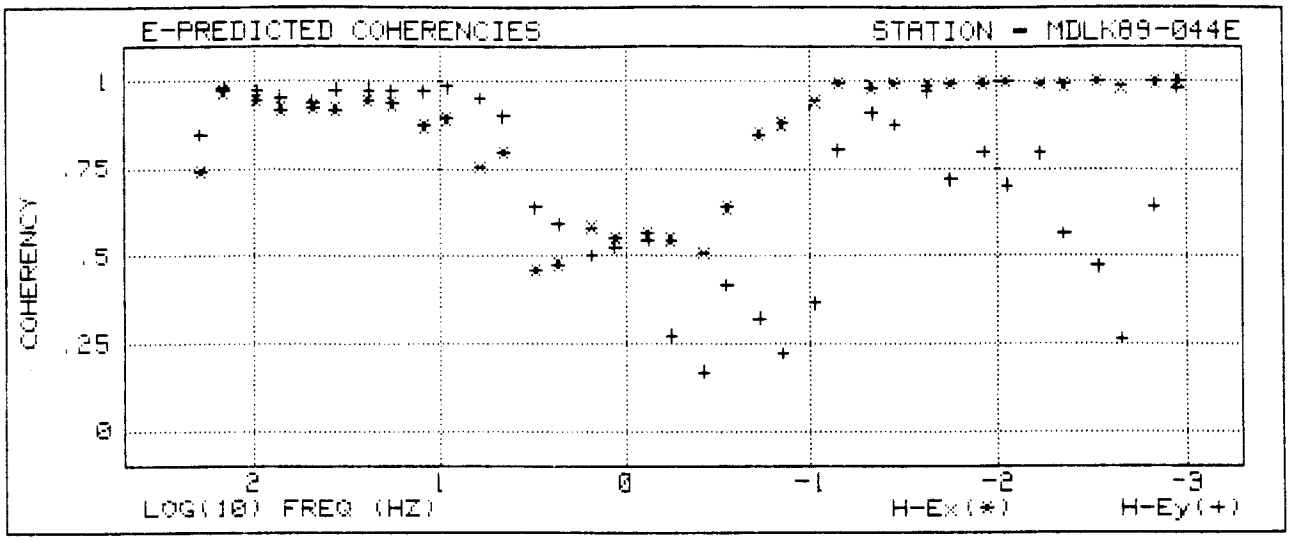
MT Site: MDLK89-044E

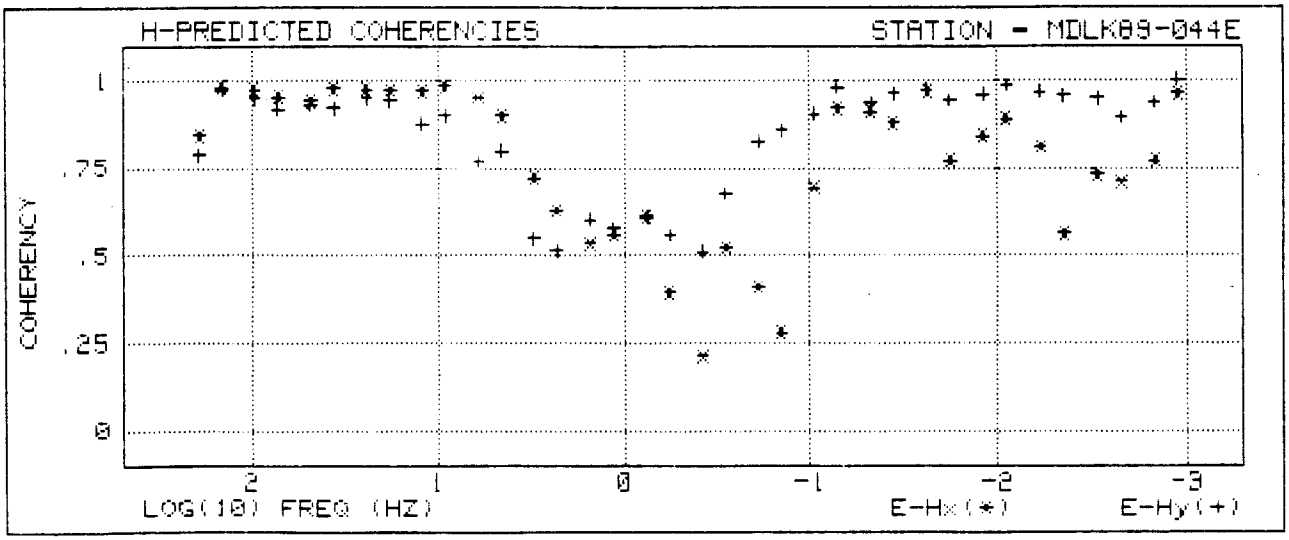
SKEW, ELLIPTICITY AND STRIKE

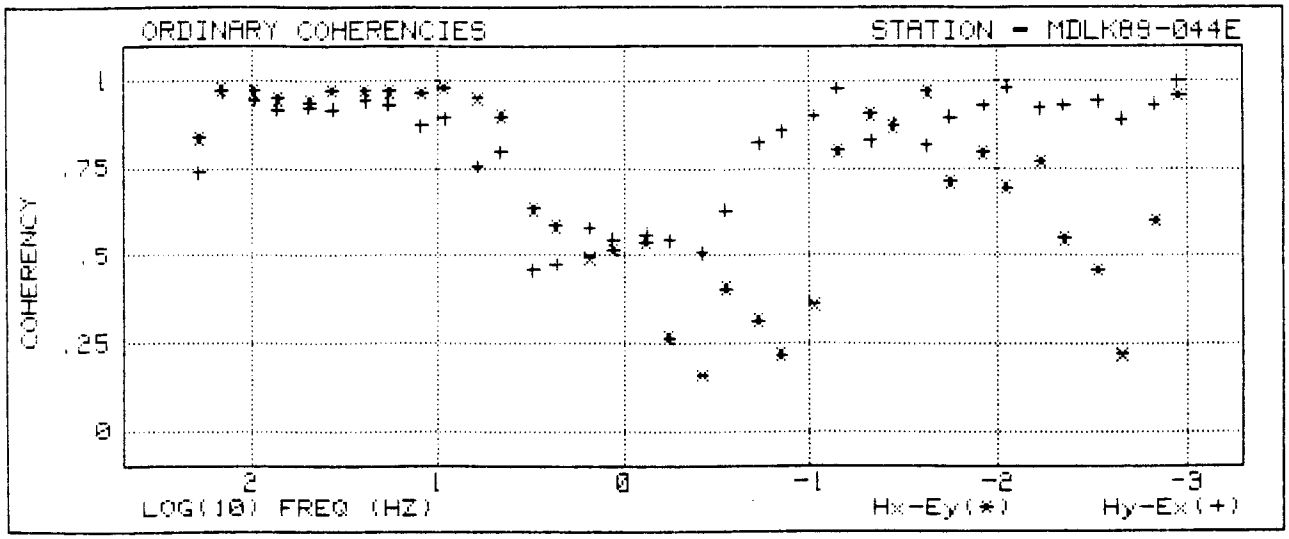
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
3	192.00 Hz	372	.17	.34	22.61	.17	.70	67.53
4	144.00 Hz	925	.04	.14	58.72	.66	.39	76.53
5	96.00 Hz	457	.05	.30	50.05	.15	.33	-147.57
6	72.00 Hz	85	.04	.66	85.90	1.00	1.05	127.19
7	48.00 Hz	636	.03	.01	50.53	.91	.93	11.20
8	36.00 Hz	906	.04	.27	57.03	.62	2.76	135.89
9	24.00 Hz	475	.05	.18	49.41	.56	.42	29.26
10	18.00 Hz	287	.03	.12	55.66	.45	.78	98.50
11	12.00 Hz	864	.03	.17	54.00	.28	4.91	8.20
12	9.00 Hz	480	.07	.01	59.29	.60	.36	63.88
13	6.00 Hz	576	.05	.30	53.65	.53	2.59	-16.23
14	4.50 Hz	384	.06	.10	66.68	.63	.89	-153.81
15	3.00 Hz	6976	.04	.53	36.07	.21	.70	172.43
16	2.25 Hz	6144	.04	.59	48.77	.27	.16	93.46
17	1.50 Hz	2240	.05	.66	20.77	.28	1.96	-154.57
18	1.13 Hz	2064	.04	.65	9.53	.79	1.76	22.05
19	1.33 Sec	608	.04	.18	8.44	.48	.26	36.89
20	1.78 Sec	2560	.08	.84	-.65	.42	1.88	-117.47
21	2.67 Sec	1296	.16	.09	15.74	.51	.33	23.57
22	3.56 Sec	312	.29	.42	-15.23	.93	.69	88.76
23	5.33 Sec	1133	.15	.43	-16.60	.26	3.65	-120.40
24	7.11 Sec	1150	.18	.51	-18.61	.39	4.82	69.35
25	10.67 Sec	618	.20	.18	-22.27	.90	.96	8.95
26	14.22 Sec	636	.22	.22	-17.37	.02	7.21	-99.50
27	21.33 Sec	180	.25	.05	-16.16	.00	1.16	114.59
28	28.44 Sec	310	.28	.01	-15.44	.25	5.25	66.39
29	42.67 Sec	150	.25	.03	-15.92	.66	1.20	-66.17
30	56.89 Sec	298	.28	.09	-12.07	.76	2.14	-153.78
31	85.33 Sec	141	.26	.05	-13.68	.25	.73	68.02
32	113.78 Sec	129	.31	.00	-9.89	.81	1.01	114.09
33	170.67 Sec	36	.34	.19	-9.67	.39	.25	97.39
34	227.56 Sec	72	.34	.05	-5.19	.67	2.18	109.43
35	341.33 Sec	30	.48	.00	-3.50	.31	.30	10.12
36	455.11 Sec	39	.47	.29	-18.14	.04	1.06	28.61
37	682.67 Sec	9	.84	.49	4.87	.77	.62	25.72
38	910.22 Sec	3	.22	.02	-7.71	.47	.96	13.36

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E







PHOENIX GEOSCIENCE

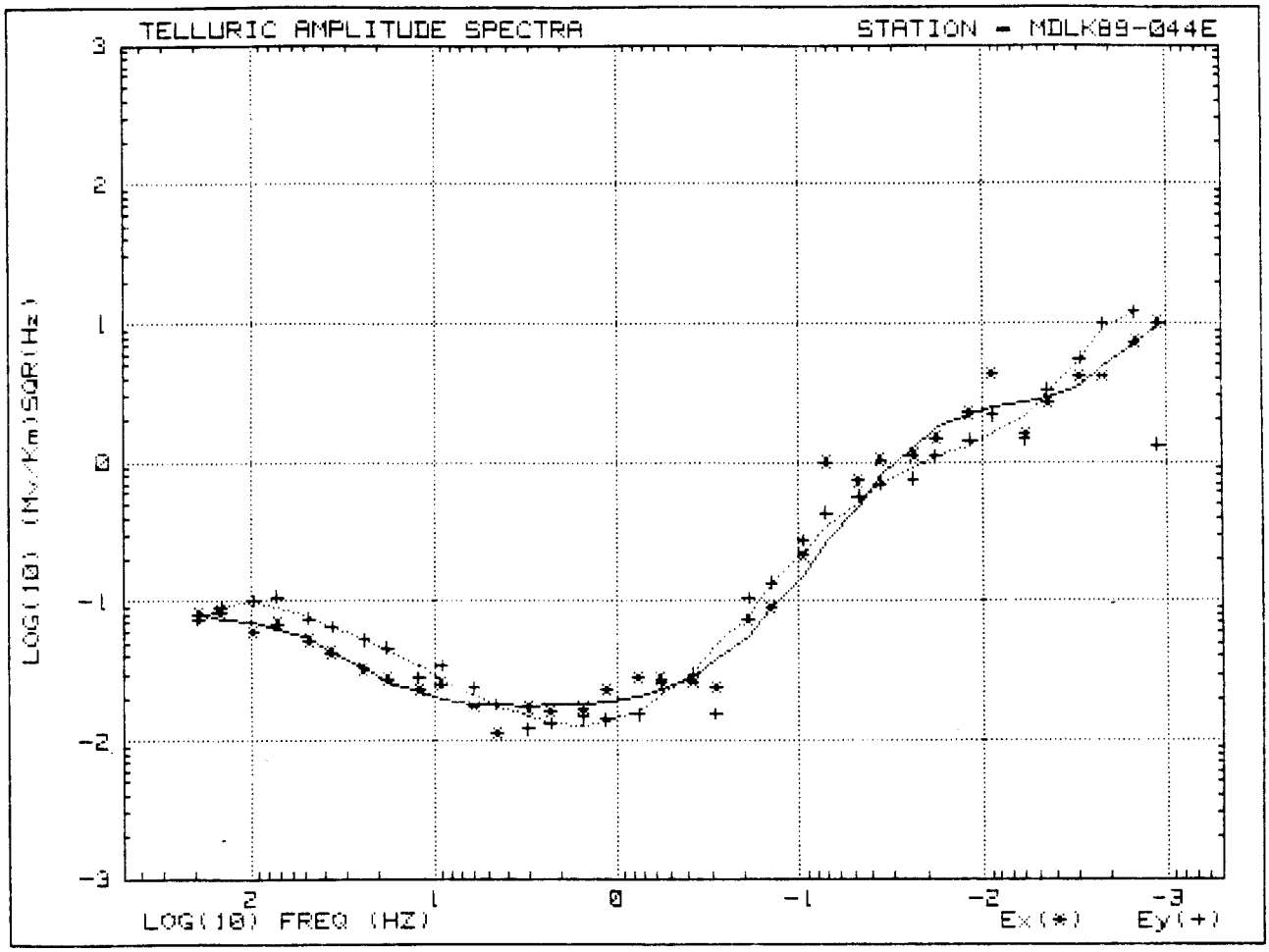
MT Site: MDLK89-044E

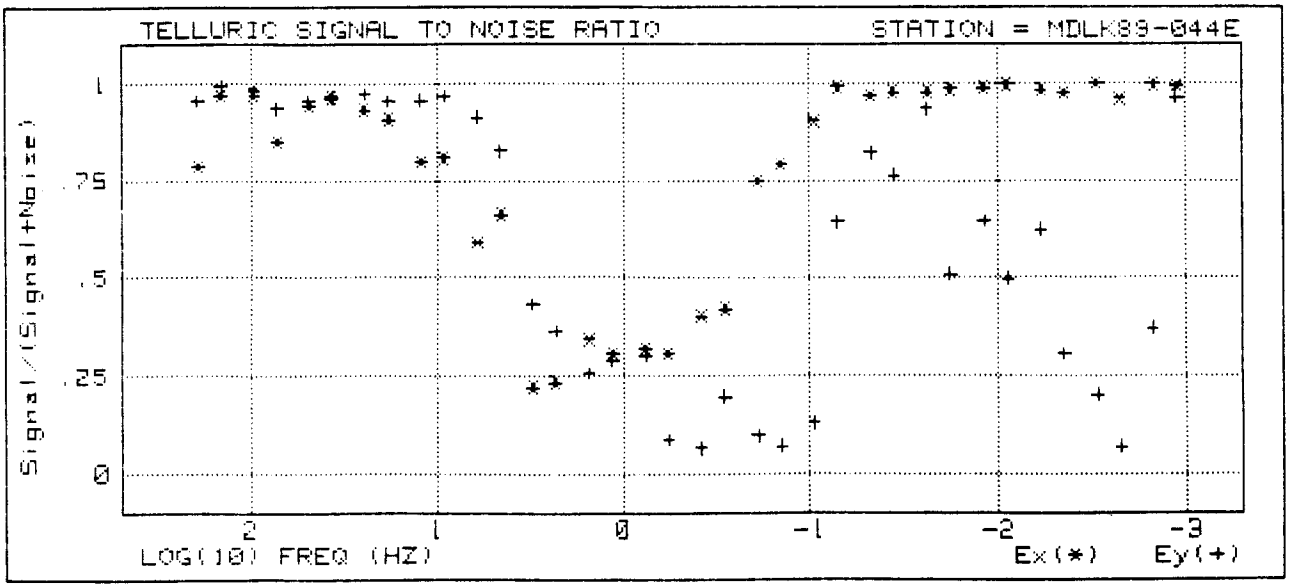
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
3	192.00 Hz	372	.74	.84	.84	.78	.83	.73
4	144.00 Hz	925	.97	.97	.98	.97	.97	.97
5	96.00 Hz	457	.94	.97	.97	.94	.97	.94
6	72.00 Hz	85	.91	.95	.95	.91	.95	.91
7	48.00 Hz	636	.92	.94	.94	.93	.94	.92
8	36.00 Hz	906	.91	.97	.97	.92	.97	.91
9	24.00 Hz	475	.94	.97	.97	.94	.97	.94
10	18.00 Hz	287	.93	.97	.97	.94	.97	.93
11	12.00 Hz	864	.87	.97	.97	.87	.96	.87
12	9.00 Hz	480	.89	.98	.98	.90	.97	.89
13	6.00 Hz	576	.75	.95	.95	.77	.94	.75
14	4.50 Hz	384	.79	.90	.90	.80	.89	.79
15	3.00 Hz	6976	.46	.64	.72	.55	.63	.46
16	2.25 Hz	6144	.47	.59	.63	.51	.58	.47
17	1.50 Hz	2240	.58	.50	.53	.60	.49	.57
18	1.13 Hz	2064	.55	.52	.56	.58	.51	.54
19	1.33 Sec	608	.56	.54	.61	.61	.54	.56
20	1.78 Sec	2560	.54	.27	.39	.55	.26	.54
21	2.67 Sec	1296	.51	.16	.21	.51	.16	.50
22	3.56 Sec	312	.64	.42	.52	.67	.40	.63
23	5.33 Sec	1133	.84	.32	.41	.82	.31	.82
24	7.11 Sec	1150	.87	.22	.28	.85	.21	.85
25	10.67 Sec	618	.94	.36	.69	.90	.36	.90
26	14.22 Sec	636	.99	.80	.92	.98	.80	.97
27	21.33 Sec	180	.98	.90	.91	.93	.90	.83
28	28.44 Sec	310	.99	.87	.88	.96	.87	.87
29	42.67 Sec	150	.98	.97	.97	.97	.97	.81
30	56.89 Sec	298	.99	.71	.77	.94	.71	.89
31	85.33 Sec	141	.99	.79	.84	.96	.79	.93
32	113.78 Sec	129	1.00	.70	.89	.98	.69	.98
33	170.67 Sec	36	.99	.79	.81	.96	.77	.92
34	227.56 Sec	72	.99	.56	.56	.95	.54	.93
35	341.33 Sec	30	1.00	.47	.73	.94	.46	.94
36	455.11 Sec	39	.98	.26	.71	.89	.22	.89
37	682.67 Sec	9	.99	.64	.77	.93	.60	.93
38	910.22 Sec	3	1.00	.98	.96	1.00	.95	.99

PHOENIX GEOSCIENCE

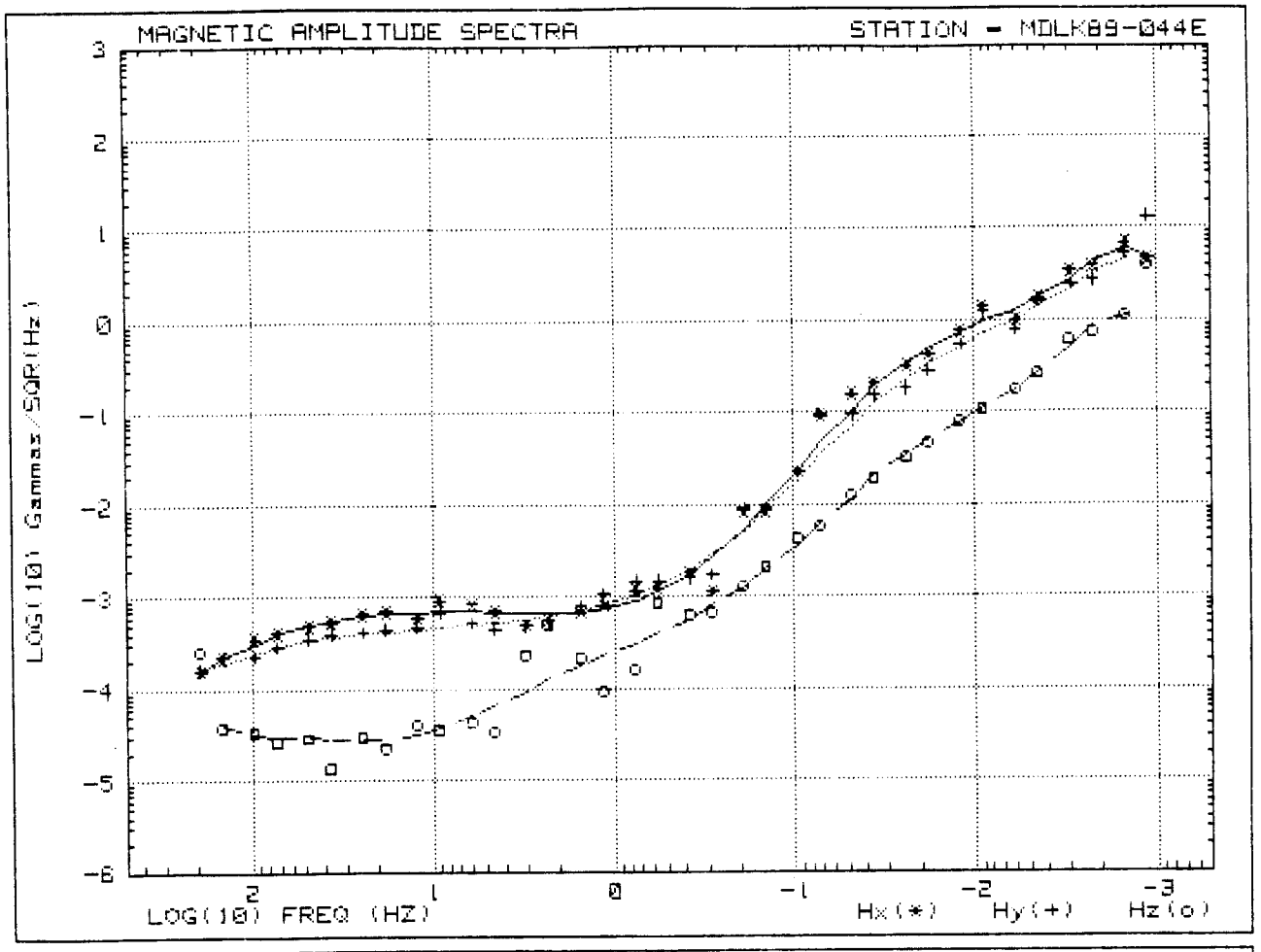
MT Site: MDLK89-044E

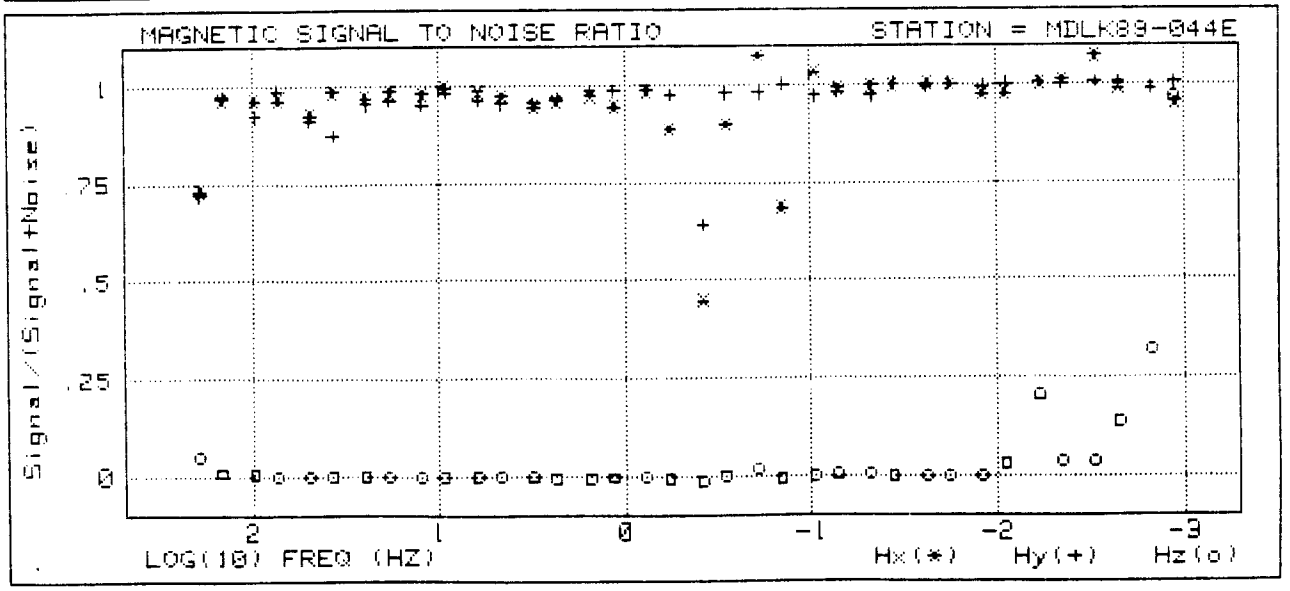




PHOENIX GEOSCIENCE

MT Site: MDLK89-044E





PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	372	1.57E-04	1.58E-04	2.74E-04	8.00E-02	7.30E-02
4	144.00 Hz	925	2.18E-04	2.18E-04	3.90E-05	8.30E-02	8.87E-02
5	96.00 Hz	457	3.49E-04	2.22E-04	3.53E-05	5.94E-02	9.96E-02
6	72.00 Hz	85	4.00E-04	2.82E-04	2.72E-05	6.79E-02	1.05E-01
7	48.00 Hz	636	4.74E-04	3.46E-04	3.04E-05	5.12E-02	7.32E-02
8	36.00 Hz	906	5.24E-04	3.93E-04	1.41E-05	4.21E-02	6.46E-02
9	24.00 Hz	475	6.39E-04	4.05E-04	3.17E-05	3.23E-02	5.21E-02
10	18.00 Hz	287	6.81E-04	4.38E-04	2.37E-05	2.70E-02	4.54E-02
11	12.00 Hz	864	5.81E-04	4.57E-04	4.27E-05	2.27E-02	2.80E-02
12	9.00 Hz	480	9.07E-04	6.76E-04	3.75E-05	2.51E-02	3.39E-02
13	6.00 Hz	576	8.15E-04	5.19E-04	4.50E-05	1.73E-02	2.37E-02
14	4.50 Hz	384	6.87E-04	4.44E-04	3.54E-05	1.12E-02	1.79E-02
15	3.00 Hz	6976	4.85E-04	4.81E-04	2.46E-04	1.69E-02	1.19E-02
16	2.25 Hz	6144	5.49E-04	5.41E-04	5.27E-04	1.59E-02	1.31E-02
17	1.50 Hz	2240	6.60E-04	7.72E-04	2.29E-04	1.68E-02	1.46E-02
18	1.13 Hz	2064	7.94E-04	1.05E-03	9.84E-05	2.29E-02	1.39E-02
19	1.33 Sec	608	1.15E-03	1.46E-03	1.65E-04	2.79E-02	1.51E-02
20	1.78 Sec	2560	1.21E-03	1.47E-03	8.80E-04	2.72E-02	2.55E-02
21	2.67 Sec	1296	1.82E-03	1.59E-03	6.59E-04	2.57E-02	2.92E-02
22	3.56 Sec	312	1.13E-03	1.70E-03	7.04E-04	2.37E-02	1.53E-02
23	5.33 Sec	1133	8.52E-03	8.91E-03	1.35E-03	7.33E-02	1.04E-01
24	7.11 Sec	1150	8.48E-03	9.20E-03	2.16E-03	8.83E-02	1.34E-01
25	10.67 Sec	618	2.23E-02	2.26E-02	4.55E-03	2.11E-01	2.70E-01
26	14.22 Sec	636	9.10E-02	9.53E-02	6.11E-03	9.81E-01	4.24E-01
27	21.33 Sec	180	1.57E-01	9.27E-02	1.34E-02	7.21E-01	5.61E-01
28	28.44 Sec	310	2.05E-01	1.52E-01	2.05E-02	1.02E+00	6.91E-01
29	42.67 Sec	150	3.22E-01	1.80E-01	3.38E-02	1.11E+00	7.42E-01
30	56.89 Sec	298	4.19E-01	2.80E-01	5.00E-02	1.46E+00	1.08E+00
31	85.33 Sec	141	7.50E-01	5.34E-01	8.55E-02	2.22E+00	1.41E+00
32	113.78 Sec	129	1.40E+00	1.20E+00	1.12E-01	4.27E+00	2.13E+00
33	170.67 Sec	36	9.91E-01	7.77E-01	1.87E-01	1.56E+00	1.43E+00
34	227.56 Sec	72	1.70E+00	1.60E+00	2.73E-01	2.68E+00	3.24E+00
35	341.33 Sec	30	3.33E+00	2.39E+00	6.32E-01	4.08E+00	5.51E+00
36	455.11 Sec	39	3.79E+00	2.65E+00	7.77E-01	4.07E+00	9.68E+00
37	682.67 Sec	9	6.78E+00	5.22E+00	1.18E+00	7.26E+00	1.19E+01
38	910.22 Sec	3	4.57E+00	1.30E+01	4.10E+00	1.00E+01	1.30E+00

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
3	192.00 Hz	372	.729	.719	.053	.785	.954
4	144.00 Hz	925	.965	.972	.014	.965	.989
5	96.00 Hz	457	.962	.919	.009	.969	.976
6	72.00 Hz	85	.963	.987	.002	.847	.933
7	48.00 Hz	636	.924	.909	.002	.942	.951
8	36.00 Hz	906	.982	.872	.002	.963	.962
9	24.00 Hz	475	.969	.951	.004	.931	.972
10	18.00 Hz	287	.982	.962	.003	.906	.953
11	12.00 Hz	864	.976	.949	.006	.797	.956
12	9.00 Hz	480	.994	.982	.004	.806	.967
13	6.00 Hz	576	.984	.962	.004	.588	.912
14	4.50 Hz	384	.972	.952	.002	.660	.825
15	3.00 Hz	6976	.942	.953	.002	.219	.431
16	2.25 Hz	6144	.958	.963	.001	.232	.362
17	1.50 Hz	2240	.970	.984	.000	.341	.256
18	1.13 Hz	2064	.943	.984	.001	.305	.286
19	1.33 Sec	608	.982	.984	.005	.317	.298
20	1.78 Sec	2560	.885	.972	0.000	.305	.085
21	2.67 Sec	1296	.445	.640	0.000	.402	.064
22	3.56 Sec	312	.898	.976	.007	.420	.195
23	5.33 Sec	1133	1.000	.978	.022	.745	.096
24	7.11 Sec	1150	.685	.999	0.000	.790	.068
25	10.67 Sec	618	1.000	.971	.004	.901	.126
26	14.22 Sec	636	.989	.980	.008	.989	.644
27	21.33 Sec	180	.996	.971	.012	.967	.819
28	28.44 Sec	310	.996	1.000	.004	.975	.760
29	42.67 Sec	150	1.000	.992	.002	.976	.932
30	56.89 Sec	298	.998	.999	.006	.982	.508
31	85.33 Sec	141	.973	.994	.004	.987	.646
32	113.78 Sec	129	.975	1.000	.037	.995	.496
33	170.67 Sec	36	1.000	1.000	.210	.981	.622
34	227.56 Sec	72	1.000	.997	.044	.974	.306
35	341.33 Sec	30	1.000	1.000	.040	.997	.200
36	455.11 Sec	39	.988	1.000	.142	.957	.069
37	682.67 Sec	9	1.000	.988	.324	.995	.371
38	910.22 Sec	3	.952	1.000	.971	.992	.961

PHOENIX GEOSCIENCE

MT Site: MDLK89-044E

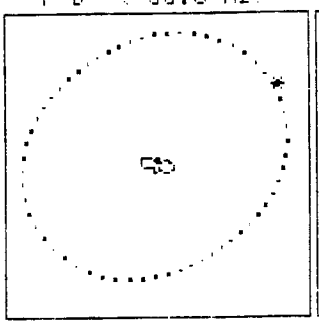
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

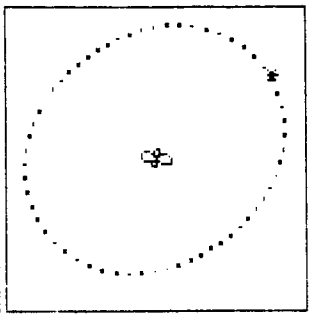
*=Rotation Direction

Zxy = ...
Zxx = ___

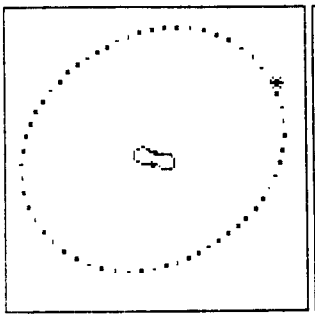
F=8 (36.0 Hz)



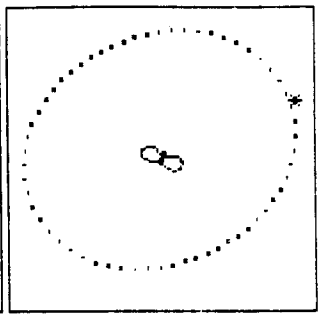
F=10 (18.0 Hz)



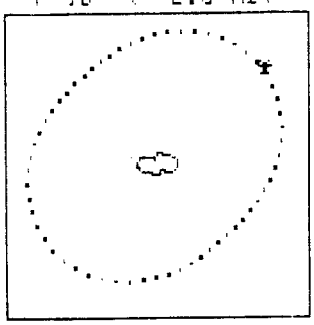
F=12 (9.0 Hz)



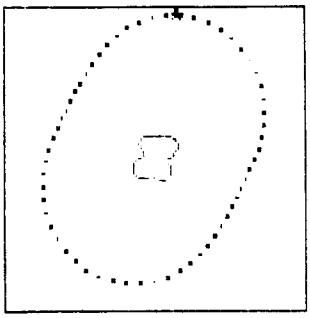
F=14 (4.5 Hz)



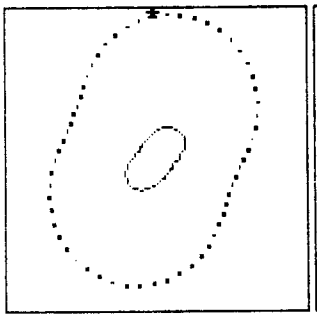
F=16 (2.3 Hz)



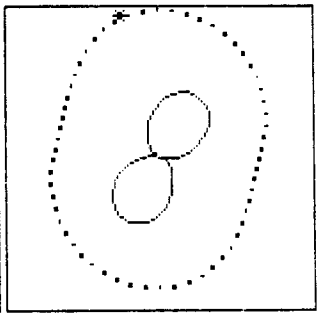
F=18 (1.1 Hz)



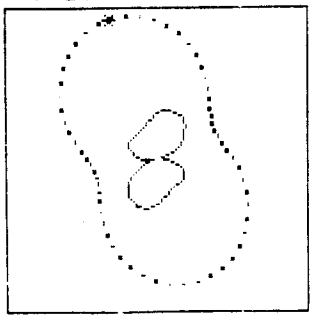
F=20 (.5625 Hz)



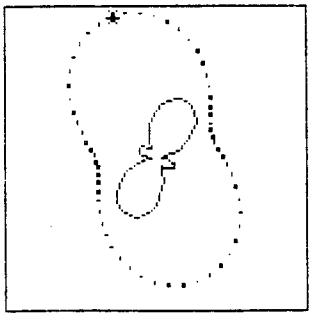
F=22 (.2813 Hz)



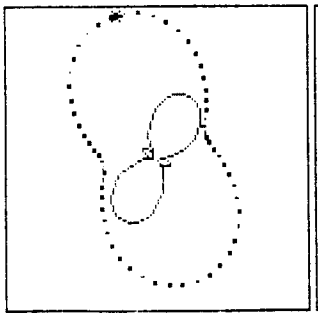
F=24 (.1406 Hz)



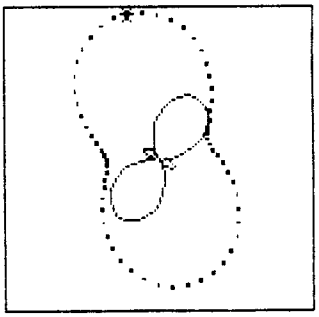
F=26 (.0703 Hz)



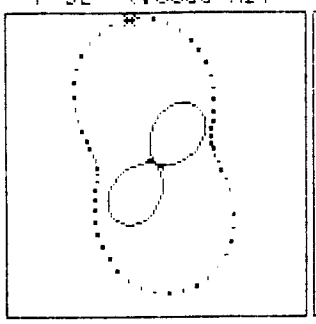
F=28 (.0352 Hz)



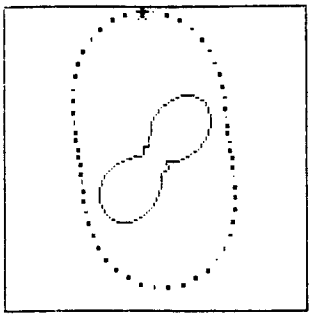
F=30 (.0176 Hz)



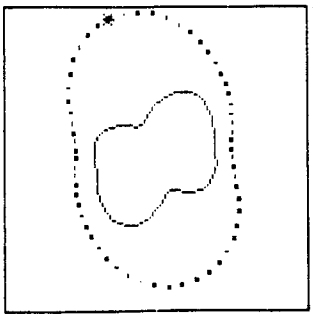
F=32 (.0088 Hz)



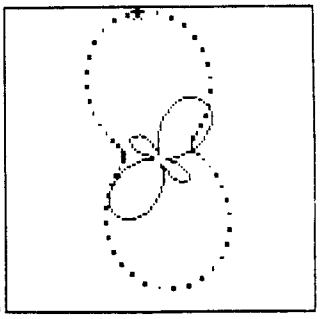
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-043s/044s/045s/

Operator:M. SNOW
Date: 13 Sep 1989
Time: 16:29:06

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#335-15Aug89-05
SP--Stn02: B#220-15Aug89-05
SP--Stn03: B#507-15Aug89-05
Sens-Ch01: C#210-16Aug89-01
Sens-Ch02: C#432-16Aug89-01
Sens-Ch03: L#405-02Jul89-01
Sens-Ch06: C#430-16Aug89-01
Sens-Ch07: C#452-16Aug89-01
Sens-Ch08: L#005-29May89-01
Sens-Ch11: C#205-05Sep89-01
Sens-Ch12: C#431-16Aug89-01
Sens-Ch13: L#333-02Jul89-01

Station 3

Stn Number:MDLK89-045s
Site Desc:T43N R3E SEC4 SW4
41,35,50 N 121,38,21 W
Elevation:7035 FT
Reference:MDLK89-044s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KRIESA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	11	COIL205	+0 DEG
Hy	12	COIL431	+90 DEG
Hz	13	LOOP333	Doubled
Ex	14	166 M	+0 DEG
Ey	15	173 M	+90 DEG
Rx	6	COIL430	+0 DEG
Ry	7	COIL452	+90 DEG

Ex Pot Resist: 12.0K Ohms
Ex Voltage: AC=19.0 mv, DC=196.0 mv
Ey Pot Resist: 14.0K Ohms
Ey Voltage: AC=8.40 mv, DC=7.30 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

OPERATOR LOG FOR MT SITES MDLK89-043s/044s/045s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-043a/044a/045a/
Run STARTED: 16:29:06 13 Sep 1989
Run QUIT: 03:44:20 14 Sep 1989
Run Start and Stop Time for MDLK89-043b/044b/045b/
Run STARTED: 04:19:52 14 Sep 1989
Run QUIT: 14:16:00 14 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR
Other Factors:
NONE

PHOENIX GEOSCIENCE

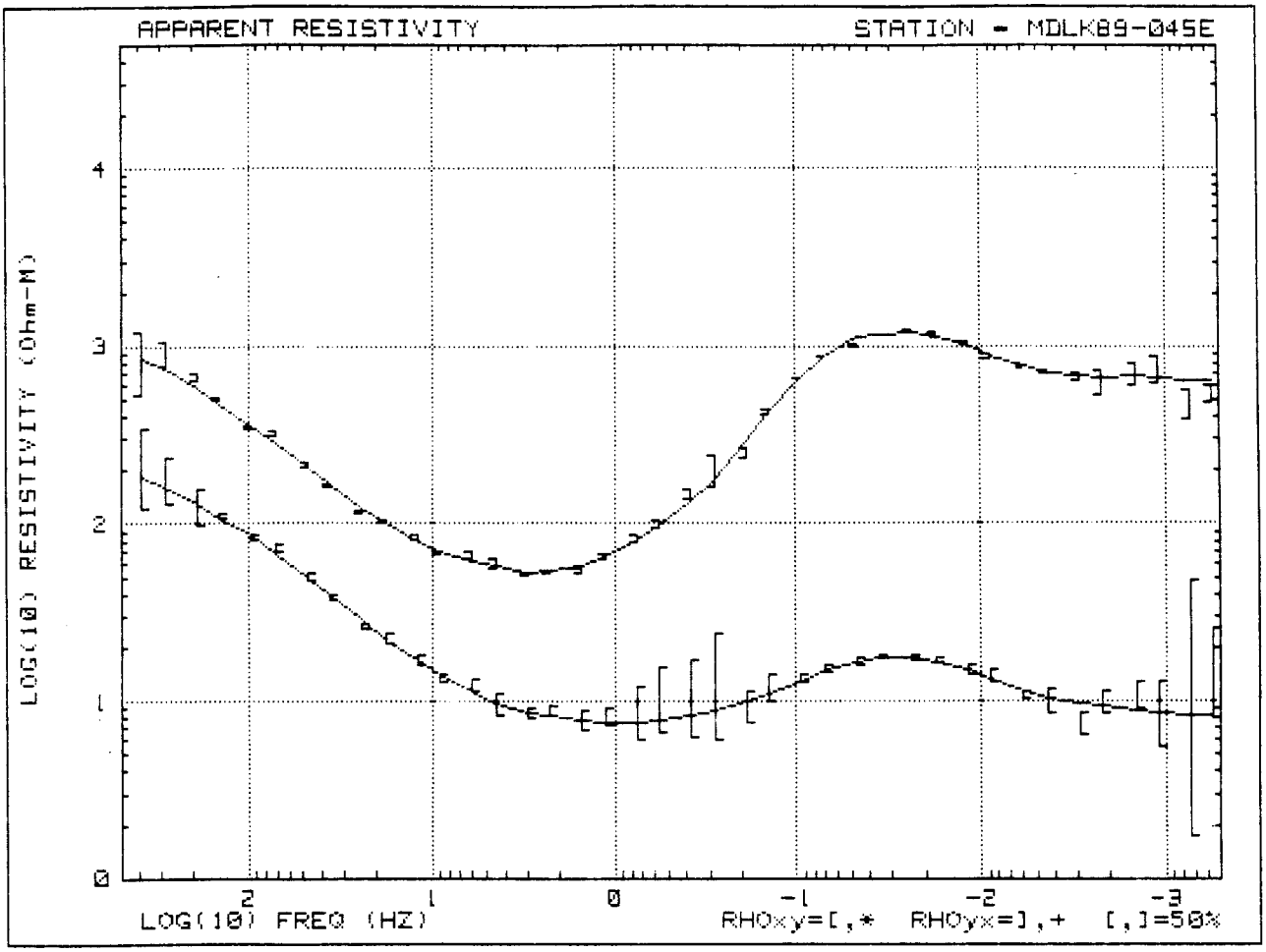
MT Site: MDLK89-045E

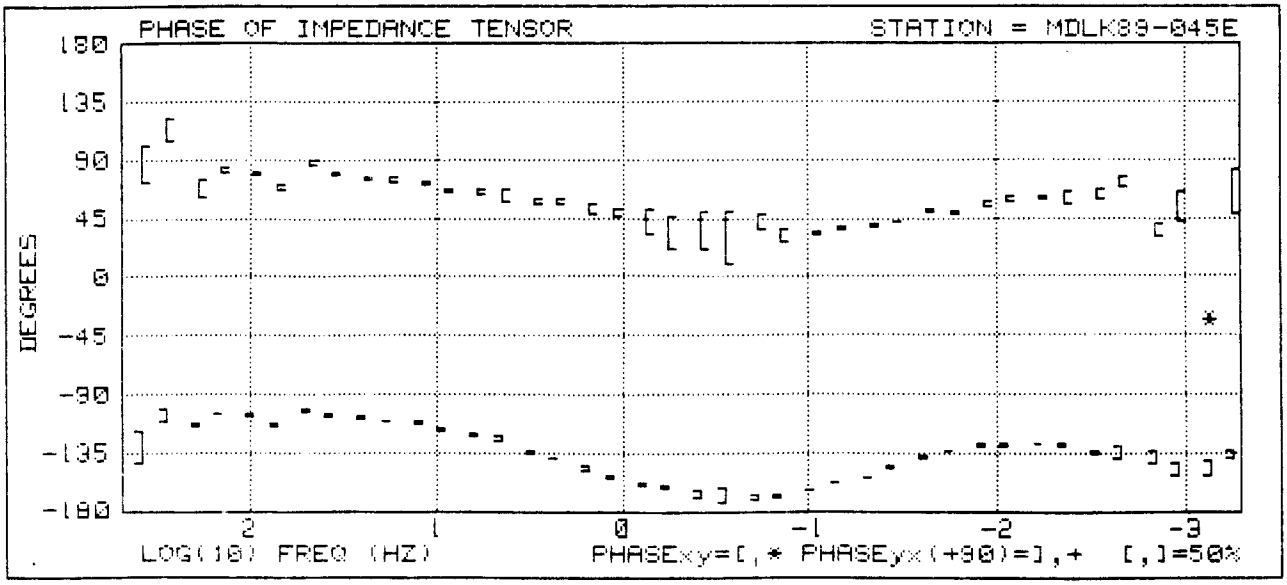
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E





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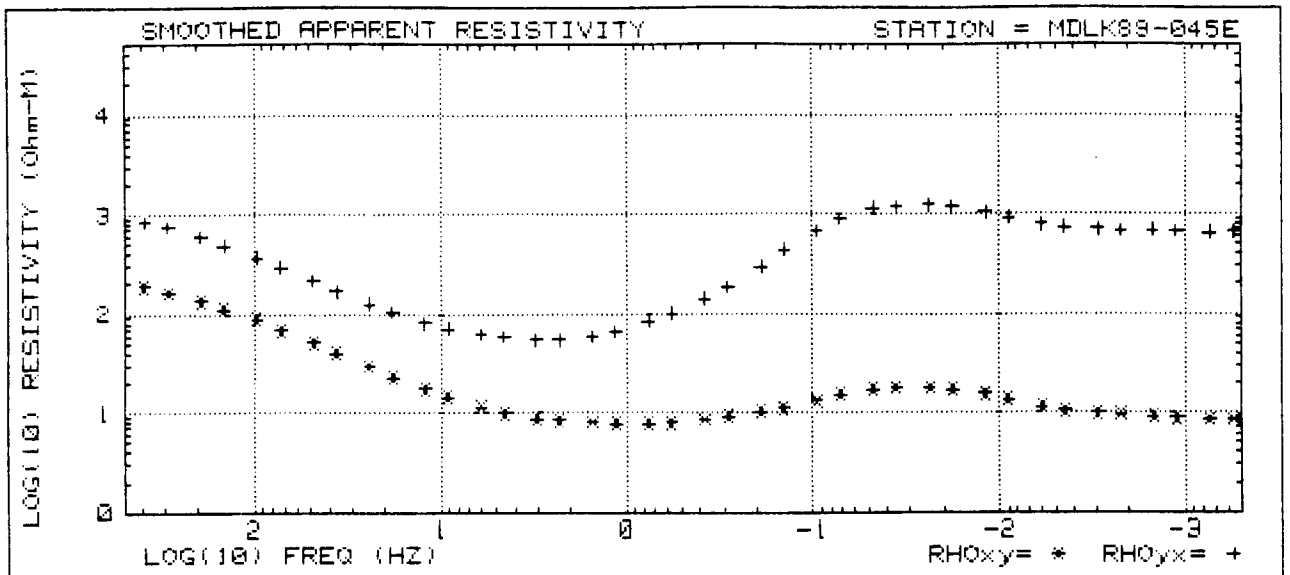
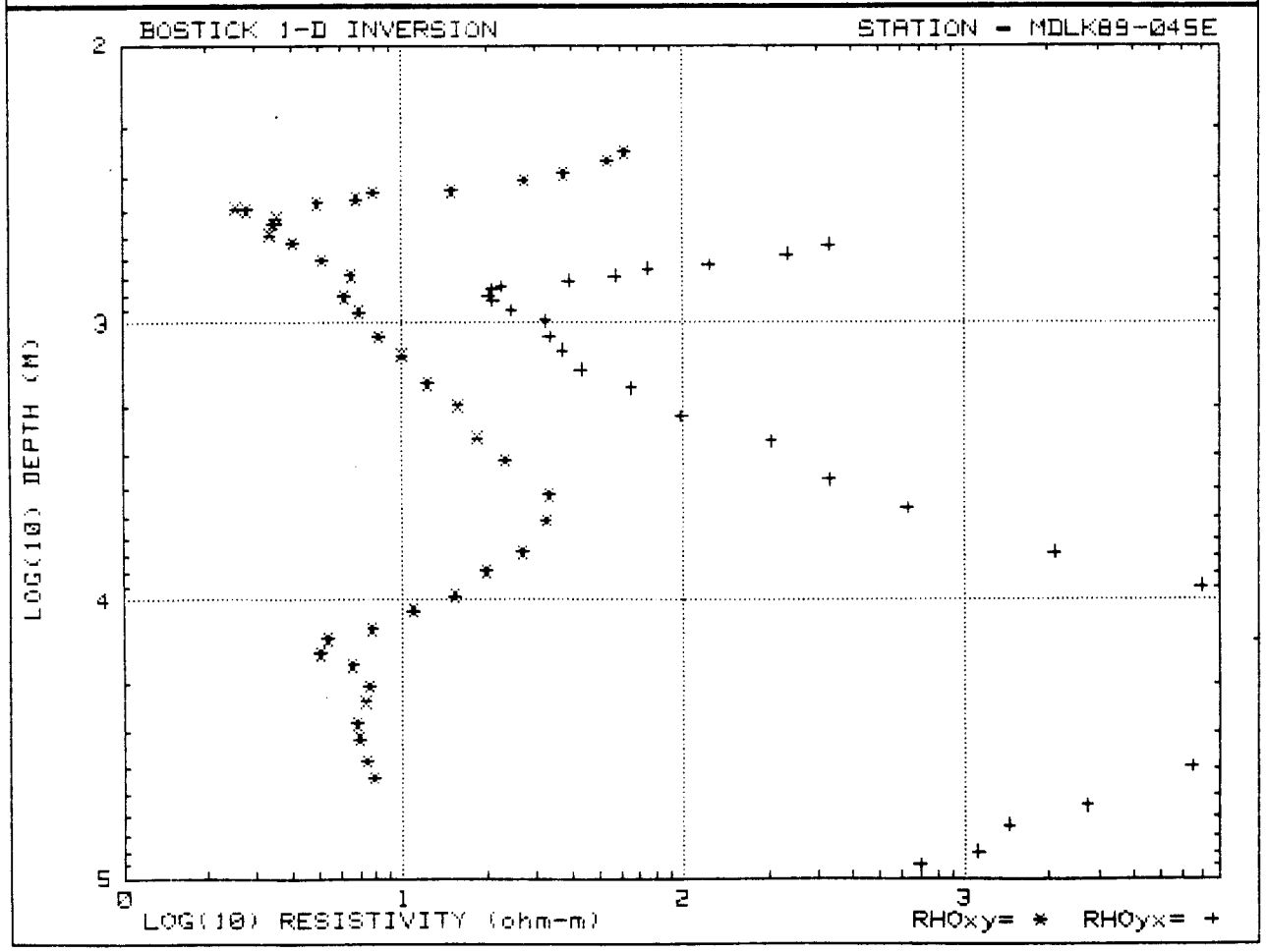
MT Site: MDLK89-045E





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MT Site: MDLK89-045E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	419	205.2	99.9	797.7	86.3	86.8	21.6	-130.7	17.8
2	288.00 Hz	546	175.6	53.3	908.6	25.1	113.0	12.2	-106.0	6.4
3	192.00 Hz	362	125.4	42.4	665.2	7.9	68.4	10.1	-113.1	2.2
4	144.00 Hz	281	111.5	6.5	514.0	2.4	82.0	1.8	-104.6	.7
5	96.00 Hz	548	84.6	3.7	345.2	2.3	78.6	1.0	-105.8	.6
6	72.00 Hz	359	72.5	7.0	318.2	4.9	68.6	1.9	-113.6	1.4
7	48.00 Hz	269	50.3	7.9	213.2	4.1	87.2	2.2	-101.7	1.1
8	36.00 Hz	636	38.7	5.4	165.8	3.1	79.5	1.5	-106.3	.9
9	24.00 Hz	950	26.7	5.3	117.7	2.5	75.0	1.5	-107.9	.7
10	18.00 Hz	383	22.4	10.3	103.0	3.9	75.2	2.8	-110.4	1.1
11	12.00 Hz	384	17.0	9.8	84.0	5.6	71.6	2.7	-110.9	1.6
12	9.00 Hz	768	13.6	6.4	69.1	3.5	65.9	1.8	-117.7	1.0
13	6.00 Hz	958	12.4	13.1	66.1	5.9	64.7	3.5	-120.5	1.6
14	4.50 Hz	768	9.5	23.8	58.9	9.1	62.0	6.1	-123.7	2.5
15	3.00 Hz	5984	8.6	10.9	51.3	3.3	57.9	3.0	-133.8	.9
16	2.25 Hz	3680	8.8	11.8	52.9	3.2	57.1	3.2	-138.7	.9
17	1.50 Hz	2992	7.9	19.4	54.3	5.5	51.6	5.1	-146.4	1.5
18	1.13 Hz	2640	8.2	19.0	65.2	4.7	48.7	5.0	-152.3	1.3
19	1.33 Sec	912	8.6	68.6	82.9	8.3	42.1	15.0	-158.4	2.3
20	1.78 Sec	2140	10.1	88.3	99.0	8.3	33.5	18.1	-160.7	2.3
21	2.67 Sec	624	10.4	99.9	146.9	10.9	35.0	21.2	-166.3	3.0
22	3.56 Sec	1248	12.2	99.9	200.2	36.2	30.5	29.6	-167.4	8.9
23	5.33 Sec	1181	9.2	36.6	251.3	7.7	42.3	8.9	-169.5	2.1
24	7.11 Sec	1018	11.9	27.1	422.2	4.9	32.8	6.9	-168.1	1.4
25	10.67 Sec	522	13.6	8.2	659.7	1.7	34.2	2.3	-163.3	.5
26	14.22 Sec	600	15.4	5.8	880.8	1.0	37.7	1.6	-158.2	.3
27	21.33 Sec	358	16.8	6.0	1017.8	2.0	39.8	1.7	-153.7	.6
28	28.44 Sec	262	17.9	3.8	1158.7	1.4	42.4	1.1	-145.5	.4
29	42.67 Sec	250	17.7	5.0	1200.3	2.5	50.8	1.4	-138.3	.7
30	56.89 Sec	304	17.0	5.6	1185.3	1.5	48.4	1.5	-133.7	.4
31	85.33 Sec	99	15.2	11.2	1029.9	2.2	55.8	3.0	-128.7	.6
32	113.78 Sec	171	13.9	11.2	877.2	3.8	58.8	3.1	-128.6	1.1
33	170.67 Sec	51	10.9	6.4	760.6	4.1	60.1	1.8	-127.5	1.2
34	227.56 Sec	9	10.0	25.2	718.2	2.8	60.3	6.4	-128.8	.8
35	341.33 Sec	27	7.4	21.9	664.5	8.1	63.0	5.7	-134.3	2.2
36	455.11 Sec	3	10.0	23.9	620.5	27.3	72.4	6.1	-133.4	6.9
37	682.67 Sec	3	10.8	30.2	695.4	23.1	36.0	7.5	-138.0	5.9
38	910.22 Sec	12	8.4	85.8	740.2	28.2	54.0	17.7	-148.1	7.1
39	1365.33 Sec	3	9.2	99.9	469.4	34.7	-33.4	71.0	-146.9	8.5
40	1820.44 Sec	3	14.3	99.9	538.2	16.6	65.2	24.9	-136.8	4.4

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	419	184.5	846.4	62.7	247	332.5	528
2	288.00 Hz	546	160.1	746.6	54.3	265	235.9	573
3	192.00 Hz	362	131.0	590.3	37.9	294	124.2	624
4	144.00 Hz	281	109.3	475.1	27.3	310	75.7	646
5	96.00 Hz	548	86.5	357.1	15.1	338	58.1	686
6	72.00 Hz	359	67.1	288.4	7.9	344	39.6	712
7	48.00 Hz	269	50.0	211.1	6.9	363	22.7	746
8	36.00 Hz	636	39.7	165.0	5.0	374	21.1	762
9	24.00 Hz	950	29.2	123.6	2.6	393	20.5	808
10	18.00 Hz	383	22.2	100.5	2.8	397	21.2	841
11	12.00 Hz	384	17.1	78.7	3.6	424	24.6	911
12	9.00 Hz	768	14.1	69.9	3.5	446	32.7	992
13	6.00 Hz	958	11.2	61.2	3.4	487	33.7	1136
14	4.50 Hz	768	9.7	57.2	4.1	523	37.6	1269
15	3.00 Hz	5984	8.5	53.0	5.2	598	43.9	1496
16	2.25 Hz	3680	8.2	53.6	6.6	681	66.1	1737
17	1.50 Hz	2992	7.8	57.0	6.2	814	98.9	2194
18	1.13 Hz	2640	7.6	64.6	7.0	925	206.9	2696
19	1.33 Sec	912	7.6	82.0	8.2	1135	333.2	3720
20	1.78 Sec	2140	7.8	98.2	10.0	1326	632.9	4703
21	2.67 Sec	624	8.3	136.1	12.3	1674	2100.3	6779
22	3.56 Sec	1248	8.9	180.6	15.9	2005	7041.6	9017
23	5.33 Sec	1181	10.1	289.9	18.6	2609	11304.4	13993
24	7.11 Sec	1018	11.0	425.8	23.5	3144	16606.8	19583
25	10.67 Sec	522	13.0	656.1	33.6	4185	25587.7	29772
26	14.22 Sec	600	14.9	869.0	32.7	5186	6481.5	39564
27	21.33 Sec	358	16.8	1113.8	26.9	6736	2754.0	54859
28	28.44 Sec	262	17.5	1165.9	19.9	7946	1452.3	64809
29	42.67 Sec	250	17.5	1201.6	15.3	9738	1123.0	80579
30	56.89 Sec	304	16.7	1138.9	10.9	10977	699.5	90587
31	85.33 Sec	99	15.2	1018.1	7.8	12809	480.6	104896
32	113.78 Sec	171	13.4	888.3	5.4	13899	383.5	113137
33	170.67 Sec	51	11.3	773.2	5.1	15643	392.9	129281
34	227.56 Sec	9	10.3	708.5	6.7	17233	487.2	142896
35	341.33 Sec	27	9.8	680.1	7.6	20544	565.0	171469
36	455.11 Sec	3	9.4	664.5	7.4	23330	647.8	195712
37	682.67 Sec	3	9.0	674.1	6.9	27854	653.2	241427
38	910.22 Sec	12	8.6	657.3	7.0	31550	561.2	275268
39	1365.33 Sec	3	8.4	638.3	7.5	38034	609.5	332227
40	1820.44 Sec	3	8.3	646.9	7.9	43764	709.8	386190

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	419	-151.75	-143.08	999.99	35.57	626.62	999.99
2	288.00 Hz	546	-132.67	-321.23	999.99	-196.32	462.94	999.99
3	192.00 Hz	362	-34.47	-73.11	966.16	127.80	322.59	999.99
4	144.00 Hz	281	-.82	-54.18	27.69	39.41	280.55	158.85
5	96.00 Hz	548	-3.06	-26.75	7.66	39.81	197.51	26.61
6	72.00 Hz	359	-4.82	-17.14	26.42	58.89	150.49	59.62
7	48.00 Hz	269	-3.07	-21.79	10.41	5.29	109.74	35.23
8	36.00 Hz	636	-3.30	-15.41	4.63	15.18	82.05	9.50
9	24.00 Hz	950	-2.67	-9.49	2.21	14.68	54.70	4.30
10	18.00 Hz	383	-1.92	-9.54	4.61	11.46	43.41	9.65
11	12.00 Hz	384	-1.29	-5.34	3.00	10.06	30.31	4.45
12	9.00 Hz	768	-.46	-3.92	.69	10.10	22.54	1.16
13	6.00 Hz	958	-1.34	-3.51	2.20	8.24	17.41	2.81
14	4.50 Hz	768	-.42	-3.85	3.31	6.85	12.89	4.87
15	3.00 Hz	5984	-1.49	-2.09	.37	6.05	9.64	.69
16	2.25 Hz	3680	-1.72	-2.26	.33	5.41	8.38	.62
17	1.50 Hz	2992	-2.64	-2.08	.46	4.77	6.02	.93
18	1.13 Hz	2640	-2.38	-1.56	.34	4.47	5.09	.70
19	1.33 Sec	912	-2.157	-1.174	1.578	4.206	3.805	4.388
20	1.78 Sec	2140	-1.576	-1.159	1.227	4.455	2.946	5.716
21	2.67 Sec	624	-1.306	-.706	1.343	3.609	2.529	5.309
22	3.56 Sec	1248	-1.959	-.905	1.816	3.561	2.102	9.142
23	5.33 Sec	1181	-1.122	-.490	.224	2.178	1.981	.422
24	7.11 Sec	1018	-1.146	-.587	.144	2.436	1.568	.242
25	10.67 Sec	522	-.631	-.466	.012	2.088	1.420	.020
26	14.22 Sec	600	-.690	-.569	.001	1.840	1.423	.009
27	21.33 Sec	358	-.146	-.365	.005	1.525	1.270	.007
28	28.44 Sec	262	-.053	-.280	.003	1.309	1.195	.002
29	42.67 Sec	250	-.025	-.152	.003	.911	1.117	.002
30	56.89 Sec	304	.003	-.218	.002	.812	.914	.002
31	85.33 Sec	99	-.054	-.282	.004	.529	.780	.005
32	113.78 Sec	171	-.017	-.156	.001	.404	.668	.003
33	170.67 Sec	51	-.065	-.178	.001	.282	.489	.001
34	227.56 Sec	9	-.026	-.122	.004	.233	.408	.006
35	341.33 Sec	27	-.060	-.066	.002	.150	.294	.002
36	455.11 Sec	3	-.003	-.005	.002	.100	.315	.003
37	682.67 Sec	3	-.004	-.017	.001	.227	.165	.003
38	910.22 Sec	12	-.118	.004	.006	.126	.174	.009
39	1365.33 Sec	3	.224	.071	.020	.153	-.101	.103
40	1820.44 Sec	3	.066	.070	.013	.083	.180	.015

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	419	-806.54	-938.69	999.99	-175.90	-83.42	999.99
2	288.00 Hz	546	-314.50	-999.99	999.99	-445.20	-70.53	999.99
3	192.00 Hz	362	-312.97	-735.31	999.99	-68.36	-57.90	999.99
4	144.00 Hz	281	-152.93	-588.81	106.59	-80.69	-24.77	611.54
5	96.00 Hz	548	-111.11	-391.58	41.32	-15.82	-22.06	143.50
6	72.00 Hz	359	-135.71	-310.08	131.31	-4.31	-17.38	296.28
7	48.00 Hz	269	-45.97	-221.46	41.06	-28.63	-12.48	138.89
8	36.00 Hz	636	-48.63	-165.75	13.71	-8.70	-13.26	28.11
9	24.00 Hz	950	-36.62	-113.05	4.34	-2.79	-9.44	8.44
10	18.00 Hz	383	-33.56	-90.26	6.95	-6.07	-7.58	14.54
11	12.00 Hz	384	-25.33	-66.32	7.43	-2.40	-4.87	11.03
12	9.00 Hz	768	-25.96	-49.36	1.83	-2.09	-2.95	3.09
13	6.00 Hz	958	-22.63	-38.37	3.27	-2.42	-2.77	4.17
14	4.50 Hz	768	-20.21	-30.29	5.02	-2.53	-2.23	7.38
15	3.00 Hz	5984	-19.20	-20.03	.41	-3.21	.08	.76
16	2.25 Hz	3680	-18.33	-16.10	.30	-3.21	.23	.55
17	1.50 Hz	2992	-16.80	-11.16	.58	-3.28	-.59	1.16
18	1.13 Hz	2640	-16.95	-8.91	.38	-2.86	-.01	.77
19	1.33 Sec	912	-16.392	-6.495	.982	-2.239	-.803	2.732
20	1.78 Sec	2140	-15.747	-5.519	.879	-1.552	-1.264	4.094
21	2.67 Sec	624	-16.126	-3.923	1.467	-1.269	-1.040	5.798
22	3.56 Sec	1248	-16.374	-3.661	13.453	-1.615	-3.731	67.737
23	5.33 Sec	1181	-15.093	-2.795	.651	-1.121	-.513	1.227
24	7.11 Sec	1018	-16.857	-3.559	.340	-.876	-2.542	.571
25	10.67 Sec	522	-16.845	-5.049	.045	-.434	-1.266	.077
26	14.22 Sec	600	-16.333	-6.549	.014	-.468	-1.196	.089
27	21.33 Sec	358	-13.843	-6.848	.046	-.155	-.347	.064
28	28.44 Sec	262	-11.769	-8.073	.021	.116	-.536	.015
29	42.67 Sec	250	-8.858	-7.886	.043	-.112	-.050	.039
30	56.89 Sec	304	-7.056	-7.375	.012	-.330	.104	.015
31	85.33 Sec	99	-4.855	-6.064	.015	-.299	-.081	.018
32	113.78 Sec	171	-3.872	-4.853	.026	-.235	.024	.061
33	170.67 Sec	51	-2.872	-3.746	.018	-.133	-.124	.012
34	227.56 Sec	9	-2.487	-3.098	.006	-.143	-.024	.009
35	341.33 Sec	27	-2.177	-2.235	.030	-.115	-.009	.034
36	455.11 Sec	3	-1.795	-1.897	.199	.137	-.155	.283
37	682.67 Sec	3	-1.678	-1.510	.110	-.029	.010	.391
38	910.22 Sec	12	-1.712	-1.066	.125	-.111	-.008	.173
39	1365.33 Sec	3	-1.098	-.716	.076	-.106	.453	.393
40	1820.44 Sec	3	-.886	-.832	.017	.083	.048	.019

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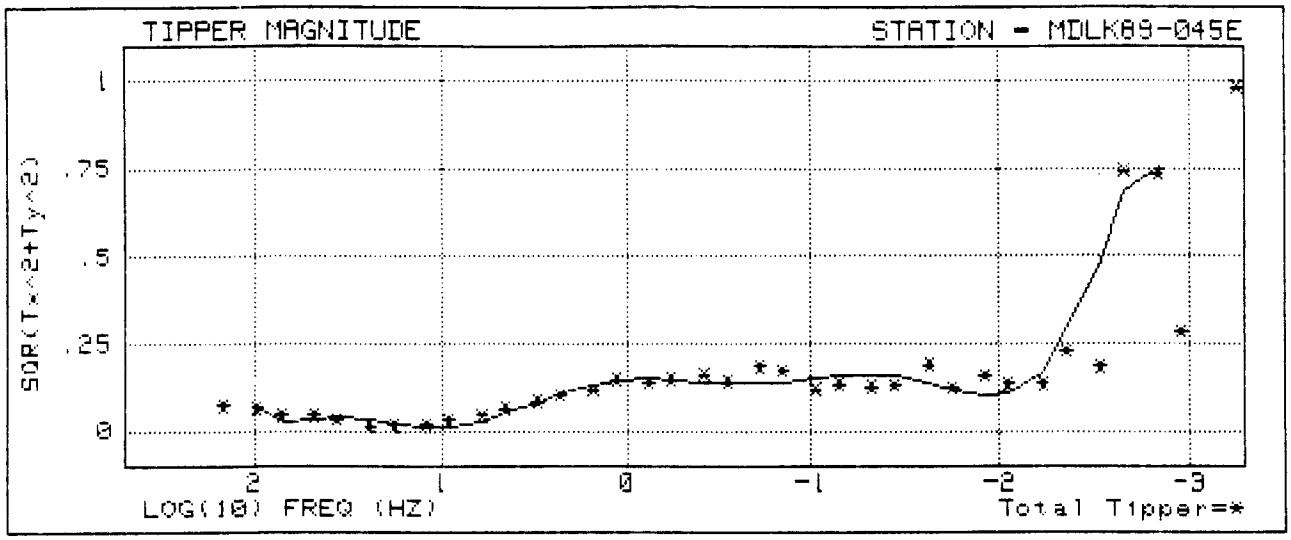

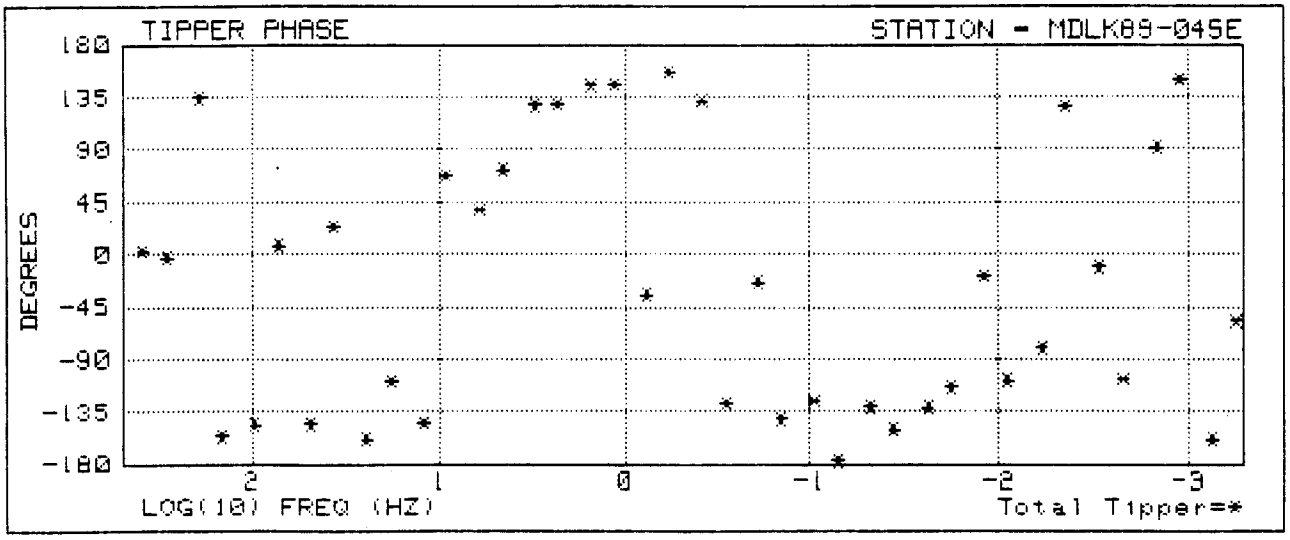

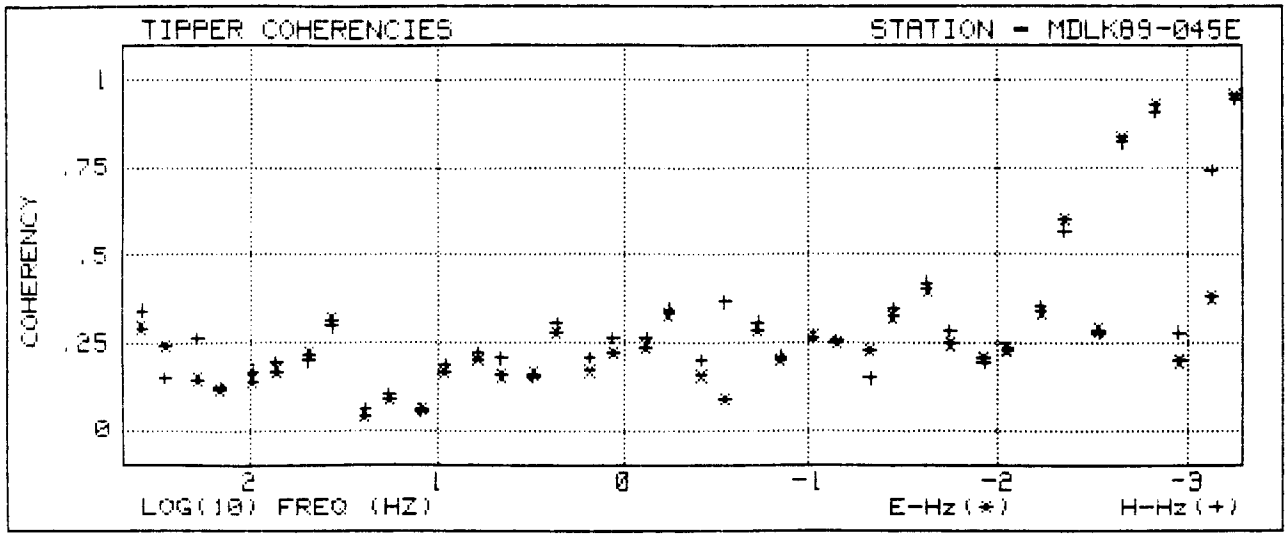

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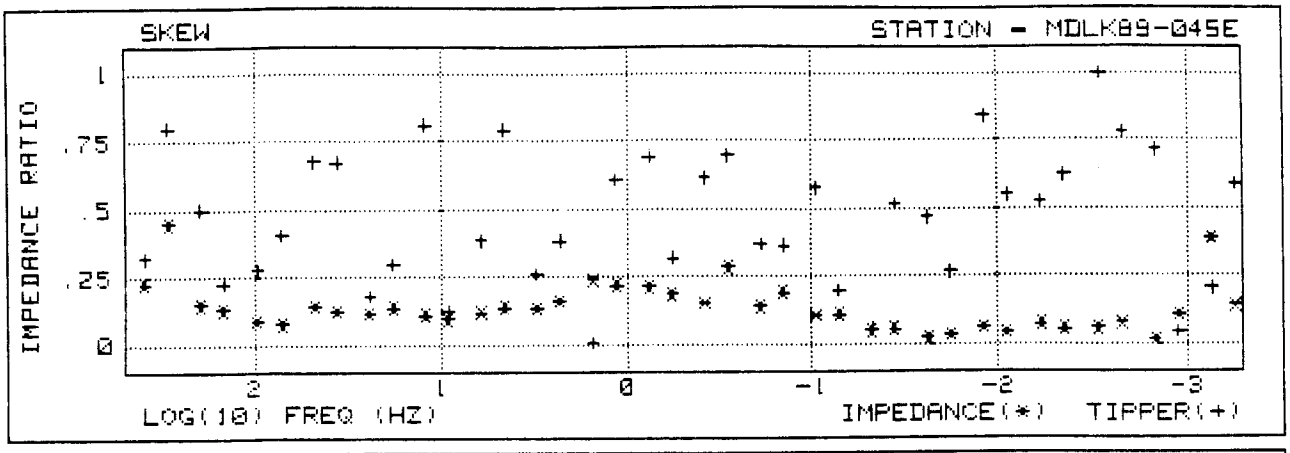
MT Site: MDLK89-045E

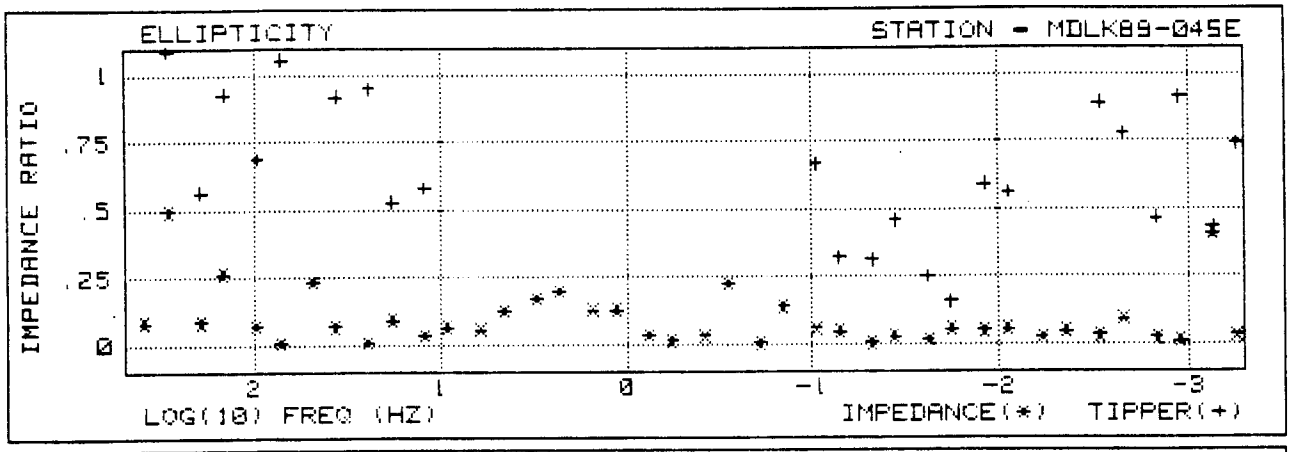
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

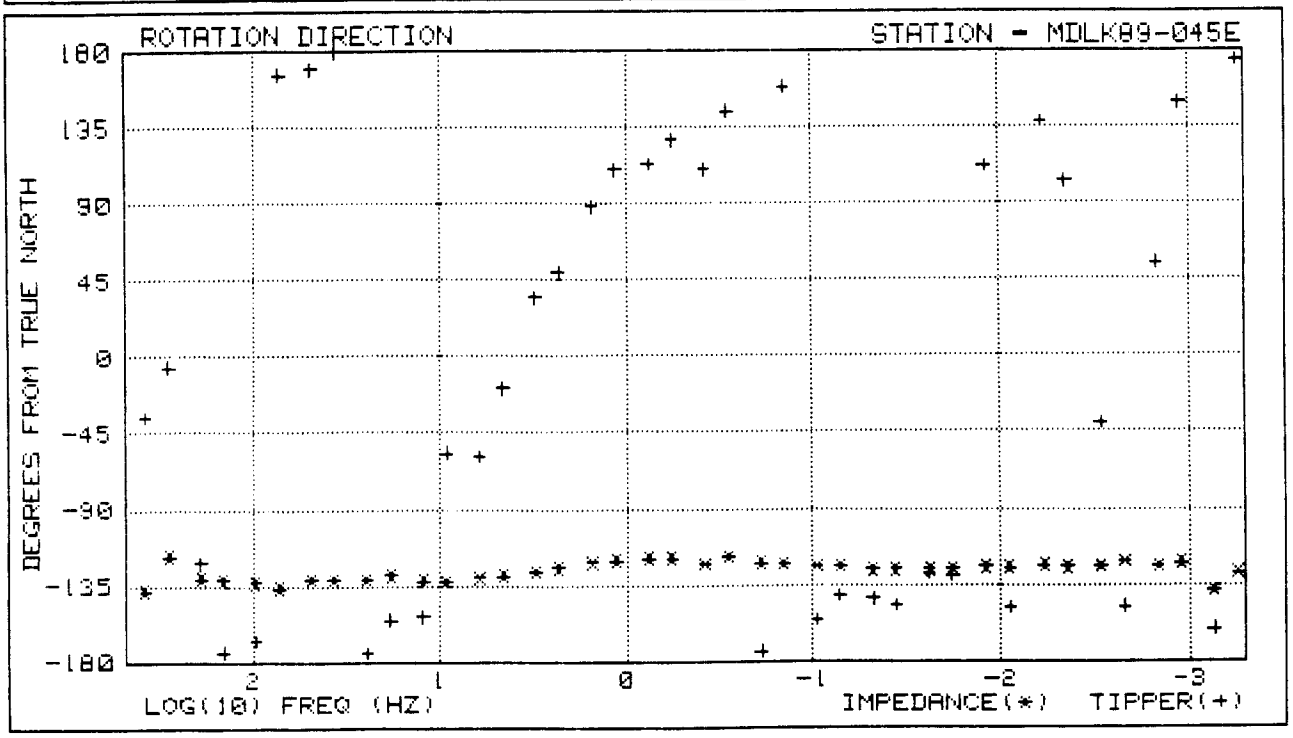
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	419	7.42	1.51	.29	.34
2	288.00 Hz	546	3.24	-3.62	.24	.15
3	192.00 Hz	362	1.32	133.82	.14	.26
4	144.00 Hz	281	.07	-156.53	.11	.12
5	96.00 Hz	548	.06	-147.09	.14	.16
6	72.00 Hz	359	.04	6.28	.16	.19
7	48.00 Hz	269	.04	-146.31	.21	.19
8	36.00 Hz	636	.03	22.53	.31	.29
9	24.00 Hz	950	.01	-159.71	.04	.06
10	18.00 Hz	383	.01	-109.50	.08	.10
11	12.00 Hz	384	.01	-145.81	.06	.05
12	9.00 Hz	768	.03	66.76	.16	.18
13	6.00 Hz	958	.04	37.22	.20	.22
14	4.50 Hz	768	.06	71.54	.15	.20
15	3.00 Hz	5984	.08	127.09	.16	.15
16	2.25 Hz	3680	.10	127.71	.27	.30
17	1.50 Hz	2992	.11	143.70	.17	.20
18	1.13 Hz	2640	.14	144.74	.22	.26
19	1.33 Sec	912	.14	-35.33	.23	.26
20	1.78 Sec	2140	.14	155.11	.33	.34
21	2.67 Sec	624	.16	130.78	.15	.20
22	3.56 Sec	1248	.14	-128.68	.09	.36
23	5.33 Sec	1181	.18	-24.95	.28	.30
24	7.11 Sec	1018	.17	-141.70	.20	.21
25	10.67 Sec	522	.12	-126.79	.26	.26
26	14.22 Sec	600	.13	-178.09	.25	.25
27	21.33 Sec	358	.12	-131.70	.23	.15
28	28.44 Sec	262	.13	-150.97	.32	.34
29	42.67 Sec	250	.18	-131.97	.40	.42
30	56.89 Sec	304	.12	-114.65	.24	.28
31	85.33 Sec	99	.15	-19.17	.20	.19
32	113.78 Sec	171	.13	-108.85	.23	.23
33	170.67 Sec	51	.13	-80.97	.34	.35
34	227.56 Sec	9	.23	125.56	.60	.56
35	341.33 Sec	27	.18	-11.62	.28	.27
36	455.11 Sec	3	.74	-108.02	.83	.82
37	682.67 Sec	3	.73	90.76	.92	.90
38	910.22 Sec	12	.28	149.22	.19	.28
39	1365.33 Sec	3	1.88	-159.37	.38	.74
40	1820.44 Sec	3	.98	-58.04	.95	.94

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E







PHOENIX GEOSCIENCE

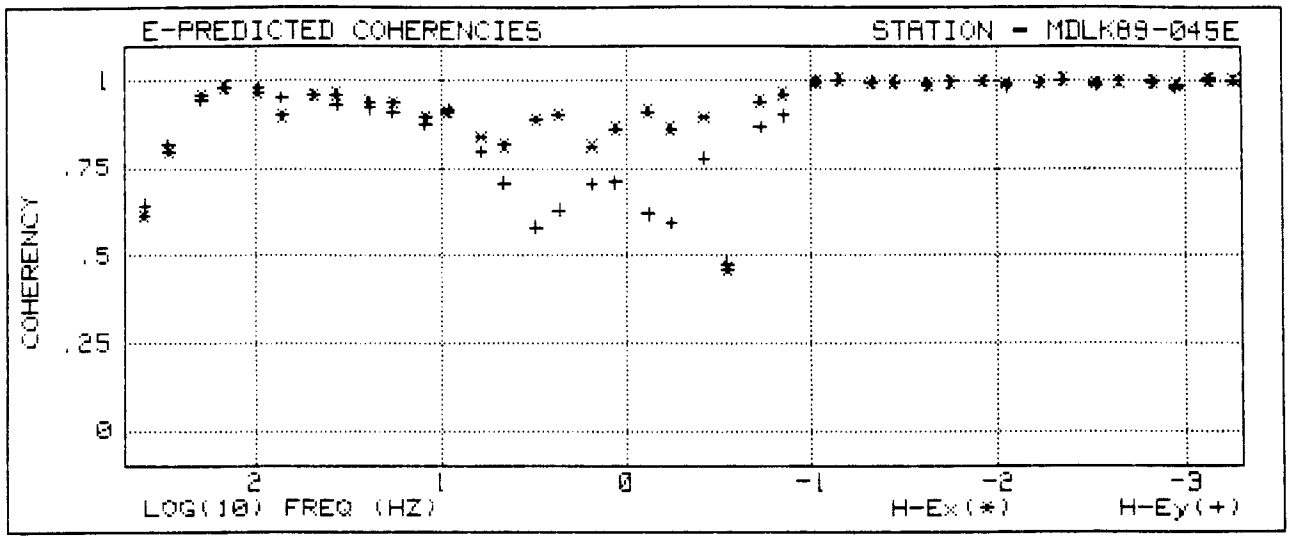
MT Site: MDLK89-045E

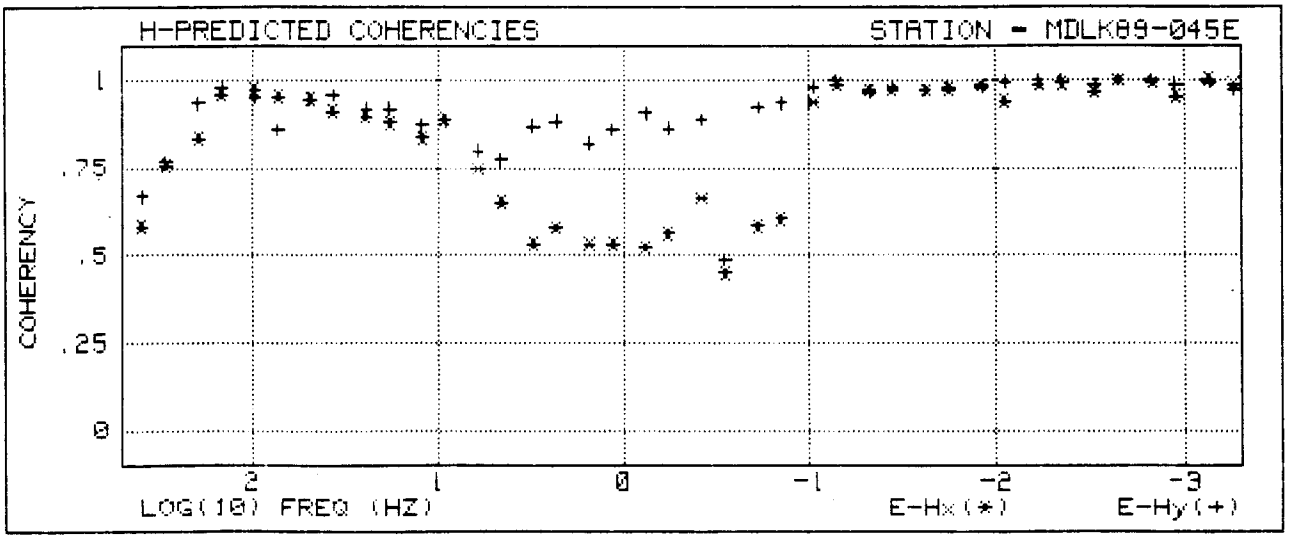
SKEW, ELLIPTICITY AND STRIKE

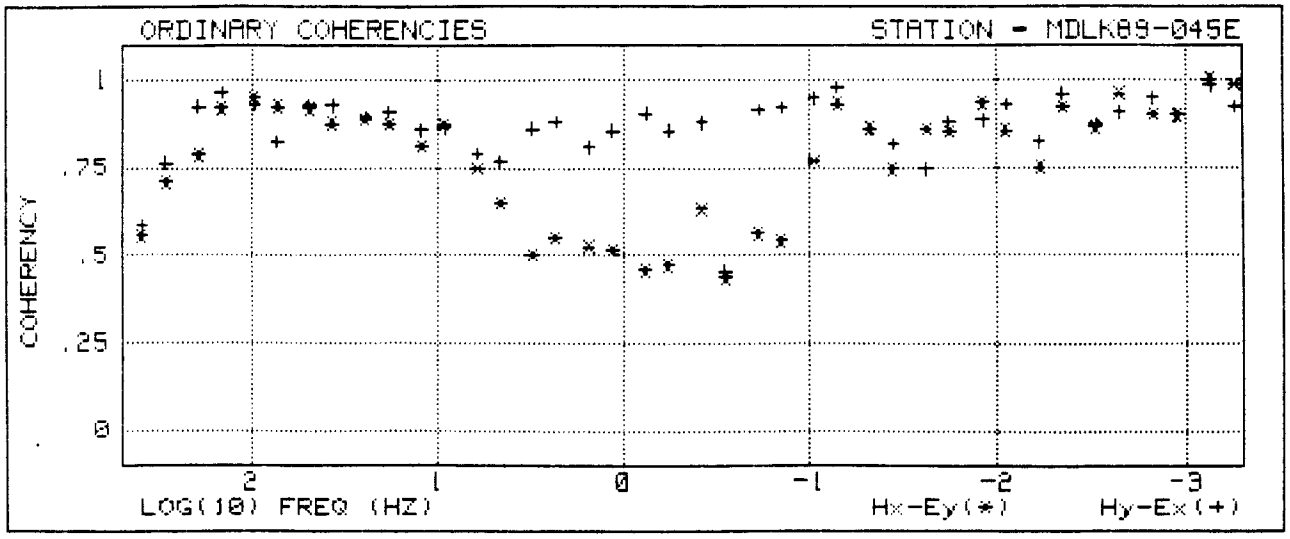
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	419	.22	.08	-138.51	.32	4.13	-36.24
2	288.00 Hz	546	.45	.49	-118.10	.80	1.08	-6.92
3	192.00 Hz	362	.15	.08	-131.45	.50	.56	-121.96
4	144.00 Hz	281	.13	.26	-132.09	.22	.92	-174.81
5	96.00 Hz	548	.09	.07	-133.81	.27	.69	-167.69
6	72.00 Hz	359	.07	.00	-137.25	.40	1.05	165.39
7	48.00 Hz	269	.14	.23	-131.50	.67	1.42	168.67
8	36.00 Hz	636	.12	.06	-131.76	.67	.91	178.51
9	24.00 Hz	950	.11	.00	-131.90	.18	.94	-175.19
10	18.00 Hz	383	.13	.09	-129.37	.29	.52	-155.82
11	12.00 Hz	384	.11	.03	-132.48	.80	.57	-153.75
12	9.00 Hz	768	.09	.06	-132.97	.12	1.92	-57.50
13	6.00 Hz	958	.11	.05	-130.69	.38	1.29	-59.22
14	4.50 Hz	768	.13	.12	-129.92	.79	1.75	-19.23
15	3.00 Hz	5984	.13	.17	-127.30	.26	6.75	33.96
16	2.25 Hz	3680	.16	.19	-125.05	.38	4.32	48.64
17	1.50 Hz	2992	.24	.12	-122.03	.00	21.12	87.59
18	1.13 Hz	2640	.21	.12	-121.07	.60	2.76	109.08
19	1.33 Sec	912	.21	.03	-119.84	.69	2.37	112.66
20	1.78 Sec	2140	.18	.01	-119.58	.32	3.37	126.49
21	2.67 Sec	624	.15	.03	-123.13	.61	1.61	109.10
22	3.56 Sec	1248	.28	.22	-118.89	.69	2.49	143.60
23	5.33 Sec	1181	.14	.00	-122.78	.36	1.19	-174.72
24	7.11 Sec	1018	.19	.14	-123.22	.36	3.75	157.76
25	10.67 Sec	522	.10	.05	-124.66	.57	.66	-156.15
26	14.22 Sec	600	.11	.04	-124.59	.19	.32	-142.04
27	21.33 Sec	358	.04	.00	-126.47	.05	.31	-143.58
28	28.44 Sec	262	.05	.02	-126.59	.51	.45	-147.52
29	42.67 Sec	250	.02	.01	-126.50	.46	.25	-128.93
30	56.89 Sec	304	.03	.05	-125.73	.26	.16	-130.49
31	85.33 Sec	99	.06	.05	-124.83	.83	.59	111.41
32	113.78 Sec	171	.04	.05	-125.43	.54	.56	-149.01
33	170.67 Sec	51	.07	.02	-123.82	.52	2.79	137.00
34	227.56 Sec	9	.05	.04	-125.18	.62	1.65	101.85
35	341.33 Sec	27	.06	.03	-124.56	.99	.89	-40.86
36	455.11 Sec	3	.07	.09	-121.40	.77	.77	-148.63
37	682.67 Sec	3	.01	.02	-124.26	.71	.46	53.71
38	910.22 Sec	12	.10	.01	-122.46	.04	.91	148.14
39	1365.33 Sec	3	.39	.40	-139.19	.20	.43	-161.60
40	1820.44 Sec	3	.14	.03	-128.26	.58	.73	173.47

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E







PHOENIX GEOSCIENCE

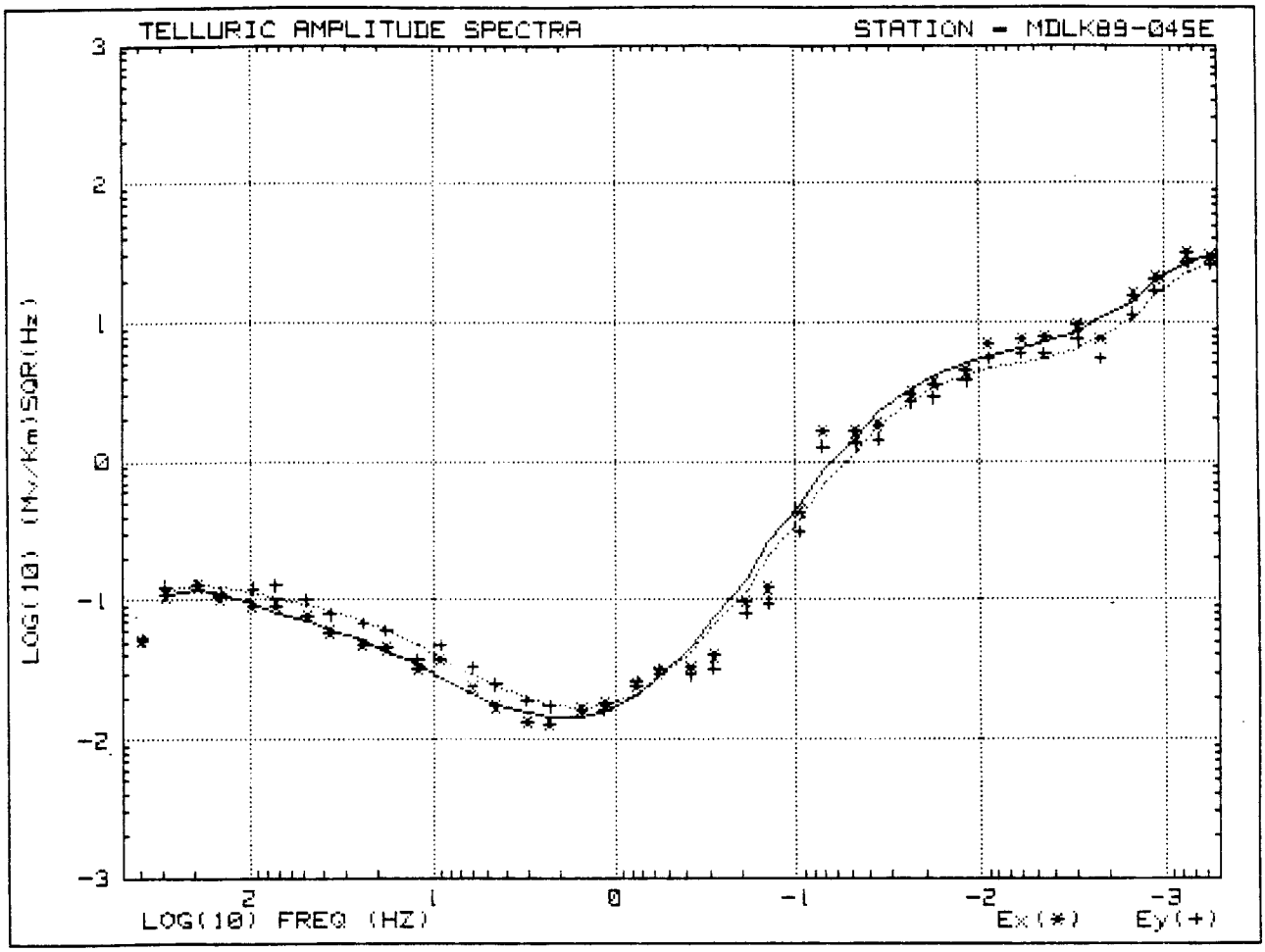
MT Site: MDLK89-045E

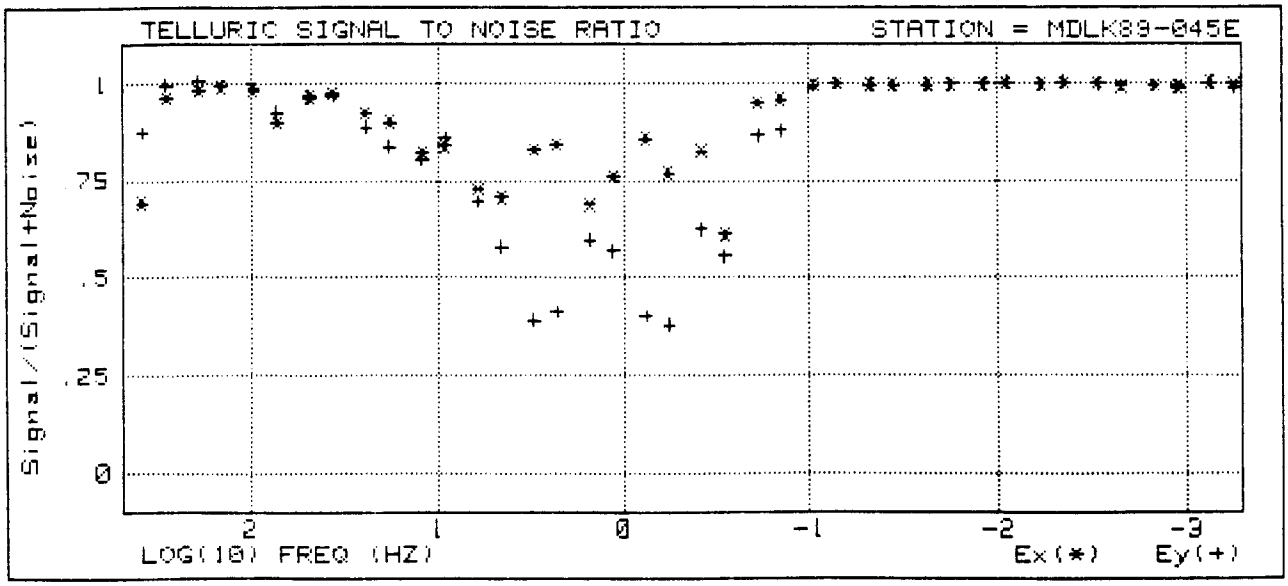
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	419	.61	.64	.58	.66	.55	.58
2	288.00 Hz	546	.79	.81	.75	.76	.71	.76
3	192.00 Hz	362	.95	.94	.83	.93	.78	.92
4	144.00 Hz	281	.98	.98	.96	.97	.92	.96
5	96.00 Hz	548	.96	.97	.97	.95	.95	.93
6	72.00 Hz	359	.90	.95	.95	.86	.92	.82
7	48.00 Hz	269	.95	.95	.94	.94	.92	.92
8	36.00 Hz	636	.96	.93	.91	.95	.87	.93
9	24.00 Hz	950	.94	.92	.89	.91	.88	.89
10	18.00 Hz	383	.93	.91	.87	.91	.87	.91
11	12.00 Hz	384	.89	.87	.83	.87	.81	.85
12	9.00 Hz	768	.91	.91	.89	.88	.87	.86
13	6.00 Hz	958	.83	.79	.74	.79	.74	.79
14	4.50 Hz	768	.81	.70	.65	.77	.65	.76
15	3.00 Hz	5984	.88	.58	.53	.87	.50	.86
16	2.25 Hz	3680	.90	.63	.57	.88	.55	.88
17	1.50 Hz	2992	.81	.70	.53	.82	.52	.80
18	1.13 Hz	2640	.86	.71	.53	.86	.51	.85
19	1.33 Sec	912	.91	.62	.52	.90	.46	.90
20	1.78 Sec	2140	.86	.59	.56	.86	.47	.85
21	2.67 Sec	624	.89	.77	.66	.88	.63	.87
22	3.56 Sec	1248	.46	.47	.45	.48	.43	.45
23	5.33 Sec	1181	.93	.86	.58	.92	.56	.91
24	7.11 Sec	1018	.96	.90	.60	.93	.54	.92
25	10.67 Sec	522	.99	.99	.93	.98	.77	.94
26	14.22 Sec	600	1.00	1.00	.99	.99	.93	.98
27	21.33 Sec	358	.99	.99	.97	.96	.86	.86
28	28.44 Sec	262	.99	.99	.97	.97	.74	.81
29	42.67 Sec	250	.99	.98	.97	.97	.86	.74
30	56.89 Sec	304	.99	.99	.97	.97	.85	.87
31	85.33 Sec	99	1.00	1.00	.98	.98	.93	.88
32	113.78 Sec	171	.99	.98	.94	.99	.85	.93
33	170.67 Sec	51	.99	.99	.98	1.00	.75	.82
34	227.56 Sec	9	1.00	1.00	.99	.99	.92	.96
35	341.33 Sec	27	.99	.99	.96	.98	.86	.87
36	455.11 Sec	3	.99	1.00	1.00	1.00	.96	.90
37	682.67 Sec	3	.99	.99	.99	1.00	.90	.95
38	910.22 Sec	12	.98	.98	.95	.98	.90	.90
39	1365.33 Sec	3	1.00	1.00	1.00	.99	1.00	.98
40	1820.44 Sec	3	1.00	1.00	.98	.97	.98	.92

PHOENIX GEOSCIENCE

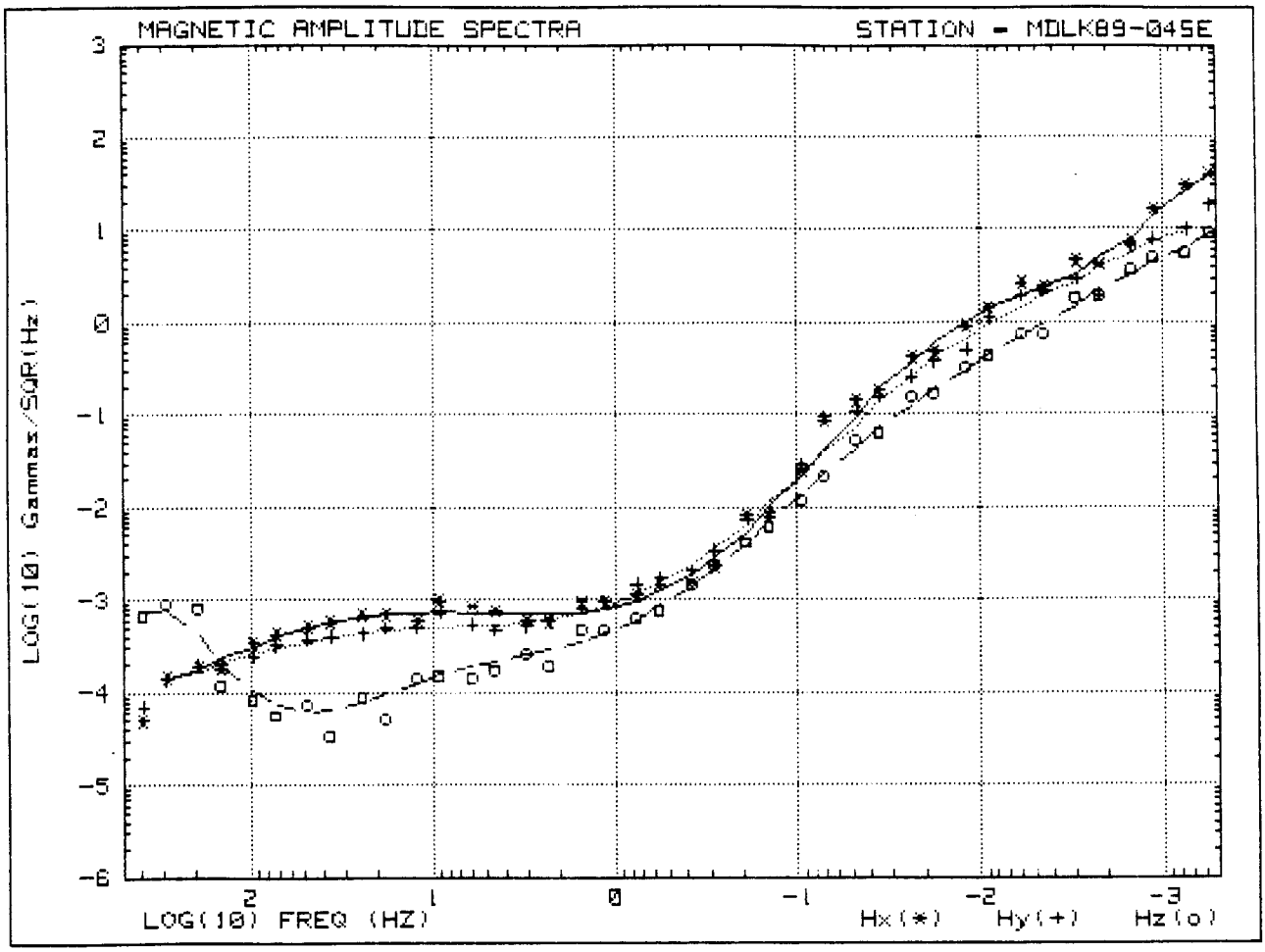
MT Site: MDLK89-045E

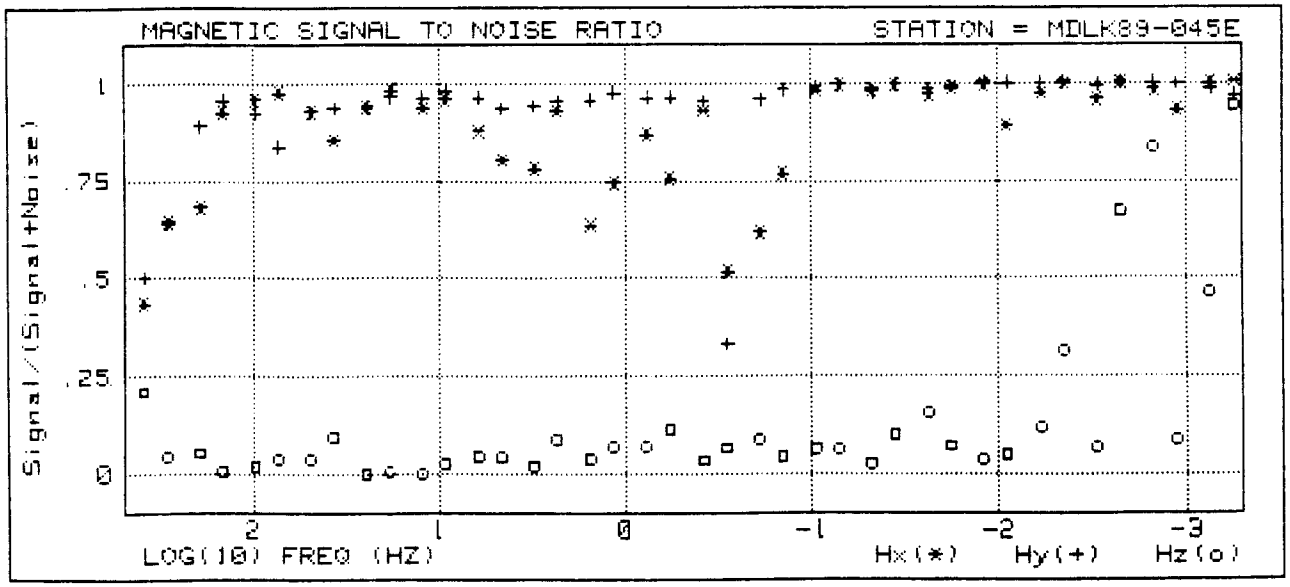




PHOENIX GEOSCIENCE

MT Site: MDLK89-045E





PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	419	4.94E-05	6.85E-05	6.97E-04	5.04E-02	5.18E-02
2	288.00 Hz	546	1.42E-04	1.37E-04	9.55E-04	1.06E-01	1.23E-01
3	192.00 Hz	362	1.87E-04	1.92E-04	8.61E-04	1.25E-01	1.27E-01
4	144.00 Hz	281	1.80E-04	1.95E-04	1.24E-04	1.02E-01	1.07E-01
5	96.00 Hz	548	3.32E-04	2.44E-04	8.58E-05	8.99E-02	1.18E-01
6	72.00 Hz	359	4.17E-04	3.15E-04	5.89E-05	9.01E-02	1.25E-01
7	48.00 Hz	269	5.00E-04	3.70E-04	7.66E-05	7.52E-02	9.91E-02
8	36.00 Hz	636	5.63E-04	3.88E-04	3.56E-05	5.80E-02	7.71E-02
9	24.00 Hz	950	6.68E-04	4.27E-04	8.98E-05	4.67E-02	6.71E-02
10	18.00 Hz	383	6.83E-04	4.91E-04	5.39E-05	4.45E-02	5.91E-02
11	12.00 Hz	384	5.83E-04	4.97E-04	1.47E-04	3.15E-02	3.65E-02
12	9.00 Hz	768	9.68E-04	7.13E-04	1.61E-04	3.69E-02	4.65E-02
13	6.00 Hz	958	8.42E-04	5.26E-04	1.47E-04	2.33E-02	3.21E-02
14	4.50 Hz	768	7.37E-04	4.61E-04	1.82E-04	1.71E-02	2.43E-02
15	3.00 Hz	5984	5.82E-04	5.09E-04	2.75E-04	1.30E-02	1.86E-02
16	2.25 Hz	3680	5.73E-04	5.69E-04	2.04E-04	1.28E-02	1.71E-02
17	1.50 Hz	2992	9.18E-04	7.89E-04	4.96E-04	1.62E-02	1.58E-02
18	1.13 Hz	2640	9.18E-04	9.48E-04	4.84E-04	1.77E-02	1.62E-02
19	1.33 Sec	912	1.11E-03	1.45E-03	6.49E-04	2.40E-02	2.55E-02
20	1.78 Sec	2140	1.46E-03	1.71E-03	7.81E-04	2.95E-02	3.13E-02
21	2.67 Sec	624	1.53E-03	2.04E-03	1.55E-03	3.25E-02	2.85E-02
22	3.56 Sec	1248	2.25E-03	3.38E-03	2.43E-03	3.92E-02	3.18E-02
23	5.33 Sec	1181	8.11E-03	7.35E-03	4.38E-03	9.58E-02	7.97E-02
24	7.11 Sec	1018	7.74E-03	8.50E-03	6.34E-03	1.21E-01	9.30E-02
25	10.67 Sec	522	2.38E-02	2.80E-02	1.25E-02	4.25E-01	3.04E-01
26	14.22 Sec	600	8.43E-02	9.32E-02	2.30E-02	1.63E+00	1.26E+00
27	21.33 Sec	358	1.41E-01	1.07E-01	5.58E-02	1.61E+00	1.31E+00
28	28.44 Sec	262	1.82E-01	1.56E-01	6.61E-02	1.79E+00	1.41E+00
29	42.67 Sec	250	4.17E-01	2.52E-01	1.64E-01	3.02E+00	2.59E+00
30	56.89 Sec	304	4.67E-01	3.70E-01	1.78E-01	3.55E+00	2.81E+00
31	85.33 Sec	99	8.81E-01	4.89E-01	3.34E-01	4.36E+00	3.71E+00
32	113.78 Sec	171	1.39E+00	1.08E+00	4.63E-01	6.85E+00	5.41E+00
33	170.67 Sec	51	2.59E+00	1.90E+00	7.84E-01	7.41E+00	5.85E+00
34	227.56 Sec	9	2.36E+00	2.13E+00	7.72E-01	7.69E+00	5.84E+00
35	341.33 Sec	27	4.56E+00	2.88E+00	1.95E+00	9.34E+00	7.36E+00
36	455.11 Sec	3	4.13E+00	1.94E+00	2.02E+00	7.46E+00	5.40E+00
37	682.67 Sec	3	7.10E+00	6.43E+00	3.81E+00	1.54E+01	1.13E+01
38	910.22 Sec	12	1.63E+01	7.56E+00	5.16E+00	2.03E+01	1.65E+01
39	1365.33 Sec	3	2.93E+01	9.83E+00	5.80E+00	3.10E+01	2.67E+01
40	1820.44 Sec	3	3.82E+01	1.78E+01	9.54E+00	2.91E+01	2.60E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	419	.433	.500	.215	.692	.872
2	288.00 Hz	546	.643	.638	.047	.959	.993
3	192.00 Hz	362	.680	.890	.058	.979	1.000
4	144.00 Hz	281	.924	.956	.010	.990	.992
5	96.00 Hz	548	.957	.923	.025	.981	.985
6	72.00 Hz	359	.975	.835	.041	.898	.924
7	48.00 Hz	269	.926	.928	.042	.963	.963
8	36.00 Hz	636	.853	.935	.097	.973	.966
9	24.00 Hz	950	.940	.937	.002	.923	.886
10	18.00 Hz	383	.982	.964	.009	.900	.836
11	12.00 Hz	384	.934	.961	.002	.822	.803
12	9.00 Hz	768	.958	.978	.030	.839	.859
13	6.00 Hz	958	.876	.962	.050	.727	.695
14	4.50 Hz	768	.802	.934	.046	.707	.578
15	3.00 Hz	5984	.779	.942	.025	.828	.390
16	2.25 Hz	3680	.928	.954	.093	.841	.413
17	1.50 Hz	2992	.634	.956	.042	.688	.598
18	1.13 Hz	2640	.744	.975	.073	.758	.568
19	1.33 Sec	912	.868	.962	.075	.855	.400
20	1.78 Sec	2140	.754	.962	.120	.766	.376
21	2.67 Sec	624	.928	.954	.039	.824	.623
22	3.56 Sec	1248	.514	.330	.070	.611	.556
23	5.33 Sec	1181	.619	.959	.094	.948	.863
24	7.11 Sec	1018	.767	.983	.047	.955	.877
25	10.67 Sec	522	.978	.991	.070	.995	.991
26	14.22 Sec	600	.996	.997	.067	.999	.998
27	21.33 Sec	358	.983	.977	.032	.994	.994
28	28.44 Sec	262	.996	.995	.106	.993	.991
29	42.67 Sec	250	.970	.985	.160	.994	.993
30	56.89 Sec	304	.987	.991	.076	.995	.995
31	85.33 Sec	99	.996	1.000	.042	.996	.997
32	113.78 Sec	171	.892	1.000	.052	.998	.999
33	170.67 Sec	51	.972	1.000	.125	.995	.996
34	227.56 Sec	9	.998	1.000	.319	.998	.999
35	341.33 Sec	27	.957	.993	.072	.999	.997
36	455.11 Sec	3	1.000	1.000	.675	.989	.991
37	682.67 Sec	3	.983	1.000	.840	.991	.992
38	910.22 Sec	12	.931	.997	.091	.989	.987
39	1365.33 Sec	3	1.000	.988	.469	1.000	1.000
40	1820.44 Sec	3	1.000	.969	.946	.999	.986

PHOENIX GEOSCIENCE

MT Site: MDLK89-045E

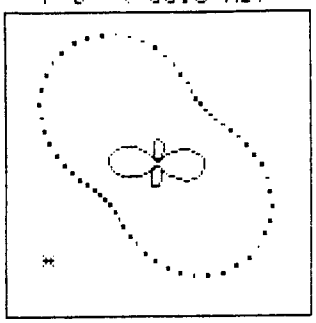
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=3
Zxy = ...

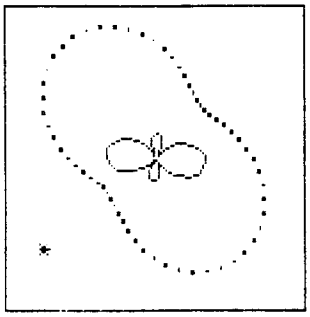
*=Rotation Direction

Zxy = ...
Zxx = ___

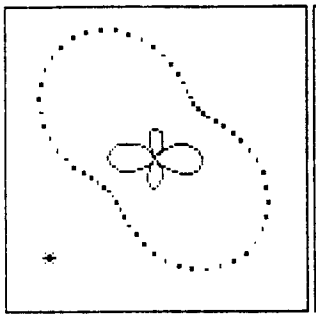
F=8 (36.0 Hz)



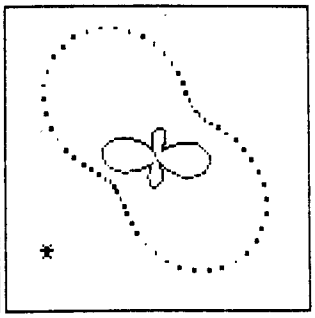
F=10 (18.0 Hz)



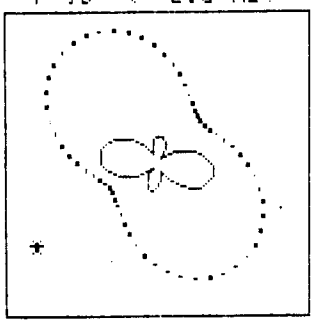
F=12 (9.0 Hz)



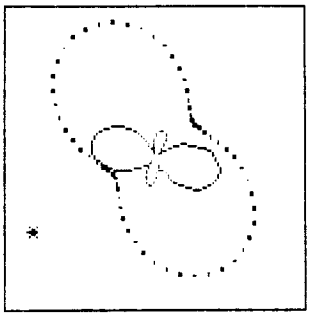
F=14 (4.5 Hz)



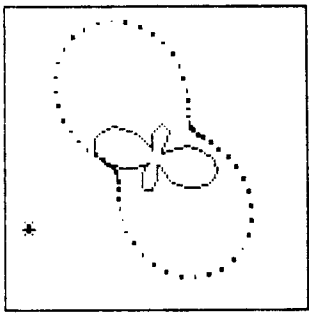
F=16 (2.3 Hz)



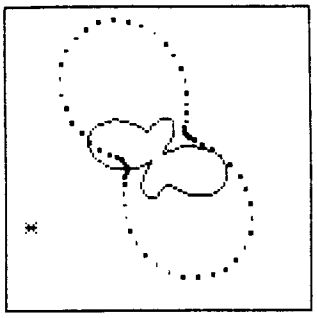
F=18 (1.1 Hz)



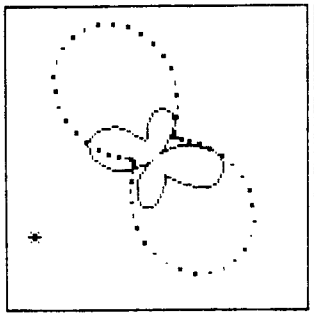
F=20 (.5625 Hz)



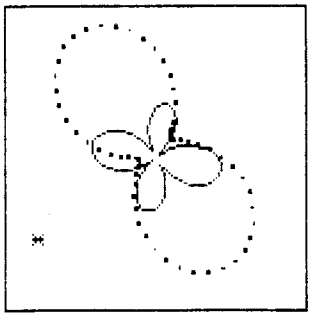
F=22 (.2813 Hz)



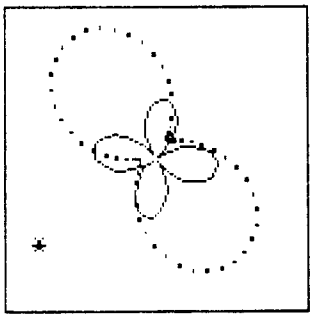
F=24 (.1406 Hz)



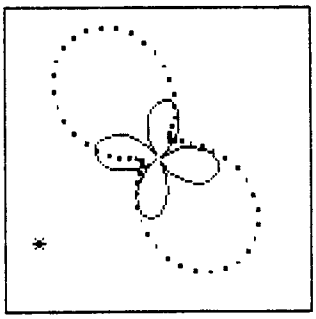
F=26 (.0703 Hz)



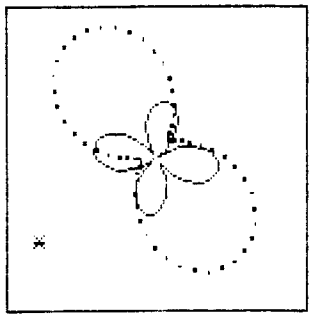
F=28 (.0352 Hz)



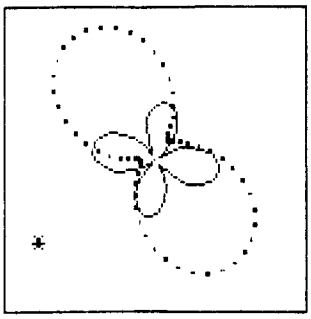
F=30 (.0176 Hz)



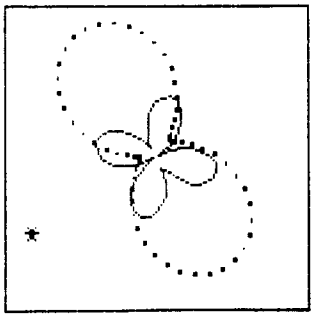
F=32 (.0088 Hz)



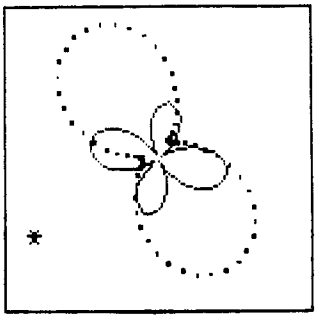
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-046s/047s/

Operator:STEWART
Date: 11 Sep 1989
Time: 13:17:41

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#452-16Aug89-01*
Sens-Ch02: C#235-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#205-05Sep89-01
Sens-Ch07: C#431-16Aug89-01
Sens-Ch08: L#333-02Jul89-01

* = Changed During the Run

Station 1

Stn Number:MDLK89-046s
Site Desc:T43N R3E SEC8 SE4
41,34,52 N 121,38,56 W
Elevation:7020 FT
Reference:MDLK89-047s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE220
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	1	COIL452*	+45 DEG
Hy	2	COIL235	+135 DEG
Hz	3	LOOP005	*
Ex	4	171 M	+45 DEG
Ey	5	155 M	+135 DEG
Rx	6	COIL205	+0 DEG
Ry	7	COIL431	+90 DEG

Ex Pot Resist: 13_ K Ohms
Ex Voltage: AC=12.3 mv, DC=39.6 mv
Ey Pot Resist: 8.0 K Ohms
Ey Voltage: AC=17.8 mv, DC=_127 mv

* = Changed During the Run

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

OPERATOR LOG FOR MT SITES MDLK89-046s/047s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-046a/047a/		
Run STARTED:	13:17:41	11 Sep 1989
Run QUIT:	02:36:45	12 Sep 1989
Run Start and Stop Time for MDLK89-046b/047b/		
Run STARTED:	03:01:00	12 Sep 1989
Run QUIT:	14:40:10	12 Sep 1989
Run Start and Stop Time for MDLK89-046c/047c/		
Run STARTED:	15:13:41	12 Sep 1989
Run QUIT:	03:29:55	13 Sep 1989
Run Start and Stop Time for MDLK89-046d/047d/		
Run STARTED:	03:56:37	13 Sep 1989
Run QUIT:	15:01:52	13 Sep 1989

Operator:STEWART

Cultural Factors:
NONE APPARENT
Weather Conditions:
CALM, DRY, MILD TEMPERATURES
Other Factors:

PHOENIX GEOSCIENCE

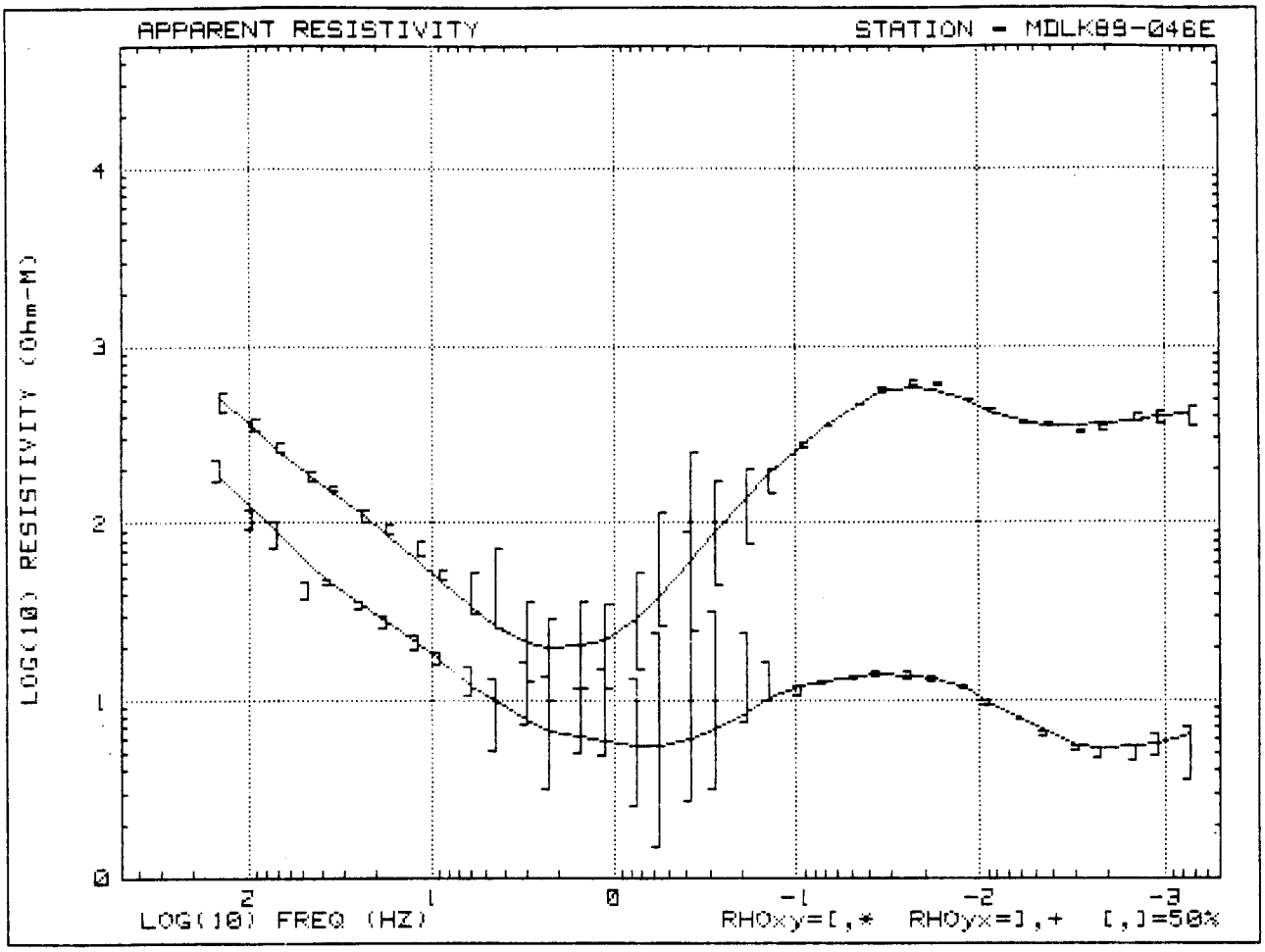
MT Site: MDLK89-046E

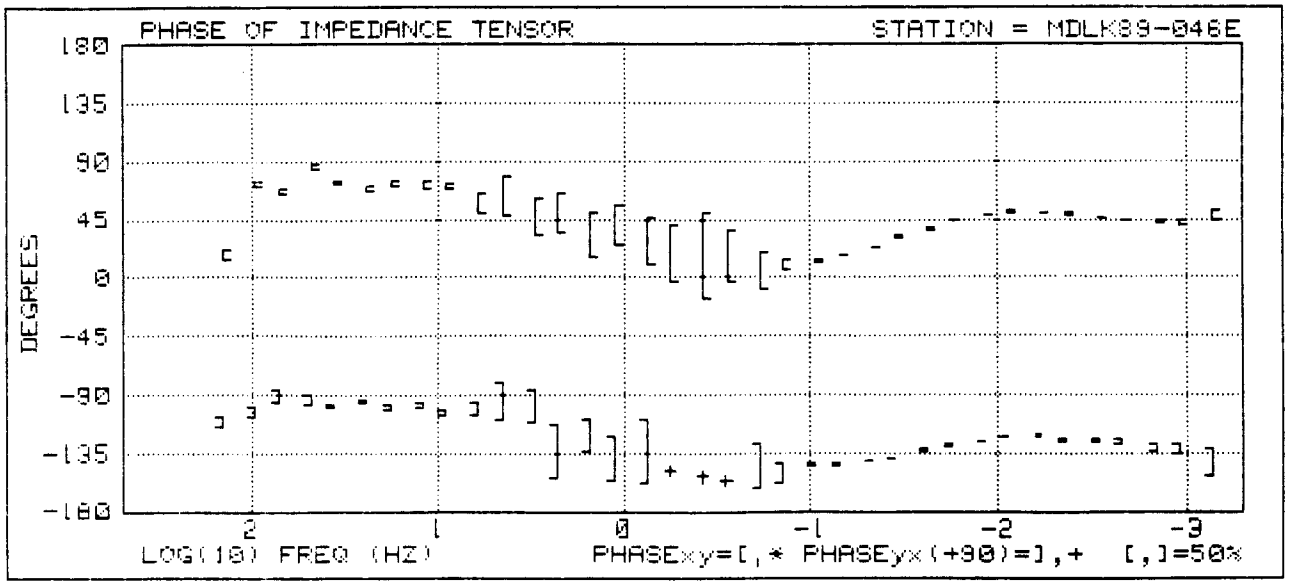
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

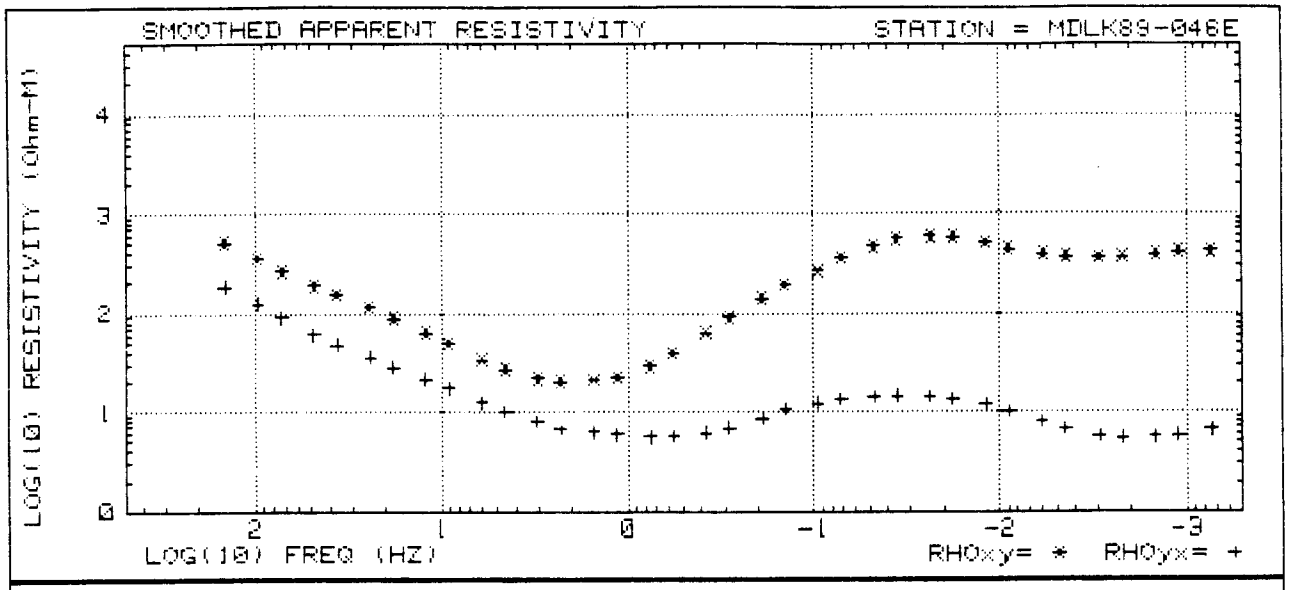
MT Site: MDLK89-046E

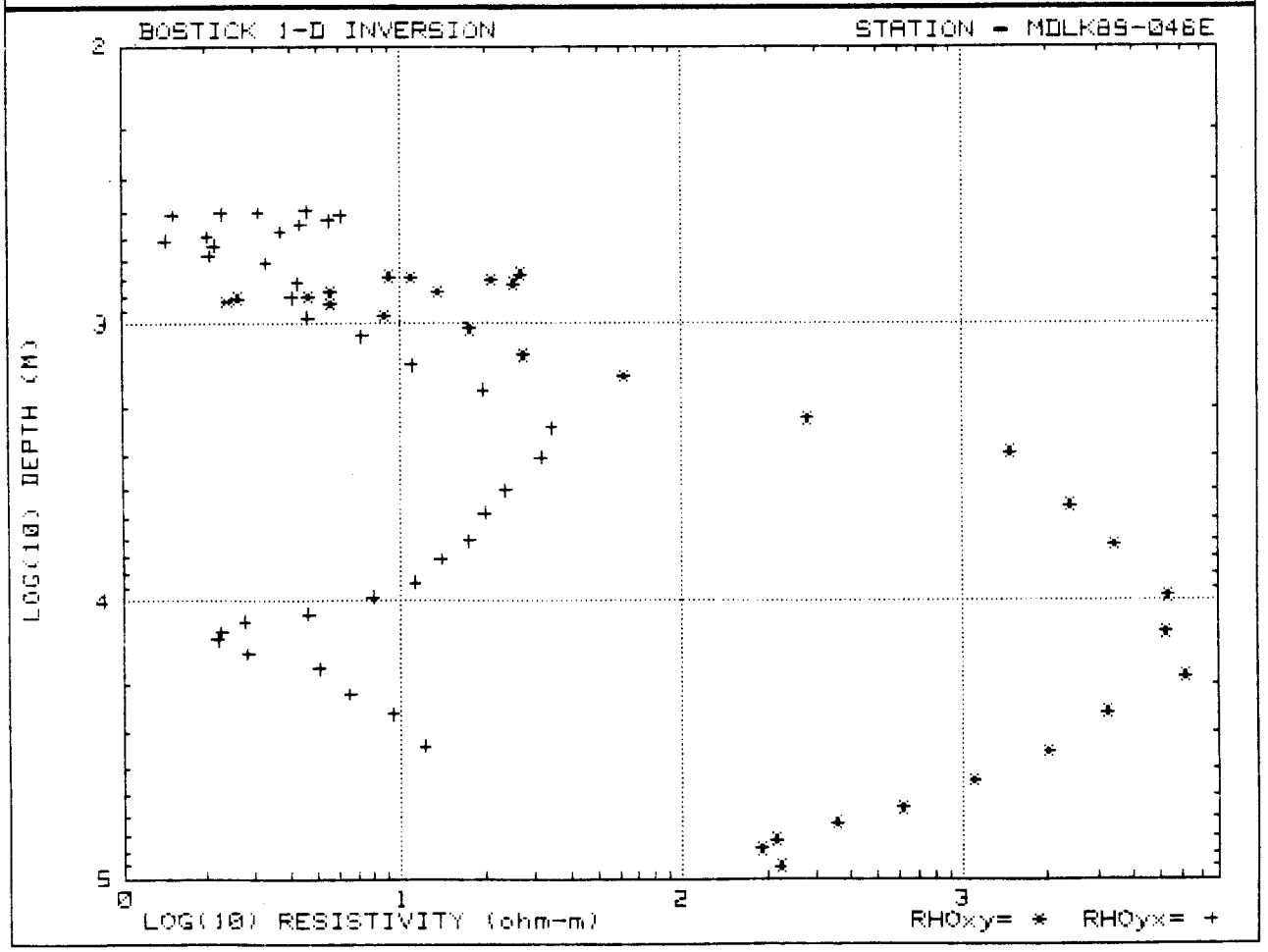




PHOENIX GEOSCIENCE

MT Site: MDLK89-046E





PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
4	144.00 Hz	466	477.7	21.1	196.2	24.0	18.6	5.5	-110.3	6.2
5	96.00 Hz	911	358.7	13.4	105.0	18.8	72.7	3.6	-103.5	4.9
6	72.00 Hz	1443	269.2	9.2	86.0	29.6	67.4	2.5	-91.1	7.4
7	48.00 Hz	1472	184.4	10.7	41.1	18.3	85.5	2.9	-93.8	4.8
8	36.00 Hz	2495	156.7	5.4	46.1	5.9	73.2	1.5	-98.1	1.7
9	24.00 Hz	1819	109.5	10.1	34.5	9.4	69.2	2.7	-94.3	2.6
10	18.00 Hz	1467	91.7	10.9	27.4	12.5	72.3	3.0	-99.7	3.4
11	12.00 Hz	2110	72.0	13.7	21.2	12.6	71.9	3.7	-97.4	3.4
12	9.00 Hz	2080	51.4	10.8	17.3	11.2	71.1	2.9	-103.6	3.1
13	6.00 Hz	2012	40.0	49.6	12.9	31.6	57.7	11.5	-99.9	7.9
14	4.50 Hz	576	42.8	99.9	8.3	99.9	63.4	22.5	-94.5	20.6
15	3.00 Hz	33988	21.6	99.9	11.0	86.4	46.7	21.6	-98.8	17.8
16	2.25 Hz	39904	17.0	99.9	6.6	99.9	49.4	22.4	-132.8	31.8
17	1.50 Hz	16288	20.6	99.9	7.7	87.7	33.0	24.3	-120.4	18.0
18	1.13 Hz	12720	20.2	99.9	8.6	99.9	41.1	22.9	-138.8	24.3
19	1.33 Sec	10941	28.0	99.9	5.8	99.9	28.4	26.9	-133.4	35.8
20	1.78 Sec	8016	54.7	99.9	6.0	99.9	18.8	31.6	-149.1	59.3
21	2.67 Sec	4110	79.0	99.9	15.6	99.9	17.6	49.4	-153.6	74.8
22	3.56 Sec	4251	87.4	99.9	10.0	99.9	17.2	28.8	-156.8	48.9
23	5.33 Sec	2099	123.1	99.9	13.6	99.9	6.1	20.6	-145.0	24.9
24	7.11 Sec	2000	171.5	24.8	13.0	45.7	10.3	6.3	-150.5	10.8
25	10.67 Sec	534	275.9	2.7	11.4	7.5	13.6	.8	-143.5	2.1
26	14.22 Sec	568	351.0	1.2	12.6	2.7	18.4	.3	-143.2	.8
27	21.33 Sec	545	469.6	1.1	13.4	2.3	24.1	.3	-140.8	.6
28	28.44 Sec	617	569.1	1.3	14.1	2.9	32.0	.4	-138.6	.8
29	42.67 Sec	536	615.2	4.7	13.9	4.9	37.3	1.3	-132.0	1.4
30	56.89 Sec	554	610.6	1.1	13.3	3.1	43.7	.3	-128.0	.9
31	85.33 Sec	198	498.4	1.7	11.9	3.8	48.7	.5	-125.5	1.1
32	113.78 Sec	282	439.3	1.2	9.7	3.0	50.9	.3	-121.9	.9
33	170.67 Sec	108	367.1	2.2	7.9	4.4	50.4	.6	-121.1	1.2
34	227.56 Sec	63	355.2	3.0	6.6	5.0	49.4	.8	-125.1	1.4
35	341.33 Sec	30	327.5	3.2	5.3	5.3	45.9	.9	-124.8	1.5
36	455.11 Sec	60	343.9	3.6	5.0	10.4	44.6	1.0	-124.8	2.8
37	682.67 Sec	12	393.9	6.6	5.0	15.1	43.3	1.8	-131.0	4.0
38	910.22 Sec	30	395.2	10.9	5.6	21.1	42.4	3.0	-132.0	5.5
39	1365.33 Sec	12	399.1	20.6	5.1	67.7	47.6	5.4	-141.5	14.8

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
4	144.00 Hz	466	510.9	180.8	27.0	670	4.6	399
5	96.00 Hz	911	354.8	122.0	9.1	684	3.1	403
6	72.00 Hz	1443	261.9	89.7	11.0	691	2.3	407
7	48.00 Hz	1472	187.6	59.6	21.2	704	1.5	411
8	36.00 Hz	2495	150.7	46.4	25.4	728	6.1	415
9	24.00 Hz	1819	114.6	35.0	13.6	778	5.5	430
10	18.00 Hz	1467	87.3	28.0	5.6	785	4.4	444
11	12.00 Hz	2110	62.3	21.2	4.7	811	3.7	473
12	9.00 Hz	2080	48.1	17.3	2.6	823	2.0	493
13	6.00 Hz	2012	33.5	12.3	2.4	840	1.4	509
14	4.50 Hz	576	26.4	10.0	5.7	862	2.2	530
15	3.00 Hz	33988	21.4	7.8	8.7	950	2.1	575
16	2.25 Hz	39904	19.7	6.7	17.8	1054	3.3	613
17	1.50 Hz	16288	20.6	6.2	27.5	1319	4.3	724
18	1.13 Hz	12720	21.8	5.9	62.5	1567	4.1	814
19	1.33 Sec	10941	28.8	5.5	281.1	2205	4.7	963
20	1.78 Sec	8016	38.3	5.6	1494.7	2938	7.3	1120
21	2.67 Sec	4110	61.8	6.0	2410.3	4569	11.0	1427
22	3.56 Sec	4251	88.7	6.8	3458.3	6319	19.7	1752
23	5.33 Sec	2099	137.8	8.4	5375.9	9649	34.7	2389
24	7.11 Sec	2000	188.3	10.4	5315.4	13024	31.7	3059
25	10.67 Sec	534	262.9	12.0	6186.3	18846	23.8	4026
26	14.22 Sec	568	356.0	13.1	3260.3	25322	20.0	4849
27	21.33 Sec	545	458.8	13.9	2030.7	35207	17.6	6125
28	28.44 Sec	617	551.4	14.2	1112.2	44570	14.0	7144
29	42.67 Sec	536	579.5	13.8	617.1	55960	11.3	8644
30	56.89 Sec	554	563.6	13.2	359.4	63722	8.0	9757
31	85.33 Sec	198	497.1	11.6	217.7	73298	4.7	11218
32	113.78 Sec	282	429.8	9.8	192.4	78700	2.8	11902
33	170.67 Sec	108	381.6	7.9	224.5	90822	2.3	13059
34	227.56 Sec	63	359.1	6.7	281.6	101735	2.2	13902
35	341.33 Sec	30	350.9	5.6	359.8	123164	2.8	15504
36	455.11 Sec	60	362.3	5.4	463.1	144502	5.1	17581
37	682.67 Sec	12	381.9	5.5	520.7	181713	6.6	21751
38	910.22 Sec	30	403.0	5.7	508.7	215546	9.4	25675
39	1365.33 Sec	12	413.9	6.5	471.9	267519	12.2	33467

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
4	144.00 Hz	466	-56.84	154.10	999.99	555.83	187.10	999.99
5	96.00 Hz	911	-24.63	-70.71	999.99	123.60	396.08	999.99
6	72.00 Hz	1443	32.32	-47.85	999.99	119.50	287.49	371.61
7	48.00 Hz	1472	-3.92	-17.84	803.48	16.51	209.72	228.66
8	36.00 Hz	2495	-18.24	-6.13	52.54	48.50	160.81	39.35
9	24.00 Hz	1819	-11.52	-1.70	55.99	40.75	107.16	60.27
10	18.00 Hz	1467	-3.96	-.56	68.33	27.54	86.55	43.89
11	12.00 Hz	2110	-4.67	-1.72	26.42	20.44	62.45	35.67
12	9.00 Hz	2080	.27	.36	12.03	15.57	45.50	12.12
13	6.00 Hz	2012	-3.33	2.94	62.12	18.53	29.26	97.23
14	4.50 Hz	576	-3.23	-3.75	212.20	13.87	27.75	297.80
15	3.00 Hz	33988	-4.24	2.43	77.23	12.35	13.10	92.29
16	2.25 Hz	39904	-.20	-1.10	264.89	8.99	10.50	58.22
17	1.50 Hz	16288	1.08	2.63	338.93	10.41	6.77	55.65
18	1.13 Hz	12720	-.26	2.86	271.99	8.04	7.01	36.36
19	1.33 Sec	10941	-.465	4.576	99.999	9.009	4.878	46.249
20	1.78 Sec	8016	.040	5.386	99.999	11.741	3.995	93.312
21	2.67 Sec	4110	-.104	.902	99.999	11.600	3.688	99.999
22	3.56 Sec	4251	1.087	-.379	99.999	10.587	3.283	62.143
23	5.33 Sec	2099	.541	1.487	90.266	10.681	1.143	29.714
24	7.11 Sec	2000	.069	-.327	5.470	10.804	1.970	2.955
25	10.67 Sec	534	-.416	-.057	.056	11.051	2.683	.045
26	14.22 Sec	568	-.300	-.342	.012	10.542	3.502	.009
27	21.33 Sec	545	-.253	-.443	.004	9.575	4.286	.006
28	28.44 Sec	617	-.025	-.481	.007	8.480	5.302	.009
29	42.67 Sec	536	-.600	-.441	.141	6.757	5.142	.076
30	56.89 Sec	554	-.024	-.268	.005	5.300	5.058	.003
31	85.33 Sec	198	-.061	-.124	.002	3.569	4.058	.004
32	113.78 Sec	282	-.116	-.067	.001	2.773	3.408	.001
33	170.67 Sec	108	-.092	-.049	.002	2.090	2.527	.002
34	227.56 Sec	63	-.101	-.053	.002	1.817	2.122	.003
35	341.33 Sec	30	-.097	-.107	.002	1.523	1.574	.002
36	455.11 Sec	60	-.070	-.078	.003	1.385	1.364	.002
37	682.67 Sec	12	-.013	-.110	.009	1.236	1.165	.006
38	910.22 Sec	30	.013	-.073	.012	1.088	.993	.012
39	1365.33 Sec	12	.148	-.238	.070	.816	.893	.026

PHOENIX GEOSCIENCE

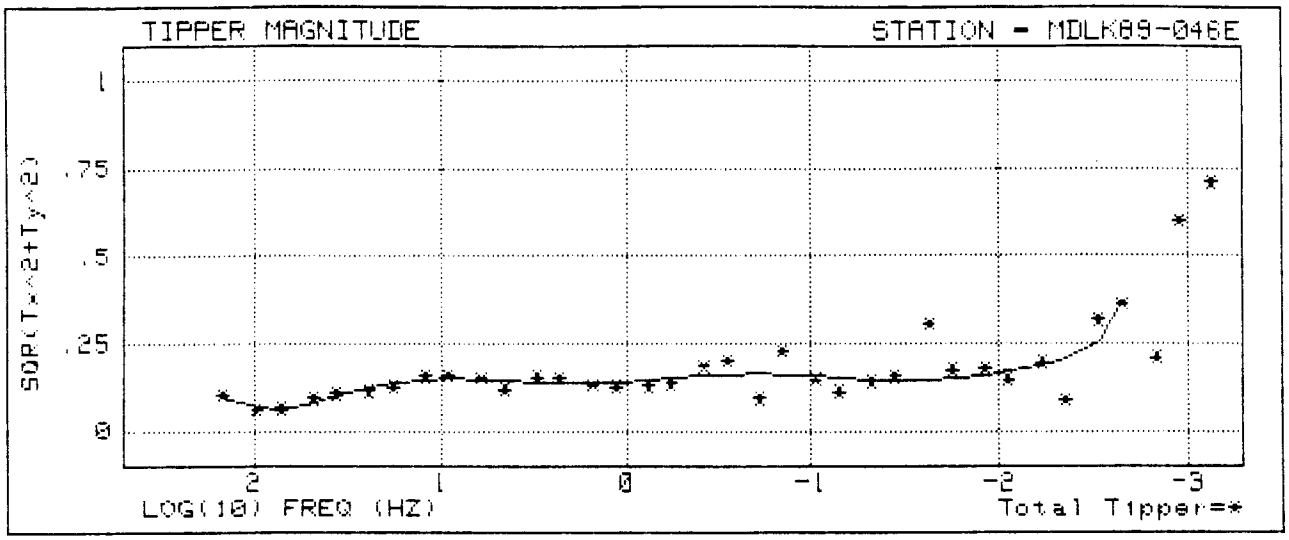
MT Site: MDLK89-046E

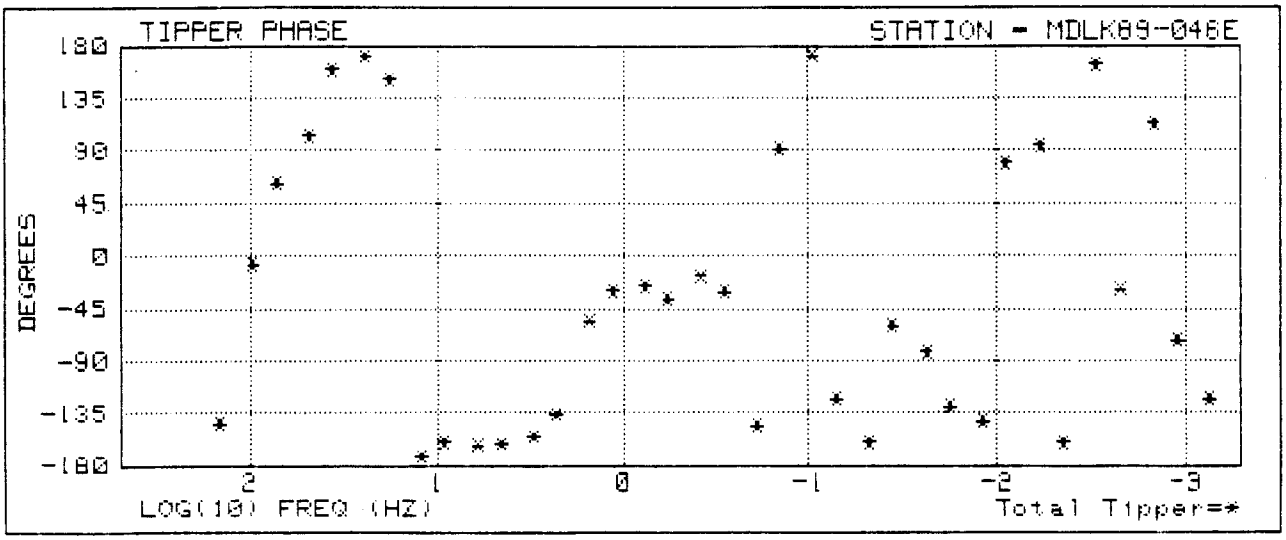
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

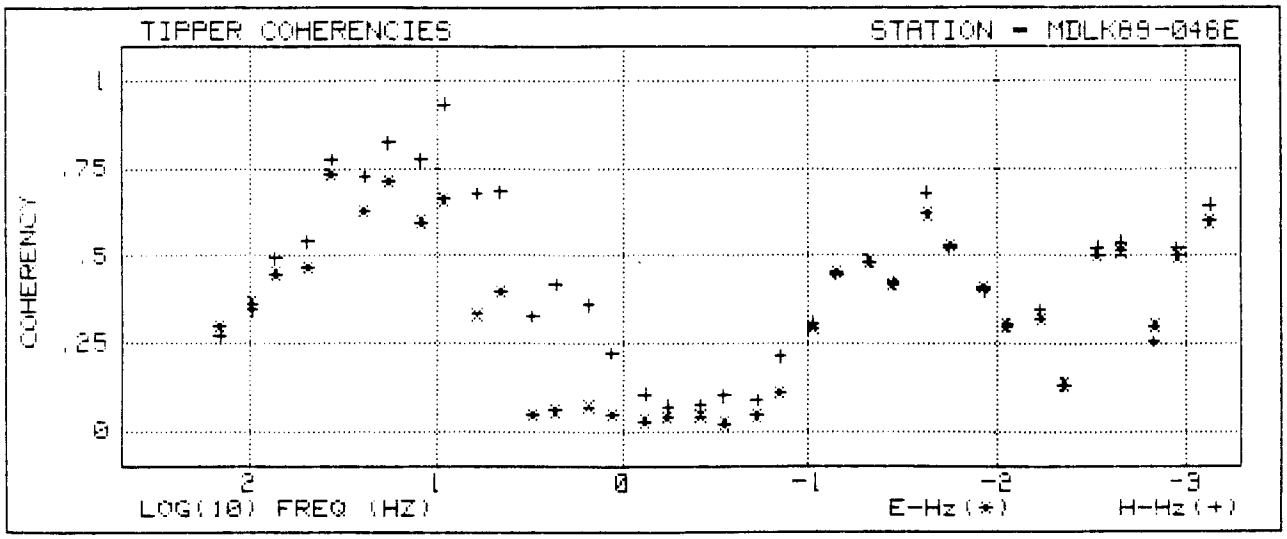
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
4	144.00 Hz	466	-130.61	-352.44	999.99	-184.35	-173.80	999.99
5	96.00 Hz	911	-52.26	-218.31	745.76	-10.05	-76.56	416.31
6	72.00 Hz	1443	-3.40	-175.91	999.99	-12.87	-.83	158.27
7	48.00 Hz	1472	-6.65	-99.08	138.69	-2.56	-17.96	39.47
8	36.00 Hz	2495	-12.77	-90.23	13.80	-7.73	-11.46	10.34
9	24.00 Hz	1819	-4.88	-64.15	16.84	-3.32	-8.55	18.13
10	18.00 Hz	1467	-8.33	-48.98	17.10	1.92	-3.57	10.98
11	12.00 Hz	2110	-4.62	-35.39	9.02	7.32	-8.73	12.18
12	9.00 Hz	2080	-6.59	-27.13	4.42	4.31	-1.62	4.46
13	6.00 Hz	2012	-3.38	-19.40	14.60	.26	-2.58	22.86
14	4.50 Hz	576	-1.07	-13.65	48.37	-2.63	-4.30	67.89
15	3.00 Hz	33988	-1.98	-12.72	32.14	-4.18	.84	38.41
16	2.25 Hz	39904	-5.84	-6.30	45.40	-.82	-.63	9.98
17	1.50 Hz	16288	-3.85	-6.57	11.49	1.14	.77	1.89
18	1.13 Hz	12720	-5.24	-4.59	17.48	1.54	.77	2.34
19	1.33 Sec	10941	-3.198	-3.379	16.894	.659	.218	1.516
20	1.78 Sec	8016	-3.516	-2.108	36.051	1.266	.044	2.940
21	2.67 Sec	4110	-4.840	-2.408	99.585	.114	-.252	25.458
22	3.56 Sec	4251	-3.454	-1.481	20.571	1.052	-.240	2.588
23	5.33 Sec	2099	-2.924	-2.046	4.829	.383	.134	1.589
24	7.11 Sec	2000	-2.631	-1.486	.647	.053	-.054	.349
25	10.67 Sec	534	-1.855	-1.375	.014	-.408	-.113	.011
26	14.22 Sec	568	-1.685	-1.262	.002	-.349	-.148	.001
27	21.33 Sec	545	-1.373	-1.119	.001	-.343	-.210	.001
28	28.44 Sec	617	-1.183	-1.041	.001	-.174	-.227	.001
29	42.67 Sec	536	-.855	-.950	.002	-.553	-.507	.001
30	56.89 Sec	554	-.666	-.851	.001	-.111	-.173	.000
31	85.33 Sec	198	-.484	-.679	.000	-.054	-.131	.001
32	113.78 Sec	282	-.345	-.554	.000	-.042	-.130	.000
33	170.67 Sec	108	-.249	-.413	.000	-.039	-.095	.000
34	227.56 Sec	63	-.218	-.311	.000	-.075	-.076	.000
35	341.33 Sec	30	-.159	-.229	.000	-.097	-.107	.000
36	455.11 Sec	60	-.134	-.192	.000	-.070	-.078	.000
37	682.67 Sec	12	-.125	-.144	.000	-.051	-.069	.000
38	910.22 Sec	30	-.117	-.131	.001	-.039	-.015	.001
39	1365.33 Sec	12	-.107	-.085	.002	-.053	-.061	.001

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E







PHOENIX GEOSCIENCE

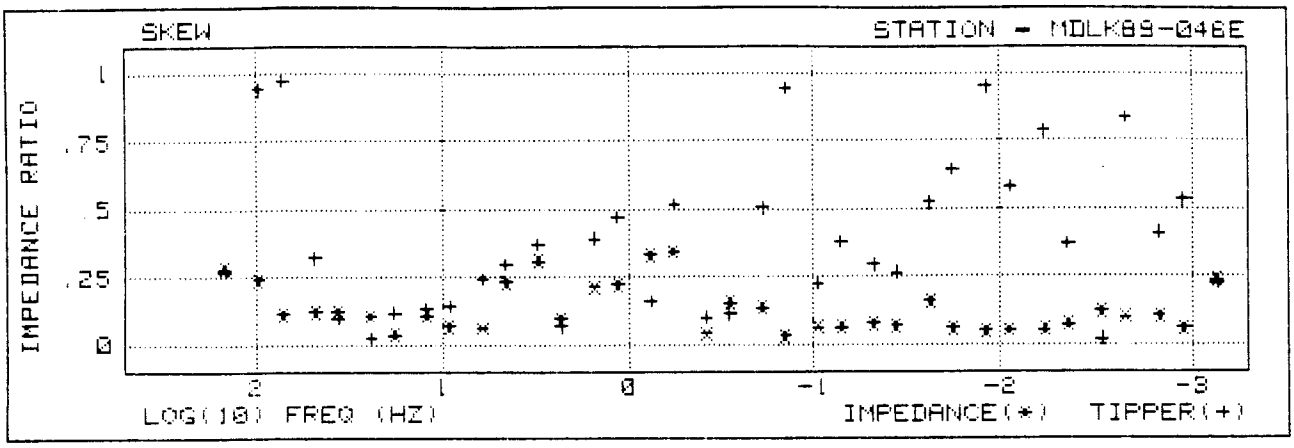
MT Site: MDLK89-046E

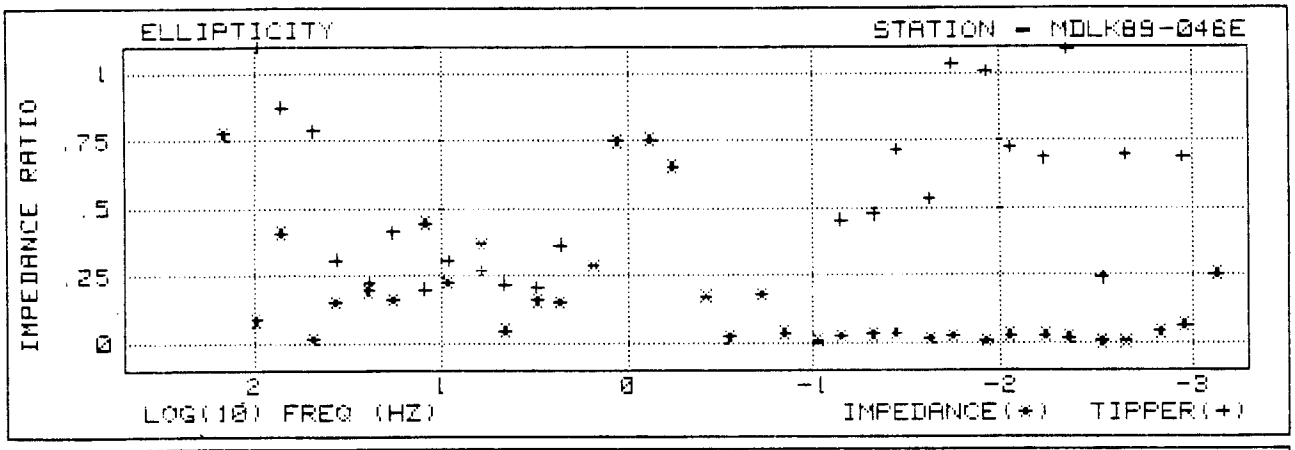
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

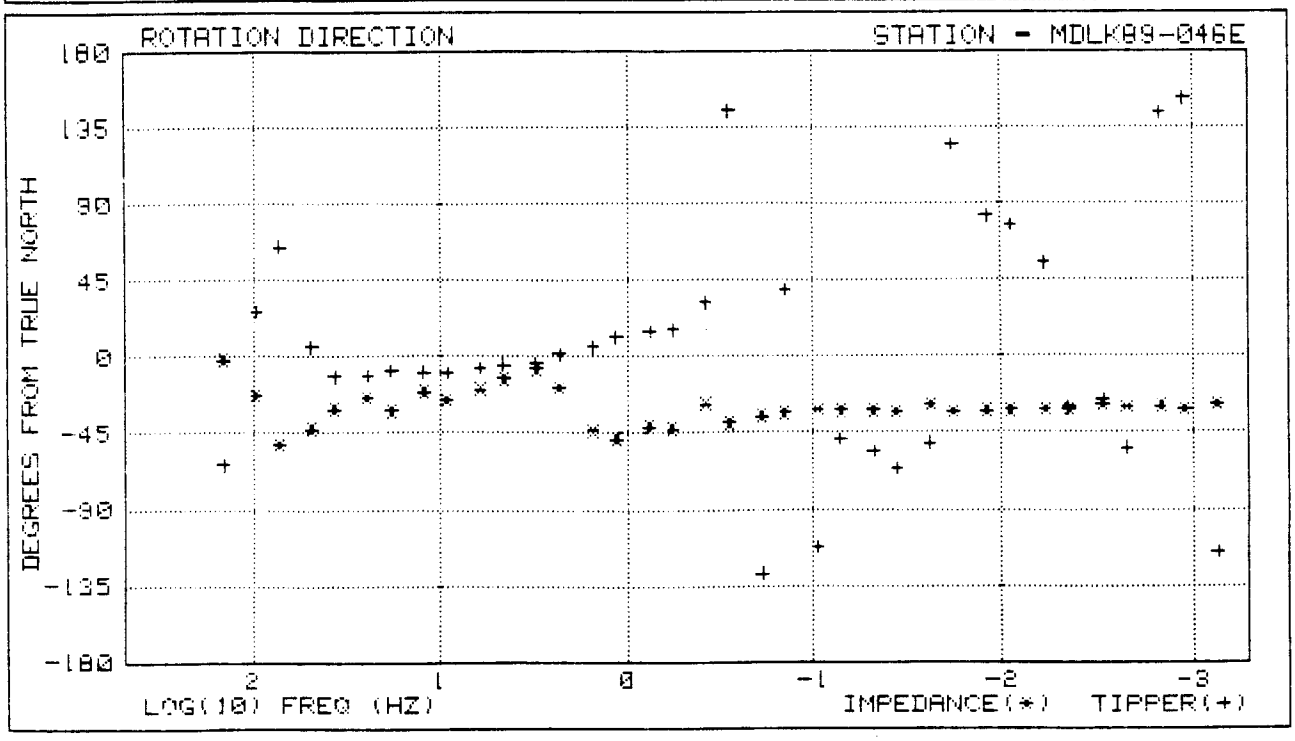
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
4	144.00 Hz	466	.10	-145.15	.30	.27
5	96.00 Hz	911	.06	-8.10	.36	.34
6	72.00 Hz	1443	.06	61.13	.44	.49
7	48.00 Hz	1472	.09	101.80	.46	.54
8	36.00 Hz	2495	.10	158.53	.73	.77
9	24.00 Hz	1819	.11	169.63	.63	.72
10	18.00 Hz	1467	.12	150.15	.71	.82
11	12.00 Hz	2110	.15	-173.07	.59	.77
12	9.00 Hz	2080	.15	-160.84	.66	.93
13	6.00 Hz	2012	.15	-163.74	.33	.67
14	4.50 Hz	576	.11	-162.39	.39	.68
15	3.00 Hz	33988	.15	-155.82	.04	.32
16	2.25 Hz	39904	.15	-137.26	.05	.41
17	1.50 Hz	16288	.13	-56.17	.07	.36
18	1.13 Hz	12720	.12	-30.88	.04	.22
19	1.33 Sec	10941	.13	-26.62	.02	.10
20	1.78 Sec	8016	.13	-37.52	.04	.07
21	2.67 Sec	4110	.18	-17.93	.04	.07
22	3.56 Sec	4251	.20	-30.96	.02	.10
23	5.33 Sec	2099	.09	-147.17	.04	.09
24	7.11 Sec	2000	.23	90.94	.11	.21
25	10.67 Sec	534	.14	170.82	.29	.31
26	14.22 Sec	568	.11	-123.86	.45	.44
27	21.33 Sec	545	.14	-160.81	.48	.48
28	28.44 Sec	617	.15	-60.68	.41	.42
29	42.67 Sec	536	.30	-83.46	.62	.68
30	56.89 Sec	554	.17	-130.29	.53	.52
31	85.33 Sec	198	.18	-142.83	.41	.40
32	113.78 Sec	282	.14	78.56	.30	.30
33	170.67 Sec	108	.19	93.26	.32	.34
34	227.56 Sec	63	.09	-160.77	.13	.13
35	341.33 Sec	30	.31	162.62	.50	.52
36	455.11 Sec	60	.36	-29.43	.51	.54
37	682.67 Sec	12	.21	112.14	.30	.25
38	910.22 Sec	30	.60	-73.46	.50	.52
39	1365.33 Sec	12	.71	-123.89	.59	.64

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E







PHOENIX GEOSCIENCE

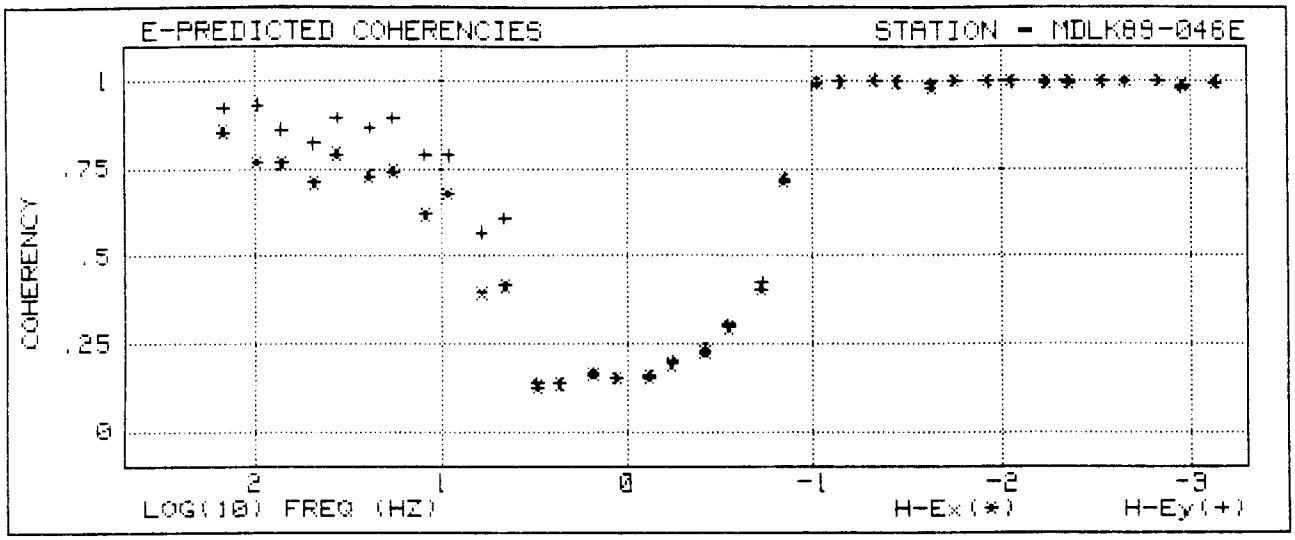
MT Site: MDLK89-046E

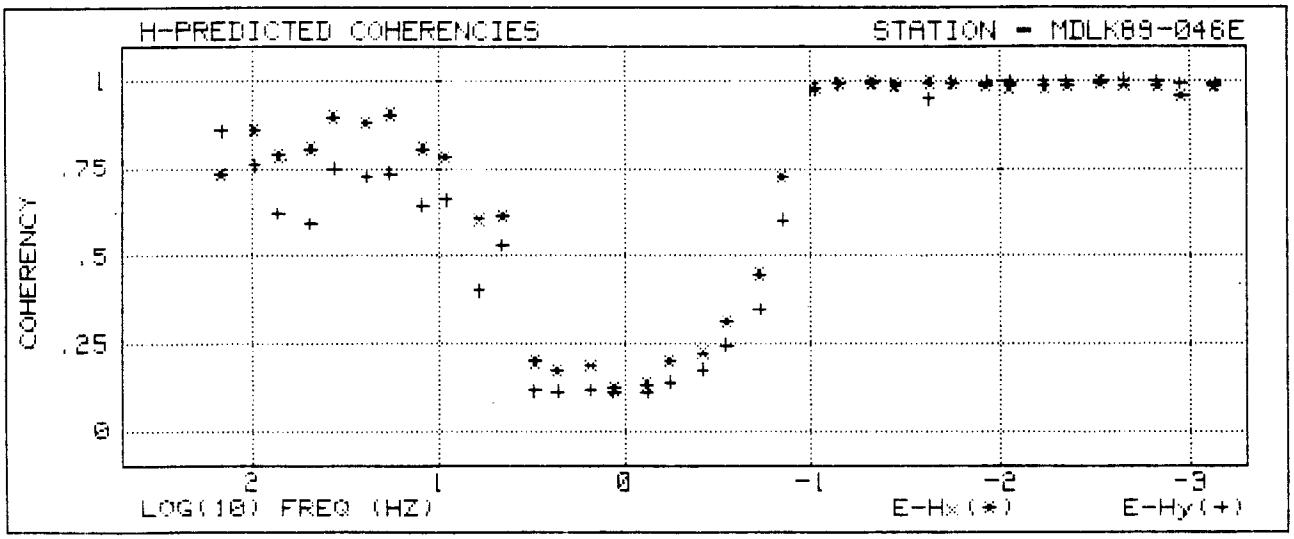
SKEW, ELLIPTICITY AND STRIKE

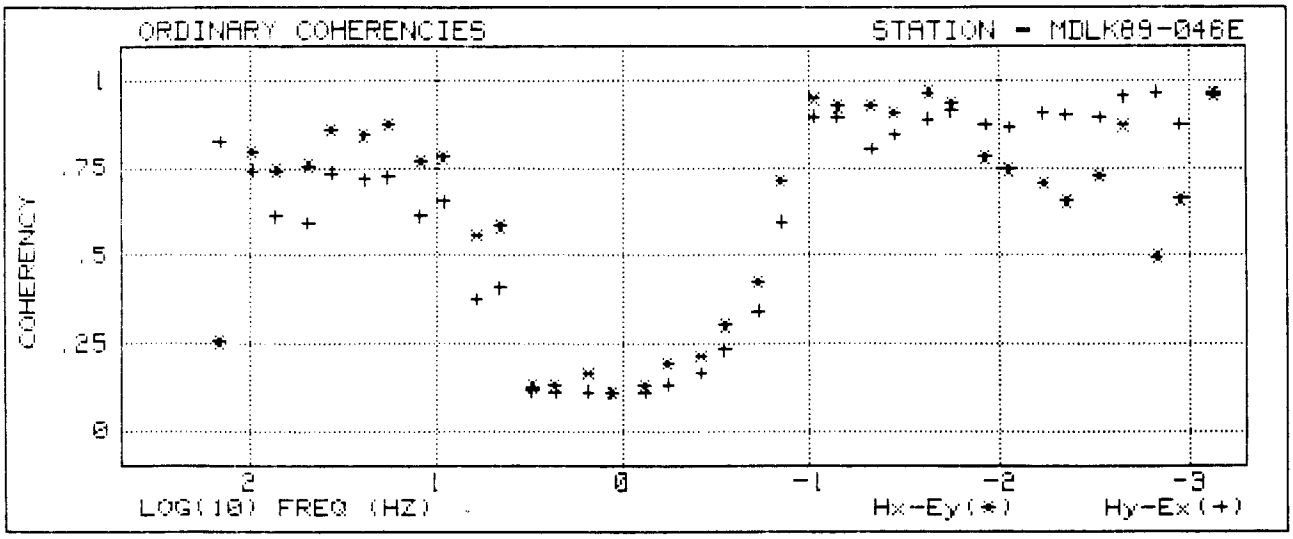
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
4	144.00 Hz	466	.28	.77	-2.57	.27	1.79	-64.04
5	96.00 Hz	911	.24	.08	-23.20	.93	1.09	25.88
6	72.00 Hz	1443	.11	.41	-52.38	.97	.87	63.92
7	48.00 Hz	1472	.12	.01	-42.88	.32	.78	5.14
8	36.00 Hz	2495	.12	.15	-31.24	.10	.31	-11.97
9	24.00 Hz	1819	.10	.19	-24.60	.02	.22	-11.79
10	18.00 Hz	1467	.03	.16	-32.42	.11	.41	-8.81
11	12.00 Hz	2110	.11	.44	-21.54	.13	.20	-9.87
12	9.00 Hz	2080	.06	.22	-26.23	.14	.30	-10.05
13	6.00 Hz	2012	.06	.36	-19.99	.24	.27	-7.28
14	4.50 Hz	576	.23	.04	-13.65	.29	.21	-5.60
15	3.00 Hz	33988	.31	.15	-7.80	.37	.20	-4.46
16	2.25 Hz	39904	.09	.15	-18.84	.06	.36	.83
17	1.50 Hz	16288	.21	.28	-44.04	.39	1.17	5.08
18	1.13 Hz	12720	.22	.74	-48.87	.47	1.68	10.85
19	1.33 Sec	10941	.33	.75	-41.51	.16	1.46	14.30
20	1.78 Sec	8016	.34	.65	-43.03	.51	2.14	15.10
21	2.67 Sec	4110	.04	.17	-28.67	.10	1.73	31.32
22	3.56 Sec	4251	.15	.02	-39.63	.11	2.70	143.79
23	5.33 Sec	2099	.13	.17	-35.80	.50	3.73	-128.14
24	7.11 Sec	2000	.03	.03	-33.98	.94	1.30	38.76
25	10.67 Sec	534	.06	.01	-31.73	.22	3.45	-113.03
26	14.22 Sec	568	.06	.02	-32.40	.38	.45	-49.17
27	21.33 Sec	545	.07	.03	-32.51	.29	.47	-56.45
28	28.44 Sec	617	.06	.03	-33.59	.26	.71	-66.57
29	42.67 Sec	536	.15	.01	-29.20	.52	.53	-51.93
30	56.89 Sec	554	.05	.02	-33.43	.64	1.03	124.24
31	85.33 Sec	198	.04	.00	-33.00	.94	1.00	81.86
32	113.78 Sec	282	.05	.03	-32.51	.58	.72	76.67
33	170.67 Sec	108	.05	.02	-31.99	.78	.68	54.29
34	227.56 Sec	63	.07	.01	-31.93	.37	1.08	-31.00
35	341.33 Sec	30	.12	.00	-29.24	.01	.24	-26.44
36	455.11 Sec	60	.10	.00	-30.51	.83	.69	-54.54
37	682.67 Sec	12	.10	.04	-30.18	.40	2.31	142.70
38	910.22 Sec	30	.06	.06	-32.12	.53	.68	151.44
39	1365.33 Sec	12	.23	.25	-29.06	.22	7.81	-115.61

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E







PHOENIX GEOSCIENCE

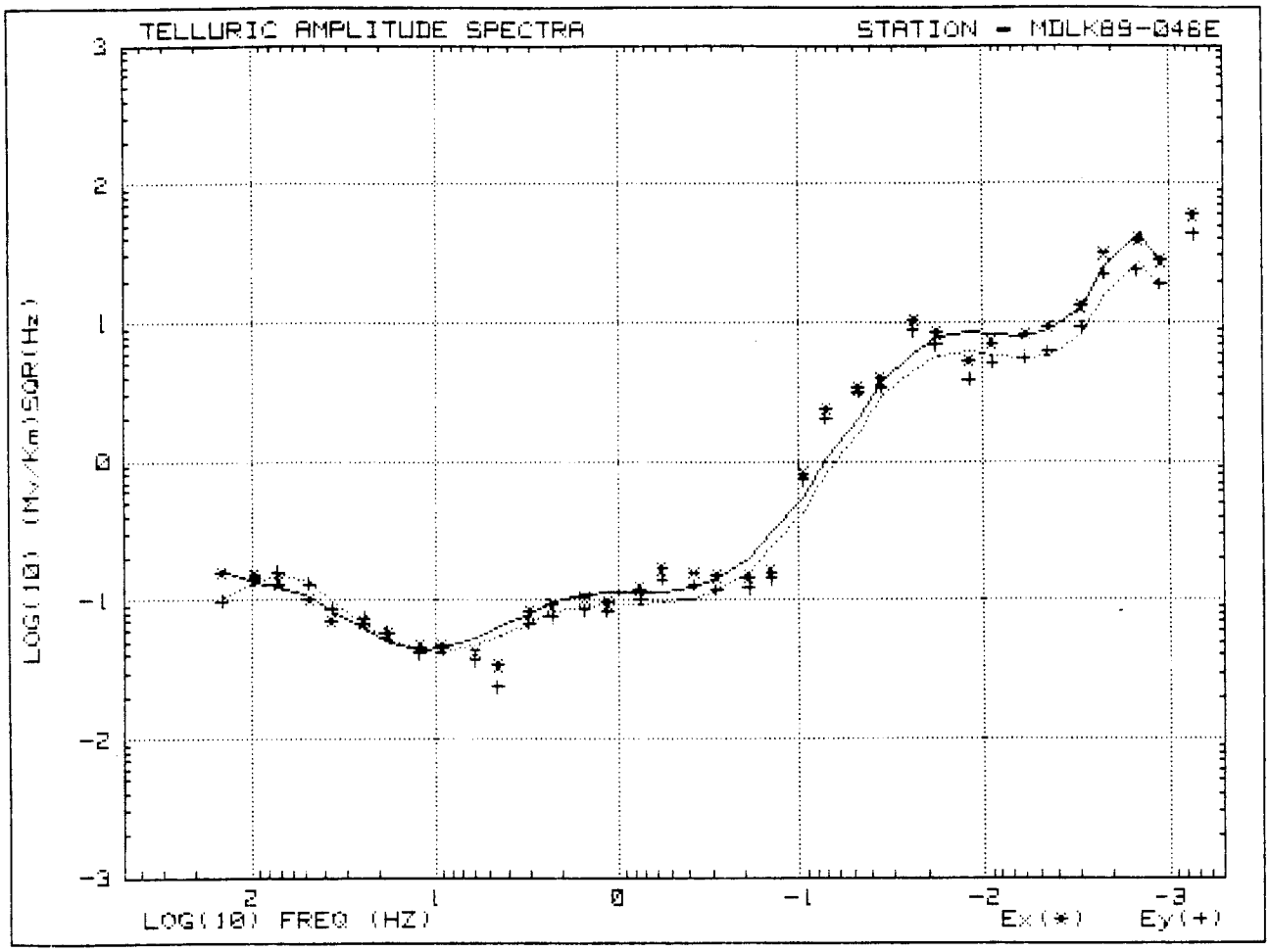
MT Site: MDLK89-046E

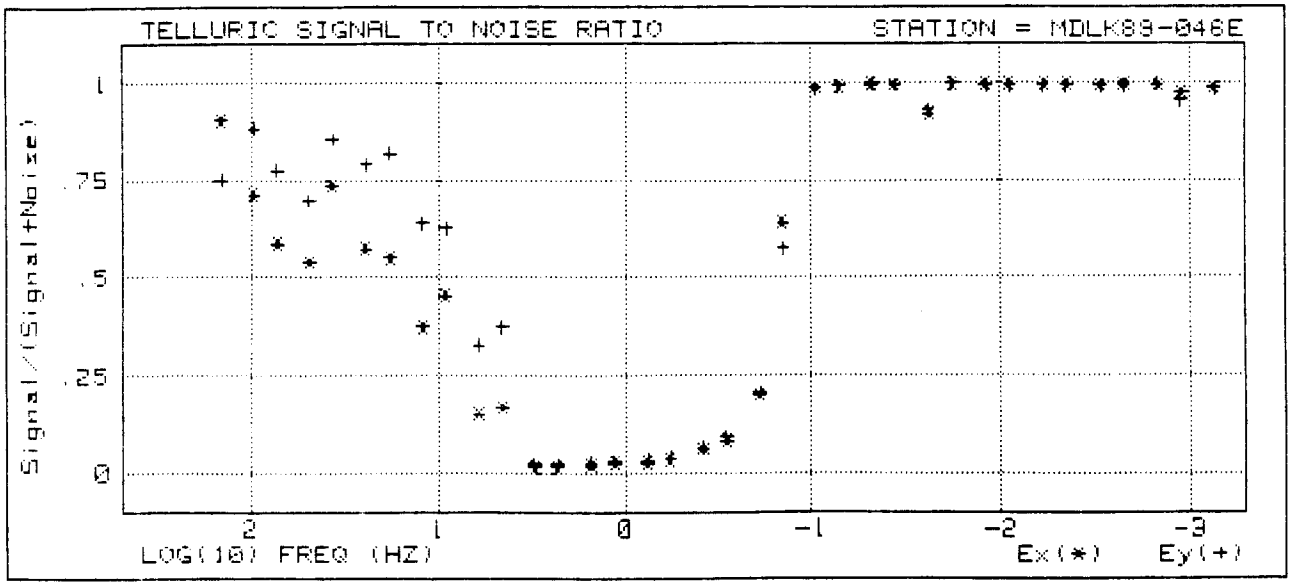
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
4	144.00 Hz	466	.85	.92	.73	.85	.25	.82
5	96.00 Hz	911	.77	.93	.86	.76	.79	.74
6	72.00 Hz	1443	.76	.86	.78	.62	.74	.61
7	48.00 Hz	1472	.71	.82	.80	.59	.75	.59
8	36.00 Hz	2495	.79	.89	.89	.75	.86	.73
9	24.00 Hz	1819	.72	.86	.88	.72	.84	.71
10	18.00 Hz	1467	.74	.89	.90	.73	.87	.72
11	12.00 Hz	2110	.62	.79	.80	.64	.76	.61
12	9.00 Hz	2080	.67	.78	.78	.66	.78	.65
13	6.00 Hz	2012	.39	.56	.60	.40	.55	.37
14	4.50 Hz	576	.41	.60	.61	.53	.58	.40
15	3.00 Hz	33988	.12	.13	.20	.11	.12	.11
16	2.25 Hz	39904	.13	.13	.17	.11	.13	.11
17	1.50 Hz	16288	.16	.16	.18	.11	.16	.11
18	1.13 Hz	12720	.15	.15	.12	.11	.11	.11
19	1.33 Sec	10941	.15	.15	.13	.11	.13	.11
20	1.78 Sec	8016	.19	.19	.20	.14	.19	.13
21	2.67 Sec	4110	.22	.23	.22	.17	.21	.16
22	3.56 Sec	4251	.29	.30	.31	.24	.30	.23
23	5.33 Sec	2099	.40	.42	.44	.34	.42	.34
24	7.11 Sec	2000	.71	.72	.72	.60	.71	.59
25	10.67 Sec	534	.99	.99	.98	.97	.95	.89
26	14.22 Sec	568	.99	.99	.99	.99	.92	.89
27	21.33 Sec	545	1.00	1.00	.99	.99	.93	.80
28	28.44 Sec	617	.99	.99	.99	.98	.91	.84
29	42.67 Sec	536	.98	.99	.99	.95	.96	.89
30	56.89 Sec	554	1.00	1.00	.99	.99	.93	.91
31	85.33 Sec	198	1.00	.99	.98	.99	.78	.87
32	113.78 Sec	282	1.00	.99	.98	.99	.74	.86
33	170.67 Sec	108	1.00	.99	.98	.99	.70	.90
34	227.56 Sec	63	.99	.99	.98	.99	.65	.90
35	341.33 Sec	30	1.00	1.00	.99	1.00	.72	.89
36	455.11 Sec	60	1.00	1.00	.99	1.00	.87	.95
37	682.67 Sec	12	1.00	1.00	.98	1.00	.49	.96
38	910.22 Sec	30	.99	.98	.96	.99	.66	.87
39	1365.33 Sec	12	.99	.99	.98	.99	.96	.96

PHOENIX GEOSCIENCE

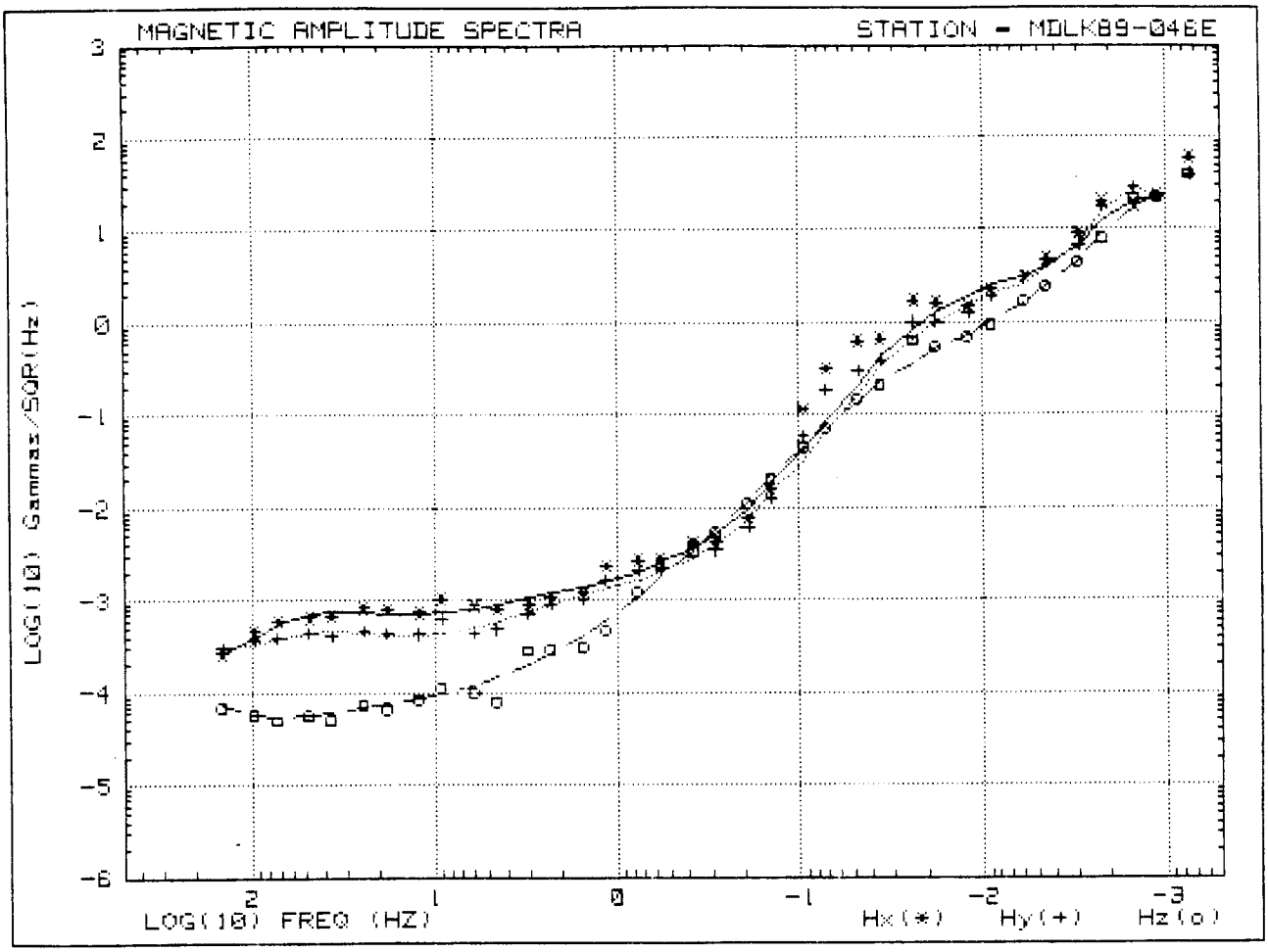
MT Site: MDLK89-046E

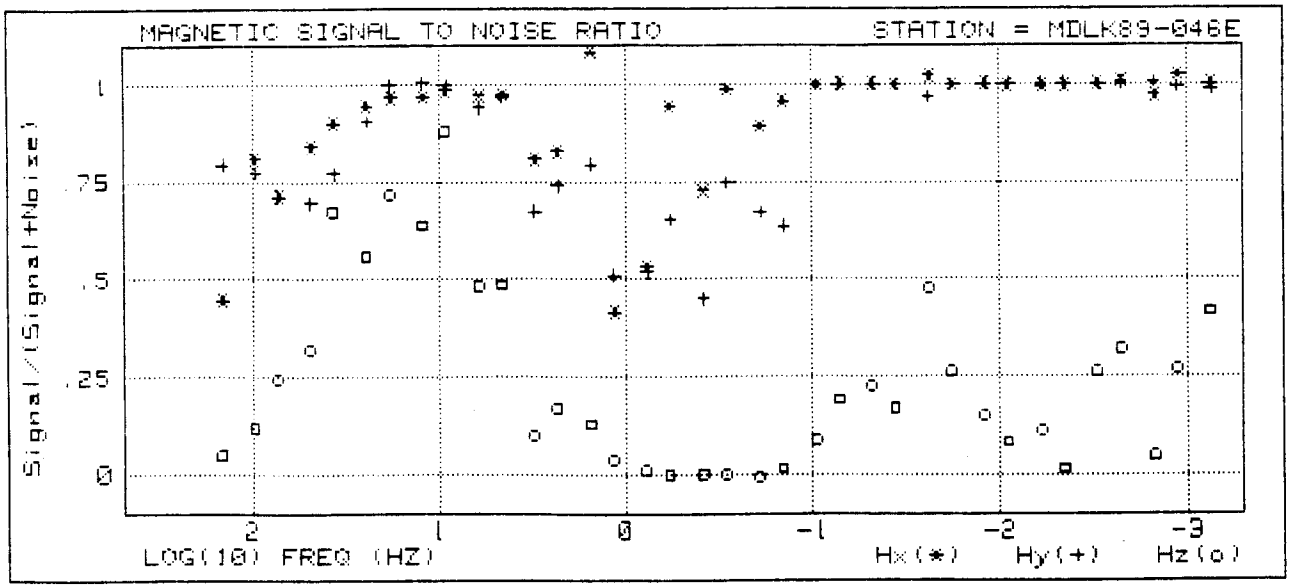




PHOENIX GEOSCIENCE

MT Site: MDLK89-046E





PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	466	2.62E-04	2.96E-04	7.37E-05	1.56E-01	9.79E-02
5	96.00 Hz	911	4.49E-04	3.71E-04	6.14E-05	1.48E-01	1.42E-01
6	72.00 Hz	1443	5.77E-04	3.85E-04	5.21E-05	1.29E-01	1.56E-01
7	48.00 Hz	1472	6.44E-04	4.33E-04	5.93E-05	9.94E-02	1.28E-01
8	36.00 Hz	2495	6.53E-04	4.05E-04	5.26E-05	6.93E-02	8.47E-02
9	24.00 Hz	1819	8.23E-04	4.59E-04	7.60E-05	6.79E-02	7.38E-02
10	18.00 Hz	1467	7.79E-04	4.33E-04	6.97E-05	5.63E-02	5.82E-02
11	12.00 Hz	2110	7.24E-04	4.25E-04	8.88E-05	4.57E-02	4.09E-02
12	9.00 Hz	2080	1.03E-03	6.16E-04	1.16E-04	4.62E-02	4.42E-02
13	6.00 Hz	2012	8.64E-04	4.39E-04	1.02E-04	4.29E-02	3.65E-02
14	4.50 Hz	576	7.88E-04	4.79E-04	8.35E-05	3.37E-02	2.36E-02
15	3.00 Hz	33988	8.96E-04	7.06E-04	2.96E-04	8.10E-02	6.77E-02
16	2.25 Hz	39904	1.04E-03	9.12E-04	3.04E-04	9.07E-02	7.48E-02
17	1.50 Hz	16288	1.20E-03	1.02E-03	3.26E-04	1.03E-01	8.45E-02
18	1.13 Hz	12720	2.33E-03	1.63E-03	4.85E-04	9.48E-02	8.27E-02
19	1.33 Sec	10941	2.66E-03	2.04E-03	1.26E-03	1.18E-01	9.95E-02
20	1.78 Sec	8016	2.74E-03	2.13E-03	2.53E-03	1.65E-01	1.40E-01
21	2.67 Sec	4110	4.13E-03	3.87E-03	3.55E-03	1.55E-01	1.27E-01
22	3.56 Sec	4251	4.14E-03	3.42E-03	5.69E-03	1.46E-01	1.18E-01
23	5.33 Sec	2099	7.63E-03	6.02E-03	1.19E-02	1.45E-01	1.20E-01
24	7.11 Sec	2000	1.58E-02	1.22E-02	2.09E-02	1.57E-01	1.42E-01
25	10.67 Sec	534	1.13E-01	5.69E-02	4.71E-02	8.04E-01	7.21E-01
26	14.22 Sec	568	3.12E-01	1.83E-01	7.65E-02	2.35E+00	1.98E+00
27	21.33 Sec	545	6.14E-01	2.94E-01	1.53E-01	3.29E+00	3.07E+00
28	28.44 Sec	617	6.51E-01	3.83E-01	2.26E-01	3.86E+00	3.34E+00
29	42.67 Sec	536	1.72E+00	9.91E-01	6.69E-01	1.02E+01	8.56E+00
30	56.89 Sec	554	1.61E+00	9.98E-01	5.72E-01	8.25E+00	6.80E+00
31	85.33 Sec	198	1.50E+00	1.24E+00	7.40E-01	5.16E+00	3.82E+00
32	113.78 Sec	282	2.24E+00	1.87E+00	9.82E-01	6.95E+00	5.06E+00
33	170.67 Sec	108	3.03E+00	2.96E+00	1.81E+00	8.02E+00	5.49E+00
34	227.56 Sec	63	4.70E+00	4.49E+00	2.57E+00	9.09E+00	6.05E+00
35	341.33 Sec	30	8.90E+00	6.74E+00	4.62E+00	1.28E+01	9.09E+00
36	455.11 Sec	60	1.98E+01	1.77E+01	8.28E+00	3.11E+01	2.22E+01
37	682.67 Sec	12	1.80E+01	2.81E+01	2.28E+01	3.84E+01	2.33E+01
38	910.22 Sec	30	2.28E+01	2.18E+01	2.36E+01	2.74E+01	1.87E+01
39	1365.33 Sec	12	5.81E+01	3.81E+01	4.16E+01	5.83E+01	4.27E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
4	144.00 Hz	466	.447	.792	.052	.901	.749
5	96.00 Hz	911	.808	.771	.123	.710	.881
6	72.00 Hz	1443	.711	.711	.250	.584	.774
7	48.00 Hz	1472	.838	.695	.324	.538	.696
8	36.00 Hz	2495	.899	.769	.680	.734	.854
9	24.00 Hz	1819	.943	.903	.567	.572	.789
10	18.00 Hz	1467	.965	.996	.721	.550	.817
11	12.00 Hz	2110	.967	1.000	.643	.373	.637
12	9.00 Hz	2080	.984	.998	.883	.452	.624
13	6.00 Hz	2012	.971	.939	.489	.149	.326
14	4.50 Hz	576	.972	.966	.492	.167	.372
15	3.00 Hz	33988	.807	.674	.107	.014	.021
16	2.25 Hz	39904	.826	.738	.173	.015	.019
17	1.50 Hz	16288	1.000	.792	.133	.018	.024
18	1.13 Hz	12720	.414	.509	.041	.023	.027
19	1.33 Sec	10941	.532	.518	.018	.024	.030
20	1.78 Sec	8016	.940	.652	.004	.032	.037
21	2.67 Sec	4110	.724	.448	.006	.059	.061
22	3.56 Sec	4251	.986	.745	.006	.081	.088
23	5.33 Sec	2099	.891	.670	0.000	.198	.204
24	7.11 Sec	2000	.955	.636	.020	.641	.574
25	10.67 Sec	534	.999	.998	.094	.985	.982
26	14.22 Sec	568	.999	.999	.196	.990	.990
27	21.33 Sec	545	1.000	.999	.229	.995	.996
28	28.44 Sec	617	.998	.997	.175	.992	.992
29	42.67 Sec	536	1.000	.966	.482	.918	.929
30	56.89 Sec	554	.998	.999	.268	.996	.995
31	85.33 Sec	198	.999	.999	.155	.993	.989
32	113.78 Sec	282	.997	.999	.089	.993	.990
33	170.67 Sec	108	.993	.999	.119	.993	.989
34	227.56 Sec	63	.995	1.000	.020	.993	.989
35	341.33 Sec	30	.999	.998	.270	.992	.990
36	455.11 Sec	60	1.000	1.000	.324	.995	.990
37	682.67 Sec	12	.971	1.000	.052	.992	.993
38	910.22 Sec	30	1.000	.992	.275	.973	.951
39	1365.33 Sec	12	1.000	.987	.423	.986	.983

PHOENIX GEOSCIENCE

MT Site: MDLK89-046E

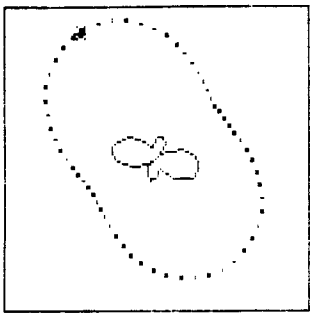
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=1
Zxy = ...

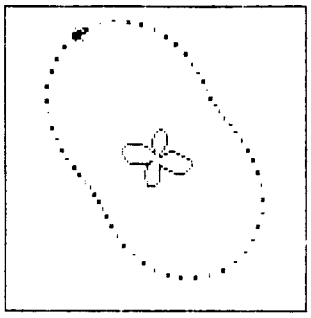
*=Rotation Direction

Zxy = ...
Zxx = ___

F=8 (36.0 Hz)



F=10 (18.0 Hz)



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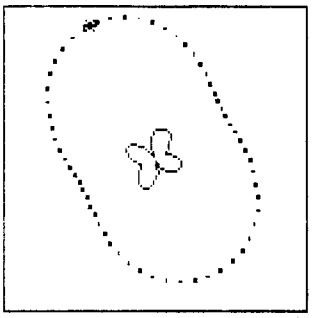
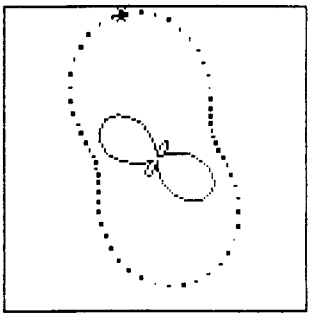
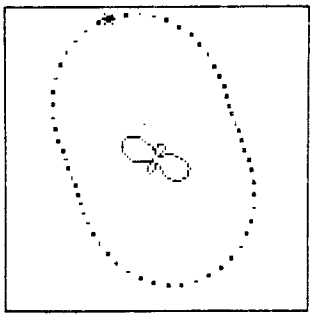


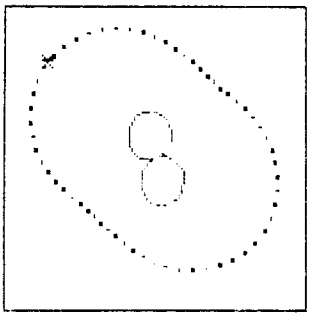
F=14 (4.5 Hz)



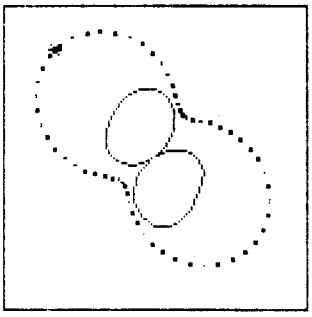
F=16 (2.3 Hz)



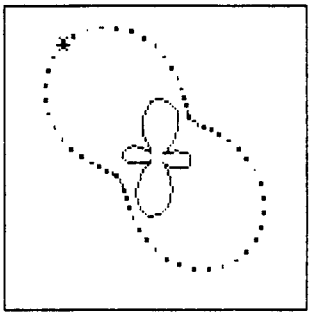
F=18 (1.1 Hz)



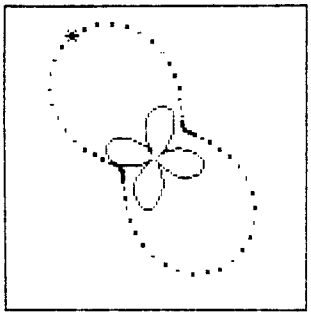
F=20 (.5625 Hz)



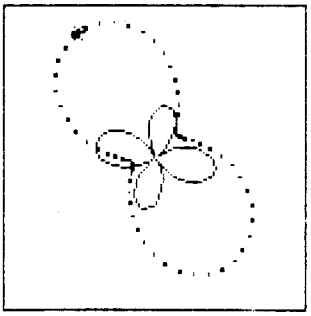
F=22 (.2813 Hz)



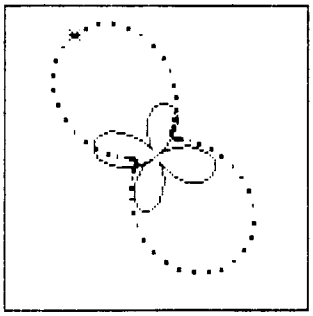
F=24 (.1406 Hz)



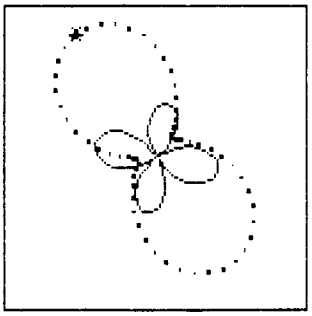
F=26 (.0703 Hz)



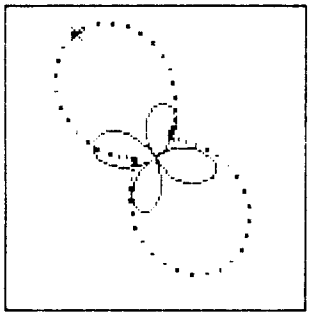
F=28 (.0352 Hz)



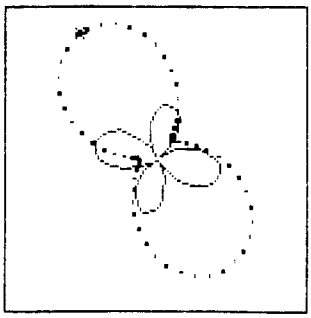
F=30 (.0176 Hz)



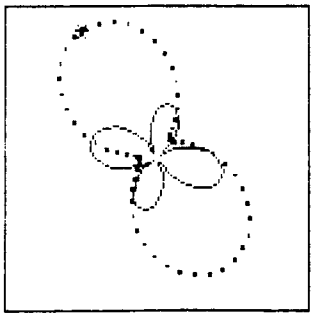
F=32 (.0088 Hz)



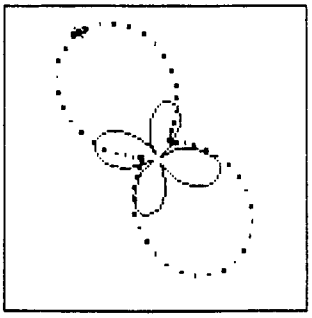
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-046s/047s/

Operator:STEWART
Date: 11 Sep 1989
Time: 13:17:41

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#452-16Aug89-01*
Sens-Ch02: C#235-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#205-05Sep89-01
Sens-Ch07: C#431-16Aug89-01
Sens-Ch08: L#333-02Jul89-01

* = Changed During the Run

Station 2

Stn Number:MDLK89-047s
Site Desc:T43N R3E SEC17 NW4
41,34,10 N 121,39,30 W
Elevation:6439 FT
Reference:MDLK89-046s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: KREISA
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL205	+0 DEG
Hy	7	COIL431	+90 DEG
Hz	8	LOOP333	*
Ex	9	173 M	+0 DEG
Ey	10	137 M	+90 DEG
Rx	1	COIL452*	+45 DEG
Ry	2	COIL235	+135 DEG

Ex Pot Resist: 10_ K Ohms
Ex Voltage: AC=14.5 mv, DC=32.6 mv
Ey Pot Resist: 16_ K Ohms
Ey Voltage: AC=4.9_ mv, DC=332_ mv
* = Changed During the Run

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

OPERATOR LOG FOR MT SITES MDLK89-046s/047s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-046a/047a/
Run STARTED: 13:17:41 11 Sep 1989
Run QUIT: 02:36:45 12 Sep 1989
Run Start and Stop Time for MDLK89-046b/047b/
Run STARTED: 03:01:00 12 Sep 1989
Run QUIT: 14:40:10 12 Sep 1989
Run Start and Stop Time for MDLK89-046c/047c/
Run STARTED: 15:13:41 12 Sep 1989
Run QUIT: 03:29:55 13 Sep 1989
Run Start and Stop Time for MDLK89-046d/047d/
Run STARTED: 03:56:37 13 Sep 1989
Run QUIT: 15:01:52 13 Sep 1989

Operator:STEWART

Cultural Factors:
NONE APPARENT
Weather Conditions:
CALM, DRY, MILD TEMPERATURES
Other Factors:

PHOENIX GEOSCIENCE

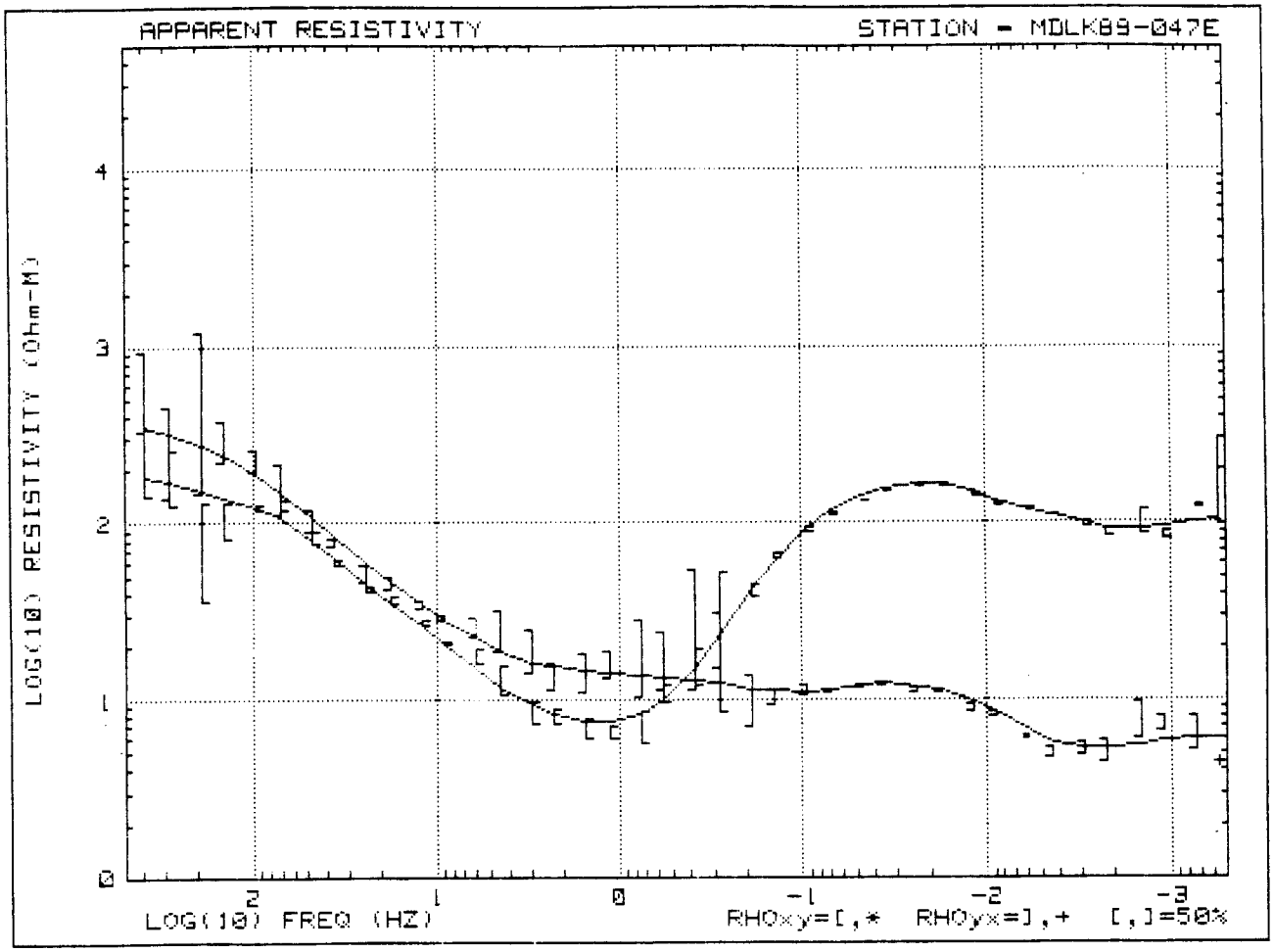
MT Site: MDLK89-047E

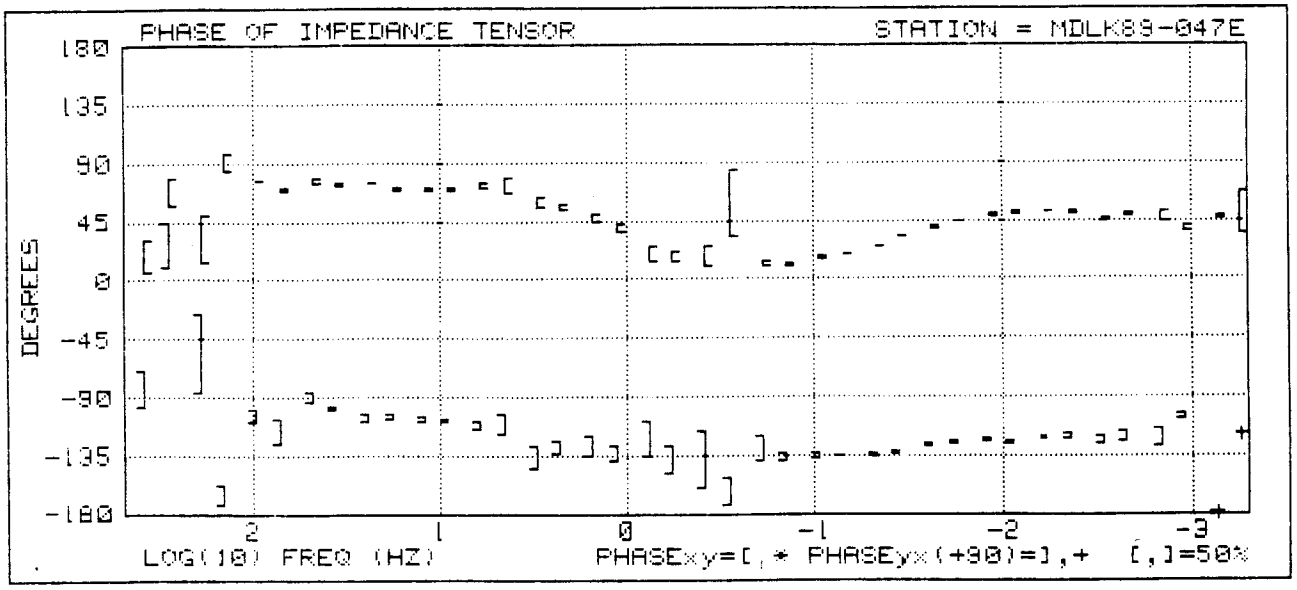
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

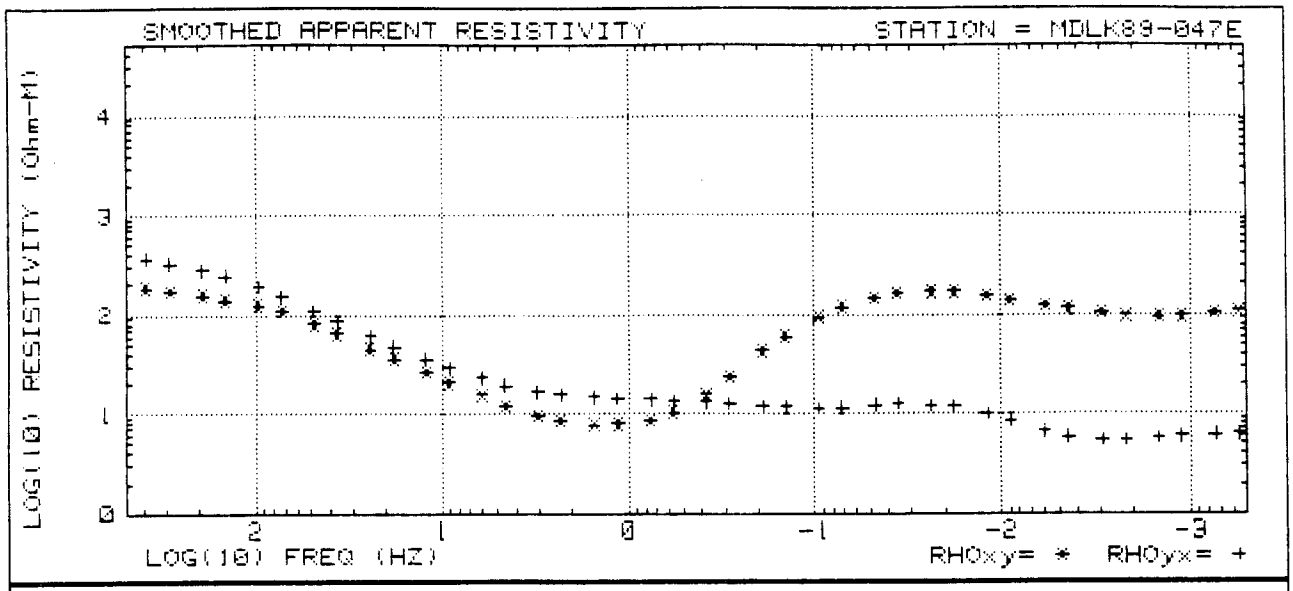
MT Site: MDLK89-047E

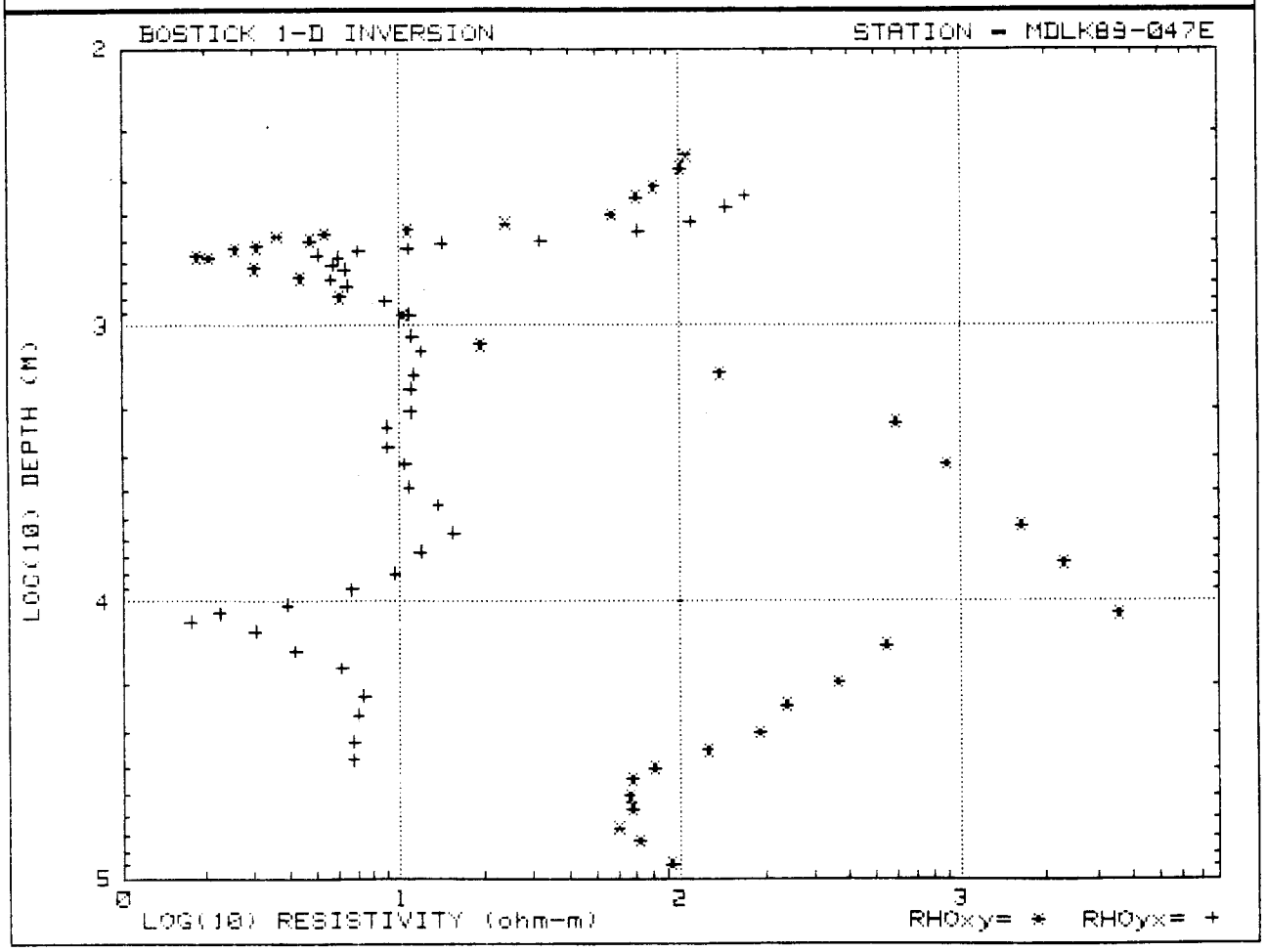




PHOENIX GEOSCIENCE

MT Site: MDLK89-047E





PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	2035	221.4	92.0	548.7	99.9	19.0	18.7	-82.8	22.1
2	288.00 Hz	4039	180.8	69.7	251.2	99.9	68.5	15.1	28.1	25.5
3	192.00 Hz	2790	68.8	99.9	414.5	99.9	31.7	27.1	-56.5	44.9
4	144.00 Hz	463	104.2	41.5	290.4	48.5	90.3	9.9	-165.2	11.3
5	96.00 Hz	548	123.2	4.4	222.7	23.4	76.4	1.2	-104.0	6.0
6	72.00 Hz	378	126.9	9.9	154.3	62.9	69.8	2.7	-116.3	14.0
7	48.00 Hz	2827	83.4	12.7	102.8	22.8	76.4	3.4	-90.4	5.9
8	36.00 Hz	3115	59.8	5.3	78.3	6.7	73.9	1.5	-98.2	1.8
9	24.00 Hz	960	42.4	4.8	51.8	15.6	74.5	1.4	-105.2	4.1
10	18.00 Hz	2043	36.9	5.6	46.2	11.8	70.5	1.5	-105.3	3.2
11	12.00 Hz	2016	26.9	5.2	34.6	8.8	69.8	1.4	-106.4	2.4
12	9.00 Hz	2014	20.9	3.0	28.8	4.1	69.3	.9	-107.9	1.2
13	6.00 Hz	576	17.6	12.8	25.6	20.4	72.3	3.4	-111.6	5.3
14	4.50 Hz	956	13.0	32.3	24.6	48.9	72.2	8.0	-111.0	11.4
15	3.00 Hz	1984	8.5	21.4	18.5	51.5	58.6	5.6	-136.2	11.9
16	2.25 Hz	4288	8.0	15.6	13.5	31.9	55.7	4.2	-128.7	7.9
17	1.50 Hz	4000	6.9	19.9	14.2	46.4	47.4	5.2	-127.2	10.9
18	1.13 Hz	5728	6.6	12.0	15.8	30.4	39.3	3.2	-133.4	7.6
19	1.33 Sec	2864	6.9	35.2	17.0	99.9	20.5	8.6	-121.9	20.9
20	1.78 Sec	4800	10.9	19.2	16.7	73.6	18.4	5.0	-137.6	15.8
21	2.67 Sec	840	15.4	41.5	24.8	99.9	17.9	10.0	-138.5	32.8
22	3.56 Sec	3846	21.1	99.9	21.5	72.9	58.1	38.7	-163.2	15.7
23	5.33 Sec	360	41.5	10.7	10.0	61.9	12.5	2.9	-129.7	13.8
24	7.11 Sec	1451	65.8	5.1	10.3	16.2	11.6	1.4	-136.5	4.3
25	10.67 Sec	444	92.0	3.5	11.2	9.6	16.6	1.0	-134.4	2.6
26	14.22 Sec	604	112.3	.9	11.1	1.7	19.8	.3	-135.4	.5
27	21.33 Sec	257	134.0	1.1	12.0	1.7	25.7	.3	-134.0	.5
28	28.44 Sec	440	154.9	1.1	12.4	1.8	32.9	.3	-132.3	.5
29	42.67 Sec	434	163.7	1.9	11.4	2.4	39.5	.5	-126.3	.7
30	56.89 Sec	321	163.6	.9	11.2	2.4	44.5	.3	-124.5	.7
31	85.33 Sec	219	145.9	3.6	8.9	6.5	49.2	1.0	-123.5	1.8
32	113.78 Sec	84	126.3	2.2	8.4	4.8	50.9	.6	-124.0	1.3
33	170.67 Sec	51	120.2	1.5	6.2	4.1	52.5	.4	-121.3	1.2
34	227.56 Sec	33	110.9	1.7	5.1	7.5	50.8	.5	-120.1	2.1
35	341.33 Sec	57	97.9	5.6	5.4	12.6	44.9	1.6	-123.0	3.4
36	455.11 Sec	9	88.1	7.5	5.1	24.0	48.8	2.1	-119.8	6.2
37	682.67 Sec	6	101.7	25.8	7.7	43.6	48.4	6.6	-120.8	10.4
38	910.22 Sec	3	84.5	8.1	7.3	14.6	38.9	2.2	-104.7	3.9
39	1365.33 Sec	9	123.8	3.8	6.5	38.4	46.7	1.1	-179.9	9.3
40	1820.44 Sec	6	172.5	99.9	4.4	99.9	50.2	23.8	-119.5	75.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	2035	183.7	357.7	106.6	246	173.0	343
2	288.00 Hz	4039	170.2	323.6	100.9	274	147.6	377
3	192.00 Hz	2790	153.9	276.1	81.9	319	110.4	427
4	144.00 Hz	463	137.7	240.4	70.4	348	71.9	460
5	96.00 Hz	548	123.0	189.9	57.3	403	32.3	501
6	72.00 Hz	378	107.0	147.0	24.2	434	14.3	509
7	48.00 Hz	2827	79.4	107.4	10.8	458	10.8	532
8	36.00 Hz	3115	63.2	83.4	5.4	471	7.1	542
9	24.00 Hz	960	44.3	59.9	3.7	483	5.1	562
10	18.00 Hz	2043	35.1	46.5	4.8	497	6.1	572
11	12.00 Hz	2016	26.2	35.1	3.1	525	5.8	609
12	9.00 Hz	2014	20.3	28.3	2.6	535	6.4	631
13	6.00 Hz	576	15.3	22.7	1.9	568	5.7	692
14	4.50 Hz	956	11.8	18.7	2.1	577	6.5	726
15	3.00 Hz	1984	9.4	16.2	3.0	629	8.9	827
16	2.25 Hz	4288	8.3	15.3	4.4	683	10.9	928
17	1.50 Hz	4000	7.6	14.4	6.1	800	11.1	1103
18	1.13 Hz	5728	7.7	14.0	10.2	930	12.0	1254
19	1.33 Sec	2864	8.4	13.7	19.7	1189	11.3	1519
20	1.78 Sec	4800	10.2	13.1	140.5	1512	10.9	1716
21	2.67 Sec	840	15.2	12.8	594.6	2269	11.0	2083
22	3.56 Sec	3846	23.0	12.4	896.9	3218	9.0	2362
23	5.33 Sec	360	42.5	11.5	1658.2	5359	9.1	2790
24	7.11 Sec	1451	59.1	11.4	2306.0	7298	10.4	3206
25	10.67 Sec	444	91.7	11.2	3576.3	11130	10.8	3885
26	14.22 Sec	604	116.7	11.3	544.2	14501	13.8	4508
27	21.33 Sec	257	143.6	12.0	369.5	19695	15.7	5689
28	28.44 Sec	440	158.4	12.4	241.1	23890	11.9	6676
29	42.67 Sec	434	165.7	11.8	192.4	29925	9.6	7995
30	56.89 Sec	321	166.8	11.5	125.5	34670	6.7	9103
31	85.33 Sec	219	150.3	9.9	81.0	40297	4.0	10327
32	113.78 Sec	84	135.6	8.6	67.9	44199	2.2	11106
33	170.67 Sec	51	119.3	6.6	66.0	50788	1.8	11928
34	227.56 Sec	33	111.1	5.7	67.6	56575	3.0	12858
35	341.33 Sec	57	100.8	5.3	60.8	66015	4.2	15162
36	455.11 Sec	9	93.5	5.3	72.6	73423	6.2	17494
37	682.67 Sec	6	92.4	5.6	94.2	89363	7.4	22045
38	910.22 Sec	3	94.2	5.8	122.2	104182	7.1	25955
39	1365.33 Sec	9	101.0	6.0	136.3	132183	6.8	32256
40	1820.44 Sec	6	104.4	6.1	130.9	155126	6.8	37537

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	2035	377.14	132.68	999.99	616.42	212.32	999.99
2	288.00 Hz	4039	-179.81	-327.09	999.99	186.58	474.84	999.99
3	192.00 Hz	2790	-182.56	187.82	999.99	218.49	135.17	999.99
4	144.00 Hz	463	226.49	94.93	999.99	-1.67	273.86	999.99
5	96.00 Hz	548	51.99	-23.64	999.99	57.15	236.37	55.70
6	72.00 Hz	378	-5.09	-43.09	999.99	73.93	200.51	204.42
7	48.00 Hz	2827	-21.46	-18.05	678.29	33.25	137.51	142.05
8	36.00 Hz	3115	-5.15	-1.33	37.82	28.76	99.69	14.46
9	24.00 Hz	960	1.11	-2.26	57.34	19.01	68.73	5.65
10	18.00 Hz	2043	-5.72	-1.45	19.13	19.23	54.29	4.84
11	12.00 Hz	2016	-1.69	-1.53	8.60	13.88	37.71	2.04
12	9.00 Hz	2014	1.70	-1.18	1.29	10.86	28.69	.41
13	6.00 Hz	576	.70	-1.70	10.65	6.99	21.88	3.81
14	4.50 Hz	956	.44	-.22	14.30	5.22	16.27	11.42
15	3.00 Hz	1984	1.75	-2.39	31.98	5.88	9.62	2.39
16	2.25 Hz	4288	.84	-1.40	11.63	5.36	7.85	.95
17	1.50 Hz	4000	.13	.31	4.96	4.86	5.28	.85
18	1.13 Hz	5728	-.16	.24	2.28	4.70	3.85	.24
19	1.33 Sec	2864	.294	.000	3.815	4.768	1.783	1.177
20	1.78 Sec	4800	.042	-.058	2.178	5.250	1.744	.472
21	2.67 Sec	840	-.388	-.208	16.860	5.116	1.650	1.745
22	3.56 Sec	3846	.803	.200	5.275	2.878	4.630	27.097
23	5.33 Sec	360	.697	-.003	.498	6.091	1.346	.200
24	7.11 Sec	1451	.605	-.347	.103	6.662	1.362	.056
25	10.67 Sec	444	.667	-.529	.058	6.293	1.874	.026
26	14.22 Sec	604	.752	-.272	.002	5.911	2.132	.002
27	21.33 Sec	257	.656	-.029	.001	5.051	2.427	.002
28	28.44 Sec	440	.649	.048	.001	4.380	2.835	.002
29	42.67 Sec	434	.336	.343	.005	3.380	2.787	.003
30	56.89 Sec	321	.392	.261	.001	2.706	2.657	.001
31	85.33 Sec	219	.258	.250	.002	1.911	2.213	.005
32	113.78 Sec	84	.171	.269	.001	1.485	1.829	.001
33	170.67 Sec	51	.153	.235	.000	1.143	1.488	.000
34	227.56 Sec	33	.123	.204	.001	.986	1.211	.000
35	341.33 Sec	57	.136	.133	.002	.849	.845	.002
36	455.11 Sec	9	.075	.109	.003	.648	.740	.003
37	682.67 Sec	6	.204	-.028	.027	.573	.645	.020
38	910.22 Sec	3	.118	-.042	.001	.530	.428	.001
39	1365.33 Sec	9	.116	.050	.001	.462	.490	.000
40	1820.44 Sec	6	.127	-.120	.162	.440	.529	.164

PHOENIX GEOSCIENCE

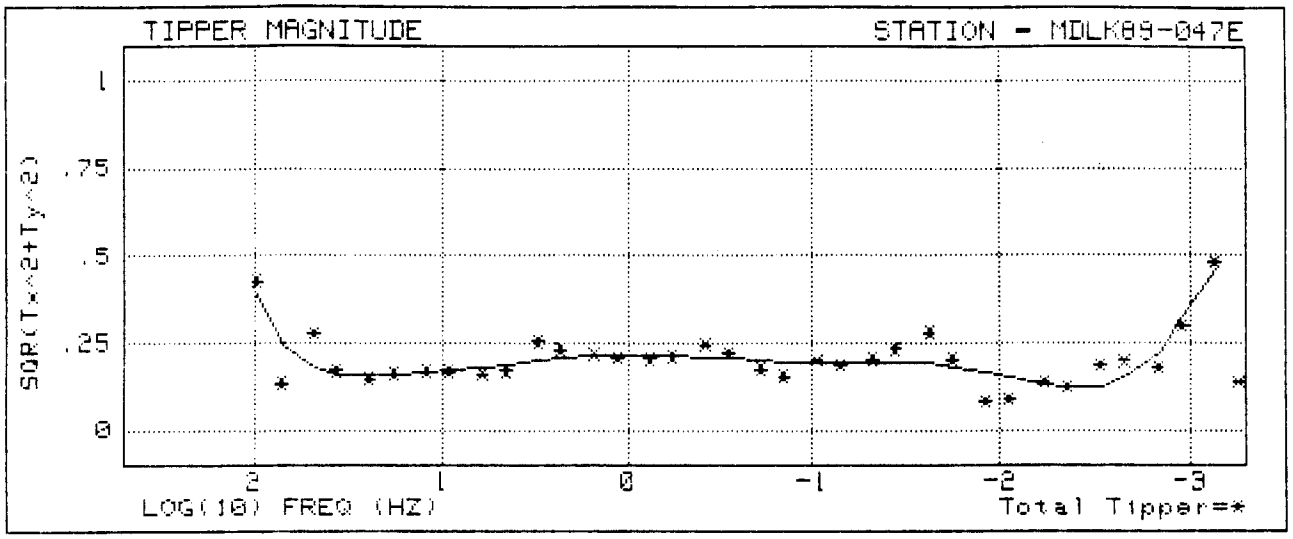
MT Site: MDLK89-047E

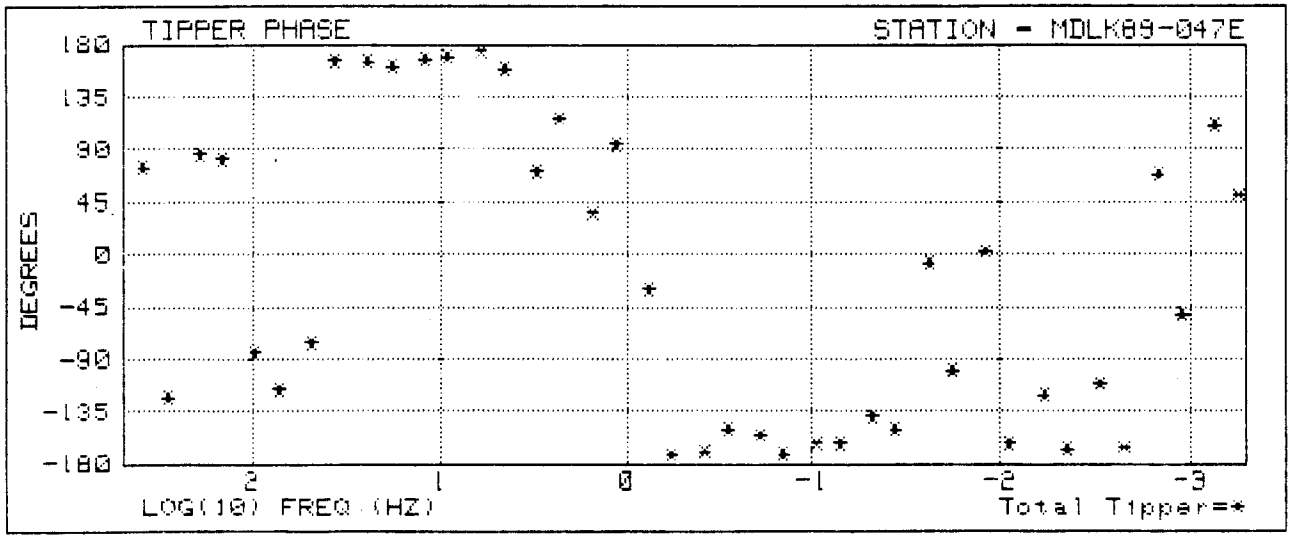
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

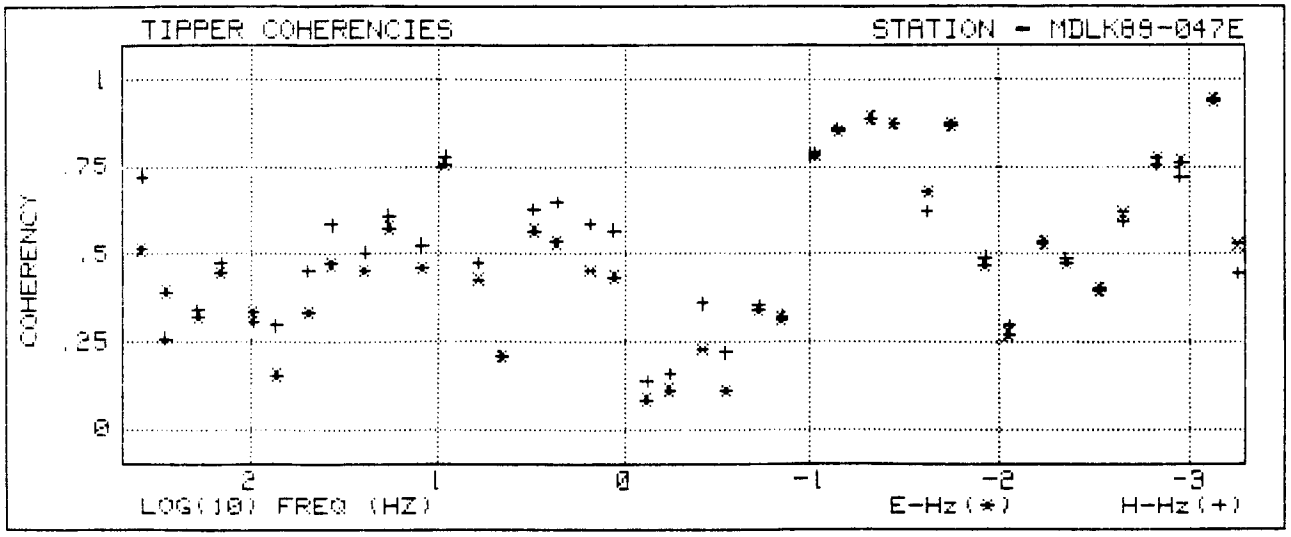
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	2035	128.03	-999.99	999.99	381.93	137.10	999.99
2	288.00 Hz	4039	530.49	283.31	999.99	-251.38	-259.40	999.99
3	192.00 Hz	2790	348.23	-525.97	999.99	-264.54	68.94	999.99
4	144.00 Hz	463	-442.16	-116.46	999.99	137.65	-155.56	999.99
5	96.00 Hz	548	-79.09	-317.21	999.99	4.95	-10.88	46.15
6	72.00 Hz	378	-104.41	-211.28	999.99	-13.95	-18.02	282.20
7	48.00 Hz	2827	-1.17	-157.08	520.92	-5.07	8.82	109.10
8	36.00 Hz	3115	-17.03	-117.50	29.27	-2.80	.22	11.19
9	24.00 Hz	960	-20.63	-76.07	64.95	-.24	-1.97	6.40
10	18.00 Hz	2043	-17.01	-62.17	25.71	-.82	-.06	6.51
11	12.00 Hz	2016	-12.87	-43.70	7.38	-1.62	-1.51	1.75
12	9.00 Hz	2014	-11.03	-34.25	1.05	-.58	-1.11	.34
13	6.00 Hz	576	-10.22	-25.77	13.24	-.64	-.58	4.74
14	4.50 Hz	956	-8.42	-21.99	43.97	-.14	.11	35.10
15	3.00 Hz	1984	-12.02	-11.54	23.95	.74	.85	1.79
16	2.25 Hz	4288	-7.70	-9.60	5.82	.18	-.52	.47
17	1.50 Hz	4000	-6.23	-8.21	7.70	1.10	-.15	1.32
18	1.13 Hz	5728	-6.48	-6.85	3.14	1.05	-.48	.33
19	1.33 Sec	2864	-4.216	-6.777	16.974	.376	.009	5.237
20	1.78 Sec	4800	-5.065	-4.617	7.140	1.382	.028	1.547
21	2.67 Sec	840	-5.107	-4.521	30.529	1.325	-.202	3.159
22	3.56 Sec	3846	-5.265	-1.593	4.539	-.215	-.600	23.313
23	5.33 Sec	360	-1.952	-2.351	1.084	.731	.137	.437
24	7.11 Sec	1451	-1.955	-1.852	.082	.645	.036	.045
25	10.67 Sec	444	-1.605	-1.637	.022	.635	.092	.010
26	14.22 Sec	604	-1.410	-1.390	.001	.680	.164	.000
27	21.33 Sec	257	-1.164	-1.205	.000	.577	.223	.001
28	28.44 Sec	440	-.994	-1.092	.000	.549	.241	.001
29	42.67 Sec	434	-.684	-.930	.000	.385	.271	.000
30	56.89 Sec	321	-.561	-.818	.000	.393	.259	.000
31	85.33 Sec	219	-.399	-.603	.001	.270	.238	.002
32	113.78 Sec	84	-.340	-.504	.000	.248	.202	.001
33	170.67 Sec	51	-.221	-.364	.000	.196	.200	.000
34	227.56 Sec	33	-.167	-.288	.000	.181	.152	.000
35	341.33 Sec	57	-.152	-.235	.001	.138	.130	.001
36	455.11 Sec	9	-.118	-.206	.001	.116	.069	.001
37	682.67 Sec	6	-.121	-.204	.004	.036	.144	.003
38	910.22 Sec	3	-.051	-.194	.000	.054	.087	.000
39	1365.33 Sec	9	-.155	-.000	.001	.079	.073	.000
40	1820.44 Sec	6	-.054	-.096	.042	-.002	-.005	.042

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E







PHOENIX GEOSCIENCE

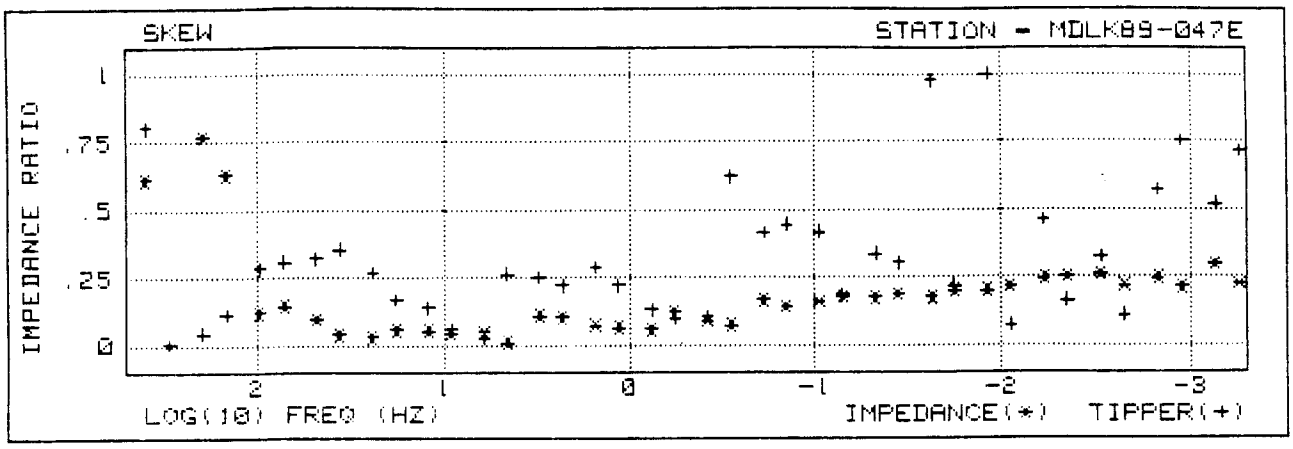
MT Site: MDLK89-047E

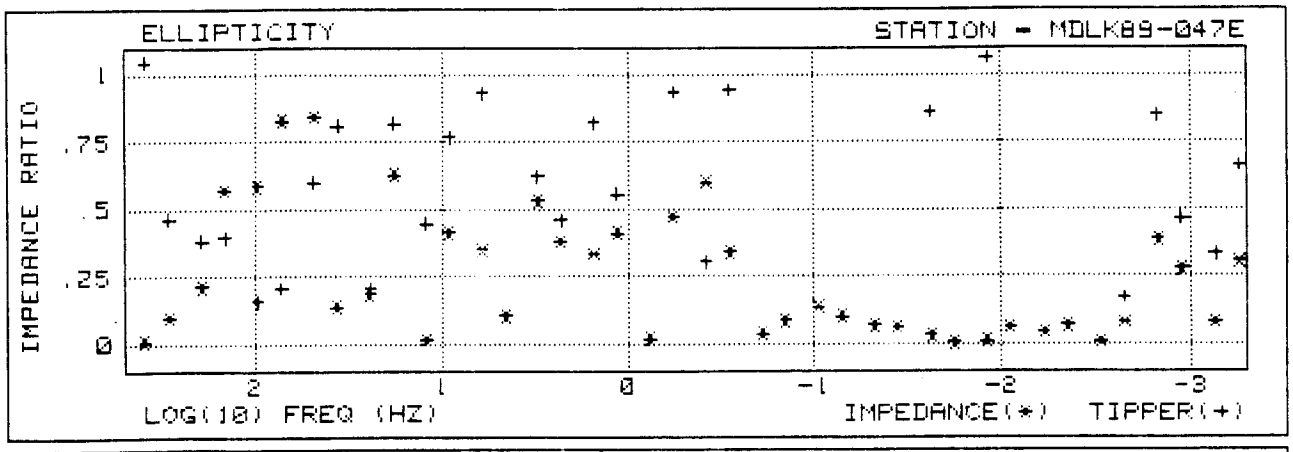
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

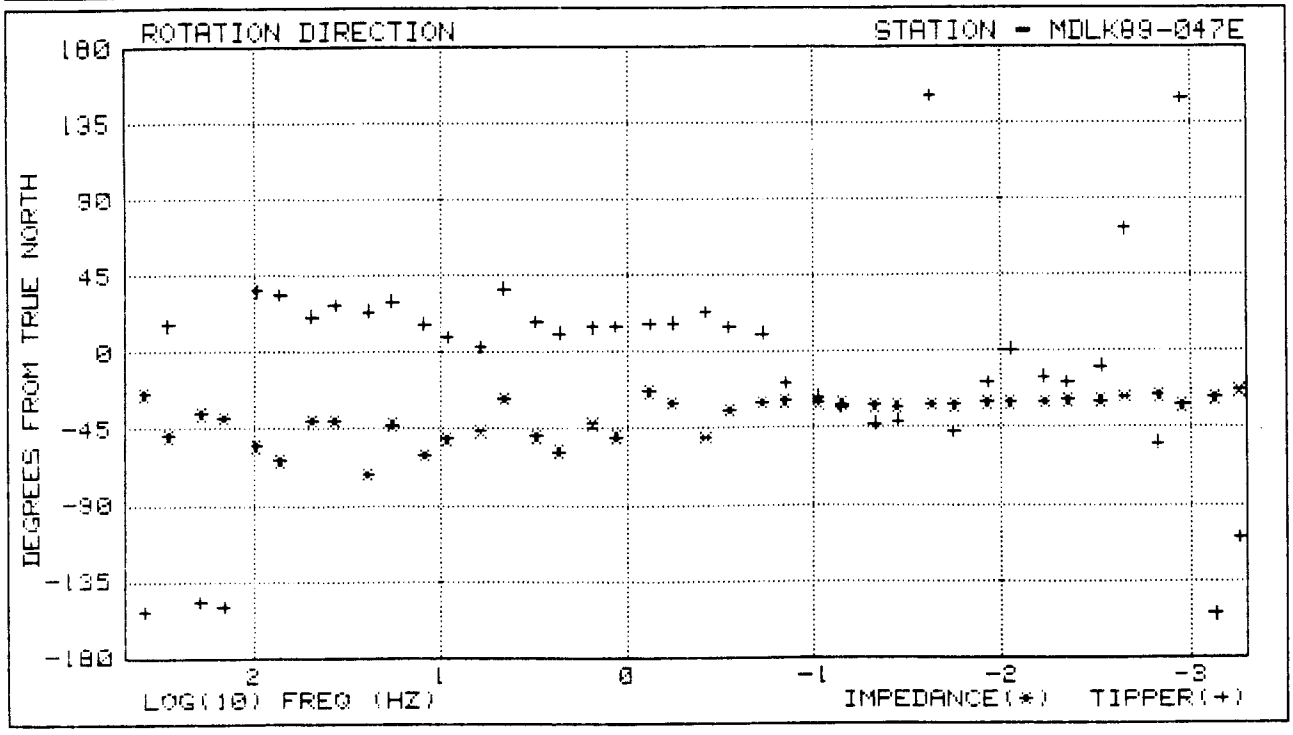
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	2035	5.66	73.77	.51	.72
2	288.00 Hz	4039	12.11	-123.70	.39	.26
3	192.00 Hz	2790	14.41	85.07	.32	.33
4	144.00 Hz	463	1.15	81.13	.44	.47
5	96.00 Hz	548	.42	-85.26	.33	.30
6	72.00 Hz	378	.13	-116.98	.15	.29
7	48.00 Hz	2827	.27	-76.75	.33	.45
8	36.00 Hz	3115	.17	164.69	.47	.58
9	24.00 Hz	960	.14	164.53	.45	.50
10	18.00 Hz	2043	.16	160.18	.57	.61
11	12.00 Hz	2016	.16	166.44	.46	.52
12	9.00 Hz	2014	.16	168.64	.75	.77
13	6.00 Hz	576	.16	173.35	.42	.47
14	4.50 Hz	956	.17	158.03	.20	.20
15	3.00 Hz	1984	.25	70.58	.56	.63
16	2.25 Hz	4288	.23	115.18	.53	.64
17	1.50 Hz	4000	.21	34.72	.45	.58
18	1.13 Hz	5728	.20	93.84	.43	.56
19	1.33 Sec	2864	.20	-30.33	.08	.13
20	1.78 Sec	4800	.21	-172.83	.11	.15
21	2.67 Sec	840	.24	-170.13	.22	.35
22	3.56 Sec	3846	.22	-150.95	.11	.22
23	5.33 Sec	360	.17	-155.98	.34	.35
24	7.11 Sec	1451	.15	-171.87	.31	.32
25	10.67 Sec	444	.20	-163.26	.78	.78
26	14.22 Sec	604	.18	-162.86	.85	.86
27	21.33 Sec	257	.20	-140.04	.89	.89
28	28.44 Sec	440	.23	-150.81	.87	.87
29	42.67 Sec	434	.28	-8.40	.67	.62
30	56.89 Sec	321	.20	-100.54	.87	.86
31	85.33 Sec	219	.08	1.46	.47	.49
32	113.78 Sec	84	.08	-162.96	.27	.30
33	170.67 Sec	51	.13	-121.70	.53	.53
34	227.56 Sec	33	.12	-168.08	.47	.48
35	341.33 Sec	57	.18	-112.00	.40	.39
36	455.11 Sec	9	.19	-166.62	.61	.59
37	682.67 Sec	6	.18	67.52	.77	.75
38	910.22 Sec	3	.29	-52.41	.76	.72
39	1365.33 Sec	9	.48	109.75	.93	.94
40	1820.44 Sec	6	.13	49.78	.53	.44

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E







PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

SKEW, ELLIPTICITY AND STRIKE

F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	2035	.61	.01	-25.42	.80	1.04	-153.62
2	288.00 Hz	4039	1.85	.09	-49.87	.00	.46	15.40
3	192.00 Hz	2790	.77	.21	-36.82	.04	.38	-147.44
4	144.00 Hz	463	.63	.56	-39.40	.11	.39	-150.55
5	96.00 Hz	548	.12	.58	-55.80	.28	.15	35.58
6	72.00 Hz	378	.14	.82	-64.06	.30	.20	33.21
7	48.00 Hz	2827	.09	.84	-40.50	.32	.60	20.37
8	36.00 Hz	3115	.04	.13	-40.84	.35	.80	27.41
9	24.00 Hz	960	.03	.18	-72.37	.26	.20	23.44
10	18.00 Hz	2043	.06	.62	-43.19	.17	.81	29.35
11	12.00 Hz	2016	.05	.01	-60.72	.14	.44	16.21
12	9.00 Hz	2014	.04	.41	-51.09	.06	.76	8.69
13	6.00 Hz	576	.04	.34	-46.76	.02	.93	2.85
14	4.50 Hz	956	.01	.10	-27.65	.26	1.34	36.32
15	3.00 Hz	1984	.11	.53	-49.84	.25	.62	17.32
16	2.25 Hz	4288	.10	.38	-59.15	.22	.45	10.50
17	1.50 Hz	4000	.07	.33	-42.67	.28	.82	13.68
18	1.13 Hz	5728	.06	.40	-50.30	.22	.55	14.41
19	1.33 Sec	2864	.05	.02	-23.71	.13	1.21	15.61
20	1.78 Sec	4800	.12	.47	-30.70	.10	.93	16.45
21	2.67 Sec	840	.09	.60	-50.61	.10	.30	22.90
22	3.56 Sec	3846	.07	.34	-34.81	.62	.94	14.17
23	5.33 Sec	360	.16	.03	-30.69	.41	1.16	10.23
24	7.11 Sec	1451	.14	.08	-29.38	.44	3.72	-18.91
25	10.67 Sec	444	.16	.13	-30.76	.41	4.55	-27.22
26	14.22 Sec	604	.18	.10	-31.26	.18	9.98	-33.42
27	21.33 Sec	257	.17	.06	-32.20	.33	3.86	-42.93
28	28.44 Sec	440	.19	.06	-32.98	.30	4.60	-41.45
29	42.67 Sec	434	.17	.03	-32.09	.97	.86	150.48
30	56.89 Sec	321	.20	.00	-32.56	.22	3.39	-47.83
31	85.33 Sec	219	.20	.01	-31.16	.99	1.06	-19.10
32	113.78 Sec	84	.21	.06	-31.22	.07	1.64	.19
33	170.67 Sec	51	.24	.04	-30.36	.46	2.64	-15.65
34	227.56 Sec	33	.25	.06	-29.34	.16	4.94	-18.73
35	341.33 Sec	57	.26	.00	-29.87	.32	2.46	-9.86
36	455.11 Sec	9	.21	.08	-27.40	.11	.17	71.58
37	682.67 Sec	6	.24	.38	-26.66	.56	.84	-54.81
38	910.22 Sec	3	.21	.27	-32.49	.75	.46	148.66
39	1365.33 Sec	9	.29	.08	-28.03	.52	.33	-155.23
40	1820.44 Sec	6	.22	.30	-23.98	.71	.66	-110.07

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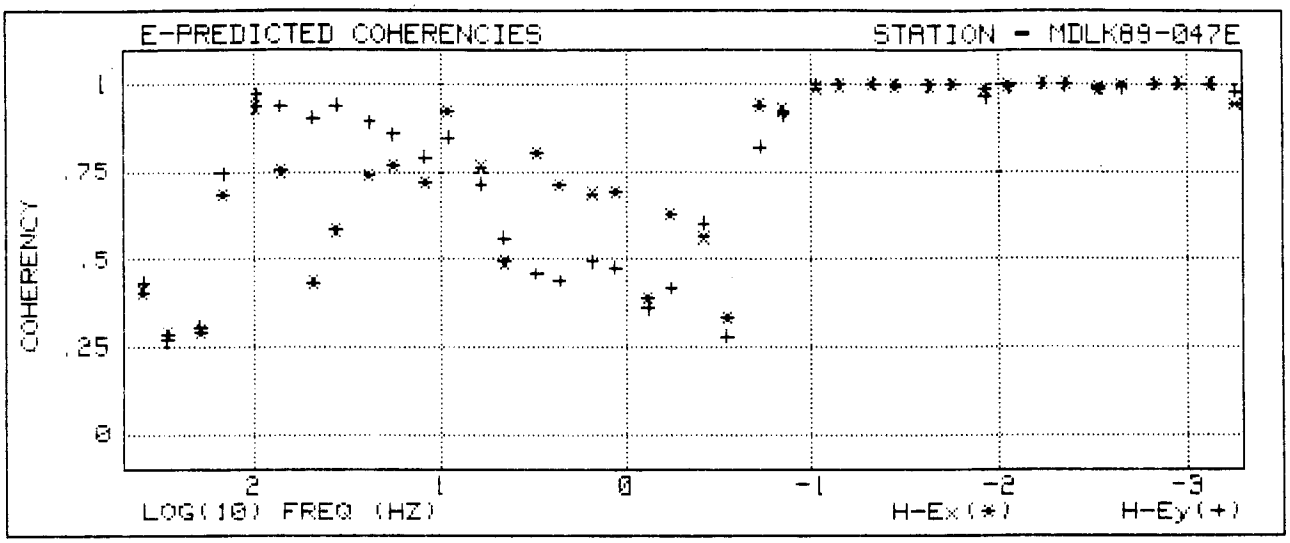
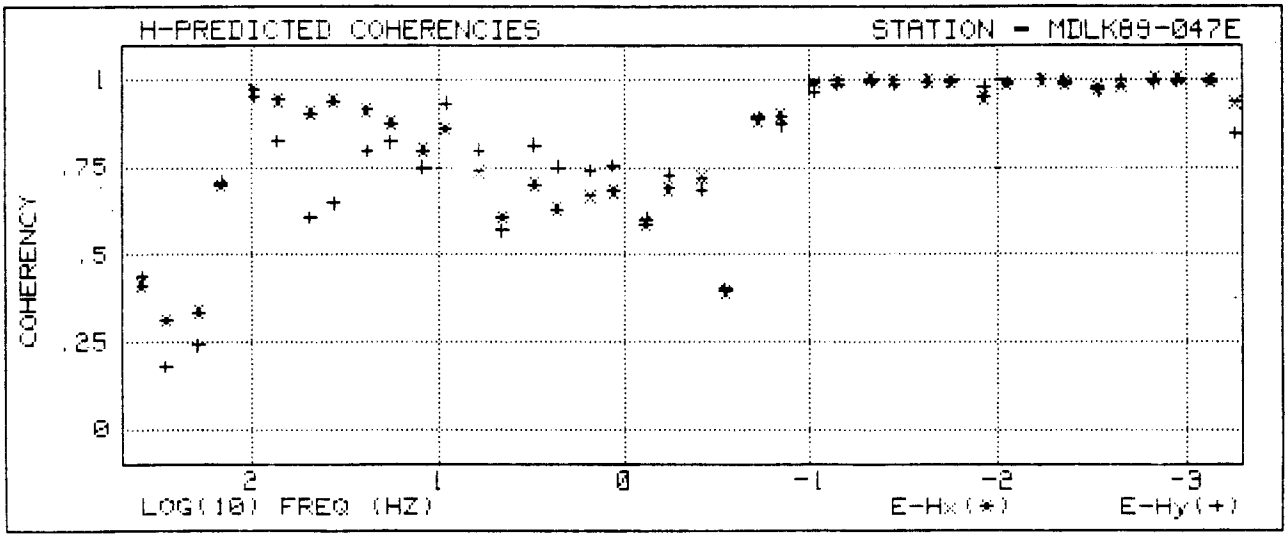
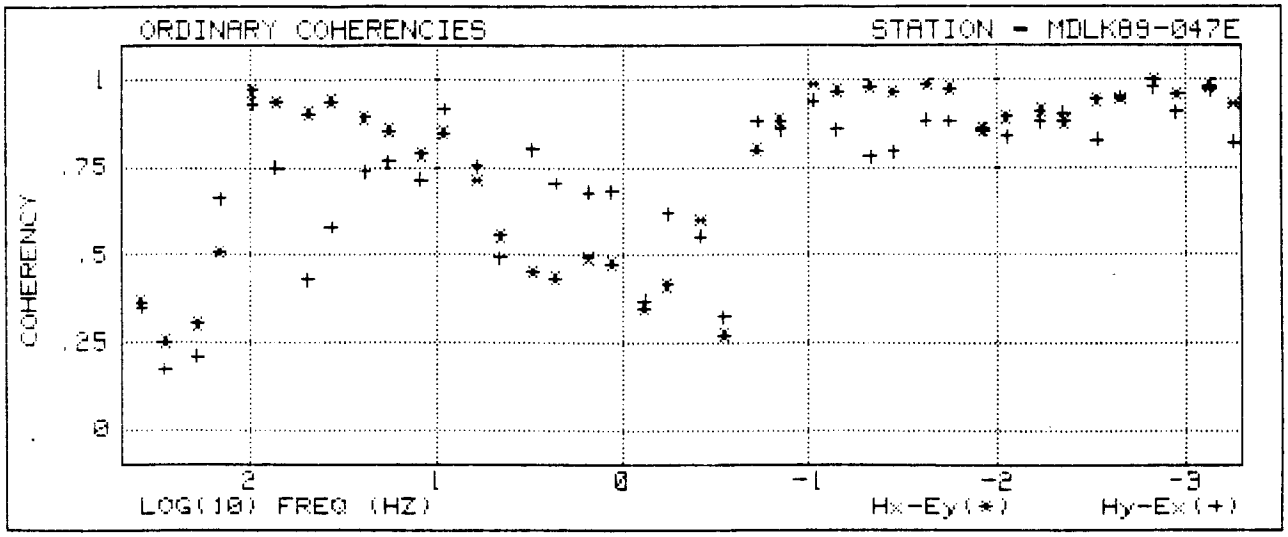






PHOENIX GEOSCIENCE

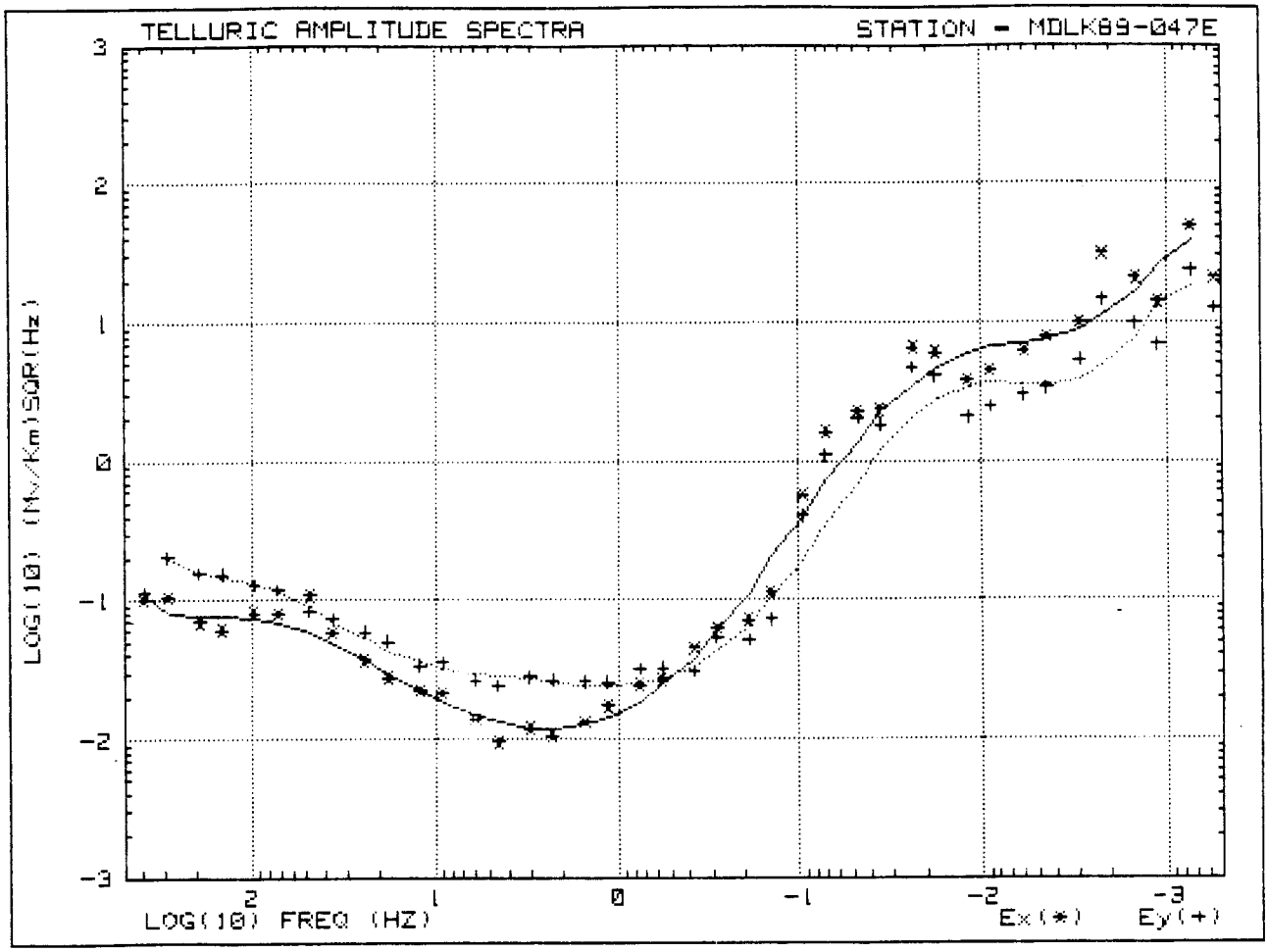
MT Site: MDLK89-047E

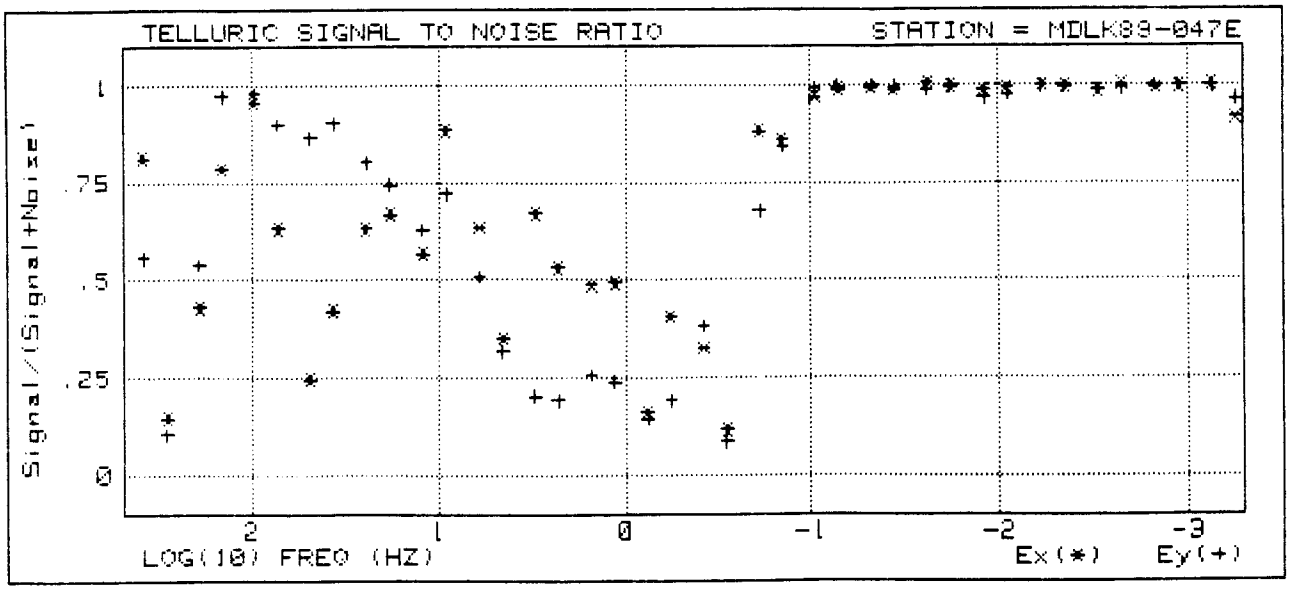
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	2035	.40	.43	.41	.44	.36	.35
2	288.00 Hz	4039	.28	.26	.31	.18	.25	.17
3	192.00 Hz	2790	.29	.30	.33	.24	.30	.21
4	144.00 Hz	463	.68	.74	.69	.70	.51	.66
5	96.00 Hz	548	.93	.97	.97	.95	.97	.93
6	72.00 Hz	378	.75	.93	.94	.82	.93	.75
7	48.00 Hz	2827	.43	.90	.90	.60	.90	.43
8	36.00 Hz	3115	.58	.94	.94	.64	.94	.58
9	24.00 Hz	960	.74	.89	.91	.79	.89	.74
10	18.00 Hz	2043	.76	.85	.87	.82	.85	.76
11	12.00 Hz	2016	.72	.79	.80	.75	.78	.71
12	9.00 Hz	2014	.92	.84	.86	.93	.84	.91
13	6.00 Hz	576	.76	.71	.73	.80	.71	.75
14	4.50 Hz	956	.49	.56	.60	.57	.55	.49
15	3.00 Hz	1984	.80	.46	.70	.81	.45	.80
16	2.25 Hz	4288	.71	.43	.63	.75	.43	.70
17	1.50 Hz	4000	.68	.49	.67	.74	.49	.68
18	1.13 Hz	5728	.69	.47	.68	.75	.47	.68
19	1.33 Sec	2864	.39	.36	.59	.60	.35	.37
20	1.78 Sec	4800	.63	.42	.68	.72	.41	.61
21	2.67 Sec	840	.56	.60	.72	.68	.60	.55
22	3.56 Sec	3846	.33	.28	.39	.40	.27	.32
23	5.33 Sec	360	.93	.82	.88	.89	.80	.88
24	7.11 Sec	1451	.92	.91	.89	.87	.88	.85
25	10.67 Sec	444	.99	1.00	.99	.96	.98	.94
26	14.22 Sec	604	.99	1.00	.99	.98	.96	.85
27	21.33 Sec	257	1.00	1.00	1.00	.99	.98	.78
28	28.44 Sec	440	.99	1.00	.99	.98	.96	.79
29	42.67 Sec	434	.99	.99	.99	.99	.98	.88
30	56.89 Sec	321	1.00	1.00	.99	.99	.97	.88
31	85.33 Sec	219	.98	.96	.95	.97	.85	.85
32	113.78 Sec	84	1.00	.99	.98	.99	.89	.83
33	170.67 Sec	51	1.00	1.00	.99	1.00	.91	.88
34	227.56 Sec	33	1.00	.99	.99	.99	.87	.90
35	341.33 Sec	57	.99	.98	.97	.97	.94	.82
36	455.11 Sec	9	1.00	.99	.98	.99	.94	.95
37	682.67 Sec	6	1.00	1.00	1.00	.99	.99	.97
38	910.22 Sec	3	1.00	1.00	1.00	.99	.95	.90
39	1365.33 Sec	9	1.00	1.00	.99	1.00	.98	.96
40	1820.44 Sec	6	.94	.98	.93	.84	.93	.82

PHOENIX GEOSCIENCE

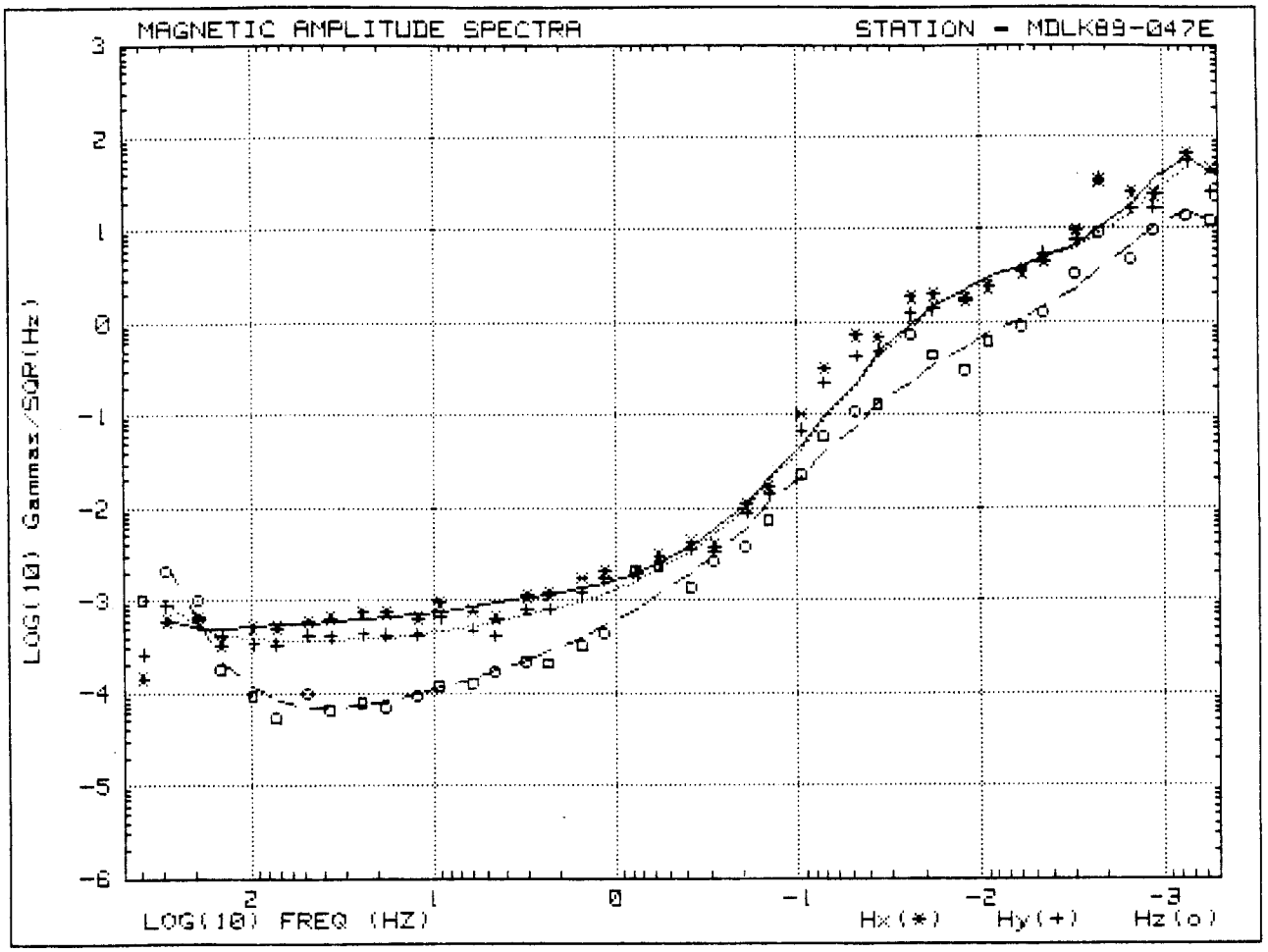
MT Site: MDLK89-047E

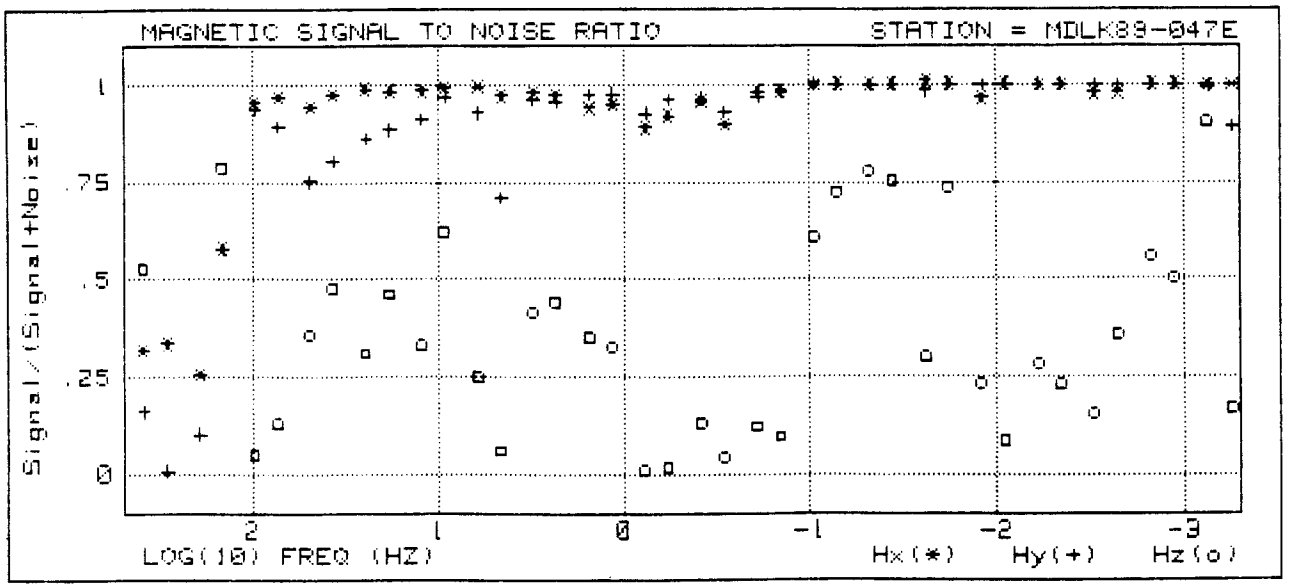




PHOENIX GEOSCIENCE

MT Site: MDLK89-047E





PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	2035	1.41E-04	2.59E-04	1.10E-03	1.00E-01	1.11E-01
2	288.00 Hz	4039	6.00E-04	8.63E-04	2.20E-03	1.04E-01	2.03E-01
3	192.00 Hz	2790	6.56E-04	6.11E-04	1.05E-03	6.87E-02	1.54E-01
4	144.00 Hz	463	3.27E-04	3.99E-04	1.85E-04	6.07E-02	1.52E-01
5	96.00 Hz	548	5.08E-04	3.36E-04	9.94E-05	7.98E-02	1.27E-01
6	72.00 Hz	378	5.01E-04	3.27E-04	5.58E-05	7.83E-02	1.17E-01
7	48.00 Hz	2827	5.88E-04	4.18E-04	1.02E-04	1.07E-01	8.20E-02
8	36.00 Hz	3115	6.32E-04	3.99E-04	6.97E-05	5.73E-02	7.18E-02
9	24.00 Hz	960	7.25E-04	4.25E-04	7.98E-05	3.65E-02	5.79E-02
10	18.00 Hz	2043	7.23E-04	4.17E-04	7.13E-05	2.72E-02	4.95E-02
11	12.00 Hz	2016	6.35E-04	4.13E-04	9.74E-05	2.20E-02	3.30E-02
12	9.00 Hz	2014	9.15E-04	6.46E-04	1.27E-04	2.09E-02	3.50E-02
13	6.00 Hz	576	7.57E-04	4.71E-04	1.35E-04	1.35E-02	2.60E-02
14	4.50 Hz	956	6.34E-04	4.05E-04	1.81E-04	9.32E-03	2.36E-02
15	3.00 Hz	1984	1.10E-03	7.81E-04	2.31E-04	1.17E-02	2.73E-02
16	2.25 Hz	4288	1.17E-03	7.89E-04	2.19E-04	1.04E-02	2.60E-02
17	1.50 Hz	4000	1.72E-03	1.17E-03	3.35E-04	1.30E-02	2.54E-02
18	1.13 Hz	5728	2.06E-03	1.66E-03	4.61E-04	1.71E-02	2.49E-02
19	1.33 Sec	2864	1.99E-03	1.94E-03	2.24E-03	2.42E-02	3.14E-02
20	1.78 Sec	4800	2.99E-03	2.57E-03	2.41E-03	2.59E-02	3.17E-02
21	2.67 Sec	840	4.28E-03	3.54E-03	1.45E-03	4.41E-02	3.00E-02
22	3.56 Sec	3846	3.79E-03	3.34E-03	2.83E-03	6.22E-02	5.29E-02
23	5.33 Sec	360	1.07E-02	8.77E-03	4.00E-03	7.05E-02	5.04E-02
24	7.11 Sec	1451	1.65E-02	1.37E-02	7.65E-03	1.13E-01	7.20E-02
25	10.67 Sec	444	9.98E-02	6.77E-02	2.35E-02	5.64E-01	3.98E-01
26	14.22 Sec	604	3.15E-01	2.19E-01	6.13E-02	1.59E+00	1.08E+00
27	21.33 Sec	257	7.15E-01	4.24E-01	1.12E-01	2.25E+00	2.03E+00
28	28.44 Sec	440	6.78E-01	4.84E-01	1.35E-01	2.31E+00	1.80E+00
29	42.67 Sec	434	1.85E+00	1.21E+00	7.88E-01	6.46E+00	4.59E+00
30	56.89 Sec	321	1.95E+00	1.38E+00	4.65E-01	5.95E+00	4.03E+00
31	85.33 Sec	219	1.72E+00	1.78E+00	3.24E-01	3.76E+00	2.06E+00
32	113.78 Sec	84	2.34E+00	2.41E+00	6.45E-01	4.43E+00	2.44E+00
33	170.67 Sec	51	3.34E+00	3.57E+00	9.29E-01	6.07E+00	2.94E+00
34	227.56 Sec	33	4.39E+00	5.34E+00	1.31E+00	7.78E+00	3.30E+00
35	341.33 Sec	57	9.49E+00	7.36E+00	3.44E+00	9.86E+00	5.26E+00
36	455.11 Sec	9	3.22E+01	3.37E+01	9.78E+00	3.10E+01	1.45E+01
37	682.67 Sec	6	2.42E+01	1.63E+01	5.00E+00	2.08E+01	9.74E+00
38	910.22 Sec	3	2.30E+01	1.67E+01	1.02E+01	1.39E+01	6.78E+00
39	1365.33 Sec	9	6.46E+01	5.50E+01	1.44E+01	4.84E+01	2.33E+01
40	1820.44 Sec	6	4.29E+01	2.41E+01	1.27E+01	2.06E+01	1.24E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	2035	.318	.159	.530	.811	.555
2	288.00 Hz	4039	.335	.005	0.000	.145	.102
3	192.00 Hz	2790	.254	.100	1.000	.429	.537
4	144.00 Hz	463	.578	.577	.793	.785	.970
5	96.00 Hz	548	.953	.934	.056	.955	.979
6	72.00 Hz	378	.967	.891	.134	.632	.896
7	48.00 Hz	2827	.941	.749	.362	.244	.864
8	36.00 Hz	3115	.973	.803	.483	.422	.902
9	24.00 Hz	960	.987	.860	.316	.630	.800
10	18.00 Hz	2043	.982	.883	.467	.666	.742
11	12.00 Hz	2016	.983	.909	.336	.565	.627
12	9.00 Hz	2014	.992	.965	.628	.882	.719
13	6.00 Hz	576	.993	.926	.254	.633	.506
14	4.50 Hz	956	.970	.709	.064	.350	.315
15	3.00 Hz	1984	.978	.960	.420	.669	.200
16	2.25 Hz	4288	.970	.957	.447	.531	.190
17	1.50 Hz	4000	.939	.972	.354	.487	.256
18	1.13 Hz	5728	.947	.975	.330	.491	.239
19	1.33 Sec	2864	.888	.924	.019	.161	.144
20	1.78 Sec	4800	.918	.961	.025	.406	.190
21	2.67 Sec	840	.955	.962	.136	.324	.381
22	3.56 Sec	3846	.896	.928	.050	.114	.084
23	5.33 Sec	360	.982	.968	.127	.881	.674
24	7.11 Sec	1451	.982	.980	.102	.857	.839
25	10.67 Sec	444	.999	1.000	.614	.969	.992
26	14.22 Sec	604	1.000	1.000	.731	.987	.994
27	21.33 Sec	257	1.000	.999	.786	.992	.998
28	28.44 Sec	440	1.000	1.000	.758	.986	.994
29	42.67 Sec	434	1.000	.982	.304	1.000	.988
30	56.89 Sec	321	.999	.999	.742	.995	.995
31	85.33 Sec	219	.964	.999	.235	.985	.963
32	113.78 Sec	84	1.000	1.000	.092	.991	.975
33	170.67 Sec	51	.998	1.000	.286	.998	.996
34	227.56 Sec	33	.997	1.000	.235	.995	.991
35	341.33 Sec	57	.976	.995	.161	.983	.986
36	455.11 Sec	9	.976	.997	.362	.999	.990
37	682.67 Sec	6	1.000	.999	.566	.991	.997
38	910.22 Sec	3	1.000	1.000	.508	.996	.997
39	1365.33 Sec	9	.997	.994	.909	1.000	.995
40	1820.44 Sec	6	.997	.890	.174	.913	.963

PHOENIX GEOSCIENCE

MT Site: MDLK89-047E

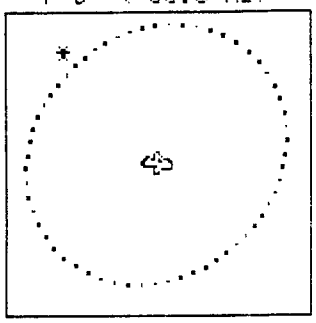
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

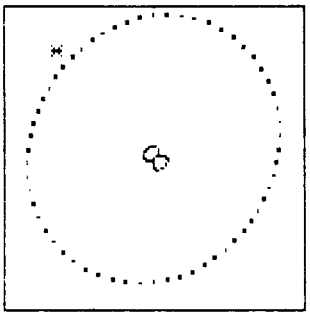
*=Rotation Direction

Zxy = ...
Zxx = ___

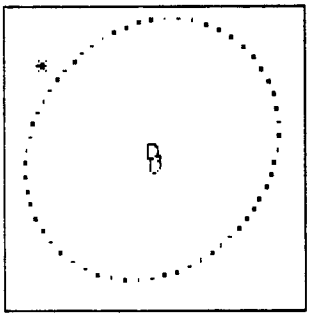
F=8 (36.0 Hz)



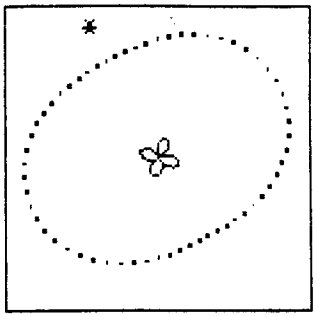
F=10 (18.0 Hz)



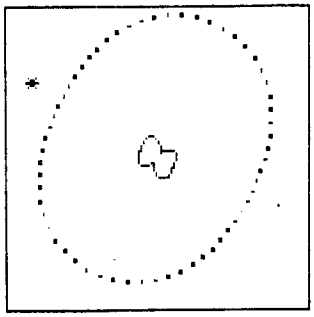
F=12 (9.0 Hz)



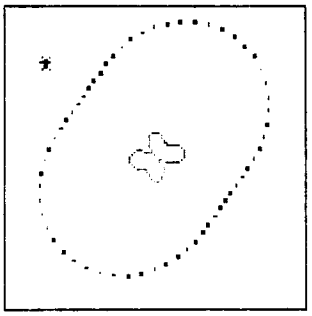
F=14 (4.5 Hz)



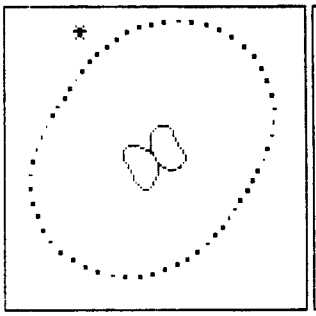
F=16 (2.3 Hz)



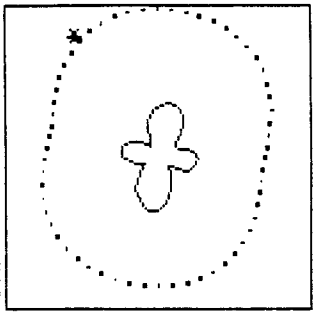
F=18 (1.1 Hz)



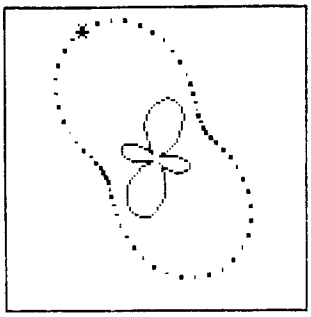
F=20 (.5625 Hz)



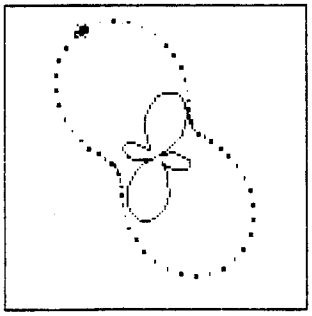
F=22 (.2813 Hz)



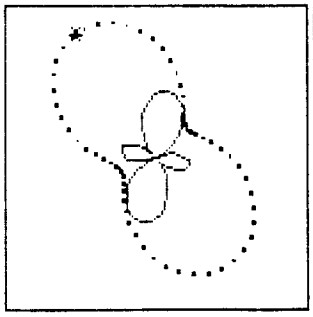
F=24 (.1406 Hz)



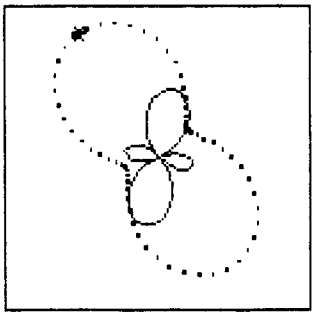
F=26 (.0703 Hz)



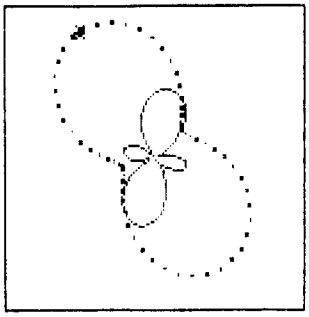
F=28 (.0352 Hz)



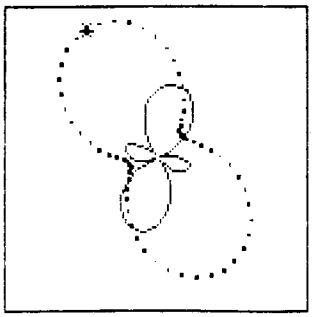
F=30 (.0176 Hz)



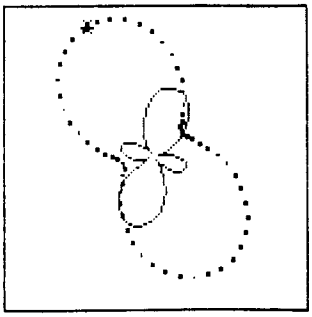
F=32 (.0088 Hz)



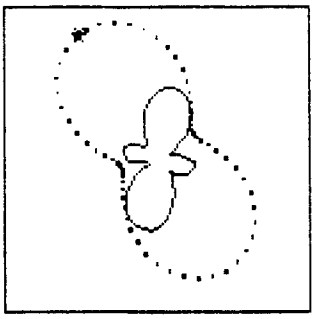
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-031a/048a/

Operator:OJALA
Date: 6 Sep 1989
Time: 18:07:28

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#220-15Aug89-05
SP--Stn02: B#507-15Aug89-05
Sens-Ch01: C#205-05Sep89-01
Sens-Ch02: C#445-05Sep89-01
Sens-Ch03: L#333-02Jul89-01
Sens-Ch06: C#432-16Aug89-01
Sens-Ch07: C#210-16Aug89-01
Sens-Ch08: L#005-29May89-01

Station 2

Stn Number:MDLK89-048a
Site Desc:T43N R3E SEC10 NW4
41,35,00 N 121,37,12 W
Elevation:6800 FT
Reference:MDLK89-031a
Rotation: Principal Axes
Site Permitted by:Not Entered
Site Layout by: ELDRIDGE
Sensor Processor: SE507
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL432	+0 DEG
Hy	7	COIL210	+90 DEG
Hz	8	LOOP005	
Ex	9	170 M	+0 DEG
Ey	10	178 M	+90 DEG
Rx	1	COIL205	+0 DEG
Ry	2	COIL445	+90 DEG

Ex Pot Resist: 35.0K Ohms
Ex Voltage: AC=8.4 mv, DC=72.1 mv
Ey Pot Resist: 14.0K Ohms
Ey Voltage: AC=3.6 mv, DC=125.0 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

OPERATOR LOG FOR MT SITES MDLK89-031a/048a/
Run Chronology

Run STARTED:	18:07:28	6 Sep 1989
Data Acquisition Begun:	18:16:57	6 Sep 1989
Entered LO Range:	18:17:07	6 Sep 1989
Began LO X#2:	19:23:52	6 Sep 1989
Exited LO Range:	19:56:48	6 Sep 1989
Entered LO Range:	19:56:54	6 Sep 1989
Began LO X#3:	20:30:44	6 Sep 1989
Began LO X#4:	21:37:27	6 Sep 1989
Began LO X#5:	23:06:23	6 Sep 1989
Began LO X#6:	00:35:14	7 Sep 1989
Began LO X#7:	02:04:10	7 Sep 1989
Began LO X#8:	03:33:03	7 Sep 1989
Began LO X#9:	05:01:54	7 Sep 1989
Began LO X#10:	06:30:47	7 Sep 1989
Exited LO Range:	08:44:06	7 Sep 1989
Entered HI Range:	08:52:21	7 Sep 1989
Began HI X#2:	08:57:37	7 Sep 1989
Began HI X#3:	09:03:25	7 Sep 1989
Began HI X#4:	09:09:12	7 Sep 1989
Began HI X#5:	09:15:00	7 Sep 1989
Began HI X#6:	09:20:47	7 Sep 1989
Began HI X#7:	09:26:35	7 Sep 1989
Began HI X#8:	09:33:35	7 Sep 1989
Exited HI Range:	09:33:47	7 Sep 1989
Run QUIT:	09:33:49	7 Sep 1989

Operator:OJALA (oplog by Snow)

Cultural Factors:
NONE
Weather Conditions:
CLEAR AND COLD
Other Factors:
LIGHT TRAFFIC NEAR SITE 031

PHOENIX GEOSCIENCE

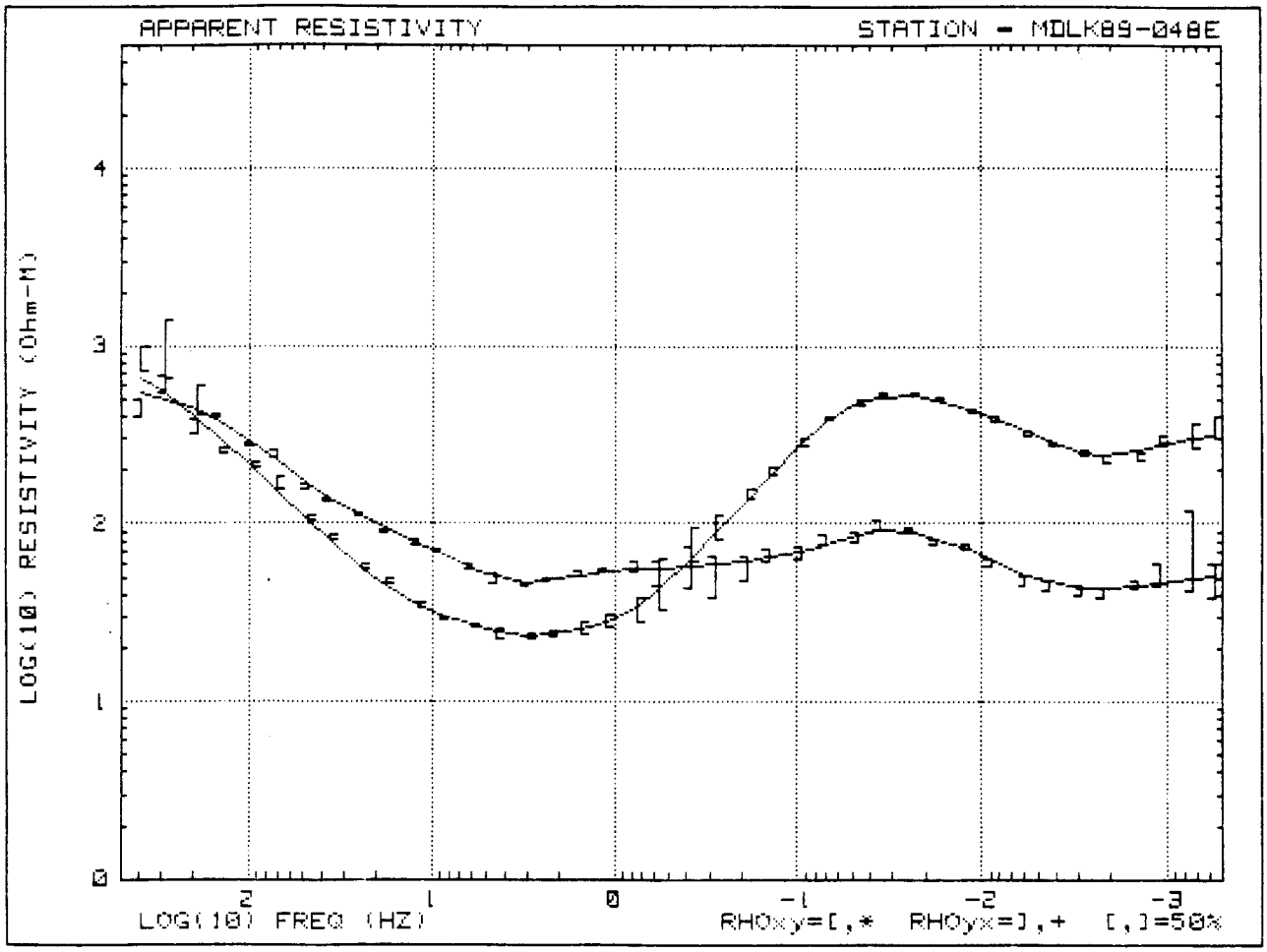
MT Site: MDLK89-048E

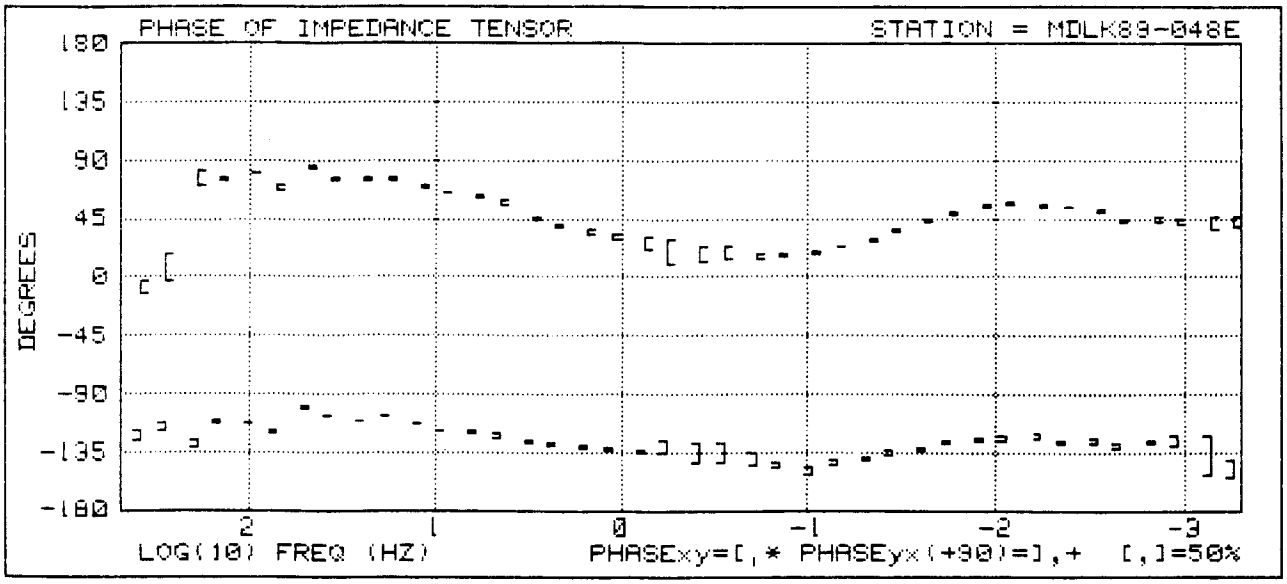
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E





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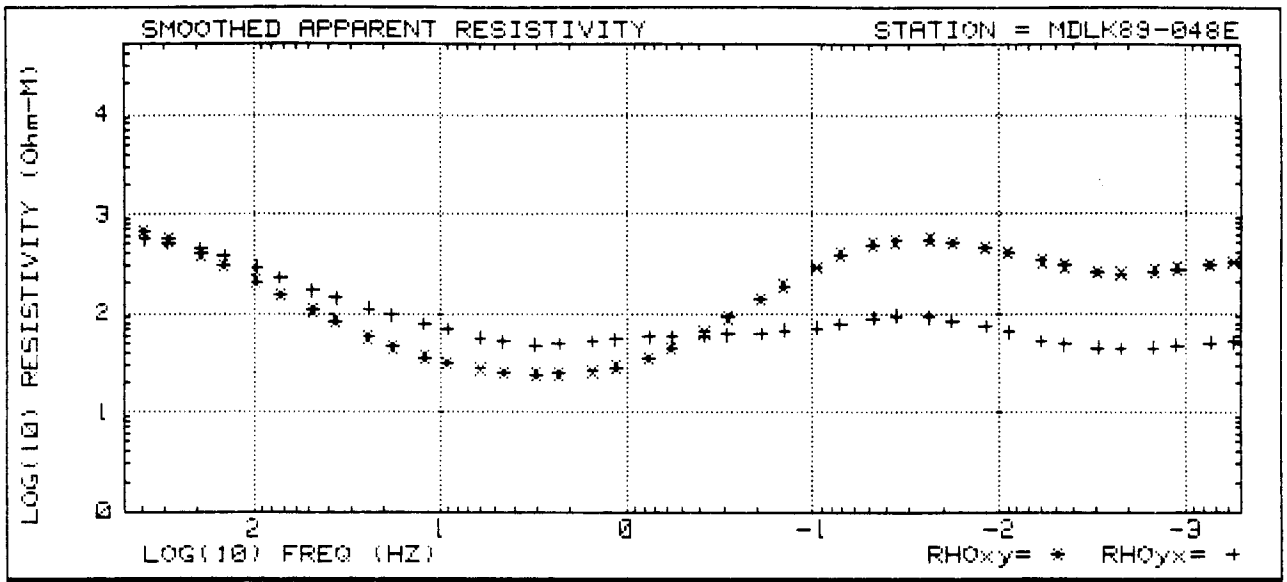
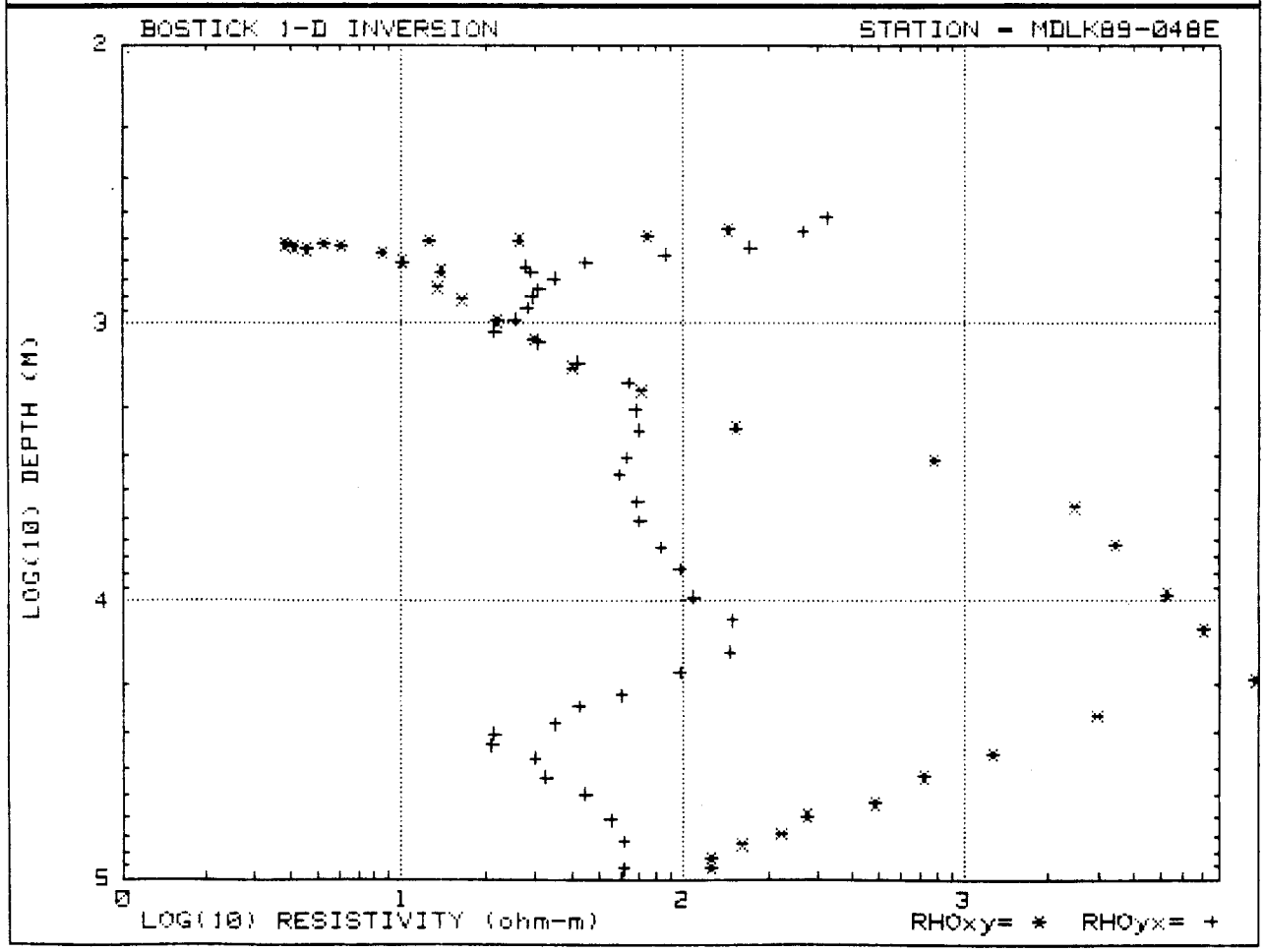
MT Site: MDLK89-048E





PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	439	842.7	26.9	443.7	17.3	-7.8	6.8	-121.9	4.6
2	288.00 Hz	252	964.3	77.3	609.8	18.9	7.8	16.4	-115.3	5.0
3	192.00 Hz	478	493.3	32.8	353.3	12.9	75.9	8.1	-128.9	3.5
4	144.00 Hz	384	259.7	4.6	404.3	3.3	75.1	1.3	-111.9	.9
5	96.00 Hz	384	214.1	4.0	281.4	3.2	80.2	1.1	-112.2	.9
6	72.00 Hz	192	170.4	10.8	244.5	7.5	68.7	2.9	-119.3	2.1
7	48.00 Hz	384	107.9	5.1	162.7	4.3	85.6	1.4	-100.3	1.2
8	36.00 Hz	576	83.8	3.8	137.3	3.0	75.5	1.1	-107.0	.9
9	24.00 Hz	480	57.2	4.7	111.7	2.1	75.9	1.3	-110.8	.6
10	18.00 Hz	576	47.9	3.9	91.2	2.2	75.7	1.1	-106.4	.6
11	12.00 Hz	384	34.8	3.7	78.8	2.7	70.3	1.0	-112.2	.8
12	9.00 Hz	576	29.8	2.0	71.2	2.2	64.9	.6	-117.8	.6
13	6.00 Hz	576	26.7	3.8	57.2	4.7	61.6	1.1	-119.5	1.3
14	4.50 Hz	96	24.2	8.8	49.0	11.0	57.0	2.4	-122.4	3.0
15	3.00 Hz	13422	23.3	5.7	46.0	2.2	45.2	1.6	-126.7	.6
16	2.25 Hz	15950	23.9	6.0	48.0	2.4	39.4	1.7	-128.8	.7
17	1.50 Hz	7974	26.1	11.0	52.6	4.0	34.9	3.0	-129.8	1.1
18	1.13 Hz	7702	28.6	10.2	55.2	4.0	31.3	2.8	-132.3	1.1
19	1.33 Sec	2603	32.7	26.7	57.3	8.9	26.7	6.8	-134.4	2.5
20	1.78 Sec	4859	45.7	66.3	52.7	25.4	19.8	14.6	-130.9	6.5
21	2.67 Sec	632	76.8	39.4	56.0	49.0	18.0	9.5	-135.8	11.4
22	3.56 Sec	1316	94.6	25.0	50.6	49.0	19.0	6.4	-134.3	11.4
23	5.33 Sec	1084	146.8	9.1	55.5	25.2	16.1	2.5	-139.5	6.4
24	7.11 Sec	964	198.5	6.1	66.7	12.8	16.4	1.7	-144.3	3.5
25	10.67 Sec	558	290.5	5.9	68.4	14.6	19.1	1.6	-149.7	3.9
26	14.22 Sec	546	392.3	3.7	81.3	11.8	23.8	1.0	-143.1	3.2
27	21.33 Sec	246	484.1	3.1	83.7	9.0	28.8	.9	-139.8	2.5
28	28.44 Sec	276	532.9	2.6	98.4	7.5	36.1	.7	-135.1	2.1
29	42.67 Sec	156	550.3	1.3	93.0	3.1	43.3	.4	-131.9	.9
30	56.89 Sec	180	501.7	1.6	79.3	5.7	49.3	.5	-126.9	1.6
31	85.33 Sec	120	434.6	2.1	74.9	4.8	54.3	.6	-124.1	1.3
32	113.78 Sec	120	390.4	4.0	60.3	7.4	56.1	1.1	-123.8	2.1
33	170.67 Sec	42	324.0	3.9	47.8	8.3	54.6	1.1	-121.6	2.3
34	227.56 Sec	24	279.4	3.6	45.1	8.7	53.8	1.0	-126.5	2.4
35	341.33 Sec	21	251.2	6.3	41.9	9.8	51.2	1.7	-125.7	2.7
36	455.11 Sec	21	230.4	7.5	41.3	9.2	43.6	2.1	-129.0	2.5
37	682.67 Sec	6	240.3	6.5	45.4	7.7	44.5	1.8	-126.8	2.1
38	910.22 Sec	9	296.4	7.6	52.0	23.4	42.9	2.1	-126.3	6.0
39	1365.33 Sec	3	312.1	28.3	70.4	99.9	42.0	7.1	-137.0	22.3
40	1820.44 Sec	3	347.6	22.0	48.2	39.6	42.0	5.7	-146.9	9.6

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	439	659.9	543.3	145.3	467	325.2	423
2	288.00 Hz	252	549.1	505.4	74.9	491	268.7	471
3	192.00 Hz	478	389.6	439.5	26.2	507	174.3	538
4	144.00 Hz	384	299.6	374.6	12.7	513	86.9	574
5	96.00 Hz	384	206.1	285.3	5.3	521	45.3	614
6	72.00 Hz	192	151.6	226.5	3.9	527	27.9	631
7	48.00 Hz	384	105.6	166.1	6.1	532	29.1	662
8	36.00 Hz	576	81.8	139.3	4.1	537	35.2	700
9	24.00 Hz	480	56.5	109.9	4.6	546	30.9	761
10	18.00 Hz	576	45.4	94.5	8.5	565	29.3	815
11	12.00 Hz	384	35.2	76.3	10.1	609	28.1	897
12	9.00 Hz	576	30.9	68.6	13.8	659	25.5	983
13	6.00 Hz	576	27.0	55.5	13.5	755	21.5	1083
14	4.50 Hz	96	24.5	50.5	16.5	831	31.0	1192
15	3.00 Hz	13422	23.5	47.0	22.0	997	42.7	1409
16	2.25 Hz	15950	24.0	48.9	29.7	1161	64.3	1658
17	1.50 Hz	7974	25.4	51.7	40.7	1464	68.2	2089
18	1.13 Hz	7702	28.1	53.8	71.3	1780	69.9	2460
19	1.33 Sec	2603	34.3	56.6	153.8	2406	63.5	3091
20	1.78 Sec	4859	43.7	55.9	791.4	3137	59.8	3549
21	2.67 Sec	632	63.8	57.9	2486.7	4641	69.1	4421
22	3.56 Sec	1316	89.3	59.5	3483.4	6342	70.4	5175
23	5.33 Sec	1084	134.8	61.4	5259.1	9544	83.9	6438
24	7.11 Sec	964	182.1	66.2	7102.3	12807	97.5	7723
25	10.67 Sec	558	280.2	70.0	10927.2	19455	109.3	9728
26	14.22 Sec	546	378.5	77.1	2983.6	26112	149.5	11783
27	21.33 Sec	246	479.4	87.4	1274.1	35990	147.1	15369
28	28.44 Sec	276	518.2	91.9	727.1	43208	97.8	18199
29	42.67 Sec	156	538.5	89.3	482.6	53944	61.0	21967
30	56.89 Sec	180	498.9	80.7	278.0	59956	42.8	24113
31	85.33 Sec	120	442.2	72.2	223.9	69130	35.4	27934
32	113.78 Sec	120	397.5	63.7	162.6	75688	21.6	30289
33	170.67 Sec	42	330.6	51.3	126.8	84540	21.2	33297
34	227.56 Sec	24	291.9	47.7	127.0	91721	30.1	37092
35	341.33 Sec	21	251.7	43.8	141.6	104307	33.0	43527
36	455.11 Sec	21	240.4	43.3	249.4	117717	45.4	49945
37	682.67 Sec	6	254.9	44.5	364.7	148458	55.6	62059
38	910.22 Sec	9	271.8	46.7	436.7	177022	61.9	73380
39	1365.33 Sec	3	299.5	49.1	459.0	227586	62.1	92118
40	1820.44 Sec	3	314.5	50.7	442.6	269268	63.4	108086

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	439	55.78	-22.53	999.99	999.99	-173.11	999.99
2	288.00 Hz	252	34.81	-5.88	999.99	999.99	159.00	999.99
3	192.00 Hz	478	-14.94	-18.17	999.99	167.32	667.54	999.99
4	144.00 Hz	384	-24.40	34.55	84.86	111.14	417.86	192.14
5	96.00 Hz	384	4.63	-2.36	35.65	54.49	315.91	77.41
6	72.00 Hz	192	-8.80	8.38	79.38	89.95	230.80	323.04
7	48.00 Hz	384	1.74	5.67	9.11	12.37	160.45	31.64
8	36.00 Hz	576	.05	3.04	3.12	30.79	118.87	10.55
9	24.00 Hz	480	1.64	2.57	1.52	20.21	80.36	7.35
10	18.00 Hz	576	-.50	1.53	.76	16.20	63.60	3.11
11	12.00 Hz	384	1.24	3.68	.48	15.42	43.02	1.40
12	9.00 Hz	576	3.47	.32	.12	15.56	33.15	.28
13	6.00 Hz	576	1.34	-1.07	.20	13.45	24.92	.57
14	4.50 Hz	96	1.72	-.93	.75	12.71	19.56	1.95
15	3.00 Hz	13422	1.71	-.11	.38	13.15	13.26	.54
16	2.25 Hz	15950	1.73	.07	.31	12.68	10.42	.46
17	1.50 Hz	7974	1.56	-.45	.78	11.48	8.00	1.06
18	1.13 Hz	7702	1.55	-.22	.56	10.85	6.58	.76
19	1.33 Sec	2603	1.642	-.035	2.252	9.892	4.967	3.420
20	1.78 Sec	4859	1.142	.658	8.257	10.666	3.844	16.608
21	2.67 Sec	632	.622	1.262	9.223	11.410	3.711	7.951
22	3.56 Sec	1316	.155	1.088	5.750	10.907	3.759	3.314
23	5.33 Sec	1084	-.294	.975	1.298	11.270	3.262	.517
24	7.11 Sec	964	-.450	.380	.432	11.330	3.345	.245
25	10.67 Sec	558	-.384	.521	.312	11.028	3.816	.220
26	14.22 Sec	546	-.251	.365	.144	10.748	4.734	.089
27	21.33 Sec	246	-.127	.085	.061	9.334	5.132	.053
28	28.44 Sec	276	.036	-.377	.047	7.824	5.698	.031
29	42.67 Sec	156	.048	-.156	.005	5.849	5.503	.005
30	56.89 Sec	180	.086	-.048	.007	4.328	5.036	.006
31	85.33 Sec	120	.068	.033	.003	2.944	4.099	.005
32	113.78 Sec	120	.050	.116	.005	2.310	3.438	.014
33	170.67 Sec	42	-.056	.108	.005	1.785	2.511	.007
34	227.56 Sec	24	.015	.103	.003	1.462	2.000	.004
35	341.33 Sec	21	.004	.023	.005	1.201	1.496	.007
36	455.11 Sec	21	-.042	.066	.003	1.153	1.097	.007
37	682.67 Sec	6	.022	-.035	.001	.946	.930	.004
38	910.22 Sec	9	.087	-.111	.005	.935	.868	.004
39	1365.33 Sec	3	.098	-.134	.061	.795	.715	.036
40	1820.44 Sec	3	.002	-.042	.046	.726	.654	.019

PHOENIX GEOSCIENCE

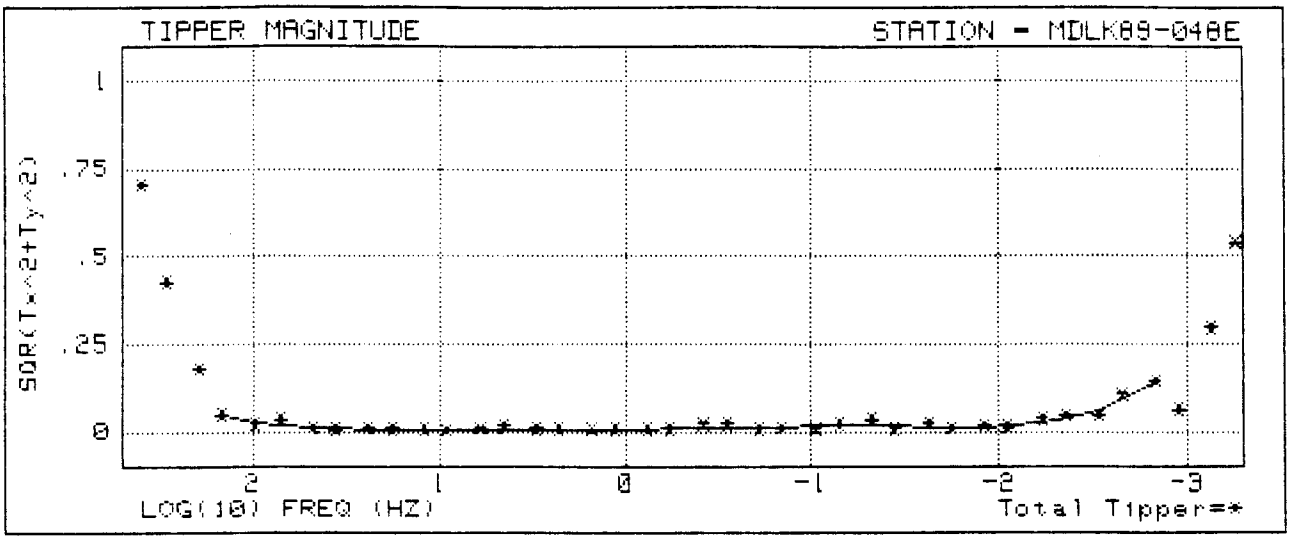
MT Site: MDLK89-048E

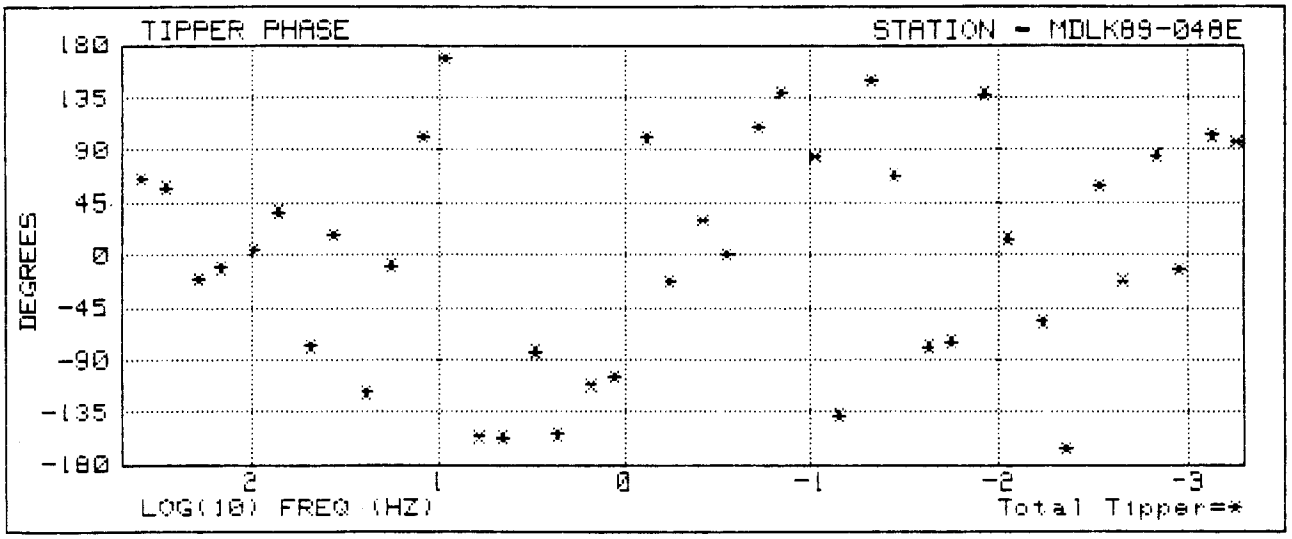
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

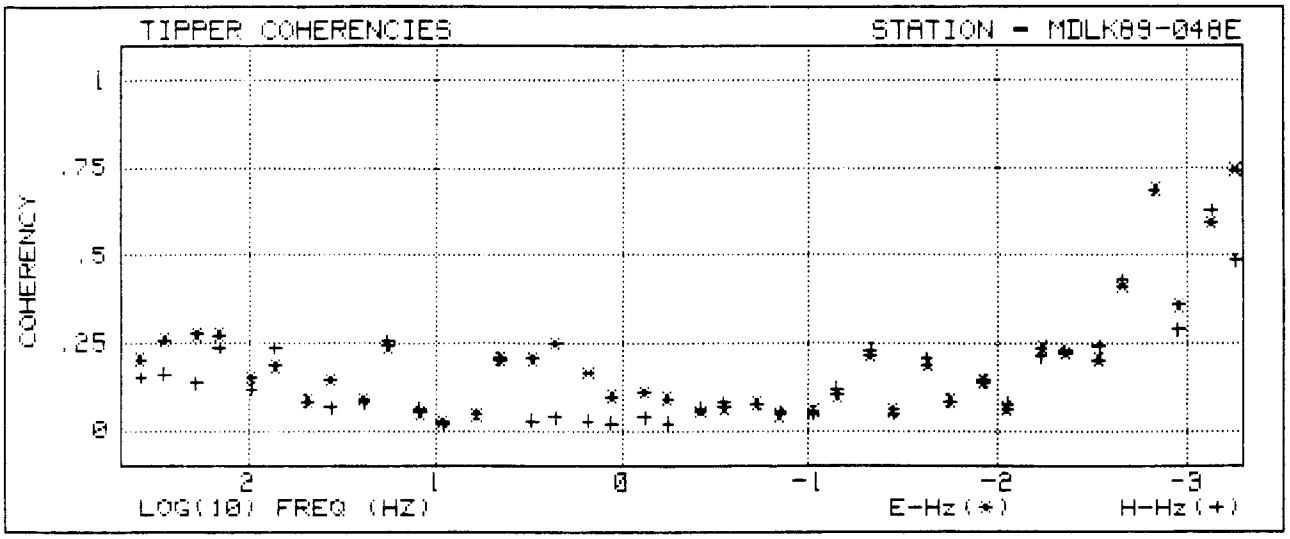
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	439	-488.11	-783.37	999.99	632.48	442.97	999.99
2	288.00 Hz	252	-400.84	-847.05	999.99	368.66	366.18	999.99
3	192.00 Hz	478	-365.89	-453.12	999.99	168.29	151.52	999.99
4	144.00 Hz	384	-201.18	-500.64	152.50	-7.61	16.28	345.27
5	96.00 Hz	384	-139.15	-340.13	67.83	1.49	8.60	147.29
6	72.00 Hz	192	-145.28	-258.69	231.82	6.46	-21.91	943.37
7	48.00 Hz	384	-35.47	-194.37	34.75	9.22	.58	120.78
8	36.00 Hz	576	-46.05	-150.32	11.01	-3.40	4.71	37.26
9	24.00 Hz	480	-41.16	-108.20	2.89	-3.73	6.61	13.92
10	18.00 Hz	576	-25.64	-86.88	1.92	-.52	1.54	7.91
11	12.00 Hz	384	-25.96	-63.65	1.69	1.31	3.39	4.92
12	9.00 Hz	576	-26.43	-50.04	.74	-2.44	4.12	1.63
13	6.00 Hz	576	-20.41	-36.05	1.83	-5.54	3.24	5.22
14	4.50 Hz	96	-17.80	-28.01	6.01	-3.27	2.07	15.50
15	3.00 Hz	13422	-15.72	-21.06	.17	-1.72	1.02	.24
16	2.25 Hz	15950	-14.55	-18.10	.15	-1.93	.97	.22
17	1.50 Hz	7974	-12.72	-15.25	.30	-2.81	.30	.41
18	1.13 Hz	7702	-11.87	-13.03	.24	-2.72	.45	.33
19	1.33 Sec	2603	-10.259	-10.475	.789	-2.735	.256	1.198
20	1.78 Sec	4859	-7.968	-9.210	3.801	-2.067	-.955	7.646
21	2.67 Sec	632	-7.346	-7.149	8.345	-1.703	-1.487	7.194
22	3.56 Sec	1316	-5.888	-6.039	5.648	-.872	-1.171	3.256
23	5.33 Sec	1084	-5.485	-4.684	1.318	-.815	-1.144	.526
24	7.11 Sec	964	-5.565	-3.992	.340	-.634	-1.257	.193
25	10.67 Sec	558	-4.892	-2.855	.299	-.141	-1.027	.211
26	14.22 Sec	546	-4.273	-3.212	.179	-.036	-.547	.110
27	21.33 Sec	246	-3.383	-2.858	.073	.153	-.648	.064
28	28.44 Sec	276	-2.946	-2.934	.046	.039	-.383	.030
29	42.67 Sec	156	-2.202	-2.459	.005	.130	-.253	.006
30	56.89 Sec	180	-1.587	-2.110	.011	.125	-.084	.008
31	85.33 Sec	120	-1.175	-1.734	.005	.171	-.044	.008
32	113.78 Sec	120	-.906	-1.353	.007	.114	.072	.018
33	170.67 Sec	42	-.621	-1.007	.004	.092	-.006	.006
34	227.56 Sec	24	-.592	-.800	.003	.114	.031	.004
35	341.33 Sec	21	-.458	-.636	.003	.078	-.040	.004
36	455.11 Sec	21	-.424	-.524	.002	.060	-.063	.004
37	682.67 Sec	6	-.345	-.462	.001	-.028	.029	.003
38	910.22 Sec	9	-.316	-.431	.006	-.029	.053	.005
39	1365.33 Sec	3	-.371	-.346	.078	-.009	-.011	.046
40	1820.44 Sec	3	-.305	-.199	.007	-.020	-.021	.003

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E







PHOENIX GEOSCIENCE

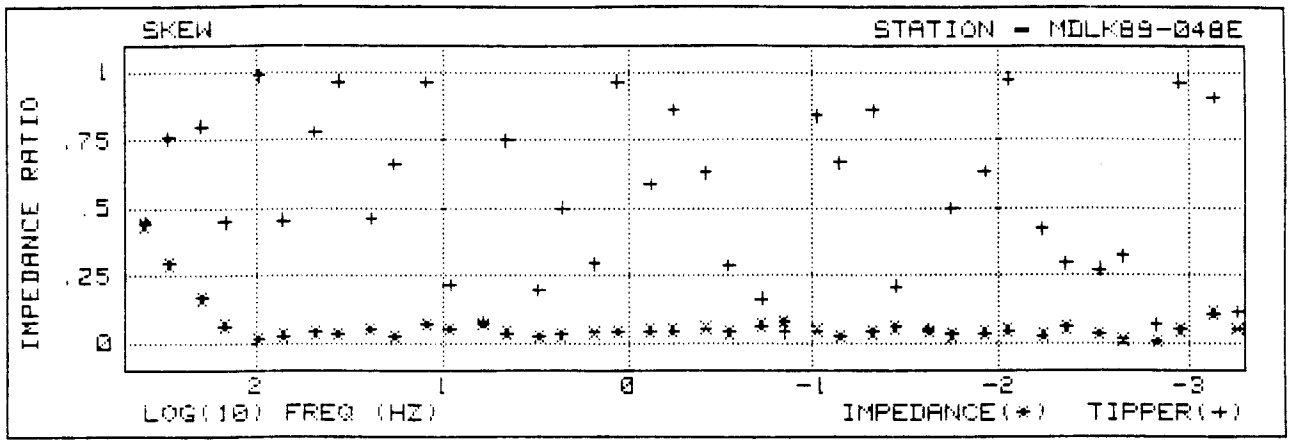
MT Site: MDLK89-048E

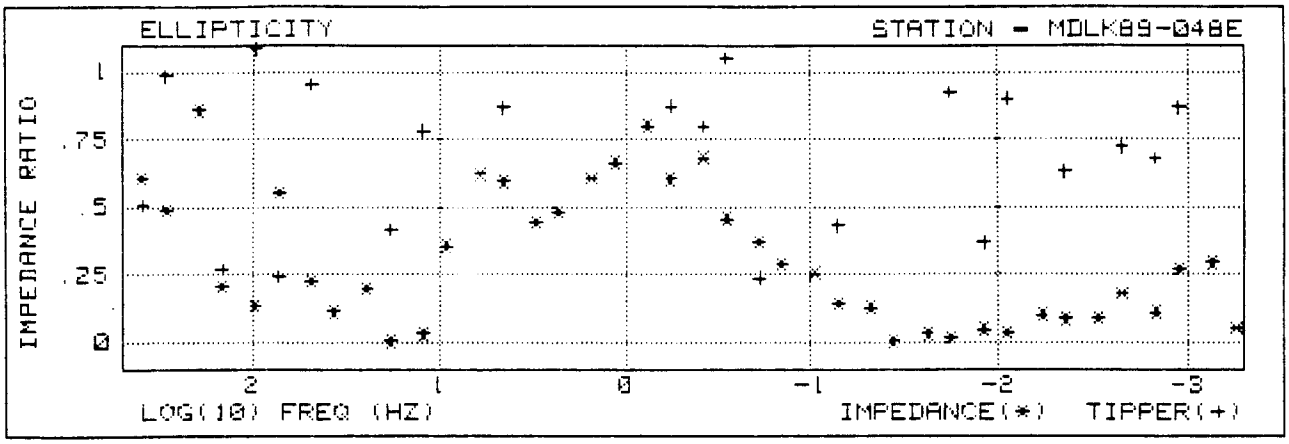
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

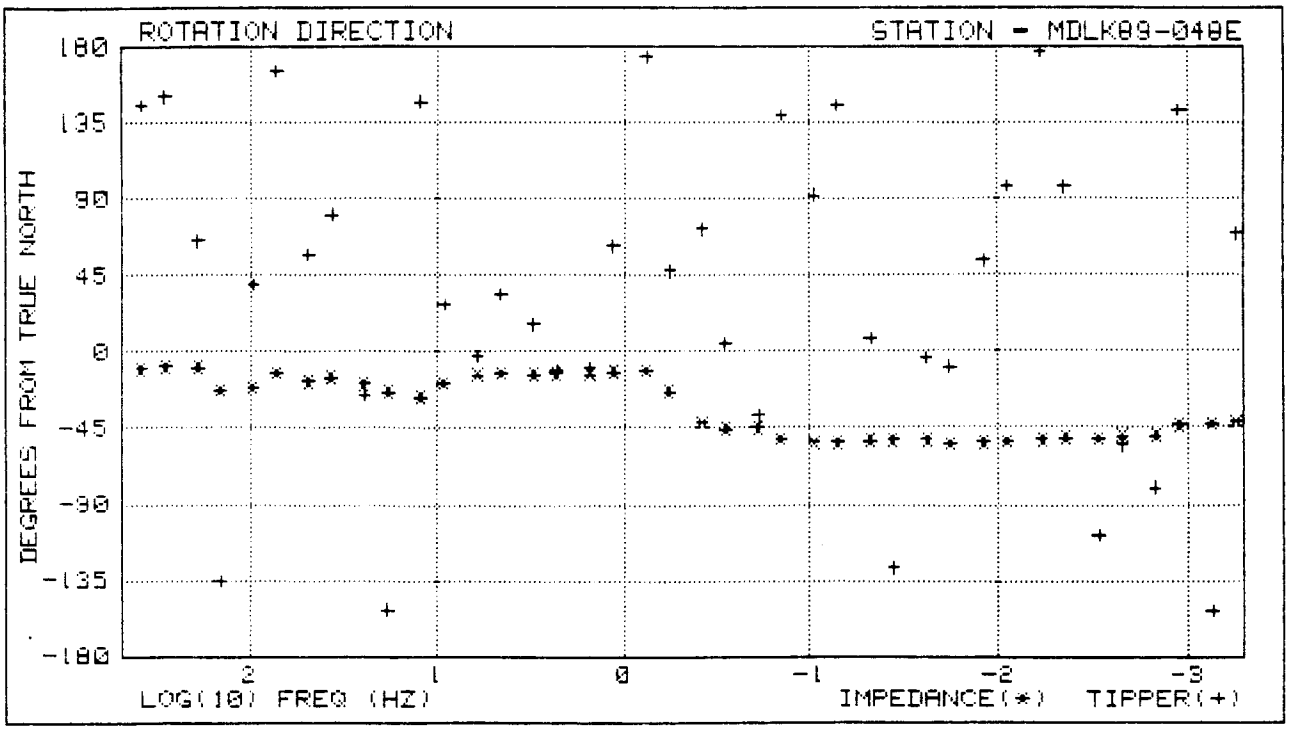
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	439	.70	65.10	.20	.15
2	288.00 Hz	252	.42	57.26	.26	.16
3	192.00 Hz	478	.18	-21.69	.27	.13
4	144.00 Hz	384	.05	-11.55	.27	.23
5	96.00 Hz	384	.02	3.91	.15	.12
6	72.00 Hz	192	.03	35.86	.18	.23
7	48.00 Hz	384	.01	-78.89	.08	.08
8	36.00 Hz	576	.00	16.69	.14	.06
9	24.00 Hz	480	.01	-118.83	.09	.08
10	18.00 Hz	576	.01	-10.12	.24	.25
11	12.00 Hz	384	.00	100.65	.05	.06
12	9.00 Hz	576	.00	167.71	.02	.01
13	6.00 Hz	576	.01	-156.88	.04	.04
14	4.50 Hz	96	.01	-157.80	.20	.20
15	3.00 Hz	13422	.00	-84.08	.20	.02
16	2.25 Hz	15950	.00	-154.88	.25	.03
17	1.50 Hz	7974	.00	-112.31	.16	.02
18	1.13 Hz	7702	.00	-105.82	.09	.02
19	1.33 Sec	2603	.00	99.58	.11	.03
20	1.78 Sec	4859	.00	-23.80	.09	.02
21	2.67 Sec	632	.02	29.21	.05	.06
22	3.56 Sec	1316	.02	-.61	.06	.08
23	5.33 Sec	1084	.01	108.86	.07	.07
24	7.11 Sec	964	.01	138.33	.04	.05
25	10.67 Sec	558	.01	83.63	.05	.04
26	14.22 Sec	546	.02	-138.66	.10	.12
27	21.33 Sec	246	.03	149.14	.21	.23
28	28.44 Sec	276	.01	67.44	.05	.04
29	42.67 Sec	156	.02	-79.77	.19	.20
30	56.89 Sec	180	.01	-75.42	.08	.08
31	85.33 Sec	120	.01	136.66	.14	.14
32	113.78 Sec	120	.01	13.24	.06	.07
33	170.67 Sec	42	.03	-57.84	.23	.21
34	227.56 Sec	24	.04	-166.38	.22	.22
35	341.33 Sec	21	.04	58.42	.20	.24
36	455.11 Sec	21	.10	-22.87	.41	.43
37	682.67 Sec	6	.14	84.22	.68	.68
38	910.22 Sec	9	.06	-12.76	.36	.29
39	1365.33 Sec	3	.29	101.93	.59	.62
40	1820.44 Sec	3	.54	96.40	.74	.48

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E







PHOENIX GEOSCIENCE

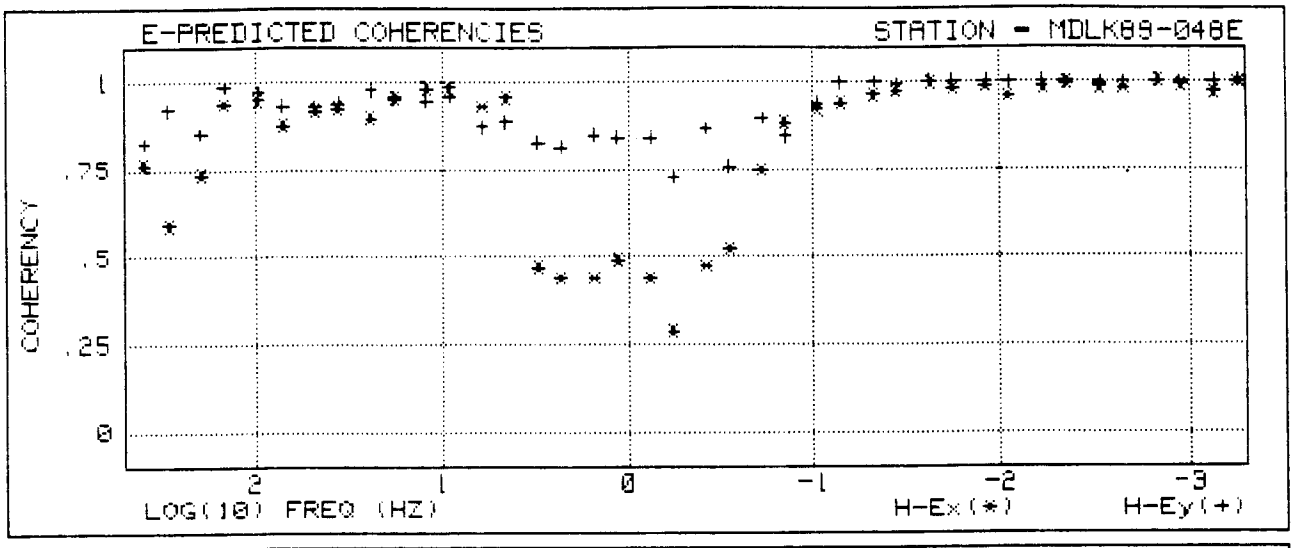
MT Site: MDLK89-048E

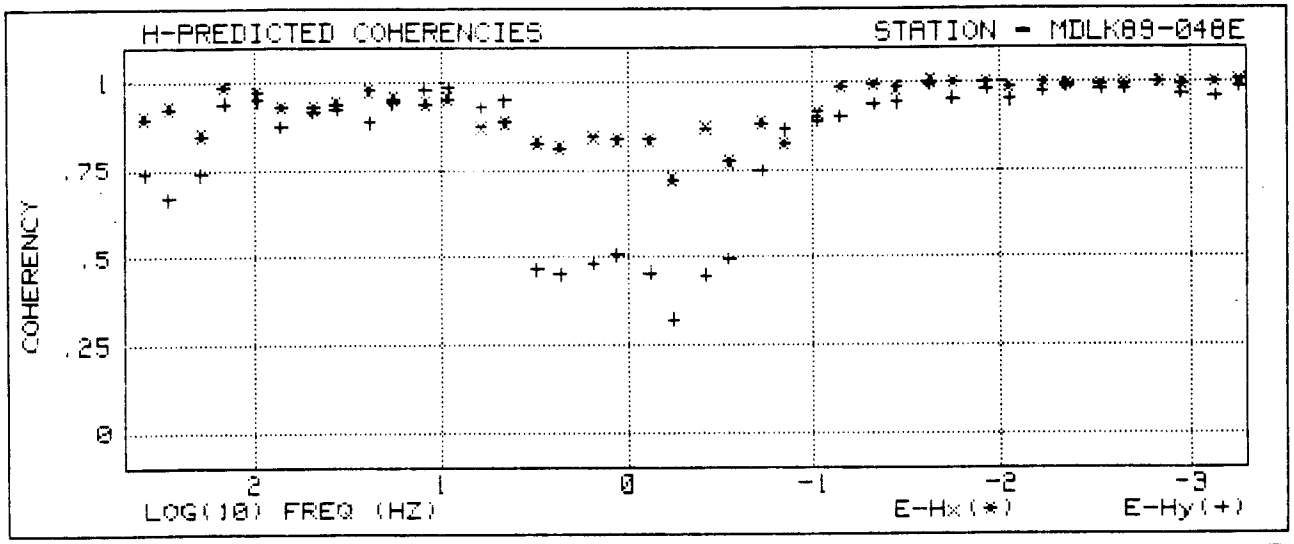
SKEW, ELLIPTICITY AND STRIKE

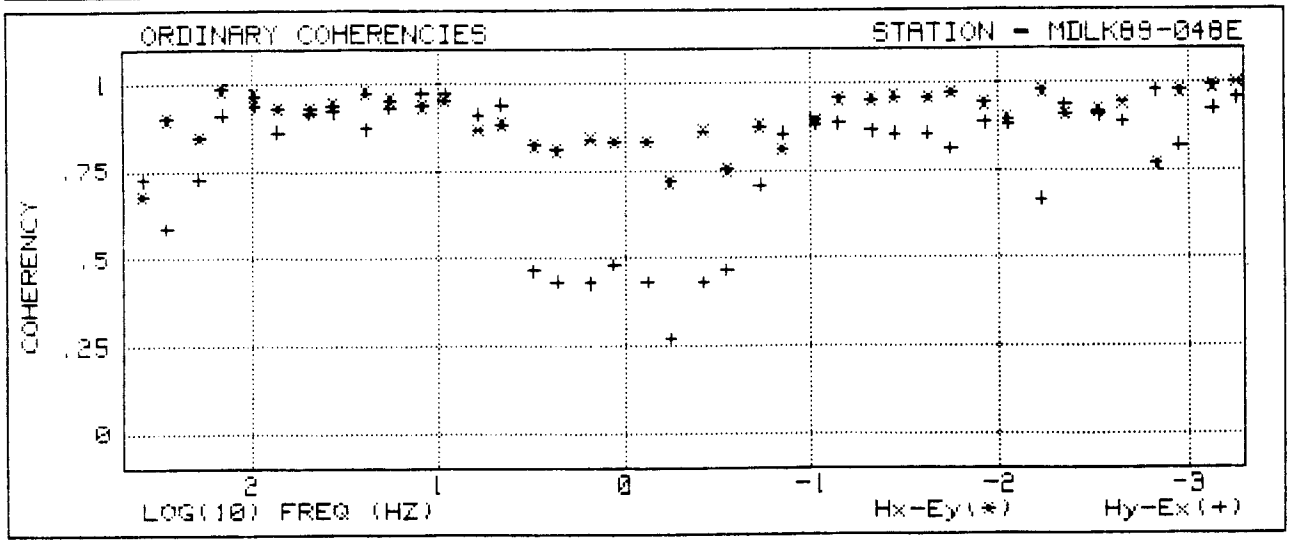
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	439	.44	.60	-10.62	.45	.50	144.49
2	288.00 Hz	252	.29	.49	-9.47	.75	.98	149.56
3	192.00 Hz	478	.16	.85	-10.02	.80	1.92	64.38
4	144.00 Hz	384	.06	.20	-23.50	.44	.27	-136.31
5	96.00 Hz	384	.01	.13	-22.00	.98	1.08	38.75
6	72.00 Hz	192	.03	.55	-13.11	.45	.24	164.74
7	48.00 Hz	384	.04	.22	-18.16	.77	.95	56.14
8	36.00 Hz	576	.03	.11	-15.59	.96	1.34	79.69
9	24.00 Hz	480	.05	.19	-19.65	.46	3.73	-26.25
10	18.00 Hz	576	.02	.00	-24.36	.66	.41	-152.71
11	12.00 Hz	384	.07	.03	-27.03	.96	.78	146.52
12	9.00 Hz	576	.05	.35	-19.14	.21	1.36	27.09
13	6.00 Hz	576	.07	.62	-14.27	.08	4.94	-3.02
14	4.50 Hz	96	.03	.59	-13.31	.74	.86	32.93
15	3.00 Hz	13422	.02	.44	-14.11	.19	1.75	15.10
16	2.25 Hz	15950	.03	.48	-13.59	.50	3.76	-11.67
17	1.50 Hz	7974	.04	.60	-14.25	.29	6.24	-10.61
18	1.13 Hz	7702	.04	.66	-12.78	.96	1.12	61.32
19	1.33 Sec	2603	.04	.79	-11.61	.58	2.17	173.14
20	1.78 Sec	4859	.04	.60	-24.30	.86	.87	47.18
21	2.67 Sec	632	.05	.68	-42.31	.63	.79	71.53
22	3.56 Sec	1316	.04	.45	-46.05	.28	1.05	3.58
23	5.33 Sec	1084	.06	.37	-45.49	.16	.23	-38.31
24	7.11 Sec	964	.08	.28	-52.36	.04	2.52	138.83
25	10.67 Sec	558	.04	.25	-53.90	.83	1.60	91.43
26	14.22 Sec	546	.02	.14	-53.93	.66	.43	144.46
27	21.33 Sec	246	.04	.12	-53.26	.85	1.66	7.25
28	28.44 Sec	276	.06	.00	-52.77	.21	3.52	-128.04
29	42.67 Sec	156	.04	.03	-52.51	.05	1.11	-4.55
30	56.89 Sec	180	.03	.01	-55.31	.49	.92	-9.71
31	85.33 Sec	120	.03	.04	-53.95	.63	.36	52.95
32	113.78 Sec	120	.04	.03	-53.55	.97	.89	96.60
33	170.67 Sec	42	.03	.10	-52.80	.42	1.64	176.49
34	227.56 Sec	24	.05	.08	-51.71	.29	.63	96.45
35	341.33 Sec	21	.03	.09	-52.03	.27	1.49	-108.77
36	455.11 Sec	21	.01	.18	-50.22	.32	.72	-55.47
37	682.67 Sec	6	.00	.11	-50.40	.06	.68	-80.44
38	910.22 Sec	9	.05	.27	-44.00	.96	.86	141.35
39	1365.33 Sec	3	.11	.29	-43.29	.90	1.52	-153.26
40	1820.44 Sec	3	.05	.05	-42.22	.11	1.59	68.66

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E







PHOENIX GEOSCIENCE

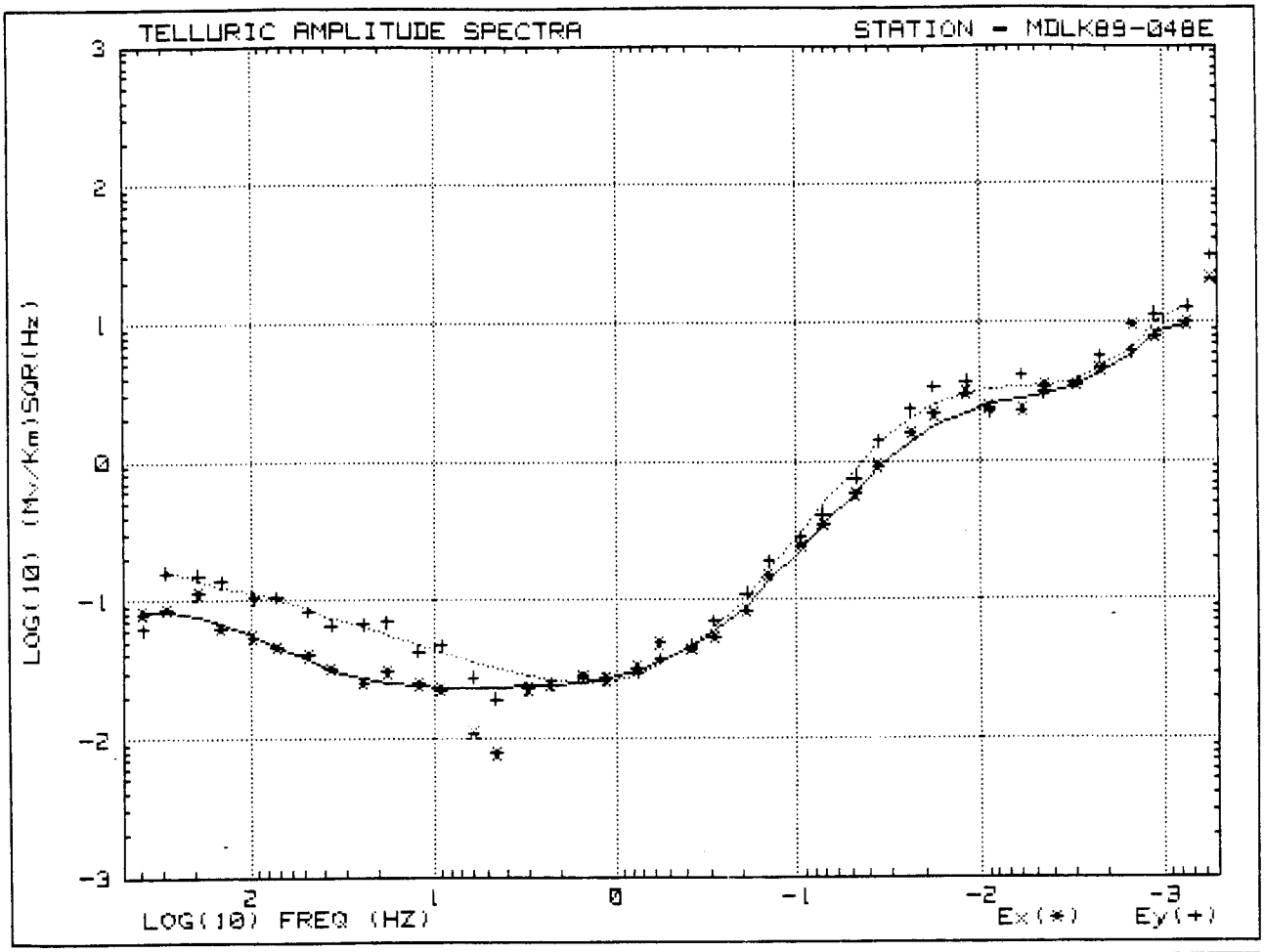
MT Site: MDLK89-048E

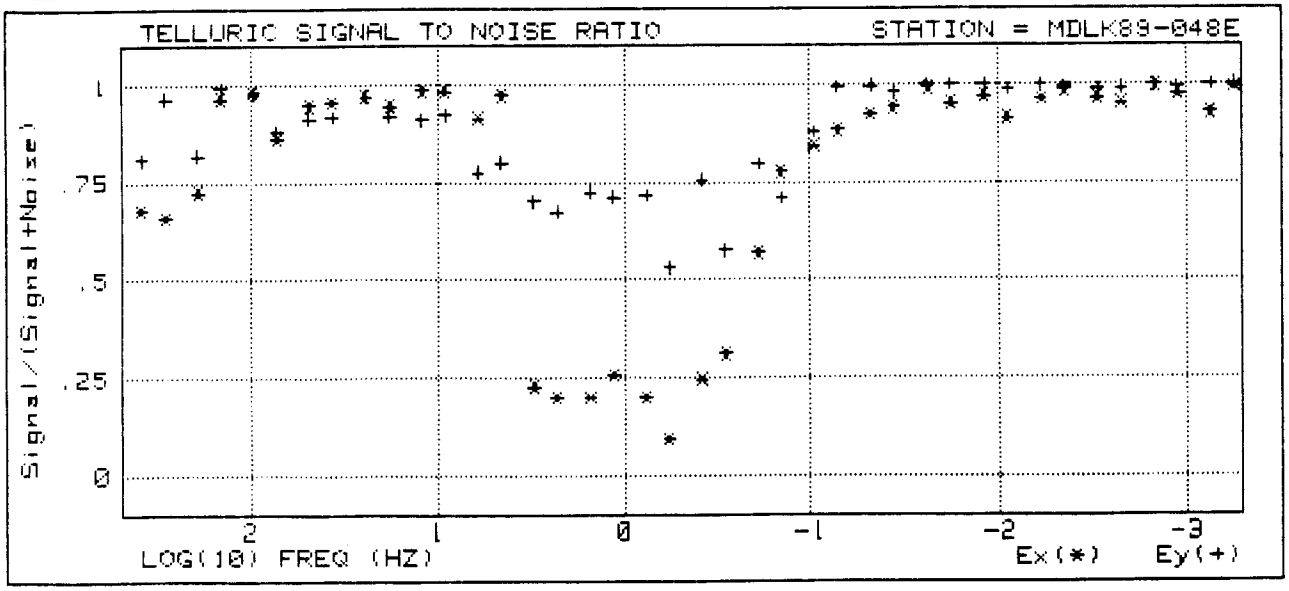
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	439	.76	.82	.89	.73	.67	.72
2	288.00 Hz	252	.59	.92	.92	.67	.89	.58
3	192.00 Hz	478	.73	.85	.84	.73	.84	.72
4	144.00 Hz	384	.93	.98	.98	.94	.98	.91
5	96.00 Hz	384	.94	.97	.97	.94	.96	.93
6	72.00 Hz	192	.87	.93	.93	.87	.93	.86
7	48.00 Hz	384	.92	.92	.92	.92	.92	.91
8	36.00 Hz	576	.92	.94	.94	.92	.93	.92
9	24.00 Hz	480	.89	.97	.97	.88	.97	.87
10	18.00 Hz	576	.95	.95	.95	.94	.95	.93
11	12.00 Hz	384	.98	.94	.93	.97	.93	.97
12	9.00 Hz	576	.98	.95	.95	.98	.95	.97
13	6.00 Hz	576	.93	.87	.87	.93	.86	.91
14	4.50 Hz	96	.95	.88	.88	.95	.88	.93
15	3.00 Hz	13422	.47	.82	.82	.46	.82	.46
16	2.25 Hz	15950	.44	.81	.81	.45	.81	.43
17	1.50 Hz	7974	.44	.84	.84	.48	.84	.43
18	1.13 Hz	7702	.49	.84	.83	.50	.83	.48
19	1.33 Sec	2603	.44	.84	.83	.45	.83	.43
20	1.78 Sec	4859	.28	.72	.72	.32	.71	.27
21	2.67 Sec	632	.47	.86	.87	.44	.86	.43
22	3.56 Sec	1316	.52	.75	.77	.49	.75	.46
23	5.33 Sec	1084	.74	.89	.88	.74	.87	.70
24	7.11 Sec	964	.88	.84	.82	.86	.81	.85
25	10.67 Sec	558	.92	.94	.91	.88	.89	.88
26	14.22 Sec	546	.94	.99	.98	.90	.95	.88
27	21.33 Sec	246	.96	1.00	.99	.93	.95	.86
28	28.44 Sec	276	.97	.99	.98	.94	.96	.85
29	42.67 Sec	156	.99	1.00	1.00	.99	.95	.85
30	56.89 Sec	180	.97	1.00	1.00	.95	.97	.81
31	85.33 Sec	120	.98	1.00	1.00	.98	.94	.88
32	113.78 Sec	120	.95	.99	.98	.95	.89	.88
33	170.67 Sec	42	.98	1.00	1.00	.97	.97	.66
34	227.56 Sec	24	.99	1.00	.99	.98	.91	.93
35	341.33 Sec	21	.98	.99	.99	.98	.91	.90
36	455.11 Sec	21	.98	.99	.99	.98	.94	.88
37	682.67 Sec	6	1.00	1.00	1.00	1.00	.76	.97
38	910.22 Sec	9	.99	1.00	.99	.96	.97	.82
39	1365.33 Sec	3	.97	1.00	1.00	.95	.99	.92
40	1820.44 Sec	3	1.00	1.00	1.00	.98	1.00	.95

PHOENIX GEOSCIENCE

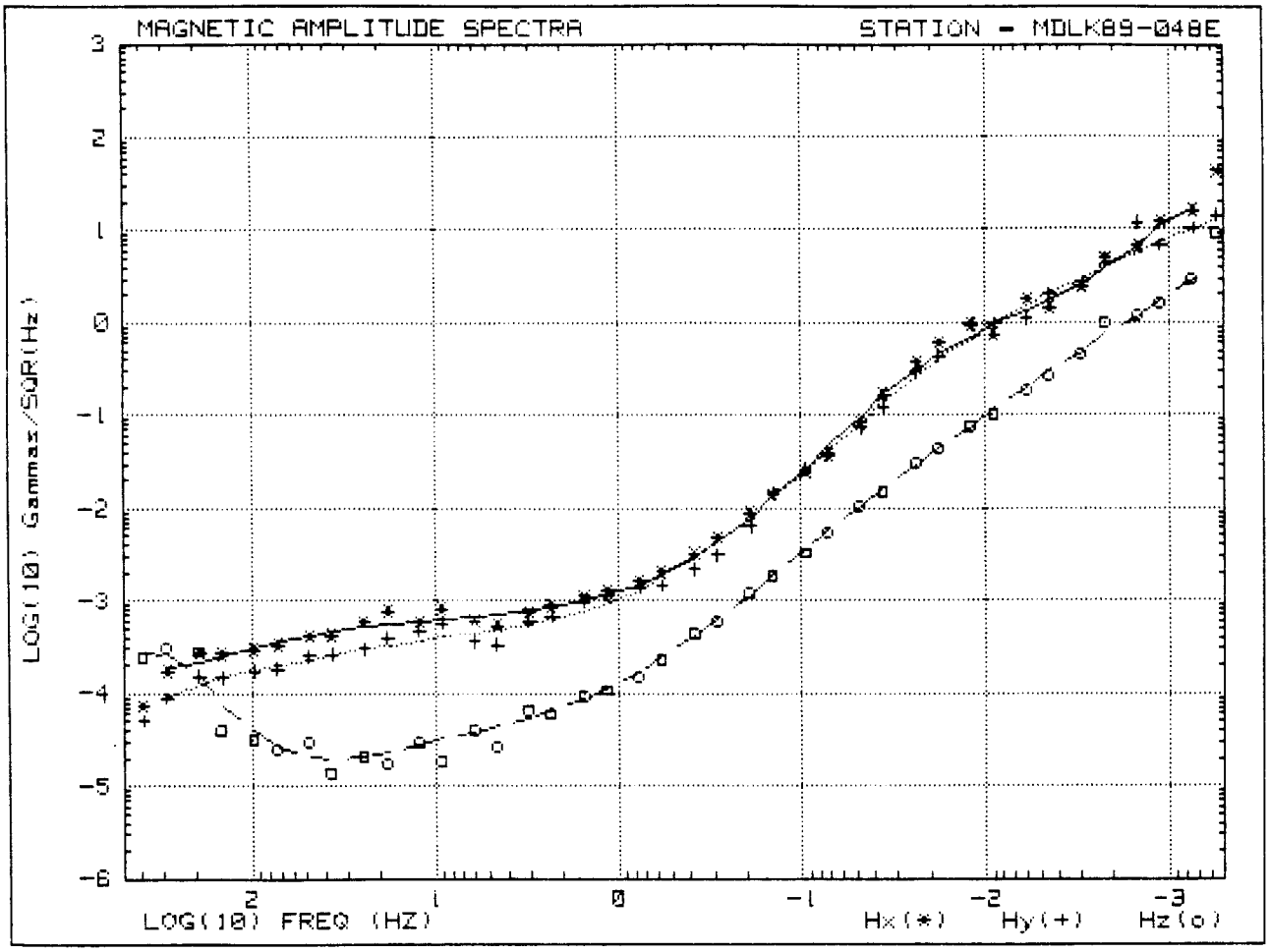
MT Site: MDLK89-048E

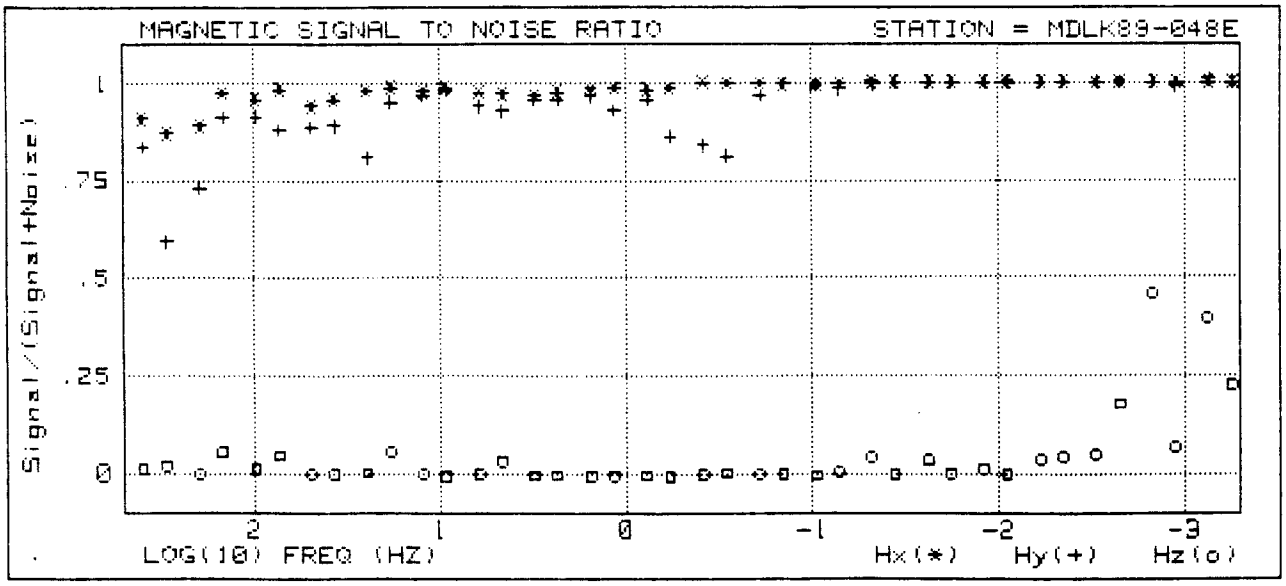




PHOENIX GEOSCIENCE

MT Site: MDLK89-048E





PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	439	7.11E-05	4.99E-05	2.58E-04	7.98E-02	6.14E-02
2	288.00 Hz	252	1.68E-04	8.63E-05	3.19E-04	8.57E-02	1.57E-01
3	192.00 Hz	478	2.65E-04	1.51E-04	2.95E-04	1.12E-01	1.52E-01
4	144.00 Hz	384	2.61E-04	1.43E-04	4.14E-05	6.15E-02	1.35E-01
5	96.00 Hz	384	2.90E-04	1.70E-04	3.25E-05	5.36E-02	1.03E-01
6	72.00 Hz	192	3.30E-04	1.79E-04	2.60E-05	4.48E-02	1.04E-01
7	48.00 Hz	384	4.09E-04	2.46E-04	3.20E-05	3.92E-02	8.15E-02
8	36.00 Hz	576	4.11E-04	2.56E-04	1.48E-05	3.14E-02	6.54E-02
9	24.00 Hz	480	5.78E-04	2.95E-04	2.22E-05	2.49E-02	6.59E-02
10	18.00 Hz	576	7.54E-04	3.88E-04	1.83E-05	2.98E-02	6.89E-02
11	12.00 Hz	384	5.88E-04	4.57E-04	3.06E-05	2.43E-02	4.18E-02
12	9.00 Hz	576	8.08E-04	5.58E-04	1.95E-05	2.23E-02	4.69E-02
13	6.00 Hz	576	5.89E-04	3.52E-04	4.19E-05	1.08E-02	2.71E-02
14	4.50 Hz	96	5.23E-04	3.25E-04	2.82E-05	7.64E-03	1.90E-02
15	3.00 Hz	13422	7.36E-04	5.81E-04	6.98E-05	2.26E-02	2.24E-02
16	2.25 Hz	15950	8.62E-04	6.62E-04	6.25E-05	2.37E-02	2.42E-02
17	1.50 Hz	7974	1.12E-03	9.34E-04	9.90E-05	2.77E-02	2.67E-02
18	1.13 Hz	7702	1.23E-03	1.12E-03	1.14E-04	2.64E-02	2.64E-02
19	1.33 Sec	2603	1.62E-03	1.34E-03	1.56E-04	3.18E-02	2.90E-02
20	1.78 Sec	4859	2.03E-03	1.43E-03	2.45E-04	4.80E-02	3.67E-02
21	2.67 Sec	632	3.21E-03	2.12E-03	4.54E-04	4.33E-02	4.55E-02
22	3.56 Sec	1316	4.78E-03	3.05E-03	6.32E-04	5.25E-02	6.97E-02
23	5.33 Sec	1084	8.72E-03	6.27E-03	1.25E-03	8.34E-02	1.09E-01
24	7.11 Sec	964	1.39E-02	1.45E-02	1.91E-03	1.49E-01	1.90E-01
25	10.67 Sec	558	2.41E-02	2.57E-02	3.45E-03	2.41E-01	2.79E-01
26	14.22 Sec	546	3.80E-02	3.67E-02	5.79E-03	3.46E-01	4.08E-01
27	21.33 Sec	246	8.14E-02	7.33E-02	1.09E-02	5.71E-01	7.49E-01
28	28.44 Sec	276	1.65E-01	1.18E-01	1.59E-02	9.06E-01	1.37E+00
29	42.67 Sec	156	3.64E-01	2.89E-01	3.27E-02	1.57E+00	2.29E+00
30	56.89 Sec	180	6.08E-01	4.34E-01	4.68E-02	2.12E+00	3.36E+00
31	85.33 Sec	120	9.28E-01	9.59E-01	8.14E-02	3.01E+00	3.65E+00
32	113.78 Sec	120	7.31E-01	9.77E-01	1.10E-01	2.37E+00	2.21E+00
33	170.67 Sec	42	1.77E+00	1.09E+00	1.96E-01	2.26E+00	4.06E+00
34	227.56 Sec	24	1.43E+00	1.99E+00	2.80E-01	3.38E+00	3.03E+00
35	341.33 Sec	21	2.38E+00	2.71E+00	4.88E-01	3.46E+00	3.64E+00
36	455.11 Sec	21	4.79E+00	4.81E+00	1.05E+00	4.54E+00	5.53E+00
37	682.67 Sec	6	6.46E+00	1.16E+01	1.23E+00	9.41E+00	6.00E+00
38	910.22 Sec	9	1.21E+01	6.56E+00	1.71E+00	7.84E+00	1.12E+01
39	1365.33 Sec	3	1.57E+01	1.01E+01	3.06E+00	9.68E+00	1.27E+01
40	1820.44 Sec	3	4.13E+01	1.38E+01	9.72E+00	2.04E+01	3.02E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	439	.907	.835	.019	.676	.807
2	288.00 Hz	252	.869	.593	.025	.658	.963
3	192.00 Hz	478	.888	.726	.003	.723	.818
4	144.00 Hz	384	.972	.909	.058	.961	.992
5	96.00 Hz	384	.956	.911	.016	.978	.974
6	72.00 Hz	192	.982	.878	.051	.859	.877
7	48.00 Hz	384	.939	.884	.006	.946	.911
8	36.00 Hz	576	.955	.888	.004	.954	.917
9	24.00 Hz	480	.978	.806	.007	.968	.969
10	18.00 Hz	576	.987	.950	.062	.942	.918
11	12.00 Hz	384	.976	.969	.003	.983	.907
12	9.00 Hz	576	.987	.978	.000	.982	.920
13	6.00 Hz	576	.974	.940	.002	.911	.774
14	4.50 Hz	96	.971	.926	.038	.970	.799
15	3.00 Hz	13422	.967	.953	.001	.227	.700
16	2.25 Hz	15950	.975	.956	.001	.198	.672
17	1.50 Hz	7974	.986	.965	.000	.198	.723
18	1.13 Hz	7702	.986	.929	.000	.254	.711
19	1.33 Sec	2603	.981	.955	.001	.199	.714
20	1.78 Sec	4859	.984	.861	.000	.091	.530
21	2.67 Sec	632	1.000	.839	.005	.243	.754
22	3.56 Sec	1316	.997	.811	.007	.309	.574
23	5.33 Sec	1084	.997	.967	.003	.568	.795
24	7.11 Sec	964	.996	.997	.002	.775	.708
25	10.67 Sec	558	.996	.993	.001	.843	.879
26	14.22 Sec	546	.997	.982	.012	.883	.991
27	21.33 Sec	246	1.000	.996	.050	.923	.994
28	28.44 Sec	276	1.000	.999	.002	.939	.976
29	42.67 Sec	156	1.000	1.000	.040	.989	.997
30	56.89 Sec	180	1.000	.999	.006	.951	.997
31	85.33 Sec	120	1.000	1.000	.019	.968	.996
32	113.78 Sec	120	1.000	1.000	.005	.912	.986
33	170.67 Sec	42	.999	1.000	.042	.959	.996
34	227.56 Sec	24	1.000	1.000	.049	.982	.991
35	341.33 Sec	21	.997	1.000	.053	.962	.986
36	455.11 Sec	21	.999	1.000	.184	.950	.987
37	682.67 Sec	6	1.000	.999	.464	.996	.996
38	910.22 Sec	9	.999	.990	.074	.975	.990
39	1365.33 Sec	3	1.000	1.000	.403	.927	.999
40	1820.44 Sec	3	1.000	1.000	.232	.991	.999

PHOENIX GEOSCIENCE

MT Site: MDLK89-048E

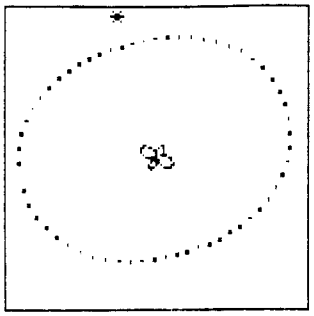
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

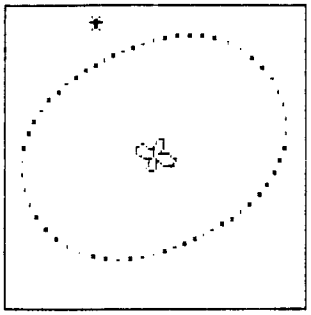
*=Rotation Direction

Zxy = ...
Zxx = ___

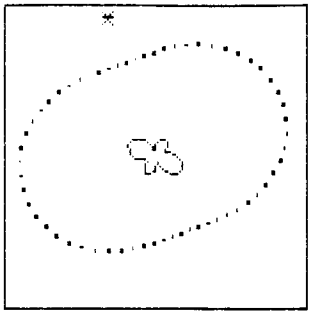
F=8 (36.0 Hz)



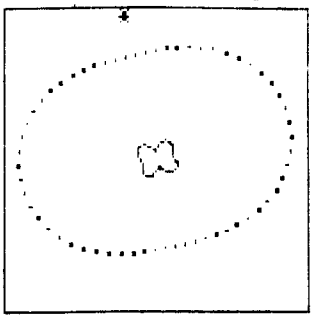
F=10 (18.0 Hz)



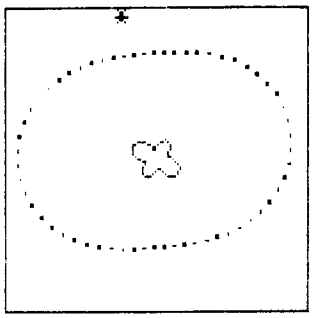
F=12 (9.0 Hz)



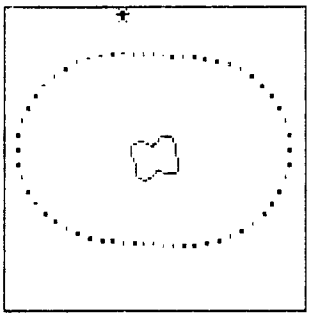
F=14 (4.5 Hz)



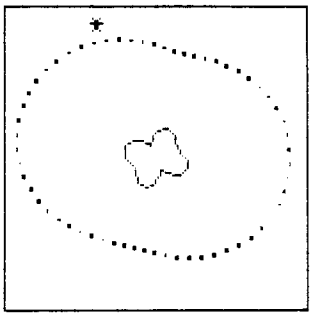
F=16 (2.3 Hz)



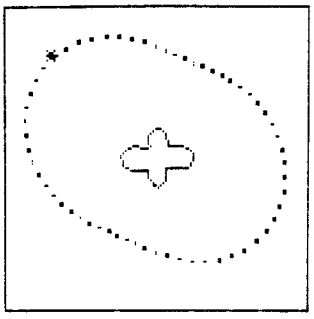
F=18 (1.1 Hz)



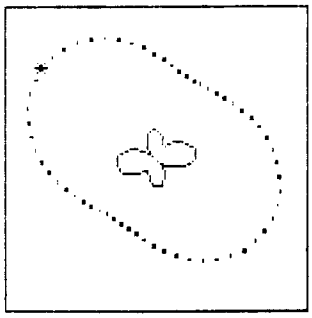
F=20 (.5625 Hz)



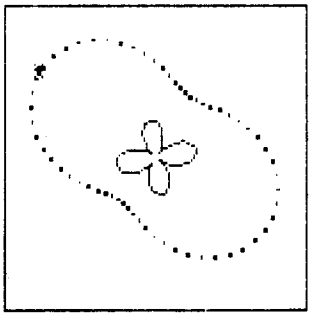
F=22 (.2813 Hz)



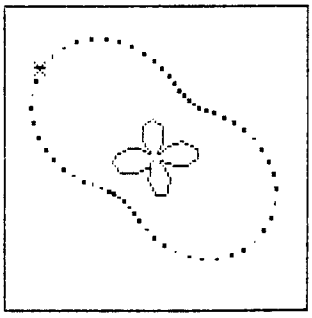
F=24 (.1406 Hz)



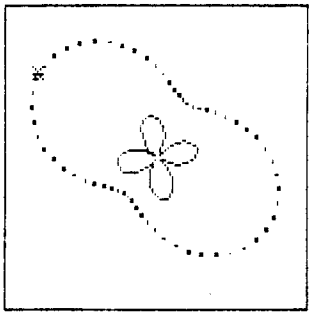
F=26 (.0703 Hz)



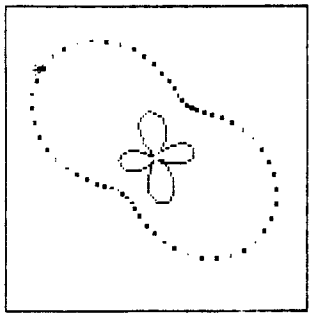
F=28 (.0352 Hz)



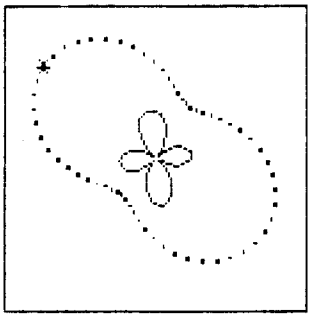
F=30 (.0176 Hz)



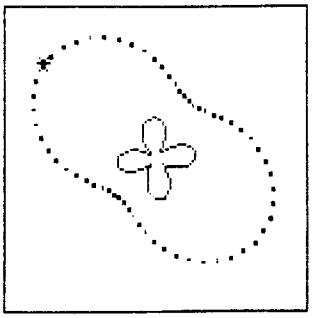
F=32 (.0088 Hz)



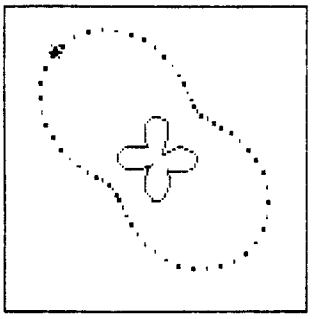
F=34 (.0044 Hz)



F=36 (.0022 Hz)



F=38 (.0011 Hz)



PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

MAGNETOTELLURIC SURVEY REPORT

Run Information

Project:MEDICINE LAKE, CA.
Client:UNOCAL GEOTHERMAL
Run:MDLK89-014f/049s/

Operator:M. SNOW
Date: 15 Sep 1989
Time: 14:36:19

Program Version:MT_SYSTEM
Latest Revision:11 Sep 1987

Reference Field: 4 = Rem H Ref
XPR Weighting: RHO VAR STN
XPR Recording Hi Passes: 3
XPR Recording Lo Stacks: 1500
Notch Filters: 60,180,300 Hz
Digitizer: D206

System Calibration Files

Digitizer: D#206-15Aug89-15
SP--Stn01: B#507-15Aug89-05
SP--Stn02: B#335-15Aug89-05
Sens-Ch01: C#431-16Aug89-01
Sens-Ch02: C#452-16Aug89-01
Sens-Ch03: L#005-29May89-01
Sens-Ch06: C#445-05Sep89-01
Sens-Ch07: C#205-05Sep89-01
Sens-Ch08: L#405-02Jul89-01

Station 2

Stn Number:MDLK89-049s
Site Desc:T43N R4E
41,34,47 N 121,32,19 W
Elevation:7000 FT
Reference:MDLK89-014s
Rotation: Principal Axes
Site Permitted by:UNOCAL
Site Layout by: MR. T. ELDRIDGE
Sensor Processor: SE335
SP Box Gains:H= 0dB E= 0dB

MT Comp	Chan#	Sensor	Azimuth
Hx	6	COIL445	+45 DEG
Hy	7	COIL205	+135 DEG
Hz	8	LOOP405	
Ex	9	180 M	+45 DEG
Ey	10	180 M	+135 DEG
Rx	1	COIL431	+45 DEG
Ry	2	COIL452	+135 DEG

Ex Pot Resist: 23.0K Ohms
Ex Voltage: AC=10.3 mv, DC=3.50 mv
Ey Pot Resist: 27.0K Ohms
Ey Voltage: AC=6.50 mv, DC=103.7 mv

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

OPERATOR LOG FOR MT SITES MDLK89-014s/049s/
Summarized Run Chronologies

Run Start and Stop Time for MDLK89-014a/049a/

Run STARTED:	14:36:19	15 Sep 1989
Run QUIT:	22:00:19	15 Sep 1989

Run Start and Stop Time for MDLK89-014b/049b/

Run STARTED:	22:22:55	15 Sep 1989
Run QUIT:	04:26:59	16 Sep 1989

Operator:M. SNOW

Cultural Factors:
NONE
Weather Conditions:
CLEAR AND MILD
Other Factors:
NONE

PHOENIX GEOSCIENCE

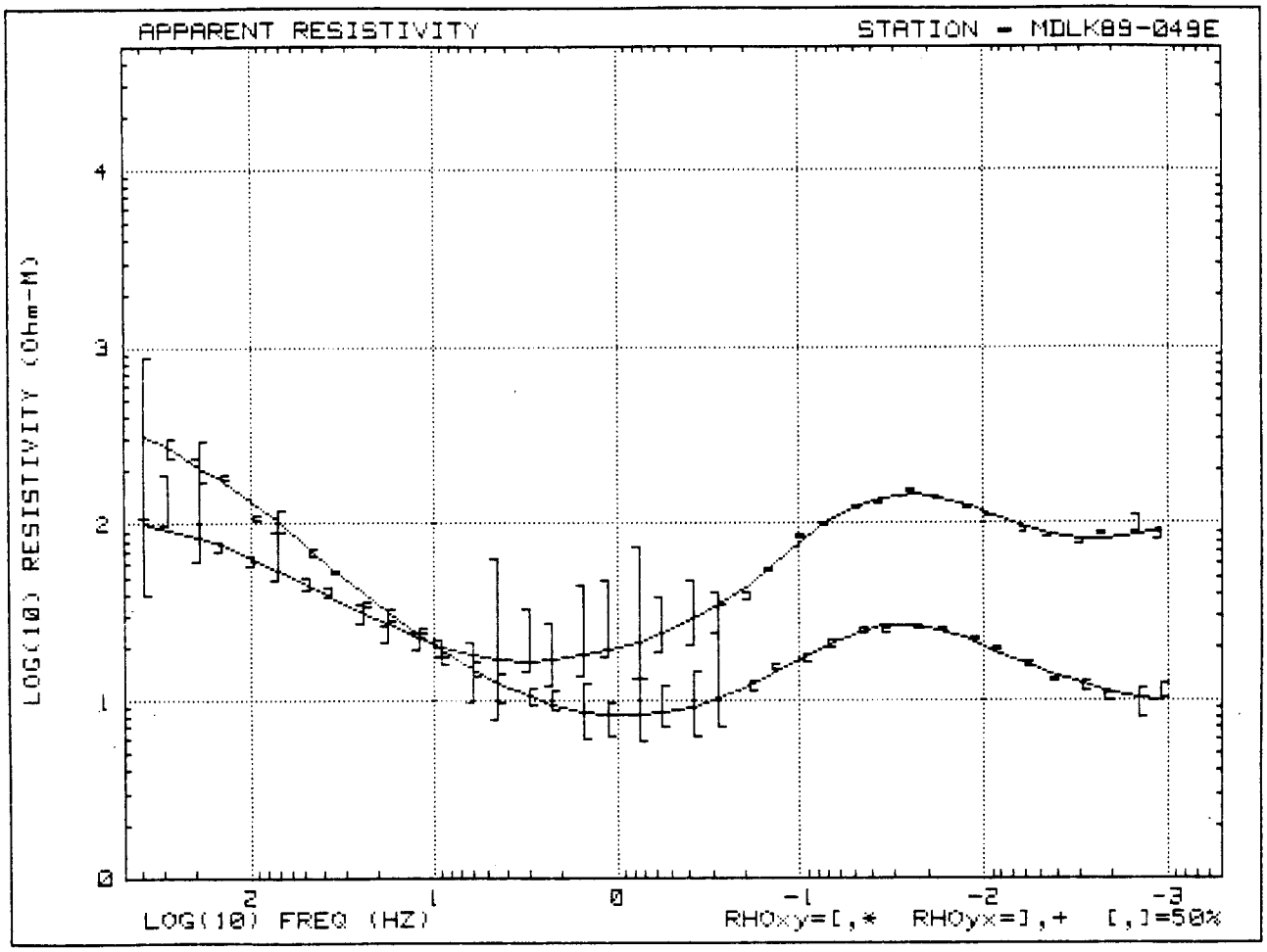
MT Site: MDLK89-049E

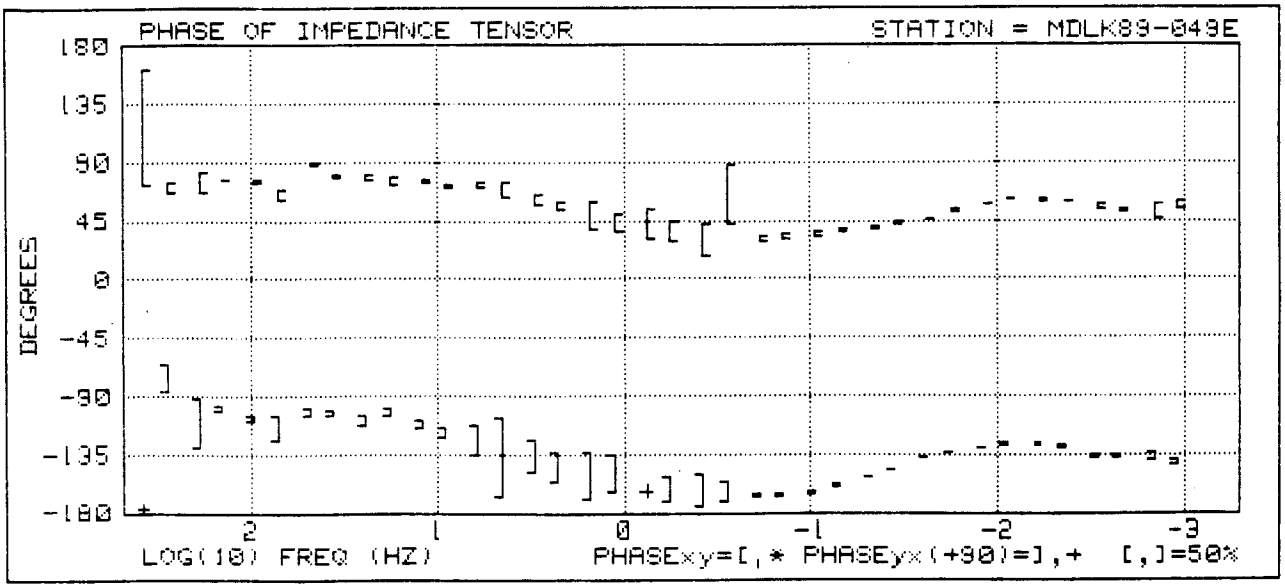
MT SYSTEM PARAMETERS

BAND	F#	DEC LEVEL	HARMONIC	FREQUENCY	PERIOD	CLOCK RATE(Hz)
1	1	0	8th	384.00	.00260	1536.0
1	2	0	6th	288.00	.00347	1536.0
2	3	0	8th	192.00	.00521	768.0
2	4	0	6th	144.00	.00694	768.0
3	5	0	8th	96.00	.01042	384.0
3	6	0	6th	72.00	.01389	384.0
4	7	0	8th	48.00	.02083	192.0
4	8	0	6th	36.00	.02778	192.0
5	9	0	8th	24.00	.04167	96.0
5	10	0	6th	18.00	.05556	96.0
6	11	0	8th	12.00	.08333	48.0
6	12	0	6th	9.00	.11111	48.0
7	13	0	8th	6.00	.16667	24.0
7	14	0	6th	4.50	.22222	24.0
8	15	0	8th	3.00	.33333	12.0
8	16	0	6th	2.25	.44444	12.0
9	17	1	8th	1.50	.66667	12.0
9	18	1	6th	1.13	.88889	12.0
10	19	2	8th	.75000	1.33	12.0
10	20	2	6th	.56250	1.78	12.0
11	21	3	8th	.37500	2.67	12.0
11	22	3	6th	.28125	3.56	12.0
12	23	4	8th	.18750	5.33	12.0
12	24	4	6th	.14063	7.11	12.0
13	25	5	8th	.09375	10.67	12.0
13	26	5	6th	.07031	14.22	12.0
14	27	6	8th	.04688	21.33	12.0
14	28	6	6th	.03516	28.44	12.0
15	29	7	8th	.02344	42.67	12.0
15	30	7	6th	.01758	56.89	12.0
16	31	8	8th	.01172	85.33	12.0
16	32	8	6th	.00879	113.78	12.0
17	33	9	8th	.00586	170.67	12.0
17	34	9	6th	.00439	227.56	12.0
18	35	10	8th	.00293	341.33	12.0
18	36	10	6th	.00220	455.11	12.0
19	37	11	8th	.00146	682.67	12.0
19	38	11	6th	.00110	910.22	12.0
20	39	12	8th	.00073	1365.33	12.0
20	40	12	6th	.00055	1820.44	12.0

PHOENIX GEOSCIENCE

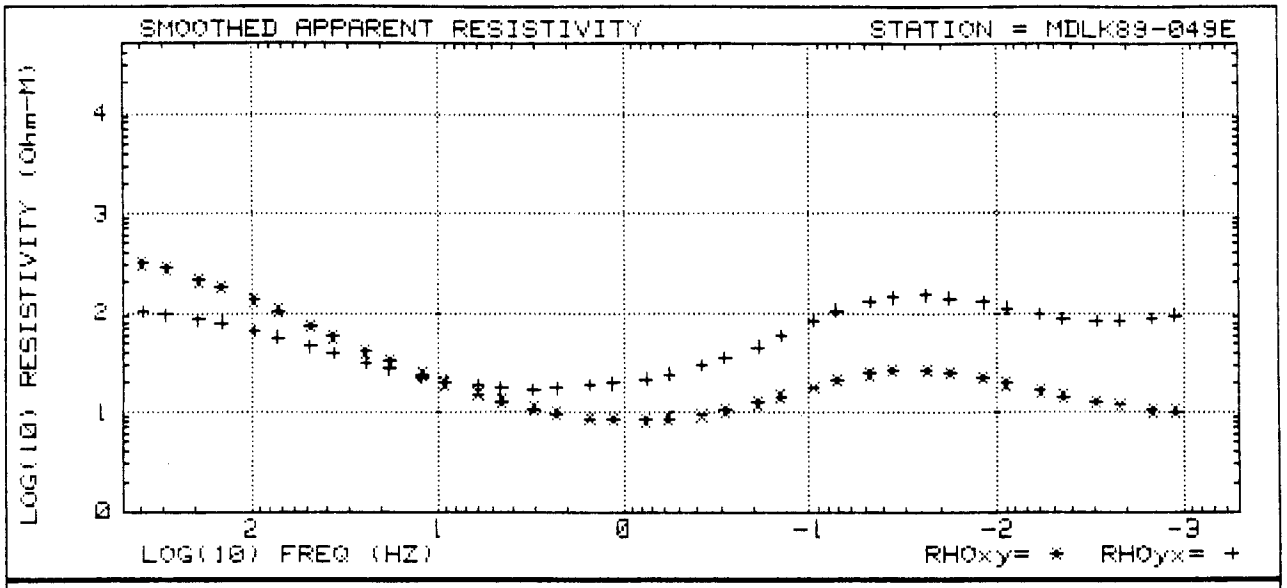
MT Site: MDLK89-049E

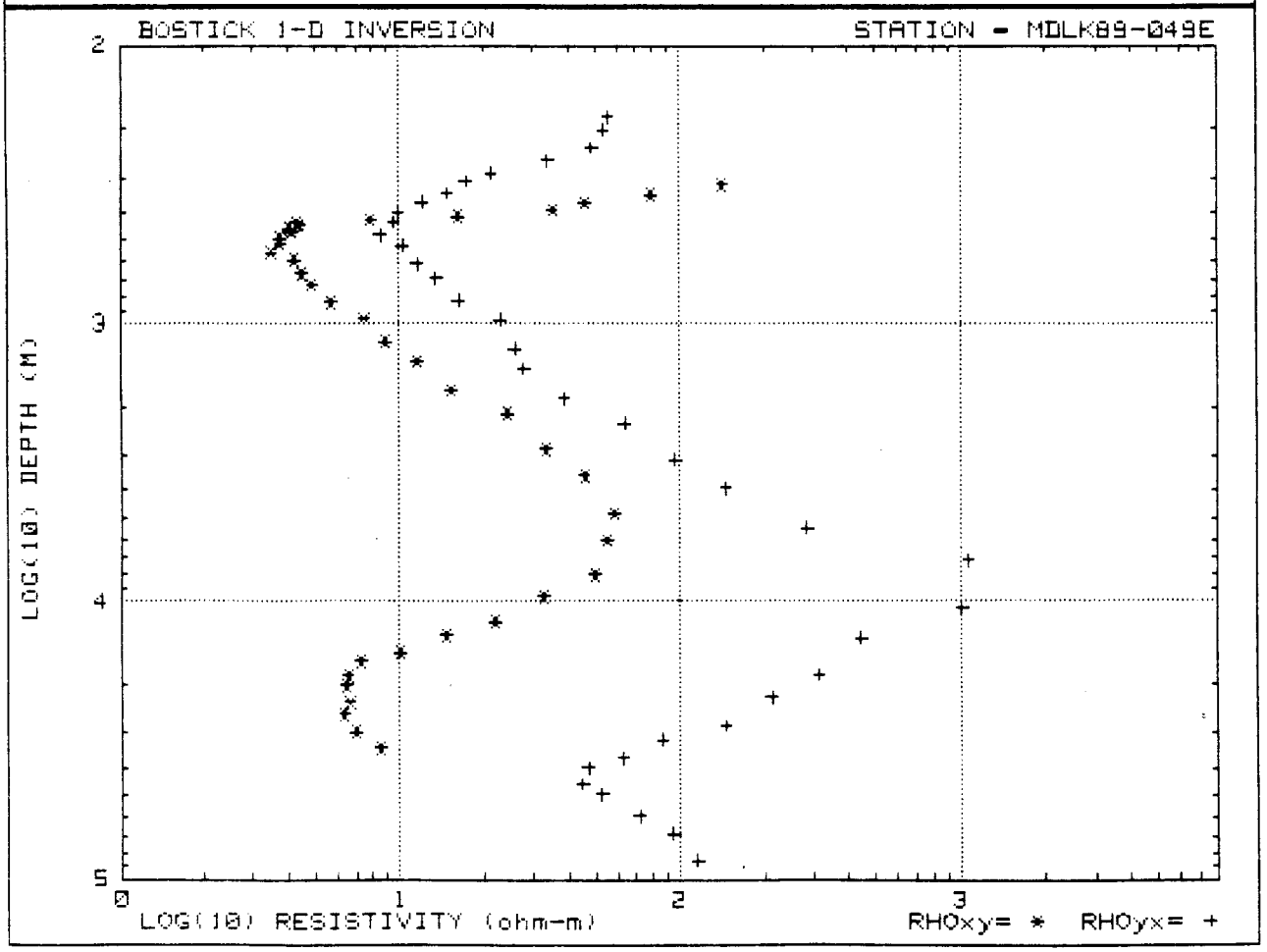




PHOENIX GEOSCIENCE

MT Site: MDLK89-049E





PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

APPARENT RESISTIVITY ESTIMATES

F#	Frq/Prd	STACKS	RHOxy	%SD	RHOyx	%SD	PHAxy	%SD	PHAyx	%SD
1	384.00 Hz	510	187.3	99.9	105.4	99.9	116.6	65.9	-177.5	99.9
2	288.00 Hz	192	269.7	20.8	136.3	66.0	71.1	5.4	-75.5	14.5
3	192.00 Hz	189	223.4	47.1	118.9	99.9	74.8	11.0	-110.4	28.8
4	144.00 Hz	285	183.6	3.4	75.2	9.8	76.7	1.0	-99.7	2.7
5	96.00 Hz	288	108.6	5.0	61.2	9.4	76.4	1.4	-106.5	2.6
6	72.00 Hz	96	102.7	22.7	65.2	59.4	65.1	5.9	-114.0	13.4
7	48.00 Hz	288	68.2	6.0	45.6	13.9	89.4	1.7	-101.5	3.7
8	36.00 Hz	672	53.3	3.3	40.7	10.2	79.6	.9	-103.4	2.8
9	24.00 Hz	384	34.8	6.1	31.1	20.8	78.3	1.7	-109.3	5.4
10	18.00 Hz	479	30.2	11.9	23.8	16.2	75.6	3.2	-102.9	4.3
11	12.00 Hz	576	24.8	4.2	21.6	18.2	74.9	1.2	-111.2	4.8
12	9.00 Hz	480	16.7	6.9	19.8	17.3	71.8	1.9	-118.1	4.6
13	6.00 Hz	192	15.1	12.9	14.3	80.5	73.0	3.5	-123.5	16.9
14	4.50 Hz	192	11.8	30.6	22.1	99.9	68.8	7.6	-136.9	45.0
15	3.00 Hz	2528	10.4	18.3	21.8	85.3	61.4	4.8	-136.4	17.7
16	2.25 Hz	8416	9.9	20.7	18.0	81.7	56.5	5.4	-145.1	17.1
17	1.50 Hz	2512	8.7	68.8	24.7	99.9	49.1	15.0	-151.1	25.5
18	1.13 Hz	2944	7.8	40.8	29.0	99.9	43.1	9.8	-148.8	21.4
19	1.33 Sec	2943	9.0	83.6	31.8	99.9	42.0	17.4	-163.7	36.7
20	1.78 Sec	399	9.3	48.2	26.6	69.3	36.4	11.3	-161.6	15.1
21	2.67 Sec	296	9.5	88.6	31.4	84.9	30.8	18.2	-162.4	17.6
22	3.56 Sec	200	15.9	99.9	31.5	47.1	64.7	33.8	-163.0	11.1
23	5.33 Sec	780	12.1	10.6	39.1	5.4	31.8	2.9	-166.6	1.5
24	7.11 Sec	775	15.5	7.1	55.1	2.6	33.3	2.0	-166.0	.7
25	10.67 Sec	341	17.3	8.4	84.1	2.5	35.4	2.3	-164.0	.7
26	14.22 Sec	383	20.9	5.2	99.0	1.7	36.8	1.5	-158.9	.5
27	21.33 Sec	216	24.5	5.1	123.1	1.6	40.4	1.4	-152.1	.5
28	28.44 Sec	237	24.8	5.4	131.4	2.3	43.5	1.5	-146.4	.6
29	42.67 Sec	243	25.7	2.7	156.2	2.1	45.9	.8	-137.5	.6
30	56.89 Sec	216	25.1	2.3	142.6	1.2	52.9	.7	-133.4	.3
31	85.33 Sec	75	22.4	1.6	125.0	1.3	57.1	.4	-129.8	.4
32	113.78 Sec	111	19.8	3.3	111.2	2.1	61.3	.9	-126.9	.6
33	170.67 Sec	24	16.0	7.0	92.9	4.6	60.7	1.9	-126.7	1.3
34	227.56 Sec	30	13.2	3.3	83.9	1.4	59.2	.9	-128.8	.4
35	341.33 Sec	9	12.2	8.2	78.5	3.6	55.8	2.3	-136.0	1.0
36	455.11 Sec	24	10.6	7.0	87.7	3.7	53.1	1.9	-135.7	1.1
37	682.67 Sec	9	9.7	31.7	100.1	16.2	51.6	7.9	-136.4	4.3
38	910.22 Sec	6	11.4	13.7	86.6	7.2	56.5	3.7	-140.9	2.0

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

SMOOTHED APPARENT RESISTIVITY AND 1D INVERSION RESULTS

F#	Frq/Prd	STACKS	RHOxy	RHOyx	INV RHOxy	DEP	INV RHOyx	DEP
1	384.00 Hz	510	307.3	101.2	143.9	318	56.1	183
2	288.00 Hz	192	276.9	93.2	80.0	349	53.8	202
3	192.00 Hz	189	209.6	84.1	46.5	372	49.0	235
4	144.00 Hz	285	178.0	77.6	35.4	396	34.3	261
5	96.00 Hz	288	131.9	64.3	16.4	417	21.4	291
6	72.00 Hz	96	103.8	54.9	8.0	427	17.4	311
7	48.00 Hz	288	72.8	44.9	4.3	438	14.9	344
8	36.00 Hz	672	56.1	38.8	4.5	444	12.1	369
9	24.00 Hz	384	40.3	31.2	4.1	461	10.0	406
10	18.00 Hz	479	31.9	27.1	4.2	474	9.6	437
11	12.00 Hz	576	23.7	22.4	3.8	500	8.6	487
12	9.00 Hz	480	19.3	19.9	3.8	521	10.4	530
13	6.00 Hz	192	14.9	18.0	3.5	560	11.6	617
14	4.50 Hz	192	12.6	17.2	4.3	595	13.6	695
15	3.00 Hz	2528	10.6	16.6	4.5	669	16.4	837
16	2.25 Hz	8416	9.5	17.1	4.9	731	23.1	981
17	1.50 Hz	2512	8.5	18.4	5.8	847	25.9	1247
18	1.13 Hz	2944	8.3	19.2	7.6	968	28.0	1471
19	1.33 Sec	2943	8.2	20.9	8.9	1179	39.2	1881
20	1.78 Sec	399	8.6	23.7	11.6	1388	64.3	2311
21	2.67 Sec	296	9.1	28.8	15.5	1757	97.0	3121
22	3.56 Sec	200	10.2	34.5	24.6	2145	147.3	3943
23	5.33 Sec	780	12.2	44.3	33.6	2867	286.9	5472
24	7.11 Sec	775	14.1	57.4	46.0	3568	1074.9	7188
25	10.67 Sec	341	17.6	82.6	58.6	4873	1015.0	10566
26	14.22 Sec	383	20.5	103.4	55.4	6082	445.2	13645
27	21.33 Sec	216	24.2	127.3	50.0	8081	314.4	18544
28	28.44 Sec	237	26.1	138.6	33.1	9703	213.7	22349
29	42.67 Sec	243	26.2	147.5	22.0	11902	146.8	28236
30	56.89 Sec	216	24.6	138.4	14.8	13318	87.2	31578
31	85.33 Sec	75	22.1	126.0	10.1	15442	63.2	36907
32	113.78 Sec	111	19.0	110.0	7.3	16555	47.6	39808
33	170.67 Sec	24	16.2	95.8	6.6	18726	45.4	45509
34	227.56 Sec	30	14.2	85.9	6.5	20216	53.0	49751
35	341.33 Sec	9	12.5	81.3	6.7	23279	72.5	59292
36	455.11 Sec	24	11.5	82.5	6.4	25727	95.1	68970
37	682.67 Sec	9	10.3	85.4	7.0	29835	116.4	85930
38	910.22 Sec	6	10.1	91.8	8.6	34053	153.1	102864

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zxx,Zxy)

F#	Frq/Prd	STACKS	Zxx RE	Zxx IM	VARxx	Zxy RE	Zxy IM	VARxy
1	384.00 Hz	510	-257.92	144.03	999.99	-268.81	536.10	999.99
2	288.00 Hz	192	57.48	-25.16	999.99	202.08	589.47	999.99
3	192.00 Hz	189	-65.72	-45.66	999.99	121.55	446.86	999.99
4	144.00 Hz	285	-.78	4.01	305.68	83.93	353.77	75.28
5	96.00 Hz	288	2.64	3.59	255.23	53.82	221.92	63.13
6	72.00 Hz	96	-2.49	7.00	999.99	81.04	174.39	775.24
7	48.00 Hz	288	9.17	2.27	74.54	1.42	127.97	27.82
8	36.00 Hz	672	-3.98	-2.05	19.66	17.65	96.30	5.18
9	24.00 Hz	384	.15	-1.97	26.76	13.12	63.30	7.26
10	18.00 Hz	479	.21	-5.10	24.60	12.99	50.50	17.22
11	12.00 Hz	576	-.18	-2.15	1.92	10.07	37.23	1.25
12	9.00 Hz	480	1.94	-1.05	3.06	8.55	26.02	1.67
13	6.00 Hz	192	.43	-2.19	9.88	6.20	20.34	3.34
14	4.50 Hz	192	.95	.83	35.11	5.87	15.17	9.42
15	3.00 Hz	2528	-1.62	.84	5.11	5.99	10.99	2.21
16	2.25 Hz	8416	-.69	1.10	3.41	5.84	8.81	1.98
17	1.50 Hz	2512	-.29	1.01	15.24	5.30	6.12	8.97
18	1.13 Hz	2944	-1.03	.54	4.50	4.85	4.53	2.58
19	1.33 Sec	2943	-1.749	-.482	8.091	4.307	3.878	6.202
20	1.78 Sec	399	-.545	.335	3.801	4.129	3.041	2.032
21	2.67 Sec	296	-.223	-.129	2.960	3.621	2.161	3.580
22	3.56 Sec	200	1.237	.905	6.615	2.024	4.273	15.525
23	5.33 Sec	780	.165	-.200	.043	2.862	1.772	.058
24	7.11 Sec	775	.258	-.024	.012	2.760	1.816	.026
25	10.67 Sec	341	.458	-.044	.013	2.321	1.648	.026
26	14.22 Sec	383	.559	.076	.004	2.171	1.625	.010
27	21.33 Sec	216	.512	.114	.003	1.824	1.554	.007
28	28.44 Sec	237	.493	.102	.004	1.513	1.437	.006
29	42.67 Sec	243	.405	.202	.002	1.206	1.247	.001
30	56.89 Sec	216	.320	.209	.000	.896	1.185	.001
31	85.33 Sec	75	.253	.171	.000	.623	.962	.000
32	113.78 Sec	111	.228	.163	.001	.447	.818	.000
33	170.67 Sec	24	.138	.087	.002	.335	.598	.001
34	227.56 Sec	30	.124	.073	.000	.276	.462	.000
35	341.33 Sec	9	.122	.047	.001	.237	.349	.001
36	455.11 Sec	24	.094	.080	.000	.205	.272	.000
37	682.67 Sec	9	.104	.086	.004	.165	.209	.003
38	910.22 Sec	6	.064	.027	.000	.138	.209	.001

PHOENIX GEOSCIENCE

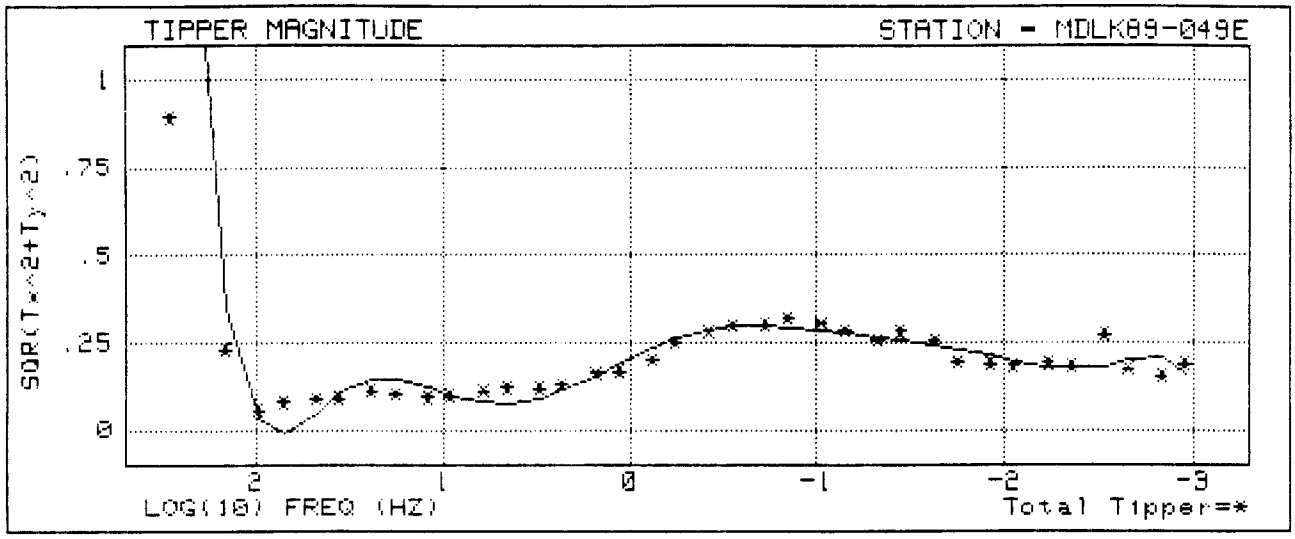
MT Site: MDLK89-049E

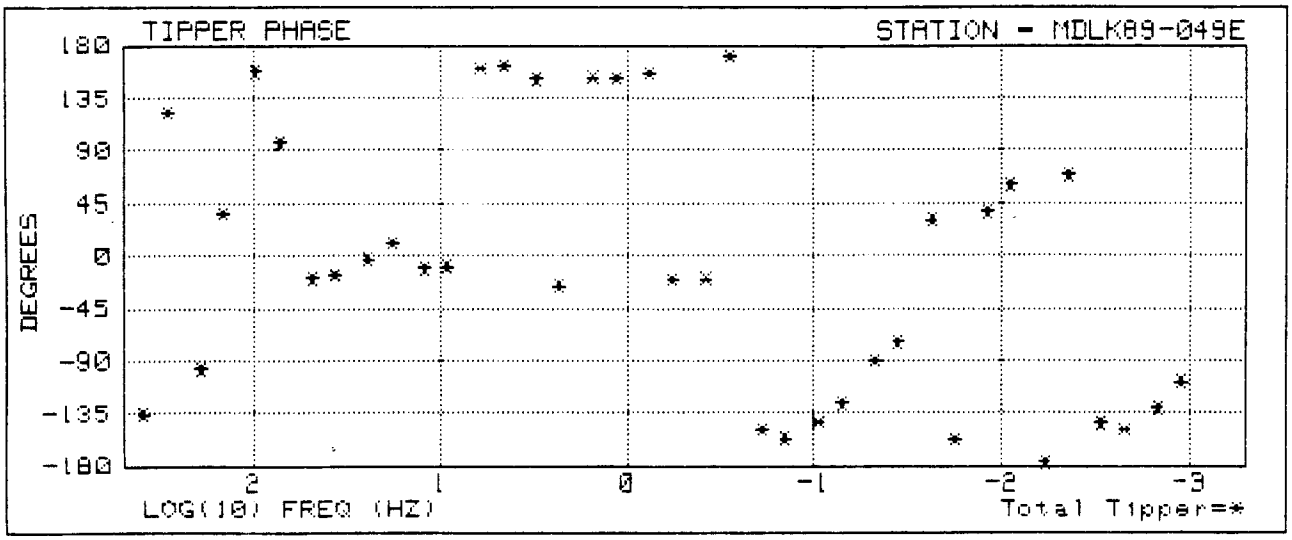
IMPEDANCE TENSOR ESTIMATES AND VARIANCES (Zyx,Zyy)

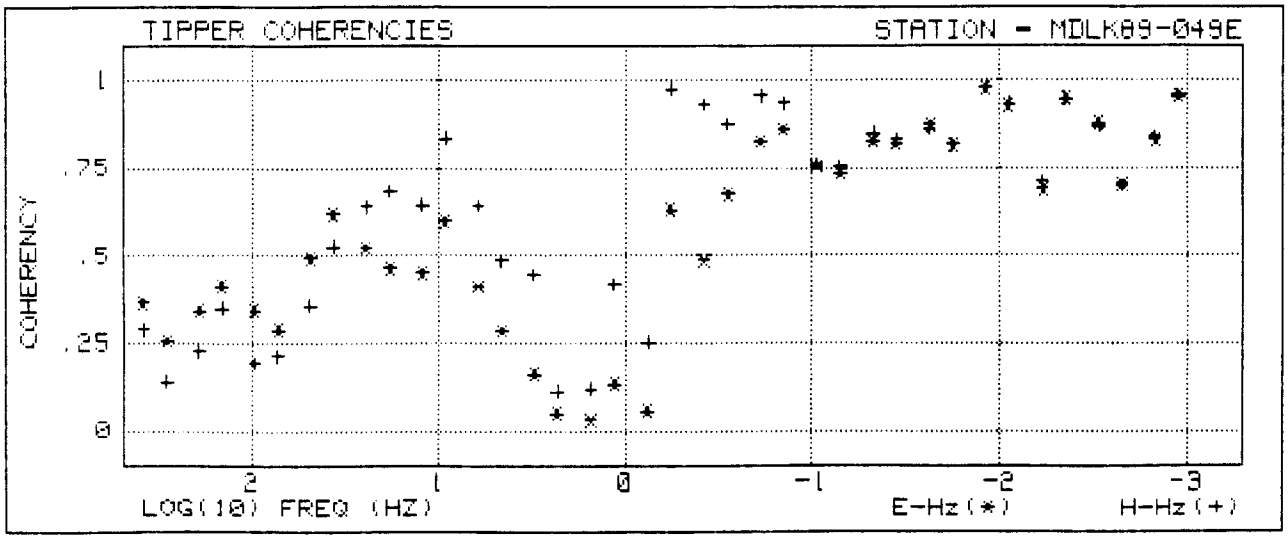
F#	Frq/Prd	STACKS	Zyx RE	Zyx IM	VARyx	Zyy RE	Zyy IM	VARyy
1	384.00 Hz	510	-449.43	-19.46	999.99	-470.56	-151.58	999.99
2	288.00 Hz	192	110.75	-428.96	999.99	60.98	-31.98	999.99
3	192.00 Hz	189	-117.99	-316.53	999.99	-21.14	-46.88	999.99
4	144.00 Hz	285	-39.09	-229.40	234.89	-14.82	9.07	57.85
5	96.00 Hz	288	-48.55	-164.43	119.62	-7.72	4.54	29.59
6	72.00 Hz	96	-62.23	-139.96	999.99	1.76	4.67	276.03
7	48.00 Hz	288	-20.91	-102.55	93.01	3.07	-2.41	34.71
8	36.00 Hz	672	-19.90	-83.30	34.63	-1.81	-1.67	9.12
9	24.00 Hz	384	-20.22	-57.62	66.29	.95	-.98	17.97
10	18.00 Hz	479	-10.32	-45.15	24.22	-1.10	-4.45	16.96
11	12.00 Hz	576	-13.04	-33.55	18.05	1.00	-1.20	11.75
12	9.00 Hz	480	-14.08	-26.31	11.31	1.92	-.59	6.16
13	6.00 Hz	192	-11.43	-17.28	74.88	.83	-1.52	25.31
14	4.50 Hz	192	-16.28	-15.25	613.20	.93	2.50	164.56
15	3.00 Hz	2528	-13.11	-12.48	62.33	-1.45	.02	26.92
16	2.25 Hz	8416	-11.68	-8.15	36.13	-.60	1.98	20.99
17	1.50 Hz	2512	-11.91	-6.57	73.32	-.36	1.97	43.18
18	1.13 Hz	2944	-10.93	-6.62	45.56	-.86	.05	26.15
19	1.33 Sec	2943	-10.487	-3.070	98.240	-1.608	.594	75.307
20	1.78 Sec	399	-8.214	-2.726	10.372	-.599	-.368	5.546
21	2.67 Sec	296	-7.315	-2.321	11.127	-.214	-.338	13.457
22	3.56 Sec	200	-6.371	-1.942	3.309	-.299	-1.959	7.767
23	5.33 Sec	780	-5.892	-1.404	.051	.060	-1.061	.069
24	7.11 Sec	775	-6.037	-1.507	.013	.149	-1.181	.028
25	10.67 Sec	341	-6.036	-1.728	.012	.472	-.695	.024
26	14.22 Sec	383	-5.506	-2.120	.005	.681	-.751	.012
27	21.33 Sec	216	-4.745	-2.516	.004	.648	-.297	.010
28	28.44 Sec	237	-4.003	-2.659	.006	.515	.055	.010
29	42.67 Sec	243	-3.152	-2.893	.004	.469	.126	.002
30	56.89 Sec	216	-2.433	-2.572	.001	.285	.248	.001
31	85.33 Sec	75	-1.734	-2.078	.001	.223	.200	.000
32	113.78 Sec	111	-1.327	-1.768	.001	.201	.188	.001
33	170.67 Sec	24	-.986	-1.323	.003	.070	.148	.001
34	227.56 Sec	30	-.850	-1.058	.000	.086	.110	.000
35	341.33 Sec	9	-.771	-.745	.001	.105	.069	.000
36	455.11 Sec	24	-.703	-.686	.001	.099	.073	.001
37	682.67 Sec	9	-.620	-.591	.008	.119	.068	.006
38	910.22 Sec	6	-.536	-.435	.001	.041	.066	.002

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E







PHOENIX GEOSCIENCE

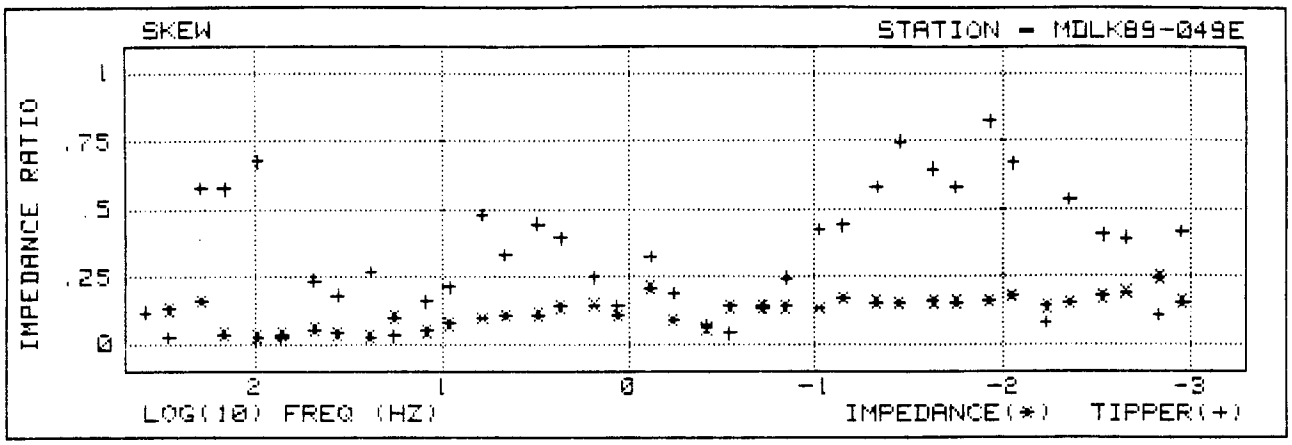
MT Site: MDLK89-049E

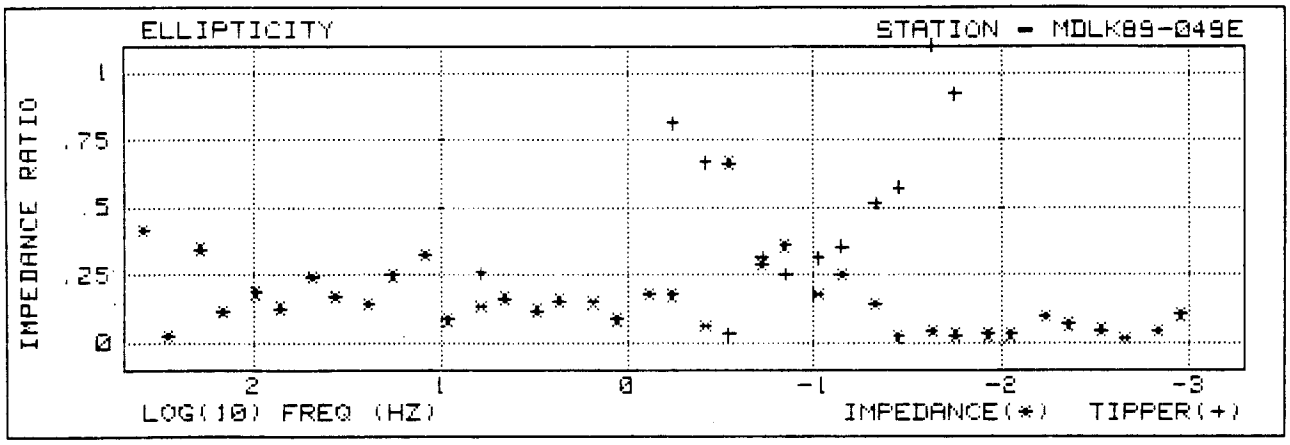
ESTIMATED TIPPER AMPLITUDE, PHASE AND COHERENCIES

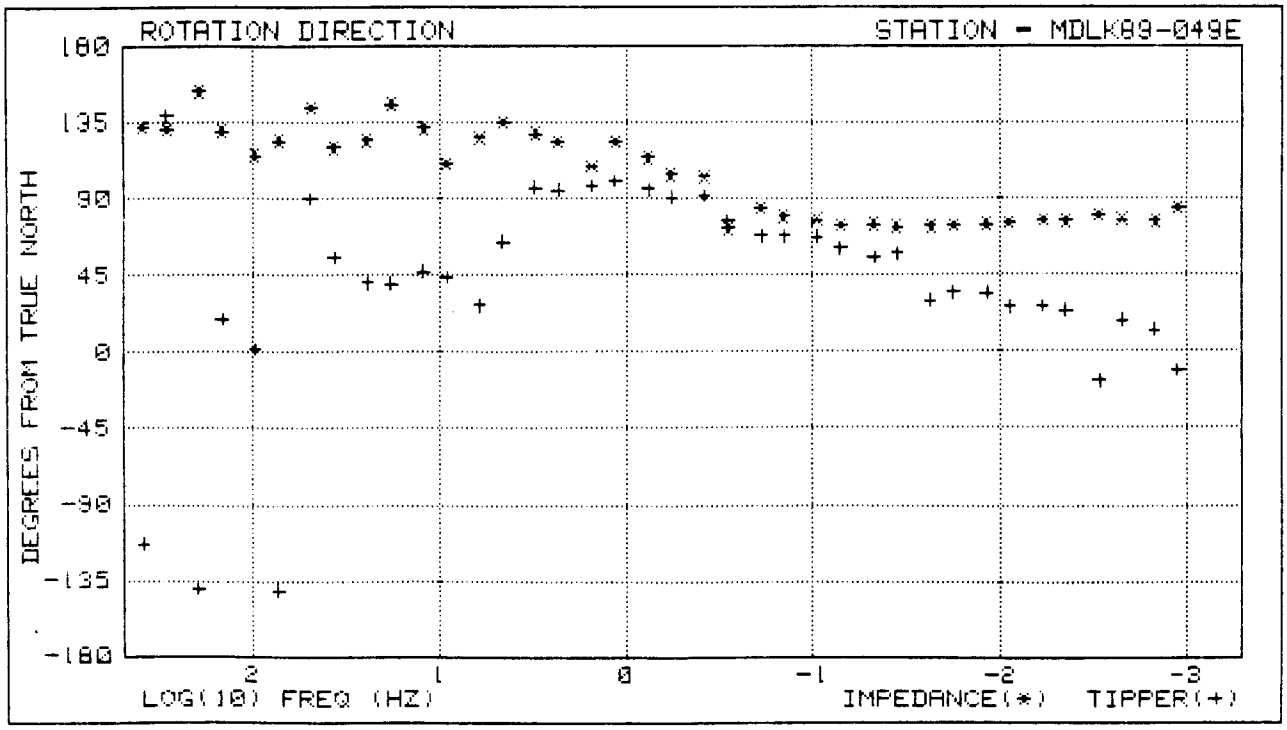
F#	Frq/Prd	STACKS	TIP MAG	TIP PHASE	E-Hz	H-Hz
1	384.00 Hz	510	41.24	-136.10	.36	.29
2	288.00 Hz	192	.89	121.74	.25	.14
3	192.00 Hz	189	1.31	-97.62	.34	.22
4	144.00 Hz	285	.23	35.36	.41	.35
5	96.00 Hz	288	.05	156.94	.34	.19
6	72.00 Hz	96	.08	95.41	.28	.21
7	48.00 Hz	288	.08	-20.28	.49	.35
8	36.00 Hz	672	.09	-17.54	.62	.52
9	24.00 Hz	384	.11	-3.80	.52	.64
10	18.00 Hz	479	.10	10.32	.46	.68
11	12.00 Hz	576	.09	-11.34	.45	.64
12	9.00 Hz	480	.09	-10.05	.60	.83
13	6.00 Hz	192	.11	159.33	.41	.64
14	4.50 Hz	192	.12	161.79	.28	.48
15	3.00 Hz	2528	.11	150.49	.16	.44
16	2.25 Hz	8416	.13	-27.15	.04	.11
17	1.50 Hz	2512	.16	151.62	.03	.12
18	1.13 Hz	2944	.16	151.02	.13	.41
19	1.33 Sec	2943	.20	155.09	.05	.25
20	1.78 Sec	399	.25	-21.64	.63	.97
21	2.67 Sec	296	.28	-20.63	.48	.93
22	3.56 Sec	200	.29	169.88	.67	.87
23	5.33 Sec	780	.30	-149.43	.82	.95
24	7.11 Sec	775	.32	-157.34	.86	.93
25	10.67 Sec	341	.30	-143.39	.75	.76
26	14.22 Sec	383	.28	-127.58	.73	.75
27	21.33 Sec	216	.25	-90.63	.82	.84
28	28.44 Sec	237	.28	-74.47	.81	.83
29	42.67 Sec	243	.25	30.07	.87	.86
30	56.89 Sec	216	.19	-158.03	.81	.81
31	85.33 Sec	75	.19	36.92	.97	.97
32	113.78 Sec	111	.18	60.11	.92	.93
33	170.67 Sec	24	.19	-177.75	.69	.71
34	227.56 Sec	30	.18	68.06	.94	.94
35	341.33 Sec	9	.27	-144.02	.87	.87
36	455.11 Sec	24	.17	-149.78	.70	.70
37	682.67 Sec	9	.15	-131.78	.83	.83
38	910.22 Sec	6	.19	-109.24	.95	.95

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E







PHOENIX GEOSCIENCE

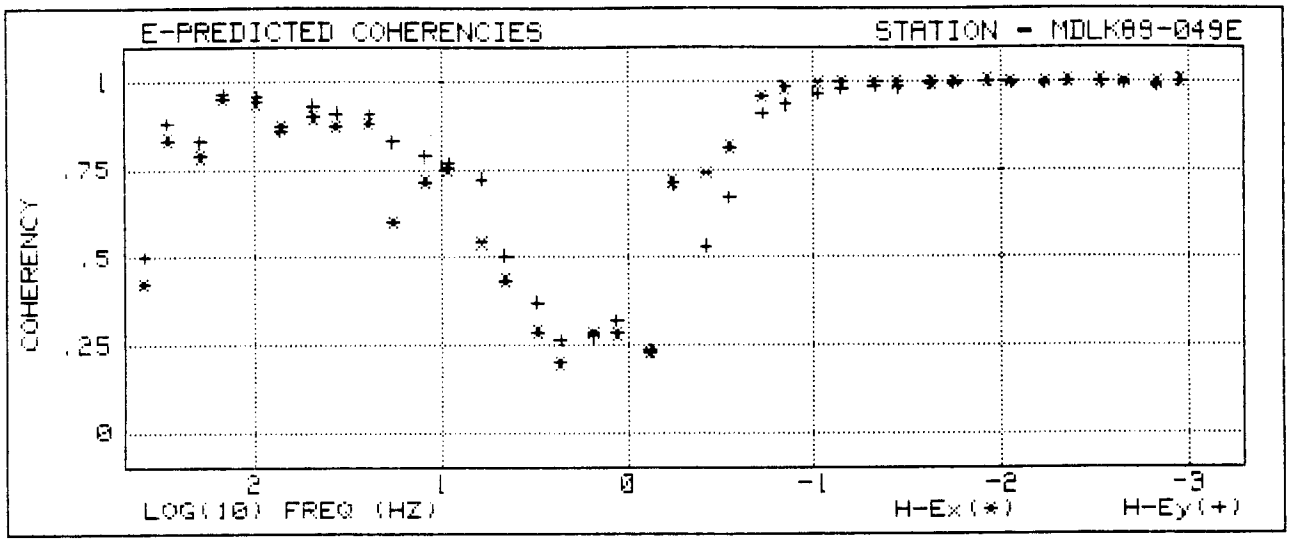
MT Site: MDLK89-049E

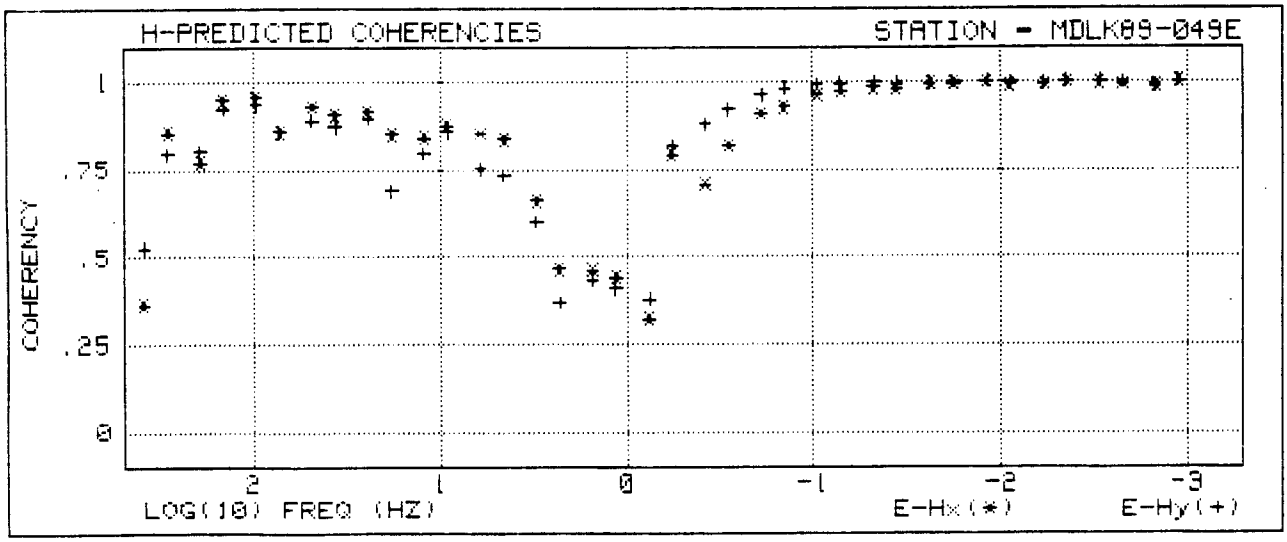
SKEW, ELLIPTICITY AND STRIKE

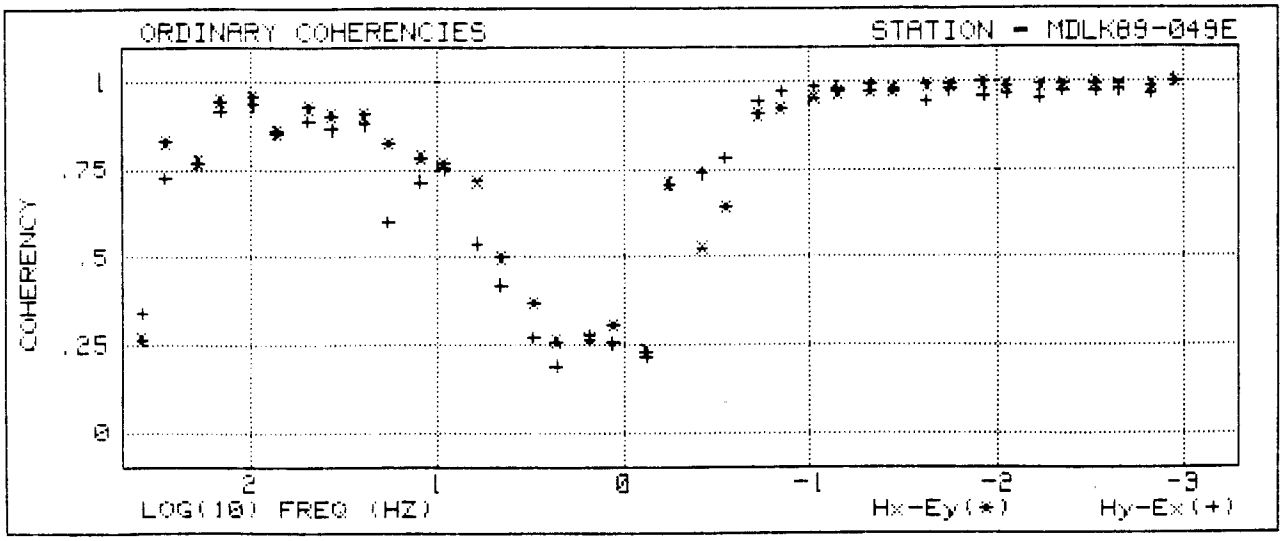
F#	Frq/Prd	STACKS	Z-SKW	Z-ELP	Z-STRK	T-SKW	T-ELP	T-STRK
1	384.00 Hz	510	1.25	.41	131.44	.12	2.15	-113.81
2	288.00 Hz	192	.13	.02	130.03	.02	2.64	137.99
3	192.00 Hz	189	.16	.34	152.49	.57	3.15	-140.25
4	144.00 Hz	285	.03	.11	129.03	.57	1.91	18.64
5	96.00 Hz	288	.02	.18	114.40	.67	2.47	1.29
6	72.00 Hz	96	.03	.12	123.29	.02	8.16	-141.36
7	48.00 Hz	288	.05	.24	143.22	.23	3.93	89.29
8	36.00 Hz	672	.04	.17	119.21	.18	6.01	54.94
9	24.00 Hz	384	.03	.14	123.70	.27	7.03	39.79
10	18.00 Hz	479	.10	.25	144.92	.03	3.39	39.46
11	12.00 Hz	576	.05	.32	131.19	.15	12.28	46.77
12	9.00 Hz	480	.07	.08	109.57	.21	3.19	43.46
13	6.00 Hz	192	.09	.13	125.16	.48	.25	26.78
14	4.50 Hz	192	.10	.16	134.32	.33	5.83	64.13
15	3.00 Hz	2528	.11	.12	127.78	.44	3.07	95.81
16	2.25 Hz	8416	.14	.15	122.79	.39	2.32	94.20
17	1.50 Hz	2512	.14	.15	108.32	.24	1.36	96.61
18	1.13 Hz	2944	.10	.08	122.85	.14	2.21	99.60
19	1.33 Sec	2943	.21	.17	113.38	.32	1.34	94.77
20	1.78 Sec	399	.08	.17	103.29	.18	.81	90.20
21	2.67 Sec	296	.05	.06	101.93	.07	.66	90.98
22	3.56 Sec	200	.14	.66	71.73	.04	.03	76.02
23	5.33 Sec	780	.14	.28	83.57	.13	.31	67.27
24	7.11 Sec	775	.14	.35	78.71	.24	.25	67.56
25	10.67 Sec	341	.13	.18	76.84	.42	.31	66.87
26	14.22 Sec	383	.17	.25	73.45	.43	.35	59.95
27	21.33 Sec	216	.15	.14	74.23	.57	.51	54.90
28	28.44 Sec	237	.15	.02	72.84	.74	.57	57.22
29	42.67 Sec	243	.16	.04	73.04	.64	1.09	29.42
30	56.89 Sec	216	.15	.03	73.84	.57	.92	33.90
31	85.33 Sec	75	.16	.03	74.30	.82	1.13	33.77
32	113.78 Sec	111	.18	.03	74.83	.66	1.31	25.41
33	170.67 Sec	24	.13	.09	76.57	.08	1.22	25.92
34	227.56 Sec	30	.15	.06	76.13	.53	1.41	23.51
35	341.33 Sec	9	.17	.04	79.28	.40	4.07	-17.76
36	455.11 Sec	24	.19	.01	77.07	.39	1.63	17.65
37	682.67 Sec	9	.24	.04	75.92	.10	2.03	12.03
38	910.22 Sec	6	.15	.10	83.65	.41	4.36	-11.47

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E







PHOENIX GEOSCIENCE

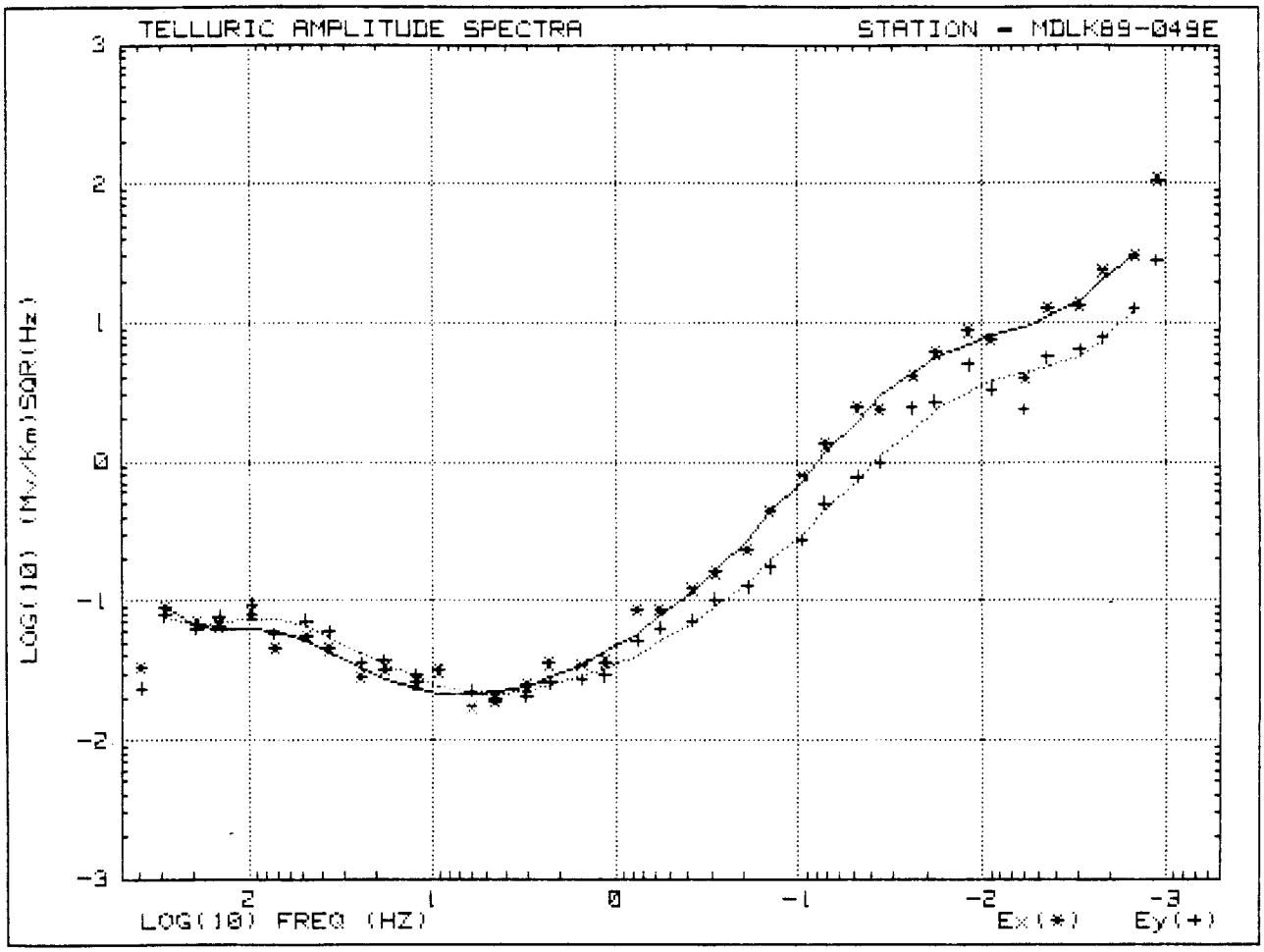
MT Site: MDLK89-049E

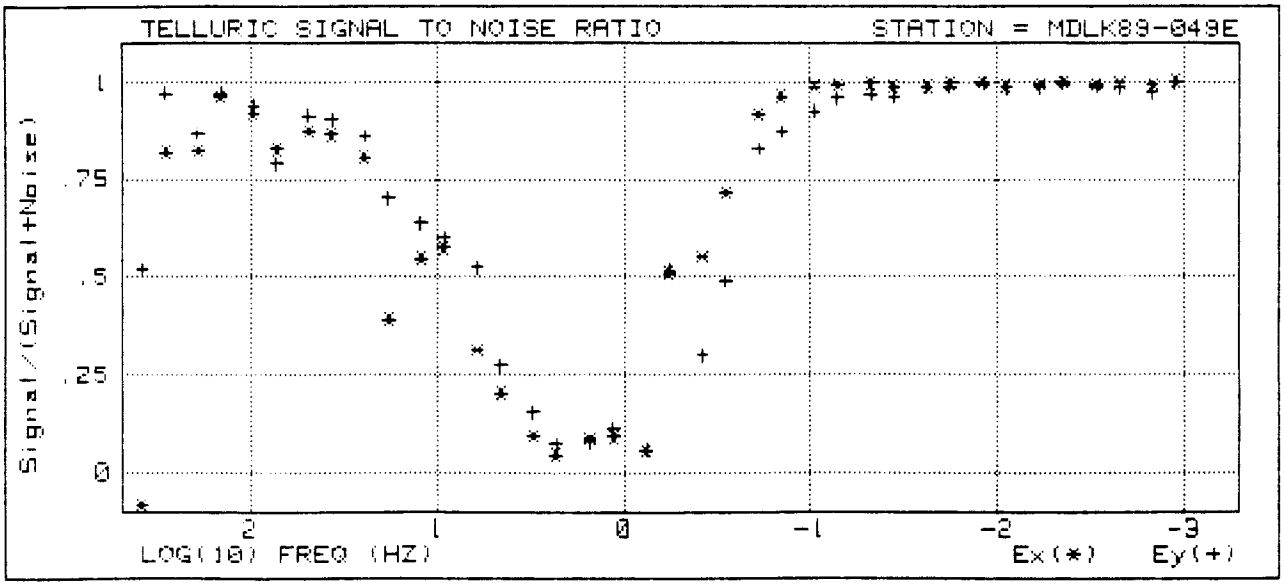
MULTIPLE AND ORDINARY COHERENCIES

F#	Frq/Prd	STACKS	H-Ex	H-Ey	E-Hx	E-Hy	Hx-Ey	Hy-Ex
1	384.00 Hz	510	.42	.50	.36	.52	.26	.34
2	288.00 Hz	192	.83	.88	.85	.79	.83	.72
3	192.00 Hz	189	.78	.83	.77	.80	.77	.77
4	144.00 Hz	285	.95	.96	.95	.92	.94	.91
5	96.00 Hz	288	.94	.95	.95	.93	.95	.93
6	72.00 Hz	96	.87	.86	.85	.85	.85	.85
7	48.00 Hz	288	.89	.93	.93	.89	.92	.88
8	36.00 Hz	672	.87	.91	.90	.87	.90	.86
9	24.00 Hz	384	.88	.90	.91	.89	.90	.87
10	18.00 Hz	479	.60	.83	.85	.69	.82	.60
11	12.00 Hz	576	.71	.78	.84	.79	.78	.71
12	9.00 Hz	480	.75	.77	.87	.85	.76	.75
13	6.00 Hz	192	.54	.72	.85	.75	.71	.54
14	4.50 Hz	192	.43	.50	.83	.73	.50	.42
15	3.00 Hz	2528	.28	.37	.66	.60	.37	.27
16	2.25 Hz	8416	.20	.26	.46	.37	.26	.19
17	1.50 Hz	2512	.28	.27	.46	.43	.26	.27
18	1.13 Hz	2944	.28	.32	.44	.41	.30	.25
19	1.33 Sec	2943	.23	.23	.32	.37	.23	.21
20	1.78 Sec	399	.71	.71	.79	.81	.71	.71
21	2.67 Sec	296	.74	.53	.70	.87	.52	.74
22	3.56 Sec	200	.81	.67	.81	.92	.64	.78
23	5.33 Sec	780	.95	.91	.91	.96	.90	.94
24	7.11 Sec	775	.98	.93	.92	.98	.92	.97
25	10.67 Sec	341	.99	.96	.96	.99	.95	.98
26	14.22 Sec	383	.99	.98	.97	.99	.96	.98
27	21.33 Sec	216	1.00	.98	.98	1.00	.97	.99
28	28.44 Sec	237	.99	.98	.98	.99	.97	.98
29	42.67 Sec	243	.99	.99	.99	.99	.99	.94
30	56.89 Sec	216	1.00	.99	.99	1.00	.99	.97
31	85.33 Sec	75	1.00	1.00	1.00	1.00	.99	.96
32	113.78 Sec	111	1.00	.99	.99	1.00	.98	.96
33	170.67 Sec	24	1.00	.99	.99	.99	.99	.95
34	227.56 Sec	30	1.00	1.00	1.00	1.00	.99	.97
35	341.33 Sec	9	1.00	.99	.99	1.00	.99	.97
36	455.11 Sec	24	1.00	.99	.99	1.00	.99	.97
37	682.67 Sec	9	.99	.99	.99	.99	.98	.96
38	910.22 Sec	6	1.00	1.00	1.00	1.00	1.00	1.00

PHOENIX GEOSCIENCE

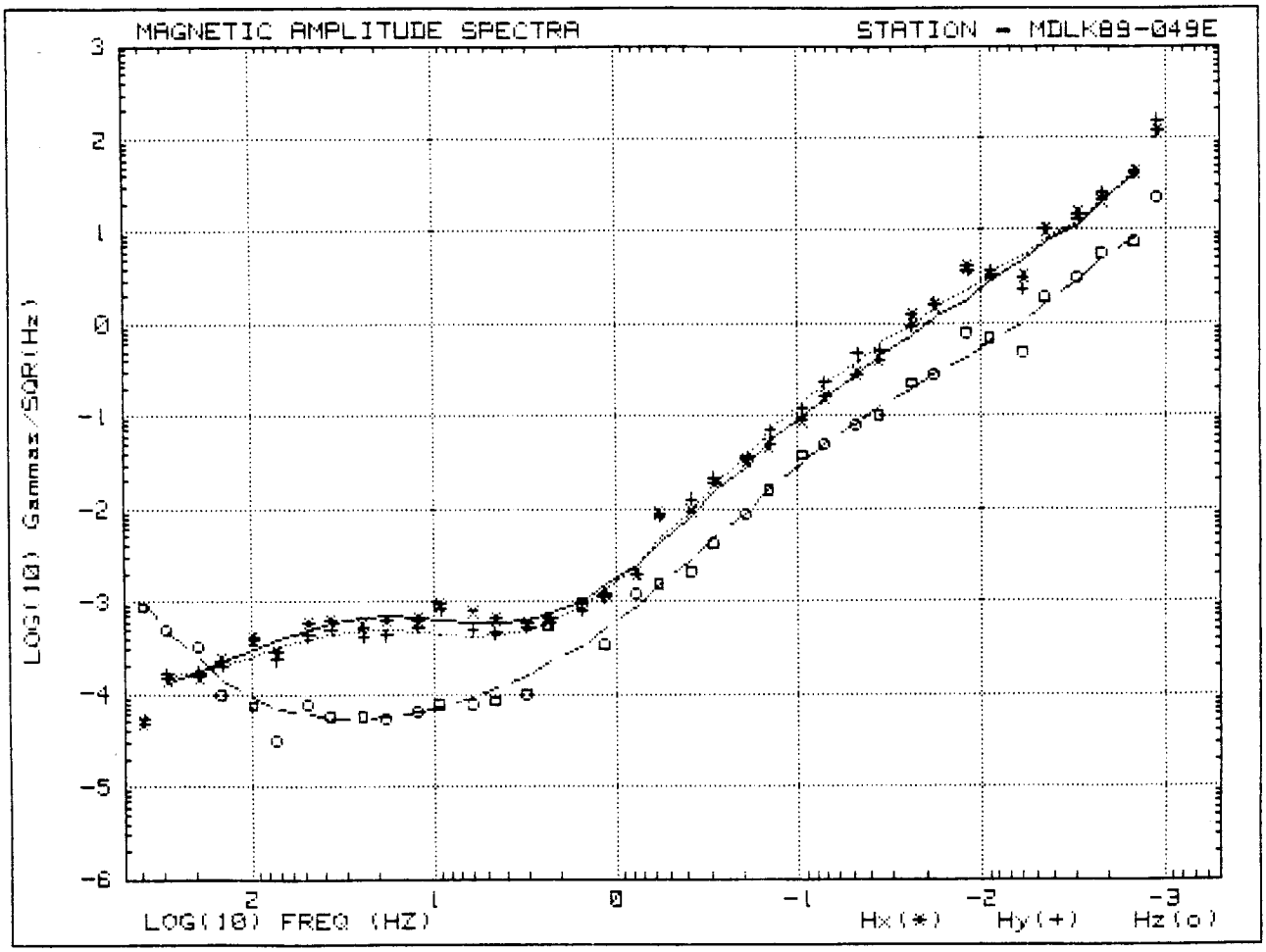
MT Site: MDLK89-049E

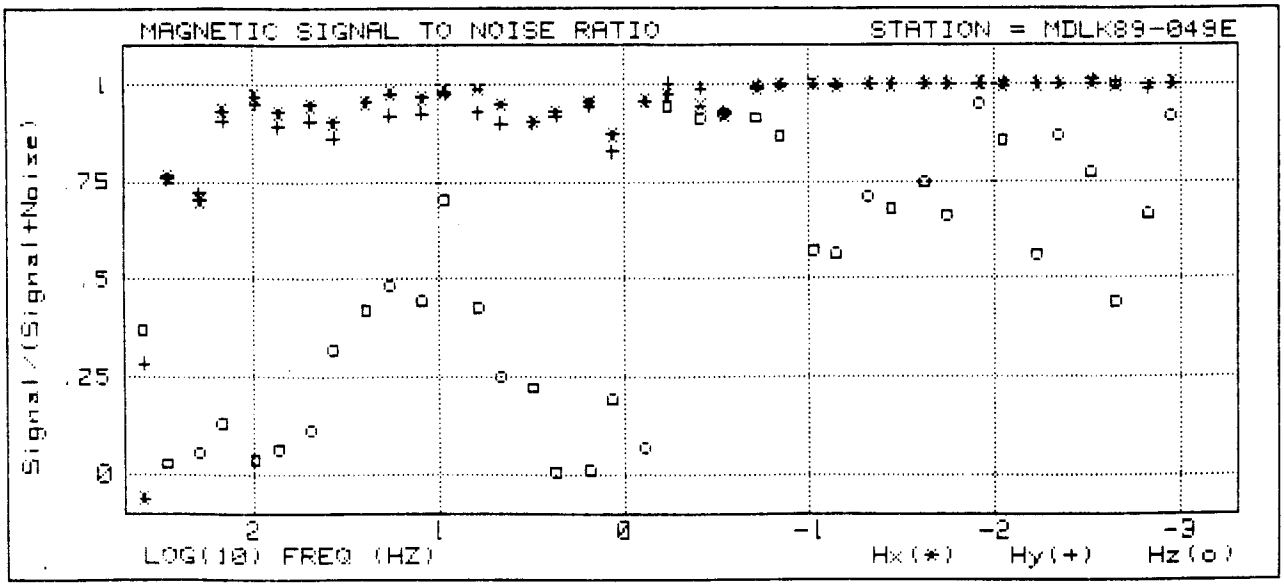




PHOENIX GEOSCIENCE

MT Site: MDLK89-049E





PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

SIGNAL AMP SPECTRA (Gam/SQR(Hz) Mv/Km/SQR(Hz))

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	510	4.83E-05	5.34E-05	9.25E-04	3.27E-02	2.32E-02
2	288.00 Hz	192	1.44E-04	1.66E-04	5.23E-04	8.75E-02	7.79E-02
3	192.00 Hz	189	1.55E-04	1.68E-04	3.38E-04	6.75E-02	6.21E-02
4	144.00 Hz	285	2.27E-04	1.98E-04	1.05E-04	6.49E-02	7.65E-02
5	96.00 Hz	288	3.97E-04	3.91E-04	7.94E-05	7.98E-02	9.36E-02
6	72.00 Hz	96	2.81E-04	2.35E-04	3.34E-05	4.50E-02	5.73E-02
7	48.00 Hz	288	5.80E-04	4.22E-04	8.26E-05	5.49E-02	7.07E-02
8	36.00 Hz	672	6.13E-04	4.87E-04	6.03E-05	4.41E-02	5.98E-02
9	24.00 Hz	384	5.24E-04	4.07E-04	6.02E-05	2.80E-02	3.51E-02
10	18.00 Hz	479	6.19E-04	4.24E-04	5.65E-05	3.20E-02	3.66E-02
11	12.00 Hz	576	6.34E-04	5.18E-04	6.75E-05	2.54E-02	2.91E-02
12	9.00 Hz	480	9.27E-04	8.11E-04	8.34E-05	3.09E-02	3.14E-02
13	6.00 Hz	192	7.70E-04	4.76E-04	8.19E-05	1.71E-02	2.21E-02
14	4.50 Hz	192	6.43E-04	4.50E-04	8.90E-05	1.89E-02	1.98E-02
15	3.00 Hz	2528	5.85E-04	5.20E-04	1.06E-04	2.43E-02	2.03E-02
16	2.25 Hz	8416	6.43E-04	5.79E-04	5.76E-04	3.50E-02	2.53E-02
17	1.50 Hz	2512	9.21E-04	8.05E-04	1.02E-03	3.42E-02	2.69E-02
18	1.13 Hz	2944	1.23E-03	1.11E-03	3.57E-04	3.60E-02	2.86E-02
19	1.33 Sec	2943	1.96E-03	1.94E-03	1.26E-03	8.50E-02	5.16E-02
20	1.78 Sec	399	8.77E-03	8.13E-03	1.62E-03	8.57E-02	6.26E-02
21	2.67 Sec	296	9.34E-03	1.25E-02	2.25E-03	1.20E-01	7.06E-02
22	3.56 Sec	200	1.88E-02	2.14E-02	4.41E-03	1.60E-01	1.01E-01
23	5.33 Sec	780	3.34E-02	3.65E-02	9.20E-03	2.30E-01	1.25E-01
24	7.11 Sec	775	4.77E-02	6.86E-02	1.66E-02	4.39E-01	1.71E-01
25	10.67 Sec	341	8.79E-02	1.19E-01	4.00E-02	7.99E-01	2.72E-01
26	14.22 Sec	383	1.59E-01	2.28E-01	5.22E-02	1.32E+00	4.97E-01
27	21.33 Sec	216	2.84E-01	4.67E-01	8.47E-02	2.39E+00	7.75E-01
28	28.44 Sec	237	4.05E-01	4.98E-01	1.07E-01	2.35E+00	9.81E-01
29	42.67 Sec	243	1.23E+00	9.34E-01	2.41E-01	4.06E+00	2.41E+00
30	56.89 Sec	216	1.54E+00	1.60E+00	2.93E-01	6.03E+00	2.66E+00
31	85.33 Sec	75	4.03E+00	3.66E+00	8.43E-01	8.66E+00	4.94E+00
32	113.78 Sec	111	3.20E+00	3.54E+00	7.38E-01	7.41E+00	3.27E+00
33	170.67 Sec	24	3.08E+00	2.24E+00	5.21E-01	3.91E+00	2.32E+00
34	227.56 Sec	30	9.77E+00	1.01E+01	1.98E+00	1.26E+01	5.55E+00
35	341.33 Sec	9	1.47E+01	1.30E+01	3.26E+00	1.31E+01	6.38E+00
36	455.11 Sec	24	2.02E+01	2.40E+01	5.91E+00	2.33E+01	7.61E+00
37	682.67 Sec	9	4.16E+01	4.04E+01	7.80E+00	3.02E+01	1.26E+01
38	910.22 Sec	6	1.14E+02	1.51E+02	2.37E+01	1.05E+02	2.76E+01

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

MAGNETIC & ELECTRIC SIGNAL TO NOISE RATIOS [Signal/(Signal+Noise)]

F#	Frq/Prd	STACKS	HX	HY	HZ	EX	EY
1	384.00 Hz	510	0.000	.282	.373	0.000	.520
2	288.00 Hz	192	.764	.756	.033	.817	.969
3	192.00 Hz	189	.699	.718	.062	.821	.866
4	144.00 Hz	285	.931	.903	.136	.959	.968
5	96.00 Hz	288	.969	.950	.039	.918	.937
6	72.00 Hz	96	.927	.889	.070	.825	.788
7	48.00 Hz	288	.945	.905	.119	.871	.912
8	36.00 Hz	672	.902	.862	.324	.864	.901
9	24.00 Hz	384	.953	.955	.425	.804	.860
10	18.00 Hz	479	.974	.917	.487	.389	.700
11	12.00 Hz	576	.964	.924	.449	.547	.636
12	9.00 Hz	480	.982	.974	.711	.574	.599
13	6.00 Hz	192	.985	.926	.433	.313	.524
14	4.50 Hz	192	.948	.899	.256	.200	.271
15	3.00 Hz	2528	.903	.902	.228	.092	.152
16	2.25 Hz	8416	.928	.915	.013	.042	.073
17	1.50 Hz	2512	.953	.944	.014	.084	.076
18	1.13 Hz	2944	.870	.826	.197	.090	.111
19	1.33 Sec	2943	.957	.953	.073	.054	.055
20	1.78 Sec	399	.971	.999	.947	.509	.514
21	2.67 Sec	296	.943	.988	.915	.551	.298
22	3.56 Sec	200	.921	.927	.930	.714	.489
23	5.33 Sec	780	.988	.993	.920	.916	.828
24	7.11 Sec	775	.993	.998	.874	.962	.873
25	10.67 Sec	341	1.000	.999	.579	.987	.924
26	14.22 Sec	383	.994	.997	.568	.991	.959
27	21.33 Sec	216	.999	.999	.716	.995	.965
28	28.44 Sec	237	.997	.999	.686	.988	.963
29	42.67 Sec	243	.999	1.000	.751	.988	.985
30	56.89 Sec	216	.998	.999	.668	.996	.988
31	85.33 Sec	75	1.000	1.000	.953	.997	.995
32	113.78 Sec	111	.994	1.000	.861	.988	.982
33	170.67 Sec	24	.996	1.000	.567	.992	.983
34	227.56 Sec	30	.998	1.000	.875	.999	.994
35	341.33 Sec	9	1.000	1.000	.776	.991	.986
36	455.11 Sec	24	.994	1.000	.445	.995	.984
37	682.67 Sec	9	.999	.986	.669	.992	.971
38	910.22 Sec	6	.999	.999	.925	.999	.996

PHOENIX GEOSCIENCE

MT Site: MDLK89-049E

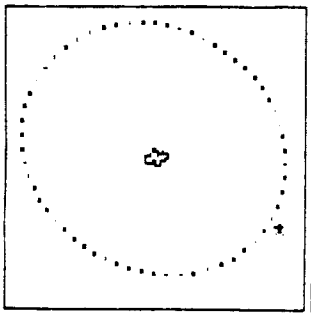
IMPEDANCE POLAR DIAGRAMS

XPR File:X#ED=2
Zxy = ...

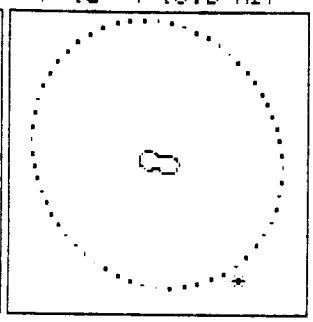
*=Rotation Direction

Zxy = ...
Zxx = ___

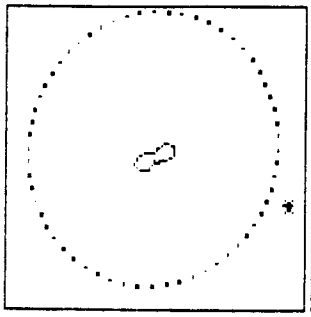
F=8 (36.0 Hz)



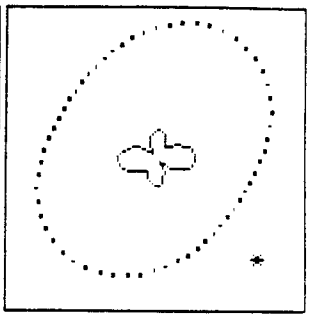
F=10 (18.0 Hz)



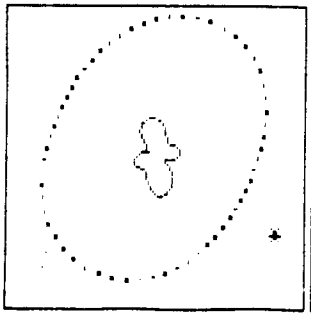
F=12 (9.0 Hz)



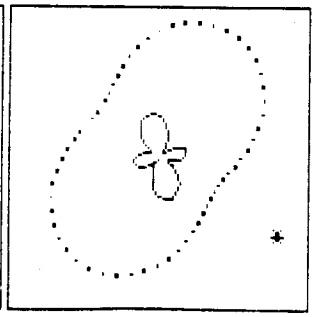
F=14 (4.5 Hz)



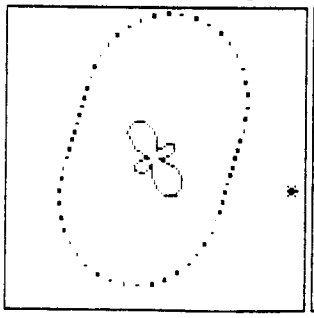
F=16 (2.3 Hz)



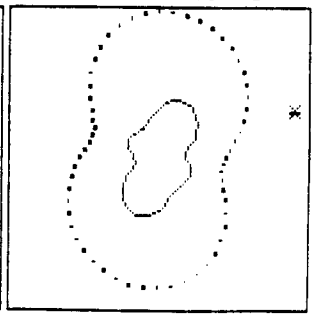
F=18 (1.1 Hz)



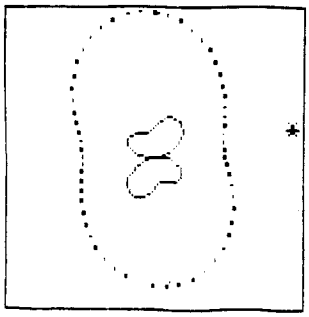
F=20 (.5625 Hz)



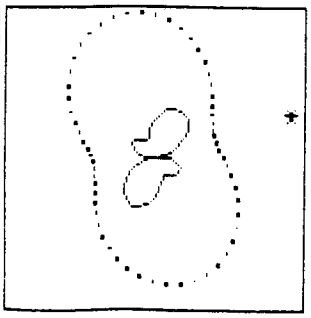
F=22 (.2813 Hz)



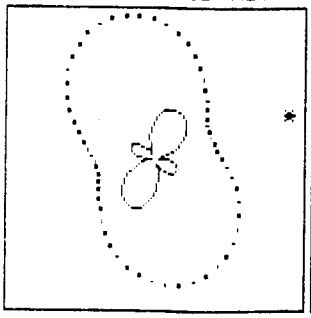
F=24 (.1406 Hz)



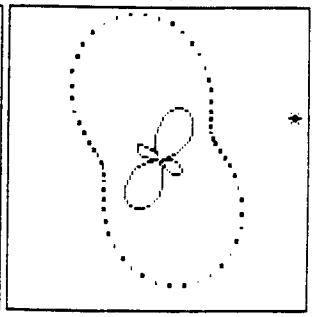
F=26 (.0703 Hz)



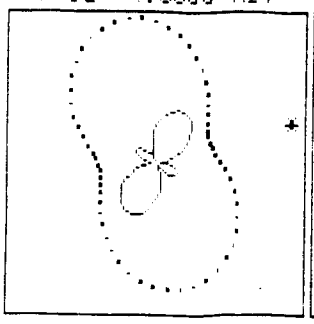
F=28 (.0352 Hz)



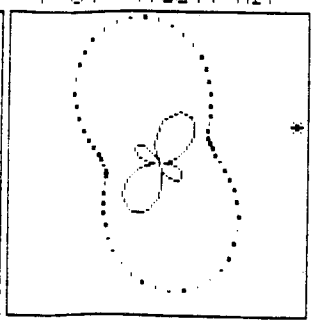
F=30 (.0176 Hz)



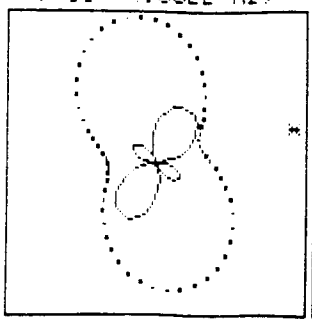
F=32 (.0088 Hz)



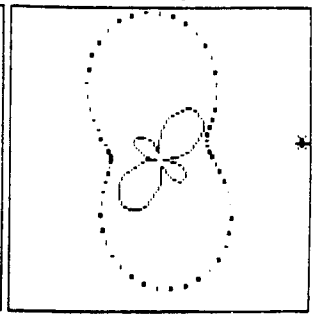
F=34 (.0044 Hz)

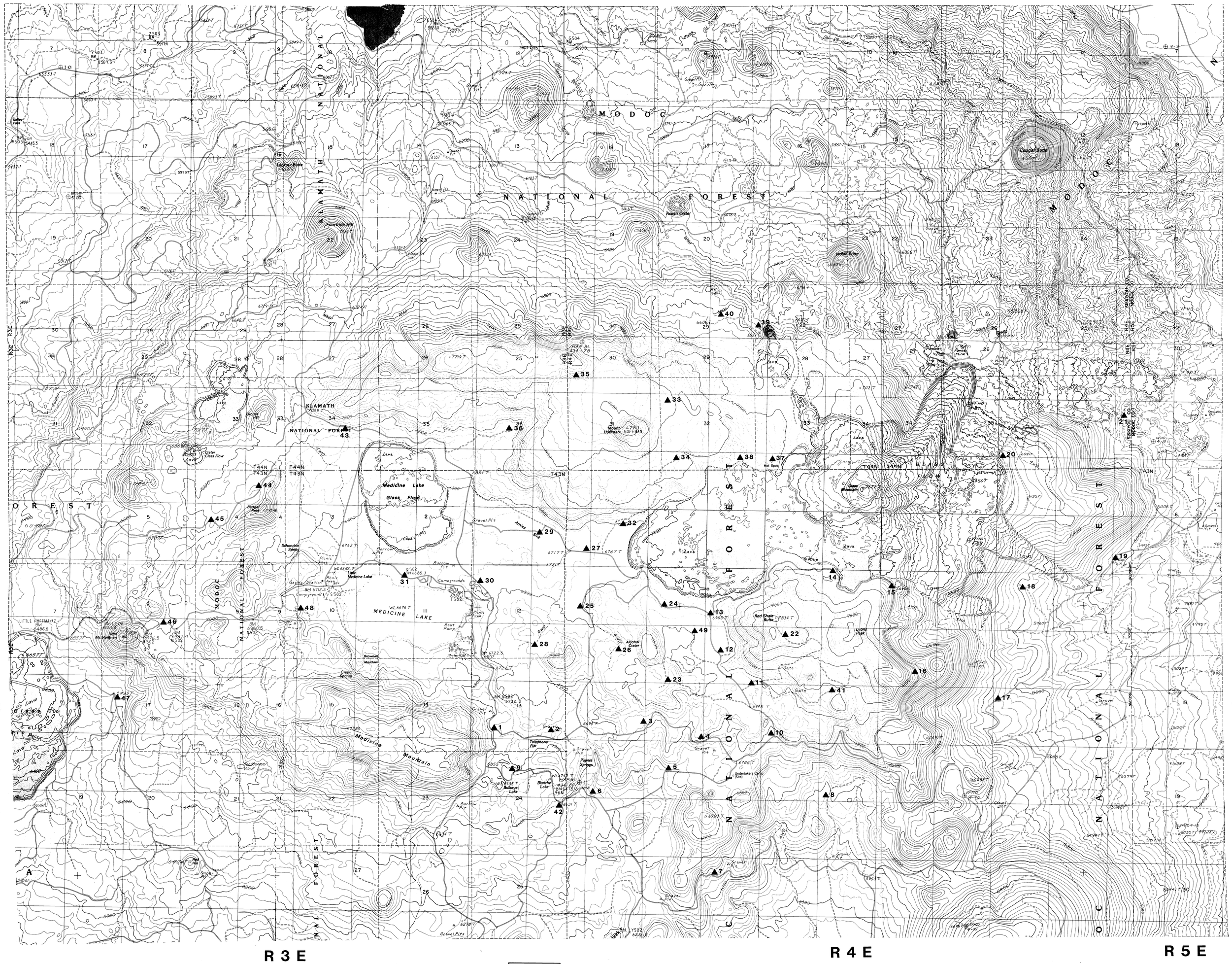


F=36 (.0022 Hz)



F=38 (.0011 Hz)





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EXCLUSIVE

MEDICINE LAKE PROSPECT

SISKIYOU COUNTY, CALIFORNIA

1989 MT SITE LOCATIONS

Approved by:		Date:	11/89
Drafting by: C.G.	Date:		Drwg. No.: