FINAL REPORT

Calculation of the Electro-Magnetic Fields for the Salton Sea Unit 6 Geothermal Project

For

MidAmerican

Report No. T&D-SA-020601

June 2002

URS

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ELECTRO-MAGNETIC FIELD CALCUALTIONS

FOR

SALTON SEA UNIT 6 GEOTHERMAL PROJECT

Based on the scope of work provided by MidAmerican, dated April 30, 2002, this study examined the electric and magnetic field (EMF) effects of five transmission configurations now under consideration as part of the Salton Sea Unit 6 Geothermal Project near Calipatria, California.

The EMF effects were calculated at multiple points within the right-of-way of each transmission configuration using EPRI's ENVIRO Workstation -- an industry benchmark. The following configurations, depicted in Attachment 1, were examined:

Transmission Configuration 1:	161 kV double-circuit-tower (DCT) line;
Transmission Configuration 2:	161 kV single-circuit-tower (SCT) line;
Transmission Configuration 3:	161 kV SCT line adj. to 161 kV DCT line;
Transmission Configuration 4:	92 kV SCT line adj. to 161 kV DCT line;
Transmission Configuration 5:	92 kV SCT line with underbuild adj. to 161 kV DCT line adj. to 34.5kV SCT.

All calculations were performed at midspan locations (i.e., points of greatest line sag), one meter above ground level, based on the line geometries, conductor type, phasing, nominal voltage, and maximum expected current loading information provided by MidAmerican. Results are documented in both tabular and graphical forms (Tab 4 and Tab 5, respectively). Key results are transcribed directly on the transmission configuration drawings shown in Tab 3 to facilitate review and decision making.

Attachments: See Tab 3, 4, and 5

April 25, 2002

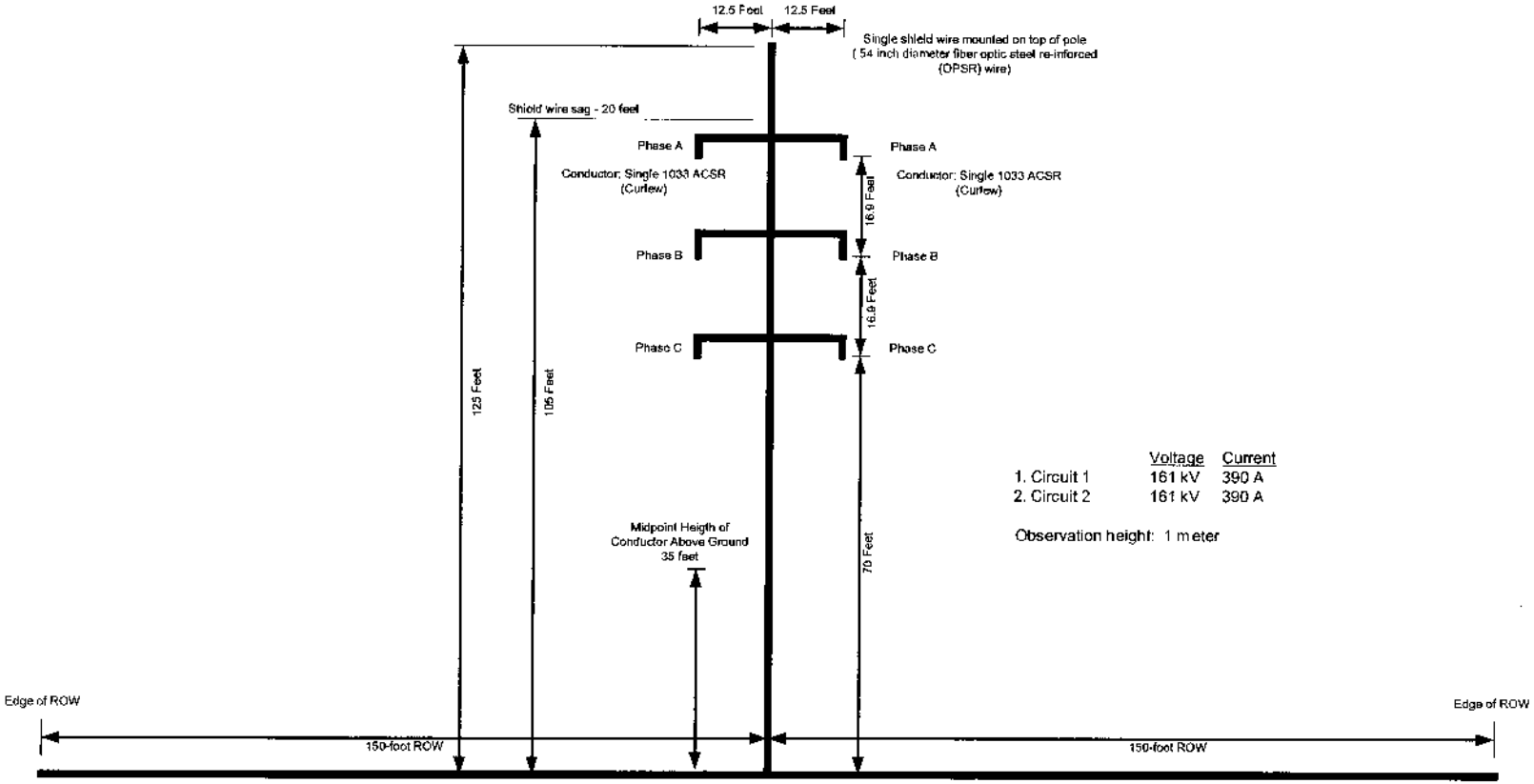
Salton Sea 6 Transmission
Electric and Magnetic Field Calculations

CalEnergy desires to hire a consultant calculate the necessary electric and magnetic field information for the CEC filing. The California Energy Commission (CEC) requires electric and magnetic field calculations for any new transmission associated with the development of new generation. CalEnergy is in the process of developing a new geothermal unit (Salton Sea 6) at its Salton Sea location near Calipatria, California. The unit will be connected to Imperial Irrigation District's (IID) transmission system through two 161 kV connections.

The calculations would be for up to five possible configurations: 1) a double circuit 161 kV line on a right-of-way (ROW), 2) a double circuit 161 kV line on a ROW with a single-circuit 92 kV line on an adjacent ROW, 3) a double circuit 161 kV line on a ROW with a single-circuit 161 kV line on an adjacent ROW (This configuration may not be required if the lines are not adjacent), 4) a double circuit 161 kV line on a ROW with a double-circuit 92 kV line on an adjacent ROW, and 5) a single circuit 161 kV line. For each configuration, the values would need to be calculated for three points: the centerline below the conductors and the edges of the right-of-way. The calculations would be made at the center point between two transmission towers (i.e., the point of greatest line sag) and for the maximum expected current flow on the conductor.

Please indicate if your company has the ability to conduct such calculations, the cost for this service and the information required. Due to the urgency to gather information for the filing, the information will need to be completed within a about a week. For additional information, contact O. Dale Stevens, II at (515) 242 4055 (work) or odstevens@midamerican.com.

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 1: Double-Circuit 161 kV

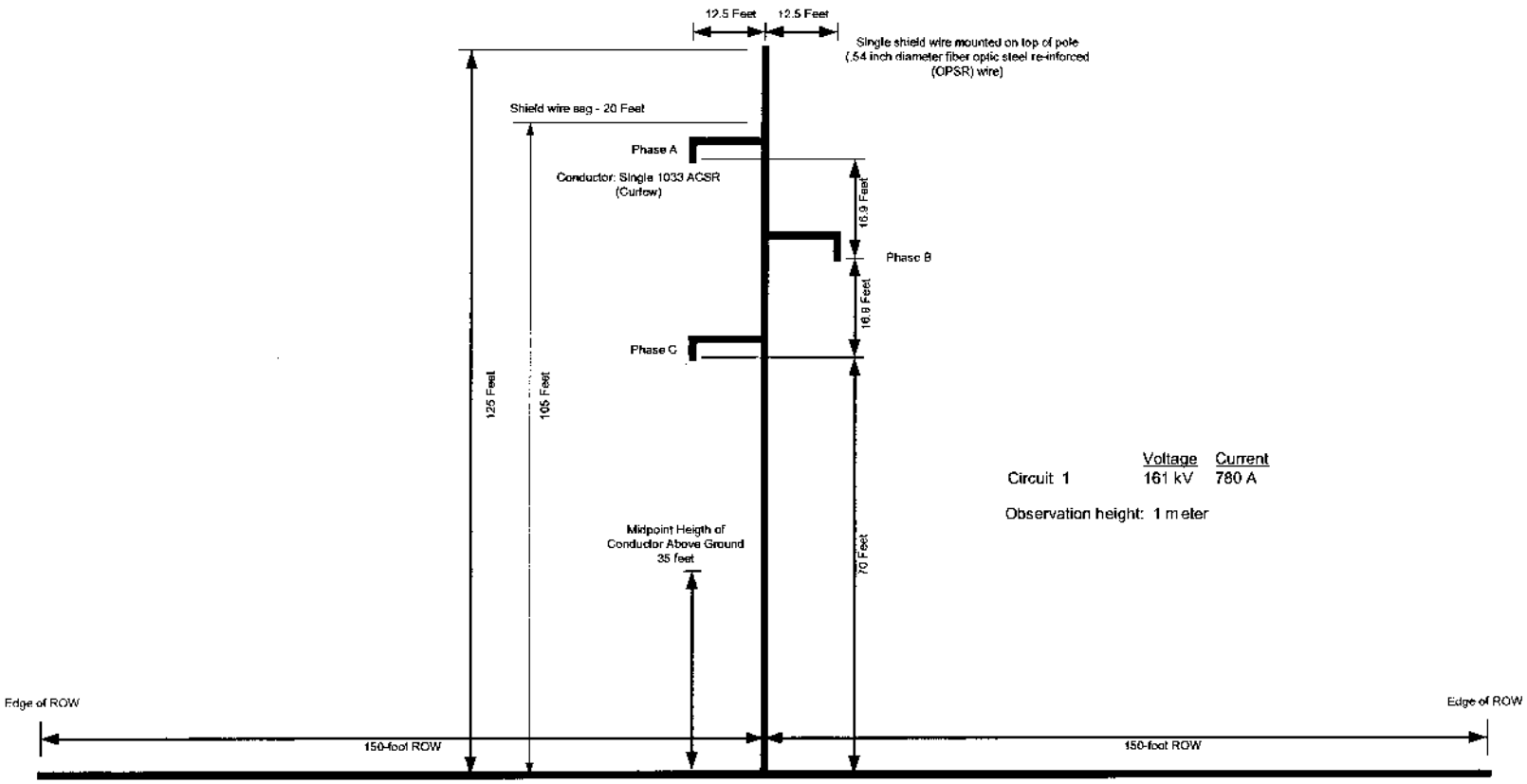


	Voltage	Current
1. Circuit 1	161 kV	390 A
2. Circuit 2	161 kV	390 A

Observation height: 1 meter

Date: May 13, 2002
O.Dale Stevens,II

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 2: Single-Circuit 161 kV

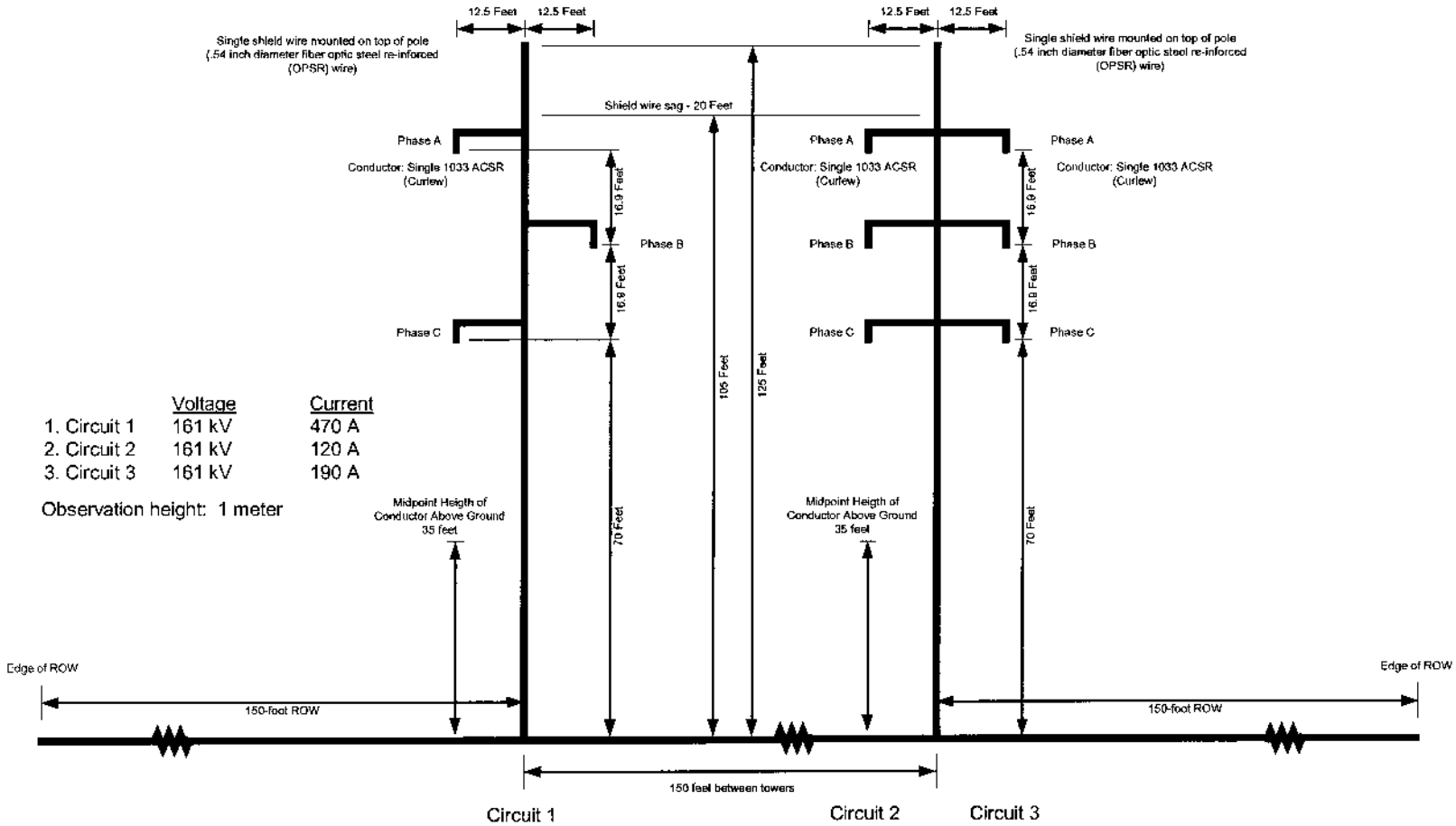


	Voltage	Current
Circuit 1	161 kV	780 A

Observation height: 1 meter

Date: May 13, 2002
O.Dale Stevens,II

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 3: Double-Circuit 161 kV Adjacent to Single-Circuit 161 kV



	Voltage	Current
1. Circuit 1	161 kV	470 A
2. Circuit 2	161 kV	120 A
3. Circuit 3	161 kV	190 A

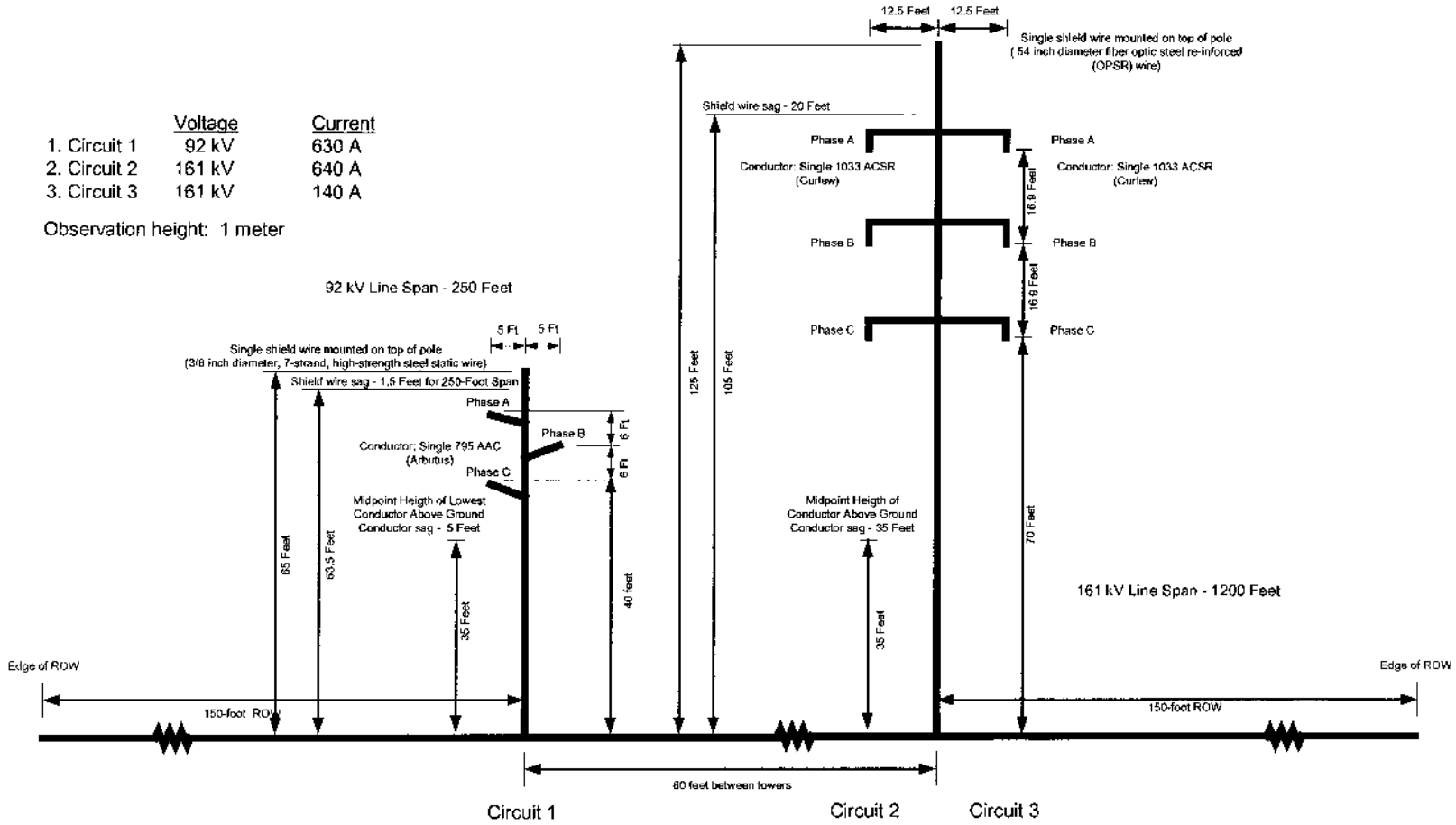
Observation height: 1 meter

Date: May 13, 2002
O.Dale Stevens,II

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 4: Double-Circuit 161 kV Adjacent to Single-Circuit 92 kV

	Voltage	Current
1. Circuit 1	92 kV	630 A
2. Circuit 2	161 kV	640 A
3. Circuit 3	161 kV	140 A

Observation height: 1 meter



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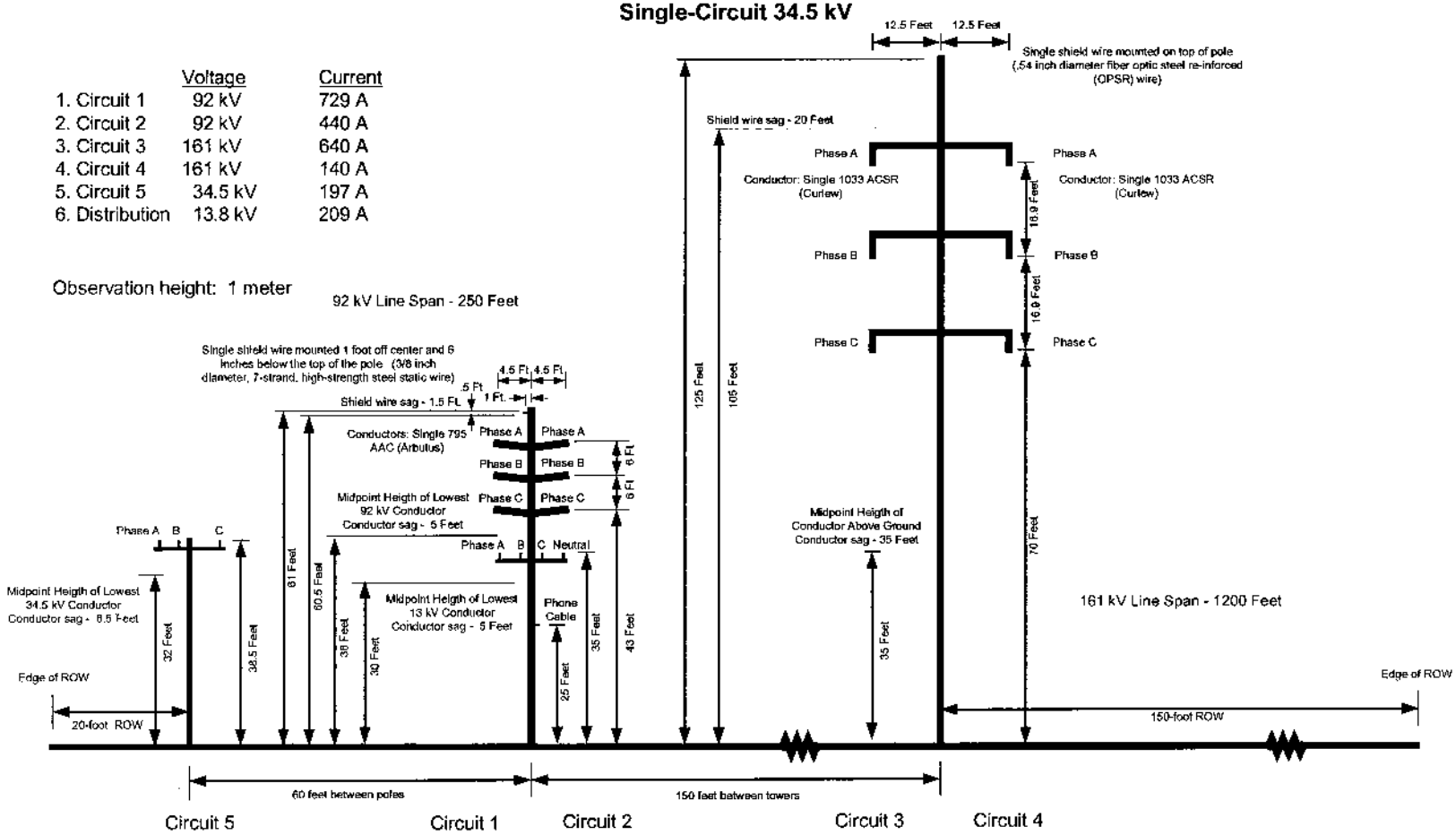
Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 5: Double-Circuit 161 kV Adjacent to Double-Circuit 92 kV with Underbuild and Single-Circuit 34.5 kV

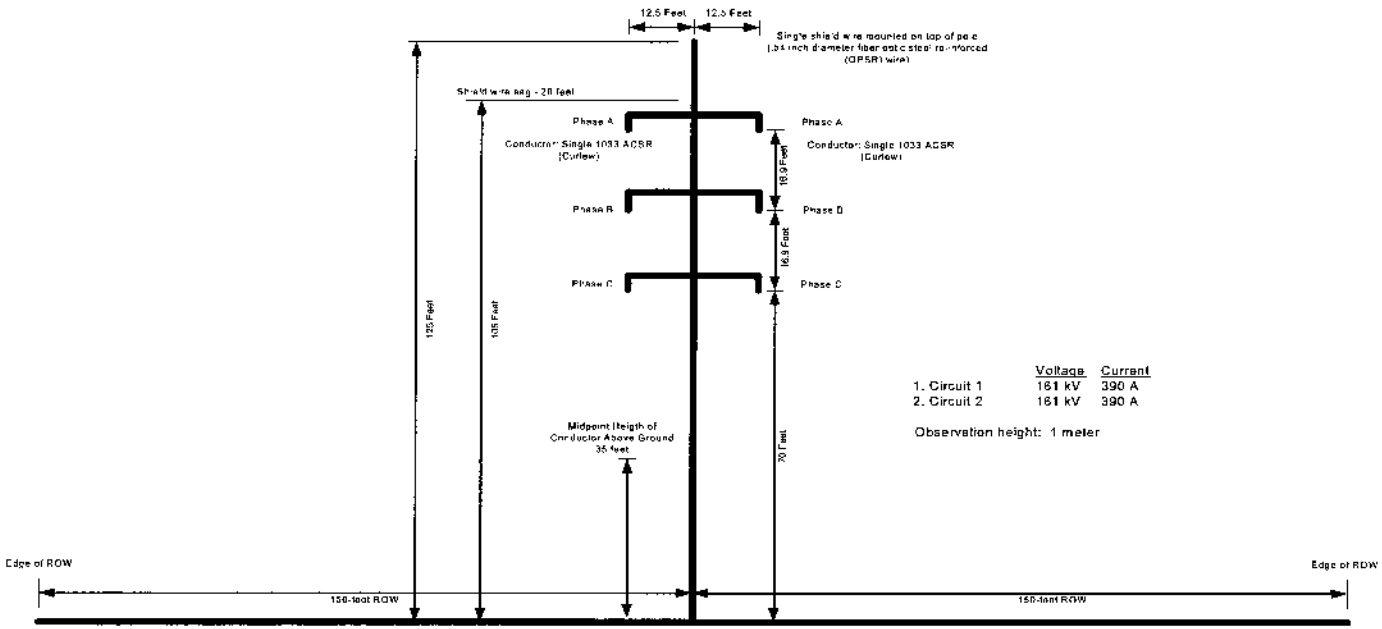
	Voltage	Current
1. Circuit 1	92 kV	729 A
2. Circuit 2	92 kV	440 A
3. Circuit 3	161 kV	640 A
4. Circuit 4	161 kV	140 A
5. Circuit 5	34.5 kV	197 A
6. Distribution	13.8 kV	209 A

Observation height: 1 meter



Date: May 13, 2002
O.Dale Stevens,II

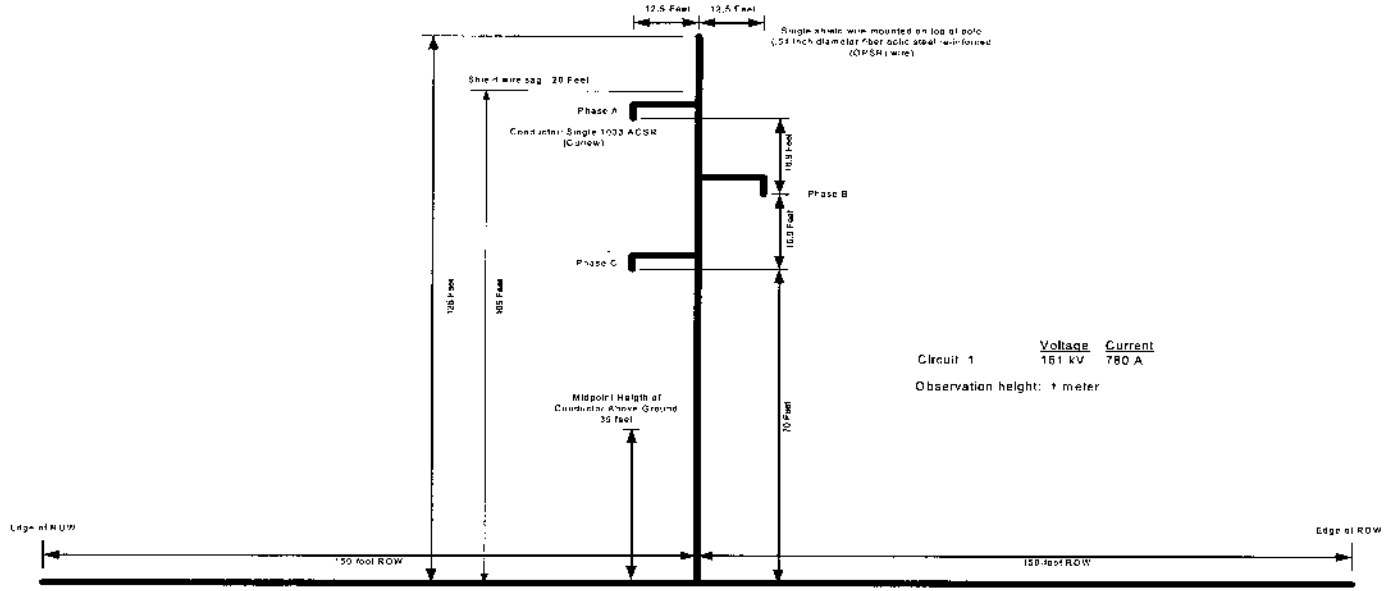
Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 1: Double-Circuit 161 kV



Date: May 13 2002
G.Dale Stevens,I

Lateral Distance	(Feet)	-150.0	-12.5	0.0	12.5	150.0		
								Maximum
Electric Field	(V/m)	95	2066	2277	2066	95		2277 @ 0.0'
Magnetic Field	(mG)	6.1	55.4	56.5	55.4	6.1		56.5 @ 0.0'

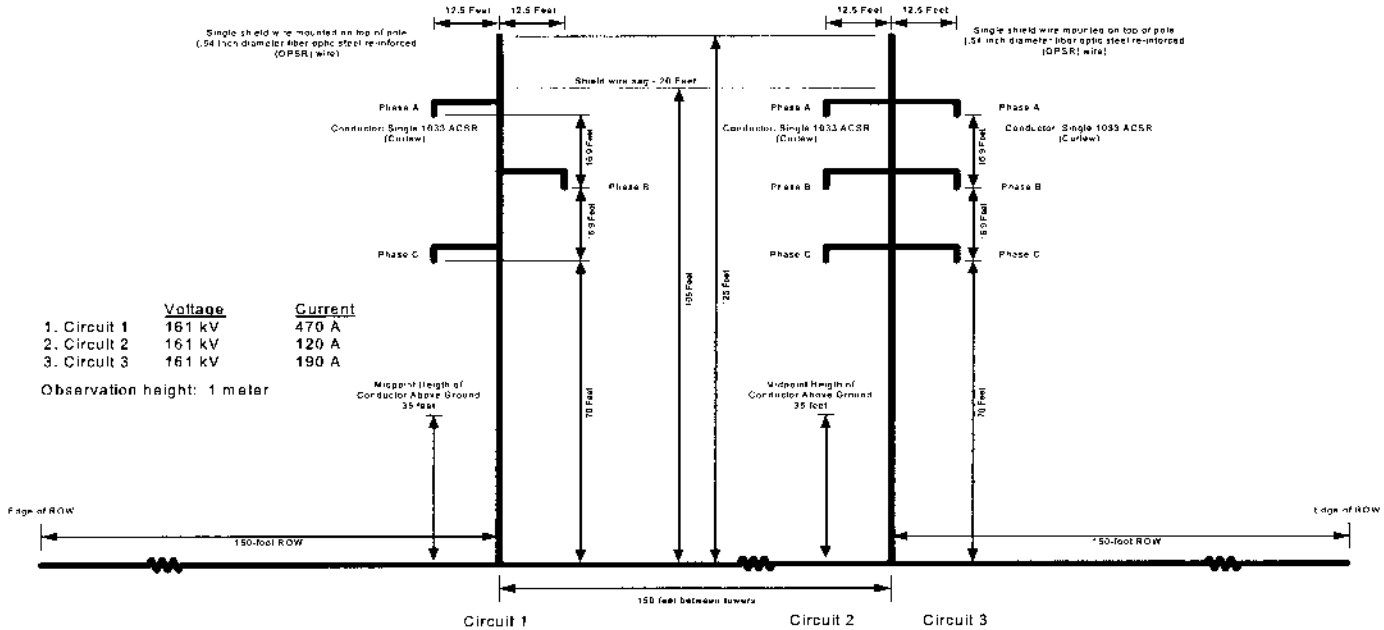
Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 2: Single-Circuit 161 kV



Date: May 13, 2002
O.Dale Stevens II

Lateral Distance	(Feet)	-150.0	-12.5	0.0	12.5	150.0	
							Maximum
Electric Field	(V/m)	83	1500	1143	734	77	1510 @-15.0'
Magnetic Field	(mG)	8.3	91.4	89.7	77.5	7.7	92.4 @ -8.0'

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 3: Double-Circuit 161 kV
Adjacent to Single-Circuit 161 kV



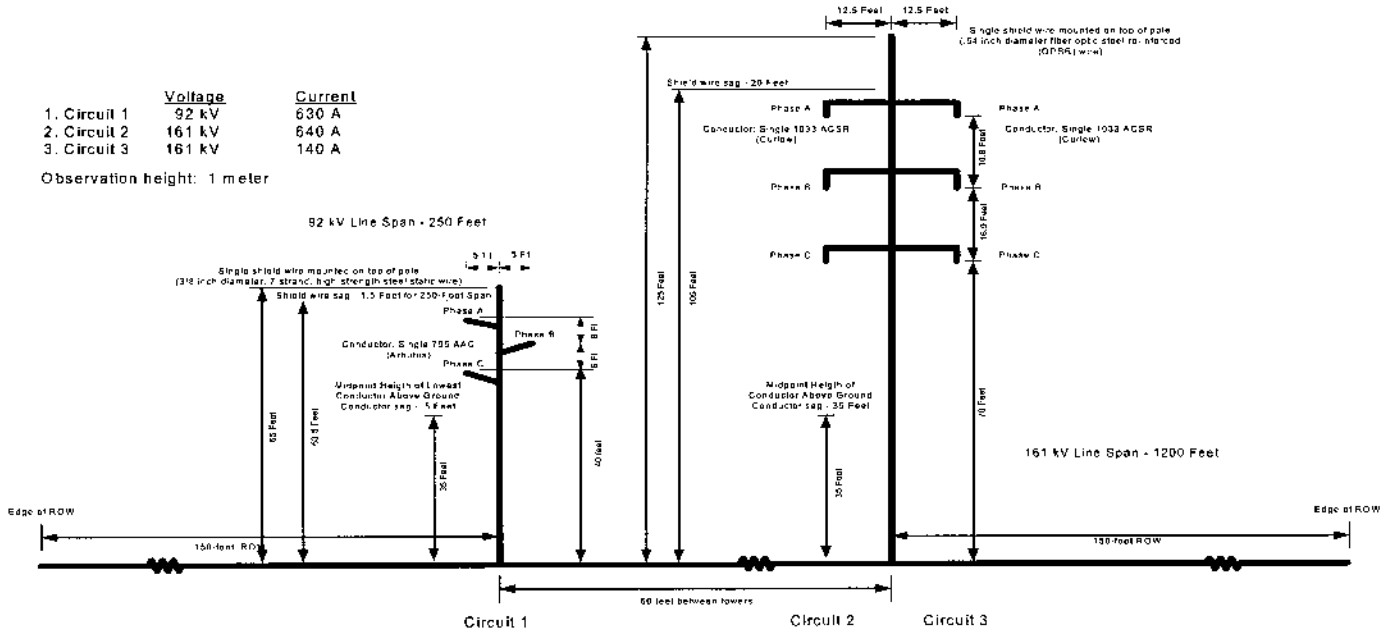
Date: May 13, 2002
D.Dale Stevens,II

Lateral Distance	(Feet)	-300.0		-162.5	-150.0	-137.5		-12.5	0.0	12.5		150.0
												Maximum
Electric Field	(V/m)	103		1474	1108	688		2042	2262	2054		103 2262 @ 0.0'
Magnetic Field	(mG)	5.5		53.8	52.5	45.2		18.3	20.1	21.4		3.5 54.3 @-158.0'

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 4: Double-Circuit 161 kV
Adjacent to Single-Circuit 92 kV

	Voltage	Current
1. Circuit 1	92 kV	630 A
2. Circuit 2	161 kV	640 A
3. Circuit 3	161 kV	140 A

Observation height: 1 meter



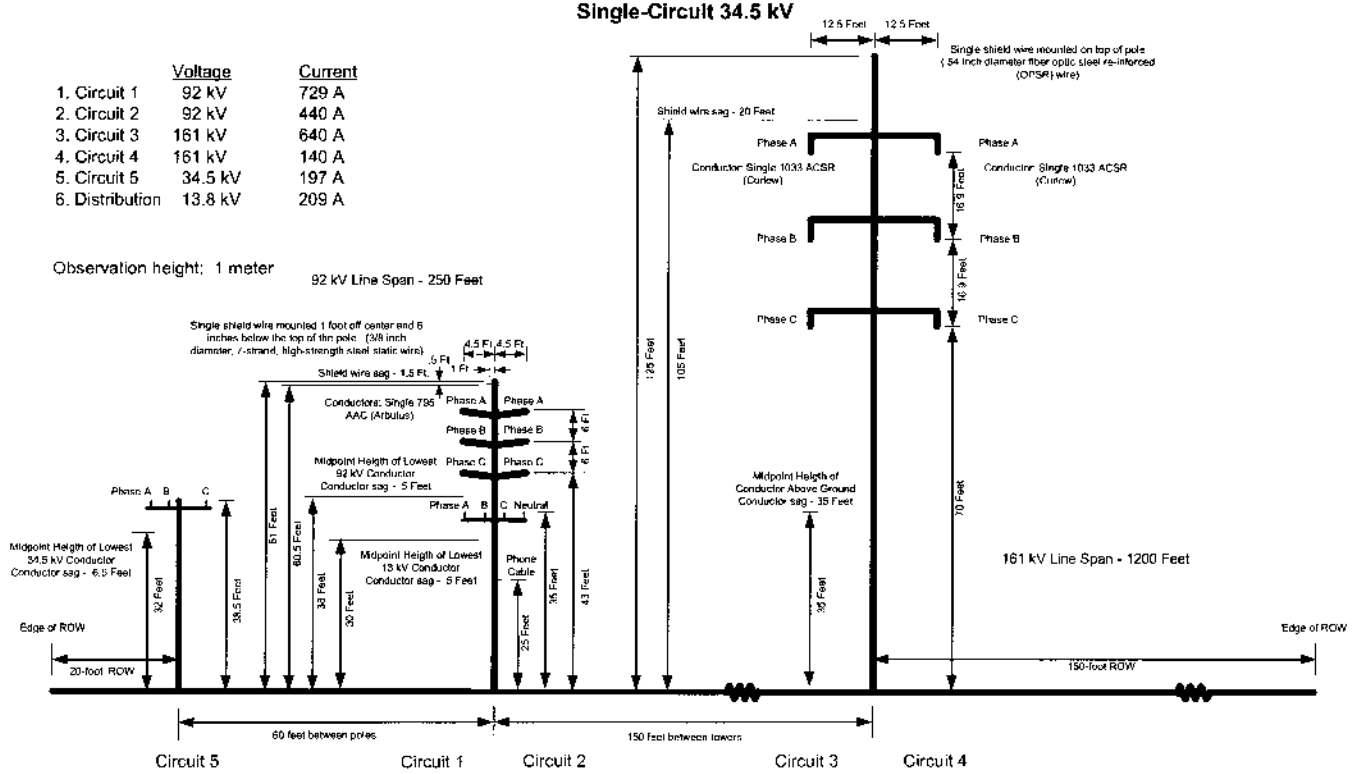
Date: May 13, 2002
O.Dale Stevens,II

Lateral Distance	(Feet)	-210.0	-65.0	-60.0	-55.0	-12.5	0.0	12.5	150.0		
											Maximum
Electric Field	(V/m)	68	606	638	670	2080	2279	2064	96	2279 @ 0.0'	
Magnetic Field	(mG)	5.5	46.0	44.2	41.9	61.2	59.9	52.9	6.5	61.9 @-8.0'	

Salton Sea 6
Electric and Magnetic Field Calculation
Transmission Configuration 5: Double-Circuit 161 kV Adjacent to Double-Circuit 92 kV with Underbuild and Single-Circuit 34.5 kV

	Voltage	Current
1. Circuit 1	92 kV	729 A
2. Circuit 2	92 kV	440 A
3. Circuit 3	161 kV	640 A
4. Circuit 4	161 kV	140 A
5. Circuit 5	34.5 kV	197 A
6. Distribution	13.8 kV	209 A

Observation height: 1 meter



Date: May 13, 2002
O.Dale Stevens,II

Lateral Distance	(Feet)	-230	-214.6	-210	-205.4	-154.5	-150.0	-145.5	-12.5	0.0	12.5	150	Maximum
Electric Field	(V/m)	157	86	51	71	253	262	258	2058	2271	2062	100	2271 @ 0.0'
Magnetic Field	(mG)	19.8	24.4	24.3	23.5	28.1	27.5	26.1	62.2	57.7	49.2	5.8	62.2 @-13.0'

SALTON SEA 6 TRANSMISSION EMF STUDY

161 kV DCT Configuration 1

LATERAL DISTANCE (feet)	(meters)	ELECTRIC FIELD (kV/m)	MAGNETIC FIELD (RES) (mG)
-150.0	-45.72	0.095	6.1
-145.0	-44.20	0.098	6.4
-140.0	-42.67	0.102	6.9
-135.0	-41.15	0.105	7.3
-130.0	-39.62	0.109	7.8
-125.0	-38.10	0.111	8.4
-120.0	-36.58	0.114	9.0
-115.0	-35.05	0.116	9.7
-110.0	-33.53	0.117	10.5
-105.0	-32.00	0.116	11.3
-100.0	-30.48	0.114	12.3
-95.0	-28.96	0.109	13.4
-90.0	-27.43	0.101	14.6
-85.0	-25.91	0.089	15.9
-80.0	-24.38	0.072	17.4
-79.0	-24.08	0.067	17.7
-78.0	-23.77	0.063	18.1
-77.0	-23.47	0.058	18.4
-76.0	-23.16	0.054	18.8
-75.0	-22.86	0.049	19.1
-74.0	-22.56	0.044	19.5
-73.0	-22.25	0.039	19.9
-72.0	-21.95	0.034	20.3
-71.0	-21.64	0.031	20.7
-70.0	-21.34	0.029	21.1
-69.0	-21.03	0.031	21.5
-68.0	-20.73	0.035	21.9
-67.0	-20.42	0.042	22.3
-66.0	-20.12	0.050	22.8
-65.0	-19.81	0.060	23.2
-64.0	-19.51	0.071	23.7
-63.0	-19.20	0.083	24.2
-62.0	-18.90	0.096	24.7
-61.0	-18.59	0.110	25.2
-60.0	-18.29	0.125	25.7
-59.0	-17.98	0.141	26.2
-58.0	-17.68	0.158	26.8
-57.0	-17.37	0.176	27.3
-56.0	-17.07	0.195	27.9
-55.0	-16.76	0.215	28.5
-54.0	-16.46	0.236	29.1
-53.0	-16.15	0.259	29.7
-52.0	-15.85	0.283	30.3
-51.0	-15.54	0.308	30.9
-50.0	-15.24	0.334	31.5
-49.0	-14.94	0.362	32.2
-48.0	-14.63	0.391	32.9
-47.0	-14.33	0.422	33.5
-46.0	-14.02	0.454	34.2
-45.0	-13.72	0.487	34.9
-44.0	-13.41	0.523	35.6
-43.0	-13.11	0.559	36.4
-42.0	-12.80	0.598	37.1
-41.0	-12.50	0.638	37.8
-40.0	-12.19	0.679	38.6
-39.0	-11.89	0.722	39.3
-38.0	-11.58	0.767	40.1
-37.0	-11.28	0.813	40.9
-36.0	-10.97	0.861	41.6
-35.0	-10.67	0.911	42.4

-34.0	-10.36	0.961	43.2
-33.0	-10.06	1.013	43.9
-32.0	-9.75	1.066	44.7
-31.0	-9.45	1.121	45.4
-30.0	-9.14	1.176	46.2
-29.0	-8.84	1.232	46.9
-28.0	-8.53	1.288	47.6
-27.0	-8.23	1.345	48.3
-26.0	-7.92	1.402	49.0
-25.0	-7.62	1.459	49.7
-24.0	-7.32	1.516	50.3
-23.0	-7.01	1.572	50.9
-22.0	-6.71	1.627	51.5
-21.0	-6.40	1.681	52.1
-20.0	-6.10	1.734	52.6
-19.0	-5.79	1.786	53.1
-18.0	-5.49	1.835	53.5
-17.0	-5.18	1.883	54.0
-16.0	-4.88	1.928	54.3
-15.0	-4.57	1.971	54.7
-14.0	-4.27	2.011	55.0
-13.0	-3.96	2.048	55.2
-12.0	-3.66	2.083	55.5
-11.0	-3.35	2.115	55.7
-10.0	-3.05	2.144	55.9
-9.0	-2.74	2.169	56.0
-8.0	-2.44	2.192	56.1
-7.0	-2.13	2.213	56.2
-6.0	-1.83	2.230	56.3
-5.0	-1.52	2.244	56.3
-4.0	-1.22	2.256	56.4
-3.0	-0.91	2.265	56.4
-2.0	-0.61	2.272	56.4
-1.0	-0.30	2.276	56.5
0.0	0.00	2.277	56.5
1.0	0.30	2.276	56.5
2.0	0.61	2.272	56.4
3.0	0.91	2.265	56.4
4.0	1.22	2.256	56.4
5.0	1.52	2.244	56.3
6.0	1.83	2.230	56.3
7.0	2.13	2.213	56.2
8.0	2.44	2.192	56.1
9.0	2.74	2.169	56.0
10.0	3.05	2.144	55.9
11.0	3.35	2.115	55.7
12.0	3.66	2.083	55.5
13.0	3.96	2.048	55.2
14.0	4.27	2.011	55.0
15.0	4.57	1.971	54.7
16.0	4.88	1.928	54.3
17.0	5.18	1.883	54.0
18.0	5.49	1.835	53.5
19.0	5.79	1.786	53.1
20.0	6.10	1.734	52.6
21.0	6.40	1.681	52.1
22.0	6.71	1.627	51.5
23.0	7.01	1.572	50.9
24.0	7.32	1.516	50.3
25.0	7.62	1.459	49.7
26.0	7.92	1.402	49.0
27.0	8.23	1.345	48.3
28.0	8.53	1.288	47.6
29.0	8.84	1.232	46.9
30.0	9.14	1.176	46.2
31.0	9.45	1.121	45.4
32.0	9.75	1.066	44.7
33.0	10.06	1.013	43.9
34.0	10.36	0.961	43.2

35.0	10.67	0.911	42.4
36.0	10.97	0.861	41.6
37.0	11.28	0.813	40.9
38.0	11.58	0.767	40.1
39.0	11.89	0.722	39.3
40.0	12.19	0.679	38.6
41.0	12.50	0.638	37.8
42.0	12.80	0.598	37.1
43.0	13.11	0.559	36.4
44.0	13.41	0.523	35.6
45.0	13.72	0.487	34.9
46.0	14.02	0.454	34.2
47.0	14.33	0.422	33.5
48.0	14.63	0.391	32.9
49.0	14.94	0.362	32.2
50.0	15.24	0.334	31.5
51.0	15.54	0.308	30.9
52.0	15.85	0.283	30.3
53.0	16.15	0.259	29.7
54.0	16.46	0.236	29.1
55.0	16.76	0.215	28.5
56.0	17.07	0.195	27.9
57.0	17.37	0.176	27.3
58.0	17.68	0.158	26.8
59.0	17.98	0.141	26.2
60.0	18.29	0.125	25.7
61.0	18.59	0.110	25.2
62.0	18.90	0.096	24.7
63.0	19.20	0.083	24.2
64.0	19.51	0.071	23.7
65.0	19.81	0.060	23.2
66.0	20.12	0.050	22.8
67.0	20.42	0.042	22.3
68.0	20.73	0.035	21.9
69.0	21.03	0.031	21.5
70.0	21.34	0.029	21.1
71.0	21.64	0.031	20.7
72.0	21.95	0.034	20.3
73.0	22.25	0.039	19.9
74.0	22.56	0.044	19.5
75.0	22.86	0.049	19.1
76.0	23.16	0.054	18.8
77.0	23.47	0.058	18.4
78.0	23.77	0.063	18.1
79.0	24.08	0.067	17.7
80.0	24.38	0.072	17.4
85.0	25.91	0.089	15.9
90.0	27.43	0.101	14.6
95.0	28.96	0.109	13.4
100.0	30.48	0.114	12.3
105.0	32.00	0.116	11.3
110.0	33.53	0.117	10.5
115.0	35.05	0.116	9.7
120.0	36.58	0.114	9.0
125.0	38.10	0.111	8.4
130.0	39.62	0.109	7.8
135.0	41.15	0.105	7.3
140.0	42.67	0.102	6.9
145.0	44.20	0.098	6.4
150.0	45.72	0.095	6.1

SALTON SEA 6 TRANSMISSION EMF STUDY

161 kV SCT Configuration 2

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	ELECTRIC FIELD (kV/m)	MAGNETIC FIELD (RES) (mG)
150.0	-45.72	0.083	8.3
-145.0	-44.20	0.088	8.8
-140.0	-42.67	0.093	9.4
-135.0	-41.15	0.099	10.1
-130.0	-39.62	0.106	10.8
-125.0	-38.10	0.112	11.6
-120.0	-36.58	0.120	12.5
-115.0	-35.05	0.128	13.5
-110.0	-33.53	0.136	14.6
-105.0	-32.00	0.146	15.9
-100.0	-30.48	0.156	17.2
-95.0	-28.96	0.168	18.8
-90.0	-27.43	0.181	20.6
-85.0	-25.91	0.197	22.6
-80.0	-24.38	0.216	24.8
-79.0	-24.08	0.221	25.3
-78.0	-23.77	0.225	25.8
-77.0	-23.47	0.230	26.3
-76.0	-23.16	0.235	26.9
-75.0	-22.86	0.240	27.4
-74.0	-22.56	0.246	28.0
-73.0	-22.25	0.251	28.5
-72.0	-21.95	0.258	29.1
-71.0	-21.64	0.264	29.7
-70.0	-21.34	0.271	30.3
-69.0	-21.03	0.278	31.0
-68.0	-20.73	0.286	31.6
-67.0	-20.42	0.294	32.3
-66.0	-20.12	0.302	33.0
-65.0	-19.81	0.311	33.7
-64.0	-19.51	0.321	34.4
-63.0	-19.20	0.331	35.2
-62.0	-18.90	0.342	35.9
-61.0	-18.59	0.353	36.7
-60.0	-18.29	0.365	37.5
-59.0	-17.98	0.378	38.4
-58.0	-17.68	0.392	39.2
-57.0	-17.37	0.406	40.1
-56.0	-17.07	0.421	41.0
-55.0	-16.76	0.437	41.9
-54.0	-16.46	0.454	42.9
-53.0	-16.15	0.472	43.8
-52.0	-15.85	0.491	44.8
-51.0	-15.54	0.511	45.9
-50.0	-15.24	0.532	46.9
-49.0	-14.94	0.553	48.0
-48.0	-14.63	0.576	49.1
-47.0	-14.33	0.600	50.2
-46.0	-14.02	0.626	51.3
-45.0	-13.72	0.652	52.5
-44.0	-13.41	0.679	53.7
-43.0	-13.11	0.708	54.9
-42.0	-12.80	0.737	56.2
-41.0	-12.50	0.768	57.5
-40.0	-12.19	0.799	58.8
-39.0	-11.89	0.832	60.1
-38.0	-11.58	0.866	61.4
-37.0	-11.28	0.900	62.8
-36.0	-10.97	0.935	64.1
-35.0	-10.67	0.971	65.5
-34.0	-10.36	1.007	66.9
-33.0	-10.06	1.044	68.3

-32.0	-9.75	1.080	69.8
-31.0	-9.45	1.117	71.2
-30.0	-9.14	1.154	72.6
-29.0	-8.84	1.190	74.0
-28.0	-8.53	1.226	75.4
-27.0	-8.23	1.261	76.8
-26.0	-7.92	1.294	78.1
-25.0	-7.62	1.327	79.5
-24.0	-7.32	1.357	80.8
-23.0	-7.01	1.386	82.0
-22.0	-6.71	1.412	83.3
-21.0	-6.40	1.436	84.4
-20.0	-6.10	1.457	85.5
-19.0	-5.79	1.474	86.6
-18.0	-5.49	1.489	87.5
-17.0	-5.18	1.499	88.4
-16.0	-4.88	1.506	89.3
-15.0	-4.57	1.510	90.0
-14.0	-4.27	1.509	90.6
-13.0	-3.96	1.504	91.2
-12.0	-3.66	1.495	91.6
-11.0	-3.35	1.482	92.0
-10.0	-3.05	1.466	92.2
-9.0	-2.74	1.446	92.4
-8.0	-2.44	1.422	92.5
-7.0	-2.13	1.395	92.4
-6.0	-1.83	1.365	92.3
-5.0	-1.52	1.332	92.1
-4.0	-1.22	1.297	91.7
-3.0	-0.91	1.260	91.3
-2.0	-0.61	1.222	90.9
-1.0	-0.30	1.183	90.3
0.0	0.00	1.143	89.7
1.0	0.30	1.102	89.0
2.0	0.61	1.062	88.2
3.0	0.91	1.022	87.4
4.0	1.22	0.984	86.5
5.0	1.52	0.946	85.6
6.0	1.83	0.910	84.6
7.0	2.13	0.876	83.6
8.0	2.44	0.845	82.5
9.0	2.74	0.816	81.5
10.0	3.05	0.789	80.4
11.0	3.35	0.765	79.2
12.0	3.66	0.744	78.1
13.0	3.96	0.725	76.9
14.0	4.27	0.709	75.7
15.0	4.57	0.696	74.5
16.0	4.88	0.685	73.3
17.0	5.18	0.675	72.1
18.0	5.49	0.668	70.9
19.0	5.79	0.662	69.7
20.0	6.10	0.657	68.5
21.0	6.40	0.654	67.3
22.0	6.71	0.651	66.1
23.0	7.01	0.648	64.9
24.0	7.32	0.646	63.7
25.0	7.62	0.644	62.5
26.0	7.92	0.642	61.3
27.0	8.23	0.640	60.2
28.0	8.53	0.637	59.0
29.0	8.84	0.635	57.9
30.0	9.14	0.632	56.7
31.0	9.45	0.628	55.6
32.0	9.75	0.625	54.5
33.0	10.06	0.621	53.4
34.0	10.36	0.616	52.4
35.0	10.67	0.611	51.3
36.0	10.97	0.606	50.3

37.0	11.28	0.600	49.3
38.0	11.58	0.594	48.3
39.0	11.89	0.587	47.3
40.0	12.19	0.580	46.3
41.0	12.50	0.573	45.4
42.0	12.80	0.565	44.5
43.0	13.11	0.558	43.5
44.0	13.41	0.550	42.7
45.0	13.72	0.542	41.8
46.0	14.02	0.533	40.9
47.0	14.33	0.525	40.1
48.0	14.63	0.516	39.3
49.0	14.94	0.508	38.5
50.0	15.24	0.499	37.7
51.0	15.54	0.490	36.9
52.0	15.85	0.482	36.2
53.0	16.15	0.473	35.5
54.0	16.46	0.464	34.7
55.0	16.76	0.455	34.0
56.0	17.07	0.447	33.4
57.0	17.37	0.438	32.7
58.0	17.68	0.429	32.1
59.0	17.98	0.421	31.4
60.0	18.29	0.412	30.8
61.0	18.59	0.404	30.2
62.0	18.90	0.396	29.6
63.0	19.20	0.388	29.0
64.0	19.51	0.380	28.5
65.0	19.81	0.372	27.9
66.0	20.12	0.364	27.4
67.0	20.42	0.356	26.9
68.0	20.73	0.349	26.4
69.0	21.03	0.342	25.9
70.0	21.34	0.334	25.4
71.0	21.64	0.327	24.9
72.0	21.95	0.320	24.4
73.0	22.25	0.314	24.0
74.0	22.56	0.307	23.5
75.0	22.86	0.300	23.1
76.0	23.16	0.294	22.7
77.0	23.47	0.288	22.3
78.0	23.77	0.282	21.9
79.0	24.08	0.276	21.5
80.0	24.38	0.270	21.1
85.0	25.91	0.243	19.3
90.0	27.43	0.219	17.8
95.0	28.96	0.198	16.4
100.0	30.48	0.179	15.1
105.0	32.00	0.163	14.0
110.0	33.53	0.148	13.0
115.0	35.05	0.135	12.1
120.0	36.58	0.124	11.2
125.0	38.10	0.114	10.5
130.0	39.62	0.105	9.8
135.0	41.15	0.097	9.2
140.0	42.67	0.089	8.6
145.0	44.20	0.083	8.1
150.0	45.72	0.077	7.7

SALTON SEA 6 TRANSMISSION EMF STUDY

161 kV SCT/DCT Configuration 3

LATERAL DISTANCE (feet)	LATERAL DISTANCE (meters)	ELECTRIC FIELD (kV/m)	MAGNETIC FIELD (RES) (mG)
-300.0	-91.44	0.103	5.5
-295.0	-89.92	0.108	5.8
-290.0	-88.39	0.114	6.2
-285.0	-86.87	0.120	6.6
-280.0	-85.34	0.126	7.0
-275.0	-83.82	0.133	7.5
-270.0	-82.30	0.140	8.1
-265.0	-80.77	0.148	8.7
-260.0	-79.25	0.156	9.4
-255.0	-77.72	0.165	10.2
-250.0	-76.20	0.175	11.0
-248.0	-75.59	0.179	11.4
-246.0	-74.98	0.183	11.8
-244.0	-74.37	0.188	12.2
-242.0	-73.76	0.193	12.6
-240.0	-73.15	0.198	13.0
-238.0	-72.54	0.203	13.5
-236.0	-71.93	0.209	14.0
-234.0	-71.32	0.215	14.5
-232.0	-70.71	0.221	15.0
-230.0	-70.10	0.228	15.6
-228.0	-69.49	0.236	16.2
-226.0	-68.88	0.245	16.8
-224.0	-68.28	0.254	17.5
-222.0	-67.67	0.265	18.2
-220.0	-67.06	0.277	18.9
-218.0	-66.45	0.290	19.6
-216.0	-65.84	0.305	20.5
-214.0	-65.23	0.322	21.3
-212.0	-64.62	0.342	22.2
-210.0	-64.01	0.364	23.1
-208.0	-63.40	0.388	24.1
-206.0	-62.79	0.416	25.2
-204.0	-62.18	0.448	26.3
-202.0	-61.57	0.483	27.4
-200.0	-60.96	0.523	28.6
-198.0	-60.35	0.566	29.9
-196.0	-59.74	0.614	31.2
-194.0	-59.13	0.667	32.6
-192.0	-58.52	0.724	34.0
-190.0	-57.91	0.785	35.5
-188.0	-57.30	0.850	37.0
-186.0	-56.69	0.919	38.6
-184.0	-56.08	0.990	40.2
-182.0	-55.47	1.063	41.8
-180.0	-54.86	1.136	43.4
-178.0	-54.25	1.208	45.0
-176.0	-53.64	1.275	46.5
-174.0	-53.04	1.338	48.0
-172.0	-52.43	1.392	49.4
-170.0	-51.82	1.436	50.7
-168.0	-51.21	1.467	51.8
-166.0	-50.60	1.484	52.7
-164.0	-49.99	1.485	53.4
-162.0	-49.38	1.471	53.9
-160.0	-48.77	1.440	54.2
-158.0	-48.16	1.395	54.3
-156.0	-47.55	1.336	54.1
-154.0	-46.94	1.267	53.8
-152.0	-46.33	1.190	53.2
-150.0	-45.72	1.108	52.5
-148.0	-45.11	1.025	51.6

-146.0	-44.50	0.945	50.5
-144.0	-43.89	0.869	49.4
-142.0	-43.28	0.801	48.2
-140.0	-42.67	0.743	46.9
-138.0	-42.06	0.697	45.5
-136.0	-41.45	0.662	44.1
-134.0	-40.84	0.637	42.7
-132.0	-40.23	0.622	41.3
-130.0	-39.62	0.613	39.9
-128.0	-39.01	0.609	38.5
-126.0	-38.40	0.606	37.1
-124.0	-37.80	0.605	35.7
-122.0	-37.19	0.603	34.3
-120.0	-36.58	0.599	33.0
-118.0	-35.97	0.594	31.7
-116.0	-35.36	0.588	30.4
-114.0	-34.75	0.580	29.2
-112.0	-34.14	0.570	28.0
-110.0	-33.53	0.558	26.9
-108.0	-32.92	0.545	25.8
-106.0	-32.31	0.532	24.7
-104.0	-31.70	0.517	23.7
-102.0	-31.09	0.501	22.8
-100.0	-30.48	0.485	21.9
-98.0	-29.87	0.469	21.0
-96.0	-29.26	0.453	20.2
-94.0	-28.65	0.436	19.4
-92.0	-28.04	0.420	18.6
-90.0	-27.43	0.403	17.9
-88.0	-26.82	0.387	17.3
-86.0	-26.21	0.370	16.7
-84.0	-25.60	0.354	16.1
-82.0	-24.99	0.337	15.5
-80.0	-24.38	0.321	15.0
-78.0	-23.77	0.304	14.6
-76.0	-23.16	0.288	14.2
-74.0	-22.56	0.271	13.8
-72.0	-21.95	0.255	13.4
-70.0	-21.34	0.239	13.1
-68.0	-20.73	0.223	12.8
-66.0	-20.12	0.209	12.6
-64.0	-19.51	0.196	12.4
-62.0	-18.90	0.188	12.2
-60.0	-18.29	0.185	12.1
-58.0	-17.68	0.190	12.0
-56.0	-17.07	0.206	12.0
-54.0	-16.46	0.231	12.0
-52.0	-15.85	0.266	12.1
-50.0	-15.24	0.310	12.2
-48.0	-14.63	0.361	12.3
-46.0	-14.02	0.420	12.5
-44.0	-13.41	0.486	12.7
-42.0	-12.80	0.560	12.9
-40.0	-12.19	0.641	13.2
-38.0	-11.58	0.728	13.5
-36.0	-10.97	0.823	13.8
-34.0	-10.36	0.923	14.2
-32.0	-9.75	1.029	14.6
-30.0	-9.14	1.140	15.0
-28.0	-8.53	1.254	15.4
-26.0	-7.92	1.369	15.8
-24.0	-7.32	1.484	16.2
-22.0	-6.71	1.597	16.6
-20.0	-6.10	1.706	17.0
-18.0	-5.49	1.809	17.3
-16.0	-4.88	1.903	17.7
-14.0	-4.27	1.987	18.0
-12.0	-3.66	2.061	18.4
-10.0	-3.05	2.123	18.7

-8.0	-2.44	2.173	19.0
-6.0	-1.83	2.212	19.3
-4.0	-1.22	2.240	19.6
-2.0	-0.61	2.256	19.9
0.0	0.00	2.262	20.1
2.0	0.61	2.258	20.4
4.0	1.22	2.243	20.7
6.0	1.83	2.217	20.9
8.0	2.44	2.181	21.2
10.0	3.05	2.132	21.3
12.0	3.66	2.072	21.4
14.0	4.27	2.000	21.5
16.0	4.88	1.918	21.4
18.0	5.49	1.825	21.3
20.0	6.10	1.724	21.2
22.0	6.71	1.617	20.9
24.0	7.32	1.506	20.6
26.0	7.92	1.392	20.2
28.0	8.53	1.279	19.8
30.0	9.14	1.166	19.4
32.0	9.75	1.057	18.9
34.0	10.36	0.952	18.4
36.0	10.97	0.852	17.9
38.0	11.58	0.758	17.3
40.0	12.19	0.670	16.8
42.0	12.80	0.588	16.3
44.0	13.41	0.513	15.8
46.0	14.02	0.444	15.2
48.0	14.63	0.381	14.7
50.0	15.24	0.324	14.2
52.0	15.85	0.273	13.8
54.0	16.46	0.227	13.3
56.0	17.07	0.185	12.9
58.0	17.68	0.148	12.4
60.0	18.29	0.115	12.0
62.0	18.90	0.087	11.6
64.0	19.51	0.063	11.2
66.0	20.12	0.044	10.8
68.0	20.73	0.032	10.5
70.0	21.34	0.033	10.1
72.0	21.95	0.041	9.8
74.0	22.56	0.052	9.5
76.0	23.16	0.062	9.2
78.0	23.77	0.072	8.9
80.0	24.38	0.081	8.6
82.0	24.99	0.089	8.4
84.0	25.60	0.095	8.1
86.0	26.21	0.101	7.9
88.0	26.82	0.106	7.6
90.0	27.43	0.111	7.4
92.0	28.04	0.114	7.2
94.0	28.65	0.117	7.0
96.0	29.26	0.120	6.8
98.0	29.87	0.122	6.6
100.0	30.48	0.123	6.4
105.0	32.00	0.125	6.0
110.0	33.53	0.126	5.6
115.0	35.05	0.125	5.2
120.0	36.58	0.123	4.9
125.0	38.10	0.120	4.6
130.0	39.62	0.117	4.4
135.0	41.15	0.114	4.1
140.0	42.67	0.110	3.9
145.0	44.20	0.107	3.7
150.0	45.72	0.103	3.5

SALTON SEA 6 TRANSMISSION EMF STUDY

92 kV SCT / 161 kV DCT Configuration 4

LATERAL DISTANCE (feet)	(meters)	ELECTRIC FIELD (kV/m)	MAGNETIC FIELD (RES) (mG)
-210.0	-64.01	0.068	5.5
-208.0	-63.40	0.069	5.6
-206.0	-62.79	0.071	5.7
-204.0	-62.18	0.072	5.8
-202.0	-61.57	0.073	6.0
-200.0	-60.96	0.074	6.1
-198.0	-60.35	0.075	6.2
-196.0	-59.74	0.077	6.4
-194.0	-59.13	0.078	6.6
-192.0	-58.52	0.079	6.7
-190.0	-57.91	0.081	6.9
-188.0	-57.30	0.082	7.0
-186.0	-56.69	0.084	7.2
-184.0	-56.08	0.085	7.4
-182.0	-55.47	0.086	7.6
-180.0	-54.86	0.088	7.8
-178.0	-54.25	0.090	8.0
-176.0	-53.64	0.091	8.2
-174.0	-53.04	0.093	8.4
-172.0	-52.43	0.094	8.7
-170.0	-51.82	0.096	8.9
-168.0	-51.21	0.098	9.2
-166.0	-50.60	0.100	9.4
-164.0	-49.99	0.101	9.7
-162.0	-49.38	0.103	10.0
-160.0	-48.77	0.105	10.3
-158.0	-48.16	0.107	10.6
-156.0	-47.55	0.109	10.9
-154.0	-46.94	0.111	11.3
-152.0	-46.33	0.113	11.6
-150.0	-45.72	0.115	12.0
-148.0	-45.11	0.117	12.4
-146.0	-44.50	0.119	12.8
-144.0	-43.89	0.121	13.2
-142.0	-43.28	0.123	13.7
-140.0	-42.67	0.125	14.1
-138.0	-42.06	0.127	14.6
-136.0	-41.45	0.130	15.1
-134.0	-40.84	0.132	15.7
-132.0	-40.23	0.134	16.3
-130.0	-39.62	0.136	16.9
-128.0	-39.01	0.139	17.5
-126.0	-38.40	0.141	18.2
-124.0	-37.80	0.144	18.9
-122.0	-37.19	0.146	19.6
-120.0	-36.58	0.149	20.4
-118.0	-35.97	0.152	21.2
-116.0	-35.36	0.155	22.1
-114.0	-34.75	0.158	23.0
-112.0	-34.14	0.162	23.9
-110.0	-33.53	0.167	24.9
-108.0	-32.92	0.172	26.0
-106.0	-32.31	0.178	27.1
-104.0	-31.70	0.185	28.2
-102.0	-31.09	0.194	29.4
-100.0	-30.48	0.204	30.6
-98.0	-29.87	0.216	31.9
-96.0	-29.26	0.230	33.2
-94.0	-28.65	0.246	34.5
-92.0	-28.04	0.265	35.9
-90.0	-27.43	0.287	37.2
-88.0	-26.82	0.310	38.6

-86.0	-26.21	0.336	39.9
-84.0	-25.60	0.364	41.2
-82.0	-24.99	0.393	42.4
-80.0	-24.38	0.423	43.5
-78.0	-23.77	0.453	44.5
-76.0	-23.16	0.483	45.3
-74.0	-22.56	0.511	45.9
-72.0	-21.95	0.537	46.3
-70.0	-21.34	0.561	46.5
-68.0	-20.73	0.581	46.5
-66.0	-20.12	0.599	46.2
-64.0	-19.51	0.613	45.7
-62.0	-18.90	0.626	45.1
-60.0	-18.29	0.638	44.2
-58.0	-17.68	0.650	43.3
-56.0	-17.07	0.662	42.4
-54.0	-16.46	0.677	41.5
-52.0	-15.85	0.694	40.7
-50.0	-15.24	0.715	40.0
-48.0	-14.63	0.741	39.6
-46.0	-14.02	0.771	39.4
-44.0	-13.41	0.808	39.5
-42.0	-12.80	0.851	40.0
-40.0	-12.19	0.902	40.7
-38.0	-11.58	0.960	41.7
-36.0	-10.97	1.027	43.0
-34.0	-10.36	1.102	44.6
-32.0	-9.75	1.185	46.3
-30.0	-9.14	1.275	48.1
-28.0	-8.53	1.370	50.0
-26.0	-7.92	1.469	51.9
-24.0	-7.32	1.571	53.7
-22.0	-6.71	1.672	55.5
-20.0	-6.10	1.770	57.1
-18.0	-5.49	1.864	58.6
-16.0	-4.88	1.951	59.8
-14.0	-4.27	2.029	60.7
-12.0	-3.66	2.097	61.4
-10.0	-3.05	2.154	61.8
-8.0	-2.44	2.201	61.9
-6.0	-1.83	2.236	61.7
-4.0	-1.22	2.261	61.3
-2.0	-0.61	2.275	60.7
0.0	0.00	2.279	59.9
2.0	0.61	2.273	59.0
4.0	1.22	2.257	58.0
6.0	1.83	2.230	56.9
8.0	2.44	2.192	55.7
10.0	3.05	2.143	54.5
12.0	3.66	2.082	53.3
14.0	4.27	2.009	52.0
16.0	4.88	1.926	50.7
18.0	5.49	1.834	49.4
20.0	6.10	1.733	48.1
22.0	6.71	1.625	46.7
24.0	7.32	1.514	45.4
26.0	7.92	1.400	44.0
28.0	8.53	1.286	42.6
30.0	9.14	1.174	41.2
32.0	9.75	1.065	39.9
34.0	10.36	0.959	38.5
36.0	10.97	0.860	37.2
38.0	11.58	0.765	35.9
40.0	12.19	0.678	34.6
42.0	12.80	0.596	33.4
44.0	13.41	0.521	32.2
46.0	14.02	0.452	31.0
48.0	14.63	0.389	29.9
50.0	15.24	0.332	28.8

52.0	15.85	0.281	27.8
54.0	16.46	0.235	26.8
56.0	17.07	0.193	25.8
58.0	17.68	0.156	24.9
60.0	18.29	0.123	24.0
62.0	18.90	0.094	23.1
64.0	19.51	0.069	22.3
66.0	20.12	0.049	21.5
68.0	20.73	0.034	20.8
70.0	21.34	0.030	20.1
72.0	21.95	0.035	19.4
74.0	22.56	0.045	18.7
76.0	23.16	0.055	18.1
78.0	23.77	0.064	17.5
80.0	24.38	0.073	16.9
82.0	24.99	0.081	16.4
84.0	25.60	0.087	15.9
86.0	26.21	0.093	15.4
88.0	26.82	0.098	14.9
90.0	27.43	0.103	14.4
92.0	28.04	0.106	14.0
94.0	28.65	0.109	13.6
96.0	29.26	0.112	13.2
98.0	29.87	0.114	12.8
100.0	30.48	0.115	12.4
102.0	31.09	0.117	12.0
104.0	31.70	0.117	11.7
106.0	32.31	0.118	11.4
108.0	32.92	0.118	11.0
110.0	33.53	0.118	10.7
112.0	34.14	0.118	10.5
114.0	34.75	0.118	10.2
116.0	35.36	0.117	9.9
118.0	35.97	0.116	9.6
120.0	36.58	0.115	9.4
122.0	37.19	0.115	9.1
124.0	37.80	0.114	8.9
126.0	38.40	0.112	8.7
128.0	39.01	0.111	8.5
130.0	39.62	0.110	8.3
132.0	40.23	0.109	8.1
134.0	40.84	0.107	7.9
136.0	41.45	0.106	7.7
138.0	42.06	0.105	7.5
140.0	42.67	0.103	7.3
142.0	43.28	0.102	7.2
144.0	43.89	0.101	7.0
146.0	44.50	0.099	6.8
148.0	45.11	0.098	6.7
150.0	45.72	0.096	6.5

SALTON SEA 6 TRANSMISSION EMF STUDY

34.5 kV SCT / 92 kV DCT & 13.8 kV Dist / 161 kV DCT Configuration 5

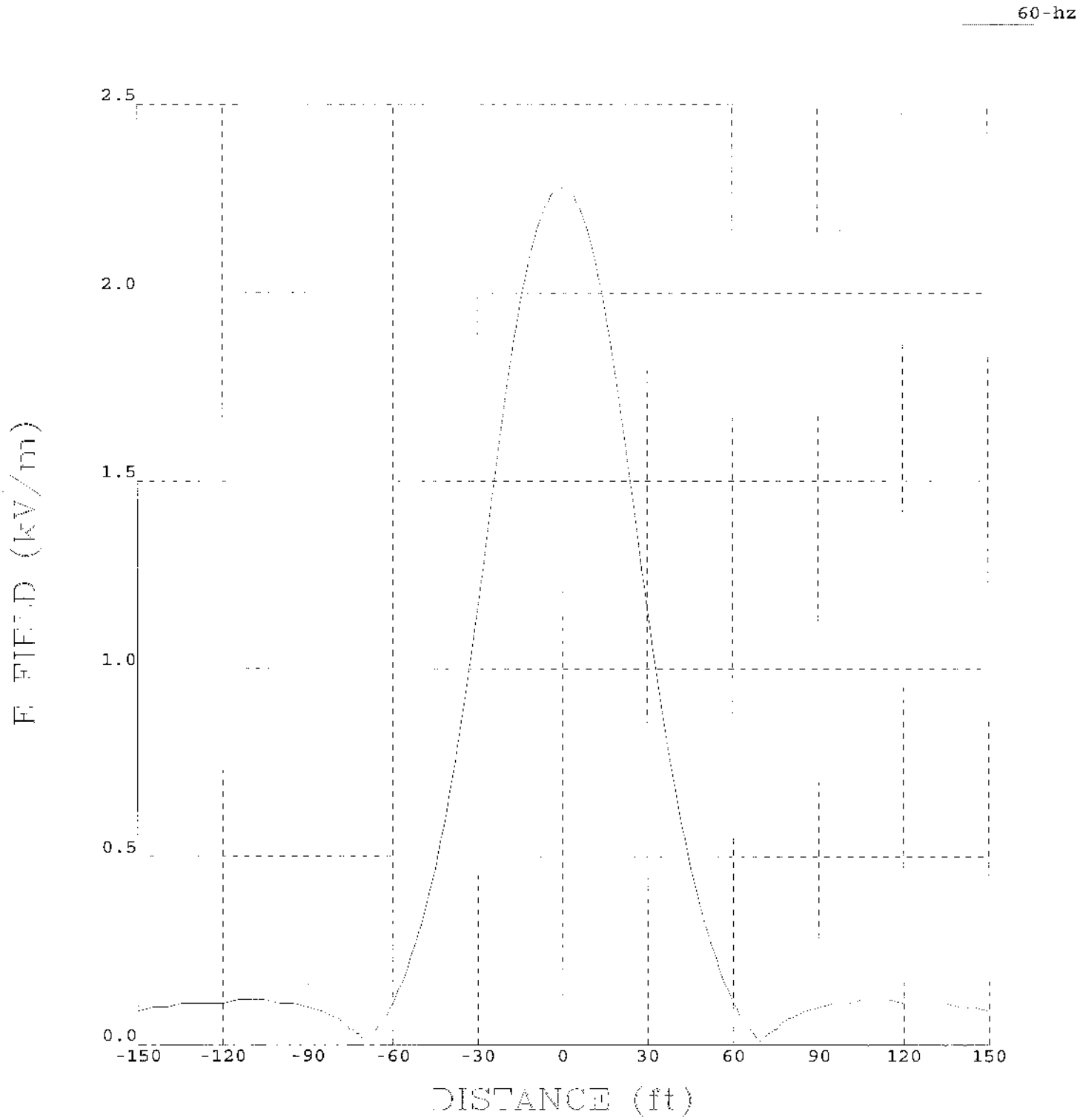
LATERAL DISTANCE (feet)	(meters)	ELECTRIC FIELD (kV/m)	MAGNETIC FIELD (RES) (mG)
-230.0	-70.10	0.157	19.8
-225.0	-68.58	0.149	21.8
-220.0	-67.06	0.126	23.4
-215.0	-65.53	0.089	24.4
-210.0	-64.01	0.051	24.3
-205.0	-62.48	0.073	23.4
-200.0	-60.96	0.106	22.1
-195.0	-59.44	0.127	21.2
-190.0	-57.91	0.138	21.0
-185.0	-56.39	0.144	21.6
-180.0	-54.86	0.153	22.9
-175.0	-53.34	0.168	24.4
-170.0	-51.82	0.188	25.9
-165.0	-50.29	0.211	27.1
-160.0	-48.77	0.233	28.0
-155.0	-47.24	0.252	28.1
-150.0	-45.72	0.262	27.5
-145.0	-44.20	0.258	25.9
-140.0	-42.67	0.237	23.6
-135.0	-41.15	0.198	20.9
-130.0	-39.62	0.149	18.3
-125.0	-38.10	0.099	16.2
-120.0	-36.58	0.060	14.6
-115.0	-35.05	0.058	13.8
-110.0	-33.53	0.080	13.7
-105.0	-32.00	0.101	14.1
-100.0	-30.48	0.116	14.8
-95.0	-28.96	0.123	15.9
-90.0	-27.43	0.124	17.2
-85.0	-25.91	0.118	18.7
-80.0	-24.38	0.103	20.5
-75.0	-22.86	0.081	22.4
-74.0	-22.56	0.076	22.8
-73.0	-22.25	0.070	23.3
-72.0	-21.95	0.064	23.7
-71.0	-21.64	0.058	24.1
-70.0	-21.34	0.052	24.6
-69.0	-21.03	0.047	25.1
-68.0	-20.73	0.041	25.6
-67.0	-20.42	0.037	26.0
-66.0	-20.12	0.037	26.6
-65.0	-19.81	0.044	27.1
-64.0	-19.51	0.053	27.6
-63.0	-19.20	0.063	28.2
-62.0	-18.90	0.075	28.7
-61.0	-18.59	0.088	29.3
-60.0	-18.29	0.103	29.9
-59.0	-17.98	0.118	30.5
-58.0	-17.68	0.135	31.1
-57.0	-17.37	0.153	31.7
-56.0	-17.07	0.172	32.4
-55.0	-16.76	0.192	33.0
-54.0	-16.46	0.213	33.7
-53.0	-16.15	0.236	34.4
-52.0	-15.85	0.260	35.1
-51.0	-15.54	0.285	35.8
-50.0	-15.24	0.312	36.6
-49.0	-14.94	0.340	37.3
-48.0	-14.63	0.369	38.1
-47.0	-14.33	0.400	38.9

-46.0	-14.02	0.433	39.7
-45.0	-13.72	0.467	40.5
-44.0	-13.41	0.502	41.3
-43.0	-13.11	0.540	42.1
-42.0	-12.80	0.578	43.0
-41.0	-12.50	0.619	43.8
-40.0	-12.19	0.661	44.7
-39.0	-11.89	0.704	45.6
-38.0	-11.58	0.749	46.5
-37.0	-11.28	0.796	47.3
-36.0	-10.97	0.844	48.2
-35.0	-10.67	0.894	49.1
-34.0	-10.36	0.945	50.0
-33.0	-10.06	0.998	50.9
-32.0	-9.75	1.051	51.8
-31.0	-9.45	1.106	52.6
-30.0	-9.14	1.161	53.5
-29.0	-8.84	1.218	54.3
-28.0	-8.53	1.275	55.1
-27.0	-8.23	1.332	55.9
-26.0	-7.92	1.389	56.7
-25.0	-7.62	1.447	57.4
-24.0	-7.32	1.504	58.1
-23.0	-7.01	1.560	58.8
-22.0	-6.71	1.616	59.4
-21.0	-6.40	1.671	59.9
-20.0	-6.10	1.724	60.4
-19.0	-5.79	1.776	60.9
-18.0	-5.49	1.825	61.3
-17.0	-5.18	1.873	61.6
-16.0	-4.88	1.919	61.9
-15.0	-4.57	1.962	62.1
-14.0	-4.27	2.002	62.2
-13.0	-3.96	2.040	62.2
-12.0	-3.66	2.075	62.2
-11.0	-3.35	2.107	62.2
-10.0	-3.05	2.136	62.0
-9.0	-2.74	2.162	61.8
-8.0	-2.44	2.186	61.5
-7.0	-2.13	2.206	61.2
-6.0	-1.83	2.223	60.8
-5.0	-1.52	2.238	60.4
-4.0	-1.22	2.250	59.9
-3.0	-0.91	2.259	59.4
-2.0	-0.61	2.266	58.9
-1.0	-0.30	2.270	58.3
0.0	0.00	2.271	57.7
1.0	0.30	2.270	57.1
2.0	0.61	2.267	56.4
3.0	0.91	2.260	55.7
4.0	1.22	2.251	55.1
5.0	1.52	2.240	54.4
6.0	1.83	2.225	53.7
7.0	2.13	2.208	53.0
8.0	2.44	2.188	52.3
9.0	2.74	2.165	51.6
10.0	3.05	2.139	50.9
11.0	3.35	2.110	50.2
12.0	3.66	2.079	49.5
13.0	3.96	2.044	48.8
14.0	4.27	2.007	48.1
15.0	4.57	1.967	47.4
16.0	4.88	1.924	46.7
17.0	5.18	1.879	46.0
18.0	5.49	1.831	45.3
19.0	5.79	1.782	44.6
20.0	6.10	1.730	43.9
21.0	6.40	1.678	43.2
22.0	6.71	1.623	42.5

23.0	7.01	1.568	41.9
24.0	7.32	1.512	41.2
25.0	7.62	1.455	40.5
26.0	7.92	1.398	39.8
27.0	8.23	1.341	39.1
28.0	8.53	1.284	38.4
29.0	8.84	1.228	37.7
30.0	9.14	1.172	37.1
31.0	9.45	1.117	36.4
32.0	9.75	1.062	35.7
33.0	10.06	1.009	35.1
34.0	10.36	0.957	34.4
35.0	10.67	0.906	33.8
36.0	10.97	0.857	33.2
37.0	11.28	0.809	32.5
38.0	11.58	0.763	31.9
39.0	11.89	0.718	31.3
40.0	12.19	0.675	30.7
41.0	12.50	0.633	30.1
42.0	12.80	0.593	29.6
43.0	13.11	0.555	29.0
44.0	13.41	0.518	28.4
45.0	13.72	0.483	27.9
46.0	14.02	0.449	27.3
47.0	14.33	0.417	26.8
48.0	14.63	0.387	26.3
49.0	14.94	0.358	25.8
50.0	15.24	0.330	25.3
51.0	15.54	0.303	24.8
52.0	15.85	0.278	24.4
53.0	16.15	0.254	23.9
54.0	16.46	0.232	23.4
55.0	16.76	0.211	23.0
56.0	17.07	0.190	22.6
57.0	17.37	0.171	22.1
58.0	17.68	0.153	21.7
59.0	17.98	0.137	21.3
60.0	18.29	0.121	20.9
61.0	18.59	0.106	20.5
62.0	18.90	0.092	20.2
63.0	19.20	0.079	19.8
64.0	19.51	0.067	19.4
65.0	19.81	0.057	19.1
66.0	20.12	0.047	18.7
67.0	20.42	0.039	18.4
68.0	20.73	0.033	18.1
69.0	21.03	0.030	17.8
70.0	21.34	0.031	17.4
71.0	21.64	0.034	17.1
72.0	21.95	0.039	16.8
73.0	22.25	0.044	16.6
74.0	22.56	0.049	16.3
75.0	22.86	0.054	16.0
80.0	24.38	0.077	14.7
85.0	25.91	0.094	13.5
90.0	27.43	0.107	12.5
95.0	28.96	0.114	11.6
100.0	30.48	0.119	10.8
105.0	32.00	0.121	10.0
110.0	33.53	0.122	9.4
115.0	35.05	0.121	8.8
120.0	36.58	0.119	8.2
125.0	38.10	0.116	7.7
130.0	39.62	0.113	7.3
135.0	41.15	0.110	6.9
140.0	42.67	0.107	6.5
145.0	44.20	0.103	6.1
150.0	45.72	0.100	5.8

161 kV DCT Configuration 1

Electric Field Profile - (A:\SALTON1.EMF)

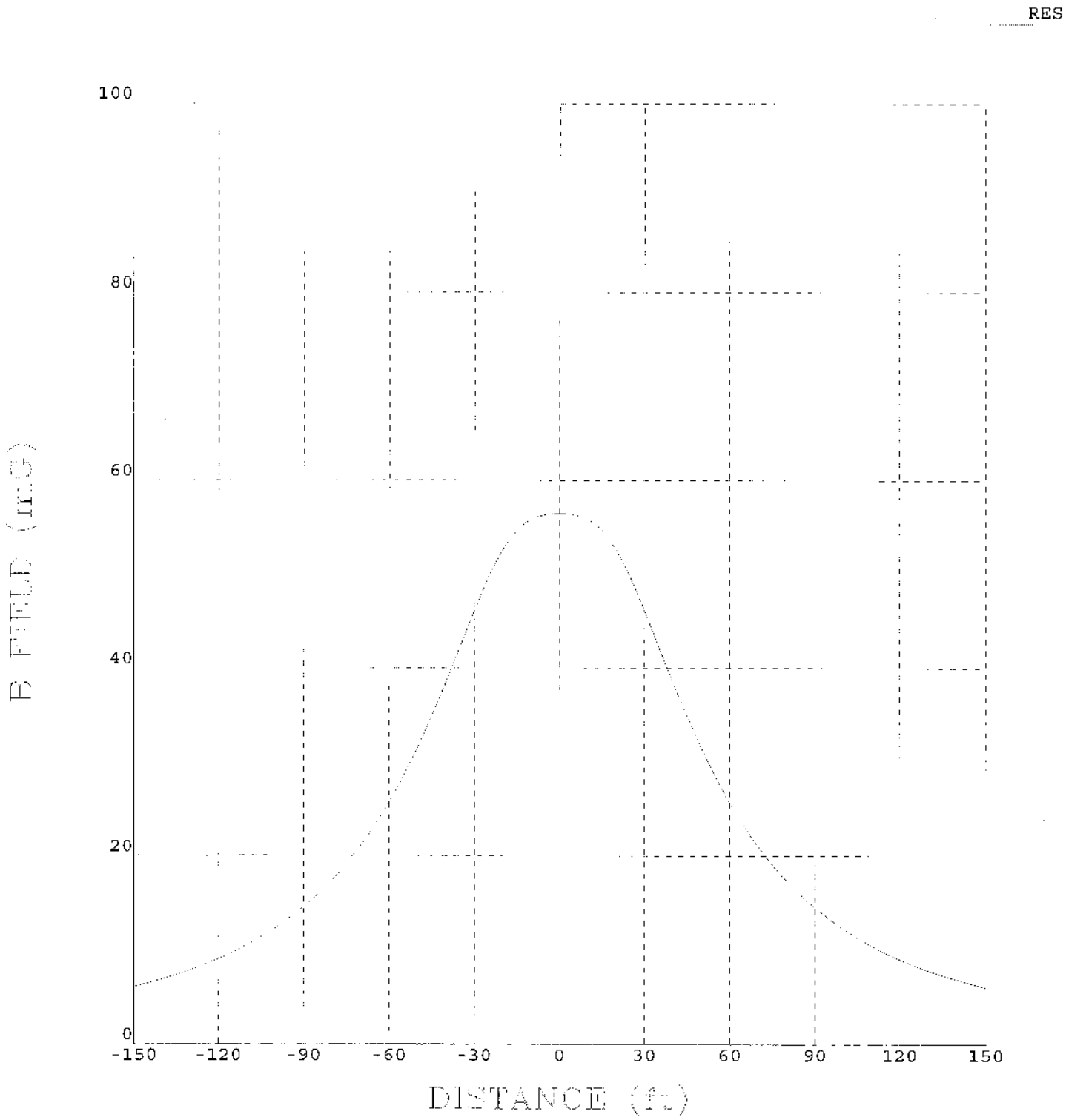


Min Value: 0.0 kV/m at -70.0 ft

Max Value: 2.3 kV/m at -1.0 ft

161 kV DCT Configuration 1

Magnetic Field Profile - (A:\SALTON1.EMF)

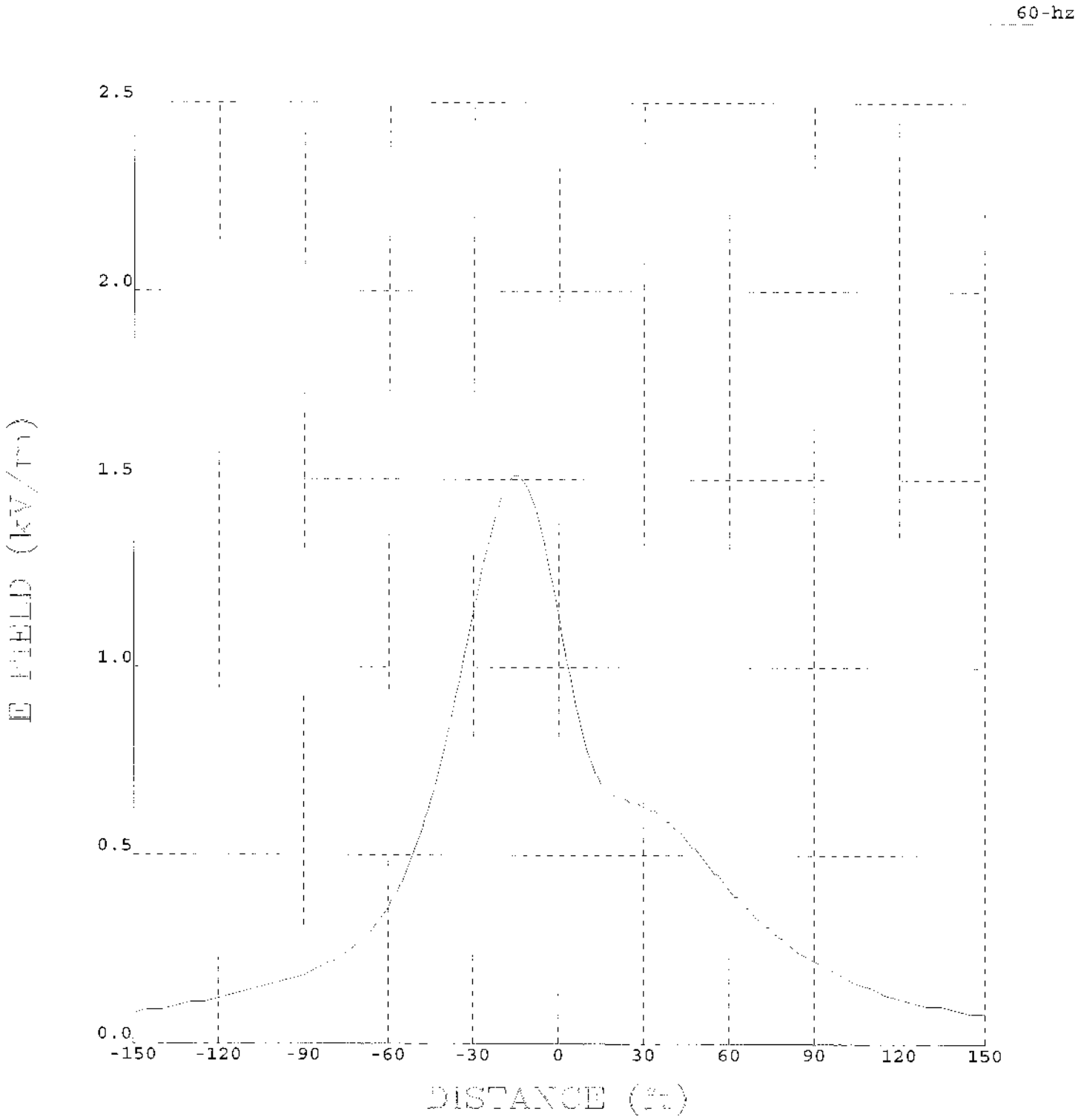


Min RES: 6.1 mG at -150.0 ft

Max RES: 56.5 mG at 0.0 ft

161 kV SCI Configuration 2

Electric Field Profile - (A:\SALTON2.EMF)

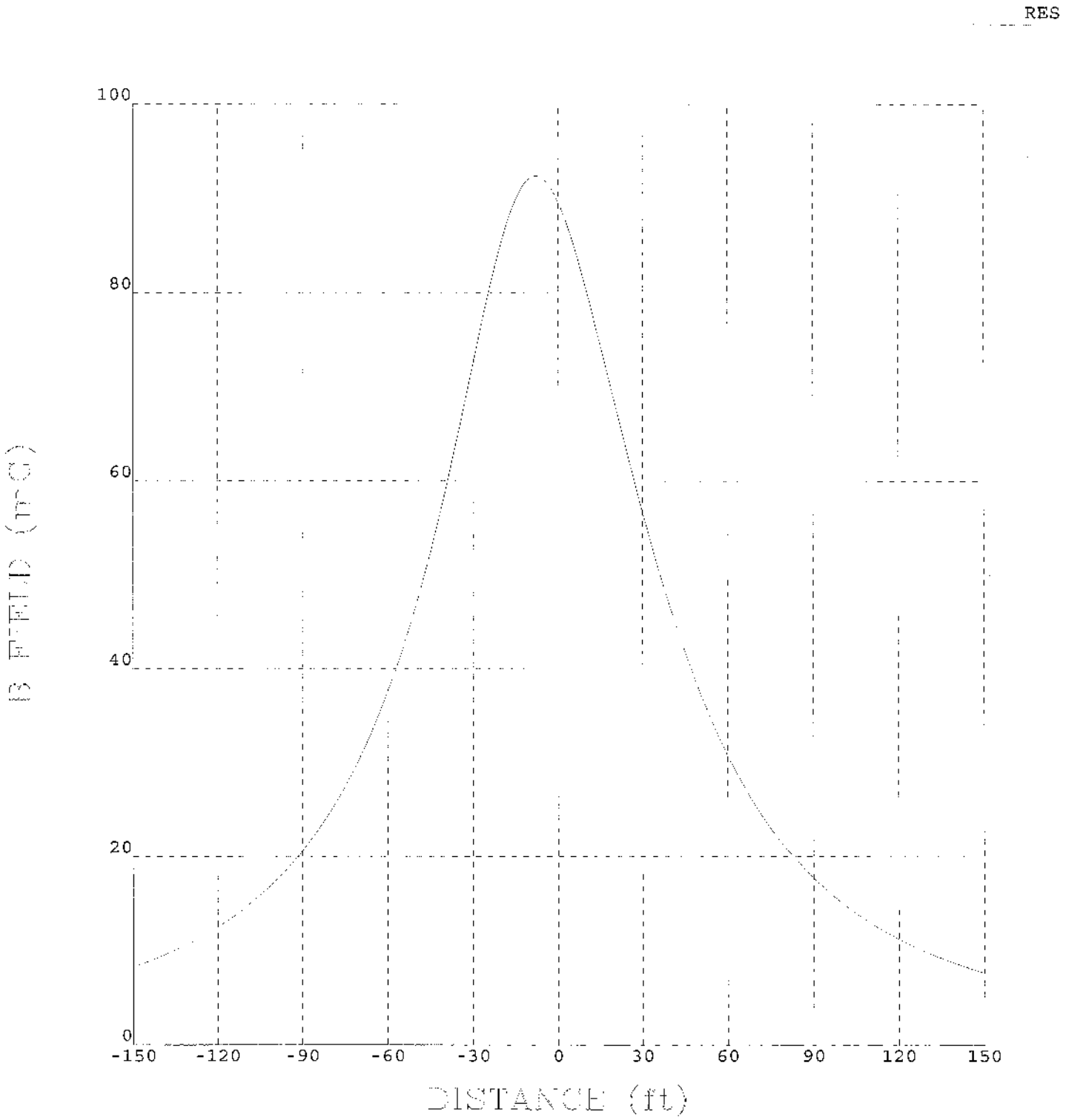


Min Value: 0.1 kV/m at -150.0 ft

Max Value: 1.5 kV/m at -16.0 ft

161 kV SCF Configuration 2

Magnetic Field Profile - (A:\SALTON2.EMF)



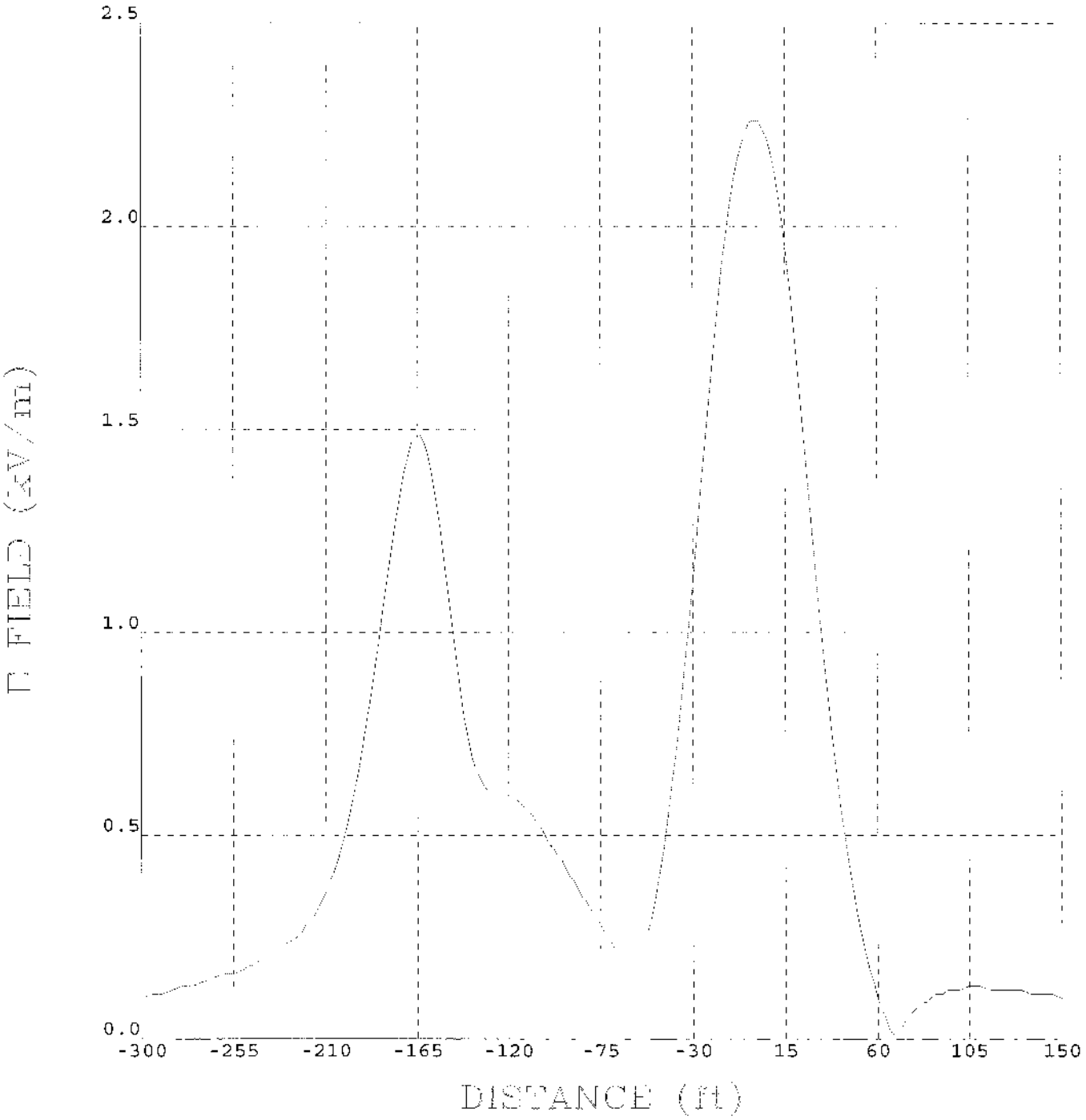
Min RES: 7.7 mG at 150.0 ft

Max RES: 92.4 mG at -8.0 ft

161 kV Del/Del Configuration 3

Electric Field Profile - (A:\SALTON3.EMF)

60-hz

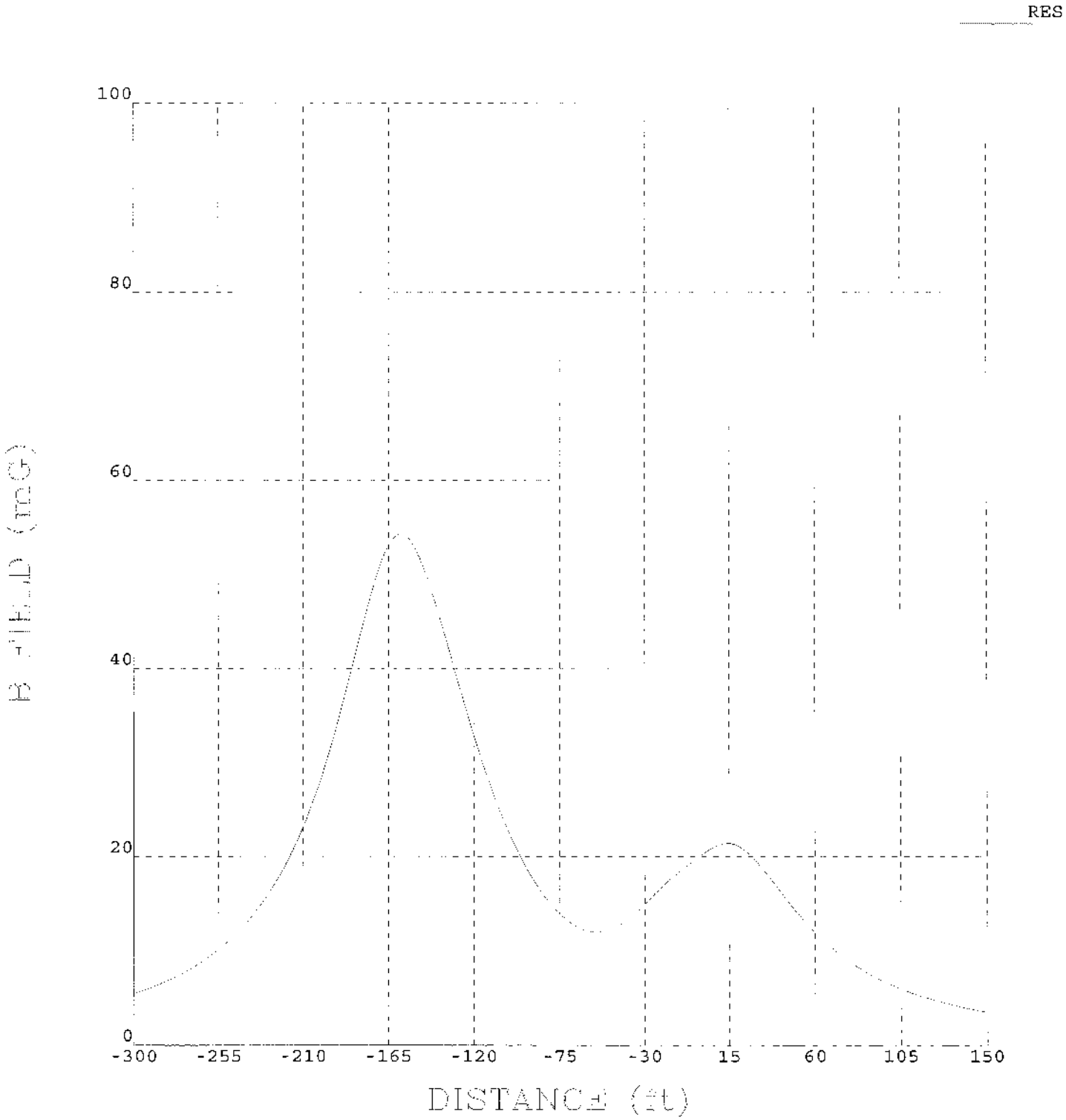


Min Value: 0.0 kV/m at 68.0 ft

Max Value: 2.3 kV/m at -2.0 ft

161 kV DCT/DCT configuration 3

Magnetic Field Profile - (A:\SALTON3.EMF)

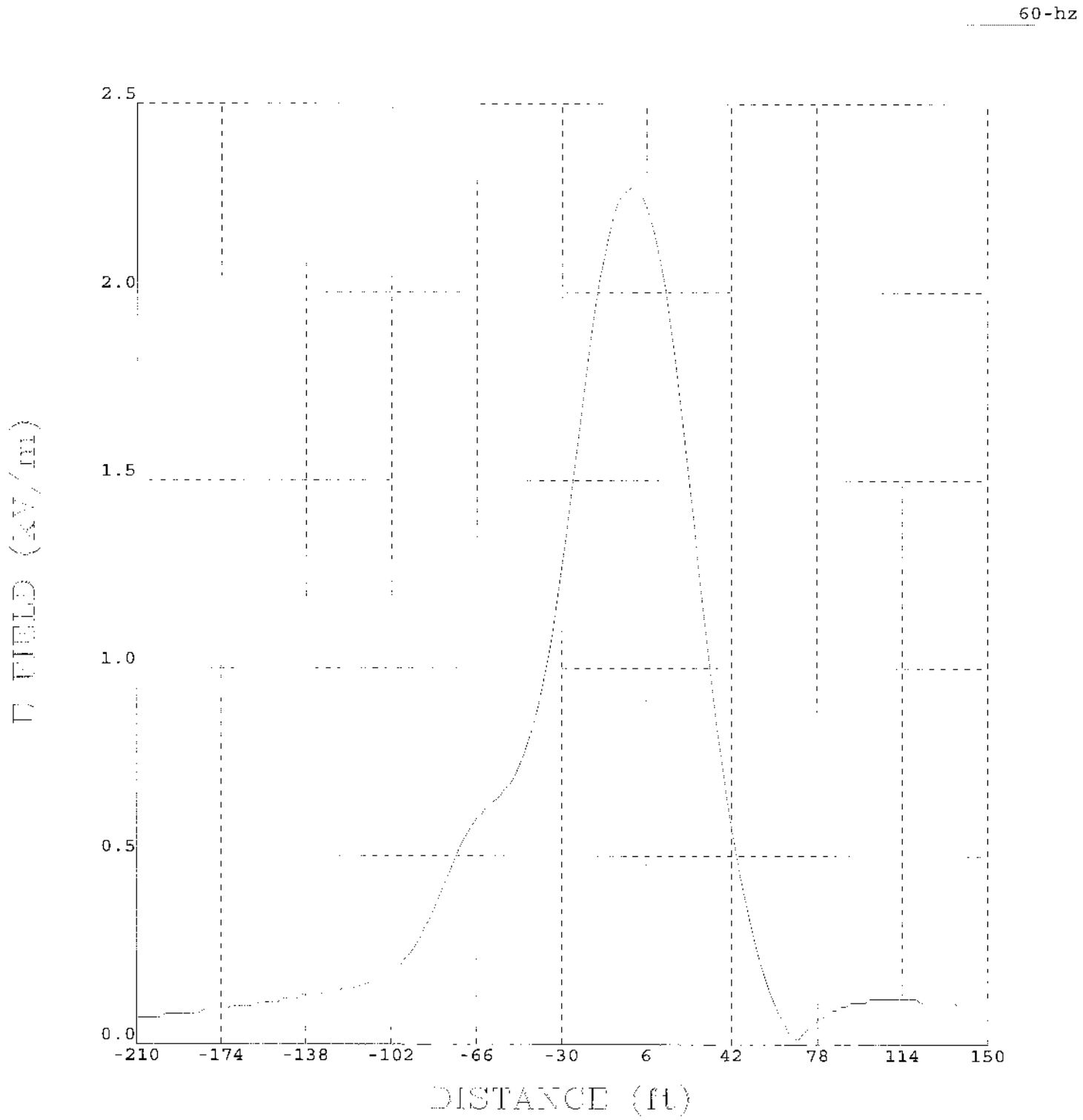


Min RES: 3.5 mG at 150.0 ft

Max RES: 54.3 mG at -158.0 ft

92 kV SCP / 161 kV DCP Configuration 4

Electric Field Profile - (A:\SALTON4.EMF)

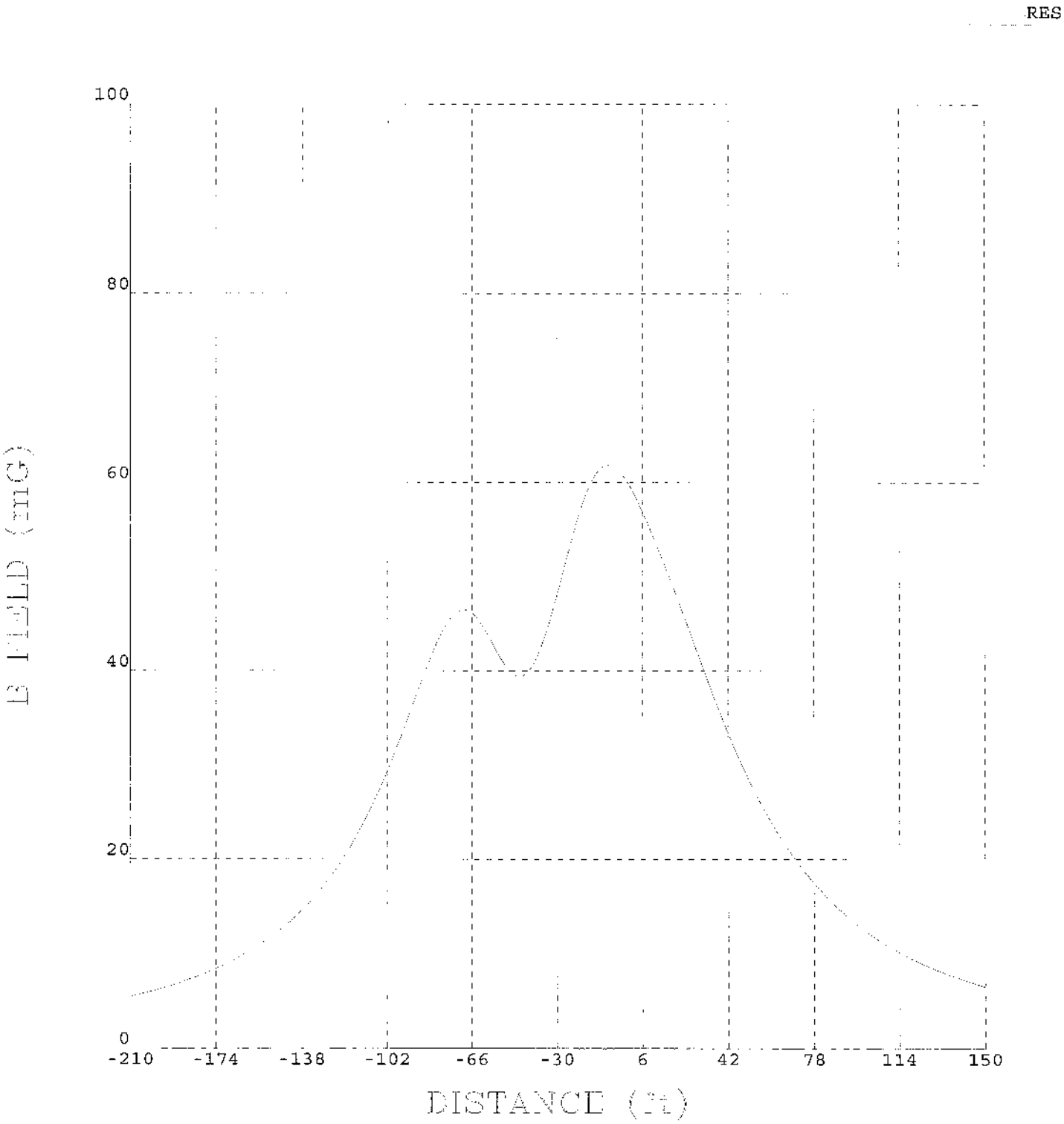


Min Value: 0.0 kV/m at 70.0 ft

Max Value: 2.3 kV/m at 0.0 ft

92 kV SCF / 161 kV DCF Configuration 4

Magnetic Field Profile - (A:\SALTON4.EMF)



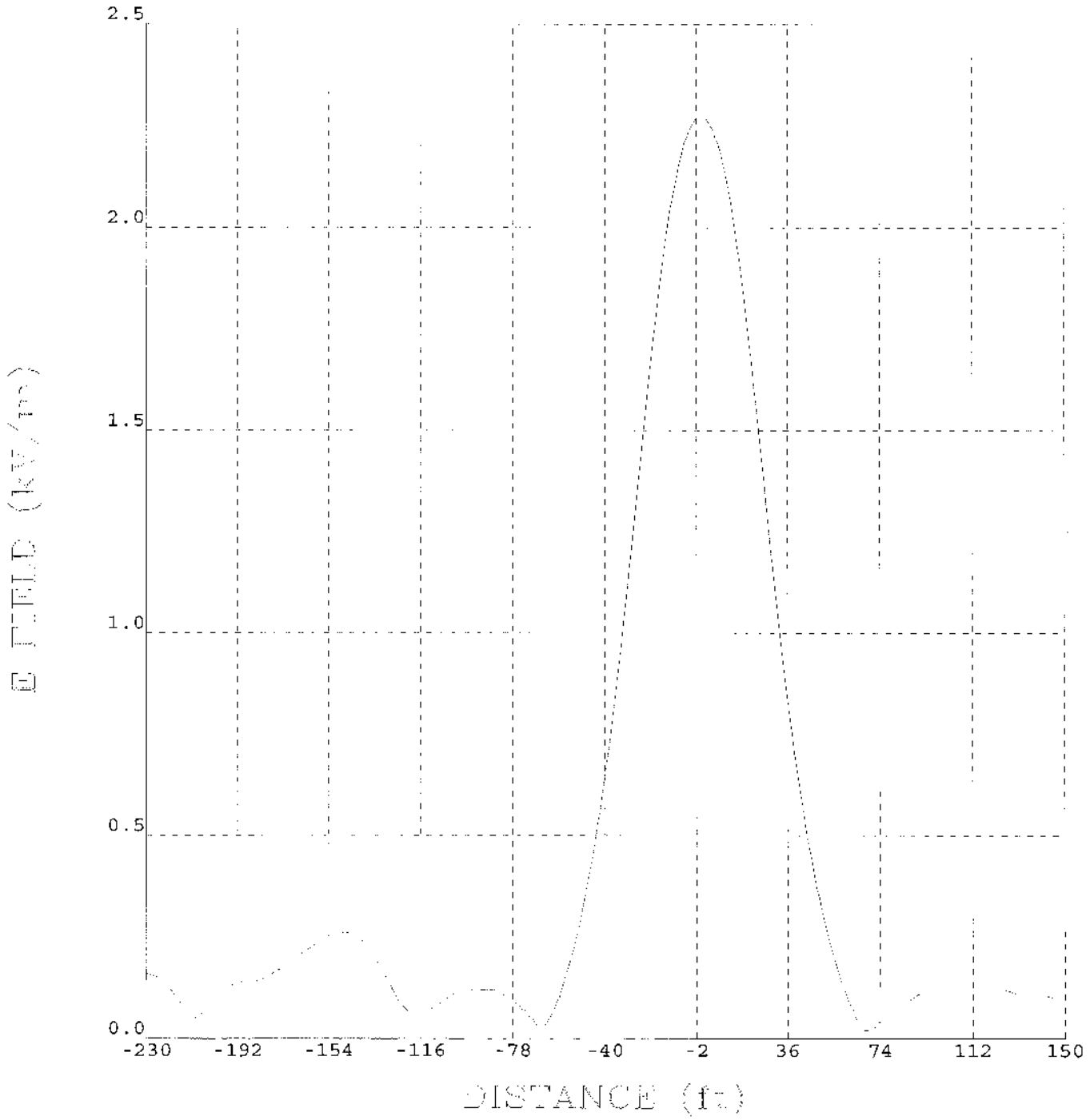
Min RES: 5.5 mG at -210.0 ft

Max RES: 61.9 mG at -8.0 ft

34.5 kV DCF / 32 kV DCF & 13.8 kV Dist / 161 kV DCF Configuration 5

Electric Field Profile - (A:\SALTON 5.EMF)

60-hz

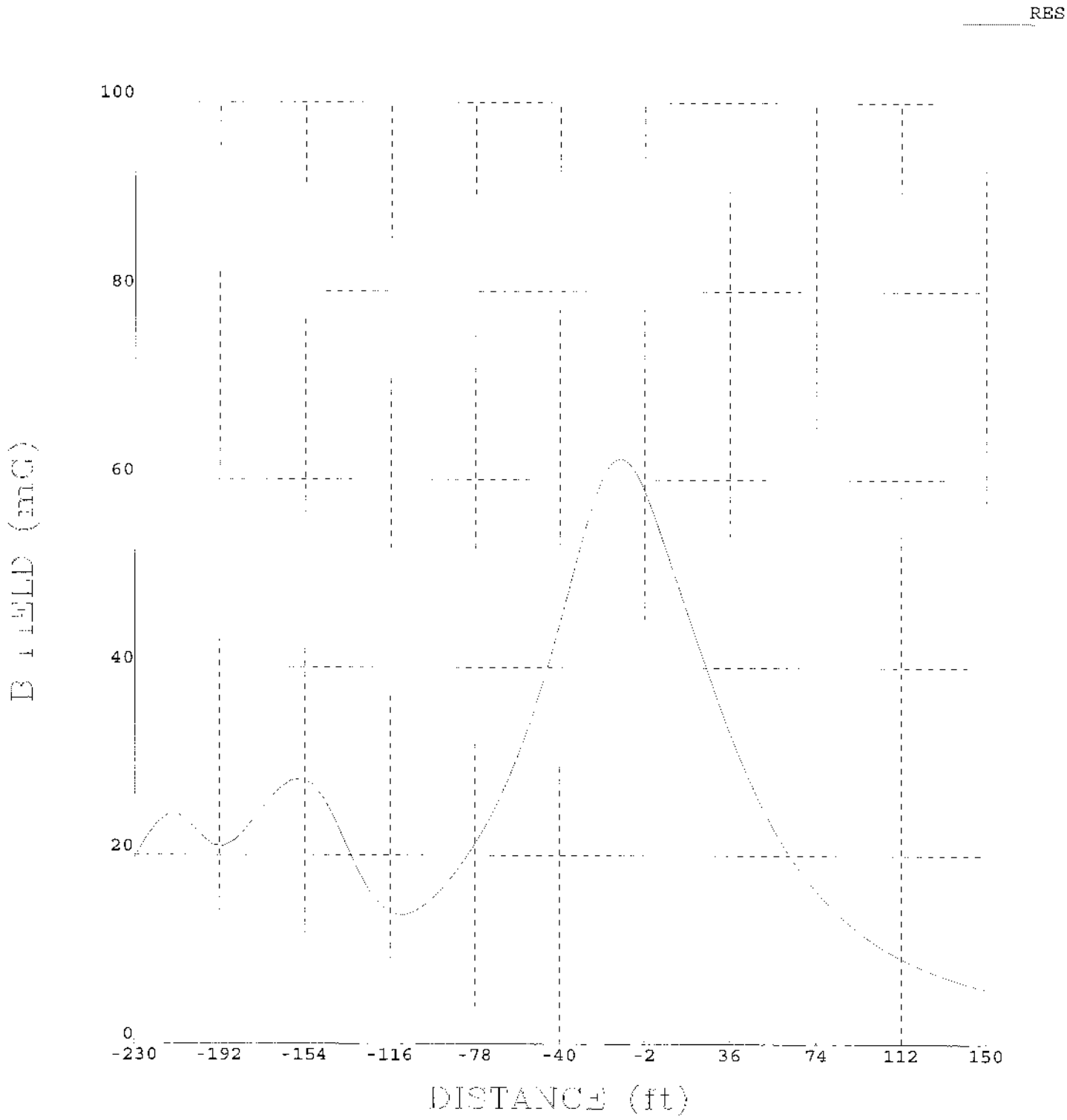


Min Value: 0.0 kV/m at 67.0 ft

Max Value: 2.3 kV/m at -2.0 ft

34.5 kV Bcr / 92 kV Bcr & 13.8 kV Bisc / 161 kV Bcr configuration 5

Magnetic Field Profile - (A:\SALTON 5.EMF)



Min RES: 5.8 mG at 150.0 ft

Max RES: 62.2 mG at -13.0 ft

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: A:\SALTON1.101
DATE: 5/23/2002 TIME: 10: 5

161 kV DCT Configuration 1

BUNDLE INFORMATION

BNDL #	CIRC #	VOLTAGE (kV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	Y (FT)	PHASE
1	1	161.0	.0	390.0	.0	1	-12.5	68.8	A
2	1	161.0	240.0	390.0	240.0	1	-12.5	51.9	B
3	1	161.0	120.0	390.0	120.0	1	-12.5	35.0	C
4	2	161.0	.0	390.0	.0	1	12.5	68.8	A
5	2	161.0	240.0	390.0	240.0	1	12.5	51.9	B
6	2	161.0	120.0	390.0	120.0	1	12.5	35.0	C
7	1	.0	.0	.0	.0	1	.0	105.0	GND

MINIMUM GROUND CLEARANCE = 35.000 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.245	.000	.08900	.09100	.385000
2	1.245	.000	.08900	.09100	.385000
3	1.245	.000	.08900	.09100	.385000
4	1.245	.000	.08900	.09100	.385000
5	1.245	.000	.08900	.09100	.385000
6	1.245	.000	.08900	.09100	.385000
7	.540	.000	6.74000	6.93000	1.440000

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: A:\SALTON2.101
DATE: 5/23/2002 TIME: 10: 6

161 kV SCT Configuration 2

BUNDLE INFORMATION

BNDL #	CIRC #	VOLTAGE (kV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	Y (FT)	PHASE
1	1	161.0	.0	780.0	.0	1	-12.5	68.8	A
2	1	161.0	240.0	780.0	240.0	1	12.5	51.9	B
3	1	161.0	120.0	780.0	120.0	1	-12.5	35.0	C
4	1	.0	.0	.0	.0	1	.0	105.0	GND

MINIMUM GROUND CLEARANCE = 35.000 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.245	.000	.08900	.09100	.385000
2	1.245	.000	.08900	.09100	.385000
3	1.245	.000	.08900	.09100	.385000
4	.540	.000	6.74000	6.93000	1.440000

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: A:\SALTON3.101
DATE: 5/23/2002 TIME: 10: 7

161 kV SCT/DCT Configuration 3

BUNDLE INFORMATION

BNDL #	CIRC #	VOLTAGE (kV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	Y (FT)	PHASE
1	1	161.0	.0	470.0	.0	1	-162.5	68.8	A
2	1	161.0	240.0	470.0	240.0	1	-137.5	51.9	B
3	1	161.0	120.0	470.0	120.0	1	-162.5	35.0	C
4	1	.0	.0	.0	.0	1	-150.0	105.0	GND
5	2	161.0	.0	120.0	.0	1	-12.5	68.8	A
6	2	161.0	240.0	120.0	240.0	1	-12.5	51.9	B
7	2	161.0	120.0	120.0	120.0	1	-12.5	35.0	C
8	3	161.0	.0	190.0	.0	1	12.5	68.8	A
9	3	161.0	240.0	190.0	240.0	1	12.5	51.9	B
10	3	161.0	120.0	190.0	120.0	1	12.5	35.0	C
11	3	.0	.0	.0	.0	1	.0	105.0	GND

MINIMUM GROUND CLEARANCE = 35.000 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.245	.000	.08900	.09100	.385000
2	1.245	.000	.08900	.09100	.385000
3	1.245	.000	.08900	.09100	.385000
5	1.245	.000	.08900	.09100	.385000
6	1.245	.000	.08900	.09100	.385000
7	1.245	.000	.08900	.09100	.385000
8	1.245	.000	.08900	.09100	.385000
9	1.245	.000	.08900	.09100	.385000
10	1.245	.000	.08900	.09100	.385000
4	.540	.000	6.74000	6.93000	1.440000
11	.540	.000	6.74000	6.93000	1.440000

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: A:\SALTON4.I01
DATE: 5/23/2002 TIME: 10: 8

92 kV SCT / 161 kV DCT Configuration 4

BUNDLE INFORMATION

BNDL #	CIRC #	VOLTAGE (kV)	VOLTAGE ANGLE (DEG)	LOAD (AMPS)	CURRENT ANGLE (DEG)	# OF COND	COORDINATES X (FT)	Y (FT)	PHASE
1	1	92.0	.0	630.0	.0	1	-65.0	47.0	A
2	1	92.0	240.0	630.0	240.0	1	-55.0	41.0	B
3	1	92.0	120.0	630.0	120.0	1	-65.0	35.0	C
4	1	.0	.0	.0	.0	1	-60.0	63.5	GND
5	2	161.0	.0	640.0	.0	1	-12.5	68.8	A
6	2	161.0	240.0	640.0	240.0	1	-12.5	51.9	B
7	2	161.0	120.0	640.0	120.0	1	-12.5	35.0	C
8	3	161.0	.0	140.0	.0	1	12.5	68.8	A
9	3	161.0	240.0	140.0	240.0	1	12.5	51.9	B
10	3	161.0	120.0	140.0	120.0	1	12.5	35.0	C
11	3	.0	.0	.0	.0	1	.0	105.0	GND

MINIMUM GROUND CLEARANCE = 35.000 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.026	.000	.11700	.12000	.415000
2	1.026	.000	.11700	.12000	.415000
3	1.026	.000	.11700	.12000	.415000
5	1.245	.000	.08900	.09100	.385000
6	1.245	.000	.08900	.09100	.385000
7	1.245	.000	.08900	.09100	.385000
8	1.245	.000	.08900	.09100	.385000
9	1.245	.000	.08900	.09100	.385000
10	1.245	.000	.08900	.09100	.385000
4	.360	.000	6.74000	6.93000	1.440000
11	.540	.000	6.74000	6.93000	1.440000

RESULTS OF ENVIRO PROGRAM

STUDY FILE NAME: A:\SALTON_5.I01
DATE: 6/ 5/2002 TIME: 15:12

34.5 kV SCT / 92 kV DCT & 13.8 kV Dist. / 161 kV DCT Configuration 5

BUNDLE INFORMATION

BNDL	CIRC	VOLTAGE	VOLTAGE ANGLE	LOAD	CURRENT ANGLE	# OF	COORDINATES X	Y	PHASE

#	#	(kV)	(DEG)	(AMPS)	(DEG)	COND	(FT)	(FT)	
1	1	92.0	.0	729.0	.0	1	-154.5	50.0	A
2	1	92.0	240.0	729.0	240.0	1	-154.5	44.0	B
3	1	92.0	120.0	729.0	120.0	1	-154.5	38.0	C
4	2	92.0	.0	440.0	.0	1	-145.5	50.0	A
5	2	92.0	240.0	440.0	240.0	1	-145.5	44.0	B
6	2	92.0	120.0	440.0	120.0	1	-145.5	38.0	C
7	1	.0	.0	.0	.0	1	-151.0	59.0	GND
8	3	161.0	.0	640.0	.0	1	-12.5	68.8	A
9	3	161.0	240.0	640.0	240.0	1	-12.5	51.9	B
10	3	161.0	120.0	640.0	120.0	1	-12.5	35.0	C
11	4	161.0	.0	140.0	.0	1	12.5	68.8	A
12	4	161.0	240.0	140.0	240.0	1	12.5	51.9	B
13	4	161.0	120.0	140.0	120.0	1	12.5	35.0	C
14	3	.0	.0	.0	.0	1	.0	105.0	GND
15	5	34.5	.0	197.0	.0	1	-214.6	32.0	A
16	5	34.5	240.0	197.0	240.0	1	-211.6	32.0	B
17	5	34.5	120.0	197.0	120.0	1	-205.4	32.0	C
18	6	13.8	.0	209.0	.0	1	-154.6	29.8	A
19	6	13.8	240.0	209.0	240.0	1	-151.6	29.8	B
20	6	13.8	120.0	209.0	120.0	1	-148.4	29.8	C
21	6	.0	.0	.0	.0	1	-145.4	29.8	GND

MINIMUM GROUND CLEARANCE = 29.800 FT.

SUBCONDUCTOR INFORMATION - REGULAR BUNDLES

BNDL #	DIAMETER (IN)	SPACING (IN)	DC RESIST. (OHMS/MI)	AC RESIST. (OHMS/MI)	AC REACT. (OHMS/MI)
1	1.026	.000	.11700	.12000	.415000
2	1.026	.000	.11700	.12000	.415000
3	1.026	.000	.11700	.12000	.415000
4	1.026	.000	.11700	.12000	.415000
5	1.026	.000	.11700	.12000	.415000
6	1.026	.000	.11700	.12000	.415000
8	1.245	.000	.08900	.09100	.385000
9	1.245	.000	.08900	.09100	.385000
10	1.245	.000	.08900	.09100	.385000
11	1.245	.000	.08900	.09100	.385000
12	1.245	.000	.08900	.09100	.385000
13	1.245	.000	.08900	.09100	.385000
15	.723	.000	.23400	.23500	.459000
16	.723	.000	.23400	.23500	.459000
17	.723	.000	.23400	.23500	.459000
18	.723	.000	.23400	.23500	.459000
19	.723	.000	.23400	.23500	.459000
20	.723	.000	.23400	.23500	.459000
7	.360	.000	6.74000	6.93000	1.440000
14	.540	.000	6.74000	6.93000	1.440000
21	.723	.000	.23400	.23500	.459000