WorleyParsons
resources & energy

Geotechnical Sample Results
FPL Energy - Project Genesis

Borehloe	Depth (feet bgs)	USCS Symbol	Particle Size Distribution, wt. percent						Silt & Clay	SAMPLE ORIENTATION [1]	MOISTURE CONTENT (% weight)	DENSITY		POROSITY [2] (%Vb)		TOTAL PORE FLUID SATURATIONS [3] (% Pv)	25 PSI CONFINING STRESS	
			Gravel	Sand Size			Silt	Clay				BULK (g/cc)	GRAIN, (g/cc)	TOTAL	AIR FILLED		EFFECTIVE [3,4] PERMEABILITY TO WATER (millidarcy)	HYDRAULIC CONDUCTIVITY [2,3] (cm/s)
				Coarse	Medium	Fine												
		Methods	ASTM D422/D4464M								API RP 40 /ASTM D2216	API RP 40		API RP 40		API RP 40	API RP 40; EPA 9100	
TW-1	266	CL	0.00	0.00	0.00	1.29	34.07	64.64	98.71	V	41.4	1.21	2.59	53.6	3.7	93.1	0.460	4.35E-07
OBS-2	360	CL	0.00	0.00	0.00	0.00	28.91	71.09	100.00	V	- -	- -	- -	- -	- -	- -	0.475	4.59E-07
OBS-2	400	ML	0.00	0.00	0.00	44.74	47.91	7.36	55.26	V	36.5	1.33	2.64	49.5	0.9	98.1	1.86	1.80E-06
OBS-2	420	CL	0.00	0.00	0.00	1.76	41.00	57.24	98.24	V	43.4	1.22	2.68	54.4	1.2	97.7	0.501	4.73E-07
OBS-2	440	CL	0.00	0.00	0.00	0.03	32.74	67.24	99.97	V	- -	- -	- -	- -	- -	- -	1.03	9.71E-07
OBS-2	510	CL	0.00	0.00	0.00	8.57	45.22	46.21	91.43	V	43.4	1.21	2.63	53.7	1.1	98.0	0.781	7.54E-07
OBS-2	550	CL	0.00	0.00	0.00	0.01	25.58	74.41	99.99	V	35.3	1.36	2.65	48.5	0.5	98.9	0.977	9.43E-07
OBS-2	600	CL	0.00	0.00	0.00	1.59	44.92	53.48	98.41	V	41.2	1.20	2.65	54.7	5.1	90.6	0.819	7.88E-07
OBS-2	700	ML	0.00	0.00	0.00	0.00	51.14	48.86	100.00	V	22.6	1.62	2.66	39.1	2.4	93.9	0.226	2.24E-07
OBS-2	800	SM	0.00	0.00	0.00	67.78	29.01	3.22	32.22	V	24.4	1.48	2.64	44.0	7.9	82.0	395	3.91E-04

Notes:
1. V = vertical
2. Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids
3. Water = 0.9996 g/cc
4. Native State or Effective = With as-received pore fluids in place
5. Permeability to water and hydraulic conductivity measured at saturated conditions
6. Vb = Bulk Volume, cubic centimeters
7. Pv = Pore Volume, cubic centimeters
8. g/cc = grams per cubic centimeter
9. cm/s = centimeter per second
10. % = percent
11. bgs = below ground surface

PTS File No: 39506
Client: Worley Parsons

PTS Laboratories

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY PACKAGE

PROJECT NAME: Project Genesis
PROJECT NO: Ford Dry Lake

		METHODS:	API RP 40 / ASTM D2216	API RP 40		API RP 40		API RP 40	API RP 40; EPA 9100	
									25 PSI CONFINING STRESS	
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	MOISTURE CONTENT, % weight	DENSITY BULK, g/cc	DENSITY GRAIN, g/cc	POROSITY, %Vb (2) TOTAL	POROSITY, %Vb (2) AIR FILLED	TOTAL PORE FLUID SATURATIONS (3), % Pv	EFFECTIVE (4,5) PERMEABILITY TO WATER, millidarcy	HYDRAULIC CONDUCTIVITY (4,5), cm/s
TW-1 BOUSE	266	V	41.4	1.21	2.59	53.6	3.7	93.1	0.460	4.35E-07
420 OBS-2	420	V	43.4	1.22	2.68	54.4	1.2	97.7	0.501	4.73E-07
510 OBS-2	510	V	43.4	1.21	2.63	53.7	1.1	98.0	0.781	7.54E-07
400	400	V	36.5	1.33	2.64	49.5	0.9	98.1	1.86	1.80E-06
550	550	V	35.3	1.36	2.65	48.5	0.5	98.9	0.977	9.43E-07
600	600	V	41.2	1.20	2.65	54.7	5.1	90.6	0.819	7.88E-07
700	700	V	22.6	1.62	2.66	39.1	2.4	93.9	0.226	2.24E-07
800	800	V	24.4	1.48	2.64	44.0	7.9	82.0	395	3.91E-04

(1) Sample Orientation: H = horizontal; V = vertical (2) Total Porosity = no pore fluids in place; all interconnected pore channels; Air Filled = pore channels not occupied by pore fluids (3) Water = 0.9996 g/cc (4) Native State or Effective = With as-received pore fluids in place (5) Permeability to water and hydraulic conductivity measured at saturated conditions; Vb = Bulk Volume, cc; Pv = Pore Volume, cc; ND = Not Detected

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY PACKAGE

PROJECT NAME: Project Genesis
PROJECT NO: Ford Dry Lake

		METHODS:	API RP 40 / ASTM D2216	API RP 40		API RP 40		API RP 40	API RP 40; EPA 9100	
									25 PSI CONFINING STRESS	
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	MOISTURE CONTENT, % weight	DENSITY BULK, g/cc	DENSITY GRAIN, g/cc	POROSITY, %Vb (2) TOTAL	POROSITY, %Vb (2) AIR FILLED	TOTAL PORE FLUID SATURATIONS (3), % Pv	EFFECTIVE (4,5) PERMEABILITY TO WATER, millidarcy	HYDRAULIC CONDUCTIVITY (4,5), cm/s

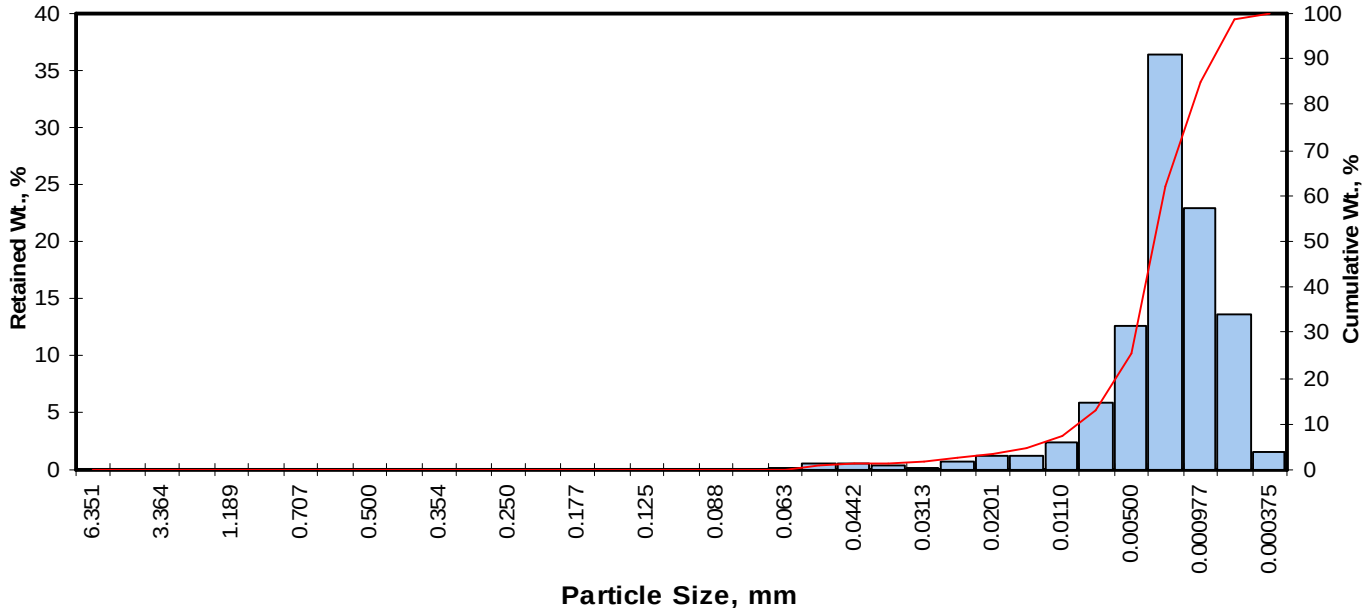
= Pore volume, cc, ND = Not Detected

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	550
Project No:	Ford Dry Lake	**Depth, ft:**	550

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.01	0.01	0.01
0.0025	0.063	4.00	230	0.16	0.16	0.17
0.0021	0.053	4.25	270	0.50	0.50	0.67
0.00174	0.0442	4.50	325	0.51	0.51	1.18
0.00146	0.0372	4.75	400	0.30	0.30	1.48
0.00123	0.0313	5.00	450	0.25	0.25	1.73
0.000986	0.0250	5.32	500	0.67	0.67	2.40
0.000790	0.0201	5.64	635	1.15	1.15	3.55
0.000615	0.0156	6.00		1.18	1.18	4.73
0.000435	0.0110	6.50		2.45	2.45	7.18
0.000308	0.00781	7.00		5.89	5.89	13.08
0.000197	0.00500	7.65		12.50	12.51	25.59
0.000077	0.00195	9.00		36.40	36.42	62.01
0.000038	0.000977	10.00		22.90	22.91	84.92
0.000019	0.000488	11.00		13.60	13.61	98.53
0.000015	0.000375	11.38		1.47	1.47	100.00
TOTALS				**99.90**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	6.05	0.0006	0.015
10	6.74	0.0004	0.009
16	7.15	0.0003	0.007
25	7.61	0.0002	0.005
40	8.18	0.0001	0.003
50	8.55	0.0001	0.003
60	8.93	0.0001	0.002
75	9.57	0.0001	0.001
84	9.96	0.0000	0.001
90	10.37	0.0000	0.001
95	10.74	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	8.55	8.55	8.55
Median, in.	0.0001	0.0001	0.0001
Median, mm	0.003	0.003	0.003
Mean, phi	8.28	8.56	8.55
Mean, in.	0.0001	0.0001	0.0001
Mean, mm	0.003	0.003	0.003
Sorting	1.967	1.405	1.412
Skewness	0.974	0.001	-0.033
Kurtosis	0.220	0.668	0.984
Grain Size Description (ASTM-USCS Scale)		Clay (based on Mean from Trask)	

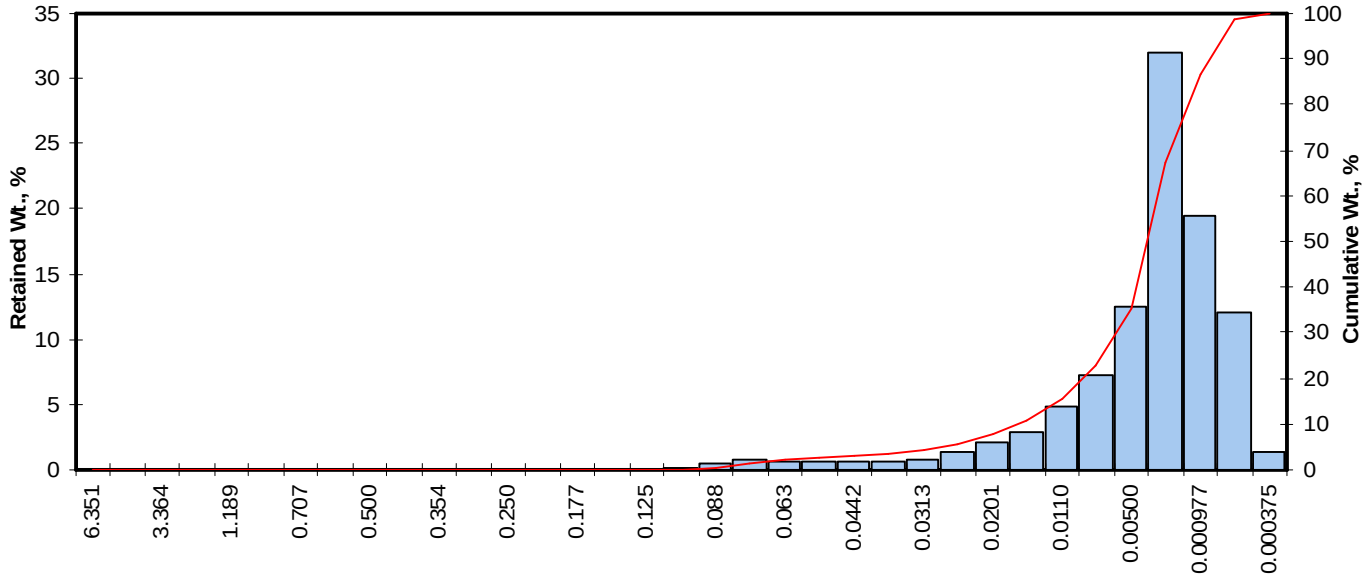
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.01
Silt	>0.005 mm	25.58
Clay	<0.005 mm	74.41
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	TW-1 BOUSE
Project No:	Ford Dry Lake	**Depth, ft:**	266

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.11	0.11	0.11
0.0035	0.088	3.50	170	0.48	0.48	0.59
0.0029	0.074	3.75	200	0.70	0.70	1.29
0.0025	0.063	4.00	230	0.65	0.65	1.94
0.0021	0.053	4.25	270	0.56	0.56	2.50
0.00174	0.0442	4.50	325	0.55	0.55	3.05
0.00146	0.0372	4.75	400	0.60	0.60	3.65
0.00123	0.0313	5.00	450	0.74	0.74	4.39
0.000986	0.0250	5.32	500	1.42	1.42	5.81
0.000790	0.0201	5.64	635	2.14	2.14	7.95
0.000615	0.0156	6.00		2.82	2.82	10.78
0.000435	0.0110	6.50		4.87	4.87	15.65
0.000308	0.00781	7.00		7.21	7.21	22.86
0.000197	0.00500	7.65		12.50	12.50	35.36
0.000077	0.00195	9.00		31.90	31.91	67.27
0.000038	0.000977	10.00		19.40	19.41	86.68
0.000019	0.000488	11.00		12.00	12.00	98.68
0.000015	0.000375	11.38		1.32	1.32	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	5.14	0.0011	0.028
10	5.90	0.0007	0.017
16	6.52	0.0004	0.011
25	7.11	0.0003	0.007
40	7.84	0.0002	0.004
50	8.27	0.0001	0.003
60	8.69	0.0001	0.002
75	9.40	0.0001	0.001
84	9.86	0.0000	0.001
90	10.28	0.0000	0.001
95	10.69	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	8.27	8.27	8.27
Median, in.	0.0001	0.0001	0.0001
Median, mm	0.003	0.003	0.003
Mean, phi	7.84	8.19	8.22
Mean, in.	0.0002	0.0001	0.0001
Mean, mm	0.004	0.003	0.003
Sorting	2.210	1.669	1.676
Skewness	1.009	-0.044	-0.085
Kurtosis	0.181	0.665	0.995

Grain Size Description (ASTM-USCS Scale)	Clay (based on Mean from Trask)

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	1.29
Silt	>0.005 mm	34.07
Clay	<0.005 mm	64.64
	Total	**100**

PTS Laboratories, Inc.

Worley Parsons
PTS File No: 39506

PARTICLE SIZE SUMMARY

(METHODOLOGY: ASTM D422/D4464M)

PROJECT NAME: Project Genesis
PROJECT NO: Ford Dry Lake

Sample ID	Depth, ft.	Mean Grain Size Description (1)	Median Grain Size mm	Particle Size Distribution, wt. percent						Silt & Clay
				Gravel	Sand Size			Silt	Clay	
					Coarse	Medium	Fine			
TW-1 BOUSE	266	Clay	0.003	0.00	0.00	0.00	1.29	34.07	64.64	98.71
420 OBS-2	420	Silt	0.004	0.00	0.00	0.00	1.76	41.00	57.24	98.24
440 BGS	440	Clay	0.003	0.00	0.00	0.00	0.03	32.74	67.24	99.97
510 OBS-2	510	Silt	0.006	0.00	0.00	0.00	8.57	45.22	46.21	91.43
360	360	Clay	0.003	0.00	0.00	0.00	0.00	28.91	71.09	100.00
400	400	Silt	0.069	0.00	0.00	0.00	44.74	47.91	7.36	55.26
550	550	Clay	0.003	0.00	0.00	0.00	0.01	25.58	74.41	99.99
600	600	Silt	0.004	0.00	0.00	0.00	1.59	44.92	53.48	98.41
700	700	Silt	0.005	0.00	0.00	0.00	0.00	51.14	48.86	100.00
800	800	Fine sand	0.090	0.00	0.00	0.00	67.78	29.01	3.22	32.22

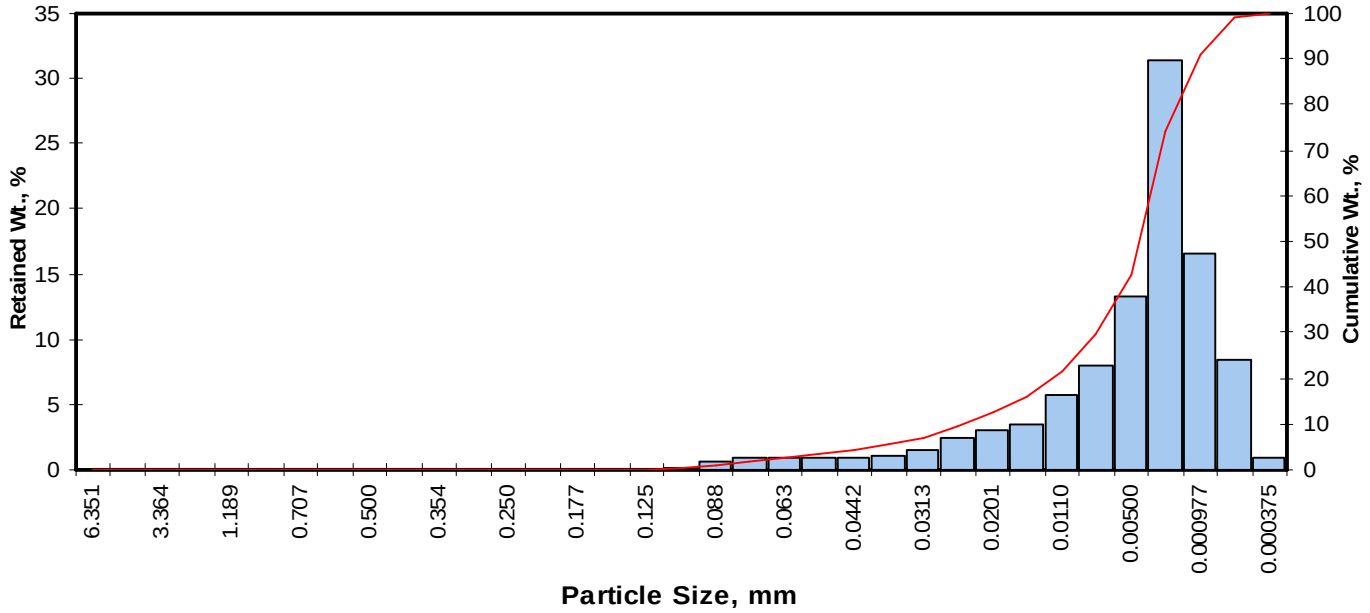
(1) Based on Mean from Trask

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	420 OBS-2
Project No:	Ford Dry Lake	**Depth, ft:**	420

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.02	0.02	0.02
0.0041	0.105	3.25	140	0.22	0.22	0.24
0.0035	0.088	3.50	170	0.63	0.63	0.87
0.0029	0.074	3.75	200	0.89	0.89	1.76
0.0025	0.063	4.00	230	0.93	0.93	2.69
0.0021	0.053	4.25	270	0.89	0.89	3.58
0.00174	0.0442	4.50	325	0.93	0.93	4.51
0.00146	0.0372	4.75	400	1.13	1.13	5.64
0.00123	0.0313	5.00	450	1.45	1.45	7.09
0.000986	0.0250	5.32	500	2.40	2.40	9.49
0.000790	0.0201	5.64	635	2.95	2.95	12.44
0.000615	0.0156	6.00		3.49	3.49	15.93
0.000435	0.0110	6.50		5.70	5.70	21.63
0.000308	0.00781	7.00		7.92	7.92	29.56
0.000197	0.00500	7.65		13.20	13.20	42.76
0.000077	0.00195	9.00		31.40	31.41	74.17
0.000038	0.000977	10.00		16.60	16.61	90.78
0.000019	0.000488	11.00		8.38	8.38	99.16
0.000015	0.000375	11.38		0.84	0.84	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.61	0.0016	0.041
10	5.38	0.0009	0.024
16	6.01	0.0006	0.016
25	6.71	0.0004	0.010
40	7.51	0.0002	0.005
50	7.96	0.0002	0.004
60	8.39	0.0001	0.003
75	9.05	0.0001	0.002
84	9.59	0.0001	0.001
90	9.95	0.0000	0.001
95	10.50	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.96	7.96	7.96
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.004	0.004	0.004
Mean, phi	7.45	7.80	7.85
Mean, in.	0.0002	0.0002	0.0002
Mean, mm	0.006	0.004	0.004
Sorting	2.248	1.793	1.790
Skewness	1.054	-0.088	-0.112
Kurtosis	0.166	0.644	1.034
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

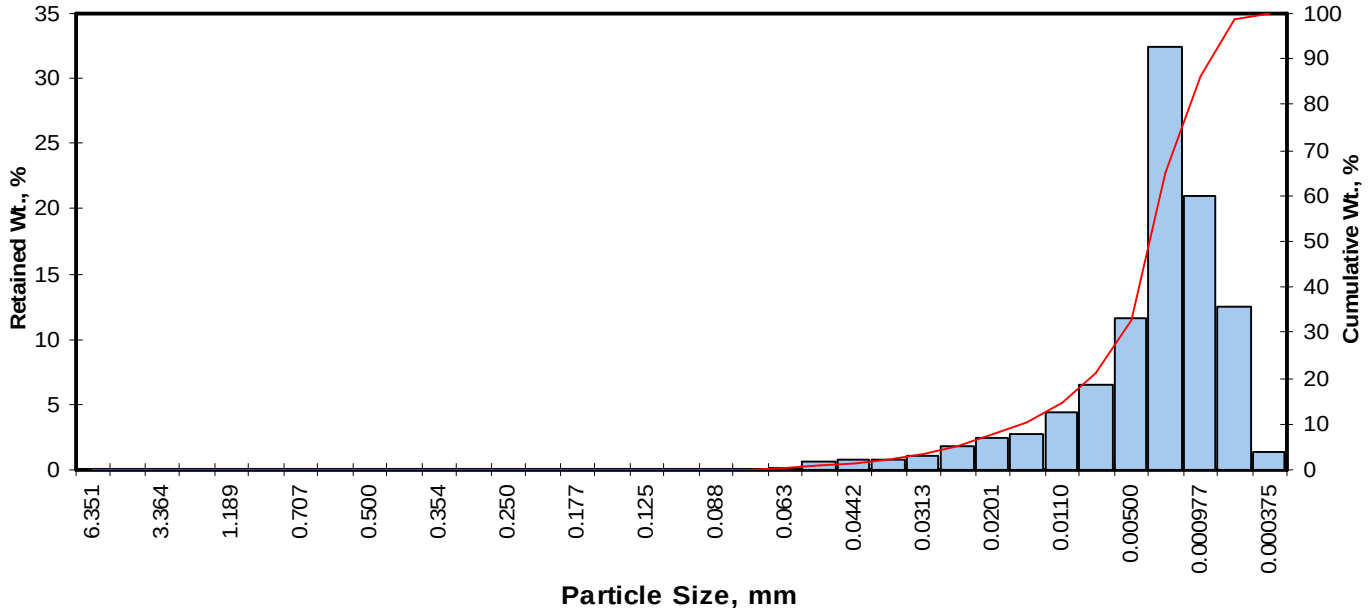
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	1.76
Silt	>0.005 mm	41.00
Clay	<0.005 mm	57.24
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	440 BGS
Project No:	Ford Dry Lake	**Depth, ft:**	440

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.03	0.03	0.03
0.0025	0.063	4.00	230	0.21	0.21	0.24
0.0021	0.053	4.25	270	0.54	0.54	0.78
0.00174	0.0442	4.50	325	0.73	0.73	1.51
0.00146	0.0372	4.75	400	0.81	0.81	2.32
0.00123	0.0313	5.00	450	1.01	1.01	3.33
0.000986	0.0250	5.32	500	1.86	1.86	5.19
0.000790	0.0201	5.64	635	2.40	2.40	7.59
0.000615	0.0156	6.00		2.72	2.72	10.31
0.000435	0.0110	6.50		4.42	4.42	14.73
0.000308	0.00781	7.00		6.44	6.44	21.16
0.000197	0.00500	7.65		11.60	11.60	32.76
0.000077	0.00195	9.00		32.50	32.50	65.26
0.000038	0.000977	10.00		20.90	20.90	86.16
0.000019	0.000488	11.00		12.50	12.50	98.66
0.000015	0.000375	11.38		1.34	1.34	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	5.29	0.0010	0.026
10	5.96	0.0006	0.016
16	6.60	0.0004	0.010
25	7.21	0.0003	0.007
40	7.95	0.0002	0.004
50	8.36	0.0001	0.003
60	8.78	0.0001	0.002
75	9.47	0.0001	0.001
84	9.90	0.0000	0.001
90	10.31	0.0000	0.001
95	10.71	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	8.36	8.36	8.36
Median, in.	0.0001	0.0001	0.0001
Median, mm	0.003	0.003	0.003
Mean, phi	7.94	8.25	8.29
Mean, in.	0.0002	0.0001	0.0001
Mean, mm	0.004	0.003	0.003
Sorting	2.183	1.649	1.645
Skewness	1.017	-0.070	-0.103
Kurtosis	0.174	0.643	0.986
Grain Size Description (ASTM-USCS Scale)		Clay (based on Mean from Trask)	

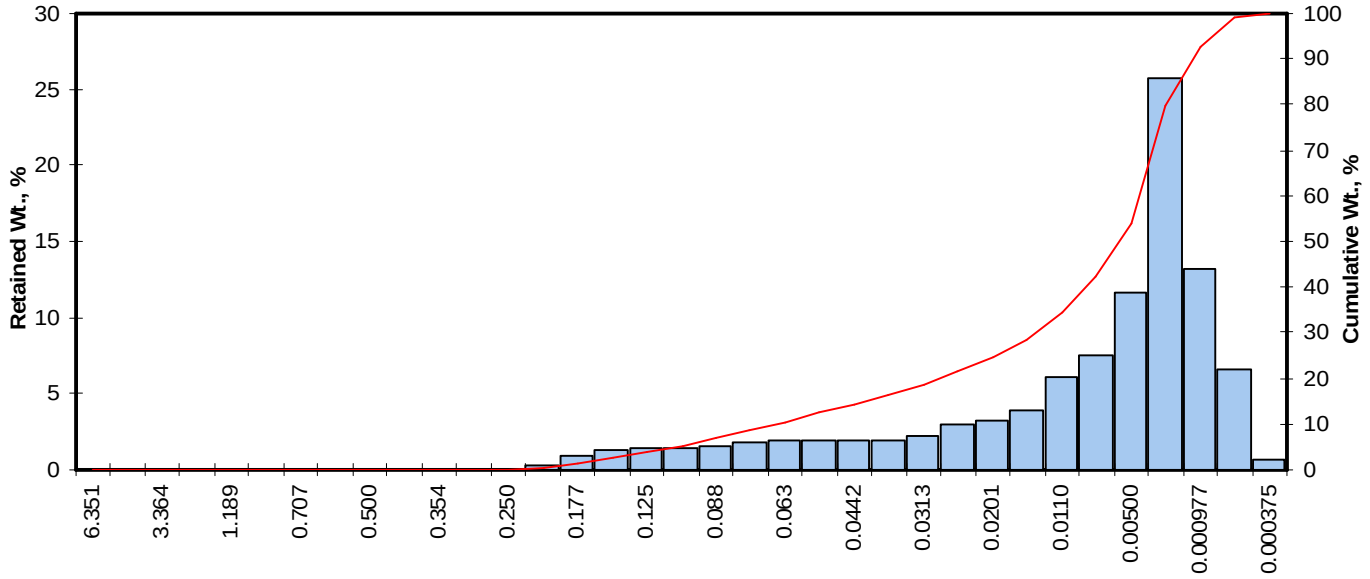
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.03
Silt	>0.005 mm	32.74
Clay	<0.005 mm	67.24
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	510 OBS-2
Project No:	Ford Dry Lake	**Depth, ft:**	510

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.02	0.02	0.02
0.0083	0.210	2.25	70	0.25	0.25	0.27
0.0070	0.177	2.50	80	0.87	0.87	1.14
0.0059	0.149	2.75	100	1.34	1.34	2.48
0.0049	0.125	3.00	120	1.37	1.37	3.85
0.0041	0.105	3.25	140	1.36	1.36	5.21
0.0035	0.088	3.50	170	1.56	1.56	6.76
0.0029	0.074	3.75	200	1.81	1.81	8.57
0.0025	0.063	4.00	230	1.93	1.93	10.50
0.0021	0.053	4.25	270	1.91	1.91	12.41
0.00174	0.0442	4.50	325	1.91	1.91	14.32
0.00146	0.0372	4.75	400	2.00	2.00	16.32
0.00123	0.0313	5.00	450	2.15	2.15	18.46
0.000986	0.0250	5.32	500	2.99	2.99	21.45
0.000790	0.0201	5.64	635	3.30	3.30	24.75
0.000615	0.0156	6.00		3.86	3.86	28.60
0.000435	0.0110	6.50		6.06	6.05	34.66
0.000308	0.00781	7.00		7.55	7.54	42.20
0.000197	0.00500	7.65		11.60	11.59	53.79
0.000077	0.00195	9.00		25.80	25.78	79.57
0.000038	0.000977	10.00		13.20	13.19	92.76
0.000019	0.000488	11.00		6.59	6.58	99.34
0.000015	0.000375	11.38		0.66	0.66	100.00
TOTALS				**100.10**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	3.21	0.0042	0.108
10	3.94	0.0026	0.065
16	4.71	0.0015	0.038
25	5.66	0.0008	0.020
40	6.85	0.0003	0.009
50	7.43	0.0002	0.006
60	7.97	0.0002	0.004
75	8.76	0.0001	0.002
84	9.34	0.0001	0.002
90	9.79	0.0000	0.001
95	10.34	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.43	7.43	7.43
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.006	0.006	0.006
Mean, phi	6.50	7.02	7.16
Mean, in.	0.0004	0.0003	0.0003
Mean, mm	0.011	0.008	0.007
Sorting	2.924	2.313	2.236
Skewness	1.167	-0.178	-0.181
Kurtosis	0.136	0.541	0.944
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

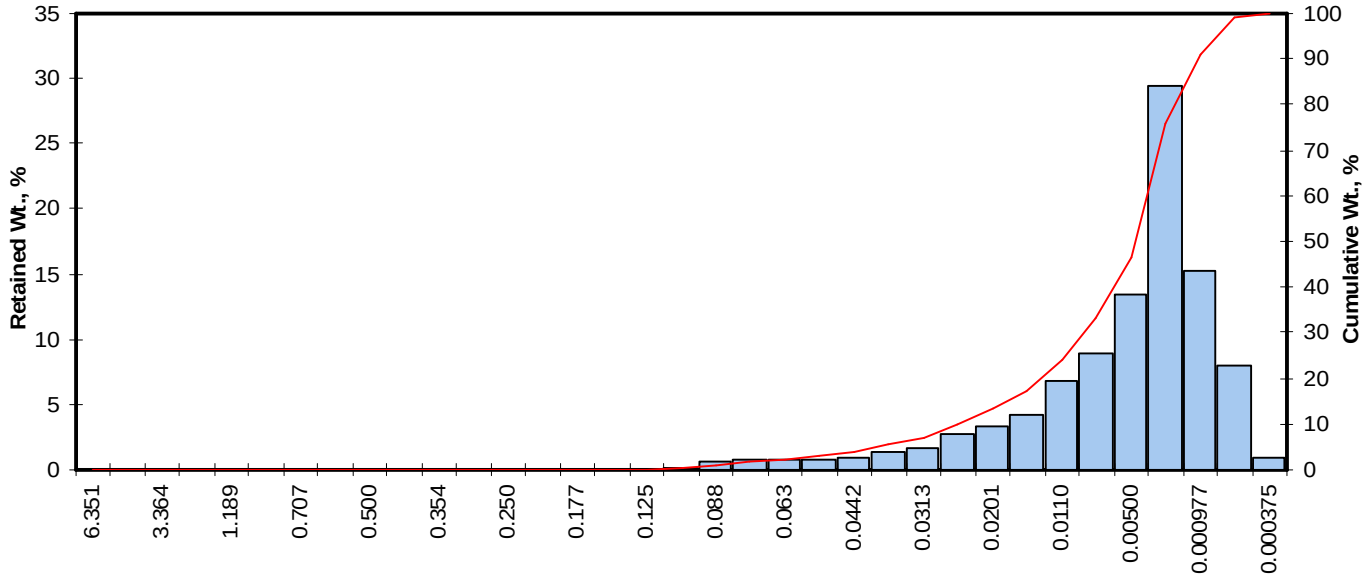
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	8.57
Silt	>0.005 mm	45.22
Clay	<0.005 mm	46.21
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	600
Project No:	Ford Dry Lake	**Depth, ft:**	600

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Particle Size, mm

Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.02	0.01	0.02
0.0041	0.105	3.25	140	0.21	0.21	0.22
0.0035	0.088	3.50	170	0.59	0.59	0.81
0.0029	0.074	3.75	200	0.78	0.78	1.59
0.0025	0.063	4.00	230	0.75	0.75	2.34
0.0021	0.053	4.25	270	0.75	0.75	3.09
0.00174	0.0442	4.50	325	0.98	0.98	4.07
0.00146	0.0372	4.75	400	1.33	1.33	5.40
0.00123	0.0313	5.00	450	1.70	1.70	7.10
0.000986	0.0250	5.32	500	2.71	2.71	9.81
0.000790	0.0201	5.64	635	3.36	3.36	13.17
0.000615	0.0156	6.00		4.15	4.15	17.32
0.000435	0.0110	6.50		6.86	6.86	24.18
0.000308	0.00781	7.00		8.84	8.84	33.02
0.000197	0.00500	7.65		13.50	13.50	46.52
0.000077	0.00195	9.00		29.40	29.40	75.91
0.000038	0.000977	10.00		15.20	15.20	91.11
0.000019	0.000488	11.00		8.06	8.06	99.17
0.000015	0.000375	11.38		0.83	0.83	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.67	0.0015	0.039
10	5.34	0.0010	0.025
16	5.89	0.0007	0.017
25	6.55	0.0004	0.011
40	7.33	0.0002	0.006
50	7.81	0.0002	0.004
60	8.27	0.0001	0.003
75	8.96	0.0001	0.002
84	9.53	0.0001	0.001
90	9.93	0.0000	0.001
95	10.48	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.81	7.81	7.81
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.004	0.004	0.004
Mean, phi	7.30	7.71	7.74
Mean, in.	0.0003	0.0002	0.0002
Mean, mm	0.006	0.005	0.005
Sorting	2.307	1.823	1.792
Skewness	1.038	-0.053	-0.066
Kurtosis	0.183	0.593	0.987
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

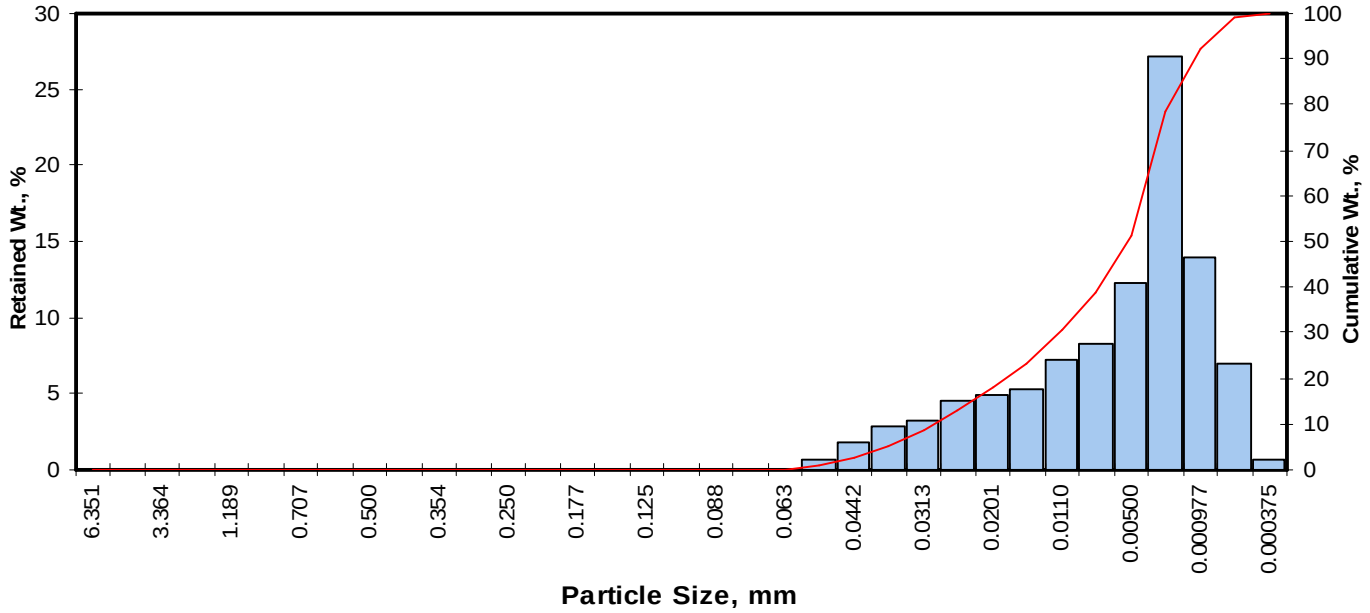
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	1.59
Silt	>0.005 mm	44.92
Clay	<0.005 mm	53.48
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	700
Project No:	Ford Dry Lake	**Depth, ft:**	700

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.00	0.00	0.00
0.0025	0.063	4.00	230	0.06	0.06	0.06
0.0021	0.053	4.25	270	0.61	0.61	0.67
0.00174	0.0442	4.50	325	1.85	1.85	2.52
0.00146	0.0372	4.75	400	2.80	2.80	5.32
0.00123	0.0313	5.00	450	3.24	3.24	8.57
0.000986	0.0250	5.32	500	4.52	4.52	13.09
0.000790	0.0201	5.64	635	4.94	4.94	18.03
0.000615	0.0156	6.00		5.30	5.30	23.33
0.000435	0.0110	6.50		7.21	7.21	30.54
0.000308	0.00781	7.00		8.29	8.29	38.83
0.000197	0.00500	7.65		12.30	12.30	51.14
0.000077	0.00195	9.00		27.10	27.11	78.24
0.000038	0.000977	10.00		14.00	14.00	92.25
0.000019	0.000488	11.00		7.04	7.04	99.29
0.000015	0.000375	11.38		0.71	0.71	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	4.72	0.0015	0.038
10	5.10	0.0011	0.029
16	5.51	0.0009	0.022
25	6.12	0.0006	0.014
40	7.06	0.0003	0.007
50	7.59	0.0002	0.005
60	8.09	0.0001	0.004
75	8.84	0.0001	0.002
84	9.41	0.0001	0.001
90	9.84	0.0000	0.001
95	10.39	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	7.59	7.59	7.59
Median, in.	0.0002	0.0002	0.0002
Median, mm	0.005	0.005	0.005
Mean, phi	6.91	7.46	7.50
Mean, in.	0.0003	0.0002	0.0002
Mean, mm	0.008	0.006	0.006
Sorting	2.569	1.951	1.835
Skewness	1.078	-0.064	-0.037
Kurtosis	0.218	0.453	0.854
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

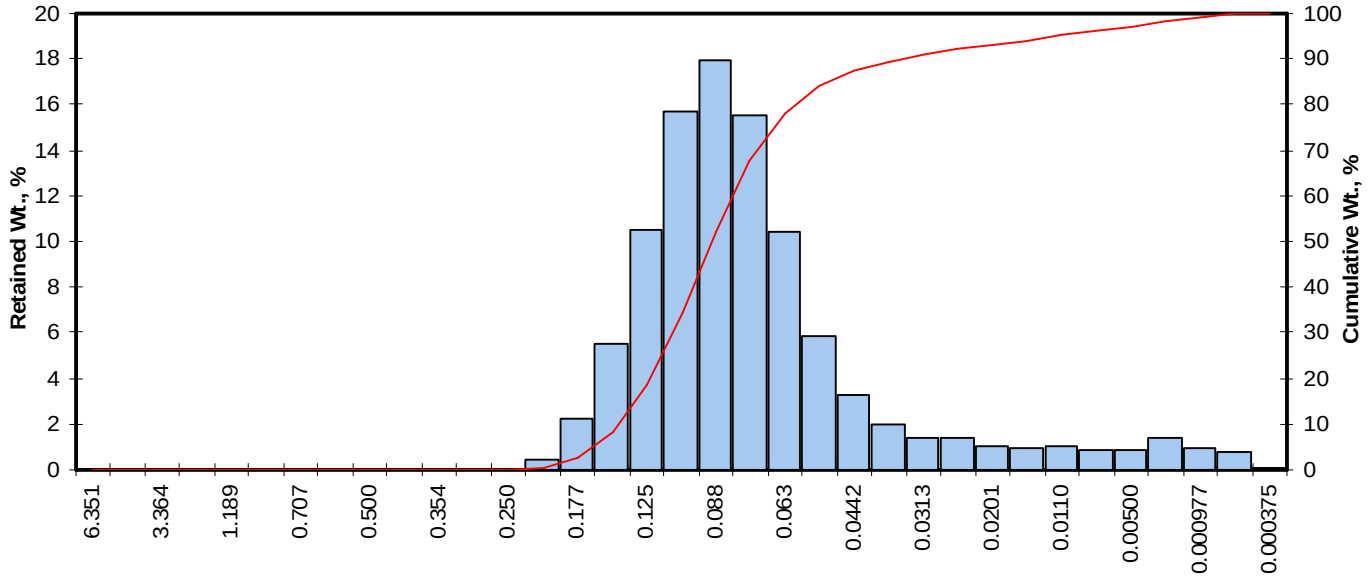
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.00
Silt	>0.005 mm	51.14
Clay	<0.005 mm	48.86
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	800
Project No:	Ford Dry Lake	**Depth, ft:**	800

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.01	0.01	0.01
0.0083	0.210	2.25	70	0.40	0.40	0.41
0.0070	0.177	2.50	80	2.22	2.22	2.63
0.0059	0.149	2.75	100	5.49	5.49	8.12
0.0049	0.125	3.00	120	10.50	10.51	18.63
0.0041	0.105	3.25	140	15.70	15.71	34.35
0.0035	0.088	3.50	170	17.90	17.92	52.26
0.0029	0.074	3.75	200	15.50	15.51	67.78
0.0025	0.063	4.00	230	10.40	10.41	78.19
0.0021	0.053	4.25	270	5.89	5.90	84.08
0.00174	0.0442	4.50	325	3.24	3.24	87.32
0.00146	0.0372	4.75	400	2.02	2.02	89.35
0.00123	0.0313	5.00	450	1.42	1.42	90.77
0.000986	0.0250	5.32	500	1.34	1.34	92.11
0.000790	0.0201	5.64	635	1.03	1.03	93.14
0.000615	0.0156	6.00		0.93	0.93	94.07
0.000435	0.0110	6.50		1.02	1.02	95.09
0.000308	0.00781	7.00		0.83	0.83	95.92
0.000197	0.00500	7.65		0.86	0.86	96.78
0.000077	0.00195	9.00		1.41	1.41	98.19
0.000038	0.000977	10.00		0.96	0.96	99.15
0.000019	0.000488	11.00		0.76	0.76	99.91
0.000015	0.000375	11.38		0.09	0.09	100.00
TOTALS				**99.90**	**100.00**	**100.00**

Cumulative Weight Percent greater than

Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.61	0.0065	0.164
10	2.79	0.0057	0.144
16	2.94	0.0051	0.131
25	3.10	0.0046	0.117
40	3.33	0.0039	0.100
50	3.47	0.0036	0.090
60	3.62	0.0032	0.081
75	3.92	0.0026	0.066
84	4.25	0.0021	0.053
90	4.87	0.0014	0.034
95	6.46	0.0004	0.011

Measure	Trask	Inman	Folk-Ward
Median, phi	3.47	3.47	3.47
Median, in.	0.0036	0.0036	0.0036
Median, mm	0.090	0.090	0.090
Mean, phi	3.45	3.59	3.55
Mean, in.	0.0036	0.0033	0.0034
Mean, mm	0.091	0.083	0.085
Sorting	1.330	0.655	0.910
Skewness	0.970	0.189	0.371
Kurtosis	0.230	1.939	1.918
Grain Size Description (ASTM-USCS Scale)		Fine sand (based on Mean from Trask)	

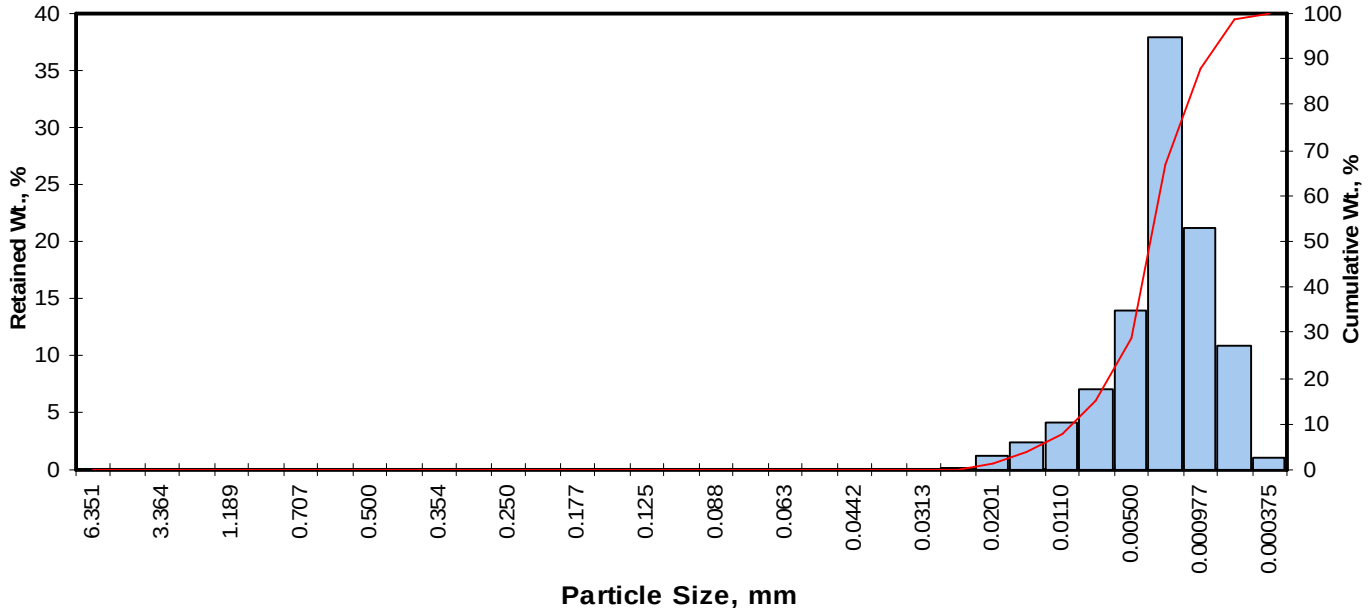
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	67.78
Silt	>0.005 mm	29.01
Clay	<0.005 mm	3.22
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	360
Project No:	Ford Dry Lake	**Depth, ft:**	360

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.00	0.00	0.00
0.0083	0.210	2.25	70	0.00	0.00	0.00
0.0070	0.177	2.50	80	0.00	0.00	0.00
0.0059	0.149	2.75	100	0.00	0.00	0.00
0.0049	0.125	3.00	120	0.00	0.00	0.00
0.0041	0.105	3.25	140	0.00	0.00	0.00
0.0035	0.088	3.50	170	0.00	0.00	0.00
0.0029	0.074	3.75	200	0.00	0.00	0.00
0.0025	0.063	4.00	230	0.00	0.00	0.00
0.0021	0.053	4.25	270	0.00	0.00	0.00
0.00174	0.0442	4.50	325	0.00	0.00	0.00
0.00146	0.0372	4.75	400	0.00	0.00	0.00
0.00123	0.0313	5.00	450	0.00	0.00	0.00
0.000986	0.0250	5.32	500	0.14	0.14	0.14
0.000790	0.0201	5.64	635	1.22	1.22	1.36
0.000615	0.0156	6.00		2.45	2.45	3.81
0.000435	0.0110	6.50		4.10	4.10	7.91
0.000308	0.00781	7.00		7.10	7.10	15.01
0.000197	0.00500	7.65		13.90	13.90	28.91
0.000077	0.00195	9.00		38.00	38.00	66.91
0.000038	0.000977	10.00		21.20	21.20	88.11
0.000019	0.000488	11.00		10.80	10.80	98.91
0.000015	0.000375	11.38		1.09	1.09	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	6.14	0.0006	0.014
10	6.65	0.0004	0.010
16	7.05	0.0003	0.008
25	7.46	0.0002	0.006
40	8.04	0.0001	0.004
50	8.40	0.0001	0.003
60	8.75	0.0001	0.002
75	9.38	0.0001	0.001
84	9.81	0.0000	0.001
90	10.17	0.0000	0.001
95	10.64	0.0000	0.001

Measure	Trask	Inman	Folk-Ward
Median, phi	8.40	8.40	8.40
Median, in.	0.0001	0.0001	0.0001
Median, mm	0.003	0.003	0.003
Mean, phi	8.12	8.43	8.42
Mean, in.	0.0001	0.0001	0.0001
Mean, mm	0.004	0.003	0.003
Sorting	1.944	1.380	1.371
Skewness	0.982	0.021	0.009
Kurtosis	0.229	0.628	0.960
Grain Size Description (ASTM-USCS Scale)		Clay (based on Mean from Trask)	

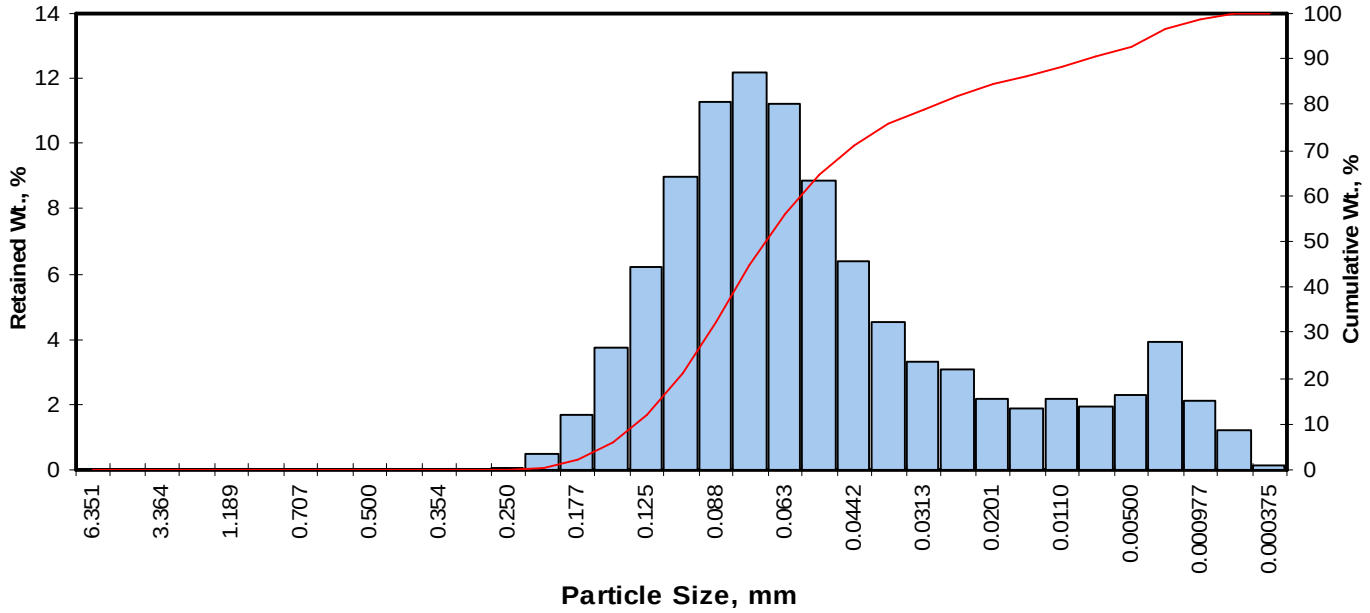
Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	0.00
Silt	>0.005 mm	28.91
Clay	<0.005 mm	71.09
	Total	**100**

PTS Laboratories, Inc.

Particle Size Analysis - ASTM D4464M

Client:	Worley Parsons	**PTS File No:**	39506
Project:	Project Genesis	**Sample ID:**	400
Project No:	Ford Dry Lake	**Depth, ft:**	400

Grv	Sand Size			Silt	Clay
	crs	medium	fine		



Opening Inches	Opening Millimeters	Phi of Screen	U.S. No.	Sample Weight, grams	Increment Weight, percent	Cumulative Weight, percent
0.2500	6.351	-2.67	1/4	0.00	0.00	0.00
0.1873	4.757	-2.25	4	0.00	0.00	0.00
0.1324	3.364	-1.75	6	0.00	0.00	0.00
0.0787	2.000	-1.00	10	0.00	0.00	0.00
0.0468	1.189	-0.25	16	0.00	0.00	0.00
0.0331	0.841	0.25	20	0.00	0.00	0.00
0.0278	0.707	0.50	25	0.00	0.00	0.00
0.0234	0.595	0.75	30	0.00	0.00	0.00
0.0197	0.500	1.00	35	0.00	0.00	0.00
0.0166	0.420	1.25	40	0.00	0.00	0.00
0.0139	0.354	1.50	45	0.00	0.00	0.00
0.0117	0.297	1.75	50	0.00	0.00	0.00
0.0098	0.250	2.00	60	0.05	0.05	0.05
0.0083	0.210	2.25	70	0.49	0.49	0.54
0.0070	0.177	2.50	80	1.72	1.72	2.26
0.0059	0.149	2.75	100	3.75	3.75	6.01
0.0049	0.125	3.00	120	6.24	6.24	12.25
0.0041	0.105	3.25	140	9.00	9.00	21.24
0.0035	0.088	3.50	170	11.30	11.30	32.54
0.0029	0.074	3.75	200	12.20	12.20	44.74
0.0025	0.063	4.00	230	11.20	11.20	55.93
0.0021	0.053	4.25	270	8.88	8.88	64.81
0.00174	0.0442	4.50	325	6.42	6.42	71.23
0.00146	0.0372	4.75	400	4.54	4.54	75.77
0.00123	0.0313	5.00	450	3.29	3.29	79.06
0.000986	0.0250	5.32	500	3.05	3.05	82.11
0.000790	0.0201	5.64	635	2.19	2.19	84.29
0.000615	0.0156	6.00		1.90	1.90	86.19
0.000435	0.0110	6.50		2.20	2.20	88.39
0.000308	0.00781	7.00		1.96	1.96	90.35
0.000197	0.00500	7.65		2.29	2.29	92.64
0.000077	0.00195	9.00		3.94	3.94	96.58
0.000038	0.000977	10.00		2.11	2.11	98.69
0.000019	0.000488	11.00		1.19	1.19	99.88
0.000015	0.000375	11.38		0.12	0.12	100.00
TOTALS				**100.00**	**100.00**	**100.00**

Cumulative Weight Percent greater than			
Weight percent	Phi Value	Particle Size Inches	Particle Size Millimeters
5	2.68	0.0061	0.156
10	2.91	0.0052	0.133
16	3.10	0.0046	0.116
25	3.33	0.0039	0.099
40	3.65	0.0031	0.079
50	3.87	0.0027	0.069
60	4.11	0.0023	0.058
75	4.71	0.0015	0.038
84	5.60	0.0008	0.021
90	6.91	0.0003	0.008
95	8.46	0.0001	0.003

Measure	Trask	Inman	Folk-Ward
Median, phi	3.87	3.87	3.87
Median, in.	0.0027	0.0027	0.0027
Median, mm	0.069	0.069	0.069
Mean, phi	3.86	4.35	4.19
Mean, in.	0.0027	0.0019	0.0022
Mean, mm	0.069	0.049	0.055
Sorting	1.610	1.246	1.498
Skewness	0.899	0.388	0.489
Kurtosis	0.244	1.316	1.721
Grain Size Description (ASTM-USCS Scale)		Silt (based on Mean from Trask)	

Description	Retained on Sieve #	Weight Percent
Gravel	4	0.00
Coarse Sand	10	0.00
Medium Sand	40	0.00
Fine Sand	200	44.74
Silt	>0.005 mm	47.91
Clay	<0.005 mm	7.36
	Total	**100**

PTS File No: 39506
Client: Worley Parsons

PHYSICAL PROPERTIES DATA - HYDRAULIC CONDUCTIVITY

PROJECT NAME: Project Genesis
PROJECT NO: Ford Dry Lake

		METHODS:	API RP 40; EPA 9100	
			25 PSI CONFINING STRESS	
SAMPLE ID.	DEPTH, ft.	SAMPLE ORIENTATION (1)	EFFECTIVE (3,4) PERMEABILITY TO WATER, millidarcy	HYDRAULIC CONDUCTIVITY (2,3), cm/s
440 BGS	440	V	1.03	9.71E-07
360	360	V	0.475	4.59E-07

(1) Sample Orientation: H = horizontal; V = vertical
(2) Native State or Effective = With as-received pore fluids in place
(3) Permeability to water and hydraulic conductivity measured at saturated conditions