PART III ATTACHMENT III-E APPENDIX II-E.3

GEOTECHNICAL DATA REPORT

For

PESCADITO ENVIRONMENTAL RESOURCE CENTER TYPE I MUNICIPAL SOLID WASTE MANAGEMENT FACILITY LAREDO, WEBB COUNTY, TEXAS MSW PERMIT NO. 2374

Prepared for

CB&I ENVIRONMENTAL AND INFRASTRUCTURE, INC.

12005 Ford Road, Suite 600 Dallas, Texas 75234

On behalf of

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1116 Calle del Norte Laredo, Texas 78041

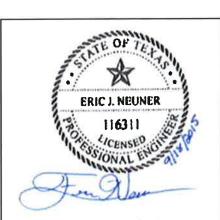
Prepared by



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PROJECT NO. ASF13-140-00

Initial Submittal February 25, 2015 Revised September 18, 2015



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1.0 INTRODUCTION

This Geotechnical Data Report (GDR) was prepared specifically to present a discussion of geotechnical testing and results for a municipal solid waste (MSW) permit application (MSW Permit No. 2374) for the proposed Pescadito Environmental Resource Center facility. As depicted on *Figure 1 – Site Location Map*, the proposed facility is located within an approximate 12,194-acre ranch property, located about 18 miles east of Laredo and south of U.S. Highway 59 in rural south-central Webb County, Texas. Rancho Viejo Waste Management, LLC is seeking a MSW permit to construct a new Type I municipal solid waste management facility at the referenced site. The proposed facility is approximately 1,100 acres, which includes a municipal solid waste landfill facility (MSWLF) unit comprising approximately 800 to 850 acres.

Geotechnical exploration and testing activities reported herein were conducted by **Raba Kistner Consultants, Inc. (RKCI)** This GDR is intended to accompany the Subsurface Investigation Report (SIR) for this permit application that was prepared under a separate cover by our affiliate company **Raba Kistner Environmental, Inc. (RKEI)**.

2.0 FIELD EXPLORATION PROGRAM

The proposed facility is approximately 1,100 acres, although the area of the proposed Type I MSWLF will comprise approximately 800 to 850 acres. As described in more detail in the SIR for this permit application, the field exploration program, which formed the basis of the geotechnical data study for this site, was accomplished in four (4) phases by our affiliate company **RKEI** from November 2009 through January 2012.

Following completion of the most recent field exploration activities in January 2012, collective subsurface characterization activities within the proposed permit boundary area had been evaluated by a total of 57 exploratory soil borings, 19 piezometers, and 2 exploratory test pits at the locations shown on *Figure 2 – Boring/Test Pit Location Map* attached to this report.

As presented on *Figure 2*, soil borings installed during preliminary study phases (Phases I and II) are designated as borings B-1 through B-26 (excluding B-9), whereas borings installed following TCEQ approval of the Soil Boring Plan (Phase III) are designated as borings B-9, B-101 through B-126, B-11A, B-109A, B-114A, and DB-1, respectively. Exploratory test pits designated as TP-1 and TP-2 were excavated in January 2012 (Phase IV).

2.1 STANDARD PENETRATION TEST (SPT)

The Standard Penetration Test (SPT) is a field procedure used to obtain disturbed samples and estimate relative density of granular material and consistency of cohesive material by driving a thick-walled sampler into the bottom of a boring at specific sampling intervals. The field test is expressed as blows per foot (BPF), which has been correlated with a variety of soil properties. A total of 29 SPTs were conducted in borings B-1 and B-2 and are presented on the boring logs provided in the SIR, *Appendix B*.

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2.2 POCKET PENETROMETER

A pocket penetrometer is a small handheld testing device used to estimate the consistency of cohesive soils. Pocket penetrometer results (as Shear Strength) for borings B-2 through B-27, B-103 through B-105, B-107 through B-126, B-11A, B-109A, B-114A, and DB-1 are shown on boring logs in *Appendix B* of the SIR. Pocket penetrometer measurements were not obtained at borings B-101, B-102, and B-106. Pocket Penetrometer results (as Shear Strength) are presented on *Figures A-1 through A-78* in *Appendix A*, of this report.

3.0 LABORATORY TESTING

Laboratory testing was performed on selected samples of the soil strata encountered and recovered during our field exploration operations. Samples were selected for testing so that the engineering properties of at least one sample per soil stratum that may form the bottom or sides of potential excavations would be determined. Additional samples were tested to provide general information about each stratum.

Laboratory testing focused on classification, moisture content, and permeability testing specifically referenced in the TCEQ permitting requirements at 30 TAC §330.63(e)(5). Note that much of the classification testing was conducted on disturbed samples obtained from RotoSonic borings (Phases II and III). While disturbed samples are suitable for classification and moisture content testing, other geotechnical test results from RotoSonic samples should only be used for qualitative reference purposes. Undisturbed samples for all four strata identified in the SIR were subsequently obtained from the test pits (Phase IV) and tested for classification, moisture content, and permeability. The sections below provide a more detailed description of testing and the results.

3.1 CLASSIFICATION TESTS

Index testing such as Atterberg Limits and the percentage passing, the No. 200 sieve, were used to classify soils in accordance with ASTM Standard Test Methods D4318 and D1140, respectively. Classification tests were assigned to each soil strata visually identified during field sampling and logging to assist in the interpretation and presentation of final boring logs. In addition, classification tests were assigned to all advanced testing, (e.g., permeability). Classification test results are useful as correlative tools for other properties such as permeability. Classification tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. The results of the classification tests are presented on *Figures A-1 through A-78* in *Appendix A* of this report.

3.2 MOISTURE CONTENT TESTS

Natural moisture content tests were performed in accordance with ASTM Standard Test Method D2216. Moisture content results, when combined with classification testing results, are useful as performance indicators of cohesive soils such as estimating the shrink or swell potential of cohesive materials. Moisture content tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. The results of the moisture content tests are presented on *Figures A-1 through A-78* in *Appendix A* of this report.

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3.3 PERMEABILITY TESTS

Permeability (hydraulic conductivity) tests were conducted in accordance with ASTM Standard Test Method D5084, Method C or falling head procedures using de-aired tap water. Permeability tests were assigned to intact undisturbed samples obtained at test pits TP-1 and TP-2. Permeability tests were conducted on samples collected from each stratum (I through IV) identified in the SIR. Samples from Strata I through IV were tested on their horizontal axis as they represent the sidewall of the proposed landfill excavation. Additionally, a sample of Stratum IV was tested along the vertical axis to represent the bottom of the proposed landfill excavation. A summary of the permeability test results are presented in tabular form on *Figure B-1* in *Appendix B* of this report. In addition, a detailed summary and graphical presentation of each hydraulic conductivity test is provided as *Figures B-2 through B-19* in *Appendix B* of this report. Note that the majority of permeability tests were performed for horizontal flow paths; the sample trimmed for a vertical flow path is indicated with "-V" as the sample number suffix on *Figures B-16 and B-17*.

4.0 STRATIGRAPHY AND SOIL PROPERTIES

The following sections address the generalized stratigraphy observed in the borings and test pit excavations performed for this study, potential uses of materials that may be excavated during construction, and typical properties of those materials. The majority of laboratory test results are presented in graphical and numerical form on the borings logs presented in *Appendix C* of the SIR.

4.1 GENERALIZED STRATIGRAPHY

The subsurface conditions encountered at the boring locations are shown on the boring logs presented in **Appendix B** of the SIR. The boring logs should be consulted for boring specific (detailed) stratigraphic information. These boring logs represent our interpretation of the subsurface conditions based on the field logs, visual examination of field samples by our personnel, and laboratory test results of selected field samples. Each stratum has been designated by grouping soils that possess similar physical and engineering characteristics. The lines designating the interfaces between strata on the boring logs represent approximate boundaries. Transitions between strata may be gradual.

Generalized soil profiles corresponding to geologic (stratigraphic) fence diagrams included as *Figures 4* through 13 of the SIR present the soil type, layer thickness, and depth to water are also presented on *Figures C-1 through C-10* in *Appendix C* of this report. An index map is provided as *Figure 3 – Fence Diagram Index Map*. These profiles depict that the majority of soils observed in the borings were cohesive in nature and the granular inclusions were sporadic and discontinuous across the site.

As presented on the referenced figures, the stratigraphic units have been designated at the site based upon review and interpretation of boring logs and geologic sections, in addition to consideration of down hole geophysical logging data, and test pit information and photographs. In general, the soils observed within the borings and test pits performed for this study are predominately cohesive in nature. Fat clays (CH) and lean clays (CL) are predominant and were observed in about 95.5% of the samples obtained during drilling operations. Test pit observations were similar. The remaining 4.5% of samples included about 2.5% cemented soils and about 2% "granular" soils. The cemented soils included thin layers of siltstones, claystones, and clay shales. Thick layers of sandstones were observed in the relatively deep

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boring DB-1. The types of "granular" soils observed included silts (ML and MH), poorly graded sands (SP), clayey sands (SC), and silty sands (SM).

4.2 SOIL PROPERTIES

A graphical summary of the engineering properties for each of the four soil strata described above are presented on *Figures C-11 through C-14* in *Appendix C* of this report. The results of Atterberg Limits testing, specifically the Liquid Limit and the Plastic Limit have been presented in the first column/graph of these graphical summaries. Atterberg Limit testing includes Liquid Limits, Plastic Limits, and a resultant Plasticity Index. The Plasticity Index (PI) is simply the numerical difference between the Liquid and Plastic Limits. The PI is used in soil classification and also commonly used as a correlative tool for estimating volume change (shrink/swell), soil shear strength, and even permeability characteristics. Results of laboratory tests indicate that about 89% of samples tested for plasticity have a PI greater than 20.

The second column/graph presented on *Figures C-11 through C-14* presents the results of moisture content testing. As depth increases, the range of moisture variation decreases.

The last column/graph presents a comparison of the information presented in the first two columns/graphs. That is, the measured Plastic Limit less the corresponding measured moisture content. On the basis of these results, the in-situ moisture conditions are consistently dryer than the soil's plastic limit, indicating:

- soils are significantly desiccated, (i.e., very dry in their present condition).
- soils could experience significant swell with increases in moisture content.
- soils are generally overconsolidated.

5.0 CONCLUSIONS

In general, the subsurface soils encountered in this study are predominately cohesive (clayey) in nature. Fat clays (CH) and lean clays (CL) are predominant and were observed in about 95.5% of the samples obtained during drilling operations. Test pit observations were similar. The remaining 4.5% of samples included about 2.5% cemented soils and about 2% "granular" soils. The cemented soils included thin layers of siltstones, claystones, and clay shales. Thick layers of sandstones were observed in the relatively deep boring DB-1. The types of "granular" soils observed included silts (ML and MH), poorly graded sands (SP), clayey sands (SC), and silty sands (SM).

The cohesive soils encountered in the borings and test pits were stiff to hard in consistency, and appear overconsolidated, (i.e., "stiff, fissured clays"). The presence of stiff, fissured clays, and their associated strength characteristics, should be accounted for in the facility design.

The cohesive soils were also highly plastic while the natural moisture contents were seven to eight percentage points (on average) below the soil plastic limit. These conditions result in a potential for shrink/swell movements with changes in the moisture content. There is a significant swell potential of the highly plastic clay with the increase in the soil moisture contents. The shrink or swell potential of the predominantly clayey soils should be accounted for in the facility design.

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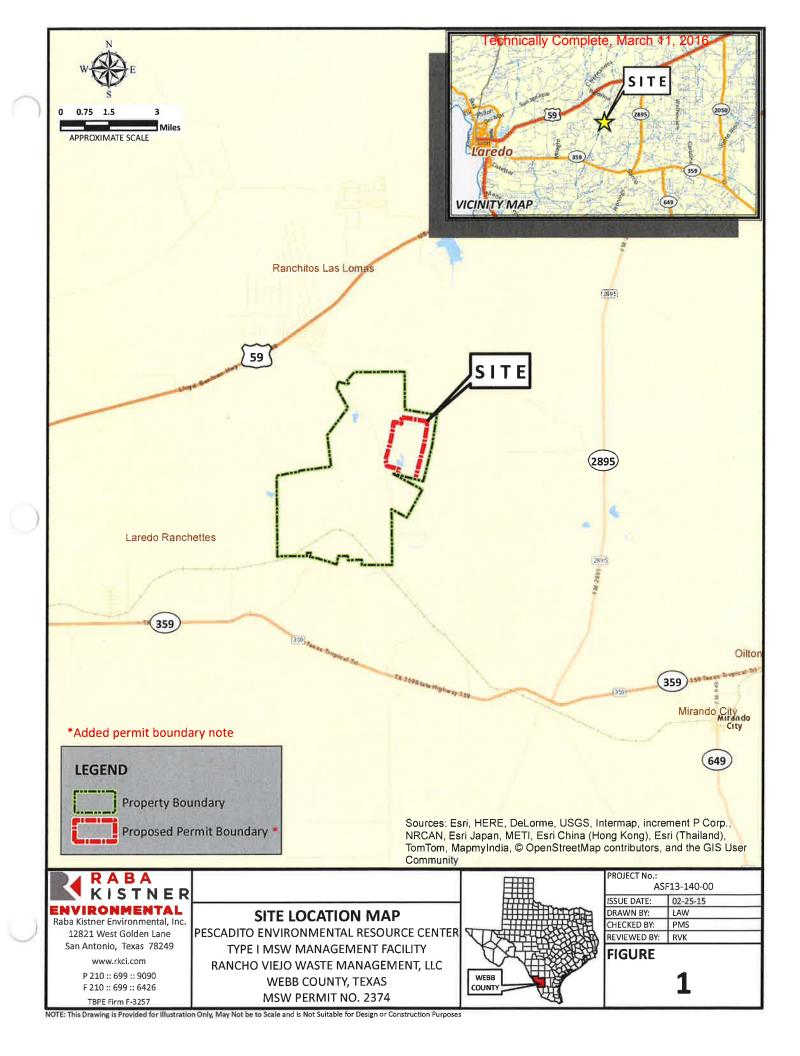
6.0 REFERENCES

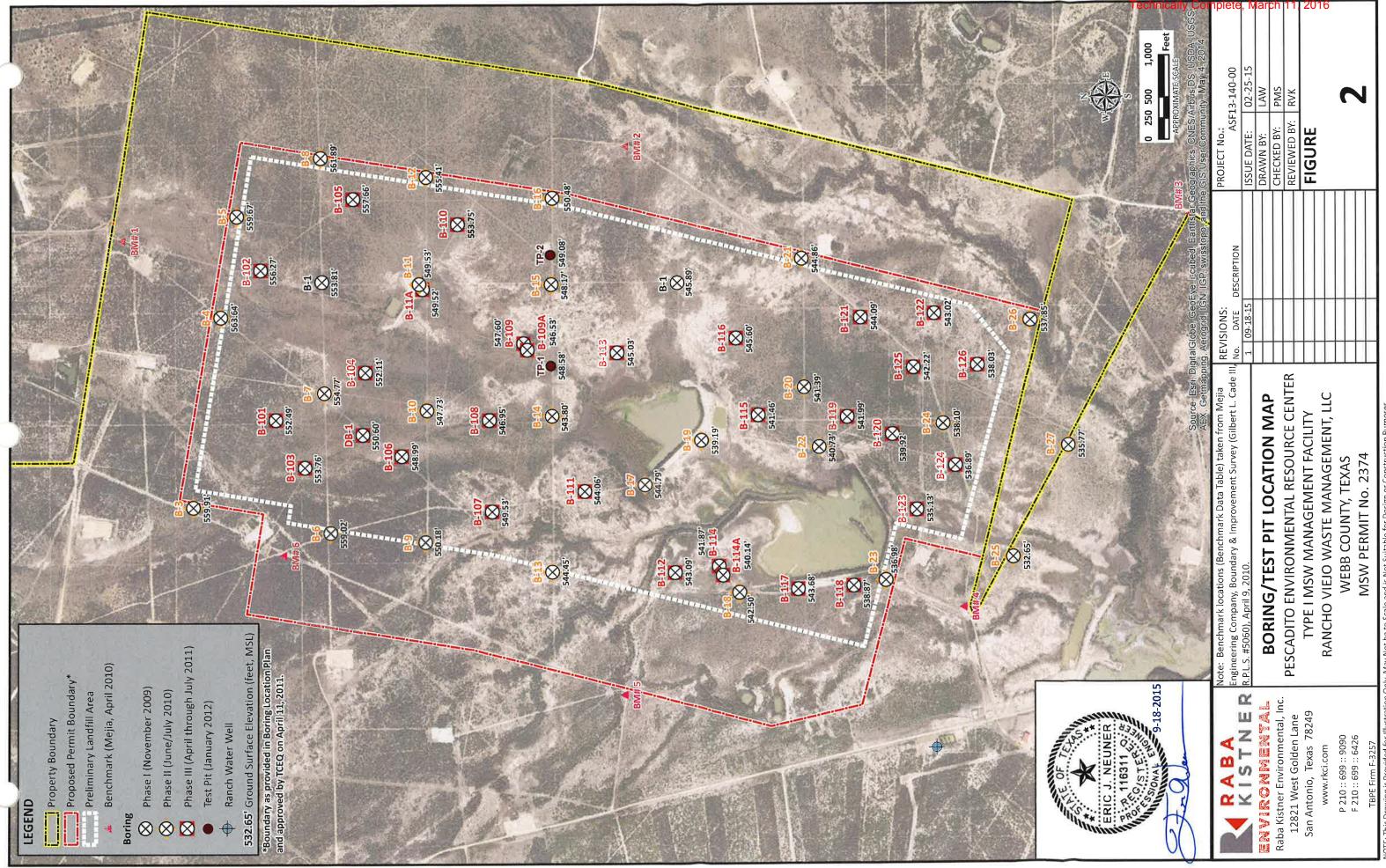
1. ASTM Standard Test Methods

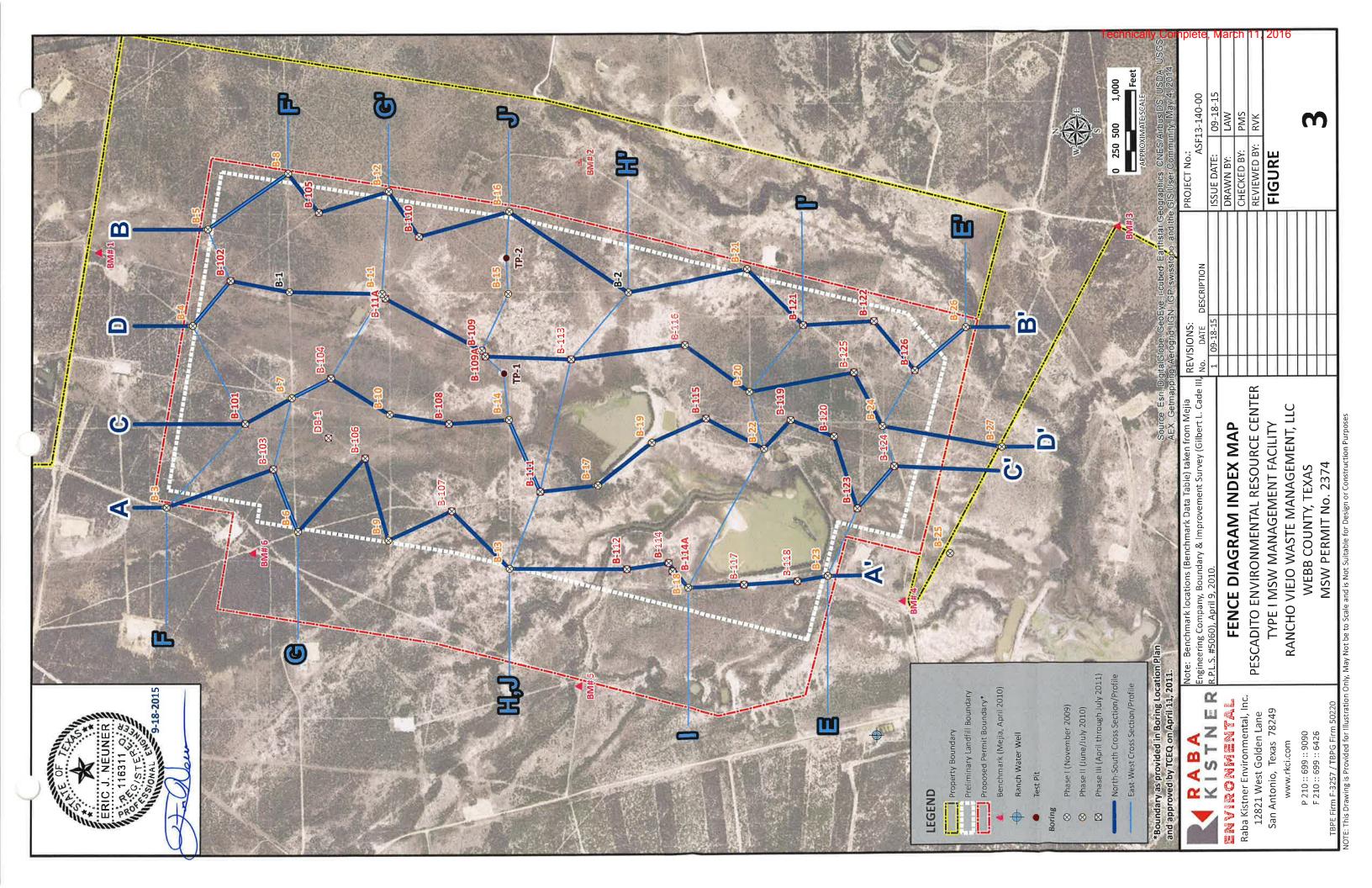
ASTM Standard	Description	Latest Revision*
D1140	Standard Test Methods for Amount of Material in Soils Finer than No. 200 (75-µm) Sieve	2006
1 1)//16	Standard Test Methods for Laboratory Determination of Water (Moisture) Content of Soil and Rock by Mass	2010
D4318	Standard Test Methods for Liquid Limit, Plastic Limit, and Plasticity Index of Soils	2010
	Standard Test Methods for Measurement of Hydraulic Conductivity of Saturated Porous Materials Using a Flexible Wall Permeameter	2010

^{*} Latest revisions to the referenced Standards as of November 21, 2013.

FIGURES

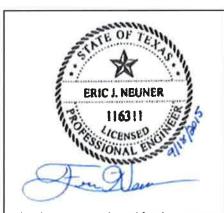






APPENDIX A

RESULTS OF SOIL SAMPLE ANALYSES



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Pages 1 through 78

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strengt Test
B-1	0.0 to 3.0										
	3.0 to 5.0	12	19	49	15	34	SC		50		
	5.0 to 7.5	11	22								
	7.5 to 10.0	10	34								
	10.0 to 12.5	16	35								
	12.5 to 15.0	30	28	116	24	92	СН		86		
	15.0 to 17.5	25	25								
	17.5 to 20.0	27	24								
	20.0 to 22.5	40	17								
	22.5 to 25.0	50	20	110	23	87	СН		86		
	25.0 to 27.5	50/4	15								
	27.5 to 30.0	50/5.5	15								
	30.0 to 35.0										
	35.0 to 40.0										
	40.0 to 45.0										
	45.0 to 50.0										
	50.0 to 55.0										
	55.0 to 57.5		34	152	39	113	СН		89		
	57.5 to 60.0										
	60.0 to 62.5	50/1	14								
	62.5 to 65.0										
	65.0 to 67.5	50/2	13	91	19	72	СН		65		
	67.5 to 68.0										
	68.0 to 70.0										
	70.0 to 72.5	50/5	19								
	72.5 to 75.0										
	75.0 to 77.5		40	95	21	74	СН		81		
	77.5 to 80.0										
	80.0 to 82.5	50	17								
	82.5 to 85.0										
	85.0 to 87.5	50/6	20								
	87.5 to 90.0										
	90.0 to 95.0										
	95.0 to 97.5	50/6	14	66	23	43					
B-2	0.0 to 5.0		22	57	14	43					
	5.0 to 7.0		28								
	7.0 to 10.0										
	10.0 to 12.5	16	28								
	12.5 to 15.0										

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

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Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-2	15.0 to 17.0		49	163	38	125	СН		98		
	17.0 to 20.0										
	20.0 to 22.5	27	32								
	22.5 to 25.0										
	25.0 to 27.5		23	112	29	83	СН		69		
	27.5 to 30.0										
	30.0 to 32.5	50/6	20	143	28	115	СН		99		
	32.5 to 35.0										
	35.0 to 37.5	50/6	11								
	37.5 to 40.0										
	40.0 to 42.5	50	22	116	32	84	СН		99		
	42.5 to 45.0										
	45.0 to 47.5	50/6	16	76	28	48	СН		99		
	47.5 to 50.0										
	50.0 to 52.5	50	10								
	52.5 to 55.0										
	55.0 to 57.5	50/6	11								
	57.5 to 60.0										
	60.0 to 62.5	49	18	72	22	50	СН		88		
	62.5 to 65.0										
	65.0 to 67.5										
	67.5 to 78.5										
B-3	0.0 to 2.0										
	2.0 to 4.5									1.25	PP
	4.5 to 7.0									2.00	PP
	7.0 to 9.5			91	26	65	CH		98	1.25	PP
	9.5 to 12.0									1.63	PP
	12.0 to 15.0									2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 25.0									2.25	PP
	24.5 to 27.0									2.25	PP
	25.0 to 27.0									2.25	PP
	27.0 to 29.5			64	24	40	CH		100	2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0	er TV = To			ed Compres		: Field Van		I = Unconsol	2.25	PP

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2/25/2015

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Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-3	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 43.5									2.25	PP
	43.5 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5									2.25	PP
	59.5 to 60.0									2.25	PP
	60.0 to 64.5									2.25	PP
	64.5 to 67.0		14	32	15	17	CL	119	69	2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.5		12	63	22	41	СН	117	91	2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 93.0									2.25	PP
	93.0 to 95.5									2.25	PP
	95.5 to 98.0									2.25	PP
	98.0 to 99.0									2.25	PP
	99.0 to 101.5		16					107		2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 112.0									2.25	PP
	112.0 to 114.5		12	42	24	18	CL		99	2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 119.5		17	55	28	27	СН	109	100	2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.0		15					106		2.25	PP
						-					

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2/25/2015

FILE NA	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR\	/ 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-3	124.0 to 126.5									2.25	PP
	126.5 to 129.0									2.25	PP
	129.0 to 131.5									2.25	PP
	131.5 to 134.0									2.25	PP
	134.0 to 135.0									2.25	PP
	135.0 to 137.5		14	42	19	23	CL	114	99	2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.0									2.25	PP
	154.0 to 156.5									2.25	PP
	156.5 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-4	0.0 to 2.0									0.50	PP
	2.0 to 4.0									0.63	PP
	4.0 to 6.0									1.63	PP
	6.0 to 8.0									1.88	PP
	8.0 to 10.0									2.00	PP
	10.0 to 13.0		17	55	29	26	СН	106	97	2.25	PP
	13.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP
	36.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 46.0									2.25	PP
	46.0 to 49.0									2.25	PP
	49.0 to 52.0									2.25	PP
	52.0 to 54.0									2.25	PP
	1									0.05	
	54.0 to 57.0									2.25	PP

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Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-4	60.0 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0		20	169	26	143	СН	95	90	2.25	PP
	70.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 81.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	94.0		15	45	24	21	CL	106	99		
	95.0 to 98.0		16	60	29	31	CH	105	100	2.25	PP
	98.0 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 109.0									2.25	PP
	109.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-5	0.0 to 3.0									0.50	PP
	3.0 to 5.0									0.50	PP
	5.0 to 7.0		27							0.50	PP
	7.0 to 10.0									2.25	PP
	10.0 to 12.0									2.25	PP
	12.0 to 14.0									2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 20.0									2.25	PP
	20.0 to 23.0		19	74	25	49	СН		100	2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 30.0		12							2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-5	36.0 to 39.0									2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0		17							2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0		18	81	23	58	СН		99	2.25	PP
	50.0 to 52.0									2.25	PP
	52.0 to 54.0		17							2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 78.0		12							2.25	PP
	78.0 to 80.0									2.25	PP
	80.0 to 82.0		16	112	29	83	СН		98	2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0		22							2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 102.0									2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 108.0									2.25	PP
	108.0 to 111.0									2.25	PP
	111.0 to 113.0		16	79	20	59	СН		98	2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 125.0									2.25	PP
	125.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	131.0 to 133.0									2.25	PP
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PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-5	133.0 to 136.0									2.25	PP
	136.0 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 143.0									2.25	PP
	143.0 to 145.0									2.25	PP
	145.0 to 148.0									2.25	PP
	148.0 to 151.0									2.25	PP
	151.0 to 153.0									2.25	PP
	153.0 to 155.0									2.25	PP
	155.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-6	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.88	PP
	5.0 to 7.0			50	18	32	СН		69	2.25	PP
	7.0 to 9.5									2.25	PP
	9.5 to 12.0									2.25	PP
	12.0 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5			55	14	41	СН		62	2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0									2.25	PP
	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5			65	24	41	СН		100	2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE NA	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-6	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5									2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0									2.25	PP
	102.0 to 104.5		16	35	19	16	CL	106	100	2.25	PP
	104.5 to 107.0									2.25	PP
	107.0 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	121.0 to 123.5									2.25	PP
	123.5 to 126.0									2.25	PP
	126.0 to 127.0									2.25	PP
	127.0 to 129.5		22	42	29	13	ML	100	99	2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.0		21	48	27	21	CL	97	98	2.25	PP
	134.0 to 136.5									2.25	PP
	136.5 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.0			184	40	144	СН		96	2.25	PP
	149.0 to 151.5									2.25	PP

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	ADITO_FE	BRUAR'	Y 2015.G	PJ			2/	25/201
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-6	154.0 to 157.0									2.25	PP
	157.0 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-7	0.0 to 3.0									0.13	PP
	3.0 to 5.0									0.13	PP
	5.0 to 7.0									0.25	PP
	7.0 to 10.0									1.75	PP
	10.0 to 13.0									1.75	PP
	13.0 to 15.0									1.88	PP
	15.0 to 17.0									2.25	PP
	17.0 to 20.0									2.25	PP
	20.0 to 23.0									2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP
	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 41.0									2.25	PP
	41.0 to 43.0									2.25	PP
	43.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 62.0									2.25	PP
	62.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 76.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 88.0		10	71	18	53	СН	116	96	2.25	PP
	88.0 to 90.0			''	10	33		110	50	2.25	PP
	90.0 to 92.0									2.25	PP
D - Daal	ket Penetrometer	r TV = To	orvane I	│ JC = Unconfir	od Compres	sion FV =	Field Van		 J = Unconsol		

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE NA	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-7	92.0 to 95.0									2.25	PP
	95.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 116.0									2.25	PP
	116.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 126.0		17	96	22	74	CH	108	98	2.25	PP
	126.0 to 129.0									2.25	PP
	129.0 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 136.0									2.25	PP
	136.0 to 147.0										
	147.0 to 150.0									2.25	PP
	150.0 to 152.0									2.25	PP
	152.0 to 155.0									2.25	PP
	155.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-8	0.0 to 2.0									0.75	PP
	2.0 to 4.0									0.75	PP
	4.0 to 7.0		21							1.00	PP
	7.0 to 10.0									2.00	PP
	10.0 to 13.0		20	67	24	43	СН		87	2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 27.0									2.25	PP
	27.0 to 30.0		21	76	27	49	СН		96	2.25	PP
	30.0 to 32.0									2.25	PP
	1									2.05	
	32.0 to 35.0		32							2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

ILL IV	AME: ASF	13-140-00	FLOCA	DITO_FE	BRUAR	1 2015.G	ΓJ	T			25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-8	38.0 to 40.0		18							2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0		22							2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0		13							2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 76.0		15	102	26	76	CH		100	2.25	PP
	76.0 to 79.0									2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 89.0		12	65	20	45	CH		96	2.25	PP
	89.0 to 91.0									2.25	PP
	91.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 107.0		13	68	23	45	СН		98	2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-9	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

	AME: ASF	13-140-00) I LOCA		DIVOAIN	2013.0	ı J				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-9	17.5 to 20.0									1.50	PP
	20.0 to 22.5			51	23	28	СН		95	1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 27.5									2.00	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0			44	19	25	CL		100	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5										
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0										
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5			54	20	34	СН		98	2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-9	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
	120.0 to 122.5									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0			48	21	27	CL		100	2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 152.5									2.25	PP
	152.5 to 155.0									2.25	PP
	155.0 to 157.5									2.25	PP
	157.5 to 160.0									2.25	PP
B-10	0.0 to 3.0									0.88	PP
	3.0 to 5.0									0.88	PP
	5.0 to 7.0									1.25	PP
	7.0 to 10.0									2.25	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 35.0									2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 45.0		11	33	21	12	CL	120	57	2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

	MIE: ASF 1	13-1 -1 0-00	JI LOOM	<u> </u>	יוי יטיום.	2010.0					/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-10	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 66.0									2.25	PP
	66.0 to 68.0									2.25	PP
	68.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 76.0			44	26	18	CL		97	2.25	PP
	76.0 to 79.0									2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
(97.0 to 100.0									2.25	PP
1	100.0 to 103.0									2.25	PP
1	103.0 to 106.0									2.25	PP
1	106.0 to 109.0									2.25	PP
1	109.0 to 112.0									2.25	PP
1	112.0 to 115.0		13	45	22	23	CL		100	2.25	PP
1	115.0 to 117.0									2.25	PP
1	117.0 to 120.0									2.25	PP
B-11	0.0 to 2.5									0.13	PP
	2.5 to 5.0									0.38	PP
	5.0 to 6.0									0.25	PP
	6.0 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP
	11.0 to 13.0									2.25	PP
	13.0 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0									2.25	PP
	19.0 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 33.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-11	35.5 to 38.0			118	30	88	СН		80	2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0									2.25	PP
	58.0 to 60.5		20	47	29	18	ML	88	97	2.25	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 67.0									2.25	PP
	67.0 to 69.5		24	46	30	16	ML		99	2.25	PP
	69.5 to 72.0									2.25	PP
	72.0 to 74.5		16	35	23	12	CL		100	2.25	PP
	74.5 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 82.0									1.00	PP
	82.0 to 84.5									1.25	PP
	84.5 to 87.0									1.25	PP
	87.0 to 89.5									2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.5		14	45	25	20	CL	106	91	2.25	PP
	94.5 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0		12	28	22	6	SC-SM		36	2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 124.0									2.25	PP
	124.0 to 126.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	<u> 2015.G</u>	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-11	126.0 to 127.0									2.25	PP
	127.0 to 129.5		20	55	27	28	CH	103	99	2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 136.5		17	56	26	30	CH		100	2.25	PP
	136.5 to 139.0									2.25	PP
	139.0 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 145.0									2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-11A	0.0 to 6.0									0.50	PP
	6.0 to 16.0									1.50	PP
	16.0 to 24.0									2.25	PP
	24.0 to 31.0									2.25	PP
	31.0 to 38.0									2.25	PP
	38.0 to 46.0									2.25	PP
	46.0 to 60.0									2.25	PP
	60.0 to 66.0									2.25	PP
	66.0 to 86.0									2.25	PP
	86.0 to 104.0										
B-12	0.0 to 2.0									0.75	PP
	2.0 to 4.0									0.50	PP
	4.0 to 7.0									0.25	PP
	7.0 to 9.0									1.50	PP
	9.0 to 10.0									1.63	PP
	10.0 to 12.0									2.25	PP
	12.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 20.0		31							2.25	PP
	20.0 to 23.0									2.25	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP
	29.0 to 30.0										
P = Pock	ket Penetrometer	. TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Van	e Ul	J = Unconsol	idated Undra	ined Triaxia

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-12	30.0 to 33.0		, ,							2.25	PP
	33.0 to 34.0									2.25	PP
	34.0 to 35.0										
	35.0 to 37.0									2.25	PP
	37.0 to 39.0		37							2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 58.0		28	78	24	54	СН	85	81	2.25	PP
	58.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 66.0		15							2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 74.0									2.25	PP
	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 82.0										
	82.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0									2.25	PP
	87.0 to 90.0		18					103	47	2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0		9	100	26	74	СН	102	99	2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 116.0									2.25	PP
	116.0 to 117.0									2.25	PP
	117.0 to 120.0		14							2.25	PP
	120.0 to 121.0									2.25	PP

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CU = Consolidated Undrained Triaxial

PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

	AME: ASF1		Water	_			PJ	Dry Unit		Shear	25/201
Boring No.	Sample Depth (ft)	Blows per ft	Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Weight (pcf)	% -200 Sieve	Strength (tsf)	Strength Test
B-12	121.0 to 123.0									2.25	PP
	123.0 to 126.0		36							2.25	PP
	126.0 to 129.0									2.25	PP
	129.0 to 131.0									2.25	PP
	131.0 to 134.0									2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 140.0		16	78	22	56	СН	103	93	2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 145.0									2.25	PP
	145.0 to 146.0									2.25	PP
	146.0 to 149.0									2.25	PP
	149.0 to 151.0									2.25	PP
	151.0 to 154.0									2.25	PP
	154.0 to 156.0									2.25	PP
	156.0 to 158.0		13							2.25	PP
	158.0 to 160.0									2.25	PP
B-13	0.0 to 2.5									0.13	PP
	2.5 to 5.0									0.13	PP
	5.0 to 7.5									0.25	PP
	7.5 to 10.0									0.50	PP
	10.0 to 12.5									1.25	PP
	12.5 to 15.0									0.38	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 25.5									2.25	PP
	25.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0			56	23	33	СН		99	2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-13 5	54.5 to 57.0									2.25	PP
5	57.0 to 59.5									2.25	PP
5	59.5 to 62.0									2.25	PP
6	62.0 to 63.0									2.25	PP
6	3.0 to 65.5									2.25	PP
6	65.5 to 68.0									2.25	PP
6	88.0 to 69.0									2.25	PP
6	69.0 to 71.5									2.25	PP
7	71.5 to 74.0									2.25	PP
7	74.0 to 76.0									2.25	PP
7	6.0 to 77.0									2.25	PP
7	77.0 to 80.0			60	17	43	СН		71	0.63	PP
8	30.0 to 82.5									0.75	PP
8	32.5 to 85.0									0.75	PP
8	35.0 to 86.0									0.88	PP
8	36.0 to 88.5									2.25	PP
8	88.5 to 91.0									2.25	PP
g	91.0 to 93.5									2.25	PP
9	93.5 to 96.0									2.25	PP
g	96.0 to 98.0			84	23	61	CH		99	2.25	PP
98	8.0 to 100.5									2.25	PP
10	0.5 to 103.0									2.25	PP
10	03.0 to 104.0									2.25	PP
10	04.0 to 106.0									2.25	PP
10	06.0 to 108.0									2.25	PP
10	08.0 to 110.5									2.25	PP
11	10.5 to 113.0									2.25	PP
11	13.0 to 115.5									2.25	PP
11	15.5 to 118.0									2.25	PP
11	18.0 to 120.5									2.25	PP
12	20.5 to 123.0			79	23	56	СН		100	2.25	PP
12	23.0 to 125.5									2.25	PP
12	25.5 to 128.0									2.25	PP
12	28.0 to 130.5									2.25	PP
13	30.5 to 133.0									2.25	PP
13	33.0 to 135.5									2.25	PP
13	35.5 to 138.0									2.25	PP
13	38.0 to 140.5									2.25	PP
14	10.5 to 143.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00	0 PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-13	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 149.0									2.25	PP
	149.0 to 151.5									2.25	PP
	151.0								99		
	151.5 to 154.0			87	26	61	СН		99	2.25	PP
	154.0 to 159.0									2.25	PP
	159.0 to 160.0									2.25	PP
B-14	0.0 to 2.0									0.13	PP
	2.0 to 4.0									0.13	PP
	4.0 to 6.0									0.25	PP
	6.0 to 8.0									0.38	PP
	8.0 to 10.0									0.38	PP
	10.0 to 13.0									0.50	PP
	13.0 to 15.0		19							2.25	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									2.25	PP
	19.0 to 20.0									2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 24.0		14							2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 30.0									2.25	PP
	30.0 to 32.0			59	16	43	СН		76	2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 36.0									2.25	PP
	36.0 to 38.0		17							2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0			49	17	32	CL		98	2.25	PP
	43.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 52.0									2.25	PP
	52.0 to 54.0			37	17	20	CL		89	2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 58.0		9							2.25	PP
	58.0 to 60.0									2.25	PP
	60.0 to 62.0			38	13	25	CL		75	2.25	PP
	62.0 to 64.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

	AME: ASF	10-170-00) I LOO/	<u> </u>	יוי יטיום.	2010.0					25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-14	64.0 to 66.0		12							2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 84.0		22							2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0		17							2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
-	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
-	104.0 to 107.0									2.25	PP
-	107.0 to 109.0		14							2.25	PP
-	109.0 to 111.0									2.25	PP
-	111.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
-	115.0 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
-	118.0 to 120.0									2.25	PP
-	120.0 to 123.0									2.25	PP
-	123.0 to 125.0		21							2.25	PP
-	125.0 to 127.0									2.25	PP
-	127.0 to 129.0									2.25	PP
	129.0 to 132.0									2.25	PP
-	132.0 to 134.0		12							2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 139.0									2.25	PP
	139.0 to 142.0									2.25	PP
-	142.0 to 145.0		22							2.25	PP
	145.0 to 148.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

-ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-14	151.0 to 153.0									2.25	PP
	153.0 to 155.0									2.25	PP
	155.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-15	0.0 to 3.0									0.13	PP
	3.0 to 5.0									2.25	PP
	5.0 to 7.0									2.25	PP
	7.0 to 9.0									2.25	PP
	9.0 to 12.0									2.25	PP
	12.0 to 15.0									2.25	PP
	15.0 to 18.0		28							2.25	PP
	18.0 to 20.0									2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 24.0									2.25	PP
	24.0 to 26.0		26							2.25	PP
	26.0 to 28.0									2.25	PP
	28.0 to 29.0									2.25	PP
	29.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 35.0									2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 43.0		35							2.25	PP
	43.0 to 46.0			166	30	136	СН		100	2.25	PP
	46.0 to 49.0		28							2.25	PP
	49.0 to 52.0									2.25	PP
	52.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0		12							2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 76.0									2.25	PP
	76.0 to 79.0		15							2.25	PP
	79.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP
P = Pock	et Penetrometer	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Van	e UL	J = Unconsol	idated Undra	ined Triaxia

PP = Pocket Penetrometer

TV = Torvane

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-15	85.0 to 88.0			34	14	20	CL		52	2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0			47	14	33	CL		55	2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 99.0		10							2.25	PP
	99.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0			75	16	59	CH		67	2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 117.0		16							2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
B-16	0.0 to 2.0									0.13	PP
	2.0 to 5.0									0.13	PP
	5.0 to 7.0		23	39	17	22	CL	101	54	0.38	PP
	7.0 to 9.0									1.38	PP
	9.0 to 12.0		22							1.63	PP
	12.0 to 14.0		33							2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 24.0									2.25	PP
	24.0 to 27.0									2.25	PP
	27.0 to 29.0									2.25	PP
	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0		22							2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 49.0		31							2.25	PP
	49.0 to 51.0									2.25	PP
	51.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP
										 .	

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF′	13-140-00	J PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-16	55.0 to 57.0									2.25	PP
	57.0 to 59.0		33	131	34	97	CH	86	89	2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0		22							2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0		15	114	22	92	CH	112	98	2.25	PP
	87.0 to 88.0			82	26	56				2.25	PP
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 101.0									2.25	PP
	101.0 to 102.0									2.25	PP
	102.0 to 104.0		13							2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 122.0		13	42	19	23	CL	120	71	2.25	PP
	122.0 to 123.0									2.25	PP
	123.0 to 124.0									2.25	PP
	124.0 to 126.0									2.25	PP
	126.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	131.0 to 134.0									2.25	PP

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-16	134.0 to 136.0									2.25	PP
	136.0 to 138.0									2.25	PP
	138.0 to 140.0									2.25	PP
	140.0 to 141.0									2.25	PP
	141.0 to 144.0									2.25	PP
	144.0 to 146.0									2.25	PP
	146.0 to 148.0									2.25	PP
	148.0 to 149.0									2.25	PP
	149.0 to 151.0									2.25	PP
	151.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-17	0.0 to 4.0									0.13	PP
	4.0 to 8.0									0.25	PP
	8.0 to 12.0									0.50	PP
	12.0 to 15.0			34	13	21	SC		49	0.50	PP
	15.0 to 17.0									2.25	PP
	17.0 to 19.0									0.13	PP
	19.0 to 21.0		15							2.25	PP
	21.0 to 22.0									2.25	PP
	22.0 to 24.0			29	13	16	SC		49	0.13	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.00	PP
	27.0 to 29.0									2.25	PP
	29.0 to 31.0									2.25	PP
	31.0 to 33.0		17							2.25	PP
	33.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0		7							2.25	PP
	53.0 to 56.0			54	24	30	СН		93	2.25	PP
	56.0 to 57.0									2.25	PP
	57.0 to 59.0		16							2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 63.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-17	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 69.0		16							2.25	PP
	69.0 to 71.0									2.25	PP
	71.0 to 73.0									2.25	PP
	73.0 to 75.0			49	20	29	CL		86	2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 79.0									2.25	PP
	79.0 to 81.0									2.25	PP
	81.0 to 83.0									2.25	PP
	83.0 to 84.0									2.25	PP
	84.0 to 86.0		6							2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 97.0									2.25	PP
	97.0 to 99.0									2.25	PP
	99.0 to 101.0									2.25	PP
	101.0 to 103.0		10							2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 107.0		13							2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-18	0.0 to 3.0									1.00	PP
	3.0 to 5.0									1.13	PP
	5.0 to 7.0		18	53	21	32	СН		70	1.00	PP
	7.0 to 10.0									0.13	PP
	10.0 to 13.0									0.13	PP
	13.0 to 16.0									1.88	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									0.00	PP
	23.0 to 26.0									2.25	PP
	26.0 to 29.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-18	29.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 48.0									2.25	PP
	48.0 to 51.0									2.25	PP
	51.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0		24	138	42	96	СН		97	2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 78.0									2.25	PP
	78.0 to 80.0									2.25	PP
	80.0 to 82.0									2.25	PP
	82.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 108.0		14	50	25	25	CH	109	100	2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 124.0									2.25	PP
	124.0 to 127.0									2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 132.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	/ 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-18	132.0 to 135.0									2.25	PP
	135.0 to 138.0									2.25	PP
	138.0 to 141.0									2.25	PP
	141.0 to 144.0									2.25	PP
	144.0 to 147.0									2.25	PP
	147.0 to 150.0		25	53	24	29	CH		99	2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-19	0.0 to 2.5									0.13	PP
	2.5 to 6.0									0.38	PP
	6.0 to 7.0									1.88	PP
	7.0 to 9.0									2.25	PP
	9.0 to 10.0									2.25	PP
	10.0 to 12.5			32	20	12	CL		52	2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 19.0									2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 36.5		14	54	21	33	CH		95	2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5			75	18	57	СН		60	2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.0									2.25	PP
	59.0 to 61.5		19	57	24	33	СН	110	96	2.25	PP
	61.5 to 64.0									2.25	PP
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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-19	64.0 to 67.0									2.25	PP
	67.0 to 69.5									2.25	PP
	69.5 to 72.0									2.25	PP
	72.0 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0		13	75	20	55	CH	139	86	2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 87.0									2.25	PP
	87.0 to 89.5									2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0									2.25	PP
	99.0 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 104.0									2.25	PP
	104.0 to 106.0									2.25	PP
	106.0 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 116.0									2.25	PP
	116.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 123.0									2.25	PP
	123.0 to 126.0									2.25	PP
	126.0 to 128.0									2.25	PP
	128.0 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.0									2.25	PP
	137.0 to 140.0									2.25	PP
	140.0 to 142.0									2.25	PP
	142.0 to 144.0									2.25	PP
	144.0 to 160.0									2.25	PP
	146.0 to 148.0									2.25	PP
) = Pock	146.0 to 148.0 ket Penetrometer	· TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	e UL	J = Unconsol	2.25 idated Undra	

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

Boring No. Sample Depth Per it Content Con	FILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ				/25/2015
150.0 to 152.0 to 154.0 to 156.0 to 150.0 to 150	Boring No.	Depth		Content	Liquid Limit		Plasticity Index	USCS	Weight	% -200 Sieve	Strength	Strength Test
152 0 to 154 0 to 156 0 to 158 0 to 1	B-19	148.0 to 150.0									2.25	PP
154.0 to 156.0 156.0 to 158.0 156.0 to 160.0 B-20 0.0 to 3.0 3.0 to 5.0 5.0 to 7.0 7.0 to 10.0 10.0 to 13.0 15 39 24 15 CL 99 2.25 PP 13.0 to 15.0 15.0 to 18.0 16.0 to 13.0 17.0 to 21.0 2.25 PP		150.0 to 152.0									2.25	PP
156.0 to 158.0 to 15.0 to 2.0 to 2		152.0 to 154.0									2.25	PP
B-20		154.0 to 156.0									2.25	PP
B-20 0.0 to 3.0		156.0 to 158.0									2.25	PP
3.0 to 5.0 to 7.0 7.0 to 10.0 10.0 to 13.0 15		158.0 to 160.0									2.25	PP
5.0 to 7.0 7.0 to 10.0 10.0 to 13.0 15 39 24 15 CL 99 2.25 PP 13.0 to 15.0 15.0 to 18.0 15.0 to 18.0 15.0 to 18.0 18.0 to 21.0 2.25 PP 21.0 to 23.0 23.0 to 26.0 23.0 to 26.0 28.0 to 28.0 28.0 to 30.0 30.0 to 33.0 30.0 to 33.0 30.0 to 37.0 33.0 to 36.0 2.25 PP 40.0 to 42.0 42.0 to 45.0 45.0 to 47.0 45.0 to 58.0 58.0 to 58.0 58.0 to 60.0 60.0 to 63.0 60.0 to 63.0 60.0 to 63.0 60.0 to 69.0 60.0 to 63.0 71.0 to 74.0 71.0 to 74.0 71.0 to 74.0 71.0 to 77.0 77.0 to 80.0	B-20	0.0 to 3.0									0.38	PP
7.0 to 10.0 10.0 to 13.0 15 39 24 15 CL 99 2.25 PP 13.0 to 15.0 15.0 to 18.0 15.0 to 18.0 15.0 to 18.0 16.0 to 23.0 2.25 PP 2.		3.0 to 5.0									0.50	PP
10.0 to 13.0 15 39 24 15 CL 99 2.25 PP 13.0 to 15.0 15.0 to 18.0 15.0 to 18.0 15.0 to 18.0 15.0 to 18.0 16.0 to 21.0 2.25 PP 2.25 PP 2.25 PP 2.20		5.0 to 7.0									0.50	PP
13.0 to 15.0 15.0 to 18.0 15.0 to 18.0 18.0 to 21.0 21.0 to 23.0 22.0 to 26.0 23.0 to 26.0 28.0 to 28.0 29.0 to 33.0 33.0 to 35.0 33.0 to 35.0 37.0 to 40.0 40.0 to 42.0 42.0 to 45.0 47.0 to 50.0 56.0 to 50.0 56.0 to 50.0 56.0 to 60.0 66.0 to 63.0 66.0 to 63.0 69.0 to 71.0 71.0 to 74.0 71.0 to 74.0 77.0 to 80.0 15.0 to 18.0 18.0 to 21.0 2.25 19.0 2.25 10.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0 2.0		7.0 to 10.0									2.25	PP
15.0 to 18.0 18.0 to 21.0 18.0 to 21.0 21.0 to 23.0 22.0 to 28.0 23.0 to 28.0 28.0 to 30.0 30.0 to 33.0 33.0 to 35.0 35.0 to 37.0 37.0 to 40.0 42.0 to 42.0 42.0 to 45.0 45.0 to 47.0 47.0 to 50.0 52.0 to 52.0 52.0 to 58.0 58.0 to 60.0 60.0 to 63.0 60.0 to 63.0 60.0 to 60.0 60.0 to 60.0 60.0 to 60.0 60.0 to 71.0 71.0 to 74.0 71.0 to 74.0 77.0 to 80.0 78.0 to 57.0 77.0 to 80.0 77.0 to 80.0 78.0 to 67.0 78.0 to 67.0 77.0 to 80.0 78.0 to 67.0 78.0 to 67.0 79.0 to 80.0 79.0 t		10.0 to 13.0		15	39	24	15	CL		99	2.25	PP
18.0 to 21.0 21.0 to 23.0 23.0 to 26.0 23.0 to 28.0 28.0 to 30.0 33.0 to 33.0 33.0 to 35.0 37.0 to 40.0 40.0 to 42.0 42.0 to 45.0 47.0 to 50.0 50.0 to 52.0 50.0 to 58.0 50.0 to 58.0 50.0 to 68.0 60.0 to 68.0 60.0 to 68.0 60.0 to 69.0 69.0 to 71.0 71.0 to 74.0 71.0 to 74.0 77.0 to 80.0 22.5 PP		13.0 to 15.0									2.25	PP
21.0 to 23.0 23.0 to 26.0 23.0 to 26.0 26.0 to 28.0 26.0 to 28.0 26.0 to 30.0 30.0 to 33.0 30.0 to 35.0 35.0 to 37.0 37.0 to 40.0 40.0 to 42.0 42.0 to 45.0 45.0 to 47.0 47.0 to 50.0 50.0 to 52.0 52.0 to 54.0 58.0 to 66.0 60.0 to 63.0 60.0 to 60.0 60.0 to 63.0 60.0 to 71.0 71.0 to 74.0 71.0 to 74.0 77.0 to 80.0 12.25 PP 2.25 PP 2.25		15.0 to 18.0									2.25	PP
23.0 to 26.0 26.0 to 28.0 26.0 to 28.0 26.0 to 28.0 26.0 to 28.0 26.0 to 30.0 26.0 t		18.0 to 21.0									2.25	PP
26.0 to 28.0 2.25 PP 28.0 to 30.0 2.25 PP 30.0 to 33.0 2.25 PP 33.0 to 35.0 2.25 PP 35.0 to 37.0 2.25 PP 40.0 to 42.0 42.0 to 45.0 47.0 to 50.0 52.0 to 54.0 58.0 to 58.0 58.0 to 60.0 60.0 to 63.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 12 44 23 21 CL 116 93 2.25 PP 2.25 PP		21.0 to 23.0									2.25	PP
28.0 to 30.0 30.0 to 33.0 30.0 to 33.0 31.0 to 35.0 32.25 PP 35.0 to 37.0 22.5 PP 37.0 to 40.0 22.5 PP 40.0 to 42.0 42.0 to 45.0 47.0 to 50.0 52.0 to 52.0 52.0 to 54.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 60.0 to 60.0 60.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 12		23.0 to 26.0									2.25	PP
30.0 to 33.0 30.0 to 33.0 30.0 to 35.0 31.0 to 35.0 32.25 PP 35.0 to 37.0 22.25 PP 40.0 to 42.0 42.0 to 45.0 45.0 to 47.0 47.0 to 50.0 52.0 to 54.0 52.0 to 54.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 60.0 to 63.0 60.0 to 69.0 69.0 to 71.0 71.0 to 74.0 71.0 to 77.0 77.0 to 80.0		26.0 to 28.0									2.25	PP
33.0 to 35.0 35.0 to 37.0 35.0 to 37.0 37.0 to 40.0 40.0 to 42.0 42.0 to 45.0 45.0 to 47.0 45.0 to 52.0 52.0 to 55.0 52.0 to 55.0 58.0 to 60.0 60.0 to 63.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 33.0 to 35.0 32.25 PP 22.25 PP		28.0 to 30.0									2.25	PP
35.0 to 37.0 37.0 to 40.0 37.0 to 40.0 40.0 to 42.0 40.0 to 42.0 42.0 to 45.0 45.0 to 47.0 45.0 to 50.0 52.0 to 54.0 52.25 60.0 to 63.0 60.0 to 63.0 60.0 to 63.0 69.0 to 71.0 77.0 to 80.0 35.0 to 37.0 2.25 6.0 to 77.0 77.0 to 80.0 2.25 6.0 to 42.0 2.25 6.0 to 42.0 6.0 to 63.0 6.0 to 64.0 6.0 to 65.0 6.		30.0 to 33.0									2.25	PP
37.0 to 40.0 40.0 to 42.0 40.0 to 42.0 42.0 to 45.0 42.0 to 50.0 47.0 to 50.0 52.0 to 54.0 53.0 to 63.0 66.0 to 63.0 66.0 to 69.0 69.0 to 71.0 77.0 to 80.0 22.5 PP		33.0 to 35.0									2.25	PP
40.0 to 42.0 42.0 to 45.0 42.0 to 45.0 45.0 to 47.0 45.0 to 50.0 50.0 to 52.0 50.0 to 52.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 60.0 to 63.0 60.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 40.0 to 45.0 42.25 PP 2.25 PP		35.0 to 37.0									2.25	PP
42.0 to 45.0 45.0 to 47.0 45.0 to 47.0 45.0 to 50.0 47.0 to 50.0 52.0 to 54.0 52.0 to 54.0 58.0 to 60.0 60.0 to 63.0 63.0 to 66.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 42.25 PP 2.25 PP		37.0 to 40.0									2.25	PP
45.0 to 47.0 47.0 to 50.0 47.0 to 50.0 50.0 to 52.0 52.0 to 54.0 52.25 PP 53.0 to 58.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 63.0 to 66.0 63.0 to 66.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 45.0 to 47.0 2.25 PP		40.0 to 42.0									2.25	PP
47.0 to 50.0 50.0 to 52.0 50.0 to 52.0 52.0 to 54.0 52.0 to 54.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 47.0 to 50.0 2.25 PP		42.0 to 45.0									2.25	PP
50.0 to 52.0 52.0 to 54.0 52.0 to 54.0 52.0 to 54.0 52.0 to 54.0 58.0 to 60.0 58.0 to 60.0 60.0 to 63.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 2.25 PP		45.0 to 47.0									2.25	PP
52.0 to 54.0 54.0 to 58.0 54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 52.25 PP 2.25 PP		47.0 to 50.0									2.25	PP
54.0 to 58.0 58.0 to 60.0 60.0 to 63.0 63.0 to 66.0 66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 77.0 to 80.0 54.0 to 58.0 2.25 PP		50.0 to 52.0									2.25	PP
58.0 to 60.0 63.0 60.0 63.0 66.0 66.0 66.0 to 69.0 69.0 to 71.0 to 74.0 77.0 to 80.0 77.0 to 80.0 2.25 PP		52.0 to 54.0									2.25	PP
60.0 to 63.0		54.0 to 58.0									2.25	PP
63.0 to 66.0		58.0 to 60.0									2.25	PP
66.0 to 69.0 69.0 to 71.0 71.0 to 74.0 72.0 to 77.0 to 80.0 2.25 PP 71.0 to 69.0 to 71.0 2.25 PP 72.25 PP 72.25 PP 72.25 PP 72.25 PP 72.25 PP		60.0 to 63.0									2.25	PP
69.0 to 71.0 71.0 to 74.0 74.0 to 77.0 77.0 to 80.0		63.0 to 66.0									2.25	PP
71.0 to 74.0 74.0 to 77.0 77.0 to 80.0		66.0 to 69.0									2.25	PP
74.0 to 77.0 77.0 to 80.0 2.25 PP 2.25 PP		69.0 to 71.0									2.25	PP
77.0 to 80.0 2.25 PP		71.0 to 74.0		12	44	23	21	CL	116	93	2.25	PP
		74.0 to 77.0									2.25	PP
80.0 to 82.0 2.25 PP		77.0 to 80.0									2.25	PP
		80.0 to 82.0									2.25	PP
82.0 to 84.0 2.25 PP		82.0 to 84.0									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

	AME: ASF1	13-1 -1 0-00	JI LOOM	DI10_1 L	טועס, ווע	2013.0	0				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-20	84.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 106.0									2.25	PP
	106.0 to 109.0		18	67	24	43	СН		100	2.25	PP
	109.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-21	0.0 to 3.0									0.50	PP
	3.0 to 5.0									1.25	PP
	5.0 to 7.0									1.00	PP
	7.0 to 9.0									1.25	PP
	9.0 to 11.0									1.25	PP
	11.0 to 14.0									1.75	PP
	14.0 to 16.0									1.75	PP
	16.0 to 18.0									2.00	PP
	18.0 to 21.0		24	78	32	46	СН	98	96	2.25	PP
	21.0 to 25.0									2.00	PP
	25.0 to 28.0									2.25	PP
	28.0 to 32.0									2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 59.0		11	60	17	43	СН		94	2.25	PP
	59.0 to 61.0									2.25	PP
	61.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
ļ	70.0 to 74.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE NA	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	/ 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-21	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP
	115.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 124.0									2.25	PP
	124.0 to 127.0		16	53	22	31	СН		100	2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 132.0									2.25	PP
	132.0 to 134.0									2.25	PP
	134.0 to 137.0									2.25	PP
	137.0 to 140.0									2.25	PP
	140.0 to 143.0									2.25	PP
	143.0 to 145.0									2.25	PP
	145.0 to 150.0									2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-22	0.0 to 3.0									1.00	PP
	3.0 to 6.0									1.25	PP
	6.0 to 7.0									1.25	PP
	7.0 to 10.0									0.50	PP
	10.0 to 14.0									1.25	PP
	14.0 to 16.0									1.25	PP
	16.0 to 18.0									2.25	PP
			19	53	34	19	МН	99	96	2.25	1

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-22	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 36.0									2.25	PP
	36.0 to 38.0									2.25	PP
	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 84.0									2.25	PP
	84.0 to 86.0									2.25	PP
	86.0 to 88.0									2.25	PP
	88.0 to 91.0		18	65	35	30	МН	100	98	2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-23	0.0 to 3.0									0.63	PP
	3.0 to 5.0									0.88	PP
	5.0 to 8.0									1.00	PP
	8.0 to 11.0									2.25	PP
	11.0 to 13.0									2.25	PP
DD = Dock	cet Penetromete	r TV = To	orvono III	C = Unconfin	od Compres	cion EV -	Field Vane	<u> </u>	J = Unconsol		

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-23	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 31.0									2.25	PP
	31.0 to 33.0									2.25	PP
	33.0 to 36.0		22	58	21	37	СН	104	100	2.25	PP
	36.0 to 39.0									2.25	PP
	39.0 to 42.0									2.25	PP
	42.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0		19	48	29	19	ML	99	100	2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
	65.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 73.0									2.25	PP
	73.0 to 75.0									2.25	PP
	75.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 85.0									2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 90.0									2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 105.0									2.25	PP
	105.0 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 115.0									2.25	PP

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

ILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-23	115.0 to 118.0		12	49	25	24	CL		100	2.25	PP
	118.0 to 120.0									2.25	PP
B-24	0.0 to 3.0									0.13	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									0.63	PP
	10.0 to 14.0									0.63	PP
	14.0 to 16.0									0.50	PP
	16.0 to 18.0									2.25	PP
	18.0 to 22.0									2.25	PP
	22.0 to 26.0									2.25	PP
	26.0 to 30.0									2.25	PP
	30.0 to 33.0									2.25	PP
	33.0 to 37.0		19	36	23	13	CL		96	2.25	PP
	37.0 to 41.0									2.25	PP
	41.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 51.0									2.25	PP
	51.0 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 61.0									2.25	PP
	61.0 to 65.0									2.25	PP
	65.0 to 69.0		19	52	24	28	СН		98	2.25	PP
	69.0 to 73.0									2.25	PP
	73.0 to 77.0									2.25	PP
	77.0 to 81.0									2.25	PP
	81.0 to 84.0									2.25	PP
	84.0 to 88.0									2.25	PP
	88.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 106.0										
	106.0 to 109.0									2.25	PP
	109.0 to 112.0		11	45	21	24	CL		94	2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
	120.0 to 124.0									2.25	PP
	124.0 to 128.0									2.25	PP
	128.0 to 131.0									2.25	PP
	120.0 10 131.0										

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE NA	AME: ASF1	13-140-00) PESCA	DHO_FE	:BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-24	135.0 to 139.0									2.25	PP
	139.0 to 143.0									2.25	PP
	143.0 to 147.0									2.25	PP
	147.0 to 150.0		9	57	19	38	CH		95	2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-25	0.0 to 3.0									1.38	PP
	3.0 to 5.0									1.88	PP
	5.0 to 7.0									2.25	PP
	7.0 to 10.0									2.25	PP
	10.0 to 14.0									2.25	PP
	14.0 to 16.0									2.25	PP
	16.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 23.0									2.25	PP
	23.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 30.0									2.25	PP
	30.0 to 33.0		18	55	25	30	СН	105	99	2.25	PP
	33.0 to 35.0		14	39	19	20	CL		93	2.25	PP
	35.0 to 37.0									2.25	PP
	37.0 to 40.0									2.25	PP
	40.0 to 42.0									2.25	PP
	42.0 to 44.0									2.25	PP
	44.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0		14	52	26	26	CH		100	2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 69.0									2.25	PP
	69.0 to 70.0									2.25	PP
	70.0 to 74.0									2.25	PP
	74.0 to 78.0									2.25	PP
	78.0 to 81.0									2.25	PP
4	81.0 to 85.0		1			I	1	I	1	2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

-ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-25	85.0 to 88.0									2.25	PP
	88.0 to 90.0		13	67	24	43	СН		99	2.25	PP
	90.0 to 93.0									2.25	PP
	93.0 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0									2.25	PP
	113.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-26	0.0 to 3.0									0.13	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									1.25	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 20.0		13	45	20	25	CL		81	2.25	PP
	20.0 to 22.0									2.25	PP
	22.0 to 25.0									2.25	PP
	25.0 to 28.0									2.25	PP
	28.0 to 32.0									2.25	PP
	32.0 to 34.0									2.25	PP
	34.0 to 38.0									2.25	PP
	38.0 to 41.0									2.25	PP
	41.0 to 43.0									2.25	PP
	43.0 to 45.0									2.25	PP
	45.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 53.0									2.25	PP
	53.0 to 56.0									2.25	PP
	56.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 74.0									2.25	PP
	74.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
P = Pock	ket Penetrometer	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	الاح	J = Unconsol	idated Undra	ined Triaxi

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

ILL INA	AME: ASF1	13-1 4 0-00) I LOUA		יואטאום	2013.0	ı J				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-26	80.0 to 83.0									2.25	PP
	83.0 to 85.0		12	52	22	30	СН		85	2.25	PP
	85.0 to 87.0									2.25	PP
	87.0 to 89.0									2.25	PP
	89.0 to 92.0									2.25	PP
	92.0 to 95.0		11	76	21	55	СН		99	2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 104.0									2.25	PP
	104.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 114.0									2.25	PP
	114.0 to 117.0									2.25	PP
	117.0 to 119.0									2.25	PP
	119.0 to 121.0									2.25	PP
	121.0 to 124.0									2.25	PP
	124.0 to 127.0									2.25	PP
	127.0 to 130.0									2.25	PP
	130.0 to 133.0									2.25	PP
	133.0 to 135.0									2.25	PP
	135.0 to 138.0									2.25	PP
	138.0 to 141.0									2.25	PP
	141.0 to 145.0		12	69	24	45	СН		100	2.25	PP
	145.0 to 149.0									2.25	PP
	149.0 to 153.0									2.25	PP
	153.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-27	0.0 to 3.0									0.38	PP
	3.0 to 7.0									0.38	PP
	7.0 to 10.0									1.50	PP
	10.0 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 18.0									2.25	PP
	18.0 to 21.0									2.25	PP
	21.0 to 25.0									2.25	PP
	25.0 to 29.0									2.25	PP
	29.0 to 32.0		10	39	19	20	CL		98	2.25	PP
	32.0 to 35.0									2.25	PP
	35.0 to 38.0									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-27	38.0 to 40.0									2.25	PP
	40.0 to 43.0									2.25	PP
	43.0 to 47.0									2.25	PP
	47.0 to 50.0									2.25	PP
	50.0 to 54.0									2.25	PP
	54.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 64.0									2.25	PP
	64.0 to 66.0									2.25	PP
	66.0 to 69.0									2.25	PP
	69.0 to 73.0									2.25	PP
	73.0 to 77.0									2.25	PP
	77.0 to 80.0									2.25	PP
	80.0 to 83.0									2.25	PP
	83.0 to 87.0									2.25	PP
	87.0 to 91.0									2.25	PP
	91.0 to 94.0									2.25	PP
	94.0 to 97.0									2.25	PP
	97.0 to 100.0									2.25	PP
	100.0 to 103.0									2.25	PP
	103.0 to 107.0									2.25	PP
	107.0 to 110.0									2.25	PP
	110.0 to 113.0		10	46	22	24				2.25	PP
	113.0 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
B-101	0.0 to 10.0										
	10.0 to 25.0										
	25.0 to 27.0									2.25	PP
	27.0 to 29.0									2.25	PP
	29.0 to 30.0										
	30.0 to 34.0									2.25	PP
	34.0 to 55.0										
	55.0 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 68.0									2.25	PP
	68.0 to 85.0										
	85.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 95.0										
PP = Pock	ket Penetrometer	. TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Van	e Ul	J = Unconsol	idated Undra	ined Triaxia

PP = Pocket Penetrometer

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUARY	/ 2015.G	PJ				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-101	95.0 to 115.0										
	115.0 to 118.0										
	118.0 to 120.0										
	120.0 to 146.0										
	146.0 to 151.0										
B-102	0.0 to 18.0										
	18.0 to 21.0										
	21.0 to 23.0									0.88	PP
	23.0 to 25.0									2.25	PP
	25.0 to 50.0										
	50.0 to 54.0									2.25	PP
	54.0 to 58.0									2.25	PP
	58.0 to 59.0										
	59.0 to 60.0										
	60.0 to 62.0										
	62.0 to 64.0									2.25	PP
	64.0 to 66.0									2.25	PP
	66.0 to 68.0									2.25	PP
	68.0 to 70.0									2.25	PP
	70.0 to 82.0										
	82.0 to 86.0										
	86.0 to 88.0										
	88.0 to 90.0										
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 112.0										
	112.0 to 114.0									2.25	PP
	114.0 to 117.0										
	117.0 to 120.0										
	120.0 to 122.0									2.25	PP
	122.0 to 140.0										
	140.0 to 142.0									2.25	PP
	142.0 to 146.0									2.25	PP
	146.0 to 150.0										
	150.0 to 160.0										
B-103	0.0 to 2.5									0.63	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5			41	16	25	CL		64	1.25	PP
PP = Pocl	ket Penetrometer	TV = To	orvane U	C = Unconfin			Field Vane	الا د	J = Unconsol		

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/201
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-103	7.5 to 10.0									0.88	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									1.63	PP
	45.0 to 47.5			45	18	27	CL		91	2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 63.0									2.25	PP
	63.0 to 64.0									2.25	PP
	64.0 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 74.5									2.25	PP
	74.5 to 75.5									2.25	PP
	75.5 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5			84	22	62	СН		92	2.25	PP
	92.5 to 95.0					J2	011		52	2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.20	''
 D = Dock	et Penetrometer	r TV = To	orvane II	C = Unconfin	led Compres	sion FV =	Field Van	<u> </u>	│ J = Unconsol	lidated I Indra	ined Triav

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE N	AME: ASE	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-103	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-104	0.0 to 2.5									1.25	PP
	2.5 to 5.0									0.88	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0			69	31	38	CH		98	2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0			49	22	27	CL		92	2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
PP = Pock	et Penetromete	r TV = Tc	nnyana Ili	C = Unconfin	ad Compres	eion EV =	: Field Van	ا ا	I = Unconsol	idated I Indra	inad Triavial

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	/ 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-104	77.5 to 81.3									2.25	PP
	81.3 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.0			34	18	16	CL		53	2.25	PP
	91.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-105	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									2.25	PP
	7.5 to 10.0									1.88	PP
	10.0 to 12.5			60	29	31	CH		92	2.00	PP
	12.5 to 15.0									1.75	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.13	PP
	32.5 to 35.0									2.25	PP
	35.0 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5			77	25	52	СН		65	2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

-ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	<u>Y 2015.G</u>	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-105	53.5 to 56.0									2.25	PP
	56.0 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0			59	21	38	CH		54	2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 116.0										
	116.0 to 117.0										
	117.0 to 118.0									2.25	PP
	118.0 to 119.5									2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.5									2.25	PP
	124.5 to 126.0									2.25	PP
	126.0 to 128.5									2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5			45	23	22	CL		87	2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP
P = Pock	et Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	الا د	J = Unconsol		ined Triaxi

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-105	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-106	0.0 to 20.0										
	20.0 to 22.0									2.25	PP
	22.0 to 24.0									2.25	PP
	24.0 to 26.0									2.25	PP
	26.0 to 28.0										
	28.0 to 40.0										
	40.0 to 42.0									2.25	PP
	42.0 to 44.0										
	44.0 to 46.0										
	46.0 to 70.0										
	70.0 to 72.0										
	72.0 to 74.0										
	74.0 to 76.0										
	76.0 to 78.0										
	78.0 to 88.0										
	88.0 to 90.0									2.25	PP
	90.0 to 92.0									2.25	PP
	92.0 to 94.0									2.25	PP
	94.0 to 96.0									2.25	PP
	96.0 to 98.0									2.25	PP
	98.0 to 100.0										
	100.0 to 112.0										
	112.0 to 113.0									2.25	PP
	113.0 to 114.0										
	114.0 to 116.0									2.25	PP
	116.0 to 118.0										
	118.0 to 120.0										
B-107	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP
	_										

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

1 1 1 1 1 1 1 1	AME: ASF1	10 170 00	1	<u> </u>	יואטיום	2013.0	ı J				/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-107	15.0 to 17.5			40	21	19	CL		88	2.25	PP
	17.5 to 20.0									1.50	PP
	20.0 to 22.5									1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 27.5									2.00	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0			54	18	36	CH		99	2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 74.0									2.25	PP
	74.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5			51	26	25	СН		98	2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.0									2.25	PP
	102.0 to 103.0									2.25	PP
	103.0 to 105.5									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-107	105.5 to 107.0									2.25	PP
	107.0 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 119.0									2.25	PP
	119.0 to 121.5									2.25	PP
	121.5 to 124.0									2.25	PP
	124.0 to 126.5									2.25	PP
	126.5 to 128.0			68	34	34	МН		95	2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 132.0									2.25	PP
	132.0 to 134.5									2.25	PP
	134.5 to 137.0									2.25	PP
	137.0 to 139.5									2.25	PP
	139.5 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 147.0									2.25	PP
	147.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.5									2.25	PP
	154.5 to 157.0									2.25	PP
	157.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-108	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.38	PP
	5.0 to 7.5									1.38	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									1.88	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0			49	19	30	CL		100	1.50	PP
	20.0 to 22.5									1.88	PP
	22.5 to 25.0									2.00	PP
	25.0 to 26.0									2.00	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 32.5									2.25	PP
	32.5 to 36.0									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

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FV = Field Vane

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CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

-ILE N	AME: ASF1	<u>3-140-00</u>) PESCA	DITO_FE	BRUAR	/ 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-108	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 52.0									2.25	PP
	52.0 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0			53	19	34	СН		100	2.25	PP
	58.0 to 60.5									2.25	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 80.5									2.25	PP
	80.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5									2.25	PP
	90.5 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5			59	24	35	СН		100	2.25	PP
	96.5 to 99.0									2.25	PP
	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.5									2.25	PP
	106.5 to 109.0									2.25	PP
	109.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
B-109	0.0 to 2.5									1.00	PP
	2.5 to 5.0									1.00	PP
	5.0 to 7.5									2.00	PP
	7.5 to 10.0									2.25	PP
PP = Pock	tet Penetrometer	TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	الا د	J = Unconsol		

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

ILE N	AME: ASF1	3-140-0	PESCA	DITO_FE	BRUAR	/ 2015.G	PJ				25/201
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-109	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5			92	30	62	СН		99	2.25	PP
	22.5 to 25.0									1.00	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 46.0									2.25	PP
	46.0 to 48.0									2.25	PP
	48.0 to 50.0									2.25	PP
	50.0 to 51.5									2.25	PP
	51.5 to 54.0									2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 58.5			25	15	10	SC		40	2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 67.0									2.25	PP
	67.0 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0			63	19	44	СН		100	2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-109	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0			49	22	27	CL		98	2.25	PP
	138.0 to 140.5									2.25	PP
	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 153.0									2.25	PP
	153.0 to 155.5									2.25	PP
	155.5 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-109A	0.0 to 6.0									0.50	PP
	6.0 to 16.0									2.25	PP
	16.0 to 24.0									2.25	PP
	24.0 to 36.0									2.25	PP
	36.0 to 56.0									2.25	PP
	56.0 to 76.0									2.25	PP
	76.0 to 85.0									2.25	PP
B-110	0.0 to 2.5									0.75	PP
	2.5 to 5.0									1.00	PP
	5.0 to 7.5									1.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
PP = Pock	et Penetrometer	. TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	e Ul	J = Unconsol	idated Undra	ined Triaxial

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

	AME: ASF	10 170 00	71 200/1	<u> </u>	יייייייייייייייייייייייייייייייייייייי	2010.0	1 0	1	1		25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-110	22.5 to 25.0		17	63	21	42	СН		59	2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0		14			NP	SM		48	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 98.0									2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0		15	60	26	34	СН		100	2.25	PP
	103.0 to 105.5									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP

PP = Pocket Penetrometer

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CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-110	117.5 to 120.0									2.25	PP
B-111	0.0 to 2.5									0.50	PP
	2.5 to 5.0									0.75	PP
	5.0 to 7.5									0.75	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.00	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 26.5								100	2.25	PP
	26.5 to 28.5		14	50	23	27				2.25	PP
	28.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	58.5			59	23	36					
	60.0 to 62.5									2.25	PP
	62.5 to 65.0		18	62	26	36	СН		99	2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
						·					

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-111	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.0									2.25	PP
	97.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 104.0		9	40	17	23	CL		84	2.25	PP
	104.0 to 105.5									2.25	PP
	105.5 to 108.0									2.25	PP
	108.0 to 110.0									2.25	PP
	110.0 to 111.5									2.25	PP
	111.5 to 114.0									2.25	PP
	114.0 to 116.5									2.25	PP
	116.5 to 118.5									2.25	PP
	118.5 to 120.0									2.25	PP
B-112	0.0 to 1.0										
	1.0 to 2.0									1.25	PP
	2.0 to 6.0										
	6.0 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP
	11.0 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.5									2.25	PP
	27.5 to 29.0									2.25	PP
	29.0 to 30.5									2.25	PP
	30.5 to 32.0									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 35.0									2.25	PP
	35.0 to 36.0									2.25	PP
	36.0 to 38.2									2.25	PP
	38.2 to 39.0									2.25	PP
	39.0 to 41.0									2.25	PP
	41.0 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 47.5										
P = Pock	et Penetrometer	. TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	الا د	J = Unconsol	idated Undra	ined Triaxia

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

166 147	NME: ASF	13-140-00	PESCA		DRUAR	1 2015.0	FJ				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-112	47.5 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0		13						100	2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5		19	90	25	65	CH		99	2.25	PP
	98.5 to 101.0									2.25	PP
1	101.0 to 103.5									2.25	PP
1	103.5 to 106.0									2.25	PP
1	106.0 to 108.5									2.25	PP
1	108.5 to 109.5									2.25	PP
1	109.5 to 110.5									2.25	PP
1	110.5 to 113.0									2.25	PP
1	113.0 to 115.5									2.25	PP
1	115.5 to 118.0									2.25	PP
1	118.0 to 119.0									2.25	PP
1	119.0 to 121.0									2.25	PP
1	121.0 to 123.0									2.25	PP
1	123.0 to 124.0									2.25	PP
1	124.0 to 126.5									2.25	PP
1	126.5 to 129.0									2.25	PP
1	129.0 to 131.5		11	55	22	33	СН		92	2.25	PP
	104 5 1- 404 0									2.25	PP
1	131.5 to 134.0									2.25	''

PP = Pocket Penetrometer

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UC = Unconfined Compression

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CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-112	136.5 to 139.0									2.25	PP
	139.0 to 141.5									2.25	PP
	141.5 to 142.0										
	142.0 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 149.5									2.25	PP
	149.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.0 to 160.0									2.25	PP
B-113	0.0 to 2.5									0.50	PP
	2.5 to 5.0									0.50	PP
	5.0 to 7.5									1.75	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									0.50	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5		8	40	17	23	CL		95	2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 51.5									2.25	PP
	51.5 to 54.0									2.25	PP
	54.0 to 56.5									2.25	PP
	56.5 to 59.0									2.25	PP
	59.0 to 61.5									2.25	PP
	61.5 to 63.0									2.25	PP
	63.0 to 65.0									2.25	PP
						·					

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-113	65.0 to 67.5									2.25	PP
	67.5 to 70.0		8	44	17	27	CL		90	2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.0									2.25	PP
	82.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 104.0									2.25	PP
	104.0 to 105.5									2.25	PP
	105.5 to 107.5		17	57	24	33	СН		69	2.25	PP
	107.5 to 108.5									2.25	PP
	108.5 to 110.0									2.25	PP
	110.0 to 111.0									1.75	PP
	111.0 to 113.5									1.63	PP
	113.5 to 116.0									1.75	PP
	116.0 to 119.0									2.25	PP
	119.0 to 120.0									2.25	PP
	120.0 to 122.5									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 139.0									2.25	PP
	139.0 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0									2.25	PP
	145.0 to 147.5									2.25	PP
	147.5 to 150.0									2.25	PP
	150.0 to 152.5									2.25	PP
P = Pock	et Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	e UI	J = Unconsol	idated Undra	ined Triaxia

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE IN	AME: ASE	13-140-00	PESCA	בין ביווט_רנ	DRUAR	1 2015.G	ГJ				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-113	152.5 to 155.0									2.25	PP
	155.0 to 157.5									2.25	PP
	157.5 to 158.3									2.25	PP
	158.3 to 160.0									2.25	PP
B-114	0.0 to 1.0									0.88	PP
	1.0 to 3.5									0.38	PP
	3.5 to 6.0									0.50	PP
	6.0 to 7.0									0.88	PP
	7.0 to 9.5									1.00	PP
	9.5 to 12.0										
	12.0 to 14.5										
	14.5 to 17.0									2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0		11	40	19	21	CL		89	2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 35.5									2.25	PP
	35.5 to 38.0									2.25	PP
	37.0 to 37.8									2.25	PP
	38.0 to 40.5									2.25	PP
	40.5 to 42.0									2.25	PP
	42.0 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 46.0										
	46.0 to 46.8									2.25	PP
	46.8 to 47.0										
	47.0 to 49.0									2.25	PP
	49.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 54.0									2.25	PP
	54.0 to 56.0									2.25	PP
	56.0 to 57.0									2.25	PP
	57.0 to 59.5		13	48	21	27	CL		100	2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.5									2.25	PP
	64.5 to 65.5									2.25	PP

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-114	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 79.0										
	79.0 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0		10	45	17	28	CL		88	2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP
	113.5 to 116.0									2.25	PP
	116.0 to 118.0									2.25	PP
	118.0 to 120.0									2.25	PP
B-114A	0.0 to 6.0									0.75	PP
	6.0 to 15.0									2.25	PP
	15.0 to 20.0									2.25	PP
B-115	0.0 to 2.5									1.00	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	_										<u> </u>

PP = Pocket Penetrometer

TV = Torvane

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ	Г		2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-115	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5		15	54	24	30	СН		99	2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.0									2.25	PP
	57.0 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5		18	90	29	61	СН		100	2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 94.0									2.25	PP
	94.0 to 102.0									2.25	PP
	102.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-116	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.13	PP
	5.0 to 7.5									1.50	PP
	7.5 to 8.5									2.25	PP
	8.5 to 11.0									2.25	PP
P = Pock	cet Penetrometer	r TV = To	orvane III	C = Unconfin	ed Compres	sion FV =	: Field Van	<u> </u>	J = Unconsol		

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

-ILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-116	11.0 to 12.2									2.25	PP
	12.2 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.3									2.25	PP
	26.3 to 28.8									2.25	PP
	28.8 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0			47	19	28	CL		93	2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 42.0									2.25	PP
	42.0 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 48.0									2.25	PP
	48.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 54.0									2.25	PP
	54.0 to 56.5									2.25	PP
	56.5 to 59.0									2.25	PP
	59.0 to 61.5									2.25	PP
	61.5 to 64.0									2.25	PP
	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5			44	20	24	CL		99	2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 78.0									2.25	PP
	78.0 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0									2.25	PP
PP = Pock	tet Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	e Ul	J = Unconsol		

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR\	/ 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-116	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 106.5									2.25	PP
	106.5 to 111.0			48	18	30	CL		98	2.25	PP
	111.0 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5									2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0									2.25	PP
	138.0 to 140.5									2.25	PP
	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0			54	23	31	CH		100	2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 160.0									2.25	PP
B-117	0.0 to 2.5		5			NP	SM		33		
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									1.13	PP
	10.0 to 12.5									0.63	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 30.0									2.25	PP
	30.0 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5		15	55	25	30	CH		99	2.25	PP
	_										

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE IN	AME: ASF1	13-140-00	PESCA	DITO_FE	BRUAR	r 2015.G	PJ		I		25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-117	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5		11	99	23	76	СН		97	2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-118	0.0 to 2.5									0.88	PP
	2.5 to 5.0		11	49	18	31	CL		63	0.38	PP
	5.0 to 7.5									1.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 15.2										
	15.2 to 16.0									2.25	PP
P = Pock	et Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Van	e Ul	J = Unconsol	idated Undra	ined Triaxi

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00	PESCA	DITO_FE	BRUAR'	Y 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-118	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5		12	54	24	30	СН		98	2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0									2.25	PP
	81.0 to 83.5		10	52	22	30	СН		90	2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 108.5									2.25	PP
	108.5 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP
					L	'		·			

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	LE NAME: ASF13-140-00 PESCADITO_FEBRUARY 2015.GPJ 2/25									/25/2015	
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-118	113.5 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	120.0 to 122.5		6	81	20	61	СН		83	2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.6 to 130.1									2.25	PP
	130.0 to 132.5									2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 144.0									2.25	PP
	144.0 to 146.5									2.25	PP
	146.5 to 149.0									2.25	PP
	149.0 to 151.5									2.25	PP
	151.5 to 154.0									2.25	PP
	154.0 to 156.5									2.25	PP
	156.5 to 159.0									2.25	PP
	159.0 to 160.0		12	65	24	41	СН		97	2.25	PP
B-119	0.0 to 2.5									1.25	PP
	2.5 to 5.0									0.88	PP
	5.0 to 7.2			46	16	30	CL		62	1.38	PP
	7.2 to 8.0									1.50	PP
	8.0 to 10.5									2.25	PP
	10.5 to 13.0									2.25	PP
	13.0 to 15.0									2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 42.5			57	20	37	СН		62	2.25	PP

PP = Pocket Penetrometer

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CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	<u>/ 2015.G</u>	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-119	42.5 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5									2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
	73.5 to 76.0									2.25	PP
	76.0 to 78.5									2.25	PP
	78.5 to 81.0			48	20	28	CL		86	2.25	PP
	81.0 to 83.5									2.25	PP
	83.5 to 86.0									2.25	PP
	86.0 to 88.5									2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5									2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 107.0									2.25	PP
	107.0 to 109.5									2.25	PP
	109.5 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 119.5			60	20	40	СН		100	2.25	PP
	119.5 to 122.0									2.25	PP
	122.0 to 124.5									2.25	PP
	124.5 to 127.0									2.25	PP
	127.0 to 129.5									2.25	PP
	129.5 to 132.0									2.25	PP
	132.0 to 134.5									2.25	PP
	134.5 to 137.0									2.25	PP
PP = Pock	cet Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	e Ul	J = Unconsol		

PP = Pocket Penetrometer

TV = Torvane

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CU = Consolidated Undrained Triaxial

PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ACE12 140 OF DECCADITO FEDDUADY 2015 OF L

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-119	137.0 to 139.5									2.25	PP
	139.5 to 142.0									2.25	PP
	142.0 to 144.5									2.25	PP
	144.5 to 148.0									2.25	PP
	148.0 to 149.5									2.25	PP
	149.5 to 152.0									2.25	PP
	152.0 to 154.5									2.25	PP
	154.5 to 156.0									2.25	PP
	156.0 to 159.0										
	159.0 to 160.0									2.25	PP
B-120	0.0 to 2.5									1.63	PP
	2.5 to 5.5									1.25	PP
	5.5 to 7.5									1.75	PP
	7.5 to 11.0										
	11.0 to 12.0								87		
	12.0 to 13.5									2.00	PP
	13.5 to 14.5									2.25	PP
	14.5 to 17.0			51	19	32				2.25	PP
	17.0 to 19.5									2.25	PP
	19.5 to 22.0									2.25	PP
	22.0 to 24.5									2.25	PP
	24.5 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 32.0									2.25	PP
	32.0 to 34.5									2.25	PP
	34.5 to 37.0									2.25	PP
	37.0 to 39.5									2.25	PP
	39.5 to 42.0									2.25	PP
	42.0 to 44.5									2.25	PP
	44.5 to 47.0									2.25	PP
	47.0 to 49.5			40	15	25	CL		73	2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0									2.25	PP
	57.0 to 59.5									2.25	PP
	59.5 to 62.0									2.25	PP
	62.0 to 64.5									2.25	PP
	64.5 to 67.0									2.25	PP
	67.0 to 69.5									2.25	PP

PP = Pocket Penetrometer

TV = Torvane

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-120	69.5 to 72.0									2.25	PP
	72.0 to 74.5									2.25	PP
	74.5 to 77.0									2.25	PP
	77.0 to 79.5									2.25	PP
	79.5 to 82.0									2.25	PP
	82.0 to 84.5									2.25	PP
	84.5 to 87.0									2.25	PP
	87.0 to 89.5			57	23	34	СН		99	2.25	PP
	89.5 to 92.0									2.25	PP
	92.0 to 94.5									2.25	PP
	94.5 to 97.0									2.25	PP
	97.0 to 99.5									2.25	PP
	99.5 to 102.0									2.25	PP
	102.0 to 104.5									2.25	PP
	104.5 to 107.0									2.25	PP
	107.0 to 109.5									2.25	PP
	109.5 to 112.0									2.25	PP
	112.0 to 114.5									2.25	PP
	114.5 to 117.0									2.25	PP
	117.0 to 120.0									2.25	PP
3-121	0.0 to 2.5									1.50	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 10.0									2.00	PP
	10.0 to 12.5			50	19	31	СН		96	2.25	PP
	12.5 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5									2.25	PP
	22.5 to 25.0									1.75	PP
	25.0 to 28.0									2.25	PP
	28.0 to 29.5									2.25	PP
	29.5 to 32.5									2.25	PP
	32.5 to 35.0									2.25	PP
	35.0 to 37.5									2.25	PP
	37.5 to 40.0									2.25	PP
	40.0 to 42.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP

PP = Pocket Penetrometer

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PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE IN	AME: ASF1	13-140-00	PESCA	DITO_FE	BRUAR	r 2015.G	PJ			21	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-121	47.5 to 50.0									2.25	PP
	50.0 to 52.5			51	25	26	СН		88	2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	59.0 to 60.5									2.25	PP
	60.5 to 63.0									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 72.0									2.25	PP
	72.0 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0			70	20	50	СН		93	2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5									2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
B-122	0.0 to 2.5									1.38	PP
	2.5 to 5.0									1.50	PP
	5.0 to 7.5									2.00	PP
	7.5 to 10.0									2.25	PP
	10.0 to 12.5									2.25	PP
	12.5 to 15.0			44	20	24	CL		95	2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
DD = Dock	et Penetromete	r T\/ = To	on/one II	C = Unconfin	od Compres	sion F\/=	Field Van		I = Unconsol	idated Lindra	ined Triavial

PP = Pocket Penetrometer

TV = Torvane

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PROJECT NAME:

Pescadito Environmental Resource Center - Type I MSW Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	<u>/ 2015.G</u>	PJ			2	/25/201
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-122	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 30.5									2.25	PP
	30.5 to 31.5									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 36.5									2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0			45	19	26	CL		98	2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0									2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 70.0									2.25	PP
	70.0 to 72.5									2.25	PP
	72.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 88.5								66	2.25	PP
	88.5 to 91.0									2.25	PP
	91.0 to 93.5			54	23	31				2.25	PP
	93.5 to 96.0									2.25	PP
	96.0 to 98.5									2.25	PP
	98.5 to 101.0									2.25	PP
	101.0 to 103.5									2.25	PP
	103.5 to 106.0									2.25	PP
	106.0 to 109.0									2.25	PP
	109.0 to 111.0									2.25	PP
	111.0 to 113.5									2.25	PP
) = Pock	ket Penetromete	r TV = To	orvane II	C = Unconfin	ed Compres	sion FV =	Field Van	 	I = Unconso	lidated Undra	

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	<u>3-140-00</u>) PESCA	DITO_FE	BRUARY	/ 2015.G	PJ			2	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-122	113.5 to 116.0									2.25	PP
	116.0 to 118.5									2.25	PP
	118.5 to 121.0									2.25	PP
	121.0 to 123.0									2.25	PP
	123.0 to 126.0									2.25	PP
	126.0 to 128.5			49	21	28	CL		95	2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5									2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP
	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP
	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.5									2.25	PP
	158.5 to 160.0									2.25	PP
B-123	0.0 to 2.5										
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.38	PP
	7.5 to 9.5									1.63	PP
	9.5 to 10.5										
	10.5 to 13.0									2.25	PP
	13.0 to 15.0			47	24	23	CL		83	2.25	PP
	15.0 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5									2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 28.5									2.25	PP
	28.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	43.5 to 46.0									2.25	PP
PP = Pock	ket Penetrometer	· TV = To	orvane U	C = Unconfin	ed Compress	sion FV =	Field Vane	الا د	J = Unconsol		

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

ILE IN	AME: ASF1	13-140-00	PESCA	DITO_FE	DRUAR	2015.G	FJ				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-123	46.0 to 48.5									2.25	PP
	48.5 to 51.0									2.25	PP
	51.0 to 53.5			65	27	38	CH		94	2.25	PP
	53.5 to 56.0									2.25	PP
	56.0 to 58.5									2.25	PP
	58.5 to 61.0									2.25	PP
	61.0 to 63.5									2.25	PP
	63.5 to 66.0									2.25	PP
	66.0 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.2									2.25	PP
	72.2 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 78.0									2.25	PP
	78.0 to 80.5									2.25	PP
	80.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5			27	13	14	CL		54	2.25	PP
	90.5 to 93.0									2.25	PP
	93.0 to 95.5									2.25	PP
	95.5 to 98.0									2.25	PP
	98.0 to 100.5									2.25	PP
	100.5 to 103.0									2.25	PP
	103.0 to 105.5									2.25	PP
	105.5 to 108.0									2.25	PP
	108.0 to 110.5									2.25	PP
	110.5 to 113.0									2.25	PP
	113.0 to 115.5									2.25	PP
	115.5 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	123.0 to 125.5									2.25	PP
	125.5 to 128.0									2.25	PP
	128.0 to 130.5			40	16	24	SC		49	2.25	PP
	130.5 to 133.0									2.25	PP
	133.0 to 135.5									2.25	PP
	135.5 to 138.0									2.25	PP
							1	i .			

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR	r 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-123	140.5 to 143.0									2.25	PP
	143.0 to 145.5									2.25	PP
	145.5 to 148.0									2.25	PP
	148.0 to 150.5									2.25	PP
	150.5 to 153.0									2.25	PP
	153.0 to 155.5									2.25	PP
	155.5 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
B-124	0.0 to 5.0										
	5.0 to 7.5									2.25	PP
	7.5 to 8.5									0.75	PP
	8.5 to 11.0									0.63	PP
	11.0 to 13.5									2.25	PP
	13.5 to 16.0									2.25	PP
	16.0 to 18.5									2.25	PP
	18.5 to 21.0									2.25	PP
	21.0 to 23.5			33	15	18	CL		93	2.25	PP
	23.5 to 26.0									2.25	PP
	26.0 to 27.0									2.25	PP
	27.0 to 29.5									2.25	PP
	29.5 to 31.0									2.25	PP
	31.0 to 33.5									2.25	PP
	33.5 to 36.0									2.25	PP
	36.0 to 38.5									2.25	PP
	38.5 to 41.0									2.25	PP
	41.0 to 43.5									2.25	PP
	42.5 to 45.0									2.25	PP
	45.0 to 47.5									2.25	PP
	47.5 to 50.0									2.25	PP
	50.0 to 52.5									2.25	PP
	52.5 to 55.0									2.25	PP
	55.0 to 57.5									2.25	PP
	57.5 to 60.0			81	31	50	СН		99	2.25	PP
	60.0 to 62.5									2.25	PP
	62.5 to 65.0									2.25	PP
	65.0 to 67.5									2.25	PP
	67.5 to 68.5									2.25	PP
	68.5 to 71.0									2.25	PP
	71.0 to 73.5									2.25	PP
DD = Dock	et Penetromete	TV = Tc	orvono II	C = Unconfin	od Compros	sion EV -	Field Van	١॥	I = I Inconsol	idated Undra	ined Triavial

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-124	73.5 to 75.0									2.25	PP
	75.0 to 77.5									2.25	PP
	77.5 to 80.0									2.25	PP
	80.0 to 82.5									2.25	PP
	82.5 to 85.0									2.25	PP
	85.0 to 87.5									2.25	PP
	87.5 to 90.0									2.25	PP
	90.0 to 92.5									2.25	PP
	92.5 to 95.0									2.25	PP
	95.0 to 97.5			109	23	86	СН		99	2.25	PP
	97.5 to 100.0									2.25	PP
	100.0 to 101.5									2.25	PP
	101.5 to 102.5									2.25	PP
	102.5 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.5									2.25	PP
	112.5 to 115.0									2.25	PP
	115.0 to 117.0									2.25	PP
	117.0 to 118.0									2.25	PP
	118.0 to 120.5									2.25	PP
	120.5 to 123.0									2.25	PP
	122.5 to 125.0									2.25	PP
	125.0 to 127.5									2.25	PP
	127.5 to 130.0									2.25	PP
	130.0 to 132.5			68	25	43	СН		96	2.25	PP
	132.5 to 135.0									2.25	PP
	135.0 to 137.5									2.25	PP
	137.5 to 140.0									2.25	PP
	140.0 to 142.5									2.25	PP
	142.5 to 145.0									2.25	PP
	145.0 to 147.0									2.25	PP
	147.0 to 149.0									2.25	PP
	149.0 to 150.0									2.25	PP
	150.0 to 153.0									2.25	PP
	153.0 to 154.0									2.25	PP
	154.0 to 157.0									2.25	PP
	157.0 to 160.0									2.25	PP
B-125	0.0 to 2.5									1.38	PP
DD = Dock	et Penetromete	er T\/ = To	orvane III	C = Unconfin	ed Compres	sion EV =	Field Van		I = Unconsol	idated I Indra	ined Triavia

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

FILE N	AME: ASF	13-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ				25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-125	2.5 to 5.0									1.25	PP
	5.0 to 7.5									2.25	PP
	7.5 to 10.5									2.25	PP
	10.5 to 11.5									2.25	PP
	11.5 to 14.0									2.25	PP
	14.0 to 16.5									2.25	PP
	16.5 to 19.0			39	18	21	CL		96	2.25	PP
	19.0 to 21.5									2.25	PP
	21.5 to 24.0									2.25	PP
	24.0 to 26.5									2.25	PP
	26.5 to 29.0									2.25	PP
	29.0 to 31.5									2.25	PP
	31.5 to 34.0									2.25	PP
	34.0 to 36.5									2.25	PP
	36.5 to 39.0									2.25	PP
	39.0 to 41.5									2.25	PP
	41.5 to 44.0									2.25	PP
	44.0 to 46.0									2.25	PP
	46.0 to 47.0									2.25	PP
	47.0 to 49.5									2.25	PP
	49.5 to 52.0									2.25	PP
	52.0 to 54.5									2.25	PP
	54.5 to 57.0			40	18	22	CL		87	2.25	PP
	57.0 to 58.0									1.75	PP
	58.0 to 60.5									1.75	PP
	60.5 to 63.0									2.25	PP
	63.0 to 65.5									2.25	PP
	65.5 to 68.0									2.25	PP
	68.0 to 70.5									2.25	PP
	70.5 to 73.0									2.25	PP
	73.0 to 75.5									2.25	PP
	75.5 to 77.0									2.25	PP
	77.0 to 79.5									2.25	PP
	79.5 to 83.0									2.25	PP
	83.0 to 85.5									2.25	PP
	85.5 to 88.0									2.25	PP
	88.0 to 90.5									2.25	PP
	90.5 to 93.0									2.25	PP
	93.0 to 95.5			47	19	28	CL		98	2.25	PP
D = Dock	et Penetromete	r TV = To	orvane III	C = Unconfin	ed Compres	sion F\/=	Field Van	a III	I = Unconsol	idated I Indra	ined Triavia

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASF13-140-00 PESCADITO FEBRUARY 2015.GPJ

2/25/2015

Boring No.	Sample					l .	l .	l .			
	Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-125	95.5 to 97.0									2.25	PP
	97.0 to 98.0									2.25	PP
9	98.0 to 100.5									2.25	PP
1	100.5 to 103.0									2.25	PP
1	103.0 to 104.0									2.25	PP
1	104.0 to 105.0									2.25	PP
1	105.0 to 106.0									2.25	PP
1	106.0 to 108.5									2.25	PP
1	108.5 to 111.0									2.25	PP
1	111.0 to 113.5									2.25	PP
1	113.5 to 116.0									2.25	PP
1	116.0 to 118.5									2.25	PP
1	118.5 to 121.0									2.25	PP
B-126	0.0 to 2.5									1.13	PP
	2.5 to 5.0									1.25	PP
	5.0 to 7.5									1.25	PP
	7.5 to 9.0									2.25	PP
	9.0 to 11.5									2.25	PP
	11.5 to 14.0									2.25	PP
	14.0 to 15.0									2.25	PP
	15.0 to 17.5									2.25	PP
	17.5 to 20.0									2.25	PP
	20.0 to 22.5			50	23	27	CH		98	2.25	PP
	22.5 to 25.0									2.25	PP
	25.0 to 27.5									2.25	PP
	27.5 to 29.0									2.25	PP
	29.0 to 31.5									2.25	PP
	31.5 to 33.0									2.25	PP
	33.0 to 35.5									2.25	PP
	35.5 to 38.0									2.25	PP
	38.0 to 40.5									2.25	PP
	40.5 to 43.0									2.25	PP
	43.0 to 45.5									2.25	PP
	45.5 to 48.0									2.25	PP
	48.0 to 50.5									2.25	PP
	50.5 to 53.0									2.25	PP
	53.0 to 55.5									2.25	PP
	55.5 to 58.0									2.25	PP
	58.0 to 60.5			59	24	35	СН		100	2.25	PP

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00	PESCA	DITO_FE	BRUAR	Y 2015.G	PJ			2/	/25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-126	60.5 to 63.0									2.25	PP
	63.0 to 64.0									2.25	PP
	64.0 to 66.5									2.25	PP
	66.5 to 69.0									2.25	PP
	69.0 to 71.5									2.25	PP
	71.5 to 74.0									2.25	PP
	74.0 to 76.5									2.25	PP
	76.5 to 79.0									2.25	PP
	79.0 to 81.5									2.25	PP
	81.5 to 84.0									2.25	PP
	84.0 to 86.5									2.25	PP
	86.5 to 89.0									2.25	PP
	89.0 to 91.5									2.25	PP
	91.5 to 94.0									2.25	PP
	94.0 to 96.5									2.25	PP
	96.5 to 99.0			78	28	50	CH		100	2.25	PP
	99.0 to 101.5									2.25	PP
	101.5 to 104.0									2.25	PP
	104.0 to 105.0									2.25	PP
	105.0 to 107.5									2.25	PP
	107.5 to 110.0									2.25	PP
	110.0 to 112.0									2.25	PP
	112.0 to 114.0									2.25	PP
	114.0 to 115.0									2.25	PP
	115.0 to 117.5									2.25	PP
	117.5 to 120.0									2.25	PP
	120.0 to 121.0									2.25	PP
	121.0 to 123.5									2.25	PP
	123.5 to 126.0									2.25	PP
	126.0 to 128.5									2.25	PP
	128.5 to 131.0									2.25	PP
	131.0 to 133.5			65	27	38	СН		97	2.25	PP
	133.5 to 136.0									2.25	PP
	136.0 to 138.5									2.25	PP
	138.5 to 141.0									2.25	PP
	141.0 to 143.5									2.25	PP
	143.5 to 146.0									2.25	PP
	146.0 to 148.5									2.25	PP
	148.5 to 151.0									2.25	PP
P = Pock	tet Penetromete	r TV = To	orvane U	C = Unconfin	ed Compres	sion FV =	Field Vane	الا د	l = Unconsol	idated Undra	

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO, FEBRUARY 2015 GP.I.

2/25/2015

ILE N	AME: ASF1	3-140-00) PESCA	DITO_FE	BRUAR	Y 2015.G	PJ	ı	ı	2/	/25/201
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
B-126	151.0 to 153.5									2.25	PP
	153.5 to 156.0									2.25	PP
	156.0 to 158.0									2.25	PP
	158.0 to 160.0									2.25	PP
DB-1	0.0 to 6.0									0.38	PP
	6.0 to 16.0									0.75	PP
	16.0 to 24.0									2.25	PP
	24.0 to 29.0									2.25	PP
	29.0 to 36.0									2.25	PP
	36.0 to 45.0									2.25	PP
	45.0 to 56.0									2.25	PP
	56.0 to 66.0									2.25	PP
	66.0 to 73.0									2.25	PP
	73.0 to 84.0									2.25	PP
	84.0 to 86.0										
	86.0 to 90.0									2.25	PP
	90.0 to 100.0									2.25	PP
	100.0 to 106.0									2.25	PP
	106.0 to 116.0									2.25	PP
	116.0 to 126.0									2.25	PP
	126.0 to 133.0									2.25	PP
	133.0 to 136.0									2.25	PP
	136.0 to 146.0									2.25	PP
	146.0 to 153.0									2.25	PP
	153.0 to 156.0									2.25	PP
	156.0 to 166.0									2.25	PP
	166.0 to 176.0									2.25	PP
	176.0 to 186.0									2.25	PP
	186.0 to 196.0									2.25	PP
	196.0 to 206.0									2.25	PP
	206.0 to 216.0									2.25	PP
	216.0 to 226.0									2.25	PP
	226.0 to 236.0									2.25	PP
	236.0 to 246.0									2.25	PP
	246.0 to 253.0									2.25	PP
	253.0 to 260.0										
	260.0 to 276.0									2.25	PP
	276.0 to 278.0										
	278.0 to 296.0									2.25	PP
= Pock	ket Penetromete	r TV = To	orvane II	C = Unconfin	ed Compres	sion FV =	Field Van	e III	I = Unconsol	⊥ lidated Undra	

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

PROJECT NAME: Pescadito Environmental Resource Center - Type I MSW

Management Facility - Rancho Viejo Waste Management, LLC Webb County, Texas - MSW Permit No. 2374

FILE NAME: ASE13-140-00 PESCADITO FERRIJARY 2015 GP.I.

2/25/2015

FILE N	AME: ASF1	13-140-00) PESCA	DITO_FE	BRUAR'	/ 2015.G	PJ			2/	25/2015
Boring No.	Sample Depth (ft)	Blows per ft	Water Content (%)	Liquid Limit	Plastic Limit	Plasticity Index	USCS	Dry Unit Weight (pcf)	% -200 Sieve	Shear Strength (tsf)	Strength Test
DB-1	296.0 to 316.0									2.25	PP
	316.0 to 336.0									2.25	PP
	336.0 to 356.0									2.25	PP
	356.0 to 366.0										
	366.0 to 386.0									2.25	PP
	386.0 to 389.0										
	389.0 to 400.0									2.25	PP
	400.0 to 413.0									2.25	PP
	413.0 to 426.0										
	426.0 to 456.0									2.25	PP
	456.0 to 466.0									2.25	PP
	466.0 to 476.0									2.25	PP
	476.0 to 480.0									2.25	PP
	480.0 to 486.0										
	486.0 to 502.0									2.25	PP
TP-1	3.0			46	18	28	CL		65		
	6.0			25	19	6	SC-SM		27		
	9.5			69	37	32	MH		99		
	11.5			55	32	23	MH		100		
	12.0			60	31	29	MH		99		
TP-2	13.0			64	29	35	CH		98		
	20.0			57	24	33	CH		96		
	22.0			51	29	22	MH		95		
	22.1			63	23	40	CH		99		

PP = Pocket Penetrometer

TV = Torvane

UC = Unconfined Compression

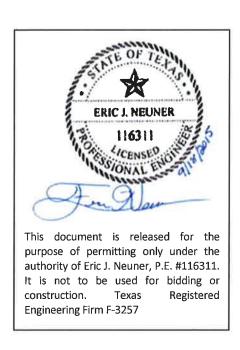
FV = Field Vane

UU = Unconsolidated Undrained Triaxial

CU = Consolidated Undrained Triaxial

APPENDIX B

SUMMARY OF RESULTS AND HYDRAULIC CONDUCTIVITY TEST RESULTS



Figures B-1 through B-19

SUMMARY OF RESULTS

Test Pit	Depth (feet)	Stratum	Orientation	ASTM Classification	Liquid Limit	Plasticity Index	Passing -200 (%)	Mean Hydraulic Conductivity (cm/sec)
TP-1	3	I	Horizontal	FAT CLAY (CH), red-brown with calc nods	46	28	64.5	9.55E-07
TP-1	6	I	Horizontal	LEAN CLAY with SAND (CL)	25	6	26.9	2.01E-06
TP-1	9.5	II	Horizontal	FAT CLAY (CH)	69	32	98.6	4.78E-07
TP-1	11.5	II	Horizontal	FAT CLAY (CH)	55	23	99.7	3.78E-07
TP-1	12	III	Horizontal	FAT CLAY (CH)	60	29	99.3	4.50E-07
TP-2	13	III	Horizontal	FAT CLAY (CH)	64	35	97.9	7.97E-07
TP-2	20	IV	Horizontal	FAT CLAY (CH), gray	57	33	96.4	8.30E-07
TP-2	22	IV	Vertical	FAT CLAY (CH), gray	51	22	95.4	1.23E-07
TP-2	22	IV	Horizontal	FAT CLAY (CH), gray	63	40	98.8	5.54E-09

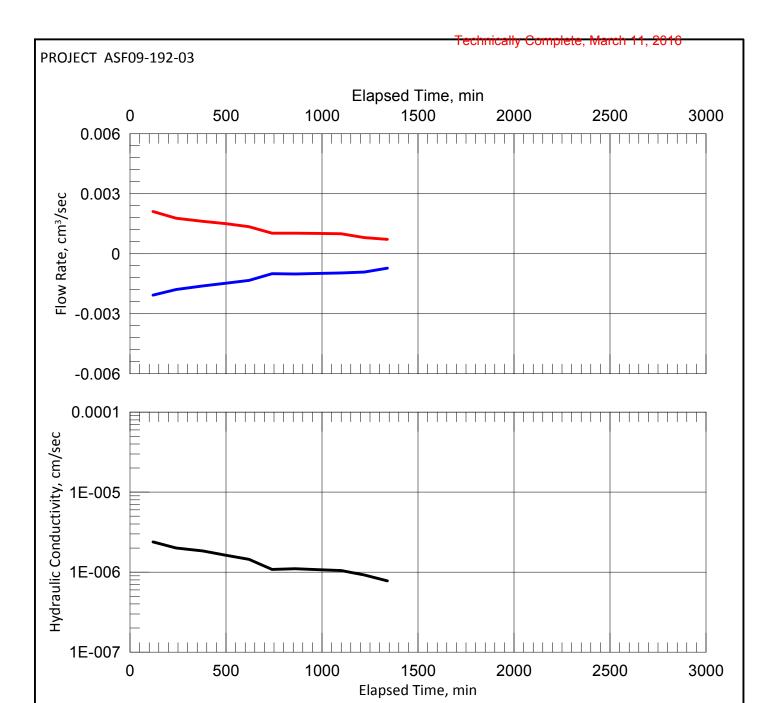
Measurement of Hydraulic Conductivity of Saturated Romous Materials Using a Flexible Wall Permeameter

	Rancho Viejo Webb County							R-K Pro	ject #:	: Д	SF09-	-192-03
Me	ASTM D5084 ethod A; ethod D;	Method B; Method E;		thod C; rmeant L	Cell No. Liquid Used:		2 Deaired Wa	ater		fic Gravit		2.69 Assumed
	1		ısagran	Rem X Horiz	Ta olded T zontal e ; Cu	amper Fampe	er Force (li Shoe ;	bf): bf): Wire S e Saw & St	aw;	Drop i	of Laye	ers:
Mass Mois Mass Dr	Vater Itent (W) Container St Soil + Containe y Soil + Containe Mass Containe ATER CONTENT I Water Content, W4	Top (W1 No. C (g) 334.42 (g) 304.73 (g) 208.08 (%) 30.72) Bo	imming ottom (W2 A22 111.07 95.67 39.35 27.34 Final W			Final, W ₃ (see below 1247.00 999.96 155.77 29.26 Whole Spec	$\begin{array}{c} H_1 \\ H_2 \\ H_3 \\ H_4 \end{array}$ Averag	Height 5.9 5.9 5.9 5.9 e Heigl	542 541 541 542	D ₁ D ₂ D ₃ D ₄	ts (inches) Diameter 2.818 2.812 2.816 2.815 e Diameter 2.815
See attache	ed data sheet(s) for factors and dat	or additional wate	r conten	ts	Initial Are	Sun	nmary of	(cm)	il Prop	.075 perties Dry Unit W	(cm)	7.151 pcf) 93.23
Mass D	ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	844.19 99 0.00 19	247.00 99.96 55.77 991.23	In	itial Total Volun itial Mass Mois Mass Dry al Moisture Con	ne (cm t Soil (/ Soil (1 ³) 565.26 (g) 1082.1 (g) 844.1	65 10 9 In	Initial M	loist Unit W	/eight (Void R uration	pcf) 119.51 atio 0.80 (%) 94.51
Mean Hy	draulic Cond 9.55E-		sec		Ir onsolidation Ph End of	nase	Piston Height (in 8.362 8.305 8.280 8.268) Lengti 14. 14.	nple n (cm) 075 053 043	Obser Δ Volume 0 -0.3 -4.2 -0.2	e (cm ³)	Sample Area (cm²) 40.160 40.203 39.932 39.931
								•				
Trial	Eff. Conso	I Pressure Bottom (psi)	Infl	low: ow itio	Outflow (pore volumes)	Hea	ad Loss (cm)	% of Initi		Hydraulic Gradient		Hydraulic Conductivity (cm/sec)
Trial	Тор	Bottom	Infl Ra	ow	(pore	Hea	(cm) 334.54 320.14			Gradient 23.83 22.80		Conductivity
	Top (psi)	Bottom (psi)	Infl Ra 1.0	ow	(pore volumes)	Hea 3 3 3 3 3 3 3	(cm) 334.54 320.14 335.25 321.15	Head Los		23.83 22.80 23.88 22.88		Conductivity (cm/sec)
8	Top (psi) 9.11	Bottom (psi) 13.59	1.0 1.0	ow etio	(pore volumes) 0.34	Hea 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3 3	(cm) 334.54 320.14 335.25	95.70		23.83 22.80 23.88		Conductivity (cm/sec) 1.07E-06



TBPE Firm Registration No. F-3257

Summary	of End-c	of-Test Soil Properties	
Final Area (cm²)	39.931	Final Dry Unit Weight (pcf)	94.01
Final Total Volume (cm³)	560.565	Final Moist Unit Weight (pcf)	121.53
Final Mass Moist Soil (g)	1091.23	Final Void Ratio	0.79
Mass Dry Soil (g)	844.19	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	29.26	Final Pore Volume (cm ³)	247.03



METHOD C: FALLING HEAD RISING TAIL WATER
DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 3 to 4 feet ATTERBERG LIMITS: LL = 46; PL = 18; PI = 28

ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 9.55E-07 cm/sec

MATERIAL DESCRIPTION: Sandy Lean Clay (CL), red-brown with calcarous nodules

FIGURE B-3



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Rose Waterials Using a Flexible Wall Permeameter

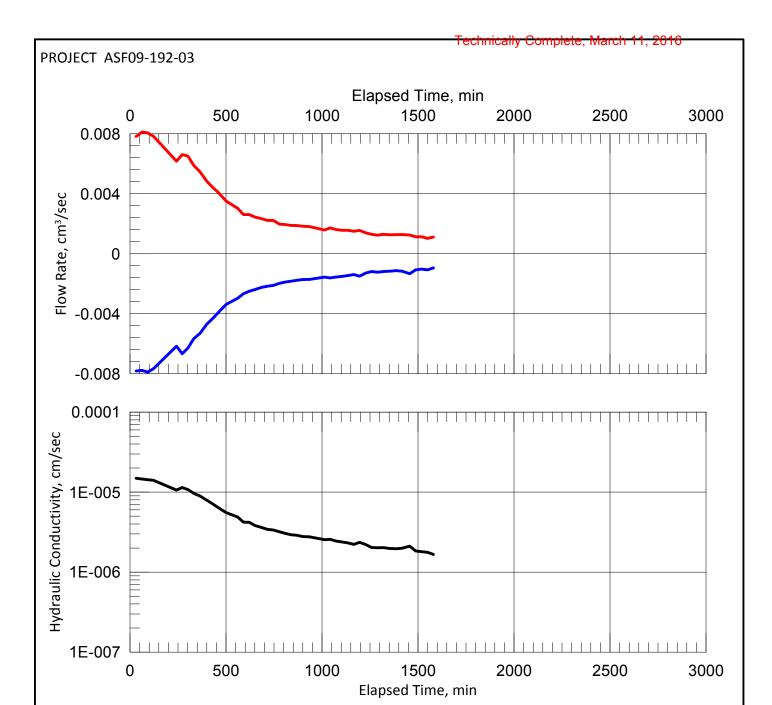
	Rancho Viejo							R-K Projec	A+ #+·	A S E O O	-192-03
Location.	vvebb County	y, Texas						IX-IX F TOJEC	,ι <i>π</i>	ASI US	- 192-03
Me	ASTM D5084 ethod A; ethod D;	Method B; Method E;		thod C; rmeant	Cell No. Liquid Used:		_ d Wate		ecific Grav		2.78 Assumed
	3	· · · —	asagran	Rem X Hori	Tanolded Tan	nstant Effor amper Weig Famper For tting Shoe ;	ght (lbf): ce (lbf):		Drop Oth	of Laye in Inch	ers:
	Nater			imming	Location	Fina	I, W _{at}	Initial S	Soil Measu	remen	ts (inches)
Con	itent (W)	Top (W1) Bo	ottom (W2		3) (see	below)		ight		Diameter
	Container			A53	A54	-		H ₁	4.281	D_1	1.910
	st Soil + Containe			199.97	182.09		4.84	H ₂	4.301	D_2	1.926
Mass Dr	ry Soil + Containe		,	175.08	159.69		1.36	H ₃	4.300	D ₃	1.915
	Mass Container	(0)		39.25	38.79		1.36	H ₄	4.296	D_4	1.910
	ATER CONTENT	` '		18.32	18.53).99	Average H	-	_	e Diameter
Avg. Initia	l Water Content, W4	19.07		Final W	at: Slice ;	X Whole S	Spec.	(in)	4.295	(in)	1.915
See attache	ed data sheet(s) for	or additional wate	r conten	ts				(cm)	10.908	(cm)	4.865
<u> </u>	-										
Soil N	/lasses	Initial	Final						roperties		1
Mass Mo Mass D	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g)	- 422.70 6 350.00 5 0.00 2	Final - 24.84 51.36 01.36 23.48	lr	Initial Ar itial Total Volur iitial Mass Mois Mass Dr al Moisture Cor	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3	9 of In 8.587 02.747 22.70 850.00 20.77	In Initi	itial Dry Unit \ al Moist Unit \ Initia Degree of Sa	Weight (Il Void R	pcf) 130.15 atio 0.61 (%) 94.69
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) bry Soil + Tare (g) Mass Tare (g)	- 422.70 6. 350.00 5. 0.00 2 422.70 4	- 24.84 51.36 01.36 23.48	lr	itial Total Volur nitial Mass Mois Mass Dry	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2	8.587 02.747 22.70 350.00	In Initi	itial Dry Unit \ al Moist Unit \ Initia Degree of Sa Pore Vo	Weight (Il Void R Ituration olume (c	pcf) 130.15 atio 0.61 (%) 94.69
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) bry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g)	- 422.70 6. 350.00 5. 0.00 2 422.70 4	- 24.84 51.36 01.36 23.48	lr	itial Total Volur nitial Mass Mois Mass Dry	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 / Soil (g) 3 ntent (%) 2	8.587 02.747 22.70 350.00 20.77 ston	In Initi Initial	altial Dry Unit \ al Moist Unit \ Initia Degree of Sa Pore Vo	Weight (al Void R aturation blume (c	pcf) 130.15 latio 0.61 (%) 94.69 cm³) 76.78
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48	Initi	itial Total Volur nitial Mass Mois Mass Dry al Moisture Cor	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig	8.587 02.747 22.70 350.00 20.77 ston ht (in)	Initial Initial Sample Length (ci	Itial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Company Obse March A Volum	Weight (all Void R aturation colume (colume) erved are (cm³)	pcf) 130.15 atio 0.61 (%) 94.69 cm³) 76.78 Sample Area (cm²) 18.587
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) bry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g)	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48	Initi	itial Total Volur nitial Mass Mois Mass Dry al Moisture Cor Il er Saturation Ph	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nitial 6.9	8.587 02.747 22.70 350.00 20.77 ston lht (in) 974	Initial Initial Sample Length (ci 10.908 10.903	Itial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Obse M Volum -1	Weight (all Void R aturation colume (colume (cm³)2	pcf) 130.15 atio 0.61 (%) 94.69 cm³) 76.78 Sample Area (cm²) 18.587 18.486
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48	Initi	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor Il er Saturation Pr Consolidation Pr	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nitial 6.9 nase 6.9	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961	Sample Length (cr 10.908 10.903 10.901	olitial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Obse m) Δ Volum -1 -1	Weight (all Void R attraction blume (co erved are (cm³)2 .3	pcf) 130.15 atio 0.61 (%) 94.69 m³) 76.78 Sample Area (cm²) 18.587 18.486 18.369
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48	Initi	itial Total Volur nitial Mass Mois Mass Dry al Moisture Cor Il er Saturation Ph	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nitial 6.9 nase 6.9	8.587 02.747 22.70 350.00 20.77 ston lht (in) 974	Initial Initial Sample Length (ci 10.908 10.903	olitial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Obse m) Δ Volum -1 -1	Weight (all Void R attraction blume (co erved are (cm³)2 .3	pcf) 130.15 atio 0.61 (%) 94.69 cm³) 76.78 Sample Area (cm²) 18.587 18.486
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) bry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48	Initi	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor Il er Saturation Pr Consolidation Pr	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nase 6.9 Test 6.9	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961 957	Sample Length (ci 10.908 10.903 10.901	Itial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Obse Obse A Volum -1 -1 -0	Weight (Il Void R Ituration Inturation Inture (control Int	pcf) 130.15 atio 0.61 (%) 94.69 m³) 76.78 Sample Area (cm²) 18.587 18.486 18.369
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) bry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48 sec	Initi Afte After C	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor Il er Saturation Ph Consolidation Ph End of	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nase 6.9 Test 6.9 Head Lo	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961 957 957	In Initial Initial Sample Length (cr 10.908 10.903 10.901 10.901 6 of Initial	Itial Dry Unit \ Initial Dry Unit \ Initial Degree of Sa Pore Vo Obse M) \(\Delta \text{Volum} \) -1 -1 -0 Hydrauli	Weight (Il Void R It void	pcf) 130.15 atio 0.61 (%) 94.69 76.78 Sample Area (cm²) 18.587 18.486 18.369 18.296
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) iry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond	- 422.70 6. 350.00 5. 0.00 2 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48 sec	Initi Afte After C	itial Total Volur itial Mass Mois	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nase 6.9 Test 6.9 Head Lo (cm)	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961 957 957	Sample Length (ci 10.908 10.903 10.901	olitial Dry Unit \ al Moist Unit \ Initial Degree of Sa Pore Vo Obse m) Δ Volum -1 -1 -0 Hydraulii Gradien	Weight (Il Void R It void	pcf) 130.15 atio 0.61 (%) 94.69 76.78 Sample Area (cm²) 18.587 18.486 18.369 18.296 Hydraulic
Mass Mo Mass D Mass Moist	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) trace Cond 2.01E- Eff. Conso	- 422.70 6. 350.00 5. 0.00 2. 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48 sec Outf	Initi After Co	itial Total Volur itial Mass Mois	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Pis Heig nase 6.9 Test 6.9 Head Lo (cm) 365.07	8.587 02.747 22.70 550.00 20.77 ston (ht (in) 974 961 957 957	In Initial Initial Sample Length (cr 10.908 10.903 10.901 10.901 6 of Initial	Itial Dry Unit \ Initial Dry Unit \ Initial Degree of Sa Pore Vo Company A Volum -1 -1 -0 Hydraulii Gradien 33.49 33.07	Weight (Il Void R It void	pcf) 130.15 atio 0.61 (%) 94.69 76.78 Sample Area (cm²) 18.587 18.486 18.369 18.296 Hydraulic Conductivity
Mass Mo Mass Moist Mean Hy Trial	Container No. ist Soil + Tare (g) ist Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) rdraulic Cond 2.01E- Eff. Conso Top (psi)	- 422.70 6. 350.00 5. 0.00 2 422.70 4 uctivity, cm/s	- 24.84 51.36 01.36 23.48 Sec Outf Infl Ra	After Coflow:	uitial Total Volur iitial Mass Mois	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 y Soil (g) 3 ntent (%) 2 Heig nase 6.9 Test 6.9 Head Lo (cm) 365.07	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961 957 957	Sample Length (ci 10.908 10.903 10.901 10.901 6 of Initial	Itial Dry Unit \ Initial Dry Unit \ Initial Degree of Sa Pore Vo Obse M) \(\Delta \text{Volum} \) -1 -1 -0 Hydrauli Gradien 33.49	Weight (Il Void R It void	pcf) 130.15 atio 0.61 (%) 94.69 76.78 Sample Area (cm²) 18.587 18.486 18.369 18.296 Hydraulic Conductivity (cm/sec)
Mass Mo Mass D Mass Moist Mean Hy Trial 36	Container No. ist Soil + Tare (g) by Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g) t Araulic Cond 2.01E- Eff. Conso Top (psi) 7.89	- 422.70 6. 350.00 5. 0.00 2 422.70 4 uctivity, cm/s O6 Pressure Bottom (psi) 12.79	- 24.84 51.36 01.36 23.48 sec Outf Infl Ra 0.4	After Co	itial Total Volur itial Mass Mois	ea (cm²) 1 ne (cm³) 20 t Soil (g) 4 7 Soil (g) 3 ntent (%) 2 Heig nase 6.9 Test 6.9 Head Lo (cm) 365.07 360.47	8.587 02.747 22.70 350.00 20.77 ston ht (in) 974 961 957 957	In Initial Sample Length (cr 10.908 10.903 10.901 10.901 6 of Initial lead Loss 98.74	Itial Dry Unit \ Initial Dry Unit \ Initial Degree of Sa Pore Vo Company A Volum -1 -1 -1 -0 Hydrauli Gradien 33.49 33.07 33.68	Weight (Il Void R It void	pcf) 130.15 atio 0.61 (%) 94.69 76.78 Sample Area (cm²) 18.587 18.486 18.369 18.296 Hydraulic Conductivity (cm/sec) 2.03E-06



TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties										
Final Area (cm²)	18.296	Final Dry Unit Weight (pcf)	109.55							
Final Total Volume (cm³)	199.447	Final Moist Unit Weight (pcf)	132.55							
Final Mass Moist Soil (g)	423.48	Final Void Ratio	0.58							
Mass Dry Soil (g)	350.00	Final Degree of Saturation (%)	100.00							
Final Moisture Content (%)	20.99	Final Pore Volume (cm ³)	73.48							

Figure B-4



METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 6 to 7 feet ATTERBERG LIMITS: LL = 25; PL = 19; PI = 6
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 2.01E-06 cm/sec

MATERIAL DESCRIPTION: Lean Clay with SAND (CL)

FIGURE B-5



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Rose Waterials Using a Flexible Wall Permeameter

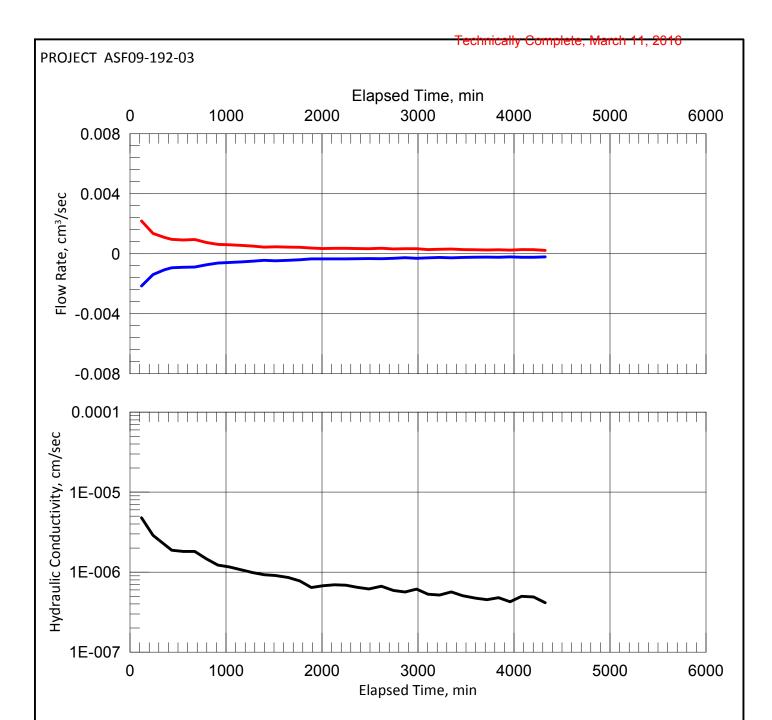
	Rancho Viejo Webb County							R-K Pro	oject #:	:	ASF09	-192-03
Me	ASTM D5084 hthod A; hthod D;	Method B; Method E;		thod C; rmeant L	Cell No. iquid Used:		aired Wa	ater		fic Gravi easured		2.78 Assumed
Method (asagran	Remo X Horiz de" Lathe	Ta olded T ontal ; Cu	Гатрег tting Sh	Veight (II Force (II	of): of): Wire S e Saw & S	aw;	Drop Othe	of Laye in Inch	ers:
Water Initial - Trimming Location Final, Wat										its (inches)		
Con	tent (W)	Top (W1) Bo	ottom (W2)		3) (:	see below		Height			Diameter
Mass Mais	Container st Soil + Container		,	M17 148.85	M7 142.80	,	356.08	H ₁		880 879	$\frac{D_1}{D_2}$	1.454 1.455
	y Soil + Containei			123.60	119.12		317.70	H ₃		879	D_2	1.453
Wass Di	Mass Container	(6)		38.86	39.15		205.14	H ₄		880	D_3 D_4	1.455
WA	ATER CONTENT	(0)								je Diameter		
	l Water Content, W4	` '		Final W _{at} : Slice; X Whole Spec.					880	(in)		
	See attached data sheet(s) for additional water contents				(cm)		314	(cm)	3.694			
0.7.1												
Soil N	lasses	Initial	Final			Sumr	mary of	Initial Sc	il Pro	perties		
Mass Moi Mass Di	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 147.00 3 112.56 3 0.00 2	56.08 17.70 05.14 50.94	lni	Initial Ar tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	10.72 78.40 147.0 112.5	4 0 6 Ir	Initial Initial M	Dry Unit V loist Unit V	Veight (I Void R turation	(pcf) 117.05 Ratio 0.94 (%) 90.69
Mass Moi Mass Di Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 147.00 3 112.56 3 0.00 2 147.00 1	56.08 17.70 05.14 50.94	lni	tial Total Volur tial Mass Mois Mass Dry	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	10.72 78.40 147.0 112.5	0 4 0 6)	Initial Initial M	Dry Unit V Noist Unit V Initial gree of Sat	Veight (I Void R turation olume (c	(pcf) 117.05 Ratio 0.94 (%) 90.69
Mass Moi Mass Di Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g)	- 147.00 3 112.56 3 0.00 2 147.00 1	56.08 17.70 05.14 50.94	Initia Initia Afte After Co	tial Total Volur tial Mass Mois Mass Dr Il Moisture Cor	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	10.72 78.40 147.0 112.5 30.60	0 4 0 6 Ir Sai Lengi 7. 7. 7.	Initial Initial M nitial Deg	Dry Unit V loist Unit V Initial gree of Sat Pore Vo	Veight (I Void Rituration olume (corved e (cm³))	(pcf) 117.05 Ratio 0.94 (%) 90.69 cm³) 37.97
Mass Moi Mass D Mass Moist Mean Hy	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.78E-	- 147.00 3 112.56 3 0.00 2 147.00 1 uctivity, cm/s	56.08 17.70 05.14 50.94 sec	Initia Afte After Co	tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor Il r Saturation Pr consolidation Pr End of	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test	78.40 147.0 112.5 30.60 Piston Height (in 5.610 5.601 5.585 5.439	0 4 0 6 Ir Sal Lengi 7. 7. 7.	Initial Initial Initial Deginitial Deginitatian Deginitial Deginitial Deginitial Deginitial Deginitial Deginitial Deginit	Dry Unit V Initial gree of Sat Pore Vo Obse Δ Volum 0 -43.	Veight (I Void R turation olume (corved e (cm³)	(%) 90.69 (%) 90.69 (%) 97.69 (%) 90.69 (m³) 37.97 Sample Area (cm²) 10.720 10.109 9.666 10.875
Mass Moi Mass Di Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.78E-	- 147.00 3 112.56 3 0.00 2 147.00 1 uctivity, cm/s	56.08 17.70 05.14 50.94 sec	Afte After Co	tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor Il r Saturation Pr End of Outflow (pore	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac	78.40 147.0 112.5 30.60 Piston Height (in 5.610 5.601 5.585	0 4 0 6 Ir Sai Lengi 7. 7. 7.	Initial Initial Initial Deginitial Deginitial Deginitial Deginitial Deginitial Deginitial Deginitial Deginitial Deginitial Initial Ini	Dry Unit V Initial gree of Sat Pore Vo Obse Δ Volum 0 -4.	Veight (I Void R turation olume (corved e (cm³))	(%) 90.69 (%) 90.69 (%) 37.97 Sample Area (cm²) 10.720 10.109 9.666 10.875 Hydraulic Conductivity
Mass Moi Mass D Mass Moist Mean Hy	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.78E-	- 147.00 3 112.56 3 0.00 2 147.00 1 uctivity, cm/s	56.08 17.70 05.14 50.94 sec	Initia Afte After Co	tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor Il r Saturation Pr consolidation Pr End of	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac (c	78.40 147.0 112.5 30.60 Piston Height (in 5.610 5.601 5.585 5.439	0 4 0 6 1r Sai Leng 7. 7. 7 7 7 7 % of Init	Initial Initial Manifold Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial	Dry Unit V Initial gree of Sat Pore Vo Obse Δ Volum -43. 8.3	Veight (I Void R turation olume (corved e (cm³))	(%) 90.69 (%) 90.69 (%) 97.69 (%) 90.69 (m³) 37.97 Sample Area (cm²) 10.720 10.109 9.666 10.875
Mass Moi Mass Di Mass Moist Mean Hy Trial	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.78E- Eff. Conso Top (psi)	- 147.00 3 112.56 3 0.00 2 147.00 1 uctivity, cm/s	56.08 17.70 05.14 50.94 sec Outf Infl Ra	Afte After Co	tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor Il r Saturation Pr End of Outflow (pore volumes)	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial hase hase Test Heac (c 399 396 400	Piston Height (in 5.610 5.585 5.439 DLOSS Em) 9.92	0 4 0 6 0 Ir 0 Sal Leng 7. 7. 7. 1	Initial Initial Manifold Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial	Dry Unit V Initial gree of Sat Pore Vo Obse Δ Volum -43. 8.3 Hydraulic Gradient	Veight (I Void R turation olume (corved e (cm³))	(%) 90.69 (%) 90.69 (%) 37.97 Sample Area (cm²) 10.720 10.109 9.666 10.875 Hydraulic Conductivity (cm/sec)
Mass Moist Mass Moist Mean Hy Trial 29	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.78E- Eff. Conso Top (psi) 6.41	- 147.00 3 112.56 3 0.00 2 147.00 1 uctivity, cm/s O7 Pressure Bottom (psi) 11.82	56.08 17.70 05.14 50.94 sec	After Co	tial Total Volur tial Mass Mois Mass Dry Il Moisture Cor Il r Saturation Pr End of Outflow (pore volumes) 3.03	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac (c 399 400 396 40	Piston Height (in 5.610 5.601 5.585 5.439 d Loss cm) 9.92 6.12 0.63	0 4 0 6 Ir 0 Sal Leng 7. 7. 7. 7 7 7 99.05	Initial Initial Manifold Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial Degraphs Initial	Obse A Volum -4. -3. 8.3 Hydraulic Gradient 55.15 54.62 55.25	Veight (I Void R turation olume (corved e (cm³))	(%) 0.94 (%) 90.69 (%) 90.69 (m³) 37.97 Sample Area (cm²) 10.720 10.109 9.666 10.875 Hydraulic Conductivity (cm/sec) 5.07E-07



TBPE Firm R	eaistration	No.	F-3257
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Summary	of End-c	of-Test Soil Properties	
Final Area (cm²)	10.875	Final Dry Unit Weight (pcf)	89.16
Final Total Volume (cm³)	78.808	Final Moist Unit Weight (pcf)	119.57
Final Mass Moist Soil (g)	150.94	Final Void Ratio	0.95
Mass Dry Soil (g)	112.56	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	34.10	Final Pore Volume (cm ³)	38.38

Figure B-6



METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 9.5 to 10 feet ATTERBERG LIMITS: LL = 69; PL = 37; PI = 32
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 4.78E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH)

FIGURE B- 7



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Romous Materials Using a Flexible Wall Permeameter

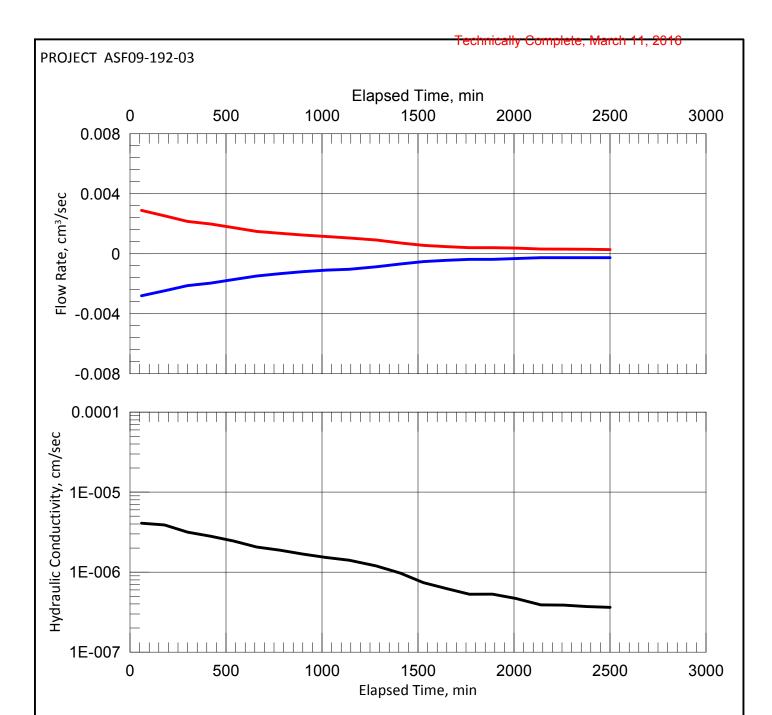
	Rancho Viejo							D V Dro	ioot #	. ^	0500	402.02
Location.	Webb County	, rexas						R-K Pro	ject#.	. <u>A</u>	SF09-	-192-03
Me	ASTM D5084 ethod A; ethod D;	Method B; Method E;		thod C; rmeant l	Cell No. _iquid Used:		aired Wa	ater		fic Gravit easured		2.84 Assumed
Method		· · —	asagran	Rem X Horiz	Ta olded T zontal e ; Cu	Tamper tting Sh	Veight (I Force (I oe ;	bf): bf): X Wire Sare Saw & St	aw;	Drop i	of Laye n Inch	ers:
Water Initial - Trimming Location Final, W _{at}						ŭ.		T		ts (inches)		
Con	tent (W)	Top (W1) Bo	ottom (W2		3) (s	see belov		Height			Diameter
	Container			911	M11			H ₁		081	D ₁	2.062
	st Soil + Container			105.32	116.43		641.26	H ₂		076	D ₂	2.011
Mass Dr	y Soil + Container			92.29	101.17		546.35	H ₃		079	D ₃	2.045
	Mass Container	(0)		39.14	39.19		202.83	H ₄		077	D_4	2.020
	ATER CONTENT	• /		24.52	24.62		27.63	Averag			T.	e Diameter
	l Water Content, W4			Final W	at: Slice ;	X Wh	ole Spec			078	(in)	2.035
See attache	See attached data sheet(s) for additional water contents					(cm)	10	.359	(cm)	5.168		
Soil M	lasses	Initial	Final			C		Initial Ca	il Drai	nortino.		
001111	Container No Initial Area (cm²) 20 Moist Soil + Tare (g) 431.71 641.26 Initial Total Volume (cm³) 21 s Dry Soil + Tare (g) 343.52 546.35 Initial Mass Moist Soil (g) 43 Mass Tare (g) 0.00 202.83 Mass Dry Soil (g) 34							Initial So				
Mass Moi Mass D	Container No. st Soil + Tare (g) ry Soil + Tare (g)	- 431.71 6- 343.52 5- 0.00 2	- 41.26 46.35	In	itial Total Volur itial Mass Mois Mass Dry	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	20.97 217.20 431.7 343.5	74 60 71 52 In	Initial Initial M	Dry Unit W loist Unit W	eight (Void R iration	pcf) 124.05 atio 0.80 (%) 91.46
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g)	- 431.71 6 343.52 5 0.00 2 431.71 4	- 41.26 46.35 02.83 38.43	In	itial Total Volur itial Mass Mois Mass Dry	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	20.97 217.20 431.7 343.5	74 60 71 52 In	Initial Initial M itial Deç	Dry Unit W loist Unit W Initial gree of Satu	eight (Void R uration ume (c	pcf) 124.05 atio 0.80 (%) 91.46
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) : Soil, M _i or M _f (g)	- 431.71 6 343.52 5 0.00 2 431.71 4	- 41.26 46.35 02.83 38.43	In	itial Total Volur itial Mass Mois Mass Dry	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.97 217.20 431.7 343.5 25.6	74 60 71 52 7 San	Initial Initial M itial Deg	Dry Unit W loist Unit W Initial gree of Satu Pore Vol	eight (Void Ruration ume (c	pcf) 124.05 atio 0.80 (%) 91.46 cm³) 96.42
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s	- 41.26 46.35 02.83 38.43	Initia	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.97 217.20 431.7 343.5 25.6 Piston Height (in	74 60 71 52 7 San	Initial Initial M itial Deg nple n (cm)	Dry Unit W Initial Gree of Satu Pore Vol Obsen Δ Volume	eight (Void Ruration ume (cured (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 :m³) 96.42 Sample
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) : Soil, M _i or M _f (g)	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s	- 41.26 46.35 02.83 38.43	Initia	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor Il er Saturation Ph	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788	74 60 71 52 7 San Lengtl 10	Initial Initial Multiple Initial Deginple In (cm) 359	Dry Unit W Initial gree of Satu Pore Vol Obsen Δ Volume 0 -2.4	reight (Void Ruration ume (cure (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 cm³) 96.42 Sample Area (cm²) 20.974 20.740
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s	- 41.26 46.35 02.83 38.43	Initia	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor II er Saturation Pr onsolidation Pr	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788 6.785	74 60 71 52 In 7 San Lengtl 10.3 10.3	Initial Initial Deginple (cm) 359 360 358	Dry Unit W Initial gree of Satu Pore Vol Obsen Δ Volume 0 -2.4	reight (Noid Ruration ume (coved (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s	- 41.26 46.35 02.83 38.43	Initia	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor Il er Saturation Ph	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788	74 60 71 52 7 San Lengtl 10	Initial Initial Deginple (cm) 359 360 358	Dry Unit W Initial gree of Satu Pore Vol Obsen Δ Volume 0 -2.4	reight (Noid Ruration ume (coved (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 cm³) 96.42 Sample Area (cm²) 20.974 20.740
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 431.71 6/343.52 5/0.00 2/431.71 4/uctivity, cm/s	- 41.26 46.35 02.83 38.43	Initia	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor II er Saturation Pr onsolidation Pr	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial nase nase Test	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788 6.785 6.785	74 60 71 52 In 7 San Lengtl 10	Initial Initial Deginple (cm) 359 360 358	Dry Unit W Initial Gree of Satu Pore Vol Obsen Δ Volume 0 -2.4 -2.5 0.2	eight (Void R uration ume (c /ed (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond	- 431.71 6/343.52 5/0.00 2/431.71 4/uctivity, cm/s	- 41.26 46.35 02.83 38.43 sec	Initia Afte After C	itial Total Volur itial Mass Mois Mass Dry al Moisture Cor In er Saturation Ph onsolidation Ph End of	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial nase Test Head	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788 6.785 6.785	74 60 71 52 In 7 San Lengtl 10.3 10.3 10.3 10.3 10.3 % of Initi	Initial Initial Deginple (cm) 359 360 358 358	Dry Unit W Initial gree of Satu Pore Vol Obsen Δ Volume -2.4 -2.5 Hydraulic	eight (Void Ruration ume (cume (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501 20.521
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 3.78E-	- 431.71 6/343.52 5/0.00 2/431.71 4/uctivity, cm/s	- 41.26 46.35 02.83 38.43 sec	Initia Afte After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial nase Test Head	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.788 6.785 6.785	74 60 71 52 In 7 San Lengtl 10	Initial Initial Deginple (cm) 359 360 358 358	Dry Unit W Initial Gree of Satu Pore Vol Obsen Δ Volume 0 -2.4 -2.5 0.2	eight (Void Ruration ume (cume (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501 20.521 Hydraulic
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 3.78E-0	- 431.71 6/343.52 5/0.00 2/431.71 4/2000 4/2000 4/2000	- 41.26 46.35 02.83 38.43 sec Outf	After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial nase nase Test Head (ci 379	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.785 6.785 6.785	74 60 71 52 In 7 San Lengtl 10.3 10.3 10.3 10.3 10.3 % of Initi	Initial Initial Deginple (cm) 359 360 358 358	Dry Unit W Initial Gree of Satu Pore Vol Obsen Δ Volume -2.4 -2.5 0.2 Hydraulic Gradient 36.60 36.16	eight (Void Ruration ume (cume (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501 20.521 Hydraulic Conductivity
Mass Moist Mass Moist Mean Hy Trial	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 3.78E-0 Eff. Conso Top (psi)	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s	- 41.26 46.35 02.83 38.43 sec Outf	After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) nent (%) hinitial nase nase Test Head (ci 379 374 373	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.785 6.785 M) 9.13 4.53 3.51	74 60 71 52 In 7 San Lengtl 10.3 10.3 10.4 Head Los	Initial Initial Deginple (cm) 359 360 358 358	Dry Unit W Initial gree of Satu Pore Vol Obsent A Volume -2.4 -2.5 0.2 Hydraulic Gradient 36.60	eight (Void Ruration ume (cume (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.521 Hydraulic Conductivity (cm/sec)
Mass Moist Mass Moist Mean Hy Trial 18	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 3.78E- Eff. Conso Top (psi) 7.48	- 431.71 6 343.52 5 0.00 2 431.71 4 uctivity, cm/s O7 I Pressure Bottom (psi) 12.58	- 41.26 46.35 02.83 38.43 sec	After Co	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) netent (%) Hinitial nase nase Test Head (ci 379 374 373 369 379	20.97 217.20 431.7 343.5 25.6 Piston Height (in 6.786 6.785 6.785 6.785	74 60 71 52 In 7 San Lengtl 10.3 10.3 10.3 10.3 10.3 10.4 10.4 10.5 10	Initial Initial Deginple (cm) 359 360 358 358	Dry Unit W Initial Gree of Satu Pore Vol Obsen Δ Volume -2.4 -2.5 0.2 Hydraulic Gradient 36.60 36.16 36.06	eight (Void Ruration ume (cume (cm³)	pcf) 124.05 atio 0.80 (%) 91.46 m³) 96.42 Sample Area (cm²) 20.974 20.740 20.501 20.521 Hydraulic Conductivity (cm/sec) 3.89E-07



1 DE L 1 1111 NGUISHAHOH NO. 1 -3237	TBPE	Firm	Registration	No.	F-3257
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Summary of End-of-Test Soil Properties										
Final Area (cm²)	20.521	Final Dry Unit Weight (pcf)	100.89							
Final Total Volume (cm³)	212.560	Final Moist Unit Weight (pcf)	128.76							
Final Mass Moist Soil (g)	438.43	Final Void Ratio	0.76							
Mass Dry Soil (g)	343.52	Final Degree of Saturation (%)	103.47							
Final Moisture Content (%)	27.63	Final Pore Volume (cm ³)	91.72							

Figure B-8



METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 11.5 to 12 feet ATTERBERG LIMITS: LL = 55; PL = 32; PI = 23
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 3.78E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH)

FIGURE B-9



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Romous Materials Using a Flexible Wall Permeameter

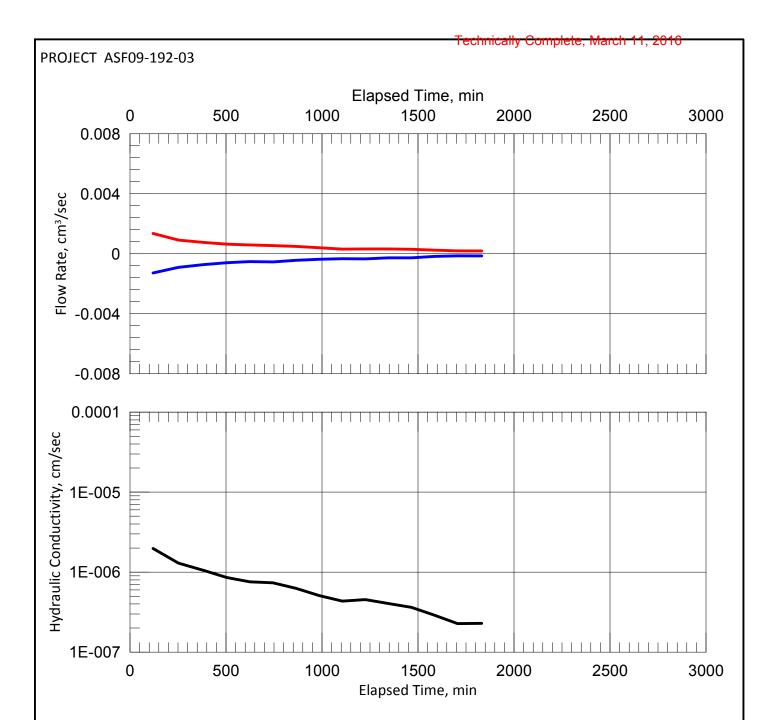
	Rancho Viejo Webb County							R-K Pro	oject #	:	ASF09	-192-03
Me	ASTM D5084 ethod A; ethod D;	Method B; Method E;		thod C; rmeant L	Cell No. Liquid Used:		aired Wa	ater		ific Grav		2.86 Assumed
	16		asagran	Rem X Horiz de" Lathe	Ta olded - zontal e ; Cu	Гатрег tting Sh	Veight (I Force (I noe ;	bf): bf): X Wire S e Saw & Si	aw;	Drop	of Laye in Inch	ers:
Water Initial - Trimming Location Final, W _{at}										its (inches)		
Con	tent (W)	Top (W	I) Bo	ottom (W2		3) (:	see belov	<i>′</i>	Heigh			Diameter
Maga Maja	Container st Soil + Containe		,	A08 155.76	A03)	633.75	H ₁		071 060	$\frac{D_1}{D_2}$	1.982 1.968
	y Soil + Containe	,		133.05	123.54		544.14	П ₂		050	D_2	2.001
Wass DI	Mass Containe	(0)		39.16	38.75		205.14	H ₄		092	D_3 D_4	2.000
WA	ATER CONTENT	(0)		24.19	24.35		26.43		Average Height			je Diameter
	l Water Content, W4	` '		Final W		X Wh	nole Spec	_		068	(in)	
	See attached data sheet(s) for additional water contents				(cm)		.333	(cm)	5.049			
I Soil M	lasses	Initial	Final			Sumr	mary of	Initial So	il Pro	perties		
Mass Moi Mass D	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) t Soil, M _i or M _f (g)	- 421.72 6 339.00 5 0.00 2	- 33.75 44.14 05.14 28.61	In	Initial Ar itial Total Volur itial Mass Mois Mass Dr al Moisture Cor	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	20.02 206.88 421.7 339.0	32 '2 0 Ir	Initial Initial M	Dry Unit \ Noist Unit \ Initia gree of Sa	Weight (Il Void R	(pcf) 127.26 Ratio 0.74 (%) 93.67
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) : Soil, M _i or M _f (g)	- 421.72 6 339.00 5 0.00 2 421.72 4	- 33.75 44.14 05.14 28.61	In	itial Total Volur itial Mass Mois Mass Dr	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	20.02 206.88 421.7 339.0	11 82 72 90 Ir	Initial Initial M	Dry Unit \ Noist Unit \ Initia gree of Sa	Weight (Il Void R turation olume (c	(pcf) 127.26 Ratio 0.74 (%) 93.67
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g)	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/	33.75 44.14 05.14 28.61 sec	In Initia Afte After C	itial Total Volur itial Mass Mois Mass Dr al Moisture Cor	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%)	20.02 206.86 421.7 339.0 24.40	Sar Lengt 10. 10. 10.	Initial Initial M iitial Deç	Dry Unit \ Noist Unit \ Initia gree of Sa Pore Vo	Weight (Il Void R turation blume (c erved te (cm³) 6 6	(pcf) 127.26 Ratio 0.74 (%) 93.67 cm³) 88.30
Mass Moi Mass D Mass Moist Mean Hy	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, Mi or Mf (g) draulic Cond 4.50E-	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/	- 33.75 44.14 05.14 28.61 sec	In Initia Afte After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test	20.02 206.86 421.7 339.0 24.40 Piston Height (in 6.806 6.803 6.798 6.991	Sar Lengt 10. 10.	Initial Initial Initial Decinical De	Dry Unit \ Initia gree of Sa Pore Vo Obse Δ Volum -1 -2	Weight (I Void R turation blume (c erved ee (cm ³) 6 .0	(%) 93.67 (%) 93.67 (m³) 88.30 Sample Area (cm²) 20.021 19.868 19.678 20.006
Mass Moi Mass D Mass Moist	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.50E-	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/	- 33.75 44.14 05.14 28.61 sec	After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac	20.02 206.86 421.7 339.0 24.40 Piston Height (in 6.806 6.803 6.798	Sar Lengt 10. 10. 10.	Initial Initial Initial Decinical Decinical Initial In	Dry Unit \ Initia gree of Sa Pore Vo Obse Δ Volum -1 -2	Weight (I Void R turation blume (control erved the (cm³) 6 0 9	(%) 93.67 (%) 93.67 (%) 93.67 (m³) 88.30 Sample Area (cm²) 20.021 19.868 19.678 20.006 Hydraulic Conductivity
Mass Moi Mass D Mass Moist Mean Hy	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, Mi or Mf (g) draulic Cond 4.50E-	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/	33.75 44.14 05.14 28.61 sec	In Initia Afte After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac (c	Piston Height (in 6.806 6.803 6.798 6.991 d Loss em) 2.33	11 82 12 10 1r 0 10 10. 10. 10. % of Init	Initial Initial Initial Decinical Decinical Initial In	Dry Unit \ Initia gree of Sa Pore Vo Obse Δ Volum -1 -2 4. Hydrauli Gradien 38.73	Weight (I Void R turation blume (control erved the (cm³) 6 0 9	(%) 93.67 (%) 93.67 (m³) 88.30 Sample Area (cm²) 20.021 19.868 19.678 20.006
Mass Moi Mass D Mass Moist Mean Hy Trial	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.50E- Eff. Conso Top (psi)	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/	33.75 44.14 05.14 28.61 sec Outt Infl Ra	After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) hitial hase hase Test Heac (c 402 396 393	20.02 206.86 421.7 339.0 24.40 Piston Height (in 6.806 6.803 6.798 6.991	Sar Lengt 10. 10. 10. 10. 4 of Init Head Lo	Initial Initial Initial Decinical Decinical Initial In	Dry Unit \ Initia gree of Sa Pore Vo Obse Δ Volum -1 -2 4. Hydrauli Gradien	Weight (I Void R turation blume (control erved the (cm³) 6 0 9	(%) 93.67 (%) 93.67 (m³) Sample Area (cm²) 20.021 19.868 19.678 20.006 Hydraulic Conductivity (cm/sec)
Mass Moi Mass D Mass Moist Mean Hy Trial	Container No. ist Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 4.50E- Eff. Conso Top (psi) 11.02	- 421.72 6 339.00 5 0.00 2 421.72 4 uctivity, cm/ O7 Pressure Bottom (psi) 16.45	33.75 44.14 05.14 28.61 sec Outf Infl Ra 0.9	After Cofflow:	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) y Soil (g) ntent (%) nitial nase nase Test Heac (c 402 396 389 389	Piston Height (in 6.806 6.803 6.798 6.73 6.73 3.89	11 82 17 18 18 18 18 18 18 18	Initial Initial Initial Decinical Decinical Initial In	Obse A Volum -1 -2 4. Hydrauli Gradien 38.73 38.19 37.90	Weight (I Void R turation blume (control erved the (cm³) 6 0 9	(%) 127.26 (%) 93.67 (%) 93.67 (m³) 88.30 Sample Area (cm²) 20.021 19.868 19.678 20.006 Hydraulic Conductivity (cm/sec) 5.09E-07



1 DE L 1 1111 NGUISHAHOH NO. 1 -3237	TBPE	Firm	Registration	No.	F-3257
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Summary	/ of End-c	of-Test Soil Properties	
Final Area (cm²)	20.006	Final Dry Unit Weight (pcf)	101.65
Final Total Volume (cm³)	208.187	Final Moist Unit Weight (pcf)	128.52
Final Mass Moist Soil (g)	428.61	Final Void Ratio	0.76
Mass Dry Soil (g)	339.00	Final Degree of Saturation (%)	100.00
Final Moisture Content (%)	26.43	Final Pore Volume (cm ³)	89.61

Figure B-10



METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 12 to 14 feet ATTERBERG LIMITS: LL = 60; PL = 31; PI = 29
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 4.50E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH)

FIGURE B-11



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Romous Materials Using a Flexible Wall Permeameter

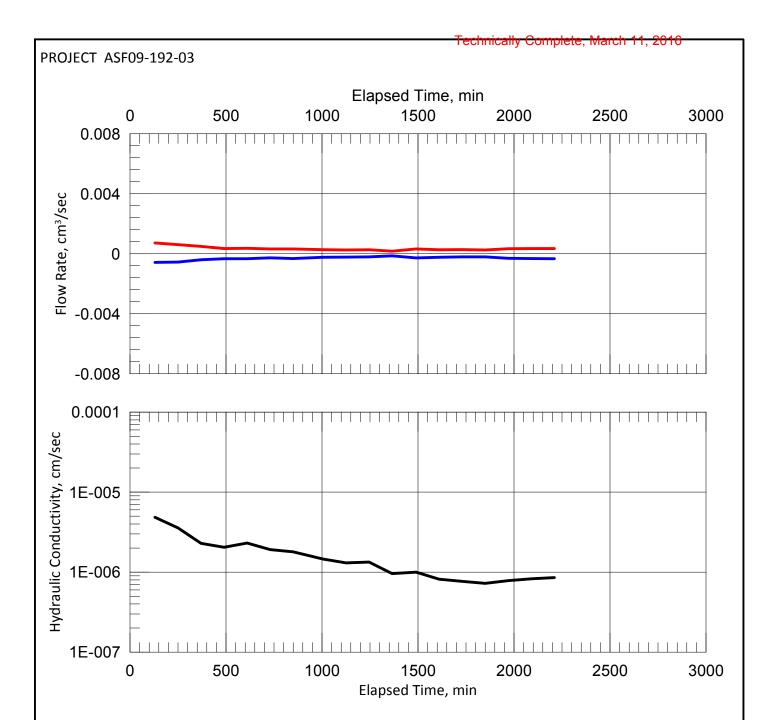
Location:	Rancho Viejo Webb County						_	R-K Pro	ject #:	,	ASF09-	-192-03
Me	ASTM D5084 thod A; thod D;	Method B; Method E;		thod C; rmeant L	Cell No. .iquid Used:	1 Deai	red Wa	<u>-</u>		ic Gravi asured		2.80 Assumed
	3	· · —	asagran	Remo X Horiz de" Lathe	Ta olded T contal	amper F	eight (lb orce (lb e ;	f): f): Wire Sa s Saw & Str	aw;	Drop Othe	of Laye in Inch	ers:
	Vater			imming l			nal, W _{at}			Measu		ts (inches)
Con	tent (W)	Top (W1) Bo	ottom (W2)		3) (se	ee below)		Height	200		Diameter
Mass Mais	Container		,	A53 151.77	EL1 360.83		 354.06	H ₁	2.9		D ₁	1.459
	t Soil + Container y Soil + Container	,0,		128.15	331.31		316.65	H ₂	2.9		D_2	1.446 1.446
Wass Di	Mass Container	(0)		39.26	214.89		204.74	H ₄	2.9		D_3 D_4	1.463
WA	ATER CONTENT	(0)		26.57	25.36		33.43	Average				e Diameter
	Water Content, W4	, ,		Final W _a		X Who		(in)	2.9		(in)	1.454
	See attached data sheet(s) for additional water contents				(cm)	7.4		(cm)	3.692			
Soil M	28888	Initial	Final			Summ	arv of l	Initial Soi	l Pron	erties		
	Mass Moist Soil + Tare (g) 142.48 354.06 Initial Total Volume (cm³) 80 Mass Dry Soil + Tare (g) 111.91 316.65 Initial Mass Moist Soil (g) 14 Mass Tare (g) 0.00 204.74 Mass Dry Soil (g) 11			10.705	5	Initial [Ory Unit V					
Mass D	ry Soil + Tare (g)	111.91 3 0.00 2	16.65	lni	tial Mass Mois	t Soil (g) / Soil (g)	80.247 142.48 111.91 27.32	3 I Ini		oist Unit V Initial ree of Sat Pore Vo	Void R	atio 1.01 (%) 75.84
Mass Do	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	111.91 3 0.00 2 142.48 1	16.65 04.74 49.32	lni	tial Mass Mois Mass Dry	t Soil (g) v Soil (g) utent (%)	142.48 111.91	3 I Ini	tial Degi	Initial ee of Sat	Void Raturation	atio 1.01 (%) 75.84 cm³) 40.31
Mass Do	ry Soil + Tare (g) Mass Tare (g)	111.91 3 0.00 2 142.48 1 uctivity, cm/s	16.65 04.74 49.32 sec	Initia Initia Afte After Co	tial Mass Mois Mass Dry al Moisture Con	t Soil (g) v Soil (g) ttent (%) He nitial tasse	142.48 111.91 27.32	I Ini	ple (cm) 96 93	Initial ree of Sat Pore Vo	Void R turation blume (conved rved e (cm³)	atio 1.01 (%) 75.84
Mass Di Mass Moist Mean Hy	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 7.97E-0	111.91 3 0.00 2 142.48 1 uctivity, cm/s	16.65 04.74 49.32 sec	Initia Afte After Co	tial Mass Moist Mass Dry al Moisture Con Ir r Saturation Ph end of Outflow	t Soil (g) y Soil (g) htent (%) He hitial hase hase	142.48 111.91 27.32 Piston eight (in) 5.666 5.657 5.650	Sam Length 7.4 7.4 7.4	ple (cm) 96 93 90 90	Initial ree of Sat Pore Vo Obset Δ Volume 0 -11.	Void R turation plume (corved e (cm³)	atio 1.01 (%) 75.84 (m³) 40.31 Sample Area (cm²) 10.705 10.550 10.340 10.327 Hydraulic
Mass Do	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 7.97E-0 Eff. Conso	111.91 3 0.00 2 142.48 1 uctivity, cm/s	16.65 04.74 49.32 sec Outfl	Afte After Co	tial Mass Moist Mass Dry al Moisture Con Ir r Saturation Ph Dissolidation Ph End of Outflow (pore	t Soil (g) v Soil (g) ttent (%) He nitial tasse	142.48 111.91 27.32 Piston eight (in) 5.666 5.657 5.650 5.650	Sam Lengtr 7.4 7.4	ple (cm) 96 93 90 90	Initial ree of Sat Pore Vo Obse Δ Volume -11.	Void R turation plume (corved e (cm³)	atio (%) 75.84 40.31 Sample Area (cm²) 10.705 10.550 10.340 10.327 Hydraulic Conductivity
Mass Di Mass Moist Mean Hy	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 7.97E-0	111.91 3 0.00 2 142.48 1 uctivity, cm/s	16.65 04.74 49.32 sec Outf	Initia Afte After Co	tial Mass Moist Mass Dry al Moisture Con Ir r Saturation Ph end of Outflow	Head I (cm 231.	142.48 111.91 27.32 Piston eight (in) 5.666 5.657 5.650 5.650	Sam Length 7.4 7.4 7.4 7.4 7.4 % of Initia	ple (cm) 96 93 90 90	Initial ree of Sat Pore Vo Obset Δ Volume 0 -110. lydraulic Gradient 30.87	Void R turation plume (corved e (cm³)	atio 1.01 (%) 75.84 (m³) 40.31 Sample Area (cm²) 10.705 10.550 10.340 10.327 Hydraulic
Mass Di Mass Moist Mean Hy Trial	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 7.97E-0 Eff. Conso Top (psi)	111.91 3 0.00 2 142.48 1 uctivity, cm/s	16.65 04.74 49.32 sec Outtl	After After Co	Itial Mass Moist Mass Dry Il Moisture Con Ir r Saturation Ph ensolidation Ph End of Outflow (pore volumes)	Head I (cm 231. 297. 297.	142.48 111.91 27.32 Piston eight (in) 5.666 5.657 5.650 Loss 1)	Sam Length 7.4 7.4 7.4 7.4 7.4 Head Los	ple (cm) 96 93 90 90	Obser Δ Volume -1. -0. ydraulio Gradient 30.87 30.43 39.69	Void R turation plume (corved e (cm³)	atio 1.01 (%) 75.84 (m³) 40.31 Sample Area (cm²) 10.705 10.550 10.340 10.327 Hydraulic Conductivity (cm/sec)
Mass Di Mass Moist Mean Hy Trial	ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 7.97E-0 Eff. Conso Top (psi) 11.33	111.91 3 0.00 2 142.48 1 uctivity, cm/s 07	16.65 04.74 49.32 sec Outf Infil Ra 0.4	After Co	Itial Mass Moist Mass Dry Mass Dry Moisture Con Ir r Saturation Ph End of Outflow (pore volumes) 0.90	Head I (cm 231. 227.	142.48 111.91 27.32 Piston eight (in) 5.666 5.657 5.650 Loss 1) 21 91 29 69	Sam Length 7.4 7.4 7.4 7.4 % of Initia Head Los	ple (cm) 96 93 90 90	Obser Δ Volum -10. lydraulic Gradient 30.87 30.43	Void R turation plume (corved e (cm³)	atio (%) 75.84 (m³) 40.31 Sample Area (cm²) 10.705 10.550 10.340 10.327 Hydraulic Conductivity (cm/sec) 7.23E-07



TBPE Firm R	eaistration	No.	F-3257
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Summary of End-of-Test Soil Properties							
Final Area (cm²)	10.327	Final Dry Unit Weight (pcf)	90.32				
Final Total Volume (cm³)	77.347	Final Moist Unit Weight (pcf)	120.52				
Final Mass Moist Soil (g)	149.32	Final Void Ratio	0.94				
Mass Dry Soil (g)	111.91	Final Degree of Saturation (%)	100.00				
Final Moisture Content (%)	33.43	Final Pore Volume (cm ³)	37.41				

Figure B-12



METHOD C: FALLING HEAD RISING TAIL WATER
DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 13 to 14 feet ATTERBERG LIMITS: LL = 64; PL = 29; PI = 35
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 7.97E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH)

FIGURE B-13



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Rose Waterials Using a Flexible Wall Permeameter

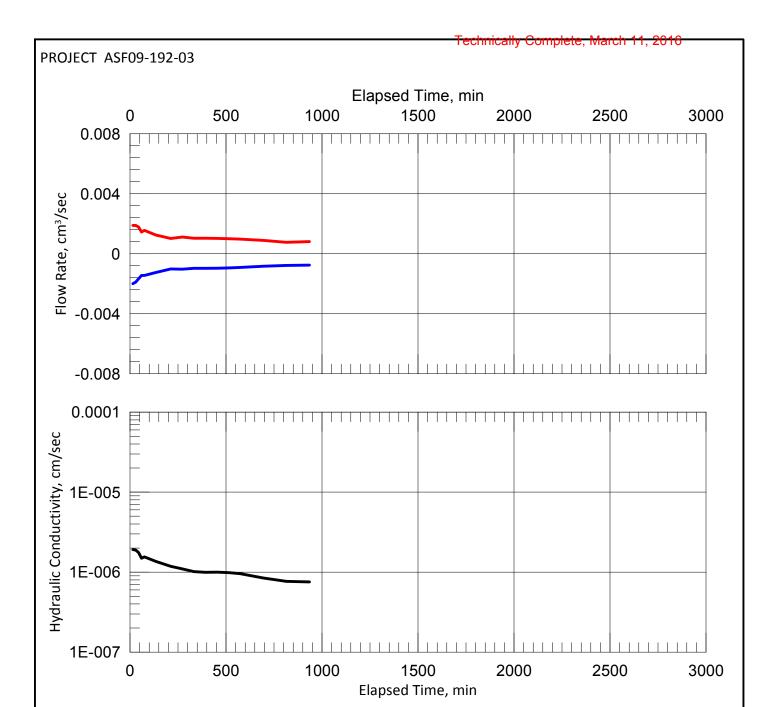
Project: Rancho Viejo Location: Webb County	, Texas						R-K Pro	ject #:	A	SF09	-192-03
	4 Method B; Method E;		thod C; rmeant	Cell No. Liquid Used:		8 Deaired Wa			fic Gravity easured		2.87 Assumed
Boring No: TP-2 Tube: Spoon: Constant Effort Blows/Tamps per Layer: Sample No: 6 X Field Extruded Tamper Weight (lbf): No. of Layers: Depth (ft): 20-21 Remolded Remolded Tamper Force (lbf): Drop in Inches: Vertical X Horizontal Method of trimming periphery: "Casagrande" Lathe; Cutting Shoe; X Wire Saw; Other Method of trimming ends: X Wire Saw & Sharp (knife) Straight Edge; Wire Saw & Straight Edge; Wire Saw											
Water Content (W)	Ini Top (W1		imming ottom (W2	Location 2) Sides (W	3)	Final, Wa		I Soil Height			ts (inches)
Container		, ,	Sttom (VV2	A54	3)		H ₁		677	D ₁	1.960
Mass Moist Soil + Container	(g) 150.09			122.75	5	502.46	H ₂	2.	684	D ₂	1.963
Mass Dry Soil + Container	(g) 136.70	1		112.95	5	459.22	H_3	2.	690	D_3	1.970
Mass Container	(g) 39.37			38.80		200.63	H ₄	2.	694	D ₄	1.984
WATER CONTENT				13.22		16.72				Average Diameter	
Avg. Initial Water Content, W4	(%) 13.49		Final W	at: Slice ;	ΧV	Whole Spec	. (in)	2.	686	(in)	1.969
See attached data sheet(s) for	r additional wate	r conten	ts				(cm)	6.	823	(cm)	5.002
Soil Masses											
Mass Moist Soil + Tare (g) Mass Dry Soil + Tare (g) Mass Tare (g) Mass Moist Soil, M _i or M _f (g)	ry Soil + Tare (g) 258.59 459.22 Initial Mass Moist So Mass Tare (g) 0.00 200.63 Mass Dry So				ne (cm t Soil (y Soil (n ³) 134.0 ³ (g) 294.7 (g) 258.5	72 78 9 Ini	Initial Dry Unit Weight (pcf) 120.41 Initial Moist Unit Weight (pcf) 137.26 Initial Void Ratio 0.49 Initial Degree of Saturation (%) 82.55 Pore Volume (cm³) 43.84			
Mean Hydraulic Conductivity, cm/sec				Piston				Sample Obse		ed	Sample
8.30E-07			Height (in) Initial 5.174					Δ Volume	(cm ³)	Area (cm ²)	
						6.8		0		19.650	
			After Saturation Phase 5.176 After Consolidation Phase 5.175 End of Test 5.175				6.8		0.0 -0.5		19.648 19.575
								6.823 -0 6.823 -0			19.561
		0 1		0.15			•				
Eff. Conso	Pressure Bottom		flow: low	Outflow	Hea	ad Loss	% of Initia	al H	Hydraulic	,	Hydraulic
Trial Top (psi)	(psi)		itio	(pore volumes)		(cm)	Head Los	s	Gradient	1	Conductivity (cm/sec)
13 6.82	(601)		06	0.87		348.45 341.65	98.05		51.07 50.07		9.56E-07
	11.64	1.1									
14 6.67	11.64		07	1.01	3	362.17 349.77	96.58		53.08 51.26		8.44E-07
		1.0	07 98	1.01	3 3 3	862.17	96.58 96.88		53.08		8.44E-07 7.67E-07

R	A	A E	3 /	4		
K		S	T	N	Е	R

TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties						
Final Area (cm²)	19.561	Final Dry Unit Weight (pcf)	120.95			
Final Total Volume (cm³)	133.472	Final Moist Unit Weight (pcf)	141.17			
Final Mass Moist Soil (g)	301.83	Final Void Ratio	0.48			
Mass Dry Soil (g)	258.59	Final Degree of Saturation (%)				
Final Moisture Content (%)	16.72	Final Pore Volume (cm ³)	43.24			

Figure B-14



METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

DEPTH: 20 to 21 feet ATTERBERG LIMITS: LL = 57; PL = 24; PI = 33
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 8.30E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH), gray

FIGURE B-15



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HYDRAULIC CONDUCTIVITY TEST DATA

Measurement of Hydraulic Conductivity of Saturated Rose Waterials Using a Flexible Wall Permeameter

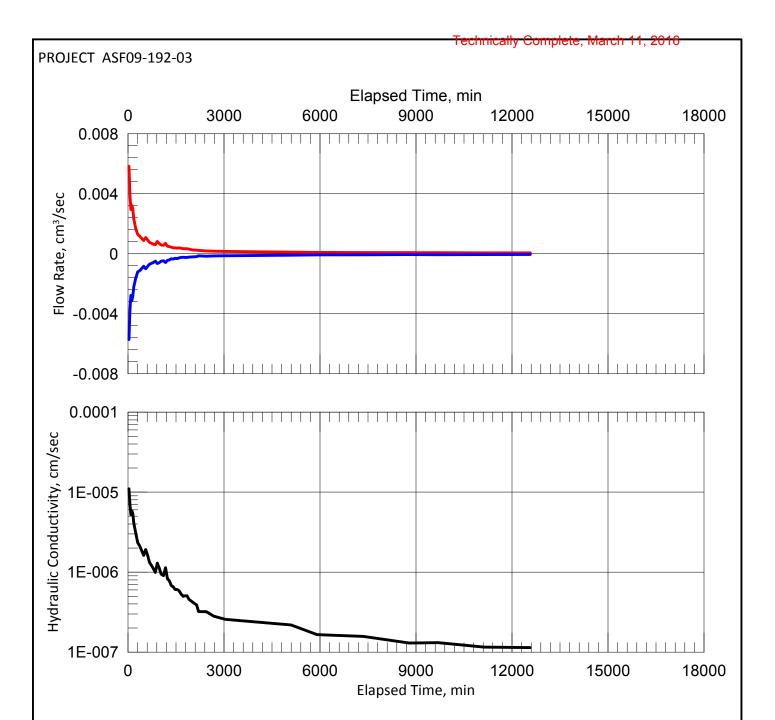
	Rancho Viejo Webb County							R-K Pro	ject #:	:	ASF09	-192-03
Me	ASTM D508 ethod A; ethod D;	4 Method B; Method E;		thod C; rmeant l	Cell No. Liquid Used:		red Wa	iter		ific Gravi		2.75 Assumed
	9-V		asagran	Rem Hori:	Tanolded Tan	ramper F tting Sh <u>o</u>	eight (lb orce (lb e ;	of): X Wire S e Saw & St	aw;	Drop Oth	of Laye in Inch	ers:
	Vater				Location		nal, W _a					ts (inches)
Con	tent (W)	Top (W1) Bo	ottom (W2		3) (se	ee below		Height			Diameter
NA NA-:-	Container		,	A15 166.36	M17 162.57	, ,		H ₁		121 118	D ₁	1.881 1.876
	st Soil + Containe y Soil + Containe	(0)		147.06	143.88		100.00 340.00	H ₂		119	D_2	1.862
Wass DI	Mass Containe	(0)		39.02	38.85	,	0.00	H ₄		120	D_3 D_4	1.840
WA	ATER CONTENT	(0)		17.86	17.79		17.65	Averag			Average Diameter	
	Water Content, W4	, ,		Final W		X Whol		(in)	_	120	(in)	
		` '	er conten	ts		1 1		(cm)		.464	(cm)	4.736
Soil N	lasses	Initial	Final			Summa	arv of	Initial So	il Pro	perties		
Mass Moi Mass D	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 402.32 4 341.53 3 0.00	Final - 00.00 40.00 0.00 00.00	In	Initial Ar iitial Total Volur iitial Mass Mois Mass Dr al Moisture Cor	ea (cm²) ne (cm³) t Soil (g) / Soil (g)	ary of 17.620 184.36 402.33 341.53	0 64 2 3 In	Initial Initial M	Dry Unit \ loist Unit \	Weight (I Void R turation	(pcf) 136.23 tatio 0.48 (%) 101.02
Mass Moi Mass D Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g)	- 402.32 4 341.53 3 0.00 402.32 4	- 00.00 40.00 0.00 00.00	In	itial Total Volur nitial Mass Mois Mass Dry	ea (cm²) ne (cm³) t Soil (g) / Soil (g) ntent (%)	17.620 184.36 402.32 341.53	0 64 2 3 1	Initial Initial M itial Deç	Dry Unit \ loist Unit \ Initia gree of Sa	Weight (I Void R turation olume (c	(%) 136.23 (%) 101.02 (m³) 60.18
Mass Moi Mass D Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g)	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s	- 00.00 40.00 0.00 00.00	Initi Afte After C	itial Total Volur nitial Mass Mois Mass Dry al Moisture Cor	ea (cm²) ne (cm³) t Soil (g) r Soil (g) ttent (%) He nitial nase nase	17.620 184.36 402.32 341.53 17.80	0 San Lengtl 10. 10. 10.	Initial Initial M itial Dec	Dry Unit V Noist Unit V Initia gree of Sa Pore Vo	Veight (I Void Raturation olume (corved e (cm³))	(pcf) 136.23 Ratio 0.48 (%) 101.02
Mass Moi Mass D Mass Moist Mean Hy	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 1.23E-	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s	- 00.00 40.00 0.00 00.00 sec	Initi Afte After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) r Soil (g) ttent (%) He nitial nase fase Test	17.620 184.36 402.3 341.5 17.80 Piston eight (in) 6.846 6.851 6.854 6.854	0	Initial Initial Initial Deginple in (cm) 464 465 467	Dry Unit Noist Unit N	Weight (I Void R turation olume (conved le (cm³)) 1.88 6	pcf) 136.23 atio 0.48 (%) 101.02 cm³) 60.18 Sample Area (cm²) 17.620 15.629 15.455 15.608 Hydraulic
Mass Moi Mass D Mass Moist	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 1.23E- Eff. Conso	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s	- 00.00 40.00 0.00 00.00 sec	Initi After Co	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) r Soil (g) ttent (%) He nitial nase nase	17.62(184.36 402.3; 341.5; 17.80 Piston eight (in) 6.846 6.851 6.854 6.854	0 San Lengtl 10. 10. 10.	Initial Initial Initial Deginates Initial Deginates Initial Deginates Initial Deginates Initial Initia	Dry Unit V Initia gree of Sa Pore Vo Obse Δ Volum 0 -20	Weight (I Void R turation oblume (corved e (cm³))	136.23 136.23 136.23 101.02 1
Mass Moi Mass D Mass Moist Mean Hy	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 1.23E-	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s	- 00.00 40.00 0.00 00.00 sec	Initi Afte After C	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) r Soil (g) tent (%) He nitial nase nase (Grest Head L (cm²)	17.62(184.36 402.3; 341.5; 17.80 Piston eight (in) 6.846 6.851 6.854 6.854 Loss	0	Initial Initial Initial Deginates Initial Deginates Initial Deginates Initial Deginates Initial Initia	Dry Unit V Initia gree of Sa Pore Vo Obse Δ Volum -20 -1. Hydraulic Gradien	Weight (I Void R turation oblume (corved e (cm³))	pcf) 136.23 atio 0.48 (%) 101.02 cm³) 60.18 Sample Area (cm²) 17.620 15.629 15.455 15.608 Hydraulic
Mass Moi Mass D Mass Moist Mean Hy	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 1.23E- Eff. Conso Top (psi)	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s	- 00.00 40.00 0.00 00.00 sec	After Co	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) r Soil (g) hitent (%) He hitial nase nase Test Head L (cm²)	17.62(184.36 402.3; 341.5; 17.80 Piston eight (in) 6.846 6.851 6.854 Loss n) 66 56	0	Initial Initial Initial Deginates Initial Deginates Initial Deginates Initial Deginates Initial Initia	Dry Unit Noist Noi	Weight (I Void R turation oblume (corved e (cm³))	pcf) 136.23 atio 0.48 (%) 101.02 cm³) 60.18 Sample Area (cm²) 17.620 15.629 15.455 15.608 Hydraulic Conductivity (cm/sec)
Mass Moist Mass Moist Mean Hy Trial 43	Container No. st Soil + Tare (g) ry Soil + Tare (g) Mass Tare (g) Soil, M _i or M _f (g) draulic Cond 1.23E- Eff. Conso Top (psi) 5.55	- 402.32 4 341.53 3 0.00 402.32 4 uctivity, cm/s O7 Pressure Bottom (psi) 10.09	- 00.00 40.00 0.00 00.00 sec	After Conflow:	itial Total Volur itial Mass Mois	ea (cm²) ne (cm³) t Soil (g) / Soil (g) htent (%) He hitial hase (cm²) Head L (cm²) 338.4	17.62(184.36 402.3; 341.5; 17.80 Piston eight (in) 6.846 6.851 6.854 6.854 Loss n) 66 56 29 09 57	0	Initial Initial Initial Deginates Initial Deginates Initial Deginates Initial Deginates Initial Initia	Obse A Volum 1. Hydraulic Gradien 32.36 31.30 32.89	Weight (I Void R turation oblume (corved e (cm³))	136.23 136.23 136.23 136.23 101.02 101.02 101.02 101.02 17.620 15.629 15.455 15.608 Hydraulic Conductivity (cm/sec) 1.30E-07

R	F	A E	3 /	4		
K		S	T	N	E	R

TBPE Firm Registration No. F-3257

Summary of End-of-Test Soil Properties							
Final Area (cm²)	15.608	Final Dry Unit Weight (pcf)	129.93				
Final Total Volume (cm³)	163.364	Final Moist Unit Weight (pcf)	152.86				
Final Mass Moist Soil (g)	400.00	Final Void Ratio	0.32				
Mass Dry Soil (g)	340.00	Final Degree of Saturation (%)	151.00				
Final Moisture Content (%)	17.65	Final Pore Volume (cm ³)	39.73				

Figure B-16



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2 % PASSING -200: 95.4%

DEPTH: 22 to 24 feet ATTERBERG LIMITS: LL = 51; PL = 29; PI = 22
ORIENTATION: Vertical HYDRAULIC CONDUCTIVITY: 1.23E-07 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH), gray

FIGURE B-17



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HYDRAULIC CONDUCTIVITY TEST DATA

NEW TYPE I MSW LANDFILL FACILITY RANCHO VIEJO WASTE MANGEMENT, LLC LAREDO, WEBB COUNTY, TEXAS

Measurement of Hydraulic Conductivity of Saturated Romous Materials Using a Flexible Wall Permeameter

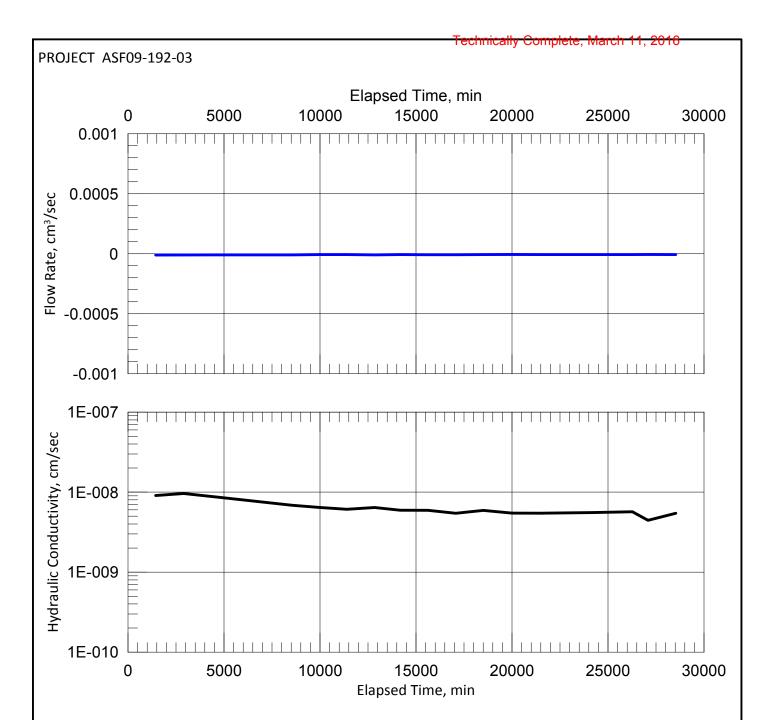
	Rancho Viejo							R-K Proje	ct #·	ASF09-	-102-03
											-132-03
Me	ASTM D5084 ethod A; ethod D;	Method B; Method E;		thod C; rmeant l	Cell No. Liquid Used:		eaired Wa		Decific Grav		2.70 Assumed
	9		asagran	Rem X Horiz	Ta olded T zontal e ; Cu	Гатрег tting Sh	Weight (II r Force (II hoe ;	bf): bf): X Wire Saw e Saw & Strai	Drop r;Oth	of Laye in Inch	ers:
	Vater				Location		Final, Wa				ts (inches)
Con	tent (W)	Top (W1) Bo	ottom (W2		3)	(see below		eight		Diameter
	Container			A42	M13			H ₁	5.556	D ₁	2.885
	st Soil + Containe	107		104.92	84.83		1623.50		5.486	D ₂	2.905
Mass Dr	y Soil + Containe			95.80	78.79		1404.40	Ů	5.522	D_3	3.320
101	Mass Containe	(0)	,	39.38	39.10		159.00	H ₄	5.568	D ₄	3.333
	ATER CONTENT	` '		16.16	15.22) / \A/I	17.59	Average	-	_	e Diameter
	l Water Content, W4			Final W	at: Slice ;	X WI	hole Spec		5.533	(in)	3.111
See attache	ed data sheet(s) for	or additional wate	er conten	ts				(cm)	14.054	(cm)	7.901
	Masses Container No.	-	Final		Initial Ar	ea (cm²	49.03		nitial Dry Unit		
	ist Soil + Tare (g)		23.50		itial Total Volur	•	´ 		tial Moist Unit	•	· · ·
Mass D	ry Soil + Tare (g)		104.40 59.00	In	itial Mass Mois		' 			al Void R	
Mass Moist	Mass Tare (g)				Mass Dry	y 5011 (g	·		I Degree of Sa		` ,,'
						ntent (%)I 16.52	Pore V	'olume (c	m ³) 227.99	
Mean Hy			164.50	Initia	al Moisture Cor	ntent (%			•		
Mean Hy	draulic Cond			Initia	al Moisture Cor		Piston	Sampl	e Obse	erved	Sample
Mean Hy				Initia			Piston Height (in	Sampl) Length (e Obsecm) Δ Volun		Sample Area (cm²)
Mean Hy	draulic Cond	uctivity, cm/s			lı	nitial	Piston	Sampl	e Obsecm) Δ Volun	erved ne (cm³)	Sample
Mean Hy		uctivity, cm/s		Afte		nitial	Piston Height (in 8.386	Sampl) Length (e Obsecm) Δ Volun 4 (3 -4	erved ne (cm³)	Sample Area (cm²) 49.033
Mean Hy	draulic Cond	uctivity, cm/s		Afte	lı er Saturation Ph	nitial nase	Piston Height (in 8.386 8.385	Sampl) Length (e Obsection Δ Volum 4 (3 -4) 2 -3	erved ne (cm³) 0	Sample Area (cm²) 49.033 48.750
Mean Hy	draulic Cond 5.54E-	uctivity, cm/s	sec	Afte After C	Ir Pr Saturation Phonsolidation Ph End of	nitial nase nase Test	Piston Height (in 8.386 8.385 8.381 8.382	Sampl Length (14.05 14.05 14.05	e Obsecm) Δ Volum 4 (3 -4 2 -3 2 -1	erved ne (cm³) 0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405
	5.54E-	uctivity, cm/s	sec Out	Afte After C	Ir onsolidation Phend of End of	nitial nase nase Test	Piston Height (in 8.386 8.385 8.381 8.382	Sampl Length (i 14.05 14.05 14.05 44.05	e Obsecm) Δ Volun 4 0 3 -4 2 -3 2 -1	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic
Mean Hy	5.54E-	uctivity, cm/s 09 I Pressure Bottom	Sec Outt	After C	Ir onsolidation Ph End of Outflow (pore	nitial nase nase Test	Piston Height (in 8.386 8.385 8.381 8.382	Sampl Length (14.05 14.05 14.05	e Obsecm) Δ Volum 4 (3 -4 2 -3 2 -1	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic Conductivity
	5.54E-	uctivity, cm/s	Outt Infl Ra	Afte After C	Ir onsolidation Phend of End of	nitial nase nase Test Head	Piston Height (in 8.386 8.385 8.381 8.382 d Loss cm) 85.26	Sampl Length (i 14.05 14.05 14.05 44.05	e Obsecm) Δ Volun 4 0 3 -4 2 -3 2 -1 Hydrauli Gradier 27.42	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic
Trial	5.54E-	O9 Pressure Bottom (psi)	Outil Infl Ra	After C After C flow:	In Present the Pre	Head (0	Piston Height (in 8.386 8.385 8.381 8.382 d Loss cm) 85.26 83.96 92.99	Sampl) Length (14.05 14.05 14.05 14.05 % of Initial Head Loss	e Obsecm) Δ Volun 4 0 3 -4 2 -3 2 -1 Hydrauli Gradier 27.42 27.32 27.97	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic Conductivity (cm/sec)
Trial	5.54E-	O9 Pressure Bottom (psi) 11.35	Outfl Infl Ra 0.4	After C After C flow: low atio	In Saturation Pronsolidation Pronsol	Head (0	Piston Height (in 8.386 8.385 8.381 8.382 d Loss cm) 35.26 3.96 92.99 91.69	Sampl Length (i 14.05 14.05 14.05 14.05 7 of Initial Head Loss 99.66	e Obsecm) Δ Volun 4	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic Conductivity (cm/sec) 5.46E-09
Trial 12 13	5.54E- Eff. Conso Top (psi) 6.16 6.08	og Pressure Bottom (psi) 11.35	Outil Infl Ra 0.4	After C After C Flow: low atio 86	or Saturation Pronsolidation Prend of Outflow (pore volumes) 0.05	Head (0 38 39 39 39 39 39	Piston Height (in 8.386 8.385 8.381 8.382 d Loss cm) 85.26 83.96 92.99 91.69	Sampl Length (14.05 14.05 14.05 44.05 74.05 We of Initial Head Loss 99.66 99.67	e Obsecm) Δ Volund 4 (2) -3 (2) -1 Hydrauli Gradier 27.42 (27.32 (27.97) 27.87	erved ne (cm³) 0 4.0 3.3 .6	Sample Area (cm²) 49.033 48.750 48.520 48.405 Hydraulic Conductivity (cm/sec) 5.46E-09 5.45E-09



1 DE L 1 1111 NGUISHAHOH NO. 1 -3237	TBPE	Firm	Registration	No.	F-3257
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Summary of End-of-Test Soil Properties							
Final Area (cm²)	48.405	Final Dry Unit Weight (pcf)	114.30				
Final Total Volume (cm³)	680.199	Final Moist Unit Weight (pcf)	134.41				
Final Mass Moist Soil (g)	1464.50	Final Void Ratio	0.48				
Mass Dry Soil (g)	1245.40	Final Degree of Saturation (%)	100.00				
Final Moisture Content (%)	17.59	Final Pore Volume (cm ³)	219.09				

Figure B-18



MEASUREMENT OF HYDRAULIC CONDUCTIVITY OF SATURATED POROUS MATERIALS USING A FLEXIBLE WALL PERMEAMETER

METHOD C: FALLING HEAD RISING TAIL WATER DE-AIRED TAP WATER AS PERMEANT FLUID

BORING: TP-2 % PASSING -200: 98.8%

DEPTH: 22 to 24 feet ATTERBERG LIMITS: LL = 63; PL = 23; PI = 40
ORIENTATION: Horizontal HYDRAULIC CONDUCTIVITY: 5.54E-09 cm/sec

MATERIAL DESCRIPTION: Fat Clay (CH), gray, hard

FIGURE B-19



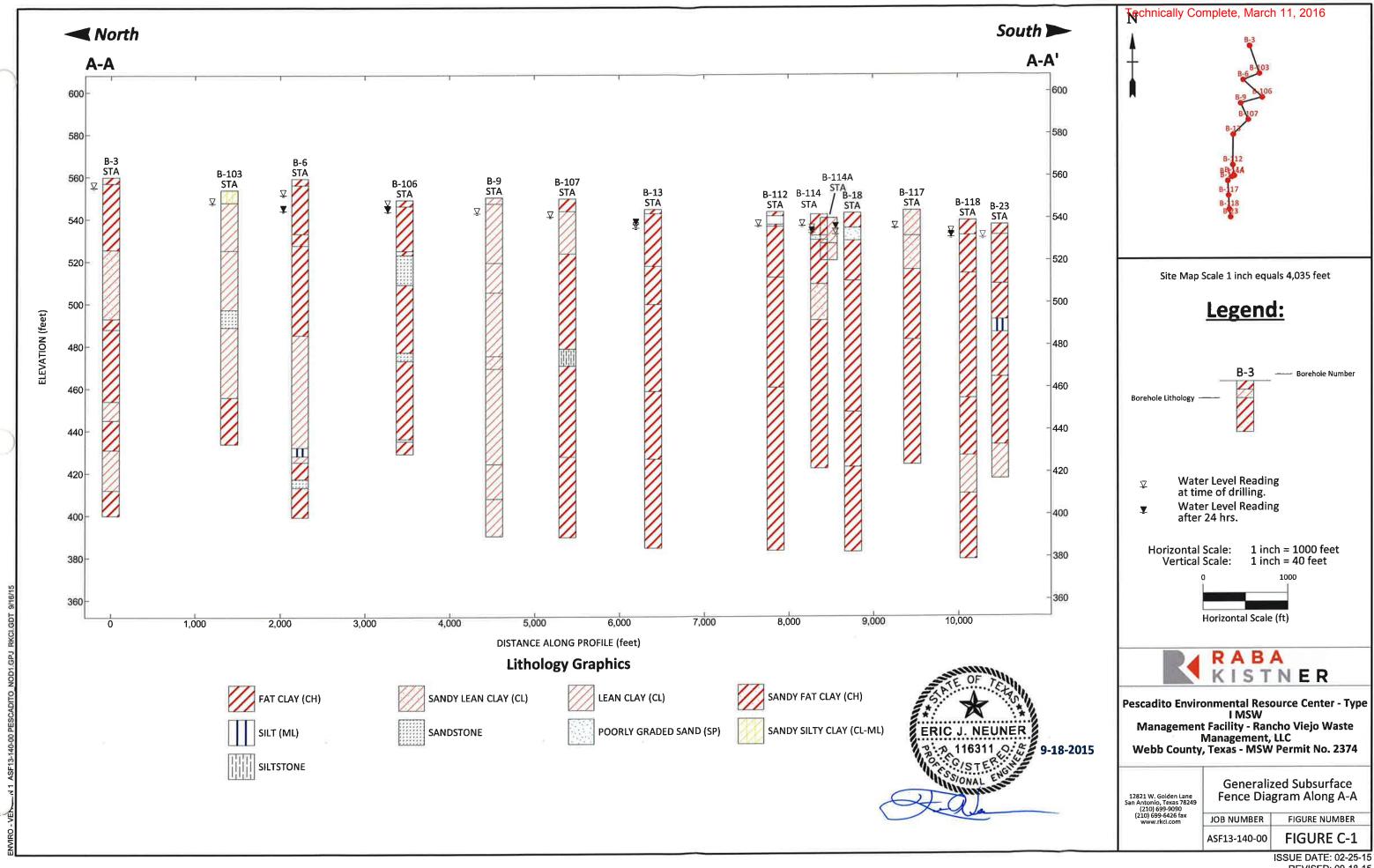
12821 West Golden Lane San Antonio, Texas 78249 (210) 699-9090 TEL (210) 699-6426 FAX www.rkci.com

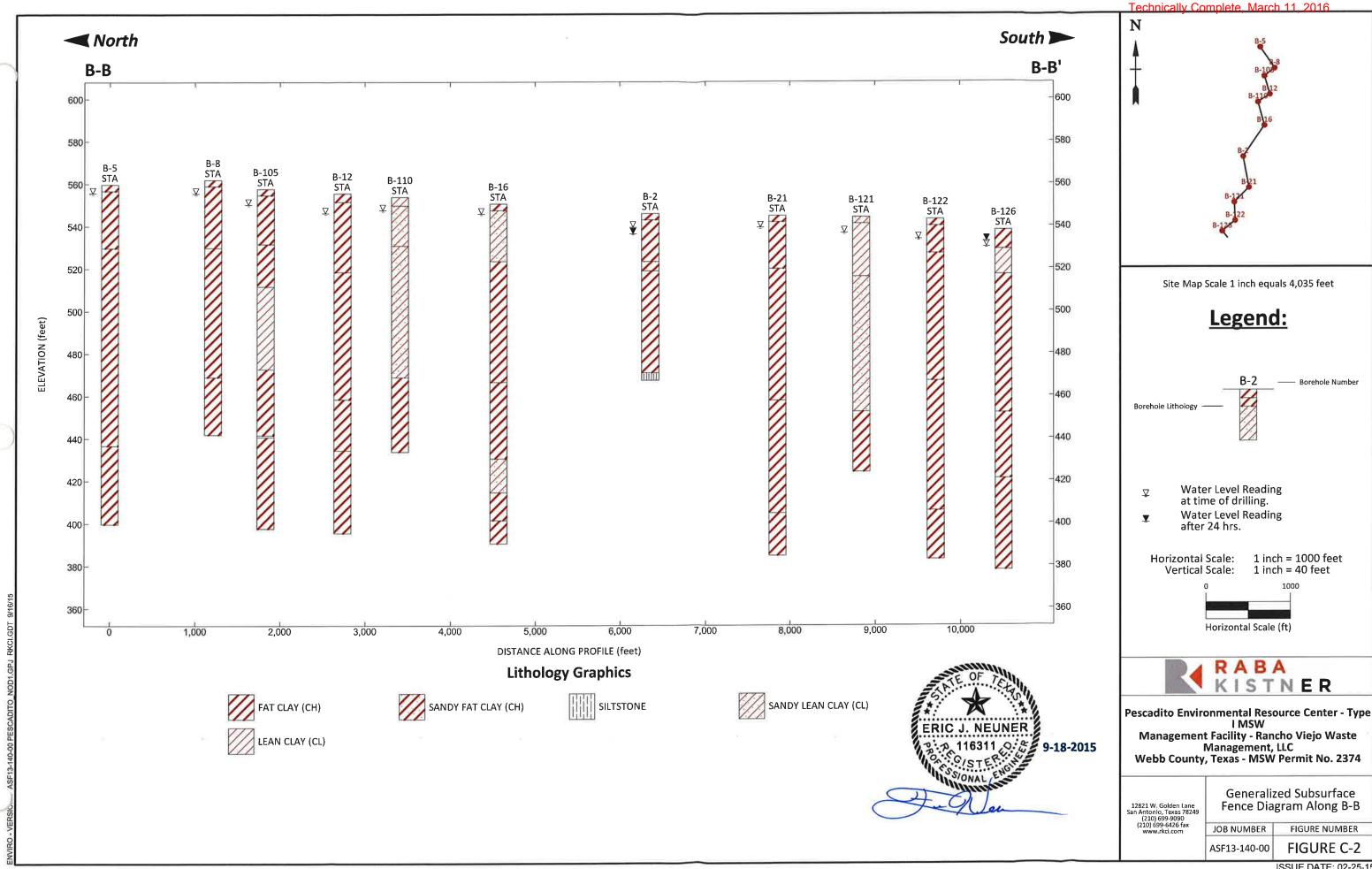
HYDRAULIC CONDUCTIVITY TEST DATA

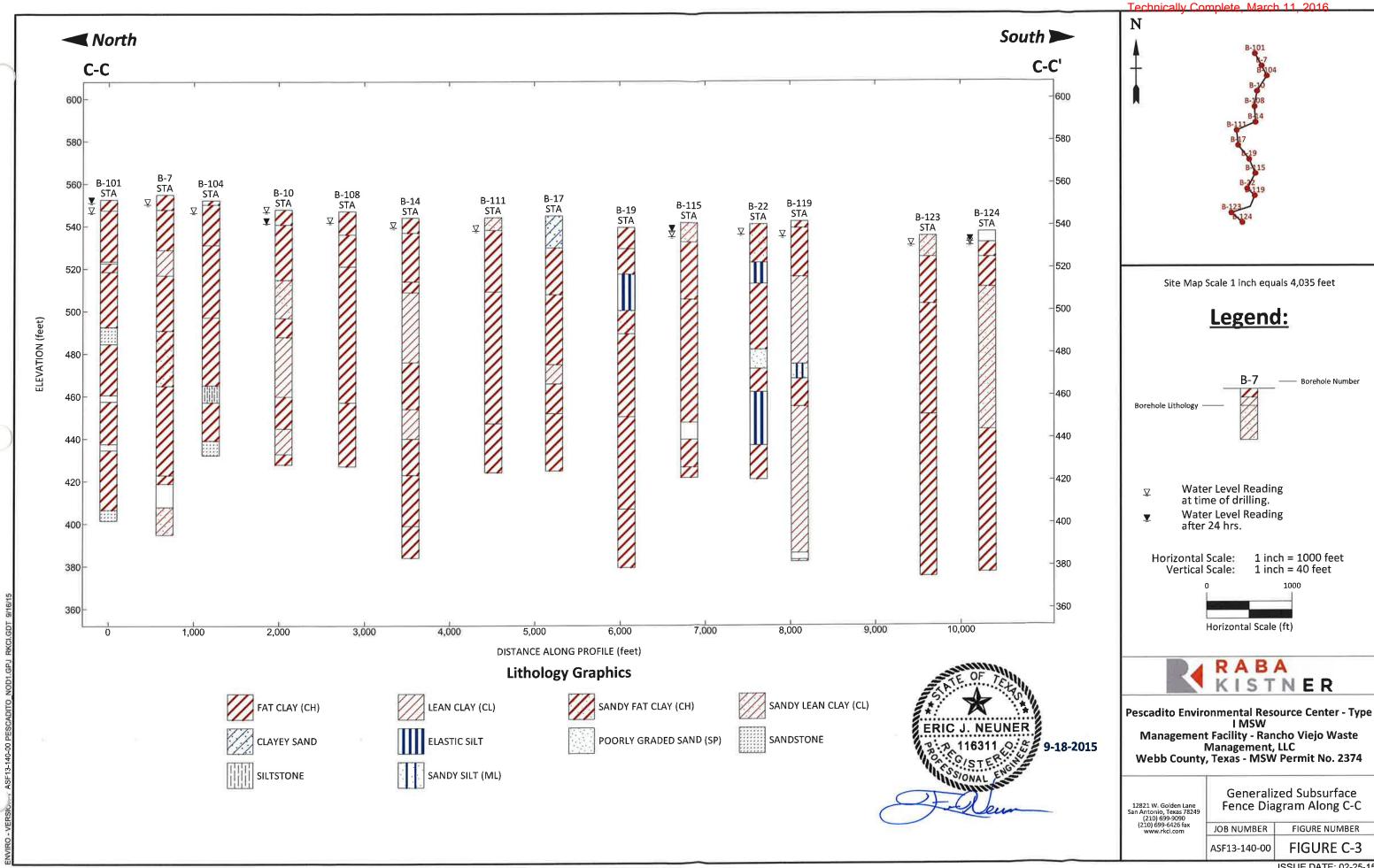
NEW TYPE I MSW LANDFILL FACILITY RANCHO VIEJO WASTE MANGEMENT, LLC LAREDO, WEBB COUNTY, TEXAS

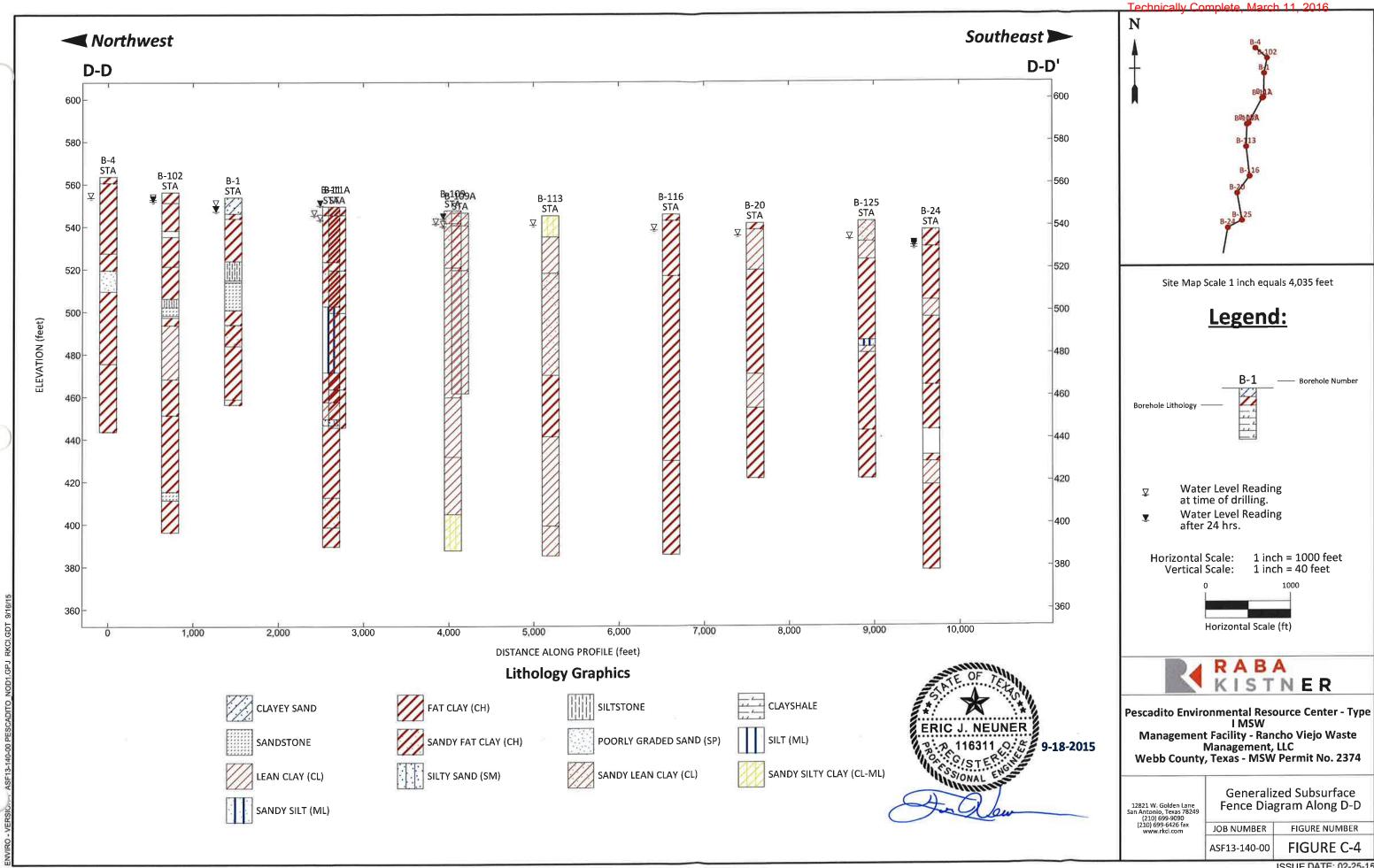
APPENDIX C

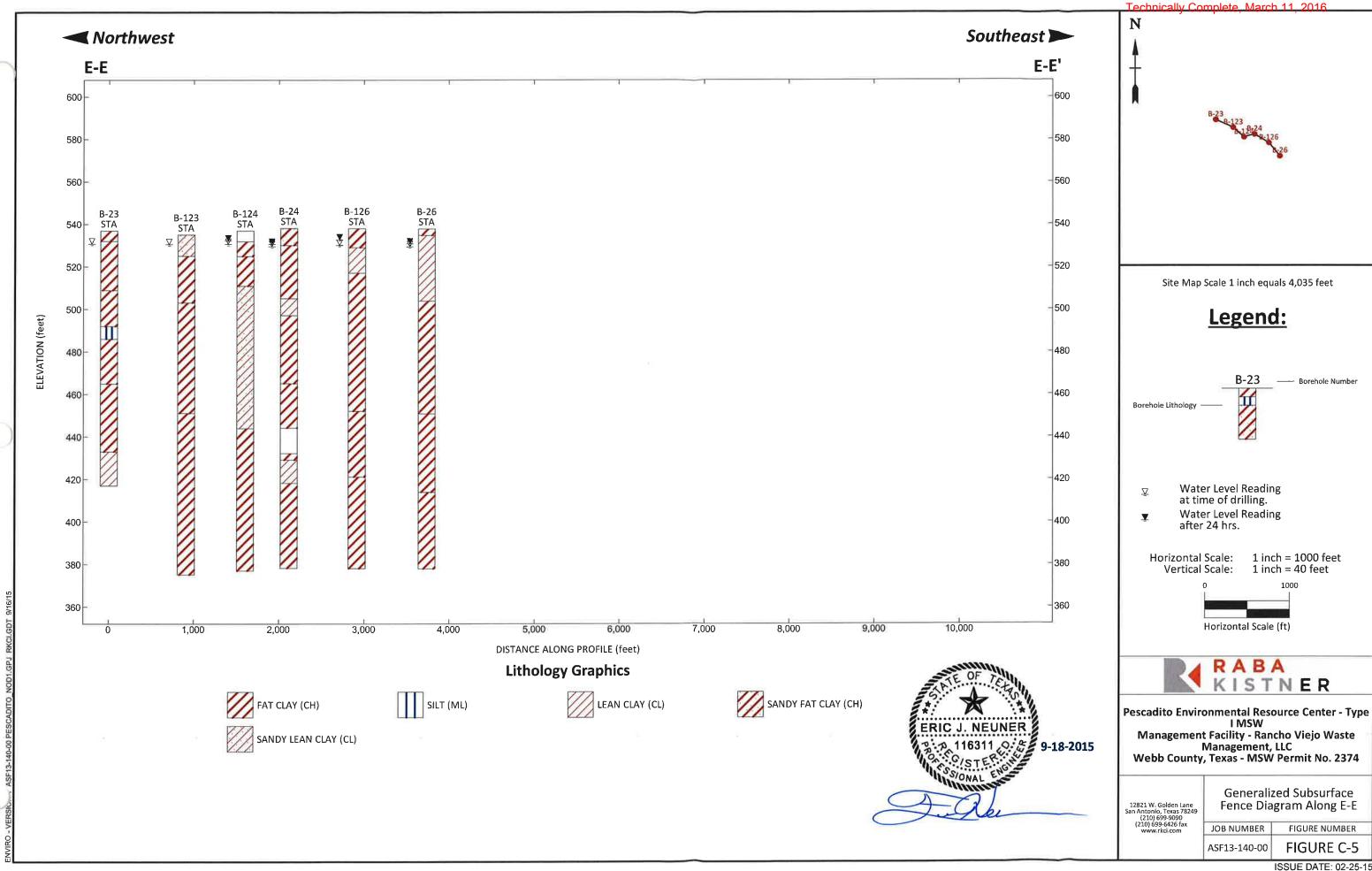
GENERALIZED SUBSURFACE FENCE DIAGRAMS MEASURED SOIL PROPERTIES (BY STRATUM)

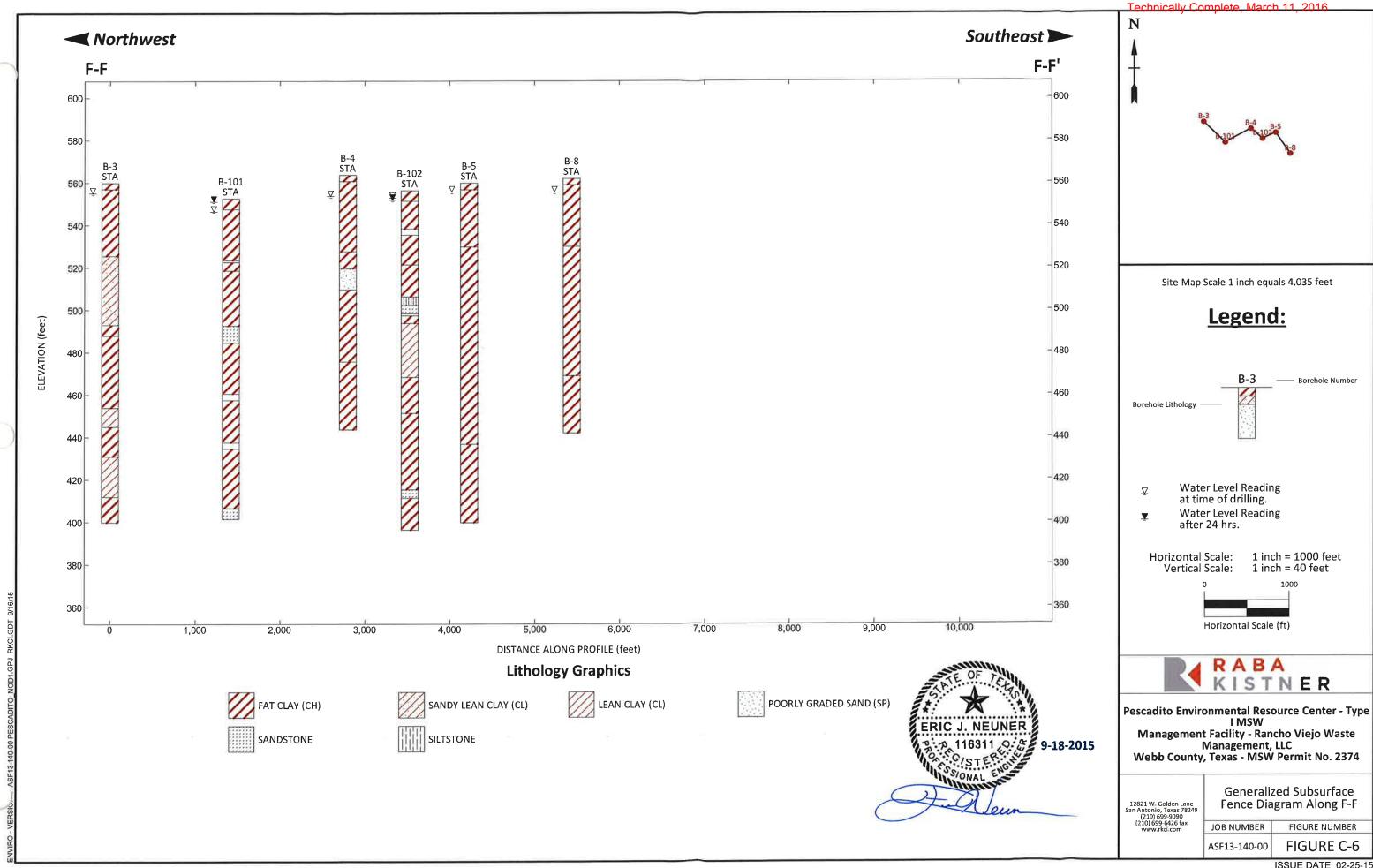


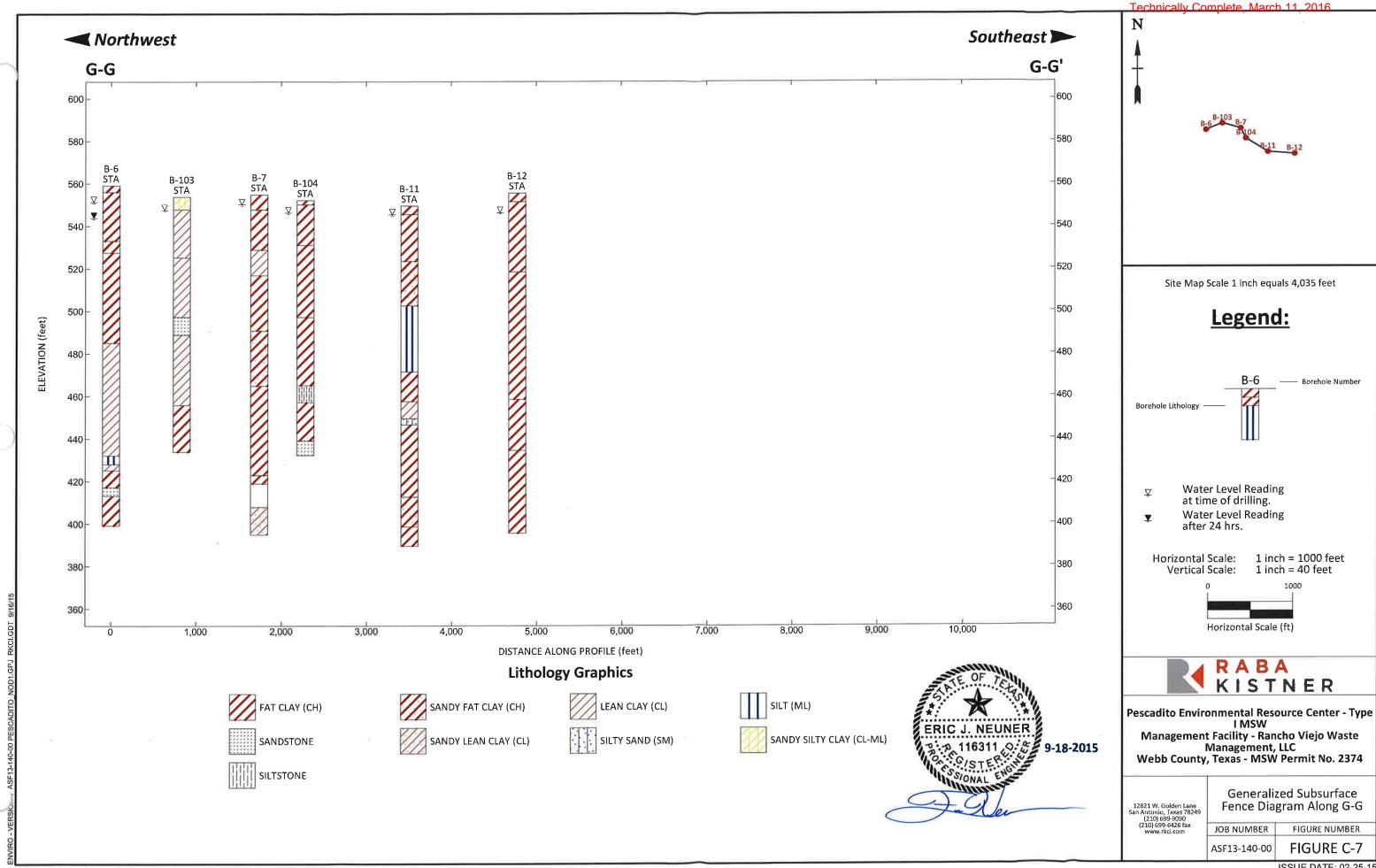


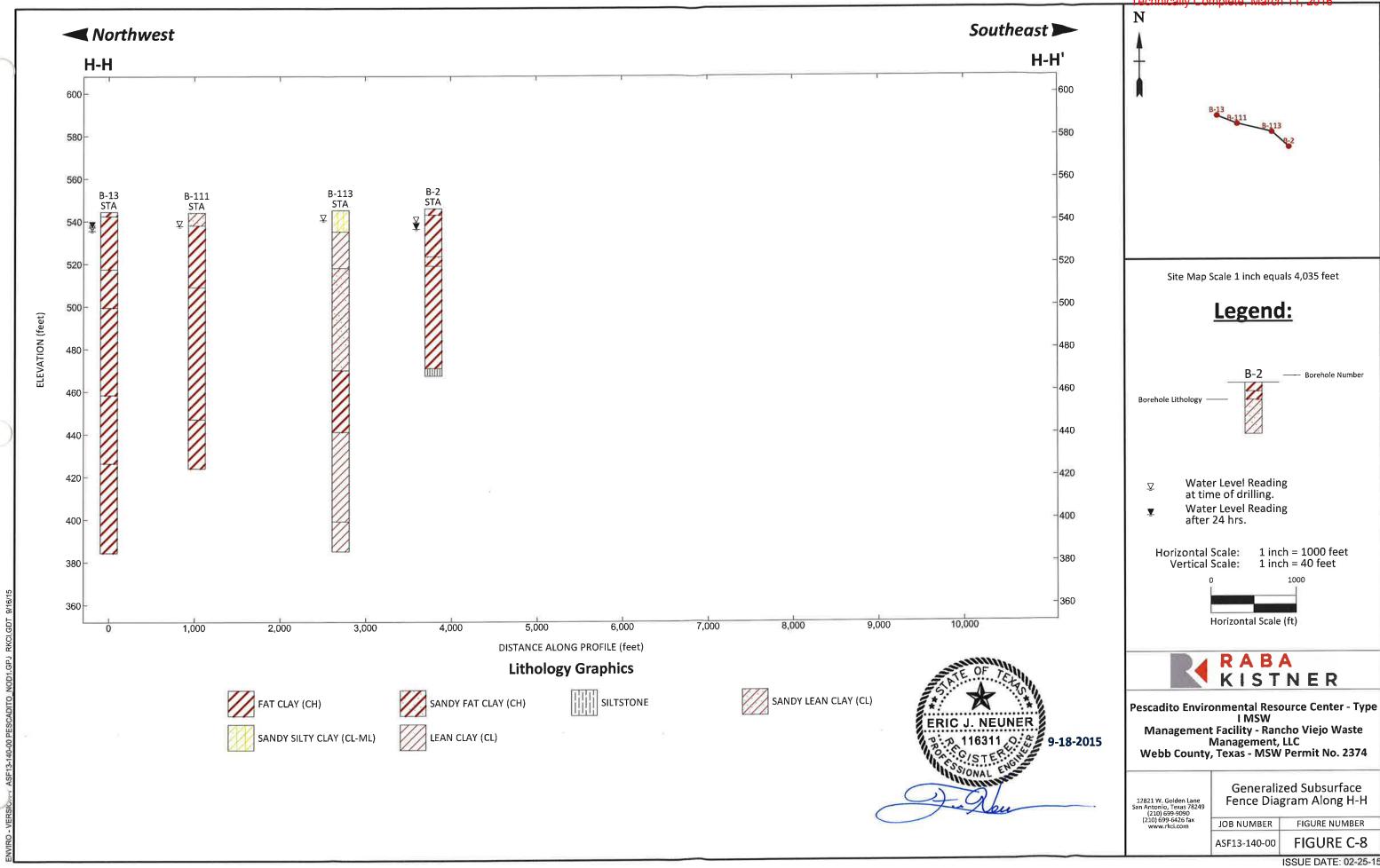


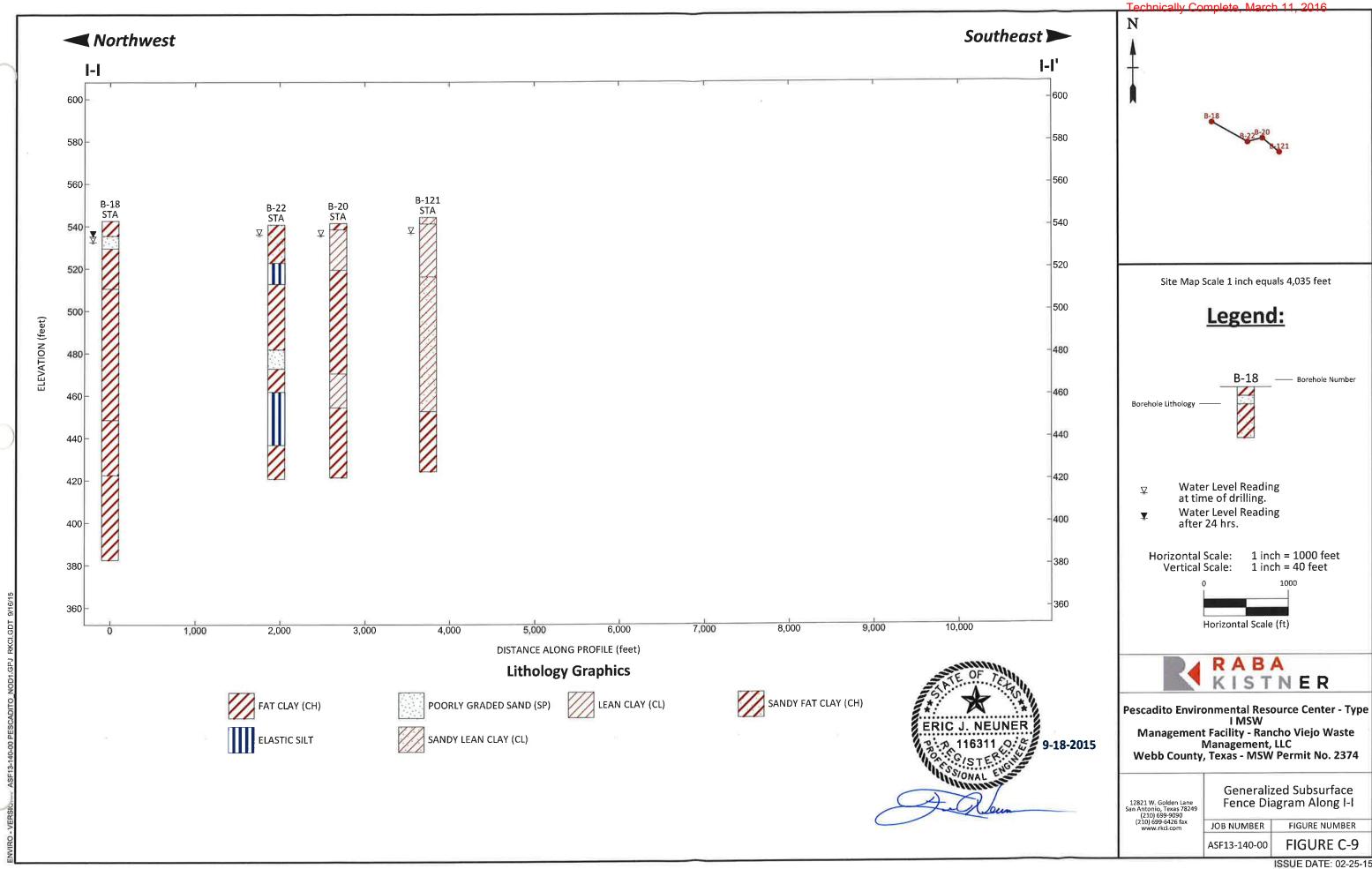


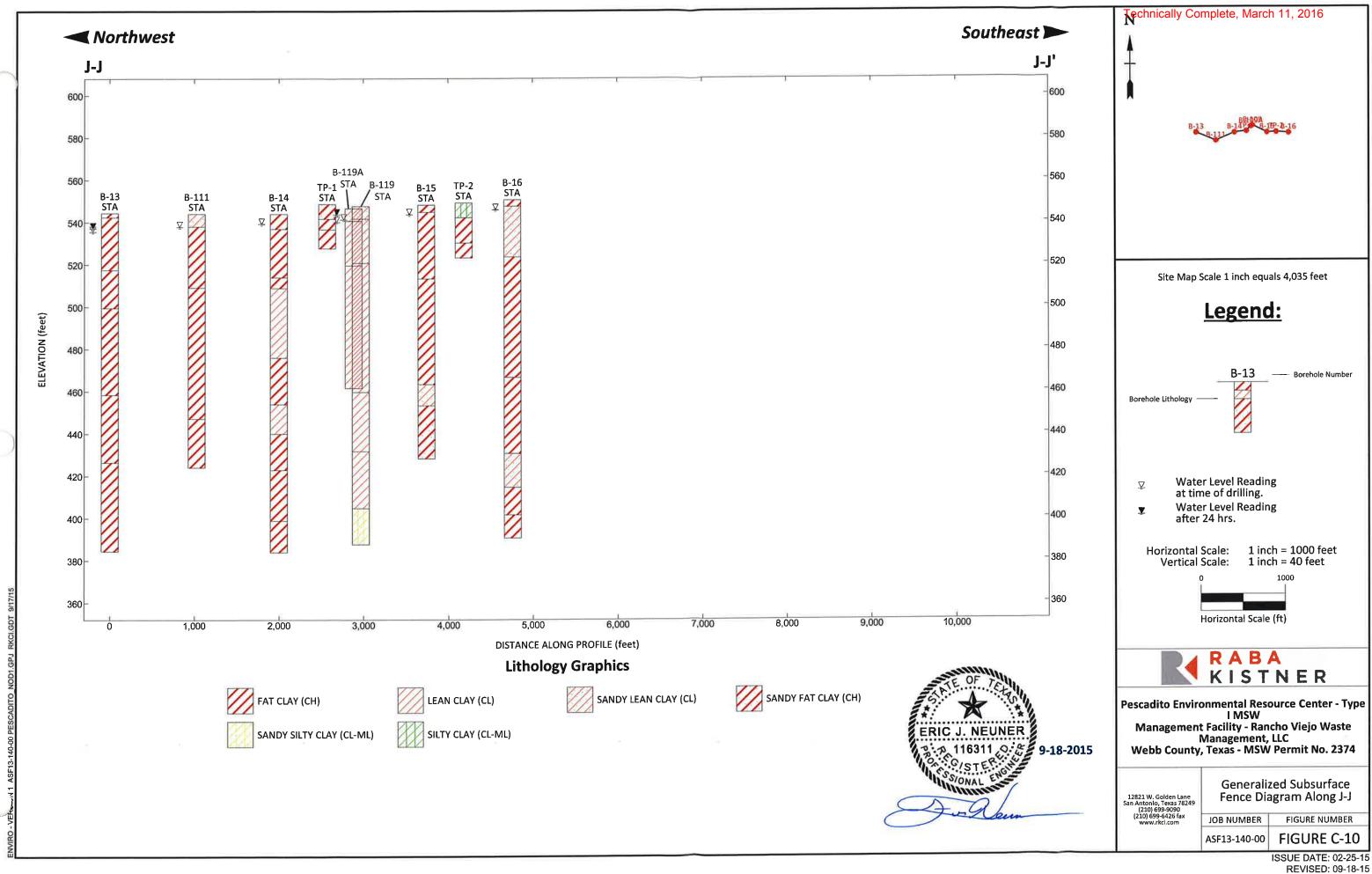












570 540 510 480 Elevation, feet 450 **ERIC J. NEUNER** 420 116311 390 ▲ Plastic Limit Liquid Limit 360 -30 30 50 100 150 200 0 30 60 0 0 Atterberg Limits, % Moisture Content, % Plastic Limit - Moisture, % SCALE: PROJECT NO.: AEA09-192-03 **MEASURED SOIL PROPERTIES - STRATUM I** 12821 West Golden Lane NOT TO SCALE San Antonio, Texas 78249 Pescadito Environmental Resource Center - New Type I MSW (210) 699-9090 TEL CHECKED BY: DRAWN BY: Landfill Facility - Rancho Viejo Waste Management, LLC (210) 699-6426 FAX RLT JAF

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DATE: April 26, 2012

FIGURE C-11

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Pescadito Environmental Resource Center - New Type I MSW Landfill Facility - Rancho Viejo Waste Management, LLC Laredo, Webb County, Texas - MSW Permit No. 2374

CHECKED BY: DRAWN BY: RLT JAF

DATE: April 26, 2012

FIGURE C-12

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DATE: April 26, 2012

FIGURE C-13

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