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P.O. Box 16246 • Duluth, MN 55816-0246 • 218-722-1911
P.O. Box 2 • Virginia, MN 55792 • 218-741-5785
www.twinportstesting.com

INITIAL EXCAVATION

JONES DEVELOPMENT PROPERTY

SUPERIOR, WISCONSIN

JULY, 2006 TPT # 05E-2150

Jones Development Company 4600 Madison, Suite 725 Kansas City, Missouri 64112

attn: Mr. Kevin Jones Mr. Jim Markey

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I. INTRODUCTION

Prior to construction of a FedEx ground terminal on the Jones Development property in Superior, Wisconsin, a quantity of 15,000 cubic yards of the property's near-surface soil was designated for removal. Excavation of the property's soil was to be undertaken in three stages. The first stage, which occurred in June, 2006, involved approximately 7000 cubic yards of petroleum contaminated soil, classified as solid waste. The contaminated soil was loaded directly into dump trucks and transported to the Moccasin Mike Landfill in Superior. The second stage of the excavation, planned for the fall of 2006, is to involve approximately 6370 cubic yards of uncontaminated soil, classified as unregulated fill. The uncontaminated soil will again be loaded into dump trucks, but will be transported to a quarry owned by Reuben Johnson and Son, Inc., located 12 miles south of Superior. The third stage of the excavation will deal with the property's remaining 1630 cubic yards of soil to be removed. This remaining soil has been identified as contaminated and is thus ineligible for guarry disposal, but is also unusable for landfill material due to a low clay content. This remaining 1630 cubic yards will then be excavated as necessary and redistributed on site as landscaping material. This report concerns the methods and results of the excavation's first stage, i.e. the initial excavation.

II. BACKGROUND

Parties having principle involvement with the excavation portion of the Jones Development project include the following:

Jones Development Company, developer 4600 Madison, Suite 725 Kansas City, Missouri 64112 contacts: Kevin Jones, president Jim Markey, project manager

phone: 816-756-5700 fax: 816-756-5701

Reuben Johnson & Son, Inc., general contractor 5300 Stinson Avenue Superior, Wisconsin 54880

contact: Paul Senst, project manager

phone: 715-394-7771 fax: 715-395-6953

Twin Ports Testing, Inc., environmental consultant 1301 N. 3rd Street Superior, Wisconsin 54880 contact: Jon Hinkel, project manager

phone: 715-392-7114

fax: 715-392-7163

The soil to be removed consists of non-native fill composed mostly of red-brown clay, extending laterally throughout the area to an average depth of 2 feet. Prior to the excavation, parts of the soil unit were characterized as contaminated with various volatile and semi-volatile petroleum compounds and lead, with further characterizations made regarding clay content (see Soil Management Work Plan, Twin Ports Testing: 6/2/06). Disposal options for the variously characterized soils have been discussed with and approved by the Wisconsin DNR (Landfill Plan Modification Approval: Connie Antonuk, 2/15/06) and the Atlantic Richfield Company (formerly Amoco Oil Co.: David Kalet, 3/15/06).

III. METHODS

The initial excavation of the Jones Development property commenced June 9th and extended through June 16th, 2006. The excavation was conducted by Reuben Johnson and Son, Inc. using a large excavator and six to thirteen dump trucks, each of 13 cubic yard capacity (the number of trucks varied day to day according to availability). The excavation was overseen by Twin Ports Testing, Inc. Twin Ports Testing's oversight included examining and field-screening the site's exposed soils, directing excavated soils either for loading and transport to the Moccasin Mike Landfill or stockpiling on site due to an unsuitability for landfill use, recording the excavation's progress, and collecting soil samples for confirmation analyses. Field screening was conducted on a continual basis on soil grab-samples collected and sealed in plastic bags for a minimum of 10 minutes prior to screening. Field screening was performed using a portable photoionization detector equipped with a 10.6 eV lamp and calibrated to an isobutylene standard prior to field activities. Laboratory soil samples were collected partly on the basis of field screening results and partly to reflect a widely-spaced representation of the soils being removed.

Laboratory soil samples were collected at the following intervals:

- one soil sample for every 2000 cubic yards of excavated soil, to be analyzed for petroleum volatile organic compounds (PVOCs), polycyclic aromatic hydrocarbons (PAHs) and lead;
- one sample for every 3000 cubic yards of excavated soil, to be tested for Atterberg limits

IV. RESULTS

The initial excavation included subject property areas 1, 6, 12, and 18-24 (Figure 1). Area 14, though characterized as contaminated, was previously determined to lack sufficient clay content for landfill disposal; no soils were excavated from Area 14. Area 4, also characterized as contaminated, was chosen as an optional area for excavation and landfill disposal; as the landfill allowance of approximately 7000 cubic yards was reached prior to any activity on Area 4, Area 4 was left unexcavated.

The red-brown clay unit designated for removal was observed to contain local variations in its content throughout much of its exposure:

- a zone of peat was encountered on the eastern portion of Area 20;
- several small zones of gravel and sand were encountered in Areas 6, 18, 19, 23 and 24.

All such non-clay zones were separated as much as possible and stockpiled to the sides of the excavation. These stockpiles were not included with the soils being transferred to the landfill.

The clay unit's surface commonly contained an established horizon of grass sod and several limited areas of gravel averaging depths of 4 inches. These surface sods and gravels were separated and similarly stockpiled to the sides of the excavation prior to removal of the underlying soils. Again, the stockpiles were not included with the soils being transferred to the landfill.

A second horizon of sod measuring approximately 4 inches thick was encountered intermittently throughout the excavation, sandwiched within the redbrown clay unit at about 1½ feet deep. The second sod layer, apparently a remnant of the former tank farm's original ground surface, appeared to correspond to areas that surrounded the former Amoco facility's tanks and former berms. Due to the second sod horizon's containment within the red-brown clay unit, separation of the sod from the clay was found to be impracticable under the project's time and equipment constraints. Areas of the red-brown clay unit containing the second horizon of sod were thus included in the loading for landfill

disposal without further sod separation. Overall, Twin Ports Testing estimated the total sod content for soils transferred to the landfill at 10% or less.

Various items encountered during the excavation, including the following (reference Figure 1):

- Numerous concrete and steel foundation structures, said to have supported former Amoco Oil above-ground piping runs, were encountered in Areas 6,18,19, 23, and 24. Most of these structures were extracted and set to the sides of the excavation.
- An elongated linier concrete foundation and an adjacent steel piping run were exposed in Areas 23 and 24 at a depth of approximately 3 feet beneath the ground surface. The foundation, measuring approximately 1 foot wide, extended beneath the base of the excavation to an undetermined depth. The piping run appeared in sound, undamaged condition. The concrete foundation and piping run were left in place.
- An elongated curved concrete foundation was exposed at the southwest corner of Area 6 at a depth of approximately 1 foot beneath the ground surface. The foundation was approximately 1 foot wide and extended beneath the base of the excavation to an undetermined depth. The foundation was left in place.
- A steel piping run was exposed in Area 1 at depths ranging between 3 to 5 feet beneath the ground surface. The piping run appeared sound and undamaged. The piping run was left in place.
- A clay tile drain line was exposed in Area 20 at a depth of approximately 4 feet beneath the ground surface. The line, damaged by the excavator bucket, contained water.

Truck loads of soil leaving the Jones Development property were recorded by Twin Ports Testing as follows:

6/9/06:	63 loads	 819 cu. yds.
6/12/06:	55 loads	 715 cu. yds.
6/13/06	112½ loads	 1463 cu. yds.
6/14/06	101 loads	 1313 cu. yds.
6/15/06	107 loads	 1391 cu. yds.
6/16/06	125 loads	 1625 cu. yds.
	total:	7326 cu. yds.

No areas of free product or heavily impacted soils were observed anywhere in the excavation. Most of the site's excavated soils did not produce discernable petroleum odors, with few soil samples yielding field screening detections above 5 parts per million organic vapors (Figure 2, Table 1). Zones of notable petroleum odors were encountered at the south end of Area 6, the northwest corner of Area 19, the southern half of Area 23, and the northwest corner of Area 21.

Laboratory soil samples were collected and analyzed as follows (reference Figure 3):

- ES-1, ES-2, ES-3, and ES-4 were collected by Twin Ports Testing from the excavation as it progressed and were analyzed for petroleum-related parameters including PVOCs, PAH compounds and lead;
- ESA-1, ESA-2, and ESA-3 were collected by Twin Ports Testing from the excavation as it progressed and were tested for physical properties encompassed in Atterberg limits;
- LFSP-1 was collected by Ayers and Associates (a separate consulting firm), from the landfill's soil deposition site as an example of sod-rich soil coming from the excavation site. LFSP was tested for physical properties including Atterberg limits and a P-200 test.

Results of the laboratory analyses for the petroleum-related parameters are summarized on Table 2. In general, PVOC and PAH parameter and lead concentrations were found to vary widely among the samples submitted. Correlation of the sample analyses results to the field screening readings appears applicable to the PVOC parameters only, with elevated PAH and lead concentrations bearing no direct relation to the field screening indications.

Results of the soil sample physical properties tests are summarized on Table 3. In general, Atterberg test results revealed plasticity indexes above 25% and liquid limits above 45% throughout the sample suite. These figures exceed the minimum values of 10% and 20% respectively required by the landfill for acceptance based on the soils' clay content.

V. CONCLUSION

At the conclusion of the initial excavation, the base of the excavation was graded and smoothed to channel any accumulations of anticipated rain water to local collection points within the excavation itself. Exposed excavation faces range from 1 to 2½ feet high above the excavation's base. The excavation's second stage, to commence during the fall of 2006, is planned to be undertaken in a similar manner to the initial excavation and to principally involve Areas 7-9, 13,

and 17. Soils removed from these areas will be transported to the Reuben Johnson and Son's quarry, with periodic sampling and analyses for petroleum-related parameters conducted as before. No physical properties testing will be conducted for these soils. Area 14, which lies within the anticipated footprint of the proposed FedEx facility, will be excavated, but redistributed on the Jones Development property.

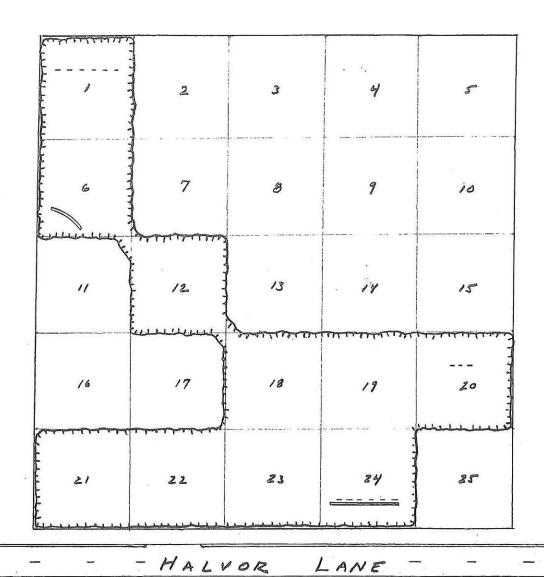
This report was completed July 12th, 2006. Twin Ports Testing, Inc.

Jon ∦inkel, P.Ğ. Project Manager

Environmental Department

FIGURES

JONES DEVELOPMENT PROPERTY SUPERIOR, WISCONSIN



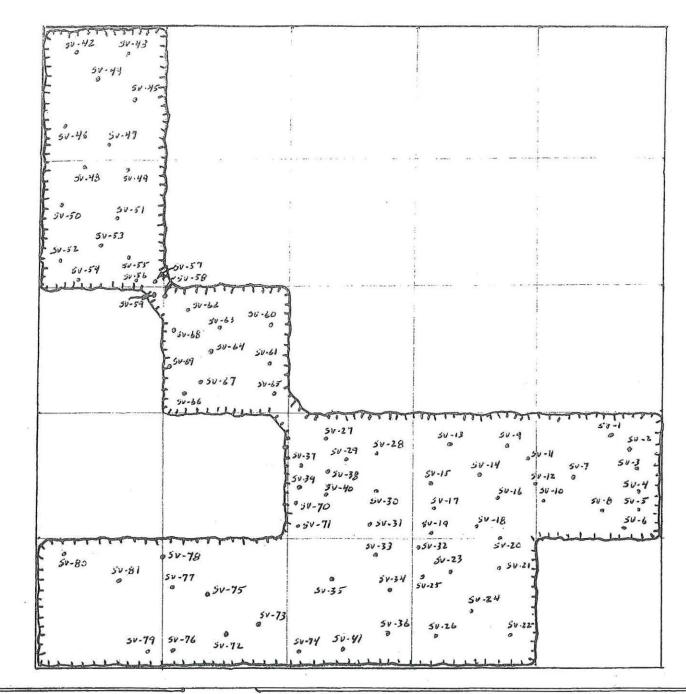
CONCRETE FOUNDATIONS
(LEFT IN PLACE)

PIPING RUNS
(LEFT IN PLACE)

SCALE IN FEET

(GEOGRAPHY APPROXIMATE)

Figure 1
Area Designations
and Initial Excavation Pattern
Jones Development Property
Superior, Wisconsin



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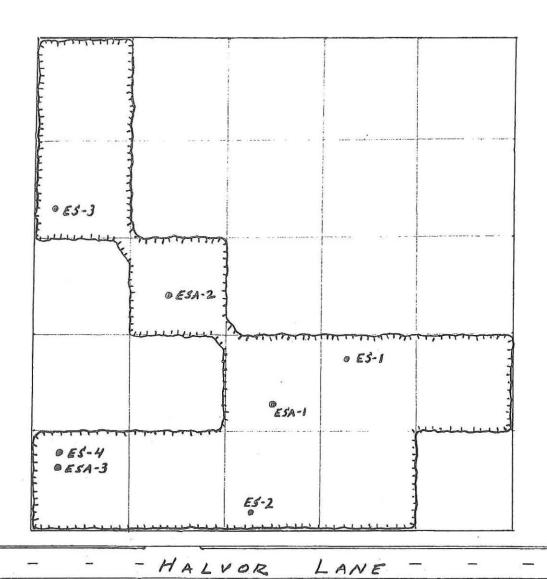


SCALE IN FEET

(GEOGRAPHY APPROXIMATE)

Figure 2
Field Screening Sampling Locations
Jones Development Property
Superior, Wisconsin

JONES DEVELOPMENT PROPERTY SUPERIOR, WISCONSIN



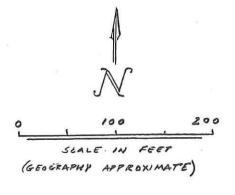


Figure 3 Laboratory Soil Sampling Locations Jones Development Property Superior, Wisconsin

TABLES

TABLE 1 EXCAVATION FIELD SCREENING RESULTS

JONES DEVELOPMENT PROPERTY

SUPERIOR, WISCONSIN JUNE, 2006 TPT# 05E-2150

Soil	Field
Sampling	Screening
Location	Reading
SV-1	0.0
SV-2	0.0
SV-3	0.0
SV-4	0.0
SV-5	0.0
SV-6	0.0
SV-7	0.0 0.0
SV-8	0.0
SV-9 SV-10	0.0
SV-10 SV-11	0.0
SV-12	0.4
SV-13	17.3
SV-14	6.7
SV-15	0.9
SV-15	0.4
SV-10	1.1
SV-18	0.9
SV-19	0.4
SV-20	0.6
SV-21	0.0
SV-22	0.6
SV-23	0.0
SV-24	0.9
SV-25	0.0
SV-26	0.0
SV-27	1.4
SV-28	0.6
SV-29	8.0
SV-30	0.1
SV-31	0.1
SV-32	1.8
SV-33	0.0
SV-34	0.1
SV-35	1.1
SV-36	53.9
SV-37	0.0
SV-38	2.1
SV-39	2.9
SV-40	3.1

Soil	Field
Sampling	Screening
Location	Reading
SV-41	81.5
SV-42	1.2
SV-43	2.3
SV-44	2.6
SV-45	2.4
SV-46	2.7
SV-47	1.0
SV-48	0.0
SV-49	0.0
SV-50	0.0
SV-51	0.0
SV-52	13.8
SV-53	0.0
SV-54	4.13
SV-55	15.4
SV-56	8.2
SV-57	0.0
SV-58	15.0
SV-59	8.3
SV-60	0.0
SV-61	0.0
SV-62	0.0
SV-63	0.0 0.0
SV-64 SV-65	0.8
SV-66	0.0
SV-67	0.0
SV-68	0.3
SV-69	1.4
SV-70	2.0
SV-71	1.7
SV-72	2.7
SV-73	1.5
SV-74	1861
SV-75	32.4
SV-76	4.3
SV-77	9.2
SV-78	1.5
SV-79	0.0
SV-80	17.5
SV-81	8.2

All field screening readings are presented in parts per million organic vapors.

TABLE 2 EXCAVATION SOIL SAMPLE ANALYSES RESULTS JONES DEVELOPMENT PROPERTY

SUPERIOR, WISCONSIN JUNE, 2006 TPT # 05E-2150

	Parameter	Excavati	on Soil Sam	ple Analyse	s Results
		ES-1	ES-2	ES-3	ES-4
	Benzene	< 25	120	< 25	< 24
Petroleum	Ethylbenzene	< 25	260	< 25	< 24
Volatile	Toluene	52	770	39	< 24
Organic Compounds	1,2,4-Trimethylbenzene	< 25	1600	47	< 24
(ppb)	1,3,5-Trimethylbenzene	< 25	820	36	< 24
No. of the last of	Xylenes (total)	77	2100	70	< 71
	Acenaphthene	20	18	26	< 4.0
	Acenaphthylene	90	18	14	< 3.8
	Anthracene	340	100	69	< 4.7
	Benzo(a)anthracene	81	310	240	< 7.1
	Benzo(a)pyrene	110	400	280	< 3.8
	Benzo(b)fluoranthene	70	350	240	< 3.7
	Benzo(g,h,i)perylene	85	230	150	< 4.7
Polycyclic	Benzo(k)fluoranthene	35	220	200	< 4.1
Aromatic	Chrysene	220	520	310	< 5.8
Hydrocarbons	Dibenz(a,h)anthracene	28	110	66	< 3.7
(ppb)	Fluoranthene	72	400	430	< 3.8
	Fluorene	47	29	33	< 4.5
	Indeno(1,2,3-cd)pyrene	46	130	120	< 3.3
	1-Methylnaphthalene	310	120	110	< 4.0
	2-Methylnaphthalene	1400	270	330	< 4.2
	Naphthalene	480	200	160	< 5.3
	Phenanthrene	230	470	260	< 3.9
	Pyrene	490	450	460	< 3.3
Metals (ppm)	Lead	1300	280	37	25

ppm = parts per million or milligrams per kilogram

ppb = parts per billion or micrograms per kilogram

detections presented in bold type

TABLE 3 SOIL SAMPLE PHYSICAL PROPERTIES TEST RESULTS

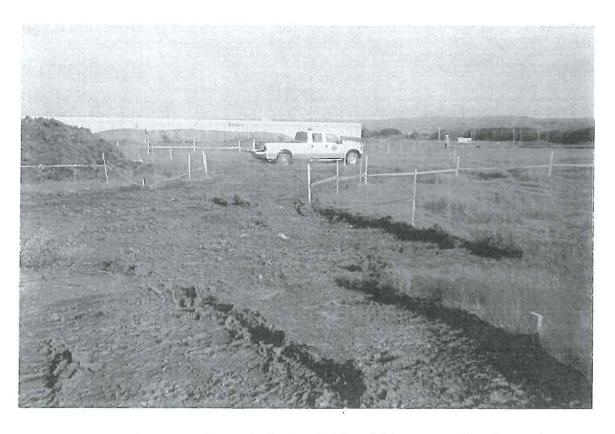
JONES DEVELOPMENT PROPERTY SUPERIOR, WISCONSIN JUNE, 2006 TPT# 05E-2150

		Sc				
Test Performed		ESA-1	ESA-2	ESA-3	LFSP-1	Allowable Value for Landfill Disposal
		Excavation Area 18	Excavation Area 12	Excavation Area 21	Landfill Stockpile	
Atterberg Limits	Plasticity Index	25.9%	31.1%	40.3%	26.9%	> 10%
Liquid Limit		46.1%	55.7%	48.7%	50.3%	> 20%
P-2	200				52% passing	





Photograph shows the removal of sod from the surface of an area to be excavated.



Photograph shows sod stockpiled outside of the excavation boundary.



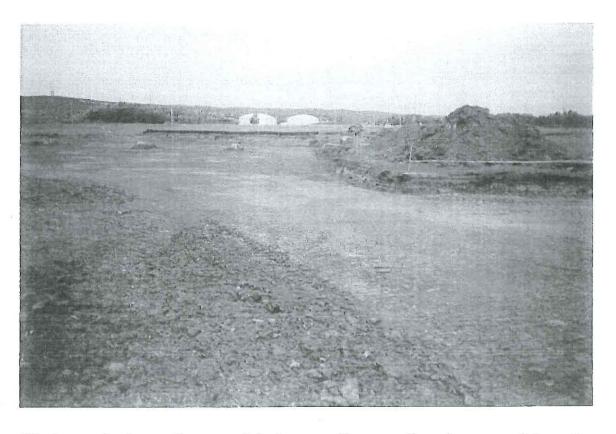
Photograph shows the excavation in progress.



Photograph shows an area of gravel fill and several concrete foundations. Such material and items were stockpiled to the side of the excavation and were not transported to the landfill.



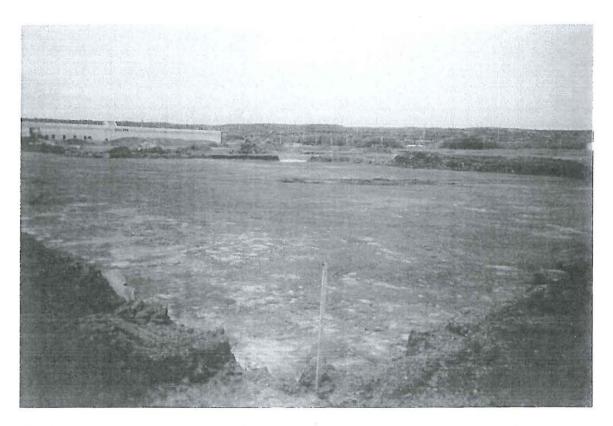
Photograph shows the completed excavation: southeast corner of Area 24, looking north.



Photograph shows the completed excavation: southeast corner of Area 6, looking north.



Photograph shows the completed excavation: southeast corner of Area 24, looking west.



Photograph shows the completed excavation: southeast corner of Area 24, looking northwest.



Photograph shows the completed excavation: northwest corner of Area 18, looking east.



Photograph shows the completed excavation: southeast corner of Area 6, looking southeast.



Photograph shows the completed excavation: northwest corner of Area 18, looking southeast.



Photograph shows the completed excavation: northeast corner of Area 18, looking south.

LABORATORY REPORTS

Pace Analytical*

The Chain-of-Custody is a LEGAL DOCUMENT. All relevant fields must be completed accurately.

1				Page: of
Section A Section Required Client Information: Required	n B Project Information:	Section C Invoice Information:		U 978998
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Company Report To: Address Copy To:	Jan Hinkel Twin Ports Testing	Company Name:	☐ NPDES ☐ GROUND WATE	R DRINKING WATER
1301 N. 3 " Street	Twin Parts Testing	Company Name:	© UST □ RCRA	[] Other
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Phone Sylvinia Fax Sylvinia Project Na	me: - Parstagment Parsel	Pace Project Manager:		////////
Requested Due Date/TAT: Project Nu	mber:	Pace Profile #:	Filtered (Y/N) Requested	
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1241 Bellevue Street, Suite 9 Green Bay, WI 54302 920-469-2436, Fax: 920-469-8827

Analytical Report Number: 873142

Client: TWIN PORTS TESTING

Lab Contact: Eric Bullock

Project Name: JONES DEVELOPMENT PARCEL

Project Number: 05E-2150

Lab Sample Number	Field ID	Matrix	Collection Date
873142-001	ES-1	SOIL	06/12/06 08:05
873142-002	ES-2	SOIL	06/13/06 15:30
873142-003	ES-3	SOIL	06/15/06 10:05
873142-004	ES-4	SOIL	06/16/06 14:25

I certify that the data contained in this Final Report has been generated and reviewed in accordance with approved methods and Laboratory Standard Operating Procedure. Exceptions, if any, are discussed in the accompanying sample comments. Release of this final report is authorized by Laboratory management, as is verified by the following signature. This report shall not be reproduced, except in full, without the written consent of Pace Analytical Services, Inc. The sample results relate only to the analytes of interest tested.

Approval Signature

2/28/0 CD

Pace Analytical Services, Inc.

Analytical Report Number: 873142

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

Client: TWIN PORTS TESTING

Project Name: JONES DEVELOPMENT PARCEL

Project Number: 05E-2150

Field ID: ES-1

Matrix Type: SOIL

Collection Date: 06/12/06

Report Date: 06/28/06

Lab Sample Number: 873142-001

INORGANICS											
Test		Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Lead		1300	0.43	1.4		1	mg/Kg		06/27/06	SW846 3050B	SW846 6010E
Percent Solids		78.7				1	%		06/21/06	SM M2540G	SM M2540G
PVOC										Prep Dat	te: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil	Units	Cod	e Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
1,3,5-Trimethylbenzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Benzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Ethylbenzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Methyl-tert-butyl-ether	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Toluene		52	32	76		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M802
Xylene, o	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Xylenes, m + p		77	64	150		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M802
Surrogate			LCL	UCL							
a,a,a-Trifluorotoluene		100	80	119		1	%		06/21/06	SW846 5030B	SW846 M802
PAH/PNA										Prep Date	e: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Code	e Anl Date	Prep Method	Anl Method
1-Methylnaphthalene		310	19	64		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
2-Methylnaphthalene		1400	20	66		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Acenaphthene		20	19	63		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Acenaphthylene		90	18	61		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Anthracene		340	23	75		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Benzo(a)anthracene		81	34	110		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Benzo(a)pyrene		110	18	61		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Benzo(b)fluoranthene		70	18	59		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Benzo(ghi)perylene		85	23	75		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Benzo(k)fluoranthene		35	19	65		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Chrysene		220	28	92		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Dibenz(a,h)anthracene		28	18	58		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Fluoranthene		72	18	61		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Fluorene		47	22	72		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Indeno(1,2,3-cd)pyrene		46	16	53		5	ug/Kg	Q	06/22/06	SW846 3545	8270C-SIM
Naphthalene		480	25	85		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Phenanthrene		230	19	62		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Pyrene		490	16	52		5	ug/Kg		06/22/06	SW846 3545	8270C-SIM
Surrogate			LCL	UCL							
Nitrobenzene-d5		43	10	141		5	%		06/22/06	SW846 3545	8270C-SIM
2-Fluorobiphenyl		57	10	161		5	%		06/22/06	SW846 3545	8270C-SIM
Terphenyl-d14		76	29	150		5	%		06/22/06	SW846 3545	8270C-SIM

Pace Analytical Services, Inc.

Analytical Report Number: 873142

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

Client: TWIN PORTS TESTING

Project Name: JONES DEVELOPMENT PARCEL

Project Number: 05E-2150

Field ID: ES-2

Matrix Type: SOIL

Collection Date: 06/13/06 Report Date: 06/28/06

Lab Sample Number: 873142-002

INORGANICS										
Test	Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Lead	280	0.40	1.3		1	mg/Kg	7	06/27/06	SW846 3050B	SW846 6010B
Percent Solids	85.3				1	%		06/21/06	SM M2540G	SM M2540G

PVOC									Prep Dat	e: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Code Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene		1600	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
1,3,5-Trimethylbenzene		820	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Benzene		120	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Ethylbenzene		260	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Methyl-tert-butyl-ether	<	25	25	60		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Toluene		770	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Xylene, o		700	29	70		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Xylenes, m + p		1400	59	140		50	ug/Kg	06/21/06	SW846 5030B	SW846 M8021
Surrogate			LCL	UCL						
a,a,a-Trifluorotoluene		104	80	119		1	%	06/21/06	SW846 5030B	SW846 M8021

PAH/PNA								Prep Dat	te: 06/21/06
Analyte	Result	LOD	LOQ	EQL	Dil.	Units	Code Anl Date	Prep Method	Anl Method
1-Methylnaphthalene	120	3.5	12		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
2-Methylnaphthalene	270	3.7	12		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Acenaphthene	18	3.5	12		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Acenaphthylene	18	3.4	11		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Anthracene	100	4.2	14		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Benzo(a)anthracene	310	6.2	21		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Benzo(a)pyrene	400	3.4	11		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Benzo(b)fluoranthene	350	3.3	11		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Benzo(ghi)perylene	230	4.2	14		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Benzo(k)fluoranthene	220	3.6	12		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Chrysene	520	5.1	17		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Dibenz(a,h)anthracene	110	3.2	11		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Fluoranthene	400	3.4	11		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Fluorene	29	4.0	13		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Indeno(1,2,3-cd)pyrene	130	2.9	9.8		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Naphthalene	200	4.7	16		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Phenanthrene	470	3.5	12		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Pyrene	450	2.9	9.6		1	ug/Kg	06/22/06	SW846 3545	8270C-SIM
Surrogate		LCL	UCL						
Nitrobenzene-d5	56	10	141		1	%	06/22/06	SW846 3545	8270C-SIM
2-Fluorobiphenyl	72	10	161		1	%	06/22/06	SW846 3545	8270C-SIM
Terphenyl-d14	57	29	150		1	%	06/22/06	SW846 3545	8270C-SIM

Pace Analytical Services, Inc.

Analytical Report Number: 873142

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

Client: TWIN PORTS TESTING

Project Name: JONES DEVELOPMENT PARCEL

Project Number: 05E-2150

Field ID: ES-3

Matrix Type: SOIL

Collection Date: 06/15/06 Report Date: 06/28/06

Lab Sample Number: 873142-003

06/21/06 SW846 3545

8270C-SIM

Field ID: ES-3					Lab Sample Number: 873142-003						
INORGANICS											
Test		Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Lead		37	0.44	1.5		1	mg/Kg		06/27/06	SW846 3050B	SW846 6010B
Percent Solids		76.0				1	%		06/21/06	SM M2540G	SM M2540G
PVOC						7,53				Prep Dat	te: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Cod	e Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene		47	33	79		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M802
1,3,5-Trimethylbenzene		36	33	79		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M802
Benzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Ethylbenzene	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Methyl-tert-butyl-ether	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Toluene		39	33	79		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M802
Xylene, o	<	25	25	60		50	ug/Kg		06/21/06	SW846 5030B	SW846 M802
Xylenes, m + p		70	66	160		50	ug/Kg	Q	06/21/06	SW846 5030B	SW846 M8021
Surrogate			LCL	UCL							
a,a,a-Trifluorotoluene	*****	100	80	119		1	%		06/21/06	SW846 5030B	SW846 M8021
PAH/PNA										Prep Date	e: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Code	e Anl Date	Prep Method	Anl Method
1-Methylnaphthalene		110	4.0	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
2-Methylnaphthalene		330	4.1	14		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Acenaphthene		26	3.9	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Acenaphthylene		14	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Anthracene		69	4.7	16		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(a)anthracene		240	7.0	23		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(a)pyrene		280	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(b)fluoranthene		240	3.7	12		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(ghi)perylene		150	4.7	16		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(k)fluoranthene		200	4.0	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Chrysene		310	5.7	19		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Dibenz(a,h)anthracene		66	3.6	12		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Fluoranthene		430	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Fluorene		33	4.5	15		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Indeno(1,2,3-cd)pyrene		120	3.3	11		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Naphthalene		160	5.3	18		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Phenanthrene		260	3.9	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Pyrene		460	3.2	11		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Surrogate			LCL	UCL							
Nitrobenzene-d5		52	10	141		1	%		06/21/06	SW846 3545	8270C-SIM
2-Fluorobiphenyl		68	10	161		1	%		06/21/06	SW846 3545	8270C-SIM
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Terphenyl-d14

Pace Analytical Services, Inc.

Analytical Report Number: 873142

1241 Bellevue Street Green Bay, WI 54302 920-469-2436

Client: TWIN PORTS TESTING

Project Name: JONES DEVELOPMENT PARCEL

Project Number: 05E-2150

Field ID: ES-4

Matrix Type: SOIL

Collection Date: 06/16/06

Report Date: 06/28/06

Lab Sample Number: 873142-004

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INORGANICS											
Test		Result	LOD	LOQ	EQL	Dil.	Units	Code	Anl Date	Prep Method	Anl Method
Lead		25	0.45	1.5		1	mg/Kg		06/27/06	SW846 3050B	SW846 6010B
Percent Solids		75.1				1	%		06/21/06	SM M2540G	SM M2540G
PVOC										Prep Dat	te: 06/21/06
Analyte		Result	LOD	LOQ	EQL	Dil	Units	Cod	e Anl Date	Prep Method	Anl Method
1,2,4-Trimethylbenzene	<	24	24	57	2.4	50	ug/Kg	0	06/21/06	SCREEN	SCREEN
1,3,5-Trimethylbenzene	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Benzene	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Ethylbenzene	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Methyl-tert-butyl-ether	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Toluene	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Xylene, o	<	24	24	57		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Xylenes, m + p	<	47	47	110		50	ug/Kg	0	06/21/06	SCREEN	SCREEN
Surrogate			LCL	UCL							
a,a,a-Trifluorotoluene		100	80	119		1	%		06/21/06	SCREEN	SCREEN
PAH/PNA	H/PNA Prep Da				Prep Dat	e: 06/21/06					
Analyte		Result	LOD	LOQ	EQL	Dil.	Units	Code	e Anl Date	Prep Method	Anl Method
1-Methylnaphthalene	<	4.0	4.0	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
2-Methylnaphthalene	<	4.2	4.2	14		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Acenaphthene	<	4.0	4.0	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Acenaphthylene	<	3.8	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Anthracene	<	4.7	4.7	16		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(a)anthracene	<	7.1	7.1	24		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(a)pyrene	<	3.8	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(b)fluoranthene	<	3.7	3.7	12		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(ghi)perylene	<	4.7	4.7	16		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Benzo(k)fluoranthene	<	4.1	4.1	14		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Chrysene	<	5.8	5.8	19		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Dibenz(a,h)anthracene	<	3.7	3.7	12		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Fluoranthene	<	3.8	3.8	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Fluorene	<	4.5	4.5	15		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Indeno(1,2,3-cd)pyrene	<	3.3	3.3	11		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Naphthalene	<	5.3	5.3	18		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Phenanthrene	<	3.9	3.9	13		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Pyrene		3.3	3.3	11		1	ug/Kg		06/21/06	SW846 3545	8270C-SIM
Surrogate			LCL	UCL							
Nitrobenzene-d5		18	10	141	372	1	%		06/21/06	SW846 3545	8270C-SIM
2-Fluorobiphenyl		45	10	161		1	%		06/21/06	SW846 3545	8270C-SIM
Terphenyl-d14		48	29	150		1	%		06/21/06	SW846 3545	8270C-SIM
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Pace Analytical Services, Inc.

1241 Bellevue Street Green Bay, WI 54302 920-469-2436 Fax: 920-469-8827

Lab Number	TestGroupID	Field ID	Comment
873142-002	PAH+-S	ES-2	Internal standard failed due to matrix interference.
873142-004	PVOC-S-ME	ES-4	soil to Methanol ratio not at a 1:1 ratio for analysis (25.5g/24.1 mLs).
873142-004	PVOC-S-ME	ES-4	sample received overweight (25.5 grams).

Qualifier Codes

ODEN GENERAL	I Applies To	Explanation
A	Inorganic	Analyte is detected in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
В	Inorganic	The analyte has been detected between the method detection limit and the reporting limit.
В	Organic	Analyte is present in the method blank. Method blank criteria is evaluated to the laboratory method detection limit. Additionally, method blank acceptance may be based on project specific criteria or determined from analyte concentrations in the sample and are evaluated on a sample by sample basis.
C	All	Elevated detection limit.
D	All	Analyte value from diluted analysis or surrogate result not applicable due to sample dilution.
E	Inorganic	Estimated concentration due to matrix interferences. During the metals analysis the serial dilution failed to meet the established control limits of 0-10%. The sample concentration is greater than 50 times the IDL for analysis done on the ICP or 100 times the IDL for analysis done on the ICP-MS. The result was flagged with the E qualifier to indicate that a physical interference was observed.
E	Organic	Analyte concentration exceeds calibration range.
F	Inorganic	Due to potential interferences for this analysis by Inductively Coupled Plasma techniques (SW-846 Method 6010), this analyte has been confirmed by and reported from an alternate method.
F	Organic	Surrogate results outside control criteria.
G	All	The result is estimated because the concentration is less than the lowest calibration standard concentration utilized in the initial calibration. The method detection limit is less than the reporting limit specified for this project.
Н	All	Preservation, extraction or analysis performed past holding time.
HF	Inorganic	This test is considered a field parameter, and the recommended holding time is 15 minutes from collection. The analysis was performed in the laboratory beyond the recommended holding time.
J	All	Concentration detected equal to or greater than the method detection limit but less than the reporting limit.
K	Inorganic	Sample received unpreserved. Sample was either preserved at the time of receipt or at the time of sample preparation.
K	Organic	Detection limit may be elevated due to the presence of an unrequested analyte.
L	All	Elevated detection limit due to low sample volume.
M	Organic	Sample pH was greater than 2
N	All	Spiked sample recovery not within control limits.
0	Organic	Sample received overweight.
Р	Organic	The relative percent difference between the two columns for detected concentrations was greater than 40%.
Q	All	The analyte has been detected between the limit of detection (LOD) and limit of quantitation (LOQ). The results are qualified due to the uncertainty of analyte concentrations within this range.
S	Organic	The relative percent difference between quantitation and confirmation columns exceeds internal quality control criteria. Because the result is unconfirmed, it has been reported as a non-detect with an elevated detection limit.
U	All	The analyte was not detected at or above the reporting limit.
V	All	Sample received with headspace.
W	All	A second aliquot of sample was analyzed from a container with headspace.
X	All	See Sample Narrative.
Z	Organics	This compound was separated in the check standard but it did not meet the resolution criteria as set forth in SW846.
&	All	Laboratory Control Spike recovery not within control limits.
*	All	Precision not within control limits.
+	Inorganic	The sample result is greater than four times the spike level: therefore, the percent recovery is not evaluated.
<	All	The analyte was not detected at or above the reporting limit.
1	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses passed QC based on precision criteria.
2	Inorganic	Dissolved analyte or filtered analyte greater than total analyte; analyses failed QC based on precision criteria.
3	Inorganic	BOD result is estimated due to the BOD blank exceeding the allowable oxygen depletion.
4	Inorganic	BOD duplicate precision not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
5	Inorganic	BOD result is estimated due to insufficient oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
6	Inorganic	BOD laboratory control sample not within control limits. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.
7	Inorganic	BOD result is estimated due to complete oxygen depletion. Due to the 48 hour holding time for this test, it is not practical to reanalyze and try to correct the deficiency.

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Analysis Summary by Laboratory

1241 Bellevue Street Green Bay, WI 54302

Test Group Name	873142-001	873142-002	873142-003	873142-004	
LEAD	В	В	В	В	
PAH/PNA	В	В	В	В	
PERCENT SOLIDS	В	В	В	В	
PVOC	G	G	G	G	

Code	Facility	Address	WI Certification
В	Green Bay Lab (Bellevue St)	1241 Bellevue Street, Suite 9 Green Bay, WI 54302	405132750 / DATCP: 105-444
G	Green Bay Lab (Industrial Dr)	1795 Industrial Drive Green Bay, WI 54302	405132750

Sample Condition Upon Receipt

Pace Analytical Client Nam	ne:	T	PI			Pro	ject#_	873142
Courier: Fed Ex UPS USPS Clier Custody Seal on Cooler/Box Present: yes	nt 🔯 c			Pace	e Other_		Pro	tional j. Due Date j. Name
Packing Material: Bubble Wrap Bubble Thermometer Used		□ N	1	Other_		- Dis	2023.2	e, cooling process has begun
Cooler Temperature Temp should be above freezing to 6°C	Biolog	ical '	Tissue	is Froze	n: Yes No nts:		Date and Ir	nitials of person examining
Chain of Custody Present:	Yes	□No	□N/A	1.				, ,
Chain of Custody Filled Out:	Yes I	□No	□N/A	2.				
Chain of Custody Relinquished:	\\\\\Yes	□No	□N/A	<u>3.</u>				
Sampler Name & Signature on COC:	XYes (□No	□n/a	4.				
Samples Arrived within Hold Time:	Yes [□No	□n/a	5.				
Short Hold Time Analysis (<72hr):	□Yes ,	ZΝο	□n/a	<u>6.</u>				
Rush Turn Around Time Requested:	□Yes	Zho	□n/a	<u>7.</u>				
Sufficient Volume:	Yes [□No	□N/A	8.				
Correct Containers Used:	Yes [□No	□N/A	9.				
-Pace Containers Used:	Yes [□No	□n/A					*
Containers Intact:	ØŸes □	□No	□n/a	10.				
Filtered volume received for Dissolved tests	☐Yes [□No	DATA	11.				
Sample Labels match COC:	Ø(Yes □	□No	□N/A	12.				
-Includes date/time/ID/Analysis Matrix:		,	_					
All containers needing preservation have been checked.	□Yes □	□No	ZNIA	13.				
All containers needing preservation are found to be in compliance with EPA recommendation.	□Yes □	□No	Ø\via					
exceptions: VOA, coliform, TOC, O&G, WI-DRO (water)	□Yes □	□No		Initial when o	completed			
Samples checked for dechlorination:	□Yes □]No	MA	<u>14.</u>				
Headspace in VOA Vials (>6mm):	□Yes □]No	IDA IA	<u>15.</u>				
Trip Blank Present:	□Yes 🍃	No	□N/A	<u>16.</u>				
Trip Blank Custody Seals Present	□Yes □	ONE	DONA					
Pace Trip Blank Lot # (if purchased):								
Client Notification/ Resolution:						Fie	eld Data Requ	ired? Y / N
Person Contacted:			Date/T	ime:				
Comments/ Resolution:								
							10000	
Project Manager Review:			51	S 36/20/	56		Date:	

Note: Whenever there is a discrepancy affecting North Carolina compliance samples, a copy of this form will be sent to the North Carolina DEHNR Certification Office (i.e out of hold, incorrect preservative, out of temp, incorrect containers)

TPT Job # 06M4411

Sample # 128

PROTECT SAMPLE # 55A-1

Plastic Limit Determination

	Trial 1	Trial 2	Trial 3		
Moisture Tin No.	22				
Wt Moisture Tin	21.03				
Wt Wet Soll + Tare	30.10				
Wt Dry Soll + Tare	28.58			Average Plastic Limit=	20.1%
Wt Water	1.52	0.00	0.00		
Wt Dry Soil	7.55	0.00	0.00		
Moisture Content	20.1%	#DIV/0!	#DIV/0!		

Liquid Limit Determination

V	Trial 1	Trial 2	Trial 3	Trial 4
Moisture Tin No.	3	12	2	
Wt Moisture Tin	15.08	15.29	15.27	
Wt Wet Soll + Tare	23.96	23.46	24.05	
Wt Dry Soll + Tare	21.18	20.75	21.36	
Wt Water	2.780	2.710	2.69	0.00
Wt Dry Soil	6.10	5.46	6.09	0.00
Moisture Content	45.6%	49.6%	44.2%	#DIV/0!
Number of Blows	24	18	30	
Liquid Limit	45.35%	47.70%	45.16%	#DIV/0!

Average Liquid Limit--

46.1%

Plasticity Index--

25.9 %

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TPT Job #	06M4411

Sample # 127

Plastic Limit Determination

PROJECT SAMME = ESA-2

	Trial 1	Trial 2	Trial 3		
Moisture Tin No.	807				
Wt Moisture Tin	21.07				
Wt Wet Soll + Tare	26.99		1		
Wt Dry Soll + Tare	25.82			Average Plastic Limit⊨	24.6%
Wt Water	1.17	0.00	0.00		
Wt Dry Soil	4.75	0.00	0.00		
Moisture Content	24.6%	#DIV/0!	#DIV/0!		

Liquid Limit Determination

	Trial 1	Trial 2	Trial 3	Trial 4
Moisture Tin No.	110	108	1	
Wt Moisture Tin	21.09	20.94	15.06	
Wt Wet Soll + Tare	30.32	34.65	24.80	
Wt Dry Soil + Tare	26.94	29.58	21.41	
Wt Water	3.380	5.070	3.39	0.00
Wt Dry Soil	5.85	8.64	6.35	0.00
Moisture Content	57.8%	58.7%	53.4%	#DIV/0!
Number of Blows	20	18	30	
Liquid Limit	56.24%	56.39%	54.58%	#DIV/0!

Average Liquid Limit--

55.7%

Plasticity Index--

31.1 %

TPT Job # 06M4411

Sample # 112

PROJECT SAMPLE ESA-3

Plastic Limit Determination

	Trial 1	Trial 2	Trial 3		
Moisture Tin No.	111				
Wt Moisture Tin	20.99		1		
Wt Wet Soll + Tare	26.14				
Wt Dry Soll + Tare	25.74			Average Plastic Limit=	8.4%
Wt Water	0.40	0.00	0.00	200	
Wt Dry Soil	4.75	0.00	0.00		
Moisture Content	8.4%	#DIV/0!	#DIV/0!		

Liquid Limit Determination

	Trial 1	Trial 2	Trial 3	Trial 4
Moisture Tin No.	9	8	10	
Wt Moisture Tin	15.18	15.26	15.18	
Wt Wet Soll + Tare	25.02	23.75	25.17	
Wt Dry Soll + Tare	21.76	20.89	21.96	
Wt Water	3.260	2.860	3.21	0.00
Wt Dry Soil	6.58	5.63	6.78	0.00
Moisture Content	49.5%	50.8%	47.3%	#DIV/0!
Number of Blows	19	22	29	
Liquid Limit	47.93%	50.02%	48.20%	#DIV/0!

Average Liquid Limit--

48.7%

Plasticity Index--

40.3 %

TPT Job # 06M4411

Sample # 108

PREJECT SAMPLE # LFSP-1

Plastic Limit Determination

	Trial 1	Trial 2	Trial 3	<u></u>	
Moisture Tin No.	40				
Wt Moisture Tin	21.49				
Wt Wet Soil + Tare	34.75				
Wt Dry Soll + Tare	32.23			Average Plastic Limit=	23.5%
Wt Water	2.52	0.00	0.00		
Wt Dry Soil	10.74	0.00	0.00		
Moisture Content	23.5%	#DIV/0!	#DIV/0!		

Liquid Limit Determination

	Trial 1	Trial 2	Trial 3	Trial 4
Moisture Tin No.	5	4	13	
Wt Moisture Tin	15.16	15.23	21.03	
Wt Wet Soil + Tare	27.42	27.68	31.75	
Wt Dry Soll + Tare	23.22	23.35	28.23	
Wt Water	4.200	4.330	3.52	0.00
Wt Dry Soil	8.06	8.12	7.20	0.00
Moisture Content	52.1%	53.3%	48.9%	#DIV/0!
Number of Blows	20	16	29	
Liquid Limit	50.72%	50.52%	49.77%	#DIV/0!

Average Liquid Limit--

50.3%

Plasticity Index--

26.9 %

GRADATION REPORT



1301 NORTH THIRD STREET . SUPERIOR, WISCONSIN 54880 (715) 392-7114 ° FAX (715) 392-7163 728 GARFIELD AVENUE . DULUTH, MINNESOTA 55802 P.O. BOX 16246 · DULUTH, MINNESOTA 55816-0246 (218) 722-1911

SINCE 1972

TS TESTING, inc.

Project Moccasin M"

Client TPT F

Description

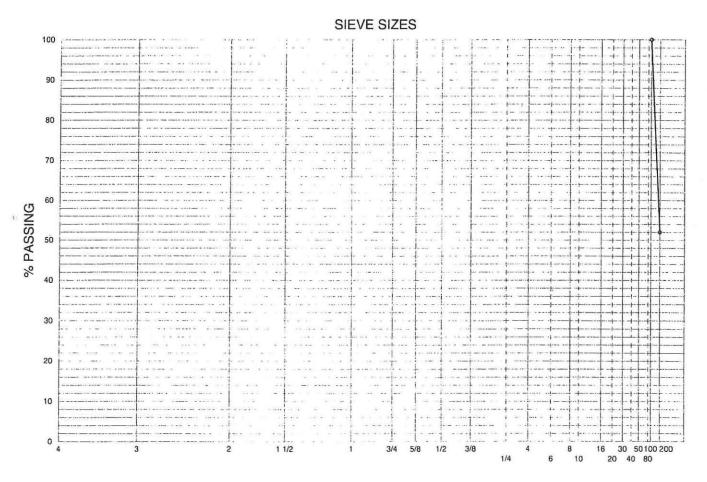
Specific Project Moccasin Mike Landfill Client TPT Environmental 2006

Source Clay Stockpile Copies To

TPT#	06M4411
Lab Sample No.	108
Sampled By	Camon
Date Sampled	06/16/06
Date Tested	06/16/06

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Remarks