

QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail
Pace Project No.: 35333909

QC Batch:	397225	Analysis Method:	EPA 8270 by SIM
QC Batch Method:	EPA 3510	Analysis Description:	8270 MSSV PAH by SIM SPLP
Associated Lab Samples:	35333909016, 35333909020, 35333909032, 35333909034, 35333909043, 35333909051, 35333909053		

METHOD BLANK:	2167949	Matrix:	Water
Associated Lab Samples:	35333909016, 35333909020, 35333909032, 35333909034, 35333909043, 35333909051, 35333909053		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	10/07/17 06:01	
2-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	10/07/17 06:01	
Acenaphthene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Acenaphthylene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Anthracene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Benzo(a)anthracene	ug/L	0.025 U	0.10	0.025	10/07/17 06:01	
Benzo(a)pyrene	ug/L	0.025 U	0.10	0.025	10/07/17 06:01	
Benzo(b)fluoranthene	ug/L	0.025 U	0.10	0.025	10/07/17 06:01	
Benzo(g,h,i)perylene	ug/L	0.028 U	0.50	0.028	10/07/17 06:01	
Benzo(k)fluoranthene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Chrysene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Dibenz(a,h)anthracene	ug/L	0.034 U	0.10	0.034	10/07/17 06:01	
Fluoranthene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Fluorene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	0.10	0.029	10/07/17 06:01	
Naphthalene	ug/L	1.0 U	2.0	1.0	10/07/17 06:01	
Phenanthrene	ug/L	0.050 U	0.50	0.050	10/07/17 06:01	
Pyrene	ug/L	0.025 U	0.50	0.025	10/07/17 06:01	
2-Fluorobiphenyl (S)	%	69	33-101		10/07/17 06:01	
Terphenyl-d14 (S)	%	54	38-115		10/07/17 06:01	

LABORATORY CONTROL SAMPLE: 2167950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	5	3.5	70	33-118	
2-Methylnaphthalene	ug/L	5	2.7	54	34-104	
Acenaphthene	ug/L	5	3.2	64	38-109	
Acenaphthylene	ug/L	5	3.3	67	31-115	
Anthracene	ug/L	5	3.8	75	38-111	
Benzo(a)anthracene	ug/L	5	3.3	66	36-110	
Benzo(a)pyrene	ug/L	5	3.9	78	27-107	
Benzo(b)fluoranthene	ug/L	5	4.1	81	32-119	
Benzo(g,h,i)perylene	ug/L	5	6.2	125	10-109 J(L1)	
Benzo(k)fluoranthene	ug/L	5	5.3	106	28-118	
Chrysene	ug/L	5	6.0	121	33-130	
Dibenz(a,h)anthracene	ug/L	5	5.2	103	10-104	
Fluoranthene	ug/L	5	3.5	70	45-115	
Fluorene	ug/L	5	3.2	63	41-114	
Indeno(1,2,3-cd)pyrene	ug/L	5	5.1	101	10-104	
Naphthalene	ug/L	5	3.1	62	38-100	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

LABORATORY CONTROL SAMPLE: 2167950

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	5	3.6	73	41-106	
Pyrene	ug/L	5	3.2	65	45-115	
2-Fluorobiphenyl (S)	%			64	33-101	
Terphenyl-d14 (S)	%			58	38-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2167958 2167959

Parameter	Units	35333594003 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
1-Methylnaphthalene	ug/L	1.0 U	5	5	2.9	2.6	57	52	33-118	10	40	
2-Methylnaphthalene	ug/L	1.0 U	5	5	2.2	2.0 I	45	39	34-104		40	
Acenaphthene	ug/L	0.025 U	5	5	2.7	2.5	54	50	38-109	8	40	
Acenaphthylene	ug/L	1.7	5	5	3.1	3.0	29	27	31-115	3	40	J(M1)
Anthracene	ug/L	0.025 U	5	5	3.3	3.3	65	66	38-111	0	40	
Benzo(a)anthracene	ug/L	1.8	5	5	4.0	3.6	43	36	36-110	10	40	
Benzo(a)pyrene	ug/L	0.025 U	5	5	4.4	4.3	88	85	27-107	3	40	
Benzo(b)fluoranthene	ug/L	2.1	5	5	5.1	5.0	60	58	32-119	2	40	
Benzo(g,h,i)perylene	ug/L	0.028 U	5	5	7.2	6.9	144	138	10-109	5	40	J(M0)
Benzo(k)fluoranthene	ug/L	0.025 U	5	5	5.1	4.5	102	90	28-118	13	40	
Chrysene	ug/L	1.0	5	5	5.4	6.0	88	100	33-130	10	40	
Dibenz(a,h)anthracene	ug/L	0.034 U	5	5	5.3	5.0	106	100	10-104	7	40	J(M1)
Fluoranthene	ug/L	1.6	5	5	3.8	3.8	44	42	45-115	2	40	J(M1)
Fluorene	ug/L	0.025 U	5	5	2.8	2.6	56	52	41-114	6	40	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	5	5	6.1	5.6	122	111	10-104	9	40	J(M1)
Naphthalene	ug/L	1.0 U	5	5	2.5	2.2	49	44	38-100	11	40	
Phenanthrene	ug/L	0.19 I	5	5	3.5	3.3	65	62	41-106	6	40	
Pyrene	ug/L	1.3	5	5	3.7	3.6	49	47	45-115	3	40	
2-Fluorobiphenyl (S)	%						52	49	33-101			
Terphenyl-d14 (S)	%						57	55	38-115			

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail
Pace Project No.: 35333909

QC Batch:	391589	Analysis Method:	FL-PRO
QC Batch Method:	EPA 3546	Analysis Description:	FL-PRO Soil
Associated Lab Samples:	35333909001, 35333909002, 35333909003, 35333909004, 35333909005, 35333909007, 35333909008, 35333909010, 35333909011, 35333909013, 35333909014, 35333909016, 35333909017, 35333909018, 35333909019		

METHOD BLANK:	2131768	Matrix:	Solid
Associated Lab Samples:	35333909001, 35333909002, 35333909003, 35333909004, 35333909005, 35333909007, 35333909008, 35333909010, 35333909011, 35333909013, 35333909014, 35333909016, 35333909017, 35333909018, 35333909019		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/kg	2.6 U	4.0	2.6	09/07/17 12:00	
N-Pentatriacontane (S)	%	87	42-159		09/07/17 12:00	
o-Terphenyl (S)	%	88	62-109		09/07/17 12:00	

LABORATORY CONTROL SAMPLE: 2131769

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/kg	200	140	70	63-153	
N-Pentatriacontane (S)	%			78	42-159	
o-Terphenyl (S)	%			71	62-109	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2132049 2132050

Parameter	Units	35333909001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Petroleum Range Organics	mg/kg	4.7	211	212	162	164	75	75	51-215	1	25	
N-Pentatriacontane (S)	%						79	89	42-159			
o-Terphenyl (S)	%						71	89	62-109			

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

QC Batch:	391591	Analysis Method:	FL-PRO
QC Batch Method:	EPA 3546	Analysis Description:	FL-PRO Soil
Associated Lab Samples:	35333909020, 35333909021, 35333909026, 35333909027, 35333909029, 35333909030, 35333909031, 35333909032, 35333909033, 35333909034, 35333909035, 35333909036, 35333909037, 35333909038, 35333909039, 35333909040, 35333909043, 35333909044, 35333909048, 35333909049		

METHOD BLANK: 2131776

Matrix: Solid

Associated Lab Samples: 35333909020, 35333909021, 35333909026, 35333909027, 35333909029, 35333909030, 35333909031, 35333909032, 35333909033, 35333909034, 35333909035, 35333909036, 35333909037, 35333909038, 35333909039, 35333909040, 35333909043, 35333909044, 35333909048, 35333909049

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/kg	2.5 U	4.0	2.5	09/08/17 17:50	
N-Pentatriacontane (S)	%	117	42-159		09/08/17 17:50	
o-Terphenyl (S)	%	97	62-109		09/08/17 17:50	

LABORATORY CONTROL SAMPLE: 2131777

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/kg	199	196	99	63-153	
N-Pentatriacontane (S)	%			91	42-159	
o-Terphenyl (S)	%			122	62-109 J(S0)	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2132801

2132802

Parameter	Units	35333909044 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Petroleum Range Organics	mg/kg	4.3	211	211	135	163	62	75	51-215	19	25	
N-Pentatriacontane (S)	%						342	115	42-159			J(S0)
o-Terphenyl (S)	%						189	80	62-109			J(S0)

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail
Pace Project No.: 35333909

QC Batch:	391801	Analysis Method:	FL-PRO
QC Batch Method:	EPA 3546	Analysis Description:	FL-PRO Soil
Associated Lab Samples:	35333909050, 35333909051, 35333909053, 35333909054, 35333909057, 35333909058, 35333909060, 35333909061, 35333909062, 35333909063, 35333909067, 35333909068		

METHOD BLANK:	2132833	Matrix:	Solid
Associated Lab Samples:	35333909050, 35333909051, 35333909053, 35333909054, 35333909057, 35333909058, 35333909060, 35333909061, 35333909062, 35333909063, 35333909067, 35333909068		

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/kg	2.6 U	4.0	2.6	09/08/17 23:05	
N-Pentatriacontane (S)	%	114	42-159		09/08/17 23:05	
o-Terphenyl (S)	%	103	62-109		09/08/17 23:05	

LABORATORY CONTROL SAMPLE: 2132834

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/kg	203	194	95	63-153	
N-Pentatriacontane (S)	%			91	42-159	
o-Terphenyl (S)	%			120	62-109 J(S0)	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2133650 2133651

Parameter	Units	35333909050 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Petroleum Range Organics	mg/kg	27.2	210	208	211	208	88	87	51-215	2	25	
N-Pentatriacontane (S)	%						89	119	42-159			
o-Terphenyl (S)	%						112	110	62-109			J(S0)

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

QC Batch: 395990

Analysis Method: TPH in Soil

QC Batch Method: TPH in Soil

Analysis Description: TPHCWGSL Soil

Associated Lab Samples: 35333909033, 35333909034

METHOD BLANK: 2160055

Matrix: Solid

Associated Lab Samples: 35333909033, 35333909034

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Aliphatic (>C05-C06)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aliphatic (>C06-C08)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aliphatic (>C08-C10)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aliphatic (>C10-C12)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aliphatic (>C12-C16)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aliphatic (>C16-C35)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C05-C07)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C07-C08)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C08-C10)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C10-C12)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C12-C16)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C16-C21)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
Aromatic (>C21-C35)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	
TPH Total (C05-C35)	mg/kg	6.8 U	19.5	6.8	10/02/17 07:59	

LABORATORY CONTROL SAMPLE: 2160056

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
TPH Total (C05-C35)	mg/kg	2430	1670	69	60-140	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2160057 2160058

Parameter	Units	35338783001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
TPH Total (C05-C35)	mg/kg	114	2440	2480	2550	2590	100	100	60-140	2	30	Q

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

QC Batch:	391446	Analysis Method:	ASTM D2974-87
QC Batch Method:	ASTM D2974-87	Analysis Description:	Dry Weight/Percent Moisture
Associated Lab Samples:	35333909001, 35333909002, 35333909003, 35333909004, 35333909005, 35333909006, 35333909007, 35333909008, 35333909009, 35333909010, 35333909011, 35333909012, 35333909013, 35333909014, 35333909015, 35333909016, 35333909017, 35333909018, 35333909019, 35333909020, 35333909021, 35333909022, 35333909023, 35333909024, 35333909025		

SAMPLE DUPLICATE: 2130928

Parameter	Units	35333926001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.8	10.3	63	10	J(D6)

SAMPLE DUPLICATE: 2130929

Parameter	Units	35333937001 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.1	12.3	11	10	J(D6)

SAMPLE DUPLICATE: 2130930

Parameter	Units	35333863002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.7	6.8	17	10	J(D6)

SAMPLE DUPLICATE: 2130931

Parameter	Units	35333872007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	11.2	11.3	1	10	

SAMPLE DUPLICATE: 2130932

Parameter	Units	35333909007 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	5.3	5.3	0	10	

SAMPLE DUPLICATE: 2130933

Parameter	Units	35333909016 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	7.5	6.9	8	10	

SAMPLE DUPLICATE: 2130934

Parameter	Units	35333909025 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	19.5	17.7	10	10	

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

SAMPLE DUPLICATE: 2130935

Parameter	Units	35333909034 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.8	4.0	17	10	J(D6)

SAMPLE DUPLICATE: 2130936

Parameter	Units	35333909043 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.1	5.4	12	10	J(D6)

SAMPLE DUPLICATE: 2130937

Parameter	Units	35333909052 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.7	11.5	7	10	

SAMPLE DUPLICATE: 2130938

Parameter	Units	35333909061 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	20.2	19.9	2	10	

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail
Pace Project No.: 35333909

QC Batch: 391643 Analysis Method: ASTM D2974-87
QC Batch Method: ASTM D2974-87 Analysis Description: Dry Weight/Percent Moisture
Associated Lab Samples: 35333909067, 35333909068, 35333909069, 35333909070, 35333909071

SAMPLE DUPLICATE: 2132012

Parameter	Units	35331721008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	12.6	14.6	14	10	J(D6)

SAMPLE DUPLICATE: 2132013

Parameter	Units	35333909070 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.2	9.9	46	10	J(D6)

SAMPLE DUPLICATE: 2132014

Parameter	Units	35333931006 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	16.1	16.1	0	10	

SAMPLE DUPLICATE: 2132015

Parameter	Units	35334188002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	3.4	2.9	16	10	J(D6)

SAMPLE DUPLICATE: 2132016

Parameter	Units	35334188011 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	4.5	4.2	7	10	

SAMPLE DUPLICATE: 2132017

Parameter	Units	35333985008 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.8	12.3	13	10	J(D6)

SAMPLE DUPLICATE: 2132018

Parameter	Units	35334090002 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	6.6	5.1	26	10	J(D6)

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QUALITY CONTROL DATA

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

SAMPLE DUPLICATE: 2132019

Parameter	Units	35334152004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	10.3	9.9	4	10	

SAMPLE DUPLICATE: 2132020

Parameter	Units	35333437004 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	64.6	62.6	3	10	

SAMPLE DUPLICATE: 2132021

Parameter	Units	35333747003 Result	Dup Result	RPD	Max RPD	Qualifiers
Percent Moisture	%	59.9	62.9	5	10	

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QUALIFIERS

Project: 09217186.00/Ludlum Trail
Pace Project No.: 35333909

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-C Pace Analytical Services - Charlotte
PASI-O Pace Analytical Services - Ormond Beach

BATCH QUALIFIERS

Batch: 395986
[M5] A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.

ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U Compound was analyzed for but not detected.
1p A matrix spike/matrix spike duplicate was not performed for this batch due to insufficient sample volume.
2p Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
3p The internal standard response is below criteria. No hits associated with this internal standard. Results unaffected by high bias.
CH The continuing calibration for this compound is outside of Pace Analytical acceptance limits. The results may be biased high.
CU The continuing calibration for this compound is outside of Pace Analytical acceptance limits. Analyte presence below reporting limits in associated samples.
D3 Sample was diluted due to the presence of high levels of non-target analytes or other matrix interference.
J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
J(L1) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

REPORT OF LABORATORY ANALYSIS

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QUALIFIERS

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

ANALYTE QUALIFIERS

J(M0)	Estimated Value. Matrix spike recovery was outside laboratory control limits.
J(M1)	Estimated Value. Matrix spike recovery exceeded QC limits. Batch accepted based on laboratory control sample (LCS) recovery.
J(R1)	Estimated Value. RPD value was outside control limits.
J(S0)	Estimated Value. Surrogate recovery outside laboratory control limits.
J(S5)	Estimated Value. Surrogate recovery outside control limits due to matrix interferences (not confirmed by re-analysis).
Q	Sample held beyond the accepted holding time.
S3	Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.
V	Indicates that the analyte was detected in both the sample and the associated method blank.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909001	SB-6 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909002	SB-6 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909003	SB-6 (2-4)	EPA 3546	391589	FL-PRO	391926
35333909004	SB-5 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909005	SB-5 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909007	SB-17 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909008	SB-17 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909010	SB-23 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909011	SB-23 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909013	SB-7 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909014	SB-7 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909016	SB-10-1 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909017	SB-10-1 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909018	SB-10-2 (0-0.5)	EPA 3546	391589	FL-PRO	391926
35333909019	SB-10-2 (0.5-2)	EPA 3546	391589	FL-PRO	391926
35333909020	SB-10-3 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909021	SB-10-3 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909026	SB-10-4 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909027	SB-10-4 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909029	SB-10-5 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909030	SB-10-5 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909031	SB-8 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909032	SB-8 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909033	SB-8 (2-4)	EPA 3546	391591	FL-PRO	391927
35333909034	SB-9 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909035	SB-9 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909036	SB-9 (2-4)	EPA 3546	391591	FL-PRO	391927
35333909037	SB-19 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909038	SB-19 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909039	SB-18 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909040	SB-18 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909043	SB-21-4 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909044	SB-21-4 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909048	SB-21-5 (0-0.5)	EPA 3546	391591	FL-PRO	391927
35333909049	SB-21-5 (0.5-2)	EPA 3546	391591	FL-PRO	391927
35333909050	SB-4 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909051	SB-4 (0.5-2)	EPA 3546	391801	FL-PRO	391930
35333909053	SB-3 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909054	SB-3 (0.5-2)	EPA 3546	391801	FL-PRO	391930
35333909057	SB-2 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909058	SB-2 (0.5-2)	EPA 3546	391801	FL-PRO	391930
35333909060	SB-21-1 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909061	SB-21-1 (0.5-2)	EPA 3546	391801	FL-PRO	391930
35333909062	SB-21-2 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909063	SB-21-2 (0.5-2)	EPA 3546	391801	FL-PRO	391930
35333909067	SB-21-3 (0-0.5)	EPA 3546	391801	FL-PRO	391930
35333909068	SB-21-3 (0.5-2)	EPA 3546	391801	FL-PRO	391930

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909033	SB-8 (2-4)	TPH in Soil	395990	TPH in Soil	396015
35333909034	SB-9 (0-0.5)	TPH in Soil	395990	TPH in Soil	396015
35333909001	SB-6 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909002	SB-6 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909003	SB-6 (2-4)	EPA 3050	391696	EPA 6010	391876
35333909004	SB-5 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909005	SB-5 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909007	SB-17 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909008	SB-17 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909010	SB-23 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909011	SB-23 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909013	SB-7 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909014	SB-7 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909016	SB-10-1 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909017	SB-10-1 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909018	SB-10-2 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909019	SB-10-2 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909020	SB-10-3 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909021	SB-10-3 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909026	SB-10-4 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909027	SB-10-4 (0.5-2)	EPA 3050	391696	EPA 6010	391876
35333909029	SB-10-5 (0-0.5)	EPA 3050	391696	EPA 6010	391876
35333909030	SB-10-5 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909031	SB-8 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909032	SB-8 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909033	SB-8 (2-4)	EPA 3050	392003	EPA 6010	392139
35333909034	SB-9 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909035	SB-9 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909036	SB-9 (2-4)	EPA 3050	392003	EPA 6010	392139
35333909037	SB-19 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909038	SB-19 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909039	SB-18 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909040	SB-18 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909043	SB-21-4 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909044	SB-21-4 (0.5-2)	EPA 3050	392003	EPA 6010	392139
35333909048	SB-21-5 (0-0.5)	EPA 3050	392003	EPA 6010	392139
35333909049	SB-21-5 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909050	SB-4 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909051	SB-4 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909053	SB-3 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909054	SB-3 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909057	SB-2 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909058	SB-2 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909060	SB-21-1 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909061	SB-21-1 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909062	SB-21-2 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909063	SB-21-2 (0.5-2)	EPA 3050	392004	EPA 6010	392138

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909067	SB-21-3 (0-0.5)	EPA 3050	392004	EPA 6010	392138
35333909068	SB-21-3 (0.5-2)	EPA 3050	392004	EPA 6010	392138
35333909018	SB-10-2 (0-0.5)	EPA 3010	396515	EPA 6010	396552
35333909032	SB-8 (0.5-2)	EPA 3010	396515	EPA 6010	396552
35333909036	SB-9 (2-4)	EPA 3010	396515	EPA 6010	396552
35333909002	SB-6 (0.5-2)	EPA 3010	394973	EPA 6010	395135
35333909043	SB-21-4 (0-0.5)	EPA 3010	394973	EPA 6010	395135
35333909062	SB-21-2 (0-0.5)	EPA 3010	394973	EPA 6010	395135
35333909001	SB-6 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909002	SB-6 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909003	SB-6 (2-4)	EPA 3546	391590	EPA 8270	391884
35333909004	SB-5 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909005	SB-5 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909006	SB-5 (2-4)	EPA 3546	393468	EPA 8270	393595
35333909007	SB-17 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909008	SB-17 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909010	SB-23 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909011	SB-23 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909012	SB-23 (2-4)	EPA 3546	393104	EPA 8270	393491
35333909013	SB-7 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909014	SB-7 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909015	SB-7 (2-4)	EPA 3546	393468	EPA 8270	393595
35333909016	SB-10-1 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909017	SB-10-1 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909018	SB-10-2 (0-0.5)	EPA 3546	391590	EPA 8270	391884
35333909019	SB-10-2 (0.5-2)	EPA 3546	391590	EPA 8270	391884
35333909020	SB-10-3 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909021	SB-10-3 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909026	SB-10-4 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909027	SB-10-4 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909029	SB-10-5 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909030	SB-10-5 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909031	SB-8 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909032	SB-8 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909033	SB-8 (2-4)	EPA 3546	391624	EPA 8270	392075
35333909034	SB-9 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909035	SB-9 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909036	SB-9 (2-4)	EPA 3546	391624	EPA 8270	392075
35333909036	SB-9 (2-4)	EPA 3546	392712	EPA 8270	393140
35333909037	SB-19 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909037	SB-19 (0-0.5)	EPA 3546	392712	EPA 8270	393140
35333909038	SB-19 (0.5-2)	EPA 3546	391624	EPA 8270	392075

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909038	SB-19 (0.5-2)	EPA 3546	392712	EPA 8270	393140
35333909039	SB-18 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909040	SB-18 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909043	SB-21-4 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909044	SB-21-4 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909044	SB-21-4 (0.5-2)	EPA 3546	392712	EPA 8270	393140
35333909048	SB-21-5 (0-0.5)	EPA 3546	391624	EPA 8270	392075
35333909048	SB-21-5 (0-0.5)	EPA 3546	392712	EPA 8270	393140
35333909049	SB-21-5 (0.5-2)	EPA 3546	391624	EPA 8270	392075
35333909049	SB-21-5 (0.5-2)	EPA 3546	392712	EPA 8270	393140
35333909050	SB-4 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909051	SB-4 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909052	SB-4 (2-4)	EPA 3546	393468	EPA 8270	393595
35333909053	SB-3 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909054	SB-3 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909057	SB-2 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909058	SB-2 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909059	SB-2 (2-4)	EPA 3546	393468	EPA 8270	393595
35333909060	SB-21-1 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909061	SB-21-1 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909062	SB-21-2 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909063	SB-21-2 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909066	SB-21-2 (6-8)	EPA 3546	393468	EPA 8270	393595
35333909067	SB-21-3 (0-0.5)	EPA 3546	391800	EPA 8270	392145
35333909068	SB-21-3 (0.5-2)	EPA 3546	391800	EPA 8270	392145
35333909071	SB-21-3 (6-8)	EPA 3546	393468	EPA 8270	393595
35333909002	SB-6 (0.5-2)	EPA 3510	395986	EPA 8270 by SIM	396733
35333909006	SB-5 (2-4)	EPA 3510	395986	EPA 8270 by SIM	396733
35333909010	SB-23 (0-0.5)	EPA 3510	395986	EPA 8270 by SIM	396733
35333909013	SB-7 (0-0.5)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909016	SB-10-1 (0-0.5)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909019	SB-10-2 (0.5-2)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909020	SB-10-3 (0-0.5)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909032	SB-8 (0.5-2)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909034	SB-9 (0-0.5)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909043	SB-21-4 (0-0.5)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909048	SB-21-5 (0-0.5)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909051	SB-4 (0.5-2)	EPA 3510	397225	EPA 8270 by SIM	397274

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909053	SB-3 (0-0.5)	EPA 3510	397225	EPA 8270 by SIM	397274
35333909058	SB-2 (0.5-2)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909061	SB-21-1 (0.5-2)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909067	SB-21-3 (0-0.5)	EPA 3510	393795	EPA 8270 by SIM	394093
35333909004	SB-5 (0-0.5)	EPA 8260	376884		
35333909005	SB-5 (0.5-2)	EPA 8260	376884		
35333909007	SB-17 (0-0.5)	EPA 8260	376884		
35333909008	SB-17 (0.5-2)	EPA 8260	376884		
35333909010	SB-23 (0-0.5)	EPA 8260	376884		
35333909011	SB-23 (0.5-2)	EPA 8260	376884		
35333909013	SB-7 (0-0.5)	EPA 8260	376884		
35333909014	SB-7 (0.5-2)	EPA 8260	376884		
35333909016	SB-10-1 (0-0.5)	EPA 8260	376884		
35333909017	SB-10-1 (0.5-2)	EPA 8260	376884		
35333909018	SB-10-2 (0-0.5)	EPA 8260	376884		
35333909019	SB-10-2 (0.5-2)	EPA 8260	376884		
35333909020	SB-10-3 (0-0.5)	EPA 8260	376884		
35333909021	SB-10-3 (0.5-2)	EPA 8260	376884		
35333909026	SB-10-4 (0-0.5)	EPA 8260	376884		
35333909027	SB-10-4 (0.5-2)	EPA 8260	376885		
35333909029	SB-10-5 (0-0.5)	EPA 8260	376885		
35333909030	SB-10-5 (0.5-2)	EPA 8260	376885		
35333909037	SB-19 (0-0.5)	EPA 8260	376885		
35333909038	SB-19 (0.5-2)	EPA 8260	376885		
35333909039	SB-18 (0-0.5)	EPA 8260	376885		
35333909040	SB-18 (0.5-2)	EPA 8260	376917		
35333909043	SB-21-4 (0-0.5)	EPA 8260	376917		
35333909044	SB-21-4 (0.5-2)	EPA 8260	376917		
35333909048	SB-21-5 (0-0.5)	EPA 8260	376917		
35333909049	SB-21-5 (0.5-2)	EPA 8260	376917		
35333909053	SB-3 (0-0.5)	EPA 8260	376917		
35333909054	SB-3 (0.5-2)	EPA 8260	376917		
35333909060	SB-21-1 (0-0.5)	EPA 8260	376917		
35333909061	SB-21-1 (0.5-2)	EPA 8260	376917		
35333909062	SB-21-2 (0-0.5)	EPA 8260	377004		
35333909063	SB-21-2 (0.5-2)	EPA 8260	376917		
35333909067	SB-21-3 (0-0.5)	EPA 8260	376917		
35333909068	SB-21-3 (0.5-2)	EPA 8260	376917		
35333909001	SB-6 (0-0.5)	ASTM D2974-87	391446		
35333909002	SB-6 (0.5-2)	ASTM D2974-87	391446		
35333909003	SB-6 (2-4)	ASTM D2974-87	391446		
35333909004	SB-5 (0-0.5)	ASTM D2974-87	391446		
35333909005	SB-5 (0.5-2)	ASTM D2974-87	391446		
35333909006	SB-5 (2-4)	ASTM D2974-87	391446		
35333909007	SB-17 (0-0.5)	ASTM D2974-87	391446		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909008	SB-17 (0.5-2)	ASTM D2974-87	391446		
35333909009	SB-17 (2-4)	ASTM D2974-87	391446		
35333909010	SB-23 (0-0.5)	ASTM D2974-87	391446		
35333909011	SB-23 (0.5-2)	ASTM D2974-87	391446		
35333909012	SB-23 (2-4)	ASTM D2974-87	391446		
35333909013	SB-7 (0-0.5)	ASTM D2974-87	391446		
35333909014	SB-7 (0.5-2)	ASTM D2974-87	391446		
35333909015	SB-7 (2-4)	ASTM D2974-87	391446		
35333909016	SB-10-1 (0-0.5)	ASTM D2974-87	391446		
35333909017	SB-10-1 (0.5-2)	ASTM D2974-87	391446		
35333909018	SB-10-2 (0-0.5)	ASTM D2974-87	391446		
35333909019	SB-10-2 (0.5-2)	ASTM D2974-87	391446		
35333909020	SB-10-3 (0-0.5)	ASTM D2974-87	391446		
35333909021	SB-10-3 (0.5-2)	ASTM D2974-87	391446		
35333909022	SB-10-3 (2-4)	ASTM D2974-87	391446		
35333909023	SB-23 (4-6)	ASTM D2974-87	391446		
35333909024	SB-23 (6-8)	ASTM D2974-87	391446		
35333909025	SB-23 (8-10)	ASTM D2974-87	391446		
35333909026	SB-10-4 (0-0.5)	ASTM D2974-87	391446		
35333909027	SB-10-4 (0.5-2)	ASTM D2974-87	391446		
35333909028	SB-10-4 (2-4)	ASTM D2974-87	391446		
35333909029	SB-10-5 (0-0.5)	ASTM D2974-87	391446		
35333909030	SB-10-5 (0.5-2)	ASTM D2974-87	391446		
35333909031	SB-8 (0-0.5)	ASTM D2974-87	391446		
35333909032	SB-8 (0.5-2)	ASTM D2974-87	391446		
35333909033	SB-8 (2-4)	ASTM D2974-87	391446		
35333909034	SB-9 (0-0.5)	ASTM D2974-87	391446		
35333909035	SB-9 (0.5-2)	ASTM D2974-87	391446		
35333909036	SB-9 (2-4)	ASTM D2974-87	391446		
35333909037	SB-19 (0-0.5)	ASTM D2974-87	391446		
35333909038	SB-19 (0.5-2)	ASTM D2974-87	391446		
35333909039	SB-18 (0-0.5)	ASTM D2974-87	391446		
35333909040	SB-18 (0.5-2)	ASTM D2974-87	391446		
35333909041	SB-18 (2-4)	ASTM D2974-87	391446		
35333909042	SB-18 (4-6)	ASTM D2974-87	391446		
35333909043	SB-21-4 (0-0.5)	ASTM D2974-87	391446		
35333909044	SB-21-4 (0.5-2)	ASTM D2974-87	391446		
35333909045	SB-21-4 (2-4)	ASTM D2974-87	391446		
35333909046	SB-21-4 (4-6)	ASTM D2974-87	391446		
35333909047	SB-21-4 (6-8)	ASTM D2974-87	391446		
35333909048	SB-21-5 (0-0.5)	ASTM D2974-87	391446		
35333909049	SB-21-5 (0.5-2)	ASTM D2974-87	391446		
35333909050	SB-4 (0-0.5)	ASTM D2974-87	391446		
35333909051	SB-4 (0.5-2)	ASTM D2974-87	391446		
35333909052	SB-4 (2-4)	ASTM D2974-87	391446		
35333909053	SB-3 (0-0.5)	ASTM D2974-87	391446		
35333909054	SB-3 (0.5-2)	ASTM D2974-87	391446		
35333909055	SB-3 (2-4)	ASTM D2974-87	391446		
35333909056	SB-3 (4-6)	ASTM D2974-87	391446		

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: 09217186.00/Ludlum Trail

Pace Project No.: 35333909

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333909057	SB-2 (0-0.5)	ASTM D2974-87	391446		
35333909058	SB-2 (0.5-2)	ASTM D2974-87	391446		
35333909059	SB-2 (2-4)	ASTM D2974-87	391446		
35333909060	SB-21-1 (0-0.5)	ASTM D2974-87	391446		
35333909061	SB-21-1 (0.5-2)	ASTM D2974-87	391446		
35333909062	SB-21-2 (0-0.5)	ASTM D2974-87	391446		
35333909063	SB-21-2 (0.5-2)	ASTM D2974-87	391446		
35333909064	SB-21-2 (2-4)	ASTM D2974-87	391446		
35333909065	SB-21-2 (4-6)	ASTM D2974-87	391446		
35333909066	SB-21-2 (6-8)	ASTM D2974-87	391446		
35333909067	SB-21-3 (0-0.5)	ASTM D2974-87	391643		
35333909068	SB-21-3 (0.5-2)	ASTM D2974-87	391643		
35333909069	SB-21-3 (2-4)	ASTM D2974-87	391643		
35333909070	SB-21-3 (4-6)	ASTM D2974-87	391643		
35333909071	SB-21-3 (6-8)	ASTM D2974-87	391643		

REPORT OF LABORATORY ANALYSIS

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W0# : 35333909



35333909

IN-OF-CUSTODY / Analytical Request Document

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

Section A Required Client Information:

Company: SCS Engineers
Address: 7700 N Kendall Drive
Miami, FL 33156
Email: sansong@scsengineers.com
Phone: NONE
Fax:
Requested Due Date:

Section C Invoice Information:

Report to: Stephen Ansong
Copy To:
Company Name:
Address:
Purchase Order #:
Project Name: Ludlum Trail
Project #: 0921186 00
Pace Project Manager: christina.raschke@pacelabs.com
Pace Profile #: 8122-13

Page : 1 Of 2

Regulatory Agency

State / Location
FL

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	DATE	TIME	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS
			START	END										
1	SB-6 (0-0.5)		9/11/15	1310			9/11/15	1310						
2	SB-6 (0.5-2)		9/11/15	1313			9/11/15	1313						
3	SB-6 (2-4)		9/11/15	1316			9/11/15	1316						
4														
5														
6														
7														
8														
9														
10														
11														
12														

TEMP in C	Received on	Custody	Sealed	Cooler	Intact

SAMPLER NAME AND SIGNATURE	
PRINT Name of SAMPLER:	DATE Signed:
Christina Raschke	9/11/15
SIGNATURE of SAMPLER:	

CHAIN-OF-CUSTODY / Analytical Request Document

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

[illegible][illegible]

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SCS Engineers	Report To:	Stephen Ansong		
Address:	7700 N Kendall Drive Miami, FL 33156	Copy To:	<i>Anthony Pizzotti</i>	Company Name	
Email:	sansong@scsengineers.com	Purchase Order #:		Address:	
Fax:	NONE	Project Name:	Ludlum Trail	Pace Quote:	Regulatory Agency
Requested Due Date:	<i>5-08-2024</i>	Project #:	<i>0921218600</i>	Pace Project Manager:	State / Location
				Pace Profile #:	FL
					8122-13

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ITEM #	MATRIX		CODE		COLLECTED				SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	ADDITIONAL COMMENTS	RELINQUISHED BY / AFFILIATION	DATE	TIME	ACCEPTED BY / AFFILIATION	DATE	TIME	SAMPLE CONDITIONS							
	Drinking Water DW	Waste Water WW	Product P	Solid SL	Oil OL	Wipe WP	Air AR	Other OT											Tissue TS						
SAMPLE ID One Character per box. (A-Z, 0-9 / , -) Sample Ids must be unique																									
1	SB-23 (1-6)				8/31 1539																				
2	SB-23 (6-8)				1532																				
3	SB-23 (8-10)				1535																				
4																									
5																									
6																									
7																									
8																									
9																									
10																									
11																									
12																									
												RELINQUISHED BY / AFFILIATION		DATE		TIME		ACCEPTED BY / AFFILIATION		DATE		TIME		SAMPLE CONDITIONS	
												[Signature]		9/15/2000		1800		[Signature]		9/17/2000		1800			
												[Signature]		9/15/2000		1840		[Signature]		9/17/2000		1800		N/A	
												[Signature]		9/15/2000		1840		[Signature]		9/17/2000		1800		N/A	

SAMPLER NAME AND SIGNATURE		TEMP in C		Received on (Y/N)	Custody Sealed Cooler (Y/N)	Samples Intact (Y/N)
PRINT Name of SAMPLER:		DATE Signed:				
SIGNATURE of SAMPLER:						

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SCS Engineers	Report To:	Stephen Ansong	Attention:	
Address:	7700 N Kendall Drive	Copy To:		Company Name:	
	Miami, FL 33156			Address:	
Email:	sansong@scsengineers.com	Purchase Order #:			
Phone:		Project Name:	Ludlum Trail	Pace Quote:	
Fax:	NONE	Project #:		Pace Project Manager:	christina.raschke@pacelabs.com,
Requested Due Date:				Pace Profile #:	8122-13
				Regulatory Agency	
				State / Location	
				EI	

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[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Required Information:	
Company:	SCS Engineers	Report To:	Stephen Ansong	Attention:	
Address:	7700 N Kendall Drive	Copy To:		Company Name:	
	Miami, FL 33156			Address:	
Email:	sansong@scsengineers.com	Purchase Order #:		Pace Quote:	
Phone:	NONE	Project Name:	Ludlum Trail	Pace Project Manager:	christina.raschke@pacelabs.com,
Fax:		Project #:		Pace Profile #:	8122-13
Requested Due Date:					
				Regulatory Agency	
				State / Location	
				FL	

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[illegible]

CHAIN-OF-CUSTODY / Analytical Request Document

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Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SCS Engineers	Report To:	Stephen Ansong	Attention:	
Address:	7700 N Kendall Drive Miami, FL 33156	Copy To:		Company Name:	
Email:	sansong@scsengineers.com	Purchase Order #:		Address:	
Phone:	NONE	Project Name:	Ludlum Trail	Pace Quote:	
Fax:		Project #:		Pace Project Manager:	christina.raschke@pacelabs.com,
Requested Due Date:				Pace Profile #:	8122-13
				Regulatory Agency	
				State / Location	
				FL	

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[illegible]



CHAIN-OF-CUSTODY / Analytical Request Document

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

Section A		Section B		Section C	
Required Client Information:		Required Project Information:		Invoice Information:	
Company:	SCS Engineers	Report To:	Stephen Ansong	Attention:	
Address:	7700 N Kendall Drive	Copy To:		Company Name:	
	Miami, FL 33156			Address:	
Email:	sansong@scsengineers.com	Purchase Order #:		Pace Quote:	
Phone:	NONE	Project Name:	Ludlum Trail	Pace Project Manager:	christina.raschke@pacelabs.com
Requested Due Date:		Project #:		Pace Profile #:	8122-13
				Regulatory Agency	
				State / Location	
				FL	

Page : 8 Of 8

ITEM #	MATRIX	CODE	COLLECTED		SAMPLE TYPE (G=GRAB C=COMP)	MATRIX CODE (see valid codes to left)	RELINQUISHED BY / AFFILIATION		ACCEPTED BY / AFFILIATION		DATE	TIME	SAMPLE CONDITIONS		
			START	END			DATE	TIME	DATE	TIME			Received on	Temp in C	
1	Drinking Water	DW	8/21	15:50											
2	Waste Water	WW	8/31	15:52											
3	Product	P	8/31	16:00											
4	Oil	SL	8/31	16:02											
5	Wipe	WP	8/31	16:04											
6	Other	AR	8/31	16:06											
7	Tissue	TS	8/31	16:08											
8			9/1	16:15											
9			9/1	16:17											
10			9/1	16:19											
11			9/1	16:21											
12			9/1	16:23											

SAMPLER NAME AND SIGNATURE		DATE Signed: 9/1/17	
PRINT Name of SAMPLER: Laura McGaha			
SIGNATURE of SAMPLER: [Signature]			

	Document Name:	Document Revised:
	Sample Condition Upon Receipt Form	August 2, 2017
	Document No.: F-FL-C-007 rev. 12	Issuing Authority: Pace Florida Quality Office

WO# : 35333909

m (SCUR)

Project # PM: CTR Due Date: 09/11/17
 Project Manager: CLIENT: 36-ESCON
 Client:

Date and Initials of person:
 Examining contents: _____
 Label: _____
 Deliver: AS
 pH: _____

Thermometer Used: T-299 Date: 9/12/17 Time: 0025 Initials: AS

State of Origin: _____

Cooler #1 Temp. °C 1.5 (Visual) 10.1 (Correction Factor) 1.6 (Actual)
 Cooler #2 Temp. °C 4.7 (Visual) 10.1 (Correction Factor) 4.8 (Actual)
 Cooler #3 Temp. °C 1.3 (Visual) 10.1 (Correction Factor) 1.4 (Actual)
 Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)
 Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)

☐ Samples on ice, cooling process has begun
☐ Samples on ice, cooling process has begun
☐ Samples on ice, cooling process has begun
☐ Samples on ice, cooling process has begun
☐ Samples on ice, cooling process has begun
☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace ☐ Other _____
 Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ International Priority
☐ Other _____
 Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No Ice: Wet Blue Dry None

Packing Material: ☐ Bubble Wrap ☐ Bubble Bags ☐ None ☐ Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Comments:

Chain of Custody Present	☒ Yes ☐ No ☐ N/A	
Chain of Custody Filled Out	☒ Yes ☐ No ☐ N/A	
Relinquished Signature & Sampler Name COC	☒ Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time	☒ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☐ No ☒ N/A	
Sufficient Volume	☐ Yes ☐ No ☐ N/A	
Correct Containers Used	☐ Yes ☐ No ☐ N/A	
Containers Intact	☐ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐ Yes ☐ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☐ Yes ☐ No ☐ N/A	Preservation Information: Preservative: _____ Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____
All Containers needing preservation are found to be in compliance with EPA recommendation:	☐ Yes ☐ No ☐ N/A	
Exceptions: VOA, Coliform, TOC, O&G, Carbamates		
Headspace in VOA Vials? (>6mm):	☐ Yes ☐ No ☐ N/A	
Trip Blank Present:	☐ Yes ☐ No ☐ N/A	

Client Notification/ Resolution:
 Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments):
Did not receive sample ID SB-19 (2-4)
Did not receive soil vials for sample IDs SB-6, 8, 9, 4, 2

Project Manager Review: _____ Date: _____

September 26, 2017

Stephen Ansong
SCS Engineers
7700 N Kendall Drive
Suite 300
Miami, FL 33156

RE: Project: Ludlum Trail
Pace Project No.: 35333976

Dear Stephen Ansong:

Enclosed are the analytical results for sample(s) received by the laboratory between September 01, 2017 and September 02, 2017. The results relate only to the samples included in this report. Results reported herein conform to the most current, applicable TNI/NELAC standards and the laboratory's Quality Assurance Manual, where applicable, unless otherwise noted in the body of the report.

Revision 1: Per client request, the ID for TWP-20 has been updated to TWP-18. Dissolved As has been added to TWP-10.

If you have any questions concerning this report, please feel free to contact me.

Sincerely,



Christina Raschke
christina.raschke@pacelabs.com
(954)582-4300
Project Manager

Enclosures

cc: Maria Giudici, SCS Engineers
Bob Speed, SCS Engineers



REPORT OF LABORATORY ANALYSIS

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CERTIFICATIONS

Project: Ludlum Trail

Pace Project No.: 35333976

Ormond Beach Certification IDs

8 East Tower Circle, Ormond Beach, FL 32174
Alabama Certification #: 41320
Connecticut Certification #: PH-0216
Delaware Certification: FL NELAC Reciprocity
Florida Certification #: E83079
Georgia Certification #: 955
Guam Certification: FL NELAC Reciprocity
Hawaii Certification: FL NELAC Reciprocity
Illinois Certification #: 200068
Indiana Certification: FL NELAC Reciprocity
Kansas Certification #: E-10383
Louisiana Certification #: FL NELAC Reciprocity
Louisiana Environmental Certificate #: 05007
Maryland Certification: #346
Michigan Certification #: 9911
Mississippi Certification: FL NELAC Reciprocity
Missouri Certification #: 236
Montana Certification #: Cert 0074

Nebraska Certification: NE-OS-28-14
Nevada Certification: FL NELAC Reciprocity
New Jersey Certification #: FL022
New York Certification #: 11608
North Carolina Environmental Certificate #: 667
North Carolina Certification #: 12710
Oklahoma Certification #: D9947
Pennsylvania Certification #: 68-00547
Puerto Rico Certification #: FL01264
South Carolina Certification: #96042001
Tennessee Certification #: TN02974
Texas Certification: FL NELAC Reciprocity
US Virgin Islands Certification: FL NELAC Reciprocity
Virginia Environmental Certification #: 460165
Wyoming Certification: FL NELAC Reciprocity
West Virginia Certification #: 9962C
Wisconsin Certification #: 399079670
Wyoming (EPA Region 8): FL NELAC Reciprocity

REPORT OF LABORATORY ANALYSIS

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SAMPLE SUMMARY

Project: Ludlum Trail

Pace Project No.: 35333976

Lab ID	Sample ID	Matrix	Date Collected	Date Received
35333976001	TWP-3	Water	09/01/17 10:31	09/01/17 18:00
35333976002	TWP-17	Water	09/01/17 11:50	09/01/17 18:00
35333976003	TWP-7	Water	09/01/17 14:30	09/01/17 18:00
35333976005	TWP-23	Water	08/31/17 15:46	09/01/17 18:00
35333976006	TWP-10	Water	09/01/17 15:00	09/02/17 00:25
35333976007	TWP-21	Water	08/31/17 15:36	09/02/17 00:25
35333976008	TWP-19	Water	08/31/17 13:15	09/02/17 00:25
35333976009	TWP-18	Water	08/31/17 16:46	09/02/17 00:25

REPORT OF LABORATORY ANALYSIS

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SAMPLE ANALYTE COUNT

Project: Ludlum Trail
Pace Project No.: 35333976

Lab ID	Sample ID	Method	Analysts	Analytes Reported	Laboratory
35333976001	TWP-3	FL-PRO	JGW	3	PASI-O
		EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	JDT	20	PASI-O
		EPA 8260	BTN	69	PASI-O
35333976002	TWP-17	FL-PRO	JGW	3	PASI-O
		EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	JDT	20	PASI-O
		EPA 8260	BTN	69	PASI-O
35333976003	TWP-7	FL-PRO	JGW	3	PASI-O
		EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	JDT	20	PASI-O
		EPA 8260	BTN	69	PASI-O
35333976005	TWP-23	FL-PRO	JGW	3	PASI-O
		EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	JDT	20	PASI-O
		EPA 8260	BTN	69	PASI-O
35333976006	TWP-10	FL-PRO	JGW	3	PASI-O
		EPA 6010	BTS	5	PASI-O
		EPA 6010	BTS	1	PASI-O
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	SK1	69	PASI-O
		FL-PRO	JGW	3	PASI-O
35333976007	TWP-21	EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	SK1	69	PASI-O
		FL-PRO	JGW	3	PASI-O
35333976008	TWP-19	EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	SK1	69	PASI-O
		FL-PRO	JGW	3	PASI-O
35333976009	TWP-18	EPA 6010	BTS	5	PASI-O
		EPA 8270 by SIM	TWB	20	PASI-O
		EPA 8260	SK1	69	PASI-O
		FL-PRO	JGW	3	PASI-O

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Ludlum Trail

Pace Project No.: 35333976

Method: FL-PRO

Description: FL-PRO Water, Low Volume

Client: SCS Engineers

Date: September 26, 2017

General Information:

8 samples were analyzed for FL-PRO. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Q: Sample held beyond the accepted holding time.

- TWP-18 (Lab ID: 35333976009)
- TWP-19 (Lab ID: 35333976008)
- TWP-21 (Lab ID: 35333976007)

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Ludlum Trail
Pace Project No.: 35333976

Method: EPA 6010
Description: 6010 MET ICP
Client: SCS Engineers
Date: September 26, 2017

General Information:

8 samples were analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

REPORT OF LABORATORY ANALYSIS

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PROJECT NARRATIVE

Project: Ludlum Trail

Pace Project No.: 35333976

Method: EPA 6010

Description: 6010 MET ICP, Dissolved

Client: SCS Engineers

Date: September 26, 2017

General Information:

1 sample was analyzed for EPA 6010. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3010 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Ludlum Trail

Pace Project No.: 35333976

Method: EPA 8270 by SIM

Description: 8270 MSSV PAHLV by SIM

Client: SCS Engineers

Date: September 26, 2017

General Information:

8 samples were analyzed for EPA 8270 by SIM. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Sample Preparation:

The samples were prepared in accordance with EPA 3510 with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

QC Batch: 391593

J(S0): Estimated Value. Surrogate recovery outside laboratory control limits.

- LCS (Lab ID: 2131782)
- 2-Fluorobiphenyl (S)

S3: Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

- TWP-17 (Lab ID: 35333976002)
- 2-Fluorobiphenyl (S)
- TWP-23 (Lab ID: 35333976005)
- 2-Fluorobiphenyl (S)

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 391583

J(L2): Estimated Value. Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.

- LCS (Lab ID: 2131746)
- Benzo(a)anthracene

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PROJECT NARRATIVE

Project: Ludlum Trail

Pace Project No.: 35333976

Method: EPA 8270 by SIM

Description: 8270 MSSV PAHLV by SIM

Client: SCS Engineers

Date: September 26, 2017

QC Batch: 391593

J(L1): Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 2131782)
- 1-Methylnaphthalene

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Additional Comments:

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PROJECT NARRATIVE

Project: Ludlum Trail
Pace Project No.: 35333976

Method: EPA 8260
Description: 8260 MSV
Client: SCS Engineers
Date: September 26, 2017

General Information:

8 samples were analyzed for EPA 8260. All samples were received in acceptable condition with any exceptions noted below or on the chain-of custody and/or the sample condition upon receipt form (SCUR) attached at the end of this report.

Hold Time:

The samples were analyzed within the method required hold times with any exceptions noted below.

Initial Calibrations (including MS Tune as applicable):

All criteria were within method requirements with any exceptions noted below.

Continuing Calibration:

All criteria were within method requirements with any exceptions noted below.

Internal Standards:

All internal standards were within QC limits with any exceptions noted below.

Surrogates:

All surrogates were within QC limits with any exceptions noted below.

Method Blank:

All analytes were below the report limit in the method blank, where applicable, with any exceptions noted below.

Laboratory Control Spike:

All laboratory control spike compounds were within QC limits with any exceptions noted below.

QC Batch: 391889

J(L1): Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.

- LCS (Lab ID: 2133690)
- 1,2,3-Trichlorobenzene

Matrix Spikes:

All percent recoveries and relative percent differences (RPDs) were within acceptance criteria with any exceptions noted below.

Duplicate Sample:

All duplicate sample results were within method acceptance criteria with any exceptions noted below.

QC Batch: 391937

J(D6): Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.

- DUP (Lab ID: 2135186)
- Chloromethane

Additional Comments:

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PROJECT NARRATIVE

Project: Ludlum Trail

Pace Project No.: 35333976

Method: EPA 8260

Description: 8260 MSV

Client: SCS Engineers

Date: September 26, 2017

This data package has been reviewed for quality and completeness and is approved for release.

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-3 **Lab ID: 35333976001** Collected: 09/01/17 10:31 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/07/17 13:40	09/08/17 16:51		
Surrogates									
o-Terphenyl (S)	117	%	82-142		1	09/07/17 13:40	09/08/17 16:51	84-15-1	
N-Pentatriacontane (S)	125	%	42-159		1	09/07/17 13:40	09/08/17 16:51	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	67.7	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:28	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/07/17 11:25	09/16/17 17:28	7440-43-9	
Chromium	10	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:28	7440-47-3	
Copper	3.5 I	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:28	7440-50-8	
Lead	5.6 I	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:28	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 22:54	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 22:54	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 22:54	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 10:30	09/12/17 22:54	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 10:30	09/12/17 22:54	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 10:30	09/12/17 22:54	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 22:54	90-12-0	J(L1)
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 22:54	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 22:54	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 10:30	09/12/17 22:54	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 22:54	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	33-101		1	09/06/17 10:30	09/12/17 22:54	321-60-8	
Terphenyl-d14 (S)	88	%	38-115		1	09/06/17 10:30	09/12/17 22:54	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 17:12	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	87-61-6	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 17:12	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 17:12	526-73-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-3 **Lab ID: 35333976001** Collected: 09/01/17 10:31 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:12	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:12	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:12	108-10-1	
Acetone	21.9	ug/L	20.0	10.0	1		09/07/17 17:12	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:12	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 17:12	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 17:12	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 17:12	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:12	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 17:12	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 17:12	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 17:12	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 17:12	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 17:12	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 17:12	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 17:12	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-3 **Lab ID: 35333976001** Collected: 09/01/17 10:31 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 17:12	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 17:12	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 17:12	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:12	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 17:12	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	95	%	89-111		1		09/07/17 17:12	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	75-135		1		09/07/17 17:12	17060-07-0	
Toluene-d8 (S)	101	%	89-112		1		09/07/17 17:12	2037-26-5	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-17 Lab ID: 35333976002 Collected: 09/01/17 11:50 Received: 09/01/17 18:00 Matrix: Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/07/17 13:40	09/08/17 16:51		
Surrogates									
o-Terphenyl (S)	115	%	82-142		1	09/07/17 13:40	09/08/17 16:51	84-15-1	
N-Pentatriacontane (S)	81	%	42-159		1	09/07/17 13:40	09/08/17 16:51	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	26.0	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:33	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/07/17 11:25	09/16/17 17:33	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:33	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:33	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:33	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:19	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:19	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:19	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 10:30	09/12/17 23:19	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 10:30	09/12/17 23:19	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 10:30	09/12/17 23:19	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:19	90-12-0	J(L1)
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:19	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:19	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 10:30	09/12/17 23:19	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:19	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	105	%	33-101		1	09/06/17 10:30	09/12/17 23:19	321-60-8	Q,S3
Terphenyl-d14 (S)	87	%	38-115		1	09/06/17 10:30	09/12/17 23:19	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 17:38	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	87-61-6	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 17:38	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 17:38	526-73-8	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-17 **Lab ID: 35333976002** Collected: 09/01/17 11:50 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:38	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:38	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:38	108-10-1	
Acetone	76.4	ug/L	20.0	10.0	1		09/07/17 17:38	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:38	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 17:38	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 17:38	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 17:38	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 17:38	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 17:38	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 17:38	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 17:38	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 17:38	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 17:38	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 17:38	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 17:38	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-17 **Lab ID: 35333976002** Collected: 09/01/17 11:50 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 17:38	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 17:38	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 17:38	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 17:38	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 17:38	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	96	%	89-111		1		09/07/17 17:38	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	75-135		1		09/07/17 17:38	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/07/17 17:38	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-7 Lab ID: 35333976003 Collected: 09/01/17 14:30 Received: 09/01/17 18:00 Matrix: Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/07/17 13:40	09/08/17 17:22		
Surrogates									
o-Terphenyl (S)	116	%	82-142		1	09/07/17 13:40	09/08/17 17:22	84-15-1	
N-Pentatriacontane (S)	126	%	42-159		1	09/07/17 13:40	09/08/17 17:22	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	69.8	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:38	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/07/17 11:25	09/16/17 17:38	7440-43-9	
Chromium	4.1 I	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:38	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:38	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:38	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:44	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:44	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/12/17 23:44	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 10:30	09/12/17 23:44	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 10:30	09/12/17 23:44	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	206-44-0	
Fluorene	0.20 I	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 10:30	09/12/17 23:44	193-39-5	
1-Methylnaphthalene	2.5	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:44	90-12-0	J(L1)
2-Methylnaphthalene	1.6 I	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:44	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/12/17 23:44	91-20-3	
Phenanthrene	0.26 I	ug/L	0.50	0.050	1	09/06/17 10:30	09/12/17 23:44	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/12/17 23:44	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	64	%	33-101		1	09/06/17 10:30	09/12/17 23:44	321-60-8	
Terphenyl-d14 (S)	86	%	38-115		1	09/06/17 10:30	09/12/17 23:44	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 18:04	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	87-61-6	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 18:04	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 18:04	526-73-8	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-7 **Lab ID: 35333976003** Collected: 09/01/17 14:30 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:04	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:04	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:04	108-10-1	
Acetone	22.3	ug/L	20.0	10.0	1		09/07/17 18:04	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:04	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 18:04	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 18:04	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 18:04	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:04	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 18:04	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 18:04	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 18:04	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 18:04	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 18:04	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 18:04	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 18:04	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-7 **Lab ID: 35333976003** Collected: 09/01/17 14:30 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 18:04	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 18:04	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 18:04	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:04	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 18:04	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	89-111		1		09/07/17 18:04	460-00-4	
1,2-Dichloroethane-d4 (S)	104	%	75-135		1		09/07/17 18:04	17060-07-0	
Toluene-d8 (S)	99	%	89-112		1		09/07/17 18:04	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-23 **Lab ID: 35333976005** Collected: 08/31/17 15:46 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/07/17 13:40	09/08/17 17:22		
Surrogates									
o-Terphenyl (S)	115	%	82-142		1	09/07/17 13:40	09/08/17 17:22	84-15-1	
N-Pentatriacontane (S)	88	%	42-159		1	09/07/17 13:40	09/08/17 17:22	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	5.0 U	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:43	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/07/17 11:25	09/16/17 17:43	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:43	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/07/17 11:25	09/16/17 17:43	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/07/17 11:25	09/16/17 17:43	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/13/17 00:09	56-55-3	
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/13/17 00:09	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 10:30	09/13/17 00:09	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 10:30	09/13/17 00:09	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 10:30	09/13/17 00:09	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 10:30	09/13/17 00:09	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/13/17 00:09	90-12-0	J(L1)
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/13/17 00:09	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 10:30	09/13/17 00:09	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 10:30	09/13/17 00:09	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 10:30	09/13/17 00:09	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	113	%	33-101		1	09/06/17 10:30	09/13/17 00:09	321-60-8	Q,S3
Terphenyl-d14 (S)	79	%	38-115		1	09/06/17 10:30	09/13/17 00:09	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 18:31	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	87-61-6	
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 18:31	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 18:31	526-73-8	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-23 **Lab ID: 35333976005** Collected: 08/31/17 15:46 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:31	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:31	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:31	108-10-1	
Acetone	41.5	ug/L	20.0	10.0	1		09/07/17 18:31	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:31	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 18:31	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 18:31	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 18:31	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 18:31	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 18:31	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	67-66-3	
Chloromethane	3.2	ug/L	1.0	0.62	1		09/07/17 18:31	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 18:31	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 18:31	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 18:31	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 18:31	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 18:31	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-23 **Lab ID: 35333976005** Collected: 08/31/17 15:46 Received: 09/01/17 18:00 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 18:31	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 18:31	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 18:31	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 18:31	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 18:31	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	94	%	89-111		1		09/07/17 18:31	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	75-135		1		09/07/17 18:31	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/07/17 18:31	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-10 Lab ID: 35333976006 Collected: 09/01/17 15:00 Received: 09/02/17 00:25 Matrix: Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/08/17 08:15	09/08/17 19:26		
Surrogates									
o-Terphenyl (S)	96	%	82-142		1	09/08/17 08:15	09/08/17 19:26	84-15-1	
N-Pentatriacontane (S)	85	%	42-159		1	09/08/17 08:15	09/08/17 19:26	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	138	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:28	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/08/17 08:56	09/14/17 18:28	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:28	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:28	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:28	7439-92-1	
6010 MET ICP, Dissolved Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic, Dissolved	141	ug/L	10.0	5.0	1	09/25/17 08:35	09/25/17 12:41	7440-38-2	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 12:45	56-55-3	J(L2)
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 12:45	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 12:45	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 00:04	09/07/17 12:45	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 00:04	09/07/17 12:45	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 00:04	09/07/17 12:45	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 12:45	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 12:45	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 12:45	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 00:04	09/07/17 12:45	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 12:45	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	50	%	33-101		1	09/06/17 00:04	09/07/17 12:45	321-60-8	
Terphenyl-d14 (S)	86	%	38-115		1	09/06/17 00:04	09/07/17 12:45	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 06:34	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	563-58-6	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-10 **Lab ID: 35333976006** Collected: 09/01/17 15:00 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	87-61-6	J(L1)
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 06:34	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 06:34	526-73-8	
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:34	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:34	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:34	108-10-1	
Acetone	21.8	ug/L	20.0	10.0	1		09/07/17 06:34	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:34	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 06:34	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 06:34	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 06:34	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:34	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 06:34	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 06:34	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 06:34	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 06:34	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 06:34	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 06:34	108-05-4	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-10 **Lab ID: 35333976006** Collected: 09/01/17 15:00 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 06:34	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	156-59-2	
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 06:34	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 06:34	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 06:34	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:34	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 06:34	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	90	%	89-111		1		09/07/17 06:34	460-00-4	
1,2-Dichloroethane-d4 (S)	99	%	75-135		1		09/07/17 06:34	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/07/17 06:34	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-21 **Lab ID: 35333976007** Collected: 08/31/17 15:36 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/08/17 08:15	09/09/17 08:58		Q
Surrogates									
o-Terphenyl (S)	91	%	82-142		1	09/08/17 08:15	09/09/17 08:58	84-15-1	
N-Pentatriacontane (S)	104	%	42-159		1	09/08/17 08:15	09/09/17 08:58	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:43	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/08/17 08:56	09/14/17 18:43	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:43	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:43	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:43	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:10	56-55-3	J(L2)
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:10	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:10	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 00:04	09/07/17 13:10	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 00:04	09/07/17 13:10	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 00:04	09/07/17 13:10	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:10	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:10	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:10	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 00:04	09/07/17 13:10	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:10	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	33-101		1	09/06/17 00:04	09/07/17 13:10	321-60-8	
Terphenyl-d14 (S)	78	%	38-115		1	09/06/17 00:04	09/07/17 13:10	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 06:59	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	87-61-6	J(L1)
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 06:59	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 06:59	526-73-8	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-21 **Lab ID: 35333976007** Collected: 08/31/17 15:36 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:59	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:59	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:59	108-10-1	
Acetone	10.0 U	ug/L	20.0	10.0	1		09/07/17 06:59	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:59	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 06:59	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 06:59	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 06:59	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 06:59	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 06:59	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 06:59	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 06:59	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 06:59	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 06:59	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 06:59	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 06:59	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-21 **Lab ID: 35333976007** Collected: 08/31/17 15:36 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 06:59	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 06:59	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 06:59	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 06:59	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 06:59	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	89-111		1		09/07/17 06:59	460-00-4	
1,2-Dichloroethane-d4 (S)	106	%	75-135		1		09/07/17 06:59	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/07/17 06:59	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-19 Lab ID: 35333976008 Collected: 08/31/17 13:15 Received: 09/02/17 00:25 Matrix: Water									
Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/08/17 08:15	09/09/17 08:58		Q
Surrogates									
o-Terphenyl (S)	101	%	82-142		1	09/08/17 08:15	09/09/17 08:58	84-15-1	
N-Pentatriacontane (S)	95	%	42-159		1	09/08/17 08:15	09/09/17 08:58	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	6.2 I	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:48	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/08/17 08:56	09/14/17 18:48	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:48	7440-47-3	
Copper	3.1 I	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:48	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:48	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	208-96-8	
Anthracene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:34	56-55-3	J(L2)
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:34	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:34	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.50	0.028	1	09/06/17 00:04	09/07/17 13:34	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	207-08-9	
Chrysene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 00:04	09/07/17 13:34	53-70-3	
Fluoranthene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	206-44-0	
Fluorene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 00:04	09/07/17 13:34	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:34	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:34	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:34	91-20-3	
Phenanthrene	0.050 U	ug/L	0.50	0.050	1	09/06/17 00:04	09/07/17 13:34	85-01-8	
Pyrene	0.025 U	ug/L	0.50	0.025	1	09/06/17 00:04	09/07/17 13:34	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	60	%	33-101		1	09/06/17 00:04	09/07/17 13:34	321-60-8	
Terphenyl-d14 (S)	75	%	38-115		1	09/06/17 00:04	09/07/17 13:34	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 07:24	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	87-61-6	J(L1)
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 07:24	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 07:24	526-73-8	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-19 **Lab ID: 35333976008** Collected: 08/31/17 13:15 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:24	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:24	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:24	108-10-1	
Acetone	20.6	ug/L	20.0	10.0	1		09/07/17 07:24	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:24	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 07:24	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 07:24	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 07:24	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:24	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 07:24	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 07:24	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 07:24	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 07:24	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 07:24	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 07:24	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 07:24	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-19 **Lab ID: 35333976008** Collected: 08/31/17 13:15 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 07:24	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 07:24	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 07:24	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:24	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 07:24	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	89-111		1		09/07/17 07:24	460-00-4	
1,2-Dichloroethane-d4 (S)	105	%	75-135		1		09/07/17 07:24	17060-07-0	
Toluene-d8 (S)	102	%	89-112		1		09/07/17 07:24	2037-26-5	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-18 **Lab ID: 35333976009** Collected: 08/31/17 16:46 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
FL-PRO Water, Low Volume Analytical Method: FL-PRO Preparation Method: EPA 3510									
Petroleum Range Organics	0.80 U	mg/L	1.0	0.80	1	09/08/17 08:15	09/09/17 09:29		Q
Surrogates									
o-Terphenyl (S)	89	%	82-142		1	09/08/17 08:15	09/09/17 09:29	84-15-1	
N-Pentatriacontane (S)	78	%	42-159		1	09/08/17 08:15	09/09/17 09:29	630-07-09	
6010 MET ICP Analytical Method: EPA 6010 Preparation Method: EPA 3010									
Arsenic	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:53	7440-38-2	
Cadmium	0.50 U	ug/L	1.0	0.50	1	09/08/17 08:56	09/14/17 18:53	7440-43-9	
Chromium	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:53	7440-47-3	
Copper	2.5 U	ug/L	5.0	2.5	1	09/08/17 08:56	09/14/17 18:53	7440-50-8	
Lead	5.0 U	ug/L	10.0	5.0	1	09/08/17 08:56	09/14/17 18:53	7439-92-1	
8270 MSSV PAHLV by SIM Analytical Method: EPA 8270 by SIM Preparation Method: EPA 3510									
Acenaphthene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	83-32-9	
Acenaphthylene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	208-96-8	
Anthracene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	120-12-7	
Benzo(a)anthracene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:59	56-55-3	J(L2)
Benzo(a)pyrene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:59	50-32-8	
Benzo(b)fluoranthene	0.025 U	ug/L	0.10	0.025	1	09/06/17 00:04	09/07/17 13:59	205-99-2	
Benzo(g,h,i)perylene	0.028 U	ug/L	0.51	0.028	1	09/06/17 00:04	09/07/17 13:59	191-24-2	
Benzo(k)fluoranthene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	207-08-9	
Chrysene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	218-01-9	
Dibenz(a,h)anthracene	0.034 U	ug/L	0.10	0.034	1	09/06/17 00:04	09/07/17 13:59	53-70-3	
Fluoranthene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	206-44-0	
Fluorene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	86-73-7	
Indeno(1,2,3-cd)pyrene	0.029 U	ug/L	0.10	0.029	1	09/06/17 00:04	09/07/17 13:59	193-39-5	
1-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:59	90-12-0	
2-Methylnaphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:59	91-57-6	
Naphthalene	1.0 U	ug/L	2.0	1.0	1	09/06/17 00:04	09/07/17 13:59	91-20-3	
Phenanthrene	0.051 U	ug/L	0.51	0.051	1	09/06/17 00:04	09/07/17 13:59	85-01-8	
Pyrene	0.025 U	ug/L	0.51	0.025	1	09/06/17 00:04	09/07/17 13:59	129-00-0	
Surrogates									
2-Fluorobiphenyl (S)	63	%	33-101		1	09/06/17 00:04	09/07/17 13:59	321-60-8	
Terphenyl-d14 (S)	76	%	38-115		1	09/06/17 00:04	09/07/17 13:59	1718-51-0	
8260 MSV Analytical Method: EPA 8260									
1,1,1,2-Tetrachloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	630-20-6	
1,1,1-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	71-55-6	
1,1,2,2-Tetrachloroethane	0.12 U	ug/L	0.50	0.12	1		09/07/17 07:50	79-34-5	
1,1,2-Trichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	79-00-5	
1,1-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-34-3	
1,1-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-35-4	
1,1-Dichloropropene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	563-58-6	
1,2,3-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	87-61-6	J(L1)
1,2,3-Trichloropropane	0.59 U	ug/L	1.0	0.59	1		09/07/17 07:50	96-18-4	
1,2,3-Trimethylbenzene	1.0 U	ug/L	1.0	1.0	1		09/07/17 07:50	526-73-8	

REPORT OF LABORATORY ANALYSIS

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-18 **Lab ID: 35333976009** Collected: 08/31/17 16:46 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV		Analytical Method: EPA 8260							
1,2,4-Trichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	120-82-1	
1,2,4-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	95-63-6	
1,2-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	95-50-1	
1,2-Dichloroethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	107-06-2	
1,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	78-87-5	
1,3,5-Trimethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	108-67-8	
1,3-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	541-73-1	
1,3-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	142-28-9	
1,4-Dichlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	106-46-7	
2,2-Dichloropropane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	594-20-7	
2-Butanone (MEK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:50	78-93-3	
2-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	95-49-8	
2-Hexanone	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:50	591-78-6	
4-Chlorotoluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	106-43-4	
4-Methyl-2-pentanone (MIBK)	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:50	108-10-1	
Acetone	13.1 I	ug/L	20.0	10.0	1		09/07/17 07:50	67-64-1	
Acetonitrile	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:50	75-05-8	
Benzene	0.10 U	ug/L	1.0	0.10	1		09/07/17 07:50	71-43-2	
Bromobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	108-86-1	
Bromochloromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	74-97-5	
Bromodichloromethane	0.27 U	ug/L	0.60	0.27	1		09/07/17 07:50	75-27-4	
Bromoform	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-25-2	
Bromomethane	0.50 U	ug/L	5.0	0.50	1		09/07/17 07:50	74-83-9	
Carbon disulfide	5.0 U	ug/L	10.0	5.0	1		09/07/17 07:50	75-15-0	
Carbon tetrachloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	56-23-5	
Chlorobenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	108-90-7	
Chloroethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 07:50	75-00-3	
Chloroform	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	67-66-3	
Chloromethane	0.62 U	ug/L	1.0	0.62	1		09/07/17 07:50	74-87-3	
Dibromochloromethane	0.26 U	ug/L	0.50	0.26	1		09/07/17 07:50	124-48-1	
Dibromomethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	74-95-3	
Dichlorodifluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-71-8	
Ethylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	100-41-4	
Iodomethane	0.50 U	ug/L	10.0	0.50	1		09/07/17 07:50	74-88-4	
Isopropylbenzene (Cumene)	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	98-82-8	
Methyl-tert-butyl ether	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	1634-04-4	
Methylene Chloride	2.5 U	ug/L	5.0	2.5	1		09/07/17 07:50	75-09-2	
Styrene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	100-42-5	
Tetrachloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	127-18-4	
Toluene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	108-88-3	
Trichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	79-01-6	
Trichlorofluoromethane	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-69-4	
Vinyl acetate	1.0 U	ug/L	10.0	1.0	1		09/07/17 07:50	108-05-4	
Vinyl chloride	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	75-01-4	
Xylene (Total)	1.5 U	ug/L	3.0	1.5	1		09/07/17 07:50	1330-20-7	
cis-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	156-59-2	

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ANALYTICAL RESULTS

Project: Ludlum Trail
Pace Project No.: 35333976

Sample: TWP-18 **Lab ID: 35333976009** Collected: 08/31/17 16:46 Received: 09/02/17 00:25 Matrix: Water

Parameters	Results	Units	PQL	MDL	DF	Prepared	Analyzed	CAS No.	Qual
8260 MSV Analytical Method: EPA 8260									
cis-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 07:50	10061-01-5	
m&p-Xylene	1.0 U	ug/L	2.0	1.0	1		09/07/17 07:50	179601-23-1	
n-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	104-51-8	
n-Propylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	103-65-1	
o-Xylene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	95-47-6	
p-Isopropyltoluene	0.50 U	ug/L	5.0	0.50	1		09/07/17 07:50	99-87-6	
sec-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	135-98-8	
tert-Butylbenzene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	98-06-6	
trans-1,2-Dichloroethene	0.50 U	ug/L	1.0	0.50	1		09/07/17 07:50	156-60-5	
trans-1,3-Dichloropropene	0.25 U	ug/L	0.50	0.25	1		09/07/17 07:50	10061-02-6	
Surrogates									
4-Bromofluorobenzene (S)	91	%	89-111		1		09/07/17 07:50	460-00-4	
1,2-Dichloroethane-d4 (S)	101	%	75-135		1		09/07/17 07:50	17060-07-0	
Toluene-d8 (S)	101	%	89-112		1		09/07/17 07:50	2037-26-5	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391952 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

METHOD BLANK: 2134002 Matrix: Water
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	5.0 U	10.0	5.0	09/13/17 13:04	
Cadmium	ug/L	0.50 U	1.0	0.50	09/13/17 13:04	
Chromium	ug/L	2.5 U	5.0	2.5	09/13/17 13:04	
Copper	ug/L	2.5 U	5.0	2.5	09/13/17 13:04	
Lead	ug/L	5.0 U	10.0	5.0	09/13/17 13:04	

LABORATORY CONTROL SAMPLE: 2134004

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	274	110	80-120	
Cadmium	ug/L	25	28.1	112	80-120	
Chromium	ug/L	250	277	111	80-120	
Copper	ug/L	250	271	108	80-120	
Lead	ug/L	250	270	108	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2134005 2134006

Parameter	Units	35333576001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	5.0 U	250	250	267	265	107	106	75-125	1	20	
Cadmium	ug/L	0.50 U	25	25	26.9	26.6	107	106	75-125	1	20	
Chromium	ug/L	2.5 U	250	250	273	265	108	105	75-125	3	20	
Copper	ug/L	3.8 I	250	250	279	271	110	107	75-125	3	20	
Lead	ug/L	5.0 U	250	250	266	261	106	104	75-125	2	20	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 392018 Analysis Method: EPA 6010
QC Batch Method: EPA 3010 Analysis Description: 6010 MET
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

METHOD BLANK: 2134402 Matrix: Water
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic	ug/L	5.0 U	10.0	5.0	09/14/17 16:27	
Cadmium	ug/L	0.50 U	1.0	0.50	09/14/17 16:27	
Chromium	ug/L	2.5 U	5.0	2.5	09/14/17 16:27	
Copper	ug/L	2.5 U	5.0	2.5	09/14/17 16:27	
Lead	ug/L	5.0 U	10.0	5.0	09/14/17 16:27	

LABORATORY CONTROL SAMPLE: 2134403

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Arsenic	ug/L	250	251	100	80-120	
Cadmium	ug/L	25	26.2	105	80-120	
Chromium	ug/L	250	246	98	80-120	
Copper	ug/L	250	248	99	80-120	
Lead	ug/L	250	262	105	80-120	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2134404 2134405

Parameter	Units	35333657001 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Arsenic	ug/L	5.0 U	250	250	286	259	114	103	75-125	10	20	
Cadmium	ug/L	0.50 U	25	25	29.0	26.9	114	106	75-125	8	20	
Chromium	ug/L	2.5 U	250	250	283	262	113	104	75-125	8	20	
Copper	ug/L	3.0 I	250	250	292	271	116	107	75-125	8	20	
Lead	ug/L	5.0 U	250	250	288	264	115	105	75-125	8	20	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

QC Batch: 394587

Analysis Method: EPA 6010

QC Batch Method: EPA 3010

Analysis Description: 6010 MET Filtered

Associated Lab Samples: 35333976006

METHOD BLANK: 2150879

Matrix: Water

Associated Lab Samples: 35333976006

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Arsenic, Dissolved	ug/L	5.0 U	10.0	5.0	09/25/17 12:32	

LABORATORY CONTROL SAMPLE & LCSD: 2150880

2151412

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limits	RPD	Max RPD	Qualifiers
Arsenic, Dissolved	ug/L	250	239	239	96	96	80-120	0	20	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391889 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

METHOD BLANK: 2133689 Matrix: Water
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,1,1-Trichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.50	0.12	09/07/17 00:13	
1,1,2-Trichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,1-Dichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,1-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,1-Dichloropropene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2,3-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2,3-Trichloropropane	ug/L	0.59 U	1.0	0.59	09/07/17 00:13	
1,2,3-Trimethylbenzene	ug/L	1.0 U	1.0	1.0	09/07/17 00:13	
1,2,4-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2,4-Trimethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2-Dichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,3,5-Trimethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,3-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,3-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
1,4-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
2,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
2-Butanone (MEK)	ug/L	5.0 U	10.0	5.0	09/07/17 00:13	
2-Chlorotoluene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
2-Hexanone	ug/L	5.0 U	10.0	5.0	09/07/17 00:13	
4-Chlorotoluene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	10.0	5.0	09/07/17 00:13	
Acetone	ug/L	10.0 U	20.0	10.0	09/07/17 00:13	
Acetonitrile	ug/L	5.0 U	10.0	5.0	09/07/17 00:13	
Benzene	ug/L	0.10 U	1.0	0.10	09/07/17 00:13	
Bromobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Bromochloromethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Bromodichloromethane	ug/L	0.27 U	0.60	0.27	09/07/17 00:13	
Bromoform	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Bromomethane	ug/L	0.50 U	5.0	0.50	09/07/17 00:13	
Carbon disulfide	ug/L	5.0 U	10.0	5.0	09/07/17 00:13	
Carbon tetrachloride	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Chlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Chloroethane	ug/L	0.50 U	10.0	0.50	09/07/17 00:13	
Chloroform	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Chloromethane	ug/L	0.62 U	1.0	0.62	09/07/17 00:13	
cis-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	09/07/17 00:13	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

METHOD BLANK: 2133689 Matrix: Water
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/L	0.26 U	0.50	0.26	09/07/17 00:13	
Dibromomethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Dichlorodifluoromethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Ethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Iodomethane	ug/L	0.50 U	10.0	0.50	09/07/17 00:13	
Isopropylbenzene (Cumene)	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
m&p-Xylene	ug/L	1.0 U	2.0	1.0	09/07/17 00:13	
Methyl-tert-butyl ether	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Methylene Chloride	ug/L	2.5 U	5.0	2.5	09/07/17 00:13	
n-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
n-Propylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
o-Xylene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
p-Isopropyltoluene	ug/L	0.50 U	5.0	0.50	09/07/17 00:13	
sec-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Styrene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
tert-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Tetrachloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Toluene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
trans-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	09/07/17 00:13	
Trichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Trichlorofluoromethane	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Vinyl acetate	ug/L	1.0 U	10.0	1.0	09/07/17 00:13	
Vinyl chloride	ug/L	0.50 U	1.0	0.50	09/07/17 00:13	
Xylene (Total)	ug/L	1.5 U	3.0	1.5	09/07/17 00:13	
1,2-Dichloroethane-d4 (S)	%	104	75-135		09/07/17 00:13	
4-Bromofluorobenzene (S)	%	94	89-111		09/07/17 00:13	
Toluene-d8 (S)	%	99	89-112		09/07/17 00:13	

LABORATORY CONTROL SAMPLE: 2133690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	21.3	106	70-130	
1,1,1-Trichloroethane	ug/L	20	20.5	102	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	22.3	112	70-130	
1,1,2-Trichloroethane	ug/L	20	24.0	120	70-130	
1,1-Dichloroethane	ug/L	20	20.0	100	70-130	
1,1-Dichloroethene	ug/L	20	18.2	91	65-134	
1,1-Dichloropropene	ug/L	20	19.7	98	70-130	
1,2,3-Trichlorobenzene	ug/L	20	28.9	145	70-130 J(L1)	
1,2,3-Trichloropropane	ug/L	20	22.3	111	65-135	
1,2,3-Trimethylbenzene	ug/L	20	21.2	106	70-130	
1,2,4-Trichlorobenzene	ug/L	20	25.0	125	70-130	
1,2,4-Trimethylbenzene	ug/L	20	22.1	110	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2133690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/L	20	22.0	110	70-130	
1,2-Dichloroethane	ug/L	20	18.8	94	70-130	
1,2-Dichloropropane	ug/L	20	20.5	102	70-130	
1,3,5-Trimethylbenzene	ug/L	20	22.4	112	70-130	
1,3-Dichlorobenzene	ug/L	20	22.1	111	70-130	
1,3-Dichloropropane	ug/L	20	22.5	113	70-130	
1,4-Dichlorobenzene	ug/L	20	21.3	106	70-130	
2,2-Dichloropropane	ug/L	20	19.3	97	55-143	
2-Butanone (MEK)	ug/L	40	39.6	99	61-129	
2-Chlorotoluene	ug/L	20	21.7	108	70-130	
2-Hexanone	ug/L	40	39.7	99	68-131	
4-Chlorotoluene	ug/L	20	21.0	105	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	39.9	100	70-130	
Acetone	ug/L	40	42.9	107	44-155	
Acetonitrile	ug/L	200	223	111	46-153	
Benzene	ug/L	20	20.5	102	70-130	
Bromobenzene	ug/L	20	20.6	103	70-130	
Bromochloromethane	ug/L	20	20.7	103	70-130	
Bromodichloromethane	ug/L	20	20.4	102	70-130	
Bromoform	ug/L	20	19.3	96	62-129	
Bromomethane	ug/L	20	18.8	94	10-179	
Carbon disulfide	ug/L	20	19.1	96	40-156	
Carbon tetrachloride	ug/L	20	18.9	95	66-127	
Chlorobenzene	ug/L	20	21.8	109	70-130	
Chloroethane	ug/L	20	19.5	98	57-142	
Chloroform	ug/L	20	19.9	100	70-130	
Chloromethane	ug/L	20	21.8	109	45-150	
cis-1,2-Dichloroethene	ug/L	20	19.7	99	70-130	
cis-1,3-Dichloropropene	ug/L	20	20.9	105	70-130	
Dibromochloromethane	ug/L	20	21.2	106	70-130	
Dibromomethane	ug/L	20	20.8	104	70-130	
Dichlorodifluoromethane	ug/L	20	23.6	118	44-149	
Ethylbenzene	ug/L	20	20.6	103	70-130	
Iodomethane	ug/L	40	35.9	90	21-150	
Isopropylbenzene (Cumene)	ug/L	20	21.8	109	70-130	
m&p-Xylene	ug/L	40	41.7	104	70-130	
Methyl-tert-butyl ether	ug/L	20	19.8	99	64-133	
Methylene Chloride	ug/L	20	21.9	109	65-127	
n-Butylbenzene	ug/L	20	22.9	114	70-130	
n-Propylbenzene	ug/L	20	21.0	105	70-130	
o-Xylene	ug/L	20	21.1	106	70-130	
p-Isopropyltoluene	ug/L	20	23.5	117	70-130	
sec-Butylbenzene	ug/L	20	22.5	112	70-130	
Styrene	ug/L	20	21.1	105	70-130	
tert-Butylbenzene	ug/L	20	21.8	109	70-130	
Tetrachloroethene	ug/L	20	20.0	100	48-155	
Toluene	ug/L	20	20.5	102	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2133690

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	21.4	107	68-126	
trans-1,3-Dichloropropene	ug/L	20	21.2	106	70-130	
Trichloroethene	ug/L	20	20.0	100	69-129	
Trichlorofluoromethane	ug/L	20	19.3	97	60-144	
Vinyl acetate	ug/L	20	19.8	99	70-130	
Vinyl chloride	ug/L	20	21.0	105	67-136	
Xylene (Total)	ug/L	60	62.8	105	70-130	
1,2-Dichloroethane-d4 (S)	%			96	75-135	
4-Bromofluorobenzene (S)	%			100	89-111	
Toluene-d8 (S)	%			101	89-112	

MATRIX SPIKE SAMPLE: 2134582

Parameter	Units	35333574002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	20	20.2	101	70-130	
1,1,1-Trichloroethane	ug/L	0.50 U	20	20.5	103	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	20	20.6	103	70-130	
1,1,2-Trichloroethane	ug/L	0.50 U	20	22.1	110	70-130	
1,1-Dichloroethane	ug/L	0.50 U	20	19.4	97	70-130	
1,1-Dichloroethene	ug/L	0.50 U	20	17.2	86	65-134	
1,1-Dichloropropene	ug/L	0.50 U	20	19.3	97	70-130	
1,2,3-Trichlorobenzene	ug/L	0.50 U	20	21.0	105	70-130	
1,2,3-Trichloropropane	ug/L	0.59 U	20	20.2	101	65-135	
1,2,3-Trimethylbenzene	ug/L	1.0 U	20	19.6	98	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50 U	20	20.1	100	70-130	
1,2,4-Trimethylbenzene	ug/L	0.50 U	20	21.6	108	70-130	
1,2-Dichlorobenzene	ug/L	0.50 U	20	20.6	103	70-130	
1,2-Dichloroethane	ug/L	0.50 U	20	17.6	88	70-130	
1,2-Dichloropropane	ug/L	0.50 U	20	19.5	98	70-130	
1,3,5-Trimethylbenzene	ug/L	0.50 U	20	21.9	109	70-130	
1,3-Dichlorobenzene	ug/L	0.50 U	20	21.1	106	70-130	
1,3-Dichloropropane	ug/L	0.50 U	20	21.0	105	70-130	
1,4-Dichlorobenzene	ug/L	0.50 U	20	20.4	102	70-130	
2,2-Dichloropropane	ug/L	0.50 U	20	17.0	85	55-143	
2-Butanone (MEK)	ug/L	5.0 U	40	30.6	76	61-129	
2-Chlorotoluene	ug/L	0.50 U	20	21.6	108	70-130	
2-Hexanone	ug/L	5.0 U	40	31.9	80	68-131	
4-Chlorotoluene	ug/L	0.50 U	20	20.5	103	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	40	33.2	83	70-130	
Acetone	ug/L	10.0 U	40	26.5	66	44-155	
Acetonitrile	ug/L	5.0 U	200	142	71	46-153	
Benzene	ug/L	0.10 U	20	19.4	97	70-130	
Bromobenzene	ug/L	0.50 U	20	20.3	102	70-130	
Bromochloromethane	ug/L	0.50 U	20	19.0	95	70-130	
Bromodichloromethane	ug/L	0.27 U	20	19.8	99	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

MATRIX SPIKE SAMPLE: 2134582		35333574002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromoform	ug/L	0.50 U	20	18.2	91	62-129	
Bromomethane	ug/L	0.50 U	20	14.9	75	10-179	
Carbon disulfide	ug/L	5.0 U	20	18.8	93	40-156	
Carbon tetrachloride	ug/L	0.50 U	20	19.3	96	66-127	
Chlorobenzene	ug/L	0.50 U	20	21.0	105	70-130	
Chloroethane	ug/L	0.50 U	20	20.3	102	57-142	
Chloroform	ug/L	0.50 U	20	20.0	100	70-130	
Chloromethane	ug/L	0.62 U	20	19.9	99	45-150	
cis-1,2-Dichloroethene	ug/L	3.5	20	23.3	99	70-130	
cis-1,3-Dichloropropene	ug/L	0.25 U	20	17.9	89	70-130	
Dibromochloromethane	ug/L	0.26 U	20	19.7	98	70-130	
Dibromomethane	ug/L	0.50 U	20	18.0	90	70-130	
Dichlorodifluoromethane	ug/L	0.50 U	20	24.5	122	44-149	
Ethylbenzene	ug/L	0.50 U	20	20.9	105	70-130	
Iodomethane	ug/L	0.50 U	40	34.0	85	21-150	
Isopropylbenzene (Cumene)	ug/L	0.50 U	20	21.2	106	70-130	
m&p-Xylene	ug/L	1.0 U	40	41.5	104	70-130	
Methyl-tert-butyl ether	ug/L	0.50 U	20	17.8	89	64-133	
Methylene Chloride	ug/L	2.5 U	20	15.5	77	65-127	
n-Butylbenzene	ug/L	0.50 U	20	21.5	107	70-130	
n-Propylbenzene	ug/L	0.50 U	20	21.1	105	70-130	
o-Xylene	ug/L	0.50 U	20	20.4	102	70-130	
p-Isopropyltoluene	ug/L	0.50 U	20	22.6	113	70-130	
sec-Butylbenzene	ug/L	0.50 U	20	22.2	111	70-130	
Styrene	ug/L	0.50 U	20	21.3	107	70-130	
tert-Butylbenzene	ug/L	0.50 U	20	21.7	109	70-130	
Tetrachloroethene	ug/L	22.7	20	34.2	57	48-155	
Toluene	ug/L	0.50 U	20	20.3	102	70-130	
trans-1,2-Dichloroethene	ug/L	0.50 U	20	18.7	93	68-126	
trans-1,3-Dichloropropene	ug/L	0.25 U	20	18.9	94	70-130	
Trichloroethene	ug/L	9.3	20	29.0	99	69-129	
Trichlorofluoromethane	ug/L	0.50 U	20	19.8	99	60-144	
Vinyl acetate	ug/L	1.0 U	20	16.9	84	70-130	
Vinyl chloride	ug/L	0.50 U	20	21.1	105	67-136	
Xylene (Total)	ug/L	1.5 U	60	61.9	103	70-130	
1,2-Dichloroethane-d4 (S)	%				94	75-135	
4-Bromofluorobenzene (S)	%				98	89-111	
Toluene-d8 (S)	%				98	89-112	

SAMPLE DUPLICATE: 2134581

Parameter	Units	35333574001	Dup	RPD	Max	Qualifiers
		Result	Result		RPD	
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	0.50 U		40	
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U		40	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.12 U		40	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

SAMPLE DUPLICATE: 2134581

Parameter	Units	35333574001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U		40	
1,1-Dichloroethane	ug/L	0.50 U	0.50 U		40	
1,1-Dichloroethene	ug/L	0.50 U	0.50 U		40	
1,1-Dichloropropene	ug/L	0.50 U	0.50 U		40	
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2,3-Trichloropropane	ug/L	0.59 U	0.59 U		40	
1,2,3-Trimethylbenzene	ug/L	1.0 U	1.0 U		40	
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2,4-Trimethylbenzene	ug/L	0.50 U	0.50 U		40	
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2-Dichloroethane	ug/L	0.50 U	0.50 U		40	
1,2-Dichloropropane	ug/L	0.50 U	0.50 U		40	
1,3,5-Trimethylbenzene	ug/L	0.50 U	0.50 U		40	
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,3-Dichloropropane	ug/L	0.50 U	0.50 U		40	
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
2,2-Dichloropropane	ug/L	0.50 U	0.50 U		40	
2-Butanone (MEK)	ug/L	5.0 U	5.0 U		40	
2-Chlorotoluene	ug/L	0.50 U	0.50 U		40	
2-Hexanone	ug/L	5.0 U	5.0 U		40	
4-Chlorotoluene	ug/L	0.50 U	0.50 U		40	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	5.0 U		40	
Acetone	ug/L	10.0 U	10.0 U		40	
Acetonitrile	ug/L	5.0 U	5.0 U		40	
Benzene	ug/L	0.10 U	0.10 U		40	
Bromobenzene	ug/L	0.50 U	0.50 U		40	
Bromochloromethane	ug/L	0.50 U	0.50 U		40	
Bromodichloromethane	ug/L	0.27 U	0.27 U		40	
Bromoform	ug/L	0.50 U	0.50 U		40	
Bromomethane	ug/L	0.50 U	0.50 U		40	
Carbon disulfide	ug/L	5.0 U	5.0 U		40	
Carbon tetrachloride	ug/L	0.50 U	0.50 U		40	
Chlorobenzene	ug/L	0.50 U	0.50 U		40	
Chloroethane	ug/L	0.50 U	0.50 U		40	
Chloroform	ug/L	0.50 U	0.50 U		40	
Chloromethane	ug/L	0.62 U	0.62 U		40	
cis-1,2-Dichloroethene	ug/L	0.72 I	0.68 I		40	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.25 U		40	
Dibromochloromethane	ug/L	0.26 U	0.26 U		40	
Dibromomethane	ug/L	0.50 U	0.50 U		40	
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U		40	
Ethylbenzene	ug/L	0.50 U	0.50 U		40	
Iodomethane	ug/L	0.50 U	0.50 U		40	
Isopropylbenzene (Cumene)	ug/L	0.50 U	0.50 U		40	
m&p-Xylene	ug/L	1.0 U	1.0 U		40	
Methyl-tert-butyl ether	ug/L	0.50 U	0.50 U		40	
Methylene Chloride	ug/L	2.5 U	2.5 U		40	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

SAMPLE DUPLICATE: 2134581

Parameter	Units	35333574001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Butylbenzene	ug/L	0.50 U	0.50 U		40	
n-Propylbenzene	ug/L	0.50 U	0.50 U		40	
o-Xylene	ug/L	0.50 U	0.50 U		40	
p-Isopropyltoluene	ug/L	0.50 U	0.50 U		40	
sec-Butylbenzene	ug/L	0.50 U	0.50 U		40	
Styrene	ug/L	0.50 U	0.50 U		40	
tert-Butylbenzene	ug/L	0.50 U	0.50 U		40	
Tetrachloroethene	ug/L	7.1	6.8	5	40	
Toluene	ug/L	0.50 U	0.50 U		40	
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U		40	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.25 U		40	
Trichloroethene	ug/L	3.7	3.8	1	40	
Trichlorofluoromethane	ug/L	0.50 U	0.50 U		40	
Vinyl acetate	ug/L	1.0 U	1.0 U		40	
Vinyl chloride	ug/L	0.50 U	0.50 U		40	
Xylene (Total)	ug/L	1.5 U	1.5 U		40	
1,2-Dichloroethane-d4 (S)	%	100	102	2	40	
4-Bromofluorobenzene (S)	%	94	95	2	40	
Toluene-d8 (S)	%	101	101	1	40	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391937 Analysis Method: EPA 8260
QC Batch Method: EPA 8260 Analysis Description: 8260 MSV
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

METHOD BLANK: 2133913 Matrix: Water
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,1,1-Trichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.50	0.12	09/07/17 09:36	
1,1,2-Trichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,1-Dichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,1-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,1-Dichloropropene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2,3-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2,3-Trichloropropane	ug/L	0.59 U	1.0	0.59	09/07/17 09:36	
1,2,3-Trimethylbenzene	ug/L	1.0 U	1.0	1.0	09/07/17 09:36	
1,2,4-Trichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2,4-Trimethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2-Dichloroethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,3,5-Trimethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,3-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,3-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
1,4-Dichlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
2,2-Dichloropropane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
2-Butanone (MEK)	ug/L	5.0 U	10.0	5.0	09/07/17 09:36	
2-Chlorotoluene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
2-Hexanone	ug/L	5.0 U	10.0	5.0	09/07/17 09:36	
4-Chlorotoluene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	10.0	5.0	09/07/17 09:36	
Acetone	ug/L	10.0 U	20.0	10.0	09/07/17 09:36	
Acetonitrile	ug/L	5.0 U	10.0	5.0	09/07/17 09:36	
Benzene	ug/L	0.10 U	1.0	0.10	09/07/17 09:36	
Bromobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Bromochloromethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Bromodichloromethane	ug/L	0.27 U	0.60	0.27	09/07/17 09:36	
Bromoform	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Bromomethane	ug/L	0.50 U	5.0	0.50	09/07/17 09:36	
Carbon disulfide	ug/L	5.0 U	10.0	5.0	09/07/17 09:36	
Carbon tetrachloride	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Chlorobenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Chloroethane	ug/L	0.50 U	10.0	0.50	09/07/17 09:36	
Chloroform	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Chloromethane	ug/L	0.62 U	1.0	0.62	09/07/17 09:36	
cis-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	09/07/17 09:36	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

METHOD BLANK: 2133913 Matrix: Water
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Dibromochloromethane	ug/L	0.26 U	0.50	0.26	09/07/17 09:36	
Dibromomethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Dichlorodifluoromethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Ethylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Iodomethane	ug/L	0.50 U	10.0	0.50	09/07/17 09:36	
Isopropylbenzene (Cumene)	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
m&p-Xylene	ug/L	1.0 U	2.0	1.0	09/07/17 09:36	
Methyl-tert-butyl ether	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Methylene Chloride	ug/L	2.5 U	5.0	2.5	09/07/17 09:36	
n-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
n-Propylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
o-Xylene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
p-Isopropyltoluene	ug/L	0.50 U	5.0	0.50	09/07/17 09:36	
sec-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Styrene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
tert-Butylbenzene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Tetrachloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Toluene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
trans-1,2-Dichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.50	0.25	09/07/17 09:36	
Trichloroethene	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Trichlorofluoromethane	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Vinyl acetate	ug/L	1.0 U	10.0	1.0	09/07/17 09:36	
Vinyl chloride	ug/L	0.50 U	1.0	0.50	09/07/17 09:36	
Xylene (Total)	ug/L	1.5 U	3.0	1.5	09/07/17 09:36	
1,2-Dichloroethane-d4 (S)	%	100	75-135		09/07/17 09:36	
4-Bromofluorobenzene (S)	%	99	89-111		09/07/17 09:36	
Toluene-d8 (S)	%	101	89-112		09/07/17 09:36	

LABORATORY CONTROL SAMPLE: 2133914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	20	19.9	100	70-130	
1,1,1-Trichloroethane	ug/L	20	19.9	99	70-130	
1,1,2,2-Tetrachloroethane	ug/L	20	19.6	98	70-130	
1,1,2-Trichloroethane	ug/L	20	20.1	101	70-130	
1,1-Dichloroethane	ug/L	20	19.9	99	70-130	
1,1-Dichloroethene	ug/L	20	18.8	94	65-134	
1,1-Dichloropropene	ug/L	20	19.8	99	70-130	
1,2,3-Trichlorobenzene	ug/L	20	20.5	103	70-130	
1,2,3-Trichloropropane	ug/L	20	19.2	96	65-135	
1,2,3-Trimethylbenzene	ug/L	20	23.1	115	70-130	
1,2,4-Trichlorobenzene	ug/L	20	20.9	104	70-130	
1,2,4-Trimethylbenzene	ug/L	20	22.4	112	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2133914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1,2-Dichlorobenzene	ug/L	20	21.2	106	70-130	
1,2-Dichloroethane	ug/L	20	18.7	94	70-130	
1,2-Dichloropropane	ug/L	20	20.1	101	70-130	
1,3,5-Trimethylbenzene	ug/L	20	22.3	112	70-130	
1,3-Dichlorobenzene	ug/L	20	21.9	110	70-130	
1,3-Dichloropropane	ug/L	20	19.5	98	70-130	
1,4-Dichlorobenzene	ug/L	20	21.3	106	70-130	
2,2-Dichloropropane	ug/L	20	20.3	101	55-143	
2-Butanone (MEK)	ug/L	40	41.8	104	61-129	
2-Chlorotoluene	ug/L	20	24.4	122	70-130	
2-Hexanone	ug/L	40	34.0	85	68-131	
4-Chlorotoluene	ug/L	20	21.9	110	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	40	32.9	82	70-130	
Acetone	ug/L	40	32.0	80	44-155	
Acetonitrile	ug/L	200	186	93	46-153	
Benzene	ug/L	20	19.8	99	70-130	
Bromobenzene	ug/L	20	21.1	105	70-130	
Bromochloromethane	ug/L	20	19.8	99	70-130	
Bromodichloromethane	ug/L	20	19.7	98	70-130	
Bromoform	ug/L	20	18.4	92	62-129	
Bromomethane	ug/L	20	25.8	129	10-179	
Carbon disulfide	ug/L	20	22.8	114	40-156	
Carbon tetrachloride	ug/L	20	19.7	98	66-127	
Chlorobenzene	ug/L	20	21.0	105	70-130	
Chloroethane	ug/L	20	20.8	104	57-142	
Chloroform	ug/L	20	19.3	97	70-130	
Chloromethane	ug/L	20	21.1	105	45-150	
cis-1,2-Dichloroethene	ug/L	20	18.9	95	70-130	
cis-1,3-Dichloropropene	ug/L	20	19.3	97	70-130	
Dibromochloromethane	ug/L	20	18.8	94	70-130	
Dibromomethane	ug/L	20	19.3	96	70-130	
Dichlorodifluoromethane	ug/L	20	22.2	111	44-149	
Ethylbenzene	ug/L	20	20.7	103	70-130	
Iodomethane	ug/L	40	40.8	102	21-150	
Isopropylbenzene (Cumene)	ug/L	20	22.6	113	70-130	
m&p-Xylene	ug/L	40	43.4	109	70-130	
Methyl-tert-butyl ether	ug/L	20	21.3	106	64-133	
Methylene Chloride	ug/L	20	19.9	99	65-127	
n-Butylbenzene	ug/L	20	23.1	116	70-130	
n-Propylbenzene	ug/L	20	21.7	109	70-130	
o-Xylene	ug/L	20	22.1	110	70-130	
p-Isopropyltoluene	ug/L	20	22.2	111	70-130	
sec-Butylbenzene	ug/L	20	22.6	113	70-130	
Styrene	ug/L	20	22.4	112	70-130	
tert-Butylbenzene	ug/L	20	21.7	108	70-130	
Tetrachloroethene	ug/L	20	19.1	95	48-155	
Toluene	ug/L	20	19.5	98	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2133914

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
trans-1,2-Dichloroethene	ug/L	20	17.6	88	68-126	
trans-1,3-Dichloropropene	ug/L	20	19.1	96	70-130	
Trichloroethene	ug/L	20	19.3	96	69-129	
Trichlorofluoromethane	ug/L	20	19.9	99	60-144	
Vinyl acetate	ug/L	20	20.7	103	70-130	
Vinyl chloride	ug/L	20	19.7	99	67-136	
Xylene (Total)	ug/L	60	65.5	109	70-130	
1,2-Dichloroethane-d4 (S)	%			96	75-135	
4-Bromofluorobenzene (S)	%			102	89-111	
Toluene-d8 (S)	%			100	89-112	

MATRIX SPIKE SAMPLE: 2135187

Parameter	Units	35333972002 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	20	19.3	97	70-130	
1,1,1-Trichloroethane	ug/L	0.50 U	20	19.6	98	70-130	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	20	21.8	109	70-130	
1,1,2-Trichloroethane	ug/L	0.50 U	20	21.5	108	70-130	
1,1-Dichloroethane	ug/L	0.50 U	20	19.8	99	70-130	
1,1-Dichloroethene	ug/L	0.50 U	20	19.6	98	65-134	
1,1-Dichloropropene	ug/L	0.50 U	20	19.7	99	70-130	
1,2,3-Trichlorobenzene	ug/L	0.50 U	20	23.0	115	70-130	
1,2,3-Trichloropropane	ug/L	0.59 U	20	22.1	111	65-135	
1,2,3-Trimethylbenzene	ug/L	1.0 U	20	21.2	104	70-130	
1,2,4-Trichlorobenzene	ug/L	0.50 U	20	23.4	117	70-130	
1,2,4-Trimethylbenzene	ug/L	0.50 U	20	21.9	110	70-130	
1,2-Dichlorobenzene	ug/L	0.50 U	20	20.8	104	70-130	
1,2-Dichloroethane	ug/L	0.50 U	20	18.1	91	70-130	
1,2-Dichloropropane	ug/L	0.50 U	20	20.1	101	70-130	
1,3,5-Trimethylbenzene	ug/L	0.50 U	20	22.0	110	70-130	
1,3-Dichlorobenzene	ug/L	0.50 U	20	21.5	108	70-130	
1,3-Dichloropropane	ug/L	0.50 U	20	20.4	102	70-130	
1,4-Dichlorobenzene	ug/L	0.61 I	20	21.2	103	70-130	
2,2-Dichloropropane	ug/L	0.50 U	20	15.0	75	55-143	
2-Butanone (MEK)	ug/L	5.0 U	40	47.9	120	61-129	
2-Chlorotoluene	ug/L	0.50 U	20	22.1	111	70-130	
2-Hexanone	ug/L	5.0 U	40	36.0	90	68-131	
4-Chlorotoluene	ug/L	0.50 U	20	21.5	108	70-130	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	40	33.9	85	70-130	
Acetone	ug/L	10.0 U	40	46.2	91	44-155	
Acetonitrile	ug/L	5.0 U	200	215	107	46-153	
Benzene	ug/L	0.10 U	20	19.2	96	70-130	
Bromobenzene	ug/L	0.50 U	20	20.7	103	70-130	
Bromochloromethane	ug/L	0.50 U	20	19.4	97	70-130	
Bromodichloromethane	ug/L	0.27 U	20	19.1	95	70-130	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

MATRIX SPIKE SAMPLE: 2135187		35333972002	Spike	MS	MS	% Rec	
Parameter	Units	Result	Conc.	Result	% Rec	Limits	Qualifiers
Bromoform	ug/L	0.50 U	20	18.4	92	62-129	
Bromomethane	ug/L	0.50 U	20	21.0	105	10-179	
Carbon disulfide	ug/L	5.0 U	20	21.7	108	40-156	
Carbon tetrachloride	ug/L	0.50 U	20	19.0	95	66-127	
Chlorobenzene	ug/L	1.6	20	22.3	103	70-130	
Chloroethane	ug/L	0.50 U	20	23.7	118	57-142	
Chloroform	ug/L	0.50 U	20	18.9	94	70-130	
Chloromethane	ug/L	0.62 U	20	23.0	113	45-150	
cis-1,2-Dichloroethene	ug/L	0.50 U	20	18.4	92	70-130	
cis-1,3-Dichloropropene	ug/L	0.25 U	20	16.7	84	70-130	
Dibromochloromethane	ug/L	0.26 U	20	18.1	90	70-130	
Dibromomethane	ug/L	0.50 U	20	19.2	96	70-130	
Dichlorodifluoromethane	ug/L	0.50 U	20	24.4	122	44-149	
Ethylbenzene	ug/L	0.50 U	20	20.7	103	70-130	
Iodomethane	ug/L	0.50 U	40	14.7	37	21-150	
Isopropylbenzene (Cumene)	ug/L	5.1	20	30.3	126	70-130	
m&p-Xylene	ug/L	1.0 U	40	43.3	108	70-130	
Methyl-tert-butyl ether	ug/L	0.50 U	20	19.0	95	64-133	
Methylene Chloride	ug/L	2.5 U	20	17.9	90	65-127	
n-Butylbenzene	ug/L	0.50 U	20	23.2	115	70-130	
n-Propylbenzene	ug/L	0.50 U	20	22.0	109	70-130	
o-Xylene	ug/L	0.50 U	20	21.4	106	70-130	
p-Isopropyltoluene	ug/L	0.50 U	20	21.9	110	70-130	
sec-Butylbenzene	ug/L	3.6	20	28.1	122	70-130	
Styrene	ug/L	0.50 U	20	21.2	106	70-130	
tert-Butylbenzene	ug/L	2.8	20	21.8	95	70-130	
Tetrachloroethene	ug/L	0.50 U	20	18.5	92	48-155	
Toluene	ug/L	0.50 U	20	19.8	99	70-130	
trans-1,2-Dichloroethene	ug/L	0.50 U	20	17.6	88	68-126	
trans-1,3-Dichloropropene	ug/L	0.25 U	20	17.5	88	70-130	
Trichloroethene	ug/L	0.50 U	20	19.1	96	69-129	
Trichlorofluoromethane	ug/L	0.50 U	20	22.7	113	60-144	
Vinyl acetate	ug/L	1.0 U	20	16.7	84	70-130	
Vinyl chloride	ug/L	0.50 U	20	22.2	111	67-136	
Xylene (Total)	ug/L	1.5 U	60	64.6	108	70-130	
1,2-Dichloroethane-d4 (S)	%				99	75-135	
4-Bromofluorobenzene (S)	%				98	89-111	
Toluene-d8 (S)	%				98	89-112	

SAMPLE DUPLICATE: 2135186

Parameter	Units	35334321001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,1,2-Tetrachloroethane	ug/L	0.50 U	0.50 U		40	
1,1,1-Trichloroethane	ug/L	0.50 U	0.50 U		40	
1,1,2,2-Tetrachloroethane	ug/L	0.12 U	0.12 U		40	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

SAMPLE DUPLICATE: 2135186

Parameter	Units	35334321001 Result	Dup Result	RPD	Max RPD	Qualifiers
1,1,2-Trichloroethane	ug/L	0.50 U	0.50 U		40	
1,1-Dichloroethane	ug/L	0.50 U	0.50 U		40	
1,1-Dichloroethene	ug/L	0.50 U	0.50 U		40	
1,1-Dichloropropene	ug/L	0.50 U	0.50 U		40	
1,2,3-Trichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2,3-Trichloropropane	ug/L	0.59 U	0.59 U		40	
1,2,3-Trimethylbenzene	ug/L	1.0 U	1.0 U		40	
1,2,4-Trichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2,4-Trimethylbenzene	ug/L	0.50 U	0.50 U		40	
1,2-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,2-Dichloroethane	ug/L	0.50 U	0.50 U		40	
1,2-Dichloropropane	ug/L	0.50 U	0.50 U		40	
1,3,5-Trimethylbenzene	ug/L	0.50 U	0.50 U		40	
1,3-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
1,3-Dichloropropane	ug/L	0.50 U	0.50 U		40	
1,4-Dichlorobenzene	ug/L	0.50 U	0.50 U		40	
2,2-Dichloropropane	ug/L	0.50 U	0.50 U		40	
2-Butanone (MEK)	ug/L	5.0 U	5.0 U		40	
2-Chlorotoluene	ug/L	0.50 U	0.50 U		40	
2-Hexanone	ug/L	5.0 U	5.0 U		40	
4-Chlorotoluene	ug/L	0.50 U	0.50 U		40	
4-Methyl-2-pentanone (MIBK)	ug/L	5.0 U	5.0 U		40	
Acetone	ug/L	34.1	12.0 I		40	
Acetonitrile	ug/L	5.0 U	5.0 U		40	
Benzene	ug/L	0.10 U	0.10 U		40	
Bromobenzene	ug/L	0.50 U	0.50 U		40	
Bromochloromethane	ug/L	0.50 U	0.50 U		40	
Bromodichloromethane	ug/L	0.27 U	0.27 U		40	
Bromoform	ug/L	0.50 U	0.50 U		40	
Bromomethane	ug/L	0.50 U	0.50 U		40	
Carbon disulfide	ug/L	5.0 U	5.0 U		40	
Carbon tetrachloride	ug/L	0.50 U	0.50 U		40	
Chlorobenzene	ug/L	0.50 U	0.50 U		40	
Chloroethane	ug/L	0.50 U	0.50 U		40	
Chloroform	ug/L	0.52 I	0.53 I		40	
Chloromethane	ug/L	3.5	1.9	59	40	J(D6)
cis-1,2-Dichloroethene	ug/L	0.50 U	0.50 U		40	
cis-1,3-Dichloropropene	ug/L	0.25 U	0.25 U		40	
Dibromochloromethane	ug/L	0.26 U	0.26 U		40	
Dibromomethane	ug/L	0.50 U	0.50 U		40	
Dichlorodifluoromethane	ug/L	0.50 U	0.50 U		40	
Ethylbenzene	ug/L	0.50 U	0.50 U		40	
Iodomethane	ug/L	0.55 I	0.50 U		40	
Isopropylbenzene (Cumene)	ug/L	0.50 U	0.50 U		40	
m&p-Xylene	ug/L	1.0 U	1.0 U		40	
Methyl-tert-butyl ether	ug/L	0.50 U	0.50 U		40	
Methylene Chloride	ug/L	2.5 U	2.5 U		40	

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QUALITY CONTROL DATA

Project: Ludlum Trail

Pace Project No.: 35333976

SAMPLE DUPLICATE: 2135186

Parameter	Units	35334321001 Result	Dup Result	RPD	Max RPD	Qualifiers
n-Butylbenzene	ug/L	0.50 U	0.50 U		40	
n-Propylbenzene	ug/L	0.50 U	0.50 U		40	
o-Xylene	ug/L	0.50 U	0.50 U		40	
p-Isopropyltoluene	ug/L	0.50 U	0.50 U		40	
sec-Butylbenzene	ug/L	0.50 U	0.50 U		40	
Styrene	ug/L	0.50 U	0.50 U		40	
tert-Butylbenzene	ug/L	0.50 U	0.50 U		40	
Tetrachloroethene	ug/L	0.50 U	0.50 U		40	
Toluene	ug/L	0.50 U	0.50 U		40	
trans-1,2-Dichloroethene	ug/L	0.50 U	0.50 U		40	
trans-1,3-Dichloropropene	ug/L	0.25 U	0.25 U		40	
Trichloroethene	ug/L	0.50 U	0.50 U		40	
Trichlorofluoromethane	ug/L	0.50 U	0.50 U		40	
Vinyl acetate	ug/L	1.0 U	1.0 U		40	
Vinyl chloride	ug/L	0.50 U	0.50 U		40	
Xylene (Total)	ug/L	1.5 U	1.5 U		40	
1,2-Dichloroethane-d4 (S)	%	101	102	2	40	
4-Bromofluorobenzene (S)	%	96	96	0	40	
Toluene-d8 (S)	%	100	103	3	40	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391583 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAHLV by SIM MSSV
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

METHOD BLANK: 2131745 Matrix: Water
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	09/07/17 06:38	
2-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	09/07/17 06:38	
Acenaphthene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Acenaphthylene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Anthracene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Benzo(a)anthracene	ug/L	0.025 U	0.10	0.025	09/07/17 06:38	
Benzo(a)pyrene	ug/L	0.025 U	0.10	0.025	09/07/17 06:38	
Benzo(b)fluoranthene	ug/L	0.025 U	0.10	0.025	09/07/17 06:38	
Benzo(g,h,i)perylene	ug/L	0.028 U	0.50	0.028	09/07/17 06:38	
Benzo(k)fluoranthene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Chrysene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Dibenz(a,h)anthracene	ug/L	0.034 U	0.10	0.034	09/07/17 06:38	
Fluoranthene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Fluorene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	0.10	0.029	09/07/17 06:38	
Naphthalene	ug/L	1.0 U	2.0	1.0	09/07/17 06:38	
Phenanthrene	ug/L	0.050 U	0.50	0.050	09/07/17 06:38	
Pyrene	ug/L	0.025 U	0.50	0.025	09/07/17 06:38	
2-Fluorobiphenyl (S)	%	62	33-101		09/07/17 06:38	
Terphenyl-d14 (S)	%	78	38-115		09/07/17 06:38	

LABORATORY CONTROL SAMPLE: 2131746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	5	4.5	90	33-118	
2-Methylnaphthalene	ug/L	5	2.8	56	34-104	
Acenaphthene	ug/L	5	3.7	75	38-109	
Acenaphthylene	ug/L	5	2.7	54	31-115	
Anthracene	ug/L	5	3.3	65	38-111	
Benzo(a)anthracene	ug/L	5	1.6	32	36-110 J(L2)	
Benzo(a)pyrene	ug/L	5	1.8	36	27-107	
Benzo(b)fluoranthene	ug/L	5	3.2	63	32-119	
Benzo(g,h,i)perylene	ug/L	5	3.3	67	10-109	
Benzo(k)fluoranthene	ug/L	5	4.3	85	28-118	
Chrysene	ug/L	5	6.4	128	33-130	
Dibenz(a,h)anthracene	ug/L	5	3.8	77	10-104	
Fluoranthene	ug/L	5	3.2	64	45-115	
Fluorene	ug/L	5	3.6	73	41-114	
Indeno(1,2,3-cd)pyrene	ug/L	5	3.5	70	10-104	
Naphthalene	ug/L	5	3.5	71	38-100	

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REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2131746

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	5	3.3	65	41-106	
Pyrene	ug/L	5	3.3	67	45-115	
2-Fluorobiphenyl (S)	%			72	33-101	
Terphenyl-d14 (S)	%			75	38-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2131929 2131930

Parameter	Units	35333870002	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
		Result	Conc.	Conc.								
1-Methylnaphthalene	ug/L	1.0 U	5	5	4.1	3.7	83	74	33-118	11	40	
2-Methylnaphthalene	ug/L	1.0 U	5	5	3.1	2.9	62	57	34-104	8	40	
Acenaphthene	ug/L	0.025 U	5	5	3.7	3.5	74	71	38-109	5	40	
Acenaphthylene	ug/L	0.025 U	5	5	3.0	2.8	61	56	31-115	8	40	
Anthracene	ug/L	0.025 U	5	5	3.9	3.9	79	77	38-111	2	40	
Benzo(a)anthracene	ug/L	0.025 U	5	5	2.8	2.1	55	41	36-110	29	40	
Benzo(a)pyrene	ug/L	0.025 U	5	5	2.6	2.0	51	40	27-107	24	40	
Benzo(b)fluoranthene	ug/L	0.025 U	5	5	2.8	2.1	55	42	32-119	27	40	
Benzo(g,h,i)perylene	ug/L	0.028 U	5	5	3.9	3.3	78	66	10-109	16	40	
Benzo(k)fluoranthene	ug/L	0.025 U	5	5	4.7	4.9	95	97	28-118	2	40	
Chrysene	ug/L	0.025 U	5	5	5.4	5.9	108	119	33-130	9	40	
Dibenz(a,h)anthracene	ug/L	0.034 U	5	5	4.4	3.6	88	72	10-104	21	40	
Fluoranthene	ug/L	0.025 U	5	5	3.9	3.4	78	68	45-115	14	40	
Fluorene	ug/L	0.025 U	5	5	3.8	3.4	76	69	41-114	10	40	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	5	5	3.7	3.2	74	64	10-104	14	40	
Naphthalene	ug/L	1.0 U	5	5	3.5	3.2	66	60	38-100	9	40	
Phenanthrene	ug/L	0.050 U	5	5	3.5	3.2	70	64	41-106	9	40	
Pyrene	ug/L	0.025 U	5	5	4.1	3.4	82	68	45-115	19	40	
2-Fluorobiphenyl (S)	%						70	65	33-101			
Terphenyl-d14 (S)	%						90	75	38-115			

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391593 Analysis Method: EPA 8270 by SIM
QC Batch Method: EPA 3510 Analysis Description: 8270 Water PAHLV by SIM MSSV
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

METHOD BLANK: 2131781 Matrix: Water
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
1-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	09/12/17 17:56	
2-Methylnaphthalene	ug/L	1.0 U	2.0	1.0	09/12/17 17:56	
Acenaphthene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Acenaphthylene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Anthracene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Benzo(a)anthracene	ug/L	0.025 U	0.10	0.025	09/12/17 17:56	
Benzo(a)pyrene	ug/L	0.025 U	0.10	0.025	09/12/17 17:56	
Benzo(b)fluoranthene	ug/L	0.025 U	0.10	0.025	09/12/17 17:56	
Benzo(g,h,i)perylene	ug/L	0.028 U	0.50	0.028	09/12/17 17:56	
Benzo(k)fluoranthene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Chrysene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Dibenz(a,h)anthracene	ug/L	0.034 U	0.10	0.034	09/12/17 17:56	
Fluoranthene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Fluorene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
Indeno(1,2,3-cd)pyrene	ug/L	0.029 U	0.10	0.029	09/12/17 17:56	
Naphthalene	ug/L	1.0 U	2.0	1.0	09/12/17 17:56	
Phenanthrene	ug/L	0.050 U	0.50	0.050	09/12/17 17:56	
Pyrene	ug/L	0.025 U	0.50	0.025	09/12/17 17:56	
2-Fluorobiphenyl (S)	%	65	33-101		09/12/17 17:56	
Terphenyl-d14 (S)	%	87	38-115		09/12/17 17:56	

LABORATORY CONTROL SAMPLE: 2131782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
1-Methylnaphthalene	ug/L	5	6.5	129	33-118	J(L1)
2-Methylnaphthalene	ug/L	5	4.0	79	34-104	
Acenaphthene	ug/L	5	3.7	74	38-109	
Acenaphthylene	ug/L	5	2.6	51	31-115	
Anthracene	ug/L	5	4.0	80	38-111	
Benzo(a)anthracene	ug/L	5	2.0	40	36-110	
Benzo(a)pyrene	ug/L	5	2.0	39	27-107	
Benzo(b)fluoranthene	ug/L	5	2.7	54	32-119	
Benzo(g,h,i)perylene	ug/L	5	2.8	56	10-109	
Benzo(k)fluoranthene	ug/L	5	4.5	90	28-118	
Chrysene	ug/L	5	5.4	107	33-130	
Dibenz(a,h)anthracene	ug/L	5	2.7	55	10-104	
Fluoranthene	ug/L	5	3.6	73	45-115	
Fluorene	ug/L	5	3.7	75	41-114	
Indeno(1,2,3-cd)pyrene	ug/L	5	2.6	52	10-104	
Naphthalene	ug/L	5	3.4	68	38-100	

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

LABORATORY CONTROL SAMPLE: 2131782

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Phenanthrene	ug/L	5	3.3	66	41-106	
Pyrene	ug/L	5	3.8	76	45-115	
2-Fluorobiphenyl (S)	%			107	33-101	J(S0)
Terphenyl-d14 (S)	%			87	38-115	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2132067 2132068

Parameter	Units	35333868001		MS		MSD		MS		MSD		MS		MSD		% Rec		Max		Qual
		Result	U	Spike Conc.	Conc.	Result	Conc.	Result	Conc.	Result	Conc.	% Rec	% Rec	% Rec	% Rec	Limits	RPD	RPD	RPD	
1-Methylnaphthalene	ug/L	1.0	U	5	5	5.7	5.5	114	110	33-118	3	40								
2-Methylnaphthalene	ug/L	1.0	U	5	5	3.4	3.2	68	63	34-104	7	40								
Acenaphthene	ug/L	0.025	U	5	5	3.4	3.1	68	63	38-109	8	40								
Acenaphthylene	ug/L	0.025	U	5	5	2.4	2.2	48	45	31-115	6	40								
Anthracene	ug/L	0.025	U	5	5	3.6	3.7	73	73	38-111	1	40								
Benzo(a)anthracene	ug/L	0.025	U	5	5	2.0	2.2	40	43	36-110	8	40								
Benzo(a)pyrene	ug/L	0.025	U	5	5	2.1	2.2	42	44	27-107	4	40								
Benzo(b)fluoranthene	ug/L	0.025	U	5	5	2.4	2.3	49	47	32-119	5	40								
Benzo(g,h,i)perylene	ug/L	0.028	U	5	5	2.8	3.1	56	63	10-109	11	40								
Benzo(k)fluoranthene	ug/L	0.025	U	5	5	4.3	4.2	86	85	28-118	1	40								
Chrysene	ug/L	0.025	U	5	5	5.6	5.4	112	108	33-130	4	40								
Dibenz(a,h)anthracene	ug/L	0.034	U	5	5	2.9	2.9	57	58	10-104	1	40								
Fluoranthene	ug/L	0.025	U	5	5	3.5	3.5	70	69	45-115	2	40								
Fluorene	ug/L	0.025	U	5	5	3.5	3.2	69	64	41-114	9	40								
Indeno(1,2,3-cd)pyrene	ug/L	0.029	U	5	5	2.6	2.7	53	54	10-104	3	40								
Naphthalene	ug/L	1.0	U	5	5	4.5	4.3	90	86	38-100	4	40								
Phenanthrene	ug/L	0.050	U	5	5	3.2	3.2	64	63	41-106	1	40								
Pyrene	ug/L	0.025	U	5	5	3.7	3.6	74	71	45-115	4	40								
2-Fluorobiphenyl (S)	%							88	81	33-101										
Terphenyl-d14 (S)	%							84	82	38-115										

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 391814 Analysis Method: FL-PRO
QC Batch Method: EPA 3510 Analysis Description: FL-PRO Water Low Volume
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

METHOD BLANK: 2132932 Matrix: Water
Associated Lab Samples: 35333976001, 35333976002, 35333976003, 35333976005

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	09/08/17 11:06	
N-Pentatriacontane (S)	%	136	42-159		09/08/17 11:06	
o-Terphenyl (S)	%	117	82-142		09/08/17 11:06	

LABORATORY CONTROL SAMPLE: 2132933

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	5	3.9	78	55-118	
N-Pentatriacontane (S)	%			93	42-159	
o-Terphenyl (S)	%			116	82-142	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 2133952 2133953

Parameter	Units	35334094004 Result	MS Spike Conc.	MSD Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limits	RPD	Max RPD	Qual
Petroleum Range Organics	mg/L	0.80 U	5	5	4.1	4.1	74	72	41-101	2	20	
N-Pentatriacontane (S)	%						115	86	42-159			
o-Terphenyl (S)	%						111	115	82-142			

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QUALITY CONTROL DATA

Project: Ludlum Trail
Pace Project No.: 35333976

QC Batch: 392042 Analysis Method: FL-PRO
QC Batch Method: EPA 3510 Analysis Description: FL-PRO Water Low Volume
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

METHOD BLANK: 2134510 Matrix: Water
Associated Lab Samples: 35333976006, 35333976007, 35333976008, 35333976009

Parameter	Units	Blank Result	Reporting Limit	MDL	Analyzed	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	1.0	0.80	09/08/17 17:53	
N-Pentatriacontane (S)	%	88	42-159		09/08/17 17:53	
o-Terphenyl (S)	%	92	82-142		09/08/17 17:53	

LABORATORY CONTROL SAMPLE: 2134511

Parameter	Units	Spike Conc.	LCS Result	LCS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	5	3.5	69	55-118	
N-Pentatriacontane (S)	%			65	42-159	
o-Terphenyl (S)	%			89	82-142	

MATRIX SPIKE SAMPLE: 2135466

Parameter	Units	35333976006 Result	Spike Conc.	MS Result	MS % Rec	% Rec Limits	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	5	3.3	65	41-101	
N-Pentatriacontane (S)	%				69	42-159	
o-Terphenyl (S)	%				88	82-142	

SAMPLE DUPLICATE: 2135467

Parameter	Units	35334167001 Result	Dup Result	RPD	Max RPD	Qualifiers
Petroleum Range Organics	mg/L	0.80 U	0.80 U		20	
N-Pentatriacontane (S)	%	91	78	15		
o-Terphenyl (S)	%	99	107	7		

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QUALIFIERS

Project: Ludlum Trail
Pace Project No.: 35333976

DEFINITIONS

DF - Dilution Factor, if reported, represents the factor applied to the reported data due to dilution of the sample aliquot.
ND - Not Detected at or above adjusted reporting limit.
TNTC - Too Numerous To Count
MDL - Adjusted Method Detection Limit.
PQL - Practical Quantitation Limit.
RL - Reporting Limit.
S - Surrogate
1,2-Diphenylhydrazine decomposes to and cannot be separated from Azobenzene using Method 8270. The result for each analyte is a combined concentration.
Consistent with EPA guidelines, unrounded data are displayed and have been used to calculate % recovery and RPD values.
LCS(D) - Laboratory Control Sample (Duplicate)
MS(D) - Matrix Spike (Duplicate)
DUP - Sample Duplicate
RPD - Relative Percent Difference
NC - Not Calculable.
SG - Silica Gel - Clean-Up
U - Indicates the compound was analyzed for, but not detected.
N-Nitrosodiphenylamine decomposes and cannot be separated from Diphenylamine using Method 8270. The result reported for each analyte is a combined concentration.
Pace Analytical is TNI accredited. Contact your Pace PM for the current list of accredited analytes.
TNI - The NELAC Institute.

LABORATORIES

PASI-O Pace Analytical Services - Ormond Beach

ANALYTE QUALIFIERS

I The reported value is between the laboratory method detection limit and the laboratory practical quantitation limit.
U Compound was analyzed for but not detected.
J(D6) Estimated Value. The relative percent difference (RPD) between the sample and sample duplicate exceeded laboratory control limits.
J(L1) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was above QC limits. Results for this analyte in associated samples may be biased high.
J(L2) Estimated Value. Analyte recovery in the laboratory control sample (LCS) was below QC limits. Results for this analyte in associated samples may be biased low.
J(S0) Estimated Value. Surrogate recovery outside laboratory control limits.
Q Sample held beyond the accepted holding time.
Q Sample held beyond the accepted holding time. Re-extraction or re-analysis could not be performed within method holding time.
S3 Surrogate recovery exceeded laboratory control limits. Analyte presence below reporting limits in associated sample.

REPORT OF LABORATORY ANALYSIS

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Project: Ludlum Trail

Pace Project No.: 35333976

Lab ID	Sample ID	QC Batch Method	QC Batch	Analytical Method	Analytical Batch
35333976001	TWP-3	EPA 3510	391814	FL-PRO	392213
35333976002	TWP-17	EPA 3510	391814	FL-PRO	392213
35333976003	TWP-7	EPA 3510	391814	FL-PRO	392213
35333976005	TWP-23	EPA 3510	391814	FL-PRO	392213
35333976006	TWP-10	EPA 3510	392042	FL-PRO	392215
35333976007	TWP-21	EPA 3510	392042	FL-PRO	392215
35333976008	TWP-19	EPA 3510	392042	FL-PRO	392215
35333976009	TWP-18	EPA 3510	392042	FL-PRO	392215
35333976001	TWP-3	EPA 3010	391952	EPA 6010	392058
35333976002	TWP-17	EPA 3010	391952	EPA 6010	392058
35333976003	TWP-7	EPA 3010	391952	EPA 6010	392058
35333976005	TWP-23	EPA 3010	391952	EPA 6010	392058
35333976006	TWP-10	EPA 3010	392018	EPA 6010	392222
35333976007	TWP-21	EPA 3010	392018	EPA 6010	392222
35333976008	TWP-19	EPA 3010	392018	EPA 6010	392222
35333976009	TWP-18	EPA 3010	392018	EPA 6010	392222
35333976006	TWP-10	EPA 3010	394587	EPA 6010	394654
35333976001	TWP-3	EPA 3510	391593	EPA 8270 by SIM	392423
35333976002	TWP-17	EPA 3510	391593	EPA 8270 by SIM	392423
35333976003	TWP-7	EPA 3510	391593	EPA 8270 by SIM	392423
35333976005	TWP-23	EPA 3510	391593	EPA 8270 by SIM	392423
35333976006	TWP-10	EPA 3510	391583	EPA 8270 by SIM	391874
35333976007	TWP-21	EPA 3510	391583	EPA 8270 by SIM	391874
35333976008	TWP-19	EPA 3510	391583	EPA 8270 by SIM	391874
35333976009	TWP-18	EPA 3510	391583	EPA 8270 by SIM	391874
35333976001	TWP-3	EPA 8260	391937		
35333976002	TWP-17	EPA 8260	391937		
35333976003	TWP-7	EPA 8260	391937		
35333976005	TWP-23	EPA 8260	391937		
35333976006	TWP-10	EPA 8260	391889		
35333976007	TWP-21	EPA 8260	391889		
35333976008	TWP-19	EPA 8260	391889		
35333976009	TWP-18	EPA 8260	391889		

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	Document Name:	Document Revised:
	Sample Condition Upon Receipt Form	August 2, 2017
	Document No.: F-FL-C-007 rev. 12	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

Project # WO# : 35333976
Project Manager: PM: CTR **Due Date:** 09/11/17
Client: CLIENT: 36-ESCON

Date and Initials of person:
Examining contents: _____
Label: _____
Deliver: _____
pH: _____

Thermometer Used: T-299 Date: 9/12/17 Time: 0025 Initials: AB

State of Origin: _____

Cooler #1 Temp. °C <u>4.7</u> (Visual) <u>50.1</u> (Correction Factor) <u>4.8</u> (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace ☐ Other _____

Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ International Priority
☐ Other _____

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No Ice: Wet Blue Dry None

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Comments:

Chain of Custody Present	☒ Yes ☐ No ☐ N/A	Missing Samples for sample ID TWP-10 Preservation Information: Lot #/Trace #: _____ Date: _____ Time: _____ Initials: _____
Chain of Custody Filled Out	☒ Yes ☐ No ☐ N/A	
Relinquished Signature & Sampler Name COC	☒ Yes ☐ No ☐ N/A	
Samples Arrived within Hold Time	☒ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☒ No ☐ N/A	
Sufficient Volume	☒ Yes ☐ No ☐ N/A	
Correct Containers Used	☒ Yes ☐ No ☐ N/A	
Containers Intact	☒ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐ Yes ☒ No ☐ N/A	
All containers needing acid/base preservation have been checked.	☒ Yes ☐ No ☐ N/A	
All Containers needing preservation are found to be in compliance with EPA recommendation:	☒ Yes ☐ No ☐ N/A	<u>NO CO 389/1/12 See Comments</u>
Exceptions: VOA, Coliform, TOC, O&G, Carbamates		
Headspace in VOA Vials? (>6mm):	☒ Yes ☐ No ☐ N/A	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/ Resolution:

Person Contacted: _____ Date/Time: _____

Comments/ Resolution (use back for additional comments): 3/3 vials for Sample ID TWP-17 has excess headspace, 1/3 vials for Sample ID TWP-23

	Document Name	Document Revised:
	Sample Condition Upon Receipt Form	August 2, 2017
	Document No.: F-FL-C-007 rev. 12	Issuing Authority: Pace Florida Quality Office

Sample Condition Upon Receipt Form (SCUR)

WO# : 35333976

Project #
Project Manager:
Client:

PM: CTR **Due Date: 09/11/17**
CLIENT: 36-ESCON

Date and Initials of person:
Examining contents: LD
Label: _____
Deliver: _____
pH: _____

Thermometer Used: T-299 Date: 9/12/17 Time: 0025 Initials: AS

State of Origin: _____

Cooler #1 Temp. °C <u>4.7</u> (Visual) <u>4.1</u> (Correction Factor) <u>4.8</u> (Actual)	☐ Samples on ice, cooling process has begun
Cooler #2 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #3 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #4 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #5 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun
Cooler #6 Temp. °C _____ (Visual) _____ (Correction Factor) _____ (Actual)	☐ Samples on ice, cooling process has begun

Courier: ☐ Fed Ex ☐ UPS ☐ USPS ☐ Client ☒ Commercial ☐ Pace ☐ Other _____
Shipping Method: ☐ First Overnight ☐ Priority Overnight ☐ Standard Overnight ☐ Ground ☐ International Priority
☐ Other _____

Billing: ☐ Recipient ☐ Sender ☐ Third Party ☐ Credit Card ☐ Unknown

Tracking # _____

Custody Seal on Cooler/Box Present: ☐ Yes ☒ No Seals intact: ☐ Yes ☐ No Ice: ☒ Wet ☐ Blue ☐ Dry ☐ None

Packing Material: ☒ Bubble Wrap ☒ Bubble Bags ☐ None ☐ Other _____

Samples shorted to lab (If Yes, complete) Shorted Date: _____ Shorted Time: _____ Qty: _____

Comments:

Chain of Custody Present	☐ Yes ☒ No ☐ N/A	WO# : 35333976  35333976
Chain of Custody Filled Out	☐ Yes ☒ No ☐ N/A	
Relinquished Signature & Sampler Name COC	☐ Yes ☒ No ☐ N/A	
Samples Arrived within Hold Time	☒ Yes ☐ No ☐ N/A	
Rush TAT requested on COC	☐ Yes ☐ No ☒ N/A	Rec'd Sample IDs "SB-10" 9/11/17 1500 Preservation Information: "TWP-21" 8/31/17 1536 "TWP-19" 8/31/17 1315 "TWP-20" 8/31/17 1046
Sufficient Volume	☐ Yes ☐ No ☐ N/A	
Correct Containers Used	☒ Yes ☐ No ☐ N/A	
Containers Intact	☒ Yes ☐ No ☐ N/A	
Sample Labels match COC (sample IDs & date/time of collection)	☐ Yes ☐ No ☒ N/A	See comments
All containers needing acid/base preservation have been checked.	☒ Yes ☐ No ☐ N/A	
All Containers needing preservation are found to be in compliance with EPA recommendation:	☒ Yes ☐ No ☐ N/A	
Exceptions: VOA, Coliform, TOC, O&G, Carbamates		
Headspace in VOA Vials? (>6mm):	☒ Yes ☐ No ☐ N/A	
Trip Blank Present:	☐ Yes ☐ No ☒ N/A	

Client Notification/ Resolution:

Person Contacted: _____

Date/Time: _____

Comments/ Resolution (use back for additional comments): 1/3 vials for Sample ID TWP-20 has excess headspace, 2/3 vials for Sample ID TWP-21 has excess headspace, 2/3 vials for Sample ID TWP-19 has excess headspace.

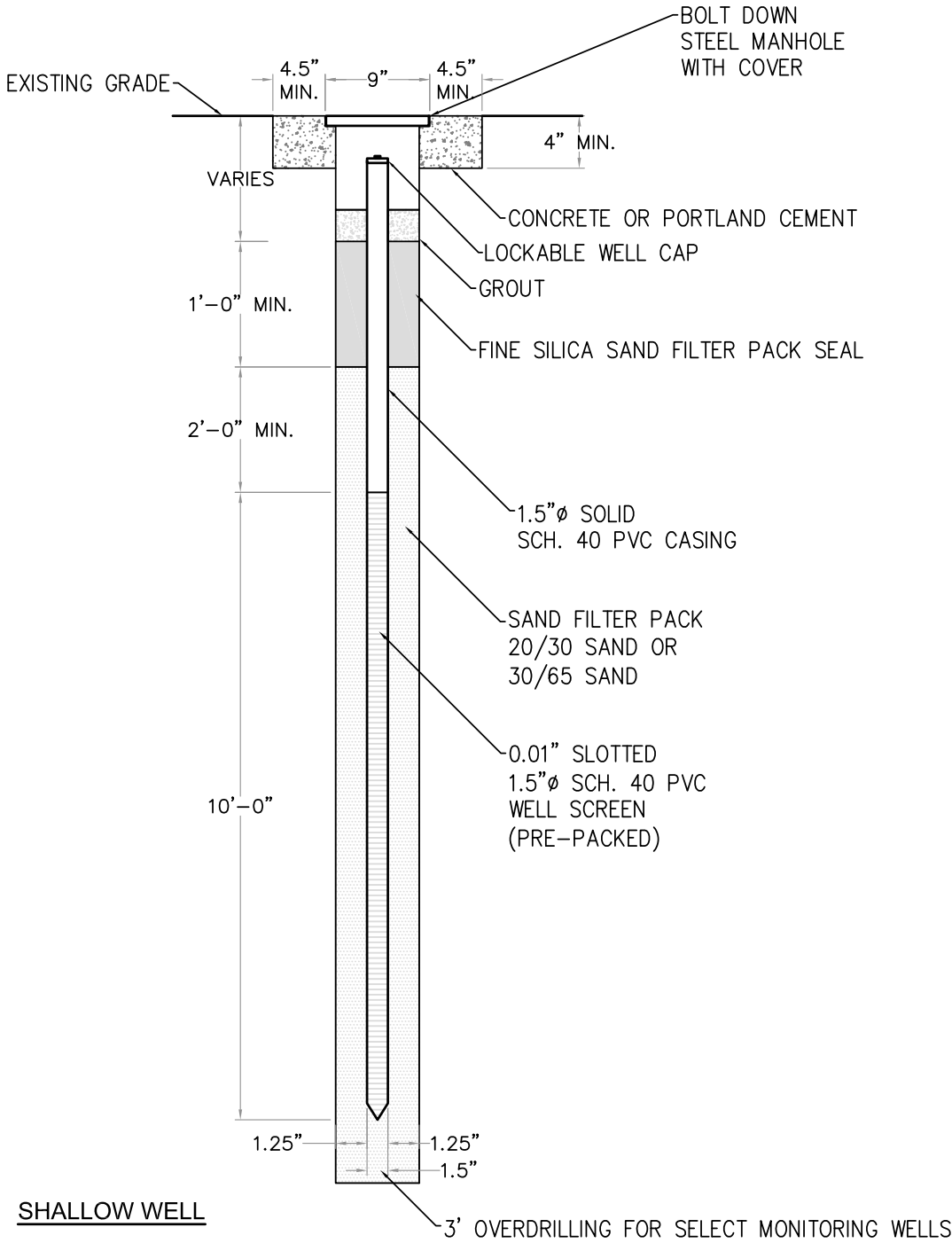
PAH, FLURO, VOC, Total, Diss. metals Rec'd Metals for
10010, Pb, Cd, Cr, Pb, Cu.

Project Manager Review: _____

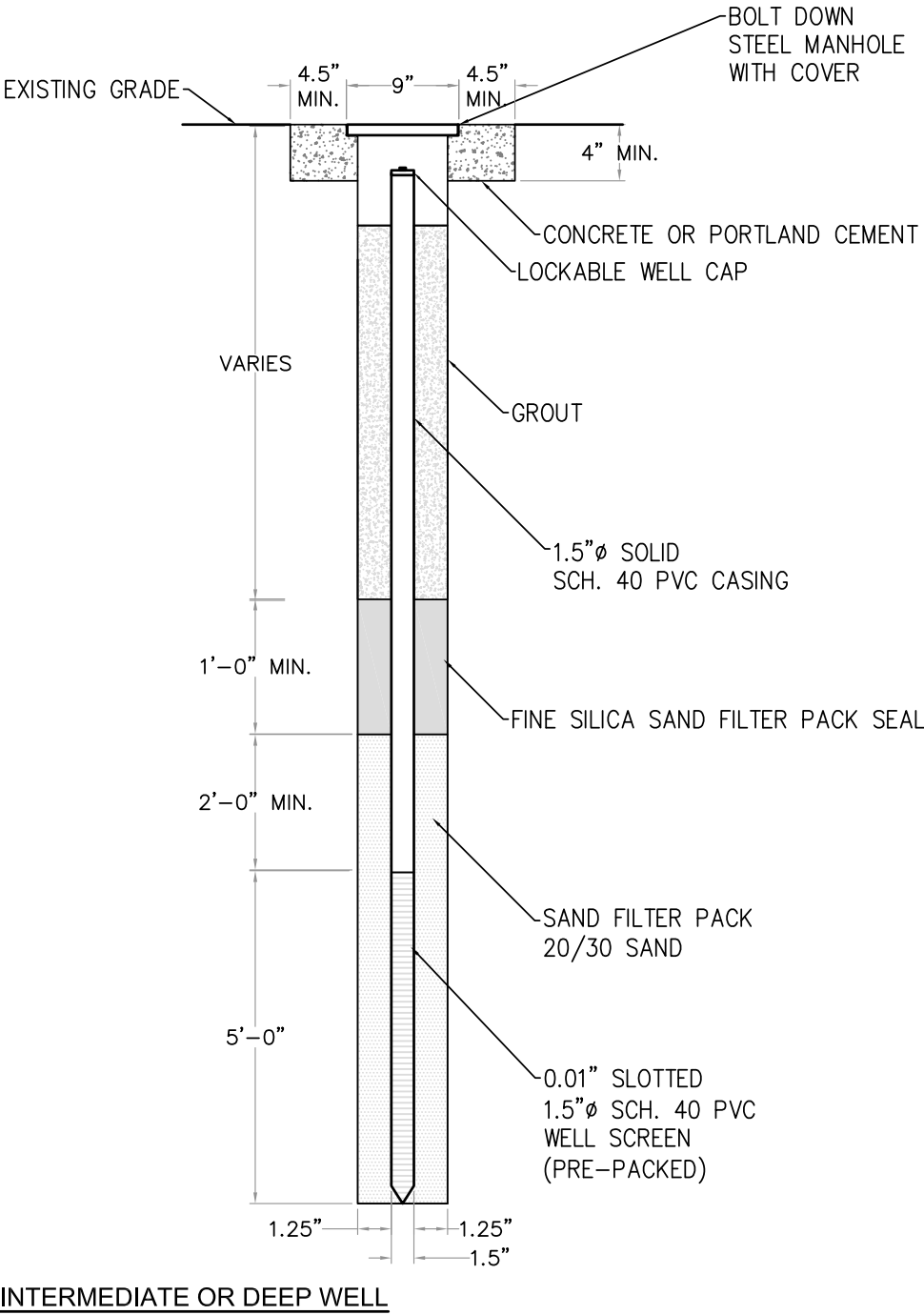
Date: _____

Attachment B5

Sample Well Schematics



Note:
1. Monitoring wells MW-26, MW-37W, MW-37E, MW-35, and MW-36 were backfilled with drill cuttings above grout.



ATTACHMENT B5 - GENERAL MONITORING WELL SCHEMATIC
LUDLAM TRAIL CORRIDOR, MIAMI-DADE COUNTY, FL

Attachment B6

IDW Disposal Manifests

NON-HAZARDOUS
WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

4. Waste Tracking Number

800-424-9300

CEI 0065978

5. Generator's Name and Mailing Address

Generator's Site Address (if different than mailing address)

LUDLAM TRAIL CORRIDOR
BETWEEN NW 7TH STREET & SW 80TH STREET
MIAMI
FL

Generator's Phone:

6. Transporter 1 Company Name

CLARK ENVIRONMENTAL INC.

863-425-4884

U.S. EPA ID Number

FLD984206003

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

U.S. EPA ID Number

CLARK ENVIRONMENTAL INC.

863-425-4884

FLD984206003

755 N. PRAIRIE INDUSTRIAL PKWY

MULBERRY

FL 33860

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total

Quantity

12. Unit

Wt./Vol.

1. INDUSTRIAL WASTE NON-REGULATED MATERIAL

010
004

DM

00000
00280

G

2. INDUSTRIAL WASTE NON-REGULATED MATERIAL

011
004

DM

00000
00220

G

3. Industrial Waste Non-Regulated material

001

DM

00055

G

4.

13. Special Handling Instructions and Additional Information

WASTE PROCESS HAS NOT CHANGED SINCE PROFILED

42623

a. DCO1
b. DWO2
c. DCO3
d.

SOLID
LIQUID
Empty

Broker:

SCS ENGINEERS

Broker Site Contact:

ANTHONY PEZZOTTI

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offor's Printed/Typed Name

Leah Santangelo

Signature

As agent of Hester:

Month Day Year

5 8 18

INT'L

15. International Shipments

☐ Import to U.S.☐ Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

Earl Wynn

Signature

[Signature]

Month Day Year

5 8 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

DESIGNATED FACILITY

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity☐ Type☐ Residue☐ Partial Rejection☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

B Crawford

Signature

[Signature]

Month Day Year

5 8 18

NON-HAZARDOUS
WASTE MANIFEST

1. Generator ID Number

2. Page 1 of

3. Emergency Response Phone

800-424-9300

4. Waste Tracking Number

CEI 0066226

5. Generator's Name and Mailing Address

LUDLAM TRAIL CORRIDOR
BETWEEN NW 7TH STREET & SW 80TH STREET
MIAMI
FL

Generator's Site Address (if different than mailing address)

Generator's Phone:

6. Transporter 1 Company Name

CLARK ENVIRONMENTAL INC.

863-425-4884

U.S. EPA ID Number

FLD984205003

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address

CLARK ENVIRONMENTAL INC.

755 N. PRAIRIE INDUSTRIAL PKWY

MILBERRY

FL

33860

863-425-4884

U.S. EPA ID Number

FLD984205003

Facility's Phone:

9. Waste Shipping Name and Description

10. Containers

No.

Type

11. Total
Quantity12. Unit
Wt./Vol.1.
INDUSTRIAL WASTE NON-REGULATED MATERIAL~~14~~
14

DM

~~68898~~
770

G

2.
INDUSTRIAL WASTE NON-REGULATED MATERIAL~~611~~
6

DM

~~68778~~
330

G

3.
Industrial waste non-Regulated material 18 DM 990 6

4.

13. Special Handling Instructions and Additional Information

WASTE PROCESS HAS NOT CHANGED SINCE PROFILED

42623

a. DCO1

SOLID

b. DW02

LIQUID

c. DLO3

Empty Drums
Residue

Broker:

SCS ENGINEERS

Broker Site Contact:

ANTHONY PEZZOTTI

14. GENERATOR'S/OFFEROR'S CERTIFICATION: I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations.

Generator's/Offor's Printed/Typed Name

Anthony Pezzotti: on behalf
OFF Flogiel

Signature

[Signature]

Month Day Year

7 24 18

INT'L

15. International Shipments

☐ Import to U.S.☐ Export from U.S.

Port of entry/exit:

Date leaving U.S.:

Transporter Signature (for exports only):

TRANSPORTER

16. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name

[Signature]

Signature

[Signature]

Month Day Year

7 24 18

Transporter 2 Printed/Typed Name

Signature

Month Day Year

17. Discrepancy

17a. Discrepancy Indication Space

☐ Quantity☐ Type☐ Residue☐ Partial Rejection☐ Full Rejection

Manifest Reference Number:

17b. Alternate Facility (or Generator)

U.S. EPA ID Number

Facility's Phone:

17c. Signature of Alternate Facility (or Generator)

Month Day Year

DESIGNATED FACILITY

18. Designated Facility Owner or Operator: Certification of receipt of materials covered by the manifest except as noted in Item 17a

Printed/Typed Name

B Crawford

Signature

[Signature]

Month Day Year

7 24 18

Attachment C

Soil Boring Logs

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-1 (007)		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 0850 ☒ AM ☐ PM End Time: 0854 ☒ AM ☐ PM	
Environmental Contractor: m-JA SCS		Geologist's Name: Alex Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
OVA (list model and check type): N/A ☐ FID ☐ PID					
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Topsoil: Dark brown silty sand w/ limestone.		D	SBA-1 (0-0.5') 0855
							2	Limestone offwhite to brown well sorted w/ small sections of orange/brown sand layer		M	SBA-1 (0.5-2') 0900
						3					
						4					
						5					
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-2		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/7/19 End Date: 8/7/19		Borehole Start Time: 0945 ☒ AM ☐ PM End Time: 0948 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Light brown fine grained sand. offwhite limestone mixed w/ dark brown silty sand.		D	SBA-2(0-0.5') 0949
							2	Dark brown organic matter, silty		M	
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-3		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 0944 ☒ AM ☐ PM End Time: 0945 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nelson		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Med. brown silty topsoil.		D	SBA-3 (0-0.5')
							2	offwhite limestone.		D	0946
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-4		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdham		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 0941 ☒ AM ☐ PM End Time: 0942 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Med. brown silty sand w/ large limerock pieces at the bottom			SBA-4(0-0.5') 0943
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-5		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdham		Borehole Start Date: 8/7/18	Borehole Start Time: 0938 ☒ AM ☐ PM		
		End Date: 8/7/18	End Time: 0939 ☒ AM ☐ PM		
Environmental Contractor: SCS		Geologist's Name: Alexis Nicken		Environmental Technician's Name: N/A	
Drilling Company: JAcet		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 2	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	fine med.brown silty Sand w/limerock fragments		D	SBA-5(0-0.5') 0940
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-6		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/8	Borehole Start Time: 0935 ☒ AM ☐ PM	End Date: 8/7/8	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 2	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty sand w/ limestone fragments End of borehole		D	SBA-6(0-0.5') 0939
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

Page 1 of 1

Boring/Well Number: SBA-7		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1010 ☒ AM ☐ PM End Time: 1012 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nreben		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty topsoil		D	SBA-7(0-0.5) 10/5
							2	Limerock, white, poorly consolidated		D	SBA-7(0.5-2) 10/6
							3	Light tan Brown sand w/limerock		M	SBA-7(2-4) 10/9
							4	Dark brown fine grained Sand w/limerock fragments		W	
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-8		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18		Borehole Start Time: 1025 ☒ AM ☐ PM	
		End Date: 8/7/18		End Time: 1026 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): 2 inches		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 4	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Med. grained sand w/ limrock, off-white under 2 inches of asphalt	D		SBA-8(0-1.5') 1029
							2	Med brown sand	W		SBA-8(0.5-1') 1030
							3	offwhite limestone w/ layers of brown sand	W		SBA-8(2-4') 1033
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SRA-9		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/7/18	Borehole Start Time: 1043 ☒ AM ☐ PM		
		End Date: 8/7/18	End Time: 1044 ☒ AM ☐ PM		
Environmental Contractor: an JACE SCS		Geologist's Name: Alexis Noelsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): ~2 inches	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DPT	Apparent Borehole DTW (in feet from soil moisture content): 4	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☒ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	offwhite limestone, poorly consolidated under ~2 inches of asphalt			SBA-9(0-0.5') 1045
						2			D	SBA-9(0.5-2') 1047	
							3	Dark brown sand w/ limestone			W SBA-9(2-4') 1049
						4	Brownish/tan limestone		S @ 4ft		
						5					
						6					
						7					
						8					
						9					
						10					
						11					
						12					

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-10		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1053 ☒ AM ☐ PM		
		End Date: 8/7/18	End Time: 1054 ☒ AM ☐ PM		
Environmental Contractor: SCS		Geologist's Name: Alvin Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown topsoil		D	SBA-10(0-0.5')
							2	White lime rock w/ sand			SBA-10(0.5-1')
							3	Dark brown silty sand			1057
							4	Brown/off-white limestone			SBA-10(2-4')
							5			M	1059
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-11		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 11:09 ☒ AM ☐ PM End Time: 11:10 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): 4		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty topsoil		D	SBA-11 (0-0.5) 11:11
							2	Limestone, off-white, wet		W	SBA-11 (0.5-2') 11:13
							3				
							4				SBA-11 (2-4') 11:15
							5		S	4 ft water table	
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: <u>SBA-12</u>		Permit Number: <u>N/A</u>		FDEP Facility Identification Number: <u>N/A</u>	
Site Name: <u>Ludlam</u>		Borehole Start Date: <u>8/7/18</u>	Borehole Start Time: <u>1122</u> ☒ AM ☐ PM	End Date: <u>8/7/18</u>	
Environmental Contractor: <u>SCS</u>		Geologist's Name: <u>Alexs Nielsen</u>		Environmental Technician's Name: <u>N/A</u>	
Drilling Company: <u>JACE</u>		Pavement Thickness (inches): <u>N/A</u>	Borehole Diameter (inches): <u>2.25</u>	Borehole Depth (feet): <u>4</u>	
Drilling Method(s): <u>DP</u>	Apparent Borehole DTW (in feet from soil moisture content): <u>N/A</u>	Measured Well DTW (in feet after water recharges in well): <u>N/A</u>	OVA (list model and check type): <u>N/A</u> ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
<u>DP</u>							1	<u>Dark brown topsoil</u>		<u>D</u>	<u>SBA-12(0-0.5')</u>
							2	<u>Dark brown sand w/ limestone</u>			<u>SBA-12(0.5-2')</u>
							3	<u>Brown to off-white limestone, moist</u>		<u>M</u>	<u>SBA-12(2-4')</u>
							4				<u>1128</u>
							5				
							6				<u>*SBA-CS1(0-0.5')</u>
							7				<u>(0.5-2')</u>
							8				<u>(2-4')</u>
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-13		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1152 ☒ AM ☐ PM		
		End Date: 8/7/18	End Time: 1154 ☒ AM ☐ PM		
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty sand w/ limestone fragments	D		SBA-13(0-0.5')
						2	1158				
							3	Limestone, offwhite, moist	M		SBA-13(2-4')
						4	1207				
							5	# SBA-13(0-0.5') (0.5-2') (2-4')			
						6					
						7					
						8					
						9					
						10					
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-14		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1208	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1209	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Poorly sorted dark brown silty sand and limestone		D	SBA-14(0-0.5') 1210
						2	SBA-14(0.5-2') 1213				
						3	Med. brown fine grained sand		M	SBA-14(2-4') 1216	
					4	Offwhite limestone					
						5					
						6					*SBA-CS1(0-0.5)
						7					(0.5-2)
						8					(2-4)
						9					
						10					
						11					
						12					

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA15		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1217 ☐ AM ☒ PM End Time: 1218 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Borehole Depth (feet): 4							
		Measured Well DTW (in feet after water recharges in well): N/A		OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty sand w/ lime rock, dry	D		SBA-15(0-0.5')
						2	SBA-15(0.5-2')				
						3	White limestone, moist	M		SBA-15(2'-4')	
					4	1224					
						5				SBA-CS1(0-0.5')	
					6	(0.5-2')					
					7	(2-4')					
					8						
					9						
					10						
					11						
						12					

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-16		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1226 ☐ AM ☒ PM End Time: 1227 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Borehole Depth (feet): 4							
		Measured Well DTW (in feet after water recharges in well): N/A		OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Layers of dark med. & light sand w/limerock, very poorly sorted	D		SBA-16(0-0.5) 1228
						2	SBA-16(0.5-2') 1230				
						3					
						4	SBA-16(2-4') 1232				
						5		*SBA-CS1(0-0.5) (0.5-2') (2-4')			
						6					
						7					
						8					
						9					
						10					
						11					
						12					

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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Boring/Well Number: SBA-17		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/17/18	Borehole Start Time: 1232	☐ AM ☒ PM	
		End Date: 8/17/18-8/17/18	End Time: 1233	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown, med. brown, & light brown sandy layers w/limonite			SBA-17(0-0.5') 1234
							2		D	SBA-17(0.5-2') 1236	
							3				
							4		M	SBA-17(2-4') 1238	
							5				
							6		*	SBA-CS1(0-0.5') (0.5-2') (2-4')	
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill CuttingsMoisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

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Boring/Well Number: SBA-18		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Wdham		Borehole Start Date: 8/7/10 End Date: 8/7/10		Borehole Start Time: 1240 ☐ AM ☒ PM End Time: 1241 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
				OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty sand			SBA-18(0-0.5) 1242
							2	Layers of darkened. Sand, fine grained			SBA-18(0.5-2) 1244
							3				
							4	offwhite limestone			SBA-18(2-4) 1246
							5				
							6				*SBA-18(0-0.5) (0.5-2) (2-4)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-19		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1248	☐ AM ☒ PM							
		End Date: 8/7/18	End Time: 1249	☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown silty sandw/ lime rock	D		SBA-19(0-0.5') 1250
							2	Off-white limestone	M		SBA-19(0.5-2') 1252
							3				SBA-19(2-4') 1254
							4		W		
							5				
							6				*SBA-19(0-0.5') (0.5-2') (2-4')
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-20		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1306	☐ AM ☒ PM							
		End Date: 8/7/18	End Time: 1307	☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4							
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	<u>Dark brown topsoil</u>			SBA-20(0-0.5) 1308
							2	Dark, medium, light brown Sand layers w/ lime rock. Poorly sorted.		D	SBA-20(0.5-2) 1310
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-21		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Indlan		Borehole Start Date: 8/7/18	Borehole Start Time: 1318	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1319	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DC							1	Dark brown topsoil		D	SBA-21(0-0.5)
							2	offwhite limestone w/a layer of silty			1320
							3	dark brown sand (red inches) at 2ft bgs			SBA-21(0.5-2)
							4			W	1322
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-22		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1413 ☐ AM ☒ PM End Time: 1414 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Borehole Depth (feet): 4							
		Measured Well DTW (in feet after water recharges in well): N/A		OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Light brown sand, well sorted, dry		D	SBA-22(0-0.5) 1415
						2					
							3	Med. brown fine grained Sand.		M	SBA-22(0.5-2) 1417
						4					
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-23		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 12:21 ☒ AM ☒ PM		
		End Date: 8/7/18	End Time: 1422 ☐ AM ☒ PM		
Environmental Contractor: SCS		Geologist's Name: Alex Nicks		Environmental Technician's Name: N/A	
Drilling Company: JAF		Pavement Thickness (inches): 1/2 inches (0.5 in)	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown and med. brown fine grained sand under 0.5 inches of asphalt	D		SBA-23 (0.5-1.5) 1423
						2					
							3	Med. brown fine grained sand, well sorted, looks like fill	M		SBA-23 (0.5-2) 1425
						4					
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-24		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1430 ☐ AM ☒ PM End Time: 1431 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): 1 1/2 inches (0.5 inch)		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
				OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Alternating darkened, light brown fine grained sand, well sorted, very little liner rock. under 1/2 inches asphalt			SBA-24(0-0.5) 1431
							2				SBA-24(0.5-2) 1433
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-25		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1431	☐ AM ☒ PM							
		End Date: 8/7/18	End Time: 1433	☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): 1 1/2 inches (0.5 inch)	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4							
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Limerock, offwhite, fill road base		D	SBA-25(0-0.5)
							2	Dark brown sand, fine grained, very well sorted. No limerock			1435
							3	Light tan sand, very well sorted, no limerock			SBA-25(0.5-2)
							4				143-1440 an
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill CuttingsMoisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-26		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1443 ☐ AM ☒ PM End Time: 1444 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: TACE		Pavement Thickness (inches): 0.5 inch		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Borehole Depth (feet): 4							
		Measured Well DTW (in feet after water recharges in well): N/A		OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Limestone roadbase, white		D	SBA-26(0.0-0.5) 1445
							2	Dark brown finegrained sand, well sorted.		D/M	SBA-26(0.5-2) 1447
							3	Light brown/tan finegrained sand, well sorted.		M/W	
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-27		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1448	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1449	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A	
Drilling Company: TAF		Pavement Thickness (inches): 1/2 inch	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Asphalt & limestone road base, white		D	SBA-27(0-0.5)
							2	Dark brown fine gr. sand, well sorted.		D	1450
							3	Med. brown fg. sand, well sorted.		W	SBA-27(0.5-2)
							4				1453
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-28		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1503	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1504	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): 1/2 inch	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Asphalt & limestone road base		D	SBA-28(0-1.5)
							2	Dark brown fine grained sand. Well sorted.			1505
							3	Med. brown fine grained sand. Well sorted.			SBA-28(1.5-2)
							4		M	1507	
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-29		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18	Borehole Start Time: 1509	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1510	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): 1/2 inch.	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	<u>Asphalt lime rock road base ~2 inches</u> Dark brown sand, fine grained. Well sorted.			SBA-29(0.0-1) 1510
							2	<u>an</u>		D	SBA-29(0.5-2) 1512
							3				
							4	<u>Light tan sand, well sorted.</u>		M	
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-30		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1513 ☐ AM ☒ PM End Time: 1514 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A							
Drilling Company: JACE		Pavement Thickness (inches): 1/2 inch		Borehole Diameter (inches): 2.25							
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
				OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	1/2" of asphalt & limestone base Dark brown sand, well sorted.	D		SBA-30(0-0.5') 1515
							2	Limestone, off white	M		SBA-30(0.5-2') 1517
							3	Med. brown sand, well sorted	W		
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-31		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/7/18	Borehole Start Time: 1518	☐ AM ☒ PM	
		End Date: 8/7/18	End Time: 1519	☐ AM ☒ PM	
Environmental Contractor: ant scs		Geologist's Name: Alexis Nelson		Environmental Technician's Name: N/A	
Drilling Company: JACK		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 4	
Drilling Method(s): DP	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	Dark brown sand, well sorted.		D	SBA-31(0-0.5) 1520
						2					
					3						
							4	Light tan sand, well sorted.		M	SBA-31(0.5-2) 1522
						5					
						6					
						7					
						8					
						9					
						10					
						11					
						12					

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-32		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/7/18 End Date: 8/7/18		Borehole Start Time: 1524 ☐ AM ☒ PM End Time: 1525 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: JACE		Pavement Thickness (inches): 0.5 inch		Borehole Diameter (inches): 2.25	
Drilling Method(s): DP		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
DP							1	0.5 inches of asphalt and dark brown silty topsoil	D	M	SBA-32(0-12.5)
							2	off white limestone			
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-33		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1224	☐ AM ☒ PM	
		End Date: " "	End Time: 1225	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 0.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Med. brown silty topsoil w/limonite</u>			SBA-33(0-0.5) 1225
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-34		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18 End Date: " "		Borehole Start Time: 1228 ☐ AM ☒ PM End Time: 1229 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 0.5	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Med. brown silty sand - small pieces of lignite		D	SBA-34(0-0.5) 1231
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-35		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdham		Borehole Start Date: 8/9/18	Borehole Start Time: 1230	☐ AM ☒ PM	
		End Date: "	End Time: 1233	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 0.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content):	Measured Well DTW (in feet after water recharges in well):	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Med. brown silty sand w/ little limonite.</u>		D	SBA-35(0-0.5) 1234
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-36		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/18		Borehole Start Time: 1236 ☐ AM ☒ PM	
		End Date: 8/11		End Time: 1237 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 6.5	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Dark brown silty sand w/lin. rock</u>		D	SBA-36(6.5) 1239
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-37		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 9/8/16 End Date: 9/8/16		Borehole Start Time: 1243 ☐ AM ☒ PM End Time: 1244 ☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A							
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 225							
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
				OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand w/ muck		D	SBA-37(0-0.5) 1245
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-38		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: DU22/Lud/1am		Borehole Start Date: 8/8/18	Borehole Start Time: 0908 ☒ AM ☐ PM	End Date: 8/8/18							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1							
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Med. brown Silty Sand w/limonite Poorly Sorted			SBA38(0-0.5) 0916
							2	* At 2 ft hit refusal w/hand auger		D	SBA38(0.5-1) 0915
							3				SBA- *CS2(0-0.5)
							4				*SBA- CS2(0.5-1)
							5				2
							6				1)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-39		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/19	Borehole Start Time: 0923 ☒ AM ☐ PM		
		End Date: " "	End Time: 0925 ☒ AM ☐ PM		
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A	Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1		
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Light to med. brown sand w/ small limonite pieces.			SBA-39(0-0.5) 0925
							2	@ 1ft hit refusal w/ HA			SBA-39(0.5-1) 0930
							3				SBA-
							4				CS-2(0-0.5)
							5				SBA CS2(0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-410		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18 End Date: 8/8/18		Borehole Start Time: 0933 ☐ AM ☐ PM End Time: 0934 ☐ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
OVA (list model and check type): N/A ☐ FID ☐ PID					
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Light tan sand/limestone pieces		D	SBA-410(0-0.5) 0935
							2	Dark brown silty sand w/limestone			SBA-410(0.5-1) 0937
							3	Hit refusal @ 2 ft w/HA			
							4				* SBA-CS2(0-0.5) SBA-CS2(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: <u>an</u> SBA-37 41		Permit Number: <u>N/A</u>		FDEP Facility Identification Number: <u>N/A</u>	
Site Name: <u>ludlum</u>		Borehole Start Date: <u>8/8/18</u>	Borehole Start Time: <u>0938</u> ☒ AM ☐ PM		
		End Date: <u>8/8/18</u>	End Time: <u>0939</u> ☒ AM ☐ PM		
Environmental Contractor: <u>SCS</u>		Geologist's Name: <u>Alexis Nelson</u>		Environmental Technician's Name: <u>N/A</u>	
Drilling Company: <u>N/A</u>		Pavement Thickness (inches): <u>N/A</u>	Borehole Diameter (inches): <u>2.25</u>	Borehole Depth (feet): <u>1</u>	
Drilling Method(s): <u>HA</u>	Apparent Borehole DTW (in feet from soil moisture content): <u>N/A</u>	Measured Well DTW (in feet after water recharges in well): <u>N/A</u>	OVA (list model and check type): <u>N/A</u> ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
<u>HA</u>							1	<u>Med. brown s. Hy Sand, lim rock pieces. Grades to light brown.</u>		<u>D</u>	<u>SBA-41(0-0.5)</u> <u>0946</u>
							2	<u>Refusal @ 1ft bgs w/HA</u>			<u>SBA-41(0.5-1)</u> <u>0945</u>
							3				<u>* SBA-02(0-0.5)</u>
							4				<u>SBA-02(0.5-1)</u>
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-42		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 0947 ☒ AM ☐ PM		
		End Date: 8/8/18	End Time: 0948 ☒ AM ☐ PM		
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Light tan Sand w/ limestone pieces, possibly fill. Not native soil.		D	SBA-42(0-0.5) 0950
							2				SBA-42(0.5-1) 0943 0953
							3				w
							4				*SBA-CS2(0-0.5)
							5				SBA-CS2(0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-43		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/19 End Date: " "		Borehole Start Time: 1018 ☒ AM ☐ PM End Time: 1019 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand, asphalt in area. Liner rock pieces		D	SBA-43(0-0.5) 1020
							2	Refusal @ 1ft bgs w/HA			SBA-43(0.5-1) 1025
							3				
							4				
							5				* SBA-CS3(0-0.5)
							6				SBA-CS3(0.5-1)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-44		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/19		Borehole Start Time: 1027 ☒ AM ☐ PM	
		End Date: 8/8/19		End Time: 1028 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand. Very poorly sorted. Limestone pieces. Asphalt in area. Hit refusal @ 1 ft bgs w/ hand auger		M	SBA-44(0-0.5) 1030 SPA-44(0.5-1) 1035 *SBA-53(0-0.5) SPA-53(0.5-1)
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOGPage 1 of 1

Boring/Well Number: SBA-45		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18		Borehole Start Time: 1041 ☒ AM ☐ PM	
		End Date: 11/1		End Time: 1043 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown topsoil w/ small lime rock pieces.		D	SBA-45(0-0.5) 1045
							2	Hit refusal @ 1ft bgs w/ HA.			SBA-45(0.5-1) 1050
							3				
							4				*SBA-C53(0-0.5)
							5				SBA-C53(0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-46		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18		Borehole Start Time: 1053 ☒ AM ☐ PM	
		End Date: 11/1		End Time: 1058 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown topsoil w/ lts of limrock pieces. Near asphalt.		D	SBA-46(0-0.5) 1055
							2	Hit refusal @ 1 ft bgs w/ HA			SBA-46(0.5-1) 1100
							3				
							4				*SBA-CS3(0-0.5) SBA-CS3(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-47		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/19		Borehole Start Time: 1100 ☒ AM ☐ PM	
		End Date: 8/11/19		End Time: 1101 ☒ AM ☐ PM	
Environmental Contractor: W.A. SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark to med. brown silty sand. <u>No limerock in first 6" only from 0.5-1.0</u> Hit refusal @ 1ft bgs.		D	SBA-47(0-0.5)
							2				1102
							3				SBA-47(0.5-1)
							4				1104
							5				* SBA-C53(0-0.5)
							6				SBA-C53(0.5-1)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-48		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdham		Borehole Start Date: 8/8/18		Borehole Start Time: 1120 ☒ AM ☐ PM	
		End Date: 11/1		End Time: 1124 ☒ AM ☐ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand w/ limvock Hit refusal @ 24 lbs w/ HA		D	SBA-48(0-0.5) 1125 SBA-48(0.5-1) 1130 *SBA-CS3(0-0.5) SBA-CS3(0.5-1)
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-49		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Widum		Borehole Start Date: 8/8/18 End Date: 8/8/18		Borehole Start Time: 1132 ☒ AM ☐ PM End Time: 1134 ☒ AM ☐ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
				OVA (list model and check type): N/A ☐ FID ☐ PID							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand w/lin water. Asphalt nearby a garbage area. Hit refusal @ 1ft bgs w/HA		D	SBA-49(0-0.5) 1135 SBA-49(0.5-1) 1140 *SBA-CS3(0-0.5) SBA-CS3(0.5)
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-50		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/9/17 End Date: 11/1		Borehole Start Time: 11:17 ☒ AM ☐ PM End Time: 11:49 ☒ AM ☐ PM							
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A							
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25							
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A							
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):		OVA (list model and check type): N/A ☐ FID ☐ PID									
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark to med. brown Silty Sand w/ limonite		D	SBA-SX0(0.5) 1150
							2	Hit refusal @ 1 ft bgs w/ H/A			SBA-S0(0.5) 1155
							3				*SBA-CS4(0-0.5)
							4				SBA-CS9(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-51		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/10	Borehole Start Time: 1159	☒ AM ☐ PM	
		End Date: 11/11	End Time: 1200	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Med. brown s; clay sand w/ limeroch			SBA-51(0-0.5)
							2	Hit refusal @ 1 ft bgr w/HA			SBA-51(0.5-1)
							3				1203
							4				*SBA-CS4(0-0.5)
							5				SBA-CS4(0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-52		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1207	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1209	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alex Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown top soil w/loam rocks + asphalt all around		D	SBA-52(0-0.5) 1216
							2	Hit refusal @ 1ft bgs			SBA-52(0.5-1) 1215
							3				
							4				* SBA-CS4(0-0.5) SBA-CS4(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-53		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1313	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1314	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Dark brown silty top soil.</u>		D	SBA-53(0-0.5) 1315
							2	<u>med. brown silty sand w/ large limrock pieces.</u>			SBA-53(0.5-1.5) 1320
							3				
							4				*SBA-55(0-0.5) SBA-55(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-54		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1325	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1327	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): at least 1.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty topsoil		D	SBA-54(0-0.5)
							2	Dark brown silty sand w/ limonite			1330
							3				SBA-54(0.5-1.5)
							4				1335
							5				SBA-55(0-0.5)
							6				SBA-55(0.5-1)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-55		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdlam		Borehole Start Date: 8/8/18	Borehole Start Time: 1408	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1409	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown Silty Sand w/ lime rock		D	SBA-55(0-0.5) 1410
							2	H.t refusal @ 1 ft b.g.			SBA-55(0.5-1) 1415
							3				
							4				
							5				*SBA-55(0-0.5) (0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOGPage 1 of 1

Boring/Well Number: SBA-56		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Wdham		Borehole Start Date: 8/8/19	Borehole Start Time: 1422	☐ AM ☒ PM	
		End Date:	End Time: 1424	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty soil w/ limestone pieces of plastic		D	SBA-56(0-0.5) 1425 SBA-56(0.5-1.5) 1430
							2	Hit refusal @ 1.5 ft bgs			
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-57		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1432	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1433	☐ AM ☒ PM	
Environmental Contractor: ATLAS SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand with a lot of limwood pieces.		D	SBA-57(0-0.5)
							2	End of borehole, hit refusal @ 1 ft			1433
							3				SBA-57(0.5-1)
							4				1435
							5				* SBA-55(0-0.5)
							6				(0.5-)
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings

Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-58		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/9/18		Borehole Start Time: 1438 ☐ AM ☒ PM	
		End Date: 11/11		End Time: 1439 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown topsoil		D	SBA-58(0-0.5)
							2	Med. brown sand w/lt. murex		D	1446
							3	Hit refusal @ 1ft bgs w/HA			SBA-58(0.5-1)
							4				1443
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA-59		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 9/8/18	Borehole Start Time: 1448	☐ AM ☒ PM	
		End Date: 11/1/18	End Time: 1449	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty soil w/linwood			M SBA-59(0.0-0.5) 1450
							2	Hit refusal @ 1 ft bgs w/HA			SBA-59(0.5-1) 1455
							3				
							4				* SBA-CS 5(0.0-0.5) SBA-CS 5(0.5-1)
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-60		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/18	Borehole Start Time: 1458	☐ AM ☒ PM	
		End Date: 11/11	End Time: 1459	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): 0	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand w/limerock (~20%)		D	SBA-60(0-0.5) 1500
							2	Hit refusal @ 1ft bgs			SBA-60(0.5-1) 1505
							3				
							4				
							5				SBA-60(0-0.5) (0.5-1)
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-61		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/18		Borehole Start Time: 1545 ☐ AM ☒ PM	
		End Date: 8/8/18		End Time: 1547 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 1	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown topsoil w/ timorade + roots		M	SBA-61(0-0.5) 1550
							2				SBA-61(0.5-2) 1555
							3				
							4				
							5				*SBA-61(0-0.5) 1555
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-62		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1537	☐ AM ☒ PM	
		End Date: " "	End Time: 1538	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other					
(describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown topsoil w/ some sand, fine grained, well sorted.			SBA-62(0.5-1) 1546
							2	Hit refusal @ 1 ft bgs			SBA-62(0.5-1) 1545
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-63		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1524	☐ AM ☒ PM							
		End Date: 8/8/18	End Time: 1505	☐ AM ☒ PM							
Environmental Contractor: SCS		Geologist's Name: Alexs Nielsen		Environmental Technician's Name: N/A							
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 1							
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark brown silty sand w/ 1. mud			SBA(0-0.5) 1525
							2	Hit refusal @ 1 ft bgs due to HA			SBA63(0.5-1) 1530
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-64		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18 End Date: 11/11		Borehole Start Time: 1638 ☐ AM ☒ PM End Time: 1639 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Light tan Sand w/limonite</u>			SBA64(0-0.5) 1646
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill CuttingsMoisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-65		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1641	☐ AM ☒ PM	
		End Date: 11/11	End Time: 1642	☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 0.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Tan sand and lime rock pieces</u>		M	SBA-65(0.5) 1642
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-66		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/18 End Date: 11/1		Borehole Start Time: 1643 ☐ AM ☒ PM End Time: 1644 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): N/A		Borehole Diameter (inches): 2.25	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	<u>Dark brown sand w/limrock fragments</u>		D	SBA-66(0-0.5) 1644
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill CuttingsMoisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

BORING LOG

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Boring/Well Number: SBA-67		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlum		Borehole Start Date: 8/8/18	Borehole Start Time: 1649	☐ AM ☒ PM	
		End Date: 8/8/18	End Time: 1645	☐ AM ☒ PM	
Environmental Contractor: an-N/A SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): 0	Borehole Diameter (inches): 2.25	Borehole Depth (feet): 0.5	
Drilling Method(s): HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID		
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Med. brown Sand w/ small l.m. rock pieces		D	SBA-67(0-0.5) 1646
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA-68		Permit Number: N/A		FDEP Facility Identification Number: N/A	
Site Name: Ludlam		Borehole Start Date: 8/8/18 End Date: 11/1		Borehole Start Time: 1647 ☐ AM ☒ PM End Time: 1648 ☐ AM ☒ PM	
Environmental Contractor: SCS		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: N/A	
Drilling Company: N/A		Pavement Thickness (inches): 0		Borehole Diameter (inches): 2.25	
				Borehole Depth (feet): 0.5	
Drilling Method(s): HA		Apparent Borehole DTW (in feet from soil moisture content): N/A		Measured Well DTW (in feet after water recharges in well): N/A	
				OVA (list model and check type): N/A ☐ FID ☐ PID	
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):					
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)					

Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA							1	Dark tan Sandw/limerock			SBA-68(0-0.5) 1648
							2				
							3				
							4				
							5				
							6				
							7				
							8				
							9				
							10				
							11				
							12				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 69		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 9:20 ☒ AM ☒ PM		
		End Date: 10-Aug-2018	End Time: 9:22 ☒ AM ☒ PM		
Drilling contractor:	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine grain sand with limestone fragments and organics	D	SBA-69 (0-0.5') 9:23 am 7/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-70		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0916	☒ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 0918	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty soil w/ 5% limeroch	D	SBA-70 (0-0.5') 0920
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 71		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA <i>KL</i>	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 9:10 ☒ AM ☒ PM		
		End Date: 10-Aug-2018	End Time: 9:12 ☒ AM ☒ PM		
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine grain sand with limestone fragments	D	SBA-71 (0-0.5') 9:13am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-72		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0906	☒ AM ☒ PM	(Signature)
		End Date: 10-Aug-2018	End Time: 0908	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 5% linerock	D	SBA-72 (0-0.5') 0910
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-73		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA <i>(initials)</i>	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 8:58	☒ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 9:00	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, fine grain sand, large chunks of limerocks and organics	D	SBA-73 (0-0.5') 9:01 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 74		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 0858 ☒ AM ☒ PM End Time: 0900 ☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 5% limeroack	D	SBA-74(0-0.5') 0902
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-75		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 8:50	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 8:52	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, fine grain sand with limestone fragments	D	SBA-75(0-0.5') 8:53 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 76		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0848	☒ AM ☒ PM	(ms)
		End Date: 10-Aug-2018	End Time: 0850	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 1% lime rock	D	SBA-76 (0-0.5') 0852
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 77		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 8:40 ☐ AM ☒ PM End Time: 8:42 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand, 5% lime rock	D	SBA-77(0-0.5') 0844
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 78		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA <i>(KB)</i>	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 8:41 am ☒ AM ☒ PM		
		End Date: 10-Aug-2018	End Time: 8:43 am ☒ AM ☒ PM		
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark Brown fine grain sand, some limestone fragments	D	SBA-78 (0-0.5') 8:44 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-79		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 9:55 AM ☒ PM ☐ End Time: 9:57 AM ☒ PM ☐	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark brown, fine grain sand with limestone fragments.	D	SBA-79 (0-0.5') 9:58 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 80		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0956	☒ AM ☒ PM	(Signature)
		End Date: 10-Aug-2018	End Time: 0958	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)		Moisture Content
HA	0-0.5	0.5	D. brown silty sand, 1% linerock		D
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 81		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 9:49	☒ AM ☐ PM	
		End Date: 10-Aug-2018	End Time: 9:51	☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine grain sand with large limestone fragments	D	SBA-81 (0-0.5') 9:52am 8/10/2010
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-82		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0946	☒ AM	☒ PM
		End Date: 10-Aug-2018	End Time: 0948	☒ AM	☒ PM
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 3% linerock	D	SBA-82(0-0.5') 0950
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-83		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 9:41 ☒ AM ☒ PM End Time: 9:43 ☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	light-medium brown fine grain sand with limerock chunks and some organics	D	SBA-83 (0-0.5') 9:44 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-84		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 0936	☒ AM ☒ PM	(23)
		End Date: 10-Aug-2018	End Time: 0938	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 5% linerock	D	SBA-84 (0-0.5') 0940
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 8.5		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 10:15 ☒ AM ☐ PM		
		End Date: 10-Aug-2018	End Time: 10:17 ☒ AM ☐ PM		
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	0-0.5 dark brown fine sand, 0.25-0.5 light brown fine sand with limestone fragments	D	SBA-8.5(0-0.5') 10:18am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 86		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018		Borehole Start Time: 1014 AM ☒ PM	
		End Date: 10-Aug-2018		End Time: 1016 AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D-med. brown silty sand w/ 2% linerock	D	SBA-86 (0-0.5') 10/8
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 87		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA <i>(KS)</i>	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 10:26	☒ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 10:28	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	light-medium brown fine grain sand with fine grain sand	D	SBA-87(0-0.5') 10:29 am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-88		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018		Borehole Start Time: 1024 ☒ AM ☒ PM	
		End Date: 10-Aug-2018		End Time: 1026 ☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 5% limestone	D	SBA-88 (0-0.5') 1028
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 89		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 11:16 AM ☒ PM ☐ End Time: 11:18 AM ☐ PM ☒	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine grain sand with limestone fragments	D	SBA-89(0-0.5') 11:19 am 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 90		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 11:12 ☒ AM ☐ PM End Time: 11:14 ☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	light brown fine grain sand with limestone fragments	D	SBA-90(0-0.5') 11:15am 08/19/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 91		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 11:02 ☒ AM ☐ PM End Time: 11:04 ☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	medium brown fine grain silty sand with limestone fragments	D	SBA- 91(0-0.5') 11:05 am 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-92		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1109 AM ☒ PM ☒ End Time: 1106 AM ☒ PM ☒	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand w/ 15% limerock	D	SBA-92(0-0.5') 1108
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 93		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 10:56 AM ☒ PM ☐ End Time: 10:58 AM ☒ PM ☐	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	medium brown fine grain silty sand with limestone fragments	D	SBA-93(0-0.5') 10:59am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 94		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1056 AM ☒ PM ☒ End Time: 1058 AM ☒ PM ☒	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Med brown silty sand w/ 10% linerock	D	SBA-94 (0-0.5') 1100
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 95		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 10:49 ☒ AM ☒ PM End Time: 10:51 ☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine silty sand from 0 - 0.25' tan fine grain sand with limestone fragments from 0.25 - 0.5'	D	SBA-95(0-0.5') 10:52am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-96		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1046 AM ☒ PM ☐ End Time: 1048 AM ☒ PM ☐ (ms)	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark-med silty sand w/ 8% linerock	D	SBA-96 (0-0.5') 1050
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 97		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 10:40	☒ AM ☐ PM	
		End Date: 10-Aug-2018	End Time: 10:42	☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	medium brown fine grain silty sand.	D	SBA-97(0-0.5') 10:43am 8/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 98		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1030	☒ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1030	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand w/ 5% limrock	15	SBA-98(0-0.5') 1040
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 99		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 11:35 ☒ AM ☐ PM End Time: 11:37 ☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Tan brown fine grain sand with small limestone fragments	D	SBA-99(0-0.5') 11:38 am 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 100		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1136	☒ AM ☒ PM	(Am)
		End Date: 10-Aug-2018	End Time: 1138	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark-med silty sand w/ 30% limerock @ 4"	D	SBA-100 (0-0.5') 1140
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 101		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 11:57 ☒ AM ☐ PM End Time: 11:58 ☒ AM ☐ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine silty sand, small limestone fragments	D	SBA-101 (0-0.5') 11:59am 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 102		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1156	☒ AM ☒ PM	(ms)
		End Date: 10-Aug-2018	End Time: 1158	☒ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sandy w/ 5% linerock @ 5"	D-m	SBA-102(0-0.5') 1200
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 103		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 12:08	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 12:10	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, fine grain sand small limestone fragments	D	SBA-103(0-0.5') 12:11 PM 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 104		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1206	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1208	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand	M	SBA-104 (0-0.5') 1210
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 105		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 12:14	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 12:16	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine grain silty sand with limestone fragments	D	SBA-105 (0-0.5') 12:17 PM 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-106		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 12:10	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 12:18	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark - med silty sand, 10% lime rock	D	SBA-106 (0-0.5') 1220
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Somic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 107		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 12:23	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 12:25	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine grain sand with lime stone fragments	D	SBA-107(0-0.5') 12:26 PM 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-108		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1220 ☐ AM ☒ PM End Time: 1222 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark brown fine silty sand w/ 2' limestone	10	SBA-108 (0-0.5') 1224
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 109		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1224 ☐ AM ☒ PM End Time: 1226 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine-silty sand	D	SBA-109 (0-0.5') 1228
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 110		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 14:06 ☐ AM ☒ PM End Time: 14:08 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger 1		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	0-0.25' medium to light brown rocky fine sand 0.25-0.5' light tan fine rocky sand	D	SBA-110 (0-0.5') 14:08 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 111		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1402 ☐ AM ☒ PM End Time: 1404 ☐ AM ☒ PM	
Drilling contractor: NIA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-111 (0-0.5') 1406
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 112		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 14:14	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 14:16	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine grain sand with limestone fragments	D	SBA-112(0-0.5') 14:17 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 113		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 14 ⁰⁸	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 14 ¹⁰	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand w/ 10% limestone	D	SBA-113 (0-0.5') H12
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 114		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 14:48	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 14:50	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine grain sand	D	SBA-114(0-0.5') 14:51 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-115		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1446	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1448	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand	D	SBA-115 (0-0.5') 1450
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 116		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 14:57	AM ☐ PM ☒	
		End Date: 10-Aug-2018	End Time: 14:59	AM ☐ PM ☒	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	light to medium brown fine grain sand	D	SBA-116(0-0.5') 15:00 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 117		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1454	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1456	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	D. brown silty sand w/ 5% limestone	D	SBA-117(0-0.5') 1458
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 118		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 15:06	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 15:08	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine sand with limestone chunks		SBA-118 (0-0.5') 15:09 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-119		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1502 ☐ AM ☒ PM End Time: 1504 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-119 (0-0.5') 1506
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-120		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 15:10	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 15:12	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine grain sand with limestone fragments	D	SBA-120(0-0.5') 15:13 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 121		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1506	AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1508	AM ☐ PM ☒	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark-medium brown silty sand	D	SBA-121 (0-0.5') 1510
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-122		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 15:15	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 15:17	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark brown fine grain silty sand	D	SBA-122(0-0.5') 15:19 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-123		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1510	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1512	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	7	SBA-123 (0-0.5') 1514
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-124		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 15 ¹⁶ ☐ AM ☒ PM End Time: 15 ¹⁸ ☐ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand.	7	SBA-124 (0-0.5') 1520
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 125		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1624	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1626	☐ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dak brown silty sand.	D	SBA-125 (0-0.5') 1628
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 126		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1630	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1632	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty soil w/ 5% lime rock	D	SBA-126 (0-0.5') 1634
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-127		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1634 ☐ AM ☒ PM End Time: 1636 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark brown silty soil with 5% lm rock	D	SBA-127 (0-0.5') 1638
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-128		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1638	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1640	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	10	SBA-128 (0-0.5') 1642
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 1791		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: ☐ AM ☒ PM End Time: ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand.	D	SBA-1791(0-0.5') 1648
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 130		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1652	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1654	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand and soil. crushed linerock	D	SBA-130(0-0.5')
NA	NA	1.0			1656 1656 (m) 8/10/2018
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 131		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1656	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1658	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-131 (0-0.5') 8/10/2018 1700
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-132		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1704	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1706	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-132 (0-0.5') 8/10/2018 1708
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 133		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 17:17	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 17:19	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine silty sand with limestone chunks	D	SBA-133 (0-0.5') 17:21
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 134		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018 End Date: 10-Aug-2018		Borehole Start Time: 1712 ☐ AM ☒ PM End Time: 1714 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-134 (0-0.5') 1716
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 135		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 17:22	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 17:24	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown fine sand	D	SBA-135(0-0.5') 17:25 08/10/2018
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-136		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018		Borehole Start Time: 1714 ☐ AM ☒ PM	
		End Date: 10-Aug-2018		End Time: 1718 ☐ AM ☒ PM	
Drilling contractor:	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-136 (0-0.5') 1720
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-137		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018		Borehole Start Time: 1720 ☐ AM ☒ PM	
		End Date: 10-Aug-2018		End Time: 1722 ☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand	D	SBA-137 (0-0.5') 1724
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA-138		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1746	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1748	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/Collection Time
HA	0-0.5	0.5	Dark brown silty sand.	D	SBA-138(0-0.5') 1750
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 139		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 17:50	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 17:52	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, fine grain sand	D	SBA-139(0-0.5') 17:53 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 140		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 1740	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 1742	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty ^(GMS) soft sand	D	SBA-140 (0-0.5') 1744
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- 141		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: 17:40	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: 17:42	☐ AM ☒ PM	
Drilling contractor: N/A	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, fine grain silty sand with limestone fragments.	D	SBA-141(0-0.5') 17:43 08/10/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam Corridor		Boring ID: SBA- <i>H2</i>		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Leah Santangelo/Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 10-Aug-2018	Borehole Start Time: <i>1732</i>	☐ AM ☒ PM	
		End Date: 10-Aug-2018	End Time: <i>1734</i>	☐ AM ☒ PM	
Drilling contractor: <i>N/A</i>	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	<i>Dark brown silty sand, tan silty sand</i>	<i>D</i>	SBA- <i>H2</i> (0-0.5') <i>1736</i>
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: **PH** = Post Hole; **HA** = Hand Auger; **SS** = Split Spoon; **ST** = Shelby Tube; **DP** = Direct Push; **SC** = Sonic Core; **DC** = Drill Cuttings
 Moisture Content Codes: **D** = Dry; **M** = Moist; **W** = Wet; **S** = Saturated

Site Name: Ludlam		Boring ID: SBA - 143		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18	Borehole Start Time: 0722	☒ AM ☒ PM	
		End Date: 8/13/18	End Time: 0726	☒ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark to med. brown silty sand.	D	SBA-143(0-0.5') 0730
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 144		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18		Borehole Start Time: 0735 ☒ AM ☒ PM	
		End Date: 8/13/18		End Time: 0738 ☒ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Medium brown fine grained sand. Well sorted.	M	SBA-144(0-0.5') 0740
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 145		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18		Borehole Start Time: 0741 ☒ AM ☒ PM	
		End Date: 8/13/18		End Time: 0744 ☒ AM ☒ PM	
Drilling contractor: n/a	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	

Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand, less than 5% limestone fragments	D	SBA-145 (0-0.5') 0745
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 146		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18 End Date: 8/13/18		Borehole Start Time: 0749 AM PM <i>an</i> End Time: 0752 AM PM <i>an</i>	
Drilling contractor: <i>NIA</i>	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand, less than 1% lime rock	D	SBA-146(0-0.5') 0753
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 147		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: End Date:		Borehole Start Time: 0757 ☒ AM ☒ PM End Time: 0759 ☒ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand w/ 5% limestone fragments.	D	SBA-147 (0-0.5') 0800
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 148		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18	Borehole Start Time: 0826	☒ AM ☒ PM	an
		End Date: 8/13/18	End Time: 0829	☒ AM ☒ PM	an
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty topsoil - less than 1% lime rock fragments.	D	SBA-148(0-0.5') 0830
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 149		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: NA	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/13/18 End Date: 8/13/18		Borehole Start Time: 0832 ☒ AM ☒ PM End Time: 0834 ☒ AM ☒ PM	
Drilling contractor: ~HA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown silty sand w/ no limonite	D	SBA-149 (0-0.5') 0835
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 149A		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: NA		Environmental Technician's Name: Eric Castillo	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/15/18	Borehole Start Time: 1341	☐ AM ☒ PM	
		End Date: 8/15/18	End Time: 1341	☐ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, silty sand		SBA-149A(0-0.5') 1341 8/15/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cutti
 Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

Site Name: Ludlam		Boring ID: SBA - 1498		Folio/Permit/Facility Number: NA	
Site Address: NA		Geologist's Name: NA		Environmental Technician's Name: Eric Castillo	
Environmental Contractor: SCS Engineers		Borehole Start Date: 8/15/18 End Date: 8/15/18		Borehole Start Time: 1348 End Time: 1348 ☐ AM ☒ PM ☐ AM ☒ PM	
Drilling contractor: NA	Borehole Depth (feet): 0.5	Borehole Diameter (inches): 2.25	Apparent Borehole DTW (feet): NA	Measured Borehole DTW (feet): NA	
Drilling Method(s): Hand Auger		Pavement Thickness (inches): NA	Deposition of Drill Cuttings: Backfill	Borehole Completion: Backfill	
Sample Type	Sample Depth Interval (feet)	Depth (feet)	Sample Description (include grain size based, odors, staining, and other remarks)	Moisture Content	Lab Soil Sample/ Collection Time
HA	0-0.5	0.5	Dark brown, silty sand		SBA-1498 (0-0.5') 1348 8/15/18
NA	NA	1.0			
NA	NA	2.0			
NA	NA	3.0			
NA	NA	4.0			
NA	NA	5.0			
NA	NA	6.0			
NA	NA	7.0			
NA	NA	8.0			
NA	NA	9.0			
NA	NA	10.0			

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings
Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

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Boring/Well Number: SBA- <u>20BA</u>		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlam Corridor		Borehole Start Date: 09/18/18	Borehole Start Time: 1454	AM ☐ PM ☒							
		End Date: 09/18/18	End Time: 1500	AM ☐ PM ☒							
Environmental Contractor: SCS Engineers		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: Onur Eroglu							
Drilling Company: JAEE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 4	Borehole Depth (feet): 1							
Drilling Method(s): DPT or HA ☒	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1	N/A	N/A	N/A	N/A	N/A	0.5	Dark brown silty soil w/ limrock pieces.			u SBA-20A D (0-0.5) 1455
							1	Refusal w/ HA			SBA-20A (0.5-1) 1500
							2				
							3				
							4				
							5				
							6				

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated

BORING LOG

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Boring/Well Number: SBA- <u>20AB</u>		Permit Number: N/A		FDEP Facility Identification Number: N/A							
Site Name: Ludlam Corridor		Borehole Start Date: 09/18/18	Borehole Start Time: 1448	☐ AM ☒ PM							
		End Date: 09/18/18	End Time: 1452	☐ AM ☒ PM							
Environmental Contractor: SCS Engineers		Geologist's Name: Alexis Nielsen		Environmental Technician's Name: Onur Eroglu							
Drilling Company: JAEE		Pavement Thickness (inches): N/A	Borehole Diameter (inches): 4	Borehole Depth (feet): 1							
Drilling Method(s): DPT or HA	Apparent Borehole DTW (in feet from soil moisture content): N/A	Measured Well DTW (in feet after water recharges in well): N/A	OVA (list model and check type): N/A ☐ FID ☐ PID								
Disposition of Drill Cuttings [check method(s)]: ☐ Drum ☐ Spread ☒ Backfill ☐ Stockpile ☐ Other (describe if other or multiple items are checked):											
Borehole Completion (check one): ☐ Well ☐ Grout ☐ Bentonite ☒ Backfill ☐ Other (describe)											
Sample Type	Sample Depth Interval (feet)	Sample Recovery (inches)	SPT Blows (per six inches)	Unfiltered OVA	Filtered OVA	Net OVA	Depth (feet)	Sample Description (include grain size based on USCS, odors, staining, and other remarks)	USCS Symbol	Moisture Content	Lab Soil and Groundwater Samples (list sample number and depth or temporary screen interval)
HA	1	N/A	N/A	N/A	N/A	N/A	0.5 1 2 3 4 5 6	Dark brown silty soil w/some med. brown Sand. Some limestone - Refusal w/ HA		D	SBA-20A(0-0.5) 1450 SBA-20B(0.5-1) 1452

Sample Type Codes: PH = Post Hole; HA = Hand Auger; SS = Split Spoon; ST = Shelby Tube; DP = Direct Push; SC = Sonic Core; DC = Drill Cuttings

Moisture Content Codes: D = Dry; M = Moist; W = Wet; S = Saturated