

SECTION 4

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All information given on the technical data is from the best sources at present available to CITY. All such information is furnished only for the information and convenience of Bidders and is not guaranteed.

It is agreed and understood that the CITY does not warrant or guarantee that the conditions, existing pipes or other structures encountered during construction will be the same as those indicated on the technical data.

It is agreed further and understood that no Bidder or Contractor shall use or be entitled to use any of the information made available to him or obtained in any examination made by him in any manner as a basis of or ground for any claim or demand against the CITY or the Engineer, arising from or by reason of any variance which may exist between the information made available and the actual conditions, existing pipes or other structures actually encountered during the construction work, except as may otherwise be expressly provided for in the Contract Documents.

BID #2013-020
SOUTH MAIN STREET PUMP STATION REPLACEMENT

SECTION 4

Exhibit A – Geotechnical Engineering Recommendations

South Main St. Pump Station Replacement Project

Geotechnical Engineering Recommendations

To: FAM
FROM: DRB1, CDH
DATE: May 14, 2013

The following technical memorandum presents the geotechnical evaluation for the proposed replacement pump station at South Main Street in Middletown, CT. Our work was done in accordance with our revised agreement dated March 2, 2012.

Site Conditions

Existing – The proposed pump station is located in a wooded area approximately 70 feet southeast of the existing pump station. Topography near the proposed pump station is relatively flat with existing grade at approximately elevation 79 feet. Grades slope gently downward south of the proposed pump station towards Long Hill Brook. Base flood elevation is 82 feet. Soils and groundwater are reportedly contaminated in the area.

Proposed – The proposed pump station is a 20 foot tall precast masonry structure, with a near rectangular base measuring 7.5 feet wide by 11.5 feet long. The pump station will weigh approximately 36.5 tons and the equipment inside is anticipated to weigh approximately 0.5 tons. The bottom of the proposed pump station is at elevation of 62.5 feet, and will be underlain by 12 inches of $\frac{3}{4}$ -inch crushed stone wrapped in a Group 2, non-woven geotextile fabric. The bottom of the crushed stone is approximately 17.5 feet below existing ground surface.

The proposed control panel will be located approximately 6 feet southwest of the proposed pump station, and will be supported by a cast-in-place concrete pier. The pier footing will be 4 feet 8 inches wide by 8 feet long, bearing at elevation 75.5 feet. An elevated cast-in-place concrete slab will span from the pier to the pump station.

Final grades in the pump station area will be constructed with crushed stone to elevations ranging from 78 to 80 feet.

Subsurface Conditions

The generalized soil profile described in the text summarizes trends in subsurface conditions. The boundaries between soil strata are approximate, and were based on interpretations of widely spaced explorations and samples. Actual soil transitions could be more variable.

Test Borings – Three test borings (SB-1, SB-2 and SB-3) were drilled by New England Boring Contractors of Glastonbury, CT on March 21, 2013. Test borings were advanced with 3-1/4 inch inner diameter hollow-stem augers to depths of 32 feet below the existing ground surface. Split-spoon sampling and Standard Penetration Tests (SPTs) were conducted at 5 foot maximum intervals. Test borings were terminated in natural soils. The borings were backfilled with cuttings upon completion. The Subsurface Exploration Plan is included in Appendix A. Test boring logs are included in Appendix B.

Laboratory Testing – Laboratory tests were performed to aid in soil classifications and to evaluate soil re-use potential. Two sieve tests and two Atterberg limits tests were performed. Laboratory test results are included in Appendix C.

Summary of Subsurface Conditions – In general, conditions consisted of a surficial layer of topsoil overlying approximately 13 to 14 feet of very loose to medium dense, brown, fine to coarse sand with trace (0 to 10 percent) to some (20 to 35 percent) silt and trace to some gravel, varying to sand and (35 to 50 percent) gravel with trace silt. In borings SB-1 and SB-2, the sand is underlain by approximately 2 to 8 feet of medium, brown, silt and clay with little (10 to 20 percent) to some fine sand. Underlying the clayey silt in borings SB-1 and SB-2, and the sand in boring SB-3 is approximately 3.5 to 10 feet of loose to medium dense, brown, fine to coarse sand and silt underlain by dense to very dense, brown, fine to coarse sand with some silt and trace to some gravel, varying to fine to coarse sand and silt with trace gravel, which was penetrated approximately 3.5 to 9.5 feet before the borings were terminated.

Groundwater was observed at approximately 5 feet below the existing ground surface corresponding to approximately elevation 74 feet. Water levels taken during or shortly after drilling may not reflect stabilized conditions. Water levels can fluctuate with season, precipitation, and nearby construction or other below grade activities, such as excavation, dewatering, wells, infiltration basins, etc.

Geotechnical Engineering Recommendations

The analyses and recommendations submitted in this evaluation are based upon the data obtained from the relatively widely spaced subsurface explorations. The nature and extent of variations between explorations may not become evident until construction. If significant variations from these descriptions appear during construction, it will be necessary to re-evaluate these recommendations.

Geotechnical Design Recommendations

Foundation Design – The pump station may bear on a crushed stone pad as currently designed. The recommended non-woven geotextile separation fabric is Tencate Mirafi 140N, or an approved equal. The pad subgrade is anticipated to be undisturbed sand and clayey silt which should be prepared as described later in this memorandum. The pump station is not anticipated to impart additional load compared to the weight of the existing soil to be removed at the bottom of the pump station. As a result, settlements are anticipated to be minimal. The designer should evaluate uplift potential of the pump station during flooding assuming the water table temporarily rises to the ground surface. A minimum factor of safety of 1.2 for uplift is recommended.

The control panel pier footing will bear on very loose to loose sand. This sand is likely fill material which does not appear to have been placed and compacted in a controlled manner. In general, the sand is considered capable of shallow foundation support provided it is prepared as specified later in this memorandum. We recommend that the sand be over excavated by a minimum of 1 foot to allow for placement of compacted Crushed Stone completely wrapped in Tencate Mirafi 140N geotextile separation fabric, or an approved equal. We recommend a maximum allowable bearing pressure of 750 pounds per square foot (psf) for the pier footing bearing on placed and compacted Crushed Stone.

The maximum allowable bearing pressure applies to footings having a minimum lateral dimension of at least 3 feet. For smaller footings, the recommended allowable bearing

pressure must be reduced by the ratio of actual minimum footing size to 3 feet. An increase of one third is permitted when using alternate load combinations, as presented in Section 1605.3.2 of the Connecticut State Building Code, that include wind or earthquake loads. At the recommended maximum bearing pressure, total settlement of the pier and differential settlement between the pier and pump station are anticipated to be less than approximately half an inch. Most settlement will occur during construction as dead load is applied.

Per the Connecticut State Building Code, footings should bear a minimum of 3.5 feet below adjacent ground surface exposed to freezing temperatures for frost protection.

Seismic Design - Based on data from the borings, the site is assigned to *Site Class D*, according to the State of Connecticut Building Code. The design spectral response accelerations at short periods (S_{DS}) and at 1-second period (S_{D1}) are 0.253 and 0.099, respectively. These values were calculated based on mapped spectral response accelerations and the appropriate magnification factors for Site Class D. The structural engineer should determine the Seismic Design Category based upon the assumed seismic use group.

Based on standard penetration test N-values and the presence sufficient fine grained soils observed in the borings, the site soils are not considered susceptible to liquefaction.

Geotechnical Construction Recommendations

This section provides comments related to foundation construction, earthwork, and other geotechnical aspects of the project that will aid those responsible for preparation of construction specifications.

Excavation and Fill – Conventional heavy construction equipment should be suitable for excavation in these soils. Excavation geometries should conform to OSHA excavation regulations contained in 29 CFR Part 1926, latest edition. Any unsuitable material that are soft or yielding should be removed below the footprints of the structures as well as in the footing bearing zones which is defined by a 1H:1V plane extending downward and outward from one foot beyond the edge of footing. One foot of Crushed Stone wrapped in Tencate Mirafi 140N separation fabric, or an approved equal, should be placed below the pump station and pier footing. Backfill adjacent to the structures should consist of Granular Fill or Gravel Borrow.

Due to the depth of excavation required, open cut methods combined with a trench box and dewatering system is anticipated for construction of the pump station. Construction of the pier will likely be above the water table and is anticipated to be completed with open cut methods.

Table 1 presents the required gradations for imported materials.

Table 1
Gradation Requirements for Borrow Materials

Sieve Size	Percent Finer by Weight		
	Granular Fill	Gravel Borrow	3/4" Crushed Stone
2/3 rd lift thickness	100	100	
2 inch	--	100	
1 inch	--	--	100
¾ inch	--	--	90-100
½ inch	--	50-85	10-50
3/8 inch	--	--	0-20
No. 4	--	40-75	0-5
No. 10	30-95	--	--
No. 40	10-70	--	--
No. 50	--	8-28	--
No. 200	0-15	0-10	--

All backfill should be placed in 12 inch maximum lifts and should be compacted to 92 percent of the maximum dry density as determined by Modified Proctor laboratory testing (ASTM D-1557). Thinner lifts may be needed depending on the material placed and the type of compactor used.

Dewatering – Groundwater was observed to be about 12.5 feet above the anticipated bottom of the pump station, and will be encountered during excavation. We recommend that the groundwater level be temporarily lowered at least two feet below the bottom of the excavation to facilitate construction. Dewatering will likely require properly filtered wells and/or sumps, and discharge should be according to federal, state, and local regulations. Any groundwater contamination treatment requirements should be properly addressed in the Contract Documents. Groundwater will likely not be encountered during excavation for the pier footing. Surface water entering the construction area should be diverted away from excavations.

Bearing Surface Preparation – Due to the relatively high fine grained content of soil anticipated at subgrade levels we recommend that bearing surfaces be carefully excavated with a smooth edged bucket to minimize soil disturbance. Over-excavate any soft or weak spots and replace with compacted Crushed Stone wrapped in Tencate Mirafi 140N separation fabric, or an approved equal.

Soil bearing surfaces should be protected against freezing and the elements. If construction is performed during freezing weather, excavations should be backfilled as soon as possible. Alternatively, insulating blankets or other means may be used for protection against freezing.

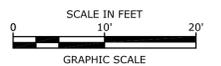
Reuse of Existing Soils – Existing subsurface materials, excluding topsoil, may be re-used as Granular Fill, regardless of its gradation, provided it is free of contaminants, organics, debris, stones greater than two thirds the lift thickness in diameter, or other unsuitable material, and provided they are placed to the required degree of compaction. It should be noted that some of the existing site soils have a relatively high fine grained content, which will cause them to become difficult to place and compact to the required degree of compaction when excessively wet.

Existing site soils may not be re-used as Gravel Borrow or Crushed Stone unless it meets the gradation requirements presented above, which is unlikely. Existing topsoil/subsoil may be reused in landscaped areas but should be tested for pH, percent organics, and nutrient content and modified as needed to support vegetative growth.

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APPENDIX A
Subsurface Exploration Plan

**FOR PERMITTING PURPOSES ONLY
NOT FOR CONSTRUCTION**



**South Main St.
Pump Station
Replacement
Project**

Department of
Water & Sewer

Middletown, CT

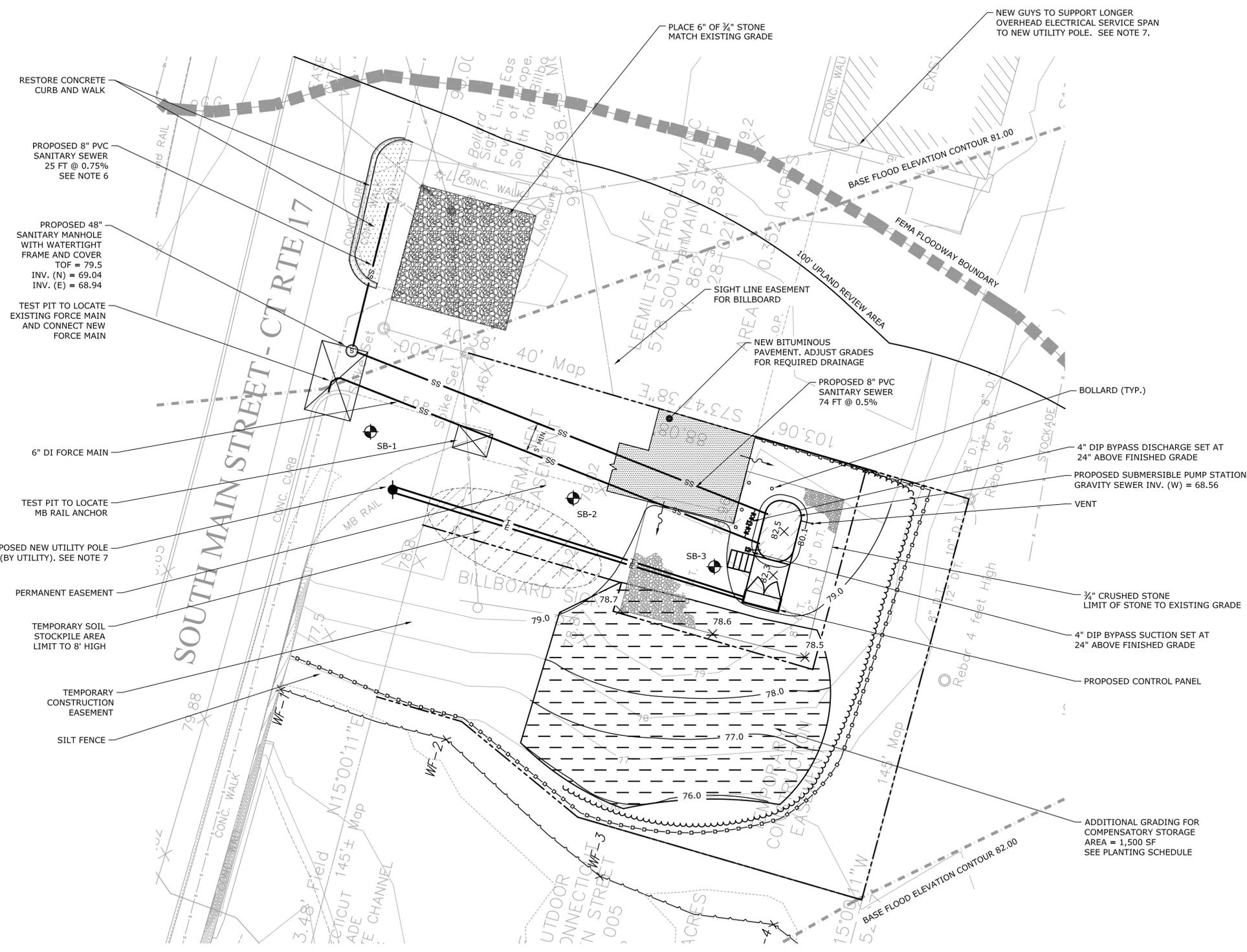
May 2013

Mark	Date	Description

PROPOSED SITE PLAN

SCALE: AS SHOWN

C-02



NEW PUMP STATION SITE PLAN

1" = 10'

COMPENSATORY FLOOD STORAGE

FLOOD PLAIN ELEVATION AT PUMP STATION	81.5 FT
FLOOD PLAIN FILL (INCLUDING STRUCTURES) ELEVATION 79.0 TO 81.5	13.5 CY
FLOOD PLAIN COMPENSATION	
SPOIL PILE ELEVATION 77.0 TO 83.0	20-40 CY
OLD PUMP STATION ELEVATION 80.0 TO 81.0	1 CY
GRADE ELEVATION 76.0 TO 79.0	13.5 CY
FILL AREA IN FLOOD PLAIN	360 SF

COMPENSATORY FLOOD STORAGE AREA PLANTING SCHEDULE

- PRIOR TO ALL WORK, EROSION CONTROL BARRIERS ARE TO BE ESTABLISHED AS DETAILED ON THE SOIL EROSION AND SEDIMENTATION CONTROL PLAN.
- THE FOLLOWING PLANTING GUIDELINES SHALL BE APPLIED TO THE COMPENSATORY FLOOD STORAGE AREA, FOLLOWING CONSTRUCTION:
- WHERE ADEQUATE TOPSOIL (±6 INCHES) DOES NOT EXIST, PLANTED AREAS SHALL BE BACKFILLED TO A MINIMUM DEPTH OF 6 INCHES WITH CLEAN TOPSOIL. ONCE FINAL TOPSOIL IS IN PLACE, IT SHALL BE GRADED TO ACHIEVE A RELATIVELY SMOOTH SURFACE. SOIL CONDITIONING ACTIVITIES INCLUDING SEEDBED PREPARATION MAY BE NECESSARY FOR EFFECTIVE ESTABLISHMENT OF VEGETATIVE COVER.
- ONCE THE ABOVE LISTED TASKS HAVE BEEN COMPLETED, THESE AREAS SHALL BE PLANTED WITH NEW ENGLAND EROSION CONTROL/RESTORATION MIX FOR DRY SITES (OR APPROVED EQUIVALENT). THE SEED MIXTURE SHALL BE APPLIED AT A RATE OF 35 LBS/ACRE OR 1 LB/1,245 SQFT. THE SEED MIXTURE IS AVAILABLE FROM NEW ENGLAND WETLAND PLANTS, INC. (413-548-8000).
- BIODEGRADABLE EROSION CONTROL BLANKETS SHALL BE PLACED OVER SEEDED AREAS TO LIMIT EROSION AND ENHANCE VEGETATIVE ESTABLISHMENT.
- THE CONTRACTOR SHALL BE RESPONSIBLE FOR THE CAREFUL INSTALLATION, MAINTENANCE (INCLUDING WATERING), AND ESTABLISHMENT OF NATIVE PLANT MATERIAL IN THIS AREA. PLANTINGS SHALL BE GUARANTEED BY THE CONTRACTOR TO REMAIN ALIVE AND HEALTHY FOR A FULL TWELVE (12) MONTH PERIOD.
- THE EROSION CONTROL BARRIERS SHALL BE DISASSEMBLED FOLLOWING SUCCESSFUL STABILIZATION OF THIS AREA. SEDIMENT COLLECTED BY THESE DEVICES WILL BE REMOVED AND DISPOSED OF IN A MANNER THAT PREVENTS EROSION AND TRANSPORT TO A WATERWAY OR WETLAND.

LEGEND

- SB-3 APPROXIMATE BORING LOCATION - BORINGS PERFORMED BY NEW ENGLAND BORING CONTRACTORS OF GLASTONBURY, CT ON MARCH 21, 2013.

NOTES

- ELEVATIONS BASED ON DATUM NAVD88.
- ELEVATION OF THE 100-YEAR FLOOD VARIES ACROSS THE SITE. AT THE LOCATION OF THE PROPOSED WORK, IT IS 81.5' (NAVD88).
- MATERIAL REMOVED TO CREATE COMPENSATORY STORAGE MAY NOT BE USED TO CONSTRUCT FILLED AREAS.
- COMPENSATORY FLOOD STORAGE AREA WILL BE SEEDED TO PROMOTE RE-VEGETATION (SEE SECTION 02920).
- STOCKPILE ALL EXCESS EXCAVATED SOIL FOR SAMPLING AND ANALYSIS PRIOR TO DISPOSAL OFF-SITE.
- MATCH EXISTING SEWER PIPE SLOPE. SURVEY PRIOR TO INSTALLATION AND NOTIFY ENGINEER IF THERE ARE DISCREPANCIES.
- UTILITY TO PROVIDE NEW OVERHEAD SERVICE TO EXISTING BUILDING AND BILLBOARD.

APPENDIX B
Test Boring Logs

Project: S Main Street Pump Station
 Location: Middletown, CT
 Client: City of Middletown

Boring No. SB-1
 Page 1 of 1
 File No. M-0840
 Checked by: CDH

Drilling Co.: New England Boring Contractors

Foreman: Mike
 T&B Rep.: NAL
 Date Start: 03/21/13 End: 03/21/13
 Location: See Plan
 GS. Elev. 79 Datum: NAVD 88

Type HSA
 I.D./O.D. 3 1/4"
 Hammer Wt. 140 lbs.
 Hammer Fall 30"
 Other Auto Hammer

Casing HSA
 Sampler Split-Spoon

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
3/21/13				See Note 1

Depth (ft.)	PID ppm	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S1 / 20	0-2	9-13	S1: Medium dense, brown, fine to coarse SAND, some Silt, trace Gravel, moist	Silty SAND		Well Not Constructed
				16-12				
		S2 / 10	2-4	7-12	S2: Medium dense, brown, fine to coarse SAND, some Gravel, some Silt, moist			
				6-5				
		S3 / 15	4-6	13-4	S3: Loose, brown, fine to coarse SAND, some Silt, trace Gravel, moist			
10				2-2		Silty SAND		
		S4 / 2	6-8	1-1	S4: Very loose, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet			
				2-2				
		S5 / 16	8-10	0-2	S5: Top 10": Very loose, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet Bottom 6": Loose, brown, fine to coarse SAND, some Gravel, trace Silt, wet			
				4-2				
15		S6 / 16	10-12	0-1	S6: Very loose, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet	Silty SAND		
				1-2				
		S7 / 12	12-14	2-3	S7: Loose, brown, fine to coarse SAND, some Silt, trace Gravel, wet			
				3-3				
		S8 / 18	14-16	3-3	S8: Top 4": Loose, brown, fine to coarse SAND, some Silt, trace Gravel, wet Bottom 14": Medium, brown SILT and CLAY, wet			
20				4-5		SAND		
		S9 / 15	16-18	9-5	S9: Medium dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet			
				5-4				
		S10 / 20	18-20	2-2	S10: Medium, brown SILT and CLAY, little Sand, trace Gravel, wet			
				5-6				
25						SILT and CLAY		
		S11 / 20	25-27	4-6	S11: Medium dense, fine to coarse SAND and Clayey SILT, wet			
30				6-7		SAND and Clayey SILT		
		S12 / 21	30-32	7-8	S12: Medium dense, brown, fine to coarse SAND, some Gravel, some Silt, wet			
				9-15		Silty SAND		

Bottom of Exploration at 32'

Notes:
 1. Groundwater was encountered 5 feet below existing ground surface during drilling activities based on sample appearance.

Project: S Main Street Pump Station
 Location: Middletown, CT
 Client: City of Middletown

Boring No. SB-2
 Page 1 of 1
 File No. M-0840
 Checked by: CDH

Drilling Co.: New England Boring Contractors

Foreman: Mike
 T&B Rep.: NAL
 Date Start: 03/21/13 End: 03/21/13
 Location: See Plan
 GS. Elev. 79 Datum: NAVD 88

Type HSA
 I.D./O.D. 3 1/4"
 Hammer Wt. 140 lbs.
 Hammer Fall 30"
 Other Auto Hammer

Casing HSA
 Sampler Split-Spoon

Groundwater Readings

Date	Time	Depth	Casing	Sta. Time
3/21/13				See Note 1

Depth (ft.)	PID ppm	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction			
5		S1 / 18	0-2	7-3	S1: Medium dense, red brown, fine to coarse SAND, some Silt, trace Gravel, moist	TOPSOIL Silty SAND		Well Not Constructed			
				2-3							
		S2 / 10	2-4	3-6	S2: Medium dense, red brown, fine to coarse SAND, some Silt, trace Gravel, moist						
				6-3							
		S3 / 14	4-6	2-1	S3: Very loose, grey brown, fine to coarse SAND, some Clayey Silt, moist						
10				1-1							
		S4 / 6	6-8	1-1	S4: Very loose, brown, fine to coarse SAND, some Clayey Silt, wet						
				1-1							
		S5 / 20	8-10	0-1	S5: Very loose, brown, fine to coarse SAND, trace Silt, wet						
				1-1							
15		S6 / 20	10-12	0-1	S6: Loose, brown, fine to coarse SAND, little Silt, wet				12' SAND and GRAVEL		
				3-3							
		S7/18	12-14	5-6	S7: Medium dense, brown, fine to coarse SAND and GRAVEL, trace Silt, wet	14' SILT and CLAY					
				5-3							
		S8/20	14-16	4-4	S8: Medium, brown SILT and CLAY, some fine Sand, wet	16'					
20				4-6							
		S9/16	16-18	4-4	S9: Medium dense, brown, fine to coarse SAND and SILT, wet	SAND and SILT					
				7-5							
		S10/24	18-20	6-10	S10: Medium dense, brown, fine to coarse SAND and Clayey SILT, wet						
				15-22							
25						Silty SAND					
		S11/ 14	25-27	20-20	S11: Dense, brown, fine to medium SAND, some Silt, trace Gravel, wet						
				18-15							
30											
		S12 / 24	30-32	20-40	S12: Very dense, brown, fine to medium SAND and SILT, trace Gravel, moist						
				54-80							

Bottom of Exploration at 32'

Notes:
 1. Groundwater was encountered 5 feet below existing ground surface during drilling activities based on sample appearance.

Project: S Main Street Pump Station
 Location: Middletown, CT
 Client: City of Middletown

Boring No. SB-3
 Page 1 of 1
 File No. M-0840
 Checked by: CDH

Drilling Co.: New England Boring Contractors
 Foreman: Mike
 T&B Rep.: NAL
 Date Start: 03/21/13 End: 03/21/13
 Location: See Plan
 GS. Elev. 79 Datum: NAVD 88

Type: HSA
 I.D./O.D.: 3 1/4"
 Hammer Wt.: 140 lbs.
 Hammer Fall: 30"
 Other: Auto Hammer

Casing: HSA
 Sampler: Split-Spoon

Groundwater Readings				
Date	Time	Depth	Casing	Sta. Time
3/21/13				See Note 1

Depth (ft.)	PID ppm	Sample No. / Rec. (in)	Sample Depth (ft.)	Blows Per 6"	Sample Description	General Stratigraphy	Notes	Well Construction
5		S1 / 18	0-2	6-9	S1: Medium dense, brown, fine to coarse SAND, some Gravel/Asphalt, some Silt, moist	TOPSOIL		Well Not Constructed
				6-4				
		S2 / 14	2-4	3-3	S2: Loose, brown, fine to coarse SAND, some Silt, trace Gravel, moist			
				2-4				
		S3 / 20	4-6	1-1	S3: Very loose, brown, fine to medium SAND and Clayey SILT, trace Gravel, wet			
10				1-1		Silty SAND		
		S4 / 16	6-8	0-1	S4: Very loose, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet			
				0-1				
		S5 / 24	8-10	0-0	S5: Very loose, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet			
				0-2				
15		S6 / 6	10-12	2-4	S6: Loose, brown, fine to coarse SAND, some Silt, trace Gravel, wet	12.8'		
				4-3				
		S7/20	12-14	2-3	S7: Top 10": Loose, brown, fine to coarse SAND, some Silt, trace Gravel, wet Bottom 10": Loose, brown, fine to coarse SAND and Clayey SILT, trace Gravel, wet			
				3-4				
		S8/18	14-16	2-3	S8: Loose, brown, fine to coarse SAND and Clayey SILT, trace Gravel, wet			
20				3-4		SAND and Clayey SILT		
		S9/24	16-18	7-8	S9: Medium dense, brown, fine to coarse SAND and Clayey SILT, trace Gravel, wet			
				11-13				
		S10/24	18-20	10-12	S10: Medium dense, brown, fine to coarse SAND and Clayey SILT, trace Gravel, wet			
				12-11				
25						22.5'		
		S11/ 24	25-27	17-30	S11: Very dense, brown, fine to medium SAND and SILT, trace Gravel, wet			
30				48-55		Silty SAND		
		S12 / 24	30-32	40-82	S12: Very dense, brown, fine to coarse SAND, some Clayey Silt, trace Gravel, wet			
				100-100				

Bottom of Exploration at 32'

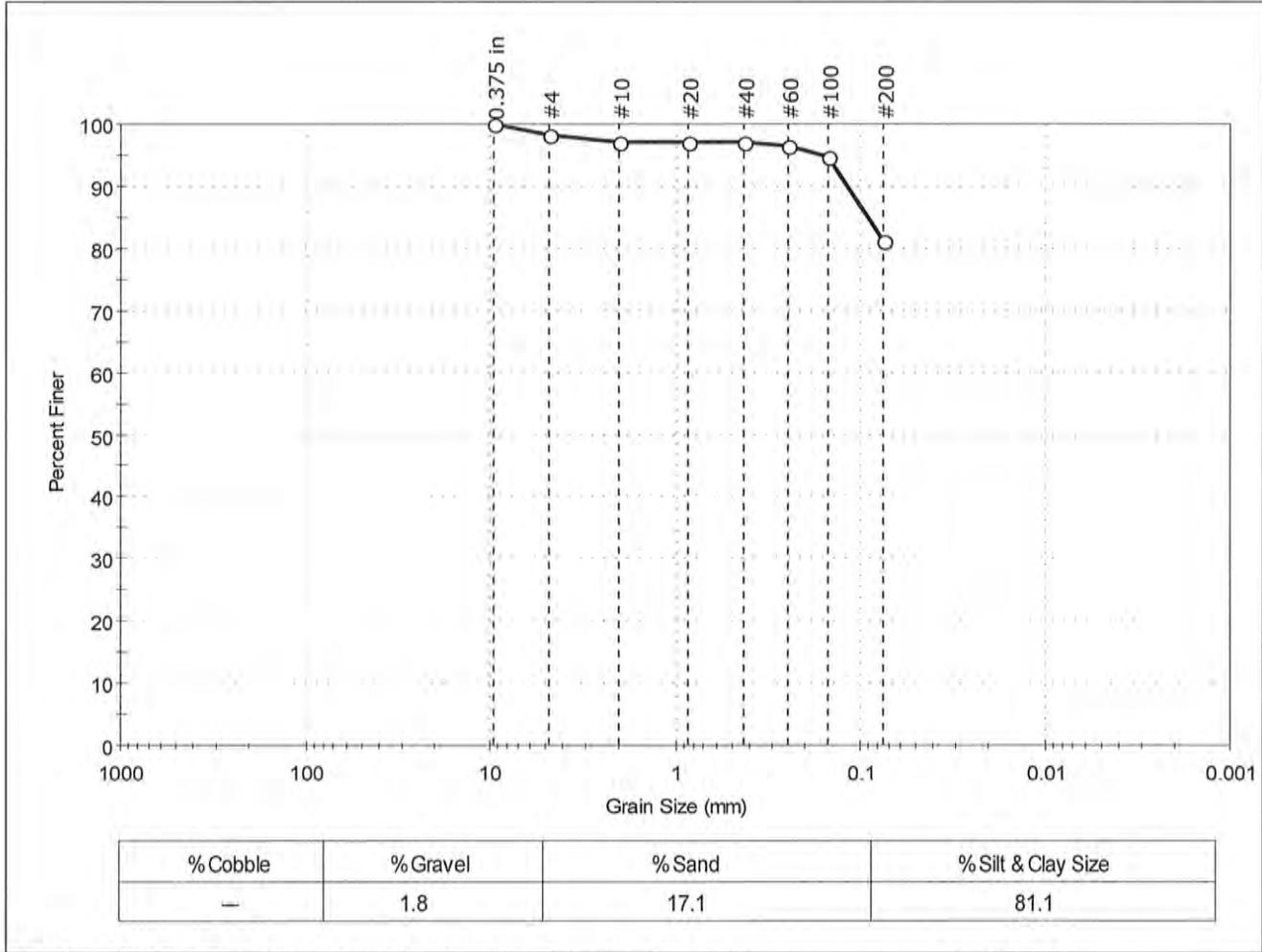
Notes:
 1. Groundwater was encountered 5 feet below existing ground surface during drilling activities based on sample appearance.

APPENDIX C
Laboratory Test Data



Client: Tighe & Bond	Project: M0840 - Laboratory Testing	Project No: GTX-300423
Location: ---	Boring ID: SB-1	Sample Type: jar
Tested By: jbr	Sample ID: ---	Test Date: 04/10/13
Checked By: jdt	Depth: 18-20 ft.	Test Id: 263364
Test Comment: ---	Sample Description: Moist, reddish brown silty clay with sand	
Sample Comment: ---		

Particle Size Analysis - ASTM D422



Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.375 in	9.50	100		
#4	4.75	98		
#10	2.00	97		
#20	0.85	97		
#40	0.42	97		
#60	0.25	97		
#100	0.15	95		
#200	0.075	81		

<u>Coefficients</u>	
D ₈₅ = 0.0916 mm	D ₃₀ = N/A
D ₆₀ = N/A	D ₁₅ = N/A
D ₅₀ = N/A	D ₁₀ = N/A
C _u = N/A	C _c = N/A

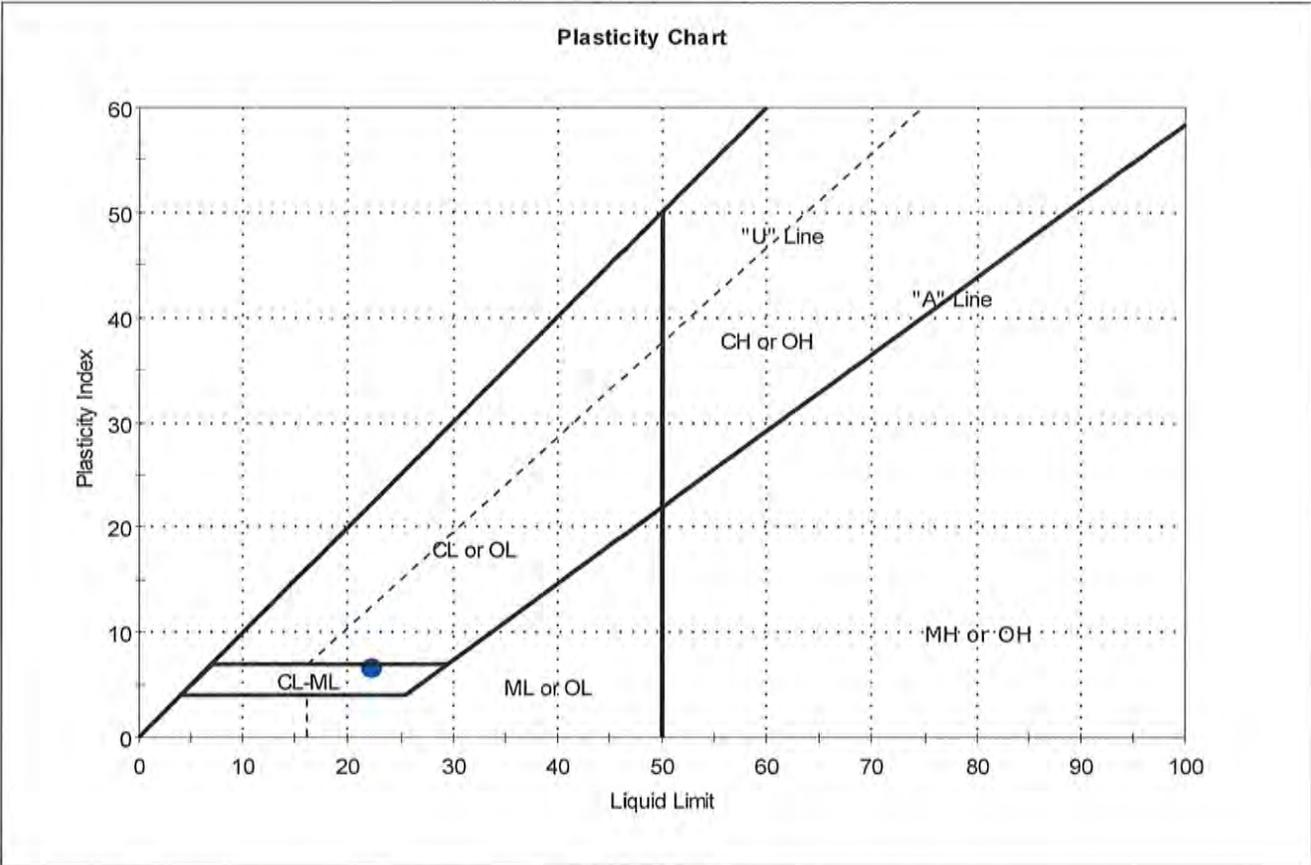
<u>Classification</u>	
ASTM	silty clay with sand (CL-ML)
AASHTO	Silty Soils (A-4 (2))

<u>Sample/Test Description</u>	
Sand/Gravel Particle Shape :	---
Sand/Gravel Hardness :	---



Client: Tighe & Bond	Project: M0840 - Laboratory Testing	Project No: GTX-300423
Location: ---	Boring ID: SB-1	Sample Type: jar
Tested By: cam	Sample ID: ---	Test Date: 04/10/13
Checked By: jdt	Depth: 18-20 ft.	Test Id: 263366
Test Comment: ---	Sample Description: Moist, reddish brown silty clay with sand	
Sample Comment: ---		

Atterberg Limits - ASTM D4318



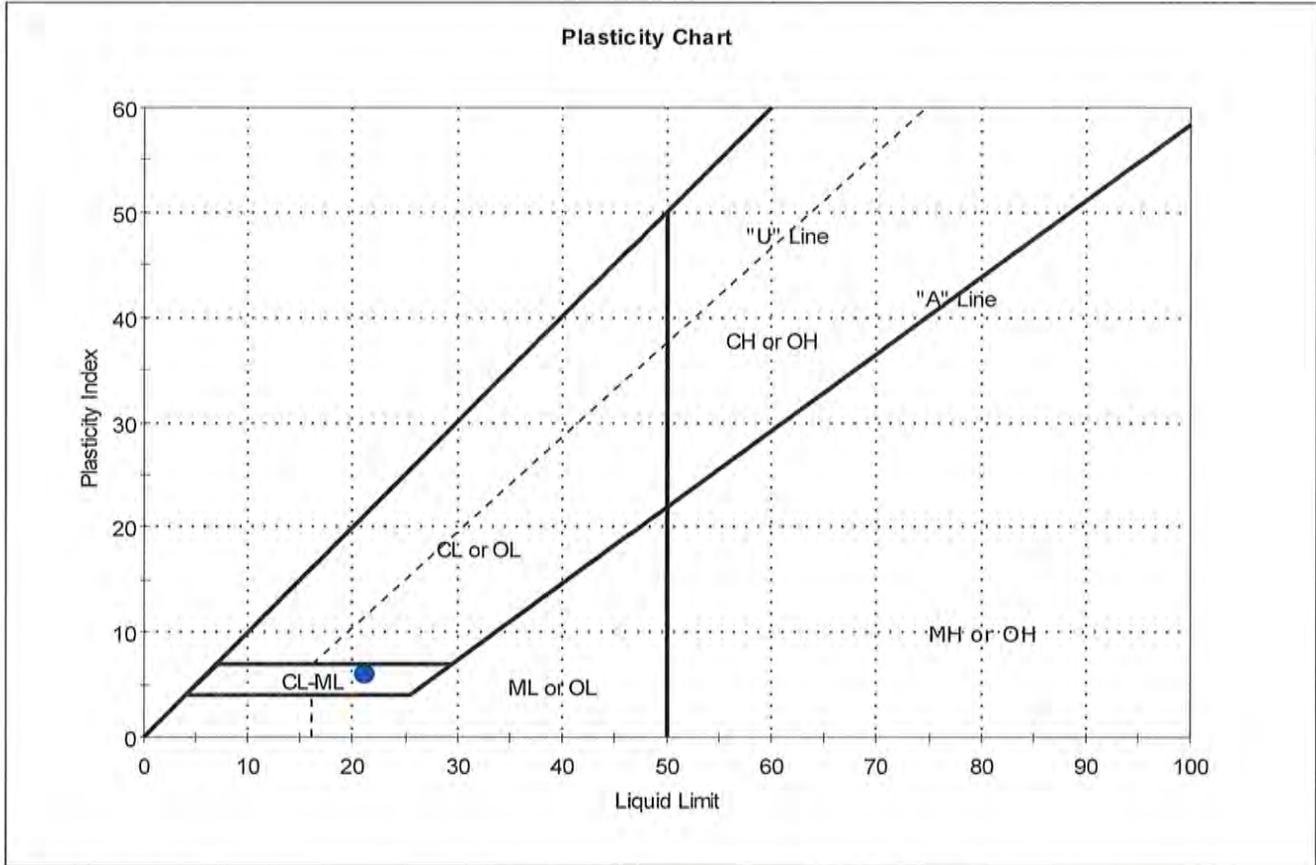
Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
●	---	SB-1	18-20 ft.	22	22	15	7	1	silty clay with sand (CL-ML)

Sample Prepared using the WET method
 3% Retained on #40 Sieve
 Dry Strength: HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client: Tighe & Bond	Project No: GTX-300423	
Project: M0840 - Laboratory Testing	Tested By: cam	
Location: ---	Sample Type: jar	Checked By: jdt
Boring ID: SB-2	Test Date: 04/15/13	Test Id: 263367
Sample ID: ---	Test Comment: ---	
Depth: 14-16 ft.	Sample Description: Moist, reddish brown silty clay with sand	
Sample Comment: ---		

Atterberg Limits - ASTM D4318



Symbol	Sample ID	Boring	Depth	Natural Moisture Content, %	Liquid Limit	Plastic Limit	Plasticity Index	Liquidity Index	Soil Classification
●	---	SB-2	14-16 ft.	28	21	15	6	2	

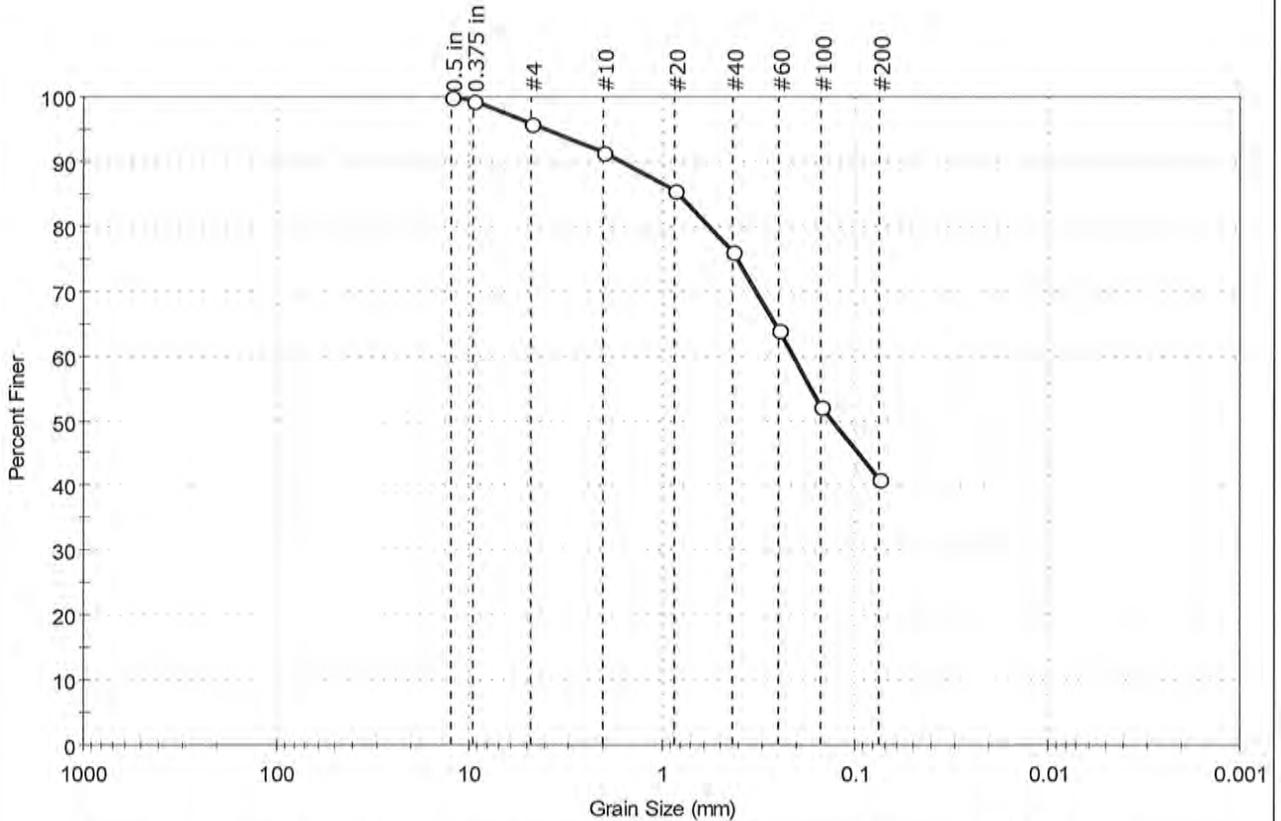
Sample Prepared using the WET method

Dry Strength: VERY HIGH
 Dilatancy: SLOW
 Toughness: LOW



Client: Tighe & Bond	Project: M0840 - Laboratory Testing	Project No: GTX-300423
Location: ---	Boring ID: SB-3	Sample Type: jar
Tested By: jbr	Sample ID: ---	Test Date: 04/10/13
Checked By: jdt	Depth: 25-27 ft.	Test Id: 263365
Test Comment: ---	Sample Description: Moist, reddish brown silty sand	Sample Comment: ---

Particle Size Analysis - ASTM D422



% Cobble	% Gravel	% Sand	% Silt & Clay Size
—	4.0	55.0	41.0

Sieve Name	Sieve Size, mm	Percent Finer	Spec. Percent	Complies
0.5 in	12.50	100		
0.375 in	9.50	99		
#4	4.75	96		
#10	2.00	91		
#20	0.85	86		
#40	0.42	76		
#60	0.25	64		
#100	0.15	52		
#200	0.075	41		

Coefficients	
D ₈₅ = 0.8160 mm	D ₃₀ = N/A
D ₆₀ = 0.2105 mm	D ₁₅ = N/A
D ₅₀ = 0.1316 mm	D ₁₀ = N/A
C _u = N/A	C _c = N/A

Classification	
ASTM	N/A
AASHTO	Silty Soils (A-4 (0))

Sample/Test Description
Sand/Gravel Particle Shape : ROUNDED
Sand/Gravel Hardness : HARD

BID #2013-020
SOUTH MAIN STREET PUMP STATION REPLACEMENT

SECTION 4

Exhibit B – Notice of Decisions

LEGAL NOTICE

NOTICE OF DECISION BY THE MIDDLETOWN PLANNING AND ZONING COMMISSION AT ITS REGULAR MEETING OF JUNE 26, 2013

1. Approved a Special Exception for an emergency replacement of a pump station to be located at 598 South Main Street. Applicant/agent City of Middletown Water/Sewer Department SE2013-2

Richard Pelletier, Chair
Planning and Zoning Commission

P. O. No. 2003-01785, Account No. 067419

The above legal notice to appear in the Hartford Courant ONCE

Thursday, July 4, 2013

THE MUNICIPAL BUILDING IS WHEELCHAIR ACCESSIBLE

BID #2013-020
SOUTH MAIN STREET PUMP STATION REPLACEMENT

SECTION 4

Exhibit C – Subsurface Investigations



Tyree Environmental Corp.

7 Viking Road, Webster, MA 01570

Phone: 508-640-0300 · Fax: 508-640-0301

Website: Tyreeorg.com

SUBSURFACE DELINEATION INVESTIGATION REPORT

**Getty Station No. 6852
578 South Main Street
Middletown, Connecticut**

July 2, 2013

Prepared for:

**Getty Properties Corporation
125 Jericho Turnpike, Suite 103
Jericho, New York 11753**

Prepared by:

**Tyree
7 Viking Road
Webster, Massachusetts 01570**

Subsurface Delineation Investigation Report

**Getty Station No. 6852
578 South Main Street
Middletown, Connecticut**

Quality Assurance/Quality Control

The following personnel have reviewed this report for accuracy of content:

A handwritten signature in black ink, appearing to read "J. Liddon".

John J. Liddon
Tyree
Environmental Project Manager

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1.0 INTRODUCTION

Tyree has prepared a *Subsurface Delineation Investigation Report* for the Getty Service Station No. 6852 located at 578 South Main Street in Middletown, Connecticut. Previous environmental investigations have identified a waste oil plume across the southern half of the site. The objective of this investigation is to delineate waste oil impacted soil and groundwater hydraulically up-gradient (east) of the previously identified release area and groundwater/non-aqueous phase liquid (NAPL) plume, respectively.

2.0 SITE OVERVIEW

The subject property, located in a mixed commercial/residential zoned area at the corner of South Main Street (CT Route 17) and Norfolk Street, is an approximately 15,420 square foot parcel that operates as a gasoline refueling station. **Figure 1** depicts the site location in relation to regional features.

The service station operates with a 1,134 square foot single-story masonry building, three (3) gasoline underground storage tanks (USTs), two (2) multi-product dispensers (MPDs) and a canopy. The UST system consists of a 6,000, an 8,000 and a 10,000-gallon UST. **Figure 2** depicts the location of the USTs, dispensers and other site features.

3.0 ENVIRONMENTAL SETTING

3.1 Topography

The topography of the subject property slopes gently downward from northeast to southwest with a dramatic increase in slope on the adjacent southwest property, finally leveling near the bank of the Long Hill Brook. **Figure 1** depicts regional topography.

3.2 Water Quality Classification

The subject property is located within a GB groundwater area, according to the Connecticut Department of Energy and Environmental Protection's (CT DEEP) *Current Water Quality Classification* map. The GB classification is designated for groundwater within highly urbanized areas of intense industrial activities where municipal water supplies exist. GB-classified groundwater may not be suitable for direct human consumption due to historic waste discharges and land use impacts.

Multiple surface water bodies in the area (Long Hill Brook, Pameacha Pond and Zoar Pond) are classified as class A surface water by the CT DEEP *Current Water Quality Classification* map. Class A surface water is known or presumed to meet water quality criteria which support the following uses: potential drinking water supply, fish and wildlife habitat, recreational use, agriculture, industrial supply and other legitimate uses including navigation.

The portion of Sumner Brook located directly east of the site is classified as A with a transition to class B further down stream. Class B surface water body designated uses are: fish and wildlife habitat, recreational activities, agricultural and industrial supply and navigation.

3.3 Geology

Surficial geology in the vicinity of the subject property is described on the *Surficial Materials Map of Connecticut* (Stone, et al, 1992) as well sorted, thin layers of alternating silt and clay or thicker layers of very fine sand and silt. Very fine sand typically occurs at the surface and grades downward into rhythmically bedded silt and clay varves (lake bottom deposits). These deposits originated from glacial meltwater during the Late Pleistocene.

Soil logging of borings advanced at the site indicate that unconsolidated soils consist of predominately medium to fine grained sand with varying amounts of gravel and increasing amounts of silt and clay with depth.

The underlying bedrock is identified on the *Bedrock Geological Map of Connecticut* (J. Rodgers, 1985) as the Portland Arkose, a stratified, sedimentary, reddish-brown to maroon micaceous arkose and siltstone and red to black fissile silty shale. Bedrock has not been encountered during subsurface investigation activities conducted at the site.

3.4 Hydrogeology

Water level gauging data collected since 2010 was used to model the potentiometric surface and estimate groundwater flow direction. Groundwater flow direction was consistently to the west and southwest across the site.

The most recent sampling event on May 15th, 2013, only included the gauging of the two newly installed monitoring wells (MW-16 and MW-17); therefore, hydrogeologic conditions could not be evaluated.

3.5 Potential Sensitive Receptors

The nearest surface water body is Long Hill Brook, located approximately 45 feet to the southwest of the property and empties into Pameacha Pond located approximately 75 feet west of the site. Additional surface water bodies in the area include; Zoar Pond 2,000 feet to the south, and Sumner Brook located 4,600 feet to the east eventually emptying into the Connecticut River.

4.0 SUBSURFACE DELINEATION INVESTIGATION

Tyree conducted subsurface investigation activities at the subject property in April 2013. The following section details the rationale and methods of the investigation.

4.1 Rationale

The objective of this investigation was to delineate waste oil impacted soil and groundwater up-gradient of previously identified impact at the site.

4.2 Soil Boring Advancement and Sampling

On April 5, 2013, Martin GeoEnvironmental of Belchertown, Massachusetts, under the supervision of Tyree, advanced four soil borings (SB-1 through SB-4), two of which were constructed as standard over-burden groundwater monitoring wells. A site plan depicting soil boring and monitoring well locations is presented as **Figure 2**.

Prior to drilling activities each location was vacuum-excavated to five feet below ground surface (bgs) to confirm that subsurface structures and/or utilities were avoided during soil boring advancement. Soil samples were collected every two feet using a hand auger during the vacuum excavation process.

Soil borings were advanced using a track-mounted, model 6610 Geoprobe®, direct push system. Two soil borings (SB-2 and SB-3) were advanced to approximately 12 feet bgs and two borings were advanced to 13 feet bgs. Continuous soil samples were collected with a macro-core sampler at four-foot intervals from approximately 5 feet bgs to the terminal depth of the boring. Details on soil boring advancement and lithology are presented in the boring logs as **Appendix A**.

Upon soil recovery, a staff scientist visually inspected, characterized, and screened the soil samples and containerized select sections of the soil cores for laboratory analysis. The samples were screened for VOCs utilizing a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp calibrated to an isobutylene standard to yield total VOCs in parts per million by volume (ppmv), referenced to benzene. It is important to note that PID screening values are qualitative measurements only, and are not necessarily indicative of actual concentrations in soil, as determined by laboratory analysis. The PID soil screening results are presented on the boring logs in **Appendix A**. Based on PID response and field analysis, select soil samples were submitted for laboratory analysis.

4.3 Soil Sample Collection

Select soil samples collected during this investigation were submitted to Accutest Laboratories (Accutest) of Marlborough, Massachusetts for analysis of the following constituents of concern (COCs):

- Volatile organic compounds (VOCs) and methyl tertiary-butyl ether (MTBE) via Environmental Protection Agency (EPA) Method 8260
- Total Resource Conservation and Recovery Act (RCRA) Metals via EPA Method 6010
- Extractable Total Petroleum Hydrocarbons (ETPH) via CT ETPH
- Polycyclic Aromatic Hydrocarbons (PAHs) via EPA Method 8270

5.0 REGULATORY EVALUATION

5.1 Regulatory Applicability

Laboratory analytical results of soil samples were compared with the applicable numeric criteria defined in the CTDEEP Remediation Standard Regulations (RSRs), as set forth in Regulations of Connecticut State Agencies (RCSA) sections 22a-133k-(1-3).

5.1.1 Soil

The CT DEEP RSR criteria applicable to soil at the subject property include:

- Residential Direct Exposure Criteria (Res DEC), which apply to soil within 15 feet of the ground surface, regardless of the depth of the water table.
- GB Pollutant Mobility Criteria (GB PMC), which apply to soil above the seasonal high water table in areas of GB groundwater classification.

Soil analytical results were compared to these criteria in determining the regulatory status of the soil at the subject property.

5.1.2 Groundwater

The CT DEEP RSR criteria applicable to groundwater at the subject property include:

- Surface Water Protection Criteria (SWPC), which apply to a groundwater plume at the point where the plume discharges to a surface water body.
- Residential Volatilization Criteria (Res Vol), which apply to groundwater within 15 feet of the ground surface.

The Res Vol criteria are applicable to groundwater at the site, due to the lack of an environmental land use restriction (ELUR), preventing future redevelopment of the property for residential use.

6.0 DELINEATION INVESTIGATION RESULTS

6.1 Soil Sampling Analytical Results

A total of four soil samples were collected from four soil boring locations during delineation investigation activities, and submitted for laboratory analysis of appropriate COCs in accordance with the CT DEEP *Site Characterization Guidance Document* (CTDEP September, 2007). Laboratory analytical results, as compared to the applicable RSR criteria, indicated that two soil samples [SB-1(4-4.5) and SB-4(5-8)] contained concentrations of PAHs, ETPH and arsenic that did not meet the Res DEC. Additionally, soil sample SB-1(4-4.5) contained concentrations of PAHs that did not meet the GB PMC.

The GB PMC does not apply to sample SB-4(5-8) due to the sample collection depth occurring below the seasonal high water table (5.36 feet bgs) at that location.

A summary of soil analytical data from this investigation is presented in **Table 1**. A soil conditions map is presented as **Figure 3**. Complete laboratory analytical reports are included in **Appendix B**.

6.2 Groundwater Sampling Analytical Results

A total of two groundwater samples were collected from the two newly installed monitoring wells (MW-16 and MW-17) at the site during this investigation. Samples were properly preserved and submitted under standard chain-of-custody for laboratory analysis of appropriate COCs in accordance with the CT DEEP *Site Characterization Guidance Document* (CTDEP September, 2007). Laboratory analytical results, as compared to the applicable RSR criteria, indicated that one of the two groundwater samples (MW-16) contained concentrations of PAHs that did not meet the Res Vol and the SWPC and concentrations of ETPH and arsenic that did not meet the SWPC.

A summary of groundwater analytical data from this investigation is presented as **Table 2**.

7.0 SUMMARY OF SIGNIFICANT FINDINGS AND CONCEPTUAL SITE MODEL

The analytical data collected during this subsurface delineation investigation, as well as historical soil and groundwater analytical data, indicate that two separate historical releases have occurred at the site. Gasoline related COCs have been detected in soil and groundwater hydraulically downgradient/cross-gradient of the current location of the gasoline dispensers and product piping. Continued remediation of the gasoline related plume using a vacuum truck to complete enhanced fluid recovery (EFR) events, has successfully removed gasoline NAPL from the subsurface. Historical data and results of this delineation investigation suggest that a waste oil release had occurred, possibly near the rear of the existing on-site building and that free-phase used-oil continues to emanate from the south corner of the on-site building.

Results of this investigation also suggest that an off-site source may be contributing to the degradation of groundwater beneath the site. SB-4/MW-17 was advanced and installed on the up-gradient property boundary to access background conditions. Groundwater sampled from SB-4/MW-17 indicated the presence (COCs above detection limits) of petroleum compounds emanating from the up-gradient residential property. The soil sample collected from the SB-4/MW-17 location was collected from below the water table and exhibited multiple petroleum product compounds (PAHs, ETPH and Arsenic) that did not meet regulatory criteria. The analytical results of this sample are further evidence that a release has occurred at or up-gradient of the property boundary.

As depicted on the soil conditions map (**Figure 3**), waste-oil related COCs are present in soil across a wide area of the southwestern portion of the property. Soil screening and laboratory analytical data indicate that waste-oil impacted soil is delineated laterally to the south and southwest by soil borings SB-9, SB-11, SB-12 and SB-13; laterally southeast by SB-2 (2013); laterally to the northeast by SB-3 (2013). However, the extent of waste-oil impacted soil off-site (up-gradient) to the east is unknown. Generally, on-site waste-oil impact to soil is limited vertically between approximately 2.5 feet bgs and 10 feet bgs.

The most recent comprehensive groundwater sampling event (March 22nd, 2013) revealed light non-aqueous phase liquid (LNAPL) at detectable thicknesses in the following monitoring wells:

- MW-4 (LNAPL thickness < 0.01 ft)
- MW-5 (LNAPL thickness = 0.08 ft)
- MW-11 (LNAPL thickness = 0.02 ft)
- MW-14 (LNAPL thickness = 0.02 ft)
- MW-15 (LNAPL thickness = 0.02 ft)
- GP-3 (LNAPL thickness = 0.07 ft)

Seasonal fluctuations in groundwater promotes the desorption of waste oil from soil at the site, causing the lateral extent of the LNAPL plume to extend to the southwest as far as GP-3 and contract as far as MW-11.

An approximation of the LNAPL plume and the dissolved phase groundwater plume is presented as **Figure 4**.

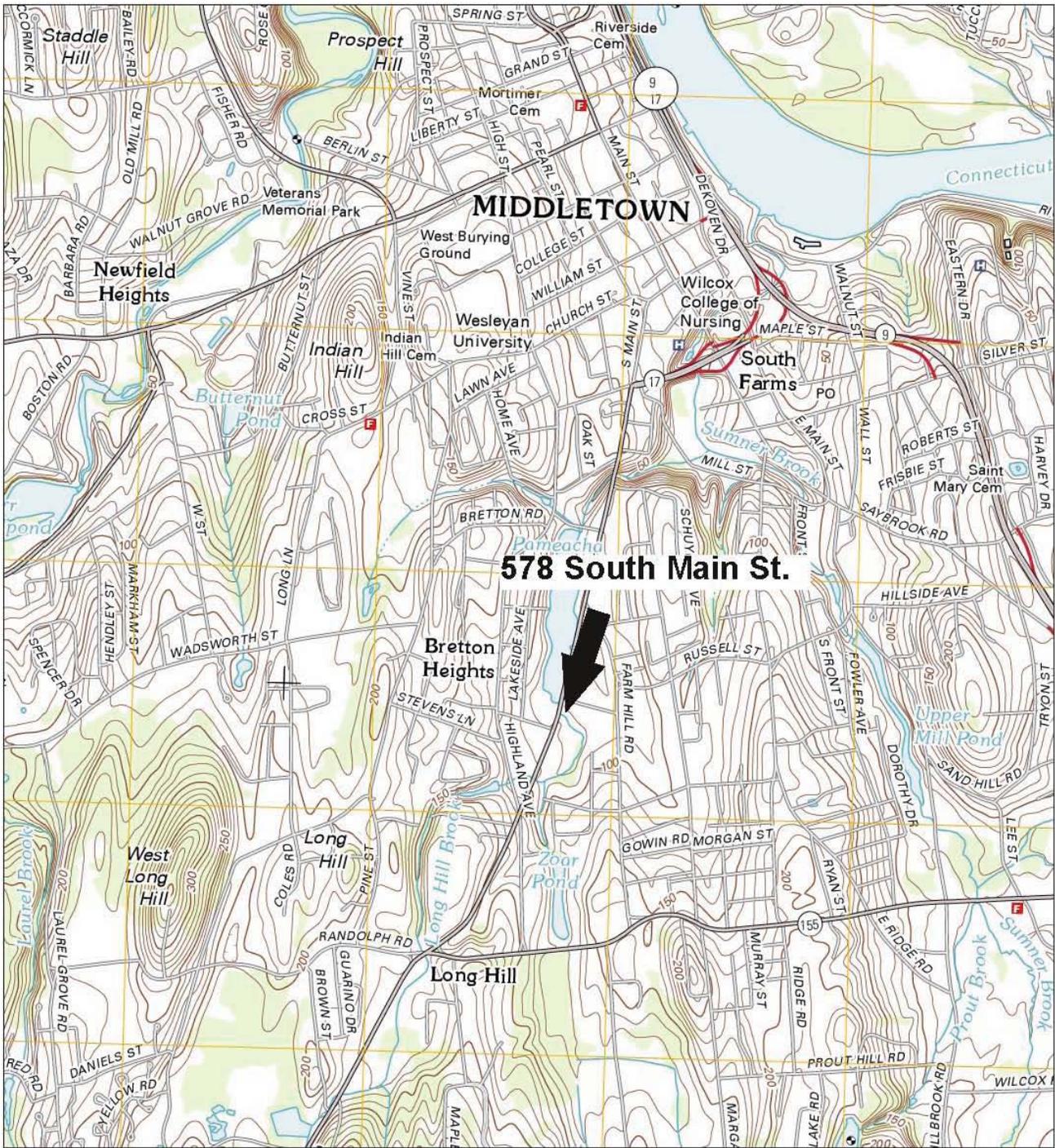
8.0 RECOMMENDATIONS

The following conclusions and recommendations are provided based on information gained from this and former investigations:

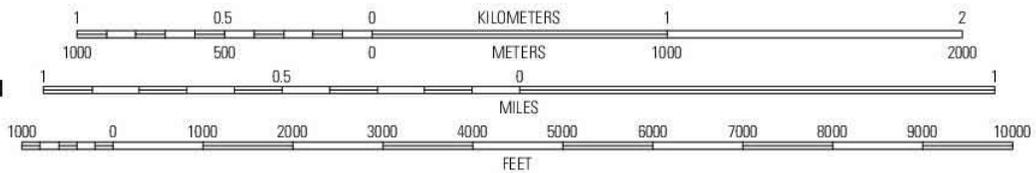
- Complete a limited remedial excavation along the down-gradient edge of the LNAPL plume to mitigate the possibility of off-site LNAPL migration.
- During remedial excavation activities, install an interceptor trench with recovery wells to continue LNAPL recovery and prohibit off-site migration.
- Continue enhance fluid recovery (EFR) events on monitoring wells within the gasoline COC groundwater plume (MW-6, MW-10, MW-12) and begin product recovery from trench recovery wells.
- Conduct a file review at the CT DEEP to investigate possible release reports associated with adjacent properties.

9.0 LIMITATIONS

This Subsurface Delineation Investigation Report was prepared for use by Getty Properties Corp. Reasonable due diligence was exercised by the staff of Tyree in conducting the research and investigation necessary for the development of this report. The conclusions and recommendations provided by Tyree in this report are based solely on the information reported in this document. Results of future site investigations may result in a modification of the conclusions stated above. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur. The remedial excavation and preparation of this report have been conducted in accordance with generally accepted practices. No other warranty, expressed or implied, is made.



SCALE 1:24 000



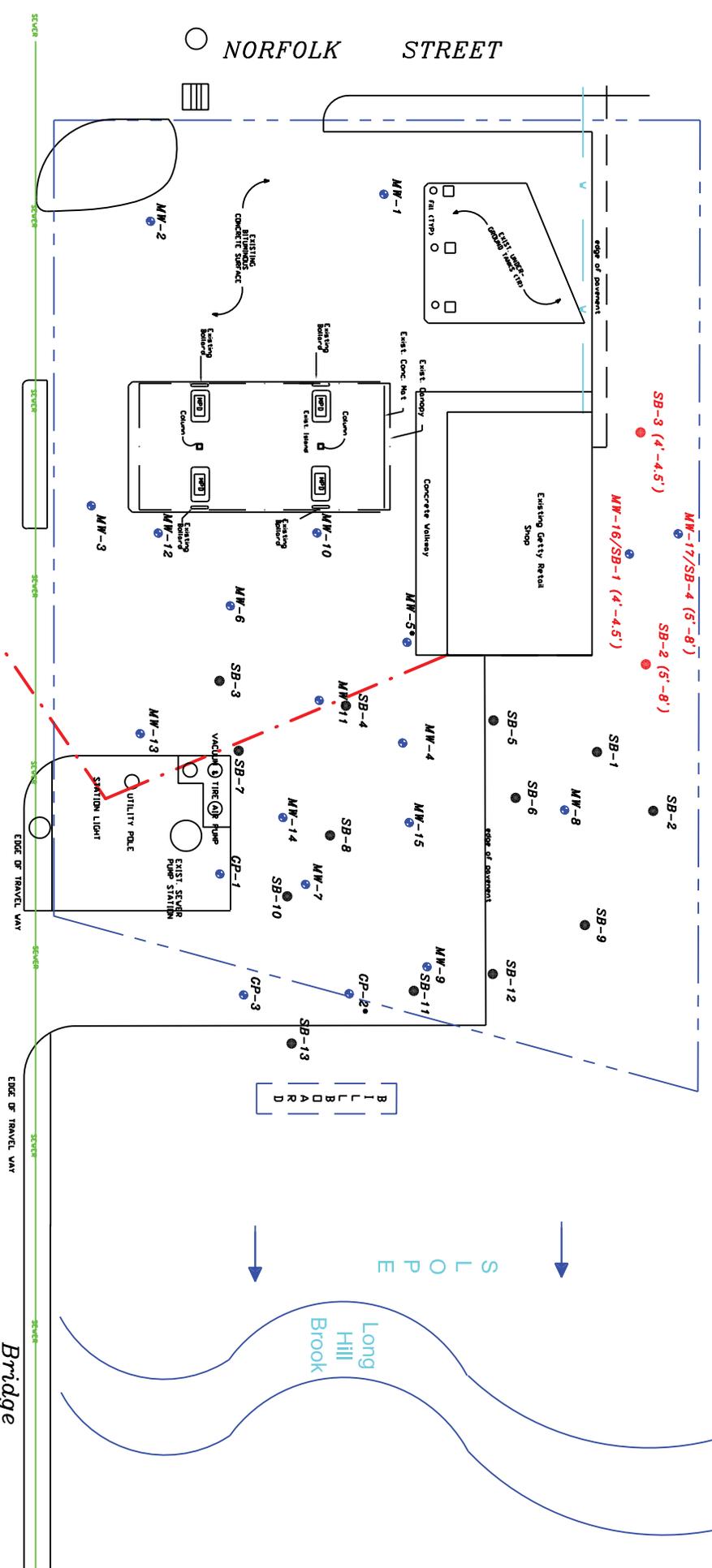
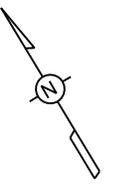
Tyree
7 Viking Road
Webster, MA 01570
Tel. (508) 640-0300 Fax. (508) 640-0301

Getty Service Station No. 6852

578 South Main St.
Middletown, CT

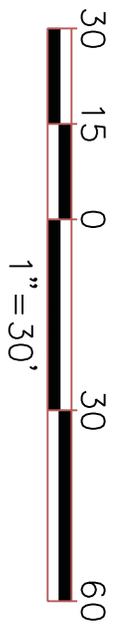
Figure 1: Site Locus

Adapted from USGS 7.5 minute series quadrangle

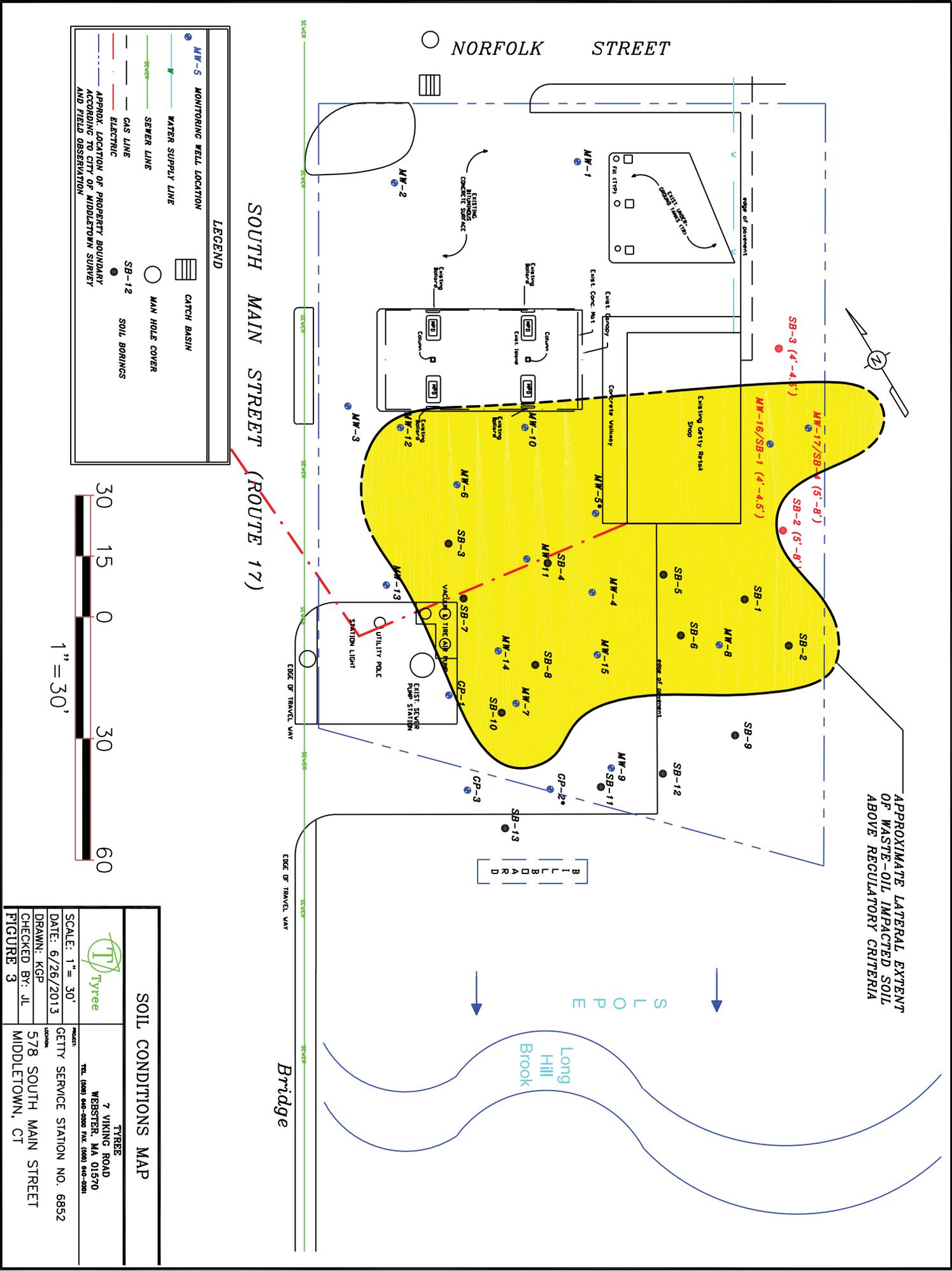


LEGEND

- MW-5 MONITORING WELL LOCATION
- WATER SUPPLY LINE
- SEWER LINE
- GAS LINE
- ELECTRIC
- APPROX. LOCATION OF PROPERTY BOUNDARY ACCORDING TO CITY OF MIDDLETOWN SURVEY AND FIELD OBSERVATION
- CATCH BASIN
- MAN HOLE COVER
- SOIL BORINGS



SITE PLAN	
SCALE: 1" = 30' DATE: 6/26/13 DRAWN: KGP CHECKED BY: JL FIGURE 2	TYREE 7 VIKING ROAD WEBSTER, MA 01570 TEL: (508) 640-0000 FAX: (508) 640-0501
PRODUCT: LOCATION: 578 SOUTH MAIN STREET MIDDLETOWN, CT	GETTY SERVICE STATION NO. 6852



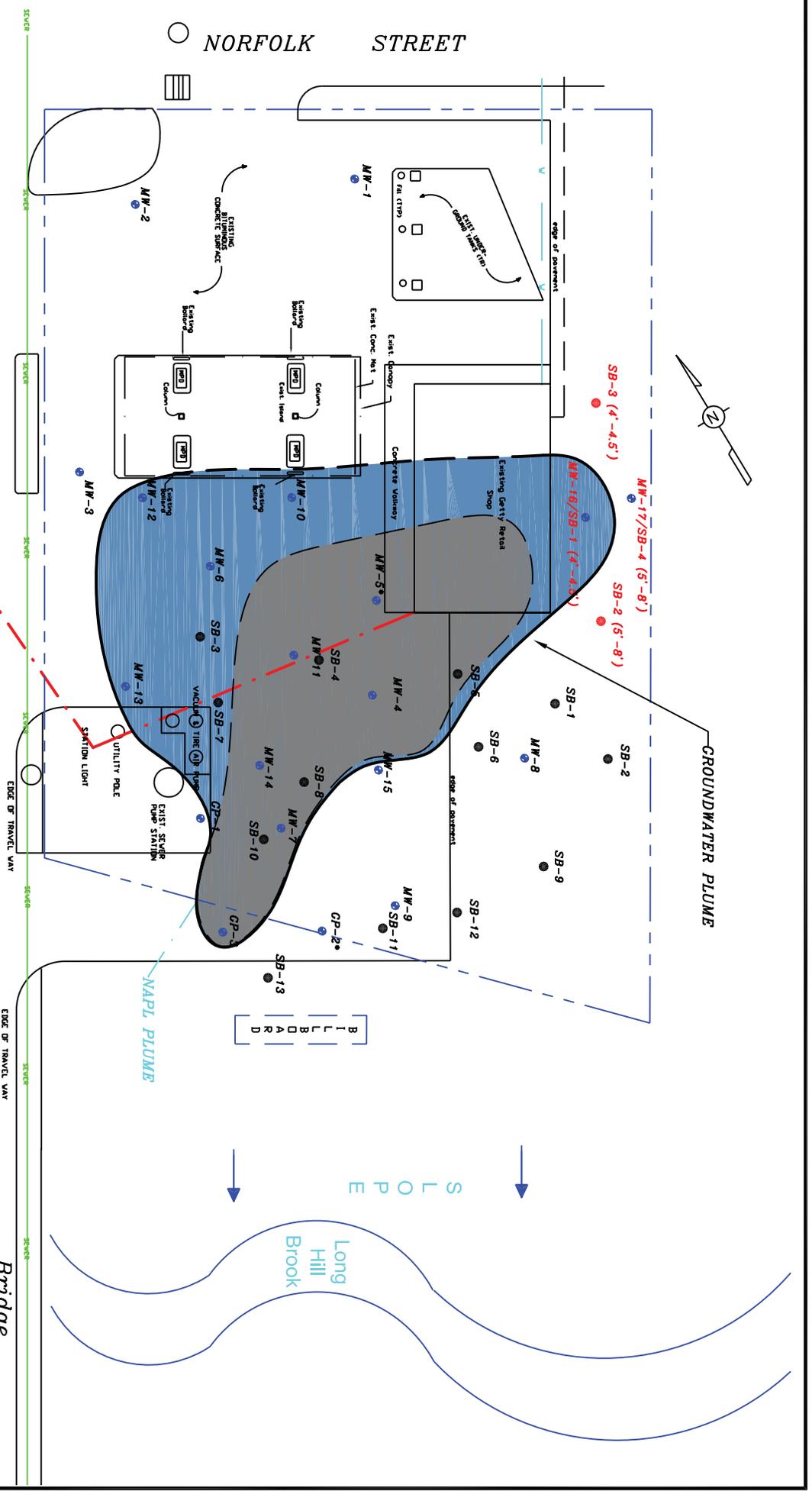
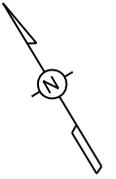
APPROXIMATE LATERAL EXTENT OF WASTE-OIL IMPACTED SOIL ABOVE REGULATORY CRITERIA

LEGEND

	MW-5 MONITORING WELL LOCATION		CATCH BASIN
	WATER SUPPLY LINE		MAN HOLE COVER
	SEWER LINE		SOIL BORINGS
	GAS LINE		
	ELECTRIC		
APPROX. LOCATION OF PROPERTY BOUNDARY ACCORDING TO CITY OF MIDDLETOWN SURVEY AND FIELD OBSERVATION			



SOIL CONDITIONS MAP	
SCALE: 1" = 30'	PRODUCT: TYREE
DATE: 6/26/2013	7 VIKING ROAD
DRAWN: KGP	WEBSTER, MA 01570
CHECKED BY: JL	TEL: (508) 940-0200 FAX: (508) 940-0201
FIGURE 3	PROJECT: GETTY SERVICE STATION NO. 6852
	LOCATION: 578 SOUTH MAIN STREET MIDDLETOWN, CT



MW-5 MONITORING WELL LOCATION	CATCH BASIN
WATER SUPPLY LINE	MAN HOLE COVER
SEWER LINE	SOIL BORINGS
GAS LINE	
ELECTRIC	
APPROX. LOCATION OF PROPERTY BOUNDARY ACCORDING TO CITY OF MIDDLETOWN SURVEY AND FIELD OBSERVATION	



GROUNDWATER CONDITIONS MAP	
SCALE: 1" = 30'	PRODUCT: TYREE
DATE: 6/26/2013	7 VIKING ROAD
DRAWN: KGP	WEBSTER, MA 01570
CHECKED BY: JL	Tel. (508) 940-0090 Fax. (508) 940-0081
FIGURE 4	PROJECT: GETTY SERVICE STATION NO. 6852
	LOCATION: 578 SOUTH MAIN STREET
	MIDDLETOWN, CT

Table 1
Soil Analytical Summary
 Getty Station No. 6852
 578 South Main Street
 Middletown, Connecticut

Sample ID	SB-1(4-4.5)	SB-2(5-6)	SB-3(4-4.5)	SB-4(5-8)
Date	4/5/2013	4/5/2013	4/5/2013	4/5/2013
Depth in feet	4-4.5	5-8	4-4.5	5-8
CT DEEP Standards:	GB PMC (ug/kg)	RES DEC (ug/kg)		
Volatile Organic Compounds (8260)				
Benzene	200	21000		
2-Butanone (MEK)	80000	500000	50.4	<22
n-Butylbenzene	NE	NE	<140	<220
sec-Butylbenzene	NE	NE	2740	<3.8
Ethylbenzene	10100	500000	1230	<220
Isopropylbenzene	NE	NE	<51	<90
p-Isopropyltoluene	NE	NE	400	<220
Naphthalene	56000	1000000	382	<3.8
n-Propylbenzene	NE	NE	1560	<220
Toluene	67000	500000	1710	<220
1,2,4-Trimethylbenzene	NE	NE	481	<220
1,3,5-Trimethylbenzene	NE	NE	23700	<3.8
m,p-Xylene	NE	NE	83.10	<3.8
o-Xylene	NE	NE	125	<1.5
Total Xylenes	NE	NE	211	<90
			1411	<1.5
			125	167
Semi-Volatile Organic Compounds (8270)				
Acenaphthylene	84000	1000000	<570	<110
Acenaphthene	400000	1000000	<570	<110
Benzo(a)anthracene	1000	1000	838	<110
Benzo(a)pyrene	1000	1000	1080	<110
Benzo(b)fluoranthene	1000	1000	1270	<110
Benzo(g,h,i)perylene	NE	NE	917	<110
Benzo(k)fluoranthene	1000	8400	747	<110
Chrysene	NE	NE	1000	<110
Dibenz(a,h)anthracene	NE	NE	<570	<110
Fluoranthene	56000	1000000	1430	<110
Fluorene	56000	1000000	<570	<110
Indeno(1,2,3-cd)pyrene	NE	NE	827	<110
Phenanthrene	40000	1000000	689	<110
Pyrene	40000	1000000	1690	<110
CT ETPH				
CT-ETPH (C9-C36)	*2500000	*500000	973000	<18000
Total RCRA Metals			75300	767000
Arsenic	NE	10000	22800	3600
Barium	NE	4700000	233000	98200
Cadmium	NE	34000	950	<90
Chromium	NE	NE	19600	14800
Lead	NE	500000	39700	299000
Mercury	NE	20000	3800	<33
Selenium	NE	340000	3500	<980
Silver	NE	340000	3300	<490
Solids, Percent	NE	NE	88.1	91.1

Bold = Exceeds Applicable Regulatory Criteria /al/cs = Laboratory reporting limit higher than applicable regulatory criteria
 All results are reported in parts per billion unless otherwise noted.
 RES DEC = Residential Direct Exposure Criteria; GB PMC = GB Pollutant Mobility Criteria
 NE = Not Established; NA = Not Applicable
 * = Proposed Criteria

Table 2
Groundwater Analytical Summary
Getty Station No. 6852
578 South Main Street
Middletown, Connecticut

Sample ID		MW-16	MW-17	
Date		4/5/2013	4/5/2013	
Depth in feet		4-4.5	5-8	
CT DEEP Standards:	Res. Vol. (ug/l)	SWPC (ug/l)		
Volatile Organic Coumpounds (8260)				
Acetone	50000	-	31	<10
Benzene	215	710	7	<0.50
n-Butylbenzene	-	-	6.4	<5.0
sec-Butylbenzene	-	-	8.6	<5.0
Ethylbenzene	50000	580000	22	<1.0
Isopropylbenzene	NE	NE	400	<130
Naphthalene	NE	NE	382	<130
n-Propylbenzene	56000	1000000	1560	<130
Toluene	NE	NE	1710	<130
1,2,4-Trimethylbenzene	67000	500000	481	<130
1,3,5-Trimethylbenzene	NE	NE	23700	<130
m,p-Xylene	NE	NE	8310	<130
o-Xylene	NE	NE	1200	125
Xylene (total)	NE	NE	211	<51
Semi-Volatile Organic Compounds (8270)				
Acenaphthylene	84000	1000000	<570	<110
Anthracene	400000	1000000	<570	<110
Benzo(a)anthracene	1000	1000	838	<110
Benzo(a)pyrene	1000	1000	1080	<110
Benzo(b)fluoranthene	1000	1000	1270	<110
Benzo(g,h,i)perylene	NE	NE	917	<110
Benzo(k)fluoranthene	1000	8400	747	<110
Chrysene	NE	NE	1000	<110
Dibenzo(a,h)anthracene	NE	NE	<570	<110
Fluoranthene	56000	1000000	1430	<110
Fluorene	56000	1000000	<570	<110
Indeno(1,2,3-cd)pyrene	NE	NE	827	<110
Phenanthrene	40000	1000000	689	<110
Pyrene	40000	1000000	1690	<110
CT ETPH				
CT-ETPH (C9-C36)	*2500000	*500000	973000	75300
Total RCRA Metals				
Arsenic	NE	10000	22800	2600
Barium	NE	4700000	233000	98200
Cadmium	NE	34000	950	760
Chromium	NE	NE	19600	14800
Lead	NE	500000	188000	39700
Mercury	NE	20000	3800	<33
Selenium	NE	340000	3500	<910
Silver	NE	340000	3300	<450
Solids, Percent	NE	NE	85.1	88.2
Bold = Exceeds Applicable Regulatory Criteria				
All results are reported in parts per billion unless otherwise noted.				
RES DEC = Residential Direct Exposure Criteria; GB PMC = GB Pollutant Mobility Criteria				
NE = Not Established; NA = Not Applicable * = Proposed Criteria				



**Tyree
Environmental
Technologies**

7 Viking Road, Webster, MA 01570

Project	Getty # 6852 Middletown	Log ID	SB-4/MW-17
Location	578 South Main Street Middletown, CT		
Facility ID		Well Permit No.	
Driller	Martin Geo-Environmental	Drill Rig	Geoprobe 6610
Inspector	John Liddon	Development Method	Surge and pump
Completion Date	04/05/13	Total Depth	13'
Screen	0.020 slotted 2" Schedule 40 PVC	Riser	2" Schedule 40 PVC
		Method	Air Vacuum/Geoprobe
		Depth to Water	6'
		Screen Depth	3'-13'
		Gravel Pack	#2 Quartz Sand

Well Construction	Depth (ft)	Blow Counts	Soil Classification	Recovery	PID (ppm)	Lithology / Visual Description
	0	NA	NA	NA	0	Dark brown, dry, silt, little fine sand
	1					
	2	NA	NA	NA	0.7	Red-brown, dry, silt, little fine sand and gravel
	3					
	4					
	5	NA	NA	36/24	5.7	Upper 22" Red-brown, fine sand and silt, little gravel
	6					Lower 2" Black, fine sand and silt
	7					*Submitted to lab for analysis
	8	NA	NA	48/40		Dark brown, saturated, fine sand and silt
	9					
	10					
	11					
	12					End of boring at 12' below ground surface
	13					
	14					
	15					
	16					
	17					
	18					



Screen



Native Soil



#2 Sand



Bentonite



Tyree Environmental Technologies

7 Viking Road, Webster, MA 01570

Project	Getty # 6852 Middletown	Log ID	SB-1/MW-16
Location	578 South Main Street Middletown, CT		
Facility ID		Well Permit No.	
Driller	Martin Geo-Environmental	Drill Rig	Geoprobe 6610
Inspector	John Liddon	Development Method	surge and pump
Completion/Date	04/05/13	Total Depth	13'
Screen	0.020 slotted 2" Schdule 40 PVC	Riser	2" Schedule 40 PVC
		Method	Air Vacuum/Geoprobe
		Depth to Water	6'
		Screen Depth	NA
		Gravel Pack	#2 Quartz Sand

Well Construction	Depth (ft)	Blow Counts	Soil Classification	Recovery	PID (ppm)	Lithology / Visual Description
	0	NA	NA	NA	7.2	Dark brown, dry, sand, some gravel, little silt
	1					
	2	NA	NA	NA	315	Dark brown, moist, sand and silt, some gravel, strong petroleum odor
	3					
	4					*Submitted sample for lab analysis
	5	NA	NA	36/28	928	Upper 10" - Red-brown, Clay
	6					Middle 16" - Dark brown/Red-brown Sand, some silt, trace gravel
	7					Lower 2" - Wood debris stained black, strong petroleum odor, sheen (possible NAPL)
	8	NA	NA	48/36	59.6	Upper 12" - Dark brown, saturated, fine sand, some silt
	9					Lower 24" - Dark brown, saturated, medium to course sand, some gravel
	10					
	11					
	12					Advance Geoprobe to set well at 13'
	13					End of boring at 13' below ground surface
	14					
	15					
	16					
	17					
	18					



Screen



Native Soil



#2 Sand



Bentonite



Tyree Environmental Technologies

7 Viking Road, Webster, MA 01570

Project	Getty # 6852 Middletown	Log ID	SB-2
Location	578 South Main Street Middletown, CT		
Facility ID		Well Permit No.	
Driller	Martin Geo-Environmental	Drill Rig	Geoprobe 6610
Inspector	John Liddon	Method	Air Vacuum/Geoprobe
Completion Date	04/05/13	Development Method	NA
Screen	NA	Depth to Water	6'
		Total Depth	12'
		Screen Depth	NA
		Riser	NA
		Gravel Pack	NA

Well Construction	Depth (ft)	Blow Counts	Soil Classification	Recovery	PID (ppm)	Lithology / Visual Description
	0	NA	NA	NA	0.9	Red-brown, dry, medium sand, little gravel
	1					
	2	NA	NA	NA	0.0	Dark red-brown, dry, medium sand, little gravel and silt
	3					
	4					
	5	NA	NA	36/36	3.5	Upper 30" - Red-brown, saturated, sand, little silt and gravel.
	6					Lower 6" Dark brown, moist, sand and silt
	7					*Submitted for lab analysis
	8	NA	NA	48/48	0.5	Dark red-brown, saturated, sand, some gravel, trace silt.
	9					
	10					
	11					
	12					End of boring 12' below ground surface
	13					
	14					
	15					
	16					
	17					
	18					



Screen



Native Soil



#2 Sand



Bentonite



**Tyree
Environmental
Technologies**

7 Viking Road, Webster, MA 01570

Project	Getty # 6852 Middletown	Log ID	SB-3
Location	578 South Main Street Middletown, CT		
Facility ID		Well Permit No.	
Driller	Martin Geo-Environmental	Drill Rig	Geoprobe 6610
Inspector	John Liddon	Method	Air Vacuum/Geoprobe
Completion Date	04/05/13	Development Method	NA
Screen	NA	Depth to Water	6'
		Total Depth	12'
		Screen Depth	NA
		Riser	NA
		Gravel Pack	NA

Well Construction	Depth (ft)	Blow Counts	Soil Classification	Recovery	PID (ppm)	Lithology / Visual Description
	0	NA	NA	NA	0	Red-brown, dry, medium sand, little gravel
	1					
	2	NA	NA	NA	0	Red-brown, dry, medium sand, little gravel
	3					
	4					
	5	NA	NA	36/24	0	Upper 12" Red-brown, saturated, medium sand, little gravel
	6					Lower 12" Red-brown, saturated, sand and silt
	7					
	8	NA	NA	48/48	0	Dark brown, saturated, fine sand and silt
	9					
	10					
	11					
	12					End of boring at 12' below ground surface
	13					
	14					
	15					
	16					
	17					
	18					



Screen



Native Soil



#2 Sand



Bentonite

Technical Report for

Tyree Organization Ltd.

Getty 6852, 578 South Main Street, Middletown, CT

2130078-421

Accutest Job Number: MC19632

Sampling Date: 04/05/13

Report to:

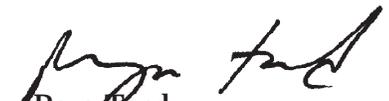
Tyree Organization Ltd.
7 Viking Road
Webster, MA 01570
jliddon@tyreeorg.com

ATTN: John Liddon

Total number of pages in report: **81**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Fand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Tyree Organization Ltd.

Job No: MC19632

Getty 6852, 578 South Main Street, Middletown, CT
Project No: 2130078-421

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC19632-1	04/05/13	09:00 JL	04/08/13	SO	Soil	SB-1(4-4.5)
MC19632-2	04/05/13	09:45 JL	04/08/13	SO	Soil	SB-2(5-8)
MC19632-3	04/05/13	10:40 JL	04/08/13	SO	Soil	SB-3(4-4.5)
MC19632-4	04/05/13	11:30 JL	04/08/13	SO	Soil	SB-4(5-8)

Soil samples reported on a dry weight basis unless otherwise indicated on result page.

Metals By Method SW846 6010C

Matrix: SO	Batch ID: MP20753
-------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.
- Sample(s) MC19662-2SDL were used as the QC samples for metals.
- RPD(s) for Serial Dilution for Arsenic, Cadmium, Lead, Selenium are outside control limits for sample MP20753-SD1. Percent difference acceptable due to low initial sample concentration (< 50 times IDL).
- MC19632-1 for Reported Metals: Elevated RL due to dilution required for matrix interference.
- Only selected metals requested.

Metals By Method SW846 7471B

Matrix: SO	Batch ID: MP20788
-------------------	--------------------------

- All samples were digested within the recommended method holding time.
- All samples were analyzed within the recommended method holding time.
- All method blanks for this batch meet method specific criteria.

The Accutest Laboratories of New England certifies that all analysis were performed within method specification. It is further recommended that this report to be used in its entirety. The Accutest Laboratories of NE, Laboratory Director or assignee as verified by the signature on the cover page has authorized the release of this report(MC19632).

Summary of Hits

Job Number: MC19632
Account: Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT
Collected: 04/05/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
---------------	------------------	--------------------	----	-----	-------	--------

MC19632-1 SB-1(4-4.5)

Benzene	50.4	14	ug/kg	SW846 8260B
n-Butylbenzene	2740	140	ug/kg	SW846 8260B
sec-Butylbenzene	316	140	ug/kg	SW846 8260B
Ethylbenzene	1230	55	ug/kg	SW846 8260B
Isopropylbenzene	400	140	ug/kg	SW846 8260B
p-Isopropyltoluene	382	140	ug/kg	SW846 8260B
Naphthalene	1560	140	ug/kg	SW846 8260B
n-Propylbenzene	1710	140	ug/kg	SW846 8260B
Toluene	481	140	ug/kg	SW846 8260B
1,2,4-Trimethylbenzene	23700	1400	ug/kg	SW846 8260B
1,3,5-Trimethylbenzene	8310	140	ug/kg	SW846 8260B
m,p-Xylene	1200	55	ug/kg	SW846 8260B
o-Xylene	211	55	ug/kg	SW846 8260B
Benzo(a)anthracene	838	570	ug/kg	SW846 8270C
Benzo(a)pyrene	1080	570	ug/kg	SW846 8270C
Benzo(b)fluoranthene	1270	570	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	917	570	ug/kg	SW846 8270C
Benzo(k)fluoranthene	747	570	ug/kg	SW846 8270C
Chrysene	1000	570	ug/kg	SW846 8270C
Fluoranthene	1430	570	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	827	570	ug/kg	SW846 8270C
Phenanthrene	689	570	ug/kg	SW846 8270C
Pyrene	1690	570	ug/kg	SW846 8270C
CT-ETPH (C9-C36)	973	19	mg/kg	CT-ETPH 7/06
Arsenic ^a	22.8	1.9	mg/kg	SW846 6010C
Barium ^a	233	9.3	mg/kg	SW846 6010C
Cadmium ^a	0.95	0.75	mg/kg	SW846 6010C
Chromium ^a	19.6	1.9	mg/kg	SW846 6010C
Lead ^a	188	1.9	mg/kg	SW846 6010C
Mercury	3.8	0.19	mg/kg	SW846 7471B
Selenium ^a	3.5	1.9	mg/kg	SW846 6010C
Silver ^a	3.3	0.93	mg/kg	SW846 6010C

MC19632-2 SB-2(5-8)

Benzene	20.8	13	ug/kg	SW846 8260B
m,p-Xylene	125	51	ug/kg	SW846 8260B
CT-ETPH (C9-C36)	75.3	19	mg/kg	CT-ETPH 7/06
Arsenic	2.6	0.91	mg/kg	SW846 6010C
Barium	98.2	4.5	mg/kg	SW846 6010C
Cadmium	0.76	0.36	mg/kg	SW846 6010C
Chromium	14.8	0.91	mg/kg	SW846 6010C
Lead	39.7	0.91	mg/kg	SW846 6010C

Summary of Hits

Job Number: MC19632
Account: Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT
Collected: 04/05/13



Lab Sample ID	Client Sample ID	Result/ Analyte	RL	MDL	Units	Method
---------------	------------------	--------------------	----	-----	-------	--------

MC19632-3 SB-3(4-4.5)

2-Butanone (MEK)	15.9	3.8	ug/kg	SW846 8260B
Arsenic	3.6	0.98	mg/kg	SW846 6010C
Barium	39.3	4.9	mg/kg	SW846 6010C
Chromium	14.8	0.98	mg/kg	SW846 6010C
Lead	16.7	0.98	mg/kg	SW846 6010C
Mercury	0.038	0.033	mg/kg	SW846 7471B

MC19632-4 SB-4(5-8)

n-Butylbenzene	255	220	ug/kg	SW846 8260B
m,p-Xylene	167	90	ug/kg	SW846 8260B
Acenaphthylene	1080	700	ug/kg	SW846 8270C
Anthracene	2020	700	ug/kg	SW846 8270C
Benzo(a)anthracene	5730	700	ug/kg	SW846 8270C
Benzo(a)pyrene	4340	700	ug/kg	SW846 8270C
Benzo(b)fluoranthene	4510	700	ug/kg	SW846 8270C
Benzo(g,h,i)perylene	2350	700	ug/kg	SW846 8270C
Benzo(k)fluoranthene	4310	700	ug/kg	SW846 8270C
Chrysene	5890	700	ug/kg	SW846 8270C
Dibenzo(a,h)anthracene	1160	700	ug/kg	SW846 8270C
Fluoranthene	12500	700	ug/kg	SW846 8270C
Fluorene	1430	700	ug/kg	SW846 8270C
Indeno(1,2,3-cd)pyrene	2350	700	ug/kg	SW846 8270C
Phenanthrene	8050	700	ug/kg	SW846 8270C
Pyrene	10100	700	ug/kg	SW846 8270C
CT-ETPH (C9-C36)	767	23	mg/kg	CT-ETPH 7/06
Arsenic	11.6	1.2	mg/kg	SW846 6010C
Barium	92.4	5.8	mg/kg	SW846 6010C
Cadmium	2.4	0.47	mg/kg	SW846 6010C
Chromium	19.5	1.2	mg/kg	SW846 6010C
Lead	299	1.2	mg/kg	SW846 6010C
Mercury	1.4	0.085	mg/kg	SW846 7471B
Silver	0.71	0.58	mg/kg	SW846 6010C

(a) Elevated RL due to dilution required for matrix interference.

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K69139.D	1	04/18/13	GK	n/a	n/a	MSK2268
Run #2	K69183.D	1	04/19/13	GK	n/a	n/a	MSK2269

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	19.2 g	15.0 ml	200 ul
Run #2	19.2 g	15.0 ml	20.0 ul

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	140	ug/kg	
107-13-1	Acrylonitrile	ND	680	ug/kg	
71-43-2	Benzene	50.4	14	ug/kg	
108-86-1	Bromobenzene	ND	140	ug/kg	
75-27-4	Bromodichloromethane	ND	55	ug/kg	
75-25-2	Bromoform	ND	55	ug/kg	
74-83-9	Bromomethane	ND	55	ug/kg	
78-93-3	2-Butanone (MEK)	ND	140	ug/kg	
104-51-8	n-Butylbenzene	2740	140	ug/kg	
135-98-8	sec-Butylbenzene	316	140	ug/kg	
98-06-6	tert-Butylbenzene	ND	140	ug/kg	
75-15-0	Carbon disulfide	ND	140	ug/kg	
56-23-5	Carbon tetrachloride	ND	55	ug/kg	
108-90-7	Chlorobenzene	ND	55	ug/kg	
75-00-3	Chloroethane	ND	140	ug/kg	
67-66-3	Chloroform	ND	55	ug/kg	
74-87-3	Chloromethane	ND	140	ug/kg	
95-49-8	o-Chlorotoluene	ND	140	ug/kg	
106-43-4	p-Chlorotoluene	ND	140	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	140	ug/kg	
124-48-1	Dibromochloromethane	ND	55	ug/kg	
106-93-4	1,2-Dibromoethane	ND	55	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	55	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	55	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	55	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	55	ug/kg	
75-34-3	1,1-Dichloroethane	ND	55	ug/kg	
107-06-2	1,2-Dichloroethane	ND	55	ug/kg	
75-35-4	1,1-Dichloroethene	ND	55	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	55	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	55	ug/kg	
78-87-5	1,2-Dichloropropane	ND	55	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.1
4

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	140	ug/kg	
594-20-7	2,2-Dichloropropane	ND	140	ug/kg	
563-58-6	1,1-Dichloropropene	ND	140	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	55	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	55	ug/kg	
100-41-4	Ethylbenzene	1230	55	ug/kg	
76-13-1	Freon 113	ND	140	ug/kg	
87-68-3	Hexachlorobutadiene	ND	140	ug/kg	
591-78-6	2-Hexanone	ND	140	ug/kg	
98-82-8	Isopropylbenzene	400	140	ug/kg	
99-87-6	p-Isopropyltoluene	382	140	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	55	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	140	ug/kg	
74-95-3	Methylene bromide	ND	140	ug/kg	
75-09-2	Methylene chloride	ND	55	ug/kg	
91-20-3	Naphthalene	1560	140	ug/kg	
103-65-1	n-Propylbenzene	1710	140	ug/kg	
100-42-5	Styrene	ND	140	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	140	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	55	ug/kg	
127-18-4	Tetrachloroethene	ND	55	ug/kg	
109-99-9	Tetrahydrofuran	ND	270	ug/kg	
108-88-3	Toluene	481	140	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	140	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	140	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	140	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	55	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	55	ug/kg	
79-01-6	Trichloroethene	ND	55	ug/kg	
75-69-4	Trichlorofluoromethane	ND	55	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	140	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	23700 ^a	1400	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	8310	140	ug/kg	
75-01-4	Vinyl chloride	ND	55	ug/kg	
	m,p-Xylene	1200	55	ug/kg	
95-47-6	o-Xylene	211	55	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	105%	117%	70-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range
 J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.1
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	105%	107%	70-130%
460-00-4	4-Bromofluorobenzene	100%	109%	70-130%

(a) Result is from Run# 2

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Method: SW846 8270C SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63146.D	5	04/17/13	KR	04/14/13	OP32657	MSF2951
Run #2							

	Initial Weight	Final Volume
Run #1	20.6 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	570	ug/kg	
208-96-8	Acenaphthylene	ND	570	ug/kg	
120-12-7	Anthracene	ND	570	ug/kg	
56-55-3	Benzo(a)anthracene	838	570	ug/kg	
50-32-8	Benzo(a)pyrene	1080	570	ug/kg	
205-99-2	Benzo(b)fluoranthene	1270	570	ug/kg	
191-24-2	Benzo(g,h,i)perylene	917	570	ug/kg	
207-08-9	Benzo(k)fluoranthene	747	570	ug/kg	
218-01-9	Chrysene	1000	570	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	570	ug/kg	
206-44-0	Fluoranthene	1430	570	ug/kg	
86-73-7	Fluorene	ND	570	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	827	570	ug/kg	
91-20-3	Naphthalene	ND	570	ug/kg	
85-01-8	Phenanthrene	689	570	ug/kg	
129-00-0	Pyrene	1690	570	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	80%		30-130%
321-60-8	2-Fluorobiphenyl	66%		30-130%
1718-51-0	Terphenyl-d14	70%		30-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Method: CT-ETPH 7/06 SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20715.D	1	04/16/13	KN	04/14/13	OP32658	GBI737
Run #2							

	Initial Weight	Final Volume
Run #1	15.3 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	973	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	63%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.1
4

Report of Analysis

Client Sample ID: SB-1(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-1	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 85.1
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.1
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic ^a	22.8	1.9	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Barium ^a	233	9.3	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Cadmium ^a	0.95	0.75	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Chromium ^a	19.6	1.9	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Lead ^a	188	1.9	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Mercury	3.8	0.19	mg/kg	5	04/17/13	04/18/13 SA	SW846 7471B ²	SW846 7471B ⁴
Selenium ^a	3.5	1.9	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³
Silver ^a	3.3	0.93	mg/kg	2	04/10/13	04/12/13 EAL	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA15445
- (2) Instrument QC Batch: MA15463
- (3) Prep QC Batch: MP20753
- (4) Prep QC Batch: MP20788

(a) Elevated RL due to dilution required for matrix interference.

RL = Reporting Limit

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K69140.D	1	04/18/13	GK	n/a	n/a	MSK2268
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	19.3 g	15.0 ml	200 ul
Run #2			

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	130	ug/kg	
107-13-1	Acrylonitrile	ND	640	ug/kg	
71-43-2	Benzene	20.8	13	ug/kg	
108-86-1	Bromobenzene	ND	130	ug/kg	
75-27-4	Bromodichloromethane	ND	51	ug/kg	
75-25-2	Bromoform	ND	51	ug/kg	
74-83-9	Bromomethane	ND	51	ug/kg	
78-93-3	2-Butanone (MEK)	ND	130	ug/kg	
104-51-8	n-Butylbenzene	ND	130	ug/kg	
135-98-8	sec-Butylbenzene	ND	130	ug/kg	
98-06-6	tert-Butylbenzene	ND	130	ug/kg	
75-15-0	Carbon disulfide	ND	130	ug/kg	
56-23-5	Carbon tetrachloride	ND	51	ug/kg	
108-90-7	Chlorobenzene	ND	51	ug/kg	
75-00-3	Chloroethane	ND	130	ug/kg	
67-66-3	Chloroform	ND	51	ug/kg	
74-87-3	Chloromethane	ND	130	ug/kg	
95-49-8	o-Chlorotoluene	ND	130	ug/kg	
106-43-4	p-Chlorotoluene	ND	130	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	130	ug/kg	
124-48-1	Dibromochloromethane	ND	51	ug/kg	
106-93-4	1,2-Dibromoethane	ND	51	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	51	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	51	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	51	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	51	ug/kg	
75-34-3	1,1-Dichloroethane	ND	51	ug/kg	
107-06-2	1,2-Dichloroethane	ND	51	ug/kg	
75-35-4	1,1-Dichloroethene	ND	51	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	51	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	51	ug/kg	
78-87-5	1,2-Dichloropropane	ND	51	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	130	ug/kg	
594-20-7	2,2-Dichloropropane	ND	130	ug/kg	
563-58-6	1,1-Dichloropropene	ND	130	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	51	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	51	ug/kg	
100-41-4	Ethylbenzene	ND	51	ug/kg	
76-13-1	Freon 113	ND	130	ug/kg	
87-68-3	Hexachlorobutadiene	ND	130	ug/kg	
591-78-6	2-Hexanone	ND	130	ug/kg	
98-82-8	Isopropylbenzene	ND	130	ug/kg	
99-87-6	p-Isopropyltoluene	ND	130	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	51	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	130	ug/kg	
74-95-3	Methylene bromide	ND	130	ug/kg	
75-09-2	Methylene chloride	ND	51	ug/kg	
91-20-3	Naphthalene	ND	130	ug/kg	
103-65-1	n-Propylbenzene	ND	130	ug/kg	
100-42-5	Styrene	ND	130	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	130	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	51	ug/kg	
127-18-4	Tetrachloroethene	ND	51	ug/kg	
109-99-9	Tetrahydrofuran	ND	250	ug/kg	
108-88-3	Toluene	ND	130	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	130	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	130	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	130	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	51	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	51	ug/kg	
79-01-6	Trichloroethene	ND	51	ug/kg	
75-69-4	Trichlorofluoromethane	ND	51	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	130	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	130	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	130	ug/kg	
75-01-4	Vinyl chloride	ND	51	ug/kg	
	m,p-Xylene	125	51	ug/kg	
95-47-6	o-Xylene	ND	51	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	115%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.2
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	108%		70-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Method: SW846 8270C SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63147.D	1	04/17/13	KR	04/14/13	OP32657	MSF2951
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	59%		30-130%
321-60-8	2-Fluorobiphenyl	65%		30-130%
1718-51-0	Terphenyl-d14	85%		30-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Method: CT-ETPH 7/06 SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20711.D	1	04/16/13	KN	04/14/13	OP32658	GBI737
Run #2							

	Initial Weight	Final Volume
Run #1	15.0 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	75.3	19	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	74%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.2
4

Report of Analysis

Client Sample ID: SB-2(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-2	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 88.2
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.2
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	2.6	0.91	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Barium	98.2	4.5	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Cadmium	0.76	0.36	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Chromium	14.8	0.91	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Lead	39.7	0.91	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Mercury	< 0.033	0.033	mg/kg	1	04/17/13	04/18/13 SA	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.91	0.91	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.45	0.45	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA15444
- (2) Instrument QC Batch: MA15463
- (3) Prep QC Batch: MP20753
- (4) Prep QC Batch: MP20788

RL = Reporting Limit

Report of Analysis

Client Sample ID: SB-3(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-3	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 91.1
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	M55453.D	1	04/17/13	AMY	n/a	n/a	MSM1892
Run #2							

Run #	Initial Weight	Final Volume
Run #1	7.25 g	5.0 ml
Run #2		

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	3.8	ug/kg	
107-13-1	Acrylonitrile	ND	19	ug/kg	
71-43-2	Benzene	ND	0.38	ug/kg	
108-86-1	Bromobenzene	ND	3.8	ug/kg	
75-27-4	Bromodichloromethane	ND	1.5	ug/kg	
75-25-2	Bromoform	ND	1.5	ug/kg	
74-83-9	Bromomethane	ND	1.5	ug/kg	
78-93-3	2-Butanone (MEK)	15.9	3.8	ug/kg	
104-51-8	n-Butylbenzene	ND	3.8	ug/kg	
135-98-8	sec-Butylbenzene	ND	3.8	ug/kg	
98-06-6	tert-Butylbenzene	ND	3.8	ug/kg	
75-15-0	Carbon disulfide	ND	3.8	ug/kg	
56-23-5	Carbon tetrachloride	ND	1.5	ug/kg	
108-90-7	Chlorobenzene	ND	1.5	ug/kg	
75-00-3	Chloroethane	ND	3.8	ug/kg	
67-66-3	Chloroform	ND	1.5	ug/kg	
74-87-3	Chloromethane	ND	3.8	ug/kg	
95-49-8	o-Chlorotoluene	ND	3.8	ug/kg	
106-43-4	p-Chlorotoluene	ND	3.8	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	3.8	ug/kg	
124-48-1	Dibromochloromethane	ND	1.5	ug/kg	
106-93-4	1,2-Dibromoethane	ND	1.5	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	1.5	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	1.5	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	1.5	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	1.5	ug/kg	
75-34-3	1,1-Dichloroethane	ND	1.5	ug/kg	
107-06-2	1,2-Dichloroethane	ND	1.5	ug/kg	
75-35-4	1,1-Dichloroethene	ND	1.5	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	1.5	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	1.5	ug/kg	
78-87-5	1,2-Dichloropropane	ND	1.5	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: SB-3(4-4.5)
Lab Sample ID: MC19632-3
Matrix: SO - Soil
Method: SW846 8260B
Project: Getty 6852, 578 South Main Street, Middletown, CT

Date Sampled: 04/05/13
Date Received: 04/08/13
Percent Solids: 91.1

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	3.8	ug/kg	
594-20-7	2,2-Dichloropropane	ND	3.8	ug/kg	
563-58-6	1,1-Dichloropropene	ND	3.8	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	1.5	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	1.5	ug/kg	
100-41-4	Ethylbenzene	ND	1.5	ug/kg	
76-13-1	Freon 113	ND	3.8	ug/kg	
87-68-3	Hexachlorobutadiene	ND	3.8	ug/kg	
591-78-6	2-Hexanone	ND	3.8	ug/kg	
98-82-8	Isopropylbenzene	ND	3.8	ug/kg	
99-87-6	p-Isopropyltoluene	ND	3.8	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	1.5	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	3.8	ug/kg	
74-95-3	Methylene bromide	ND	3.8	ug/kg	
75-09-2	Methylene chloride	ND	1.5	ug/kg	
91-20-3	Naphthalene	ND	3.8	ug/kg	
103-65-1	n-Propylbenzene	ND	3.8	ug/kg	
100-42-5	Styrene	ND	3.8	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	3.8	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.5	ug/kg	
127-18-4	Tetrachloroethene	ND	1.5	ug/kg	
109-99-9	Tetrahydrofuran	ND	7.6	ug/kg	
108-88-3	Toluene	ND	3.8	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	3.8	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	3.8	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	3.8	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	1.5	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	1.5	ug/kg	
79-01-6	Trichloroethene	ND	1.5	ug/kg	
75-69-4	Trichlorofluoromethane	ND	1.5	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	3.8	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	3.8	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	3.8	ug/kg	
75-01-4	Vinyl chloride	ND	1.5	ug/kg	
	m,p-Xylene	ND	1.5	ug/kg	
95-47-6	o-Xylene	ND	1.5	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	91%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-3(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-3	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 91.1
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.3
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	91%		70-130%
460-00-4	4-Bromofluorobenzene	90%		70-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-3(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-3	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 91.1
Method: SW846 8270C SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	F63148.D	1	04/17/13	KR	04/14/13	OP32657	MSF2951
Run #2							

	Initial Weight	Final Volume
Run #1	20.4 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	110	ug/kg	
208-96-8	Acenaphthylene	ND	110	ug/kg	
120-12-7	Anthracene	ND	110	ug/kg	
56-55-3	Benzo(a)anthracene	ND	110	ug/kg	
50-32-8	Benzo(a)pyrene	ND	110	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	110	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	110	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	110	ug/kg	
218-01-9	Chrysene	ND	110	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	110	ug/kg	
206-44-0	Fluoranthene	ND	110	ug/kg	
86-73-7	Fluorene	ND	110	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	110	ug/kg	
91-20-3	Naphthalene	ND	110	ug/kg	
85-01-8	Phenanthrene	ND	110	ug/kg	
129-00-0	Pyrene	ND	110	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	64%		30-130%
321-60-8	2-Fluorobiphenyl	63%		30-130%
1718-51-0	Terphenyl-d14	80%		30-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: SB-3(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-3	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 91.1
Method: CT-ETPH 7/06 SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20683.D	1	04/16/13	KN	04/14/13	OP32658	GBI737
Run #2							

	Initial Weight	Final Volume
Run #1	15.5 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	18	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	62%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.3
4

Report of Analysis

Client Sample ID: SB-3(4-4.5)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-3	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 91.1
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.3
4

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	3.6	0.98	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Barium	39.3	4.9	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Cadmium	< 0.39	0.39	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Chromium	14.8	0.98	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Lead	16.7	0.98	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Mercury	0.038	0.033	mg/kg	1	04/17/13	04/18/13 SA	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 0.98	0.98	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Silver	< 0.49	0.49	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³

- (1) Instrument QC Batch: MA15444
- (2) Instrument QC Batch: MA15463
- (3) Prep QC Batch: MP20753
- (4) Prep QC Batch: MP20788

RL = Reporting Limit

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Run #	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	K69141.D	1	04/18/13	GK	n/a	n/a	MSK2268
Run #2							

Run #	Initial Weight	Final Volume	Methanol Aliquot
Run #1	10.4 g	10.0 ml	200 ul
Run #2			

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	220	ug/kg	
107-13-1	Acrylonitrile	ND	1100	ug/kg	
71-43-2	Benzene	ND	22	ug/kg	
108-86-1	Bromobenzene	ND	220	ug/kg	
75-27-4	Bromodichloromethane	ND	90	ug/kg	
75-25-2	Bromoform	ND	90	ug/kg	
74-83-9	Bromomethane	ND	90	ug/kg	
78-93-3	2-Butanone (MEK)	ND	220	ug/kg	
104-51-8	n-Butylbenzene	255	220	ug/kg	
135-98-8	sec-Butylbenzene	ND	220	ug/kg	
98-06-6	tert-Butylbenzene	ND	220	ug/kg	
75-15-0	Carbon disulfide	ND	220	ug/kg	
56-23-5	Carbon tetrachloride	ND	90	ug/kg	
108-90-7	Chlorobenzene	ND	90	ug/kg	
75-00-3	Chloroethane	ND	220	ug/kg	
67-66-3	Chloroform	ND	90	ug/kg	
74-87-3	Chloromethane	ND	220	ug/kg	
95-49-8	o-Chlorotoluene	ND	220	ug/kg	
106-43-4	p-Chlorotoluene	ND	220	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	220	ug/kg	
124-48-1	Dibromochloromethane	ND	90	ug/kg	
106-93-4	1,2-Dibromoethane	ND	90	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	90	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	90	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	90	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	90	ug/kg	
75-34-3	1,1-Dichloroethane	ND	90	ug/kg	
107-06-2	1,2-Dichloroethane	ND	90	ug/kg	
75-35-4	1,1-Dichloroethene	ND	90	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	90	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	90	ug/kg	
78-87-5	1,2-Dichloropropane	ND	90	ug/kg	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

VOA RCP List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	220	ug/kg	
594-20-7	2,2-Dichloropropane	ND	220	ug/kg	
563-58-6	1,1-Dichloropropene	ND	220	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	90	ug/kg	
10061-02-6	trans-1,3-Dichloropropene	ND	90	ug/kg	
100-41-4	Ethylbenzene	ND	90	ug/kg	
76-13-1	Freon 113	ND	220	ug/kg	
87-68-3	Hexachlorobutadiene	ND	220	ug/kg	
591-78-6	2-Hexanone	ND	220	ug/kg	
98-82-8	Isopropylbenzene	ND	220	ug/kg	
99-87-6	p-Isopropyltoluene	ND	220	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	90	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	220	ug/kg	
74-95-3	Methylene bromide	ND	220	ug/kg	
75-09-2	Methylene chloride	ND	90	ug/kg	
91-20-3	Naphthalene	ND	220	ug/kg	
103-65-1	n-Propylbenzene	ND	220	ug/kg	
100-42-5	Styrene	ND	220	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	220	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	90	ug/kg	
127-18-4	Tetrachloroethene	ND	90	ug/kg	
109-99-9	Tetrahydrofuran	ND	450	ug/kg	
108-88-3	Toluene	ND	220	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	220	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	220	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	220	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	90	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	90	ug/kg	
79-01-6	Trichloroethene	ND	90	ug/kg	
75-69-4	Trichlorofluoromethane	ND	90	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	220	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	220	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	220	ug/kg	
75-01-4	Vinyl chloride	ND	90	ug/kg	
	m,p-Xylene	167	90	ug/kg	
95-47-6	o-Xylene	ND	90	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	113%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

4.4
4

VOA RCP List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	109%		70-130%
460-00-4	4-Bromofluorobenzene	111%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Method: SW846 8270C SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W11400.D	5	04/22/13	KR	04/14/13	OP32657	MSW531
Run #2							

	Initial Weight	Final Volume
Run #1	20.3 g	1.0 ml
Run #2		

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	700	ug/kg	
208-96-8	Acenaphthylene	1080	700	ug/kg	
120-12-7	Anthracene	2020	700	ug/kg	
56-55-3	Benzo(a)anthracene	5730	700	ug/kg	
50-32-8	Benzo(a)pyrene	4340	700	ug/kg	
205-99-2	Benzo(b)fluoranthene	4510	700	ug/kg	
191-24-2	Benzo(g,h,i)perylene	2350	700	ug/kg	
207-08-9	Benzo(k)fluoranthene	4310	700	ug/kg	
218-01-9	Chrysene	5890	700	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	1160	700	ug/kg	
206-44-0	Fluoranthene	12500	700	ug/kg	
86-73-7	Fluorene	1430	700	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	2350	700	ug/kg	
91-20-3	Naphthalene	ND	700	ug/kg	
85-01-8	Phenanthrene	8050	700	ug/kg	
129-00-0	Pyrene	10100	700	ug/kg	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	30%		30-130%
321-60-8	2-Fluorobiphenyl	74%		30-130%
1718-51-0	Terphenyl-d14	83%		30-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Method: CT-ETPH 7/06 SW846 3546	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI20713.D	1	04/16/13	KN	04/14/13	OP32658	GBI737
Run #2							

	Initial Weight	Final Volume
Run #1	15.6 g	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	767	23	mg/kg	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	64%		50-137%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

4.4
4

Report of Analysis

Client Sample ID: SB-4(5-8)	Date Sampled: 04/05/13
Lab Sample ID: MC19632-4	Date Received: 04/08/13
Matrix: SO - Soil	Percent Solids: 70.4
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	11.6	1.2	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Barium	92.4	5.8	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Cadmium	2.4	0.47	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Chromium	19.5	1.2	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Lead	299	1.2	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Mercury	1.4	0.085	mg/kg	2	04/17/13	04/18/13 SA	SW846 7471B ²	SW846 7471B ⁴
Selenium	< 1.2	1.2	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³
Silver	0.71	0.58	mg/kg	1	04/10/13	04/11/13 SA	SW846 6010C ¹	SW846 3050B ³

(1) Instrument QC Batch: MA15444

(2) Instrument QC Batch: MA15463

(3) Prep QC Batch: MP20753

(4) Prep QC Batch: MP20788

RL = Reporting Limit

Misc. Forms

5

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody
- RCP Form
- Sample Tracking Chronicle

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19632 **Client:** TYREE **Immediate Client Services Action Required:** No
Date / Time Received: 4/8/2013 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: 6852 MIDDLETOWN **No. Coolers:** 1 **Airbill #'s:** _____

Cooler Security Y or N Y or N
 1. Custody Seals Present: 3. COC Present:
 2. Custody Seals Intact: 4. Smpl Dates/Time OK:

Cooler Temperature Y or N
 1. Temp criteria achieved:
 2. Cooler temp verification: Infared gun
 3. Cooler media: Ice (bag)

Quality Control Preservation Y or N N/A
 1. Trip Blank present / cooler:
 2. Trip Blank listed on COC:
 3. Samples preserved properly:
 4. VOCs headspace free:

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles:
 2. Container labeling complete:
 3. Sample container label / COC agree:

Sample Integrity - Condition Y or N
 1. Sample recvd within HT:
 2. All containers accounted for:
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear:
 2. Bottles received for unspecified tests:
 3. Sufficient volume recvd for analysis:
 4. Compositing instructions clear:
 5. Filtering instructions clear:

Comments

5.1 5

Internal Sample Tracking Chronicle

Tyree Organization Ltd.

Job No: MC19632

Getty 6852, 578 South Main Street, Middletown, CT
 Project No: 2130078-421

5.3
5

Sample Number	Method	Analyzed	By	Prepped	By	Test Codes
MC19632-1 Collected: 05-APR-13 09:00 By: JL Received: 08-APR-13 By: SB-1(4-4.5)						
MC19632-1	SM21 2540 B MOD.	10-APR-13	HS			%SOL
MC19632-1	SW846 6010C	12-APR-13 20:35	EAL	10-APR-13	DA	AG,AS,BA,CD,CR,PB,SE
MC19632-1	CT-ETPH 7/06	16-APR-13 21:46	KN	14-APR-13	PA	BCTTPH
MC19632-1	SW846 8270C	17-APR-13 14:02	KR	14-APR-13	PA	B8270PAH
MC19632-1	SW846 7471B	18-APR-13 11:06	SA	17-APR-13	EM	HG
MC19632-1	SW846 8260B	18-APR-13 16:04	GK			V8260RCP
MC19632-1	SW846 8260B	19-APR-13 13:05	GK			V8260RCP
MC19632-2 Collected: 05-APR-13 09:45 By: JL Received: 08-APR-13 By: SB-2(5-8)						
MC19632-2	SM21 2540 B MOD.	10-APR-13	HS			%SOL
MC19632-2	SW846 6010C	11-APR-13 22:37	SA	10-APR-13	DA	AG,AS,BA,CD,CR,PB,SE
MC19632-2	CT-ETPH 7/06	16-APR-13 20:48	KN	14-APR-13	PA	BCTTPH
MC19632-2	SW846 8270C	17-APR-13 14:26	KR	14-APR-13	PA	B8270PAH
MC19632-2	SW846 7471B	18-APR-13 11:01	SA	17-APR-13	EM	HG
MC19632-2	SW846 8260B	18-APR-13 16:32	GK			V8260RCP
MC19632-3 Collected: 05-APR-13 10:40 By: JL Received: 08-APR-13 By: SB-3(4-4.5)						
MC19632-3	SM21 2540 B MOD.	10-APR-13	HS			%SOL
MC19632-3	SW846 6010C	11-APR-13 22:42	SA	10-APR-13	DA	AG,AS,BA,CD,CR,PB,SE
MC19632-3	CT-ETPH 7/06	16-APR-13 13:38	KN	14-APR-13	PA	BCTTPH
MC19632-3	SW846 8270C	17-APR-13 14:50	KR	14-APR-13	PA	B8270PAH
MC19632-3	SW846 8260B	17-APR-13 22:18	AMY			V8260RCP
MC19632-3	SW846 7471B	18-APR-13 10:13	SA	17-APR-13	EM	HG
MC19632-4 Collected: 05-APR-13 11:30 By: JL Received: 08-APR-13 By: SB-4(5-8)						
MC19632-4	SM21 2540 B MOD.	10-APR-13	HS			%SOL
MC19632-4	SW846 6010C	11-APR-13 22:46	SA	10-APR-13	DA	AG,AS,BA,CD,CR,PB,SE
MC19632-4	CT-ETPH 7/06	16-APR-13 21:17	KN	14-APR-13	PA	BCTTPH
MC19632-4	SW846 7471B	18-APR-13 11:09	SA	17-APR-13	EM	HG
MC19632-4	SW846 8260B	18-APR-13 16:59	GK			V8260RCP
MC19632-4	SW846 8270C	22-APR-13 10:02	KR	14-APR-13	PA	B8270PAH

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-MB	M55438.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/kg	
107-13-1	Acrylonitrile	ND	25	ug/kg	
71-43-2	Benzene	ND	0.50	ug/kg	
108-86-1	Bromobenzene	ND	5.0	ug/kg	
75-27-4	Bromodichloromethane	ND	2.0	ug/kg	
75-25-2	Bromoform	ND	2.0	ug/kg	
74-83-9	Bromomethane	ND	2.0	ug/kg	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/kg	
104-51-8	n-Butylbenzene	ND	5.0	ug/kg	
135-98-8	sec-Butylbenzene	ND	5.0	ug/kg	
98-06-6	tert-Butylbenzene	ND	5.0	ug/kg	
75-15-0	Carbon disulfide	ND	5.0	ug/kg	
56-23-5	Carbon tetrachloride	ND	2.0	ug/kg	
108-90-7	Chlorobenzene	ND	2.0	ug/kg	
75-00-3	Chloroethane	ND	5.0	ug/kg	
67-66-3	Chloroform	ND	2.0	ug/kg	
74-87-3	Chloromethane	ND	5.0	ug/kg	
95-49-8	o-Chlorotoluene	ND	5.0	ug/kg	
106-43-4	p-Chlorotoluene	ND	5.0	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/kg	
124-48-1	Dibromochloromethane	ND	2.0	ug/kg	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	2.0	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	2.0	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	2.0	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/kg	
75-34-3	1,1-Dichloroethane	ND	2.0	ug/kg	
107-06-2	1,2-Dichloroethane	ND	2.0	ug/kg	
75-35-4	1,1-Dichloroethene	ND	2.0	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	2.0	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	2.0	ug/kg	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/kg	
142-28-9	1,3-Dichloropropane	ND	5.0	ug/kg	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/kg	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	2.0	ug/kg	

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Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-MB	M55438.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	2.0	ug/kg	
100-41-4	Ethylbenzene	ND	2.0	ug/kg	
76-13-1	Freon 113	ND	5.0	ug/kg	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/kg	
591-78-6	2-Hexanone	ND	5.0	ug/kg	
98-82-8	Isopropylbenzene	ND	5.0	ug/kg	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	2.0	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/kg	
74-95-3	Methylene bromide	ND	5.0	ug/kg	
75-09-2	Methylene chloride	1.7	2.0	ug/kg	J
91-20-3	Naphthalene	ND	5.0	ug/kg	
103-65-1	n-Propylbenzene	ND	5.0	ug/kg	
100-42-5	Styrene	ND	5.0	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	2.0	ug/kg	
127-18-4	Tetrachloroethene	ND	2.0	ug/kg	
109-99-9	Tetrahydrofuran	ND	10	ug/kg	
108-88-3	Toluene	ND	5.0	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	5.0	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	2.0	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	2.0	ug/kg	
79-01-6	Trichloroethene	ND	2.0	ug/kg	
75-69-4	Trichlorofluoromethane	ND	2.0	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/kg	
75-01-4	Vinyl chloride	ND	2.0	ug/kg	
	m,p-Xylene	ND	2.0	ug/kg	
95-47-6	o-Xylene	ND	2.0	ug/kg	

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-MB	M55438.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	90% 70-130%
2037-26-5	Toluene-D8	90% 70-130%
460-00-4	4-Bromofluorobenzene	90% 70-130%

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-MB	K69129.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	250	ug/kg	
107-13-1	Acrylonitrile	ND	1300	ug/kg	
71-43-2	Benzene	ND	25	ug/kg	
108-86-1	Bromobenzene	ND	250	ug/kg	
75-27-4	Bromodichloromethane	ND	100	ug/kg	
75-25-2	Bromoform	ND	100	ug/kg	
74-83-9	Bromomethane	ND	100	ug/kg	
78-93-3	2-Butanone (MEK)	ND	250	ug/kg	
104-51-8	n-Butylbenzene	ND	250	ug/kg	
135-98-8	sec-Butylbenzene	ND	250	ug/kg	
98-06-6	tert-Butylbenzene	ND	250	ug/kg	
75-15-0	Carbon disulfide	ND	250	ug/kg	
56-23-5	Carbon tetrachloride	ND	100	ug/kg	
108-90-7	Chlorobenzene	ND	100	ug/kg	
75-00-3	Chloroethane	ND	250	ug/kg	
67-66-3	Chloroform	ND	100	ug/kg	
74-87-3	Chloromethane	ND	250	ug/kg	
95-49-8	o-Chlorotoluene	ND	250	ug/kg	
106-43-4	p-Chlorotoluene	ND	250	ug/kg	
96-12-8	1,2-Dibromo-3-chloropropane	ND	250	ug/kg	
124-48-1	Dibromochloromethane	ND	100	ug/kg	
106-93-4	1,2-Dibromoethane	ND	100	ug/kg	
95-50-1	1,2-Dichlorobenzene	ND	100	ug/kg	
541-73-1	1,3-Dichlorobenzene	ND	100	ug/kg	
106-46-7	1,4-Dichlorobenzene	ND	100	ug/kg	
75-71-8	Dichlorodifluoromethane	ND	100	ug/kg	
75-34-3	1,1-Dichloroethane	ND	100	ug/kg	
107-06-2	1,2-Dichloroethane	ND	100	ug/kg	
75-35-4	1,1-Dichloroethene	ND	100	ug/kg	
156-59-2	cis-1,2-Dichloroethene	ND	100	ug/kg	
156-60-5	trans-1,2-Dichloroethene	ND	100	ug/kg	
78-87-5	1,2-Dichloropropane	ND	100	ug/kg	
142-28-9	1,3-Dichloropropane	ND	250	ug/kg	
594-20-7	2,2-Dichloropropane	ND	250	ug/kg	
563-58-6	1,1-Dichloropropene	ND	250	ug/kg	
10061-01-5	cis-1,3-Dichloropropene	ND	100	ug/kg	

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-MB	K69129.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Compound	Result	RL	Units	Q
10061-02-6	trans-1,3-Dichloropropene	ND	100	ug/kg	
100-41-4	Ethylbenzene	ND	100	ug/kg	
76-13-1	Freon 113	ND	250	ug/kg	
87-68-3	Hexachlorobutadiene	ND	250	ug/kg	
591-78-6	2-Hexanone	ND	250	ug/kg	
98-82-8	Isopropylbenzene	ND	250	ug/kg	
99-87-6	p-Isopropyltoluene	ND	250	ug/kg	
1634-04-4	Methyl Tert Butyl Ether	ND	100	ug/kg	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	250	ug/kg	
74-95-3	Methylene bromide	ND	250	ug/kg	
75-09-2	Methylene chloride	ND	100	ug/kg	
91-20-3	Naphthalene	ND	250	ug/kg	
103-65-1	n-Propylbenzene	ND	250	ug/kg	
100-42-5	Styrene	ND	250	ug/kg	
630-20-6	1,1,1,2-Tetrachloroethane	ND	250	ug/kg	
79-34-5	1,1,2,2-Tetrachloroethane	ND	100	ug/kg	
127-18-4	Tetrachloroethene	ND	100	ug/kg	
109-99-9	Tetrahydrofuran	ND	500	ug/kg	
108-88-3	Toluene	ND	250	ug/kg	
110-57-6	Trans-1,4-Dichloro-2-Butene	ND	250	ug/kg	
87-61-6	1,2,3-Trichlorobenzene	ND	250	ug/kg	
120-82-1	1,2,4-Trichlorobenzene	ND	250	ug/kg	
71-55-6	1,1,1-Trichloroethane	ND	100	ug/kg	
79-00-5	1,1,2-Trichloroethane	ND	100	ug/kg	
79-01-6	Trichloroethene	ND	100	ug/kg	
75-69-4	Trichlorofluoromethane	ND	100	ug/kg	
96-18-4	1,2,3-Trichloropropane	ND	250	ug/kg	
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	
108-67-8	1,3,5-Trimethylbenzene	ND	250	ug/kg	
75-01-4	Vinyl chloride	ND	100	ug/kg	
	m,p-Xylene	ND	100	ug/kg	
95-47-6	o-Xylene	ND	100	ug/kg	

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-MB	K69129.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Surrogate Recoveries	Limits	
1868-53-7	Dibromofluoromethane	125%	70-130%
2037-26-5	Toluene-D8	117%	70-130%
460-00-4	4-Bromofluorobenzene	114%	70-130%

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2269-MB	K69179.D	1	04/19/13	GK	n/a	n/a	MSK2269

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1

CAS No.	Compound	Result	RL	Units	Q
95-63-6	1,2,4-Trimethylbenzene	ND	250	ug/kg	

CAS No.	Surrogate Recoveries	Limits
1868-53-7	Dibromofluoromethane	123% 70-130%
2037-26-5	Toluene-D8	117% 70-130%
460-00-4	4-Bromofluorobenzene	115% 70-130%

CAS No.	Tentatively Identified Compounds	R.T.	Est. Conc.	Units	Q
	Total TIC, Volatile		0	ug/kg	

Blank Spike Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2269-BS	K69176.D	1	04/19/13	GK	n/a	n/a	MSK2269

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
95-63-6	1,2,4-Trimethylbenzene	2500	2860	114	70-130

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	112%	70-130%
2037-26-5	Toluene-D8	115%	70-130%
460-00-4	4-Bromofluorobenzene	111%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632

Account: TYREEMA Tyree Organization Ltd.

Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-BS	M55436.D	1	04/17/13	AMY	n/a	n/a	MSM1892
MSM1892-BSD	M55437.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	50	50.4	101	52.7	105	4	70-130/25
107-13-1	Acrylonitrile	50	58.6	117	59.9	120	2	70-130/25
71-43-2	Benzene	50	53.4	107	52.9	106	1	70-130/25
108-86-1	Bromobenzene	50	48.7	97	47.9	96	2	70-130/25
75-27-4	Bromodichloromethane	50	52.9	106	52.0	104	2	70-130/25
75-25-2	Bromoform	50	46.8	94	46.2	92	1	70-130/25
74-83-9	Bromomethane	50	45.5	91	44.2	88	3	70-130/25
78-93-3	2-Butanone (MEK)	50	62.5	125	63.1	126	1	70-130/25
104-51-8	n-Butylbenzene	50	51.8	104	52.4	105	1	70-130/25
135-98-8	sec-Butylbenzene	50	51.5	103	51.3	103	0	70-130/25
98-06-6	tert-Butylbenzene	50	51.2	102	50.9	102	1	70-130/25
75-15-0	Carbon disulfide	50	54.5	109	54.5	109	0	70-130/25
56-23-5	Carbon tetrachloride	50	58.9	118	58.7	117	0	70-130/25
108-90-7	Chlorobenzene	50	46.2	92	45.5	91	2	70-130/25
75-00-3	Chloroethane	50	49.4	99	49.0	98	1	70-130/25
67-66-3	Chloroform	50	55.0	110	54.3	109	1	70-130/25
74-87-3	Chloromethane	50	48.5	97	47.7	95	2	70-130/25
95-49-8	o-Chlorotoluene	50	48.2	96	48.2	96	0	70-130/25
106-43-4	p-Chlorotoluene	50	48.9	98	48.9	98	0	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	50	62.9	126	61.1	122	3	70-130/25
124-48-1	Dibromochloromethane	50	48.0	96	46.2	92	4	70-130/25
106-93-4	1,2-Dibromoethane	50	48.9	98	48.7	97	0	70-130/25
95-50-1	1,2-Dichlorobenzene	50	44.2	88	43.8	88	1	70-130/25
541-73-1	1,3-Dichlorobenzene	50	45.3	91	45.3	91	0	70-130/25
106-46-7	1,4-Dichlorobenzene	50	46.2	92	45.4	91	2	70-130/25
75-71-8	Dichlorodifluoromethane	50	40.9	82	41.9	84	2	70-130/25
75-34-3	1,1-Dichloroethane	50	58.1	116	58.1	116	0	70-130/25
107-06-2	1,2-Dichloroethane	50	53.2	106	51.1	102	4	70-130/25
75-35-4	1,1-Dichloroethene	50	60.3	121	59.9	120	1	70-130/25
156-59-2	cis-1,2-Dichloroethene	50	54.0	108	53.8	108	0	70-130/25
156-60-5	trans-1,2-Dichloroethene	50	54.7	109	55.3	111	1	70-130/25
78-87-5	1,2-Dichloropropane	50	54.3	109	53.2	106	2	70-130/25
142-28-9	1,3-Dichloropropane	50	48.6	97	47.4	95	3	70-130/25
594-20-7	2,2-Dichloropropane	50	58.5	117	58.7	117	0	70-130/25
563-58-6	1,1-Dichloropropene	50	59.3	119	60.2	120	2	70-130/25
10061-01-5	cis-1,3-Dichloropropene	50	50.5	101	48.9	98	3	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-BS	M55436.D	1	04/17/13	AMY	n/a	n/a	MSM1892
MSM1892-BSD	M55437.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	50	53.8	108	51.9	104	4	70-130/25
100-41-4	Ethylbenzene	50	50.5	101	50.5	101	0	70-130/25
76-13-1	Freon 113	50	61.0	122	60.5	121	1	70-130/25
87-68-3	Hexachlorobutadiene	50	50.9	102	49.8	100	2	70-130/25
591-78-6	2-Hexanone	50	64.7	129	64.9	130	0	70-130/25
98-82-8	Isopropylbenzene	50	51.2	102	51.3	103	0	70-130/25
99-87-6	p-Isopropyltoluene	50	54.1	108	54.5	109	1	70-130/25
1634-04-4	Methyl Tert Butyl Ether	50	51.0	102	46.5	93	9	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	50	63.3	127	64.5	129	2	70-130/25
74-95-3	Methylene bromide	50	52.1	104	50.9	102	2	70-130/25
75-09-2	Methylene chloride	50	55.8	112	54.8	110	2	70-130/25
91-20-3	Naphthalene	50	54.1	108	52.2	104	4	70-130/25
103-65-1	n-Propylbenzene	50	50.8	102	51.0	102	0	70-130/25
100-42-5	Styrene	50	47.3	95	46.9	94	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	50	48.0	96	46.6	93	3	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	50	52.7	105	52.3	105	1	70-130/25
127-18-4	Tetrachloroethene	50	52.8	106	53.2	106	1	70-130/25
109-99-9	Tetrahydrofuran	50	60.6	121	60.9	122	0	70-130/25
108-88-3	Toluene	50	55.0	110	55.0	110	0	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	50	54.9	110	54.4	109	1	70-130/25
87-61-6	1,2,3-Trichlorobenzene	50	46.4	93	44.5	89	4	70-130/25
120-82-1	1,2,4-Trichlorobenzene	50	45.5	91	43.7	87	4	70-130/25
71-55-6	1,1,1-Trichloroethane	50	59.3	119	59.6	119	1	70-130/25
79-00-5	1,1,2-Trichloroethane	50	50.2	100	49.8	100	1	70-130/25
79-01-6	Trichloroethene	50	56.0	112	55.8	112	0	70-130/25
75-69-4	Trichlorofluoromethane	50	47.8	96	48.0	96	0	70-130/25
96-18-4	1,2,3-Trichloropropane	50	57.0	114	56.2	112	1	70-130/25
95-63-6	1,2,4-Trimethylbenzene	50	49.7	99	49.4	99	1	70-130/25
108-67-8	1,3,5-Trimethylbenzene	50	50.6	101	50.7	101	0	70-130/25
75-01-4	Vinyl chloride	50	45.1	90	45.6	91	1	70-130/25
	m,p-Xylene	100	97.5	98	98.2	98	1	70-130/25
95-47-6	o-Xylene	50	46.8	94	46.2	92	1	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSM1892-BS	M55436.D	1	04/17/13	AMY	n/a	n/a	MSM1892
MSM1892-BSD	M55437.D	1	04/17/13	AMY	n/a	n/a	MSM1892

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-3

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	89%	89%	70-130%
2037-26-5	Toluene-D8	92%	90%	70-130%
460-00-4	4-Bromofluorobenzene	89%	90%	70-130%

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632

Account: TYREEMA Tyree Organization Ltd.

Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-BS	K69126.D	1	04/18/13	GK	n/a	n/a	MSK2268
MSK2268-BSD	K69127.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
67-64-1	Acetone	2500	3270	131* a	2830	113	14	70-130/25
107-13-1	Acrylonitrile	2500	2700	108	2680	107	1	70-130/25
71-43-2	Benzene	2500	2780	111	2740	110	1	70-130/25
108-86-1	Bromobenzene	2500	2820	113	2790	112	1	70-130/25
75-27-4	Bromodichloromethane	2500	2790	112	2760	110	1	70-130/25
75-25-2	Bromoform	2500	2560	102	2480	99	3	70-130/25
74-83-9	Bromomethane	2500	2450	98	2500	100	2	70-130/25
78-93-3	2-Butanone (MEK)	2500	2660	106	2710	108	2	70-130/25
104-51-8	n-Butylbenzene	2500	2910	116	2920	117	0	70-130/25
135-98-8	sec-Butylbenzene	2500	2790	112	2770	111	1	70-130/25
98-06-6	tert-Butylbenzene	2500	2730	109	2710	108	1	70-130/25
75-15-0	Carbon disulfide	2500	2820	113	2520	101	11	70-130/25
56-23-5	Carbon tetrachloride	2500	2930	117	2860	114	2	70-130/25
108-90-7	Chlorobenzene	2500	2790	112	2800	112	0	70-130/25
75-00-3	Chloroethane	2500	2710	108	2800	112	3	70-130/25
67-66-3	Chloroform	2500	2830	113	2810	112	1	70-130/25
74-87-3	Chloromethane	2500	2370	95	2410	96	2	70-130/25
95-49-8	o-Chlorotoluene	2500	2620	105	2620	105	0	70-130/25
106-43-4	p-Chlorotoluene	2500	2490	100	2490	100	0	70-130/25
96-12-8	1,2-Dibromo-3-chloropropane	2500	2170	87	2190	88	1	70-130/25
124-48-1	Dibromochloromethane	2500	2880	115	2760	110	4	70-130/25
106-93-4	1,2-Dibromoethane	2500	2860	114	2880	115	1	70-130/25
95-50-1	1,2-Dichlorobenzene	2500	2580	103	2630	105	2	70-130/25
541-73-1	1,3-Dichlorobenzene	2500	2750	110	2750	110	0	70-130/25
106-46-7	1,4-Dichlorobenzene	2500	2720	109	2720	109	0	70-130/25
75-71-8	Dichlorodifluoromethane	2500	1760	70	1780	71	1	70-130/25
75-34-3	1,1-Dichloroethane	2500	2910	116	2940	118	1	70-130/25
107-06-2	1,2-Dichloroethane	2500	2690	108	2680	107	0	70-130/25
75-35-4	1,1-Dichloroethene	2500	3350	134* a	3340	134* a	0	70-130/25
156-59-2	cis-1,2-Dichloroethene	2500	2830	113	2820	113	0	70-130/25
156-60-5	trans-1,2-Dichloroethene	2500	2910	116	2940	118	1	70-130/25
78-87-5	1,2-Dichloropropane	2500	2830	113	2810	112	1	70-130/25
142-28-9	1,3-Dichloropropane	2500	2830	113	2820	113	0	70-130/25
594-20-7	2,2-Dichloropropane	2500	2780	111	2740	110	1	70-130/25
563-58-6	1,1-Dichloropropene	2500	3040	122	3000	120	1	70-130/25
10061-01-5	cis-1,3-Dichloropropene	2500	2690	108	2540	102	6	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-BS	K69126.D	1	04/18/13	GK	n/a	n/a	MSK2268
MSK2268-BSD	K69127.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	BSD ug/kg	BSD %	RPD	Limits Rec/RPD
10061-02-6	trans-1,3-Dichloropropene	2500	2860	114	2730	109	5	70-130/25
100-41-4	Ethylbenzene	2500	2960	118	2940	118	1	70-130/25
76-13-1	Freon 113	2500	3280	131* a	3230	129	2	70-130/25
87-68-3	Hexachlorobutadiene	2500	2820	113	2780	111	1	70-130/25
591-78-6	2-Hexanone	2500	2760	110	2780	111	1	70-130/25
98-82-8	Isopropylbenzene	2500	2800	112	2810	112	0	70-130/25
99-87-6	p-Isopropyltoluene	2500	2990	120	2990	120	0	70-130/25
1634-04-4	Methyl Tert Butyl Ether	2500	2660	106	2720	109	2	70-130/25
108-10-1	4-Methyl-2-pentanone (MIBK)	2500	2680	107	2730	109	2	70-130/25
74-95-3	Methylene bromide	2500	2760	110	2770	111	0	70-130/25
75-09-2	Methylene chloride	2500	2860	114	2920	117	2	70-130/25
91-20-3	Naphthalene	2500	1850	74	1880	75	2	70-130/25
103-65-1	n-Propylbenzene	2500	2760	110	2760	110	0	70-130/25
100-42-5	Styrene	2500	2850	114	2830	113	1	70-130/25
630-20-6	1,1,1,2-Tetrachloroethane	2500	2930	117	3000	120	2	70-130/25
79-34-5	1,1,2,2-Tetrachloroethane	2500	2800	112	2830	113	1	70-130/25
127-18-4	Tetrachloroethene	2500	3050	122	3030	121	1	70-130/25
109-99-9	Tetrahydrofuran	2500	2620	105	2670	107	2	70-130/25
108-88-3	Toluene	2500	2890	116	2860	114	1	70-130/25
110-57-6	Trans-1,4-Dichloro-2-Butene	2500	2720	109	2410	96	12	70-130/25
87-61-6	1,2,3-Trichlorobenzene	2500	1780	71	1810	72	2	70-130/25
120-82-1	1,2,4-Trichlorobenzene	2500	2390	96	2430	97	2	70-130/25
71-55-6	1,1,1-Trichloroethane	2500	2890	116	2890	116	0	70-130/25
79-00-5	1,1,2-Trichloroethane	2500	2720	109	2760	110	1	70-130/25
79-01-6	Trichloroethene	2500	2890	116	2840	114	2	70-130/25
75-69-4	Trichlorofluoromethane	2500	2500	100	2470	99	1	70-130/25
96-18-4	1,2,3-Trichloropropane	2500	2760	110	2690	108	3	70-130/25
95-63-6	1,2,4-Trimethylbenzene	2500	2770	111	2760	110	0	70-130/25
108-67-8	1,3,5-Trimethylbenzene	2500	2750	110	2720	109	1	70-130/25
75-01-4	Vinyl chloride	2500	1930	77	1910	76	1	70-130/25
	m,p-Xylene	5000	5730	115	5720	114	0	70-130/25
95-47-6	o-Xylene	2500	2770	111	2760	110	0	70-130/25

* = Outside of Control Limits.

Blank Spike/Blank Spike Duplicate Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
MSK2268-BS	K69126.D	1	04/18/13	GK	n/a	n/a	MSK2268
MSK2268-BSD	K69127.D	1	04/18/13	GK	n/a	n/a	MSK2268

The QC reported here applies to the following samples:

Method: SW846 8260B

MC19632-1, MC19632-2, MC19632-4

CAS No.	Surrogate Recoveries	BSP	BSD	Limits
1868-53-7	Dibromofluoromethane	116%	116%	70-130%
2037-26-5	Toluene-D8	118%	118%	70-130%
460-00-4	4-Bromofluorobenzene	113%	114%	70-130%

(a) Outside control limits. Blank Spike meets program technical requirements.

* = Outside of Control Limits.

Volatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSK2268-CC2209	Injection Date: 04/18/13
Lab File ID: K69125.D	Injection Time: 09:39
Instrument ID: GCMSK	Method: SW846 8260B

	IS 1	RT	IS 2	RT	IS 3	RT	IS 4	RT	IS 5	RT
	AREA		AREA		AREA		AREA		AREA	
Check Std	279876	8.83	357735	9.68	191187	12.93	175588	15.50	59938	6.42
Upper Limit ^a	559752	9.33	715470	10.18	382374	13.43	351176	16.00	119876	6.92
Lower Limit ^b	139938	8.33	178868	9.18	95594	12.43	87794	15.00	29969	5.92

Lab	IS 1	RT	IS 2	RT	IS 3	RT	IS 4	RT	IS 5	RT
Sample ID	AREA		AREA		AREA		AREA		AREA	
MSK2268-BS	277841	8.83	358298	9.68	191069	12.93	174375	15.50	60577	6.42
MSK2268-BSD	269952	8.83	351073	9.68	186644	12.94	170414	15.50	61093	6.42
MSK2268-MB	270224	8.83	357810	9.68	182118	12.94	170767	15.50	60620	6.42
ZZZZZZ	254970	8.83	334094	9.68	171092	12.94	161622	15.50	56144	6.42
ZZZZZZ	254152	8.83	337258	9.68	172453	12.94	161757	15.50	57077	6.42
ZZZZZZ	260964	8.83	345561	9.68	176193	12.94	166299	15.50	57331	6.42
ZZZZZZ	252861	8.83	335628	9.68	172364	12.94	162090	15.50	57360	6.42
ZZZZZZ	243851	8.83	323108	9.68	164732	12.94	155774	15.50	58586	6.42
ZZZZZZ	247769	8.83	326889	9.68	167219	12.94	156264	15.50	58174	6.42
ZZZZZZ	241178	8.83	318056	9.68	162591	12.94	152500	15.50	56183	6.42
ZZZZZZ	246581	8.83	325574	9.68	167975	12.94	155054	15.50	59428	6.42
ZZZZZZ	239144	8.83	320133	9.68	165781	12.94	155419	15.50	65315	6.43
MC19632-1	247449	8.83	314592	9.68	183368	12.93	162578	15.50	47862	6.43
MC19632-2	286376	8.83	385333	9.68	193912	12.94	181533	15.50	54063	6.42
MC19632-4	290966	8.83	382741	9.68	191426	12.94	180723	15.50	59978	6.43
ZZZZZZ	290644	8.83	383375	9.68	193270	12.94	185821	15.50	59856	6.42
ZZZZZZ	287273	8.83	378594	9.68	191929	12.94	182106	15.50	55664	6.42
ZZZZZZ	279205	8.83	370065	9.68	188008	12.94	179925	15.50	59282	6.42
ZZZZZZ	275274	8.83	360813	9.68	182567	12.94	173459	15.50	55492	6.42
ZZZZZZ	269525	8.83	354627	9.68	179854	12.94	172826	15.50	55148	6.41
ZZZZZZ	273416	8.83	359850	9.68	182809	12.94	172056	15.50	52560	6.43
ZZZZZZ	278665	8.83	366811	9.68	182445	12.94	170174	15.50	74120	6.48
ZZZZZZ	276327	8.83	368850	9.68	183113	12.94	167083	15.50	73453	6.50

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.1
6

Volatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSK2269-CC2209	Injection Date: 04/19/13
Lab File ID: K69175.D	Injection Time: 08:37
Instrument ID: GCMSK	Method: SW846 8260B

	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	286088	8.83	372775	9.68	193643	12.94	180008	15.50	66318	6.42
Upper Limit ^a	572176	9.33	745550	10.18	387286	13.44	360016	16.00	132636	6.92
Lower Limit ^b	143044	8.33	186388	9.18	96822	12.44	90004	15.00	33159	5.92

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MSK2269-BS	287606	8.83	369825	9.68	196293	12.94	178173	15.50	66373	6.42
MSK2269-MB	292019	8.83	389884	9.68	194787	12.94	185903	15.50	68038	6.42
ZZZZZZ	300608	8.83	403664	9.67	200070	12.94	191279	15.50	76897	6.45
MC19824-4	289625	8.83	385381	9.68	191194	12.94	183616	15.50	70975	6.42
ZZZZZZ	282468	8.83	379220	9.68	188143	12.94	177980	15.50	70032	6.44
MC19632-1	273415	8.83	361987	9.68	180187	12.94	172609	15.50	68733	6.42
MC19824-4MS	275402	8.83	352339	9.68	186602	12.94	170278	15.50	69961	6.43
MC19824-4MSD	279369	8.84	365318	9.68	191645	12.94	175546	15.50	71089	6.43
ZZZZZZ	288410	8.83	379652	9.68	188292	12.94	178479	15.50	84054	6.44
ZZZZZZ	284921	8.84	377208	9.68	187263	12.94	177176	15.50	71722	6.43
ZZZZZZ	276920	8.83	369711	9.68	184455	12.94	173064	15.50	72052	6.43
ZZZZZZ	273463	8.83	362908	9.68	181565	12.94	172110	15.50	45482	6.43
ZZZZZZ	268123	8.83	355928	9.68	181031	12.94	168468	15.50	45709	6.42
ZZZZZZ	268541	8.83	359274	9.68	180360	12.94	169346	15.50	49679	6.43
ZZZZZZ	257261	8.83	342676	9.68	171538	12.94	163276	15.50	50070	6.42
ZZZZZZ	249767	8.83	333535	9.68	171480	12.94	160022	15.50	49515	6.42
ZZZZZZ	249473	8.83	333620	9.68	169784	12.94	159543	15.50	52282	6.42

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.2
6

Volatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSM1892-CC1876	Injection Date: 04/17/13
Lab File ID: M55435.D	Injection Time: 13:29
Instrument ID: GCMSM	Method: SW846 8260B

	IS 1	IS 2	IS 3	IS 4	IS 5					
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	446405	9.35	666514	10.24	332883	13.51	367981	16.08	185194	6.85
Upper Limit ^a	892810	9.85	1333028	10.74	665766	14.01	735962	16.58	370388	7.35
Lower Limit ^b	223203	8.85	333257	9.74	166442	13.01	183991	15.58	92597	6.35

Lab	IS 1	IS 2	IS 3	IS 4	IS 5					
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MSM1892-BS	408088	9.35	601346	10.24	309539	13.51	341959	16.08	343634	6.85
MSM1892-BSD	411199	9.35	611926	10.24	312805	13.51	344313	16.08	365211	6.85
MSM1892-MB	405994	9.35	599599	10.24	295150	13.51	337265	16.08	355407	6.86
ZZZZZZ	440100	9.35	642841	10.24	311286	13.51	351510	16.08	196466	6.85
ZZZZZZ	436076	9.35	641833	10.24	309161	13.51	352031	16.08	184761	6.86
ZZZZZZ	439843	9.35	645096	10.24	310924	13.51	352218	16.08	222161	6.85
ZZZZZZ	439351	9.35	650459	10.24	315472	13.51	361985	16.08	214640	6.85
ZZZZZZ	448717	9.36	657645	10.24	322004	13.51	363325	16.08	214937	6.85
ZZZZZZ	444462	9.35	657600	10.24	322397	13.51	372284	16.08	227754	6.85
ZZZZZZ	439068	9.35	651989	10.24	319331	13.51	369655	16.08	231982	6.85
ZZZZZZ	438254	9.35	642163	10.23	312263	13.51	360843	16.08	195408	6.85
ZZZZZZ	439749	9.35	658010	10.24	318647	13.51	356150	16.08	343879	6.84
ZZZZZZ	448565	9.35	658339	10.24	319827	13.52	362594	16.08	192905	6.85
ZZZZZZ	403647	9.36	594882	10.24	293511	13.52	342837	16.08	349517	6.85
ZZZZZZ	394907	9.35	588867	10.24	287831	13.51	336569	16.08	349015	6.85
MC19632-3	439795	9.36	650490	10.24	316873	13.51	364058	16.08	316331	6.85
ZZZZZZ	437777	9.36	643406	10.24	313514	13.51	352117	16.08	350211	6.85
ZZZZZZ	434391	9.35	633926	10.24	312210	13.51	362556	16.08	357719	6.85
ZZZZZZ	426808	9.35	628591	10.24	309452	13.51	359652	16.08	351083	6.85

- IS 1 = Pentafluorobenzene
- IS 2 = 1,4-Difluorobenzene
- IS 3 = Chlorobenzene-D5
- IS 4 = 1,4-Dichlorobenzene-d4
- IS 5 = Tert Butyl Alcohol-D9

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

6.4.3
6

GC/MS Semi-volatiles

QC Data Summaries

7

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Internal Standard Area Summaries
- Surrogate Recovery Summaries

Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32657-MB	F63133.D	1	04/17/13	KR	04/14/13	OP32657	MSF2951

The QC reported here applies to the following samples:

Method: SW846 8270C

MC19632-1, MC19632-2, MC19632-3, MC19632-4

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	96	ug/kg	
208-96-8	Acenaphthylene	ND	96	ug/kg	
120-12-7	Anthracene	ND	96	ug/kg	
56-55-3	Benzo(a)anthracene	ND	96	ug/kg	
50-32-8	Benzo(a)pyrene	ND	96	ug/kg	
205-99-2	Benzo(b)fluoranthene	ND	96	ug/kg	
191-24-2	Benzo(g,h,i)perylene	ND	96	ug/kg	
207-08-9	Benzo(k)fluoranthene	ND	96	ug/kg	
218-01-9	Chrysene	ND	96	ug/kg	
53-70-3	Dibenzo(a,h)anthracene	ND	96	ug/kg	
206-44-0	Fluoranthene	ND	96	ug/kg	
86-73-7	Fluorene	ND	96	ug/kg	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	96	ug/kg	
91-20-3	Naphthalene	ND	96	ug/kg	
85-01-8	Phenanthrene	ND	96	ug/kg	
129-00-0	Pyrene	ND	96	ug/kg	

CAS No.	Surrogate Recoveries	Limits	
367-12-4	2-Fluorophenol	39%	30-130%
4165-62-2	Phenol-d5	38%	30-130%
118-79-6	2,4,6-Tribromophenol	54%	30-130%
4165-60-0	Nitrobenzene-d5	43%	30-130%
321-60-8	2-Fluorobiphenyl	41%	30-130%
1718-51-0	Terphenyl-d14	85%	30-130%

Blank Spike Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32657-BS	F63134.D	1	04/17/13	KR	04/14/13	OP32657	MSF2951

The QC reported here applies to the following samples:

Method: SW846 8270C

MC19632-1, MC19632-2, MC19632-3, MC19632-4

CAS No.	Compound	Spike ug/kg	BSP ug/kg	BSP %	Limits
83-32-9	Acenaphthene	2440	1860	76	40-140
208-96-8	Acenaphthylene	2440	1430	59	40-140
120-12-7	Anthracene	2440	2020	83	40-140
56-55-3	Benzo(a)anthracene	2440	2350	96	40-140
50-32-8	Benzo(a)pyrene	2440	1960	80	40-140
205-99-2	Benzo(b)fluoranthene	2440	2190	90	40-140
191-24-2	Benzo(g,h,i)perylene	2440	2100	86	40-140
207-08-9	Benzo(k)fluoranthene	2440	2320	95	40-140
218-01-9	Chrysene	2440	2150	88	40-140
53-70-3	Dibenzo(a,h)anthracene	2440	2150	88	40-140
206-44-0	Fluoranthene	2440	2130	87	40-140
86-73-7	Fluorene	2440	1960	80	40-140
193-39-5	Indeno(1,2,3-cd)pyrene	2440	2100	86	40-140
91-20-3	Naphthalene	2440	1680	69	40-140
85-01-8	Phenanthrene	2440	2080	85	40-140
129-00-0	Pyrene	2440	2250	92	40-140

CAS No.	Surrogate Recoveries	BSP	Limits
367-12-4	2-Fluorophenol	70%	30-130%
4165-62-2	Phenol-d5	69%	30-130%
118-79-6	2,4,6-Tribromophenol	95%	30-130%
4165-60-0	Nitrobenzene-d5	74%	30-130%
321-60-8	2-Fluorobiphenyl	78%	30-130%
1718-51-0	Terphenyl-d14	99%	30-130%

* = Outside of Control Limits.

Semivolatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSF2951-CC2937	Injection Date: 04/17/13
Lab File ID: F63132.D	Injection Time: 08:15
Instrument ID: GCMSF	Method: SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	26122	4.07	97067	5.06	62555	6.50	115288	7.86	130831	10.64	116217	12.11
Upper Limit ^a	52244	4.57	194134	5.56	125110	7.00	230576	8.36	261662	11.14	232434	12.61
Lower Limit ^b	13061	3.57	48534	4.56	31278	6.00	57644	7.36	65416	10.14	58109	11.61

Lab Sample ID	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
OP32657-MB	29602	4.07	110424	5.06	69739	6.50	126969	7.85	133631	10.63	119741	12.11
OP32657-BS	35881	4.07	132397	5.06	80010	6.50	142586	7.86	142536	10.64	122583	12.11
OP32657-MS	34594	4.07	126524	5.07	76380	6.50	132283	7.86	138975	10.64	121480	12.11
OP32657-MSD	29741	4.07	109802	5.07	67098	6.50	120327	7.86	133281	10.63	116085	12.11
MC19611-2	25672	4.07	96155	5.06	59632	6.50	107109	7.85	121005	10.64	108079	12.11
ZZZZZZ	25978	4.07	97318	5.06	63032	6.50	114266	7.85	124646	10.63	116418	12.11
ZZZZZZ	29496	4.07	111420	5.06	70849	6.50	127463	7.85	138196	10.64	121802	12.11
ZZZZZZ	31218	4.07	115863	5.06	72711	6.50	131856	7.85	139594	10.63	123352	12.11
ZZZZZZ	28742	4.07	109297	5.06	68464	6.50	124109	7.85	130355	10.64	115433	12.11
ZZZZZZ	27900	4.07	103490	5.06	65255	6.50	118094	7.85	116835	10.63	111662	12.11
ZZZZZZ	30215	4.07	113065	5.06	69937	6.50	125689	7.85	129665	10.63	115777	12.11
ZZZZZZ	29518	4.07	109306	5.06	68867	6.50	126671	7.85	132659	10.63	122659	12.11
MC19632-1	25258	4.07	94087	5.06	58135	6.50	106779	7.85	115456	10.63	115773	12.11
MC19632-2	29988	4.07	113603	5.06	71544	6.50	129393	7.85	128490	10.63	119102	12.11
MC19632-3	28342	4.07	108000	5.06	67674	6.50	125474	7.85	137178	10.63	130338	12.11
ZZZZZZ	28251	4.07	104942	5.06	65503	6.50	120600	7.85	128660	10.63	122999	12.11
ZZZZZZ	39639	4.07	136342	5.08	100248	6.52	161076	7.89	181335	10.68	175415	12.16
ZZZZZZ	29263	4.07	109379	5.06	67969	6.50	115942	7.85	129595	10.63	130214	12.11
ZZZZZZ	23682	4.07	88933	5.06	56142	6.50	102349	7.85	121855	10.64	124738	12.11
ZZZZZZ	23684	4.07	88414	5.06	56940	6.50	102447	7.85	123417	10.64	126587	12.11
ZZZZZZ	25017	4.07	94201	5.06	58596	6.50	102958	7.85	123592	10.63	124483	12.12
ZZZZZZ	37961	4.07	144470	5.07	95476	6.52	158601	7.89	177093	10.66	160604	12.13
ZZZZZZ	22241	4.07	85352	5.06	55410	6.50	100120	7.86	134996	10.64	112190	12.11
ZZZZZZ	33057	4.07	118073	5.06	70430	6.50	118661	7.86	144290	10.64	126555	12.12
ZZZZZZ	35322	4.07	128474	5.06	76260	6.50	123870	7.85	151077	10.64	142464	12.12
ZZZZZZ	29592	4.07	107910	5.06	65827	6.50	113458	7.85	142128	10.64	123332	12.12

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.

7.3.1
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Semivolatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSF2951-CC2937	Injection Date: 04/17/13
Lab File ID: F63132.D	Injection Time: 08:15
Instrument ID: GCMSF	Method: SW846 8270C

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT										

(b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

Semivolatile Internal Standard Area Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Check Std: MSW531-CC505	Injection Date: 04/22/13
Lab File ID: W11395.D	Injection Time: 08:06
Instrument ID: GCMSW	Method: SW846 8270C

	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
Check Std	107653	3.58	408102	4.57	275298	5.99	472807	7.27	601244	10.13	555535	11.70
Upper Limit ^a	215306	4.08	816204	5.07	550596	6.49	945614	7.77	1202488	10.63	1111070	12.20
Lower Limit ^b	53827	3.08	204051	4.07	137649	5.49	236404	6.77	300622	9.63	277768	11.20

Lab	IS 1		IS 2		IS 3		IS 4		IS 5		IS 6	
Sample ID	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT	AREA	RT
MC19632-4	83062	3.58	320605	4.56	207774	5.98	378893	7.26	454974	10.12	456333	11.70

- IS 1 = 1,4-Dichlorobenzene-d4
- IS 2 = Naphthalene-d8
- IS 3 = Acenaphthene-D10
- IS 4 = Phenanthrene-d10
- IS 5 = Chrysene-d12
- IS 6 = Perylene-d12

(a) Upper Limit = + 100% of check standard area; Retention time + 0.5 minutes.
 (b) Lower Limit = -50% of check standard area; Retention time -0.5 minutes.

7.3.2
7

Semivolatile Surrogate Recovery Summary

Job Number: MC19632

Account: TYREEMA Tyree Organization Ltd.

Project: Getty 6852, 578 South Main Street, Middletown, CT

Method: SW846 8270C

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1	S2	S3
MC19632-1	F63146.D	80.0	66.0	70.0
MC19632-2	F63147.D	59.0	65.0	85.0
MC19632-3	F63148.D	64.0	63.0	80.0
MC19632-4	W11400.D	30.0	74.0	83.0
OP32657-BS	F63134.D	74.0	78.0	99.0
OP32657-MB	F63133.D	43.0	41.0	85.0

Surrogate Compounds

Recovery Limits

S1 = Nitrobenzene-d5

30-130%

S2 = 2-Fluorobiphenyl

30-130%

S3 = Terphenyl-d14

30-130%

GC Semi-volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries
- Surrogate Recovery Summaries



Method Blank Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32658-MB	BI20665.D	1	04/16/13	KN	04/14/13	OP32658	GBI737

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC19632-1, MC19632-2, MC19632-3, MC19632-4

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	ND	16	mg/kg	

CAS No.	Surrogate Recoveries	Limits
84-15-1	o-Terphenyl	58% 50-137%

Blank Spike Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
OP32658-BS	BI20667.D	1	04/16/13	KN	04/14/13	OP32658	GBI737

The QC reported here applies to the following samples:

Method: CT-ETPH 7/06

MC19632-1, MC19632-2, MC19632-3, MC19632-4

CAS No.	Compound	Spike mg/kg	BSP mg/kg	BSP %	Limits
	CT-ETPH (C9-C36)	45.2	29.0	64	60-120

CAS No.	Surrogate Recoveries	BSP	Limits
84-15-1	o-Terphenyl	64%	50-137%

8.2.1
8

* = Outside of Control Limits.

Semivolatile Surrogate Recovery Summary

Job Number: MC19632
Account: TYREEMA Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

Method: CT-ETPH 7/06

Matrix: SO

Samples and QC shown here apply to the above method

Lab Sample ID	Lab File ID	S1 ^a
MC19632-1	BI20715.D	63.0
MC19632-2	BI20711.D	74.0
MC19632-3	BI20683.D	62.0
MC19632-4	BI20713.D	64.0
OP32658-BS	BI20667.D	64.0
OP32658-MB	BI20665.D	58.0

Surrogate Compounds **Recovery Limits**

S1 = o-Terphenyl 50-137%

(a) Recovery from GC signal #1

8.3.1
8

Metals Analysis

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Matrix Spike and Duplicate Summaries
- Blank Spike and Lab Control Sample Summaries
- Serial Dilution Summaries

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date: 04/10/13

Metal	RL	IDL	MDL	MB raw	final
Aluminum	20	1.2	3.6		
Antimony	1.0	.11	.15		
Arsenic	1.0	.17	.21	-0.14	<1.0
Barium	5.0	.032	.073	0.080	<5.0
Beryllium	0.40	.01	.024		
Boron	10	.11	.11		
Cadmium	0.40	.025	.042	0.030	<0.40
Calcium	500	2.1	6.3		
Chromium	1.0	.048	.095	0.030	<1.0
Cobalt	5.0	.029	.047		
Copper	2.5	.093	.56		
Gold	5.0	.15	.43		
Iron	10	.35	.87		
Lead	1.0	.12	.17	-0.010	<1.0
Magnesium	500	3	5.1		
Manganese	1.5	.016	.04		
Molybdenum	10	.031	.07		
Nickel	4.0	.045	.044		
Palladium	5.0	.22	.64		
Platinum	5.0	.64	1.5		
Potassium	500	5.4	8.6		
Selenium	1.0	.17	.35	0.28	<1.0
Silicon	10	.2	3.3		
Silver	0.50	.081	.13	0.030	<0.50
Sodium	500	1.6	3.3		
Strontium	1.0	.012	.03		
Thallium	1.0	.13	.13		
Tin	10	.087	.14		
Titanium	5.0	.066	.14		
Tungsten	10	.93	.94		
Vanadium	1.0	.082	.13		
Zinc	2.0	.045	.16		
Zirconium	5.0	.045	.088		

9.1.1
9

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP20753: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
 Account: TYREEMA - Tyree Organization Ltd.
 Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 04/10/13 04/10/13

Metal	BSP Result	Spikelot MPICP	% Rec	QC Limits	BSD Result	Spikelot MPICP	% Rec	BSD RPD	QC Limit
Aluminum									
Antimony	anr								
Arsenic	47.1	50	94.2	80-120	47.5	50	95.0	0.8	20
Barium	184	200	92.0	80-120	187	200	93.5	1.6	20
Beryllium	anr								
Boron	anr								
Cadmium	48.1	50	96.2	80-120	48.8	50	97.6	1.4	20
Calcium									
Chromium	49.2	50	98.4	80-120	50.0	50	100.0	1.6	20
Cobalt									
Copper	anr								
Gold									
Iron									
Lead	92.8	100	92.8	80-120	95.8	100	95.8	3.2	20
Magnesium									
Manganese									
Molybdenum									
Nickel	anr								
Palladium									
Platinum									
Potassium									
Selenium	44.6	50	89.2	80-120	45.4	50	90.8	1.8	20
Silicon									
Silver	18.9	20	94.5	80-120	19.1	20	95.5	1.1	20
Sodium									
Strontium									
Thallium	anr								
Tin									
Titanium	anr								
Tungsten									
Vanadium	anr								
Zinc	anr								
Zirconium									

9.1.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP20753: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
 Account: TYREEMA - Tyree Organization Ltd.
 Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: mg/kg

Prep Date: 04/10/13

Metal	LCS Result	Spikelot MPLCS78	% Rec	QC Limits
Aluminum				
Antimony	anr			
Arsenic	96.3	94.5	101.9	82-117
Barium	166	166	100.0	83-116
Beryllium	anr			
Boron	anr			
Cadmium	62.1	59.9	103.7	84-116
Calcium				
Chromium	69.1	69.3	99.7	81-119
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	92.3	91.7	100.7	82-118
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	158	159	99.4	79-121
Silicon				
Silver	33.5	33.9	98.8	66-134
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium	anr			
Tungsten				
Vanadium	anr			
Zinc	anr			
Zirconium				

9.1.2
9

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: mg/kg

Prep Date:

Metal

Associated samples MP20753: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SERIAL DILUTION RESULTS SUMMARY

Login Number: MC19632
 Account: TYREEMA - Tyree Organization Ltd.
 Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date: 04/10/13

Metal	MC19662-2 Original	SDL 1:5	%DIF	QC Limits
Aluminum				
Antimony	anr			
Arsenic	6.80	11.1	63.2 (a)	0-10
Barium	186	187	0.4	0-10
Beryllium	anr			
Boron	anr			
Cadmium	1.60	2.00	25.0 (a)	0-10
Calcium				
Chromium	94.8	101	6.2	0-10
Cobalt				
Copper	anr			
Gold				
Iron				
Lead	52.6	58.8	11.8 (a)	0-10
Magnesium				
Manganese				
Molybdenum				
Nickel	anr			
Palladium				
Platinum				
Potassium				
Selenium	2.10	0.00	100.0 (a)	0-10
Silicon				
Silver	0.00	0.00	NC	0-10
Sodium				
Strontium				
Thallium	anr			
Tin				
Titanium	anr			
Tungsten				
Vanadium	anr			
Zinc	anr			
Zirconium				

9.1.3
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SERIAL DILUTION RESULTS SUMMARY

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20753: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes

(*) Outside of QC limits

(anr) Analyte not requested

(a) Percent difference acceptable due to low initial sample concentration (< 50 times IDL).

POST DIGESTATE SPIKE SUMMARY

Login Number: MC19632
 Account: TYREEMA - Tyree Organization Ltd.
 Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
 Matrix Type: SOLID

Methods: SW846 6010C
 Units: ug/l

Prep Date:

04/10/13

Metal	Sample ml	Final ml	MC19662-2 Raw	PS Corr.** ug/l	Spike ml	Spike ug/ml	Spike ug/l	% Rec	QC Limits
Aluminum									
Antimony									
Arsenic									
Barium									
Beryllium									
Boron									
Cadmium									
Calcium									
Chromium									
Cobalt									
Copper									
Gold									
Iron									
Lead									
Magnesium									
Manganese									
Molybdenum									
Nickel									
Palladium									
Platinum									
Potassium									
Selenium									
Silicon									
Silver									
Sodium									
Strontium									
Thallium									
Tin									
Titanium									
Tungsten									
Vanadium									
Zinc									
Zirconium									

9.1.4
9

POST DIGESTATE SPIKE SUMMARY

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20753
Matrix Type: SOLID

Methods: SW846 6010C
Units: ug/l

Prep Date:

Metal

Associated samples MP20753: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(**) Corr. sample result = Raw * (sample volume / final volume)
(anr) Analyte not requested

BLANK RESULTS SUMMARY
Part 2 - Method Blanks

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20788
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/17/13

Metal	RL	IDL	MDL	MB	
				raw	final
Mercury	0.033	.0087	.0097	-0.0053	<0.033

Associated samples MP20788: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
 Account: TYREEMA - Tyree Organization Ltd.
 Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20788
 Matrix Type: SOLID

Methods: SW846 7471B
 Units: mg/kg

Prep Date: 04/17/13 04/17/13

Metal	BSP Result	Spikelot HGRWS1	% Rec	QC Limits	BSD Result	Spikelot HGRWS1	% Rec	BSD RPD	QC Limit
Mercury	0.48	0.5	96.0	80-120	0.48	0.5	96.0	0.0	30

Associated samples MP20788: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
 (*) Outside of QC limits
 (anr) Analyte not requested

SPIKE BLANK AND LAB CONTROL SAMPLE SUMMARY

Login Number: MC19632
Account: TYREEMA - Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT

QC Batch ID: MP20788
Matrix Type: SOLID

Methods: SW846 7471B
Units: mg/kg

Prep Date: 04/17/13

Metal	LCS Result	Spikelot HGLCS78	% Rec	QC Limits
Mercury	3.8	4.05	93.8	72-128

Associated samples MP20788: MC19632-1, MC19632-2, MC19632-3, MC19632-4

Results < IDL are shown as zero for calculation purposes
(*) Outside of QC limits
(anr) Analyte not requested

SUBSURFACE DELINEATION INVESTIGATION REPORT

**Getty Station No. 6852
578 South Main Street
Middletown, Connecticut**

December 7, 2012

Prepared for:

**Getty Realty Corporation
125 Jericho Turnpike, Suite 103
Jericho, New York 11753**

Prepared by:

**Tyree
7 Viking Road
Webster, Massachusetts 01570**

Subsurface Delineation Investigation Report

**Getty Station No. 6852
578 South Main Street
Middletown, Connecticut**

Quality Assurance/Quality Control

The following personnel have reviewed this report for accuracy of content:



John J. Liddon
Tyree
Environmental Project Manager

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- Table 2 - Soil Analytical Summary - PAHs
- Table 3 - Soil Analytical Summary - PCBs
- Table 4 - Soil Analytical Summary - ETPH
- Table 5 - Soil Analytical Summary - Metals
- Table 6 - Groundwater Gauging Data

- Appendix A** - Boring Logs
- Appendix B** - Laboratory Reports

1.0 INTRODUCTION

Tyree has prepared a *Subsurface Delineation Investigation Report* for the Getty Service Station No. 6852 located at 578 South Main Street in Middletown, Connecticut. Previous environmental investigations have identified a waste oil plume on the southwest portion of the site. The objective of this investigation was to delineate waste oil impacted soil to guide future remediation at the site.

2.0 SITE OVERVIEW

The subject property, located in a mixed commercial/residential zoned area at the corner of South Main Street (CT Route 17) and Norfolk Street, is an approximately 15,420 Square foot parcel that operates as a gasoline refueling station. **Figure 1** depicts the site location in relation to regional features.

The service station operates with a 1,134 square foot single-story masonry building, three (3) gasoline underground storage tanks (USTs), two (2) multi-product dispensers (MPDs) and a canopy. The UST system consists of a 6,000, an 8,000 and a 10,000-gallon USTs. **Figure 2** depicts the location of the USTs, dispensers and other site features.

3.0 ENVIRONMENTAL SETTING

3.1 Topography

The topography of the subject property slopes gently downward from northeast to southwest with a dramatic increase in slope on the adjacent southwest property, finally leveling near the bank of the Long Hill Brook. **Figure 1** depicts regional topography.

3.2 Water Quality Classification

The subject property is located within a GB groundwater area, according to the Connecticut Department of Energy and Environmental Protection's (CTDEEP) *Current Water Quality Classification* map. The GB classification is designated for groundwater within highly urbanized areas of intense industrial activities where municipal water supplies exist. GB-classified groundwater may not be suitable for direct human consumption due to historic waste discharges and land use impacts.

Multiple surface water bodies in the area (Long Hill Brook, Pameacha Pond and Zoar Pond) are classified as class A surface water by the CTDEEP *Current Water Quality Classification* map. Class A surface water is known or presumed to meet water quality criteria which support the following uses: potential drinking water supply, fish and wildlife habitat, recreational use, agriculture, industrial supply and other legitimate uses including navigation.

The portion of Sumner Brook located directly east of the site is classified as A with a transition to class B further down stream. Class B surface water body designated uses are: fish and wildlife habitat, recreational activities, agricultural and industrial supply and navigation.

3.3 Geology

Surficial geology in the vicinity of the subject property is described on the *Surficial Materials Map of Connecticut* (Stone, et al, 1992) as well sorted, thin layers of alternating silt and clay or thicker layers of very fine sand and silt. Very fine sand typically occurs at the surface and grades downward into rhythmically bedded silt and clay varves (lake bottom deposits). These deposits originated from glacial meltwater during the Late Pleistocene.

Soil logging of borings advanced at the site indicate that unconsolidated soils consist of predominately medium to fine grained sand with varying amounts of gravel and increasing amounts of silt and clay with depth.

The underlying bedrock is identified on the *Bedrock Geological Map of Connecticut* (J. Rodgers, 1985) as the Portland Arkose, a stratified, sedimentary, reddish-brown to maroon micaceous arkose and siltstone and red to black fissile silty shale. Bedrock has not been encountered during subsurface investigation activities conducted at the site.

3.4 Hydrogeology

Water level gauging data collected since 2010 was used to model the potentiometric surface and estimate groundwater flow direction. Groundwater flow direction was consistently to the south and southwest across the site.

During the most recent sampling event on October 5th, 2012, depth to groundwater ranged from 4.15 feet below well casing at well MW-3 to 5.55 feet below well casing at well GP-3. According to the October 2012 gauging data, the Hydraulic gradient is approximately 0.006 ft/ft as measured from MW-15 to GP-3.

3.5 Potential Sensitive Receptors

The nearest surface water body is Long Hill Brook that runs along the southern boundary of the property and empties into Pameacha Pond located approximately 75 feet west of the site. Addition surface water bodies in the area include; Zoar Pond 2,000 feet to the south, and Sumner Brook located 4,600 feet to the east eventually emptying into the Connecticut River.

4.0 SUBSURFACE DELINEATION INVESTIGATION

Tyree conducted subsurface investigation activities at the subject property in October and November 2012. The following section details the rationale and methods of the investigation.

4.1 Rationale

The objective of this investigation was to delineate waste oil impacted soil to guide future remediation at the site.

4.2 Soil Boring Advancement and Sampling

Between October 31 and November 1, 2012, Crawford Drilling Services of Westminister, Massachusetts, under the supervision of Tyree, advanced thirteen on-site soil borings (SB-1 through SB-13). A site plan depicting soil boring locations and monitoring well locations is presented as **Figure 2**.

Prior to drilling activities each location was vacuum-excavated to five feet below ground surface (bgs) to confirm that subsurface structures and/or utilities were avoided during soil boring advancement. Soil samples were collected every two feet using a hand auger during the vacuum excavation process.

Soil borings were advanced using a track-mounted, model 7822 DT Geoprobe®, direct push system. All soil borings were advanced to approximately 15 feet bgs. Continuous soil samples were collected with a macro-core sampler at five-foot intervals from approximately 5 feet bgs to the terminal depth of 15 feet bgs. Details on soil boring advancement and lithology are presented in the boring logs as **Appendix A**.

Upon soil recovery, a staff scientist visually inspected, characterized, and screened the soil samples and containerized select sections of the soil cores for laboratory analysis. The samples were screened for VOCs utilizing a photoionization detector (PID) equipped with a 10.6 electron volt (eV) lamp calibrated to an isobutylene standard to yield total VOCs in parts per million by volume (ppmv), referenced to benzene. Additionally, soil samples were screened using a OilScreenSoil (Scarlett)TM test kit to identify soils containing greater than 500 parts per million (ppm) of Total Petroleum Hydrocarbons (TPH). It is important to note that PID and the OilScreenSoil screening values are qualitative measurements only, and are not necessarily indicative of actual concentrations in soil, as determined by laboratory analysis. The PID/OilScreenSoil soil screening results are presented on the boring logs in **Appendix A**. Based on PID/OilScreenSoil response and field analysis, select soil samples were submitted for laboratory analysis.

4.3 Soil Sample Collection

Select soil samples collected during this investigation were submitted to Accutest Laboratories (Accutest) of Marlborough, Massachusetts for analysis of the following constituents of concern (COCs):

- Volatile organic compounds (VOCs) and methyl tertiary-butyl ether (MTBE) via Environmental Protection Agency (EPA) Method 8260
- Total and Synthetic Precipitate Leaching Procedure (SPLP) Resource Conservation and Recovery Act (RCRA) Metals via EPA Method 6010
- Extractible Total Petroleum Hydrocarbons (ETPH) via CT ETPH

- Polychlorinated biphenyls (PCBs) via EPA Method 8082
- Semi-volatile organic compounds (SVOCs) via EPA Method 8270

5.0 REGULATORY EVALUATION

5.1 Regulatory Applicability

Laboratory analytical results of soil samples were compared with the applicable numeric criteria defined in the CTDEEP Remediation Standard Regulations (RSRs), as set forth in Regulations of Connecticut State Agencies (RCSA) sections 22a-133k-(1-3).

5.1.1 Soil

The CTDEEP RSR criteria applicable to soil at the subject property include:

- Residential Direct Exposure Criteria (Res DEC), which apply to soil within 15 feet of the ground surface, regardless of the depth of the water table.
- GB Pollutant Mobility Criteria (GB PMC), which apply to soil above the seasonal high water table in areas of GB groundwater classification.

Soil analytical results were compared to these criteria in determining the regulatory status of the soil at the subject property.

5.1.2 Groundwater

The CTDEEP RSR criteria applicable to groundwater at the subject property include:

- Surface Water Protection Criteria (SWPC), which apply to a groundwater plume at the point where the plume discharges to a surface water body.
- Residential Volatilization Criteria (Res Vol), which apply to groundwater within 15 feet of the ground surface.

The Res Vol criteria is applicable to groundwater at the site, due to the lack of an environmental land use restriction (ELUR), preventing future redevelopment of the property for residential use.

Groundwater analytical data was not evaluated as part of this investigation. Details of current groundwater conditions are reported under a separate cover.

6.0 DELINEATION INVESTIGATION RESULTS

6.1 Soil Sampling Analytical Results

A total of seventeen soil samples were collected from thirteen soil boring locations during delineation investigation activities, and submitted for laboratory analysis of appropriate COCs in accordance with the CTDEEP *Site Characterization Guidance Document* (CTDEP September, 2007). Laboratory analytical results, as compared to the applicable RSR criteria, indicated the following:

- One soil sample [SB-8(4-4.5)] contained concentrations of benzene that did not meet the GB PMC.
- Eight soil samples [SB-1(4-4.5), SB-1(5-10), SB-2(4-4.5), SB-3(5-10), SB-4(4-4.5), SB-7(5-10), SB-8(4-4.5), SB-10(4-4.5)] contained concentrations of one or more SVOC compound that did not meet the Res DEC and/or the GB PMC.
- Four soil samples [SB-4(4-4.5), SB-7(5-10), SB-8(4-4.5), SB-10(4-4.5)] contained concentrations of ETPH that did not meet the Res DEC and/or the GB PMC.
- The laboratory reporting limits for one or more VOC compounds exceeded regulatory criteria in soil samples SB-4(4-4.5), SB-8(4-4.5), SB-10(4-4.5). No determination of compliance can be completed for these compounds at these boring locations.

A summary of soil analytical data from this investigation is presented in **Table 2** through **Table 5**. A soil conditions map is presented as **Figure 3**. Complete laboratory analytical reports are included in **Appendix B**.

7.0 SUMMARY OF SIGNIFICANT FINDINGS AND CONCEPTUAL SITE MODEL

The analytical data collected during this subsurface delineation investigation, as well as historical soil and groundwater analytical data, indicate that two separate historical releases have occurred at the site. Gasoline related COCs have been detected in soil and groundwater hydraulically downgradient/cross-gradient of the current location of the gasoline dispensers and product piping. Historical data and results of this delineation investigation suggest that a waste oil release had occurred, possibly beneath the southeastern portion of the existing on-site building and that free-phase used-oil continues to emanate from the south corner of the on-site building. The latest groundwater sampling event (October 5th, 2012) revealed light non-aqueous phase liquid (LNAPL) at detectable thicknesses in the following monitoring wells:

- MW-4 (LNAPL thickness = 0.01 ft)
- MW-5 (LNAPL thickness = 0.02 ft)
- MW-11 (LNAPL thickness = 0.01 ft)

A summary of groundwater gauging data is presented in **Table 6** and an approximation of the LNAPL plume is presented as **Figure 4**.

As depicted on the soil conditions map (**Figure 3**), waste-oil related COCs are present in soil across a wide area of the southwestern portion of the property. Soil screening and laboratory analytical data indicate that waste-oil impacted soil is delineated laterally to the southwest by soil borings SB-9, SB-11, SB-12 and SB-13. However, the lateral extent of waste-oil impact soil to the southeast, north and northwest is unknown. Generally, waste-oil impact to soil is limited vertically between approximately 2.5 feet bgs and 10 feet bgs.

8.0 RECOMMENDATIONS

The following conclusions and recommendations are provided based on information gained from this and former investigations:

- Evaluate the need for an inland wetlands permit and obtain, if necessary.

- Complete a remedial excavation to a depth of 10 feet bgs, extending to the southwest as far as MW-7 and to the extent possible to the southeast, along the station building and to the northwest.
- During remedial excavation activities, install an interceptor trench or a series of recovery wells for the purposes of installing skimmers or employing other LNAPL recovery techniques to capture any residual LNAPL emanating from beneath the building.
- Continue enhance fluid recovery (EFR) events on monitoring wells within the gasoline COC groundwater plume (MW-6, MW-10, MW-12).

9.0 DISCLAIMER

This Subsurface Delineation Investigation Report was prepared for the use of Getty Realty Corporation and/or its designated agents. The staff of Tyree in performing fieldwork and writing this report exercised due diligence according to industry standards. The conclusions provided by Tyree in this report are based solely on the information reported in this document. Future investigative site information, which was not available to Tyree at the time of this report, may result in a modification of the conclusions stated above. The conclusions presented are based upon the current regulatory climate and may require revision if future regulatory changes occur. This delineation investigation and report have been conducted in accordance with generally accepted practices. No other warranty, expressed or implied is made.

Tyree

7 Viking Road, Webster, MA 01570 · Fax: 508-640-0301 · Phone: 508-640-0300

June 21, 2013

Mr. Ben Rieger
Antea Group
c/o Getty Realty Corp.
125 Jericho Turnpike, Suite 103
Jericho, New York 11753

**Re: First Semi-Annual 2013 Groundwater Monitoring Report
Getty Service Station No. 6852
578 South Main Street
Middletown, Connecticut**

Dear Mr. Rieger:

Tyree performed monitoring and sampling activities at the above-referenced location during the first quarter of 2013 (January 1 through March 31). These activities included:

- Fluid-level gauging of monitoring wells (MW) MW-4, MW-5, MW-8, MW-11, MW-14, MW-15, and GP-3 and with an oil/water interface probe;
- Sampling of monitoring wells MW-3, MW-6, MW-13, and GP-2;
- Laboratory analysis for volatile organic compounds (VOCs) according to Environmental Protection Agency (EPA) Method 8260B in all groundwater samples
- Laboratory analysis for polycyclic aromatic hydrocarbons (PAH) by EPA 8270, Extractable Total Petroleum Hydrocarbons (ETPH) , RCRA 8 metals, and Polychlorinated Biphenyls (PCBs) in GP-2;
- Five (5) Enhanced Fluid Recovery (EFR) events using a vac truck on MW-6, MW-10, and MW-12.

Tyree performed the sampling event on March 22, 2013. Prior to well evacuation and sampling activities, the wells were gauged for depth to groundwater and for the presence of light nonaqueous phase liquid (LNAPL). LNAPL was present in MW-4, MW-5, MW-11, MW-14, MW-15 and GP-3 during this site visit. Depth to groundwater ranged from 4.25 feet below grade (fbg) in monitoring well MW-4 to 5.21 fbg in monitoring well GP-3. A site map, depicting monitoring well locations is included as **Figure 1**. Historic groundwater elevations included in **Table 1** were utilized to show the general direction in which groundwater flows on site (**Figure 1**). Anomalies in the groundwater gauging data, collected during the March 22, 2013 sampling event, prevented the construction of a groundwater contour map. The Connecticut Department of Energy and Environmental Protection (CTDEEP) classifies the groundwater beneath the site as GB.

Getty Service Station No. 6852
578 South Main Street
Middletown, Connecticut

After calculating the purge volume of water for each monitoring well, a peristaltic pump was utilized to purge groundwater in effort to reduce turbidity and minimize total suspended particulates in groundwater samples. Groundwater samples collected from select monitoring wells on March 22, 2013 were submitted under standard chain-of-custody procedures to Accutest Laboratories of New England (Accutest) located in Marlborough, Massachusetts. Accutest is a Connecticut state certified laboratory (PH-0109).

The Laboratory analytical data for the March 22, 2013 sampling event is summarized in **Table 2** through **Table 6** and a copy of the complete laboratory results is included as **Appendix A**.

EFR events were performed on monitoring wells MW-6, MW-10 and MW-12 between January and May of 2013. The volume of liquid recovered from these monitoring wells was 8,230 gallons. These EFR events are summarized in **Table 7**.

If you have any questions or concerns regarding this document, please do not hesitate to contact our office at your earliest convenience.

Sincerely,
Tyree



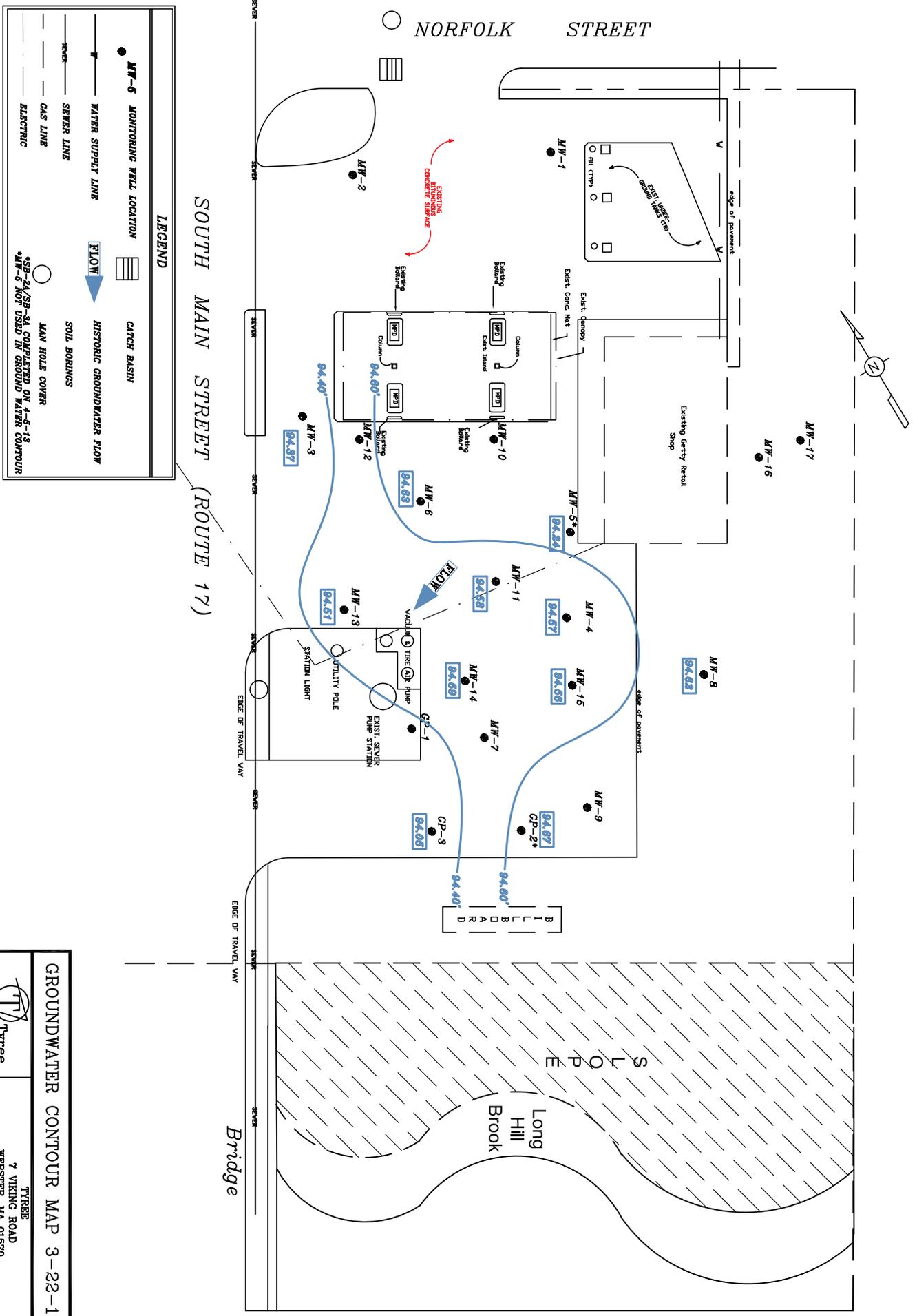
Kristopher Plante
Environmental Scientist I



John Liddon
Environmental Project Manager

Attachments:

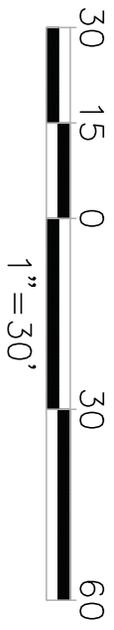
- Figure 1 – Groundwater Elevation Contour Map
- Table 1 – Historical Groundwater Gauging Data
- Table 2 – Historical Groundwater Analytical Summary: BTEX & MTBE
- Table 3 – Volatile Organic Compounds - 8260
- Table 4 – Semi-volatiles 8270C
- Table 5 – CT Polychlorinated Biphenyls (PCB)
- Table 6 – Total Metals Analysis
- Table 7 – Summary of EFR Events
- Appendix A – Groundwater Laboratory Report (March 22, 2013)



GROUNDWATER CONTOUR MAP 3-22-13

PROJECT: TYTREE
 7 VIKING ROAD
 WEBSSTER, MA 01570
 TEL: (508) 546-0500 FAX: (508) 546-0501

PRODUCT: GETTY SERVICE STATION NO. 6852
 LOCATION: 578 SOUTH MAIN STREET
 MIDDLETOWN, CT



SOUTH MAIN STREET (ROUTE 17)

NORFOLK STREET

Long Hill Brook

Bridge

B I L L B O R D A R D

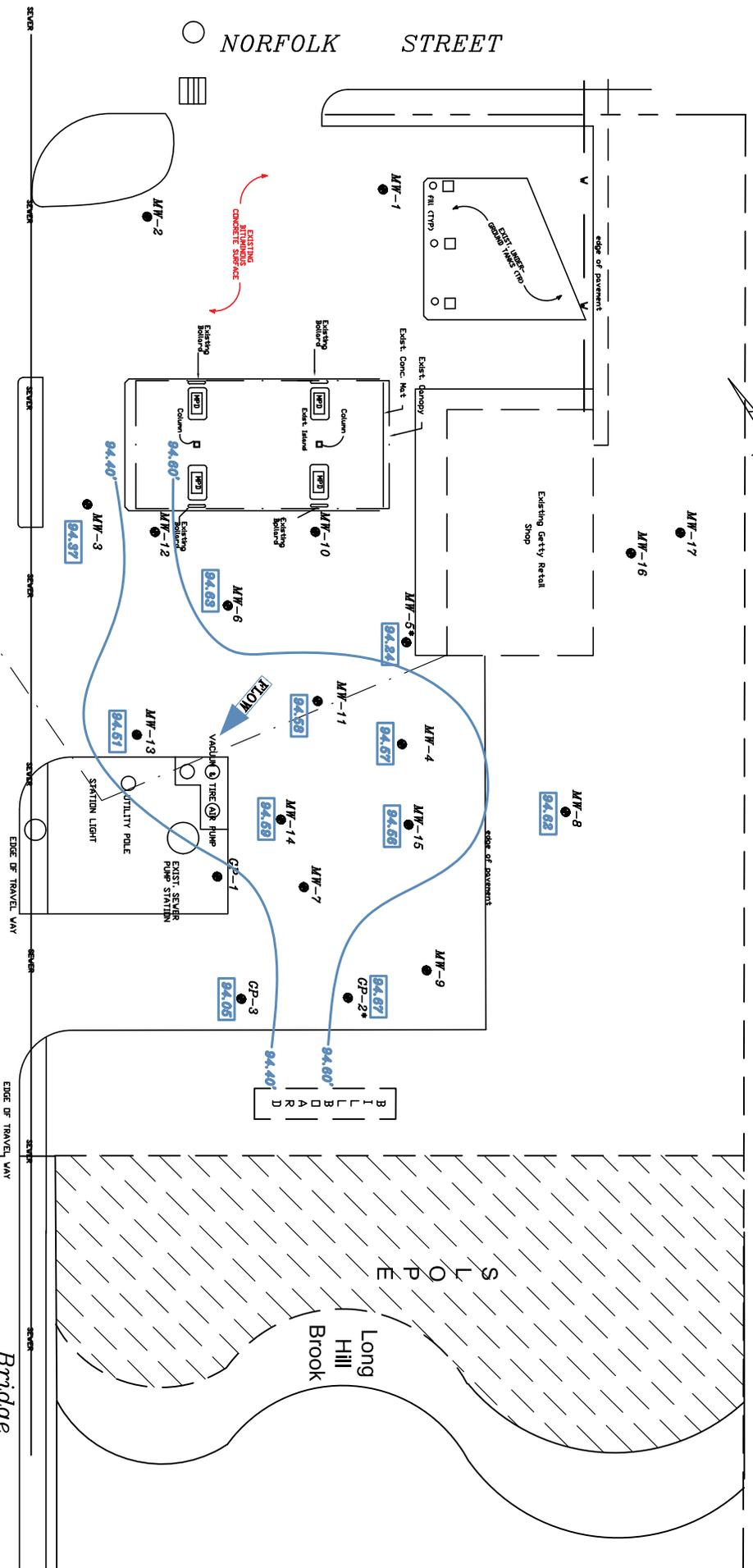


Table 1
Historical Groundwater Gauging Table (January 2010 through Present)
Getty Station No. 6852
578 S. Main St.
Middletown, Connecticut

Well ID	Date	Casing Elevation	Depth to Water	Depth to NAPL	NAPL Thickness	Groundwater Elevation
MW-2	10/5/2010	97.61	3.43	NP	NP	94.18
	11/2/2010	97.61	4.27	NP	NP	93.34
	12/31/2010	97.61	3.78	NP	NP	93.83
	1/29/2011	97.61	ice cov.	NA	NA	NA
	2/24/2011	97.61	ice cov.	NA	NA	NA
	3/22/2011	97.61	3.40	NP	NP	94.21
	5/4/2012	97.61	3.92	NP	NP	93.69
	10/5/2012	97.61	4.28	NP	NP	93.33
	3/22/2013	NM	NM	NM	NM	NM
MW-3	10/5/2010	97.92	4.07	NP	NP	93.85
	11/2/2010	97.92	4.58	NP	NP	93.34
	12/31/2010	97.92	4.32	NP	NP	93.60
	1/29/2011	97.92	ice cov.	NA	NA	NA
	2/24/2011	97.92	3.72	NP	NP	94.20
	3/22/2011	97.92	3.94	NP	NP	93.98
	5/4/2012	97.92	3.57	NP	NP	94.35
	10/5/2012	97.92	4.15	NP	NP	93.77
	3/22/2013	97.96	3.59	NP	NP	94.37
MW-4	10/5/2010	98.69	5.24	NP	NP	93.45
	11/2/2010	98.69	4.50	NP	NP	94.19
	12/31/2010	98.69	5.06	5.05	0.01	93.64
	1/29/2011	98.69	4.87	NP	NP	93.82
	2/24/2011	98.69	4.46	NP	NP	94.23
	3/22/2011	98.69	4.36	NP	NP	94.33
	5/4/2012	98.69	4.51	4.21	0.30	94.41
	10/5/2012	98.69	4.95	4.94	0.01	93.75
	3/22/2013	98.82	4.25	4.24	0.00	94.57
MW-5	10/5/2010	99.04	5.68	NP	NP	93.36
	11/2/2010	99.04	4.82	NP	NP	94.22
	12/31/2010	99.04	5.39	NP	NP	93.65
	1/29/2011	99.04	4.93	NP	NP	94.11
	2/24/2011	99.04	4.84	NP	NP	94.20
	3/22/2011	99.04	4.96	NP	NP	94.08
	5/4/2012	99.04	4.50	4.18	0.32	94.78
	10/5/2012	99.04	5.30	5.28	0.02	93.76
	3/22/2013	99.06	4.82	4.74	0.08	94.24
MW-6	10/5/2010	98.69	5.08	NP	NP	93.61
	11/2/2010	98.69	4.30	NP	NP	94.39
	12/31/2010	98.69	4.89	NP	NP	93.80
	1/29/2011	98.69	5.05	NP	NP	93.64
	2/24/2011	98.69	4.34	4.16	0.18	94.49
	3/22/2011	98.69	4.19	NP	NP	94.50
	5/4/2012	98.69	4.69	4.68	0.01	94.01
	10/5/2012	98.69	4.79	NP	NP	93.90
	3/22/2013	98.68	4.05	NP	NP	94.63

Table 1
Historical Groundwater Gauging Table (January 2010 through Present)
Getty Station No. 6852
578 S. Main St.
Middletown, Connecticut

MW-7	1/15/2010	99.09	5.23	5.22	0.01	93.87
	2/24/2010	99.09	3.95	NP	NP	95.14
	3/25/2010	99.09	4.01	4.01	0.00	95.08
	4/19/2010	99.09	4.98	NP	NP	94.11
	5/28/2010	99.09	5.45	5.44	0.01	93.65
	6/29/2010	99.09	5.90	NP	NP	93.19
	7/20/2010	99.09	5.92	NP	NP	93.17
	8/18/2010	99.09	6.14	NP	NP	92.95
	10/5/2010	99.09	5.58	NP	NP	93.51
	11/2/2010	99.09	4.79	NP	NP	94.30
	12/31/2010	99.09	5.38	NP	NP	93.71
	1/29/2011	99.09	5.22	NP	NP	93.87
	2/24/2011	99.09	4.77	NP	NP	94.32
	3/22/2011	99.09	4.64	NP	NP	94.45
	5/4/2012	99.09	4.41	NP	NP	94.68
	10/5/2012	99.09	5.26	NP	NP	93.83
3/22/2013	NM	NM	NM	NM	NM	
MW-8	1/15/2010	98.47	4.63	NP	NP	93.84
	2/24/2010	98.47	3.08	NP	NP	95.39
	3/25/2010	98.47	3.38	NP	NP	95.09
	4/19/2010	98.47	4.41	NP	NP	94.06
	5/28/2010	98.47	4.81	NP	NP	93.66
	6/29/2010	98.47	5.25	NP	NP	93.22
	7/20/2010	98.47	5.16	NP	NP	93.31
	8/18/2010	98.47	5.34	NP	NP	93.13
	10/5/2010	98.47	5.01	NP	NP	93.46
	11/2/2010	98.47	5.16	NP	NP	93.31
	12/31/2010	98.47	NM	NM	NM	NM
	1/29/2011	98.47	ice cov.	NA	NA	NA
	2/24/2011	98.47	ice cov.	NA	NA	NA
	3/22/2011	98.47	3.74	NP	NP	94.73
	5/4/2012	98.47	5.08	5.07	0.01	93.40
	10/5/2012	98.47	4.63	NP	NP	93.84
3/22/2013	98.53	3.91	NP	NP	94.62	
MW-9	1/15/2010	99.04	5.38	NP	NP	93.66
	2/24/2010	99.04	4.32	NP	NP	94.72
	3/25/2010	99.04	4.13	NP	NP	94.91
	4/19/2010	99.04	5.16	NP	NP	93.88
	5/28/2010	99.04	5.61	NP	NP	93.43
	6/29/2010	99.04	5.91	NP	NP	93.13
	7/20/2010	99.04	5.75	NP	NP	93.29
	8/18/2010	99.04	5.97	NP	NP	93.07
	10/5/2010	99.04	5.74	NP	NP	93.30
	11/2/2010	99.04	4.96	NP	NP	94.08
	12/31/2010	99.04	5.53	NP	NP	93.51
	1/29/2011	99.04	ice cov.	NA	NA	NA
	2/24/2011	99.04	ice cov.	NA	NA	NA
	3/22/2011	99.04	4.79	NP	NP	94.25
	5/4/2012	99.04	5.44	NP	NP	93.60
	10/5/2012	99.04	5.38	NP	NP	93.66
3/22/2013	NM	NM	NM	NM	NM	
GP-1	1/15/2010	99.09	5.53	NP	NP	93.56
	2/24/2010	99.09	4.73	NP	NP	94.36
	3/25/2010	99.09	4.40	NP	NP	94.69
	4/19/2010	99.09	5.31	NP	NP	93.78
	5/28/2010	99.09	5.57	NP	NP	93.52
	6/29/2010	99.09	5.93	NP	NP	93.16
	7/20/2010	99.09	5.85	NP	NP	93.24
	8/18/2010	99.09	6.03	NP	NP	93.06
	10/5/2010	99.09	5.66	NP	NP	93.43
	11/2/2010	99.09	6.86	NP	NP	92.23
	12/31/2010	99.09	NM	NM	NM	NM
	1/29/2011	99.09	ice cov.	NA	NA	NA
	2/24/2011	99.09	ice cov.	NA	NA	NA
	3/22/2011	99.09	4.85	NP	NP	94.24
	5/4/2012	99.09	5.40	NP	NP	93.69
	10/5/2012	99.09	5.46	NP	NP	93.63
3/22/2013	99.20	NM	NM	NM	NM	

Table 1
Historical Groundwater Gauging Table (January 2010 through Present)
Getty Station No. 6852
578 S. Main St.
Middletown, Connecticut

GP-2	1/15/2010	99.18	5.23	NP	NP	93.95
	2/24/2010	99.18	NM	NM	NM	NM
	3/25/2010	99.18	3.99	NP	NP	95.19
	4/19/2010	99.18	5.34	NP	NP	93.84
	5/28/2010	99.18	5.54	NM	NM	NM
	6/29/2010	99.18	6.07	NP	NP	93.11
	7/20/2010	99.18	5.87	NP	NP	93.31
	8/18/2010	99.18	NM	NM	NP	NM
	10/5/2010	99.18	5.61	NP	NP	93.57
	11/2/2010	99.18	4.73	NP	NP	94.45
	12/31/2010	99.18	5.38	NP	NP	93.80
	1/29/2011	99.18	ice cov.	NA	NA	NA
	2/24/2011	99.18	ice cov.	NA	NA	NA
	3/22/2011	99.18	4.63	NP	NP	94.55
	5/4/2012	99.18	5.13	NP	NP	94.05
	10/5/2012	99.18	5.48	NP	NP	93.70
3/22/2013	99.18	4.51	NP	NP	94.67	
GP-3	1/15/2010	99.04	5.55	5.54	0.01	93.50
	2/24/2010	99.04	3.30	3.30	0.00	95.74
	3/25/2010	99.04	4.11	4.11	0.00	94.93
	4/19/2010	99.04	5.04	NP	NP	94.00
	5/28/2010	99.04	5.64	5.62	0.02	93.42
	6/29/2010	99.04	6.05	5.95	0.10	93.07
	7/20/2010	99.04	6.11	NP	NP	92.93
	8/18/2010	99.04	6.03	NP	NP	93.01
	10/5/2010	99.04	5.84	NP	NP	93.20
	11/2/2010	99.04	4.92	NP	NP	94.12
	12/31/2010	99.04	5.62	NP	NP	93.42
	1/29/2011	99.04	ice cov.	NA	NA	NA
	2/24/2011	99.04	ice cov.	NA	NA	NA
	3/22/2011	99.04	4.92	NP	NP	94.12
	5/4/2012	99.04	5.09	5.01	0.08	94.01
	10/5/2012	99.04	5.55	NP	NP	93.49
3/22/2013	99.21	5.21	5.14	0.07	94.05	
MW-10	10/5/2012	98.71	5.25	NP	NP	93.46
	3/22/2013	NM	NM	NM	NM	NM
MW-11	10/5/2012	98.71	5.11	5.10	0.01	93.61
	3/22/2013	98.97	4.39	4.37	0.02	94.58
MW-12	10/5/2012	98.30	4.79	NP	NP	93.51
	3/22/2013	NM	NM	NM	NM	NM
MW-13	10/5/2012	98.60	5.15	NP	NP	93.45
	3/22/2013	98.97	4.46	NP	NP	94.51
MW-14	10/5/2012	98.64	5.21	NP	NP	93.43
	3/22/2013	99.07	4.48	4.46	0.02	94.59
MW-15	10/5/2012	99.12	5.35	NP	NP	93.77
	3/22/2013	99.21	4.65	4.63	0.02	94.56

Notes: All elevations are in feet, NA=Not Applicable, NS = Not Surveyed,
 NP = no product, NM = not measured, all measurements in feet. * - absorbent sock in well

TOC: Top of Casing

Table 2
Historical Groundwater Analytical Summary: BTEX & MTBE
 Getty Station No. 6852
 578 South Main St.
 Middletown, Connecticut

Well ID (GW Category)	Date	BTEX & MTBE Compounds					
		Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX	MTBE
Res Vol Criteria (ppb)		215	23,500	50,000	21,300	NE	50,000
SWPC Criteria (ppb)		710	4,000,000	580,000	NE	NE	NE
MW-1 (GB)	08/21/02	ND	ND	ND	ND	0.00	ND
	11/20/02	ND	ND	ND	ND	0.00	4.17
	05/06/03	NS	NS	NS	NS	0.00	NS
	08/14/03	NS	NS	NS	NS	0.00	NS
	05/30/04	NS	NS	NS	NS	0.00	NS
	08/31/04	NS	NS	NS	NS	0.00	NS
	12/02/04	NS	NS	NS	NS	0.00	NS
	02/23/05	NS	NS	NS	NS	0.00	NS
	05/25/05	NS	NS	NS	NS	0.00	NS
08/24/05	NS	NS	NS	NS	0.00	NS	
		DESTROYED					
MW-2 (GB)	09/02/09	ND	ND	ND	ND	0.00	10.1
	12/09/09	ND	ND	ND	ND	0.00	8.96
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	2.25	1.63	4.44	2.82	11.14	1.3
	10/05/10	ND	ND	ND	ND	0.00	14.8
	12/31/10	ND	ND	ND	ND	0.00	4.38
	03/22/11	23.2	11.1	67.6	15.4	117.30	ND
	05/04/12	7.70	6.40	16.60	9.50	40.20	5.1
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	9.3
	03/22/13	NS	NS	NS	NS	NS	NS
MW-3 (GB)	09/02/09	1.46	2.60	ND	3.53	7.59	4.55
	12/09/09	4.07	1.43	ND	1.12	6.62	5.77
	03/25/10	14.4	2.40	ND	3.96	20.76	5.48
	06/29/10	6.11	2.98	0.83	7.52	17.44	4.4
	10/05/10	ND	ND	ND	ND	0.00	ND
	12/31/10	8.82	2.93	ND	3.82	15.57	5.77
	03/22/11	44.4	47.7	ND	8.09	100.19	10.3
	05/04/12	33.00	6.50	<1.0	21.80	61.30	24.9
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	3.8
	03/22/13	51.3	15.9	3.4	16.3	86.9	7.5
MW-4 (GB)	09/02/09	ND	ND	ND	ND	0.00	ND
	12/09/09	ND	0.82	ND	ND	0.82	ND
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	9.46	0.72	ND	ND	10.18	3.01
	10/05/10	4.02	0.93	ND	ND	4.95	3.66
	12/31/10	ND	ND	ND	ND	0.00	ND
	03/22/11	ND	ND	ND	ND	0.00	ND
	05/04/12	NS	NS	NS	NS	0.00	NS
	10/05/12	NS	NS	NS	NS	0.00	NS
	03/22/13	NS	NS	NS	NS	NS	NS
MW-5 (GB)	09/02/09	5.81	4.86	4.11	45.4	60.18	1.53
	12/09/09	12.9	4.12	2.56	39.3	58.88	1.51
	03/25/10	8.42	3.13	1.07	20.9	33.52	0.84
	06/29/10	6.91	2.79	2.06	27.2	38.96	ND
	10/05/10	1.18	1.70	1.21	24.4	28.49	2.03
	12/31/10	19.9	4.57	ND	17.3	41.77	ND
	03/22/11	10.2	2.55	ND	10.4	23.15	ND
	05/04/12	NS	NS	NS	NS	0.00	NS
	10/05/12	NS	NS	NS	NS	0.00	NS
	03/22/13	NS	NS	NS	NS	NS	NS
MW-6 (GB)	09/02/09	32.2	3.21	0.76	9.53	45.70	5.37
	12/09/09	62.0	4.27	1.68	7.58	75.53	2.98
	03/25/10	44.2	2.81	5.09	5.97	58.07	2.91
	06/29/10	39.5	4.31	3.06	11.1	57.92	5.62
	10/05/10	17.3	2.78	ND	5.19	25.27	5.52
	12/31/10	77.7	6.42	2.95	14.7	101.77	2.77
	03/22/11	5550	28100	2970	10310	46930.00	286
	05/04/12	256	2150	1240	7680	11326.00	16
	10/05/12	389	1020	955	6130	8494.00	10
	03/22/13	246	3260	1040	4350	8896.00	<10
MW-7 (GB)	09/02/09	19.6	14.2	2.68	36.5	72.98	18.3
	12/09/09	23.6	18.1	4.68	29.7	76.08	10.3
	03/25/10	24.0	72.9	9.03	79.5	185.43	5.1
	06/29/10	23.3	9.44	4.35	27.5	64.59	16.2
	10/05/10	29.2	6.57	3.60	19.2	58.57	9.86
	12/31/10	3.74	1.28	ND	2.71	7.73	4.99
	03/22/11	13.7	31.2	ND	24.6	69.50	3.27
	05/04/12	15.1	6.5	1.50	17.8	40.90	8.5
	10/05/12	0.75	<1.0	<1.0	<1.0	0.75	8.7
	03/22/13	NS	NS	NS	NS	NS	NS
MW-8 (GB)	09/02/09	ND	ND	ND	ND	0.00	ND
	12/09/09	ND	ND	ND	ND	0.00	ND
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	ND	ND	ND	ND	0.00	ND
	10/05/10	ND	ND	ND	ND	0.00	3.17
	12/31/10	NS	NS	NS	NS	0.00	NS
	03/22/11	ND	ND	ND	ND	0.00	ND
	05/04/12	ND	ND	ND	ND	0.00	ND
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	<1.0
	03/22/13	NS	NS	NS	NS	NS	NS

Table 2
Historical Groundwater Analytical Summary: BTEX & MTBE
 Getty Station No. 6852
 578 South Main St.
 Middletown, Connecticut

Well ID (GW Category)	Date	BTEX & MTBE Compounds					
		Benzene	Toluene	Ethyl- benzene	Total Xylenes	Total BTEX	MTBE
Res Vol Criteria (ppb)		215	23,500	50,000	21,300	NE	50,000
SWPC Criteria (ppb)		710	4,000,000	580,000	NE	NE	NE
MW-9 (GB)	09/02/09	ND	ND	ND	ND	0.00	ND
	12/09/09	ND	ND	ND	ND	0.00	ND
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	ND	ND	ND	ND	0.00	ND
	10/05/10	ND	ND	ND	ND	0.00	ND
	12/31/10	ND	ND	ND	ND	0.00	ND
	03/22/11	ND	ND	ND	ND	0.00	ND
	05/04/12	ND	ND	ND	ND	0.00	ND
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	<1.0
	03/22/13	NS	NS	NS	NS	NS	NS
GP-1 (GB)	09/02/09	ND	ND	ND	ND	0.00	ND
	12/09/09	ND	ND	ND	ND	0.00	1.91
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	ND	ND	ND	ND	0.00	ND
	10/05/10	ND	ND	ND	ND	0.00	ND
	12/31/10	NS	NS	NS	NS	0.00	NS
	03/22/11	3.78	4.11	ND	ND	7.89	ND
	05/04/12	ND	ND	ND	ND	0.00	3.8
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	<1.0
	03/22/13	NS	NS	NS	NS	NS	NS
GP-2 (GB)	09/02/09	ND	ND	ND	ND	0.00	ND
	12/09/09	ND	ND	ND	ND	0.00	ND
	03/25/10	ND	ND	ND	ND	0.00	ND
	06/29/10	ND	ND	ND	ND	0.00	1.54
	10/05/10	ND	ND	ND	ND	0.00	ND
	12/31/10	ND	ND	ND	ND	0.00	ND
	03/22/11	ND	ND	ND	ND	0.00	ND
	05/04/12	ND	ND	ND	ND	0.00	ND
	10/05/12	<0.5	<1.0	<1.0	<1.0	0.00	<1.0
	03/22/13	NS	NS	NS	NS	NS	NS
GP-3 (GB)	09/02/09	4.98	0.73	ND	2.79	8.50	ND
	12/09/09	5.30	ND	ND	2.54	7.84	ND
	03/25/10	1.03	ND	ND	3.34	4.37	ND
	06/29/10	2.42	ND	ND	2.20	4.62	ND
	10/05/10	1.46	1.50	ND	1.84	4.80	6.53
	12/31/10	ND	ND	ND	ND	0.00	17
	03/22/11	1.17	ND	ND	2.46	3.63	ND
	05/04/12	NS	NS	NS	NS	0.00	NS
	10/05/12	<0.5	<1.0	<1.0	1.20	1.20	8.00
	03/22/13	NS	NS	NS	NS	NS	NS
MW-10	10/05/12	248.0	8.1	7.9	25.7	289.7	8.4
	03/22/13	NS	NS	NS	NS	NS	NS
MW-11	10/05/12	NS	NS	NS	NS	0.0	NS
	03/22/13	NS	NS	NS	NS	NS	NS
MW-12	10/05/12	21.8	6.7	1.2	21.4	51.1	19.9
	03/22/13	NS	NS	NS	NS	NS	NS
MW-13	10/05/12	14.3	5.0	<1.0	21.7	41.0	8.9
	03/22/13	49.8	92.6	28.1	129	299.5	4.8
MW-14	10/05/12	0.6	<1.0	<1.0	1.2	1.8	6.7
	03/22/13	NS	NS	NS	NS	NS	NS
MW-15	10/05/12	7.8	1.5	<1.0	4.0	13.3	4.8
	03/22/13	NS	NS	NS	NS	NS	NS

Notes:

Results reported in ug/L (parts per billion).

Numbers in **BOLD** indicate an exceedance in applicable standards

NS= Not Sampled, ND= Non Detect, NE= Not Established

Table 3
Volatile Organic Compounds - 8260
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

		Acetone	Acrylonitrile	Benzene	Bromobenzene	Bromodichloromethane	Bromoform	Bromomethane	2-Butanone (MEK)	n-Butylbenzene
Res Vol Criteria (ppb)		50000	-	215	-	-	920	-	50000	-
SWPC Criteria (ppb)		-	20	710	-	-	10800	-	-	-
Well ID	Date									
MW-2	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	10/5/12	<50	<50	389	<50	<10	<10	<20	<50	<50
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	10/5/12	<5.0	<5.0	0.75	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	10/5/12	<5.0	<5.0	248	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	10/5/12	<5.0	<5.0	21.8	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	10/5/12	<5.0	<5.0	14.3	<5.0	<1.0	<1.0	<2.0	<5.0	6.3
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	10/5/12	<5.0	<5.0	0.6	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	10/5/12	<5.0	<5.0	7.8	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-1	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
GP-2	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	<5.0	NS	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
GP-3	10/5/12	<5.0	<5.0	<0.5	<5.0	<1.0	<1.0	<2.0	<5.0	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS	NS
NS= Not Surveyed										

Table 3
Volatile Organic Compounds - 8260
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

		1,2,4- Trimethylb enzene	1,3,5- Trimethylb enzene	Vinyl chloride	m,p- Xylene	o-Xylene
Res Vol Criteria (ppb)		-	-	2	-	-
SWPC Criteria (ppb)		-	-	15750	-	-
Well ID	Date					
MW-2	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-3	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-4	10/5/12	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS
MW-5	10/5/12	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS
MW-6	10/5/12	1340	425	<10	4130	2000
	3/22/13	NS	NS	NS	NS	NS
MW-7	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-8	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-9	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-10	10/5/12	<5.0	<5.0	<1.0	23.2	2.5
	3/22/13	NS	NS	NS	NS	NS
MW-11	10/5/12	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS
MW-12	10/5/12	<5.0	<5.0	<1.0	15.2	6.2
	3/22/13	NS	NS	NS	NS	NS
MW-13	10/5/12	<5.0	<5.0	<1.0	14.8	6.9
	3/22/13	NS	NS	NS	NS	NS
MW-14	10/5/12	<5.0	<5.0	<1.0	1.2	<1.0
	3/22/13	NS	NS	NS	NS	NS
MW-15	10/5/12	<5.0	<5.0	<1.0	2.7	1.3
	3/22/13	NS	NS	NS	NS	NS
GP-1	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	NS	NS	NS	NS	NS
GP-2	10/5/12	<5.0	<5.0	<1.0	<1.0	<1.0
	3/22/13	<5.0	<5.0	<1.0	<1.0	<1.0
GP-3	10/5/12	<5.0	<5.0	<1.0	<1.0	1.2
	3/22/13	NS	NS	NS	NS	NS
NS= Not Surveyed						

Table 4
Semi-volatiles 8270C
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

Well ID	Acenaphthene	Acenaphthylene	Anthracene	Benzo(a)anthracene	Benzo(a)pyrene	Benzo(b)fluoranthene	Benzo(g,h,i)perylene	Benzo(k)fluoranthene
Res Vol Criteria (ppb)	NS	NS	NS	NS	NS	NS	NS	NS
SWPC Criteria (ppB)	NS	0.3	1100000	0.3	0.3	0.3	NS	0.3
Date								
MW-2	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	2.9	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	4.5	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	3.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	3.2	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
GP-1	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
GP-2	NS	NS	NS	NS	NS	NS	NS	NS
	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0
GP-3	NS	NS	NS	NS	NS	NS	NS	NS
	NS	NS	NS	NS	NS	NS	NS	NS
NS= Not Surveyed								

Table 4
Semi-volatiles 8270C
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

Res Vol Criteria (ppb)	Chrysene	Dibenzo (a,h)anthracene	Fluoranthene	Fluorene	Indeno (1,2,3-cd) pyrene	Naphthalene	Phenanthrene	Pyrene	CT-ETPH (C9-C36)
SWPC Criteria (ppB)									
Well ID	Date								
MW-2	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	10/5/12	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	262
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	10/5/12	<2.0	<2.0	2.9	<2.0	72.3	3.6	<2.0	6940
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	10/5/12	<2.0	<2.0	4.2	<2.0	<2.0	6.4	<2.0	1230
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	10/5/12	<2.0	<2.0	2.4	<2.0	<2.0	4.4	<2.0	720
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	10/5/12	<2.0	<2.0	2.8	<2.0	<2.0	4.8	<2.0	686
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
GP-1	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
GP-2	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	0.138
GP-3	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS

NS= Not Surveyed

Table 5
CT Polychlorinated Biphenyls PCB
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

	Aroclor 1016	Aroclor 1221	Aroclor 1232	Aroclor 1242	Aroclor 1248	Aroclor 1254	Aroclor 1260	Aroclor 1262	Aroclor 1268
Res Vol Criteria (ppb)	-	-	-	-	-	-	-	-	-
SWPC Criteria (ppb)	0.5	0.5	0.5	0.5	0.5	0.5	0.5	NS	NS
Well ID	Date								
MW-2	10/5/12	NS							
	3/22/13	NS							
MW-3	10/5/12	NS							
	3/22/13	NS							
MW-4	10/5/12	NS							
	3/22/13	NS							
MW-5	10/5/12	NS							
	3/22/13	NS							
MW-6	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-7	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-8	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-9	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-10	10/5/12	<.26	<.26	<.26	<.26	<.26	<.26	<.26	<.26
	3/22/13	NS							
MW-11	10/5/12	NS							
	3/22/13	NS							
MW-12	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-13	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-14	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
MW-15	10/5/12	<.26	<.26	<.26	<.26	<.26	<.26	<.26	<.26
	3/22/13	NS							
GP-1	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	NS							
GP-2	10/5/12	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
	3/22/13	<.25	<.25	<.25	<.25	<.25	<.25	<.25	<.25
GP-3	10/5/12	<.26	<.26	<.26	<.26	<.26	<.26	<.26	<.26
	3/22/13	NS							
NS= Not Surveyed									

Table 6
Total Metals Analysis
Getty Station No. 6852
578 South Main St.
Middletown, Connecticut

		Arsenic	Barium	Cadmium	Chromium	Lead	Mercury	Selenium	Silver
Res Vol Criteria		-	-	-	-	-	-	-	-
SWPC Criteria		4	-	6	-	13	0.4	50	12
Well ID	Date	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l	ug/l
MW-2	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-3	10/5/12	<4.0	272	<4.0	<10	<5.0	<0.20	<10	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-4	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-5	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-6	10/5/12	<4.0	259	<4.0	<10	<5.0	<0.20	<10	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-7	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-8	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-9	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-10	10/5/12	<4.0	265	<4.0	<10	5.7	<0.20	<10	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-11	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-12	10/5/12	<4.0	386	<4.0	<10	22	<0.20	<10	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-13	10/5/12	<4.0	342	<4.0	<10	19.2	<0.20	<10	<5.0
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-14	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
MW-15	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
GP-1	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS
GP-2	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	<4.0	248	<4.0	<10	<5.0	<0.20	<10	<5.0
GP-3	10/5/12	NS	NS	NS	NS	NS	NS	NS	NS
	3/22/13	NS	NS	NS	NS	NS	NS	NS	NS

NS= Not Surveyed

Table 7
Summary of EFR Events
Getty Service Station #6852
578 South Main Street
Middletown, Connecticut

Date	Wells	Gallons
1/23/2013	MW: 6, 10 and 12	910
3/7/2013	MW: 6, 10 and 12	1860
3/28/2013	MW: 6, 10 and 12	1540
4/30/2013	MW: 6, 10 and 12	2310
5/23/2013	MW: 6, 10 and 12	1610
Total Gallons Recovered:		8230

Technical Report for

Tyree Organization Ltd.

Getty 6852, 578 South Main Street, Middletown, CT

2130078-421 Cost Code #42-02-0650

Accutest Job Number: MC19196

Sampling Date: 03/22/13

Report to:

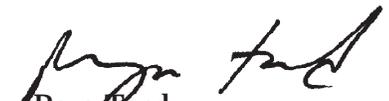
Tyree Organization Ltd.
7 Viking Road
Webster, MA 01570
jliddon@tyreeorg.com

ATTN: John Liddon

Total number of pages in report: **18**



Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.



Reza Fand
Lab Director

Client Service contact: Jeremy Vienneau 508-481-6200

Certifications: MA (M-MA136, SW846 NELAC) CT (PH-0109) NH (250210) RI (00071) ME (MA00136) FL (E87579) NY (11791) NJ (MA926) PA (6801121) ND (R-188) CO MN (11546AA) NC (653) IL (002337) WI (399080220) ISO 17025:2005 (L2235)

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Test results relate only to samples analyzed.

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Sample Summary

Tyree Organization Ltd.

Job No: MC19196

Getty 6852, 578 South Main Street, Middletown, CT
 Project No: 2130078-421 Cost Code #42-02-0650

Sample Number	Collected		Received	Matrix		Client Sample ID
	Date	Time By		Code	Type	
MC19196-1	03/22/13	11:41 MB	03/25/13	AQ	Ground Water	GP-2
MC19196-2	03/22/13	13:10 MB	03/25/13	AQ	Ground Water	MW-6
MC19196-3	03/22/13	13:40 MB	03/25/13	AQ	Ground Water	MW-13
MC19196-4	03/22/13	14:00 MB	03/25/13	AQ	Ground Water	MW-3

Summary of Hits

Job Number: MC19196
Account: Tyree Organization Ltd.
Project: Getty 6852, 578 South Main Street, Middletown, CT
Collected: 03/22/13

Lab Sample ID	Client Sample ID	Result/ Qual	RL	MDL	Units	Method
MC19196-1		GP-2				
CT-ETPH (C9-C36)		0.138	0.080		mg/l	CT-ETPH 7/06
Barium		248	50		ug/l	SW846 6010C
MC19196-2		MW-6				
Benzene		249	5.0		ug/l	SW846 8260B
Toluene		3260	10		ug/l	SW846 8260B
Ethylbenzene		1040	10		ug/l	SW846 8260B
Xylene (total)		4350	10		ug/l	SW846 8260B
MC19196-3		MW-13				
Benzene		49.8	0.50		ug/l	SW846 8260B
Toluene		92.6	1.0		ug/l	SW846 8260B
Ethylbenzene		28.1	1.0		ug/l	SW846 8260B
Xylene (total)		129	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		4.8	1.0		ug/l	SW846 8260B
MC19196-4		MW-3				
Benzene		51.3	0.50		ug/l	SW846 8260B
Toluene		15.9	1.0		ug/l	SW846 8260B
Ethylbenzene		3.4	1.0		ug/l	SW846 8260B
Xylene (total)		16.3	1.0		ug/l	SW846 8260B
Methyl Tert Butyl Ether		7.5	1.0		ug/l	SW846 8260B

Sample Results

Report of Analysis

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 03/22/13
Lab Sample ID: MC19196-1	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72314.D	1	04/01/13	TT	n/a	n/a	MSL3396
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
67-64-1	Acetone	ND	5.0	ug/l	
71-43-2	Benzene	ND	0.50	ug/l	
108-86-1	Bromobenzene	ND	5.0	ug/l	
74-97-5	Bromochloromethane	ND	5.0	ug/l	
75-27-4	Bromodichloromethane	ND	1.0	ug/l	
75-25-2	Bromoform	ND	1.0	ug/l	
74-83-9	Bromomethane	ND	2.0	ug/l	
78-93-3	2-Butanone (MEK)	ND	5.0	ug/l	
104-51-8	n-Butylbenzene	ND	5.0	ug/l	
135-98-8	sec-Butylbenzene	ND	5.0	ug/l	
98-06-6	tert-Butylbenzene	ND	5.0	ug/l	
75-15-0	Carbon disulfide	ND	5.0	ug/l	
56-23-5	Carbon tetrachloride	ND	1.0	ug/l	
108-90-7	Chlorobenzene	ND	1.0	ug/l	
75-00-3	Chloroethane	ND	2.0	ug/l	
67-66-3	Chloroform	ND	1.0	ug/l	
74-87-3	Chloromethane	ND	2.0	ug/l	
95-49-8	o-Chlorotoluene	ND	5.0	ug/l	
106-43-4	p-Chlorotoluene	ND	5.0	ug/l	
96-12-8	1,2-Dibromo-3-chloropropane	ND	5.0	ug/l	
124-48-1	Dibromochloromethane	ND	1.0	ug/l	
106-93-4	1,2-Dibromoethane	ND	2.0	ug/l	
95-50-1	1,2-Dichlorobenzene	ND	1.0	ug/l	
541-73-1	1,3-Dichlorobenzene	ND	1.0	ug/l	
106-46-7	1,4-Dichlorobenzene	ND	1.0	ug/l	
75-71-8	Dichlorodifluoromethane	ND	2.0	ug/l	
75-34-3	1,1-Dichloroethane	ND	1.0	ug/l	
107-06-2	1,2-Dichloroethane	ND	1.0	ug/l	
75-35-4	1,1-Dichloroethene	ND	1.0	ug/l	
156-59-2	cis-1,2-Dichloroethene	ND	1.0	ug/l	
156-60-5	trans-1,2-Dichloroethene	ND	1.0	ug/l	
78-87-5	1,2-Dichloropropane	ND	2.0	ug/l	

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 03/22/13
Lab Sample ID: MC19196-1	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

VOA 8260 List

CAS No.	Compound	Result	RL	Units	Q
142-28-9	1,3-Dichloropropane	ND	5.0	ug/l	
594-20-7	2,2-Dichloropropane	ND	5.0	ug/l	
563-58-6	1,1-Dichloropropene	ND	5.0	ug/l	
10061-01-5	cis-1,3-Dichloropropene	ND	0.50	ug/l	
10061-02-6	trans-1,3-Dichloropropene	ND	0.50	ug/l	
100-41-4	Ethylbenzene	ND	1.0	ug/l	
87-68-3	Hexachlorobutadiene	ND	5.0	ug/l	
591-78-6	2-Hexanone	ND	5.0	ug/l	
74-88-4	Iodomethane	ND	5.0	ug/l	
98-82-8	Isopropylbenzene	ND	5.0	ug/l	
99-87-6	p-Isopropyltoluene	ND	5.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	1.0	ug/l	
108-10-1	4-Methyl-2-pentanone (MIBK)	ND	5.0	ug/l	
74-95-3	Methylene bromide	ND	5.0	ug/l	
75-09-2	Methylene chloride	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	5.0	ug/l	
103-65-1	n-Propylbenzene	ND	5.0	ug/l	
100-42-5	Styrene	ND	5.0	ug/l	
630-20-6	1,1,1,2-Tetrachloroethane	ND	5.0	ug/l	
79-34-5	1,1,2,2-Tetrachloroethane	ND	1.0	ug/l	
127-18-4	Tetrachloroethene	ND	1.0	ug/l	
108-88-3	Toluene	ND	1.0	ug/l	
87-61-6	1,2,3-Trichlorobenzene	ND	5.0	ug/l	
120-82-1	1,2,4-Trichlorobenzene	ND	5.0	ug/l	
71-55-6	1,1,1-Trichloroethane	ND	1.0	ug/l	
79-00-5	1,1,2-Trichloroethane	ND	1.0	ug/l	
79-01-6	Trichloroethene	ND	1.0	ug/l	
75-69-4	Trichlorofluoromethane	ND	1.0	ug/l	
96-18-4	1,2,3-Trichloropropane	ND	5.0	ug/l	
95-63-6	1,2,4-Trimethylbenzene	ND	5.0	ug/l	
108-67-8	1,3,5-Trimethylbenzene	ND	5.0	ug/l	
108-05-4	Vinyl Acetate	ND	5.0	ug/l	
75-01-4	Vinyl chloride	ND	1.0	ug/l	
	m,p-Xylene	ND	1.0	ug/l	
95-47-6	o-Xylene	ND	1.0	ug/l	
1330-20-7	Xylene (total)	ND	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2		Date Sampled: 03/22/13
Lab Sample ID: MC19196-1		Date Received: 03/25/13
Matrix: AQ - Ground Water		Percent Solids: n/a
Method: SW846 8260B		
Project: Getty 6852, 578 South Main Street, Middletown, CT		

VOA 8260 List

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
2037-26-5	Toluene-D8	101%		70-130%
460-00-4	4-Bromofluorobenzene	103%		70-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	
Lab Sample ID: MC19196-1	Date Sampled: 03/22/13
Matrix: AQ - Ground Water	Date Received: 03/25/13
Method: SW846 8270C SW846 3510C	Percent Solids: n/a
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	W10816.D	1	04/04/13	KR	03/28/13	OP32420	MSW507
Run #2 ^a	W10882.D	1	04/06/13	KR	03/28/13	OP32420	MSW509

	Initial Volume	Final Volume
Run #1	990 ml	1.0 ml
Run #2	990 ml	1.0 ml

BN PAH List

CAS No.	Compound	Result	RL	Units	Q
83-32-9	Acenaphthene	ND	2.0	ug/l	
208-96-8	Acenaphthylene	ND	2.0	ug/l	
120-12-7	Anthracene	ND	2.0	ug/l	
56-55-3	Benzo(a)anthracene	ND	2.0	ug/l	
50-32-8	Benzo(a)pyrene	ND	2.0	ug/l	
205-99-2	Benzo(b)fluoranthene	ND	2.0	ug/l	
191-24-2	Benzo(g,h,i)perylene	ND	2.0	ug/l	
207-08-9	Benzo(k)fluoranthene	ND	2.0	ug/l	
218-01-9	Chrysene	ND	2.0	ug/l	
53-70-3	Dibenzo(a,h)anthracene	ND	2.0	ug/l	
206-44-0	Fluoranthene	ND	2.0	ug/l	
86-73-7	Fluorene	ND	2.0	ug/l	
193-39-5	Indeno(1,2,3-cd)pyrene	ND	2.0	ug/l	
91-20-3	Naphthalene	ND	2.0	ug/l	
85-01-8	Phenanthrene	ND	2.0	ug/l	
129-00-0	Pyrene	ND	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
4165-60-0	Nitrobenzene-d5	67%	69%	30-130%
321-60-8	2-Fluorobiphenyl	65%	66%	30-130%
1718-51-0	Terphenyl-d14	27% ^b	28% ^b	30-130%

(a) Confirmation run for surrogate recoveries.

(b) Outside control limits due to possible matrix interference. Confirmed by reanalysis.

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 03/22/13
Lab Sample ID: MC19196-1	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8082 SW846 3510C	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BB46703.D	1	04/04/13	CZ	03/28/13	OP32417	GBB2809
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	5.0 ml
Run #2		

PCB List

CAS No.	Compound	Result	RL	Units	Q
12674-11-2	Aroclor 1016	ND	0.25	ug/l	
11104-28-2	Aroclor 1221	ND	0.25	ug/l	
11141-16-5	Aroclor 1232	ND	0.25	ug/l	
53469-21-9	Aroclor 1242	ND	0.25	ug/l	
12672-29-6	Aroclor 1248	ND	0.25	ug/l	
11097-69-1	Aroclor 1254	ND	0.25	ug/l	
11096-82-5	Aroclor 1260	ND	0.25	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
877-09-8	Tetrachloro-m-xylene	67%		30-150%
877-09-8	Tetrachloro-m-xylene	62%		30-150%
2051-24-3	Decachlorobiphenyl	68%		30-150%
2051-24-3	Decachlorobiphenyl	64%		30-150%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 03/22/13
Lab Sample ID: MC19196-1	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: CT-ETPH 7/06 SW846 3510C	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	BI19781.D	1	03/29/13	KN	03/27/13	OP32403	GBI712
Run #2							

	Initial Volume	Final Volume
Run #1	1000 ml	1.0 ml
Run #2		

CAS No.	Compound	Result	RL	Units	Q
	CT-ETPH (C9-C36)	0.138	0.080	mg/l	
CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits	
84-15-1	o-Terphenyl	90%		50-149%	

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: GP-2	Date Sampled: 03/22/13
Lab Sample ID: MC19196-1	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Project: Getty 6852, 578 South Main Street, Middletown, CT	

Total Metals Analysis

Analyte	Result	RL	Units	DF	Prep	Analyzed By	Method	Prep Method
Arsenic	< 4.0	4.0	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Barium	248	50	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Cadmium	< 4.0	4.0	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Chromium	< 10	10	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Lead	< 5.0	5.0	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Mercury	< 0.20	0.20	ug/l	1	03/27/13	03/27/13 EM	SW846 7470A ¹	SW846 7470A ³
Selenium	< 10	10	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴
Silver	< 5.0	5.0	ug/l	1	03/28/13	03/29/13 EAL	SW846 6010C ²	SW846 3010A ⁴

- (1) Instrument QC Batch: MA15387
- (2) Instrument QC Batch: MA15399
- (3) Prep QC Batch: MP20678
- (4) Prep QC Batch: MP20680

RL = Reporting Limit

Report of Analysis

Client Sample ID: MW-6	Date Sampled: 03/22/13
Lab Sample ID: MC19196-2	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72231.D	10	03/29/13	KR	n/a	n/a	MSL3394
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	249	5.0	ug/l	
108-88-3	Toluene	3260	10	ug/l	
100-41-4	Ethylbenzene	1040	10	ug/l	
1330-20-7	Xylene (total)	4350	10	ug/l	
1634-04-4	Methyl Tert Butyl Ether	ND	10	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	102%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected
 RL = Reporting Limit
 E = Indicates value exceeds calibration range

J = Indicates an estimated value
 B = Indicates analyte found in associated method blank
 N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-13	Date Sampled: 03/22/13
Lab Sample ID: MC19196-3	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72221.D	1	03/29/13	KR	n/a	n/a	MSL3394
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	49.8	0.50	ug/l	
108-88-3	Toluene	92.6	1.0	ug/l	
100-41-4	Ethylbenzene	28.1	1.0	ug/l	
1330-20-7	Xylene (total)	129	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	4.8	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		70-130%
2037-26-5	Toluene-D8	104%		70-130%
460-00-4	4-Bromofluorobenzene	97%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Report of Analysis

Client Sample ID: MW-3	Date Sampled: 03/22/13
Lab Sample ID: MC19196-4	Date Received: 03/25/13
Matrix: AQ - Ground Water	Percent Solids: n/a
Method: SW846 8260B	
Project: Getty 6852, 578 South Main Street, Middletown, CT	

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	L72230.D	1	03/29/13	KR	n/a	n/a	MSL3394
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics, MTBE

CAS No.	Compound	Result	RL	Units	Q
71-43-2	Benzene	51.3	0.50	ug/l	
108-88-3	Toluene	15.9	1.0	ug/l	
100-41-4	Ethylbenzene	3.4	1.0	ug/l	
1330-20-7	Xylene (total)	16.3	1.0	ug/l	
1634-04-4	Methyl Tert Butyl Ether	7.5	1.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		70-130%
2037-26-5	Toluene-D8	103%		70-130%
460-00-4	4-Bromofluorobenzene	100%		70-130%

ND = Not detected

RL = Reporting Limit

E = Indicates value exceeds calibration range

J = Indicates an estimated value

B = Indicates analyte found in associated method blank

N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

Accutest Laboratories Sample Receipt Summary

Accutest Job Number: MC19196 **Client:** TYREE **Immediate Client Services Action Required:** No
Date / Time Received: 3/25/2013 **Delivery Method:** _____ **Client Service Action Required at Login:** No
Project: GETTY MIDDLETOWN 6852 **No. Coolers:** 1 **Airbill #'s:** _____

Cooler Security Y or N Y or N
 1. Custody Seals Present: 3. COC Present:
 2. Custody Seals Intact: 4. Smpl Dates/Time OK:

Cooler Temperature Y or N
 1. Temp criteria achieved:
 2. Cooler temp verification: Infared gun
 3. Cooler media: Ice (bag)

Quality Control Preservation Y or N N/A
 1. Trip Blank present / cooler:
 2. Trip Blank listed on COC:
 3. Samples preserved properly:
 4. VOCs headspace free:

Sample Integrity - Documentation Y or N
 1. Sample labels present on bottles:
 2. Container labeling complete:
 3. Sample container label / COC agree:

Sample Integrity - Condition Y or N
 1. Sample recvd within HT:
 2. All containers accounted for:
 3. Condition of sample: Intact

Sample Integrity - Instructions Y or N N/A
 1. Analysis requested is clear:
 2. Bottles received for unspecified tests:
 3. Sufficient volume recvd for analysis:
 4. Compositing instructions clear:
 5. Filtering instructions clear:

Comments

4.1
4

BID #2013-020
SOUTH MAIN STREET PUMP STATION REPLACEMENT

SECTION 4

Exhibit D – Other Subsurface Information

Summary of Hydraulic Conductivity (K) Values

6852 Middletown, CT

Data Collected Using a Raising Head Slug Test

Well ID	K (ft/sec)	ln(K)
MW-8(1)	7.632E-04	-7.177990
MW-8(2)	9.644E-04	-6.944004
MW-8(3)	9.644E-04	-6.944004
MW-9(1)	8.327E-04	-7.090837
MW-9(2)	8.944E-04	-7.019357
MW-9(3)	8.131E-04	-7.114656
MW-13(1)	4.323E-04	-7.746391
MW-13(2)	4.991E-04	-7.602704
MW-13(3)	4.413E-04	-7.725786
mean ln(K):		-7.262859
Geometric mean:	7.011E-04 ft/sec	
	or	
	60.58 ft/day	