Appendix I-2

Quarry Information and Analytical Data Reports

- The licensed quarry/mine material placed in the Garfield Avenue Group Sites was certified by Tilcon, the licensed quarry (certification also included in this Appendix), as from a virgin source. Per the 2015 Fill Material Guidance for SRP Sites (NJDEP, 2015), "Whenever licensed quarry/mine material, certified as such by the quarry/mine operator, is delivered to a property undergoing remediation, the investigator may rely on the certification for the purpose of issuing a remedial action outcome (RAO) without sampling the delivered licensed quarry/mine material."

- The concentration of manganese in one sample collected from the virgin material (Mt. Hope Quarry stone fines collected on May 7, 2019) exceeded the Default Impact to Groundwater Soil Screening Level (DIGWSSL) for manganese. This DIGWSSL exceedance does not pose a potential impact to groundwater. Prior to issuance of the Fill Material Guidance for SRP Sites (NJDEP, 2015), more than 30 samples from the Tilcon Pompton Lakes certified quarry material were collected and analyzed to confirm suitability for placement on other Garfield Avenue Group Sites. Manganese is naturally occurring, and the applicable Groundwater Quality Standards are based on secondary considerations (primarily aesthetic considerations such as taste, odor, and appearance) and not health considerations; as such, the exceedances do not need to be addressed for the impact to groundwater pathway.

TILCON NEW YORK INC.

PHONE: 973-366-7741 9 ENTIN ROAD, PARSIPPANY , New Jersey 07054

2019 Clean Fill Material Certification- *NJ Locations Only*

Tilcon NY Inc. New Jersey Division confirms to the best of our knowledge that the aggregates produced at the locations below are virgin stone products, contain no hazards or contamination prior to shipment of materials and conform to section 901 of the *2007 New Jersey Department of Transportation Standard Specifications for Road and Bridge Construction*, The material is identified on the job with Tilcon NJ delivery tickets. The quarries are listed in the Quality List (QPL) of the NJDOT website

http://www.state.nj.us/transportation/eng/materials/qualified/QPRDB.shtm

Pompton Lakes Quarry- Granite Gneiss, 84 Borough of Pompton Lakes, Passaic County Blocks No(s) 105- Lot(s) 84. NJDOT approved crushed stone and certified fill products.

Mt. Hope Quarry- Granite Gneiss, 625 Mt Hope Road, Wharton Borough, Morris County NJ, Block No 20001 Lot(s) 5.01,5.02,7; Block 70001 Lot No 2;Block No 20101 Lot No 6. Mt Hope quarry contains NJDOT approved crushed stone, washed products and certified fill products.

Tilcon NY Inc. has had Pompton Lakes and Mt Hope quarries analyzed under the EPA Target Compound List as required by the LSRP program- *NJDEP Residential Direct Contact Soil Remediation Standards/Clean Fill Criteria*. A copy of the report is available upon request. To the best of our knowledge, the materials produced at the above quarries comply with Section 7 of the Fill Material Guidance for SRP Sites.

Riverdale Quarry- Granite Gneiss, 125 Hamburg Turnpike, Riverdale, Morris County NJ, Block No9s0 25, 26, 27, 29 Lot No 3. Riverdale Quarry NJDOT approved crushed stone, washed products and certified fill materials.

Oxford Quarry- Granite Gneiss and Limestone , Quarry and Mt Pisgah Avenue, White Township , Warren County Block 32- Lots 15,16 Block 33- Lots 22,23 Block 34 Lots 19,20 Block 25- Lots 3,5,9,90.1 NJDOT approved crushed stone ,washed products and certified materials .

Tilcon New York, INC Quality Control 973-659-3790

State of New Jersey
Department of Labor and Workforce Development

Certificate No. 004630
Expiration Date 3/31/2020

MINE REGISTRATION CERTIFICATE

ISSUED TO: TILCON NY INC-MT. HOPE QUARRY

LOCATION: 625 MT. HOPE ROAD
WHARTON, NJ

BLK NO(S): SEE BELOW
LOT NO(S): SEE BELOW
COUNTY: MORRIS

Issued pursuant to the provisions of N.J.S.A. 34:6-98.1 et. seq. Failure to comply with the provisions of the Act, and the Rules promulgated thereunder, shall be good cause for the revocation of this Certificate.

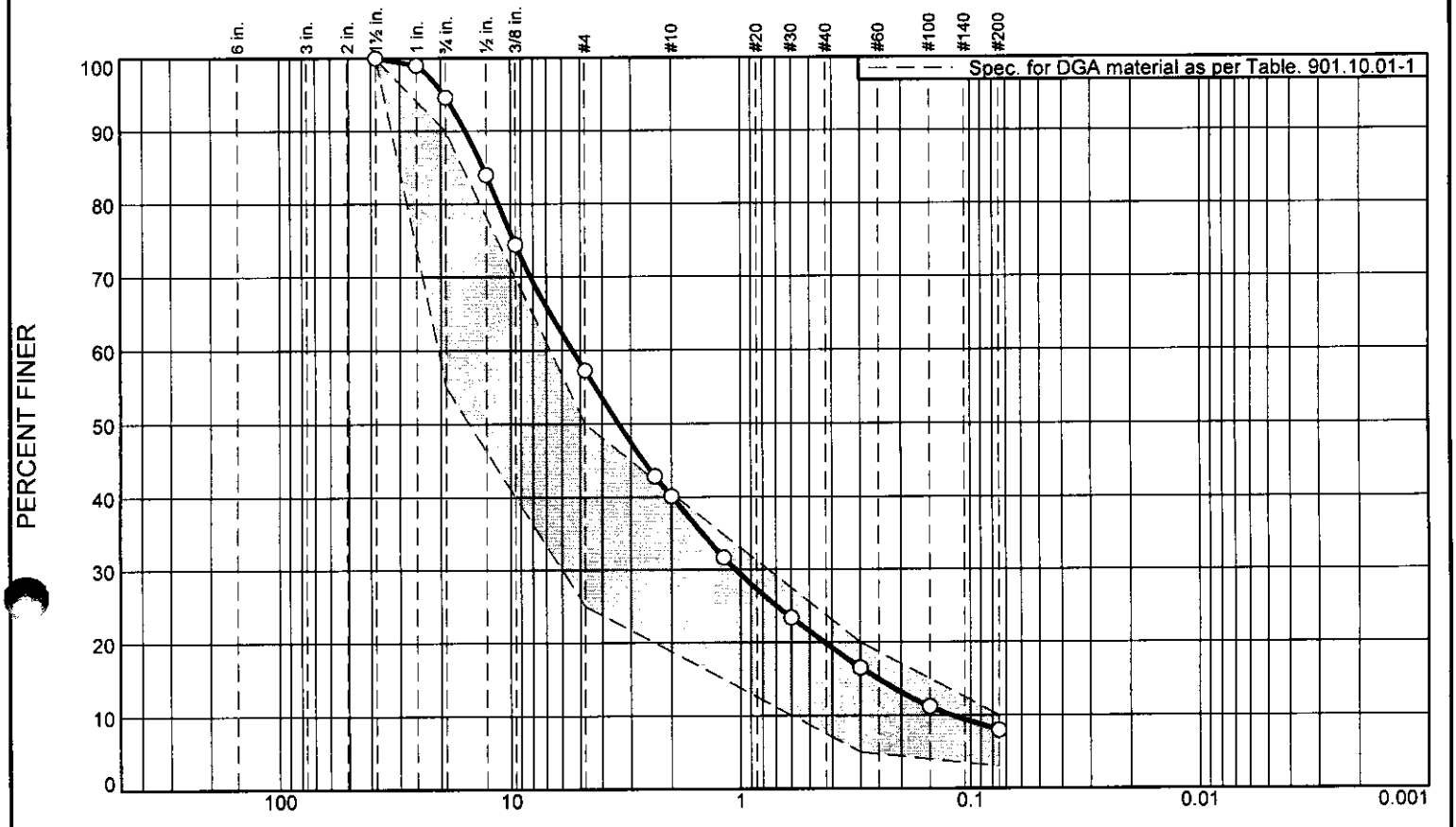
Robert Asaro-Angelo
Commissioner

THIS CERTIFICATE MUST BE POSTED AT ALL TIMES

BLK NO(S)	LOT NO(S)
20001	5.01, 5.02, 7
70001	2
20101	6

ES-148 (R-1-05)

Particle Size Distribution Report As per ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	5.4	37.4	17.1	20.3	11.8	8.0	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0	100.0	
1	99.0		
3/4	94.6	55.0 - 90.0	X
1/2	84.0		
3/8	74.4		
#4	57.2	25.0 - 50.0	X
#8	42.9		
#10	40.1		
#16	31.6		
#30	23.4		
#50	16.5	5.0 - 20.0	
#100	11.2		
#200	8.0	3.0 - 10.0	

* Spec. for DGA material as per Table. 901.10.01-1

Material Description

DGA material. well-graded sand with silt and gravel

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 15.6267 D_{85}= 13.1193 D_{60}= 5.4023
D_{50}= 3.3968 D_{30}= 1.0500 D_{15}= 0.2530
D_{10}= 0.1210 C_u= 44.63 C_c= 1.69

Classification

USCS= SW-SM AASHTO= A-1-a

Remarks

Sample was collected by Mr. Vincent Jr. on 03/14/19 and tested on 03/18/19. In-Situ %MC=5.2
F.M.=4.48

Source of Sample: Off-Site Material
Sample Number: S-1

Date: 03/18/2019

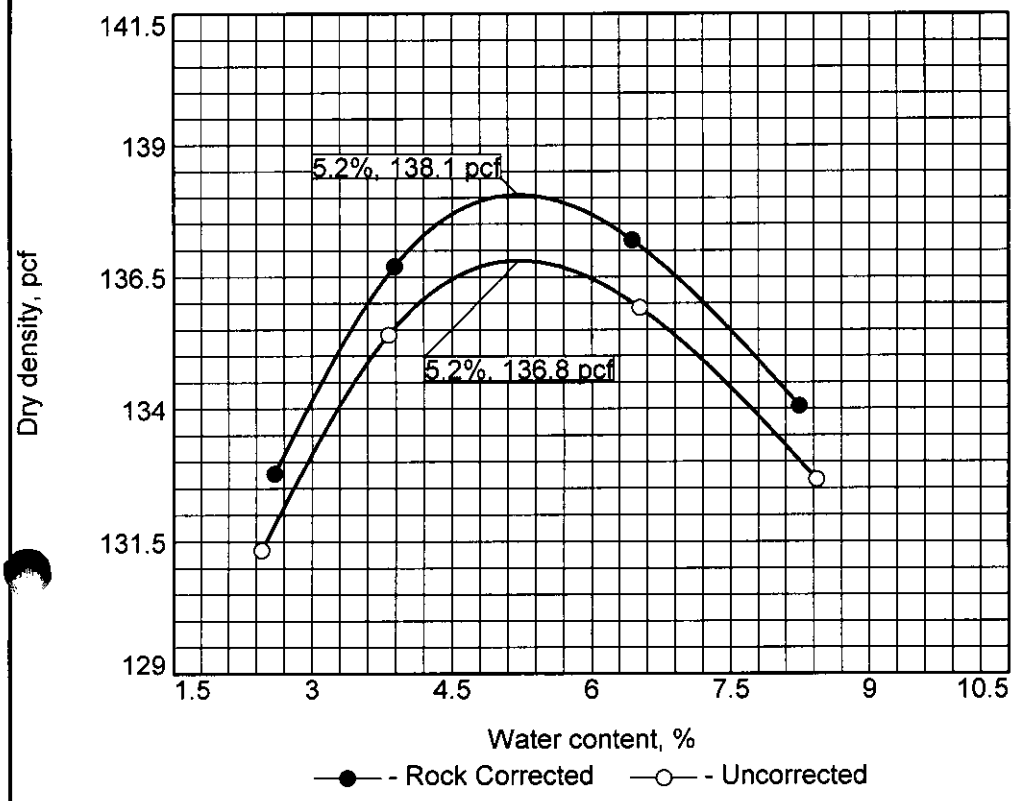
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Entact
Project: 70 Carteret Avenue, Jersey City, NJ

Project No: ANV-3667 **Figure 1 F 1**

COMPACTION TEST REPORT



Curve No.
S-1

Test Specification:
ASTM D 1557-12 Method C Modified
ASTM D4718-15 Oversize Corr. Applied to

Hammer Wt.: 10 lb.
Hammer Drop: 18 in.
Number of Layers: five
Blows per Layer: 56
Mold Size: 0.075 cu. ft.

Test Performed on Material Passing 3/4 in. **Sieve**

Soil Data

NM _____ **Sp.G.** _____
LL NV **PI** NP
%>3/4 in. 5.4 **%<#200** 8.0
USCS SW-SM **AASHTO** A-1-a

TESTING DATA

	1	2	3	4	5	6
WM + WS	24.03	24.48	24.79	24.72		
WM	13.94	13.94	13.94	13.94		
WW + T #1	800.0	820.0	777.7	914.5		
WD + T #1	780.8	789.8	730.1	843.4		
TARE #1	0.0	0.0	0.0	0.0		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	2.6	3.9	6.4	8.2		
DRY DENSITY	132.8	136.7	137.2	134.1		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 138.1 pcf	136.8 pcf	DGA material. well-graded sand with silt and gravel
Optimum moisture = 5.2 %	5.2 %	

Project No. ANV-3667 **Client:** Entact
Project: 70 Carteret Avenue, Jersey City, NJ

○ **Source of Sample:** Off-Site Material **Sample Number:** S-1

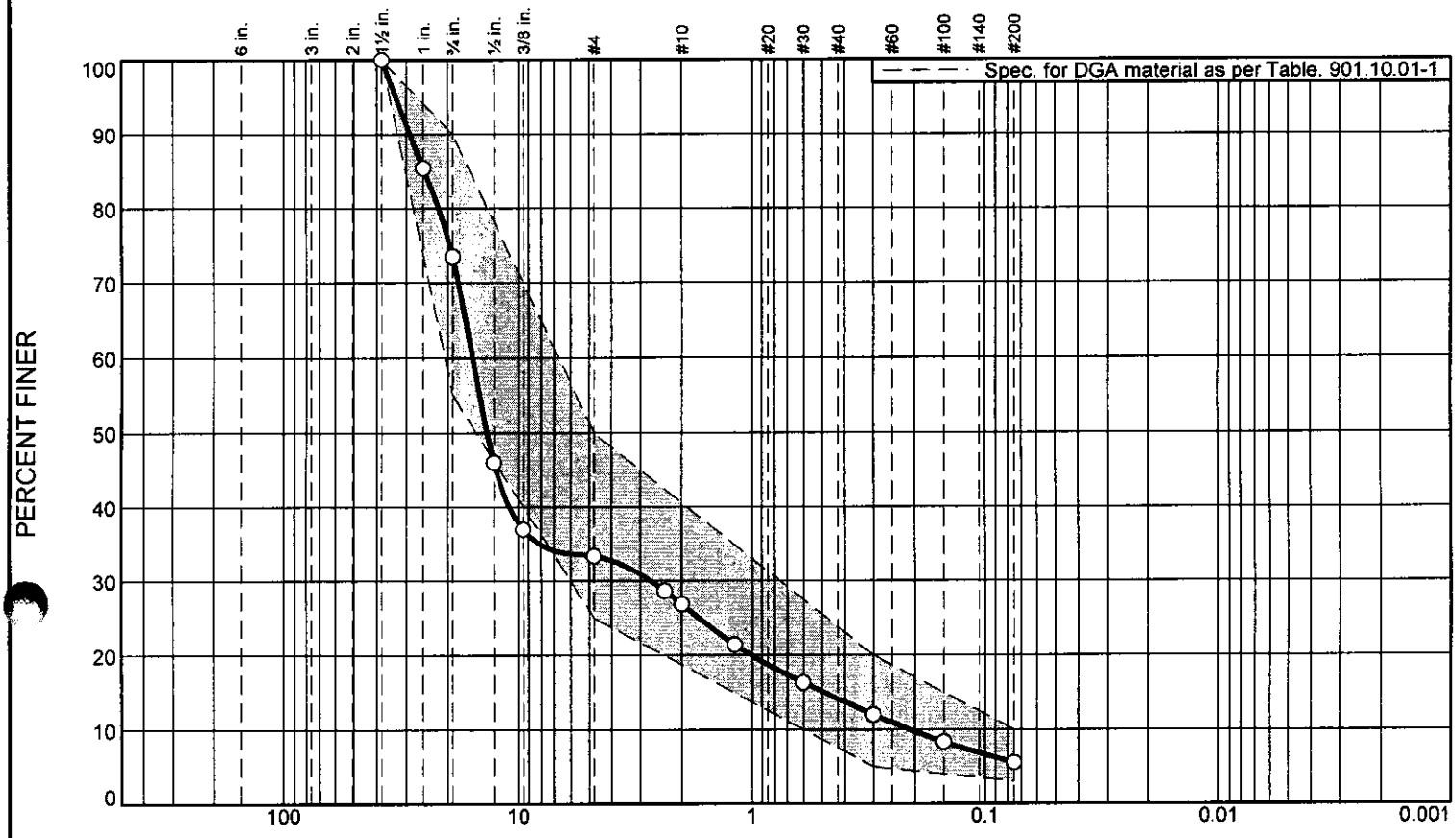
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Remarks:
Sample was collected by Mr. Vincent Jr. on 03/14/19 and tested on 03/15/19.

Figure 1 F 2

Particle Size Distribution Report As per ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	26.4	40.2	6.5	12.8	8.5	5.6	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0	100.0	
1	85.4		
3/4	73.6	55.0 - 90.0	
1/2	46.0		
3/8	37.0		
#4	33.4	25.0 - 50.0	
#8	28.7		
#10	26.9		
#16	21.4		
#30	16.3		
#50	12.0	5.0 - 20.0	
#100	8.3		
#200	5.6	3.0 - 10.0	

* Spec. for DGA material as per Table. 901.10.01-1

Material Description

DGA material. well-graded gravel with silt and sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 28.9542 D_{85}= 25.0826 D_{60}= 15.6485
D_{50}= 13.5899 D_{30}= 2.7078 D_{15}= 0.4891
D_{10}= 0.2104 C_u= 74.37 C_c= 2.23

Classification

USCS= GW-GM AASHTO= A-1-a

Remarks

Sample was collected by Mr. Clifford on 07/16/19 and tested on 07/18/19. In-Situ %MC=1.2
F.M.=5.69

Location: Stock Pile- Tilcon 07/15/16, S-1
Sample Number: S-2

Date: 07/18/2019

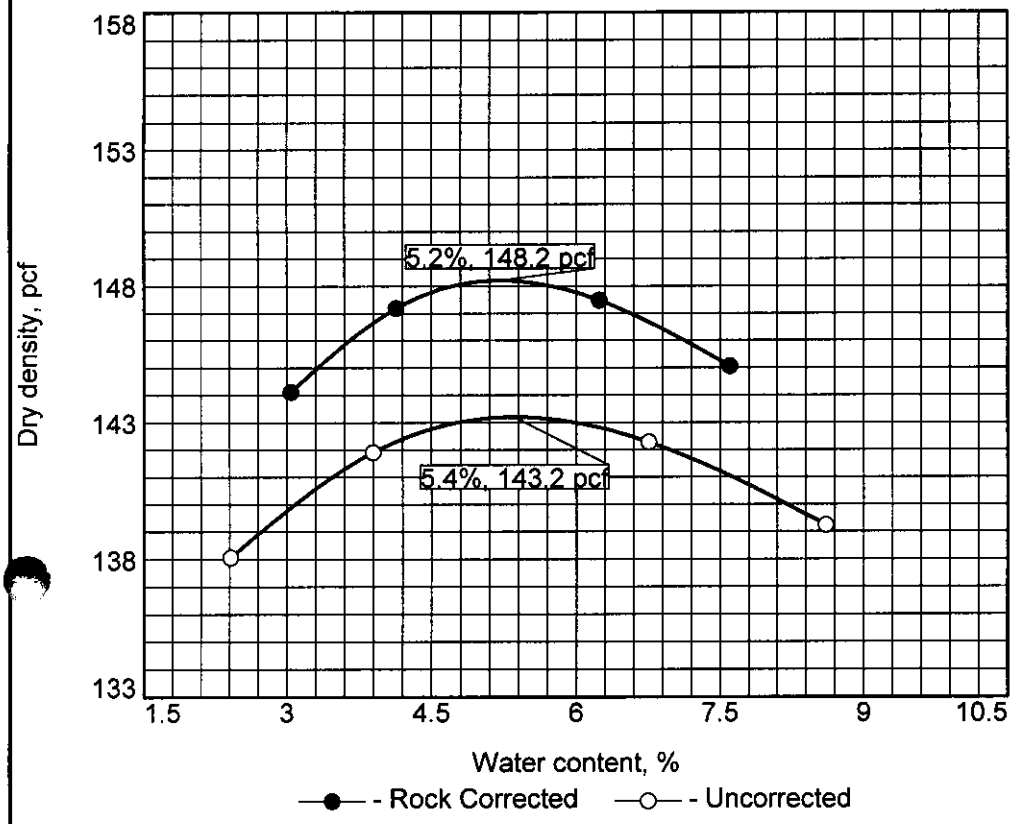
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Entact
Project: 70 Carteret Avenue, Jersey City, NJ

Project No: ANV-3667 **Figure 2 F 1**

COMPACTION TEST REPORT



Curve No.
S-2

Test Specification:
ASTM D 1557-12 Method C Modified
ASTM D4718-15 Oversize Corr. Applied to

Hammer Wt.: 10 lb.
Hammer Drop: 18 in.
Number of Layers: five
Blows per Layer: 56
Mold Size: 0.075 cu. ft.

Test Performed on Material Passing 3/4 in. **Sieve**

Soil Data

NM _____ **Sp.G.** _____
LL NV **PI** NP
%>3/4 in. 26.4 **%<#200** 5.6
USCS GW-GM **AASHTO** A-1-a

TESTING DATA

	1	2	3	4	5	6
WM + WS	24.54	24.99	25.33	25.28		
WM	13.94	13.94	13.94	13.94		
WW + T #1	912.8	762.5	730.1	1010.8		
WD + T #1	891.3	733.9	683.9	930.7		
TARE #1	0.0	0.0	0.0	0.0		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	3.0	4.1	6.2	7.6		
DRY DENSITY	144.1	147.2	147.5	145.1		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 148.2 pcf	143.2 pcf	DGA material. well-graded gravel with silt and sand
Optimum moisture = 5.2 %	5.4 %	

Project No. ANV-3667 **Client:** Entact
Project: 70 Carteret Avenue, Jersey City, NJ

○ **Location:** Stock Pile- Tilcon 07/15/16, S-1 **Sample Number:** S-2

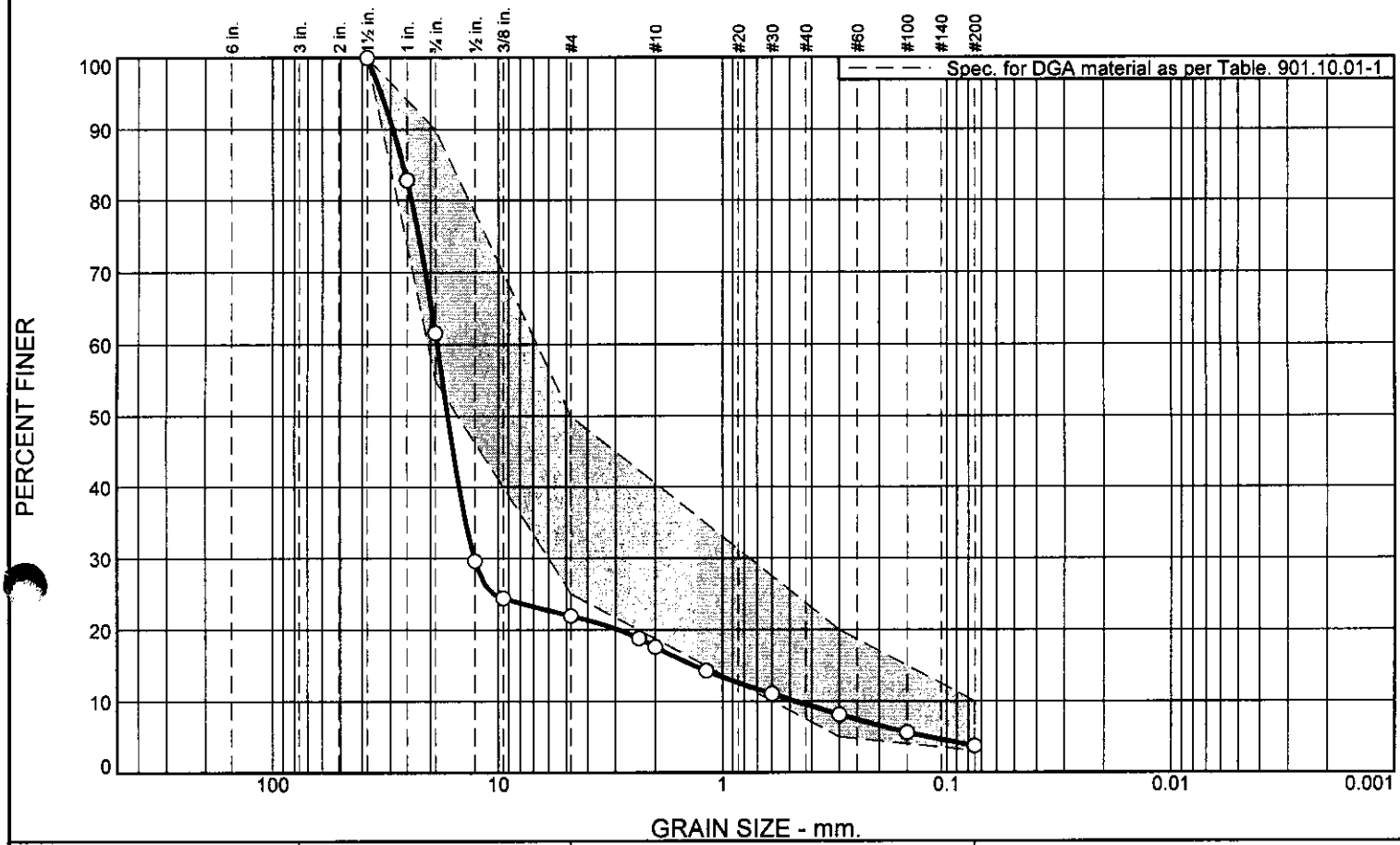
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Remarks:
Sample was collected by Mr. Clifford on 07/16/19 and tested on 07/17/19

Figure 2 F 2

Particle Size Distribution Report As per ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	38.4	39.7	4.3	8.1	5.8	3.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0	100.0	
1	82.9		
3/4	61.6	55.0 - 90.0	
1/2	29.6		
3/8	24.4		
#4	21.9	25.0 - 50.0	X
#8	18.8		
#10	17.6		
#16	14.2		
#30	11.0		
#50	8.1	5.0 - 20.0	
#100	5.6		
#200	3.7	3.0 - 10.0	

* Spec. for DGA material as per Table. 901.10.01-1

Material Description

DGA material. poorly graded gravel with sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 29.2098 D_{85}= 26.3865 D_{60}= 18.7143
D_{50}= 16.7513 D_{30}= 12.7980 D_{15}= 1.3481
D_{10}= 0.4740 C_u= 39.48 C_c= 18.47

Classification

USCS= GP AASHTO= A-1-a

Remarks

Sample was collected by Mr. Clifford on 07/16/9 and tested on 07/18/19. In-Situ %MC=0.5
F.M.=6.34

Location: Stock Pile- Tilcon 07/15/16, S-2
Sample Number: S-3

Date: 07/18/2019

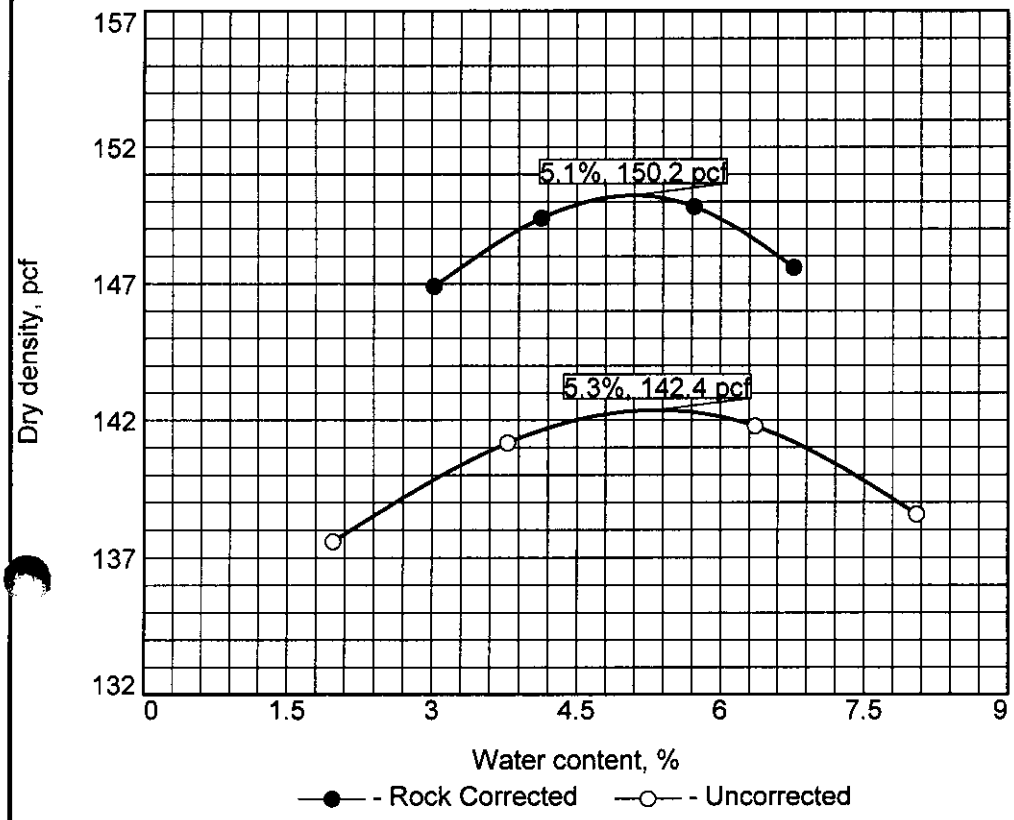
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Entact
Project: 70 Carteret Avenue, Jersey City, NJ

Project No: ANV-3667 **Figure** 3 F 1

COMPACTION TEST REPORT



Curve No.
S-3

Test Specification:
ASTM D 1557-12 Method C Modified
ASTM D4718-15 Oversize Corr. Applied to

Hammer Wt.: 10 lb.
Hammer Drop: 18 in.
Number of Layers: five
Blows per Layer: 56
Mold Size: 0.075 cu. ft.

Test Performed on Material Passing 3/4 in. **Sieve**

Soil Data

NM _____ **Sp.G.** _____
LL NV **PI** NP
%>3/4 in. 38.4 **%<#200** 3.7
USCS GP **AASHTO** A-1-a

TESTING DATA

	1	2	3	4	5	6
WM + WS	24.46	24.92	25.24	25.16		
WM	13.94	13.94	13.94	13.94		
WW + T #1	907.9	979.4	897.6	856.1		
WD + T #1	890.3	943.7	843.9	792.3		
TARE #1	0.0	0.0	0.0	0.0		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	3.0	4.1	5.7	6.8		
DRY DENSITY	146.9	149.4	149.8	147.6		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 150.2 pcf	142.4 pcf	DGA material. poorly graded gravel with sand
Optimum moisture = 5.1 %	5.3 %	

Project No. ANV-3667 **Client:** Entact
Project: 70 Carteret Avenue, Jersey City, NJ

o **Location:** Stock Pile- Tilcon 07/15/16, S-2 **Sample Number:** S-3

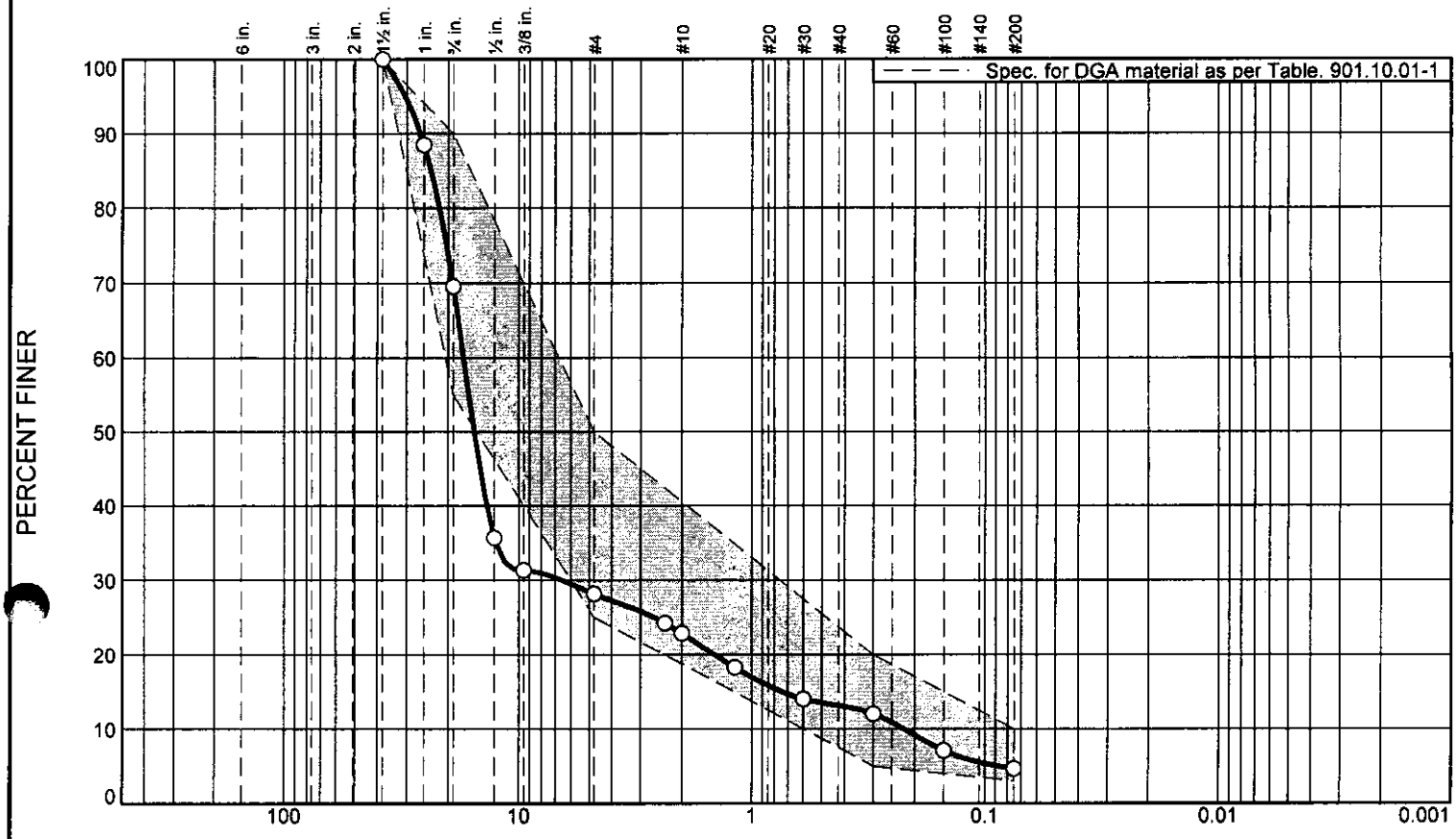
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Remarks:
Sample was collected by Mr. Clifford on 07/16/19 tested on 07/17/19.

Figure 3 F 2

Particle Size Distribution Report As per ASTM D 422



% +3"	% Gravel		% Sand			% Fines	
	Coarse	Fine	Coarse	Medium	Fine	Silt	Clay
0.0	30.4	41.4	5.3	9.8	8.4	4.7	

SIEVE SIZE	PERCENT FINER	SPEC.* PERCENT	PASS? (X=NO)
1.5	100.0	100.0	
1	88.5		
3/4	69.6	55.0 - 90.0	
1/2	35.7		
3/8	31.3		
#4	28.2	25.0 - 50.0	
#8	24.3		
#10	22.9		
#16	18.3		
#30	14.0		
#50	12.0	5.0 - 20.0	
#100	7.1		
#200	4.7	3.0 - 10.0	

* Spec. for DGA material as per Table. 901.10.01-1

Material Description

DGA material. poorly graded gravel with sand

Atterberg Limits

PL= NP LL= NV PI= NP

Coefficients

D_{90}= 26.2918 D_{85}= 23.7092 D_{60}= 17.1730
D_{50}= 15.4493 D_{30}= 6.5195 D_{15}= 0.7438
D_{10}= 0.2221 C_u= 77.32 C_c= 11.14

Classification

USCS= GP AASHTO= A-1-a

Remarks

Sample was collected by Mr. Clifford on 07/16/19 and tested on 07/18/19. In-Situ %MC=0.6
F.M.=5.95

Location: Stock Pile- Tilcon 07/15/16, S-3
Sample Number: S-4

Date: 07/18/2019

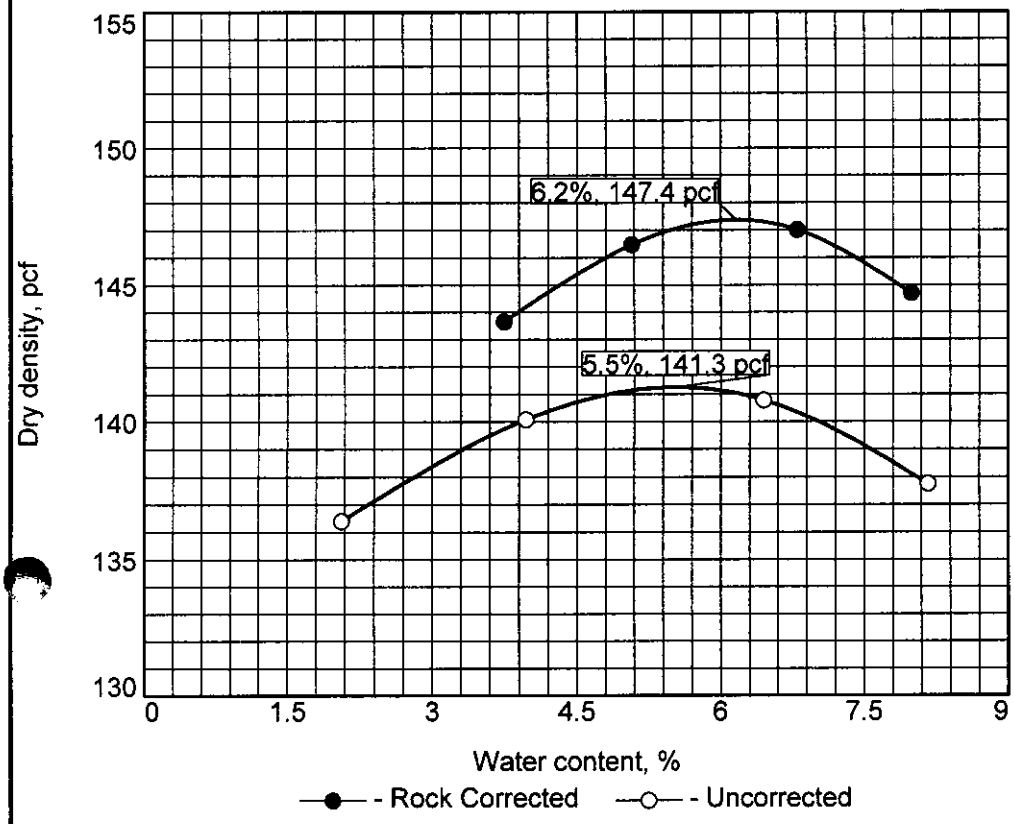
ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Client: Entact
Project: 70 Carteret Avenue, Jersey City, NJ

Project No: ANV-3667 **Figure** 4 F 1

COMPACTION TEST REPORT



Curve No.
S-4

Test Specification:
ASTM D 1557-12 Method C Modified
ASTM D4718-15 Oversize Corr. Applied to

Hammer Wt.: 10 lb.
Hammer Drop: 18 in.
Number of Layers: five
Blows per Layer: 56
Mold Size: 0.075 cu. ft.

Test Performed on Material Passing 3/4 in. **Sieve**

Soil Data

NM _____ **Sp.G.** _____
LL NV **PI** NP
%>3/4 in. 30.4 **%<#200** 4.7
USCS GP **AASHTO** A-1-a

TESTING DATA

	1	2	3	4	5	6
WM + WS	24.38	24.86	25.18	25.11		
WM	13.94	13.94	13.94	13.94		
WW + T #1	796.9	882.4	819.9	962.7		
WD + T #1	780.8	848.7	770.2	890.0		
TARE #1	0.0	0.0	0.0	0.0		
WW + T #2						
WD + T #2						
TARE #2						
MOISTURE	3.7	5.1	6.8	8.0		
DRY DENSITY	143.7	146.5	147.0	144.7		

ROCK CORRECTED TEST RESULTS	UNCORRECTED	Material Description
Maximum dry density = 147.4 pcf	141.3 pcf	DGA material. poorly graded gravel with sand
Optimum moisture = 6.2 %	5.5 %	

Project No. ANV-3667 **Client:** Entact
Project: 70 Carteret Avenue, Jersey City, NJ

○ **Location:** Stock Pile- Tilcon 07/15/16, S-3 **Sample Number:** S-4

ANS CONSULTANTS, INC.

South Plainfield, New Jersey

Remarks:
Sample was collected by Mr. Clifford on 07/16/19 and tested on 07/17/19.

Figure 4 F 2

S & S ENVIRONMENTAL SCIENCES, INC.

Environmental Engineering, Testing and Consultation

98 Sand Park Road, Cedar Grove, NJ 07009
Tel (973) 857-7188 Fax (973) 239-8380

Kamil Sor, Ph.D.
Orhun Sor, P.E.
Atilla Sencar, P.E.

Client:	Tilcon New York, Inc.				
Project:	Mount Hope, NJ (NJDEP-SRS)				
Subject:	Laboratory Analysis of Aggregate Sample (Quarry Fines)-NJ				
Job No.:	07E34	**Report Number:**	19-E-78R	**Date:**	5/17/2019

We present herewith the laboratory test results of an aggregate sample delivered to our laboratory (identified as Quarry Fines) on May 7, 2019. The sample was collected by a representative of Tilcon NY, on the same day.

As requested, the aggregate sample was analyzed for the U.S. EPA Target Compound List (TCL)+30/Target Analyte List (TAL) parameters, Extractable Petroleum Hydrocarbons (EPH), pH, and Hexavalent Chromium. The analyses were performed by Integrated Analytical Laboratories, LLC (IAL) (NJDEP Lab ID No. 14751). The copies of the IAL/S&S sample chain-of-custody forms, the preliminary IAL laboratory summary report and NJDEP-SRS comparison tables are attached.

Review of the laboratory data and comparison of the sample test results to the NJDEP Residential Direct Contact Soil Remediation Standards (RDCSRS) indicated that the aggregate sample **meet** the **NJDEP-RDCSRS**.

If there are any questions or if we can be of further assistance in this matter, please contact us.

Very truly yours,
S & S ENVIRONMENTAL SCIENCES, INC.

Kamil Sor, Ph.D.
President

KS/ag
Attachments:

(1) Laboratory Summary Report, S&S and IAL Sample Chain-of-Custody Form, and NJDEP-SRS Comparison Tables

cc: (1) Client Steve O'Reilly
email: soreilly@tilconny.com

S&S ENVIRONMENTAL SCIENCES, INC.

Environmental Engineering, Testing and Consultation

98 Sand Park Rad, Cedar Grove, NJ 07009
Tel (973) 857-7188 Fax (973) 239-8380

NJDEP Lab Certification No. 07073

SAMPLE CHAIN OF CUSTODY

CLIENT:	Tilcon	DATE:	5-7-19
ADDRESS:			
CONTACT:		TEL. #:	
PROJECT:	Mt Hope	PROJECT LAB ID #:	19-053

SAMPLE NUMBER	SAMPLING DATE	SAMPLING TIME	SAMPLE TYPE	NO. OF BOTTLES	ANALYSES REQUESTED
1	5-7-19	12 Noon	Grab		NJDEP-SRS - Cleanfill & NYSDEC

Comments:

PRESERVATIVE	
Cooled at 4°C?	✓
HCl	
HNO_3	
H_2SO_4	
NaOH	
$Na_2S_2O_3$	
Other	

pH Meter No.:_____	Reading	T°C	Time	Analyst
pH				
pH Dup.				

Temperature	
Flow	

Sampled By: JW

RELINQUISHED BY:	RECEIVED BY:	DATE AND TIME:
JW		5-7-19 1300

Integrated Analytical Labs
273 Franklin Road
Randolph, NJ 07869

Chain of Custody Record

Contact Us: 973-361-4252
Fax: 973-989-5288
Web: www.ialonline.com

Customer Information	Reporting Information	**Rush TAT Charge	Deliverables		EDDs	Concentrations Expected:
Company: S&S	REPORT TO:	24 hr - 100%...	NJ, CT, PA	NY	☐ NJ SRP	Low Med High
Address:	Address:	48 hr - 75%....	☐ Results Only	☐ ASP Category A	☐ NYSDEC EQuIS	These samples have been previously analyzed by IAL
		72 hr - 50%....	☑ Reduced		☐ lab approved custom EDD	
Telephone #: 973-239-6001	Attn:	96 hr - 35%....	☐ Regulatory/ Full*	☐ ASP Category B*	☐ NO EDD REQ'D	☐ YES ☐ NO
Fax #:	FAX #	5 day - 25%....				
Project Manager: AG	INVOICE TO:	6-9 day - 10%	Turn-Around Time (TAT)		Regulatory Requirement	
EMAIL Address:	Address:		Standard (10 business days) Verbal		New Jersey	New York
Project Name: Mt. Hope - A66			Rush/date needed (only if pre-approved)**		☐ GWQS	☐ AWQS (TOGS Table 1)
Project Location (State):	Attn:		Hard Copy: Std 3 week	Other - call for price	☑ IGW	☐ GWEL (TOGS Table 5)
Bottle Order #:	PO # 19-053		Petroleum Hydrocarbons - Selection is REQUIRED		☑ SRS	☐ Part 375-6.8(a) - Unrestricted
☑ "Report to"/"Invoice To" same as above	Quote #		☐ NJ EPH-DRO - Category 1	TAT for PHC (If other than 2 weeks):	☐ Ecological	☒ Part 375-6.8(b) - Restricted
Sampled by: SD	Sample Matrix		☑ NJ EPH-C40 - Category 2		☐ DW	☒ CP-51 Table 2 or 3 (selection required)
COMPLETED BY IAL: ____ Field Sampling ____ Equipment Rental	DW - Drinking Water, WW - Waste Water, GW - Groundwater, SW - Surface Water, LIQ - Liquid (Specify); OI - Oil, S - Soil, SOL - Solid, SL - Sludge, W - Wipe, B - Biphasic		☐ NJ EPH-Fractionated - Cat 2	☐ DRO-8015	☐ SPLP	OTHER Reg. Req. (specify)

SAMPLE INFORMATION

Client ID	Depth (ft only)	Sampling Date	Sampling Time	Matrix	# containers	IAL #	ANALYTICAL PARAMETERS (please note if contingent)									Sample Specific Notes:
							TAL/TCL T30 (*)	EPH	pH	Cr 6+						
19-053		5/7/19	12:00	SO	5	1	✓	✓	✓	✓						C# 80422/10799/10798

Preservative (use code)							1,4,7	1	1	1						
Container Type (use code)							T,D	D	D	D						

Known Hazard: YES / NO
Describe:

Please print legibly and fill out completely. Samples cannot be processed and the turnaround time (TAT) will not start until any ambiguities have been resolved. TAT starts the following day if samples rec'd at lab > 5PM. BY EXECUTING THIS COC, THE CLIENT HAS READ AND AGREES TO BE BOUND BY IAL'S TERMS & CONDITIONS (found on rear of pink copy).

IAL Rev 2/2014

Preservative Code: 1 = None, 2 = HCl, 3 = HNO3, 4 = MeOH, 5 = NaOH, 6 = H2SO4, 7 = Other

Container Code: A = Amber Glass, B = Plastic, C = Vial, D = Glass, E = EnCore, T = Terracore

Carrier (check one :
☐ IAL Courier
☐ Client Courier
☐ FedEx/UPS***
***Tracking #:

Special Instructions/QC Requirements & Comments:
(*) Incl. SRS Parameters
NY-NJ Clean-fill
Re: P# EH-01575

Relinquished by (Signature and Company)	Date	Time	Received by (Signature and Company)	Date	Time
	5/7/19	1538		5/7/19	1538
	5/7/19	1642		5/7/19	1642

FOR LAB USE ONLY
SDG #: 33371
Cooler Temp: 6 °C

LAB COPIES - WHITE & YELLOW; CLIENT COPY - PINK

Certification IDs: TNI (TNI01284); CT (PH-0699); NJ (14751); NY (11402); PA (68-00773).

PAGE: 1 of 1

INTEGRATED ANALYTICAL LABORATORIES, LLC

SAMPLE RECEIPT VERIFICATION

CASE NO: **E 19** **03331** CLIENT: STS

COOLER TEMPERATURE: 2° - 6°C: ✓ (See Chain of Custody) MT. Hope

Comments

COC: (COMPLETE) / INCOMPLETE

KEY

✓ = YES/NA
X = NO

VOA received: ☐ Encore ☐ IGW - Methanol
(check one) ☒ Terra Core ☐ No Preservative

- ✓ Bottles Intact
- ✓ no-Missing Bottles
- ✓ no-Extra Bottles
- ✓ Sufficient Sample Volume
- ✓ no-headspace/bubbles in VOs
- ✓ Labels intact/correct
- ✓ pH Check (exclude VOs)[1]
- ✓ Correct bottles/preservative
- ✓ Sufficient Holding/Prep Time[1]
- ☐ Multiphasic Sample
- ☐ Sample to be Subcontracted
- ✓ **Chain of Custody is Clear**

[1] All samples with "Analyze Immediately" holding times will be analyzed by this laboratory past the holding time. This includes but is not limited to the following tests: pH, Temperature, Free Residual Chlorine, Total Residual Chlorine, Dissolved Oxygen, Sulfite.

ADDITIONAL COMMENTS:

SAMPLE(S) VERIFIED BY: INITIAL AP DATE 5/7/19

CORRECTIVE ACTION REQUIRED: **YES** ☐ (SEE BELOW) **NO** X

If COC is **NOT** clear, ***STOP*** until you get client to authorize/clarify work.

CLIENT NOTIFIED: YES ☐ Date/ Time: _____ NO ☐
PROJECT CONTACT:
SUBCONTRACTED LAB:
DATE SHIPPED:

ADDITIONAL COMMENTS:

VERIFIED/TAKEN BY: INITIAL MM DATE 5.4.19

REV 03/2013

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

	Lab ID:	03331-001	
	Client ID:	19-053	
	Matrix:	Solid	
	Sampled Date	5/7/19	
PARAMETER(Units)	Conc	Q	MDL
Special Volatiles (Units)		*(mg/Kg)*	
Dichlorodifluoromethane	ND		0.000417
Chloromethane	ND		0.000385
Vinyl chloride	ND		0.000428
Bromomethane	ND		0.000598
Chloroethane	ND		0.000416
Trichlorofluoromethane	ND		0.000496
Acrolein	ND		0.00264
1,1-Dichloroethene	ND		0.000385
Acetone	ND		0.00189
Carbon disulfide	ND		0.000234
Methylene chloride	ND		0.00184
Acrylonitrile	ND		0.00283
tert-Butyl alcohol (TBA)	ND		0.00126
trans-1,2-Dichloroethene	ND		0.000328
Methyl tert-butyl ether (MTBE)	ND		0.00019
1,1-Dichloroethane	ND		0.000354
cis-1,2-Dichloroethene	ND		0.000259
2-Butanone (MEK)	ND		0.000975
Bromochloromethane	ND		0.000241
Chloroform	ND		0.00024
1,1,1-Trichloroethane	ND		0.000201
Carbon tetrachloride	ND		0.000133
1,2-Dichloroethane (EDC)	ND		0.000333
Benzene	ND		0.000125
Trichloroethene	ND		0.000243
1,2-Dichloropropane	ND		0.000275
1,4-Dioxane	ND		0.049
Bromodichloromethane	ND		0.000187
cis-1,3-Dichloropropene	ND		0.000148
4-Methyl-2-pentanone (MIBK)	ND		0.000417
Toluene	ND		0.00025
trans-1,3-Dichloropropene	ND		0.000221
1,1,2-Trichloroethane	ND		0.000347
Tetrachloroethene	ND		0.000361
2-Hexanone	ND		0.000448
Dibromochloromethane	ND		0.000266
1,2-Dibromoethane (EDB)	ND		0.00021
Chlorobenzene	ND		0.000303
Ethylbenzene	ND		0.000187
Total Xylenes	ND		0.000787
Styrene	ND		0.000115
Bromoform	ND		0.000388
Isopropylbenzene	ND		0.000141
1,1,2,2-Tetrachloroethane	ND		0.000308
n-Propylbenzene	ND		0.000182

ND = Analyzed for but Not Detected at the MDL

Continued on next page.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

	Lab ID:	03331-001	
	Client ID:	19-053	
	Matrix:	Solid	
	Sampled Date	5/7/19	
PARAMETER(Units)	Conc	Q	MDL
Special Volatiles (Units)		*(mg/Kg)*	
1,3,5-Trimethylbenzene	ND		0.000485
tert-Butylbenzene	ND		0.000146
1,2,4-Trimethylbenzene	ND		0.000627
sec-Butylbenzene	ND		0.000197
1,3-Dichlorobenzene	ND		0.000272
4-Isopropyltoluene	ND		0.000301
1,4-Dichlorobenzene	ND		0.000327
n-Butylbenzene	ND		0.000345
1,2-Dichlorobenzene	ND		0.000267
1,2-Dibromo-3-chloropropane	ND		0.000619
1,2,4-Trichlorobenzene	ND		0.000421
1,2,3-Trichlorobenzene	ND		0.000279
1,1,2-Trichloro-1,2,2-trifluoroethane	ND		0.000667
Methyl acetate	ND		0.000156
Cyclohexane	ND		0.000552
Methylcyclohexane	ND		0.000248
1,3-Dichloropropene (cis- and trans-)	ND		0.000221
TOTAL VO's:	ND		
TOTAL TIC's:	ND		
TOTAL VO's & TIC's:	ND		
Semivolatiles - Special BNA (Units)		*(mg/Kg)*	
N-Nitrosodimethylamine	ND		0.020
Benzaldehyde	ND		0.020
Phenol	ND		0.025
Aniline	ND		0.023
Bis(2-chloroethyl) ether	ND		0.020
2-Chlorophenol	ND		0.022
2-Methylphenol	ND		0.030
2,2'-Oxybis(1-Chloropropane)	ND		0.032
4-Methylphenol **	ND		0.032
N-Nitrosodi-n-propylamine	ND		0.022
Acetophenone	ND		0.022
3-Methylphenol	ND		0.032
Hexachloroethane	ND		0.020
Nitrobenzene	ND		0.020
Isophorone	ND		0.030
2-Nitrophenol	ND		0.020
2,4-Dimethylphenol	ND		0.020
Bis(2-chloroethoxy) methane	ND		0.020
Benzoic acid	ND		0.021
2,4-Dichlorophenol	ND		0.021
Naphthalene	ND		0.023
4-Chloroaniline	ND		0.021

ND = Analyzed for but Not Detected at the MDL

Continued on next page.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

	Lab ID:	03331-001	
	Client ID:	19-053	
	Matrix:	Solid	
	Sampled Date	5/7/19	
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - Special BNA (Units)		*(mg/Kg)*	
Hexachlorobutadiene	ND		0.020
Caprolactam	ND		0.032
4-Chloro-3-methylphenol	ND		0.025
2-Methylnaphthalene	ND		0.020
Hexachlorocyclopentadiene	ND		0.022
2,4,6-Trichlorophenol	ND		0.020
2,4,5-Trichlorophenol	ND		0.020
1,1'-Biphenyl	ND		0.020
2-Chloronaphthalene	ND		0.020
2-Nitroaniline	ND		0.028
Dimethyl phthalate	ND		0.020
2,6-Dinitrotoluene	ND		0.027
Acenaphthylene	ND		0.023
3-Nitroaniline	ND		0.024
Acenaphthene	ND		0.020
2,4-Dinitrophenol	ND		0.020
4-Nitrophenol	ND		0.020
2,4-Dinitrotoluene	ND		0.020
Dibenzofuran	ND		0.020
Diethyl phthalate	ND		0.021
Fluorene	ND		0.020
4-Chlorophenyl phenyl ether	ND		0.020
4-Nitroaniline	ND		0.026
1,2,4,5-Tetrachlorobenzene	ND		0.020
2,3,4,6-Tetrachlorophenol	ND		0.020
4,6-Dinitro-2-methylphenol	ND		0.021
N-Nitrosodiphenylamine	ND		0.024
1,2-Diphenylhydrazine	ND		0.025
4-Bromophenyl phenyl ether	ND		0.027
Hexachlorobenzene	ND		0.020
Atrazine	ND		0.020
Pentachlorophenol	ND		0.025
Phenanthrene	ND		0.020
Anthracene	ND		0.020
Carbazole	ND		0.022
Di-n-butyl phthalate	ND		0.020
Fluoranthene	ND		0.032
Benzidine	ND		0.020
Pyrene	ND		0.025
Butyl benzyl phthalate	ND		0.024
3,3'-Dichlorobenzidine	ND		0.020
Benzo[a]anthracene	ND		0.023
Chrysene	ND		0.020
Bis(2-ethylhexyl) phthalate	ND		0.029
Di-n-octyl phthalate	ND		0.031

ND = Analyzed for but Not Detected at the MDL
Continued on next page.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

Lab ID:	**03331-001**		
Client ID:	**19-053**		
Matrix:	**Solid**		
Sampled Date	**5/7/19**		
PARAMETER(Units)	Conc	Q	MDL
Semivolatiles - Special BNA (Units)		***(mg/Kg)***	
Benzo[b]fluoranthene	ND		0.029
Benzo[k]fluoranthene	ND		0.025
Benzo[a]pyrene	ND		0.020
Indeno[1,2,3-cd]pyrene	ND		0.020
Dibenz[a,h]anthracene	ND		0.022
Benzo[g,h,i]perylene	ND		0.031
Dinitrotoluene (2,4- and 2,6-)	ND		0.027
TOTAL BNA'S:	ND		
TOTAL TIC's:	ND		
TOTAL BNA'S & TIC's:	ND		
PCB's (Units)		***(mg/Kg)***	
Aroclor-1016	ND		0.00127
Aroclor-1221	ND		0.00127
Aroclor-1232	ND		0.00127
Aroclor-1242	ND		0.00127
Aroclor-1248	ND		0.00127
Aroclor-1254	ND		0.00127
Aroclor-1260	ND		0.00127
Aroclor-1262	ND		0.00127
Aroclor-1268	ND		0.00127
PCBs	ND		0.00127

ND = Analyzed for but Not Detected at the MDL

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

	Lab ID:	03331-001	
	Client ID:	19-053	
	Matrix:	Solid	
	Sampled Date	5/7/19	
PARAMETER(Units)	Conc	Q	MDL
Pesticides (Units)		*(mg/Kg)*	
alpha-BHC	ND		0.000317
beta-BHC	ND		0.000317
gamma-BHC (Lindane)	ND		0.000317
delta-BHC	ND		0.000317
Heptachlor	ND		0.000317
Aldrin	ND		0.000317
Heptachlor epoxide	ND		0.000317
Endosulfan I	ND		0.000317
4,4'-DDE	ND		0.000317
Dieldrin	ND		0.000317
Endrin	ND		0.000317
Endosulfan II	ND		0.000317
4,4'-DDD	ND		0.000317
Endrin aldehyde	ND		0.000317
Endosulfan sulfate	ND		0.000317
4,4'-DDT	ND		0.000317
Endrin ketone	ND		0.000317
Methoxychlor	ND		0.000317
alpha-Chlordane	ND		0.000317
gamma-Chlordane	ND		0.000317
Toxaphene	ND		0.0038
Endosulfan (I and II)	ND		0.000317
Chlordane (alpha and gamma)	ND		0.000317
Herbicides (Units)		*(mg/Kg)*	
Dalapon	ND		0.00666
Dicamba	ND		0.00666
2,4-D	ND		0.00666
2,4,5-TP (Silvex)	ND		0.00666
2,4,5-T	ND		0.00666
2,4-DB	ND		0.00666
Dinoseb	ND		0.00666
NJ-EPH-C40 (Units)		*(mg/Kg)*	
C9-C40	46.8	J	19.4
Alcohols (Units)		*(mg/Kg)*	
Methanol	ND		1.98

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

INTEGRATED ANALYTICAL LABORATORIES, LLC.

SUMMARY REPORT
Client: S & S Environmental
Project: MT HOPE - AGG
Lab Case No.: E19-03331

	Lab ID:	03331-001	
	Client ID:	19-053	
	Matrix:	Solid	
	Sampled Date	5/7/19	
PARAMETER(Units)	Conc	Q	MDL
Metals (Units)		*(mg/Kg)*	
Aluminum	2330		5.05
Antimony	ND		0.505
Arsenic	0.929	J	0.379
Barium	19.1		0.631
Beryllium	0.382	J	0.379
Cadmium	ND		0.758
Calcium	4380		37.9
Chromium	5.61		0.631
Cobalt	3.83		0.379
Copper	11.7		0.884
Iron	10600		37.9
Lead	ND		0.631
Magnesium	1990		37.9
Manganese	110		0.884
Mercury	ND		0.00926
Nickel	4.47		0.884
Potassium	1190		50.5
Selenium	3.91	J	3.79
Silver	ND		0.758
Sodium	162		50.5
Thallium	ND		0.631
Vanadium	8.71		0.631
Zinc	12.5	J	2.53
General Analytical (Units)			
Hexavalent Chromium(mg/Kg)	ND		0.378
Cyanide, Total(mg/Kg)	ND		0.500
pH/Corrosivity(SU)	9.29		NA
Trivalent (III) Chromium(mg/Kg)	5.61		0.631

ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

S S Environmental
Project Name: MT HOPE - AGG
IAL SDG No:E19-03331

Sample #:		NJDEP SOIL REMEDIATION STANDARDS			19-053			
Field ID:								
Lab ID:		Residential	Non-Res	Default IGW	03331-001			
Date Sampled:		SRS	SRS	Screening	05/07/2019			
Depth(ft):				Level				
	CAS	(mg/Kg)	(mg/Kg)	(mg/Kg)				
Special Volatiles (mg/Kg)					Conc	Q	RL	MDL
Dichlorodifluoromethane	75-71-8	490	230000	39	ND		0.00097	0.000417
Chloromethane	74-87-3	4	12	NS	ND		0.00097	0.000385
Vinyl chloride	75-01-4	0.7	2	0.005	ND		0.00097	0.000428
Bromomethane	74-83-9	25	59	0.04	ND		0.00097	0.000598
Chloroethane	75-00-3	220	1100	NS	ND		0.00097	0.000416
Trichlorofluoromethane	75-69-4	23000	340000	34	ND		0.00097	0.000496
Acrolein	107-02-8	0.5	1	0.5	ND		0.019	0.00264
1,1-Dichloroethene	75-35-4	11	150	0.008	ND		0.00097	0.000385
Acetone	67-64-1	70000	NS	19	ND		0.0097	0.00189
Carbon disulfide	75-15-0	7800	110000	6	ND		0.00097	0.000234
Methylene chloride	75-09-2	46	230	0.01	ND		0.00194	0.00184
Acrylonitrile	107-13-1	0.9	3	0.5	ND		0.019	0.00283
tert-Butyl alcohol (TBA)	75-65-0	1400	11000	0.3	ND		0.00388	0.00126
trans-1,2-Dichloroethene	156-60-5	300	720	0.6	ND		0.00097	0.000328
Methyl tert-butyl ether (MTBE)	1634-04-4	110	320	0.2	ND		0.00097	0.00019
1,1-Dichloroethane	75-34-3	8	24	0.2	ND		0.00097	0.000354
cis-1,2-Dichloroethene	156-59-2	230	560	0.3	ND		0.00097	0.000259
2-Butanone (MEK)	78-93-3	3100	44000	0.9	ND		0.00194	0.000975
Bromochloromethane	74-97-5	NS	NS	NS	ND		0.00097	0.000241
Chloroform	67-66-3	0.6	2	0.4	ND		0.00097	0.00024
1,1,1-Trichloroethane	71-55-6	160000	NS	0.3	ND		0.00097	0.000201
Carbon tetrachloride	56-23-5	2	4	0.005	ND		0.00097	0.000133
1,2-Dichloroethane (EDC)	107-06-2	0.9	3	0.005	ND		0.00097	0.000333
Benzene	71-43-2	2	5	0.005	ND		0.00097	0.000125
Trichloroethene	79-01-6	3	10	0.01	ND		0.00097	0.000243
1,2-Dichloropropane	78-87-5	2	5	0.005	ND		0.00097	0.000275
1,4-Dioxane	123-91-1	NS	NS	NS	ND		0.194	0.049
Bromodichloromethane	75-27-4	1	3	0.005	ND		0.00097	0.000187
cis-1,3-Dichloropropene	10061-01-5	NS	NS	NS	ND		0.00097	0.000148
4-Methyl-2-pentanone (MIBK)	108-10-1	NS	NS	NS	ND		0.00194	0.000417
Toluene	108-88-3	6300	91000	7	ND		0.00097	0.00025
trans-1,3-Dichloropropene	10061-02-6	NS	NS	NS	ND		0.00097	0.000221
1,1,2-Trichloroethane	79-00-5	2	6	0.02	ND		0.00097	0.000347
Tetrachloroethene	127-18-4	43	1500	0.005	ND		0.00097	0.000361
2-Hexanone	591-78-6	NS	NS	NS	ND		0.00194	0.000448
Dibromochloromethane	124-48-1	3	8	0.005	ND		0.00097	0.000266
1,2-Dibromoethane (EDB)	106-93-4	0.008	0.04	0.005	ND		0.00097	0.00021
Chlorobenzene	108-90-7	510	7400	0.6	ND		0.00097	0.000303

Standards are based upon published regulatory information.
Users are encouraged to consult appropriate regulatory sources for current values and updates.
IAL assumes no responsibility for the accuracy of these values.

EDD created on 5/14/19

S S Environmental
Project Name: MT HOPE - AGG
IAL SDG No:E19-03331

Ethylbenzene	100-41-4	7800	110000	13	ND		0.00097	0.000187	
Total Xylenes	1330-20-7	12000	170000	19	ND		0.00194	0.000787	
Styrene	100-42-5	90	260	3	ND		0.00097	0.000115	
Bromoform	75-25-2	81	280	0.03	ND		0.00097	0.000388	
Isopropylbenzene	98-82-8	NS	NS	NS	ND		0.00097	0.000141	
1,1,2,2-Tetrachloroethane	79-34-5	1	3	0.007	ND		0.00097	0.000308	
n-Propylbenzene	103-65-1	NS	NS	NS	ND		0.00097	0.000182	
1,3,5-Trimethylbenzene	108-67-8	NS	NS	NS	ND		0.00097	0.000485	
tert-Butylbenzene	98-06-6	NS	NS	NS	ND		0.00097	0.000146	
1,2,4-Trimethylbenzene	95-63-6	NS	NS	NS	ND		0.00097	0.000627	
sec-Butylbenzene	135-98-8	NS	NS	NS	ND		0.00097	0.000197	
1,3-Dichlorobenzene	541-73-1	5300	59000	19	ND		0.00097	0.000272	
4-Isopropyltoluene	99-87-6	NS	NS	NS	ND		0.00097	0.000301	
1,4-Dichlorobenzene	106-46-7	5	13	2	ND		0.00097	0.000327	
n-Butylbenzene	104-51-8	NS	NS	NS	ND		0.00097	0.000345	
1,2-Dichlorobenzene	95-50-1	5300	59000	17	ND		0.00097	0.000267	
1,2-Dibromo-3-chloropropane	96-12-8	0.08	0.2	0.005	ND		0.00097	0.000619	
1,2,4-Trichlorobenzene	120-82-1	73	820	0.7	ND		0.00097	0.000421	
1,2,3-Trichlorobenzene	87-61-6	NS	NS	NS	ND		0.00097	0.000279	
1,1,2-Trichloro-1,2,2-trifluoroethane	76-13-1	NS	NS	NS	ND		0.00097	0.000667	
Methyl acetate	79-20-9	78000	NS	22	ND		0.00194	0.000156	
Cyclohexane	110-82-7	NS	NS	NS	ND		0.00097	0.000552	
Methylcyclohexane	108-87-2	NS	NS	NS	ND		0.00097	0.000248	
1,3-Dichloropropene (cis- and trans-)	542-75-6	2	7	0.005	ND		0.00097	0.000221	
TOTAL VO's:		NS	NS	NS	ND			NA	
TOTAL TIC's:		NS	NS	NS	ND			NA	
TOTAL VO's & TIC's:		NS	NS	NS	ND			NA	

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Semivolatiles - Special BNA (mg/Kg)					Conc	Q	RL	MDL
N-Nitrosodimethylamine	62-75-9	0.7	0.7	0.7	ND		0.032	0.020
Benzaldehyde	100-52-7	6100	68000	NS	ND		0.032	0.020
Phenol	108-95-2	18000	210000	8	ND		0.032	0.025
Aniline	62-53-3	NS	NS	NS	ND		0.032	0.023
Bis(2-chloroethyl) ether	111-44-4	0.4	2	0.2	ND		0.032	0.020
2-Chlorophenol	95-57-8	310	2200	0.8	ND		0.032	0.022
2-Methylphenol	95-48-7	310	3400	NS	ND		0.032	0.030
2,2'-Oxybis(1-Chloropropane)	108-60-1	23	67	5	ND		0.032	0.032
4-Methylphenol **	106-44-5	31	340	NS	ND		0.032	0.032
N-Nitrosodi-n-propylamine	621-64-7	0.2	0.3	0.2	ND		0.032	0.022
Acetophenone	98-86-2	2	5	3	ND		0.032	0.022
3-Methylphenol	108-39-4	NS	NS	NS	ND		0.032	0.032
Hexachloroethane	67-72-1	12	48	0.2	ND		0.032	0.020
Nitrobenzene	98-95-3	5	14	0.2	ND		0.032	0.020
Isophorone	78-59-1	510	2000	0.2	ND		0.032	0.030
2-Nitrophenol	88-75-5	NS	NS	NS	ND		0.032	0.020
2,4-Dimethylphenol	105-67-9	1200	14000	1	ND		0.032	0.020
Bis(2-chloroethoxy) methane	111-91-1	NS	NS	NS	ND		0.032	0.020
Benzoic acid	65-85-0	NS	NS	NS	ND		0.325	0.021
2,4-Dichlorophenol	120-83-2	180	2100	0.2	ND		0.032	0.021
Naphthalene	91-20-3	6	17	25	ND		0.032	0.023
4-Chloroaniline	106-47-8	NS	NS	NS	ND		0.032	0.021
Hexachlorobutadiene	87-68-3	6	25	0.9	ND		0.032	0.020
Caprolactam	105-60-2	31000	340000	12	ND		0.032	0.032
4-Chloro-3-methylphenol	59-50-7	NS	NS	NS	ND		0.032	0.025
2-Methylnaphthalene	91-57-6	230	2400	8	ND		0.032	0.020
Hexachlorocyclopentadiene	77-47-4	45	110	320	ND		0.032	0.022
2,4,6-Trichlorophenol	88-06-2	19	74	0.2	ND		0.032	0.020
2,4,5-Trichlorophenol	95-95-4	6100	68000	68	ND		0.032	0.020
1,1'-Biphenyl	92-52-4	61	240	140	ND		0.032	0.020
2-Chloronaphthalene	91-58-7	NS	NS	NS	ND		0.032	0.020
2-Nitroaniline	88-74-4	39	23000	NS	ND		0.032	0.028
Dimethyl phthalate	131-11-3	NS	NS	NS	ND		0.032	0.020
2,6-Dinitrotoluene	606-20-2	0.7	3	NS	ND		0.032	0.027
Acenaphthylene	208-96-8	NS	300000	NS	ND		0.032	0.023
3-Nitroaniline	99-09-2	NS	NS	NS	ND		0.032	0.024
Acenaphthene	83-32-9	3400	37000	110	ND		0.032	0.020
2,4-Dinitrophenol	51-28-5	120	1400	0.3	ND		0.032	0.020
4-Nitrophenol	100-02-7	NS	NS	NS	ND		0.032	0.020
2,4-Dinitrotoluene	121-14-2	0.7	3	NS	ND		0.032	0.020
Dibenzofuran	132-64-9	NS	NS	NS	ND		0.032	0.020
Diethyl phthalate	84-66-2	49000	550000	88	ND		0.032	0.021
Fluorene	86-73-7	2300	24000	170	ND		0.032	0.020
4-Chlorophenyl phenyl ether	7005-72-3	NS	NS	NS	ND		0.032	0.020
4-Nitroaniline	100-01-6	NS	NS	NS	ND		0.032	0.026

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1,2,4,5-Tetrachlorobenzene	95-94-3	NS	NS	NS	ND		0.032	0.020
2,3,4,6-Tetrachlorophenol	58-90-2	NS	NS	NS	ND		0.032	0.020
4,6-Dinitro-2-methylphenol	534-52-1	6	68	0.3	ND		0.032	0.021
N-Nitrosodiphenylamine	86-30-6	99	390	0.4	ND		0.032	0.024
1,2-Diphenylhydrazine	122-66-7	0.7	2	0.7	ND		0.032	0.025
4-Bromophenyl phenyl ether	101-55-3	NS	NS	NS	ND		0.032	0.027
Hexachlorobenzene	118-74-1	0.3	1	0.2	ND		0.032	0.020
Atrazine	1912-24-9	210	2400	0.2	ND		0.032	0.020
Pentachlorophenol	87-86-5	0.9	3	0.3	ND		0.032	0.025
Phenanthrene	85-01-8	NS	300000	NS	ND		0.032	0.020
Anthracene	120-12-7	17000	30000	2400	ND		0.032	0.020
Carbazole	86-74-8	24	96	NS	ND		0.032	0.022
Di-n-butyl phthalate	84-74-2	6100	68000	760	ND		0.032	0.020
Fluoranthene	206-44-0	2300	24000	1300	ND		0.032	0.032
Benzidine	92-87-5	0.7	0.7	0.7	ND		0.032	0.020
Pyrene	129-00-0	1700	18000	840	ND		0.032	0.025
Butyl benzyl phthalate	85-68-7	1200	14000	230	ND		0.032	0.024
3,3'-Dichlorobenzidine	91-94-1	1	4	0.2	ND		0.032	0.020
Benzo[a]anthracene	56-55-3	5	17	0.8	ND		0.032	0.023
Chrysene	218-01-9	450	1700	80	ND		0.032	0.020
Bis(2-ethylhexyl) phthalate	117-81-7	35	140	1200	ND		0.032	0.029
Di-n-octyl phthalate	117-84-0	2400	27000	3300	ND		0.032	0.031
Benzo[b]fluoranthene	205-99-2	5	17	2	ND		0.032	0.029
Benzo[k]fluoranthene	207-08-9	45	170	25	ND		0.032	0.025
Benzo[a]pyrene	50-32-8	0.5	2	0.2	ND		0.032	0.020
Indeno[1,2,3-cd]pyrene	193-39-5	5	17	7	ND		0.032	0.020
Dibenz[a,h]anthracene	53-70-3	0.5	2	0.8	ND		0.032	0.022
Benzo[g,h,i]perylene	191-24-2	380000	30000	NS	ND		0.032	0.031
Dinitrotoluene (2,4- and 2,6-)	25321-14-6	0.7	3	0.2	ND		0.032	0.027
TOTAL BNA'S:		NS	NS	NS	ND			NA
TOTAL TIC's:		NS	NS	NS	ND			NA
TOTAL BNA'S & TIC's:		NS	NS	NS	ND			NA

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PCB's (mg/Kg)					Conc	Q	RL	MDL	
Aroclor-1016	12674-11-2	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1221	11104-28-2	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1232	11141-16-5	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1242	53469-21-9	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1248	12672-29-6	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1254	11097-69-1	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1260	11096-82-5	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1262	37324-23-5	NS	NS	NS	ND		0.00317	0.00127	
Aroclor-1268	11100-14-4	NS	NS	NS	ND		0.00317	0.00127	
PCBs	1336-36-3	0.2	1	0.2	ND		0.00317	0.00127	

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Pesticides (mg/Kg)					Conc	Q	RL	MDL
alpha-BHC	319-84-6	0.1	0.5	0.002	ND		0.000634	0.000317
beta-BHC	319-85-7	0.4	2	0.002	ND		0.000634	0.000317
gamma-BHC (Lindane)	58-89-9	0.4	2	0.002	ND		0.000634	0.000317
delta-BHC	319-86-8	NS	NS	NS	ND		0.000634	0.000317
Heptachlor	76-44-8	0.1	0.7	0.5	ND		0.000634	0.000317
Aldrin	309-00-2	0.04	0.2	0.2	ND		0.000634	0.000317
Heptachlor epoxide	1024-57-3	0.07	0.3	0.01	ND		0.000634	0.000317
Endosulfan I	959-98-8	NS	NS	NS	ND		0.000634	0.000317
4,4'-DDE	72-55-9	2	9	18	ND		0.000634	0.000317
Dieldrin	60-57-1	0.04	0.2	0.003	ND		0.000634	0.000317
Endrin	72-20-8	23	340	1	ND		0.000634	0.000317
Endosulfan II	33213-65-9	NS	NS	NS	ND		0.000634	0.000317
4,4'-DDD	72-54-8	3	13	4	ND		0.000634	0.000317
Endrin aldehyde	7421-93-4	NS	NS	NS	ND		0.000634	0.000317
Endosulfan sulfate	1031-07-8	470	6800	2	ND		0.000634	0.000317
4,4'-DDT	50-29-3	2	8	11	ND		0.000634	0.000317
Endrin ketone	53494-70-5	NS	NS	NS	ND		0.000634	0.000317
Methoxychlor	72-43-5	390	5700	160	ND		0.000634	0.000317
alpha-Chlordane	5103-71-9	NS	NS	NS	ND		0.000634	0.000317
gamma-Chlordane	5103-74-2	NS	NS	NS	ND		0.000634	0.000317
Toxaphene	8001-35-2	0.6	3	0.3	ND		0.00793	0.0038
Endosulfan (I and II)	115-29-7	470	6800	4	ND		0.000634	0.000317
Chlordane (alpha and gamma)	57-74-9	0.2	1	0.05	ND		0.000634	0.000317

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Herbicides (mg/Kg)					Conc	Q	RL	MDL	
Dalapon	75-99-0	NS	NS	NS	ND		0.017	0.00666	
Dicamba	1918-00-9	NS	NS	NS	ND		0.017	0.00666	
2,4-D	94-75-7	NS	NS	NS	ND		0.017	0.00666	
2,4,5-TP (Silvex)	93-72-1	NS	NS	NS	ND		0.017	0.00666	
2,4,5-T	93-76-5	NS	NS	NS	ND		0.017	0.00666	
2,4-DB	94-82-6	NS	NS	NS	ND		0.017	0.00666	
Dinoseb	88-85-7	NS	NS	NS	ND		0.017	0.00666	

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NJ-EPH-C40 (mg/Kg)					Conc	Q	RL	MDL	
C9-C40	IALC9C40	NS	NS	NS	46.8	J	48.4	19.4	

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Alcohols (mg/Kg)					Conc	Q	RL	MDL
Methanol	67-56-1	NS	NS	NS	ND		1.98	1.98

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Metals (mg/Kg)					Conc	Q	RL	MDL
Aluminum	7429-90-5	78000	NS	6000	2330		12.6	5.05
Antimony	7440-36-0	31	450	6	ND		1.26	0.505
Arsenic	7440-38-2	19	19	19	0.929	J	1.26	0.379
Barium	7440-39-3	16000	59000	2100	19.1		1.26	0.631
Beryllium	7440-41-7	16	140	0.7	0.382	J	**1.26**	0.379
Cadmium	7440-43-9	78	78	2	ND		1.26	0.758
Calcium	7440-70-2	NS	NS	NS	4380		126	37.9
Chromium	7440-47-3	NS	NS	NS	5.61		1.26	0.631
Cobalt	7440-48-4	1600	590	90	3.83		1.26	0.379
Copper	7440-50-8	3100	45000	11000	11.7		1.26	0.884
Iron	7439-89-6	NS	NS	NS	10600		126	37.9
Lead	7439-92-1	400	800	90	ND		1.26	0.631
Magnesium	7439-95-4	NS	NS	NS	1990		126	37.9
Manganese	7439-96-5	11000	5900	65	**110**		1.26	0.884
Mercury	7439-97-6	23	65	0.1	ND		0.023	0.00926
Nickel	7440-02-0	1600	23000	48	4.47		1.26	0.884
Potassium	7440-09-7'	NS	NS	NS	1190		126	50.5
Selenium	7782-49-2	390	5700	11	3.91	J	8.84	3.79
Silver	7440-22-4	390	5700	1	ND		**1.26**	0.758
Sodium	7440-23-5	NS	NS	NS	162		126	50.5
Thallium	7440-28-0	withdrawn	withdrawn	3	ND		1.26	0.631
Vanadium	7440-62-2	78	1100	NS	8.71		1.26	0.631
Zinc	7440-66-6	23000	110000	930	12.5	J	12.6	2.53

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General Analytical					Conc	Q	RL	MDL
Hexavalent Chromium-mg/Kg	18540-29-9	240	20	NS	ND		1.00	0.378
Cyanide, Total-mg/Kg	57-12-5	47	680	20	ND		1.00	0.500
pH/Corrosivity-SU	SRP 6	NS	NS	NS	9.29		NA	NA
Trivalent (III) Chromium-mg/Kg	16065-83-1	120000	NS	NS	5.61		1.26	0.631

NJDEP Soil Remediation Standards: Remediation Standards N.J.A.C. 7:26D, May 2012; Amended Sept 2017

BOLD Conc	Indicates a concentration that exceeds applicable criteria.
BOLD RL	Indicates RL that exceeds applicable criteria.
BOLD MDL	Indicates MDL that exceeds applicable criteria.

NS = No Standard Available
ND = Analyzed for but Not Detected at the MDL
J = Concentration detected at a value below the RL and above the MDL for target compounds. For non-target compounds (i.e. TICs), qualifier indicates estimated concentrations.

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