

**SPRU EEC-20-001
RCRA ICM REPORT FOR SPRU FACILITY**

**Attachment 5
Preliminary Data Report
G2 Building Area of Concern (AOC-008) – Phase 2**

This page intentionally left blank.

SEPARATIONS PROCESS RESEARCH UNIT (SPRU)
DISPOSITION PROJECT (DP)

Doc. ID Number

SPRU-EEC-18-004

Revision Number

0

Revision Date

September 7, 2018

PRELIMINARY DATA REPORT
G2 Area of Concern (AOC-008)
Phase 2

Prepared By: Jason Litwiller

Approved By: William Duggan



URS
2425 River Rd
Niskayuna, New York 12309

G2 Area of Concern AOC-008

Preliminary Data Report

This Preliminary Data Report (PDR) presents the post-remediation sampling analyses showing that all results are well below the Soil Cleanup Objectives (SCOs) and that most samples were non-detections for the Constituents of Concern.

The PDR summarizes chemical confirmation sample results for soil in the G2 Area of Concern collected in accordance with SPRU-ENV-017 *RCRA Interim Corrective Measure Work Plan (ICM WP) G2 Area of Concern (AOC-008)* at the Separations Process Research Unit (SPRU) Disposition Project (DP) in Niskayuna, New York.

The AOC comprises the footprint of the former G2 Building basement slab. The AOC was designated based on historical sampling under the concrete slab that indicated the presence of toluene at concentrations in excess of the Soil Clean-up Objective of 700 µg/kg (700 parts per billion).

The initial samples with elevated toluene were collected from beneath the G2 slab as a result of detections of volatile organic compounds during radiological sampling. Further assessment of the sub-slab soil resulted in four locations with results above the toluene SCO. Based on discussions with the New York State Department of Environmental Conservation (NYSDEC), the samples from those four locations were also analyzed for metals and polychlorinated biphenyls (PCBs). All results for metals were less than their corresponding SCOs, except for iron. Three of the PCB analyses were non-detections and one sample had an estimated result of 1.58 ppb (“J” qualified), well below the SCO of 1000 ppb.

The remediation of the AOC was conducted in two phases due to the need to protect the structural integrity of the roadway running to the west and north of the G2 footprint. After NYSDEC concurrence with the satisfactory results in Phase 1 (the southern part of the AOC), the footprint was backfilled with clean imported fill, with a geotextile tarp separating the “clean” and “dirty” portions so that the remaining G2 structure could be remediated when the roadway was no longer needed. Phase 2 involved over-excavation of the clean backfill (overlapping with the northern portion of Phase 1) in order to ensure that any possible cross-contamination would be removed.

In accordance with the ICM Work Plan, samples have been collected from Phase 2 of the G2 footprint and excavation perimeter sidewall after the demolition and removal of the remaining G2 structure and the over-excavation into the Phase 1 footprint. As designated in the Work Plan, sample G2SOL04 was analyzed for SVOCs based on a toluene exceedance at that location during the initial characterization sampling. Sample G2ESOL04 was collected to the east of the main AOC to confirm the results from Phase 1 showing no contamination outside the G2 basement footprint.

This PDR includes the following items:

- Map showing the area and sample confirmation locations and
- Summary and evaluation of unvalidated analytical results

Attachment 1 is a map showing the area and sample confirmation locations. It is an updated version of Figure 7 from the ICM WP. The sample location identification numbers are listed for samples from the excavation bottom, sidewall, and east side.

Attachments 2, 3, and 4 provide the laboratory data summary sheets for the unvalidated analytical results. Table 1 excerpts the post-remediation VOC data to show only those results with positive detections or estimated (“J” qualified) reported values. Table 2 lists the results for the post-remediation metal analyses at the G2SOL04 and G2ESOL04 locations. As shown in Attachment 3, the SVOC results at G2SOL04 were reported as non-detections for the post-remediation samples.

The ICM Work Plan discusses the use of a modified Method 8260, whereby analysis is performed using the low level purge and trap and the medium level methanol extraction, for VOCs due to interferences in gray till samples. The lower of the usable reporting limits from the two analyses is used for reporting non-detect levels. The VOC data sheets in Attachment 2 present results from both analysis approaches. Because the results with lower detection limits were usable, the summary tables only report the results from those analyses. These achieve lower detection limits primarily because of the lower dilution factor (1 vs. 50).

An evaluation of the results shows that the sample concentrations are less than the soil cleanup objectives (SCO), except for iron and calcium. Both sample locations G2SOL04 and G2ESOL04 had iron in the gray till reported above the SCO (2000 mg/kg) listed in CP-51 *Soil Cleanup Guidance*, at 23,300 mg/kg and 18,900 mg/kg, respectively. Both locations also had calcium reported above the SCO of 10,000 mg/kg, at 17,300 mg/kg and 13,400 mg/kg, respectively. However, these concentrations are consistent with background values for the Knolls site of 31,600 mg/kg calcium and 35,700 mg/kg iron.

SAMPLE RESULT SUMMARY

The post-remediation sampling results are summarized as follows:

VOCs – Three samples showed positive detections for Methylene chloride, with a maximum result of 9.02 ppb, well below the SCO of 50 ppb. Four other samples had reported concentrations that were estimated with “J” qualifiers. Seven other VOCs were reported as estimated values in at least one sample; and all results were a small fraction of their SCOs. The other “J” qualified VOCs were 1,2,3-Trichlorobenzene, Toluene, and Trichloroethylene. Trichlorofluoromethane (17.8 J at G2SWSOL09) and cis-1, 2 Dichloroethylene sample results (35.1 J at G2SOL04) were reported as estimated when using the higher dilution factor method, but were non-detect at the lower dilution and corresponding lower detection limit.

Toluene, the primary Contaminant of Concern, was reported at estimated concentrations (“J” qualified) of 0.331 ppb and 0.528 ppb at locations G2SOL03 and G2SWSOL09, respectively. These values are well below the SCO of 700 ppb, and the locations are on opposite sides of the excavation.

Metals – Samples G2SOL04 and G2ESOL04 were analyzed for metals, and all results except iron and calcium were below the corresponding SCO. Iron was reported at 23,300 and 18,900 ppm as compared to the SCO of 2,000 ppm. Calcium was reported at 17,300 ppm and 13,400 ppm, above the SCO of 10,000 ppm. These concentrations of iron and calcium are consistent with the site background concentrations.

SVOCs – Sample G2SOL04 was analyzed for SVOCs, and all results were non-detections.

CONCLUSION

These conditions merit a judgment of No Further Action required for the Phase 2 northern end of the AOC. Following NYSDEC concurrence with the satisfactory results in this PDR, the AOC will be backfilled. That will complete the remediation and restoration of the G2 AOC.

Table 1 VOC RESULTS WITH DETECTIONS OR ESTIMATED VALUES

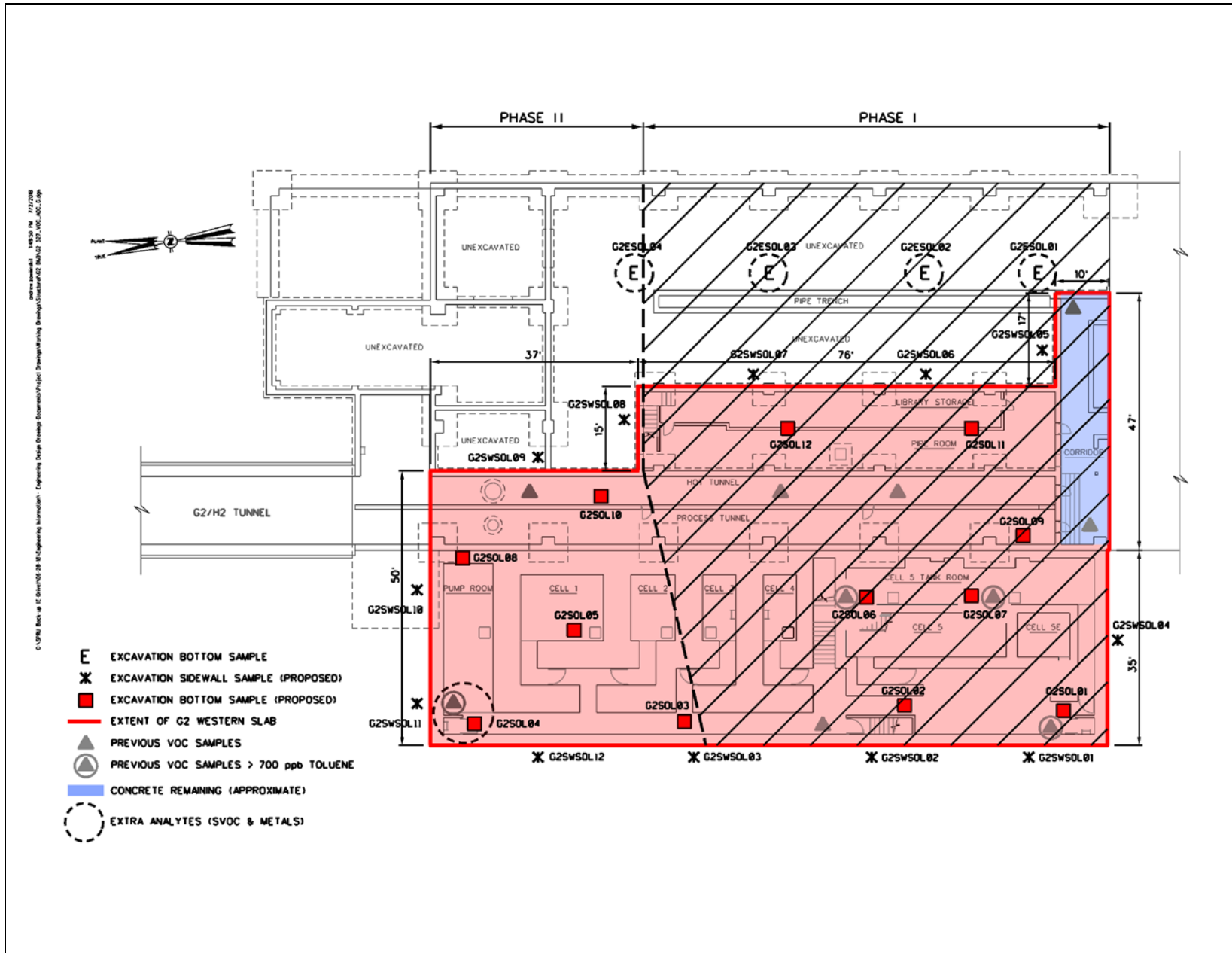
	1,2,3-Trichlorobenzene ug/kg 20000	1,2,4-Trichlorobenzene ug/kg 3400	1,4-Dichlorobenzene ug/kg 1800	Acetone ug/kg 50	Carbon disulfide ug/kg 2700	Methylene chloride ug/kg 50	Toluene ug/kg 700	Trichloroethylene ug/kg 470
Method	8260C	8260C	8260C	8260C	8260C	8260C	8260C	8260C
G2SOL03	0.674 J	0.663 J					0.331 J	
G2SOL04								0.448 J
G2SOL05						9.02		
G2SOL08		1.08 J	0.645 J	3.48 J	2.29 J	8.08		
G2SOL10		1.22 J		3.95 J	2.97 J	5.41		
G2SWSOL03						3.62 J		
G2SWSOL08						2.89 J		
G2SWSOL09						4.53 J	0.528 J	
G2SWSOL10						2.72 J		

Note that all SVOC results at G2SOL04 were reported as non-detections.

Table 2 METALS RESULTS POST-EXCAVATION WITH ALL REPORTED VALUES

		SCO	G2SOL04 08/09/18	G2ESOL04 08/09/18
Aluminum	mg/kg	10000	8250	7190 *
Antimony	mg/kg	12	U	UN
Arsenic	mg/kg	16	8.87	6.29 N
Barium	mg/kg	350	46.1	51.5 N
Beryllium	mg/kg	14	0.576	0.493 N
Cadmium	mg/kg	2.5	0.29 J	BN
Calcium	mg/kg	10000	17300	13400 *
Chromium	mg/kg	36	13.7	11.4 N
Cobalt	mg/kg	30	12.2	9.34 N
Copper	mg/kg	270	35.7	22.3
Iron	mg/kg	2000	23300	18900 *
Lead	mg/kg	400	11.9	9.36 N
Magnesium	mg/kg	NA	7270	5760 *
Manganese	mg/kg	2000	508	377
Mercury	mg/kg	0.73	0.0221	0.0247
Nickel	mg/kg	130	26.3	21.6 N
Potassium	mg/kg	NA	893	851
Selenium	mg/kg	4	0.565 J	0.86 BN
Silver	mg/kg	8.3	0.443 J	0.476 B
Sodium	mg/kg	NA	203	64.8
Thallium	mg/kg	5	U	UN
Vanadium	mg/kg	100	16.3	14 N
Zinc	mg/kg	2200	54.9	48 N

ATTACHMENT 1
SAMPLE LOCATION MAP



G2 AOC Phase 2 Sample List

SAMPLE	Collection Date	ANALYSES		
		VOC	SVOC	METALS
G2ESOL04	08/09/18	X		X
G2SOL03	08/09/18	X		
G2SOL04	08/09/18	X	X	X
G2SOL05	08/09/18	X		
G2SOL05D	08/09/18	X		
G2SOL08	08/09/18	X		
G2SOL10	08/09/18	X		
G2SWSOL03	08/09/18	X		
G2SWSOL08	08/09/18	X		
G2SWSOL09	08/09/18	X		
G2SWSOL10	08/09/18	X		
G2SWSOL11	08/09/18	X		
G2SWSOL12	08/09/18	X		

ATTACHMENT 2

Laboratory Analytical Results

VOLATILE ORGANIC COMPOUNDS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiler
Project: SPRU Disposition Project

Client Sample ID:	G2ESOL04	Project:	URSC00211
Sample ID:	456917010	Client ID:	URSC013
Matrix:	Soil		
Collect Date:	09-AUG-18 08:34		
Receive Date:	10-AUG-18		
Collector:	Client		
Moisture:	8.41%		

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	14.6	97.5	ug/kg	0.893	50	JP1	08/18/18	1001	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,1,2-Trichloroethane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,1-Dichloroethane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,1-Dichloroethylene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2,3-Trichlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2,4-Trichlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2-Dibromo-3-chloropropane	U	ND	24.4	97.5	ug/kg	0.893	50					
1,2-Dibromoethane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2-Dichlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2-Dichloroethane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,2-Dichloropropane	U	ND	14.6	97.5	ug/kg	0.893	50					
1,3-Dichlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,4-Dichlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,4-Dioxane	U	ND	731	2440	ug/kg	0.893	50					
2-Butanone	U	ND	146	487	ug/kg	0.893	50					
2-Hexanone	U	ND	146	487	ug/kg	0.893	50					
4-Methyl-2-pentanone	U	ND	146	487	ug/kg	0.893	50					
Acetone	U	ND	146	487	ug/kg	0.893	50					
Benzene	U	ND	14.6	97.5	ug/kg	0.893	50					
Bromochloromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Bromodichloromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Bromoform	U	ND	14.6	97.5	ug/kg	0.893	50					
Bromomethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Carbon disulfide	U	ND	78.0	487	ug/kg	0.893	50					
Carbon tetrachloride	U	ND	14.6	97.5	ug/kg	0.893	50					
Chlorobenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
Chloroethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Chloroform	U	ND	14.6	97.5	ug/kg	0.893	50					
Chloromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Cyclohexane	U	ND	14.6	97.5	ug/kg	0.893	50					
Dibromochloromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Dichlorodifluoromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Ethylbenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
Isopropylbenzene	U	ND	14.6	97.5	ug/kg	0.893	50					
Methyl acetate	U	ND	73.1	244	ug/kg	0.893	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2ESOL04
Sample ID: 456917010

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	14.6	97.5	ug/kg	0.893	50					
Methylene chloride	U	ND	78.0	244	ug/kg	0.893	50					
Styrene	U	ND	14.6	97.5	ug/kg	0.893	50					
Tetrachloroethylene	U	ND	14.6	97.5	ug/kg	0.893	50					
Toluene	U	ND	14.6	97.5	ug/kg	0.893	50					
Trichloroethylene	U	ND	14.6	97.5	ug/kg	0.893	50					
Trichlorofluoromethane	U	ND	14.6	97.5	ug/kg	0.893	50					
Trichlorotrifluoroethane	U	ND	78.0	244	ug/kg	0.893	50					
Vinyl chloride	U	ND	14.6	97.5	ug/kg	0.893	50					
cis-1,2-Dichloroethylene	U	ND	14.6	97.5	ug/kg	0.893	50					
cis-1,3-Dichloropropylene	U	ND	14.6	97.5	ug/kg	0.893	50					
m,p-Xylenes	U	ND	14.6	195	ug/kg	0.893	50					
o-Xylene	U	ND	14.6	97.5	ug/kg	0.893	50					
tert-Butyl methyl ether	U	ND	14.6	97.5	ug/kg	0.893	50					
trans-1,2-Dichloroethylene	U	ND	14.6	97.5	ug/kg	0.893	50					
trans-1,3-Dichloropropylene	U	ND	14.6	97.5	ug/kg	0.893	50					
1,1,1-Trichloroethane	U	ND	0.309	2.06	ug/kg	0.943	1	JP1	08/20/18	1554	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,1,2-Trichloroethane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,1-Dichloroethane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,1-Dichloroethylene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2,3-Trichlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2,4-Trichlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2-Dibromo-3-chloropropane	U	ND	0.515	2.06	ug/kg	0.943	1					
1,2-Dibromoethane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2-Dichlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2-Dichloroethane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,2-Dichloropropane	U	ND	0.309	2.06	ug/kg	0.943	1					
1,3-Dichlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,4-Dichlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
1,4-Dioxane	U	ND	15.4	51.5	ug/kg	0.943	1					
2-Butanone	U	ND	3.09	10.3	ug/kg	0.943	1					
2-Hexanone	U	ND	3.09	10.3	ug/kg	0.943	1					
4-Methyl-2-pentanone	U	ND	3.09	10.3	ug/kg	0.943	1					
Acetone	U	ND	3.09	10.3	ug/kg	0.943	1					
Benzene	U	ND	0.309	2.06	ug/kg	0.943	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2ESOL04
Sample ID: 456917010

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Bromodichloromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Bromoform	U	ND	0.309	2.06	ug/kg	0.943	1					
Bromomethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Carbon disulfide	U	ND	1.65	10.3	ug/kg	0.943	1					
Carbon tetrachloride	U	ND	0.309	2.06	ug/kg	0.943	1					
Chlorobenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
Chloroethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Chloroform	U	ND	0.309	2.06	ug/kg	0.943	1					
Chloromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Cyclohexane	U	ND	0.309	2.06	ug/kg	0.943	1					
Dibromochloromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Dichlorodifluoromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Ethylbenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
Isopropylbenzene	U	ND	0.309	2.06	ug/kg	0.943	1					
Methyl acetate	U	ND	1.54	5.15	ug/kg	0.943	1					
Methylcyclohexane	U	ND	0.309	2.06	ug/kg	0.943	1					
Methylene chloride	U	ND	1.65	5.15	ug/kg	0.943	1					
Styrene	U	ND	0.309	2.06	ug/kg	0.943	1					
Tetrachloroethylene	U	ND	0.309	2.06	ug/kg	0.943	1					
Toluene	U	ND	0.309	2.06	ug/kg	0.943	1					
Trichloroethylene	U	ND	0.309	2.06	ug/kg	0.943	1					
Trichlorofluoromethane	U	ND	0.309	2.06	ug/kg	0.943	1					
Trichlorotrifluoroethane	U	ND	1.65	5.15	ug/kg	0.943	1					
Vinyl chloride	U	ND	0.309	2.06	ug/kg	0.943	1					
cis-1,2-Dichloroethylene	U	ND	0.309	2.06	ug/kg	0.943	1					
cis-1,3-Dichloropropylene	U	ND	0.309	2.06	ug/kg	0.943	1					
m,p-Xylenes	U	ND	0.309	4.12	ug/kg	0.943	1					
o-Xylene	U	ND	0.309	2.06	ug/kg	0.943	1					
tert-Butyl methyl ether	U	ND	0.309	2.06	ug/kg	0.943	1					
trans-1,2-Dichloroethylene	U	ND	0.309	2.06	ug/kg	0.943	1					
trans-1,3-Dichloropropylene	U	ND	0.309	2.06	ug/kg	0.943	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2210	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2ESOL04
Sample ID: 456917010

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1102		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2410 ug/kg	50.0	99	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2300 ug/kg	50.0	94	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2340 ug/kg	50.0	96	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	54.4 ug/kg	50.0	106	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	50.5 ug/kg	50.0	98	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	51.5 ug/kg	50.0	100	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05D	Project: URSC00211
Sample ID: 456917011	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:11	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 13.4%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	16.0	107	ug/kg	0.926	50	JP1	08/19/18	0015	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	16.0	107	ug/kg	0.926	50					
1,1,2-Trichloroethane	U	ND	16.0	107	ug/kg	0.926	50					
1,1-Dichloroethane	U	ND	16.0	107	ug/kg	0.926	50					
1,1-Dichloroethylene	U	ND	16.0	107	ug/kg	0.926	50					
1,2,3-Trichlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
1,2,4-Trichlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
1,2-Dibromo-3-chloropropane	U	ND	26.7	107	ug/kg	0.926	50					
1,2-Dibromoethane	U	ND	16.0	107	ug/kg	0.926	50					
1,2-Dichlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
1,2-Dichloroethane	U	ND	16.0	107	ug/kg	0.926	50					
1,2-Dichloropropane	U	ND	16.0	107	ug/kg	0.926	50					
1,3-Dichlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
1,4-Dichlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
1,4-Dioxane	U	ND	802	2670	ug/kg	0.926	50					
2-Butanone	U	ND	160	535	ug/kg	0.926	50					
2-Hexanone	U	ND	160	535	ug/kg	0.926	50					
4-Methyl-2-pentanone	U	ND	160	535	ug/kg	0.926	50					
Acetone	U	ND	160	535	ug/kg	0.926	50					
Benzene	U	ND	16.0	107	ug/kg	0.926	50					
Bromochloromethane	U	ND	16.0	107	ug/kg	0.926	50					
Bromodichloromethane	U	ND	16.0	107	ug/kg	0.926	50					
Bromoform	U	ND	16.0	107	ug/kg	0.926	50					
Bromomethane	U	ND	16.0	107	ug/kg	0.926	50					
Carbon disulfide	U	ND	85.6	535	ug/kg	0.926	50					
Carbon tetrachloride	U	ND	16.0	107	ug/kg	0.926	50					
Chlorobenzene	U	ND	16.0	107	ug/kg	0.926	50					
Chloroethane	U	ND	16.0	107	ug/kg	0.926	50					
Chloroform	U	ND	16.0	107	ug/kg	0.926	50					
Chloromethane	U	ND	16.0	107	ug/kg	0.926	50					
Cyclohexane	U	ND	16.0	107	ug/kg	0.926	50					
Dibromochloromethane	U	ND	16.0	107	ug/kg	0.926	50					
Dichlorodifluoromethane	U	ND	16.0	107	ug/kg	0.926	50					
Ethylbenzene	U	ND	16.0	107	ug/kg	0.926	50					
Isopropylbenzene	U	ND	16.0	107	ug/kg	0.926	50					
Methyl acetate	U	ND	80.2	267	ug/kg	0.926	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05D
Sample ID: 456917011

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	16.0	107	ug/kg	0.926	50					
Methylene chloride	U	ND	85.6	267	ug/kg	0.926	50					
Styrene	U	ND	16.0	107	ug/kg	0.926	50					
Tetrachloroethylene	U	ND	16.0	107	ug/kg	0.926	50					
Toluene	U	ND	16.0	107	ug/kg	0.926	50					
Trichloroethylene	U	ND	16.0	107	ug/kg	0.926	50					
Trichlorofluoromethane	U	ND	16.0	107	ug/kg	0.926	50					
Trichlorotrifluoroethane	U	ND	85.6	267	ug/kg	0.926	50					
Vinyl chloride	U	ND	16.0	107	ug/kg	0.926	50					
cis-1,2-Dichloroethylene	U	ND	16.0	107	ug/kg	0.926	50					
cis-1,3-Dichloropropylene	U	ND	16.0	107	ug/kg	0.926	50					
m,p-Xylenes	U	ND	16.0	214	ug/kg	0.926	50					
o-Xylene	U	ND	16.0	107	ug/kg	0.926	50					
tert-Butyl methyl ether	U	ND	16.0	107	ug/kg	0.926	50					
trans-1,2-Dichloroethylene	U	ND	16.0	107	ug/kg	0.926	50					
trans-1,3-Dichloropropylene	U	ND	16.0	107	ug/kg	0.926	50					
1,1,1-Trichloroethane	U	ND	0.333	2.22	ug/kg	0.962	1	JP1	08/20/18	1625	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,1,2-Trichloroethane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,1-Dichloroethane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,1-Dichloroethylene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2,3-Trichlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2,4-Trichlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2-Dibromo-3-chloropropane	U	ND	0.555	2.22	ug/kg	0.962	1					
1,2-Dibromoethane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2-Dichlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2-Dichloroethane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,2-Dichloropropane	U	ND	0.333	2.22	ug/kg	0.962	1					
1,3-Dichlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,4-Dichlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
1,4-Dioxane	U	ND	16.7	55.5	ug/kg	0.962	1					
2-Butanone	U	ND	3.33	11.1	ug/kg	0.962	1					
2-Hexanone	U	ND	3.33	11.1	ug/kg	0.962	1					
4-Methyl-2-pentanone	U	ND	3.33	11.1	ug/kg	0.962	1					
Acetone	U	ND	3.33	11.1	ug/kg	0.962	1					
Benzene	U	ND	0.333	2.22	ug/kg	0.962	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05D
Sample ID: 456917011

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Bromodichloromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Bromoform	U	ND	0.333	2.22	ug/kg	0.962	1					
Bromomethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Carbon disulfide	U	ND	1.78	11.1	ug/kg	0.962	1					
Carbon tetrachloride	U	ND	0.333	2.22	ug/kg	0.962	1					
Chlorobenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
Chloroethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Chloroform	U	ND	0.333	2.22	ug/kg	0.962	1					
Chloromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Cyclohexane	U	ND	0.333	2.22	ug/kg	0.962	1					
Dibromochloromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Dichlorodifluoromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Ethylbenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
Isopropylbenzene	U	ND	0.333	2.22	ug/kg	0.962	1					
Methyl acetate	U	ND	1.67	5.55	ug/kg	0.962	1					
Methylcyclohexane	U	ND	0.333	2.22	ug/kg	0.962	1					
Methylene chloride	U	ND	1.78	5.55	ug/kg	0.962	1					
Styrene	U	ND	0.333	2.22	ug/kg	0.962	1					
Tetrachloroethylene	U	ND	0.333	2.22	ug/kg	0.962	1					
Toluene	U	ND	0.333	2.22	ug/kg	0.962	1					
Trichloroethylene	U	ND	0.333	2.22	ug/kg	0.962	1					
Trichlorofluoromethane	U	ND	0.333	2.22	ug/kg	0.962	1					
Trichlorotrifluoroethane	U	ND	1.78	5.55	ug/kg	0.962	1					
Vinyl chloride	U	ND	0.333	2.22	ug/kg	0.962	1					
cis-1,2-Dichloroethylene	U	ND	0.333	2.22	ug/kg	0.962	1					
cis-1,3-Dichloropropylene	U	ND	0.333	2.22	ug/kg	0.962	1					
m,p-Xylenes	U	ND	0.333	4.44	ug/kg	0.962	1					
o-Xylene	U	ND	0.333	2.22	ug/kg	0.962	1					
tert-Butyl methyl ether	U	ND	0.333	2.22	ug/kg	0.962	1					
trans-1,2-Dichloroethylene	U	ND	0.333	2.22	ug/kg	0.962	1					
trans-1,3-Dichloropropylene	U	ND	0.333	2.22	ug/kg	0.962	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2211	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05D
Sample ID: 456917011

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1103		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 5035A/8260C	
2	SW846 5035A/8260C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2630 ug/kg	50.0	98	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2500 ug/kg	50.0	94	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2850 ug/kg	50.0	107	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	55.3 ug/kg	50.0	100	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	101 ug/kg	50.0	181*	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	74.3 ug/kg	50.0	134*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05	Project: URSC00211
Sample ID: 456917012	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:11	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 15.4%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	17.1	114	ug/kg	0.962	50	JP1	08/19/18	0046	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	17.1	114	ug/kg	0.962	50					
1,1,2-Trichloroethane	U	ND	17.1	114	ug/kg	0.962	50					
1,1-Dichloroethane	U	ND	17.1	114	ug/kg	0.962	50					
1,1-Dichloroethylene	U	ND	17.1	114	ug/kg	0.962	50					
1,2,3-Trichlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
1,2,4-Trichlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
1,2-Dibromo-3-chloropropane	U	ND	28.4	114	ug/kg	0.962	50					
1,2-Dibromoethane	U	ND	17.1	114	ug/kg	0.962	50					
1,2-Dichlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
1,2-Dichloroethane	U	ND	17.1	114	ug/kg	0.962	50					
1,2-Dichloropropane	U	ND	17.1	114	ug/kg	0.962	50					
1,3-Dichlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
1,4-Dichlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
1,4-Dioxane	U	ND	853	2840	ug/kg	0.962	50					
2-Butanone	U	ND	171	568	ug/kg	0.962	50					
2-Hexanone	U	ND	171	568	ug/kg	0.962	50					
4-Methyl-2-pentanone	U	ND	171	568	ug/kg	0.962	50					
Acetone	U	ND	171	568	ug/kg	0.962	50					
Benzene	U	ND	17.1	114	ug/kg	0.962	50					
Bromochloromethane	U	ND	17.1	114	ug/kg	0.962	50					
Bromodichloromethane	U	ND	17.1	114	ug/kg	0.962	50					
Bromoform	U	ND	17.1	114	ug/kg	0.962	50					
Bromomethane	U	ND	17.1	114	ug/kg	0.962	50					
Carbon disulfide	U	ND	90.9	568	ug/kg	0.962	50					
Carbon tetrachloride	U	ND	17.1	114	ug/kg	0.962	50					
Chlorobenzene	U	ND	17.1	114	ug/kg	0.962	50					
Chloroethane	U	ND	17.1	114	ug/kg	0.962	50					
Chloroform	U	ND	17.1	114	ug/kg	0.962	50					
Chloromethane	U	ND	17.1	114	ug/kg	0.962	50					
Cyclohexane	U	ND	17.1	114	ug/kg	0.962	50					
Dibromochloromethane	U	ND	17.1	114	ug/kg	0.962	50					
Dichlorodifluoromethane	U	ND	17.1	114	ug/kg	0.962	50					
Ethylbenzene	U	ND	17.1	114	ug/kg	0.962	50					
Isopropylbenzene	U	ND	17.1	114	ug/kg	0.962	50					
Methyl acetate	U	ND	85.3	284	ug/kg	0.962	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05 Project: URSC00211
Sample ID: 456917012 Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	17.1	114	ug/kg	0.962	50					
Methylene chloride	U	ND	90.9	284	ug/kg	0.962	50					
Styrene	U	ND	17.1	114	ug/kg	0.962	50					
Tetrachloroethylene	U	ND	17.1	114	ug/kg	0.962	50					
Toluene	U	ND	17.1	114	ug/kg	0.962	50					
Trichloroethylene	U	ND	17.1	114	ug/kg	0.962	50					
Trichlorofluoromethane	U	ND	17.1	114	ug/kg	0.962	50					
Trichlorotrifluoroethane	U	ND	90.9	284	ug/kg	0.962	50					
Vinyl chloride	U	ND	17.1	114	ug/kg	0.962	50					
cis-1,2-Dichloroethylene	U	ND	17.1	114	ug/kg	0.962	50					
cis-1,3-Dichloropropylene	U	ND	17.1	114	ug/kg	0.962	50					
m,p-Xylenes	U	ND	17.1	227	ug/kg	0.962	50					
o-Xylene	U	ND	17.1	114	ug/kg	0.962	50					
tert-Butyl methyl ether	U	ND	17.1	114	ug/kg	0.962	50					
trans-1,2-Dichloroethylene	U	ND	17.1	114	ug/kg	0.962	50					
trans-1,3-Dichloropropylene	U	ND	17.1	114	ug/kg	0.962	50					
1,1,1-Trichloroethane	U	ND	0.341	2.27	ug/kg	0.962	1	JP1	08/20/18	1656	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,1,2-Trichloroethane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,1-Dichloroethane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,1-Dichloroethylene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2,3-Trichlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2,4-Trichlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2-Dibromo-3-chloropropane	U	ND	0.568	2.27	ug/kg	0.962	1					
1,2-Dibromoethane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2-Dichlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2-Dichloroethane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,2-Dichloropropane	U	ND	0.341	2.27	ug/kg	0.962	1					
1,3-Dichlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,4-Dichlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
1,4-Dioxane	U	ND	17.1	56.8	ug/kg	0.962	1					
2-Butanone	U	ND	3.41	11.4	ug/kg	0.962	1					
2-Hexanone	U	ND	3.41	11.4	ug/kg	0.962	1					
4-Methyl-2-pentanone	U	ND	3.41	11.4	ug/kg	0.962	1					
Acetone	U	ND	3.41	11.4	ug/kg	0.962	1					
Benzene	U	ND	0.341	2.27	ug/kg	0.962	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL05	Project: URSC00211
Sample ID: 456917012	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatiles Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Bromodichloromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Bromoform	U	ND	0.341	2.27	ug/kg	0.962	1					
Bromomethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Carbon disulfide	U	ND	1.82	11.4	ug/kg	0.962	1					
Carbon tetrachloride	U	ND	0.341	2.27	ug/kg	0.962	1					
Chlorobenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
Chloroethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Chloroform	U	ND	0.341	2.27	ug/kg	0.962	1					
Chloromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Cyclohexane	U	ND	0.341	2.27	ug/kg	0.962	1					
Dibromochloromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Dichlorodifluoromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Ethylbenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
Isopropylbenzene	U	ND	0.341	2.27	ug/kg	0.962	1					
Methyl acetate	U	ND	1.71	5.68	ug/kg	0.962	1					
Methylcyclohexane	U	ND	0.341	2.27	ug/kg	0.962	1					
Methylene chloride		9.02	1.82	5.68	ug/kg	0.962	1					
Styrene	U	ND	0.341	2.27	ug/kg	0.962	1					
Tetrachloroethylene	U	ND	0.341	2.27	ug/kg	0.962	1					
Toluene	U	ND	0.341	2.27	ug/kg	0.962	1					
Trichloroethylene	U	ND	0.341	2.27	ug/kg	0.962	1					
Trichlorofluoromethane	U	ND	0.341	2.27	ug/kg	0.962	1					
Trichlorotrifluoroethane	U	ND	1.82	5.68	ug/kg	0.962	1					
Vinyl chloride	U	ND	0.341	2.27	ug/kg	0.962	1					
cis-1,2-Dichloroethylene	U	ND	0.341	2.27	ug/kg	0.962	1					
cis-1,3-Dichloropropylene	U	ND	0.341	2.27	ug/kg	0.962	1					
m,p-Xylenes	U	ND	0.341	4.55	ug/kg	0.962	1					
o-Xylene	U	ND	0.341	2.27	ug/kg	0.962	1					
tert-Butyl methyl ether	U	ND	0.341	2.27	ug/kg	0.962	1					
trans-1,2-Dichloroethylene	U	ND	0.341	2.27	ug/kg	0.962	1					
trans-1,3-Dichloropropylene	U	ND	0.341	2.27	ug/kg	0.962	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2212	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
 Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
 Project: SPRU Disposition Project

Client Sample ID: G2SOL05	Project: URSC00211
Sample ID: 456917012	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1104	1794367		

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 5035A/8260C	
2	SW846 5035A/8260C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2770 ug/kg	50.0	98	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2810 ug/kg	50.0	99	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2830 ug/kg	50.0	99	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	62.9 ug/kg	50.0	111	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	56.9 ug/kg	50.0	100	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	76.3 ug/kg	50.0	134*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL08 Project: URSC00211
Sample ID: 456917013 Client ID: URSC013
Matrix: Soil
Collect Date: 09-AUG-18 07:45
Receive Date: 10-AUG-18
Collector: Client
Moisture: 6.49%

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	14.1	93.8	ug/kg	0.877	50	JP1	08/19/18	0117	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,1,2-Trichloroethane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,1-Dichloroethane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,1-Dichloroethylene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2,3-Trichlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2,4-Trichlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2-Dibromo-3-chloropropane	U	ND	23.5	93.8	ug/kg	0.877	50					
1,2-Dibromoethane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2-Dichlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2-Dichloroethane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,2-Dichloropropane	U	ND	14.1	93.8	ug/kg	0.877	50					
1,3-Dichlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,4-Dichlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,4-Dioxane	U	ND	704	2350	ug/kg	0.877	50					
2-Butanone	U	ND	141	469	ug/kg	0.877	50					
2-Hexanone	U	ND	141	469	ug/kg	0.877	50					
4-Methyl-2-pentanone	U	ND	141	469	ug/kg	0.877	50					
Acetone	U	ND	141	469	ug/kg	0.877	50					
Benzene	U	ND	14.1	93.8	ug/kg	0.877	50					
Bromochloromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Bromodichloromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Bromoform	U	ND	14.1	93.8	ug/kg	0.877	50					
Bromomethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Carbon disulfide	U	ND	75.0	469	ug/kg	0.877	50					
Carbon tetrachloride	U	ND	14.1	93.8	ug/kg	0.877	50					
Chlorobenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
Chloroethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Chloroform	U	ND	14.1	93.8	ug/kg	0.877	50					
Chloromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Cyclohexane	U	ND	14.1	93.8	ug/kg	0.877	50					
Dibromochloromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Dichlorodifluoromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Ethylbenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
Isopropylbenzene	U	ND	14.1	93.8	ug/kg	0.877	50					
Methyl acetate	U	ND	70.4	235	ug/kg	0.877	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL08
Sample ID: 456917013

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	14.1	93.8	ug/kg	0.877	50					
Methylene chloride	U	ND	75.0	235	ug/kg	0.877	50					
Styrene	U	ND	14.1	93.8	ug/kg	0.877	50					
Tetrachloroethylene	U	ND	14.1	93.8	ug/kg	0.877	50					
Toluene	U	ND	14.1	93.8	ug/kg	0.877	50					
Trichloroethylene	U	ND	14.1	93.8	ug/kg	0.877	50					
Trichlorofluoromethane	U	ND	14.1	93.8	ug/kg	0.877	50					
Trichlorotrifluoroethane	U	ND	75.0	235	ug/kg	0.877	50					
Vinyl chloride	U	ND	14.1	93.8	ug/kg	0.877	50					
cis-1,2-Dichloroethylene	U	ND	14.1	93.8	ug/kg	0.877	50					
cis-1,3-Dichloropropylene	U	ND	14.1	93.8	ug/kg	0.877	50					
m,p-Xylenes	U	ND	14.1	188	ug/kg	0.877	50					
o-Xylene	U	ND	14.1	93.8	ug/kg	0.877	50					
tert-Butyl methyl ether	U	ND	14.1	93.8	ug/kg	0.877	50					
trans-1,2-Dichloroethylene	U	ND	14.1	93.8	ug/kg	0.877	50					
trans-1,3-Dichloropropylene	U	ND	14.1	93.8	ug/kg	0.877	50					
1,1,1-Trichloroethane	U	ND	0.315	2.10	ug/kg	0.980	1	JP1	08/20/18	1727	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,1,2-Trichloroethane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,1-Dichloroethane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,1-Dichloroethylene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2,3-Trichlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2,4-Trichlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2-Dibromo-3-chloropropane	U	ND	0.524	2.10	ug/kg	0.980	1					
1,2-Dibromoethane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2-Dichlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2-Dichloroethane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,2-Dichloropropane	U	ND	0.315	2.10	ug/kg	0.980	1					
1,3-Dichlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,4-Dichlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
1,4-Dioxane	U	ND	15.7	52.4	ug/kg	0.980	1					
2-Butanone	U	ND	3.15	10.5	ug/kg	0.980	1					
2-Hexanone	U	ND	3.15	10.5	ug/kg	0.980	1					
4-Methyl-2-pentanone	U	ND	3.15	10.5	ug/kg	0.980	1					
Acetone	U	ND	3.15	10.5	ug/kg	0.980	1					
Benzene	U	ND	0.315	2.10	ug/kg	0.980	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL08
Sample ID: 456917013

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Bromodichloromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Bromoform	U	ND	0.315	2.10	ug/kg	0.980	1					
Bromomethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Carbon disulfide	U	ND	1.68	10.5	ug/kg	0.980	1					
Carbon tetrachloride	U	ND	0.315	2.10	ug/kg	0.980	1					
Chlorobenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
Chloroethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Chloroform	U	ND	0.315	2.10	ug/kg	0.980	1					
Chloromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Cyclohexane	U	ND	0.315	2.10	ug/kg	0.980	1					
Dibromochloromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Dichlorodifluoromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Ethylbenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
Isopropylbenzene	U	ND	0.315	2.10	ug/kg	0.980	1					
Methyl acetate	U	ND	1.57	5.24	ug/kg	0.980	1					
Methylcyclohexane	U	ND	0.315	2.10	ug/kg	0.980	1					
Methylene chloride	J	2.89	1.68	5.24	ug/kg	0.980	1					
Styrene	U	ND	0.315	2.10	ug/kg	0.980	1					
Tetrachloroethylene	U	ND	0.315	2.10	ug/kg	0.980	1					
Toluene	U	ND	0.315	2.10	ug/kg	0.980	1					
Trichloroethylene	U	ND	0.315	2.10	ug/kg	0.980	1					
Trichlorofluoromethane	U	ND	0.315	2.10	ug/kg	0.980	1					
Trichlorotrifluoroethane	U	ND	1.68	5.24	ug/kg	0.980	1					
Vinyl chloride	U	ND	0.315	2.10	ug/kg	0.980	1					
cis-1,2-Dichloroethylene	U	ND	0.315	2.10	ug/kg	0.980	1					
cis-1,3-Dichloropropylene	U	ND	0.315	2.10	ug/kg	0.980	1					
m,p-Xylenes	U	ND	0.315	4.19	ug/kg	0.980	1					
o-Xylene	U	ND	0.315	2.10	ug/kg	0.980	1					
tert-Butyl methyl ether	U	ND	0.315	2.10	ug/kg	0.980	1					
trans-1,2-Dichloroethylene	U	ND	0.315	2.10	ug/kg	0.980	1					
trans-1,3-Dichloropropylene	U	ND	0.315	2.10	ug/kg	0.980	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2213	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL08
Sample ID: 456917013

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1107		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2220 ug/kg	50.0	95	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2340 ug/kg	50.0	100	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2310 ug/kg	50.0	99	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	60.4 ug/kg	50.0	115	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	69.9 ug/kg	50.0	133*	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	76.4 ug/kg	50.0	146*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL09	Project: URSC00211
Sample ID: 456917014	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 07:49	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 10.8%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
Volatile Organics											
SW846 8260C Volatiles "Dry Weight Corrected"											
1,1,1-Trichloroethane	U	ND	16.2	108	ug/kg	0.962	50	JP1	08/19/18	0148 1794368	1
1,1,2,2-Tetrachloroethane	U	ND	16.2	108	ug/kg	0.962	50				
1,1,2-Trichloroethane	U	ND	16.2	108	ug/kg	0.962	50				
1,1-Dichloroethane	U	ND	16.2	108	ug/kg	0.962	50				
1,1-Dichloroethylene	U	ND	16.2	108	ug/kg	0.962	50				
1,2,3-Trichlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
1,2,4-Trichlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
1,2-Dibromo-3-chloropropane	U	ND	26.9	108	ug/kg	0.962	50				
1,2-Dibromoethane	U	ND	16.2	108	ug/kg	0.962	50				
1,2-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
1,2-Dichloroethane	U	ND	16.2	108	ug/kg	0.962	50				
1,2-Dichloropropane	U	ND	16.2	108	ug/kg	0.962	50				
1,3-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
1,4-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
1,4-Dioxane	U	ND	808	2690	ug/kg	0.962	50				
2-Butanone	U	ND	162	539	ug/kg	0.962	50				
2-Hexanone	U	ND	162	539	ug/kg	0.962	50				
4-Methyl-2-pentanone	U	ND	162	539	ug/kg	0.962	50				
Acetone	U	ND	162	539	ug/kg	0.962	50				
Benzene	U	ND	16.2	108	ug/kg	0.962	50				
Bromochloromethane	U	ND	16.2	108	ug/kg	0.962	50				
Bromodichloromethane	U	ND	16.2	108	ug/kg	0.962	50				
Bromoform	U	ND	16.2	108	ug/kg	0.962	50				
Bromomethane	U	ND	16.2	108	ug/kg	0.962	50				
Carbon disulfide	U	ND	86.2	539	ug/kg	0.962	50				
Carbon tetrachloride	U	ND	16.2	108	ug/kg	0.962	50				
Chlorobenzene	U	ND	16.2	108	ug/kg	0.962	50				
Chloroethane	U	ND	16.2	108	ug/kg	0.962	50				
Chloroform	U	ND	16.2	108	ug/kg	0.962	50				
Chloromethane	U	ND	16.2	108	ug/kg	0.962	50				
Cyclohexane	U	ND	16.2	108	ug/kg	0.962	50				
Dibromochloromethane	U	ND	16.2	108	ug/kg	0.962	50				
Dichlorodifluoromethane	U	ND	16.2	108	ug/kg	0.962	50				
Ethylbenzene	U	ND	16.2	108	ug/kg	0.962	50				
Isopropylbenzene	U	ND	16.2	108	ug/kg	0.962	50				
Methyl acetate	U	ND	80.8	269	ug/kg	0.962	50				

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL09
Sample ID: 456917014

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	16.2	108	ug/kg	0.962	50					
Methylene chloride	U	ND	86.2	269	ug/kg	0.962	50					
Styrene	U	ND	16.2	108	ug/kg	0.962	50					
Tetrachloroethylene	U	ND	16.2	108	ug/kg	0.962	50					
Toluene	U	ND	16.2	108	ug/kg	0.962	50					
Trichloroethylene	U	ND	16.2	108	ug/kg	0.962	50					
Trichlorofluoromethane	J	17.8	16.2	108	ug/kg	0.962	50					
Trichlorotrifluoroethane	U	ND	86.2	269	ug/kg	0.962	50					
Vinyl chloride	U	ND	16.2	108	ug/kg	0.962	50					
cis-1,2-Dichloroethylene	U	ND	16.2	108	ug/kg	0.962	50					
cis-1,3-Dichloropropylene	U	ND	16.2	108	ug/kg	0.962	50					
m,p-Xylenes	U	ND	16.2	215	ug/kg	0.962	50					
o-Xylene	U	ND	16.2	108	ug/kg	0.962	50					
tert-Butyl methyl ether	U	ND	16.2	108	ug/kg	0.962	50					
trans-1,2-Dichloroethylene	U	ND	16.2	108	ug/kg	0.962	50					
trans-1,3-Dichloropropylene	U	ND	16.2	108	ug/kg	0.962	50					
1,1,1-Trichloroethane	U	ND	0.323	2.15	ug/kg	0.962	1	JP1	08/20/18	1758	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,1,2-Trichloroethane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,1-Dichloroethane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,1-Dichloroethylene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2,3-Trichlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2,4-Trichlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2-Dibromo-3-chloropropane	U	ND	0.539	2.15	ug/kg	0.962	1					
1,2-Dibromoethane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2-Dichlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2-Dichloroethane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,2-Dichloropropane	U	ND	0.323	2.15	ug/kg	0.962	1					
1,3-Dichlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,4-Dichlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
1,4-Dioxane	U	ND	16.2	53.9	ug/kg	0.962	1					
2-Butanone	U	ND	3.23	10.8	ug/kg	0.962	1					
2-Hexanone	U	ND	3.23	10.8	ug/kg	0.962	1					
4-Methyl-2-pentanone	U	ND	3.23	10.8	ug/kg	0.962	1					
Acetone	U	ND	3.23	10.8	ug/kg	0.962	1					
Benzene	U	ND	0.323	2.15	ug/kg	0.962	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL09
Sample ID: 456917014

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Bromodichloromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Bromoform	U	ND	0.323	2.15	ug/kg	0.962	1					
Bromomethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Carbon disulfide	U	ND	1.72	10.8	ug/kg	0.962	1					
Carbon tetrachloride	U	ND	0.323	2.15	ug/kg	0.962	1					
Chlorobenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
Chloroethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Chloroform	U	ND	0.323	2.15	ug/kg	0.962	1					
Chloromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Cyclohexane	U	ND	0.323	2.15	ug/kg	0.962	1					
Dibromochloromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Dichlorodifluoromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Ethylbenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
Isopropylbenzene	U	ND	0.323	2.15	ug/kg	0.962	1					
Methyl acetate	U	ND	1.62	5.39	ug/kg	0.962	1					
Methylcyclohexane	U	ND	0.323	2.15	ug/kg	0.962	1					
Methylene chloride	J	4.53	1.72	5.39	ug/kg	0.962	1					
Styrene	U	ND	0.323	2.15	ug/kg	0.962	1					
Tetrachloroethylene	U	ND	0.323	2.15	ug/kg	0.962	1					
Toluene	J	0.528	0.323	2.15	ug/kg	0.962	1					
Trichloroethylene	U	ND	0.323	2.15	ug/kg	0.962	1					
Trichlorofluoromethane	U	ND	0.323	2.15	ug/kg	0.962	1					
Trichlorotrifluoroethane	U	ND	1.72	5.39	ug/kg	0.962	1					
Vinyl chloride	U	ND	0.323	2.15	ug/kg	0.962	1					
cis-1,2-Dichloroethylene	U	ND	0.323	2.15	ug/kg	0.962	1					
cis-1,3-Dichloropropylene	U	ND	0.323	2.15	ug/kg	0.962	1					
m,p-Xylenes	U	ND	0.323	4.31	ug/kg	0.962	1					
o-Xylene	U	ND	0.323	2.15	ug/kg	0.962	1					
tert-Butyl methyl ether	U	ND	0.323	2.15	ug/kg	0.962	1					
trans-1,2-Dichloroethylene	U	ND	0.323	2.15	ug/kg	0.962	1					
trans-1,3-Dichloropropylene	U	ND	0.323	2.15	ug/kg	0.962	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2214	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL09
Sample ID: 456917014

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1108		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2620 ug/kg	50.0	97	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2620 ug/kg	50.0	97	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2780 ug/kg	50.0	103	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	53.8 ug/kg	50.0	100	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	61.3 ug/kg	50.0	114	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	61.1 ug/kg	50.0	113	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL10	Project: URSC00211
Sample ID: 456917015	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 07:53	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 11.6%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	17.0	113	ug/kg	1.00	50	JP1	08/19/18	0219	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	17.0	113	ug/kg	1.00	50					
1,1,2-Trichloroethane	U	ND	17.0	113	ug/kg	1.00	50					
1,1-Dichloroethane	U	ND	17.0	113	ug/kg	1.00	50					
1,1-Dichloroethylene	U	ND	17.0	113	ug/kg	1.00	50					
1,2,3-Trichlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
1,2,4-Trichlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
1,2-Dibromo-3-chloropropane	U	ND	28.3	113	ug/kg	1.00	50					
1,2-Dibromoethane	U	ND	17.0	113	ug/kg	1.00	50					
1,2-Dichlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
1,2-Dichloroethane	U	ND	17.0	113	ug/kg	1.00	50					
1,2-Dichloropropane	U	ND	17.0	113	ug/kg	1.00	50					
1,3-Dichlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
1,4-Dichlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
1,4-Dioxane	U	ND	848	2830	ug/kg	1.00	50					
2-Butanone	U	ND	170	565	ug/kg	1.00	50					
2-Hexanone	U	ND	170	565	ug/kg	1.00	50					
4-Methyl-2-pentanone	U	ND	170	565	ug/kg	1.00	50					
Acetone	U	ND	170	565	ug/kg	1.00	50					
Benzene	U	ND	17.0	113	ug/kg	1.00	50					
Bromochloromethane	U	ND	17.0	113	ug/kg	1.00	50					
Bromodichloromethane	U	ND	17.0	113	ug/kg	1.00	50					
Bromoform	U	ND	17.0	113	ug/kg	1.00	50					
Bromomethane	U	ND	17.0	113	ug/kg	1.00	50					
Carbon disulfide	U	ND	90.5	565	ug/kg	1.00	50					
Carbon tetrachloride	U	ND	17.0	113	ug/kg	1.00	50					
Chlorobenzene	U	ND	17.0	113	ug/kg	1.00	50					
Chloroethane	U	ND	17.0	113	ug/kg	1.00	50					
Chloroform	U	ND	17.0	113	ug/kg	1.00	50					
Chloromethane	U	ND	17.0	113	ug/kg	1.00	50					
Cyclohexane	U	ND	17.0	113	ug/kg	1.00	50					
Dibromochloromethane	U	ND	17.0	113	ug/kg	1.00	50					
Dichlorodifluoromethane	U	ND	17.0	113	ug/kg	1.00	50					
Ethylbenzene	U	ND	17.0	113	ug/kg	1.00	50					
Isopropylbenzene	U	ND	17.0	113	ug/kg	1.00	50					
Methyl acetate	U	ND	84.8	283	ug/kg	1.00	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL10
Sample ID: 456917015

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	17.0	113	ug/kg	1.00	50					
Methylene chloride	U	ND	90.5	283	ug/kg	1.00	50					
Styrene	U	ND	17.0	113	ug/kg	1.00	50					
Tetrachloroethylene	U	ND	17.0	113	ug/kg	1.00	50					
Toluene	U	ND	17.0	113	ug/kg	1.00	50					
Trichloroethylene	U	ND	17.0	113	ug/kg	1.00	50					
Trichlorofluoromethane	U	ND	17.0	113	ug/kg	1.00	50					
Trichlorotrifluoroethane	U	ND	90.5	283	ug/kg	1.00	50					
Vinyl chloride	U	ND	17.0	113	ug/kg	1.00	50					
cis-1,2-Dichloroethylene	U	ND	17.0	113	ug/kg	1.00	50					
cis-1,3-Dichloropropylene	U	ND	17.0	113	ug/kg	1.00	50					
m,p-Xylenes	U	ND	17.0	226	ug/kg	1.00	50					
o-Xylene	U	ND	17.0	113	ug/kg	1.00	50					
tert-Butyl methyl ether	U	ND	17.0	113	ug/kg	1.00	50					
trans-1,2-Dichloroethylene	U	ND	17.0	113	ug/kg	1.00	50					
trans-1,3-Dichloropropylene	U	ND	17.0	113	ug/kg	1.00	50					
1,1,1-Trichloroethane	U	ND	0.339	2.26	ug/kg	1.00	1	JP1	08/20/18	1829	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,1,2-Trichloroethane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,1-Dichloroethane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,1-Dichloroethylene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2,3-Trichlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2,4-Trichlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2-Dibromo-3-chloropropane	U	ND	0.565	2.26	ug/kg	1.00	1					
1,2-Dibromoethane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2-Dichlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2-Dichloroethane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,2-Dichloropropane	U	ND	0.339	2.26	ug/kg	1.00	1					
1,3-Dichlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,4-Dichlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
1,4-Dioxane	U	ND	17.0	56.5	ug/kg	1.00	1					
2-Butanone	U	ND	3.39	11.3	ug/kg	1.00	1					
2-Hexanone	U	ND	3.39	11.3	ug/kg	1.00	1					
4-Methyl-2-pentanone	U	ND	3.39	11.3	ug/kg	1.00	1					
Acetone	U	ND	3.39	11.3	ug/kg	1.00	1					
Benzene	U	ND	0.339	2.26	ug/kg	1.00	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL10
Sample ID: 456917015

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Bromodichloromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Bromoform	U	ND	0.339	2.26	ug/kg	1.00	1					
Bromomethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Carbon disulfide	U	ND	1.81	11.3	ug/kg	1.00	1					
Carbon tetrachloride	U	ND	0.339	2.26	ug/kg	1.00	1					
Chlorobenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
Chloroethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Chloroform	U	ND	0.339	2.26	ug/kg	1.00	1					
Chloromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Cyclohexane	U	ND	0.339	2.26	ug/kg	1.00	1					
Dibromochloromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Dichlorodifluoromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Ethylbenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
Isopropylbenzene	U	ND	0.339	2.26	ug/kg	1.00	1					
Methyl acetate	U	ND	1.70	5.65	ug/kg	1.00	1					
Methylcyclohexane	U	ND	0.339	2.26	ug/kg	1.00	1					
Methylene chloride	J	2.72	1.81	5.65	ug/kg	1.00	1					
Styrene	U	ND	0.339	2.26	ug/kg	1.00	1					
Tetrachloroethylene	U	ND	0.339	2.26	ug/kg	1.00	1					
Toluene	U	ND	0.339	2.26	ug/kg	1.00	1					
Trichloroethylene	U	ND	0.339	2.26	ug/kg	1.00	1					
Trichlorofluoromethane	U	ND	0.339	2.26	ug/kg	1.00	1					
Trichlorotrifluoroethane	U	ND	1.81	5.65	ug/kg	1.00	1					
Vinyl chloride	U	ND	0.339	2.26	ug/kg	1.00	1					
cis-1,2-Dichloroethylene	U	ND	0.339	2.26	ug/kg	1.00	1					
cis-1,3-Dichloropropylene	U	ND	0.339	2.26	ug/kg	1.00	1					
m,p-Xylenes	U	ND	0.339	4.52	ug/kg	1.00	1					
o-Xylene	U	ND	0.339	2.26	ug/kg	1.00	1					
tert-Butyl methyl ether	U	ND	0.339	2.26	ug/kg	1.00	1					
trans-1,2-Dichloroethylene	U	ND	0.339	2.26	ug/kg	1.00	1					
trans-1,3-Dichloropropylene	U	ND	0.339	2.26	ug/kg	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2215	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL10
Sample ID: 456917015

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1109		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2670 ug/kg	50.0	94	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2800 ug/kg	50.0	99	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2850 ug/kg	50.0	101	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	60.6 ug/kg	50.0	107	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	59.4 ug/kg	50.0	105	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	55.1 ug/kg	50.0	98	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL11
Sample ID: 456917016
Matrix: Soil
Collect Date: 09-AUG-18 07:57
Receive Date: 10-AUG-18
Collector: Client
Moisture: 7.05%

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	13.9	92.7	ug/kg	0.862	50	JP1	08/19/18	0250	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,1,2-Trichloroethane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,1-Dichloroethane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,1-Dichloroethylene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2,3-Trichlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2,4-Trichlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2-Dibromo-3-chloropropane	U	ND	23.2	92.7	ug/kg	0.862	50					
1,2-Dibromoethane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2-Dichlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2-Dichloroethane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,2-Dichloropropane	U	ND	13.9	92.7	ug/kg	0.862	50					
1,3-Dichlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,4-Dichlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,4-Dioxane	U	ND	696	2320	ug/kg	0.862	50					
2-Butanone	U	ND	139	464	ug/kg	0.862	50					
2-Hexanone	U	ND	139	464	ug/kg	0.862	50					
4-Methyl-2-pentanone	U	ND	139	464	ug/kg	0.862	50					
Acetone	U	ND	139	464	ug/kg	0.862	50					
Benzene	U	ND	13.9	92.7	ug/kg	0.862	50					
Bromochloromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Bromodichloromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Bromoform	U	ND	13.9	92.7	ug/kg	0.862	50					
Bromomethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Carbon disulfide	U	ND	74.2	464	ug/kg	0.862	50					
Carbon tetrachloride	U	ND	13.9	92.7	ug/kg	0.862	50					
Chlorobenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
Chloroethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Chloroform	U	ND	13.9	92.7	ug/kg	0.862	50					
Chloromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Cyclohexane	U	ND	13.9	92.7	ug/kg	0.862	50					
Dibromochloromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Dichlorodifluoromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Ethylbenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
Isopropylbenzene	U	ND	13.9	92.7	ug/kg	0.862	50					
Methyl acetate	U	ND	69.6	232	ug/kg	0.862	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL11

Project: URSC00211

Sample ID: 456917016

Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	13.9	92.7	ug/kg	0.862	50					
Methylene chloride	U	ND	74.2	232	ug/kg	0.862	50					
Styrene	U	ND	13.9	92.7	ug/kg	0.862	50					
Tetrachloroethylene	U	ND	13.9	92.7	ug/kg	0.862	50					
Toluene	U	ND	13.9	92.7	ug/kg	0.862	50					
Trichloroethylene	U	ND	13.9	92.7	ug/kg	0.862	50					
Trichlorofluoromethane	U	ND	13.9	92.7	ug/kg	0.862	50					
Trichlorotrifluoroethane	U	ND	74.2	232	ug/kg	0.862	50					
Vinyl chloride	U	ND	13.9	92.7	ug/kg	0.862	50					
cis-1,2-Dichloroethylene	U	ND	13.9	92.7	ug/kg	0.862	50					
cis-1,3-Dichloropropylene	U	ND	13.9	92.7	ug/kg	0.862	50					
m,p-Xylenes	U	ND	13.9	185	ug/kg	0.862	50					
o-Xylene	U	ND	13.9	92.7	ug/kg	0.862	50					
tert-Butyl methyl ether	U	ND	13.9	92.7	ug/kg	0.862	50					
trans-1,2-Dichloroethylene	U	ND	13.9	92.7	ug/kg	0.862	50					
trans-1,3-Dichloropropylene	U	ND	13.9	92.7	ug/kg	0.862	50					
1,1,1-Trichloroethane	U	ND	0.304	2.03	ug/kg	0.943	1	JP1	08/20/18	1900	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,1,2-Trichloroethane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,1-Dichloroethane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,1-Dichloroethylene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2,3-Trichlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2,4-Trichlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2-Dibromo-3-chloropropane	U	ND	0.507	2.03	ug/kg	0.943	1					
1,2-Dibromoethane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2-Dichlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2-Dichloroethane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,2-Dichloropropane	U	ND	0.304	2.03	ug/kg	0.943	1					
1,3-Dichlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,4-Dichlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
1,4-Dioxane	U	ND	15.2	50.7	ug/kg	0.943	1					
2-Butanone	U	ND	3.04	10.1	ug/kg	0.943	1					
2-Hexanone	U	ND	3.04	10.1	ug/kg	0.943	1					
4-Methyl-2-pentanone	U	ND	3.04	10.1	ug/kg	0.943	1					
Acetone	U	ND	3.04	10.1	ug/kg	0.943	1					
Benzene	U	ND	0.304	2.03	ug/kg	0.943	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL11
Sample ID: 456917016

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Bromodichloromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Bromoform	U	ND	0.304	2.03	ug/kg	0.943	1					
Bromomethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Carbon disulfide	U	ND	1.62	10.1	ug/kg	0.943	1					
Carbon tetrachloride	U	ND	0.304	2.03	ug/kg	0.943	1					
Chlorobenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
Chloroethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Chloroform	U	ND	0.304	2.03	ug/kg	0.943	1					
Chloromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Cyclohexane	U	ND	0.304	2.03	ug/kg	0.943	1					
Dibromochloromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Dichlorodifluoromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Ethylbenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
Isopropylbenzene	U	ND	0.304	2.03	ug/kg	0.943	1					
Methyl acetate	U	ND	1.52	5.07	ug/kg	0.943	1					
Methylcyclohexane	U	ND	0.304	2.03	ug/kg	0.943	1					
Methylene chloride	U	ND	1.62	5.07	ug/kg	0.943	1					
Styrene	U	ND	0.304	2.03	ug/kg	0.943	1					
Tetrachloroethylene	U	ND	0.304	2.03	ug/kg	0.943	1					
Toluene	U	ND	0.304	2.03	ug/kg	0.943	1					
Trichloroethylene	U	ND	0.304	2.03	ug/kg	0.943	1					
Trichlorofluoromethane	U	ND	0.304	2.03	ug/kg	0.943	1					
Trichlorotrifluoroethane	U	ND	1.62	5.07	ug/kg	0.943	1					
Vinyl chloride	U	ND	0.304	2.03	ug/kg	0.943	1					
cis-1,2-Dichloroethylene	U	ND	0.304	2.03	ug/kg	0.943	1					
cis-1,3-Dichloropropylene	U	ND	0.304	2.03	ug/kg	0.943	1					
m,p-Xylenes	U	ND	0.304	4.06	ug/kg	0.943	1					
o-Xylene	U	ND	0.304	2.03	ug/kg	0.943	1					
tert-Butyl methyl ether	U	ND	0.304	2.03	ug/kg	0.943	1					
trans-1,2-Dichloroethylene	U	ND	0.304	2.03	ug/kg	0.943	1					
trans-1,3-Dichloropropylene	U	ND	0.304	2.03	ug/kg	0.943	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2216	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL11
Sample ID: 456917016

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1110		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2200 ug/kg	50.0	95	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2200 ug/kg	50.0	95	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2300 ug/kg	50.0	99	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	55.1 ug/kg	50.0	109	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	67.9 ug/kg	50.0	134*	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	59.0 ug/kg	50.0	116	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL12	Project: URSC00211
Sample ID: 456917017	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:01	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 9.31%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	16.2	108	ug/kg	0.980	50	JP1	08/19/18	0321	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	16.2	108	ug/kg	0.980	50					
1,1,2-Trichloroethane	U	ND	16.2	108	ug/kg	0.980	50					
1,1-Dichloroethane	U	ND	16.2	108	ug/kg	0.980	50					
1,1-Dichloroethylene	U	ND	16.2	108	ug/kg	0.980	50					
1,2,3-Trichlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
1,2,4-Trichlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
1,2-Dibromo-3-chloropropane	U	ND	27.0	108	ug/kg	0.980	50					
1,2-Dibromoethane	U	ND	16.2	108	ug/kg	0.980	50					
1,2-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
1,2-Dichloroethane	U	ND	16.2	108	ug/kg	0.980	50					
1,2-Dichloropropane	U	ND	16.2	108	ug/kg	0.980	50					
1,3-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
1,4-Dichlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
1,4-Dioxane	U	ND	811	2700	ug/kg	0.980	50					
2-Butanone	U	ND	162	540	ug/kg	0.980	50					
2-Hexanone	U	ND	162	540	ug/kg	0.980	50					
4-Methyl-2-pentanone	U	ND	162	540	ug/kg	0.980	50					
Acetone	U	ND	162	540	ug/kg	0.980	50					
Benzene	U	ND	16.2	108	ug/kg	0.980	50					
Bromochloromethane	U	ND	16.2	108	ug/kg	0.980	50					
Bromodichloromethane	U	ND	16.2	108	ug/kg	0.980	50					
Bromoform	U	ND	16.2	108	ug/kg	0.980	50					
Bromomethane	U	ND	16.2	108	ug/kg	0.980	50					
Carbon disulfide	U	ND	86.5	540	ug/kg	0.980	50					
Carbon tetrachloride	U	ND	16.2	108	ug/kg	0.980	50					
Chlorobenzene	U	ND	16.2	108	ug/kg	0.980	50					
Chloroethane	U	ND	16.2	108	ug/kg	0.980	50					
Chloroform	U	ND	16.2	108	ug/kg	0.980	50					
Chloromethane	U	ND	16.2	108	ug/kg	0.980	50					
Cyclohexane	U	ND	16.2	108	ug/kg	0.980	50					
Dibromochloromethane	U	ND	16.2	108	ug/kg	0.980	50					
Dichlorodifluoromethane	U	ND	16.2	108	ug/kg	0.980	50					
Ethylbenzene	U	ND	16.2	108	ug/kg	0.980	50					
Isopropylbenzene	U	ND	16.2	108	ug/kg	0.980	50					
Methyl acetate	U	ND	81.1	270	ug/kg	0.980	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL12
Sample ID: 456917017

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	16.2	108	ug/kg	0.980	50					
Methylene chloride	U	ND	86.5	270	ug/kg	0.980	50					
Styrene	U	ND	16.2	108	ug/kg	0.980	50					
Tetrachloroethylene	U	ND	16.2	108	ug/kg	0.980	50					
Toluene	U	ND	16.2	108	ug/kg	0.980	50					
Trichloroethylene	U	ND	16.2	108	ug/kg	0.980	50					
Trichlorofluoromethane	U	ND	16.2	108	ug/kg	0.980	50					
Trichlorotrifluoroethane	U	ND	86.5	270	ug/kg	0.980	50					
Vinyl chloride	U	ND	16.2	108	ug/kg	0.980	50					
cis-1,2-Dichloroethylene	U	ND	16.2	108	ug/kg	0.980	50					
cis-1,3-Dichloropropylene	U	ND	16.2	108	ug/kg	0.980	50					
m,p-Xylenes	U	ND	16.2	216	ug/kg	0.980	50					
o-Xylene	U	ND	16.2	108	ug/kg	0.980	50					
tert-Butyl methyl ether	U	ND	16.2	108	ug/kg	0.980	50					
trans-1,2-Dichloroethylene	U	ND	16.2	108	ug/kg	0.980	50					
trans-1,3-Dichloropropylene	U	ND	16.2	108	ug/kg	0.980	50					
1,1,1-Trichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1	JP1	08/20/18	1931	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1,2-Trichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1-Dichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2,3-Trichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2,4-Trichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dibromo-3-chloropropane	U	ND	0.551	2.21	ug/kg	1.00	1					
1,2-Dibromoethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichloropropane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,3-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,4-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,4-Dioxane	U	ND	16.5	55.1	ug/kg	1.00	1					
2-Butanone	U	ND	3.31	11.0	ug/kg	1.00	1					
2-Hexanone	U	ND	3.31	11.0	ug/kg	1.00	1					
4-Methyl-2-pentanone	U	ND	3.31	11.0	ug/kg	1.00	1					
Acetone	U	ND	3.31	11.0	ug/kg	1.00	1					
Benzene	U	ND	0.331	2.21	ug/kg	1.00	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL12
Sample ID: 456917017

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatiles Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromodichloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromoform	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromomethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Carbon disulfide	U	ND	1.76	11.0	ug/kg	1.00	1					
Carbon tetrachloride	U	ND	0.331	2.21	ug/kg	1.00	1					
Chlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloroform	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Cyclohexane	U	ND	0.331	2.21	ug/kg	1.00	1					
Dibromochloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Dichlorodifluoromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Ethylbenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Isopropylbenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Methyl acetate	U	ND	1.65	5.51	ug/kg	1.00	1					
Methylcyclohexane	U	ND	0.331	2.21	ug/kg	1.00	1					
Methylene chloride	U	ND	1.76	5.51	ug/kg	1.00	1					
Styrene	U	ND	0.331	2.21	ug/kg	1.00	1					
Tetrachloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
Toluene	U	ND	0.331	2.21	ug/kg	1.00	1					
Trichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
Trichlorofluoromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Trichlorotrifluoroethane	U	ND	1.76	5.51	ug/kg	1.00	1					
Vinyl chloride	U	ND	0.331	2.21	ug/kg	1.00	1					
cis-1,2-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
cis-1,3-Dichloropropylene	U	ND	0.331	2.21	ug/kg	1.00	1					
m,p-Xylenes	U	ND	0.331	4.41	ug/kg	1.00	1					
o-Xylene	U	ND	0.331	2.21	ug/kg	1.00	1					
tert-Butyl methyl ether	U	ND	0.331	2.21	ug/kg	1.00	1					
trans-1,2-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
trans-1,3-Dichloropropylene	U	ND	0.331	2.21	ug/kg	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2217	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL12
Sample ID: 456917017

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1111		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2580 ug/kg	50.0	96	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2580 ug/kg	50.0	96	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2730 ug/kg	50.0	101	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	61.1 ug/kg	50.0	111	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	70.4 ug/kg	50.0	128	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	73.8 ug/kg	50.0	134*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL03	Project: URSC00211
Sample ID: 456917018	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:05	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 8.61%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	15.5	103	ug/kg	0.943	50	JP1	08/19/18	0352	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	15.5	103	ug/kg	0.943	50					
1,1,2-Trichloroethane	U	ND	15.5	103	ug/kg	0.943	50					
1,1-Dichloroethane	U	ND	15.5	103	ug/kg	0.943	50					
1,1-Dichloroethylene	U	ND	15.5	103	ug/kg	0.943	50					
1,2,3-Trichlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
1,2,4-Trichlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
1,2-Dibromo-3-chloropropane	U	ND	25.8	103	ug/kg	0.943	50					
1,2-Dibromoethane	U	ND	15.5	103	ug/kg	0.943	50					
1,2-Dichlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
1,2-Dichloroethane	U	ND	15.5	103	ug/kg	0.943	50					
1,2-Dichloropropane	U	ND	15.5	103	ug/kg	0.943	50					
1,3-Dichlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
1,4-Dichlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
1,4-Dioxane	U	ND	774	2580	ug/kg	0.943	50					
2-Butanone	U	ND	155	516	ug/kg	0.943	50					
2-Hexanone	U	ND	155	516	ug/kg	0.943	50					
4-Methyl-2-pentanone	U	ND	155	516	ug/kg	0.943	50					
Acetone	U	ND	155	516	ug/kg	0.943	50					
Benzene	U	ND	15.5	103	ug/kg	0.943	50					
Bromochloromethane	U	ND	15.5	103	ug/kg	0.943	50					
Bromodichloromethane	U	ND	15.5	103	ug/kg	0.943	50					
Bromoform	U	ND	15.5	103	ug/kg	0.943	50					
Bromomethane	U	ND	15.5	103	ug/kg	0.943	50					
Carbon disulfide	U	ND	82.6	516	ug/kg	0.943	50					
Carbon tetrachloride	U	ND	15.5	103	ug/kg	0.943	50					
Chlorobenzene	U	ND	15.5	103	ug/kg	0.943	50					
Chloroethane	U	ND	15.5	103	ug/kg	0.943	50					
Chloroform	U	ND	15.5	103	ug/kg	0.943	50					
Chloromethane	U	ND	15.5	103	ug/kg	0.943	50					
Cyclohexane	U	ND	15.5	103	ug/kg	0.943	50					
Dibromochloromethane	U	ND	15.5	103	ug/kg	0.943	50					
Dichlorodifluoromethane	U	ND	15.5	103	ug/kg	0.943	50					
Ethylbenzene	U	ND	15.5	103	ug/kg	0.943	50					
Isopropylbenzene	U	ND	15.5	103	ug/kg	0.943	50					
Methyl acetate	U	ND	77.4	258	ug/kg	0.943	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL03
Sample ID: 456917018

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	15.5	103	ug/kg	0.943	50					
Methylene chloride	U	ND	82.6	258	ug/kg	0.943	50					
Styrene	U	ND	15.5	103	ug/kg	0.943	50					
Tetrachloroethylene	U	ND	15.5	103	ug/kg	0.943	50					
Toluene	U	ND	15.5	103	ug/kg	0.943	50					
Trichloroethylene	U	ND	15.5	103	ug/kg	0.943	50					
Trichlorofluoromethane	U	ND	15.5	103	ug/kg	0.943	50					
Trichlorotrifluoroethane	U	ND	82.6	258	ug/kg	0.943	50					
Vinyl chloride	U	ND	15.5	103	ug/kg	0.943	50					
cis-1,2-Dichloroethylene	U	ND	15.5	103	ug/kg	0.943	50					
cis-1,3-Dichloropropylene	U	ND	15.5	103	ug/kg	0.943	50					
m,p-Xylenes	U	ND	15.5	206	ug/kg	0.943	50					
o-Xylene	U	ND	15.5	103	ug/kg	0.943	50					
tert-Butyl methyl ether	U	ND	15.5	103	ug/kg	0.943	50					
trans-1,2-Dichloroethylene	U	ND	15.5	103	ug/kg	0.943	50					
trans-1,3-Dichloropropylene	U	ND	15.5	103	ug/kg	0.943	50					
1,1,1-Trichloroethane	U	ND	0.328	2.19	ug/kg	1.00	1	JP1	08/20/18	2002	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,1,2-Trichloroethane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,1-Dichloroethane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,1-Dichloroethylene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2,3-Trichlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2,4-Trichlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2-Dibromo-3-chloropropane	U	ND	0.547	2.19	ug/kg	1.00	1					
1,2-Dibromoethane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2-Dichlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2-Dichloroethane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,2-Dichloropropane	U	ND	0.328	2.19	ug/kg	1.00	1					
1,3-Dichlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,4-Dichlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
1,4-Dioxane	U	ND	16.4	54.7	ug/kg	1.00	1					
2-Butanone	U	ND	3.28	10.9	ug/kg	1.00	1					
2-Hexanone	U	ND	3.28	10.9	ug/kg	1.00	1					
4-Methyl-2-pentanone	U	ND	3.28	10.9	ug/kg	1.00	1					
Acetone	U	ND	3.28	10.9	ug/kg	1.00	1					
Benzene	U	ND	0.328	2.19	ug/kg	1.00	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL03
Sample ID: 456917018

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatiles Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Bromodichloromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Bromoform	U	ND	0.328	2.19	ug/kg	1.00	1					
Bromomethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Carbon disulfide	U	ND	1.75	10.9	ug/kg	1.00	1					
Carbon tetrachloride	U	ND	0.328	2.19	ug/kg	1.00	1					
Chlorobenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
Chloroethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Chloroform	U	ND	0.328	2.19	ug/kg	1.00	1					
Chloromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Cyclohexane	U	ND	0.328	2.19	ug/kg	1.00	1					
Dibromochloromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Dichlorodifluoromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Ethylbenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
Isopropylbenzene	U	ND	0.328	2.19	ug/kg	1.00	1					
Methyl acetate	U	ND	1.64	5.47	ug/kg	1.00	1					
Methylcyclohexane	U	ND	0.328	2.19	ug/kg	1.00	1					
Methylene chloride	J	3.62	1.75	5.47	ug/kg	1.00	1					
Styrene	U	ND	0.328	2.19	ug/kg	1.00	1					
Tetrachloroethylene	U	ND	0.328	2.19	ug/kg	1.00	1					
Toluene	U	ND	0.328	2.19	ug/kg	1.00	1					
Trichloroethylene	U	ND	0.328	2.19	ug/kg	1.00	1					
Trichlorofluoromethane	U	ND	0.328	2.19	ug/kg	1.00	1					
Trichlorotrifluoroethane	U	ND	1.75	5.47	ug/kg	1.00	1					
Vinyl chloride	U	ND	0.328	2.19	ug/kg	1.00	1					
cis-1,2-Dichloroethylene	U	ND	0.328	2.19	ug/kg	1.00	1					
cis-1,3-Dichloropropylene	U	ND	0.328	2.19	ug/kg	1.00	1					
m,p-Xylenes	U	ND	0.328	4.38	ug/kg	1.00	1					
o-Xylene	U	ND	0.328	2.19	ug/kg	1.00	1					
tert-Butyl methyl ether	U	ND	0.328	2.19	ug/kg	1.00	1					
trans-1,2-Dichloroethylene	U	ND	0.328	2.19	ug/kg	1.00	1					
trans-1,3-Dichloropropylene	U	ND	0.328	2.19	ug/kg	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2218	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SWSOL03
Sample ID: 456917018

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/20/18		1112		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2500 ug/kg	50.0	97	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2430 ug/kg	50.0	94	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2690 ug/kg	50.0	104	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	59.2 ug/kg	50.0	108	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	63.4 ug/kg	50.0	116	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	71.3 ug/kg	50.0	130*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL03	Project: URSC00211
Sample ID: 456917019	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:07	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 9.46%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	15.9	106	ug/kg	0.962	50	JP1	08/19/18	0422	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	15.9	106	ug/kg	0.962	50					
1,1,2-Trichloroethane	U	ND	15.9	106	ug/kg	0.962	50					
1,1-Dichloroethane	U	ND	15.9	106	ug/kg	0.962	50					
1,1-Dichloroethylene	U	ND	15.9	106	ug/kg	0.962	50					
1,2,3-Trichlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
1,2,4-Trichlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
1,2-Dibromo-3-chloropropane	U	ND	26.6	106	ug/kg	0.962	50					
1,2-Dibromoethane	U	ND	15.9	106	ug/kg	0.962	50					
1,2-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
1,2-Dichloroethane	U	ND	15.9	106	ug/kg	0.962	50					
1,2-Dichloropropane	U	ND	15.9	106	ug/kg	0.962	50					
1,3-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
1,4-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
1,4-Dioxane	U	ND	797	2660	ug/kg	0.962	50					
2-Butanone	U	ND	159	531	ug/kg	0.962	50					
2-Hexanone	U	ND	159	531	ug/kg	0.962	50					
4-Methyl-2-pentanone	U	ND	159	531	ug/kg	0.962	50					
Acetone	U	ND	159	531	ug/kg	0.962	50					
Benzene	U	ND	15.9	106	ug/kg	0.962	50					
Bromochloromethane	U	ND	15.9	106	ug/kg	0.962	50					
Bromodichloromethane	U	ND	15.9	106	ug/kg	0.962	50					
Bromoform	U	ND	15.9	106	ug/kg	0.962	50					
Bromomethane	U	ND	15.9	106	ug/kg	0.962	50					
Carbon disulfide	U	ND	85.0	531	ug/kg	0.962	50					
Carbon tetrachloride	U	ND	15.9	106	ug/kg	0.962	50					
Chlorobenzene	U	ND	15.9	106	ug/kg	0.962	50					
Chloroethane	U	ND	15.9	106	ug/kg	0.962	50					
Chloroform	U	ND	15.9	106	ug/kg	0.962	50					
Chloromethane	U	ND	15.9	106	ug/kg	0.962	50					
Cyclohexane	U	ND	15.9	106	ug/kg	0.962	50					
Dibromochloromethane	U	ND	15.9	106	ug/kg	0.962	50					
Dichlorodifluoromethane	U	ND	15.9	106	ug/kg	0.962	50					
Ethylbenzene	U	ND	15.9	106	ug/kg	0.962	50					
Isopropylbenzene	U	ND	15.9	106	ug/kg	0.962	50					
Methyl acetate	U	ND	79.7	266	ug/kg	0.962	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL03
Sample ID: 456917019

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	15.9	106	ug/kg	0.962	50					
Methylene chloride	U	ND	85.0	266	ug/kg	0.962	50					
Styrene	U	ND	15.9	106	ug/kg	0.962	50					
Tetrachloroethylene	U	ND	15.9	106	ug/kg	0.962	50					
Toluene	U	ND	15.9	106	ug/kg	0.962	50					
Trichloroethylene	U	ND	15.9	106	ug/kg	0.962	50					
Trichlorofluoromethane	U	ND	15.9	106	ug/kg	0.962	50					
Trichlorotrifluoroethane	U	ND	85.0	266	ug/kg	0.962	50					
Vinyl chloride	U	ND	15.9	106	ug/kg	0.962	50					
cis-1,2-Dichloroethylene	U	ND	15.9	106	ug/kg	0.962	50					
cis-1,3-Dichloropropylene	U	ND	15.9	106	ug/kg	0.962	50					
m,p-Xylenes	U	ND	15.9	212	ug/kg	0.962	50					
o-Xylene	U	ND	15.9	106	ug/kg	0.962	50					
tert-Butyl methyl ether	U	ND	15.9	106	ug/kg	0.962	50					
trans-1,2-Dichloroethylene	U	ND	15.9	106	ug/kg	0.962	50					
trans-1,3-Dichloropropylene	U	ND	15.9	106	ug/kg	0.962	50					
1,1,1-Trichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1	JP1	08/21/18	1202	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1,2-Trichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1-Dichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,1-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2,3-Trichlorobenzene	J	0.674	0.331	2.21	ug/kg	1.00	1					
1,2,4-Trichlorobenzene	J	0.663	0.331	2.21	ug/kg	1.00	1					
1,2-Dibromo-3-chloropropane	U	ND	0.552	2.21	ug/kg	1.00	1					
1,2-Dibromoethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,2-Dichloropropane	U	ND	0.331	2.21	ug/kg	1.00	1					
1,3-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,4-Dichlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
1,4-Dioxane	U	ND	16.6	55.2	ug/kg	1.00	1					
2-Butanone	U	ND	3.31	11.0	ug/kg	1.00	1					
2-Hexanone	U	ND	3.31	11.0	ug/kg	1.00	1					
4-Methyl-2-pentanone	U	ND	3.31	11.0	ug/kg	1.00	1					
Acetone	U	ND	3.31	11.0	ug/kg	1.00	1					
Benzene	U	ND	0.331	2.21	ug/kg	1.00	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL03	Project: URSC00211
Sample ID: 456917019	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromodichloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromoform	U	ND	0.331	2.21	ug/kg	1.00	1					
Bromomethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Carbon disulfide	U	ND	1.77	11.0	ug/kg	1.00	1					
Carbon tetrachloride	U	ND	0.331	2.21	ug/kg	1.00	1					
Chlorobenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloroethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloroform	U	ND	0.331	2.21	ug/kg	1.00	1					
Chloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Cyclohexane	U	ND	0.331	2.21	ug/kg	1.00	1					
Dibromochloromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Dichlorodifluoromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Ethylbenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Isopropylbenzene	U	ND	0.331	2.21	ug/kg	1.00	1					
Methyl acetate	U	ND	1.66	5.52	ug/kg	1.00	1					
Methylcyclohexane	U	ND	0.331	2.21	ug/kg	1.00	1					
Methylene chloride	U	ND	1.77	5.52	ug/kg	1.00	1					
Styrene	U	ND	0.331	2.21	ug/kg	1.00	1					
Tetrachloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
Toluene	J	0.331	0.331	2.21	ug/kg	1.00	1					
Trichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
Trichlorofluoromethane	U	ND	0.331	2.21	ug/kg	1.00	1					
Trichlorotrifluoroethane	U	ND	1.77	5.52	ug/kg	1.00	1					
Vinyl chloride	U	ND	0.331	2.21	ug/kg	1.00	1					
cis-1,2-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
cis-1,3-Dichloropropylene	U	ND	0.331	2.21	ug/kg	1.00	1					
m,p-Xylenes	U	ND	0.331	4.42	ug/kg	1.00	1					
o-Xylene	U	ND	0.331	2.21	ug/kg	1.00	1					
tert-Butyl methyl ether	U	ND	0.331	2.21	ug/kg	1.00	1					
trans-1,2-Dichloroethylene	U	ND	0.331	2.21	ug/kg	1.00	1					
trans-1,3-Dichloropropylene	U	ND	0.331	2.21	ug/kg	1.00	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2219	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL03
Sample ID: 456917019

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/21/18		1137		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2380 ug/kg	50.0	90	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2410 ug/kg	50.0	91	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2770 ug/kg	50.0	104	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	63.4 ug/kg	50.0	115	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	71.7 ug/kg	50.0	130	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	73.7 ug/kg	50.0	133*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04	Project: URSC00211
Sample ID: 456917020	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:09	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 10.2%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
Volatile Organics											
SW846 8260C Volatiles "Dry Weight Corrected"											
1,1,1-Trichloroethane	U	ND	16.7	111	ug/kg	1.00	50	JP1	08/19/18	0453 1794368	1
1,1,2,2-Tetrachloroethane	U	ND	16.7	111	ug/kg	1.00	50				
1,1,2-Trichloroethane	U	ND	16.7	111	ug/kg	1.00	50				
1,1-Dichloroethane	U	ND	16.7	111	ug/kg	1.00	50				
1,1-Dichloroethylene	U	ND	16.7	111	ug/kg	1.00	50				
1,2,3-Trichlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
1,2,4-Trichlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
1,2-Dibromo-3-chloropropane	U	ND	27.8	111	ug/kg	1.00	50				
1,2-Dibromoethane	U	ND	16.7	111	ug/kg	1.00	50				
1,2-Dichlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
1,2-Dichloroethane	U	ND	16.7	111	ug/kg	1.00	50				
1,2-Dichloropropane	U	ND	16.7	111	ug/kg	1.00	50				
1,3-Dichlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
1,4-Dichlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
1,4-Dioxane	U	ND	835	2780	ug/kg	1.00	50				
2-Butanone	U	ND	167	557	ug/kg	1.00	50				
2-Hexanone	U	ND	167	557	ug/kg	1.00	50				
4-Methyl-2-pentanone	U	ND	167	557	ug/kg	1.00	50				
Acetone	U	ND	167	557	ug/kg	1.00	50				
Benzene	U	ND	16.7	111	ug/kg	1.00	50				
Bromochloromethane	U	ND	16.7	111	ug/kg	1.00	50				
Bromodichloromethane	U	ND	16.7	111	ug/kg	1.00	50				
Bromoform	U	ND	16.7	111	ug/kg	1.00	50				
Bromomethane	U	ND	16.7	111	ug/kg	1.00	50				
Carbon disulfide	U	ND	89.1	557	ug/kg	1.00	50				
Carbon tetrachloride	U	ND	16.7	111	ug/kg	1.00	50				
Chlorobenzene	U	ND	16.7	111	ug/kg	1.00	50				
Chloroethane	U	ND	16.7	111	ug/kg	1.00	50				
Chloroform	U	ND	16.7	111	ug/kg	1.00	50				
Chloromethane	U	ND	16.7	111	ug/kg	1.00	50				
Cyclohexane	U	ND	16.7	111	ug/kg	1.00	50				
Dibromochloromethane	U	ND	16.7	111	ug/kg	1.00	50				
Dichlorodifluoromethane	U	ND	16.7	111	ug/kg	1.00	50				
Ethylbenzene	U	ND	16.7	111	ug/kg	1.00	50				
Isopropylbenzene	U	ND	16.7	111	ug/kg	1.00	50				
Methyl acetate	U	ND	83.5	278	ug/kg	1.00	50				

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04
Sample ID: 456917020

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	16.7	111	ug/kg	1.00	50					
Methylene chloride	U	ND	89.1	278	ug/kg	1.00	50					
Styrene	U	ND	16.7	111	ug/kg	1.00	50					
Tetrachloroethylene	U	ND	16.7	111	ug/kg	1.00	50					
Toluene	U	ND	16.7	111	ug/kg	1.00	50					
Trichloroethylene	J	23.9	16.7	111	ug/kg	1.00	50					
Trichlorofluoromethane	U	ND	16.7	111	ug/kg	1.00	50					
Trichlorotrifluoroethane	U	ND	89.1	278	ug/kg	1.00	50					
Vinyl chloride	U	ND	16.7	111	ug/kg	1.00	50					
cis-1,2-Dichloroethylene	J	35.1	16.7	111	ug/kg	1.00	50					
cis-1,3-Dichloropropylene	U	ND	16.7	111	ug/kg	1.00	50					
m,p-Xylenes	U	ND	16.7	223	ug/kg	1.00	50					
o-Xylene	U	ND	16.7	111	ug/kg	1.00	50					
tert-Butyl methyl ether	U	ND	16.7	111	ug/kg	1.00	50					
trans-1,2-Dichloroethylene	U	ND	16.7	111	ug/kg	1.00	50					
trans-1,3-Dichloropropylene	U	ND	16.7	111	ug/kg	1.00	50					
1,1,1-Trichloroethane	U	ND	0.298	1.99	ug/kg	0.893	1	JP1	08/21/18	1406	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,1,2-Trichloroethane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,1-Dichloroethane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,1-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2,3-Trichlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2,4-Trichlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2-Dibromo-3-chloropropane	U	ND	0.497	1.99	ug/kg	0.893	1					
1,2-Dibromoethane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2-Dichlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2-Dichloroethane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,2-Dichloropropane	U	ND	0.298	1.99	ug/kg	0.893	1					
1,3-Dichlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,4-Dichlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
1,4-Dioxane	U	ND	14.9	49.7	ug/kg	0.893	1					
2-Butanone	U	ND	2.98	9.94	ug/kg	0.893	1					
2-Hexanone	U	ND	2.98	9.94	ug/kg	0.893	1					
4-Methyl-2-pentanone	U	ND	2.98	9.94	ug/kg	0.893	1					
Acetone	U	ND	2.98	9.94	ug/kg	0.893	1					
Benzene	U	ND	0.298	1.99	ug/kg	0.893	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04	Project: URSC00211
Sample ID: 456917020	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Bromodichloromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Bromoform	U	ND	0.298	1.99	ug/kg	0.893	1					
Bromomethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Carbon disulfide	U	ND	1.59	9.94	ug/kg	0.893	1					
Carbon tetrachloride	U	ND	0.298	1.99	ug/kg	0.893	1					
Chlorobenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
Chloroethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Chloroform	U	ND	0.298	1.99	ug/kg	0.893	1					
Chloromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Cyclohexane	U	ND	0.298	1.99	ug/kg	0.893	1					
Dibromochloromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Dichlorodifluoromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Ethylbenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
Isopropylbenzene	U	ND	0.298	1.99	ug/kg	0.893	1					
Methyl acetate	U	ND	1.49	4.97	ug/kg	0.893	1					
Methylcyclohexane	U	ND	0.298	1.99	ug/kg	0.893	1					
Methylene chloride	U	ND	1.59	4.97	ug/kg	0.893	1					
Styrene	U	ND	0.298	1.99	ug/kg	0.893	1					
Tetrachloroethylene	U	ND	0.298	1.99	ug/kg	0.893	1					
Toluene	U	ND	0.298	1.99	ug/kg	0.893	1					
Trichloroethylene	J	0.448	0.298	1.99	ug/kg	0.893	1					
Trichlorofluoromethane	U	ND	0.298	1.99	ug/kg	0.893	1					
Trichlorotrifluoroethane	U	ND	1.59	4.97	ug/kg	0.893	1					
Vinyl chloride	U	ND	0.298	1.99	ug/kg	0.893	1					
cis-1,2-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.893	1					
cis-1,3-Dichloropropylene	U	ND	0.298	1.99	ug/kg	0.893	1					
m,p-Xylenes	U	ND	0.298	3.98	ug/kg	0.893	1					
o-Xylene	U	ND	0.298	1.99	ug/kg	0.893	1					
tert-Butyl methyl ether	U	ND	0.298	1.99	ug/kg	0.893	1					
trans-1,2-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.893	1					
trans-1,3-Dichloropropylene	U	ND	0.298	1.99	ug/kg	0.893	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2220	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04
Sample ID: 456917020

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/21/18		1317		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2720 ug/kg	50.0	98	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2760 ug/kg	50.0	99	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2750 ug/kg	50.0	99	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	59.6 ug/kg	50.0	120	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	83.4 ug/kg	50.0	168*	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	83.1 ug/kg	50.0	167*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL08	Project: URSC00211
Sample ID: 456917021	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:13	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 6.74%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	15.2	101	ug/kg	0.943	50	JP1	08/19/18	0524	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	15.2	101	ug/kg	0.943	50					
1,1,2-Trichloroethane	U	ND	15.2	101	ug/kg	0.943	50					
1,1-Dichloroethane	U	ND	15.2	101	ug/kg	0.943	50					
1,1-Dichloroethylene	U	ND	15.2	101	ug/kg	0.943	50					
1,2,3-Trichlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
1,2,4-Trichlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
1,2-Dibromo-3-chloropropane	U	ND	25.3	101	ug/kg	0.943	50					
1,2-Dibromoethane	U	ND	15.2	101	ug/kg	0.943	50					
1,2-Dichlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
1,2-Dichloroethane	U	ND	15.2	101	ug/kg	0.943	50					
1,2-Dichloropropane	U	ND	15.2	101	ug/kg	0.943	50					
1,3-Dichlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
1,4-Dichlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
1,4-Dioxane	U	ND	759	2530	ug/kg	0.943	50					
2-Butanone	U	ND	152	506	ug/kg	0.943	50					
2-Hexanone	U	ND	152	506	ug/kg	0.943	50					
4-Methyl-2-pentanone	U	ND	152	506	ug/kg	0.943	50					
Acetone	U	ND	152	506	ug/kg	0.943	50					
Benzene	U	ND	15.2	101	ug/kg	0.943	50					
Bromochloromethane	U	ND	15.2	101	ug/kg	0.943	50					
Bromodichloromethane	U	ND	15.2	101	ug/kg	0.943	50					
Bromoform	U	ND	15.2	101	ug/kg	0.943	50					
Bromomethane	U	ND	15.2	101	ug/kg	0.943	50					
Carbon disulfide	U	ND	80.9	506	ug/kg	0.943	50					
Carbon tetrachloride	U	ND	15.2	101	ug/kg	0.943	50					
Chlorobenzene	U	ND	15.2	101	ug/kg	0.943	50					
Chloroethane	U	ND	15.2	101	ug/kg	0.943	50					
Chloroform	U	ND	15.2	101	ug/kg	0.943	50					
Chloromethane	U	ND	15.2	101	ug/kg	0.943	50					
Cyclohexane	U	ND	15.2	101	ug/kg	0.943	50					
Dibromochloromethane	U	ND	15.2	101	ug/kg	0.943	50					
Dichlorodifluoromethane	U	ND	15.2	101	ug/kg	0.943	50					
Ethylbenzene	U	ND	15.2	101	ug/kg	0.943	50					
Isopropylbenzene	U	ND	15.2	101	ug/kg	0.943	50					
Methyl acetate	U	ND	75.9	253	ug/kg	0.943	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL08	Project: URSC00211
Sample ID: 456917021	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	15.2	101	ug/kg	0.943	50					
Methylene chloride	U	ND	80.9	253	ug/kg	0.943	50					
Styrene	U	ND	15.2	101	ug/kg	0.943	50					
Tetrachloroethylene	U	ND	15.2	101	ug/kg	0.943	50					
Toluene	U	ND	15.2	101	ug/kg	0.943	50					
Trichloroethylene	U	ND	15.2	101	ug/kg	0.943	50					
Trichlorofluoromethane	U	ND	15.2	101	ug/kg	0.943	50					
Trichlorotrifluoroethane	U	ND	80.9	253	ug/kg	0.943	50					
Vinyl chloride	U	ND	15.2	101	ug/kg	0.943	50					
cis-1,2-Dichloroethylene	U	ND	15.2	101	ug/kg	0.943	50					
cis-1,3-Dichloropropylene	U	ND	15.2	101	ug/kg	0.943	50					
m,p-Xylenes	U	ND	15.2	202	ug/kg	0.943	50					
o-Xylene	U	ND	15.2	101	ug/kg	0.943	50					
tert-Butyl methyl ether	U	ND	15.2	101	ug/kg	0.943	50					
trans-1,2-Dichloroethylene	U	ND	15.2	101	ug/kg	0.943	50					
trans-1,3-Dichloropropylene	U	ND	15.2	101	ug/kg	0.943	50					
1,1,1-Trichloroethane	U	ND	0.298	1.99	ug/kg	0.926	1	JP1	08/21/18	1304	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,1,2-Trichloroethane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,1-Dichloroethane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,1-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.926	1					
1,2,3-Trichlorobenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
1,2,4-Trichlorobenzene	J	1.08	0.298	1.99	ug/kg	0.926	1					
1,2-Dibromo-3-chloropropane	U	ND	0.496	1.99	ug/kg	0.926	1					
1,2-Dibromoethane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,2-Dichlorobenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
1,2-Dichloroethane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,2-Dichloropropane	U	ND	0.298	1.99	ug/kg	0.926	1					
1,3-Dichlorobenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
1,4-Dichlorobenzene	J	0.645	0.298	1.99	ug/kg	0.926	1					
1,4-Dioxane	U	ND	14.9	49.6	ug/kg	0.926	1					
2-Butanone	U	ND	2.98	9.93	ug/kg	0.926	1					
2-Hexanone	U	ND	2.98	9.93	ug/kg	0.926	1					
4-Methyl-2-pentanone	U	ND	2.98	9.93	ug/kg	0.926	1					
Acetone	J	3.48	2.98	9.93	ug/kg	0.926	1					
Benzene	U	ND	0.298	1.99	ug/kg	0.926	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL08	Project: URSC00211
Sample ID: 456917021	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Bromodichloromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Bromoform	U	ND	0.298	1.99	ug/kg	0.926	1					
Bromomethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Carbon disulfide	J	2.29	1.59	9.93	ug/kg	0.926	1					
Carbon tetrachloride	U	ND	0.298	1.99	ug/kg	0.926	1					
Chlorobenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
Chloroethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Chloroform	U	ND	0.298	1.99	ug/kg	0.926	1					
Chloromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Cyclohexane	U	ND	0.298	1.99	ug/kg	0.926	1					
Dibromochloromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Dichlorodifluoromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Ethylbenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
Isopropylbenzene	U	ND	0.298	1.99	ug/kg	0.926	1					
Methyl acetate	U	ND	1.49	4.96	ug/kg	0.926	1					
Methylcyclohexane	U	ND	0.298	1.99	ug/kg	0.926	1					
Methylene chloride		8.08	1.59	4.96	ug/kg	0.926	1					
Styrene	U	ND	0.298	1.99	ug/kg	0.926	1					
Tetrachloroethylene	U	ND	0.298	1.99	ug/kg	0.926	1					
Toluene	U	ND	0.298	1.99	ug/kg	0.926	1					
Trichloroethylene	U	ND	0.298	1.99	ug/kg	0.926	1					
Trichlorofluoromethane	U	ND	0.298	1.99	ug/kg	0.926	1					
Trichlorotrifluoroethane	U	ND	1.59	4.96	ug/kg	0.926	1					
Vinyl chloride	U	ND	0.298	1.99	ug/kg	0.926	1					
cis-1,2-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.926	1					
cis-1,3-Dichloropropylene	U	ND	0.298	1.99	ug/kg	0.926	1					
m,p-Xylenes	U	ND	0.298	3.97	ug/kg	0.926	1					
o-Xylene	U	ND	0.298	1.99	ug/kg	0.926	1					
tert-Butyl methyl ether	U	ND	0.298	1.99	ug/kg	0.926	1					
trans-1,2-Dichloroethylene	U	ND	0.298	1.99	ug/kg	0.926	1					
trans-1,3-Dichloropropylene	U	ND	0.298	1.99	ug/kg	0.926	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2221	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL08	Project: URSC00211
Sample ID: 456917021	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/21/18		1139		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 5035A/8260C	
2	SW846 5035A/8260C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2480 ug/kg	50.0	98	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2370 ug/kg	50.0	94	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2570 ug/kg	50.0	101	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	61.6 ug/kg	50.0	124	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	53.6 ug/kg	50.0	108	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	69.9 ug/kg	50.0	141*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL10
Sample ID: 456917022
Matrix: Soil
Collect Date: 09-AUG-18 08:15
Receive Date: 10-AUG-18
Collector: Client
Moisture: 7.75%

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
1,1,1-Trichloroethane	U	ND	15.9	106	ug/kg	0.980	50	JP1	08/19/18	0555	1794368	1
1,1,2,2-Tetrachloroethane	U	ND	15.9	106	ug/kg	0.980	50					
1,1,2-Trichloroethane	U	ND	15.9	106	ug/kg	0.980	50					
1,1-Dichloroethane	U	ND	15.9	106	ug/kg	0.980	50					
1,1-Dichloroethylene	U	ND	15.9	106	ug/kg	0.980	50					
1,2,3-Trichlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
1,2,4-Trichlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
1,2-Dibromo-3-chloropropane	U	ND	26.6	106	ug/kg	0.980	50					
1,2-Dibromoethane	U	ND	15.9	106	ug/kg	0.980	50					
1,2-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
1,2-Dichloroethane	U	ND	15.9	106	ug/kg	0.980	50					
1,2-Dichloropropane	U	ND	15.9	106	ug/kg	0.980	50					
1,3-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
1,4-Dichlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
1,4-Dioxane	U	ND	797	2660	ug/kg	0.980	50					
2-Butanone	U	ND	159	531	ug/kg	0.980	50					
2-Hexanone	U	ND	159	531	ug/kg	0.980	50					
4-Methyl-2-pentanone	U	ND	159	531	ug/kg	0.980	50					
Acetone	U	ND	159	531	ug/kg	0.980	50					
Benzene	U	ND	15.9	106	ug/kg	0.980	50					
Bromochloromethane	U	ND	15.9	106	ug/kg	0.980	50					
Bromodichloromethane	U	ND	15.9	106	ug/kg	0.980	50					
Bromoform	U	ND	15.9	106	ug/kg	0.980	50					
Bromomethane	U	ND	15.9	106	ug/kg	0.980	50					
Carbon disulfide	U	ND	85.0	531	ug/kg	0.980	50					
Carbon tetrachloride	U	ND	15.9	106	ug/kg	0.980	50					
Chlorobenzene	U	ND	15.9	106	ug/kg	0.980	50					
Chloroethane	U	ND	15.9	106	ug/kg	0.980	50					
Chloroform	U	ND	15.9	106	ug/kg	0.980	50					
Chloromethane	U	ND	15.9	106	ug/kg	0.980	50					
Cyclohexane	U	ND	15.9	106	ug/kg	0.980	50					
Dibromochloromethane	U	ND	15.9	106	ug/kg	0.980	50					
Dichlorodifluoromethane	U	ND	15.9	106	ug/kg	0.980	50					
Ethylbenzene	U	ND	15.9	106	ug/kg	0.980	50					
Isopropylbenzene	U	ND	15.9	106	ug/kg	0.980	50					
Methyl acetate	U	ND	79.7	266	ug/kg	0.980	50					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL10	Project: URSC00211
Sample ID: 456917022	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatile Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Methylcyclohexane	U	ND	15.9	106	ug/kg	0.980	50					
Methylene chloride	U	ND	85.0	266	ug/kg	0.980	50					
Styrene	U	ND	15.9	106	ug/kg	0.980	50					
Tetrachloroethylene	U	ND	15.9	106	ug/kg	0.980	50					
Toluene	U	ND	15.9	106	ug/kg	0.980	50					
Trichloroethylene	U	ND	15.9	106	ug/kg	0.980	50					
Trichlorofluoromethane	U	ND	15.9	106	ug/kg	0.980	50					
Trichlorotrifluoroethane	U	ND	85.0	266	ug/kg	0.980	50					
Vinyl chloride	U	ND	15.9	106	ug/kg	0.980	50					
cis-1,2-Dichloroethylene	U	ND	15.9	106	ug/kg	0.980	50					
cis-1,3-Dichloropropylene	U	ND	15.9	106	ug/kg	0.980	50					
m,p-Xylenes	U	ND	15.9	213	ug/kg	0.980	50					
o-Xylene	U	ND	15.9	106	ug/kg	0.980	50					
tert-Butyl methyl ether	U	ND	15.9	106	ug/kg	0.980	50					
trans-1,2-Dichloroethylene	U	ND	15.9	106	ug/kg	0.980	50					
trans-1,3-Dichloropropylene	U	ND	15.9	106	ug/kg	0.980	50					
1,1,1-Trichloroethane	U	ND	0.319	2.13	ug/kg	0.980	1	JP1	08/21/18	1335	1794368	2
1,1,2,2-Tetrachloroethane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,1,2-Trichloroethane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,1-Dichloroethane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,1-Dichloroethylene	U	ND	0.319	2.13	ug/kg	0.980	1					
1,2,3-Trichlorobenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
1,2,4-Trichlorobenzene	J	1.22	0.319	2.13	ug/kg	0.980	1					
1,2-Dibromo-3-chloropropane	U	ND	0.531	2.13	ug/kg	0.980	1					
1,2-Dibromoethane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,2-Dichlorobenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
1,2-Dichloroethane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,2-Dichloropropane	U	ND	0.319	2.13	ug/kg	0.980	1					
1,3-Dichlorobenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
1,4-Dichlorobenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
1,4-Dioxane	U	ND	15.9	53.1	ug/kg	0.980	1					
2-Butanone	U	ND	3.19	10.6	ug/kg	0.980	1					
2-Hexanone	U	ND	3.19	10.6	ug/kg	0.980	1					
4-Methyl-2-pentanone	U	ND	3.19	10.6	ug/kg	0.980	1					
Acetone	J	3.95	3.19	10.6	ug/kg	0.980	1					
Benzene	U	ND	0.319	2.13	ug/kg	0.980	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL10	Project: URSC00211
Sample ID: 456917022	Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Volatiles Organics												
SW846 8260C Volatiles "Dry Weight Corrected"												
Bromochloromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Bromodichloromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Bromoform	U	ND	0.319	2.13	ug/kg	0.980	1					
Bromomethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Carbon disulfide	J	2.97	1.70	10.6	ug/kg	0.980	1					
Carbon tetrachloride	U	ND	0.319	2.13	ug/kg	0.980	1					
Chlorobenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
Chloroethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Chloroform	U	ND	0.319	2.13	ug/kg	0.980	1					
Chloromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Cyclohexane	U	ND	0.319	2.13	ug/kg	0.980	1					
Dibromochloromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Dichlorodifluoromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Ethylbenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
Isopropylbenzene	U	ND	0.319	2.13	ug/kg	0.980	1					
Methyl acetate	U	ND	1.59	5.31	ug/kg	0.980	1					
Methylcyclohexane	U	ND	0.319	2.13	ug/kg	0.980	1					
Methylene chloride		5.41	1.70	5.31	ug/kg	0.980	1					
Styrene	U	ND	0.319	2.13	ug/kg	0.980	1					
Tetrachloroethylene	U	ND	0.319	2.13	ug/kg	0.980	1					
Toluene	U	ND	0.319	2.13	ug/kg	0.980	1					
Trichloroethylene	U	ND	0.319	2.13	ug/kg	0.980	1					
Trichlorofluoromethane	U	ND	0.319	2.13	ug/kg	0.980	1					
Trichlorotrifluoroethane	U	ND	1.70	5.31	ug/kg	0.980	1					
Vinyl chloride	U	ND	0.319	2.13	ug/kg	0.980	1					
cis-1,2-Dichloroethylene	U	ND	0.319	2.13	ug/kg	0.980	1					
cis-1,3-Dichloropropylene	U	ND	0.319	2.13	ug/kg	0.980	1					
m,p-Xylenes	U	ND	0.319	4.25	ug/kg	0.980	1					
o-Xylene	U	ND	0.319	2.13	ug/kg	0.980	1					
tert-Butyl methyl ether	U	ND	0.319	2.13	ug/kg	0.980	1					
trans-1,2-Dichloroethylene	U	ND	0.319	2.13	ug/kg	0.980	1					
trans-1,3-Dichloropropylene	U	ND	0.319	2.13	ug/kg	0.980	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 5035A	5035A/8260C Prep	JP1	08/17/18	2222	1794367

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 22, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL10
Sample ID: 456917022

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
SW846 5035A	5035A/8260C	Prep		JP1	08/21/18		1140		1794367		

The following Analytical Methods were performed:

Method	Description	Analyst	Comments
1	SW846 5035A/8260C		
2	SW846 5035A/8260C		

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	2600 ug/kg	50.0	98	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	2570 ug/kg	50.0	97	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	2700 ug/kg	50.0	101	(81%-120%)
1,2-Dichloroethane-d4	SW846 8260C Volatiles "Dry Weight Corrected"	69.4 ug/kg	50.0	131*	(81%-124%)
Bromofluorobenzene	SW846 8260C Volatiles "Dry Weight Corrected"	61.1 ug/kg	50.0	115	(70%-130%)
Toluene-d8	SW846 8260C Volatiles "Dry Weight Corrected"	70.3 ug/kg	50.0	132*	(81%-120%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor
DL: Detection Limit
MDA: Minimum Detectable Activity
MDC: Minimum Detectable Concentration

Lc/LC: Critical Level
PF: Prep Factor
RL: Reporting Limit
SQL: Sample Quantitation Limit

ATTACHMENT 3

Laboratory Analytical Results

SEMI-VOLATILE ORGANIC COMPOUNDS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 14, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04	Project: URSC00211
Sample ID: 456917020	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:09	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 10.2%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Semi-Volatile-GC/MS												
8270C BNA Soil "Dry Weight Corrected"												
1,2,4-Trichlorobenzene	U	ND	111	371	ug/kg	0.0333	1	JMB3	08/13/18	1840	1791788	1
1,2-Dichlorobenzene	U	ND	111	371	ug/kg	0.0333	1					
1,2-Diphenylhydrazine	U	ND	111	371	ug/kg	0.0333	1					
1,3-Dichlorobenzene	U	ND	111	371	ug/kg	0.0333	1					
1,4-Dichlorobenzene	U	ND	111	371	ug/kg	0.0333	1					
1-Methylnaphthalene	U	ND	11.1	37.1	ug/kg	0.0333	1					
2,4,5-Trichlorophenol	U	ND	111	371	ug/kg	0.0333	1					
2,4,6-Trichlorophenol	U	ND	111	371	ug/kg	0.0333	1					
2,4-Dichlorophenol	U	ND	111	371	ug/kg	0.0333	1					
2,4-Dimethylphenol	U	ND	111	371	ug/kg	0.0333	1					
2,4-Dinitrophenol	U	ND	111	742	ug/kg	0.0333	1					
2,4-Dinitrotoluene	U	ND	111	371	ug/kg	0.0333	1					
2,6-Dinitrotoluene	U	ND	111	371	ug/kg	0.0333	1					
2-Chloronaphthalene	U	ND	11.1	37.1	ug/kg	0.0333	1					
2-Chlorophenol	U	ND	111	371	ug/kg	0.0333	1					
2-Methyl-4,6-dinitrophenol	U	ND	111	371	ug/kg	0.0333	1					
2-Methylnaphthalene	U	ND	11.1	37.1	ug/kg	0.0333	1					
2-Nitrophenol	U	ND	111	371	ug/kg	0.0333	1					
3,3'-Dichlorobenzidine	U	ND	111	371	ug/kg	0.0333	1					
4-Bromophenylphenylether	U	ND	111	371	ug/kg	0.0333	1					
4-Chloro-3-methylphenol	U	ND	148	371	ug/kg	0.0333	1					
4-Chloroaniline	U	ND	111	371	ug/kg	0.0333	1					
4-Chlorophenylphenylether	U	ND	111	371	ug/kg	0.0333	1					
4-Nitrophenol	U	ND	111	371	ug/kg	0.0333	1					
Acenaphthene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Acenaphthylene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Acetophenone	U	ND	111	371	ug/kg	0.0333	1					
Aniline	U	ND	111	371	ug/kg	0.0333	1					
Anthracene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzidine	U	ND	111	371	ug/kg	0.0333	1					
Benzo(a)anthracene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzo(a)pyrene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzo(b)fluoranthene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzo(ghi)perylene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzo(k)fluoranthene	U	ND	11.1	37.1	ug/kg	0.0333	1					
Benzoic acid	U	ND	186	742	ug/kg	0.0333	1					

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 14, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04
Sample ID: 456917020

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
Semi-Volatile-GC/MS											
8270C BNA Soil "Dry Weight Corrected"											
Benzyl alcohol	U	ND	111	371	ug/kg	0.0333	1				
Butylbenzylphthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
Carbazole	U	ND	11.1	37.1	ug/kg	0.0333	1				
Chrysene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Di-n-butylphthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
Di-n-octylphthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
Dibenzo(a,h)anthracene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Dibenzofuran	U	ND	111	371	ug/kg	0.0333	1				
Diethylphthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
Dimethylphthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
Diphenylamine	U	ND	111	371	ug/kg	0.0333	1				
Fluoranthene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Fluorene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Hexachlorobenzene	U	ND	111	371	ug/kg	0.0333	1				
Hexachlorobutadiene	U	ND	111	371	ug/kg	0.0333	1				
Hexachlorocyclopentadiene	U	ND	111	371	ug/kg	0.0333	1				
Hexachloroethane	U	ND	111	371	ug/kg	0.0333	1				
Indeno(1,2,3-cd)pyrene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Isophorone	U	ND	111	371	ug/kg	0.0333	1				
N-Methyl-N-nitrosomethylamine	U	ND	111	371	ug/kg	0.0333	1				
N-Nitrosodipropylamine	U	ND	111	371	ug/kg	0.0333	1				
Naphthalene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Nitrobenzene	U	ND	111	371	ug/kg	0.0333	1				
Pentachlorophenol	U	ND	111	371	ug/kg	0.0333	1				
Phenanthrene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Phenol	U	ND	111	371	ug/kg	0.0333	1				
Pyrene	U	ND	11.1	37.1	ug/kg	0.0333	1				
Pyridine	U	ND	111	371	ug/kg	0.0333	1				
Tributylphosphate	U	ND	111	371	ug/kg	0.0333	1				
bis(2-Chloro-1-methylethyl)ether	U	ND	111	371	ug/kg	0.0333	1				
bis(2-Chloroethoxy)methane	U	ND	111	371	ug/kg	0.0333	1				
bis(2-Chloroethyl) ether	U	ND	111	371	ug/kg	0.0333	1				
bis(2-Ethylhexyl)phthalate	U	ND	11.1	37.1	ug/kg	0.0333	1				
m,p-Cresols	U	ND	111	371	ug/kg	0.0333	1				
m-Nitroaniline	U	ND	111	371	ug/kg	0.0333	1				
o-Cresol	U	ND	111	371	ug/kg	0.0333	1				

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 14, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04
Sample ID: 456917020

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Semi-Volatile-GC/MS												
8270C BNA Soil "Dry Weight Corrected"												
o-Nitroaniline	U	ND	122	371	ug/kg	0.0333	1					
p-Nitroaniline	U	ND	111	371	ug/kg	0.0333	1					

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3541	Prep Method 3541 8270C BNA for Soil	DXB8	08/13/18	1019	1791787

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 3541/8270C	

Surrogate/Tracer Recovery	Test	Result	Nominal	Recovery%	Acceptable Limits
2-Fluorobiphenyl	8270C BNA Soil "Dry Weight Corrected"	1180 ug/kg	1860	64	(35%-107%)
Nitrobenzene-d5	8270C BNA Soil "Dry Weight Corrected"	1280 ug/kg	1860	69	(34%-109%)
p-Terphenyl-d14	8270C BNA Soil "Dry Weight Corrected"	1380 ug/kg	1860	74	(45%-119%)
2,4,6-Tribromophenol	8270C BNA Soil "Dry Weight Corrected"	3070 ug/kg	3710	83	(39%-115%)
2-Fluorophenol	8270C BNA Soil "Dry Weight Corrected"	2630 ug/kg	3710	71	(36%-104%)
Phenol-d5	8270C BNA Soil "Dry Weight Corrected"	2750 ug/kg	3710	74	(39%-106%)

Notes:

Column headers are defined as follows:

DF: Dilution Factor Lc/LC: Critical Level
DL: Detection Limit PF: Prep Factor
MDA: Minimum Detectable Activity RL: Reporting Limit
MDC: Minimum Detectable Concentration SQL: Sample Quantitation Limit

ATTACHMENT 4
Laboratory Analytical Results

METALS

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 20, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04	Project: URSC00211
Sample ID: 456917020	Client ID: URSC013
Matrix: Soil	
Collect Date: 09-AUG-18 08:09	
Receive Date: 10-AUG-18	
Collector: Client	
Moisture: 10.2%	

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time	Batch	Method
Mercury Analysis-CVAA												
7471 Cold Vapor Hg in Solid "Dry Weight Corrected"												
Mercury		0.0221	0.00411	0.0123	mg/kg	55.0	1	MTM1	08/16/18	1114	1792876	1
Metals Analysis-ICP												
SW846 3050B/6010D Metals, Solid "Dry Weight Corrected"												
Aluminum		8250	7.28	21.4	mg/kg	96.2	1	TXT1	08/14/18	1944	1791514	2
Antimony	U	ND	0.353	1.07	mg/kg	96.2	1					
Arsenic		8.87	0.535	3.21	mg/kg	96.2	1					
Barium		46.1	0.107	0.535	mg/kg	96.2	1					
Beryllium		0.576	0.107	0.535	mg/kg	96.2	1					
Cadmium	J	0.290	0.107	0.535	mg/kg	96.2	1					
Calcium		17300	8.57	26.8	mg/kg	96.2	1					
Chromium		13.7	0.161	0.535	mg/kg	96.2	1					
Cobalt		12.2	0.161	0.535	mg/kg	96.2	1					
Copper		35.7	0.321	1.07	mg/kg	96.2	1					
Iron		23300	8.57	26.8	mg/kg	96.2	1					
Lead		11.9	0.353	1.07	mg/kg	96.2	1					
Magnesium		7270	9.10	32.1	mg/kg	96.2	1					
Manganese		508	0.214	1.07	mg/kg	96.2	1					
Nickel		26.3	0.161	0.535	mg/kg	96.2	1					
Potassium		893	6.85	26.8	mg/kg	96.2	1					
Silver	J	0.443	0.107	0.535	mg/kg	96.2	1					
Sodium		203	7.50	26.8	mg/kg	96.2	1					
Thallium	U	ND	0.535	2.14	mg/kg	96.2	1					
Vanadium		16.3	0.107	0.535	mg/kg	96.2	1					
Zinc		54.9	0.428	1.07	mg/kg	96.2	1					
Metals Analysis-ICP-MS												
6020 MIMICP SCAN Metals "Dry Weight Corrected"												
Selenium	J	0.565	0.368	1.02	mg/kg	91.7	2	SKJ	08/14/18	1433	1791506	3

The following Prep Methods were performed:

Method	Description	Analyst	Date	Time	Prep Batch
SW846 3050B	ICP-MS 3050BS PREP	SXW1	08/12/18	1110	1791505
SW846 3050B	SW846 3050B Prep	SXW1	08/12/18	1356	1791513
SW846 7471A Prep	EPA 7471A Mercury Prep Soil	AXS5	08/15/18	1600	1792873

GEL LABORATORIES LLC

2040 Savage Road Charleston SC 29407 - (843) 556-8171 - www.gel.com

Certificate of Analysis

Report Date: August 20, 2018

Company : URS
Address : 2425 River Road (c/o SPRU DP)

Niskayuna, New York 12309

Contact: Mr. Jason Litwiller
Project: SPRU Disposition Project

Client Sample ID: G2SOL04
Sample ID: 456917020

Project: URSC00211
Client ID: URSC013

Parameter	Qualifier	Result	DL	RL	Units	PF	DF	Analyst	Date	Time Batch	Method
-----------	-----------	--------	----	----	-------	----	----	---------	------	------------	--------

The following Analytical Methods were performed:

Method	Description	Analyst Comments
1	SW846 7471A	
2	SW846 3050B/6010D	
3	SW846 3050B/6020	

Notes:

Column headers are defined as follows:

DF: Dilution Factor	Lc/LC: Critical Level
DL: Detection Limit	PF: Prep Factor
MDA: Minimum Detectable Activity	RL: Reporting Limit
MDC: Minimum Detectable Concentration	SQL: Sample Quantitation Limit

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 456917

METHOD TYPE: SW846

SAMPLE ID: 456917010

CLIENT ID: G2ESOL04

CONTRACT: URSC00114

MATRIX: Soil

DATE RECEIVED 10-AUG-18

LEVEL: Low %SOLIDS: 91.6

<u>CAS No</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
7429-90-5	Aluminum	7190	mg/kg		*	P	7.37	1	OPTIMA4	082918-4
7440-36-0	Antimony	0.357	mg/kg	U	N	P	0.357	1	OPTIMA4	082918-4
7440-38-2	Arsenic	6.29	mg/kg		N	P	0.542	1	OPTIMA4	082918-4
7440-39-3	Barium	51.5	mg/kg		N	P	0.108	1	OPTIMA4	082918-4
7440-41-7	Beryllium	0.493	mg/kg	B	N	P	0.108	1	OPTIMA4	082918-4
7440-43-9	Cadmium	0.108	mg/kg	U	N	P	0.108	1	OPTIMA4	082918-4
7440-70-2	Calcium	13400	mg/kg		*	P	8.66	1	OPTIMA4	082918-4
7440-47-3	Chromium	11.4	mg/kg		N	P	0.162	1	OPTIMA4	082918-4
7440-48-4	Cobalt	9.34	mg/kg		N	P	0.162	1	OPTIMA4	082918-4
7440-50-8	Copper	22.3	mg/kg			P	0.325	1	OPTIMA4	082918-4
7439-89-6	Iron	18900	mg/kg		*	P	8.66	1	OPTIMA4	082918-4
7439-92-1	Lead	9.36	mg/kg		N	P	0.357	1	OPTIMA4	082918-4
7439-95-4	Magnesium	5760	mg/kg		*	P	9.21	1	OPTIMA4	082918-4
7439-96-5	Manganese	377	mg/kg			P	0.217	1	OPTIMA4	082918-4
7439-97-6	Mercury	0.0247	mg/kg			AV	0.00388	1	HG3	082918S1-12
7440-02-0	Nickel	21.6	mg/kg		N	P	0.162	1	OPTIMA4	082918-4
7440-09-7	Potassium	851	mg/kg			P	6.93	1	OPTIMA4	082918-4
7782-49-2	Selenium	0.86	mg/kg	B	N	MS	0.388	2	ICPMS12	180828-6
7440-22-4	Silver	0.476	mg/kg	B		P	0.108	1	OPTIMA4	082918-4
7440-23-5	Sodium	64.8	mg/kg			P	7.58	1	OPTIMA4	082918-4
7440-28-0	Thallium	0.542	mg/kg	U	N	P	0.542	1	OPTIMA4	082918-4
7440-62-2	Vanadium	14	mg/kg		N	P	0.108	1	OPTIMA4	082918-4
7440-66-6	Zinc	48	mg/kg		N	P	0.433	1	OPTIMA4	082918-4

*Analytical Methods:

MS SW846 3050B/6020
P SW846 3050B/6010D

METALS
-1-
INORGANICS ANALYSIS DATA PACKAGE

SDG No: 456917

METHOD TYPE: SW846

SAMPLE ID: 456917010

CLIENT ID: G2ESOL04

CONTRACT: URSC00114

MATRIX:Soil

DATE RECEIVED 10-AUG-18

LEVEL: Low %SOLIDS: 91.6

<u>CAS No</u>	<u>Analyte</u>	<u>Result</u>	<u>Units</u>	<u>C</u>	<u>Qual</u>	<u>M*</u>	<u>MDL</u>	<u>DF</u>	<u>Inst ID</u>	<u>Analytical Run</u>
AV	SW846 7471A									