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Subject:
2018 Annual Monitoring Report, Colesville Landfill
Broome County, New York. (Site No. 704010).

ENVIRONMENT

Date:
January 30, 2019

Dear Mr. Long:

Contact:
Steven M. Feldman

This Annual Monitoring Report (report) was prepared on behalf of the Broome County Division of Solid Waste Management for the Colesville Landfill, located in Broome County, New York (site) to evaluate and document long-term monitoring (LTM) activities at the site. The site is listed in the Registry of Inactive Hazardous Waste Disposal Sites as Class 4 and monitoring activities are being conducted pursuant to the Site Management Plan (SMP) (Broome County Division of Solid Waste Management and ARCADIS 2015), which was approved by the New York State Department of Environmental Conservation (NYSDEC).

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A report was submitted in August 2018 entitled, June/July 2018 Monitoring Data (Arcadis 2018) that documented the June/July groundwater and sediment data. These data tables are also included in this 2018 Annual Monitoring Report, but the June/July 2018 Monitoring Data report should be referenced for a complete evaluation of that data. This 2018 Annual Monitoring Report describes the collection and analysis of the following data:

- Surface water and spring water data collected in June 2018;
- Spring water data collected in December 2018;
- SP-5 remediation system influent/effluent data collected in June and December 2018; and,
- Sediment data collected in December 2018.

The following sections describe the sampling methodology, laboratory analytical results, a discussion of findings, and a summary of conclusions, and recommendations.

METHODOLOGY

The following section provides a summary of the environmental monitoring for the reporting period. The site plan and monitoring locations are provided on Figures 1 and 2.

Groundwater Monitoring

Groundwater monitoring performed in June 2018 consisted of 5th Quarter groundwater monitoring from 14 monitoring wells and is described in the June/July 2018 Monitoring Data letter report (Arcadis 2018).

Surface Water Monitoring

Surface water samples were collected at the SW-2, SW-3, SW-4, and F-6 locations during the June 2018 monitoring event. Surface water samples were collected as direct grab samples from the North Stream at areas collocated with the spring samples, and at a location further downgradient of the springs (F-6) in accordance with the SMP. Surface water samples were collected and analyzed by the laboratory (ALS) for VOCs and metals and field analyzed for dissolved oxygen (DO), specific conductance, pH, oxidation-reduction potential, temperature and turbidity. In December, Broome County's contracted laboratory, ALS Environmental, only analyzed surface waters for field parameters due to a clerical error.

Spring Water and Sediment Monitoring

Spring water samples were collected at the SP-2, SP-3, and SP-4 locations during the June and December 2018 monitoring event. Spring water samples were collected as grab samples, consistent with the SMP. Spring water samples were collected and analyzed by the laboratory (ALS) for VOCs and total metals and field analyzed for specific conductance, pH, oxidation-reduction potential, temperature and turbidity. In addition to the above, a spring water inspection was completed during the sampling event to evaluate the presence and appearance/condition of existing springs.

Sediment samples were collected during the June, July and December 2018 monitoring events where the SP-3 spring exfiltrates from the large riprap area onto the stream bank. All sediment samples were homogenized in a stainless-steel bowl prior to placement into sample containers and submitted for laboratory analysis of total metals. Measures were taken to decant off the liquid during the sample collection with the objective of preventing analysis of samples with a high percent moisture content, which we believe has resulted in a positive bias (i.e., distorted higher than the true value) in metals concentrations in the past. A description of each sediment sampling event, including the scraping and removal of sediment prior to the July 2018 sample collection is described under Sediment Quality.

Spring Water Remediation System Performance Monitoring

SP-5 Spring Water Remediation System OM&M was conducted during the June and December 2018 monitoring events. System OM&M was conducted in accordance with the SMP and consisted of the collection of influent and effluent spring water samples for analysis of VOCs and metals. The influent sample was collected as a grab sample from the influent monitoring well, which is located within the SP-5 treatment unit and screened below the liquid phase granular activated carbon (LPGAC) zone. The

treatment system effluent sample was collected as a grab sample from the discharge pipe prior to entering the outfall stone apron.

RESULTS

The results of the environmental effectiveness and remediation system performance monitoring for the reporting period are summarized below, by environmental medium. Analytical data generated since completion of the last IRZ injection on May 1, 2012 are also included to support an evaluation of concentration trends over time. An electronic copy of the reporting period laboratory analytical results is included in Appendix A.

Groundwater Quality

A discussion of groundwater quality is provided in the June/July 2018 Monitoring Data letter report (Arcadis 2018). Analytical results for groundwater samples collected since initiation of the IRZ Discontinuation Pilot Test are provided in Table 1 of this report.

Surface Water Quality

Surface water quality analytical results for June 2018, along with data since completion of the last IRZ injection event on May 1, 2012, are summarized in Table 2. As shown in Table 2, surface water quality remained consistent when compared to historical data. The TVOC concentration at surface water sampling locations were below the limits of detection except for trace levels of 1,1-dichloroethane (1,1-DCA). The metals concentrations, many below limits of detection, at the F-6, SW-3 and SW-4 sampling locations were also consistent with the background, upgradient sample SW-2, and historical data. These data indicate that surface water quality is not being adversely impacted by the landfill.

Spring Water Quality

The embankment of the North Stream was inspected for springs during the site visits in June, July and December 2018. During inspection events, iron hydroxide staining was observed around the SP-2, SP-3, and SP-4 springs and the SP-5-effluent area. These observations have been generally consistent with conditions observed since initiation of the IRZ Discontinuation Pilot Test in October 2012. A photographic log of the SP-3 area showing pre-June 2006 flood conditions through 2017 was provided in Appendix D of the Revised 2017 Annual Monitoring Report (Arcadis 2018).

Spring water samples were collected at the SP-2, SP-3 and SP-4 locations following the June and December 2018 inspection. Spring water quality analytical results are summarized in Table 3. As shown in Table 3, VOCs were not detected at the SP-2 spring water location during 2018 with the exception of a trace concentration of TCE (0.28 µg/L) in June. Despite the presence of low-level concentrations of VOCs in spring water samples collected at the SP-3 and SP-4 locations, only non-detect to trace concentrations of VOCs were present in the surface water (Table 2). The average total VOCs in SP-4 was 36 µg/L in 2016 and 9 µg/L in 2018. The average total VOCs at SP-3 was 70 µg/L in 2016 and 50.5 µg/L in 2018. Of the 8 VOCs detected at SP-3 in December 2018, the highest concentration was 1,1-dichloroethane (1,1-DCA) at 9.6 µg/L.

These data continue to demonstrate that VOCs detected in the spring water are not adversely impacting surface water quality in the North Stream. Spring water VOC concentrations in December 2018 did not exceed the NYSDEC Part 703 Water Quality Standards (WQS) for Class C fresh surface waters. Where WQS were not available, the NYSDEC Division of Water Technical Operational Guidance Series (TOGS 1.1.1) standards and guidance values were listed for comparative purposes. Since the designated use of Class C waters is fishing, the standards and guidance values are protective of fish, shellfish and wildlife propagation and survival, as well as primary and secondary contact recreation.

In general, the concentrations of metals were below their respective WQS with the exception of iron, which was present in all spring water samples at levels that exceeded the criteria for protection of aquatic life from chronic effects. There was also a very minor exceedance of aluminum concentrations in June 2018.

Sediment Quality

Sediment samples (SP-3-SED) were collected in the vicinity of SP-3 during the site visits in June, July and December using the sampling methodology previously described. Sediment quality analytical results are summarized in Table 4.

As described in the June/July 2018 Monitoring Letter (Arcadis 2018), sediment samples (SP-3-SED) were collected in the vicinity of SP-3 in June and July 2018 where the SP-3 spring exfiltrates from the large riprap area onto the stream bank. During the June sampling event, the sample was collected prior to sediment scraping. Measures were taken to decant off the liquid during the sample collection, but the sediment sample still had a percent moisture of 76.7. When the moisture content is very high, the metals in the sediment pore water are included in the analysis. When the sample results are normalized to a dry weight basis the result is a very high concentration of metals in the sediment. It appears that the high moisture content of the sample has resulted in a positive bias (i.e., distorted higher than the true value) in metals concentrations, as exhibited by elevated concentrations of arsenic and barium (Table 4). After collection of the sediment sample during the June sampling event, stained sediment and vegetation were removed, drummed and transported off-site for disposal at the Broome County Landfill. The sediment removal effort was primarily focused on the area where the spring exfiltrates from the base of the rock wall and the affected area immediately downgradient. A second (post-June sediment scraping) sediment sample was collected on July 25, 2018 and analyzed for metals. As a result of the sediment scraping and a sample percent moisture of 21.9, the metals concentrations significantly decreased and were consistent with Class A sediment (low risk to aquatic life), as described in Table 4 - Freshwater Sediment Guidance Values of the NYSDEC Screening and Assessment of Contaminated Sediment document (NYSDEC 2014).

The results of the sediment sample collected in December 2018 show concentrations that are consistent with the July 2018 post-sediment removal results (i.e., consistent with Class A sediment (low risk to aquatic life)).

Spring Water Remediation System Performance

During the site visits in June and December 2018, the SP-5 Spring Water Remediation System was cleaned out by ALS, but did not require replacement of granulated activated carbon media. SP-5 analytical results for this reporting period are provided in Table 5. As shown in Table 5, influent TVOC

concentrations remained stable in June (20 µg/L) and December (21 µg/L) 2018 when compared to historical data. Furthermore, the influent concentrations were below (or within the range of) their respective BPJ limits during the reporting period. TVOC concentrations of 6.8 µg/L (June 2018) and 16 µg/L (December 2018) were detected in SP-5 effluent.

Table 6 contains the SP-5 spring water remediation system operating parameters recorded during the reporting period. Approximately 710,000 gallons of spring water were treated during this reporting period and approximately 0.12 pounds (lbs) of mass were recovered since September 2017. An estimated 7,040,000 gallons of spring water has been treated and an estimated 2.6 lbs of VOC mass has been recovered since system startup in October 2003.

CONCLUSIONS

Based on the data generated during the reporting period, Arcadis concludes the following:

- The concentration of VOCs generally decreased or remained stable during the reporting period when compared with historical data.
- The combination of improved groundwater quality at the landfill perimeter with generally stable to decreasing concentrations within the plume, along with continued evidence of active biodegradation processes, indicate that bioremediation is providing an equivalent means and timeframe for VOC remediation relative to continuation of IRZ injections.
- There have not been any discernible changes in the relative appearance of spring areas thus far since the discontinuation pilot test, except for the SP-3 area where substantial amounts of willows and grasses have become established.
- VOC and metals concentrations in surface water continue to be low or non-detect and consistent with historical data, despite the presence of VOCs and metals in the spring water.
- Sediment quality results during July and December of 2018 were significantly improved in comparison with June 2018 data and the lower metals concentrations were most likely attributable to the lower percent moisture content in the July and December samples. The results of the sediment sample collected in December 2018 show concentrations that are consistent Class A sediment (low risk to aquatic life).

RECOMMENDATIONS

The following recommendations are made for this reporting period:

- Continue to conduct monitoring for residual VOCs via groundwater, spring water, and surface water monitoring in accordance with the SMP.
- Continue to inspect the former spring locations and the embankment of the North Stream.
- Continue to conduct semi-annual sediment sampling at SP-3.

PROJECT SCHEDULE

The monitoring schedule outlined in the SMP will be updated to include the current protocol of semi-annual sampling of surface water and spring water and the SP-5 influent and effluent. The next 5th quarter groundwater monitoring event is scheduled for the 3rd quarter of 2019.

Please feel free to contact me if you have any questions or comments.

Sincerely,

Arcadis of New York, Inc.



Steven M. Feldman
Project Manager

Copies:

Laurie Haskell, Broome County
George Jacob, USEPA
Richard Jones, NYSDOH, electronic copy

Enclosures:

Tables

- 1 Concentrations of Volatile Organic Compounds Detected in Groundwater, Colesville Landfill, Broome County, New York.
- 2 Concentrations of Volatile Organic Compounds and Selected Metals Detected in Surface Water, Colesville Landfill, Broome County, New York.
- 3 Concentrations of Volatile Organic Compounds and Selected Metals Detected in Spring Water, Colesville Landfill, Broome County, New York.
- 4 Concentrations of Metals Detected in Sediment Samples Associated with Springs, Colesville Landfill, Broome County, New York.
- 5 Concentrations of Volatile Organic Compounds Detected in Aqueous Samples Collected from the SP-5 Spring Water Remediation System, Colesville Landfill, Broome County, New York.
- 6 SP-5 Spring Water Remediation System Mass Removal Rate of Volatile Organic Compounds, Colesville Landfill, Broome County, New York.

Figures

- 1 Site Plan, Colesville Landfill, Broome County, New York
- 2 Spring Water and Surface Water Sampling Locations Along the North Stream, Colesville Landfill, Broome County, New York

Attachment

- A Laboratory Analytical Results

TABLES



Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	GMMW-02 03/22/12	GMMW-02 06/21/12	GMMW-02 09/19/12	GMMW-02 12/18/12	GMMW-02 03/27/13	GMMW-02 06/19/13	GMMW-02 09/18/13	GMMW-02 12/17/13	GMMW-02 03/20/14	GMMW-02 06/19/14	GMMW-02 09/08/14	GMMW-02 12/09/15	GMMW-02 03/29/17	GMMW-02 06/14/18	GMMW-05 03/22/12	GMMW-05 07/10/12	GMMW-05 09/20/12	GMMW-05 12/18/12	GMMW-05 03/26/13	GMMW-05 06/19/13	GMMW-05 09/18/13
1,1,1-Trichloroethane		4.9	2.1	1.6	1.2	1.4	1.4	1.6	1.4	1.5	1.2	1.2 J	1.1 J	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,1,2-Trichloroethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,1-Dichloroethane		5.4	51	55	49	49	44	52	49	44	38	32	36	50	26	<1.0	<1.0	<2.0	<1.0	0.43 J	1.1	3.2
1,1-Dichloroethene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,2,4-Trichlorobenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0 B	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,2-Dibromoethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,2-Dichloroethane		<1.0	0.41 J	<1.0	0.37 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.37 J	<5.0	<5.0	<5.0	0.89 J	0.95 J	0.66 J	0.21 J	<1.0	<1.0	<1.0
1,2-Dichloropropane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.32 J	0.40 J	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,3-Dichlorobenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
1,4-Dichlorobenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
2-Butanone		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	6.9 J	2.3 J	<20	<10	<10	<10	<10
2-Hexanone		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10 J	<10	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0
4-Methyl-2-pentanone		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10	<10 J	<10	<10	<5.0	<5.0	<10	<5.0	<5.0	<5.0	<5.0
Acetone		8.0 J	<10	<10	<10	<10	<10	<10	<10	3.6 J	<10	1.5 J	<10 B	<10	<10	<10	7.3 J	<20	<10	<10	<10	<10
Benzene		<1.0	2.0	2.2	2.1	2.1	1.9	1.8	2.0	1.9	1.9	1.7 J	1.7 J	<5.0	<5.0	2.6	2.1	1.4 J	0.69 J	<1.0	0.58 J	0.77 J
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Bromoform		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Bromomethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Carbon Disulfide		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Carbon Tetrachloride		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Chlorobenzene		<1.0	28	28	25	29	28	27	24	28	26	25	23	26	18	19	12	14	10	4.2 J	5.6	6.9
Chloroethane		0.78 J	14	30	14	18	11	18	15	11	11	9.2	11	13	9.5	150 D	140 D	86	27	29	32	71
Chloroform		0.78 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Chloromethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
cis-1,2-Dichloroethene		3.0	26	24	20	27	22	23	23	25	17	13	12	11	6.3	1.0	0.87 J	<2.0	<1.0	<1.0	<1.0	1.3
cis-1,3-Dichloropropene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Cyclohexane		<1.0	<1.0	0.32 J	<1.0	0.53 J	0.21 J	<1.0	0.72 J	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	1.9 J	0.30 J	<1.0	<1.0	<1.0
Dibromochloromethane		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		1.9	0.79 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Ethylbenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<2.0	<1.0	<1.0	<1.0	<1.0
Isopropylbenzene		<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	&lt														

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Location ID: Date:	GMMW-05 12/17/13	GMMW-05 03/19/14	GMMW-05 06/19/14	GMMW-05 09/08/14	GMMW-05 12/09/15	GMMW-05 03/29/17	GMMW-05 06/14/18	GMMW-05 07/25/18	GMMW-06 03/22/12	GMMW-06 06/21/12	GMMW-06 09/19/12	GMMW-06 12/18/12	GMMW-06 03/26/13	GMMW-06 06/19/13	GMMW-06 09/18/13	GMMW-06 12/17/13	GMMW-06 03/20/14	GMMW-06 06/19/14	GMMW-06 09/08/14	GMMW-06 12/09/15	GMMW-06 03/29/17
1,1,1-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	2.6	<1.0	0.92 J	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,2-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1-Dichloroethane		5.3	2.8	3.6	0.92 J	3.5 J	10	11	9.8	110 D	100	110 D	120 D	110 J	93	69	59	36	32	29	9.0 J	14
1,1-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2,4-Trichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dibromoethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,2-Dichloroethane		<1.0	<1.0	0.52 J	<5.0	0.37 J	<5.0	<5.0	0.36 J	0.81 J	<2.0	0.85 J	0.81 J	<2.0	0.80 J	<2.0	<4.0	<4.0	<4.0	0.82 J	<10	<10
1,2-Dichloropropane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.76 J	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.60 J	<10	<10
1,3-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
1,4-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
2-Butanone		<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<20	<10	<10	<20	<20	<20	<40	<40	<40	<10	<20	<20
2-Hexanone		<5.0	<5.0	<5.0	<10 J	<10 J	<10	<10	<10	<5.0	<10	<5.0	<5.0	<10	<10	<10	<20	<20	<20	<10	<20	<20
4-Methyl-2-pentanone		<5.0	<5.0	<5.0	<10	<10 J	<10	<10	<10	<10	<5.0	<10	<5.0	<10	<10	<10	<20	<20	<20	<10	<20	<20
Acetone		<10	4.1 J	<10	<10 J	<10	<10	<10	2.7 J	7.3 J	<20 B	<10 B	<10	<20	<20	<20	<40	<40	<40	<10	<20 B	<20
Benzene		1.0	0.70 J	1.5	0.88 J	1.1 J	<5.0	<5.0	1.1 J	6.6	4.9	5.9	5.2	5.0	4.8	5.6	5.9	6.0	6.3	6.9	5.8 J	<10
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Bromoform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Bromomethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Carbon Disulfide		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Carbon Tetrachloride		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Chlorobenzene		5.3 J	4.4 J	9.8	5.2	9.5	8.8	8.1	6.1	30 J	24	26	22	26	26	27 J	28	34	31	29	19	20
Chloroethane		73 J	45 J	96	55	46	61	60	46	120 D	100	240 D	140 D	150	140	270 D	270	260	290	230 D	200	200
Chloroform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Chloromethane		<1.0	<1.0	0.59 J	0.32 J	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.22 J	<10	<10
cis-1,2-Dichloroethene		1.4	1.6	2.3	1.2 J	1.4 J	<5.0	<5.0	0.99 J	5.9	10	9.6	8.3	13	12	5.0	5.8	3.9 J	4.9	4.6 J	2.5 J	<10
cis-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Cyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	0.80 J	<2.0	<1.0	2.9	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Dibromochloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	1.8	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10 J	<10
Ethylbenzene		<1.0	<1.0	<1.0	0.26 J	0.52 J	<5.0	<5.0	<5.0	1.7 J	<2.0	0.89 J	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.63 J	0.48 J	<10
Isopropylbenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.23 J	<10	<10
Methyl acetate		<1.0	<2.5	<2.5	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<10	<10	<10	<20	<20
Methyl tert-butyl ether		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Methylcyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<10	<20	<20
Methylene Chloride		<1.0 B	0.49 J	<1.0 B	<5.0	<5.0	<5.0	<5.0	0.62 J	5.2	4.3	3.9	3.2	4.6	3.4	3.5	<4.1 B	5.0	5.2	3.8 J	3.1 J	<10
Styrene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Tetrachloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Toluene		0.56 J	<1.0	0.74 J	0.74 J	<5.0	<5.0	<5.0	<5.0	4.1	1.4 J	2.8	2.1	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	0.87 J	<10	<10
trans-1,2-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.34 J	1.1 J	<2.0	0.93 J	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	1.1 J	0.90 J	<10
trans-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Trichloroethene		1.2	1.0	1.3	0.72 J	1.9 J	5.1	5.6	4.8 J	2.9	6.1	3.3	7.1	5.3	9.6	4.0 J	5.4	5.6	4.4	3.4 J	1.2 J	<10
Trichlorofluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<1.0	<2.0	<2.0	<2.0	<4.0	<4.0	<4.0	<5.0	<10	<10
Vinyl Chloride		1.3	<1.0	1.2	0.46 J	0.39 J	<5.0	<5.0	0.66 J	4.9	9.9	11	7.8	7.7	8.0	3.9	<4.0	<4.0	<4.0	2.7 J	0.82 J	<10
m,p-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)		<2.0	<2.0	<2.0	1.0 J	<5.0	<5.0	<5.0	<5.0	3.8	1.4 J	1.7 J	1.2 J	<4.0	<4.0	<4.0	<8.0	<8.0	<8.0	1.6 J	<10	<10
1,4-Dioxane		--	--	--	--	--	0.34	--	--	--	--	--	--	--	--	--	--	--	--	--	--	1.9
Total VOCs		89 J	60 J	120 J	67 J	65 J	85	85	74 J	310 J	270 J	420 J	320 J	320 J	300 J	390 J	370	350 J	370	320 J	240 J	230

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	GMMW-06 06/14/18	GMMW-06 07/25/18	GMMW-07 09/19/12	GMMW-07 09/18/13	GMMW-07 03/20/14	GMMW-07 09/08/14	GMMW-07 12/09/15	GMMW-07 03/29/17	GMMW-07 06/14/18	PW-03 09/19/12	PW-03 09/17/13	PW-03 09/05/14	PW-03 12/09/15	PW-03 03/29/17	PW-03 06/14/18	PW-04 03/22/12	PW-04 06/21/12	PW-04 09/19/12	PW-04 12/18/12	PW-04 03/26/13	PW-04 06/19/13	PW-04 09/20/13	PW-04 12/17/13	PW-04 03/20/14	PW-04 06/19/14
1,1,1-Trichloroethane		<10	<10	2.2	3.6	2.9	0.59 J	0.80 J	<5.0	<5.0	3.0	2.6	2.7 J	1.3 J	<5.0	<5.0	2.2	5.3	6.0	5.8	4.5	4.8	4.5	4.8	4.2	3.2
1,1,2,2-Tetrachloroethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,1,2-trichloro-1,2,2-trifluoroethane		<10	<10	0.45 J	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,1,2-Trichloroethane		<10	<10	1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,1-Dichloroethane		<10	14	230 DJ	78	59	51	20	<5.0	24	34	30	27	20	<5.0	6.7	60	4.3	9.7	7.7	4.8	4.8	5.5	9.5	4.3	2.3
1,1-Dichloroethene		<10	<10	1.3	<1.0	0.40 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.30 J	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2,4-Trichlorobenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dibromo-3-chloropropane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dibromoethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
1,2-Dichlorobenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichloroethane		<10	0.84 J	2.1	0.45 J	<1.0	0.54 J	<5.0	<5.0	<5.0	0.26 J	<1.0	<5.0	<5.0	<5.0	<5.0	0.49 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,2-Dichloropropane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	0.72 J	0.53 J	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,3-Dichlorobenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
1,4-Dichlorobenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
2-Butanone		<20	<20	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
2-Hexanone		<20	<20	<5.0	<5.0	<5.0	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
4-Methyl-2-pentanone		<20	<20	<5.0	<5.0	<5.0	<10	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	
Acetone		<20	4.5 J	<10	<10	3.9 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	
Benzene		<10	4.3 J	2.6	1.3	1.3	0.80 J	<5.0	<5.0	<5.0	<1.0	0.67 J	1.4 J	0.67 J	<5.0	<5.0	2.1	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Bromodichloromethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Bromoform		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Bromomethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Carbon Disulfide		<20	<20	<1.0	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Carbon Tetrachloride		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chlorobenzene		19	19	23	18	16	4.4 J	3.6 J	<5.0	<5.0	1.2	2.5	5.7	5.4	<5.0	<5.0	29	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Chloroethane		190	180	160 D	23	11	14	6.0	<5.0	8.9	6.4	3.6	3.7 J	3.3 J	<5.0	<5.0	11	1.0	3.5	1.0	<1.0	1.0	<1.0	1.9	<1.0	0.55 J
Chloroform		<10	<10	1.1	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.57 J	0.35 J	0.36 J	0.26 J	<5.0	<5.0	<1.0	<1.0 B	0.56 J	0.53 J	<1.0	0.47 J	0.50 J	0.54 J	0.64 J	0.72 J
Chloromethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
cis-1,2-Dichloroethene		<10	2.4 J	200 DJ	46	34	39	8.1	<5.0	19	17	16	26	9.5	<5.0	<5.0	29	1.8	5.2	4.4	2.9	3.4	4.8	9.2	5.3	1.8
cis-1,3-Dichloropropene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Cyclohexane		<20	<20	0.37 J	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<1.0	0.69 J	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibromochloromethane		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	
Dichlorodifluoromethane		<10	<10	2.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	1.8	1.8	<1.0	<1.0	1.3	<1.0	<1.0	0.98 J	<1.0
Ethylbenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Isopropylbenzene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Methyl acetate		<20	<20	<1.0	<1.0	<2.5	<10	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	
Methyl tert-butyl ether		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Methylcyclohexane		<20	<20	<1.0	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Methylene Chloride		<10	3.0 J	2.3	<1.0	0.47 J	0.70 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.47 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Styrene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Tetrachloroethene		<10	<10	0.44 J	<1.0	0.36 J	<5.0	<5.0	<5.0	<5.0	2.5	2.4	2.5 J	2.2 J	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Toluene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
trans-1,2-Dichloroethene		<10	0.88 J	0.92 J	<1.0	<1.0	0.33 J	<5.0	<5.0	<5.0	<1.0	<1.0	0.36 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
trans-1,3-Dichloropropene		<10	<10	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	
Trichloroethene		<10	0.68 J	47																						

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	PW-04 09/05/14	PW-04 12/09/15	PW-04 03/29/17	PW-04 06/14/18	PW-05 09/19/12	PW-05 09/17/13	PW-05 09/05/14	PW-05 12/09/15	PW-05 03/08/17	PW-05 06/14/18	PW-07 09/19/12	PW-07 03/27/13	PW-07 09/17/13	PW-07 06/19/14	PW-07 09/05/14	PW-07 06/10/15	PW-07 12/09/15	PW-7 Lower 03/09/16	PW-7 Upper 03/09/16	PW-7 Lower 06/03/16	PW-7 Upper 06/03/16	PW-07 03/29/17	PW-07 06/14/18	PW-13 09/19/12	PW-13 09/17/13
1,1,1-Trichloroethane		3.6 J	3.8 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	1.8	<4.0	1.3 J	0.36 J	0.59 J	0.61 J	0.46 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,1,2-trichloro-1,2,2-trifluoroethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	--	<5.0	--	--	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.51 J	0.49 J	0.84 J	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,1-Dichloroethane		4.5 J	15	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	160 D	180	260 D	180	260	25	21	10	7.5	32	16	48	20	3.5	2.6
1,1-Dichloroethene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.38 J	<2.0	1.1	<4.0	1.6 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,2,4-Trichlorobenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	--	<5.0	--	--	<5.0	<5.0	<5.0	<1.0	<1.0	
1,2-Dibromo-3-chloropropane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,2-Dibromoethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.0	--	<5.0	<5.0	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.0	--	<5.0	<5.0	--	--	--	--	--	--
1,2-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,2-Dichloroethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	1.1	<2.0	1.1	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	1.1	<1.0	
1,2-Dichloropropane		<5.0	0.24 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
1,3-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	--	<5.0	--	--	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
1,4-Dichlorobenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
2-Butanone		<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<20	<10	<40	<20 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone		<10 J	<10 J	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<5.0	<10	<5.0	<20	<20 J	<10	<10 J	<10	<10	<10	<10	<10	<10	<5.0	<5.0
4-Methyl-2-pentanone		<10 J	<10 J	<10	<10	<5.0	<5.0	<10 J	<10	<10	<10	<10	<10	<5.0	<20	<20 J	<10	<10 J	<10	<10	<10	<10	<10	<10	<5.0	<5.0
Acetone		1.3 J	<10	<10	<10	<10 B	<10	<10 J	<10	<10	<10	<10	<20	<10	<40	<20 J	<10 J	<10 B	<10	<10	<10	<10	<10	<10	<10	<10
Benzene		<5.0	0.75 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	1.1	1.9 J	2.6	<4.0	2.8 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.0	--	<5.0	<5.0	--	--	--	--	--	--
Bromodichloromethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Bromoform		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Bromomethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Carbon Disulfide		<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<2.0	<1.0	<4.0	<20	<10	<10	<10	<10	<10	<10	<10	<10	<1.0	<1.0
Carbon Tetrachloride		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Chlorobenzene		<5.0	3.5 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	34	15	28	29	27	0.54 J	0.34 J	<5.0	<5.0	<5.0	<5.0	<5.0	9.6	8.2	1.0
Chloroethane		0.68 J	3.2 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	71	81	110 D	84	100	11	3.4 J	0.92 J	0.68 J	7.0	<5.0	20	13	9.6	2.2
Chloroform		0.58 J	0.37 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	0.58 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Chloromethane		<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
cis-1,2-Dichloroethene		2.6 J	8.4	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	75	79	150 D	100	180	12	11	2.9 J	2.0 J	13	6.7	23	13	1.1	<1.0
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Cyclohexane		<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<2.0	<1.0	<4.0	<20	--	<10	--	--	<10	<10	<10	<1.0	<1.0	
Dibromochloromethane		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	<5.0	--	<5.0	<5.0	--	--	--	--	--	--
Dichlorodifluoromethane		<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<2.0	0.78 J	<4.0	<10	--	<5.0	--	--	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0
Ethylbenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	13	<2.0	3.1	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Isopropylbenzene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	1.3	<2.0	0.83 J	<4.0	0.46 J	--	<5.0	--	--	<5.0	<5.0	<5.0	<1.0	<1.0	
Methyl acetate		<10 J	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<1.0	<2.0	<1.0	<10	<20 J	--	<10	--	--	<10	<10	<10	<1.0	<1.0	
Methyl tert-butyl ether		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	--	<5.0	--	--	<5.0	<5.0	<5.0	<1.0	<1.0	
Methylcyclohexane		<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<2.0	<1.0	<4.0	<20	--	<10	--	--	<10	<10	<10	<1.0	<1.0	
Methylene Chloride		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.68 J	2.0	2.2	<4.0 B	1.9 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Styrene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Tetrachloroethene		<5.0	0.51 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.52 J	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
Toluene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
trans-1,2-Dichloroethene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	1.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	
trans-1,3-Dichloropropene		<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<2.0	<1.0	<4.0	<10	<5.0	<5.0	<5.0	<5.0</						

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	PW-13 09/05/14	W-05 03/22/12	W-05 06/21/12	W-05 09/19/12	W-05 09/18/13	W-05 09/08/14	W-06 09/19/12	W-06 09/17/13	W-06 09/05/14	W-07 09/19/12	W-07 09/17/13	W-07 09/05/14	W-07 12/09/15	W-07 03/08/17	W-07 06/14/18	W-13 09/19/12	W-13 09/17/13	W-13 09/05/14	W-14S 09/18/12	W-14S 09/17/13	W-14S 09/05/14	W-16S 09/18/12	W-16S 09/17/13	W-16S 09/05/14	W-16S 12/09/15	W-16S 03/08/17	W-16S 06/14/18
1,1,1-Trichloroethane		0.66 J	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		5.1	35	31	30	11	7.3	17	10	7.3	1.9	2.7	0.57 J	2.6 J	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	13	12	11	10	11	8.8
1,1-Dichloroethene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		<5.0	<1.0	<1.0	<1.0	<1.0	0.41 J	0.56 J	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		<5.0	0.73 J	<1.0	<1.0	<1.0	0.63 J	1.1	<1.0	0.49 J	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	0.60 J	0.47 J	<5.0	<5.0
1,3-Dichlorobenzene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
2-Butanone		<10 J	1.3 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10 J	1.1 J	<10	<10	<10	<10	<10 J	<10	<10	<10 J	<10	<10	<10 J	<10	<10	<10
2-Hexanone		<10 J	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<10	<10	<10	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<10	<10	<10
4-Methyl-2-pentanone		<10 J	<5.0	<5.0	<5.0	<5.0	<10	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<10	<10	<10	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<5.0	<5.0	<10 J	<10	<10	<10
Acetone		<10 J	7.5 J	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10 J	<10 B	<10	<10	<10	<10	<10 J	<10	<10	1.5 J	<10	<10	<10 J	<10	<10	<10
Benzene		<5.0	4.7	4.0	5.1	5.6	5.0 J	1.6	1.2	0.68 J	0.48 J	0.57 J	<5.0	0.53 J	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	1.7	1.3	1.7 J	1.3 J	<5.0	<5.0
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Bromoform		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Bromomethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Carbon Disulfide		<10	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	1.8 J	<10	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<10	<10	<10
Carbon Tetrachloride		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene		1.3 J	9.8	6.8	6.2	4.1	4.2 J	7.0	5.7	4.7 J	1.9	2.1	<5.0	5.2	7.2	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	18	19	19	19	19	24
Chloroethane		0.79 J	62	58	89 D	92	58	5.6	2.1	1.3 J	4.9	3.3	0.27 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	9.5	8.4	4.4 J	3.4 J	<5.0	<5.0
Chloroform		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Chloromethane		<5.0 J	<1.0	<1.0	<1.0	<1.0	0.26 J	<1.0	<1.0	<5.0 J	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<1.0	<1.0	<5.0 J	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		0.74 J	3.3	2.1	1.8	1.7	1.7 J	5.9	2.5	1.7 J	<1.0	0.84 J	<5.0	1.5 J	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	1.3	1.5	1.4 J	1.4 J	<5.0	<5.0
cis-1,3-Dichloropropene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane		<10	<1.0	<1.0	5.0	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<10	<10	<10	0.24 J	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<10	<10	<10
Dibromochloromethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	2.5	1.2	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0
Ethylbenzene		<5.0	1.2	0.95 J	0.82 J	<1.0	0.58 J	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate		<10 J	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<10 J	<1.0	<1.0	<10 J	<10	<10	<10	<1.0	<1.0	<10 J	<1.0	<1.0	<10 J	<1.0	<1.0	<10 J	<10	<10	<10
Methyl tert-butyl ether		<5.0	<1.0	<1.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<10	<1.0	<1.0	<1.0	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<1.0	<1.0	<10	<10	<10	<10
Methylene Chloride		<5.0	1.6	1.2	1.2	1.0	1.1 J	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0
Styrene																												

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	W-17S 09/18/12	W-17S 09/17/13	W-17S 09/05/14	W-17S 12/09/15	W-17S 03/08/17	W-17S 06/14/18	W-18 09/18/12	W-18 09/17/13	W-18 09/05/14	W-18 12/09/15	W-18 03/29/17	W-18 06/14/18	W-20S 09/18/12	W-20S 09/17/13	W-20S 09/05/14	W-20S 12/09/15	W-20S 03/29/17	W-20S 06/14/18	GMPW-03 09/20/13	GMPW-03 09/05/14	GMPW-04 04/26/12	GMPW-04 06/21/12	GMPW-04 09/20/13	GMPW-04 09/05/14	GMPW-04 12/09/15
1,1,1-Trichloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	8.2	8.1	6.0	4.5 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	3.6	2.8 J	<1.0	1.1	7.8	6.3	3.5 J
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.34 J	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1,2-Trichloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1-Dichloroethane		<1.0	<1.0	0.38 J	<5.0	<5.0	<5.0	18	16	15	14	<5.0	5.9	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	11	9.8	<1.0	9.0	29	38	32
1,1-Dichloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	0.61 J	0.65 J	<5.0
1,2,4-Trichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dibromoethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,2-Dichloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	0.44 J	<5.0	
1,2-Dichloropropane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	0.71 J	0.59 J	
1,3-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
1,4-Dichlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
2-Butanone		<10	<10	<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10 J	<10
2-Hexanone		<5.0	<5.0	<10 J	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<5.0	<10 J	<5.0	<5.0	<5.0	<10 J	<10 J
4-Methyl-2-pentanone		<5.0	<5.0	<10 J	<10	<10	<10	<5.0	<5.0	<10 J	<10 J	<10	<10	<5.0	<5.0	<10	<10	<10	<10	<5.0	<10 J	<5.0	<5.0	<5.0	<10 J	<10 J
Acetone		<10	<10	<10 J	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10 J	<10
Benzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.53 J	<1.0	0.57 J	<1.0	3.2 J	2.4 J
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Bromoform		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Bromomethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Carbon Disulfide		<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<10	<1.0	<1.0	<1.0	<10	<10
Carbon Tetrachloride		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Chlorobenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	3.4	2.9 J	<1.0	2.0	4.7	16	12
Chloroethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	1.8	<1.0	0.71 J	0.72 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	3.1	3.7 J	<1.0	4.2	14	20	15
Chloroform		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.49 J	0.41 J	0.36 J	0.38 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.42 J	<1.0	<1.0	<1.0	0.28 J	<5.0
Chloromethane		<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0 J	<1.0	<1.0	<1.0	<5.0 J	<5.0
cis-1,2-Dichloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	16	15	15	12	<5.0	6.7	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	10	8.4	<1.0	4.9	14	24	14
cis-1,3-Dichloropropene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Cyclohexane		<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<10	<1.0	<1.0	<1.0	<10	<10
Dibromochloromethane		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	0.83 J	<5.0	<1.0	<1.0	1.1	<5.0	<5.0 J
Ethylbenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Isopropylbenzene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Methyl acetate		<1.0	<1.0	<10 J	<10	<10	<10	<1.0	<1.0	<10 J	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<10 J	<1.0	<1.0	<1.0	<10 J	<10
Methyl tert-butyl ether		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Methylcyclohexane		<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<1.0	<10	<10	<10	<10	<1.0	<10	<1.0	<1.0	<1.0	<10	<10
Methylene Chloride		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	0.46 J	<1.0	<1.0	0.59 J	1.4 J	0.87 J
Styrene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
Tetrachloroethene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.66 J	0.52 J	<1.0	<1.0	0.40 J	0.59 J	0.58 J
Toluene		<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<1.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0
trans-1,2-Dichloroethene		<1																								

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.



Constituents (units in ug/L)	Location ID: Date:	GMPW-04 03/08/17	GMPW-04 06/14/18	GMPW-04 07/25/18	GMPW-05 04/26/12	GMPW-05 06/21/12	GMPW-05 09/19/13	GMPW-05 09/05/14	GMPW-05 12/09/15	TW-01 03/22/12	TW-01 07/10/12	TW-01 09/20/12	TW-01 12/18/12	TW-01 03/27/13	TW-01 06/19/13	TW-01 09/18/13	TW-01 12/17/13	TW-01 03/20/14	TW-01 06/19/14	TW-01 09/08/14
1,1,1-Trichloroethane		<5.0	<5.0	3.0 J	2.5	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2,2-Tetrachloroethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,2-Trichloroethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1-Dichloroethane		34	23	22	30	<1.0	<1.0	<5.0	<5.0	2.4	0.68 J	<1.0	<1.0	<1.0	4.8	<1.0	12	0.61 J	6.3	1.8 J
1,1-Dichloroethene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2,4-Trichlorobenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dibromo-3-chloropropane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dibromoethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,1,1,2-Tetrachloroethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2,3-Trichloropropane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
1,2-Dichlorobenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,2-Dichloroethane		<5.0	<5.0	0.34 J	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	0.25 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.43 J
1,2-Dichloropropane		<5.0	<5.0	0.45 J	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.39 J
1,3-Dichlorobenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
1,4-Dichlorobenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
2-Butanone		<10	<10	<10	<10	<10	<10	<10 J	<10	<10	7.8 J	2.9 J	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone		<10	<10	<10	<5.0	<5.0	<5.0	<10 J	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
4-Methyl-2-pentanone		<10	<10	<10	<5.0	<5.0	<5.0	<10 J	<10	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<10
Acetone		<10	<10	<10	<10	<10	<10	2.8 J	<10	<10	8.7 J	<10	<10	<10	<10	<10	<10	4.2 J	<10	1.5 J
Benzene		<5.0	<5.0	1.7 J	1.6	<1.0	<1.0	<5.0	<5.0	3.5	2.6	2.2	3.1	3.6	2.2	5.5	2.3	5.5	3.0	4.4 J
Bromochloromethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Bromodichloromethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromoform		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Bromomethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Carbon Disulfide		<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Carbon Tetrachloride		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Chlorobenzene		14	11	6.5	6.3	<1.0	<1.0	<5.0	<5.0	7.3	6.8	7.7	5.5	4.3	12	6.0	13	7.2	13	12
Chloroethane		14	13	10	12	<1.0	<1.0	<5.0	<5.0	88	85	100 D	63	70	41	97	43	78	57	66
Chloroform		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Chloromethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0 J	<5.0	0.41 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
cis-1,2-Dichloroethene		14	11	10	15	<1.0	<1.0	<5.0	<5.0	2.5	1.6	1.8	1.7	1.4	2.7	2.1	3.1	2.2	2.1	1.6 J
cis-1,3-Dichloropropene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Cyclohexane		<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	7.7	1.4	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Dibromochloromethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Dibromomethane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Dichlorodifluoromethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Ethylbenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.82 J
Isopropylbenzene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.22 J
Methyl acetate		<10	<10	<10	<1.0	<1.0	<1.0	<10 J	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<2.5	<2.5	<10
Methyl tert-butyl ether		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Methylcyclohexane		<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<10
Methylene Chloride		<5.0	<5.0	0.63 J	0.86 J	<1.0	<1.0	<5.0	<5.0	1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.63 J
Styrene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Tetrachloroethene		<5.0	<5.0	<5.0	0.45 J	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Toluene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	1.0	150 D	6.1	0.85 J	0.75 J	0.52 J	0.93 J	<1.0	0.85 J	0.52 J	0.71 J
trans-1,2-Dichloroethene		<5.0	<5.0	0.34 J	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	0.59 J
trans-1,3-Dichloropropene		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Trichloroethene		32	25	16	20	<1.0	<1.0	<5.0	<5.0	1.2	0.50 J	1.4	0.81 J	0.55 J	5.4	0.55 J	6.1	0.84 J	3.1	1.6 J
Trichlorofluoromethane		<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<1.0	<5.0
Vinyl Chloride		<5.0	<5.0	1.5 J	3.2	<1.0	<1.0	<5.0	<5.0	1.7	0.91 J	1.6	1.1	0.92 J	2.8	1.2	3.6	0.91 J	1.6	0.98 J
m,p-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
o-Xylene		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Xylenes (total)		<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0	<5.0	0.76 J	0.83 J	<2.0	<2.0	1.5 J	<2.0	1.9 J	<2.0	3.5	2.2	4.4 J
1,4-Dioxane		--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--	--
Total VOCs		110	83	73 J	92 J	ND	ND	2.8 J	ND	110 J	270 J	130 J	78 J	83 J	71 J	120 J	83	100 J	89 J	98 J

Table 1.
Concentrations of Volatile Organic Compounds Detected in Groundwater
Colesville Landfill,
Broome County, New York.

Notes and abbreviations:

Bold constituent detected above method detection limit.	
B	Compound considered non-detect at the listed value due to associated blank contamination.
D	Concentration is based on a diluted sample analysis.
J	Concentration is an estimated value.
ug/L	micrograms per liter
VOCs	volatile organic compounds
--	Not analyzed.
<	analyte below detection limit

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		F-6 3/28/2013	F-6 9/19/2013	F-6 3/19/2014	F-6 9/9/2014	F-6 12/8/2015	F-6 12/13/2016	F-6 5/9/2017	F-6 9/13/2017	F-6 6/8/2018	SW-2 3/28/2013	SW-2 9/19/2013	SW-2 3/19/2014	SW-2 9/9/2014	SW-2 12/8/2015	SW-2 12/13/2016	SW-2 5/9/2017	SW-2 9/13/2017	SW-2 6/8/2018
Volatile organic compounds (VOCs) (units in ug/L)	NYSDEC Part 703 WQS ²	Basis																		
1,1,1-Trichloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		<1.0	<1.0	<1.0	0.31 J	0.26 J	0.28 J	0.21 J	0.35 J	0.45 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10
Acetone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.9 J	<10	<10
Benzene	10	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0 B	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 B	<5.0 B	<5.0	<5.0
Carbon Disulfide	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

See notes on the next page.

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		F-6 3/28/2013	F-6 9/19/2013	F-6 3/19/2014	F-6 9/9/2014	F-6 12/8/2015	F-6 12/13/2016	F-6 5/9/2017	F-6 9/13/2017	F-6 6/8/2018	SW-2 3/28/2013	SW-2 9/19/2013	SW-2 3/19/2014	SW-2 9/9/2014	SW-2 12/8/2015	SW-2 12/13/2016	SW-2 5/9/2017	SW-2 9/13/2017	SW-2 6/8/2018
Volatile organic compounds (VOCs) (units in ug/L) (continued)																				
Chloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<1.0	<1.0	<2.5	<10	<10	<10 J	<10	<10	<10	<1.0	<1.0	<2.5	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichlorofluoromethane	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)	5	A(C) c	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		NA	NA	NA	0.31 J	0.26 J	0.28 J	0.21 J	0.35 J	0.45 J	NA	NA	NA	NA	ND	ND	1.9 J	ND	ND

See notes on the next page.

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:		F-6 3/28/2013	F-6 9/19/2013	F-6 3/19/2014	F-6 9/9/2014	F-6 12/8/2015	F-6 12/13/2016	F-6 5/9/2017	F-6 9/13/2017	F-6 6/8/2018	SW-2 3/28/2013	SW-2 9/19/2013	SW-2 3/19/2014	SW-2 9/9/2014	SW-2 12/8/2015	SW-2 12/13/2016	SW-2 5/9/2017	SW-2 9/13/2017	SW-2 6/8/2018
Metals (units in mg/L)																				
Aluminum	0.1	A(C)	0.077 J	<0.200	0.130 J	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	0.13 J	<0.200	0.240	<0.100	<0.100	<0.100	0.206	<0.100	<0.100
Antimony	NA		<0.020	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.020	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	<0.010	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.010	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Barium	NA		0.0066	0.00890	0.00770	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.0067	0.00780	0.00790	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Beryllium	1100	A(C) e	<0.0020	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.0020	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.0010	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0010	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		8.7	20.7	9.00	19.0	21.2	14.0	7.67	21.4	18.5	5.3	14.6	5.10	14.0	12.1	5.61	6.36	15.2	12.6
Chromium	0.086	A(C) f	<0.0040	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0040	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0040	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0040	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	0.16	0.0870	0.160	<0.100	<0.100	<0.100	0.198	<0.100	<0.100	0.16	0.0190 J	0.290	<0.100	<0.100	<0.100	0.320	<0.100	<0.100
Lead	0.005	A(C) f	<0.0050	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0050	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		2.4	4.50	2.60	4.46	4.59	3.22	2.35	4.70	4.30	1.9	3.60	1.90	3.61	3.20	1.90	2.14	3.90	3.50
Manganese	NA		0.064	0.0900	0.0680	0.0517	0.0709	0.0419	0.0478	0.0500	0.0490	0.025	0.00180 J	0.0650	<0.0100	0.0100	<0.0100	0.0434	<0.0100	<0.0100
Mercury	0.0000007	H(FC)	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.010	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.010	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		0.87	0.920	1.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0.92	0.870	0.990	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.015	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.015	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0030	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0030	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		5.1	6.20	5.40	6.68	6.39	6.39	4.82	7.20	7.10	4.9	6.10	4.90	6.14	5.73	5.65	4.63	6.80	6.50
Thallium	0.008	A(C) g	<0.020	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.020	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0050	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0050	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	0.0016 J	<0.0100	0.00160 J	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200
See notes on the next page.																				

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:	SW-3 3/28/2013	SW-3 9/19/2013	SW-3 3/19/2014	SW-3 9/9/2014	SW-3 12/8/2015	SW-3 12/13/2016	SW-3 5/9/2017	SW-3 9/13/2017	SW-3 6/8/2018	SW-4 9/19/2013	SW-4 3/28/2013	SW-4 3/19/2014	SW-4 9/9/2014	SW-4 12/8/2015	SW-4 12/13/2016	SW-4 5/9/2017	SW-4 9/13/2017	SW-4 6/8/2018
Volatile organic compounds (VOCs) (Units in ug/L)																			
1,1,1-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane		<1.0	0.72 J	<1.0	1.4 J	1.2 J	0.43 J	0.28 J	0.90 J	0.73 J	0.82 J	0.49 J	<1.0	1.0 J	0.93 J	0.44 J	0.30 J	0.85 J	0.72 J
1,1-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane		<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 J	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0 J	<5.0	<5.0	<5.0
1,2-Dibromoethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone		<10	<10	<10	<10	<10	<10 J	<10	<10	<10	<10	<10	<10	<10	<10	<10 J	<10	<10	<10
2-Hexanone		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone		<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10	<5.0	<5.0	<5.0	<10	<10	<10	<10	<10	<10
Acetone		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	1.4 J	<10	<10	2.3 J	<10	<10
Benzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromodichloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane		<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0 B	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0 B	<5.0	<5.0
Carbon Disulfide		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloroform		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

See notes on the next page.

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Constituents	Sample ID: Date:	SW-3 3/28/2013	SW-3 9/19/2013	SW-3 3/19/2014	SW-3 9/9/2014	SW-3 12/8/2015	SW-3 12/13/2016	SW-3 5/9/2017	SW-3 9/13/2017	SW-3 6/8/2018	SW-4 9/19/2013	SW-4 3/28/2013	SW-4 3/19/2014	SW-4 9/9/2014	SW-4 12/8/2015	SW-4 12/13/2016	SW-4 5/9/2017	SW-4 9/13/2017	SW-4 6/8/2018
Volatile organic compounds (VOCs) (Units in ug/L)																			
Chloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene		<1.0	<1.0	<1.0	0.34 J	0.31 J	<5.0	<5.0	<5.0	0.26 J	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	0.30 J	<5.0
cis-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Dibromochloromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0
Ethylbenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate		<1.0	<1.0	<2.5	<10	<10	<10 J	<10	<10	<10	<1.0	<1.0	<2.5	<10	<10	<10 J	<10	<10	<10
Methyl tert-butyl ether		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane		<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10	<1.0	<1.0	<1.0	<10	<10	<10	<10	<10	<10
Methylene Chloride		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene		<1.0	<1.0	<1.0	0.27 J	<5.0	<5.0	<5.0	0.32 J	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichlorofluoromethane		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride		<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<1.0	<1.0	<1.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Xylenes (total)		<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<2.0	<2.0	<2.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs		NA	0.72 J	NA	2.01 J	1.5 J	0.43 J	0.28 J	1.2 J	0.99 J	0.82 J	0.49 J	NA	2.4 J	0.93 J	0.44 J	2.6 J	1.2 J	0.72 J

See notes on the next page.

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Concentrations of Volatile Organic Compounds and
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Constituents	Sample ID: Date:	SW-3 3/28/2013	SW-3 9/19/2013	SW-3 3/19/2014	SW-3 9/9/2014	SW-3 12/8/2015	SW-3 12/13/2016	SW-3 5/9/2017	SW-3 9/13/2017	SW-3 6/8/2018	SW-4 9/19/2013	SW-4 3/28/2013	SW-4 3/19/2014	SW-4 9/9/2014	SW-4 12/8/2015	SW-4 12/13/2016	SW-4 5/9/2017	SW-4 9/13/2017	SW-4 6/8/2018
<u>Metals (Units in mg/L)</u>																			
Aluminum		0.11 J	<0.200	0.210	<0.100	<0.100	<0.100	0.105	<0.100	<0.100	<0.200	0.085 J	0.150 J	<0.100	<0.100	<0.100	0.101	<0.100	<0.100
Antimony		<0.020	<0.0200	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0200	<0.020	<0.0200	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic		<0.010	<0.0100	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.010	<0.0150	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Barium		0.0065	0.00810	0.00760	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	0.00830	0.0066	0.00770	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Beryllium		<0.0020	<0.00200	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00200	<0.0020	<0.00200	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium		<0.0010	<0.00100	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00100	<0.0010	<0.00200	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium		7.2	17.9	7.20	17.2	17.9	10.7	6.70	19.1	17.0	19.2	7.9	7.90	17.0	19.2	11.8	6.99	19.8	18.3
Chromium		<0.0040	<0.00400	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.00400	<0.0040	<0.00400	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt		<0.0040	<0.00400	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.00400	<0.0040	<0.00400	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper		<0.010	<0.0100	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0100	<0.010	<0.0100	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron		0.13	<0.0500	0.240	<0.100	<0.100	<0.100	0.196	<0.100	<0.100	0.0670	0.18	0.210	<0.100	<0.100	<0.100	0.197	0.180	0.110
Lead		<0.0050	<0.00500	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.0050	<0.0100	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium		2.2	4.00	2.30	4.12	4.06	2.65	2.20	4.30	4.00	4.20	2.3	2.40	4.03	4.31	2.86	2.23	4.50	4.30
Manganese		0.021	0.00530	0.0530	0.0133	0.0375	0.0130	0.0437	0.0100	0.0170	0.0790	0.061	0.0710	0.0535	0.0431	0.0423	0.0453	0.0710	0.0660
Mercury		<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.00020	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel		<0.010	<0.0100	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0100	<0.010	<0.0100	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium		0.91	0.830	0.960	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	0.910	0.87	0.960	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium		<0.015	<0.0150	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0150	<0.015	<0.0250	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver		<0.0030	<0.00300	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.00300	<0.0030	<0.00600	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium		5.0	6.20	5.00	6.50	6.01	6.08	4.70	7.00	7.00	6.00	5.0	5.10	6.14	6.38	6.08	4.71	6.90	7.00
Thallium		<0.020	<0.0200	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0200	<0.020	<0.0200	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium		<0.0050	<0.00500	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.00500	<0.0050	<0.00500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc		<0.010	<0.0100	0.00170 J	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0100	<0.010	0.00180 J	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200

Table 2
Concentrations of Volatile Organic Compounds and
Selected Metals Detected in Surface Water,
Colesville Landfill,
Broome County, New York.

Notes and abbreviations:

Bold constituent detected above method detection limit.

J	Concentration is an estimated value.
mg/L	milligrams per liter
ug/L	micrograms per liter
<	Analyte below detection limit.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 6/3/2016	SP-2 12/13/2016	SP-2 5/9/2017	SP-2 9/13/2017	SP-02 6/8/2018	SP-2 12/6/2018	SP-3 6/3/2016	SP-3 12/13/2016
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<5.0	0.65 J	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		<5.0	<5.0	20	<5.0	<5.0	<5.0	20	43
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.33 J
1,2-Dichloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.37 J
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10 J	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		2.4 J	1.6 J	1.8 J	<10	<10	<10	<10	<10
Benzene	10	H(FC)	<5.0	<5.0	0.21 J	<5.0	<5.0	<5.0	0.22 J	0.64 J
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0	<5.0	<5.0 B	<5.0	<5.0	<5.0	<5.0	<5.0 B
Carbon Disulfide	NA		<10	<10	<10	0.30 BJ	<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	<5.0	<5.0	7.4	<5.0	<5.0	<5.0	7.5	22
Chloroethane	NA		<5.0	<5.0	5.7	<5.0	<5.0	<5.0	3.8 J	12
Chloroform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		<5.0	<5.0	7.3	<5.0	<5.0	<5.0	5.2	14
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10 J	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	0.59 J	0.52 J	3.6 J	<5.0	0.28 J	<5.0	2.0 J	4.0 J
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	<5.0	2.5 J	<5.0	<5.0	<5.0	1.2 J	5.6
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		3.0 J	2.1 J	49 J	0.30 J	0.28 J	ND	40 J	100 J

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-2 6/3/2016	SP-2 12/13/2016	SP-2 5/9/2017	SP-2 9/13/2017	SP-02 6/8/2018	SP-2 12/6/2018	SP-3 6/3/2016	SP-3 12/13/2016
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0150	<0.0100	<0.0100	0.0410	<0.0100	<0.0100	0.0138	0.0243
Barium	NA		0.0269	<0.0200	0.0270	<0.0200	0.0210	<0.0200	0.0317	0.0380
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		9.40	10.9	27.6	9.30	8.60	8.50	25.6	28.2
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	3.05	2.84	6.95	8.52	3.37	2.27	13.2	19.3
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		2.20	2.84	5.91	2.20	2.10	2.40	5.52	6.00
Manganese	NA		2.63	5.07	2.28	4.43	2.39	1.54	2.44	3.77
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		5.63	4.55	3.62	4.60	5.60	4.50	4.01	3.77
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 5/9/2017	SP-3 9/13/2017	SP-03 6/8/2018	SP-3 12/6/2018	SP-4 6/3/2016	SP-4 12/13/2016	SP-4 5/9/2017	SP-4 9/13/2017
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
1,1,1-Trichloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	NA		4.8 J	26	26	9.6	13	8.6	6.1	3.8 J
1,1-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	0.24 J	0.37 J	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	NA		<5.0	<5.0	0.44 J	0.23 J	0.61 J	0.58 J	<5.0	0.47 J
1,2-Dichloropropane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		2.4 J	<10	<10	<10	1.4 J	<10	<10	1.6 J
Benzene	10	H(FC)	<5.0	0.69 J	0.49 J	<5.0	0.37 J	0.40 J	0.20 J	0.45 J
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	NA		<5.0 B	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 B	<5.0
Carbon Disulfide	NA		<10	<10	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	5	A(C)	1.1 J	20	29	3.3 J	5.0	4.6 J	2.4 J	5.4
Chloroethane	NA		0.77 J	9.1	4.7 J	1.4 J	18	15	7.0	8.5
Chloroform	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	NA		<5.0	<5.0	<5.0	0.48 J	<5.0	<5.0	<5.0	<5.0
cis-1,2-Dichloroethene	NA		1.2 J	6.7	10	5.0 J	1.6 J	0.72 J	0.50 J	0.57 J
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methyl acetate	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	40	H(FC)	1.1 J	3.2 J	3.4 J	1.2 J	1.2 J	0.33 J	0.63 J	<5.0
Trichlorofluoromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	NA		<5.0	3.7 J	4.5 J	0.65 J	<5.0	0.38 J	<5.0	<5.0
Xylenes (total)	5	A(C) c	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs	NA		11 J	70 J	79 J	22 J	41 J	31 J	17 J	21 J

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-3 5/9/2017	SP-3 9/13/2017	SP-03 6/8/2018	SP-3 12/6/2018	SP-4 6/3/2016	SP-4 12/13/2016	SP-4 5/9/2017	SP-4 9/13/2017
	NYSDEC Part 703 WQS ⁽¹⁾	Basis								
Metals (units in mg/L)										
Aluminum	0.1	A(C)	<0.100	<0.100	<0.100	<0.100	1.25	<0.100	<0.100	0.140
Antimony	NA		<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic	0.15	A(C) d	<0.0100	0.0360	0.0180	<0.0100	0.129	0.0737	0.0455	0.101
Barium	NA		<0.0200	0.0430	0.0350	0.0250	0.132	0.0870	0.0617	0.0980
Beryllium	1100	A(C) e	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium	NA		28.9	31.2	26.6	30.6	51.7	54.0	46.8	54.0
Chromium	0.086	A(C) f	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron	0.3	A(C)	0.775	17.2	13.1	1.74	46.4	24.4	10.7	21.6
Lead	0.005	A(C) f	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium	NA		6.40	7.10	6.10	6.80	10.7	11.2	9.11	10.7
Manganese	NA		1.94	3.62	3.04	2.04	5.43	4.63	2.47	5.21
Mercury	0.0000007	H(FC)	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00	<2.00	<2.00	2.08	<2.00	<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium	NA		3.91	3.80	3.90	3.60	7.28	6.15	6.13	6.70
Thallium	0.008	A(C) g	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200 J	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200 J	<0.0200

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-04 6/8/2018	SP-4 12/6/2018
	NYSDEC Part 703 WQS ⁽¹⁾	Basis		
1,1,1-Trichloroethane	NA		<5.0	<5.0
1,1,2,2-Tetrachloroethane	NA		<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0
1,1,2-Trichloroethane	40	H(FC)	<5.0	<5.0
1,1-Dichloroethane	NA		3.3 J	4.5 J
1,1-Dichloroethene	NA		<5.0	<5.0
1,2,4-Trichlorobenzene	5	A(C) a	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0
1,2-Dichlorobenzene	5	A(C) b	<5.0	<5.0
1,2-Dichloroethane	NA		0.28 J	<5.0
1,2-Dichloropropane	NA		<5.0	<5.0
1,3-Dichlorobenzene	5	A(C) b	<5.0	<5.0
1,4-Dichlorobenzene	5	A(C) b	<5.0	<5.0
2-Butanone	NA		<10	<10
2-Hexanone	NA		<10	<10
4-Methyl-2-pentanone	NA		<10	<10
Acetone	NA		<10	<10
Benzene	10	H(FC)	<5.0	<5.0
Bromodichloromethane	NA		<5.0	<5.0
Bromoform	NA		<5.0	<5.0
Bromomethane	NA		<5.0	<5.0
Carbon Disulfide	NA		<10	<10
Carbon Tetrachloride	NA		<5.0	<5.0
Chlorobenzene	5	A(C)	1.7 J	1.9 J
Chloroethane	NA		1.6 J	3.0 J
Chloroform	NA		<5.0	<5.0
Chloromethane	NA		<5.0	<5.0
cis-1,2-Dichloroethene	NA		0.39 J	0.41 J
cis-1,3-Dichloropropene	NA		<5.0	<5.0
Cyclohexane	NA		<10	<10
Dibromochloromethane	NA		<5.0	<5.0
Dichlorodifluoromethane	NA		<5.0	<5.0
Ethylbenzene	17	A(C) c	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0
Methyl acetate	NA		<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0
Methylcyclohexane	NA		<10	<10
Methylene Chloride	200	H(FC)	<5.0	<5.0
Styrene	NA		<5.0	<5.0
Tetrachloroethene	1	H(FC) c	<5.0	<5.0
Toluene	6000	H(FC)	<5.0	<5.0
trans-1,2-Dichloroethene	NA		<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0
Trichloroethene	40	H(FC)	0.48 J	0.37 J
Trichlorofluoromethane	NA		<5.0	<5.0
Vinyl Chloride	NA		<5.0	<5.0
Xylenes (total)	5	A(C) c	<5.0	<5.0
Total VOCs	NA		7.8 J	10 J

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.

Constituents (units in ug/L)	Sample ID: Date:		SP-04 6/8/2018	SP-4 12/6/2018
	NYSDEC Part 703 WQS ⁽¹⁾	Basis		
Metals (units in mg/L)				
Aluminum	0.1	A(C)	0.120	<0.100
Antimony	NA		<0.0600	<0.0600
Arsenic	0.15	A(C) d	0.0190	0.0370
Barium	NA		0.0580	0.0510
Beryllium	1100	A(C) e	<0.00300	<0.00300
Cadmium	0.002	A(C) f	<0.00500	<0.00500
Calcium	NA		43.6	39.2
Chromium	0.086	A(C) f	<0.0100	<0.0100
Cobalt	0.005	A(C) g	<0.0500	<0.0500
Copper	0.009	A(C) f	<0.0200	<0.0200
Iron	0.3	A(C)	7.43	8.81
Lead	0.005	A(C) f	<0.00500	<0.00500
Magnesium	NA		8.50	7.50
Manganese	NA		3.68	2.65
Mercury	0.0000007	H(FC)	<0.000200	<0.000200
Nickel	0.05	A(C) f	<0.0400	<0.0400
Potassium	NA		<2.00	<2.00
Selenium	0.0046	A(C) d	<0.0100	<0.0100
Silver	0.0001	A(C) h	<0.0100	<0.0100
Sodium	NA		7.00	6.40
Thallium	0.008	A(C) g	<0.0100	<0.0100
Vanadium	0.014	A(C) g	<0.0500	<0.0500
Zinc	0.08	A(C) f	<0.0200	<0.0200

See notes on last page.

Table 3.
Concentrations of Volatile Organic Compounds
and Selected Metals Detected in Spring Water,
Colesville Landfill,
Broome County, New York.⁽¹⁾

Notes and Abbreviations:

Bold constituent detected above method detection limit.

	Concentration exceeds WQS.
J	Concentration is an estimated value.
mg/L	milligrams per liter
ug/L	micrograms per liter
NA	not applicable
VOCs	volatile organic compounds
WQS	water quality standard
<	analyte below detection limit
(1)	NYSEC Part 703 water quality standards were tabulated for Class C fresh surface waters. Where not available, the NYSDDEC Division of Water Technical Operational Guidance Series (TOGS 1.1.1) standards and guidance values were used. Where standards for metals are based on hardness, a default value of 100 mg/L was used. Codes for the basis of the standards and guidance values follows: H(FC) = Health (Fish Consumption) A(C) = Aquatic (Chronic) gv = guidance value a = applies to sum of 1,2,3-, 1,2,4- and 1,3,5-trichlorobenzenes b = applies to sum of 1,2-, 1,3- and 1,4-dichlorobenzenes c = TOGS 1.1.1 guidance value d = for dissolved form e = for hardness > 75 ppm f = hardness dependent standard, which is based on a default hardness of 100 mg/L g = acid-soluble form h = for ionic silver

Table 4.
Concentrations of Metals Detected in Sediment Samples Associated with Springs,
Colesville Landfill,
Broome County, New York.⁽¹⁾

	NYSDEC Freshwater Sediment Screening Values ^a			Location ID:	SED-1	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3	SED-3
				Sample ID:	SP-1-SED	Mid_Channel	SP-3-SED	SP-3-SED	SP-3-Down SED	SP-3 SED	Downgradient Before Cleaning	Downgradient After Cleaning	Before Cleaning	After Cleaning	SP-3 -SED	SP-3 -SED	SP-3 -SED
				Date:	9/19/2013 ⁽²⁾	03/09/16	03/09/16	06/03/16	12/13/16	12/13/16	05/09/17	05/09/17	05/09/17	05/09/17	09/13/17	06/08/18	07/25/18
	Class A	Class B	Class C	NOAA SQuiRT values ^b													
Metals (Units in mg/kg)																	
Arsenic	10	10 – 33	33	NA	18.2	35.3	128	52.2	169	11.2	18.1	17.0	48.2	31.7	40.3	481	12.2
Barium	NA	NA	NA	NA	68.2	152	182	53.2	339	46.1	57.7	59.9	62.2	55.0	54.8	339	39.3
Beryllium	NA	NA	NA	NA	0.680	<0.371	<0.799	<0.504	<1.80	0.425	0.557	0.508	0.399	0.419	<0.470	<1.20	0.39
Cadmium	1	1 – 5	5	NA	0.160 J	<0.618	<1.30	<0.840	<2.90	<0.664	<0.696	<0.651	<0.643	<0.654	<0.780	<2.10	--
Calcium	NA	NA	NA	NA	1,040	1,440	939	554	3,740	628	540	597	185	286	<160	<4,100	240
Chromium	43	43 – 110	110	NA	16.2	<1.20	25.5	15.7	<5.90	14.6	17.0	16.3	13.3	14.6	14.4	<4.10	14.1
Cobalt	NA	NA	NA	50+ ^c	16.3	14.2	17.5	11.7	<29.4	11.5	13.3	12.2	9.20	9.30	10.9	24.0	8.9
Copper	32	32 – 150	150	NA	24.4	2.70	36.8	21.8	<11.7	20.5	20.8	23.2	18.8	20.3	16.3	9.20	17.7
Iron	NA	NA	NA	20,000-40,000	35,200	39,600	99,100	55,400	132,000	28,100	33,600	35,900	52,200	41,900	48,100	303,000	24200
Lead	36	36 – 130	130	NA	19.9	4.60	207	56.2	<29.4	17.3	18.8	15.1	15.6	16.8	21.1	13.1	14.8
Magnesium	NA	NA	NA	NA	3,790	387	5,790	3,800	1,290	3,910	4,350	4,180	3,600	3,890	3,680	700	3280
Manganese	NA	NA	NA	460-1100	1,670	23,000	667	721	49,800	630	1,290	1,820	1,470	658	1,300	27,400	321
Mercury	0.2	0.2 – 1	1	NA	<0.0270	<0.0430	0.116	<0.0570	<0.187	<0.0450	<0.0450	<0.0430	<0.0420	<0.0440	<0.0520	<0.140	--
Nickel	23	23 – 49	49	NA	28.0	7.80	40.5	25.4	<23.5	20.8	27.3	27.0	21.4	23.1	22.2	<17.0	19.8
Potassium	NA	NA	NA	NA	819	302	1,590	844	<1,170	1,050	1,110	986	941	993	640	<830	810
Selenium	NA	NA	NA	NA	<5.10	7.00	<2.70	<1.70	24.8	1.80	1.60	1.80	2.50	<1.30	2.10	21.2	--
Silver	1	1 – 2.2	2.2	NA	<0.640	<1.20	<2.70	<1.70	<5.90	<1.30	<1.40	<1.30	<1.30	<1.30	<1.60	<4.10	--
Sodium	NA	NA	NA	NA	37.1 J	<124	<266	<168	<587	<133	<139	<130	<129	<131	<160	<410	--
Thallium	NA	NA	NA	NA	0.430 J	<1.20	<2.70	<1.70	<5.90	<1.30	<1.40	<1.30	<1.30	<1.30	<1.60	<41.0	--
Vanadium	NA	NA	NA	NA	16.8	<6.20	25.6	15.0	<29.4	15.6	18.2	18.1	14.8	15.6	15.9	<21.0	14.4
Zinc	120	120 – 460	460	NA	74.6	11.4	107	70.7	41.2	60.6	73.3	72.9	60.9	64.0	63.1	62.0	60.5
Miscellaneous																	
Percent Moisture (% by wt.)	NA	NA	NA	NA	25.0	23	63.9	43.3	83.3	27.6	28.2	25.4	23.8	26.5	38.1	76.7	21.9

Notes and abbreviations on last page.

Table 4.
Concentrations of Metals Detected in Sediment Samples Associated with Springs,
Colesville Landfill,
Broome County, New York.⁽¹⁾

Notes and abbreviations:

- aValues obtained from NYSDEC Technical Guidance for Screening Contaminated Sediments dated June 24, 2014.
- bValues obtained from NOAAs SQUIRT (Buchman, MF. 2008. NOAA Screening Quick Reference Tables, NOAA OR&R Report 08-1, Seattle, WA. Office of Response and Restoration Division, NOAA, 34 pp.)
- cValue from Guidelines for the Protection and Management of Aquatic Sediment Quality in Ontario, Canada. Aug 1993. Value is LEL from Canadian Sediment Guidelines.
- (1)Data presented in this table corresponds to monitoring data during a three-year period (March 2016 to December 2018).
- (2)Background sediment sample collected by Arcadis from SP-1 spring sample location upstream of the SP-2 spring sample location (see Figure 1).

Bold constituent detected above method detection limit.

- BAnalyte detected in the associated Method Blank.
- JConcentration is an estimated value
- Class BConsidered to be slightly to moderately contaminated and additional testing required to evaluate the potential risks to aquatic life.
- Class CConsidered to be highly contaminated and likely to pose a risk to aquatic life.
- mg/kgmilligrams per kilogram
- NANot applicable
- NOAANational Oceanic and Atmospheric Administration
- NYSDECNew York State Department of Environmental Conservation
- SQUIRTScreening Quick Reference Tables
- Class B sediments
- Class C sediments
- within or exceeds NOAA SQUIRT values
- <Analyte below detection limit.

Table 5
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 6/10/2015	SP-5 INF. 12/8/2015	SP-5 INF. 6/3/2016	SP-5 INF. 12/13/2016	SP-5 INF. 5/9/2017	SP-5 INF. 9/13/2017	SP-5 INF. 6/8/2018	SP-5 INF. 12/6/2018	SP-5 EFF. 6/3/2016	SP-5 EFF. 12/13/2016	SP-5 EFF. 5/9/2017	SP-5 EFF. 9/13/2017	SP-5 EFF. 6/8/2018	SP-5 EFF. 12/6/2018
VOCs																
1,1,1-Trichloroethane	10		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2,2-Tetrachloroethane	50		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-trichloro-1,2,2-trifluoroethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1,2-Trichloroethane	100		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,1-Dichloroethane	10		10	7.7	8.9	6.4	4.7 J	5.8	5.0	4.7 J	1.1 J	0.60 J	2.2 J	1.6 J	2.8 J	3.7 J
1,1-Dichloroethene	10-100		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2,4-Trichlorobenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromo-3-chloropropane	NA		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dibromoethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichlorobenzene	10-50		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloroethane	10-100		0.43 J	<5.0	<5.0	0.38 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,2-Dichloropropane	10		<5.0	<5.0	0.21 J	<5.0	<5.0	0.22 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,3-Dichlorobenzene	10		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
1,4-Dichlorobenzene	10		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
2-Butanone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
2-Hexanone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
4-Methyl-2-pentanone	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Acetone	NA		1.6 J	<10	<10	1.3 J	2.0 J	<10	<10	<10	<10	<10	2.4 J	<10	<10	<10
Benzene	5		0.91 J	<5.0	0.87 J	0.78 J	0.67 J	0.89 J	0.70 J	0.57 J	<5.0	<5.0	<5.0	<5.0	<5.0	0.34 J
Bromodichloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromoform	50		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Bromomethane	10		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0 B	<5.0	<5.0	<5.0
Carbon Disulfide	NA		0.74 J	<10	2.1 J	0.29 J	<10	0.49 BJ	0.60 J	2.0 J	<10	<10	<10	<10	<10	<10
Carbon Tetrachloride	10-50		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chlorobenzene	10-25		8.5	7.9	8.6	8.3	13	7.9	11	11	0.46 J	<5.0	3.6 J	<5.0	1.8 J	8.8
Chloroethane	10		3.4 J	<5.0	<5.0	1.1 J	<5.0	<5.0	<5.0	<5.0	<5.0	0.86 J	1.1 J	<5.0	1.1 J	0.81 J
Chloroform	100		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Chloromethane	10		<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	0.36 BJ	<5.0	<5.0
cis-1,2-Dichloroethene	10		1.1 J	<5.0	1.2 J	1.0 J	1.5 J	1.3 J	1.2 J	1.1 J	<5.0	<5.0	<5.0	<5.0	0.28 J	0.77 J
cis-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Cyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Dibromochloromethane	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Dichlorodifluoromethane	10		<5.0	<5.0 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Ethylbenzene	5		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Isopropylbenzene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0

Notes and Abbreviations on last page.

Table 5
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Constituents (units in ug/L)	Model Technology BPJ Limits ^{1,2}	Sample ID: Date:	SP-5 INF. 6/10/2015	SP-5 INF. 12/8/2015	SP-5 INF. 6/3/2016	SP-5 INF. 12/13/2016	SP-5 INF. 5/9/2017	SP-5 INF. 9/13/2017	SP-5 INF. 6/8/2018	SP-5 INF. 12/6/2018	SP-5 EFF. 6/3/2016	SP-5 EFF. 12/13/2016	SP-5 EFF. 5/9/2017	SP-5 EFF. 9/13/2017	SP-5 EFF. 6/8/2018	SP-5 EFF. 12/6/2018
Methyl acetate	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methyl tert-butyl ether	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Methylcyclohexane	NA		<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10	<10
Methylene Chloride	10-100		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Styrene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Tetrachloroethene	10-50		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Toluene	5		<5.0	<5.0	<5.0	<5.0	<5.0	0.31 J	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,2-Dichloroethene	10-100		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
trans-1,3-Dichloropropene	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Trichloroethene	10		1.7 J	<5.0	1.5 J	1.6 J	1.9 J	1.6 J	1.9 J	1.9 J	<5.0	<5.0	0.42 J	<5.0	0.35 J	1.1 J
Trichlorofluoromethane	10		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Vinyl Chloride	10		0.37 J	<5.0	0.34 J	<5.0	0.64 J	<5.0	<5.0	<5.0	<5.0	<5.0	0.33 J	0.34 J	0.45 J	0.29 J
Xylenes (total)	NA		<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0	<5.0
Total VOCs			29 J	16	24 J	21 J	24 J	19 J	20 J	21 J	1.6 J	1.5 J	10 J	2.3 J	6.8 J	16J
Metals																
Aluminum			<0.100	<0.100	0.110	<0.100	0.143	0.120	<0.100	0.170	<0.100	<0.100	<0.100	<0.100	<0.100	<0.100
Antimony			<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600	<0.0600
Arsenic			0.0691	0.121	0.225	0.128	0.179	0.224	0.170	0.140	0.127	0.0794	0.0784	0.145	0.203	0.0630
Barium			0.152	0.149	0.142	0.121	0.109	0.148	0.132	0.114	0.141	0.142	0.111	0.152	0.152	0.116
Beryllium			<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300	<0.00300
Cadmium			<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Calcium			42.8	46.1	40.8	37.3	38.2	44.3	43.3	41.5	40.0	41.6	36.7	43.1	43.3	40.1
Chromium			<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Cobalt			<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Copper			<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200	<0.0200
Iron			59.4	64.2	33.3	22.0	19.6	27.0	24.8	19.1	26.1	24.1	16.6	24.7	29.9	18.6
Lead			0.0139	0.00620	0.0505	0.0190	0.0458	0.0481	0.0453	0.0352	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500	<0.00500
Magnesium			10.2	10.6	9.40	8.71	9.25	10.5	10.3	9.90	9.36	9.91	8.92	10.6	10.6	9.90
Manganese			5.78	6.53	5.58	5.36	4.98	6.19	6.14	5.46	5.50	6.09	4.89	6.24	6.27	5.43
Mercury			<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200	<0.000200
Nickel			<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400	<0.0400
Potassium			2.86	2.85	2.75	2.40	2.06	3.20	2.70	2.20	2.83	2.60	2.13	3.00	2.90	2.10
Selenium			<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Silver			<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Sodium			7.11	7.28	7.13	6.32	5.74	6.90	6.70	5.50	7.04	7.09	5.85	6.90	6.90	5.50
Thallium			<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100	<0.0100
Vanadium			<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500	<0.0500
Zinc			3.15	6.81	9.46	5.08	6.17 J	6.16	5.36	5.27	<0.0200	<0.0200	<0.0200 J	<0.0200	<0.0200	<0.0200

Notes and Abbreviations on last page.

Table 5
Concentrations of Volatile Organic Compounds
Detected in Aqueous Samples Collected from
SP-5 Spring Water Remediation System Colesville Landfill
Broome County, New York ⁽¹⁾

Notes and Abbreviations:

1. Model Technology BPJ Limits recommended for carbon adsorption with appropriate pretreatment from Attachment C of TOGS 1.2.1.
2. When a range is listed for the BPJ limit, a variation in available references was found. Recommended daily maximum limits should be in this range.

Bold constituent detected above method detection limit.

EFF.	effluent
INF.	influent
J	Concentration is an estimated value
B	Compound considered non-detect at the listed value due to associated blank contamination.
NA	not applicable
ug/L	micrograms per liter
VOCs	volatile organic compounds
BPJ	Best Professional Judgment
<	Analyte below detection limit.
TOGS	Technical and Operational Guidance Series

Table 6
SP-5 Spring Water Remediation System
Mass Removal Rate of Volatile Organic Compounds
Colesville Landfill
Broome County, New York

Date Sampled	Total VOC Influent Concentration (ug/L)	Effluent Flowrate (gpm)	Depth to Water (feet btc)	Total SW Treated ⁽¹⁾ Between Sampling Interval (gal)	Influent Concentration Geometric Mean ⁽²⁾ (ug/L)	Total Estimated ⁽³⁾ Mass Removed (lbs)
5/9/2017	24	1.1 ⁽⁴⁾	NM	230,000	22	0.043
9/13/2017	21	1.1 ⁽⁴⁾	NM	200,000	22	0.037
6/8/2018	20.0	1.1 ⁽⁴⁾	NM	420,000	20	0.072
12/6/2018	21.0	1.1 ⁽⁴⁾	NM	290,000	20	0.050
Total Estimated Mass Removed Since System Startup (lbs) =						2.6
Total Effluent Treated During Reporting Period (gallons) =						710,000
Total Effluent Treated Since System Startup (gallons) =						7,040,000

Notes and Abbreviations:

1. Total Spring Water Treated Between Sampling Intervals = Effluent Flowrate Geometric Mean x 1440 min/day x days between sampling events.
2. Influent Concentration Geometric Mean = (Influent Concentration for prior sampling event x Influent Concentration for current sampling event)^(1/2).
3. Total Mass Removed = (Total Groundwater Treated Between Sampling Intervals) x Influent Concentration Geometric Mean x 3.7854 L/gal x (1 lbs / 453,592,370 ug).
4. Effluent flow rate not recorded during the reporting period. Value shown is the average flow rate recorded between March 2013 and September 2014.

btc below top of casing
gal gallons
gpm gallons per minute
lbs pounds
NM not measured
ug/L micrograms per liter
SW spring water
VOC volatile organic compound

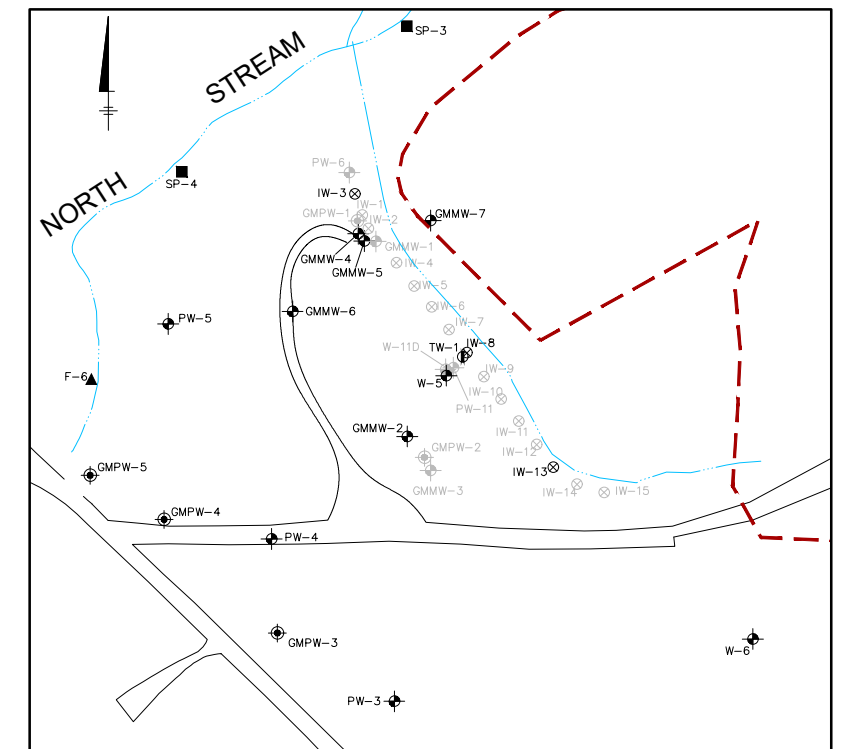
FIGURES



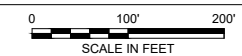


EXPLANATION

BOLD	IN-SITU REACTIVE ZONE (IRZ) DISCONTINUATION PILOT TEST MONITORING WELL
W-24 GMW-7 	LOCATION AND DESIGNATION OF MONITORING WELL
SCOTT 	LOCATION AND DESIGNATION OF EXISTING HOMEOWNER WELL
1W-2 	LOCATION AND DESIGNATION OF INJECTION WELL
GMPW-3 	LOCATION AND DESIGNATION OF PRODUCTION WELL
TW-1 	LOCATION AND DESIGNATION OF TEST MONITORING WELL
F-6 	LOCATION AND DESIGNATION OF SURFACE WATER SAMPLE
SP-2 	LOCATION AND DESIGNATION OF SPRING SAMPLE AND CO-LOCATED SEDIMENT SAMPLE

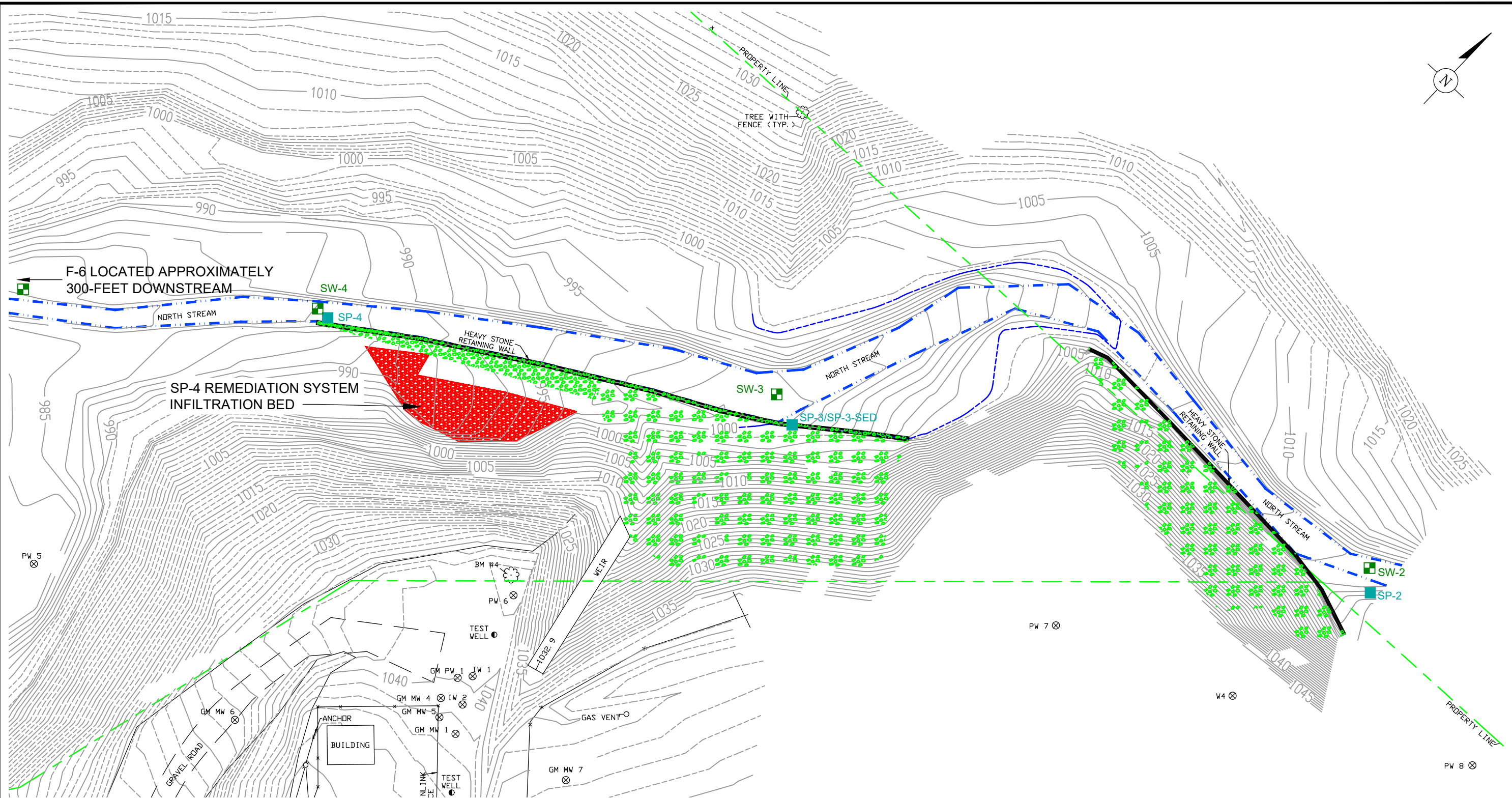


SITE PLAN SHOWING PROJECT AREA

COLESVILLE LANDFILL
COLESVILLE, NEW YORK

SITE PLAN

CITY:SYRACUSE-ENV DIV/GROUP:ENV DBA: SANCHEZ LD:ALS PIC:Ort PM: (Regd) TM: (Ort) LVR: (Option) = OFF = REF
C:\Users\lsanchez\OneDrive - ARCADIS\BIM 360 Docs\BOONE COUNTY, NY\COLESVILLE LANDFILL GROUNDWATER\2017\NY000849.002801-DWG\BC-AR-F02 SAMPLING LOCA NORTH STREAM.dwg LAYOUT: 2 SAVED: 12/13/2017 10:28 AM ACADVER: 20.1S (LMS TECH) PAGES: 20 OF 20
PLOTSTYLETABLE: .acsp PLOTTED: 12/13/2017 1:16 PM BY: SANCHEZ, ADRIAN
XREFS: IMAGES: PROJECTNAME: ---
X-BDR BL



LEGEND:

-  SPRING WATER AND CO-LOCATED SEDIMENT SAMPLING LOCATION (APPROXIMATE)
-  SURFACE WATER SAMPLING LOCATION (APPROXIMATE)
-  RIP RAP
-  RETAINING WALL
-  NORTH STREAM



COLESVILLE LANDFILL
COLESVILLE, NEW YORK

**SPRING WATER AND SURFACE WATER
SAMPLING LOCATIONS
ALONG THE NORTH STREAM**

 Design & Consultancy
for natural and
built assets

FIGURE
2

ATTACHMENTS





June 27, 2018

Service Request No:R1805334

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville SW/Seeps/Sed

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory June 08, 2018
For your reference, these analyses have been assigned our service request number **R1805334**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Solid, Water

Service Request: R1805334
Date Received: 06/08/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Eleven water samples were received for analysis at ALS Environmental on 06/08/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Metals:

Method 6010C, R1805334-010: Sample required dilution due to the nature of the matrix. The reporting limits are adjusted to reflect the dilution.

Method 6010C, 06/14/2018: The Method Blank contained a low level of Zinc at concentrations above the Method Reporting Limit (MRL). Since there were no detections of the analyte(s) in the associated field samples, the data quality was not significantly affected and no further corrective action was taken.

Method 6010C, 06/14/2018: The Method Blank contained a low level Zinc at concentrations above the Method Reporting Limit (MRL), but less than ten times the concentration in the associated samples. Contamination is deemed insignificant relative to the reported samples and the data is reported with no further corrective action required.

Method 6010C, 06/14/2018: The upper control limit was exceeded for Selenium in the Contract Required Detection Limit Standard (CRDL). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 06/13/2018: The upper control criterion was exceeded for one or more analytes in the Laboratory Control Sample (LCS). There were no detections of the analyte(s) in the associated field samples. The error associated with elevated recovery equates to a high bias. The sample data is not significantly affected. No further corrective action was appropriate.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.



Approved by _____

Date 06/27/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: F-6	Lab ID: R1805334-001

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	197				uMHOS/cm	120.1
pH, Field	7.92				pH Units	SM 4500-H+ B
Temperature, Field	11.0				deg C	SM 2550 B
Calcium, Total	18500		300	1000	ug/L	6010C
Magnesium, Total	4300		200	1000	ug/L	6010C
Manganese, Total	49		6	10	ug/L	6010C
Sodium, Total	7100		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.45	J	0.20	5.0	ug/L	8260C

CLIENT ID: SW-4	Lab ID: R1805334-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	180				uMHOS/cm	120.1
pH, Field	7.58				pH Units	SM 4500-H+ B
Temperature, Field	10.9				deg C	SM 2550 B
Calcium, Total	18300		300	1000	ug/L	6010C
Iron, Total	110		50	100	ug/L	6010C
Magnesium, Total	4300		200	1000	ug/L	6010C
Manganese, Total	66		6	10	ug/L	6010C
Sodium, Total	7000		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.72	J	0.20	5.0	ug/L	8260C

CLIENT ID: SP-4	Lab ID: R1805334-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	300				uMHOS/cm	120.1
pH, Field	6.71				pH Units	SM 4500-H+ B
Temperature, Field	12.1				deg C	SM 2550 B
Aluminum, Total	120		70	100	ug/L	6010C
Arsenic, Total	19		4	10	ug/L	6010C
Barium, Total	58		7	20	ug/L	6010C
Calcium, Total	43600		300	1000	ug/L	6010C
Iron, Total	7430		50	100	ug/L	6010C
Magnesium, Total	8500		200	1000	ug/L	6010C
Manganese, Total	3680		6	10	ug/L	6010C
Sodium, Total	7000		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	3.3	J	0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.28	J	0.20	5.0	ug/L	8260C
Chlorobenzene	1.7	J	0.20	5.0	ug/L	8260C
Chloroethane	1.6	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.48	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.39	J	0.26	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY

CLIENT ID: SW-3	Lab ID: R1805334-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	249				uMHOS/cm	120.1
pH, Field	7.33				pH Units	SM 4500-H+ B
Temperature, Field	11.1				deg C	SM 2550 B
Calcium, Total	17000		300	1000	ug/L	6010C
Magnesium, Total	4000		200	1000	ug/L	6010C
Manganese, Total	17		6	10	ug/L	6010C
Sodium, Total	7000		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	0.73	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.26	J	0.26	5.0	ug/L	8260C

CLIENT ID: SP-3	Lab ID: R1805334-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	176				uMHOS/cm	120.1
pH, Field	7.21				pH Units	SM 4500-H+ B
Temperature, Field	11.7				deg C	SM 2550 B
Arsenic, Total	18		4	10	ug/L	6010C
Barium, Total	35		7	20	ug/L	6010C
Calcium, Total	26600		300	1000	ug/L	6010C
Iron, Total	13100		50	100	ug/L	6010C
Magnesium, Total	6100		200	1000	ug/L	6010C
Manganese, Total	3040		6	10	ug/L	6010C
Sodium, Total	3900		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	26		0.20	5.0	ug/L	8260C
1,2-Dichlorobenzene	0.37	J	0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.44	J	0.20	5.0	ug/L	8260C
Benzene	0.49	J	0.20	5.0	ug/L	8260C
Chlorobenzene	29		0.20	5.0	ug/L	8260C
Chloroethane	4.7	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	3.4	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	4.5	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	10		0.26	5.0	ug/L	8260C

CLIENT ID: SW-2	Lab ID: R1805334-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	140				uMHOS/cm	120.1
pH, Field	7.39				pH Units	SM 4500-H+ B
Temperature, Field	11.2				deg C	SM 2550 B
Calcium, Total	12600		300	1000	ug/L	6010C
Magnesium, Total	3500		200	1000	ug/L	6010C
Sodium, Total	6500		200	1000	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-2			Lab ID: R1805334-007			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	105				uMHOS/cm	120.1
pH, Field	7.38				pH Units	SM 4500-H+ B
Temperature, Field	12.2				deg C	SM 2550 B
Barium, Total	21		7	20	ug/L	6010C
Calcium, Total	8600		300	1000	ug/L	6010C
Iron, Total	3370		50	100	ug/L	6010C
Magnesium, Total	2100		200	1000	ug/L	6010C
Manganese, Total	2390		6	10	ug/L	6010C
Sodium, Total	5600		200	1000	ug/L	6010C
Trichloroethene (TCE)	0.28	J	0.20	5.0	ug/L	8260C

CLIENT ID: SP-5 Influent			Lab ID: R1805334-008			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	401				uMHOS/cm	120.1
pH, Field	6.37				pH Units	SM 4500-H+ B
Temperature, Field	12.4				deg C	SM 2550 B
Arsenic, Total	170		4	10	ug/L	6010C
Barium, Total	132		7	20	ug/L	6010C
Calcium, Total	43300		300	1000	ug/L	6010C
Iron, Total	24800		50	100	ug/L	6010C
Lead, Total	45.3		2.5	5.0	ug/L	6010C
Magnesium, Total	10300		200	1000	ug/L	6010C
Manganese, Total	6140		6	10	ug/L	6010C
Potassium, Total	2700		200	2000	ug/L	6010C
Sodium, Total	6700		200	1000	ug/L	6010C
Zinc, Total	5360		100	200	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	5.0		0.20	5.0	ug/L	8260C
Benzene	0.70	J	0.20	5.0	ug/L	8260C
Carbon Disulfide	0.60	J	0.31	10	ug/L	8260C
Chlorobenzene	11		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	1.9	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	1.2	J	0.26	5.0	ug/L	8260C

CLIENT ID: SP-5 Effluent			Lab ID: R1805334-009			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	409				uMHOS/cm	120.1
pH, Field	6.55				pH Units	SM 4500-H+ B
Temperature, Field	12.1				deg C	SM 2550 B
Arsenic, Total	203		4	10	ug/L	6010C
Barium, Total	152		7	20	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-5 Effluent			Lab ID: R1805334-009			

Analyte	Results	Flag	MDL	MRL	Units	Method
Calcium, Total	43300		300	1000	ug/L	6010C
Iron, Total	29900		50	100	ug/L	6010C
Magnesium, Total	10600		200	1000	ug/L	6010C
Manganese, Total	6270		6	10	ug/L	6010C
Potassium, Total	2900		200	2000	ug/L	6010C
Sodium, Total	6900		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	2.8	J	0.20	5.0	ug/L	8260C
Chlorobenzene	1.8	J	0.20	5.0	ug/L	8260C
Chloroethane	1.1	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.35	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.45	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.28	J	0.26	5.0	ug/L	8260C

CLIENT ID: SP-3 Sed			Lab ID: R1805334-010			

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	23.3				Percent	ALS SOP
Aluminum, Total	1630		38	41	mg/Kg	6010C
Arsenic, Total	481		1.2	4.1	mg/Kg	6010C
Barium, Total	339		0.4	8.3	mg/Kg	6010C
Cobalt, Total	24		2	21	mg/Kg	6010C
Copper, Total	9.2		2.0	8.3	mg/Kg	6010C
Iron, Total	303000		4600	5000	mg/Kg	6010C
Lead, Total	13.1		0.9	2.1	mg/Kg	6010C
Magnesium, Total	700		80	410	mg/Kg	6010C
Manganese, Total	27400		42	83	mg/Kg	6010C
Selenium, Total	21.2		1.6	4.1	mg/Kg	6010C
Zinc, Total	62.0		1.3	8.3	mg/Kg	6010C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request:R1805334

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1805334-001	F-6	6/8/2018	0640
R1805334-002	SW-4	6/8/2018	0655
R1805334-003	SP-4	6/8/2018	0745
R1805334-004	SW-3	6/8/2018	0700
R1805334-005	SP-3	6/8/2018	0705
R1805334-006	SW-2	6/8/2018	0725
R1805334-007	SP-2	6/8/2018	0730
R1805334-008	SP-5 Influent	6/8/2018	0820
R1805334-009	SP-5 Effluent	6/8/2018	0805
R1805334-010	SP-3 Sed	6/8/2018	0710
R1805334-011	Trip Blank	6/8/2018	0640



Cooler Receipt and Preservation Check Form

R1805334 **5**
Broome County Division of Solid Waste Management
Colesville SW/Seeps/Sed

Project/Client Broome Folder Number _____

Cooler received on 6/8/18 by: Q/DW COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N
2	Custody papers properly completed (ink, signed)?	☒ Y N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ Y N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did <u>VOA</u> vials, Alk, or Sulfide have sig* bubbles?	☒ Y N NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as: Bulk Encore 5035set	☒ NA

8. Temperature Readings Date: 6/8/18 Time: 1510 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.3</u>	<u>2.6</u>	<u>1.9</u>	<u>2.6</u>	<u>4.7</u>		
Correction Factor (°C)	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		
Corrected Temp (°C)	<u>1.3</u>	<u>2.6</u>	<u>1.9</u>	<u>2.6</u>	<u>4.7</u>		
Temp from: Type of bottle	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>	<u>-</u>		
Within 0-6°C?	☒ Y N	☒ Y N	☒ Y N	☒ Y N	☒ Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by Q on 6/8/18 at 1525
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/11/18 Time: 1314 by: Q

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES ☒ NO ☒ date/time
10. Did all bottle labels and tags agree with custody papers? ☒ YES ☒ NO
11. Were correct containers used for the tests indicated? ☒ YES ☒ NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES ☒ NO ☒
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated ☒ NA

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>20458</u>	HNO ₃	☒		<u>1117071</u>	<u>5/19</u>				
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>4115120</u>	<u>5/19</u>				

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 11-04-06

Explain all Discrepancies/ Other Comments:

headspace: Temp Blanks

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: Q
PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



R1805334

FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 18SAMPLE POINT ID F-6

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method GrabDate 6/8/18 Time 0640 SWL _____Appearance ClearWeather Conditions Clear 52°Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Mysen ↓ LaMotte	pH	unit	7.92	7.92
	Conductivity	µmhos/cm	197	197
	Temperature	Degrees Celsius	11.0	11.0
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630 7.00/10.00/4.00
1413 set 1413OBSERVATIONS ~~scribble~~



FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 19

SAMPLE POINT ID SW-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 6/8/18 Time 0655 SWL _____

Appearance Clear

Weather Conditions Clear 52°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Miyon ↓ LaMotte	pH	unit	7.58	7.58
	Conductivity	µmhos/cm	180	180
	Temperature	Degrees Celsius	10.9	10.9
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW+ Seeps LAB ID 20

SAMPLE POINT ID SP-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal./ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grabs

Date 6/8/18 Time 0745 SWL _____

Appearance _____

Weather Conditions @ Clear, 52°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.71	6.71
	Conductivity	µmhos/cm	299	300
	Temperature	Degrees Celsius	12.1	12.1
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630

OBSERVATIONS ~~XXXXXX~~ ~~XXXXXX~~



FIELD MONITORING REPORT

PROJECT Colesville SW + Seeps LAB ID 21

SAMPLE POINT ID SW-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 6/8/18 Time 0700 SWL —

Appearance Clean

Weather Conditions Clear, 52°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	~~6.33~~	~~6.33~~
	Conductivity	µmhos/cm	249	249
	Temperature	Degrees Celsius	11.1	11.1
	Redox	millivolts		
	Turbidity	NTU		

7.32 7.33

Calibration Date/Time 6/8/18 0630

OBSERVATIONS ~~2.0~~ ~~1.0~~



FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 22

SAMPLE POINT ID SP-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/8/18 Time 0705 SWL _____
Appearance Clear
Weather Conditions Clear, 52°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Niyan</u>	pH	unit	<u>7.21</u>	<u>7.21</u>
	Conductivity	µmhos/cm	<u>176</u>	<u>176</u>
	Temperature	Degrees Celsius	<u>11.7</u>	<u>11.7</u>
<u>↓</u> <u>LaMotte</u>	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW+Seeps LAB ID 23

SAMPLE POINT ID SW-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/8/18 Time 0725 SWL _____
Appearance Clean
Weather Conditions Clean 52°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>7.39</u>	<u>7.39</u>
	Conductivity	µmhos/cm	<u>140</u>	<u>140</u>
	Temperature	Degrees Celsius	<u>11.2</u>	<u>11.2</u>
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW + Seeps LAB ID 24

SAMPLE POINT ID SP-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 6/8/18 Time 0730 SWL _____

Appearance Slight rust tint

Weather Conditions Clear 52°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>7.37</u>	<u>7.39</u>
	Conductivity	µmhos/cm	<u>105</u>	<u>105</u>
	Temperature	Degrees Celsius	<u>12.2</u>	<u>12.2</u>
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW/Seeps LAB ID 26

SAMPLE POINT ID SP-5 INF

PURGE INFORMATION

Well Depth (ft.) 4.12 Purge Date 6/8/18 Purge Method Bailer

SWL (ft.) .21 Start Time 0805 Stop Time 0810

Standing Water (ft.) 3.91 Volume Purged gal. 1.8 # casings 3

Well Constant (gal/ft.) 0.163 Observations Turbid, rust brown

Well Volume (gal.) 0.6

SAMPLING INFORMATION

Sample Method Bailer

Date 6/8/18 Time 0820 SWL 0.21

Appearance Slight tan tint

Weather Conditions Clear, 52°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓	pH	unit	6.37	6.37
	Conductivity	µmhos/cm	401	400
	Temperature	Degrees Celsius	12.4	12.4
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18 0630

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville SW/seeps LAB ID 25

SAMPLE POINT ID SP-5 Effluent

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/8/18 Time 0805 SWL _____
Appearance Clear with flecks of Fe bacteria
Weather Conditions Clear, 52°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.55	6.55
	Conductivity	µmhos/cm	409	409
	Temperature	Degrees Celsius	12.1	12.1
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 6/8/18

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville SW/Seeps/Sed LAB ID 31

SAMPLE POINT ID SP-3 Sed

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab
Date 6/8/18 Time 0710 SWL _____
Appearance Rust brown sediment
Weather Conditions Clear, 52°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
	pH	unit		
	Conductivity	µmhos/cm		
	Temperature	Degrees Celsius		
	Redox	millivolts		
	Turbidity	NTU		

Calibration Date/Time 1/1/18

OBSERVATIONS _____



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1805334

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Solid	Total Solids
SM 2550 B	Water	Temperature, Field
SM 4500-H+ B	Water	pH, Field

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1805334

Sample Name: F-6
Lab Code: R1805334-001
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SW-4
Lab Code: R1805334-002
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-4
Lab Code: R1805334-003
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1805334

Sample Name: SW-3
Lab Code: R1805334-004
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-3
Lab Code: R1805334-005
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SW-2
Lab Code: R1805334-006
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1805334

Sample Name: SP-2
Lab Code: R1805334-007
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-5 Influent
Lab Code: R1805334-008
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-5 Effluent
Lab Code: R1805334-009
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
6010C	KMCLAEN	NMANSEN
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed

Service Request: R1805334

Sample Name: SP-3 Sed
Lab Code: R1805334-010
Sample Matrix: Solid

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method
6010C
7471B
ALS SOP

Extracted/Digested By
KMCLAEN
KMCLAEN

Analyzed By
NMANSEN
KMCLAEN
KWONG

Sample Name: Trip Blank
Lab Code: R1805334-011
Sample Matrix: Water

Date Collected: 06/8/18
Date Received: 06/8/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00

Sample Name: F-6
Lab Code: R1805334-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 01:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 01:24	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,1-Dichloroethane (1,1-DCA)	0.45 J	5.0	0.20	1	06/13/18 01:24	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 01:24	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 01:24	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 01:24	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 01:24	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:24	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 01:24	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 01:24	
2-Hexanone	10 U	10	0.34	1	06/13/18 01:24	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 01:24	
Acetone	10 U	10	2.1	1	06/13/18 01:24	
Benzene	5.0 U	5.0	0.20	1	06/13/18 01:24	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 01:24	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 01:24	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 01:24	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 01:24	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 01:24	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:24	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 01:24	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 01:24	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 01:24	
Cyclohexane	10 U	10	0.31	1	06/13/18 01:24	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 01:24	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 01:24	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 01:24	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 01:24	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 01:24	
Methyl Acetate	10 U	10	0.33	1	06/13/18 01:24	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 01:24	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 01:24	
Styrene	5.0 U	5.0	0.20	1	06/13/18 01:24	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 01:24	
Toluene	5.0 U	5.0	0.20	1	06/13/18 01:24	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 01:24	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 01:24	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 01:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: F-6
Lab Code: R1805334-001

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 01:24	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:24	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:24	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:24	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/13/18 01:24	
Dibromofluoromethane	98	89 - 119	06/13/18 01:24	
Toluene-d8	99	87 - 121	06/13/18 01:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 06:55
Date Received: 06/08/18 15:00

Sample Name: SW-4
Lab Code: R1805334-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 01:47	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 01:47	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,1-Dichloroethane (1,1-DCA)	0.72 J	5.0	0.20	1	06/13/18 01:47	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 01:47	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 01:47	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 01:47	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 01:47	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:47	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 01:47	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 01:47	
2-Hexanone	10 U	10	0.34	1	06/13/18 01:47	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 01:47	
Acetone	10 U	10	2.1	1	06/13/18 01:47	
Benzene	5.0 U	5.0	0.20	1	06/13/18 01:47	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 01:47	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 01:47	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 01:47	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 01:47	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 01:47	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:47	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 01:47	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 01:47	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 01:47	
Cyclohexane	10 U	10	0.31	1	06/13/18 01:47	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 01:47	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 01:47	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 01:47	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 01:47	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 01:47	
Methyl Acetate	10 U	10	0.33	1	06/13/18 01:47	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 01:47	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 01:47	
Styrene	5.0 U	5.0	0.20	1	06/13/18 01:47	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 01:47	
Toluene	5.0 U	5.0	0.20	1	06/13/18 01:47	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 01:47	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 01:47	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 01:47	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 06:55
Date Received: 06/08/18 15:00

Sample Name: SW-4
Lab Code: R1805334-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 01:47	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:47	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:47	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:47	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:47	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/13/18 01:47	
Dibromofluoromethane	99	89 - 119	06/13/18 01:47	
Toluene-d8	100	87 - 121	06/13/18 01:47	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:45
Date Received: 06/08/18 15:00

Sample Name: SP-4
Lab Code: R1805334-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 02:09	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 02:09	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 02:09	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 02:09	
1,1-Dichloroethane (1,1-DCA)	3.3 J	5.0	0.20	1	06/13/18 02:09	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 02:09	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 02:09	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 02:09	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 02:09	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:09	
1,2-Dichloroethane	0.28 J	5.0	0.20	1	06/13/18 02:09	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 02:09	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:09	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 02:09	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 02:09	
2-Hexanone	10 U	10	0.34	1	06/13/18 02:09	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 02:09	
Acetone	10 U	10	2.1	1	06/13/18 02:09	
Benzene	5.0 U	5.0	0.20	1	06/13/18 02:09	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 02:09	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 02:09	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 02:09	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 02:09	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 02:09	
Chlorobenzene	1.7 J	5.0	0.20	1	06/13/18 02:09	
Chloroethane	1.6 J	5.0	0.23	1	06/13/18 02:09	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 02:09	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 02:09	
Cyclohexane	10 U	10	0.31	1	06/13/18 02:09	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 02:09	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 02:09	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 02:09	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 02:09	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 02:09	
Methyl Acetate	10 U	10	0.33	1	06/13/18 02:09	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 02:09	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 02:09	
Styrene	5.0 U	5.0	0.20	1	06/13/18 02:09	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 02:09	
Toluene	5.0 U	5.0	0.20	1	06/13/18 02:09	
Trichloroethene (TCE)	0.48 J	5.0	0.20	1	06/13/18 02:09	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 02:09	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 02:09	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:45
Date Received: 06/08/18 15:00

Sample Name: SP-4
Lab Code: R1805334-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 02:09	
cis-1,2-Dichloroethene	0.39 J	5.0	0.26	1	06/13/18 02:09	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:09	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 02:09	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:09	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/13/18 02:09	
Dibromofluoromethane	98	89 - 119	06/13/18 02:09	
Toluene-d8	100	87 - 121	06/13/18 02:09	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:00
Date Received: 06/08/18 15:00

Sample Name: SW-3
Lab Code: R1805334-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 02:31	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 02:31	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,1-Dichloroethane (1,1-DCA)	0.73 J	5.0	0.20	1	06/13/18 02:31	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 02:31	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 02:31	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 02:31	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 02:31	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:31	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 02:31	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 02:31	
2-Hexanone	10 U	10	0.34	1	06/13/18 02:31	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 02:31	
Acetone	10 U	10	2.1	1	06/13/18 02:31	
Benzene	5.0 U	5.0	0.20	1	06/13/18 02:31	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 02:31	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 02:31	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 02:31	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 02:31	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 02:31	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:31	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 02:31	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 02:31	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 02:31	
Cyclohexane	10 U	10	0.31	1	06/13/18 02:31	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 02:31	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 02:31	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 02:31	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 02:31	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 02:31	
Methyl Acetate	10 U	10	0.33	1	06/13/18 02:31	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 02:31	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 02:31	
Styrene	5.0 U	5.0	0.20	1	06/13/18 02:31	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 02:31	
Toluene	5.0 U	5.0	0.20	1	06/13/18 02:31	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 02:31	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 02:31	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 02:31	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:00
Date Received: 06/08/18 15:00

Sample Name: SW-3
Lab Code: R1805334-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 02:31	
cis-1,2-Dichloroethene	0.26 J	5.0	0.26	1	06/13/18 02:31	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:31	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 02:31	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:31	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/13/18 02:31	
Dibromofluoromethane	97	89 - 119	06/13/18 02:31	
Toluene-d8	99	87 - 121	06/13/18 02:31	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:05
Date Received: 06/08/18 15:00

Sample Name: SP-3
Lab Code: R1805334-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 02:54	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 02:54	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 02:54	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 02:54	
1,1-Dichloroethane (1,1-DCA)	26	5.0	0.20	1	06/13/18 02:54	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 02:54	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 02:54	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 02:54	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 02:54	
1,2-Dichlorobenzene	0.37 J	5.0	0.20	1	06/13/18 02:54	
1,2-Dichloroethane	0.44 J	5.0	0.20	1	06/13/18 02:54	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 02:54	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 02:54	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 02:54	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 02:54	
2-Hexanone	10 U	10	0.34	1	06/13/18 02:54	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 02:54	
Acetone	10 U	10	2.1	1	06/13/18 02:54	
Benzene	0.49 J	5.0	0.20	1	06/13/18 02:54	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 02:54	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 02:54	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 02:54	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 02:54	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 02:54	
Chlorobenzene	29	5.0	0.20	1	06/13/18 02:54	
Chloroethane	4.7 J	5.0	0.23	1	06/13/18 02:54	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 02:54	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 02:54	
Cyclohexane	10 U	10	0.31	1	06/13/18 02:54	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 02:54	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 02:54	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 02:54	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 02:54	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 02:54	
Methyl Acetate	10 U	10	0.33	1	06/13/18 02:54	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 02:54	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 02:54	
Styrene	5.0 U	5.0	0.20	1	06/13/18 02:54	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 02:54	
Toluene	5.0 U	5.0	0.20	1	06/13/18 02:54	
Trichloroethene (TCE)	3.4 J	5.0	0.20	1	06/13/18 02:54	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 02:54	
Vinyl Chloride	4.5 J	5.0	0.22	1	06/13/18 02:54	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:05
Date Received: 06/08/18 15:00

Sample Name: SP-3
Lab Code: R1805334-005

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 02:54	
cis-1,2-Dichloroethene	10	5.0	0.26	1	06/13/18 02:54	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:54	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 02:54	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 02:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/13/18 02:54	
Dibromofluoromethane	98	89 - 119	06/13/18 02:54	
Toluene-d8	99	87 - 121	06/13/18 02:54	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:25
Date Received: 06/08/18 15:00

Sample Name: SW-2
Lab Code: R1805334-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 03:16	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 03:16	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 03:16	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 03:16	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 03:16	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 03:16	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:16	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 03:16	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 03:16	
2-Hexanone	10 U	10	0.34	1	06/13/18 03:16	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 03:16	
Acetone	10 U	10	2.1	1	06/13/18 03:16	
Benzene	5.0 U	5.0	0.20	1	06/13/18 03:16	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 03:16	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 03:16	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 03:16	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 03:16	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 03:16	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:16	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 03:16	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 03:16	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 03:16	
Cyclohexane	10 U	10	0.31	1	06/13/18 03:16	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 03:16	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 03:16	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 03:16	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 03:16	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 03:16	
Methyl Acetate	10 U	10	0.33	1	06/13/18 03:16	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 03:16	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 03:16	
Styrene	5.0 U	5.0	0.20	1	06/13/18 03:16	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 03:16	
Toluene	5.0 U	5.0	0.20	1	06/13/18 03:16	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 03:16	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 03:16	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 03:16	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:25
Date Received: 06/08/18 15:00

Sample Name: SW-2
Lab Code: R1805334-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 03:16	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 03:16	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 03:16	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 03:16	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 03:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/13/18 03:16	
Dibromofluoromethane	96	89 - 119	06/13/18 03:16	
Toluene-d8	100	87 - 121	06/13/18 03:16	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:30
Date Received: 06/08/18 15:00

Sample Name: SP-2
Lab Code: R1805334-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 03:38	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 03:38	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 03:38	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 03:38	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 03:38	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 03:38	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:38	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 03:38	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 03:38	
2-Hexanone	10 U	10	0.34	1	06/13/18 03:38	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 03:38	
Acetone	10 U	10	2.1	1	06/13/18 03:38	
Benzene	5.0 U	5.0	0.20	1	06/13/18 03:38	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 03:38	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 03:38	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 03:38	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 03:38	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 03:38	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 03:38	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 03:38	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 03:38	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 03:38	
Cyclohexane	10 U	10	0.31	1	06/13/18 03:38	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 03:38	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 03:38	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 03:38	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 03:38	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 03:38	
Methyl Acetate	10 U	10	0.33	1	06/13/18 03:38	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 03:38	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 03:38	
Styrene	5.0 U	5.0	0.20	1	06/13/18 03:38	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 03:38	
Toluene	5.0 U	5.0	0.20	1	06/13/18 03:38	
Trichloroethene (TCE)	0.28 J	5.0	0.20	1	06/13/18 03:38	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 03:38	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 03:38	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 07:30
Date Received: 06/08/18 15:00

Sample Name: SP-2
Lab Code: R1805334-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 03:38	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 03:38	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 03:38	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 03:38	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 03:38	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/13/18 03:38	
Dibromofluoromethane	94	89 - 119	06/13/18 03:38	
Toluene-d8	97	87 - 121	06/13/18 03:38	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 08:20
Date Received: 06/08/18 15:00

Sample Name: SP-5 Influent
Lab Code: R1805334-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 04:01	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 04:01	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,1-Dichloroethane (1,1-DCA)	5.0	5.0	0.20	1	06/13/18 04:01	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 04:01	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 04:01	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 04:01	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 04:01	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:01	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 04:01	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 04:01	
2-Hexanone	10 U	10	0.34	1	06/13/18 04:01	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 04:01	
Acetone	10 U	10	2.1	1	06/13/18 04:01	
Benzene	0.70 J	5.0	0.20	1	06/13/18 04:01	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 04:01	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 04:01	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 04:01	
Carbon Disulfide	0.60 J	10	0.31	1	06/13/18 04:01	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 04:01	
Chlorobenzene	11	5.0	0.20	1	06/13/18 04:01	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 04:01	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 04:01	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 04:01	
Cyclohexane	10 U	10	0.31	1	06/13/18 04:01	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 04:01	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 04:01	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 04:01	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 04:01	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 04:01	
Methyl Acetate	10 U	10	0.33	1	06/13/18 04:01	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 04:01	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 04:01	
Styrene	5.0 U	5.0	0.20	1	06/13/18 04:01	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 04:01	
Toluene	5.0 U	5.0	0.20	1	06/13/18 04:01	
Trichloroethene (TCE)	1.9 J	5.0	0.20	1	06/13/18 04:01	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 04:01	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 04:01	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 08:20
Date Received: 06/08/18 15:00

Sample Name: SP-5 Influent
Lab Code: R1805334-008

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 04:01	
cis-1,2-Dichloroethene	1.2 J	5.0	0.26	1	06/13/18 04:01	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:01	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 04:01	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:01	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	06/13/18 04:01	
Dibromofluoromethane	98	89 - 119	06/13/18 04:01	
Toluene-d8	98	87 - 121	06/13/18 04:01	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 08:05
Date Received: 06/08/18 15:00

Sample Name: SP-5 Effluent
Lab Code: R1805334-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 04:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 04:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,1-Dichloroethane (1,1-DCA)	2.8 J	5.0	0.20	1	06/13/18 04:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 04:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 04:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 04:23	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 04:23	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:23	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 04:23	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 04:23	
2-Hexanone	10 U	10	0.34	1	06/13/18 04:23	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 04:23	
Acetone	10 U	10	2.1	1	06/13/18 04:23	
Benzene	5.0 U	5.0	0.20	1	06/13/18 04:23	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 04:23	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 04:23	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 04:23	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 04:23	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 04:23	
Chlorobenzene	1.8 J	5.0	0.20	1	06/13/18 04:23	
Chloroethane	1.1 J	5.0	0.23	1	06/13/18 04:23	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 04:23	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 04:23	
Cyclohexane	10 U	10	0.31	1	06/13/18 04:23	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 04:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 04:23	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 04:23	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 04:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 04:23	
Methyl Acetate	10 U	10	0.33	1	06/13/18 04:23	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 04:23	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 04:23	
Styrene	5.0 U	5.0	0.20	1	06/13/18 04:23	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 04:23	
Toluene	5.0 U	5.0	0.20	1	06/13/18 04:23	
Trichloroethene (TCE)	0.35 J	5.0	0.20	1	06/13/18 04:23	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 04:23	
Vinyl Chloride	0.45 J	5.0	0.22	1	06/13/18 04:23	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 08:05
Date Received: 06/08/18 15:00

Sample Name: SP-5 Effluent
Lab Code: R1805334-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 04:23	
cis-1,2-Dichloroethene	0.28 J	5.0	0.26	1	06/13/18 04:23	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:23	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 04:23	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/13/18 04:23	
Dibromofluoromethane	99	89 - 119	06/13/18 04:23	
Toluene-d8	101	87 - 121	06/13/18 04:23	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00

Sample Name: Trip Blank
Lab Code: R1805334-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 04:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 04:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 04:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 04:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 04:45	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 04:45	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:45	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 04:45	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 04:45	
2-Hexanone	10 U	10	0.34	1	06/13/18 04:45	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 04:45	
Acetone	10 U	10	2.1	1	06/13/18 04:45	
Benzene	5.0 U	5.0	0.20	1	06/13/18 04:45	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 04:45	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 04:45	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 04:45	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 04:45	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 04:45	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 04:45	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 04:45	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 04:45	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 04:45	
Cyclohexane	10 U	10	0.31	1	06/13/18 04:45	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 04:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 04:45	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 04:45	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 04:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 04:45	
Methyl Acetate	10 U	10	0.33	1	06/13/18 04:45	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 04:45	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 04:45	
Styrene	5.0 U	5.0	0.20	1	06/13/18 04:45	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 04:45	
Toluene	5.0 U	5.0	0.20	1	06/13/18 04:45	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 04:45	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 04:45	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 04:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: Trip Blank
Lab Code: R1805334-011

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 04:45	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 04:45	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:45	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 04:45	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 04:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	06/13/18 04:45	
Dibromofluoromethane	98	89 - 119	06/13/18 04:45	
Toluene-d8	98	87 - 121	06/13/18 04:45	



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: F-6
Lab Code: R1805334-001

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:34	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:34	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 20:34	06/13/18	
Barium, Total	6010C	20 U	ug/L	20	1	06/14/18 20:34	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:34	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:34	06/13/18	
Calcium, Total	6010C	18500	ug/L	1000	1	06/14/18 20:34	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:34	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:34	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:34	06/13/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/14/18 20:34	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:34	06/13/18	
Magnesium, Total	6010C	4300	ug/L	1000	1	06/14/18 20:34	06/13/18	
Manganese, Total	6010C	49	ug/L	10	1	06/14/18 20:34	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:22	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:34	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:34	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:34	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:34	06/13/18	
Sodium, Total	6010C	7100	ug/L	1000	1	06/14/18 20:34	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:34	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:34	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:34	06/13/18	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-4
Lab Code: R1805334-002

Service Request: R1805334
Date Collected: 06/08/18 06:55
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:37	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:37	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 20:37	06/13/18	
Barium, Total	6010C	20 U	ug/L	20	1	06/14/18 20:37	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:37	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:37	06/13/18	
Calcium, Total	6010C	18300	ug/L	1000	1	06/14/18 20:37	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:37	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:37	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:37	06/13/18	
Iron, Total	6010C	110	ug/L	100	1	06/14/18 20:37	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:37	06/13/18	
Magnesium, Total	6010C	4300	ug/L	1000	1	06/14/18 20:37	06/13/18	
Manganese, Total	6010C	66	ug/L	10	1	06/14/18 20:37	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:24	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:37	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:37	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:37	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:37	06/13/18	
Sodium, Total	6010C	7000	ug/L	1000	1	06/14/18 20:37	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:37	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:37	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:37	06/13/18	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1805334-003

Service Request: R1805334
Date Collected: 06/08/18 07:45
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	120	ug/L	100	1	06/14/18 20:40	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:40	06/13/18	
Arsenic, Total	6010C	19	ug/L	10	1	06/14/18 20:40	06/13/18	
Barium, Total	6010C	58	ug/L	20	1	06/14/18 20:40	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:40	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:40	06/13/18	
Calcium, Total	6010C	43600	ug/L	1000	1	06/14/18 20:40	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:40	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:40	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:40	06/13/18	
Iron, Total	6010C	7430	ug/L	100	1	06/14/18 20:40	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:40	06/13/18	
Magnesium, Total	6010C	8500	ug/L	1000	1	06/14/18 20:40	06/13/18	
Manganese, Total	6010C	3680	ug/L	10	1	06/14/18 20:40	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:25	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:40	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:40	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:40	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:40	06/13/18	
Sodium, Total	6010C	7000	ug/L	1000	1	06/14/18 20:40	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:40	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:40	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:40	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-3
Lab Code: R1805334-004

Service Request: R1805334
Date Collected: 06/08/18 07:00
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:44	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:44	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 20:44	06/13/18	
Barium, Total	6010C	20 U	ug/L	20	1	06/14/18 20:44	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:44	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:44	06/13/18	
Calcium, Total	6010C	17000	ug/L	1000	1	06/14/18 20:44	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:44	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:44	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:44	06/13/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/14/18 20:44	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:44	06/13/18	
Magnesium, Total	6010C	4000	ug/L	1000	1	06/14/18 20:44	06/13/18	
Manganese, Total	6010C	17	ug/L	10	1	06/14/18 20:44	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:30	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:44	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:44	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:44	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:44	06/13/18	
Sodium, Total	6010C	7000	ug/L	1000	1	06/14/18 20:44	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:44	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:44	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:44	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1805334-005

Service Request: R1805334
Date Collected: 06/08/18 07:05
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:47	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:47	06/13/18	
Arsenic, Total	6010C	18	ug/L	10	1	06/15/18 19:01	06/13/18	
Barium, Total	6010C	35	ug/L	20	1	06/14/18 20:47	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:47	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:47	06/13/18	
Calcium, Total	6010C	26600	ug/L	1000	1	06/14/18 20:47	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:47	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:47	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:47	06/13/18	
Iron, Total	6010C	13100	ug/L	100	1	06/14/18 20:47	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:47	06/13/18	
Magnesium, Total	6010C	6100	ug/L	1000	1	06/14/18 20:47	06/13/18	
Manganese, Total	6010C	3040	ug/L	10	1	06/14/18 20:47	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:32	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:47	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:47	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:47	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:47	06/13/18	
Sodium, Total	6010C	3900	ug/L	1000	1	06/14/18 20:47	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:47	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:47	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:47	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-2
Lab Code: R1805334-006

Service Request: R1805334
Date Collected: 06/08/18 07:25
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:50	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:50	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Barium, Total	6010C	20 U	ug/L	20	1	06/14/18 20:50	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:50	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:50	06/13/18	
Calcium, Total	6010C	12600	ug/L	1000	1	06/14/18 20:50	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:50	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:50	06/13/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/14/18 20:50	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:50	06/13/18	
Magnesium, Total	6010C	3500	ug/L	1000	1	06/14/18 20:50	06/13/18	
Manganese, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:34	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:50	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:50	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Sodium, Total	6010C	6500	ug/L	1000	1	06/14/18 20:50	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:50	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:50	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:50	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1805334-007

Service Request: R1805334
Date Collected: 06/08/18 07:30
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:54	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:54	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 20:54	06/13/18	
Barium, Total	6010C	21	ug/L	20	1	06/14/18 20:54	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:54	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:54	06/13/18	
Calcium, Total	6010C	8600	ug/L	1000	1	06/14/18 20:54	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:54	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:54	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:54	06/13/18	
Iron, Total	6010C	3370	ug/L	100	1	06/14/18 20:54	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:54	06/13/18	
Magnesium, Total	6010C	2100	ug/L	1000	1	06/14/18 20:54	06/13/18	
Manganese, Total	6010C	2390	ug/L	10	1	06/14/18 20:54	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:35	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:54	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 20:54	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:54	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:54	06/13/18	
Sodium, Total	6010C	5600	ug/L	1000	1	06/14/18 20:54	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:54	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:54	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 20:54	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Influent
Lab Code: R1805334-008

Service Request: R1805334
Date Collected: 06/08/18 08:20
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 20:57	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 20:57	06/13/18	
Arsenic, Total	6010C	170	ug/L	10	1	06/14/18 20:57	06/13/18	
Barium, Total	6010C	132	ug/L	20	1	06/14/18 20:57	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 20:57	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 20:57	06/13/18	
Calcium, Total	6010C	43300	ug/L	1000	1	06/14/18 20:57	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:57	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 20:57	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 20:57	06/13/18	
Iron, Total	6010C	24800	ug/L	100	1	06/14/18 20:57	06/13/18	
Lead, Total	6010C	45.3	ug/L	5.0	1	06/14/18 20:57	06/13/18	
Magnesium, Total	6010C	10300	ug/L	1000	1	06/14/18 20:57	06/13/18	
Manganese, Total	6010C	6140	ug/L	10	1	06/14/18 20:57	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:37	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 20:57	06/13/18	
Potassium, Total	6010C	2700	ug/L	2000	1	06/14/18 20:57	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:57	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 20:57	06/13/18	
Sodium, Total	6010C	6700	ug/L	1000	1	06/14/18 20:57	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 20:57	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 20:57	06/13/18	
Zinc, Total	6010C	5360	ug/L	200	10	06/15/18 19:11	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Effluent
Lab Code: R1805334-009

Service Request: R1805334
Date Collected: 06/08/18 08:05
Date Received: 06/08/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 21:07	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 21:07	06/13/18	
Arsenic, Total	6010C	203	ug/L	10	1	06/14/18 21:07	06/13/18	
Barium, Total	6010C	152	ug/L	20	1	06/14/18 21:07	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 21:07	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 21:07	06/13/18	
Calcium, Total	6010C	43300	ug/L	1000	1	06/14/18 21:07	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 21:07	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 21:07	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 21:07	06/13/18	
Iron, Total	6010C	29900	ug/L	100	1	06/14/18 21:07	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 21:07	06/13/18	
Magnesium, Total	6010C	10600	ug/L	1000	1	06/14/18 21:07	06/13/18	
Manganese, Total	6010C	6270	ug/L	10	1	06/14/18 21:07	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 18:39	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 21:07	06/13/18	
Potassium, Total	6010C	2900	ug/L	2000	1	06/14/18 21:07	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 21:07	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 21:07	06/13/18	
Sodium, Total	6010C	6900	ug/L	1000	1	06/14/18 21:07	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 21:07	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 21:07	06/13/18	
Zinc, Total	6010C	20 U	ug/L	20	1	06/14/18 21:07	06/13/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Solid
Sample Name: SP-3 Sed
Lab Code: R1805334-010

Service Request: R1805334
Date Collected: 06/08/18 07:10
Date Received: 06/08/18 15:00

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	1630	mg/Kg	41	1	06/15/18 21:04	06/14/18	
Antimony, Total	6010C	25 U	mg/Kg	25	1	06/15/18 21:04	06/14/18	
Arsenic, Total	6010C	481	mg/Kg	4.1	1	06/18/18 20:48	06/14/18	
Barium, Total	6010C	339	mg/Kg	8.3	1	06/15/18 21:04	06/14/18	
Beryllium, Total	6010C	1.2 U	mg/Kg	1.2	1	06/15/18 21:04	06/14/18	
Cadmium, Total	6010C	2.1 U	mg/Kg	2.1	1	06/15/18 21:04	06/14/18	
Calcium, Total	6010C	4100 U	mg/Kg	4100	10	06/15/18 21:53	06/14/18	
Chromium, Total	6010C	4.1 U	mg/Kg	4.1	1	06/15/18 21:04	06/14/18	
Cobalt, Total	6010C	24	mg/Kg	21	1	06/15/18 21:04	06/14/18	
Copper, Total	6010C	9.2	mg/Kg	8.3	1	06/15/18 21:04	06/14/18	
Iron, Total	6010C	303000	mg/Kg	5000	100	06/18/18 21:18	06/14/18	
Lead, Total	6010C	13.1	mg/Kg	2.1	1	06/15/18 21:04	06/14/18	
Magnesium, Total	6010C	700	mg/Kg	410	1	06/15/18 21:04	06/14/18	
Manganese, Total	6010C	27400	mg/Kg	83	10	06/15/18 21:53	06/14/18	
Mercury, Total	7471B	0.14 U	mg/Kg	0.14	1	06/15/18 16:10	06/14/18	
Nickel, Total	6010C	17 U	mg/Kg	17	1	06/15/18 21:04	06/14/18	
Potassium, Total	6010C	830 U	mg/Kg	830	1	06/15/18 21:04	06/14/18	
Selenium, Total	6010C	21.2	mg/Kg	4.1	1	06/18/18 20:48	06/14/18	
Silver, Total	6010C	4.1 U	mg/Kg	4.1	1	06/15/18 21:04	06/14/18	
Sodium, Total	6010C	410 U	mg/Kg	410	1	06/15/18 21:04	06/14/18	
Thallium, Total	6010C	41 U	mg/Kg	41	10	06/15/18 21:53	06/14/18	
Vanadium, Total	6010C	21 U	mg/Kg	21	1	06/15/18 21:04	06/14/18	
Zinc, Total	6010C	62.0	mg/Kg	8.3	1	06/15/18 21:04	06/14/18	



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Solid
Sample Name: SP-3 Sed
Lab Code: R1805334-010

Service Request: R1805334
Date Collected: 06/08/18 07:10
Date Received: 06/08/18 15:00
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	23.3	Percent	-	1	06/12/18 19:27	



Field Data

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: F-6
Lab Code: R1805334-001

Service Request: R1805334
Date Collected: 06/08/18 06:40
Date Received: 06/08/18 15:00
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	197	uMHOS/cm	-	1	06/08/18 06:40	
pH, Field	SM 4500-H+ B	7.92	pH Units	-	1	06/08/18 06:40	
Temperature, Field	SM 2550 B	11.0	deg C	-	1	06/08/18 06:40	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SW-4
Lab Code: R1805334-002

Service Request: R1805334
Date Collected: 06/08/18 06:55
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	180	uMHOS/cm	-	1	06/08/18 06:55	
pH, Field	SM 4500-H+ B	7.58	pH Units	-	1	06/08/18 06:55	
Temperature, Field	SM 2550 B	10.9	deg C	-	1	06/08/18 06:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1805334-003

Service Request: R1805334
Date Collected: 06/08/18 07:45
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	300	uMHOS/cm	-	1	06/08/18 07:45	
pH, Field	SM 4500-H+ B	6.71	pH Units	-	1	06/08/18 07:45	
Temperature, Field	SM 2550 B	12.1	deg C	-	1	06/08/18 07:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-3
Lab Code: R1805334-004

Service Request: R1805334
Date Collected: 06/08/18 07:00
Date Received: 06/08/18 15:00
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	249	uMHOS/cm	-	1	06/08/18 07:00	
pH, Field	SM 4500-H+ B	7.33	pH Units	-	1	06/08/18 07:00	
Temperature, Field	SM 2550 B	11.1	deg C	-	1	06/08/18 07:00	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1805334-005

Service Request: R1805334
Date Collected: 06/08/18 07:05
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	176	uMHOS/cm	-	1	06/08/18 07:05	
pH, Field	SM 4500-H+ B	7.21	pH Units	-	1	06/08/18 07:05	
Temperature, Field	SM 2550 B	11.7	deg C	-	1	06/08/18 07:05	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SW-2
Lab Code: R1805334-006

Service Request: R1805334
Date Collected: 06/08/18 07:25
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	140	uMHOS/cm	-	1	06/08/18 07:25	
pH, Field	SM 4500-H+ B	7.39	pH Units	-	1	06/08/18 07:25	
Temperature, Field	SM 2550 B	11.2	deg C	-	1	06/08/18 07:25	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1805334-007

Service Request: R1805334
Date Collected: 06/08/18 07:30
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	105	uMHOS/cm	-	1	06/08/18 07:30	
pH, Field	SM 4500-H+ B	7.38	pH Units	-	1	06/08/18 07:30	
Temperature, Field	SM 2550 B	12.2	deg C	-	1	06/08/18 07:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: SP-5 Influent
Lab Code: R1805334-008

Service Request: R1805334
Date Collected: 06/08/18 08:20
Date Received: 06/08/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	401	uMHOS/cm	-	1	06/08/18 08:20	
pH, Field	SM 4500-H+ B	6.37	pH Units	-	1	06/08/18 08:20	
Temperature, Field	SM 2550 B	12.4	deg C	-	1	06/08/18 08:20	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: SP-5 Effluent
Lab Code: R1805334-009

Service Request: R1805334
Date Collected: 06/08/18 08:05
Date Received: 06/08/18 15:00
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	409	uMHOS/cm	-	1	06/08/18 08:05	
pH, Field	SM 4500-H+ B	6.55	pH Units	-	1	06/08/18 08:05	
Temperature, Field	SM 2550 B	12.1	deg C	-	1	06/08/18 08:05	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
F-6	R1805334-001	92	98	99
SW-4	R1805334-002	93	99	100
SP-4	R1805334-003	92	98	100
SW-3	R1805334-004	92	97	99
SP-3	R1805334-005	93	98	99
SW-2	R1805334-006	93	96	100
SP-2	R1805334-007	89	94	97
SP-5 Influent	R1805334-008	91	98	98
SP-5 Effluent	R1805334-009	94	99	101
Trip Blank	R1805334-011	90	98	98
Method Blank	RQ1805808-05	93	98	99
Lab Control Sample	RQ1805808-04	94	102	100

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1805808-05

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	06/13/18 01:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	06/13/18 01:02	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	06/13/18 01:02	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	06/13/18 01:02	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	06/13/18 01:02	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	06/13/18 01:02	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:02	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	06/13/18 01:02	
2-Butanone (MEK)	10 U	10	0.78	1	06/13/18 01:02	
2-Hexanone	10 U	10	0.34	1	06/13/18 01:02	
4-Methyl-2-pentanone	10 U	10	0.29	1	06/13/18 01:02	
Acetone	10 U	10	2.1	1	06/13/18 01:02	
Benzene	5.0 U	5.0	0.20	1	06/13/18 01:02	
Bromodichloromethane	5.0 U	5.0	0.31	1	06/13/18 01:02	
Bromoform	5.0 U	5.0	0.36	1	06/13/18 01:02	
Bromomethane	5.0 U	5.0	0.70	1	06/13/18 01:02	
Carbon Disulfide	10 U	10	0.31	1	06/13/18 01:02	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	06/13/18 01:02	
Chlorobenzene	5.0 U	5.0	0.20	1	06/13/18 01:02	
Chloroethane	5.0 U	5.0	0.23	1	06/13/18 01:02	
Chloroform	5.0 U	5.0	0.28	1	06/13/18 01:02	
Chloromethane	5.0 U	5.0	0.28	1	06/13/18 01:02	
Cyclohexane	10 U	10	0.31	1	06/13/18 01:02	
Dibromochloromethane	5.0 U	5.0	0.20	1	06/13/18 01:02	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	06/13/18 01:02	
Dichloromethane	5.0 U	5.0	0.47	1	06/13/18 01:02	
Ethylbenzene	5.0 U	5.0	0.20	1	06/13/18 01:02	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	06/13/18 01:02	
Methyl Acetate	10 U	10	0.33	1	06/13/18 01:02	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	06/13/18 01:02	
Methylcyclohexane	10 U	10	0.35	1	06/13/18 01:02	
Styrene	5.0 U	5.0	0.20	1	06/13/18 01:02	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	06/13/18 01:02	
Toluene	5.0 U	5.0	0.20	1	06/13/18 01:02	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	06/13/18 01:02	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	06/13/18 01:02	
Vinyl Chloride	5.0 U	5.0	0.22	1	06/13/18 01:02	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1805808-05

Service Request: R1805334
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	06/13/18 01:02	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:02	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:02	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	06/13/18 01:02	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	06/13/18 01:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/13/18 01:02	
Dibromofluoromethane	98	89 - 119	06/13/18 01:02	
Toluene-d8	99	87 - 121	06/13/18 01:02	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Analyzed: 06/13/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1805808-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	22.3	20.0	112	75-125
1,1,2,2-Tetrachloroethane	8260C	26.2	20.0	131 *	78-126
1,1,2-Trichloroethane	8260C	23.0	20.0	115	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	23.4	20.0	117	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	22.7	20.0	114	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	22.0	20.0	110	71-118
1,2,4-Trichlorobenzene	8260C	22.1	20.0	110	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	25.9	20.0	130	55-136
1,2-Dibromoethane	8260C	22.8	20.0	114	82-127
1,2-Dichlorobenzene	8260C	21.6	20.0	108	80-119
1,2-Dichloroethane	8260C	22.2	20.0	111	71-127
1,2-Dichloropropane	8260C	22.4	20.0	112	80-119
1,3-Dichlorobenzene	8260C	21.1	20.0	106	83-121
1,4-Dichlorobenzene	8260C	20.4	20.0	102	79-119
2-Butanone (MEK)	8260C	20.1	20.0	100	61-137
2-Hexanone	8260C	22.4	20.0	112	63-124
4-Methyl-2-pentanone	8260C	22.8	20.0	114	66-124
Acetone	8260C	21.1	20.0	105	40-161
Benzene	8260C	22.2	20.0	111	79-119
Bromodichloromethane	8260C	21.9	20.0	110	81-123
Bromoform	8260C	23.3	20.0	116	65-146
Bromomethane	8260C	19.2	20.0	96	42-166
Carbon Disulfide	8260C	22.8	20.0	114	66-128
Carbon Tetrachloride	8260C	22.5	20.0	112	70-127
Chlorobenzene	8260C	21.3	20.0	107	80-121
Chloroethane	8260C	18.5	20.0	93	62-131
Chloroform	8260C	22.7	20.0	114	79-120
Chloromethane	8260C	21.6	20.0	108	65-135
Cyclohexane	8260C	18.7	20.0	93	69-120
Dibromochloromethane	8260C	22.9	20.0	115	72-128
Dichlorodifluoromethane (CFC 12)	8260C	26.2	20.0	131	59-155
Dichloromethane	8260C	21.2	20.0	106	73-122
Ethylbenzene	8260C	21.4	20.0	107	76-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Analyzed: 06/13/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1805808-04

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	21.0	20.0	105	77-128
Methyl Acetate	8260C	18.5	20.0	92	40-112
Methyl tert-Butyl Ether	8260C	23.1	20.0	115	75-118
Methylcyclohexane	8260C	19.0	20.0	95	51-129
Styrene	8260C	21.8	20.0	109	80-124
Tetrachloroethene (PCE)	8260C	20.6	20.0	103	72-125
Toluene	8260C	21.7	20.0	109	79-119
Trichloroethene (TCE)	8260C	21.1	20.0	106	74-122
Trichlorofluoromethane (CFC 11)	8260C	23.2	20.0	116	71-136
Vinyl Chloride	8260C	23.2	20.0	116	74-159
cis-1,2-Dichloroethene	8260C	22.3	20.0	111	80-121
cis-1,3-Dichloropropene	8260C	22.0	20.0	110	77-122
trans-1,2-Dichloroethene	8260C	22.2	20.0	111	73-118
trans-1,3-Dichloropropene	8260C	22.1	20.0	110	71-133



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Solid
Sample Name: Method Blank
Lab Code: R1805334-MB1

Service Request: R1805334
Date Collected: NA
Date Received: NA
Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	10 U	mg/Kg	10	1	06/15/18 20:50	06/14/18	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	1	06/15/18 20:50	06/14/18	
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	06/18/18 20:34	06/14/18	
Barium, Total	6010C	2.0 U	mg/Kg	2.0	1	06/15/18 20:50	06/14/18	
Beryllium, Total	6010C	0.30 U	mg/Kg	0.30	1	06/15/18 20:50	06/14/18	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	1	06/15/18 20:50	06/14/18	
Calcium, Total	6010C	100 U	mg/Kg	100	1	06/15/18 20:50	06/14/18	
Chromium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/15/18 20:50	06/14/18	
Cobalt, Total	6010C	5.0 U	mg/Kg	5.0	1	06/15/18 20:50	06/14/18	
Copper, Total	6010C	2.0 U	mg/Kg	2.0	1	06/15/18 20:50	06/14/18	
Iron, Total	6010C	12 U	mg/Kg	12	1	06/15/18 20:50	06/14/18	
Lead, Total	6010C	0.50 U	mg/Kg	0.50	1	06/15/18 20:50	06/14/18	
Magnesium, Total	6010C	100 U	mg/Kg	100	1	06/15/18 20:50	06/14/18	
Manganese, Total	6010C	2.0 U	mg/Kg	2.0	1	06/15/18 20:50	06/14/18	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	1	06/15/18 15:59	06/14/18	
Nickel, Total	6010C	4.0 U	mg/Kg	4.0	1	06/15/18 20:50	06/14/18	
Potassium, Total	6010C	200 U	mg/Kg	200	1	06/15/18 20:50	06/14/18	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/15/18 20:50	06/14/18	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	1	06/15/18 20:50	06/14/18	
Sodium, Total	6010C	100 U	mg/Kg	100	1	06/15/18 20:50	06/14/18	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	1	06/15/18 20:50	06/14/18	
Vanadium, Total	6010C	5.0 U	mg/Kg	5.0	1	06/15/18 20:50	06/14/18	
Zinc, Total	6010C	2.0 U	mg/Kg	2.0	1	06/15/18 20:50	06/14/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1805334-MB2

Service Request: R1805334
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	06/14/18 19:47	06/13/18	
Antimony, Total	6010C	60 U	ug/L	60	1	06/14/18 19:47	06/13/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Barium, Total	6010C	20 U	ug/L	20	1	06/14/18 19:47	06/13/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	06/14/18 19:47	06/13/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 19:47	06/13/18	
Calcium, Total	6010C	1000 U	ug/L	1000	1	06/14/18 19:47	06/13/18	
Chromium, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	06/14/18 19:47	06/13/18	
Copper, Total	6010C	20 U	ug/L	20	1	06/14/18 19:47	06/13/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/14/18 19:47	06/13/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	06/14/18 19:47	06/13/18	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	06/14/18 19:47	06/13/18	
Manganese, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	06/13/18 17:57	06/13/18	
Nickel, Total	6010C	40 U	ug/L	40	1	06/14/18 19:47	06/13/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	06/14/18 19:47	06/13/18	
Selenium, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Silver, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Sodium, Total	6010C	1000 U	ug/L	1000	1	06/14/18 19:47	06/13/18	
Thallium, Total	6010C	10 U	ug/L	10	1	06/14/18 19:47	06/13/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	06/14/18 19:47	06/13/18	
Zinc, Total	6010C	35	ug/L	20	1	06/14/18 19:47	06/13/18	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Solid

Service Request: R1805334
Date Analyzed: 06/15/18 - 06/18/18

Lab Control Sample Summary
Inorganic Parameters

Units:mg/Kg
Basis:Dry

Lab Control Sample
R1805334-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	176	200	88	80-120
Antimony, Total	6010C	43.9	50.0	88	80-120
Arsenic, Total	6010C	3.79	4.0	95	80-120
Barium, Total	6010C	198	200	99	80-120
Beryllium, Total	6010C	4.85	5.00	97	80-120
Cadmium, Total	6010C	4.97	5.00	99	80-120
Calcium, Total	6010C	200	200	98	80-120
Chromium, Total	6010C	20.3	20.0	101	80-120
Cobalt, Total	6010C	50.4	50.0	101	80-120
Copper, Total	6010C	24.8	25.0	99	80-120
Iron, Total	6010C	97	100	97	80-120
Lead, Total	6010C	49.3	50.0	99	80-120
Magnesium, Total	6010C	190	200	97	80-120
Manganese, Total	6010C	49.5	50.0	99	80-120
Mercury, Total	7471B	0.156	0.167	93	80-120
Nickel, Total	6010C	49.4	50.0	99	80-120
Potassium, Total	6010C	1880	2000	94	80-120
Selenium, Total	6010C	92.2	101	91	80-120
Silver, Total	6010C	4.8	5.0	95	80-120
Sodium, Total	6010C	1930	2000	97	80-120
Thallium, Total	6010C	181	200	91	80-120
Vanadium, Total	6010C	48.8	50.0	98	80-120
Zinc, Total	6010C	46.9	50.0	94	80-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville SW/Seeps/Sed
Sample Matrix: Water

Service Request: R1805334
Date Analyzed: 06/13/18 - 06/14/18

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1805334-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	1870	2000	94	80-120
Antimony, Total	6010C	471	500	94	80-120
Arsenic, Total	6010C	37.7	40	94	80-120
Barium, Total	6010C	2020	2000	101	80-120
Beryllium, Total	6010C	50.4	50.0	101	80-120
Cadmium, Total	6010C	50.7	50.0	101	80-120
Calcium, Total	6010C	2000	2000	100	80-120
Chromium, Total	6010C	205	200	102	80-120
Cobalt, Total	6010C	510	500	102	80-120
Copper, Total	6010C	250	250	100	80-120
Iron, Total	6010C	970	1000	97	80-120
Lead, Total	6010C	506	500	101	80-120
Magnesium, Total	6010C	2000	2000	99	80-120
Manganese, Total	6010C	502	500	100	80-120
Mercury, Total	7470A	0.941	1.00	94	80-120
Nickel, Total	6010C	503	500	101	80-120
Potassium, Total	6010C	20000	20000	100	80-120
Selenium, Total	6010C	1060	1010	105	80-120
Silver, Total	6010C	50	50	100	80-120
Sodium, Total	6010C	20300	20000	101	80-120
Thallium, Total	6010C	1890	2000	95	80-120
Vanadium, Total	6010C	494	500	99	80-120
Zinc, Total	6010C	525	500	105	80-120



July 03, 2018

Service Request No:R1805583

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory June 14, 2018
For your reference, these analyses have been assigned our service request number **R1805583**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

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dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

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Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Received: 06/14/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Twenty eight drinking water samples were received for analysis at ALS Environmental on 06/14/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

Subcontracted Analytical Parameters:

One or more samples were subcontracted to another laboratory for testing. The certified analytical report from the subcontractor has been included in its entirety at the end of this report and includes the name and address of the subcontracted laboratory.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Volatiles by GC/MS:

Method 8260C, 06/19/2018: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 06/19/2018: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

A handwritten signature in black ink, appearing to read "Randy Kullen".

Approved by _____

Date 07/03/2018



SAMPLE DETECTION SUMMARY

CLIENT ID: W-20S			Lab ID: R1805583-002			

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.2		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	132				uMHOS/cm	120.1
Nitrate as Nitrogen	1.0		0.04	1.0	mg/L	300.0
pH, Field	7.00				pH Units	SM 4500-H+ B
Redox Potential, Field	152				mV	ASTM D1498-00
Sulfate	10.0		0.2	2.0	mg/L	300.0
Temperature, Field	11.9				deg C	SM 2550 B
Turbidity, Field	10.9				NTU	180.1
Iron, Total	2230		50	100	ug/L	6010C

CLIENT ID: W-17S			Lab ID: R1805583-004			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	139				uMHOS/cm	120.1
pH, Field	7.25				pH Units	SM 4500-H+ B
Redox Potential, Field	167				mV	ASTM D1498-00
Temperature, Field	11.8				deg C	SM 2550 B
Turbidity, Field	3.6				NTU	180.1

CLIENT ID: W-18			Lab ID: R1805583-005			

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	2.5		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	319				uMHOS/cm	120.1
pH, Field	6.38				pH Units	SM 4500-H+ B
Redox Potential, Field	192				mV	ASTM D1498-00
Sulfate	8.2		0.2	2.0	mg/L	300.0
Temperature, Field	12.8				deg C	SM 2550 B
Turbidity, Field	5.6				NTU	180.1
Iron, Total	1700		50	100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	5.9		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	9.3		0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	6.7		0.26	5.0	ug/L	8260C

CLIENT ID: W-16S			Lab ID: R1805583-007			

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	406				uMHOS/cm	120.1
pH, Field	6.25				pH Units	SM 4500-H+ B
Redox Potential, Field	101				mV	ASTM D1498-00
Temperature, Field	12.6				deg C	SM 2550 B
Turbidity, Field	3.1				NTU	180.1

SAMPLE DETECTION SUMMARY

CLIENT ID: W-16S	Lab ID: R1805583-007

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1-Dichloroethane (1,1-DCA)	8.8		0.20	5.0	ug/L	8260C
Chlorobenzene	24		0.20	5.0	ug/L	8260C

CLIENT ID: PW-5	Lab ID: R1805583-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	280				uMHOS/cm	120.1
pH, Field	7.11				pH Units	SM 4500-H+ B
Redox Potential, Field	54				mV	ASTM D1498-00
Temperature, Field	14.6				deg C	SM 2550 B
Turbidity, Field	36.8				NTU	180.1

CLIENT ID: GMPW-4	Lab ID: R1805583-009

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	686				uMHOS/cm	120.1
pH, Field	6.50				pH Units	SM 4500-H+ B
Redox Potential, Field	112				mV	ASTM D1498-00
Temperature, Field	11.5				deg C	SM 2550 B
Turbidity, Field	3.0				NTU	180.1
1,1-Dichloroethane (1,1-DCA)	23		0.20	5.0	ug/L	8260C
Chlorobenzene	11		0.20	5.0	ug/L	8260C
Chloroethane	13		0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	25		0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	11		0.26	5.0	ug/L	8260C

CLIENT ID: GMMW-2	Lab ID: R1805583-010

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	485				uMHOS/cm	120.1
pH, Field	6.33				pH Units	SM 4500-H+ B
Redox Potential, Field	108				mV	ASTM D1498-00
Sulfate	14.4		0.2	2.0	mg/L	300.0
Temperature, Field	10.9				deg C	SM 2550 B
Turbidity, Field	2.5				NTU	180.1
Iron, Total	190		50	100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	26		0.20	5.0	ug/L	8260C
Chlorobenzene	18		0.20	5.0	ug/L	8260C
Chloroethane	9.5		0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	10		0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	6.3		0.26	5.0	ug/L	8260C



SAMPLE DETECTION SUMMARY

CLIENT ID: GMMW-6 Lab ID: R1805583-012

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	5.9		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	859				uMHOS/cm	120.1
pH, Field	6.53				pH Units	SM 4500-H+ B
Redox Potential, Field	-54				mV	ASTM D1498-00
Temperature, Field	12.0				deg C	SM 2550 B
Turbidity, Field	11.0				NTU	180.1
Iron, Total	14300		50	100	ug/L	6010C
Chlorobenzene	19		0.40	10	ug/L	8260C
Chloroethane	190		0.46	10	ug/L	8260C

CLIENT ID: GMMW-6 Diss Lab ID: R1805583-013

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	12600		50	100	ug/L	6010C

CLIENT ID: GMMW-5 Lab ID: R1805583-014

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	2.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	401				uMHOS/cm	120.1
pH, Field	6.73				pH Units	SM 4500-H+ B
Redox Potential, Field	-60				mV	ASTM D1498-00
Sulfate	9.1		0.2	2.0	mg/L	300.0
Temperature, Field	11.6				deg C	SM 2550 B
Turbidity, Field	14.3				NTU	180.1
Iron, Total	18400		50	100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	11		0.20	5.0	ug/L	8260C
Chlorobenzene	8.1		0.20	5.0	ug/L	8260C
Chloroethane	60		0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	5.6		0.20	5.0	ug/L	8260C

CLIENT ID: GMMW-5 Diss Lab ID: R1805583-015

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	16200		50	100	ug/L	6010C

CLIENT ID: PW-3 Lab ID: R1805583-016

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.7		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	419				uMHOS/cm	120.1
pH, Field	6.47				pH Units	SM 4500-H+ B
Redox Potential, Field	141				mV	ASTM D1498-00
Sulfate	9.6		0.2	2.0	mg/L	300.0



SAMPLE DETECTION SUMMARY

CLIENT ID: PW-3 Lab ID: R1805583-016

Analyte	Results	Flag	MDL	MRL	Units	Method
Temperature, Field	11.6				deg C	SM 2550 B
Turbidity, Field	24.0				NTU	180.1
Iron, Total	5470		50	100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	6.7		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	6.3		0.20	5.0	ug/L	8260C

CLIENT ID: PW-4 Lab ID: R1805583-018

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.9		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	385				uMHOS/cm	120.1
pH, Field	6.40				pH Units	SM 4500-H+ B
Redox Potential, Field	178				mV	ASTM D1498-00
Sulfate	25.2		0.2	2.0	mg/L	300.0
Temperature, Field	11.5				deg C	SM 2550 B
Turbidity, Field	3.9				NTU	180.1
Iron, Total	950		50	100	ug/L	6010C
Trichloroethene (TCE)	5.9		0.20	5.0	ug/L	8260C

CLIENT ID: PW-4 DUP Lab ID: R1805583-020

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.8		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	389				uMHOS/cm	120.1
Nitrate as Nitrogen	1.1		0.04	1.0	mg/L	300.0
pH, Field	6.37				pH Units	SM 4500-H+ B
Redox Potential, Field	183				mV	ASTM D1498-00
Sulfate	16.2		0.2	2.0	mg/L	300.0
Temperature, Field	11.5				deg C	SM 2550 B
Turbidity, Field	4.3				NTU	180.1
Iron, Total	34800		50	100	ug/L	6010C
Trichloroethene (TCE)	5.9		0.20	5.0	ug/L	8260C

CLIENT ID: PW-7 Lab ID: R1805583-022

Analyte	Results	Flag	MDL	MRL	Units	Method
Carbon, Total Organic (TOC)	1.5		0.05	1.0	mg/L	SM 5310 C-2000 (2011)
Conductivity, Field	171				uMHOS/cm	120.1
Nitrate as Nitrogen	1.7		0.04	1.0	mg/L	300.0
pH, Field	6.48				pH Units	SM 4500-H+ B
Redox Potential, Field	62				mV	ASTM D1498-00
Sulfate	8.7		0.2	2.0	mg/L	300.0



SAMPLE DETECTION SUMMARY

CLIENT ID: PW-7 Lab ID: R1805583-022

Analyte	Results	Flag	MDL	MRL	Units	Method
Temperature, Field	13.0				deg C	SM 2550 B
Turbidity, Field	29.2				NTU	180.1
Iron, Total	11900		50	100	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	20		0.20	5.0	ug/L	8260C
Chlorobenzene	9.6		0.20	5.0	ug/L	8260C
Chloroethane	13		0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	7.2		0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	13		0.26	5.0	ug/L	8260C

CLIENT ID: PW-7 Diss Lab ID: R1805583-023

Analyte	Results	Flag	MDL	MRL	Units	Method
Iron, Dissolved	2250		50	100	ug/L	6010C

CLIENT ID: GMMW-7 Lab ID: R1805583-024

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	236				uMHOS/cm	120.1
pH, Field	6.57				pH Units	SM 4500-H+ B
Redox Potential, Field	133				mV	ASTM D1498-00
Sulfate	12.8		0.2	2.0	mg/L	300.0
Temperature, Field	15.1				deg C	SM 2550 B
Turbidity, Field	9.3				NTU	180.1
1,1-Dichloroethane (1,1-DCA)	24		0.20	5.0	ug/L	8260C
Chloroethane	8.9		0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	5.5		0.20	5.0	ug/L	8260C
Vinyl Chloride	5.9		0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	19		0.26	5.0	ug/L	8260C

CLIENT ID: Equipment Blank Lab ID: R1805583-026

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	10.6				uMHOS/cm	120.1
pH, Field	7.48				pH Units	SM 4500-H+ B
Redox Potential, Field	170				mV	ASTM D1498-00
Temperature, Field	21.1				deg C	SM 2550 B
Turbidity, Field	1.5				NTU	180.1

CLIENT ID: W-7 Lab ID: R1805583-028

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	410				uMHOS/cm	120.1
pH, Field	6.66				pH Units	SM 4500-H+ B
Redox Potential, Field	-35				mV	ASTM D1498-00
Temperature, Field	10.1				deg C	SM 2550 B



SAMPLE DETECTION SUMMARY

CLIENT ID: W-7			Lab ID: R1805583-028			

Analyte	Results	Flag	MDL	MRL	Units	Method
Turbidity, Field	8.5				NTU	180.1



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request:R1805583

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1805583-001	Trip Blank	6/14/2018	0710
R1805583-002	W-20S	6/14/2018	0710
R1805583-003	W-20S Diss	6/14/2018	0710
R1805583-004	W-17S	6/14/2018	0730
R1805583-005	W-18	6/14/2018	0745
R1805583-006	W-18 Diss	6/14/2018	0745
R1805583-007	W-16S	6/14/2018	0800
R1805583-008	PW-5	6/14/2018	0815
R1805583-009	GMPW-4	6/14/2018	0825
R1805583-010	GMMW-2	6/14/2018	0840
R1805583-011	GMMW-2 Diss	6/14/2018	0840
R1805583-012	GMMW-6	6/14/2018	0855
R1805583-013	GMMW-6 Diss	6/14/2018	0855
R1805583-014	GMMW-5	6/14/2018	0910
R1805583-015	GMMW-5 Diss	6/14/2018	0910
R1805583-016	PW-3	6/14/2018	0705
R1805583-017	PW-3 Diss	6/14/2018	0705
R1805583-018	PW-4	6/14/2018	0725
R1805583-019	PW-4 Diss	6/14/2018	0725
R1805583-020	PW-4 DUP	6/14/2018	0725
R1805583-021	PW-4 DUP Diss	6/14/2018	0725
R1805583-022	PW-7	6/14/2018	0810
R1805583-023	PW-7 Diss	6/14/2018	0810
R1805583-024	GMMW-7	6/14/2018	0830
R1805583-025	GMMW-7 Diss	6/14/2018	0830
R1805583-026	Equipment Blank	6/14/2018	0915
R1805583-027	Equipment Blank Diss	6/14/2018	0915
R1805583-028	W-7	6/14/2018	0745



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

50633

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax) PAGE 1 OF 2

Project Name Coleville 5th Quarter		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																									
Project Manager Laurie Haskell		Report CC		PRESERVATIVE																									
Company/Address Broome County Coleville LF E. Windsor Rd Coleville NY				NUMBER OF CONTAINERS	GC/MS VOAs • 8260 • 8264 • CLP GC/MS SVOCs • 8270 • 825 GC VOAs • 8021 • 801/802 PESTICIDES • 8091 • 808 PCBs • 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below) Fe Fe TDC, RSK-175 NO₃, NO₂, SO₄	Preservative Key 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____																							
Phone # 607-778-2250		Email				REMARKS/ ALTERNATE DESCRIPTION																							
Sampler's Signature <i>[Signature]</i>		Sampler's Printed Name Nyle Lee																											
CLIENT SAMPLE ID		FOR OFFICE USE ONLY LAB ID				SAMPLING DATE		TIME		MATRIX																			
Trip Blank				6/14/18		0710		W		3		X																	
W-20 S						0710		W		12		X				X		X		X		X		1					
W-17 S						0730		W		3		X												15					
W-18						0745		W		24		X				X		X		X		X		2+3 QC					
W-16 S						0800		W		3		X												16					
PW-5						0815		W		3		X												17					
GMPW-4						0825		W		3		X												25					
GMMW-2						0840		W		12		X				X		X		X		X		4					
GMMW-6						0855		W		12		X				X		X		X		X		5					
GMMW-5						0910		W		12		X				X		X		X		X		6					
PW-3						0705		W		12		X				X		X		X		X		8					
SPECIAL INSTRUCTIONS/COMMENTS Metals										TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) ____ 1 day ____ 2 day ____ 3 day ____ 4 day ____ 5 day REQUESTED REPORT DATE _____					REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata ____ Yes ____ No					INVOICE INFORMATION PO # BILL TO:									
See QAPP ☐																													
STATE WHERE SAMPLES WERE COLLECTED																													
RELINQUISHED BY					RECEIVED BY					RELINQUISHED BY					RECEIVED BY					RELINQUISHED BY					RECEIVED BY				
Signature <i>[Signature]</i>					Signature <i>[Signature]</i>					Signature					Signature					Sig					5				
Printed Name Nyle Lee					Printed Name Danice Ward					Printed Name					Printed Name					Pri					Broome County Division of Solid Waste Management Coleville				
Firm ALS					Firm ALS					Firm					Firm					Fin.									
Date/Time 6/14/18 1255					Date/Time 6/14/18 1255					Date/Time					Date/Time					Date/Time					Date/Time				



Cooler Receipt and Preservation Check Form

R1805583

5

Broome County Division of Solid Waste Management
Colesville

Project/Client _____ Folder Number _____

Cooler received on 6/14/18 by: shCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N
2	Custody papers properly completed (ink, signed)?	☒ Y N
3	Did all bottles arrive in good condition (unbroken)?	Y ☒ N
4	Circle: ~~Wet Ice~~ Dry Ice Gel packs present?	☒ Y N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y ☒ NA
6	Where did the bottles originate?	ALS/ROC CLIENT
7	Soil VOA received as:	Bulk Encore 5035set ~~NA~~

8. Temperature Readings Date: 6/14/18 Time: 1305 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>2.7</u>	<u>5.5</u>					
Correction Factor (°C)	<u>2.0</u>	<u>2.0</u>					
Corrected Temp (°C)	<u>2.7</u>	<u>5.5</u>					
Temp from: Type of bottle							
Within 0-6°C?	☒ N	☒ N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: 6/14 by sh on 6/14/18 at 1305
 5035 samples placed in storage location: 6/14/18 by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 6/15/18 Time: 1326 by: sh

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
 10. Did all bottle labels and tags agree with custody papers? YES NO
 11. Were correct containers used for the tests indicated? YES NO
 12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO N/A
 13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2	<u>204578</u>	HNO ₃	☒		<u>1117071</u>	<u>4/11</u>				
≤2		H ₂ SO ₄			<u>2430071</u>					
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>411570</u>					

**VOAs and 1664 Not to be tested before analysis.
 Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 041168-2440, 8-072-001, 7-244-002

Explain all Discrepancies/ Other Comments:

* 2 vial caps were broken for GMPH-4

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	<u>80B</u>
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: sh

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



14805583

FIELD MONITORING REPORT

PROJECT Broome County Coleville 5th quarter LAB ID (Full List) 1
SAMPLE POINT ID W-20 S

PURGE INFORMATION

Well Depth (ft.) 21.80 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 9.91 Start Time 0912 Stop Time 0915
Standing Water (ft.) 11.89 Volume Purged gal. 1.9 # casings 1 to dry
Well Constant (gal/ft.) 0.163 Observations Tan Slightly turbid to
Well Volume (gal.) 1.9 turbid brown

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0710 SWL 9.99
Appearance Gray Slightly turbid
Weather Conditions Full Sun 55°
Sampling Technician (Print) Kyle Lee / BM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron 10P</u> ↓ <u>Lamotte</u>	pH	unit	<u>7.00</u>	<u>7.00</u>
	Conductivity	µmhos/cm	<u>132</u>	<u>132</u>
	Temperature	Degrees Celsius	<u>11.9</u>	<u>11.9</u>
	Redox	millivolts	<u>152</u>	
	Turbidity	NTU	<u>10.9</u>	

Calibration Date/Time 6/14/18 0700 pH 7.00 4.00 10.00
SC 1413 SC 1413

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Braze County Coleville 5th quarter LAB ID (B260) 15

SAMPLE POINT ID W-175

PURGE INFORMATION

Well Depth (ft.) 21.81 Purge Date 6/13/18 Purge Method Bailer

SWL (ft.) 9.38 Start Time 0926 Stop Time 0934

Standing Water (ft.) 12.43 Volume Purged gal. 6.0 # casings 3

Well Constant (gal/ft.) 0.163 Observations Rust on tint to rust

Well Volume (gal.) 2.0 orange turbid

SAMPLING INFORMATION

Sample Method Bailer

Date 6/14/18 Time 0730 SWL 9.38

Appearance Clear

Weather Conditions Full Sun 55°

Sampling Technician (Print) Kyle Lee / BJM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myronuf ↓	pH	unit	7.25	7.25
	Conductivity	µmhos/cm	139	140
	Temperature	Degrees Celsius	11.8	11.8
	Redox	millivolts	167	
Lamotte	Turbidity	NTU	3.6	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Broome County Coleville 5th quarter LAB ID (Full List) 2+3 QC

SAMPLE POINT ID W-18

PURGE INFORMATION

Well Depth (ft.) 19.90 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 11.27 Start Time 0958 Stop Time 1004
Standing Water (ft.) 8.63 Volume Purged gal. 4.2 # casings 3
Well Constant (gal/ft.) 0.163 Observations Rust brown tint to
Well Volume (gal.) 1.4 rust brown turbid

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0745 SWL 11.44
Appearance Tan tint slightly turbid to turbid tan
Weather Conditions Full Sun 55
Sampling Technician (Print) Kyle Lee/BJM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron P ↓ Lamotte	pH	unit	6.38	6.38
	Conductivity	µmhos/cm	319	319
	Temperature	Degrees Celsius	12.8	12.8
	Redox	millivolts	192	
	Turbidity	NTU	5.6	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Breome County Coleville 5th quarter LAB ID (8260) 16

SAMPLE POINT ID W-16 S

PURGE INFORMATION

Well Depth (ft.) 22.14 Purge Date 6/13/18 Purge Method Bailer

SWL (ft.) 9.67 Start Time 0944 Stop Time 0948

Standing Water (ft.) 12.47 Volume Purged gal. 2.5 # casings 1.2 to dry

Well Constant (gal/ft.) 0.163 Observations Rust orange tint to

Well Volume (gal.) 2.0 rust orange w/ iron bacteria

SAMPLING INFORMATION

Sample Method Bailer

Date 6/14/18 Time 0800 SWL

Appearance Clear

Weather Conditions Full Sun 55°

Sampling Technician (Print) Kyle Lee / BJM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myronel ↓	pH	unit	6.25	6.25
	Conductivity	µmhos/cm	406	406
	Temperature	Degrees Celsius	12.6	12.6
	Redox	millivolts	101	
Lamotte	Turbidity	NTU	3.1	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Broome County Galeville 5th quarter LAB ID (8260) 17

SAMPLE POINT ID PW-5

PURGE INFORMATION

Well Depth (ft.) 26.93 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 0.92 Start Time 1012 Stop Time 1023
Standing Water (ft.) 26.01 Volume Purged gal. 6.0 # casings 1.4 to dry
Well Constant (gal/ft.) 0.163 Observations Tan tint to brown turbid
Well Volume (gal.) 4.2

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0815 SWL 0.92
Appearance Grey turbid
Weather Conditions Full Sun 55°
Sampling Technician (Print) Kyle Lee/BM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron P ↓ ↓ Lamotte	pH	unit	7.10	7.11
	Conductivity	µmhos/cm	280	280
	Temperature	Degrees Celsius	14.6	14.6
	Redox	millivolts	54	
	Turbidity	NTU	36.8	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Breame County Colesville 5th quarter LAB ID (8200) 25
SAMPLE POINT ID GMPW-4

PURGE INFORMATION

Well Depth (ft.) 26.58 Purge Date 6/13/18 Purge Method Elec. Pump
SWL (ft.) 15.32 Start Time 1037 Stop Time 1043
Standing Water (ft.) 11.26 Volume Purged gal. 16.4 # casings 1 to dry
Well Constant (gal./ft.) 1.46 Observations Clear to tan tint
Well Volume (gal.) 16.4

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0825 SWL 15.77
Appearance Tan tint
Weather Conditions Full Sun 55°
Sampling Technician (Print) Kyle Lee / BVM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myronel</u> ↓	pH	unit	<u>6.50</u>	<u>6.50</u>
	Conductivity	µmhos/cm	<u>686</u>	<u>686</u>
	Temperature	Degrees Celsius	<u>11.5</u>	<u>11.5</u>
	Redox	millivolts	<u>112</u>	
<u>Lanotte</u>	Turbidity	NTU	<u>3.0</u>	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Broome County Colesville 5th quarter LAB ID (Full List) 4
SAMPLE POINT ID GMMW-2

PURGE INFORMATION

Well Depth (ft.) 55.98 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 36.57 Start Time 1052 Stop Time 1057
Standing Water (ft.) 19.41 Volume Purged gal. 3.2 # casings 1 to dry
Well Constant (gal./ft.) 0.163 Observations Clear to Gray Slightly
Well Volume (gal.) 3.2 turbid

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0840 SWL 36.57
Appearance Grey tint
Weather Conditions Full Sun 56°
Sampling Technician (Print) Kyle Lee/BM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myran ↓ Lamotte	pH	unit	6.33	6.32
	Conductivity	µmhos/cm	485	485
	Temperature	Degrees Celsius	10.9	10.9
	Redox	millivolts	108	
	Turbidity	NTU	2.5	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Broome County Coleville 5th quarter LAB ID (Full List) 5

SAMPLE POINT ID GMM W-6

PURGE INFORMATION

Well Depth (ft.) 55.82 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 38.67 Start Time 1104 Stop Time 1109
Standing Water (ft.) 17.15 Volume Purged gal. 2.8 # casings 1 to dry
Well Constant (gal/ft.) 0.163 Observations Clear to Grey to
Well Volume (gal.) 2.8 turbid Grey

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0855 SWL 39.48
Appearance Rust tan slightly turbid
Weather Conditions Full Sun 56°
Sampling Technician (Print) Kyle Lee/BJM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myronuf</u> ↓	pH	unit	<u>6.52</u>	<u>6.53</u>
	Conductivity	µmhos/cm	<u>859</u>	<u>859</u>
	Temperature	Degrees Celsius	<u>12.0</u>	<u>12.0</u>
	Redox	millivolts	<u>-54</u>	
<u>Lamotte</u>	Turbidity	NTU	<u>11.0</u>	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Broom County Coleville 5th quarter LAB ID (Full List) 6
SAMPLE POINT ID GMMW-5

PURGE INFORMATION

Well Depth (ft.) 70.18 Purge Date 6/13/18 Purge Method Elec. Pump
SWL (ft.) 49.07 Start Time 1120 Stop Time 1124
Standing Water (ft.) 21.11 Volume Purged gal. 3.4 # casings 1 to dry
Well Constant (gal/ft.) 0.163 Observations Black tint - moderate
Well Volume (gal.) 3.4 turbid

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0910 SWL 50.06
Appearance Gray slightly turbid
Weather Conditions Full Sun 59°
Sampling Technician (Print) Kyle Lee /BJM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myronco</u> ↓ <u>Lamotte</u>	pH	unit	<u>6.73</u>	<u>6.72</u>
	Conductivity	µmhos/cm	<u>400</u>	<u>401</u>
	Temperature	Degrees Celsius	<u>11.6</u>	<u>11.6</u>
	Redox	millivolts	<u>-60</u>	
	Turbidity	NTU	<u>14.3</u>	

Calibration Date/Time 6/14/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Wells LAB ID 8

SAMPLE POINT ID PW-3

PURGE INFORMATION

Well Depth (ft.) 30.97 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 12.32 Start Time 0915 Stop Time 0940
Standing Water (ft.) 18.65 Volume Purged gal. 5.5 # casings ~1.8 today
Well Constant (gal/ft.) 0.163 Observations Turbid brown
Well Volume (gal.) 3.1

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0705 SWL 12.32
Appearance Slight tan tint w/ suspended particles
Weather Conditions Clear 54°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.47	6.47
	Conductivity	µmhos/cm	419	419
	Temperature	Degrees Celsius	11.6	11.6
	Redox	millivolts	141	
	Turbidity	NTU	24.0	

Calibration Date/Time 6/14/18 0645 7.00/10.00/4.00
1413 set 1413
0.0/10.0

OBSERVATIONS

sol metals field filtered
w/0.45µ filter



FIELD MONITORING REPORT

PROJECT Colesville Wells LAB ID 9+10 Duplicate
SAMPLE POINT ID PW-4

PURGE INFORMATION

Well Depth (ft.) 23.12 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 17.24 Start Time 0950 Stop Time 1000
Standing Water (ft.) 5.88 Volume Purged gal. 3.0 # casings 3
Well Constant (gal/ft.) 0.163 Observations Slight rust tan, turbid
Well Volume (gal.) 1.0

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0725 SWL 17.24
Appearance Clean
Weather Conditions Sun 55°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.40	6.37
	Conductivity	µmhos/cm	385	389
	Temperature	Degrees Celsius	11.5	11.5
	Redox	millivolts	178	183
	Turbidity	NTU	3.9	4.3

Calibration Date/Time 6/14/18 0645

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville LF Wells LAB ID 11

SAMPLE POINT ID PW-7

PURGE INFORMATION

Well Depth (ft.) 64.23

SWL (ft.) 41.02

Standing Water (ft.) 23.21

Well Constant (gal./ft.) 0.163

Well Volume (gal.) 3.8

Purge Date 6/13/18 Purge Method Pump

Start Time 1055 Stop Time 1137

Volume Purged gal. 11.4 # casings 3

Observations Extremely turbid orange w/ Fe bacteria to rust orange tint

SAMPLING INFORMATION

Sample Method Bailer

Date 6/14/18 Time 0810 SWL 41.41

Appearance Rust orange tint

Weather Conditions Sun 57°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Miyon ↓ LaNotte	pH	unit	6.48	6.48
	Conductivity	µmhos/cm	171	170
	Temperature	Degrees Celsius	13.0	13.0
	Redox	millivolts	62	
	Turbidity	NTU	29.2	

Calibration Date/Time 6/14/18 0645

OBSERVATIONS

Metals filtered in field w/ 0.45µ filter



FIELD MONITORING REPORT

PROJECT Broome County Coleville 5th quarter LAB ID (Full List) 12
SAMPLE POINT ID GMMW-7

PURGE INFORMATION

Well Depth (ft.) 71.94 Purge Date 6/13/18 Purge Method Elec. Pump
SWL (ft.) 47.78 Start Time 1143 Stop Time 1147
Standing Water (ft.) 24.16 Volume Purged gal. 3.9 # casings 1 to dry
Well Constant (gal/ft.) 0.163 Observations Turbid tan
Well Volume (gal.) 3.9

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0830 SWL 47.80
Appearance Clear
Weather Conditions Sun 56°
Sampling Technician (Print) Kyle Lee / BM Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myronuf ↓ Lamotte	pH	unit	6.57	6.56
	Conductivity	µmhos/cm	236	236
	Temperature	Degrees Celsius	15.1	15.1
	Redox	millivolts	133	
	Turbidity	NTU	9.3	

Calibration Date/Time 6/14/18 0645

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Wells LAB ID 13

SAMPLE POINT ID Equipment Blank

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____
SWL (ft.) _____ Start Time _____ Stop Time _____
Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____
Well Constant (gal/ft.) _____ Observations _____
Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Rinsate blank bailer
Date 6/14/18 Time 0915 SWL —
Appearance Clean
Weather Conditions Sun 60°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u> ↓ <u>LaMotte</u>	pH	unit	<u>7.48</u>	<u>7.47</u>
	Conductivity	µmhos/cm	<u>10.5</u>	<u>10.6</u>
	Temperature	Degrees Celsius	<u>21.0</u>	<u>21.1</u>
	Redox	millivolts	<u>170</u>	
	Turbidity	NTU	<u>1.5</u>	

Calibration Date/Time 6/14/18 0645

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville LF Wells LAB ID 14

SAMPLE POINT ID W-7

PURGE INFORMATION

Well Depth (ft.) 51.23 Purge Date 6/13/18 Purge Method Bailer
SWL (ft.) 43.43 Start Time 10¹⁰ Stop Time 10¹⁶
Standing Water (ft.) 7.80 Volume Purged gal. 1.3 # casings 1 today
Well Constant (gal/ft.) 0.163 Observations Extremely turbid brown
Well Volume (gal.) 1.3

SAMPLING INFORMATION

Sample Method Bailer
Date 6/14/18 Time 0745 SWL 43.45
Appearance Clear with tiny amount of suspended particles
Weather Conditions Sun 56°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Mixon</u> ↓ <u>LaMotte</u>	pH	unit	<u>6.66</u>	<u>6.65</u>
	Conductivity	µmhos/cm	<u>410</u>	<u>410</u>
	Temperature	Degrees Celsius	<u>10.1</u>	<u>10.1</u>
	Redox	millivolts	<u>-35</u>	
	Turbidity	NTU	<u>8.5</u>	

Calibration Date/Time 6/14/18 0645

OBSERVATIONS _____



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
300.0	Drinking Water	Nitrate as Nitrogen
300.0	Drinking Water	Nitrite as Nitrogen
6010C	Drinking Water	Iron, Dissolved
6010C	Drinking Water	Iron, Total
8260C	Drinking Water	1,1,1-Trichloroethane (TCA)
8260C	Drinking Water	1,1,2,2-Tetrachloroethane
8260C	Drinking Water	1,1,2-Trichloro-1,2,2-trifluoroethane
8260C	Drinking Water	1,1,2-Trichloroethane
8260C	Drinking Water	1,1-Dichloroethane (1,1-DCA)
8260C	Drinking Water	1,1-Dichloroethene (1,1-DCE)
8260C	Drinking Water	1,2,4-Trichlorobenzene
8260C	Drinking Water	1,2-Dibromo-3-chloropropane (DBCP)
8260C	Drinking Water	1,2-Dibromoethane
8260C	Drinking Water	1,2-Dichlorobenzene
8260C	Drinking Water	1,2-Dichloroethane
8260C	Drinking Water	1,2-Dichloropropane
8260C	Drinking Water	1,3-Dichlorobenzene
8260C	Drinking Water	1,4-Dichlorobenzene
8260C	Drinking Water	2-Butanone (MEK)
8260C	Drinking Water	2-Hexanone
8260C	Drinking Water	4-Methyl-2-pentanone
8260C	Drinking Water	Acetone
8260C	Drinking Water	Benzene
8260C	Drinking Water	Bromodichloromethane
8260C	Drinking Water	Bromoform
8260C	Drinking Water	Bromomethane
8260C	Drinking Water	Carbon Disulfide
8260C	Drinking Water	Carbon Tetrachloride
8260C	Drinking Water	Chlorobenzene
8260C	Drinking Water	Chloroethane
8260C	Drinking Water	Chloroform
8260C	Drinking Water	Chloromethane
8260C	Drinking Water	Cyclohexane
8260C	Drinking Water	Dibromochloromethane
8260C	Drinking Water	Dichlorodifluoromethane (CFC 12)
8260C	Drinking Water	Dichloromethane
8260C	Drinking Water	Ethylbenzene
8260C	Drinking Water	Isopropylbenzene (Cumene)
8260C	Drinking Water	Methyl Acetate
8260C	Drinking Water	Methyl tert-Butyl Ether
8260C	Drinking Water	Methylcyclohexane
8260C	Drinking Water	Styrene
8260C	Drinking Water	Tetrachloroethene (PCE)
8260C	Drinking Water	Toluene
8260C	Drinking Water	Trichloroethene (TCE)
8260C	Drinking Water	Trichlorofluoromethane (CFC 11)
8260C	Drinking Water	Vinyl Chloride

ALS Group USA, Corp.
dba ALS Environmental

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
8260C	Drinking Water	Xylenes, Total
8260C	Drinking Water	cis-1,2-Dichloroethene
8260C	Drinking Water	cis-1,3-Dichloropropene
8260C	Drinking Water	trans-1,2-Dichloroethene
8260C	Drinking Water	trans-1,3-Dichloropropene
ASTM D1498-00	Drinking Water	Redox Potential, Field
SM 2550 B	Drinking Water	Temperature, Field
SM 4500-H+ B	Drinking Water	pH, Field

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: Trip Blank
Lab Code: R1805583-001
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: W-20S
Lab Code: R1805583-002
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1
300.0
6010C
8260C

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN
AMOSSES
NMANSEN
KRUEST

ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

BMACKIN
BMACKIN
BMACKIN
CWOODS

Sample Name: W-20S Diss
Lab Code: R1805583-003
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

Sample Name: W-17S
Lab Code: R1805583-004
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: W-17S
Lab Code: R1805583-004
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
KRUEST
BMACKIN
BMACKIN
BMACKIN

Sample Name: W-18
Lab Code: R1805583-005
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1
300.0
6010C
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN
AMOSSES
NMANSEN
KRUEST
BMACKIN
BMACKIN
BMACKIN
CWOODS

Sample Name: W-18 Diss
Lab Code: R1805583-006
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: W-16S
Lab Code: R1805583-007
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: PW-5
Lab Code: R1805583-008
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: GMPW-4
Lab Code: R1805583-009
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: GMMW-2
Lab Code: R1805583-010
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

Sample Name: GMMW-2 Diss
Lab Code: R1805583-011
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	NMANSEN

Sample Name: GMMW-6
Lab Code: R1805583-012
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: GMMW-6 Diss
Lab Code: R1805583-013
Sample Matrix: Drinking Water

Date Collected: 06/14/18

Date Received: 06/14/18

Analysis Method

6010C

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN

Sample Name: GMMW-5
Lab Code: R1805583-014
Sample Matrix: Drinking Water

Date Collected: 06/14/18

Date Received: 06/14/18

Analysis Method

120.1

180.1

300.0

6010C

8260C

Extracted/Digested By

KMCLAEN

Analyzed By

BMACKIN

BMACKIN

AMOSSES

NMANSEN

KRUEST

ASTM D1498-00

SM 2550 B

SM 4500-H+ B

SM 5310 C-2000(2011)

BMACKIN

BMACKIN

BMACKIN

CWOODS

Sample Name: GMMW-5 Diss
Lab Code: R1805583-015
Sample Matrix: Drinking Water

Date Collected: 06/14/18

Date Received: 06/14/18

Analysis Method

6010C

Extracted/Digested By

KMCLAEN

Analyzed By

NMANSEN

Sample Name: PW-3
Lab Code: R1805583-016
Sample Matrix: Drinking Water

Date Collected: 06/14/18

Date Received: 06/14/18

Analysis Method

120.1

180.1

Extracted/Digested By

Analyzed By

BMACKIN

BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: PW-3
Lab Code: R1805583-016
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

Sample Name: PW-3 Diss
Lab Code: R1805583-017
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	NMANSEN

Sample Name: PW-4
Lab Code: R1805583-018
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: PW-4 Diss
Lab Code: R1805583-019
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

Sample Name: PW-4 DUP
Lab Code: R1805583-020
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1
300.0
6010C
8260C

Extracted/Digested By

KMCLAEN

Analyzed By
BMACKIN
BMACKIN
AMOSSES
NMANSEN
KRUEST

ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

BMACKIN
BMACKIN
BMACKIN
CWOODS

Sample Name: PW-4 DUP Diss
Lab Code: R1805583-021
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

Sample Name: PW-7
Lab Code: R1805583-022
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: PW-7
Lab Code: R1805583-022
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

Sample Name: PW-7 Diss
Lab Code: R1805583-023
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	NMANSEN

Sample Name: GMMW-7
Lab Code: R1805583-024
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
300.0		AMOSSES
6010C	KMCLAEN	NMANSEN
8260C		KRUEST
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 5310 C-2000(2011)		CWOODS

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: GMMW-7 Diss
Lab Code: R1805583-025
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

Sample Name: Equipment Blank
Lab Code: R1805583-026
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1
300.0
6010C
8260C

Extracted/Digested By

KMCLAEN

Analyzed By
BMACKIN
BMACKIN
AMOSSES
NMANSEN
KRUEST

ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 5310 C-2000(2011)

BMACKIN
BMACKIN
BMACKIN
CWOODS

Sample Name: Equipment Blank Diss
Lab Code: R1805583-027
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
6010C

Extracted/Digested By
KMCLAEN

Analyzed By
NMANSEN

Sample Name: W-7
Lab Code: R1805583-028
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method
120.1
180.1

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville

Service Request: R1805583

Sample Name: W-7
Lab Code: R1805583-028
Sample Matrix: Drinking Water

Date Collected: 06/14/18
Date Received: 06/14/18

Analysis Method

Extracted/Digested By

Analyzed By

8260C

KRUEST

ASTM D1498-00

BMACKIN

SM 2550 B

BMACKIN

SM 4500-H+ B

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INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Trip Blank
Lab Code: R1805583-001

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 12:46	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 12:46	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 12:46	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 12:46	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 12:46	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 12:46	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 12:46	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 12:46	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 12:46	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:46	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 12:46	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 12:46	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:46	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:46	
2-Butanone (MEK)	10 U	10	1	06/19/18 12:46	
2-Hexanone	10 U	10	1	06/19/18 12:46	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 12:46	
Acetone	10 U	10	1	06/19/18 12:46	
Benzene	5.0 U	5.0	1	06/19/18 12:46	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 12:46	
Bromoform	5.0 U	5.0	1	06/19/18 12:46	
Bromomethane	5.0 U	5.0	1	06/19/18 12:46	
Carbon Disulfide	10 U	10	1	06/19/18 12:46	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 12:46	
Chlorobenzene	5.0 U	5.0	1	06/19/18 12:46	
Chloroethane	5.0 U	5.0	1	06/19/18 12:46	
Chloroform	5.0 U	5.0	1	06/19/18 12:46	
Chloromethane	5.0 U	5.0	1	06/19/18 12:46	
Cyclohexane	10 U	10	1	06/19/18 12:46	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 12:46	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 12:46	
Dichloromethane	5.0 U	5.0	1	06/19/18 12:46	
Ethylbenzene	5.0 U	5.0	1	06/19/18 12:46	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 12:46	
Methyl Acetate	10 U	10	1	06/19/18 12:46	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 12:46	
Methylcyclohexane	10 U	10	1	06/19/18 12:46	
Styrene	5.0 U	5.0	1	06/19/18 12:46	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 12:46	
Toluene	5.0 U	5.0	1	06/19/18 12:46	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 12:46	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 12:46	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 12:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Trip Blank
Lab Code: R1805583-001

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 12:46	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 12:46	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 12:46	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 12:46	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 12:46	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 12:46	
Dibromofluoromethane	96	89 - 119	06/19/18 12:46	
Toluene-d8	103	87 - 121	06/19/18 12:46	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-20S
Lab Code: R1805583-002

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 14:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 14:13	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 14:13	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 14:13	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 14:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 14:13	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 14:13	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 14:13	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 14:13	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:13	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 14:13	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 14:13	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:13	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:13	
2-Butanone (MEK)	10 U	10	1	06/19/18 14:13	
2-Hexanone	10 U	10	1	06/19/18 14:13	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 14:13	
Acetone	10 U	10	1	06/19/18 14:13	
Benzene	5.0 U	5.0	1	06/19/18 14:13	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 14:13	
Bromoform	5.0 U	5.0	1	06/19/18 14:13	
Bromomethane	5.0 U	5.0	1	06/19/18 14:13	
Carbon Disulfide	10 U	10	1	06/19/18 14:13	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 14:13	
Chlorobenzene	5.0 U	5.0	1	06/19/18 14:13	
Chloroethane	5.0 U	5.0	1	06/19/18 14:13	
Chloroform	5.0 U	5.0	1	06/19/18 14:13	
Chloromethane	5.0 U	5.0	1	06/19/18 14:13	
Cyclohexane	10 U	10	1	06/19/18 14:13	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 14:13	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 14:13	
Dichloromethane	5.0 U	5.0	1	06/19/18 14:13	
Ethylbenzene	5.0 U	5.0	1	06/19/18 14:13	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 14:13	
Methyl Acetate	10 U	10	1	06/19/18 14:13	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 14:13	
Methylcyclohexane	10 U	10	1	06/19/18 14:13	
Styrene	5.0 U	5.0	1	06/19/18 14:13	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 14:13	
Toluene	5.0 U	5.0	1	06/19/18 14:13	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 14:13	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 14:13	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 14:13	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-20S
Lab Code: R1805583-002

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 14:13	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 14:13	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:13	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 14:13	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/19/18 14:13	
Dibromofluoromethane	97	89 - 119	06/19/18 14:13	
Toluene-d8	101	87 - 121	06/19/18 14:13	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-17S
Lab Code: R1805583-004

Service Request: R1805583
Date Collected: 06/14/18 07:30
Date Received: 06/14/18 12:55
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 14:34	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 14:34	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 14:34	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 14:34	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 14:34	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 14:34	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 14:34	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 14:34	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 14:34	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:34	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 14:34	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 14:34	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:34	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:34	
2-Butanone (MEK)	10 U	10	1	06/19/18 14:34	
2-Hexanone	10 U	10	1	06/19/18 14:34	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 14:34	
Acetone	10 U	10	1	06/19/18 14:34	
Benzene	5.0 U	5.0	1	06/19/18 14:34	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 14:34	
Bromoform	5.0 U	5.0	1	06/19/18 14:34	
Bromomethane	5.0 U	5.0	1	06/19/18 14:34	
Carbon Disulfide	10 U	10	1	06/19/18 14:34	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 14:34	
Chlorobenzene	5.0 U	5.0	1	06/19/18 14:34	
Chloroethane	5.0 U	5.0	1	06/19/18 14:34	
Chloroform	5.0 U	5.0	1	06/19/18 14:34	
Chloromethane	5.0 U	5.0	1	06/19/18 14:34	
Cyclohexane	10 U	10	1	06/19/18 14:34	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 14:34	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 14:34	
Dichloromethane	5.0 U	5.0	1	06/19/18 14:34	
Ethylbenzene	5.0 U	5.0	1	06/19/18 14:34	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 14:34	
Methyl Acetate	10 U	10	1	06/19/18 14:34	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 14:34	
Methylcyclohexane	10 U	10	1	06/19/18 14:34	
Styrene	5.0 U	5.0	1	06/19/18 14:34	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 14:34	
Toluene	5.0 U	5.0	1	06/19/18 14:34	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 14:34	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 14:34	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 14:34	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-17S
Lab Code: R1805583-004

Service Request: R1805583
Date Collected: 06/14/18 07:30
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 14:34	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 14:34	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:34	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 14:34	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 14:34	
Dibromofluoromethane	96	89 - 119	06/19/18 14:34	
Toluene-d8	101	87 - 121	06/19/18 14:34	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-18
Lab Code: R1805583-005

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 14:56	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 14:56	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 14:56	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 14:56	
1,1-Dichloroethane (1,1-DCA)	5.9	5.0	1	06/19/18 14:56	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 14:56	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 14:56	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 14:56	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 14:56	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:56	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 14:56	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 14:56	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:56	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 14:56	
2-Butanone (MEK)	10 U	10	1	06/19/18 14:56	
2-Hexanone	10 U	10	1	06/19/18 14:56	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 14:56	
Acetone	10 U	10	1	06/19/18 14:56	
Benzene	5.0 U	5.0	1	06/19/18 14:56	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 14:56	
Bromoform	5.0 U	5.0	1	06/19/18 14:56	
Bromomethane	5.0 U	5.0	1	06/19/18 14:56	
Carbon Disulfide	10 U	10	1	06/19/18 14:56	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 14:56	
Chlorobenzene	5.0 U	5.0	1	06/19/18 14:56	
Chloroethane	5.0 U	5.0	1	06/19/18 14:56	
Chloroform	5.0 U	5.0	1	06/19/18 14:56	
Chloromethane	5.0 U	5.0	1	06/19/18 14:56	
Cyclohexane	10 U	10	1	06/19/18 14:56	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 14:56	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 14:56	
Dichloromethane	5.0 U	5.0	1	06/19/18 14:56	
Ethylbenzene	5.0 U	5.0	1	06/19/18 14:56	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 14:56	
Methyl Acetate	10 U	10	1	06/19/18 14:56	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 14:56	
Methylcyclohexane	10 U	10	1	06/19/18 14:56	
Styrene	5.0 U	5.0	1	06/19/18 14:56	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 14:56	
Toluene	5.0 U	5.0	1	06/19/18 14:56	
Trichloroethene (TCE)	9.3	5.0	1	06/19/18 14:56	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 14:56	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 14:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-18
Lab Code: R1805583-005

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 14:56	
cis-1,2-Dichloroethene	6.7	5.0	1	06/19/18 14:56	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:56	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 14:56	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 14:56	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/19/18 14:56	
Dibromofluoromethane	101	89 - 119	06/19/18 14:56	
Toluene-d8	105	87 - 121	06/19/18 14:56	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-16S
Lab Code: R1805583-007

Service Request: R1805583
Date Collected: 06/14/18 08:00
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 15:18	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 15:18	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 15:18	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 15:18	
1,1-Dichloroethane (1,1-DCA)	8.8	5.0	1	06/19/18 15:18	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 15:18	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 15:18	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 15:18	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 15:18	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:18	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 15:18	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 15:18	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:18	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:18	
2-Butanone (MEK)	10 U	10	1	06/19/18 15:18	
2-Hexanone	10 U	10	1	06/19/18 15:18	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 15:18	
Acetone	10 U	10	1	06/19/18 15:18	
Benzene	5.0 U	5.0	1	06/19/18 15:18	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 15:18	
Bromoform	5.0 U	5.0	1	06/19/18 15:18	
Bromomethane	5.0 U	5.0	1	06/19/18 15:18	
Carbon Disulfide	10 U	10	1	06/19/18 15:18	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 15:18	
Chlorobenzene	24	5.0	1	06/19/18 15:18	
Chloroethane	5.0 U	5.0	1	06/19/18 15:18	
Chloroform	5.0 U	5.0	1	06/19/18 15:18	
Chloromethane	5.0 U	5.0	1	06/19/18 15:18	
Cyclohexane	10 U	10	1	06/19/18 15:18	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 15:18	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 15:18	
Dichloromethane	5.0 U	5.0	1	06/19/18 15:18	
Ethylbenzene	5.0 U	5.0	1	06/19/18 15:18	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 15:18	
Methyl Acetate	10 U	10	1	06/19/18 15:18	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 15:18	
Methylcyclohexane	10 U	10	1	06/19/18 15:18	
Styrene	5.0 U	5.0	1	06/19/18 15:18	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 15:18	
Toluene	5.0 U	5.0	1	06/19/18 15:18	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 15:18	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 15:18	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 15:18	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-16S
Lab Code: R1805583-007

Service Request: R1805583
Date Collected: 06/14/18 08:00
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 15:18	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 15:18	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 15:18	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 15:18	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 15:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/19/18 15:18	
Dibromofluoromethane	99	89 - 119	06/19/18 15:18	
Toluene-d8	104	87 - 121	06/19/18 15:18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-5
Lab Code: R1805583-008

Service Request: R1805583
Date Collected: 06/14/18 08:15
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 15:40	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 15:40	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 15:40	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 15:40	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 15:40	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 15:40	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 15:40	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 15:40	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 15:40	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:40	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 15:40	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 15:40	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:40	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 15:40	
2-Butanone (MEK)	10 U	10	1	06/19/18 15:40	
2-Hexanone	10 U	10	1	06/19/18 15:40	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 15:40	
Acetone	10 U	10	1	06/19/18 15:40	
Benzene	5.0 U	5.0	1	06/19/18 15:40	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 15:40	
Bromoform	5.0 U	5.0	1	06/19/18 15:40	
Bromomethane	5.0 U	5.0	1	06/19/18 15:40	
Carbon Disulfide	10 U	10	1	06/19/18 15:40	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 15:40	
Chlorobenzene	5.0 U	5.0	1	06/19/18 15:40	
Chloroethane	5.0 U	5.0	1	06/19/18 15:40	
Chloroform	5.0 U	5.0	1	06/19/18 15:40	
Chloromethane	5.0 U	5.0	1	06/19/18 15:40	
Cyclohexane	10 U	10	1	06/19/18 15:40	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 15:40	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 15:40	
Dichloromethane	5.0 U	5.0	1	06/19/18 15:40	
Ethylbenzene	5.0 U	5.0	1	06/19/18 15:40	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 15:40	
Methyl Acetate	10 U	10	1	06/19/18 15:40	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 15:40	
Methylcyclohexane	10 U	10	1	06/19/18 15:40	
Styrene	5.0 U	5.0	1	06/19/18 15:40	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 15:40	
Toluene	5.0 U	5.0	1	06/19/18 15:40	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 15:40	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 15:40	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 15:40	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-5
Lab Code: R1805583-008

Service Request: R1805583
Date Collected: 06/14/18 08:15
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 15:40	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 15:40	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 15:40	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 15:40	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 15:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/19/18 15:40	
Dibromofluoromethane	96	89 - 119	06/19/18 15:40	
Toluene-d8	103	87 - 121	06/19/18 15:40	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18 08:25
Date Received: 06/14/18 12:55

Sample Name: GMPW-4
Lab Code: R1805583-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 13:29	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 13:29	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 13:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 13:29	
1,1-Dichloroethane (1,1-DCA)	23	5.0	1	06/19/18 13:29	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 13:29	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 13:29	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 13:29	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 13:29	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:29	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 13:29	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 13:29	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:29	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:29	
2-Butanone (MEK)	10 U	10	1	06/19/18 13:29	
2-Hexanone	10 U	10	1	06/19/18 13:29	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 13:29	
Acetone	10 U	10	1	06/19/18 13:29	
Benzene	5.0 U	5.0	1	06/19/18 13:29	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 13:29	
Bromoform	5.0 U	5.0	1	06/19/18 13:29	
Bromomethane	5.0 U	5.0	1	06/19/18 13:29	
Carbon Disulfide	10 U	10	1	06/19/18 13:29	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 13:29	
Chlorobenzene	11	5.0	1	06/19/18 13:29	
Chloroethane	13	5.0	1	06/19/18 13:29	
Chloroform	5.0 U	5.0	1	06/19/18 13:29	
Chloromethane	5.0 U	5.0	1	06/19/18 13:29	
Cyclohexane	10 U	10	1	06/19/18 13:29	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 13:29	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 13:29	
Dichloromethane	5.0 U	5.0	1	06/19/18 13:29	
Ethylbenzene	5.0 U	5.0	1	06/19/18 13:29	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 13:29	
Methyl Acetate	10 U	10	1	06/19/18 13:29	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 13:29	
Methylcyclohexane	10 U	10	1	06/19/18 13:29	
Styrene	5.0 U	5.0	1	06/19/18 13:29	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 13:29	
Toluene	5.0 U	5.0	1	06/19/18 13:29	
Trichloroethene (TCE)	25	5.0	1	06/19/18 13:29	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 13:29	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 13:29	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMPW-4
Lab Code: R1805583-009

Service Request: R1805583
Date Collected: 06/14/18 08:25
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 13:29	
cis-1,2-Dichloroethene	11	5.0	1	06/19/18 13:29	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 13:29	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 13:29	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 13:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/19/18 13:29	
Dibromofluoromethane	101	89 - 119	06/19/18 13:29	
Toluene-d8	103	87 - 121	06/19/18 13:29	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55

Sample Name: GMMW-2
Lab Code: R1805583-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 16:02	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 16:02	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 16:02	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 16:02	
1,1-Dichloroethane (1,1-DCA)	26	5.0	1	06/19/18 16:02	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 16:02	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 16:02	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 16:02	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 16:02	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:02	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 16:02	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 16:02	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:02	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:02	
2-Butanone (MEK)	10 U	10	1	06/19/18 16:02	
2-Hexanone	10 U	10	1	06/19/18 16:02	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 16:02	
Acetone	10 U	10	1	06/19/18 16:02	
Benzene	5.0 U	5.0	1	06/19/18 16:02	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 16:02	
Bromoform	5.0 U	5.0	1	06/19/18 16:02	
Bromomethane	5.0 U	5.0	1	06/19/18 16:02	
Carbon Disulfide	10 U	10	1	06/19/18 16:02	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 16:02	
Chlorobenzene	18	5.0	1	06/19/18 16:02	
Chloroethane	9.5	5.0	1	06/19/18 16:02	
Chloroform	5.0 U	5.0	1	06/19/18 16:02	
Chloromethane	5.0 U	5.0	1	06/19/18 16:02	
Cyclohexane	10 U	10	1	06/19/18 16:02	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 16:02	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 16:02	
Dichloromethane	5.0 U	5.0	1	06/19/18 16:02	
Ethylbenzene	5.0 U	5.0	1	06/19/18 16:02	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 16:02	
Methyl Acetate	10 U	10	1	06/19/18 16:02	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 16:02	
Methylcyclohexane	10 U	10	1	06/19/18 16:02	
Styrene	5.0 U	5.0	1	06/19/18 16:02	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 16:02	
Toluene	5.0 U	5.0	1	06/19/18 16:02	
Trichloroethene (TCE)	10	5.0	1	06/19/18 16:02	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 16:02	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 16:02	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-2
Lab Code: R1805583-010

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 16:02	
cis-1,2-Dichloroethene	6.3	5.0	1	06/19/18 16:02	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:02	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 16:02	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:02	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/19/18 16:02	
Dibromofluoromethane	98	89 - 119	06/19/18 16:02	
Toluene-d8	102	87 - 121	06/19/18 16:02	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-6
Lab Code: R1805583-012

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	10	2	06/19/18 13:51	
1,1,2,2-Tetrachloroethane	10 U	10	2	06/19/18 13:51	
1,1,2-Trichloroethane	10 U	10	2	06/19/18 13:51	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	10	2	06/19/18 13:51	
1,1-Dichloroethane (1,1-DCA)	10 U	10	2	06/19/18 13:51	
1,1-Dichloroethene (1,1-DCE)	10 U	10	2	06/19/18 13:51	
1,2,4-Trichlorobenzene	10 U	10	2	06/19/18 13:51	
1,2-Dibromo-3-chloropropane (DBCP)	10 U	10	2	06/19/18 13:51	
1,2-Dibromoethane	10 U	10	2	06/19/18 13:51	
1,2-Dichlorobenzene	10 U	10	2	06/19/18 13:51	
1,2-Dichloroethane	10 U	10	2	06/19/18 13:51	
1,2-Dichloropropane	10 U	10	2	06/19/18 13:51	
1,3-Dichlorobenzene	10 U	10	2	06/19/18 13:51	
1,4-Dichlorobenzene	10 U	10	2	06/19/18 13:51	
2-Butanone (MEK)	20 U	20	2	06/19/18 13:51	
2-Hexanone	20 U	20	2	06/19/18 13:51	
4-Methyl-2-pentanone	20 U	20	2	06/19/18 13:51	
Acetone	20 U	20	2	06/19/18 13:51	
Benzene	10 U	10	2	06/19/18 13:51	
Bromodichloromethane	10 U	10	2	06/19/18 13:51	
Bromoform	10 U	10	2	06/19/18 13:51	
Bromomethane	10 U	10	2	06/19/18 13:51	
Carbon Disulfide	20 U	20	2	06/19/18 13:51	
Carbon Tetrachloride	10 U	10	2	06/19/18 13:51	
Chlorobenzene	19	10	2	06/19/18 13:51	
Chloroethane	190	10	2	06/19/18 13:51	
Chloroform	10 U	10	2	06/19/18 13:51	
Chloromethane	10 U	10	2	06/19/18 13:51	
Cyclohexane	20 U	20	2	06/19/18 13:51	
Dibromochloromethane	10 U	10	2	06/19/18 13:51	
Dichlorodifluoromethane (CFC 12)	10 U	10	2	06/19/18 13:51	
Dichloromethane	10 U	10	2	06/19/18 13:51	
Ethylbenzene	10 U	10	2	06/19/18 13:51	
Isopropylbenzene (Cumene)	10 U	10	2	06/19/18 13:51	
Methyl Acetate	20 U	20	2	06/19/18 13:51	
Methyl tert-Butyl Ether	10 U	10	2	06/19/18 13:51	
Methylcyclohexane	20 U	20	2	06/19/18 13:51	
Styrene	10 U	10	2	06/19/18 13:51	
Tetrachloroethene (PCE)	10 U	10	2	06/19/18 13:51	
Toluene	10 U	10	2	06/19/18 13:51	
Trichloroethene (TCE)	10 U	10	2	06/19/18 13:51	
Trichlorofluoromethane (CFC 11)	10 U	10	2	06/19/18 13:51	
Vinyl Chloride	10 U	10	2	06/19/18 13:51	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-6
Lab Code: R1805583-012

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	10 U	10	2	06/19/18 13:51	
cis-1,2-Dichloroethene	10 U	10	2	06/19/18 13:51	
cis-1,3-Dichloropropene	10 U	10	2	06/19/18 13:51	
trans-1,2-Dichloroethene	10 U	10	2	06/19/18 13:51	
trans-1,3-Dichloropropene	10 U	10	2	06/19/18 13:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 13:51	
Dibromofluoromethane	98	89 - 119	06/19/18 13:51	
Toluene-d8	103	87 - 121	06/19/18 13:51	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-5
Lab Code: R1805583-014

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 16:23	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 16:23	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 16:23	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 16:23	
1,1-Dichloroethane (1,1-DCA)	11	5.0	1	06/19/18 16:23	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 16:23	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 16:23	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 16:23	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 16:23	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:23	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 16:23	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 16:23	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:23	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:23	
2-Butanone (MEK)	10 U	10	1	06/19/18 16:23	
2-Hexanone	10 U	10	1	06/19/18 16:23	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 16:23	
Acetone	10 U	10	1	06/19/18 16:23	
Benzene	5.0 U	5.0	1	06/19/18 16:23	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 16:23	
Bromoform	5.0 U	5.0	1	06/19/18 16:23	
Bromomethane	5.0 U	5.0	1	06/19/18 16:23	
Carbon Disulfide	10 U	10	1	06/19/18 16:23	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 16:23	
Chlorobenzene	8.1	5.0	1	06/19/18 16:23	
Chloroethane	60	5.0	1	06/19/18 16:23	
Chloroform	5.0 U	5.0	1	06/19/18 16:23	
Chloromethane	5.0 U	5.0	1	06/19/18 16:23	
Cyclohexane	10 U	10	1	06/19/18 16:23	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 16:23	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 16:23	
Dichloromethane	5.0 U	5.0	1	06/19/18 16:23	
Ethylbenzene	5.0 U	5.0	1	06/19/18 16:23	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 16:23	
Methyl Acetate	10 U	10	1	06/19/18 16:23	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 16:23	
Methylcyclohexane	10 U	10	1	06/19/18 16:23	
Styrene	5.0 U	5.0	1	06/19/18 16:23	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 16:23	
Toluene	5.0 U	5.0	1	06/19/18 16:23	
Trichloroethene (TCE)	5.6	5.0	1	06/19/18 16:23	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 16:23	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 16:23	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-5
Lab Code: R1805583-014

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 16:23	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 16:23	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:23	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 16:23	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:23	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	06/19/18 16:23	
Dibromofluoromethane	97	89 - 119	06/19/18 16:23	
Toluene-d8	102	87 - 121	06/19/18 16:23	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-3
Lab Code: R1805583-016

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 16:45	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 16:45	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 16:45	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 16:45	
1,1-Dichloroethane (1,1-DCA)	6.7	5.0	1	06/19/18 16:45	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 16:45	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 16:45	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 16:45	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 16:45	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:45	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 16:45	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 16:45	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:45	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 16:45	
2-Butanone (MEK)	10 U	10	1	06/19/18 16:45	
2-Hexanone	10 U	10	1	06/19/18 16:45	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 16:45	
Acetone	10 U	10	1	06/19/18 16:45	
Benzene	5.0 U	5.0	1	06/19/18 16:45	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 16:45	
Bromoform	5.0 U	5.0	1	06/19/18 16:45	
Bromomethane	5.0 U	5.0	1	06/19/18 16:45	
Carbon Disulfide	10 U	10	1	06/19/18 16:45	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 16:45	
Chlorobenzene	5.0 U	5.0	1	06/19/18 16:45	
Chloroethane	5.0 U	5.0	1	06/19/18 16:45	
Chloroform	5.0 U	5.0	1	06/19/18 16:45	
Chloromethane	5.0 U	5.0	1	06/19/18 16:45	
Cyclohexane	10 U	10	1	06/19/18 16:45	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 16:45	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 16:45	
Dichloromethane	5.0 U	5.0	1	06/19/18 16:45	
Ethylbenzene	5.0 U	5.0	1	06/19/18 16:45	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 16:45	
Methyl Acetate	10 U	10	1	06/19/18 16:45	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 16:45	
Methylcyclohexane	10 U	10	1	06/19/18 16:45	
Styrene	5.0 U	5.0	1	06/19/18 16:45	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 16:45	
Toluene	5.0 U	5.0	1	06/19/18 16:45	
Trichloroethene (TCE)	6.3	5.0	1	06/19/18 16:45	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 16:45	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 16:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-3
Lab Code: R1805583-016

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 16:45	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 16:45	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:45	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 16:45	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 16:45	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/19/18 16:45	
Dibromofluoromethane	97	89 - 119	06/19/18 16:45	
Toluene-d8	103	87 - 121	06/19/18 16:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4
Lab Code: R1805583-018

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 17:07	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 17:07	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 17:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 17:07	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 17:07	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 17:07	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 17:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 17:07	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 17:07	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:07	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 17:07	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 17:07	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:07	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:07	
2-Butanone (MEK)	10 U	10	1	06/19/18 17:07	
2-Hexanone	10 U	10	1	06/19/18 17:07	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 17:07	
Acetone	10 U	10	1	06/19/18 17:07	
Benzene	5.0 U	5.0	1	06/19/18 17:07	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 17:07	
Bromoform	5.0 U	5.0	1	06/19/18 17:07	
Bromomethane	5.0 U	5.0	1	06/19/18 17:07	
Carbon Disulfide	10 U	10	1	06/19/18 17:07	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 17:07	
Chlorobenzene	5.0 U	5.0	1	06/19/18 17:07	
Chloroethane	5.0 U	5.0	1	06/19/18 17:07	
Chloroform	5.0 U	5.0	1	06/19/18 17:07	
Chloromethane	5.0 U	5.0	1	06/19/18 17:07	
Cyclohexane	10 U	10	1	06/19/18 17:07	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 17:07	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 17:07	
Dichloromethane	5.0 U	5.0	1	06/19/18 17:07	
Ethylbenzene	5.0 U	5.0	1	06/19/18 17:07	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 17:07	
Methyl Acetate	10 U	10	1	06/19/18 17:07	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 17:07	
Methylcyclohexane	10 U	10	1	06/19/18 17:07	
Styrene	5.0 U	5.0	1	06/19/18 17:07	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 17:07	
Toluene	5.0 U	5.0	1	06/19/18 17:07	
Trichloroethene (TCE)	5.9	5.0	1	06/19/18 17:07	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 17:07	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 17:07	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4
Lab Code: R1805583-018

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 17:07	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 17:07	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:07	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 17:07	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	06/19/18 17:07	
Dibromofluoromethane	94	89 - 119	06/19/18 17:07	
Toluene-d8	98	87 - 121	06/19/18 17:07	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4 DUP
Lab Code: R1805583-020

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 17:29	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 17:29	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 17:29	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 17:29	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 17:29	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 17:29	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 17:29	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 17:29	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 17:29	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:29	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 17:29	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 17:29	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:29	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:29	
2-Butanone (MEK)	10 U	10	1	06/19/18 17:29	
2-Hexanone	10 U	10	1	06/19/18 17:29	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 17:29	
Acetone	10 U	10	1	06/19/18 17:29	
Benzene	5.0 U	5.0	1	06/19/18 17:29	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 17:29	
Bromoform	5.0 U	5.0	1	06/19/18 17:29	
Bromomethane	5.0 U	5.0	1	06/19/18 17:29	
Carbon Disulfide	10 U	10	1	06/19/18 17:29	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 17:29	
Chlorobenzene	5.0 U	5.0	1	06/19/18 17:29	
Chloroethane	5.0 U	5.0	1	06/19/18 17:29	
Chloroform	5.0 U	5.0	1	06/19/18 17:29	
Chloromethane	5.0 U	5.0	1	06/19/18 17:29	
Cyclohexane	10 U	10	1	06/19/18 17:29	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 17:29	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 17:29	
Dichloromethane	5.0 U	5.0	1	06/19/18 17:29	
Ethylbenzene	5.0 U	5.0	1	06/19/18 17:29	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 17:29	
Methyl Acetate	10 U	10	1	06/19/18 17:29	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 17:29	
Methylcyclohexane	10 U	10	1	06/19/18 17:29	
Styrene	5.0 U	5.0	1	06/19/18 17:29	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 17:29	
Toluene	5.0 U	5.0	1	06/19/18 17:29	
Trichloroethene (TCE)	5.9	5.0	1	06/19/18 17:29	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 17:29	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 17:29	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4 DUP
Lab Code: R1805583-020

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 17:29	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 17:29	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:29	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 17:29	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:29	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	06/19/18 17:29	
Dibromofluoromethane	97	89 - 119	06/19/18 17:29	
Toluene-d8	103	87 - 121	06/19/18 17:29	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-7
Lab Code: R1805583-022

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 17:51	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 17:51	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 17:51	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 17:51	
1,1-Dichloroethane (1,1-DCA)	20	5.0	1	06/19/18 17:51	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 17:51	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 17:51	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 17:51	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 17:51	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:51	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 17:51	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 17:51	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:51	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 17:51	
2-Butanone (MEK)	10 U	10	1	06/19/18 17:51	
2-Hexanone	10 U	10	1	06/19/18 17:51	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 17:51	
Acetone	10 U	10	1	06/19/18 17:51	
Benzene	5.0 U	5.0	1	06/19/18 17:51	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 17:51	
Bromoform	5.0 U	5.0	1	06/19/18 17:51	
Bromomethane	5.0 U	5.0	1	06/19/18 17:51	
Carbon Disulfide	10 U	10	1	06/19/18 17:51	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 17:51	
Chlorobenzene	9.6	5.0	1	06/19/18 17:51	
Chloroethane	13	5.0	1	06/19/18 17:51	
Chloroform	5.0 U	5.0	1	06/19/18 17:51	
Chloromethane	5.0 U	5.0	1	06/19/18 17:51	
Cyclohexane	10 U	10	1	06/19/18 17:51	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 17:51	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 17:51	
Dichloromethane	5.0 U	5.0	1	06/19/18 17:51	
Ethylbenzene	5.0 U	5.0	1	06/19/18 17:51	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 17:51	
Methyl Acetate	10 U	10	1	06/19/18 17:51	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 17:51	
Methylcyclohexane	10 U	10	1	06/19/18 17:51	
Styrene	5.0 U	5.0	1	06/19/18 17:51	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 17:51	
Toluene	5.0 U	5.0	1	06/19/18 17:51	
Trichloroethene (TCE)	7.2	5.0	1	06/19/18 17:51	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 17:51	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 17:51	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-7
Lab Code: R1805583-022

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 17:51	
cis-1,2-Dichloroethene	13	5.0	1	06/19/18 17:51	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:51	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 17:51	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 17:51	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 17:51	
Dibromofluoromethane	96	89 - 119	06/19/18 17:51	
Toluene-d8	100	87 - 121	06/19/18 17:51	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-7
Lab Code: R1805583-024

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 18:12	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 18:12	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 18:12	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 18:12	
1,1-Dichloroethane (1,1-DCA)	24	5.0	1	06/19/18 18:12	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 18:12	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 18:12	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 18:12	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 18:12	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:12	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 18:12	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 18:12	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:12	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:12	
2-Butanone (MEK)	10 U	10	1	06/19/18 18:12	
2-Hexanone	10 U	10	1	06/19/18 18:12	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 18:12	
Acetone	10 U	10	1	06/19/18 18:12	
Benzene	5.0 U	5.0	1	06/19/18 18:12	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 18:12	
Bromoform	5.0 U	5.0	1	06/19/18 18:12	
Bromomethane	5.0 U	5.0	1	06/19/18 18:12	
Carbon Disulfide	10 U	10	1	06/19/18 18:12	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 18:12	
Chlorobenzene	5.0 U	5.0	1	06/19/18 18:12	
Chloroethane	8.9	5.0	1	06/19/18 18:12	
Chloroform	5.0 U	5.0	1	06/19/18 18:12	
Chloromethane	5.0 U	5.0	1	06/19/18 18:12	
Cyclohexane	10 U	10	1	06/19/18 18:12	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 18:12	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 18:12	
Dichloromethane	5.0 U	5.0	1	06/19/18 18:12	
Ethylbenzene	5.0 U	5.0	1	06/19/18 18:12	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 18:12	
Methyl Acetate	10 U	10	1	06/19/18 18:12	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 18:12	
Methylcyclohexane	10 U	10	1	06/19/18 18:12	
Styrene	5.0 U	5.0	1	06/19/18 18:12	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 18:12	
Toluene	5.0 U	5.0	1	06/19/18 18:12	
Trichloroethene (TCE)	5.5	5.0	1	06/19/18 18:12	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 18:12	
Vinyl Chloride	5.9	5.0	1	06/19/18 18:12	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-7
Lab Code: R1805583-024

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 18:12	
cis-1,2-Dichloroethene	19	5.0	1	06/19/18 18:12	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 18:12	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 18:12	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 18:12	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	97	85 - 122	06/19/18 18:12	
Dibromofluoromethane	94	89 - 119	06/19/18 18:12	
Toluene-d8	104	87 - 121	06/19/18 18:12	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Equipment Blank
Lab Code: R1805583-026

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 13:07	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 13:07	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 13:07	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 13:07	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 13:07	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 13:07	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 13:07	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 13:07	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 13:07	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:07	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 13:07	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 13:07	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:07	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 13:07	
2-Butanone (MEK)	10 U	10	1	06/19/18 13:07	
2-Hexanone	10 U	10	1	06/19/18 13:07	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 13:07	
Acetone	10 U	10	1	06/19/18 13:07	
Benzene	5.0 U	5.0	1	06/19/18 13:07	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 13:07	
Bromoform	5.0 U	5.0	1	06/19/18 13:07	
Bromomethane	5.0 U	5.0	1	06/19/18 13:07	
Carbon Disulfide	10 U	10	1	06/19/18 13:07	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 13:07	
Chlorobenzene	5.0 U	5.0	1	06/19/18 13:07	
Chloroethane	5.0 U	5.0	1	06/19/18 13:07	
Chloroform	5.0 U	5.0	1	06/19/18 13:07	
Chloromethane	5.0 U	5.0	1	06/19/18 13:07	
Cyclohexane	10 U	10	1	06/19/18 13:07	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 13:07	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 13:07	
Dichloromethane	5.0 U	5.0	1	06/19/18 13:07	
Ethylbenzene	5.0 U	5.0	1	06/19/18 13:07	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 13:07	
Methyl Acetate	10 U	10	1	06/19/18 13:07	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 13:07	
Methylcyclohexane	10 U	10	1	06/19/18 13:07	
Styrene	5.0 U	5.0	1	06/19/18 13:07	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 13:07	
Toluene	5.0 U	5.0	1	06/19/18 13:07	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 13:07	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 13:07	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 13:07	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1805583-026

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55
Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 13:07	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 13:07	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 13:07	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 13:07	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 13:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 13:07	
Dibromofluoromethane	96	89 - 119	06/19/18 13:07	
Toluene-d8	101	87 - 121	06/19/18 13:07	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-7
Lab Code: R1805583-028

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 18:34	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 18:34	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 18:34	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 18:34	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 18:34	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 18:34	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 18:34	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 18:34	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 18:34	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:34	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 18:34	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 18:34	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:34	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 18:34	
2-Butanone (MEK)	10 U	10	1	06/19/18 18:34	
2-Hexanone	10 U	10	1	06/19/18 18:34	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 18:34	
Acetone	10 U	10	1	06/19/18 18:34	
Benzene	5.0 U	5.0	1	06/19/18 18:34	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 18:34	
Bromoform	5.0 U	5.0	1	06/19/18 18:34	
Bromomethane	5.0 U	5.0	1	06/19/18 18:34	
Carbon Disulfide	10 U	10	1	06/19/18 18:34	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 18:34	
Chlorobenzene	5.0 U	5.0	1	06/19/18 18:34	
Chloroethane	5.0 U	5.0	1	06/19/18 18:34	
Chloroform	5.0 U	5.0	1	06/19/18 18:34	
Chloromethane	5.0 U	5.0	1	06/19/18 18:34	
Cyclohexane	10 U	10	1	06/19/18 18:34	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 18:34	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 18:34	
Dichloromethane	5.0 U	5.0	1	06/19/18 18:34	
Ethylbenzene	5.0 U	5.0	1	06/19/18 18:34	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 18:34	
Methyl Acetate	10 U	10	1	06/19/18 18:34	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 18:34	
Methylcyclohexane	10 U	10	1	06/19/18 18:34	
Styrene	5.0 U	5.0	1	06/19/18 18:34	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 18:34	
Toluene	5.0 U	5.0	1	06/19/18 18:34	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 18:34	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 18:34	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 18:34	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-7
Lab Code: R1805583-028

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 18:34	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 18:34	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 18:34	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 18:34	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 18:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	95	85 - 122	06/19/18 18:34	
Dibromofluoromethane	95	89 - 119	06/19/18 18:34	
Toluene-d8	104	87 - 121	06/19/18 18:34	



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-20S
Lab Code: R1805583-002

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	2230	ug/L	100	1	06/22/18 19:24	06/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-20S Diss
Lab Code: R1805583-003

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 19:27	06/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-18
Lab Code: R1805583-005

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	1700	ug/L	100	1	06/22/18 19:30	06/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-18 Diss
Lab Code: R1805583-006

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 19:47	06/19/18	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-2
Lab Code: R1805583-010

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	190	ug/L	100	1	06/22/18 20:10	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-2 Diss
Lab Code: R1805583-011

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 20:13	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1805583-012

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	14300	ug/L	100	1	06/22/18 20:17	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-6 Diss
Lab Code: R1805583-013

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	12600	ug/L	100	1	06/22/18 20:20	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-5
Lab Code: R1805583-014

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	18400	ug/L	100	1	06/22/18 20:23	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-5 Diss
Lab Code: R1805583-015

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	16200	ug/L	100	1	06/22/18 20:27	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-3
Lab Code: R1805583-016

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	5470	ug/L	100	1	06/22/18 20:37	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-3 Diss
Lab Code: R1805583-017

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 20:40	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4
Lab Code: R1805583-018

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	950	ug/L	100	1	06/22/18 20:43	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4 Diss
Lab Code: R1805583-019

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 20:47	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4 DUP
Lab Code: R1805583-020

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	34800	ug/L	100	1	06/22/18 20:50	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4 DUP Diss
Lab Code: R1805583-021

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 20:53	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-7
Lab Code: R1805583-022

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	11900	ug/L	100	1	06/22/18 20:57	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-7 Diss
Lab Code: R1805583-023

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	2250	ug/L	100	1	06/22/18 21:00	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-7
Lab Code: R1805583-024

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	100 U	ug/L	100	1	06/22/18 21:03	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-7 Diss
Lab Code: R1805583-025

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 21:07	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1805583-026

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	100 U	ug/L	100	1	06/22/18 22:03	06/19/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Equipment Blank Diss
Lab Code: R1805583-027

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 22:06	06/19/18	



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-20S
Lab Code: R1805583-002

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.2	mg/L	1.0	1	06/22/18 04:49	
Nitrate as Nitrogen	300.0	1.0	mg/L	1.0	10	06/14/18 15:49	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 15:49	
Sulfate	300.0	10.0	mg/L	2.0	10	06/14/18 15:49	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-18
Lab Code: R1805583-005

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5	mg/L	1.0	1	06/25/18 18:51	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 15:55	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 15:55	
Sulfate	300.0	8.2	mg/L	2.0	10	06/14/18 15:55	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-2
Lab Code: R1805583-010

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.7	mg/L	1.0	1	06/22/18 05:10	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:24	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:24	
Sulfate	300.0	14.4	mg/L	2.0	10	06/14/18 16:24	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1805583-012

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	5.9	mg/L	1.0	1	06/22/18 05:31	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:30	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:30	
Sulfate	300.0	2.0 U	mg/L	2.0	10	06/14/18 16:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-5
Lab Code: R1805583-014

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.7	mg/L	1.0	1	06/22/18 05:52	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:36	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:36	
Sulfate	300.0	9.1	mg/L	2.0	10	06/14/18 16:36	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-3
Lab Code: R1805583-016

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.7	mg/L	1.0	1	06/22/18 06:55	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:42	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:42	
Sulfate	300.0	9.6	mg/L	2.0	10	06/14/18 16:42	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4
Lab Code: R1805583-018

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.9	mg/L	1.0	1	06/22/18 20:46	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:48	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:48	
Sulfate	300.0	25.2	mg/L	2.0	10	06/14/18 16:48	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-4 DUP
Lab Code: R1805583-020

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.8	mg/L	1.0	1	06/22/18 21:07	
Nitrate as Nitrogen	300.0	1.1	mg/L	1.0	10	06/14/18 16:53	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:53	
Sulfate	300.0	16.2	mg/L	2.0	10	06/14/18 16:53	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-7
Lab Code: R1805583-022

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.5	mg/L	1.0	1	06/22/18 21:28	
Nitrate as Nitrogen	300.0	1.7	mg/L	1.0	10	06/14/18 16:59	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 16:59	
Sulfate	300.0	8.7	mg/L	2.0	10	06/14/18 16:59	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-7
Lab Code: R1805583-024

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	06/22/18 22:30	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 17:05	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 17:05	
Sulfate	300.0	12.8	mg/L	2.0	10	06/14/18 17:05	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Equipment Blank
Lab Code: R1805583-026

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	06/22/18 22:51	
Nitrate as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 17:11	
Nitrite as Nitrogen	300.0	1.0 U	mg/L	1.0	10	06/14/18 17:11	
Sulfate	300.0	2.0 U	mg/L	2.0	10	06/14/18 17:11	



Field Data

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-20S
Lab Code: R1805583-002

Service Request: R1805583
Date Collected: 06/14/18 07:10
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	132	uMHOS/cm	-	1	06/14/18 07:10	
pH, Field	SM 4500-H+ B	7.00	pH Units	-	1	06/14/18 07:10	
Redox Potential, Field	ASTM D1498-00	152	mV	-	1	06/14/18 07:10	
Temperature, Field	SM 2550 B	11.9	deg C	-	1	06/14/18 07:10	
Turbidity, Field	180.1	10.9	NTU	-	1	06/14/18 07:10	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-17S
Lab Code: R1805583-004

Service Request: R1805583
Date Collected: 06/14/18 07:30
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	139	uMHOS/cm	-	1	06/14/18 07:30	
pH, Field	SM 4500-H+ B	7.25	pH Units	-	1	06/14/18 07:30	
Redox Potential, Field	ASTM D1498-00	167	mV	-	1	06/14/18 07:30	
Temperature, Field	SM 2550 B	11.8	deg C	-	1	06/14/18 07:30	
Turbidity, Field	180.1	3.6	NTU	-	1	06/14/18 07:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-18
Lab Code: R1805583-005

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	319	uMHOS/cm	-	1	06/14/18 07:45	
pH, Field	SM 4500-H+ B	6.38	pH Units	-	1	06/14/18 07:45	
Redox Potential, Field	ASTM D1498-00	192	mV	-	1	06/14/18 07:45	
Temperature, Field	SM 2550 B	12.8	deg C	-	1	06/14/18 07:45	
Turbidity, Field	180.1	5.6	NTU	-	1	06/14/18 07:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: W-16S
Lab Code: R1805583-007

Service Request: R1805583
Date Collected: 06/14/18 08:00
Date Received: 06/14/18 12:55
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	406	uMHOS/cm	-	1	06/14/18 08:00	
pH, Field	SM 4500-H+ B	6.25	pH Units	-	1	06/14/18 08:00	
Redox Potential, Field	ASTM D1498-00	101	mV	-	1	06/14/18 08:00	
Temperature, Field	SM 2550 B	12.6	deg C	-	1	06/14/18 08:00	
Turbidity, Field	180.1	3.1	NTU	-	1	06/14/18 08:00	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: PW-5
Lab Code: R1805583-008

Service Request: R1805583
Date Collected: 06/14/18 08:15
Date Received: 06/14/18 12:55
Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	280	uMHOS/cm	-	1	06/14/18 08:15	
pH, Field	SM 4500-H+ B	7.11	pH Units	-	1	06/14/18 08:15	
Redox Potential, Field	ASTM D1498-00	54	mV	-	1	06/14/18 08:15	
Temperature, Field	SM 2550 B	14.6	deg C	-	1	06/14/18 08:15	
Turbidity, Field	180.1	36.8	NTU	-	1	06/14/18 08:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMPW-4
Lab Code: R1805583-009

Service Request: R1805583
Date Collected: 06/14/18 08:25
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	686	uMHOS/cm	-	1	06/14/18 08:25	
pH, Field	SM 4500-H+ B	6.50	pH Units	-	1	06/14/18 08:25	
Redox Potential, Field	ASTM D1498-00	112	mV	-	1	06/14/18 08:25	
Temperature, Field	SM 2550 B	11.5	deg C	-	1	06/14/18 08:25	
Turbidity, Field	180.1	3.0	NTU	-	1	06/14/18 08:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: GMMW-2
Lab Code: R1805583-010

Service Request: R1805583
Date Collected: 06/14/18 08:40
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	485	uMHOS/cm	-	1	06/14/18 08:40	
pH, Field	SM 4500-H+ B	6.33	pH Units	-	1	06/14/18 08:40	
Redox Potential, Field	ASTM D1498-00	108	mV	-	1	06/14/18 08:40	
Temperature, Field	SM 2550 B	10.9	deg C	-	1	06/14/18 08:40	
Turbidity, Field	180.1	2.5	NTU	-	1	06/14/18 08:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-6
Lab Code: R1805583-012

Service Request: R1805583
Date Collected: 06/14/18 08:55
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	859	uMHOS/cm	-	1	06/14/18 08:55	
pH, Field	SM 4500-H+ B	6.53	pH Units	-	1	06/14/18 08:55	
Redox Potential, Field	ASTM D1498-00	-54	mV	-	1	06/14/18 08:55	
Temperature, Field	SM 2550 B	12.0	deg C	-	1	06/14/18 08:55	
Turbidity, Field	180.1	11.0	NTU	-	1	06/14/18 08:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-5
Lab Code: R1805583-014

Service Request: R1805583
Date Collected: 06/14/18 09:10
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	401	uMHOS/cm	-	1	06/14/18 09:10	
pH, Field	SM 4500-H+ B	6.73	pH Units	-	1	06/14/18 09:10	
Redox Potential, Field	ASTM D1498-00	-60	mV	-	1	06/14/18 09:10	
Temperature, Field	SM 2550 B	11.6	deg C	-	1	06/14/18 09:10	
Turbidity, Field	180.1	14.3	NTU	-	1	06/14/18 09:10	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-3
Lab Code: R1805583-016

Service Request: R1805583
Date Collected: 06/14/18 07:05
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	419	uMHOS/cm	-	1	06/14/18 07:05	
pH, Field	SM 4500-H+ B	6.47	pH Units	-	1	06/14/18 07:05	
Redox Potential, Field	ASTM D1498-00	141	mV	-	1	06/14/18 07:05	
Temperature, Field	SM 2550 B	11.6	deg C	-	1	06/14/18 07:05	
Turbidity, Field	180.1	24.0	NTU	-	1	06/14/18 07:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4
Lab Code: R1805583-018

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	385	uMHOS/cm	-	1	06/14/18 07:25	
pH, Field	SM 4500-H+ B	6.40	pH Units	-	1	06/14/18 07:25	
Redox Potential, Field	ASTM D1498-00	178	mV	-	1	06/14/18 07:25	
Temperature, Field	SM 2550 B	11.5	deg C	-	1	06/14/18 07:25	
Turbidity, Field	180.1	3.9	NTU	-	1	06/14/18 07:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-4 DUP
Lab Code: R1805583-020

Service Request: R1805583
Date Collected: 06/14/18 07:25
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	389	uMHOS/cm	-	1	06/14/18 07:25	
pH, Field	SM 4500-H+ B	6.37	pH Units	-	1	06/14/18 07:25	
Redox Potential, Field	ASTM D1498-00	183	mV	-	1	06/14/18 07:25	
Temperature, Field	SM 2550 B	11.5	deg C	-	1	06/14/18 07:25	
Turbidity, Field	180.1	4.3	NTU	-	1	06/14/18 07:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: PW-7
Lab Code: R1805583-022

Service Request: R1805583
Date Collected: 06/14/18 08:10
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	171	uMHOS/cm	-	1	06/14/18 08:10	
pH, Field	SM 4500-H+ B	6.48	pH Units	-	1	06/14/18 08:10	
Redox Potential, Field	ASTM D1498-00	62	mV	-	1	06/14/18 08:10	
Temperature, Field	SM 2550 B	13.0	deg C	-	1	06/14/18 08:10	
Turbidity, Field	180.1	29.2	NTU	-	1	06/14/18 08:10	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: GMMW-7
Lab Code: R1805583-024

Service Request: R1805583
Date Collected: 06/14/18 08:30
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	236	uMHOS/cm	-	1	06/14/18 08:30	
pH, Field	SM 4500-H+ B	6.57	pH Units	-	1	06/14/18 08:30	
Redox Potential, Field	ASTM D1498-00	133	mV	-	1	06/14/18 08:30	
Temperature, Field	SM 2550 B	15.1	deg C	-	1	06/14/18 08:30	
Turbidity, Field	180.1	9.3	NTU	-	1	06/14/18 08:30	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Equipment Blank
Lab Code: R1805583-026

Service Request: R1805583
Date Collected: 06/14/18 09:15
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	10.6	uMHOS/cm	-	1	06/14/18 09:15	
pH, Field	SM 4500-H+ B	7.48	pH Units	-	1	06/14/18 09:15	
Redox Potential, Field	ASTM D1498-00	170	mV	-	1	06/14/18 09:15	
Temperature, Field	SM 2550 B	21.1	deg C	-	1	06/14/18 09:15	
Turbidity, Field	180.1	1.5	NTU	-	1	06/14/18 09:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: W-7
Lab Code: R1805583-028

Service Request: R1805583
Date Collected: 06/14/18 07:45
Date Received: 06/14/18 12:55

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	410	uMHOS/cm	-	1	06/14/18 07:45	
pH, Field	SM 4500-H+ B	6.66	pH Units	-	1	06/14/18 07:45	
Redox Potential, Field	ASTM D1498-00	-35	mV	-	1	06/14/18 07:45	
Temperature, Field	SM 2550 B	10.1	deg C	-	1	06/14/18 07:45	
Turbidity, Field	180.1	8.5	NTU	-	1	06/14/18 07:45	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
Trip Blank	R1805583-001	94	96	103
W-20S	R1805583-002	95	97	101
W-17S	R1805583-004	94	96	101
W-18	R1805583-005	92	101	105
W-16S	R1805583-007	95	99	104
PW-5	R1805583-008	93	96	103
GMPW-4	R1805583-009	93	101	103
GMMW-2	R1805583-010	93	98	102
GMMW-6	R1805583-012	94	98	103
GMMW-5	R1805583-014	92	97	102
PW-3	R1805583-016	95	97	103
PW-4	R1805583-018	89	94	98
PW-4 DUP	R1805583-020	93	97	103
PW-7	R1805583-022	94	96	100
GMMW-7	R1805583-024	97	94	104
Equipment Blank	R1805583-026	94	96	101
W-7	R1805583-028	95	95	104
Method Blank	RQ1805981-04	94	95	101
Lab Control Sample	RQ1805981-03	97	104	104
W-18 MS	RQ1805981-05	99	101	101
W-18 DMS	RQ1805981-06	99	102	104

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18
Date Received: 06/14/18
Date Analyzed: 06/19/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: W-18
Lab Code: R1805583-005
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1805981-05			Duplicate Matrix Spike RQ1805981-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane (TCA)	5.0 U	55.7	50.0	111	57.4	50.0	115	74-127	3	30
1,1,2,2-Tetrachloroethane	5.0 U	44.4	50.0	89	46.2	50.0	92	72-122	4	30
1,1,2-Trichloroethane	5.0 U	47.5	50.0	95	51.5	50.0	103	82-121	8	30
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	54.7	50.0	109	57.5	50.0	115	50-147	5	30
1,1-Dichloroethane (1,1-DCA)	5.9	54.4	50.0	97	56.3	50.0	101	74-132	3	30
1,1-Dichloroethene (1,1-DCE)	5.0 U	50.3	50.0	101	52.9	50.0	106	71-118	5	30
1,2,4-Trichlorobenzene	5.0 U	45.9	50.0	92	46.3	50.0	93	69-122	<1	30
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	37.6	50.0	75	42.6	50.0	85	37-150	13	30
1,2-Dibromoethane	5.0 U	47.2	50.0	94	50.3	50.0	101	67-127	6	30
1,2-Dichlorobenzene	5.0 U	46.8	50.0	94	48.7	50.0	97	77-120	4	30
1,2-Dichloroethane	5.0 U	50.8	50.0	102	52.2	50.0	104	68-130	3	30
1,2-Dichloropropane	5.0 U	48.4	50.0	97	49.7	50.0	99	79-124	3	30
1,3-Dichlorobenzene	5.0 U	47.1	50.0	94	47.4	50.0	95	83-121	<1	30
1,4-Dichlorobenzene	5.0 U	46.3	50.0	93	47.0	50.0	94	82-120	2	30
2-Butanone (MEK)	10 U	41.9	50.0	84	43.3	50.0	87	61-137	3	30
2-Hexanone	10 U	43.5	50.0	87	44.5	50.0	89	56-132	2	30
4-Methyl-2-pentanone	10 U	45.6	50.0	91	47.6	50.0	95	60-141	4	30
Acetone	10 U	43.2	50.0	86	43.8	50.0	88	35-183	1	30
Benzene	5.0 U	48.7	50.0	97	51.3	50.0	103	76-129	5	30
Bromodichloromethane	5.0 U	45.4	50.0	91	49.6	50.0	99	78-133	9	30
Bromoform	5.0 U	40.8	50.0	82	43.6	50.0	87	58-133	7	30
Bromomethane	5.0 U	80.8	50.0	162	78.6	50.0	157	10-184	3	30
Carbon Disulfide	10 U	45.2	50.0	90	46.1	50.0	92	59-140	2	30
Carbon Tetrachloride	5.0 U	48.6	50.0	97	54.1	50.0	108	65-135	11	30
Chlorobenzene	5.0 U	47.3	50.0	95	49.1	50.0	98	76-125	4	30
Chloroethane	5.0 U	50.2	50.0	100	50.7	50.0	101	48-146	<1	30
Chloroform	5.0 U	50.4	50.0	101	52.5	50.0	105	75-130	4	30
Chloromethane	5.0 U	45.9	50.0	92	50.6	50.0	101	55-160	10	30
Cyclohexane	10 U	47.9	50.0	96	51.2	50.0	102	52-145	7	30
Dibromochloromethane	5.0 U	46.0	50.0	92	49.9	50.0	100	72-128	8	30
Dichlorodifluoromethane (CFC 12)	5.0 U	60.5	50.0	121	64.1	50.0	128	49-154	6	30
Dichloromethane	5.0 U	44.8	50.0	90	47.1	50.0	94	73-122	5	30
Ethylbenzene	5.0 U	51.0	50.0	102	52.5	50.0	105	72-134	3	30
Isopropylbenzene (Cumene)	5.0 U	50.0	50.0	100	49.1	50.0	98	77-128	2	30
Methyl Acetate	10 U	42.3	50.0	85	42.5	50.0	85	26-121	<1	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18
Date Received: 06/14/18
Date Analyzed: 06/19/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: W-18
Lab Code: R1805583-005
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/L
Basis: NA

Analyte Name	Matrix Spike RQ1805981-05				Duplicate Matrix Spike RQ1805981-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Methyl tert-Butyl Ether	5.0 U	46.7	50.0	93	49.4	50.0	99	75-119	6	30
Methylcyclohexane	10 U	48.7	50.0	97	50.1	50.0	100	45-146	3	30
Styrene	5.0 U	50.3	50.0	101	52.4	50.0	105	74-136	4	30
Tetrachloroethene (PCE)	5.0 U	49.7	50.0	99	50.7	50.0	101	72-125	2	30
Toluene	5.0 U	50.8	50.0	102	53.3	50.0	107	79-119	5	30
Trichloroethene (TCE)	9.3	59.7	50.0	101	61.6	50.0	105	74-122	3	30
Trichlorofluoromethane (CFC 11)	5.0 U	57.7	50.0	115	60.9	50.0	122	71-136	5	30
Vinyl Chloride	5.0 U	55.0	50.0	110	55.8	50.0	112	74-159	1	30
cis-1,2-Dichloroethene	6.7	54.7	50.0	96	56.0	50.0	99	77-127	2	30
cis-1,3-Dichloropropene	5.0 U	44.9	50.0	90	49.0	50.0	98	52-134	9	30
trans-1,2-Dichloroethene	5.0 U	48.4	50.0	97	50.6	50.0	101	73-118	4	30
trans-1,3-Dichloropropene	5.0 U	45.2	50.0	90	48.6	50.0	97	71-133	7	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1805981-04

Service Request: R1805583
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	1	06/19/18 12:15	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	06/19/18 12:15	
1,1,2-Trichloroethane	5.0 U	5.0	1	06/19/18 12:15	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	1	06/19/18 12:15	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	1	06/19/18 12:15	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	1	06/19/18 12:15	
1,2,4-Trichlorobenzene	5.0 U	5.0	1	06/19/18 12:15	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	1	06/19/18 12:15	
1,2-Dibromoethane	5.0 U	5.0	1	06/19/18 12:15	
1,2-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:15	
1,2-Dichloroethane	5.0 U	5.0	1	06/19/18 12:15	
1,2-Dichloropropane	5.0 U	5.0	1	06/19/18 12:15	
1,3-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:15	
1,4-Dichlorobenzene	5.0 U	5.0	1	06/19/18 12:15	
2-Butanone (MEK)	10 U	10	1	06/19/18 12:15	
2-Hexanone	10 U	10	1	06/19/18 12:15	
4-Methyl-2-pentanone	10 U	10	1	06/19/18 12:15	
Acetone	10 U	10	1	06/19/18 12:15	
Benzene	5.0 U	5.0	1	06/19/18 12:15	
Bromodichloromethane	5.0 U	5.0	1	06/19/18 12:15	
Bromoform	5.0 U	5.0	1	06/19/18 12:15	
Bromomethane	5.0 U	5.0	1	06/19/18 12:15	
Carbon Disulfide	10 U	10	1	06/19/18 12:15	
Carbon Tetrachloride	5.0 U	5.0	1	06/19/18 12:15	
Chlorobenzene	5.0 U	5.0	1	06/19/18 12:15	
Chloroethane	5.0 U	5.0	1	06/19/18 12:15	
Chloroform	5.0 U	5.0	1	06/19/18 12:15	
Chloromethane	5.0 U	5.0	1	06/19/18 12:15	
Cyclohexane	10 U	10	1	06/19/18 12:15	
Dibromochloromethane	5.0 U	5.0	1	06/19/18 12:15	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	1	06/19/18 12:15	
Dichloromethane	5.0 U	5.0	1	06/19/18 12:15	
Ethylbenzene	5.0 U	5.0	1	06/19/18 12:15	
Isopropylbenzene (Cumene)	5.0 U	5.0	1	06/19/18 12:15	
Methyl Acetate	10 U	10	1	06/19/18 12:15	
Methyl tert-Butyl Ether	5.0 U	5.0	1	06/19/18 12:15	
Methylcyclohexane	10 U	10	1	06/19/18 12:15	
Styrene	5.0 U	5.0	1	06/19/18 12:15	
Tetrachloroethene (PCE)	5.0 U	5.0	1	06/19/18 12:15	
Toluene	5.0 U	5.0	1	06/19/18 12:15	
Trichloroethene (TCE)	5.0 U	5.0	1	06/19/18 12:15	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	1	06/19/18 12:15	
Vinyl Chloride	5.0 U	5.0	1	06/19/18 12:15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Sample Name: Method Blank
Lab Code: RQ1805981-04

Service Request: R1805583
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	1	06/19/18 12:15	
cis-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 12:15	
cis-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 12:15	
trans-1,2-Dichloroethene	5.0 U	5.0	1	06/19/18 12:15	
trans-1,3-Dichloropropene	5.0 U	5.0	1	06/19/18 12:15	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	06/19/18 12:15	
Dibromofluoromethane	95	89 - 119	06/19/18 12:15	
Toluene-d8	101	87 - 121	06/19/18 12:15	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Analyzed: 06/19/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1805981-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	17.9	20.0	89	75-125
1,1,2,2-Tetrachloroethane	8260C	16.9	20.0	84	78-126
1,1,2-Trichloroethane	8260C	18.8	20.0	94	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	18.6	20.0	93	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	17.4	20.0	87	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	17.4	20.0	87	71-118
1,2,4-Trichlorobenzene	8260C	16.9	20.0	85	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	14.1	20.0	71	55-136
1,2-Dibromoethane	8260C	19.6	20.0	98	82-127
1,2-Dichlorobenzene	8260C	17.9	20.0	89	80-119
1,2-Dichloroethane	8260C	20.3	20.0	101	71-127
1,2-Dichloropropane	8260C	17.6	20.0	88	80-119
1,3-Dichlorobenzene	8260C	16.7	20.0	83	83-121
1,4-Dichlorobenzene	8260C	17.0	20.0	85	79-119
2-Butanone (MEK)	8260C	15.2	20.0	76	61-137
2-Hexanone	8260C	15.1	20.0	75	63-124
4-Methyl-2-pentanone	8260C	15.9	20.0	79	66-124
Acetone	8260C	14.2	20.0	71	40-161
Benzene	8260C	18.1	20.0	90	79-119
Bromodichloromethane	8260C	17.7	20.0	88	81-123
Bromoform	8260C	16.0	20.0	80	65-146
Bromomethane	8260C	21.4	20.0	107	42-166
Carbon Disulfide	8260C	14.7	20.0	74	66-128
Carbon Tetrachloride	8260C	16.6	20.0	83	70-127
Chlorobenzene	8260C	17.2	20.0	86	80-121
Chloroethane	8260C	17.1	20.0	86	62-131
Chloroform	8260C	18.2	20.0	91	79-120
Chloromethane	8260C	17.8	20.0	89	65-135
Cyclohexane	8260C	18.5	20.0	92	69-120
Dibromochloromethane	8260C	18.6	20.0	93	72-128
Dichlorodifluoromethane (CFC 12)	8260C	22.3	20.0	111	59-155
Dichloromethane	8260C	17.2	20.0	86	73-122
Ethylbenzene	8260C	17.1	20.0	86	76-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Analyzed: 06/19/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1805981-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	16.4	20.0	82	77-128
Methyl Acetate	8260C	15.6	20.0	78	40-112
Methyl tert-Butyl Ether	8260C	19.2	20.0	96	75-118
Methylcyclohexane	8260C	18.6	20.0	93	51-129
Styrene	8260C	18.3	20.0	91	80-124
Tetrachloroethene (PCE)	8260C	16.4	20.0	82	72-125
Toluene	8260C	17.9	20.0	90	79-119
Trichloroethene (TCE)	8260C	18.2	20.0	91	74-122
Trichlorofluoromethane (CFC 11)	8260C	19.3	20.0	96	71-136
Vinyl Chloride	8260C	18.6	20.0	93	74-159
cis-1,2-Dichloroethene	8260C	18.0	20.0	90	80-121
cis-1,3-Dichloropropene	8260C	18.1	20.0	90	77-122
trans-1,2-Dichloroethene	8260C	17.1	20.0	85	73-118
trans-1,3-Dichloropropene	8260C	18.1	20.0	90	71-133



Metals

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1805583-MB1

Service Request: R1805583
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 19:17	06/19/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/22/18 19:17	06/19/18	

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1805583-MB2

Service Request: R1805583
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	100 U	ug/L	100	1	06/22/18 21:43	06/19/18	
Iron, Total	6010C	100 U	ug/L	100	1	06/22/18 21:43	06/19/18	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18
Date Received: 06/14/18
Date Analyzed: 06/22/18
Date Extracted: 06/19/18

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: W-18
Lab Code: R1805583-005
Analysis Method: 6010C
Prep Method: EPA 3005A/3010A

Units: ug/L
Basis: NA

Matrix Spike R1805583-005MS					Duplicate Matrix Spike R1805583-005DMS					
Analyte Name	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Iron, Total	1700	2470	1000	77	3390	1000	169 *	75-125	32*	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18
Date Received: 06/14/18
Date Analyzed: 06/22/18
Date Extracted: 06/19/18

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: W-18 Diss
Lab Code: R1805583-006
Analysis Method: 6010C
Prep Method: EPA 3005A/3010A

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike		Result	Duplicate Matrix Spike		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Iron, Dissolved	100 U	1010	1000	101	1020	1000	102	75-125	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Analyzed: 06/22/18

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1805583-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1000	1000	100	80-120
Iron, Total	6010C	1000	1000	100	80-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Analyzed: 06/22/18

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1805583-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	960	1000	96	80-120
Iron, Total	6010C	960	1000	96	80-120



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1805583-MB1

Service Request: R1805583
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	06/21/18 22:12	
Nitrate as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/14/18 14:38	
Nitrite as Nitrogen	300.0	0.10 U	mg/L	0.10	1	06/14/18 14:38	
Sulfate	300.0	0.20 U	mg/L	0.20	1	06/14/18 14:38	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1805583-MB2

Service Request: R1805583
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	06/22/18 17:45	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water
Sample Name: Method Blank
Lab Code: R1805583-MB3

Service Request: R1805583
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	06/25/18 17:59	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Collected: 06/14/18
Date Received: 06/14/18
Date Analyzed: 06/14/18 - 06/25/18

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: W-18 **Units:** mg/L
Lab Code: R1805583-005 **Basis:** NA

Matrix Spike
R1805583-005MS

Duplicate Matrix Spike
R1805583-005DMS

Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Nitrate as Nitrogen	300.0	1.0 U	9.8	10.0	98	9.8	10.0	98	90-110	<1	20
Sulfate	300.0	8.2	27.5	20.0	96	27.7	20.0	97	90-110	<1	20
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	2.5	11.6	10.0	91	12.1	10.0	95	48-135	4	20
Nitrite as Nitrogen	300.0	1.0 U	9.5	10.0	95	9.4	10.0	94	90-110	<1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583
Date Analyzed: 06/14/18 - 06/21/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1805583-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.5	10.0	105	80-121
Nitrate as Nitrogen	300.0	0.98	1.00	98	90-110
Nitrite as Nitrogen	300.0	0.98	1.00	98	90-110
Sulfate	300.0	2.02	2.00	101	90-110

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583**Date Analyzed:** 06/22/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805583-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.1	10.0	101	80-121

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville
Sample Matrix: Drinking Water

Service Request: R1805583**Date Analyzed:** 06/25/18

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1805583-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.79	10.0	98	80-121



Subcontracted Analytical Parameters

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July 3, 2018

Brady Kalkman
ALS Environmental
1565 Jefferson Rd
Building 300
Rochester, NY 14623

RE: **R1805583**

Pace Workorder: 27233

Dear Brady Kalkman:

Enclosed are the analytical results for sample(s) received by the laboratory on Friday, June 22, 2018. Results reported herein conform to the most current NELAC standards, where applicable, unless otherwise narrated in the body of the report.

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

Sincerely,

A handwritten signature in black ink that reads "Ruth Welsh".

Ruth Welsh 07/03/2018
Ruth.Welsh@pacelabs.com

Customer Service Representative

Enclosures

As a valued client we would appreciate your comments on our service.
Please email PAESfeedback@pacelabs.com.

Total Number of Pages 27

Report ID: 27233 - 1068846

Page 1 of 22



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LABORATORY ACCREDITATIONS & CERTIFICATIONS

Accreditor:	Pennsylvania Department of Environmental Protection, Bureau of Laboratories
Accreditation ID:	02-00538
Scope:	NELAP Non-Potable Water
Accreditor:	West Virginia Department of Environmental Protection, Division of Water and Waste Management
Accreditation ID:	395
Scope:	Non-Potable Water
Accreditor:	South Carolina Department of Health and Environmental Control, Office of Environmental Laboratory Certification
Accreditation ID:	89009003
Scope:	Clean Water Act (CWA); Resource Conservation and Recovery Act (RCRA)
Accreditor:	State of Virginia
Accreditation ID:	460201
Scope:	Non-Potable Water
Accreditor:	NELAP: New Jersey, Department of Environmental Protection
Accreditation ID:	PA026
Scope:	Non-Potable Water
Accreditor:	NELAP: New York, Department of Health Wadsworth Center
Accreditation ID:	11815
Scope:	Non-Potable Water
Accreditor:	State of Connecticut, Department of Public Health, Division of Environmental Health
Accreditation ID:	PH-0263
Scope:	Clean Water Act (CWA) Resource Conservation and Recovery Act (RCRA)
Accreditor:	NELAP: Texas, Commission on Environmental Quality
Accreditation ID:	T104704453-09-TX
Scope:	Non-Potable Water
Accreditor:	State of New Hampshire
Accreditation ID:	299409
Scope:	Non-potable water
Accreditor:	State of Georgia
Accreditation ID:	Chapter 391-3-26
Scope:	As per the Georgia EPD Rules and Regulations for Commercial Laboratories, PAES is accredited by the Pennsylvania Department of Environmental Protection Bureau of Laboratories under the National Environmental Laboratory Approval Program (NELAC).



SAMPLE SUMMARY

Workorder: 27233 R1805583

Lab ID	Sample ID	Matrix	Date Collected	Date Received
272330001	W-20S	Water	6/14/2018 07:10	6/22/2018 09:00
272330002	W-18	Water	6/14/2018 07:45	6/22/2018 09:00
272330003	W-18 MS	Water	6/14/2018 07:45	6/22/2018 09:00
272330004	W-18 MSD	Water	6/14/2018 07:45	6/22/2018 09:00
272330005	GMMW-2	Water	6/14/2018 08:40	6/22/2018 09:00
272330006	GMMW-6	Water	6/14/2018 08:55	6/22/2018 09:00
272330007	GMMW-5	Water	6/14/2018 09:10	6/22/2018 09:00
272330008	PW-3	Water	6/14/2018 07:05	6/22/2018 09:00
272330009	PW-4	Water	6/14/2018 07:25	6/22/2018 09:00
272330010	PW-4 DUP	Water	6/14/2018 07:25	6/22/2018 09:00
272330011	PW-7	Water	6/14/2018 08:10	6/22/2018 09:00
272330012	GMMW-7	Water	6/14/2018 08:30	6/22/2018 09:00
272330013	EQUIPMENT BLANK	Water	6/14/2018 09:15	6/22/2018 09:00



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PROJECT SUMMARY

Workorder: 27233 R1805583

Workorder Comments

The samples 27233 (0001-0013) were collected in an alternate container type, than that assigned to PAES method RSK175.
Sample container was hydrochloric acid preserved.

Batch Comments

Batch: DISG/6924 - RSK175 QC

The relative percent difference between the sample and sample duplicate exceeded laboratory control limits; reference sample 272260001. Analyte Methane. All volumes provided for the sample were exhausted.



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330001**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **W-20S**

Date Collected: 6/14/2018 07:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.13J	ug/l	0.50	0.031	1	6/25/2018 08:48	AK	D1
Ethane	0.0060U	ug/l	0.20	0.0060	1	6/25/2018 08:48	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 08:48	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330002**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **W-18**

Date Collected: 6/14/2018 07:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.059J	ug/l	0.50	0.031	1	6/25/2018 08:59	AK	D1
Ethane	0.0060U	ug/l	0.20	0.0060	1	6/25/2018 08:59	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 08:59	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330003**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **W-18 MS**

Date Collected: 6/14/2018 07:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	38	ug/l	0.50	0.031	1	6/25/2018 09:09	AK	D1
Ethane	70	ug/l	0.20	0.0060	1	6/25/2018 09:09	AK	
Ethene	67	ug/l	0.20	0.021	1	6/25/2018 09:09	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330004**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **W-18 MSD**

Date Collected: 6/14/2018 07:45

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	38	ug/l	0.50	0.031	1	6/25/2018 09:20	AK	D1
Ethane	71	ug/l	0.20	0.0060	1	6/25/2018 09:20	AK	
Ethene	67	ug/l	0.20	0.021	1	6/25/2018 09:20	AK	



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220 William Pitt Way
Pittsburgh, PA 15238
Phone: (412) 826-5245
Fax: (412) 826-3433

ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330005**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **GMMW-2**

Date Collected: 6/14/2018 08:40

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	1000	ug/l	5.0	0.31	10	6/28/2018 10:30	AK	d
Ethane	0.62	ug/l	0.20	0.0060	1	6/25/2018 09:31	AK	
Ethene	0.88	ug/l	0.20	0.021	1	6/25/2018 09:31	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330006**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **GMMW-6**

Date Collected: 6/14/2018 08:55

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	1400	ug/l	5.0	0.31	10	6/28/2018 10:51	AK	d
Ethane	12	ug/l	0.20	0.0060	1	6/25/2018 09:42	AK	
Ethene	1.6	ug/l	0.20	0.021	1	6/25/2018 09:42	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330007**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **GMMW-5**

Date Collected: 6/14/2018 09:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	200	ug/l	0.50	0.031	1	6/25/2018 09:52	AK	D1
Ethane	4.6	ug/l	0.20	0.0060	1	6/25/2018 09:52	AK	
Ethene	5.2	ug/l	0.20	0.021	1	6/25/2018 09:52	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330008**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **PW-3**

Date Collected: 6/14/2018 07:05

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.060J	ug/l	0.50	0.031	1	6/25/2018 10:03	AK	D1
Ethane	0.0060U	ug/l	0.20	0.0060	1	6/25/2018 10:03	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 10:03	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330009**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **PW-4**

Date Collected: 6/14/2018 07:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	63	ug/l	0.50	0.031	1	6/25/2018 10:14	AK	D1
Ethane	0.064J	ug/l	0.20	0.0060	1	6/25/2018 10:14	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 10:14	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330010**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **PW-4 DUP**

Date Collected: 6/14/2018 07:25

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	44	ug/l	0.50	0.031	1	6/25/2018 10:26	AK	D1
Ethane	0.050J	ug/l	0.20	0.0060	1	6/25/2018 10:26	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 10:26	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330011**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **PW-7**

Date Collected: 6/14/2018 08:10

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	11	ug/l	0.50	0.031	1	6/25/2018 11:01	AK	D1
Ethane	0.029J	ug/l	0.20	0.0060	1	6/25/2018 11:01	AK	
Ethene	0.14J	ug/l	0.20	0.021	1	6/25/2018 11:01	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330012**

Date Received: 6/22/2018 09:00 Matrix: Water

Sample ID: **GMMW-7**

Date Collected: 6/14/2018 08:30

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	57	ug/l	0.50	0.031	1	6/25/2018 11:12	AK	D1
Ethane	0.070J	ug/l	0.20	0.0060	1	6/25/2018 11:12	AK	
Ethene	0.37	ug/l	0.20	0.021	1	6/25/2018 11:12	AK	



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ANALYTICAL RESULTS

Workorder: 27233 R1805583

Lab ID: **272330013**
Sample ID: **EQUIPMENT BLANK**

Date Received: 6/22/2018 09:00 Matrix: Water
Date Collected: 6/14/2018 09:15

Parameters	Results	Units	PQL	MDL	DF	Analyzed	By	Qualifiers

RISK - PAES

Analysis Desc: EPA RSK175

Analytical Method: EPA RSK175

Methane	0.095J	ug/l	0.50	0.031	1	6/25/2018 11:24	AK	D1
Ethane	0.0060U	ug/l	0.20	0.0060	1	6/25/2018 11:24	AK	
Ethene	0.021U	ug/l	0.20	0.021	1	6/25/2018 11:24	AK	



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ANALYTICAL RESULTS QUALIFIERS

Workorder: 27233 R1805583

DEFINITIONS/QUALIFIERS

MDL	Method Detection Limit. Can be used synonymously with LOD; Limit Of Detection.
PQL	Practical Quantitation Limit. Can be used synonymously with LOQ; Limit Of Quantitation.
ND	Not detected at or above reporting limit.
DF	Dilution Factor.
S	Surrogate.
RPD	Relative Percent Difference.
% Rec	Percent Recovery.
U	Indicates the compound was analyzed for, but not detected at or above the noted concentration.
J	Estimated concentration greater than the set method detection limit (MDL) and less than the set reporting limit (PQL).
d	The analyte concentration was determined from a dilution.
D1	The duplicate relative percent difference (RPD) exceeded laboratory control limits.

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QUALITY CONTROL DATA

Workorder: 27233 R1805583

QC Batch: DISG/6924 Analysis Method: EPA RSK175

QC Batch Method: EPA RSK175

Associated Lab Samples: 272330001, 272330002, 272330003, 272330004, 272330005, 272330006, 272330007, 272330008, 272330009, 272330010, 272330011, 272330012, 272330013

METHOD BLANK: 56165

Parameter	Units	Blank Result	Reporting Limit	Qualifiers
RISK				
Methane	ug/l	0.031U	0.031	D1
Ethane	ug/l	0.0060U	0.0060	
Ethene	ug/l	0.021U	0.021	

LABORATORY CONTROL SAMPLE & LCSD: 56166 56167

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK										
Methane	ug/l	44	42	42	95	95	85-115	0.063	20	D1
Ethane	ug/l	83	78	78	94	94	85-115	0.54	20	
Ethene	ug/l	78	76	74	97	96	85-115	1.9	20	

MATRIX SPIKE & MATRIX SPIKE DUPLICATE: 56168 56169 Original: 272330002

Parameter	Units	Original Result	Spike Conc.	MS Result	MSD Result	MS % Rec	MSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK											
Methane	ug/l	0.059	44	38	38	85	86	70-130	1.2	20	D1
Ethane	ug/l	0	83	70	71	84	85	70-130	0.96	20	
Ethene	ug/l	0	78	67	67	86	86	70-130	0.42	20	

SAMPLE DUPLICATE: 56172 Original: 272260001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK						
Methane	ug/l	15	11	29	20	D1
Ethane	ug/l	0	0	0	20	
Ethene	ug/l	0	0	0	20	

Report ID: 27233 - 1068846

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QUALITY CONTROL DATA

Workorder: 27233 R1805583

QC Batch: DISG/6932 Analysis Method: EPA RSK175
QC Batch Method: EPA RSK175
Associated Lab Samples: 272330005, 272330006

METHOD BLANK: 56245

Parameter	Units	Blank Result	Reporting Limit Qualifiers
RISK Methane	ug/l	0.031U	0.031

LABORATORY CONTROL SAMPLE & LCSD: 56246 56247

Parameter	Units	Spike Conc.	LCS Result	LCSD Result	LCS % Rec	LCSD % Rec	% Rec Limit	RPD	Max RPD	Qualifiers
RISK Methane	ug/l	44	42	42	95	94	85-115	0.76	20	

SAMPLE DUPLICATE: 56248 Original: 272330005

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK Methane	ug/l	1100	1200	9.2	20	d

SAMPLE DUPLICATE: 56256 Original: 272460001

Parameter	Units	Original Result	DUP Result	RPD	Max RPD	Qualifiers
RISK Methane	ug/l	1.1	1.1	5	20	



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QUALITY CONTROL DATA QUALIFIERS

Workorder: 27233 R1805583

QUALITY CONTROL PARAMETER QUALIFIERS

- D1 The duplicate relative percent difference (RPD) exceeded laboratory control limits.
- d The analyte concentration was determined from a dilution.

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QUALITY CONTROL DATA CROSS REFERENCE TABLE

Workorder: 27233 R1805583

Lab ID	Sample ID	Prep Method	Prep Batch	Analysis Method	Analysis Batch
272330001	W-20S			EPA RSK175	DISG/6924
272330002	W-18			EPA RSK175	DISG/6924
272330003	W-18 MS			EPA RSK175	DISG/6924
272330004	W-18 MSD			EPA RSK175	DISG/6924
272330005	GMMW-2			EPA RSK175	DISG/6924
272330006	GMMW-6			EPA RSK175	DISG/6924
272330007	GMMW-5			EPA RSK175	DISG/6924
272330008	PW-3			EPA RSK175	DISG/6924
272330009	PW-4			EPA RSK175	DISG/6924
272330010	PW-4 DUP			EPA RSK175	DISG/6924
272330011	PW-7			EPA RSK175	DISG/6924
272330012	GMMW-7			EPA RSK175	DISG/6924
272330013	EQUIPMENT BLANK			EPA RSK175	DISG/6924
272330005	GMMW-2			EPA RSK175	DISG/6932
272330006	GMMW-6			EPA RSK175	DISG/6932



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Project Number: R1805583
Project Manager: Brady Kalkman
QAP: LAB QAP

270337

Lab Code	Sample ID	# of Cont.	Matrix	Sample		Lab ID	Gases RSK 175
				Date	Time		
R1805583-002	W-20S	3	Drinking Water	6/14/18	0710	Pace PA	X
R1805583-005	W-18	6	Drinking Water	6/14/18	0745	Pace PA	X
R1805583-010	GMMW-2	3	Drinking Water	6/14/18	0840	Pace PA	X
R1805583-012	GMMW-6		Drinking Water	6/14/18	0855	Pace PA	X
R1805583-014	GMMW-5		Drinking Water	6/14/18	0910	Pace PA	X
R1805583-016	PW-3		Drinking Water	6/14/18	0705	Pace PA	X
R1805583-018	PW-4		Drinking Water	6/14/18	0725	Pace PA	X
R1805583-020	PW-4 DUP		Drinking Water	6/14/18	0725	Pace PA	X
R1805583-022	PW-7		Drinking Water	6/14/18	0810	Pace PA	X
R1805583-024	GMMW-7		Drinking Water	6/14/18	0830	Pace PA	X
R1805583-026	Equipment Blank		Drinking Water	6/14/18	0915	Pace PA	X

QC
Methane
Ethane
Ethene
Since 3 lowest bc possible since 21

Special Instructions/Comments	Turnaround Requirements	Report Requirements	Invoice Information
	RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ☒ STANDARD Requested FAX Date: _____ Requested Report Date: 06/25/18		
H - Test is On Hold P - Test is Authorized for Prep Only		I. Results Only ☒ II. Results + QC Summaries III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data POL/MDL/ ☒ BDD ☒ Y	PO# 58R1805583 Bill to

Relinquished By: Andrei Collier 6/18/18 1540

Received By: Morgan Suter 6/19/18 105 6/28/18
Airbill Number: _____

SPM have 6/21/18 1745

Long 6/12/18 6/22/18 0900

Project Number: R1805583
Project Manager: Brady Kalkman
QAP: LAB QAP

21233

Test Comments
Gases - RSK 175

R1805583-002,5,10,12,14,16,18,20,22,24 Sub to Pace Pittsburgh, Report down to MDL. Desired DL = .025ug/L for Methane, 1ug/L for Ethane/Ethene. Still want lowest DL possible for Ethane/Ethene even if Methane result is high.

Folder Comments:

MRLLU, send HC invoices, Field filter MN Dissolved and Ferrous Iron Dissolved, send to Steve Feldman, Sub RSK's to Pace Pittsburgh for lower DL's - Report down to MDL.
RSK Run QC on sample R1805583-005 for RSK 175/Gases

Special Instructions/Comments	Turnaround Requirements ☐ RUSH (Surcharges Apply) PLEASE CIRCLE WORK DAYS 1 2 3 4 5 ☐ STANDARD Requested FAX Date: _____ Requested Report Date: 06/25/18	Report Requirements ☐ I. Results Only ☐ II. Results + QC Summaries ☐ III. Results + QC and Calibration Summaries ☐ IV. Data Validation Report with Raw Data POL/MDL/J ☒ N EDD ☒ Y	Invoice Information PO# 58R1805583 Bill to
H - Test is On Hold	P - Test is Authorized for Prep Only		

Relinquished By:

SPML *file* *6/21/18* *1745*

Received By:

Angela S. Lantieri *6/19/18* *1015* Airbill Number: *6.22.18 0900*

R1805583

27233

X

Ship To: Pace PA
Pace Analytical Services
1638 Roseytown Road
Suites 2,3, & 4
Greensburg, PA 15601

PC _____ Date _____
SMO _____ Date _____

Instructions:
Ice _____
Dry Ice _____
No Ice _____

Shipping:
Overnight _____
2nd Day _____
Ground _____

Bill to Client Account _____

Comments:

Cooler Receipt Form

Client Name: ALS Project: R1805583 Lab Work Order: 27233

A. Shipping/Container Information (circle appropriate response)

Courier: FedEx UPS USPS Client Other: Pace Air bill Present: Yes No

Tracking Number: _____

Custody Seal on Cooler/Box Present: Yes No Seals Intact: Yes No

Cooler/Box Packing Material: Bubble Wrap Absorbent Foam Other: _____

Type of Ice: Wet Blue None Ice Intact: Yes Melted

Cooler Temperature: 1.2°C Radiation Screened: Yes No Chain of Custody Present: Yes No

Comments: _____

B. Laboratory Assignment/Log-in (check appropriate response)

	YES	NO	N/A	Comment Reference non-Conformance
Chain of Custody properly filled out	☒			
Chain of Custody relinquished	☒			
Sampler Name & Signature on COC			☒	
Containers intact	☒			
Were samples in separate bags	☒			
Sample container labels match COC		☒		
Sample name/date and time collected	☒			
Sufficient volume provided	☒			
PAES containers used		☒		
Are containers properly preserved for the requested testing? (as labeled)		☒		
If an unknown preservation state, were containers checked? Exception: VOA's coliform			☒	If yes, see pH form.
Was volume for dissolved testing field filtered, as noted on the COC? Was volume received in a preserved container?			☒	
Headspace present?	☒			

Comments: _____

Cooler contents examined/received by: LY Date: 6-22-18

Project Manager Review: RW Date: 6-25-18

NON-CONFORMANCE FORM

PAES Work Order #: 27233

Date: 6-22-18 Time of Receipt: 0900 Receiver: W

Client: ALS

REASON FOR NON-CONFORMANCE:

1. No date & time of collection on vials. Taken from
CDC

2. In HOL vials.

ACTION TAKEN:

Client name: _____ Date: _____ Time: _____

OK to proceed

Customer Service Initials: RW

Date: 6-23-18



July 30, 2018

Service Request No:R1806976

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville Special Wells

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory July 25, 2018
For your reference, these analyses have been assigned our service request number **R1806976**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com



Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Received: 07/25/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Four water samples were received for analysis at ALS Environmental on 07/25/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature. Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Volatiles by GC/MS:

Method 8260C, 07/26/2018: The lower control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). Since there were no detections of the analyte(s) in the associated field samples, the quantitation is not affected. The data quality was not significantly affected and no further corrective action was taken.

A handwritten signature in black ink, appearing to read "Randy Kullen".

Approved by _____

Date 07/30/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: GMPW-4	Lab ID: R1806976-001

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1,1-Trichloroethane (TCA)	3.0	J	0.25	5.0	ug/L	8260C
1,1-Dichloroethane (1,1-DCA)	22		0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.34	J	0.20	5.0	ug/L	8260C
1,2-Dichloropropane	0.45	J	0.21	5.0	ug/L	8260C
Benzene	1.7	J	0.20	5.0	ug/L	8260C
Chlorobenzene	6.5		0.20	5.0	ug/L	8260C
Chloroethane	10		0.23	5.0	ug/L	8260C
Dichloromethane	0.63	J	0.47	5.0	ug/L	8260C
Trichloroethene (TCE)	16		0.20	5.0	ug/L	8260C
Vinyl Chloride	1.5	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	10		0.26	5.0	ug/L	8260C
trans-1,2-Dichloroethene	0.34	J	0.26	5.0	ug/L	8260C

CLIENT ID: GMMW-6	Lab ID: R1806976-002

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1-Dichloroethane (1,1-DCA)	14		0.40	10	ug/L	8260C
1,2-Dichloroethane	0.84	J	0.40	10	ug/L	8260C
Acetone	4.5	J	4.2	20	ug/L	8260C
Benzene	4.3	J	0.40	10	ug/L	8260C
Chlorobenzene	19		0.40	10	ug/L	8260C
Chloroethane	180		0.46	10	ug/L	8260C
Dichloromethane	3.0	J	0.94	10	ug/L	8260C
Trichloroethene (TCE)	0.68	J	0.40	10	ug/L	8260C
Vinyl Chloride	1.7	J	0.44	10	ug/L	8260C
Xylenes, Total	0.55	J	0.46	10	ug/L	8260C
cis-1,2-Dichloroethene	2.4	J	0.52	10	ug/L	8260C
trans-1,2-Dichloroethene	0.88	J	0.52	10	ug/L	8260C

CLIENT ID: GMMW-5	Lab ID: R1806976-003

Analyte	Results	Flag	MDL	MRL	Units	Method
1,1-Dichloroethane (1,1-DCA)	9.8		0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.36	J	0.20	5.0	ug/L	8260C
Acetone	2.7	J	2.1	10	ug/L	8260C
Benzene	1.1	J	0.20	5.0	ug/L	8260C
Chlorobenzene	6.1		0.20	5.0	ug/L	8260C
Chloroethane	46		0.23	5.0	ug/L	8260C
Dichloromethane	0.62	J	0.47	5.0	ug/L	8260C
Trichloroethene (TCE)	4.8	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.66	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.99	J	0.26	5.0	ug/L	8260C
trans-1,2-Dichloroethene	0.34	J	0.26	5.0	ug/L	8260C

SAMPLE DETECTION SUMMARY**CLIENT ID: Trip Blank****Lab ID: R1806976-004**

Analyte	Results	Flag	MDL	MRL	Units	Method
Acetone	3.2	J	2.1	10	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells

Service Request:R1806976

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1806976-001	GMPW-4	7/25/2018	0845
R1806976-002	GMMW-6	7/25/2018	0905
R1806976-003	GMMW-5	7/25/2018	0925
R1806976-004	Trip Blank	7/25/2018	0845



Cooler Receipt and Preservation Check Form

R1806976

5

Broome County Division of Solid Waste Management
Colesville Special Wells



Project/Client _____ Folder Number _____

Cooler received on 7/25/18 by SW

COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N ☐
2	Custody papers properly completed (ink, signed)?	☒ Y ☐ N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y ☐ N
4	Circle: <u>Wet Ice</u> Dry Ice Gel packs present?	☒ Y ☐ N

5a	Perchlorate samples have required headspace?	Y ☐ N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y ☒ NA
6	Where did the bottles originate?	<u>ALS/ROC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set <u>NA</u>

8. Temperature Readings Date: 7/25/18 Time: 1530 ID: IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>1.8</u>	<u>4.2</u>	<u>4.2</u>	<u>1.6</u>			
Correction Factor (°C)	<u>±0.0</u>	<u>±0.0</u>	<u>±0.3</u>	<u>±0.0</u>			
Corrected Temp (°C)	<u>1.8</u>	<u>4.2</u>	<u>4.5</u>	<u>1.6</u>			
Temp from: Type of bottle			<u>40mL vial</u>				
Within 0-6°C?	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	☒ Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N
If <0°C, were samples frozen?	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N	Y ☐ N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R002 by SW on 7/25/18 at 1530
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 7/25/18 Time: 2014 by: SW

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
≥12		NaOH	Yes	No						
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>411720</u>					

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-039-004
Explain all Discrepancies/ Other Comments:

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: SW
PC Secondary Review: mm

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



FIELD MONITORING REPORT

PROJECT Colesville Special Wells LAB ID 1

SAMPLE POINT ID GMP W-4

PURGE INFORMATION

Well Depth (ft.) 27.06 Purge Date 7/24/18 Purge Method Pump
SWL (ft.) 16.10 Start Time 1040 Stop Time 1055
Standing Water (ft.) 10.96 Volume Purged gal. 17 # casings ~1.1 to dry
Well Constant (gal/ft.) 1.46 Observations Clean
Well Volume (gal.) 16.0

SAMPLING INFORMATION

Sample Method Bailer
Date 7/25/18 Time 0845 SWL 16.10
Appearance Clean
Weather Conditions Overcast 72°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron ↓ LaMotte	pH	unit	6.80	6.79
	Conductivity	µmhos/cm	712	712
	Temperature	Degrees Celsius	12.8	12.8
	Redox	millivolts	55	
	Turbidity	NTU	3.1	

Calibration Date/Time 7/25/18 0830 7.00/10.00/4.00
1413 set 1413
0.0/10.0

OBSERVATIONS 8260 only for analysis



FIELD MONITORING REPORT

PROJECT Coleville Special Wells LAB ID 2

SAMPLE POINT ID GMMW-6

PURGE INFORMATION

Well Depth (ft.) 56.08

SWL (ft.) 38.82

Standing Water (ft.) 17.26

Well Constant (gal/ft.) 0.163

Well Volume (gal.) 2.8

Purge Date 7/24/18 Purge Method Bailer Pump Bjm 6/24/18

Start Time 1115 Stop Time 1124

Volume Purged gal. 2.8 # casings 1 today

Observations Slight gray-tan to
turbid gray-tan

SAMPLING INFORMATION

Sample Method Bailer

Date 7/25/18 Time 0905 SWL 38.82

Appearance Slight gray tint

Weather Conditions Overcast 72°

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
Miyon ↓ LaMotte	pH	unit	6.76	6.76
	Conductivity	µmhos/cm	872	872
	Temperature	Degrees Celsius	12.8	12.8
	Redox	millivolts	-62	
	Turbidity	NTU	15.4	

Calibration Date/Time 7/25/18 0830

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT Colesville Special Wells LAB ID 3

SAMPLE POINT ID GMMW-5

PURGE INFORMATION

Well Depth (ft.) 70.16 Purge Date 7/24/18 Purge Method Pump
SWL (ft.) 49.80 Start Time 1150 Stop Time 1202
Standing Water (ft.) 20.36 Volume Purged gal. 3.2 # casings 1 to dry
Well Constant (gal/ft.) 0.163 Observations Slight black tint with
Well Volume (gal.) 3.2 black sediment

SAMPLING INFORMATION

Sample Method Boiler
Date 7/25/18 Time 0925 SWL 52.72
Appearance Slight gray tint
Weather Conditions P Sun 73°
Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
<u>Myron</u>	pH	unit	<u>6.92</u>	<u>6.93</u>
	Conductivity	µmhos/cm	<u>366</u>	<u>366</u>
	Temperature	Degrees Celsius	<u>11.5</u>	<u>11.5</u>
	Redox	millivolts	<u>-78</u>	
<u>LaMotte</u>	Turbidity	NTU	<u>23.3</u>	

Calibration Date/Time 7/25/18 0830

OBSERVATIONS _____



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.

dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells

Service Request: R1806976

Sample Name: GMPW-4
Lab Code: R1806976-001
Sample Matrix: Water

Date Collected: 07/25/18**Date Received:** 07/25/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: GMMW-6
Lab Code: R1806976-002
Sample Matrix: Water

Date Collected: 07/25/18**Date Received:** 07/25/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: GMMW-5
Lab Code: R1806976-003
Sample Matrix: Water

Date Collected: 07/25/18**Date Received:** 07/25/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST

Sample Name: Trip Blank
Lab Code: R1806976-004
Sample Matrix: Water

Date Collected: 07/25/18**Date Received:** 07/25/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
KRUEST



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 08:45
Date Received: 07/25/18 15:20

Sample Name: GMPW-4
Lab Code: R1806976-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	3.0 J	5.0	0.25	1	07/26/18 17:58	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/26/18 17:58	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	07/26/18 17:58	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	07/26/18 17:58	
1,1-Dichloroethane (1,1-DCA)	22	5.0	0.20	1	07/26/18 17:58	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	07/26/18 17:58	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	07/26/18 17:58	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	07/26/18 17:58	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	07/26/18 17:58	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 17:58	
1,2-Dichloroethane	0.34 J	5.0	0.20	1	07/26/18 17:58	
1,2-Dichloropropane	0.45 J	5.0	0.21	1	07/26/18 17:58	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 17:58	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	07/26/18 17:58	
2-Butanone (MEK)	10 U	10	0.78	1	07/26/18 17:58	
2-Hexanone	10 U	10	0.34	1	07/26/18 17:58	
4-Methyl-2-pentanone	10 U	10	0.29	1	07/26/18 17:58	
Acetone	10 U	10	2.1	1	07/26/18 17:58	
Benzene	1.7 J	5.0	0.20	1	07/26/18 17:58	
Bromodichloromethane	5.0 U	5.0	0.31	1	07/26/18 17:58	
Bromoform	5.0 U	5.0	0.36	1	07/26/18 17:58	
Bromomethane	5.0 U	5.0	0.70	1	07/26/18 17:58	
Carbon Disulfide	10 U	10	0.31	1	07/26/18 17:58	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/26/18 17:58	
Chlorobenzene	6.5	5.0	0.20	1	07/26/18 17:58	
Chloroethane	10	5.0	0.23	1	07/26/18 17:58	
Chloroform	5.0 U	5.0	0.28	1	07/26/18 17:58	
Chloromethane	5.0 U	5.0	0.28	1	07/26/18 17:58	
Cyclohexane	10 U	10	0.31	1	07/26/18 17:58	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/26/18 17:58	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	07/26/18 17:58	
Dichloromethane	0.63 J	5.0	0.47	1	07/26/18 17:58	
Ethylbenzene	5.0 U	5.0	0.20	1	07/26/18 17:58	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	07/26/18 17:58	
Methyl Acetate	10 U	10	0.33	1	07/26/18 17:58	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	07/26/18 17:58	
Methylcyclohexane	10 U	10	0.35	1	07/26/18 17:58	
Styrene	5.0 U	5.0	0.20	1	07/26/18 17:58	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	07/26/18 17:58	
Toluene	5.0 U	5.0	0.20	1	07/26/18 17:58	
Trichloroethene (TCE)	16	5.0	0.20	1	07/26/18 17:58	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	07/26/18 17:58	
Vinyl Chloride	1.5 J	5.0	0.22	1	07/26/18 17:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 08:45
Date Received: 07/25/18 15:20

Sample Name: GMPW-4
Lab Code: R1806976-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	07/26/18 17:58	
cis-1,2-Dichloroethene	10	5.0	0.26	1	07/26/18 17:58	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 17:58	
trans-1,2-Dichloroethene	0.34 J	5.0	0.26	1	07/26/18 17:58	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 17:58	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	07/26/18 17:58	
Dibromofluoromethane	100	89 - 119	07/26/18 17:58	
Toluene-d8	100	87 - 121	07/26/18 17:58	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 09:05
Date Received: 07/25/18 15:20

Sample Name: GMMW-6
Lab Code: R1806976-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	10 U	10	0.50	2	07/26/18 18:41	
1,1,2,2-Tetrachloroethane	10 U	10	0.40	2	07/26/18 18:41	
1,1,2-Trichloroethane	10 U	10	0.50	2	07/26/18 18:41	
1,1,2-Trichloro-1,2,2-trifluoroethane	10 U	10	0.40	2	07/26/18 18:41	
1,1-Dichloroethane (1,1-DCA)	14	10	0.40	2	07/26/18 18:41	
1,1-Dichloroethene (1,1-DCE)	10 U	10	0.56	2	07/26/18 18:41	
1,2,4-Trichlorobenzene	10 U	10	1.0	2	07/26/18 18:41	
1,2-Dibromo-3-chloropropane (DBCP)	10 U	10	0.90	2	07/26/18 18:41	
1,2-Dibromoethane	10 U	10	0.40	2	07/26/18 18:41	
1,2-Dichlorobenzene	10 U	10	0.40	2	07/26/18 18:41	
1,2-Dichloroethane	0.84 J	10	0.40	2	07/26/18 18:41	
1,2-Dichloropropane	10 U	10	0.42	2	07/26/18 18:41	
1,3-Dichlorobenzene	10 U	10	0.40	2	07/26/18 18:41	
1,4-Dichlorobenzene	10 U	10	0.48	2	07/26/18 18:41	
2-Butanone (MEK)	20 U	20	1.6	2	07/26/18 18:41	
2-Hexanone	20 U	20	0.68	2	07/26/18 18:41	
4-Methyl-2-pentanone	20 U	20	0.58	2	07/26/18 18:41	
Acetone	4.5 J	20	4.2	2	07/26/18 18:41	
Benzene	4.3 J	10	0.40	2	07/26/18 18:41	
Bromodichloromethane	10 U	10	0.62	2	07/26/18 18:41	
Bromoform	10 U	10	0.72	2	07/26/18 18:41	
Bromomethane	10 U	10	1.4	2	07/26/18 18:41	
Carbon Disulfide	20 U	20	0.62	2	07/26/18 18:41	
Carbon Tetrachloride	10 U	10	0.68	2	07/26/18 18:41	
Chlorobenzene	19	10	0.40	2	07/26/18 18:41	
Chloroethane	180	10	0.46	2	07/26/18 18:41	
Chloroform	10 U	10	0.56	2	07/26/18 18:41	
Chloromethane	10 U	10	0.56	2	07/26/18 18:41	
Cyclohexane	20 U	20	0.62	2	07/26/18 18:41	
Dibromochloromethane	10 U	10	0.40	2	07/26/18 18:41	
Dichlorodifluoromethane (CFC 12)	10 U	10	0.88	2	07/26/18 18:41	
Dichloromethane	3.0 J	10	0.94	2	07/26/18 18:41	
Ethylbenzene	10 U	10	0.40	2	07/26/18 18:41	
Isopropylbenzene (Cumene)	10 U	10	0.40	2	07/26/18 18:41	
Methyl Acetate	20 U	20	0.66	2	07/26/18 18:41	
Methyl tert-Butyl Ether	10 U	10	0.42	2	07/26/18 18:41	
Methylcyclohexane	20 U	20	0.70	2	07/26/18 18:41	
Styrene	10 U	10	0.40	2	07/26/18 18:41	
Tetrachloroethene (PCE)	10 U	10	0.56	2	07/26/18 18:41	
Toluene	10 U	10	0.40	2	07/26/18 18:41	
Trichloroethene (TCE)	0.68 J	10	0.40	2	07/26/18 18:41	
Trichlorofluoromethane (CFC 11)	10 U	10	0.54	2	07/26/18 18:41	
Vinyl Chloride	1.7 J	10	0.44	2	07/26/18 18:41	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 09:05
Date Received: 07/25/18 15:20

Sample Name: GMMW-6
Lab Code: R1806976-002

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	0.55 J	10	0.46	2	07/26/18 18:41	
cis-1,2-Dichloroethene	2.4 J	10	0.52	2	07/26/18 18:41	
cis-1,3-Dichloropropene	10 U	10	0.60	2	07/26/18 18:41	
trans-1,2-Dichloroethene	0.88 J	10	0.52	2	07/26/18 18:41	
trans-1,3-Dichloropropene	10 U	10	0.60	2	07/26/18 18:41	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	07/26/18 18:41	
Dibromofluoromethane	96	89 - 119	07/26/18 18:41	
Toluene-d8	97	87 - 121	07/26/18 18:41	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 09:25
Date Received: 07/25/18 15:20

Sample Name: GMMW-5
Lab Code: R1806976-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	07/26/18 18:19	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/26/18 18:19	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	07/26/18 18:19	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	07/26/18 18:19	
1,1-Dichloroethane (1,1-DCA)	9.8	5.0	0.20	1	07/26/18 18:19	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	07/26/18 18:19	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	07/26/18 18:19	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	07/26/18 18:19	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	07/26/18 18:19	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 18:19	
1,2-Dichloroethane	0.36 J	5.0	0.20	1	07/26/18 18:19	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	07/26/18 18:19	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 18:19	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	07/26/18 18:19	
2-Butanone (MEK)	10 U	10	0.78	1	07/26/18 18:19	
2-Hexanone	10 U	10	0.34	1	07/26/18 18:19	
4-Methyl-2-pentanone	10 U	10	0.29	1	07/26/18 18:19	
Acetone	2.7 J	10	2.1	1	07/26/18 18:19	
Benzene	1.1 J	5.0	0.20	1	07/26/18 18:19	
Bromodichloromethane	5.0 U	5.0	0.31	1	07/26/18 18:19	
Bromoform	5.0 U	5.0	0.36	1	07/26/18 18:19	
Bromomethane	5.0 U	5.0	0.70	1	07/26/18 18:19	
Carbon Disulfide	10 U	10	0.31	1	07/26/18 18:19	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/26/18 18:19	
Chlorobenzene	6.1	5.0	0.20	1	07/26/18 18:19	
Chloroethane	46	5.0	0.23	1	07/26/18 18:19	
Chloroform	5.0 U	5.0	0.28	1	07/26/18 18:19	
Chloromethane	5.0 U	5.0	0.28	1	07/26/18 18:19	
Cyclohexane	10 U	10	0.31	1	07/26/18 18:19	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/26/18 18:19	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	07/26/18 18:19	
Dichloromethane	0.62 J	5.0	0.47	1	07/26/18 18:19	
Ethylbenzene	5.0 U	5.0	0.20	1	07/26/18 18:19	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	07/26/18 18:19	
Methyl Acetate	10 U	10	0.33	1	07/26/18 18:19	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	07/26/18 18:19	
Methylcyclohexane	10 U	10	0.35	1	07/26/18 18:19	
Styrene	5.0 U	5.0	0.20	1	07/26/18 18:19	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	07/26/18 18:19	
Toluene	5.0 U	5.0	0.20	1	07/26/18 18:19	
Trichloroethene (TCE)	4.8 J	5.0	0.20	1	07/26/18 18:19	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	07/26/18 18:19	
Vinyl Chloride	0.66 J	5.0	0.22	1	07/26/18 18:19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 09:25
Date Received: 07/25/18 15:20

Sample Name: GMMW-5
Lab Code: R1806976-003

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	07/26/18 18:19	
cis-1,2-Dichloroethene	0.99 J	5.0	0.26	1	07/26/18 18:19	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 18:19	
trans-1,2-Dichloroethene	0.34 J	5.0	0.26	1	07/26/18 18:19	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 18:19	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	07/26/18 18:19	
Dibromofluoromethane	104	89 - 119	07/26/18 18:19	
Toluene-d8	98	87 - 121	07/26/18 18:19	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 08:45
Date Received: 07/25/18 15:20

Sample Name: Trip Blank
Lab Code: R1806976-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	07/26/18 17:36	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	07/26/18 17:36	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	07/26/18 17:36	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	07/26/18 17:36	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	07/26/18 17:36	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	07/26/18 17:36	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 17:36	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	07/26/18 17:36	
2-Butanone (MEK)	10 U	10	0.78	1	07/26/18 17:36	
2-Hexanone	10 U	10	0.34	1	07/26/18 17:36	
4-Methyl-2-pentanone	10 U	10	0.29	1	07/26/18 17:36	
Acetone	3.2 J	10	2.1	1	07/26/18 17:36	
Benzene	5.0 U	5.0	0.20	1	07/26/18 17:36	
Bromodichloromethane	5.0 U	5.0	0.31	1	07/26/18 17:36	
Bromoform	5.0 U	5.0	0.36	1	07/26/18 17:36	
Bromomethane	5.0 U	5.0	0.70	1	07/26/18 17:36	
Carbon Disulfide	10 U	10	0.31	1	07/26/18 17:36	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/26/18 17:36	
Chlorobenzene	5.0 U	5.0	0.20	1	07/26/18 17:36	
Chloroethane	5.0 U	5.0	0.23	1	07/26/18 17:36	
Chloroform	5.0 U	5.0	0.28	1	07/26/18 17:36	
Chloromethane	5.0 U	5.0	0.28	1	07/26/18 17:36	
Cyclohexane	10 U	10	0.31	1	07/26/18 17:36	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/26/18 17:36	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	07/26/18 17:36	
Dichloromethane	5.0 U	5.0	0.47	1	07/26/18 17:36	
Ethylbenzene	5.0 U	5.0	0.20	1	07/26/18 17:36	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	07/26/18 17:36	
Methyl Acetate	10 U	10	0.33	1	07/26/18 17:36	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	07/26/18 17:36	
Methylcyclohexane	10 U	10	0.35	1	07/26/18 17:36	
Styrene	5.0 U	5.0	0.20	1	07/26/18 17:36	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	07/26/18 17:36	
Toluene	5.0 U	5.0	0.20	1	07/26/18 17:36	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/26/18 17:36	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	07/26/18 17:36	
Vinyl Chloride	5.0 U	5.0	0.22	1	07/26/18 17:36	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Collected: 07/25/18 08:45
Date Received: 07/25/18 15:20

Sample Name: Trip Blank
Lab Code: R1806976-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	07/26/18 17:36	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	07/26/18 17:36	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 17:36	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	07/26/18 17:36	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 17:36	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	93	85 - 122	07/26/18 17:36	
Dibromofluoromethane	102	89 - 119	07/26/18 17:36	
Toluene-d8	98	87 - 121	07/26/18 17:36	



QC Summary Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

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ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
GMPW-4	R1806976-001	89	100	100
GMMW-6	R1806976-002	91	96	97
GMMW-5	R1806976-003	93	104	98
Trip Blank	R1806976-004	93	102	98
Method Blank	RQ1807594-04	92	102	98
Lab Control Sample	RQ1807594-03	92	107	99

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1807594-04

Service Request: R1806976
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	07/26/18 13:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	07/26/18 13:35	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	07/26/18 13:35	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	07/26/18 13:35	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	07/26/18 13:35	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	07/26/18 13:35	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	07/26/18 13:35	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	07/26/18 13:35	
2-Butanone (MEK)	10 U	10	0.78	1	07/26/18 13:35	
2-Hexanone	10 U	10	0.34	1	07/26/18 13:35	
4-Methyl-2-pentanone	10 U	10	0.29	1	07/26/18 13:35	
Acetone	10 U	10	2.1	1	07/26/18 13:35	
Benzene	5.0 U	5.0	0.20	1	07/26/18 13:35	
Bromodichloromethane	5.0 U	5.0	0.31	1	07/26/18 13:35	
Bromoform	5.0 U	5.0	0.36	1	07/26/18 13:35	
Bromomethane	5.0 U	5.0	0.70	1	07/26/18 13:35	
Carbon Disulfide	10 U	10	0.31	1	07/26/18 13:35	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	07/26/18 13:35	
Chlorobenzene	5.0 U	5.0	0.20	1	07/26/18 13:35	
Chloroethane	5.0 U	5.0	0.23	1	07/26/18 13:35	
Chloroform	5.0 U	5.0	0.28	1	07/26/18 13:35	
Chloromethane	5.0 U	5.0	0.28	1	07/26/18 13:35	
Cyclohexane	10 U	10	0.31	1	07/26/18 13:35	
Dibromochloromethane	5.0 U	5.0	0.20	1	07/26/18 13:35	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	07/26/18 13:35	
Dichloromethane	5.0 U	5.0	0.47	1	07/26/18 13:35	
Ethylbenzene	5.0 U	5.0	0.20	1	07/26/18 13:35	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	07/26/18 13:35	
Methyl Acetate	10 U	10	0.33	1	07/26/18 13:35	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	07/26/18 13:35	
Methylcyclohexane	10 U	10	0.35	1	07/26/18 13:35	
Styrene	5.0 U	5.0	0.20	1	07/26/18 13:35	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	07/26/18 13:35	
Toluene	5.0 U	5.0	0.20	1	07/26/18 13:35	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	07/26/18 13:35	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	07/26/18 13:35	
Vinyl Chloride	5.0 U	5.0	0.22	1	07/26/18 13:35	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1807594-04

Service Request: R1806976
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	07/26/18 13:35	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	07/26/18 13:35	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 13:35	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	07/26/18 13:35	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	07/26/18 13:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	07/26/18 13:35	
Dibromofluoromethane	102	89 - 119	07/26/18 13:35	
Toluene-d8	98	87 - 121	07/26/18 13:35	

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Analyzed: 07/26/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1807594-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	21.8	20.0	109	75-125
1,1,2,2-Tetrachloroethane	8260C	18.2	20.0	91	78-126
1,1,2-Trichloroethane	8260C	19.8	20.0	99	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	23.5	20.0	117	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	20.1	20.0	101	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	20.4	20.0	102	71-118
1,2,4-Trichlorobenzene	8260C	18.7	20.0	94	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	17.2	20.0	86	55-136
1,2-Dibromoethane	8260C	20.3	20.0	102	82-127
1,2-Dichlorobenzene	8260C	18.7	20.0	94	80-119
1,2-Dichloroethane	8260C	20.2	20.0	101	71-127
1,2-Dichloropropane	8260C	19.5	20.0	98	80-119
1,3-Dichlorobenzene	8260C	18.9	20.0	95	83-121
1,4-Dichlorobenzene	8260C	18.5	20.0	93	79-119
2-Butanone (MEK)	8260C	18.6	20.0	93	61-137
2-Hexanone	8260C	17.6	20.0	88	63-124
4-Methyl-2-pentanone	8260C	19.1	20.0	96	66-124
Acetone	8260C	16.2	20.0	81	40-161
Benzene	8260C	19.9	20.0	100	79-119
Bromodichloromethane	8260C	20.4	20.0	102	81-123
Bromoform	8260C	19.1	20.0	95	65-146
Bromomethane	8260C	15.8	20.0	79	42-166
Carbon Disulfide	8260C	19.1	20.0	96	66-128
Carbon Tetrachloride	8260C	21.5	20.0	108	70-127
Chlorobenzene	8260C	18.9	20.0	94	80-121
Chloroethane	8260C	21.6	20.0	108	62-131
Chloroform	8260C	20.8	20.0	104	79-120
Chloromethane	8260C	15.3	20.0	76	65-135
Cyclohexane	8260C	18.8	20.0	94	69-120
Dibromochloromethane	8260C	21.0	20.0	105	72-128
Dichlorodifluoromethane (CFC 12)	8260C	24.3	20.0	121	59-155
Dichloromethane	8260C	18.9	20.0	95	73-122
Ethylbenzene	8260C	20.2	20.0	101	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Special Wells
Sample Matrix: Water

Service Request: R1806976
Date Analyzed: 07/26/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1807594-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	19.5	20.0	98	77-128
Methyl Acetate	8260C	18.4	20.0	92	40-112
Methyl tert-Butyl Ether	8260C	20.2	20.0	101	75-118
Methylcyclohexane	8260C	19.9	20.0	99	51-129
Styrene	8260C	20.0	20.0	100	80-124
Tetrachloroethene (PCE)	8260C	19.3	20.0	97	72-125
Toluene	8260C	20.6	20.0	103	79-119
Trichloroethene (TCE)	8260C	20.1	20.0	101	74-122
Trichlorofluoromethane (CFC 11)	8260C	24.1	20.0	121	71-136
Vinyl Chloride	8260C	20.5	20.0	102	74-159
cis-1,2-Dichloroethene	8260C	19.6	20.0	98	80-121
cis-1,3-Dichloropropene	8260C	19.5	20.0	97	77-122
trans-1,2-Dichloroethene	8260C	19.6	20.0	98	73-118
trans-1,3-Dichloropropene	8260C	19.0	20.0	95	71-133



August 06, 2018

Service Request No:R1806978

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville Sed 3 Resample

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory July 25, 2018
For your reference, these analyses have been assigned our service request number **R1806978**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

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Phone (585) 288-5380 Fax (585) 288-8475

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Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample
Sample Matrix: Sediment

Service Request: R1806978
Date Received: 07/25/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

One sediment sample was received for analysis at ALS Environmental on 07/25/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The sample was received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature. Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Metals:

No significant anomalies were noted with this analysis.

General Chemistry:

No significant anomalies were noted with this analysis.

A handwritten signature in black ink, appearing to read "Brady Kullen".

Approved by _____

Date 08/06/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: SED-3	Lab ID: R1806978-001

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	78.1				Percent	ALS SOP
Aluminum, Total	9730		11	12	mg/Kg	6010C
Arsenic, Total	12.2		0.4	1.2	mg/Kg	6010C
Barium, Total	39.3		0.09	2.4	mg/Kg	6010C
Beryllium, Total	0.39		0.05	0.36	mg/Kg	6010C
Calcium, Total	240		7	120	mg/Kg	6010C
Chromium, Total	14.1		0.2	1.2	mg/Kg	6010C
Cobalt, Total	8.9		0.4	6.0	mg/Kg	6010C
Copper, Total	17.7		0.6	2.4	mg/Kg	6010C
Iron, Total	24200		140	140	mg/Kg	6010C
Lead, Total	14.8		0.24	0.60	mg/Kg	6010C
Magnesium, Total	3280		30	120	mg/Kg	6010C
Manganese, Total	321		1.3	2.4	mg/Kg	6010C
Nickel, Total	19.8		0.9	4.8	mg/Kg	6010C
Potassium, Total	810		30	240	mg/Kg	6010C
Vanadium, Total	14.4		0.9	6.0	mg/Kg	6010C
Zinc, Total	60.5		0.4	2.4	mg/Kg	6010C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

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Phone (585) 288-5380 Fax (585) 288-8475

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Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample

Service Request:R1806978

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1806978-001	SED-3	7/24/2018	1315



CHAIN OF CUSTODY/LABORATORY ANALYSIS REQUEST FORM

50088

1565 Jefferson Road, Building 300, Suite 360 • Rochester, NY 14623 | +1 585 288 5380 +1 585 288 8475 (fax)

PAGE 1 OF 1

Project Name Colesville Sed 3 Resample		Project Number		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																																	
Project Manager Laurie Haskell		Report QC		PRESERVATIVE																																	
Company/Address Colesville Landfill Broome County		Phone #		Email		NUMBER OF CONTAINERS																															
Sampled Signature Brian Mackin		Sampled Printed Name BRIAN MACKIN		GC/MS VOAs • 8260 • 824 • CLP GC/MS SYOAs • 8270 • 825 GC VOAs • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8082 • 808 METALS, TOTAL (List in comments below) METALS, DISSOLVED (List in comments below)																																	
CLIENT SAMPLE ID SED -3		FOR OFFICE USE ONLY LAB ID		SAMPLING DATE 7/24/18		TIME 1315		MATRIX S		1		PRESERVATIVE KEY 0. NONE 1. HCL 2. HNO ₃ 3. H ₂ SO ₄ 4. NaOH 5. Zn. Acetate 6. MeOH 7. NaHSO ₄ 8. Other _____																									
SPECIAL INSTRUCTIONS/COMMENTS Metals														TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day 5 day REQUESTED REPORT DATE				REPORT REQUIREMENTS I. Results Only II. Results + QC Summaries (LCS, DUP, MS/MSD as required) III. Results + QC and Calibration Summaries IV. Data Validation Report with Raw Data Edata Yes No				INVOICE INFORMATION PO # BILL TO:															
STATE WHERE SAMPLES WERE COLLECTED														RELINQUISHED BY Signature Brian Mackin Printed Name BRIAN MACKIN Firm ALS Date/Time 7/25/18 1200				RECEIVED BY Signature Rylee Lee Printed Name Rylee Lee Firm ALS Date/Time 7/25/18 1200				RELINQUISHED BY Signature Rylee Lee Printed Name Rylee Lee Firm ALS Date/Time 7/25/18 1520				RECEIVED BY Signature Samuel Ward Printed Name Samuel Ward Firm ALS Date/Time 7/25/18/ 1520				RELINQUISHED BY Signature Rylee Lee Printed Name Rylee Lee Firm ALS Date/Time 7/25/18/ 1520				RECEIVED BY Signature Rylee Lee Printed Name Rylee Lee Firm ALS Date/Time 7/25/18/ 1520			



Cooler Receipt and Preservation Check Form

R1806978

5

Broome County Division of Solid Waste Management
Colesville Sed 3 Resample

Project/Client

Folder Number

Cooler received on 7/25/18

by: shCOURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N ☐
2	Custody papers properly completed (ink, signed)?	☒ N ☐
3	Did all bottles arrive in good condition (unbroken)?	☒ N ☐
4	Circle: ~~Wet Ice~~ Dry Ice Gel packs present?	☒ N ☐

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles ?	Y ☒ NA
6	Where did the bottles originate?	<u>ACS/DOC</u> CLIENT
7	Soil VOA received as:	Bulk Encore 5035set ☒ NA

8. Temperature Readings Date: 7/25/18 Time: 1536 ID: IR#7 IR#9 From: Temp Blank Sample Bottle

Observed Temp (°C)	1.8	4.2	4.2	1.6			
Correction Factor (°C)	±0.0	±0.0	±0.3	±0.0			
Corrected Temp (°C)	1.8	4.2	4.5	1.6			
Temp from: Type of bottle			4mm vial				
Within 0-6°C?	☒ N	☒ N	☒ N	☒ N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule

& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by sh on 7/25/18 at 1536
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 7/25/18 Time: 2011

by: sh

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)?

☒ YES NO

10. Did all bottle labels and tags agree with custody papers?

☒ YES NO

11. Were correct containers used for the tests indicated?

☒ YES NO

12. Were 5035 vials acceptable (no extra labels, not leaking)?

YES NO

13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized

Tedlar® Bags Inflated

N/A
N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
≤2		HNO ₃								
≤2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**						

**VOAs and 1664 Not to be tested before analysis.
Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: _____

Explain all Discrepancies/ Other Comments: _____

CLRES	BULK
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: shPC Secondary Review: mm

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



FIELD MONITORING REPORT

PROJECT Colesville Sediment LAB ID Sed 3

SAMPLE POINT ID SED-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 7/24/18 Time 1315 SWL _____

Recharge Time _____ Recharge Rate _____

Appearance Gray sediment with small amount orange Fe bacteria

Weather Conditions Rain 76° 48 hr. _____

Sampling Technician (Print) BRIAN MACKIN Signature Brian Mackin

Meter	Parameter	Unit	Replicate 1	Replicate 2
	pH	unit		
	Conductivity	µmhos/cm		
	Temperature	Degrees Celsius		

Calibration Date/Time _____

OBSERVATIONS



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

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REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	New Hampshire ID #
Delaware Approved	New Jersey ID # NY004	294100 A/B
DoD ELAP #65817	New York ID # 10145	Pennsylvania ID# 68-786
Florida ID # E87674	North Carolina #676	Rhode Island ID # 158
		Virginia #460167

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample

Service Request: R1806978

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Sediment	Total Solids

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample

Service Request: R1806978

Sample Name: SED-3
Lab Code: R1806978-001
Sample Matrix: Sediment

Date Collected: 07/24/18
Date Received: 07/25/18

Analysis Method

6010C

7471B

ALS SOP

Extracted/Digested By

KMCLAEN

KMCLAEN

Analyzed By

NMANSEN

KMCLAEN

KWONG



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

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Metals

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dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample
Sample Matrix: Sediment
Sample Name: SED-3
Lab Code: R1806978-001

Service Request: R1806978
Date Collected: 07/24/18 13:15
Date Received: 07/25/18 15:20

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	9730	mg/Kg	12	1	08/03/18 12:21	07/31/18	
Antimony, Total	6010C	7.2 U	mg/Kg	7.2	1	08/03/18 12:21	07/31/18	
Arsenic, Total	6010C	12.2	mg/Kg	1.2	1	08/03/18 12:21	07/31/18	
Barium, Total	6010C	39.3	mg/Kg	2.4	1	08/03/18 12:21	07/31/18	
Beryllium, Total	6010C	0.39	mg/Kg	0.36	1	08/03/18 12:21	07/31/18	
Cadmium, Total	6010C	0.60 U	mg/Kg	0.60	1	08/03/18 12:21	07/31/18	
Calcium, Total	6010C	240	mg/Kg	120	1	08/03/18 12:21	07/31/18	
Chromium, Total	6010C	14.1	mg/Kg	1.2	1	08/03/18 12:21	07/31/18	
Cobalt, Total	6010C	8.9	mg/Kg	6.0	1	08/03/18 12:21	07/31/18	
Copper, Total	6010C	17.7	mg/Kg	2.4	1	08/03/18 12:21	07/31/18	
Iron, Total	6010C	24200	mg/Kg	140	10	08/03/18 12:50	07/31/18	
Lead, Total	6010C	14.8	mg/Kg	0.60	1	08/03/18 12:21	07/31/18	
Magnesium, Total	6010C	3280	mg/Kg	120	1	08/03/18 12:21	07/31/18	
Manganese, Total	6010C	321	mg/Kg	2.4	1	08/03/18 12:21	07/31/18	
Mercury, Total	7471B	0.039 U	mg/Kg	0.039	1	08/01/18 17:34	07/31/18	
Nickel, Total	6010C	19.8	mg/Kg	4.8	1	08/03/18 12:21	07/31/18	
Potassium, Total	6010C	810	mg/Kg	240	1	08/03/18 12:21	07/31/18	
Selenium, Total	6010C	1.2 U	mg/Kg	1.2	1	08/03/18 12:21	07/31/18	
Silver, Total	6010C	1.2 U	mg/Kg	1.2	1	08/03/18 12:21	07/31/18	
Sodium, Total	6010C	120 U	mg/Kg	120	1	08/03/18 12:21	07/31/18	
Thallium, Total	6010C	1.2 U	mg/Kg	1.2	1	08/03/18 12:21	07/31/18	
Vanadium, Total	6010C	14.4	mg/Kg	6.0	1	08/03/18 12:21	07/31/18	
Zinc, Total	6010C	60.5	mg/Kg	2.4	1	08/03/18 12:21	07/31/18	



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample
Sample Matrix: Sediment
Sample Name: SED-3
Lab Code: R1806978-001

Service Request: R1806978
Date Collected: 07/24/18 13:15
Date Received: 07/25/18 15:20
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	78.1	Percent	-	1	07/31/18 09:45	



QC Summary Forms

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ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample
Sample Matrix: Sediment
Sample Name: Method Blank
Lab Code: R1806978-MB

Service Request: R1806978
Date Collected: NA
Date Received: NA
Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	10 U	mg/Kg	10	1	08/03/18 11:58	07/31/18	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	1	08/03/18 11:58	07/31/18	
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	08/03/18 11:58	07/31/18	
Barium, Total	6010C	2.0 U	mg/Kg	2.0	1	08/03/18 11:58	07/31/18	
Beryllium, Total	6010C	0.30 U	mg/Kg	0.30	1	08/03/18 11:58	07/31/18	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	1	08/03/18 11:58	07/31/18	
Calcium, Total	6010C	100 U	mg/Kg	100	1	08/03/18 11:58	07/31/18	
Chromium, Total	6010C	1.0 U	mg/Kg	1.0	1	08/03/18 11:58	07/31/18	
Cobalt, Total	6010C	5.0 U	mg/Kg	5.0	1	08/03/18 11:58	07/31/18	
Copper, Total	6010C	2.0 U	mg/Kg	2.0	1	08/03/18 11:58	07/31/18	
Iron, Total	6010C	12 U	mg/Kg	12	1	08/03/18 11:58	07/31/18	
Lead, Total	6010C	0.50 U	mg/Kg	0.50	1	08/03/18 11:58	07/31/18	
Magnesium, Total	6010C	100 U	mg/Kg	100	1	08/03/18 11:58	07/31/18	
Manganese, Total	6010C	2.0 U	mg/Kg	2.0	1	08/03/18 11:58	07/31/18	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	1	08/01/18 17:29	07/31/18	
Nickel, Total	6010C	4.0 U	mg/Kg	4.0	1	08/03/18 11:58	07/31/18	
Potassium, Total	6010C	200 U	mg/Kg	200	1	08/03/18 11:58	07/31/18	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	1	08/03/18 11:58	07/31/18	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	1	08/03/18 11:58	07/31/18	
Sodium, Total	6010C	100 U	mg/Kg	100	1	08/03/18 11:58	07/31/18	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	1	08/03/18 11:58	07/31/18	
Vanadium, Total	6010C	5.0 U	mg/Kg	5.0	1	08/03/18 11:58	07/31/18	
Zinc, Total	6010C	2.0 U	mg/Kg	2.0	1	08/03/18 11:58	07/31/18	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Sed 3 Resample
Sample Matrix: Sediment

Service Request: R1806978
Date Analyzed: 08/01/18 - 08/03/18

Lab Control Sample Summary
Inorganic Parameters

Units:mg/Kg
Basis:Dry

Lab Control Sample
R1806978-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	182	200	91	80-120
Antimony, Total	6010C	46.3	50.0	93	80-120
Arsenic, Total	6010C	3.87	4.0	97	80-120
Barium, Total	6010C	211	200	105	80-120
Beryllium, Total	6010C	4.91	5.00	98	80-120
Cadmium, Total	6010C	5.14	5.00	103	80-120
Calcium, Total	6010C	190	200	95	80-120
Chromium, Total	6010C	21.0	20.0	105	80-120
Cobalt, Total	6010C	52.2	50.0	104	80-120
Copper, Total	6010C	24.8	25.0	99	80-120
Iron, Total	6010C	100	100	100	80-120
Lead, Total	6010C	51.0	50.0	102	80-120
Magnesium, Total	6010C	200	200	98	80-120
Manganese, Total	6010C	51.0	50.0	102	80-120
Mercury, Total	7471B	0.162	0.167	97	80-120
Nickel, Total	6010C	50.7	50.0	101	80-120
Potassium, Total	6010C	1900	2000	95	80-120
Selenium, Total	6010C	94.5	101	94	80-120
Silver, Total	6010C	4.9	5.0	97	80-120
Sodium, Total	6010C	1930	2000	96	80-120
Thallium, Total	6010C	184	200	92	80-120
Vanadium, Total	6010C	50.5	50.0	101	80-120
Zinc, Total	6010C	48.6	50.0	97	80-120



December 31, 2018

Service Request No:R1811858

Ms. Laurie Haskell
Broome County Division of Solid Waste Management
60 Hawley St.
P.O. Box 1766
Binghamton, NY 13902

Laboratory Results for: Colesville Landfill

Dear Ms.Haskell,

Enclosed are the results of the sample(s) submitted to our laboratory December 06, 2018
For your reference, these analyses have been assigned our service request number **R1811858**.

All analyses were performed according to our laboratory's quality assurance program. The test results meet requirements of the NELAP standards except as noted in the case narrative report. All results are intended to be considered in their entirety, and ALS Environmental is not responsible for use of less than the complete report. Results apply only to the items submitted to the laboratory for analysis and individual items (samples) analyzed, as listed in the report. The measurement uncertainty of the results included in this report is within that expected when using the prescribed method(s) for analysis of these samples, and represented by Laboratory Control Sample control limits. Any events, such as QC failures, which may add to the uncertainty are explained in the report narrative.

Please contact me if you have any questions. My extension is 7471. You may also contact me via email at Brady.Kalkman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Brady Kalkman
Project Manager

ADDRESS

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

PHONE +1 585 288 5380 | **FAX** +1 585 288 8475

ALS Group USA, Corp.
dba ALS Environmental



Narrative Documents

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment, Water

Service Request: R1811858
Date Received: 12/06/2018

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental. This report contains analytical results for samples designated for Tier II data deliverables, including results of QC samples analyzed from this delivery group. Analytical procedures performed by the lab are validated in accordance with NELAC standards. Any parameters that are not included in the lab's NELAC accreditation are identified on a "Non-Certified Analytes" report in the Miscellaneous Forms Section of this report. Individual analytical results requiring further explanation are flagged with qualifiers and/or discussed below. The flags are explained in the Report Qualifiers and Definitions page in the Miscellaneous Forms section of this report.

Sample Receipt:

Eleven sediment, water samples were received for analysis at ALS Environmental on 12/06/2018. Any discrepancies noted upon initial sample inspection are noted on the cooler receipt and preservation form included in this data package. The samples were received in good condition and consistent with the accompanying chain of custody form. Samples are refrigerated at 0 to 6°C upon receipt at the lab except for aqueous samples designated for metals analyses, which are stored at room temperature. If any samples were received for the analysis of pH, chlorine residual, sulfite, dissolved oxygen, or ferrous iron, the samples were analyzed past their holding time expiration since these analyses are required to be analyzed within 15 minutes of sampling.

Metals:

Method 6010C, 12/12/2018: The control limits for matrix spike recovery of one or more of the spiked analytes are not applicable and have been flagged with a "#". The concentration of the analyte(s) in the parent sample is more than 4x the spike concentration. No further corrective action was required.

General Chemistry:

No significant anomalies were noted with this analysis.

Volatiles by GC/MS:

Method 8260C, 12/10/2018: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Method 8260C, 12/11/2018: The upper control limit was exceeded for one or more analytes in the Continuing Calibration Verification (CCV). The field samples analyzed in this sequence did not contain the analyte(s) in question above the Method Reporting Limit (MRL). Since the exceedance equates to a potential high bias, the data quality was not significantly affected and no further corrective action was taken.

Field:

Sampling was performed by ALS personnel in accordance with ALS Field Sampling SOPs or by client specifications.

Approved by



Date

12/31/2018

SAMPLE DETECTION SUMMARY

CLIENT ID: F-6	Lab ID: R1811858-002

Analyte	Results	Flag	MDL	MRL	Units	Method
Dissolved Oxygen, Field	12.3			0.20	mg/L	SM 4500-O G
Conductivity, Field	106				uMHOS/cm	120.1
pH, Field	7.67				pH Units	SM 4500-H+ B
Redox Potential, Field	78				mV	ASTM D1498-00
Temperature, Field	3.0				deg C	SM 2550 B
Turbidity, Field	0.7				NTU	180.1

CLIENT ID: SW-4	Lab ID: R1811858-003

Analyte	Results	Flag	MDL	MRL	Units	Method
Dissolved Oxygen, Field	12.4			0.20	mg/L	SM 4500-O G
Conductivity, Field	96				uMHOS/cm	120.1
pH, Field	7.76				pH Units	SM 4500-H+ B
Redox Potential, Field	118				mV	ASTM D1498-00
Temperature, Field	2.8				deg C	SM 2550 B
Turbidity, Field	1.1				NTU	180.1

CLIENT ID: SP-4	Lab ID: R1811858-004

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	305				uMHOS/cm	120.1
pH, Field	6.36				pH Units	SM 4500-H+ B
Redox Potential, Field	55				mV	ASTM D1498-00
Temperature, Field	4.0				deg C	SM 2550 B
Turbidity, Field	2.8				NTU	180.1
Arsenic, Total	37		4	10	ug/L	6010C
Barium, Total	51		7	20	ug/L	6010C
Calcium, Total	39200		300	1000	ug/L	6010C
Iron, Total	8810		50	100	ug/L	6010C
Magnesium, Total	7500		200	1000	ug/L	6010C
Manganese, Total	2650		6	10	ug/L	6010C
Sodium, Total	6400		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	4.5	J	0.20	5.0	ug/L	8260C
Chlorobenzene	1.9	J	0.20	5.0	ug/L	8260C
Chloroethane	3.0	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	0.37	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.41	J	0.26	5.0	ug/L	8260C

CLIENT ID: SW-3	Lab ID: R1811858-005

Analyte	Results	Flag	MDL	MRL	Units	Method
Dissolved Oxygen, Field	12.4			0.20	mg/L	SM 4500-O G
Conductivity, Field	95				uMHOS/cm	120.1



SAMPLE DETECTION SUMMARY

CLIENT ID: SW-3 Lab ID: R1811858-005

Analyte	Results	Flag	MDL	MRL	Units	Method
pH, Field	7.56				pH Units	SM 4500-H+ B
Redox Potential, Field	95				mV	ASTM D1498-00
Temperature, Field	2.8				deg C	SM 2550 B
Turbidity, Field	1.0				NTU	180.1

CLIENT ID: SP-3 Lab ID: R1811858-006

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	231				uMHOS/c m	120.1
pH, Field	6.71				pH Units	SM 4500-H+ B
Redox Potential, Field	98				mV	ASTM D1498-00
Temperature, Field	5.0				deg C	SM 2550 B
Turbidity, Field	0.9				NTU	180.1
Barium, Total	25		7	20	ug/L	6010C
Calcium, Total	30600		300	1000	ug/L	6010C
Iron, Total	1740		50	100	ug/L	6010C
Magnesium, Total	6800		200	1000	ug/L	6010C
Manganese, Total	2040		6	10	ug/L	6010C
Sodium, Total	3600		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	9.6		0.20	5.0	ug/L	8260C
1,2-Dichloroethane	0.23	J	0.20	5.0	ug/L	8260C
Chlorobenzene	3.3	J	0.20	5.0	ug/L	8260C
Chloroethane	1.4	J	0.23	5.0	ug/L	8260C
Chloromethane	0.48	J	0.28	5.0	ug/L	8260C
Trichloroethene (TCE)	1.2	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.65	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	5.0	J	0.26	5.0	ug/L	8260C

CLIENT ID: SP-3 Sediment Lab ID: R1811858-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Total Solids	74.2				Percent	ALS SOP
Aluminum, Total	8590		16	25	mg/Kg	6010C
Arsenic, Total	9.2		0.9	1.3	mg/Kg	6010C
Barium, Total	45.8		1.3	2.5	mg/Kg	6010C
Calcium, Total	400		50	130	mg/Kg	6010C
Chromium, Total	12.0		0.5	1.3	mg/Kg	6010C
Cobalt, Total	8.7		0.3	6.4	mg/Kg	6010C
Copper, Total	16.9		0.9	2.5	mg/Kg	6010C
Iron, Total	23400		170	250	mg/Kg	6010C
Lead, Total	14.4		0.51	3.2	mg/Kg	6010C
Magnesium, Total	3090		20	130	mg/Kg	6010C
Manganese, Total	560		2.0	2.5	mg/Kg	6010C
Nickel, Total	18.0		0.9	5.1	mg/Kg	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-3 Sediment	Lab ID: R1811858-007

Analyte	Results	Flag	MDL	MRL	Units	Method
Potassium, Total	810		20	250	mg/Kg	6010C
Vanadium, Total	13.0		0.96	6.4	mg/Kg	6010C
Zinc, Total	51.8		1.8	2.5	mg/Kg	6010C
Acetone	10		3.8	6.7	ug/Kg	8260C

CLIENT ID: SW-2	Lab ID: R1811858-008

Analyte	Results	Flag	MDL	MRL	Units	Method
Dissolved Oxygen, Field	12.6			0.20	mg/L	SM 4500-O G
Conductivity, Field	78				uMHOS/cm	120.1
pH, Field	6.91				pH Units	SM 4500-H+ B
Redox Potential, Field	79				mV	ASTM D1498-00
Temperature, Field	2.4				deg C	SM 2550 B
Turbidity, Field	1.3				NTU	180.1

CLIENT ID: SP-2	Lab ID: R1811858-009

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	100				uMHOS/cm	120.1
pH, Field	6.69				pH Units	SM 4500-H+ B
Redox Potential, Field	82				mV	ASTM D1498-00
Temperature, Field	3.0				deg C	SM 2550 B
Turbidity, Field	6.3				NTU	180.1
Calcium, Total	8500		300	1000	ug/L	6010C
Iron, Total	2270		50	100	ug/L	6010C
Magnesium, Total	2400		200	1000	ug/L	6010C
Manganese, Total	1540		6	10	ug/L	6010C
Sodium, Total	4500		200	1000	ug/L	6010C

CLIENT ID: SP-5 Effluent	Lab ID: R1811858-010

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	377				uMHOS/cm	120.1
pH, Field	6.45				pH Units	SM 4500-H+ B
Redox Potential, Field	4				mV	ASTM D1498-00
Temperature, Field	7.6				deg C	SM 2550 B
Turbidity, Field	1.4				NTU	180.1
Arsenic, Total	63		4	10	ug/L	6010C
Barium, Total	116		7	20	ug/L	6010C
Calcium, Total	40100		300	1000	ug/L	6010C
Iron, Total	18600		50	100	ug/L	6010C
Magnesium, Total	9900		200	1000	ug/L	6010C
Manganese, Total	5430		6	10	ug/L	6010C
Potassium, Total	2100		200	2000	ug/L	6010C

SAMPLE DETECTION SUMMARY

CLIENT ID: SP-5 Effluent	Lab ID: R1811858-010

Analyte	Results	Flag	MDL	MRL	Units	Method
Sodium, Total	5500		200	1000	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	3.7	J	0.20	5.0	ug/L	8260C
Benzene	0.34	J	0.20	5.0	ug/L	8260C
Chlorobenzene	8.8		0.20	5.0	ug/L	8260C
Chloroethane	0.81	J	0.23	5.0	ug/L	8260C
Trichloroethene (TCE)	1.1	J	0.20	5.0	ug/L	8260C
Vinyl Chloride	0.29	J	0.22	5.0	ug/L	8260C
cis-1,2-Dichloroethene	0.77	J	0.26	5.0	ug/L	8260C

CLIENT ID: SP-5 Influent	Lab ID: R1811858-011

Analyte	Results	Flag	MDL	MRL	Units	Method
Conductivity, Field	384				uMHOS/c m	120.1
pH, Field	6.40				pH Units	SM 4500-H+ B
Redox Potential, Field	6				mV	ASTM D1498-00
Temperature, Field	7.2				deg C	SM 2550 B
Turbidity, Field	8.1				NTU	180.1
Aluminum, Total	170		70	100	ug/L	6010C
Arsenic, Total	140		4	10	ug/L	6010C
Barium, Total	114		7	20	ug/L	6010C
Calcium, Total	41500		300	1000	ug/L	6010C
Iron, Total	19100		50	100	ug/L	6010C
Lead, Total	35.2		2.5	5.0	ug/L	6010C
Magnesium, Total	9900		200	1000	ug/L	6010C
Manganese, Total	5460		6	10	ug/L	6010C
Potassium, Total	2200		200	2000	ug/L	6010C
Sodium, Total	5500		200	1000	ug/L	6010C
Zinc, Total	5270		100	200	ug/L	6010C
1,1-Dichloroethane (1,1-DCA)	4.7	J	0.20	5.0	ug/L	8260C
Benzene	0.57	J	0.20	5.0	ug/L	8260C
Carbon Disulfide	2.0	J	0.31	10	ug/L	8260C
Chlorobenzene	11		0.20	5.0	ug/L	8260C
Trichloroethene (TCE)	1.9	J	0.20	5.0	ug/L	8260C
cis-1,2-Dichloroethene	1.1	J	0.26	5.0	ug/L	8260C



Sample Receipt Information

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request:R1811858

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1811858-001	Trip Blank	12/6/2018	0745
R1811858-002	F-6	12/6/2018	0745
R1811858-003	SW-4	12/6/2018	0755
R1811858-004	SP-4	12/6/2018	0850
R1811858-005	SW-3	12/6/2018	0810
R1811858-006	SP-3	12/6/2018	0815
R1811858-007	SP-3 Sediment	12/6/2018	0820
R1811858-008	SW-2	12/6/2018	0830
R1811858-009	SP-2	12/6/2018	0835
R1811858-010	SP-5 Effluent	12/6/2018	0935
R1811858-011	SP-5 Influent	12/6/2018	0955



Cooler Receipt and Preservation Check Form

Project/Client _____ Folder Number _____

Cooler received on 12/6/18 by: dk COURIER: ALS UPS FEDEX VELOCITY CLIENT

1	Were Custody seals on outside of cooler?	Y ☒ N
2	Custody papers properly completed (ink, signed)?	☒ Y N
3	Did all bottles arrive in good condition (unbroken)?	☒ Y N
4	Circle: ~~Wet Ice~~ Dry Ice Gel packs present?	☒ Y N

5a	Perchlorate samples have required headspace?	Y N ☒ NA
5b	Did ~~VOA~~ vials, Alk, or Sulfide have sig* bubbles?	☒ Y N NA
6	Where did the bottles originate?	ALS ~~ROC~~ CLIENT
7	Soil VOA received as:	<u>Bulk</u> Encore 5035set <u>12/7/18</u>

8. Temperature Readings Date: 12/6/18 Time: 1500 ID: IR#7 R#10 From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>0.8</u>	<u>2.0</u>					
Correction Factor (°C)	<u>±0.0</u>	<u>±0.0</u>					
Corrected Temp (°C)	<u>0.8</u>	<u>2.0</u>					
Temp from: Type of bottle							
Within 0-6°C?	☒ Y N	☒ Y N	Y N	Y N	Y N	Y N	Y N
If <0°C, were samples frozen?	Y N	Y N	Y N	Y N	Y N	Y N	Y N

If out of Temperature, note packing/ice condition: _____ Ice melted Poorly Packed (described below) Same Day Rule
& Client Approval to Run Samples: _____ Standing Approval Client aware at drop-off Client notified by: _____

All samples held in storage location: R-002 by dk on 12/6/18 at 1500
5035 samples placed in storage location: _____ by _____ on _____ at _____

Cooler Breakdown/Preservation Check**: Date: 12/7/18 Time: 1540 by: dk

9. Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
10. Did all bottle labels and tags agree with custody papers? YES NO
11. Were correct containers used for the tests indicated? YES NO
12. Were 5035 vials acceptable (no extra labels, not leaking)? YES NO
13. Air Samples: Cassettes / Tubes Intact with MS? Canisters Pressurized Tedlar® Bags Inflated N/A

pH	Lot of test paper	Reagent	Preserved?		Lot Received	Exp	Sample ID Adjusted	Vol. Added	Lot Added	Final pH
			Yes	No						
≥12		NaOH								
<2	<u>220617</u>	HNO ₃	☒		<u>1117091</u>					
<2		H ₂ SO ₄								
<4		NaHSO ₄								
5-9		For 608pest			No=Notify for 3day					
Residual Chlorine (-)		For CN, Phenol, 625, 608pest, 522			If +, contact PM to add Na ₂ S ₂ O ₃ (625, 608, CN), ascorbic (phenol).					
		Na ₂ S ₂ O ₃								
		ZnAcetate	-	-						
		HCl	**	**	<u>4117090</u>					

**VOAs and 1664 Not to be tested before analysis. Otherwise, all bottles of all samples with chemical preservatives are checked (not just representatives).

Bottle lot numbers: 8-039-004, W133128, 021918-182

Explain all Discrepancies/ Other Comments:

3 vials for the trip blank

CLRES	<u>BULK</u>
DO	FLDT
HPROD	HGFB
HTR	LL3541
PH	SUB
SO3	MARRS
<u>ALS</u>	REV

Labels secondary reviewed by: dk

PC Secondary Review: _____

*significant air bubbles: VOA > 5-6 mm : WC > 1 in. diameter



R1811858

FIELD MONITORING REPORT

PROJECT Colesville Landfill LAB ID Field OnlySAMPLE POINT ID F-6

PURGE INFORMATION

~~Well Depth (ft.) _____ Purge Date _____ Purge Method _____~~~~SWL (ft.) _____ Start Time _____ Stop Time _____~~~~Standing Water (ft.) _____ Volume Purged gal _____ # casings _____~~~~Well Constant (gal/ft.) _____ Observations _____~~~~Well Volume (gal.) _____~~

SAMPLING INFORMATION

Sample Method GrabDate 12/6/18 Time 0745 SWL —Appearance ClearWeather Conditions Overcast 24°Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	7.67	7.67
Myron 6p	Conductivity	µmhos/cm	106	106
Myron 6p	Temperature	Degrees Celsius	3.0	3.0
Myron 6p	Redox	millivolts	78	
Lamotte	Turbidity	NTU	0.7	

Calibration Date/Time 12/6/18 0700 pH 7.00 4.00 10.00
SC 1413 Set 1413OBSERVATIONS D.O. = 12.33



FIELD MONITORING REPORT

PROJECT Cokeville Landfill LAB ID Field Only

SAMPLE POINT ID SW-4

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 12/6/18 Time 0755 SWL -

Appearance Clear

Weather Conditions Overcast 24°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	7.76	7.76
Myron 6p	Conductivity	µmhos/cm	96	96
Myron 6p	Temperature	Degrees Celsius	2.8	
Myron 6p	Redox	millivolts	118	
Lamotte	Turbidity	NTU	1.1	

D.O. = 12.43

Calibration Date/Time 12/6/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT

Colesville Landfill

LAB ID

①

Field + VOCs + Metals

SAMPLE POINT ID

SP-4

PURGE INFORMATION

Well Depth (ft.)

Purge Date

Purge Method

SWL (ft.)

Start Time

Stop Time

Standing Water (ft.)

Volume Purged gal.

casings

Well Constant (gal/ft.)

Observations

Well Volume (gal.)

SAMPLING INFORMATION

Sample Method

Grab

Date

12/6/18

Time

0850

SWL

-

Appearance

Clear w/ minor specks

Weather Conditions

Overcast 24°

Sampling Technician (Print)

Kyle Lee

Signature

[Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.36	6.36
Myron 6p	Conductivity	µmhos/cm	305	305
Myron 6p	Temperature	Degrees Celsius	4.0	4.0
Myron 6p	Redox	millivolts	55	
Lamotte	Turbidity	NTU	2.8	

Calibration Date/Time

12/6/18

0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville Landfill LAB ID Field Only

SAMPLE POINT ID SW-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 12/6/18 Time 0810 SWL —

Appearance Clear

Weather Conditions Overcast 24°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	7.56	7.56
Myron 6p	Conductivity	µmhos/cm	95	95
Myron 6p	Temperature	Degrees Celsius	2.8	2.8
Myron 6p	Redox	millivolts	95	
Lamotte	Turbidity	NTU	1.0	

D.O. = 12.41

Calibration Date/Time 12/6/18 0700

OBSERVATIONS _____

Sampling procedures were performed in accordance with all applicable protocols.



FIELD MONITORING REPORT

PROJECT Colesville Landfill LAB ID Water ② Sed ⑥
Field + VOA + Metals
+ Soil

SAMPLE POINT ID SP-3

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 12/6/18 Time 0815 | 0820 SWL _____

Appearance Water! Clear w/minor specks Sediment! Silty Very fine Sand Dark Grey

Weather Conditions Overcast 24°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.71	6.71
Myron 6p	Conductivity	µmhos/cm	231	231
Myron 6p	Temperature	Degrees Celsius	5.0	5.0
Myron 6p	Redox	millivolts	98	
Lamotte	Turbidity	NTU	0.9	

Calibration Date/Time 12/6/18 0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville Landfill LAB ID Field Only

SAMPLE POINT ID SW-2

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # Casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 12/6/18 Time 0830 SWL —

Appearance Clear

Weather Conditions Overcast 24°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.91	6.91
Myron 6p	Conductivity	µmhos/cm	78	78
Myron 6p	Temperature	Degrees Celsius	2.4	2.4
Myron 6p	Redox	millivolts	79	
Lamotte	Turbidity	NTU	1.3	

D.O. = 12.56

Calibration Date/Time 12/6/18 0700

OBSERVATIONS _____



FIELD MONITORING REPORT

PROJECT

Colesville Landfill

LAB ID Field + VOC + Metals

SAMPLE POINT ID

BP-2

PURGE INFORMATION

Well Depth (ft.)

Purge Date

Purge Method

SWL (ft.)

Start Time

Stop Time

Standing Water (ft.)

Volume Purged gal.

casings

Well Constant (gal/ft.)

Observations

Well Volume (gal.)

SAMPLING INFORMATION

Sample Method

Grab

Date

12/6/18

Time

0835

SWL

Appearance

Clear w/ iron bacteria

Weather Conditions

Overcast 25°

Sampling Technician (Print)

Kyle Lee

Signature

[Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.69	6.69
Myron 6p	Conductivity	µmhos/cm	100	100
Myron 6p	Temperature	Degrees Celsius	3.0	3.0
Myron 6p	Redox	millivolts	82	
Lamotte	Turbidity	NTU	6.3	

Calibration Date/Time

12/6/18

0700

OBSERVATIONS



FIELD MONITORING REPORT

PROJECT Colesville Landfill LAB ID Field + VOA + Metals 4

SAMPLE POINT ID SP-5 Effluent

PURGE INFORMATION

Well Depth (ft.) _____ Purge Date _____ Purge Method _____

SWL (ft.) _____ Start Time _____ Stop Time _____

Standing Water (ft.) _____ Volume Purged gal. _____ # casings _____

Well Constant (gal/ft.) _____ Observations _____

Well Volume (gal.) _____

SAMPLING INFORMATION

Sample Method Grab

Date 12/6/18 Time 0935 SWL -

Appearance Clear w/minor specks

Weather Conditions Overcast 25°

Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.45	6.45
Myron 6p	Conductivity	µmhos/cm	376	377
Myron 6p	Temperature	Degrees Celsius	7.6	7.6
Myron 6p	Redox	millivolts	4	
Lamotte	Turbidity	NTU	1.4	

Calibration Date/Time 12/6/18 0700

OBSERVATIONS



FIELD MONITORING REPORT

5

PROJECT Coleville Landfill LAB ID Field + WOA + Metals

SAMPLE POINT ID SP-5 Influent

PURGE INFORMATION

Well Depth (ft.) 4.10 Purge Date 12/6/18 Purge Method Bailer
SWL (ft.) 0.32 Start Time 0945 Stop Time 0946
Standing Water (ft.) 3.78 Volume Purged gal. 1.8 # casings 3
Well Constant (gal/ft.) 0.163 Observations Rust orange turbid to
Well Volume (gal.) 0.6 Rust tan tint

SAMPLING INFORMATION

Sample Method Bailer
Date 12/6/18 Time 0955 SWL —
Appearance Tan tint w/ suspended specks
Weather Conditions Overcast 25°
Sampling Technician (Print) Kyle Lee Signature [Signature]

Meter	Parameter	Unit	Replicate 1	Replicate 2
Myron 6p	pH	unit	6.40	6.40
Myron 6p	Conductivity	µmhos/cm	384	384
Myron 6p	Temperature	Degrees Celsius	7.2	7.2
Myron 6p	Redox	millivolts	6	
Lamotte	Turbidity	NTU	8.1	

Calibration Date/Time 12/6/18 0700

OBSERVATIONS



Miscellaneous Forms

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

REPORT QUALIFIERS AND DEFINITIONS

U	Analyte was analyzed for but not detected. The sample quantitation limit has been corrected for dilution and for percent moisture, unless otherwise noted in the case narrative.	+	Correlation coefficient for MSA is <0.995.
J	Estimated value due to either being a Tentatively Identified Compound (TIC) or that the concentration is between the MRL and the MDL. Concentrations are not verified within the linear range of the calibration. For DoD: concentration >40% difference between two GC columns (pesticides/Aroclors).	N	Inorganics- Matrix spike recovery was outside laboratory limits.
B	Analyte was also detected in the associated method blank at a concentration that may have contributed to the sample result.	N	Organics- Presumptive evidence of a compound (reported as a TIC) based on the MS library search.
E	Inorganics- Concentration is estimated due to the serial dilution was outside control limits.	S	Concentration has been determined using Method of Standard Additions (MSA).
E	Organics- Concentration has exceeded the calibration range for that specific analysis.	W	Post-Digestion Spike recovery is outside control limits and the sample absorbance is <50% of the spike absorbance.
D	Concentration is a result of a dilution, typically a secondary analysis of the sample due to exceeding the calibration range or that a surrogate has been diluted out of the sample and cannot be assessed.	P	Concentration >40% difference between the two GC columns.
*	Indicates that a quality control parameter has exceeded laboratory limits. Under the "Notes" column of the Form I, this qualifier denotes analysis was performed out of Holding Time.	C	Confirmed by GC/MS
H	Analysis was performed out of hold time for tests that have an "immediate" hold time criteria.	Q	DoD reports: indicates a pesticide/Aroclor is not confirmed (100% Difference between two GC columns).
#	Spike was diluted out.	X	See Case Narrative for discussion.
		MRL	Method Reporting Limit. Also known as:
		LOQ	Limit of Quantitation (LOQ) The lowest concentration at which the method analyte may be reliably quantified under the method conditions.
		MDL	Method Detection Limit. A statistical value derived from a study designed to provide the lowest concentration that will be detected 99% of the time. Values between the MDL and MRL are estimated (see J qualifier).
		LOD	Limit of Detection. A value at or above the MDL which has been verified to be detectable.
		ND	Non-Detect. Analyte was not detected at the concentration listed. Same as U qualifier.



Rochester Lab ID # for State Certifications¹

Connecticut ID # PH0556	Maine ID #NY0032	Pennsylvania ID# 68-786
Delaware Approved	New Hampshire ID # 2941	Rhode Island ID # 158
DoD ELAP #65817	New York ID # 10145	Virginia #460167
Florida ID # E87674	North Carolina #676	

¹ Analyses were performed according to our laboratory's NELAP-approved quality assurance program and any applicable state or agency requirements. The test results meet requirements of the current NELAP/TNI standards or state or agency requirements, where applicable, except as noted in the case narrative. Since not all analyte/method/matrix combinations are offered for state/NELAC accreditation, this report may contain results which are not accredited. For a specific list of accredited analytes, contact the laboratory or go to <https://www.alsglobal.com/locations/americas/north-america/usa/new-york/rochester-environmental>

ALS Laboratory Group

Acronyms

ASTM	American Society for Testing and Materials
A2LA	American Association for Laboratory Accreditation
CARB	California Air Resources Board
CAS Number	Chemical Abstract Service registry Number
CFC	Chlorofluorocarbon
CFU	Colony-Forming Unit
DEC	Department of Environmental Conservation
DEQ	Department of Environmental Quality
DHS	Department of Health Services
DOE	Department of Ecology
DOH	Department of Health
EPA	U. S. Environmental Protection Agency
ELAP	Environmental Laboratory Accreditation Program
GC	Gas Chromatography
GC/MS	Gas Chromatography/Mass Spectrometry
LUFT	Leaking Underground Fuel Tank
M	Modified
MCL	Maximum Contaminant Level is the highest permissible concentration of a substance allowed in drinking water as established by the USEPA.
MDL	Method Detection Limit
MPN	Most Probable Number
MRL	Method Reporting Limit
NA	Not Applicable
NC	Not Calculated
NCASI	National Council of the Paper Industry for Air and Stream Improvement
ND	Not Detected
NIOSH	National Institute for Occupational Safety and Health
PQL	Practical Quantitation Limit
RCRA	Resource Conservation and Recovery Act
SIM	Selected Ion Monitoring
TPH	Total Petroleum Hydrocarbons
tr	Trace level is the concentration of an analyte that is less than the PQL but greater than or equal to the MDL.

ALS Group USA, Corp.
dba ALS Environmental

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Non-Certified Analytes

Certifying Agency: New York Department of Health

Method	Matrix	Analyte
ALS SOP	Sediment	Total Solids
ASTM D1498-00	Water	Redox Potential, Field
SM 2550 B	Water	Temperature, Field
SM 4500-H+ B	Water	pH, Field
SM 4500-O G	Water	Dissolved Oxygen, Field

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Sample Name: Trip Blank
Lab Code: R1811858-001
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
8260C

Extracted/Digested By

Analyzed By
FNAEGLER

Sample Name: F-6
Lab Code: R1811858-002
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
120.1
180.1
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 4500-O G

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN

Sample Name: SW-4
Lab Code: R1811858-003
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
120.1
180.1
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 4500-O G

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Sample Name: SP-4
Lab Code: R1811858-004
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	LHERRING
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SW-3
Lab Code: R1811858-005
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN
SM 4500-O G		BMACKIN

Sample Name: SP-3
Lab Code: R1811858-006
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	LHERRING
7470A	KMCLAEN	KMCLAEN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Sample Name: SP-3
Lab Code: R1811858-006
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
8260C
ASTM D1498-00
SM 2550 B
SM 4500-H+ B

Extracted/Digested By

Analyzed By
FNAEGLER
BMACKIN
BMACKIN
BMACKIN

Sample Name: SP-3 Sediment
Lab Code: R1811858-007
Sample Matrix: Sediment

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
6010C
7471B
8260C
ALS SOP

Extracted/Digested By
KMCLAEN
KMCLAEN

Analyzed By
NMANSEN
KMCLAEN
FNAEGLER
KWONG

Sample Name: SW-2
Lab Code: R1811858-008
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method
120.1
180.1
ASTM D1498-00
SM 2550 B
SM 4500-H+ B
SM 4500-O G

Extracted/Digested By

Analyzed By
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN
BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Sample Name: SP-2
Lab Code: R1811858-009
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	LHERRING
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-5 Effluent
Lab Code: R1811858-010
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	LHERRING
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN

Sample Name: SP-5 Influent
Lab Code: R1811858-011
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
120.1		BMACKIN
180.1		BMACKIN

ALS Group USA, Corp.
dba ALS Environmental

Analyst Summary report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill

Service Request: R1811858

Sample Name: SP-5 Influent
Lab Code: R1811858-011
Sample Matrix: Water

Date Collected: 12/6/18
Date Received: 12/6/18

Analysis Method	Extracted/Digested By	Analyzed By
6010C	KMCLAEN	NMANSEN
6010C	KMCLAEN	LHERRING
7470A	KMCLAEN	KMCLAEN
8260C		FNAEGLER
ASTM D1498-00		BMACKIN
SM 2550 B		BMACKIN
SM 4500-H+ B		BMACKIN



INORGANIC PREPARATION METHODS

The preparation methods associated with this report are found in these tables unless discussed in the case narrative.

Water/Liquid Matrix

Analytical Method	Preparation Method
200.7	200.2
200.8	200.2
6010C	3005A/3010A
6020A	ILM05.3
9014 Cyanide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Reactivity	SW846 Ch7, 7.3.4.2
9034 Sulfide Acid Soluble	9030B
9056A Bomb (Halogens)	5050A
9066 Manual Distillation	9065
SM 4500-CN-E Residual Cyanide	SM 4500-CN-G
SM 4500-CN-E WAD Cyanide	SM 4500-CN-I

Solid/Soil/Non-Aqueous Matrix

Analytical Method	Preparation Method
6010C	3050B
6020A	3050B
6010C TCLP (1311) extract	3005A/3010A
6010 SPLP (1312) extract	3005A/3010A
7196A	3060A
7199	3060A
9056A Halogens/Halides	5050
300.0 Anions/ 350.1/ 353.2/ SM 2320B/ SM 5210B/ 9056A Anions	DI extraction

For analytical methods not listed, the preparation method is the same as the analytical method reference.



Sample Results

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

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Volatile Organic Compounds by GC/MS

ALS Environmental—Rochester Laboratory

1565 Jefferson Road, Building 300, Suite 360, Rochester, NY 14623

Phone (585) 288-5380 Fax (585) 288-8475

www.alsglobal.com

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: SP-3 Sediment
Lab Code: R1811858-007

Service Request: R1811858
Date Collected: 12/06/18 08:20
Date Received: 12/06/18 15:00

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS, Unp

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,1,1-Trichloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,1,2,2-Tetrachloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,1,2-Trichloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,1-Dichloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,1-Dichloroethene	6.7 U	6.7	1	12/10/18 19:25	
1,2,3-Trichloropropane	6.7 U	6.7	1	12/10/18 19:25	
1,2-Dibromo-3-chloropropane	6.7 U	6.7	1	12/10/18 19:25	
1,2-Dibromoethane	6.7 U	6.7	1	12/10/18 19:25	
1,2-Dichlorobenzene	6.7 U	6.7	1	12/10/18 19:25	
1,2-Dichloroethane	6.7 U	6.7	1	12/10/18 19:25	
1,2-Dichloropropane	6.7 U	6.7	1	12/10/18 19:25	
1,4-Dichlorobenzene	6.7 U	6.7	1	12/10/18 19:25	
2-Butanone (MEK)	6.7 U	6.7	1	12/10/18 19:25	
2-Hexanone	6.7 U	6.7	1	12/10/18 19:25	
4-Methyl-2-pentanone (MIBK)	6.7 U	6.7	1	12/10/18 19:25	
Acetone	10	6.7	1	12/10/18 19:25	
Acrylonitrile	34 U	34	1	12/10/18 19:25	
Benzene	6.7 U	6.7	1	12/10/18 19:25	
Bromochloromethane	6.7 U	6.7	1	12/10/18 19:25	
Bromodichloromethane	6.7 U	6.7	1	12/10/18 19:25	
Bromoform	6.7 U	6.7	1	12/10/18 19:25	
Bromomethane	6.7 U	6.7	1	12/10/18 19:25	
Carbon Disulfide	6.7 U	6.7	1	12/10/18 19:25	
Carbon Tetrachloride	6.7 U	6.7	1	12/10/18 19:25	
Chlorobenzene	6.7 U	6.7	1	12/10/18 19:25	
Chloroethane	6.7 U	6.7	1	12/10/18 19:25	
Chloroform	6.7 U	6.7	1	12/10/18 19:25	
Chloromethane	6.7 U	6.7	1	12/10/18 19:25	
Dibromochloromethane	6.7 U	6.7	1	12/10/18 19:25	
Dibromomethane	6.7 U	6.7	1	12/10/18 19:25	
Methylene Chloride	6.7 U	6.7	1	12/10/18 19:25	
Ethylbenzene	6.7 U	6.7	1	12/10/18 19:25	
Iodomethane	13 U	13	1	12/10/18 19:25	
Styrene	6.7 U	6.7	1	12/10/18 19:25	
Tetrachloroethene	6.7 U	6.7	1	12/10/18 19:25	
Toluene	6.7 U	6.7	1	12/10/18 19:25	
Trichloroethene	6.7 U	6.7	1	12/10/18 19:25	
Trichlorofluoromethane	6.7 U	6.7	1	12/10/18 19:25	
Vinyl Acetate	13 U	13	1	12/10/18 19:25	
Vinyl Chloride	6.7 U	6.7	1	12/10/18 19:25	
cis-1,2-Dichloroethene	6.7 U	6.7	1	12/10/18 19:25	
cis-1,3-Dichloropropene	6.7 U	6.7	1	12/10/18 19:25	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: SP-3 Sediment
Lab Code: R1811858-007

Service Request: R1811858
Date Collected: 12/06/18 08:20
Date Received: 12/06/18 15:00

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS, Unp

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
m,p-Xylenes	13 U	13	1	12/10/18 19:25	
o-Xylene	6.7 U	6.7	1	12/10/18 19:25	
trans-1,2-Dichloroethene	6.7 U	6.7	1	12/10/18 19:25	
trans-1,3-Dichloropropene	6.7 U	6.7	1	12/10/18 19:25	
trans-1,4-Dichloro-2-butene	6.7 U	6.7	1	12/10/18 19:25	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Bromofluorobenzene	98	31 - 154	12/10/18 19:25	
Dibromofluoromethane	108	63 - 138	12/10/18 19:25	
Toluene-d8	107	66 - 138	12/10/18 19:25	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 07:45
Date Received: 12/06/18 15:00

Sample Name: Trip Blank
Lab Code: R1811858-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 18:22	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 18:22	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 18:22	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 18:22	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 18:22	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 18:22	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:22	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 18:22	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 18:22	
2-Hexanone	10 U	10	0.34	1	12/11/18 18:22	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 18:22	
Acetone	10 U	10	2.1	1	12/11/18 18:22	
Benzene	5.0 U	5.0	0.20	1	12/11/18 18:22	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 18:22	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 18:22	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 18:22	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 18:22	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 18:22	
Chlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:22	
Chloroethane	5.0 U	5.0	0.23	1	12/11/18 18:22	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 18:22	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 18:22	
Cyclohexane	10 U	10	0.31	1	12/11/18 18:22	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 18:22	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 18:22	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 18:22	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 18:22	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 18:22	
Methyl Acetate	10 U	10	0.33	1	12/11/18 18:22	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 18:22	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 18:22	
Styrene	5.0 U	5.0	0.20	1	12/11/18 18:22	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 18:22	
Toluene	5.0 U	5.0	0.20	1	12/11/18 18:22	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	12/11/18 18:22	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 18:22	
Vinyl Chloride	5.0 U	5.0	0.22	1	12/11/18 18:22	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: Trip Blank
Lab Code: R1811858-001

Service Request: R1811858
Date Collected: 12/06/18 07:45
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 18:22	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 18:22	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:22	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 18:22	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:22	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/11/18 18:22	
Dibromofluoromethane	99	89 - 119	12/11/18 18:22	
Toluene-d8	102	87 - 121	12/11/18 18:22	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 08:50
Date Received: 12/06/18 15:00

Sample Name: SP-4
Lab Code: R1811858-004

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 18:44	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 18:44	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,1-Dichloroethane (1,1-DCA)	4.5 J	5.0	0.20	1	12/11/18 18:44	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 18:44	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 18:44	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 18:44	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 18:44	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:44	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 18:44	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 18:44	
2-Hexanone	10 U	10	0.34	1	12/11/18 18:44	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 18:44	
Acetone	10 U	10	2.1	1	12/11/18 18:44	
Benzene	5.0 U	5.0	0.20	1	12/11/18 18:44	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 18:44	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 18:44	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 18:44	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 18:44	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 18:44	
Chlorobenzene	1.9 J	5.0	0.20	1	12/11/18 18:44	
Chloroethane	3.0 J	5.0	0.23	1	12/11/18 18:44	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 18:44	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 18:44	
Cyclohexane	10 U	10	0.31	1	12/11/18 18:44	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 18:44	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 18:44	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 18:44	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 18:44	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 18:44	
Methyl Acetate	10 U	10	0.33	1	12/11/18 18:44	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 18:44	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 18:44	
Styrene	5.0 U	5.0	0.20	1	12/11/18 18:44	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 18:44	
Toluene	5.0 U	5.0	0.20	1	12/11/18 18:44	
Trichloroethene (TCE)	0.37 J	5.0	0.20	1	12/11/18 18:44	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 18:44	
Vinyl Chloride	5.0 U	5.0	0.22	1	12/11/18 18:44	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-4
Lab Code: R1811858-004

Service Request: R1811858
Date Collected: 12/06/18 08:50
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 18:44	
cis-1,2-Dichloroethene	0.41 J	5.0	0.26	1	12/11/18 18:44	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:44	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 18:44	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:44	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/11/18 18:44	
Dibromofluoromethane	99	89 - 119	12/11/18 18:44	
Toluene-d8	100	87 - 121	12/11/18 18:44	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 08:15
Date Received: 12/06/18 15:00

Sample Name: SP-3
Lab Code: R1811858-006

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 20:13	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 20:13	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 20:13	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 20:13	
1,1-Dichloroethane (1,1-DCA)	9.6	5.0	0.20	1	12/11/18 20:13	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 20:13	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 20:13	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 20:13	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 20:13	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 20:13	
1,2-Dichloroethane	0.23 J	5.0	0.20	1	12/11/18 20:13	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 20:13	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 20:13	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 20:13	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 20:13	
2-Hexanone	10 U	10	0.34	1	12/11/18 20:13	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 20:13	
Acetone	10 U	10	2.1	1	12/11/18 20:13	
Benzene	5.0 U	5.0	0.20	1	12/11/18 20:13	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 20:13	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 20:13	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 20:13	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 20:13	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 20:13	
Chlorobenzene	3.3 J	5.0	0.20	1	12/11/18 20:13	
Chloroethane	1.4 J	5.0	0.23	1	12/11/18 20:13	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 20:13	
Chloromethane	0.48 J	5.0	0.28	1	12/11/18 20:13	
Cyclohexane	10 U	10	0.31	1	12/11/18 20:13	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 20:13	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 20:13	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 20:13	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 20:13	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 20:13	
Methyl Acetate	10 U	10	0.33	1	12/11/18 20:13	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 20:13	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 20:13	
Styrene	5.0 U	5.0	0.20	1	12/11/18 20:13	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 20:13	
Toluene	5.0 U	5.0	0.20	1	12/11/18 20:13	
Trichloroethene (TCE)	1.2 J	5.0	0.20	1	12/11/18 20:13	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 20:13	
Vinyl Chloride	0.65 J	5.0	0.22	1	12/11/18 20:13	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-3
Lab Code: R1811858-006

Service Request: R1811858
Date Collected: 12/06/18 08:15
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 20:13	
cis-1,2-Dichloroethene	5.0 J	5.0	0.26	1	12/11/18 20:13	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 20:13	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 20:13	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 20:13	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	100	85 - 122	12/11/18 20:13	
Dibromofluoromethane	102	89 - 119	12/11/18 20:13	
Toluene-d8	103	87 - 121	12/11/18 20:13	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 08:35
Date Received: 12/06/18 15:00

Sample Name: SP-2
Lab Code: R1811858-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 19:06	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 19:06	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 19:06	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 19:06	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 19:06	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 19:06	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:06	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 19:06	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 19:06	
2-Hexanone	10 U	10	0.34	1	12/11/18 19:06	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 19:06	
Acetone	10 U	10	2.1	1	12/11/18 19:06	
Benzene	5.0 U	5.0	0.20	1	12/11/18 19:06	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 19:06	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 19:06	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 19:06	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 19:06	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 19:06	
Chlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:06	
Chloroethane	5.0 U	5.0	0.23	1	12/11/18 19:06	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 19:06	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 19:06	
Cyclohexane	10 U	10	0.31	1	12/11/18 19:06	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 19:06	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 19:06	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 19:06	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 19:06	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 19:06	
Methyl Acetate	10 U	10	0.33	1	12/11/18 19:06	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 19:06	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 19:06	
Styrene	5.0 U	5.0	0.20	1	12/11/18 19:06	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 19:06	
Toluene	5.0 U	5.0	0.20	1	12/11/18 19:06	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	12/11/18 19:06	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 19:06	
Vinyl Chloride	5.0 U	5.0	0.22	1	12/11/18 19:06	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-2
Lab Code: R1811858-009

Service Request: R1811858
Date Collected: 12/06/18 08:35
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 19:06	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 19:06	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:06	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 19:06	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	12/11/18 19:06	
Dibromofluoromethane	100	89 - 119	12/11/18 19:06	
Toluene-d8	102	87 - 121	12/11/18 19:06	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 09:35
Date Received: 12/06/18 15:00

Sample Name: SP-5 Effluent
Lab Code: R1811858-010

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 19:28	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 19:28	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,1-Dichloroethane (1,1-DCA)	3.7 J	5.0	0.20	1	12/11/18 19:28	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 19:28	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 19:28	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 19:28	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 19:28	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:28	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 19:28	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 19:28	
2-Hexanone	10 U	10	0.34	1	12/11/18 19:28	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 19:28	
Acetone	10 U	10	2.1	1	12/11/18 19:28	
Benzene	0.34 J	5.0	0.20	1	12/11/18 19:28	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 19:28	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 19:28	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 19:28	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 19:28	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 19:28	
Chlorobenzene	8.8	5.0	0.20	1	12/11/18 19:28	
Chloroethane	0.81 J	5.0	0.23	1	12/11/18 19:28	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 19:28	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 19:28	
Cyclohexane	10 U	10	0.31	1	12/11/18 19:28	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 19:28	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 19:28	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 19:28	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 19:28	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 19:28	
Methyl Acetate	10 U	10	0.33	1	12/11/18 19:28	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 19:28	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 19:28	
Styrene	5.0 U	5.0	0.20	1	12/11/18 19:28	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 19:28	
Toluene	5.0 U	5.0	0.20	1	12/11/18 19:28	
Trichloroethene (TCE)	1.1 J	5.0	0.20	1	12/11/18 19:28	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 19:28	
Vinyl Chloride	0.29 J	5.0	0.22	1	12/11/18 19:28	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-5 Effluent
Lab Code: R1811858-010

Service Request: R1811858
Date Collected: 12/06/18 09:35
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 19:28	
cis-1,2-Dichloroethene	0.77 J	5.0	0.26	1	12/11/18 19:28	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:28	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 19:28	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	98	85 - 122	12/11/18 19:28	
Dibromofluoromethane	99	89 - 119	12/11/18 19:28	
Toluene-d8	101	87 - 121	12/11/18 19:28	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: 12/06/18 09:55
Date Received: 12/06/18 15:00

Sample Name: SP-5 Influent
Lab Code: R1811858-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 19:50	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 19:50	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,1-Dichloroethane (1,1-DCA)	4.7 J	5.0	0.20	1	12/11/18 19:50	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 19:50	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 19:50	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 19:50	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 19:50	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 19:50	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 19:50	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 19:50	
2-Hexanone	10 U	10	0.34	1	12/11/18 19:50	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 19:50	
Acetone	10 U	10	2.1	1	12/11/18 19:50	
Benzene	0.57 J	5.0	0.20	1	12/11/18 19:50	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 19:50	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 19:50	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 19:50	
Carbon Disulfide	2.0 J	10	0.31	1	12/11/18 19:50	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 19:50	
Chlorobenzene	11	5.0	0.20	1	12/11/18 19:50	
Chloroethane	5.0 U	5.0	0.23	1	12/11/18 19:50	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 19:50	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 19:50	
Cyclohexane	10 U	10	0.31	1	12/11/18 19:50	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 19:50	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 19:50	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 19:50	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 19:50	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 19:50	
Methyl Acetate	10 U	10	0.33	1	12/11/18 19:50	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 19:50	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 19:50	
Styrene	5.0 U	5.0	0.20	1	12/11/18 19:50	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 19:50	
Toluene	5.0 U	5.0	0.20	1	12/11/18 19:50	
Trichloroethene (TCE)	1.9 J	5.0	0.20	1	12/11/18 19:50	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 19:50	
Vinyl Chloride	5.0 U	5.0	0.22	1	12/11/18 19:50	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-5 Influent
Lab Code: R1811858-011

Service Request: R1811858
Date Collected: 12/06/18 09:55
Date Received: 12/06/18 15:00

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 19:50	
cis-1,2-Dichloroethene	1.1 J	5.0	0.26	1	12/11/18 19:50	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:50	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 19:50	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 19:50	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/11/18 19:50	
Dibromofluoromethane	100	89 - 119	12/11/18 19:50	
Toluene-d8	102	87 - 121	12/11/18 19:50	



Metals

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SP-4
Lab Code: R1811858-004

Service Request: R1811858
Date Collected: 12/06/18 08:50
Date Received: 12/06/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	12/11/18 19:26	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 19:26	12/10/18	
Arsenic, Total	6010C	37	ug/L	10	1	12/11/18 19:26	12/10/18	
Barium, Total	6010C	51	ug/L	20	1	12/11/18 19:26	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 19:26	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:26	12/10/18	
Calcium, Total	6010C	39200	ug/L	1000	1	12/11/18 19:26	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:26	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 19:26	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 19:26	12/10/18	
Iron, Total	6010C	8810	ug/L	100	1	12/11/18 19:26	12/10/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:26	12/10/18	
Magnesium, Total	6010C	7500	ug/L	1000	1	12/11/18 19:26	12/10/18	
Manganese, Total	6010C	2650	ug/L	10	1	12/11/18 19:26	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:23	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 19:26	12/10/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	12/11/18 19:26	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 15:57	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 19:26	12/10/18	
Sodium, Total	6010C	6400	ug/L	1000	1	12/11/18 19:26	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:26	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 19:26	12/10/18	
Zinc, Total	6010C	20 U	ug/L	20	1	12/11/18 19:26	12/10/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SP-3
Lab Code: R1811858-006

Service Request: R1811858
Date Collected: 12/06/18 08:15
Date Received: 12/06/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	12/11/18 19:29	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 19:29	12/10/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	12/11/18 19:29	12/10/18	
Barium, Total	6010C	25	ug/L	20	1	12/11/18 19:29	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 19:29	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:29	12/10/18	
Calcium, Total	6010C	30600	ug/L	1000	1	12/11/18 19:29	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:29	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 19:29	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 19:29	12/10/18	
Iron, Total	6010C	1740	ug/L	100	1	12/11/18 19:29	12/10/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:29	12/10/18	
Magnesium, Total	6010C	6800	ug/L	1000	1	12/11/18 19:29	12/10/18	
Manganese, Total	6010C	2040	ug/L	10	1	12/11/18 19:29	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:25	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 19:29	12/10/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	12/11/18 19:29	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 16:07	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 19:29	12/10/18	
Sodium, Total	6010C	3600	ug/L	1000	1	12/11/18 19:29	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:29	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 19:29	12/10/18	
Zinc, Total	6010C	20 U	ug/L	20	1	12/11/18 19:29	12/10/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: SP-3 Sediment
Lab Code: R1811858-007

Service Request: R1811858
Date Collected: 12/06/18 08:20
Date Received: 12/06/18 15:00

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	8590	mg/Kg	25	1	12/12/18 10:04	12/11/18	
Antimony, Total	6010C	7.6 U	mg/Kg	7.6	1	12/12/18 10:04	12/11/18	
Arsenic, Total	6010C	9.2	mg/Kg	1.3	1	12/12/18 10:04	12/11/18	
Barium, Total	6010C	45.8	mg/Kg	2.5	1	12/12/18 10:04	12/11/18	
Beryllium, Total	6010C	0.38 U	mg/Kg	0.38	1	12/12/18 10:04	12/11/18	
Cadmium, Total	6010C	0.64 U	mg/Kg	0.64	1	12/12/18 10:04	12/11/18	
Calcium, Total	6010C	400	mg/Kg	130	1	12/12/18 10:04	12/11/18	
Chromium, Total	6010C	12.0	mg/Kg	1.3	1	12/12/18 10:04	12/11/18	
Cobalt, Total	6010C	8.7	mg/Kg	6.4	1	12/12/18 10:04	12/11/18	
Copper, Total	6010C	16.9	mg/Kg	2.5	1	12/12/18 10:04	12/11/18	
Iron, Total	6010C	23400	mg/Kg	250	10	12/12/18 10:56	12/11/18	
Lead, Total	6010C	14.4	mg/Kg	3.2	1	12/12/18 10:04	12/11/18	
Magnesium, Total	6010C	3090	mg/Kg	130	1	12/12/18 10:04	12/11/18	
Manganese, Total	6010C	560	mg/Kg	2.5	1	12/12/18 10:04	12/11/18	
Mercury, Total	7471B	0.044 U	mg/Kg	0.044	1	12/13/18 17:04	12/12/18	
Nickel, Total	6010C	18.0	mg/Kg	5.1	1	12/12/18 10:04	12/11/18	
Potassium, Total	6010C	810	mg/Kg	250	1	12/12/18 10:04	12/11/18	
Selenium, Total	6010C	1.3 U	mg/Kg	1.3	1	12/12/18 10:04	12/11/18	
Silver, Total	6010C	1.3 U	mg/Kg	1.3	1	12/12/18 10:04	12/11/18	
Sodium, Total	6010C	130 U	mg/Kg	130	1	12/12/18 10:04	12/11/18	
Thallium, Total	6010C	1.3 U	mg/Kg	1.3	1	12/12/18 10:04	12/11/18	
Vanadium, Total	6010C	13.0	mg/Kg	6.4	1	12/12/18 10:04	12/11/18	
Zinc, Total	6010C	51.8	mg/Kg	2.5	1	12/12/18 10:04	12/11/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SP-2
Lab Code: R1811858-009

Service Request: R1811858
Date Collected: 12/06/18 08:35
Date Received: 12/06/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	12/11/18 19:32	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 19:32	12/10/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	12/11/18 19:32	12/10/18	
Barium, Total	6010C	20 U	ug/L	20	1	12/11/18 19:32	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 19:32	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:32	12/10/18	
Calcium, Total	6010C	8500	ug/L	1000	1	12/11/18 19:32	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:32	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 19:32	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 19:32	12/10/18	
Iron, Total	6010C	2270	ug/L	100	1	12/11/18 19:32	12/10/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:32	12/10/18	
Magnesium, Total	6010C	2400	ug/L	1000	1	12/11/18 19:32	12/10/18	
Manganese, Total	6010C	1540	ug/L	10	1	12/11/18 19:32	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:27	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 19:32	12/10/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	12/11/18 19:32	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 16:10	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 19:32	12/10/18	
Sodium, Total	6010C	4500	ug/L	1000	1	12/11/18 19:32	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:32	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 19:32	12/10/18	
Zinc, Total	6010C	20 U	ug/L	20	1	12/11/18 19:32	12/10/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SP-5 Effluent
Lab Code: R1811858-010

Service Request: R1811858
Date Collected: 12/06/18 09:35
Date Received: 12/06/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	12/11/18 19:36	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 19:36	12/10/18	
Arsenic, Total	6010C	63	ug/L	10	1	12/11/18 19:36	12/10/18	
Barium, Total	6010C	116	ug/L	20	1	12/11/18 19:36	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 19:36	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:36	12/10/18	
Calcium, Total	6010C	40100	ug/L	1000	1	12/11/18 19:36	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:36	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 19:36	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 19:36	12/10/18	
Iron, Total	6010C	18600	ug/L	100	1	12/11/18 19:36	12/10/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:36	12/10/18	
Magnesium, Total	6010C	9900	ug/L	1000	1	12/11/18 19:36	12/10/18	
Manganese, Total	6010C	5430	ug/L	10	1	12/11/18 19:36	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:28	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 19:36	12/10/18	
Potassium, Total	6010C	2100	ug/L	2000	1	12/11/18 19:36	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 16:14	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 19:36	12/10/18	
Sodium, Total	6010C	5500	ug/L	1000	1	12/11/18 19:36	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:36	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 19:36	12/10/18	
Zinc, Total	6010C	20 U	ug/L	20	1	12/11/18 19:36	12/10/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SP-5 Influent
Lab Code: R1811858-011

Service Request: R1811858
Date Collected: 12/06/18 09:55
Date Received: 12/06/18 15:00

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	170	ug/L	100	1	12/11/18 19:39	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 19:39	12/10/18	
Arsenic, Total	6010C	140	ug/L	10	1	12/11/18 19:39	12/10/18	
Barium, Total	6010C	114	ug/L	20	1	12/11/18 19:39	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 19:39	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 19:39	12/10/18	
Calcium, Total	6010C	41500	ug/L	1000	1	12/11/18 19:39	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:39	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 19:39	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 19:39	12/10/18	
Iron, Total	6010C	19100	ug/L	100	1	12/11/18 19:39	12/10/18	
Lead, Total	6010C	35.2	ug/L	5.0	1	12/11/18 19:39	12/10/18	
Magnesium, Total	6010C	9900	ug/L	1000	1	12/11/18 19:39	12/10/18	
Manganese, Total	6010C	5460	ug/L	10	1	12/11/18 19:39	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:30	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 19:39	12/10/18	
Potassium, Total	6010C	2200	ug/L	2000	1	12/11/18 19:39	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 16:17	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 19:39	12/10/18	
Sodium, Total	6010C	5500	ug/L	1000	1	12/11/18 19:39	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 19:39	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 19:39	12/10/18	
Zinc, Total	6010C	5270	ug/L	200	10	12/12/18 16:36	12/10/18	



General Chemistry

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment
Sample Name: SP-3 Sediment
Lab Code: R1811858-007

Service Request: R1811858
Date Collected: 12/06/18 08:20
Date Received: 12/06/18 15:00
Basis: As Received

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Total Solids	ALS SOP	74.2	Percent	-	1	12/16/18 13:45	



Field Data

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: F-6
Lab Code: R1811858-002

Service Request: R1811858
Date Collected: 12/06/18 07:45
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	106	uMHOS/cm	-	1	12/06/18 04:50	
Dissolved Oxygen, Field	SM 4500-O G	12.3	mg/L	0.20	1	12/06/18 07:45	
pH, Field	SM 4500-H+ B	7.67	pH Units	-	1	12/06/18 07:45	
Redox Potential, Field	ASTM D1498-00	78	mV	-	1	12/06/18 07:45	
Temperature, Field	SM 2550 B	3.0	deg C	-	1	12/06/18 07:45	
Turbidity, Field	180.1	0.7	NTU	-	1	12/06/18 07:45	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SW-4
Lab Code: R1811858-003

Service Request: R1811858
Date Collected: 12/06/18 07:55
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	96	uMHOS/cm	-	1	12/06/18 07:55	
Dissolved Oxygen, Field	SM 4500-O G	12.4	mg/L	0.20	1	12/06/18 07:55	
pH, Field	SM 4500-H+ B	7.76	pH Units	-	1	12/06/18 07:55	
Redox Potential, Field	ASTM D1498-00	118	mV	-	1	12/06/18 07:55	
Temperature, Field	SM 2550 B	2.8	deg C	-	1	12/06/18 07:55	
Turbidity, Field	180.1	1.1	NTU	-	1	12/06/18 07:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-4
Lab Code: R1811858-004

Service Request: R1811858
Date Collected: 12/06/18 08:50
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	305	uMHOS/cm	-	1	12/06/18 08:50	
pH, Field	SM 4500-H+ B	6.36	pH Units	-	1	12/06/18 08:50	
Redox Potential, Field	ASTM D1498-00	55	mV	-	1	12/06/18 08:50	
Temperature, Field	SM 2550 B	4.0	deg C	-	1	12/06/18 08:50	
Turbidity, Field	180.1	2.8	NTU	-	1	12/06/18 08:50	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SW-3
Lab Code: R1811858-005

Service Request: R1811858
Date Collected: 12/06/18 08:10
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	95	uMHOS/cm	-	1	12/06/18 08:10	
Dissolved Oxygen, Field	SM 4500-O G	12.4	mg/L	0.20	1	12/06/18 08:10	
pH, Field	SM 4500-H+ B	7.56	pH Units	-	1	12/06/18 08:10	
Redox Potential, Field	ASTM D1498-00	95	mV	-	1	12/06/18 08:10	
Temperature, Field	SM 2550 B	2.8	deg C	-	1	12/06/18 08:10	
Turbidity, Field	180.1	1.0	NTU	-	1	12/06/18 08:10	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-3
Lab Code: R1811858-006

Service Request: R1811858
Date Collected: 12/06/18 08:15
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	231	uMHOS/cm	-	1	12/06/18 08:15	
pH, Field	SM 4500-H+ B	6.71	pH Units	-	1	12/06/18 08:15	
Redox Potential, Field	ASTM D1498-00	98	mV	-	1	12/06/18 08:15	
Temperature, Field	SM 2550 B	5.0	deg C	-	1	12/06/18 08:15	
Turbidity, Field	180.1	0.9	NTU	-	1	12/06/18 08:15	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: SW-2
Lab Code: R1811858-008

Service Request: R1811858
Date Collected: 12/06/18 08:30
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	78	uMHOS/cm	-	1	12/06/18 08:30	
Dissolved Oxygen, Field	SM 4500-O G	12.6	mg/L	0.20	1	12/06/18 08:30	
pH, Field	SM 4500-H+ B	6.91	pH Units	-	1	12/06/18 08:30	
Redox Potential, Field	ASTM D1498-00	79	mV	-	1	12/06/18 08:30	
Temperature, Field	SM 2550 B	2.4	deg C	-	1	12/06/18 08:30	
Turbidity, Field	180.1	1.3	NTU	-	1	12/06/18 08:30	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-2
Lab Code: R1811858-009

Service Request: R1811858
Date Collected: 12/06/18 08:35
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	100	uMHOS/cm	-	1	12/06/18 08:35	
pH, Field	SM 4500-H+ B	6.69	pH Units	-	1	12/06/18 08:35	
Redox Potential, Field	ASTM D1498-00	82	mV	-	1	12/06/18 08:35	
Temperature, Field	SM 2550 B	3.0	deg C	-	1	12/06/18 08:35	
Turbidity, Field	180.1	6.3	NTU	-	1	12/06/18 08:35	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-5 Effluent
Lab Code: R1811858-010

Service Request: R1811858
Date Collected: 12/06/18 09:35
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	377	uMHOS/cm	-	1	12/06/18 09:35	
pH, Field	SM 4500-H+ B	6.45	pH Units	-	1	12/06/18 09:35	
Redox Potential, Field	ASTM D1498-00	4	mV	-	1	12/06/18 09:35	
Temperature, Field	SM 2550 B	7.6	deg C	-	1	12/06/18 09:35	
Turbidity, Field	180.1	1.4	NTU	-	1	12/06/18 09:35	

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: SP-5 Influent
Lab Code: R1811858-011

Service Request: R1811858
Date Collected: 12/06/18 09:55
Date Received: 12/06/18 15:00

Basis: NA

Field Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Conductivity, Field	120.1	384	uMHOS/cm	-	1	12/06/18 09:55	
pH, Field	SM 4500-H+ B	6.40	pH Units	-	1	12/06/18 09:55	
Redox Potential, Field	ASTM D1498-00	6	mV	-	1	12/06/18 09:55	
Temperature, Field	SM 2550 B	7.2	deg C	-	1	12/06/18 09:55	
Turbidity, Field	180.1	8.1	NTU	-	1	12/06/18 09:55	



QC Summary Forms

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Volatile Organic Compounds by GC/MS

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS, Unp

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		31-154	63-138	66-138
Batch QC	R1811843-002	71	113	107
SP-3 Sediment	R1811858-007	98	108	107
Method Blank	RQ1813576-04	106	107	108
Lab Control Sample	RQ1813576-03	107	109	107
Batch QC MS	RQ1813576-05	85	112	107
Batch QC DMS	RQ1813576-06	81	115	108

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Collected: N/A
Date Received: N/A
Date Analyzed: 12/10/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS, Unp

Sample Name: Batch QC
Lab Code: R1811843-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/Kg
Basis: Dry

Analyte Name	Sample Result	Matrix Spike RQ1813576-05			Duplicate Matrix Spike RQ1813576-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1,2-Tetrachloroethane	5.5 U	45.3	55.0	82	46.1	55.0	84	41-124	2	30
1,1,1-Trichloroethane	5.5 U	48.0	55.0	87	49.9	55.0	91	44-124	4	30
1,1,2,2-Tetrachloroethane	5.5 U	54.1	55.0	98	54.6	55.0	99	41-155	1	30
1,1,2-Trichloroethane	5.5 U	41.7	55.0	76	39.8	55.0	72	48-124	5	30
1,1-Dichloroethane	5.5 U	52.0	55.0	95	51.9	55.0	94	41-138	1	30
1,1-Dichloroethene	5.5 U	45.9	55.0	83	45.0	55.0	82	46-124	1	30
1,2,3-Trichloropropane	5.5 U	54.9	55.0	100	53.6	55.0	97	39-160	3	30
1,2-Dibromo-3-chloropropane	5.5 U	38.2	55.0	69	39.0	55.0	71	30-136	3	30
1,2-Dibromoethane	5.5 U	39.0	55.0	71	37.7	55.0	69	38-129	3	30
1,2-Dichlorobenzene	5.5 U	26.2	55.0	48	25.6	55.0	47	11-152	2	30
1,2-Dichloroethane	5.5 U	50.2	55.0	91	47.3	55.0	86	49-119	6	30
1,2-Dichloropropane	5.5 U	46.7	55.0	85	45.8	55.0	83	60-126	2	30
1,4-Dichlorobenzene	5.5 U	24.9	55.0	45	23.6	55.0	43	10-151	5	30
2-Butanone (MEK)	5.5 U	45.1	55.0	82	44.2	55.0	80	13-176	2	30
2-Hexanone	5.5 U	38.7	55.0	70	35.3	55.0	64	12-163	9	30
4-Methyl-2-pentanone (MIBK)	5.5 U	47.7	55.0	87	45.3	55.0	82	38-148	6	30
Acetone	5.5 U	178	55.0	323 *	270 E	55.0	490 *	11-183	41*	30
Acrylonitrile	28 U	212	275	77	195	275	71	33-152	8	30
Benzene	5.5 U	42.6	55.0	77	41.4	55.0	75	51-123	3	30
Bromochloromethane	5.5 U	46.3	55.0	84	44.1	55.0	80	46-129	5	30
Bromodichloromethane	5.5 U	45.6	55.0	83	44.0	55.0	80	39-122	4	30
Bromoform	5.5 U	35.9	55.0	65	34.8	55.0	63	16-135	3	30
Bromomethane	5.5 U	40.6	55.0	74	38.1	55.0	69	10-150	7	30
Carbon Disulfide	5.5 U	36.3	55.0	66	36.4	55.0	66	44-139	<1	30
Carbon Tetrachloride	5.5 U	44.0	55.0	80	45.5	55.0	83	46-137	4	30
Chlorobenzene	5.5 U	31.5	55.0	57	30.2	55.0	55	25-129	4	30
Chloroethane	5.5 U	41.9	55.0	76	40.9	55.0	74	10-166	3	30
Chloroform	5.5 U	50.9	55.0	93	50.3	55.0	91	55-118	2	30
Chloromethane	5.5 U	46.2	55.0	84	45.5	55.0	83	10-139	1	30
Dibromochloromethane	5.5 U	44.2	55.0	80	43.2	55.0	79	36-125	1	30
Dibromomethane	5.5 U	42.4	55.0	77	39.6	55.0	72	29-115	7	30
Methylene Chloride	5.5 U	51.0	55.0	93	50.6	55.0	92	49-125	1	30
Ethylbenzene	5.5 U	37.5	55.0	68	37.9	55.0	69	23-132	1	30
Iodomethane	11 U	44.4	55.0	81	46.1	55.0	84	10-165	4	30
Styrene	5.5 U	27.7	55.0	50	26.2	55.0	48	15-160	4	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Collected: N/A
Date Received: N/A
Date Analyzed: 12/10/18
Date Extracted: NA

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS, Unp

Sample Name: Batch QC
Lab Code: R1811843-002
Analysis Method: 8260C
Prep Method: EPA 5030C

Units: ug/Kg
Basis: Dry

Analyte Name	Matrix Spike RQ1813576-05				Duplicate Matrix Spike RQ1813576-06					
	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Tetrachloroethene	5.5 U	37.9	55.0	69	38.4	55.0	70	21-137	1	30
Toluene	5.5 U	37.0	55.0	67	36.4	55.0	66	11-152	2	30
Trichloroethene	5.5 U	35.9	55.0	65	35.3	55.0	64	23-140	2	30
Trichlorofluoromethane	5.5 U	45.4	55.0	83	46.3	55.0	84	47-129	1	30
Vinyl Acetate	11 U	2.17 J	55.0	4 *	11 U	55.0	0 *	10-159	NC	30
Vinyl Chloride	5.5 U	46.0	55.0	84	45.7	55.0	83	59-153	1	30
cis-1,2-Dichloroethene	5.5 U	43.1	55.0	78	41.4	55.0	75	42-129	4	30
cis-1,3-Dichloropropene	5.5 U	37.2	55.0	68	35.2	55.0	64	14-139	6	30
m,p-Xylenes	11 U	71.0	110	65	71.6	110	65	20-135	<1	30
o-Xylene	5.5 U	37.3	55.0	68	37.8	55.0	69	26-137	1	30
trans-1,2-Dichloroethene	5.5 U	40.8	55.0	74	39.2	55.0	71	34-128	4	30
trans-1,3-Dichloropropene	5.5 U	32.2	55.0	59	30.2	55.0	55	17-155	7	30
trans-1,4-Dichloro-2-butene	5.5 U	25.1	55.0	46	22.5	55.0	41	10-162	11	30

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: Method Blank
Lab Code: RQ1813576-04

Service Request: R1811858
Date Collected: NA
Date Received: NA

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS, Unp

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
1,1,1,2-Tetrachloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,1,1-Trichloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,1,2-Trichloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,1-Dichloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,1-Dichloroethene	5.0 U	5.0	1	12/10/18 12:04	
1,2,3-Trichloropropane	5.0 U	5.0	1	12/10/18 12:04	
1,2-Dibromo-3-chloropropane	5.0 U	5.0	1	12/10/18 12:04	
1,2-Dibromoethane	5.0 U	5.0	1	12/10/18 12:04	
1,2-Dichlorobenzene	5.0 U	5.0	1	12/10/18 12:04	
1,2-Dichloroethane	5.0 U	5.0	1	12/10/18 12:04	
1,2-Dichloropropane	5.0 U	5.0	1	12/10/18 12:04	
1,4-Dichlorobenzene	5.0 U	5.0	1	12/10/18 12:04	
2-Butanone (MEK)	5.0 U	5.0	1	12/10/18 12:04	
2-Hexanone	5.0 U	5.0	1	12/10/18 12:04	
4-Methyl-2-pentanone (MIBK)	5.0 U	5.0	1	12/10/18 12:04	
Acetone	5.0 U	5.0	1	12/10/18 12:04	
Acrylonitrile	25 U	25	1	12/10/18 12:04	
Benzene	5.0 U	5.0	1	12/10/18 12:04	
Bromochloromethane	5.0 U	5.0	1	12/10/18 12:04	
Bromodichloromethane	5.0 U	5.0	1	12/10/18 12:04	
Bromoform	5.0 U	5.0	1	12/10/18 12:04	
Bromomethane	5.0 U	5.0	1	12/10/18 12:04	
Carbon Disulfide	5.0 U	5.0	1	12/10/18 12:04	
Carbon Tetrachloride	5.0 U	5.0	1	12/10/18 12:04	
Chlorobenzene	5.0 U	5.0	1	12/10/18 12:04	
Chloroethane	5.0 U	5.0	1	12/10/18 12:04	
Chloroform	5.0 U	5.0	1	12/10/18 12:04	
Chloromethane	5.0 U	5.0	1	12/10/18 12:04	
Dibromochloromethane	5.0 U	5.0	1	12/10/18 12:04	
Dibromomethane	5.0 U	5.0	1	12/10/18 12:04	
Methylene Chloride	5.0 U	5.0	1	12/10/18 12:04	
Ethylbenzene	5.0 U	5.0	1	12/10/18 12:04	
Iodomethane	10 U	10	1	12/10/18 12:04	
Styrene	5.0 U	5.0	1	12/10/18 12:04	
Tetrachloroethene	5.0 U	5.0	1	12/10/18 12:04	
Toluene	5.0 U	5.0	1	12/10/18 12:04	
Trichloroethene	5.0 U	5.0	1	12/10/18 12:04	
Trichlorofluoromethane	5.0 U	5.0	1	12/10/18 12:04	
Vinyl Acetate	10 U	10	1	12/10/18 12:04	
Vinyl Chloride	5.0 U	5.0	1	12/10/18 12:04	
cis-1,2-Dichloroethene	5.0 U	5.0	1	12/10/18 12:04	
cis-1,3-Dichloropropene	5.0 U	5.0	1	12/10/18 12:04	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: Method Blank
Lab Code: RQ1813576-04

Service Request: R1811858
Date Collected: NA
Date Received: NA

Units: ug/Kg
Basis: Dry

Volatile Organic Compounds by GC/MS, Unp

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
m,p-Xylenes	10 U	10	1	12/10/18 12:04	
o-Xylene	5.0 U	5.0	1	12/10/18 12:04	
trans-1,2-Dichloroethene	5.0 U	5.0	1	12/10/18 12:04	
trans-1,3-Dichloropropene	5.0 U	5.0	1	12/10/18 12:04	
trans-1,4-Dichloro-2-butene	5.0 U	5.0	1	12/10/18 12:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
Bromofluorobenzene	106	31 - 154	12/10/18 12:04	
Dibromofluoromethane	107	63 - 138	12/10/18 12:04	
Toluene-d8	108	66 - 138	12/10/18 12:04	

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Analyzed: 12/10/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unp

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1813576-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1,2-Tetrachloroethane	8260C	19.2	20.0	96	69-127
1,1,1-Trichloroethane	8260C	19.4	20.0	97	68-123
1,1,2,2-Tetrachloroethane	8260C	19.4	20.0	97	78-121
1,1,2-Trichloroethane	8260C	18.9	20.0	94	84-117
1,1-Dichloroethane	8260C	20.4	20.0	102	76-123
1,1-Dichloroethene	8260C	18.7	20.0	94	65-115
1,2,3-Trichloropropane	8260C	18.9	20.0	95	78-115
1,2-Dibromo-3-chloropropane	8260C	19.1	20.0	95	54-135
1,2-Dibromoethane	8260C	19.5	20.0	98	77-117
1,2-Dichlorobenzene	8260C	18.6	20.0	93	75-116
1,2-Dichloroethane	8260C	20.8	20.0	104	74-116
1,2-Dichloropropane	8260C	19.6	20.0	98	79-112
1,4-Dichlorobenzene	8260C	18.6	20.0	93	72-117
2-Butanone (MEK)	8260C	19.3	20.0	96	67-129
2-Hexanone	8260C	19.9	20.0	99	68-118
4-Methyl-2-pentanone (MIBK)	8260C	19.5	20.0	98	64-123
Acetone	8260C	19.5	20.0	97	32-154
Acrylonitrile	8260C	96.9	100	97	71-124
Benzene	8260C	19.1	20.0	96	77-114
Bromochloromethane	8260C	19.4	20.0	97	78-117
Bromodichloromethane	8260C	20.4	20.0	102	72-118
Bromoform	8260C	19.5	20.0	97	55-134
Bromomethane	8260C	15.3	20.0	76	10-150
Carbon Disulfide	8260C	22.3	20.0	111	44-139
Carbon Tetrachloride	8260C	18.0	20.0	90	51-123
Chlorobenzene	8260C	18.9	20.0	94	79-115
Chloroethane	8260C	15.9	20.0	80	10-140
Chloroform	8260C	20.6	20.0	103	76-115
Chloromethane	8260C	16.4	20.0	82	10-131
Dibromochloromethane	8260C	20.1	20.0	101	68-121
Dibromomethane	8260C	19.6	20.0	98	29-115
Methylene Chloride	8260C	19.8	20.0	99	72-118
Ethylbenzene	8260C	18.1	20.0	90	64-118

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Analyzed: 12/10/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS, Unp

Units:ug/Kg
Basis:Dry

Lab Control Sample
RQ1813576-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iodomethane	8260C	24.5	20.0	123	10-192
Styrene	8260C	19.2	20.0	96	74-117
Tetrachloroethene	8260C	17.7	20.0	88	58-124
Toluene	8260C	18.7	20.0	94	72-116
Trichloroethene	8260C	17.9	20.0	90	69-118
Trichlorofluoromethane	8260C	17.2	20.0	86	52-127
Vinyl Acetate	8260C	21.1	20.0	106	47-159
Vinyl Chloride	8260C	17.9	20.0	89	59-153
cis-1,2-Dichloroethene	8260C	19.9	20.0	99	79-113
cis-1,3-Dichloropropene	8260C	19.8	20.0	99	66-117
m,p-Xylenes	8260C	36.0	40.0	90	68-118
o-Xylene	8260C	18.6	20.0	93	71-116
trans-1,2-Dichloroethene	8260C	19.8	20.0	99	73-114
trans-1,3-Dichloropropene	8260C	20.3	20.0	102	57-135
trans-1,4-Dichloro-2-butene	8260C	19.2	20.0	96	35-149

ALS Group USA, Corp.
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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858

SURROGATE RECOVERY SUMMARY
Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Extraction Method: EPA 5030C

Sample Name	Lab Code	4-Bromofluorobenzene	Dibromofluoromethane	Toluene-d8
		85-122	89-119	87-121
Trip Blank	R1811858-001	99	99	102
SP-4	R1811858-004	99	99	100
SP-3	R1811858-006	100	102	103
SP-2	R1811858-009	98	100	102
SP-5 Effluent	R1811858-010	98	99	101
SP-5 Influent	R1811858-011	99	100	102
Method Blank	RQ1813672-04	99	99	102
Lab Control Sample	RQ1813672-03	103	104	104

ALS Group USA, Corp.
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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1813672-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
1,1,1-Trichloroethane (TCA)	5.0 U	5.0	0.25	1	12/11/18 18:00	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,1,2-Trichloroethane	5.0 U	5.0	0.25	1	12/11/18 18:00	
1,1,2-Trichloro-1,2,2-trifluoroethane	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,1-Dichloroethane (1,1-DCA)	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,1-Dichloroethene (1,1-DCE)	5.0 U	5.0	0.28	1	12/11/18 18:00	
1,2,4-Trichlorobenzene	5.0 U	5.0	0.50	1	12/11/18 18:00	
1,2-Dibromo-3-chloropropane (DBCP)	5.0 U	5.0	0.45	1	12/11/18 18:00	
1,2-Dibromoethane	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,2-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,2-Dichloroethane	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,2-Dichloropropane	5.0 U	5.0	0.21	1	12/11/18 18:00	
1,3-Dichlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:00	
1,4-Dichlorobenzene	5.0 U	5.0	0.24	1	12/11/18 18:00	
2-Butanone (MEK)	10 U	10	0.78	1	12/11/18 18:00	
2-Hexanone	10 U	10	0.34	1	12/11/18 18:00	
4-Methyl-2-pentanone	10 U	10	0.29	1	12/11/18 18:00	
Acetone	10 U	10	2.1	1	12/11/18 18:00	
Benzene	5.0 U	5.0	0.20	1	12/11/18 18:00	
Bromodichloromethane	5.0 U	5.0	0.31	1	12/11/18 18:00	
Bromoform	5.0 U	5.0	0.36	1	12/11/18 18:00	
Bromomethane	5.0 U	5.0	0.70	1	12/11/18 18:00	
Carbon Disulfide	10 U	10	0.31	1	12/11/18 18:00	
Carbon Tetrachloride	5.0 U	5.0	0.34	1	12/11/18 18:00	
Chlorobenzene	5.0 U	5.0	0.20	1	12/11/18 18:00	
Chloroethane	5.0 U	5.0	0.23	1	12/11/18 18:00	
Chloroform	5.0 U	5.0	0.28	1	12/11/18 18:00	
Chloromethane	5.0 U	5.0	0.28	1	12/11/18 18:00	
Cyclohexane	10 U	10	0.31	1	12/11/18 18:00	
Dibromochloromethane	5.0 U	5.0	0.20	1	12/11/18 18:00	
Dichlorodifluoromethane (CFC 12)	5.0 U	5.0	0.44	1	12/11/18 18:00	
Dichloromethane	5.0 U	5.0	0.47	1	12/11/18 18:00	
Ethylbenzene	5.0 U	5.0	0.20	1	12/11/18 18:00	
Isopropylbenzene (Cumene)	5.0 U	5.0	0.20	1	12/11/18 18:00	
Methyl Acetate	10 U	10	0.33	1	12/11/18 18:00	
Methyl tert-Butyl Ether	5.0 U	5.0	0.21	1	12/11/18 18:00	
Methylcyclohexane	10 U	10	0.35	1	12/11/18 18:00	
Styrene	5.0 U	5.0	0.20	1	12/11/18 18:00	
Tetrachloroethene (PCE)	5.0 U	5.0	0.28	1	12/11/18 18:00	
Toluene	5.0 U	5.0	0.20	1	12/11/18 18:00	
Trichloroethene (TCE)	5.0 U	5.0	0.20	1	12/11/18 18:00	
Trichlorofluoromethane (CFC 11)	5.0 U	5.0	0.27	1	12/11/18 18:00	
Vinyl Chloride	5.0 U	5.0	0.22	1	12/11/18 18:00	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: RQ1813672-04

Service Request: R1811858
Date Collected: NA
Date Received: NA

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C
Prep Method: EPA 5030C

Analyte Name	Result	MRL	MDL	Dil.	Date Analyzed	Q
Xylenes, Total	5.0 U	5.0	0.23	1	12/11/18 18:00	
cis-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 18:00	
cis-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:00	
trans-1,2-Dichloroethene	5.0 U	5.0	0.26	1	12/11/18 18:00	
trans-1,3-Dichloropropene	5.0 U	5.0	0.30	1	12/11/18 18:00	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	99	85 - 122	12/11/18 18:00	
Dibromofluoromethane	99	89 - 119	12/11/18 18:00	
Toluene-d8	102	87 - 121	12/11/18 18:00	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Analyzed: 12/11/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1813672-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
1,1,1-Trichloroethane (TCA)	8260C	19.7	20.0	98	75-125
1,1,2,2-Tetrachloroethane	8260C	21.5	20.0	107	78-126
1,1,2-Trichloroethane	8260C	18.8	20.0	94	82-121
1,1,2-Trichloro-1,2,2-trifluoroethane	8260C	19.2	20.0	96	67-124
1,1-Dichloroethane (1,1-DCA)	8260C	21.9	20.0	109	80-124
1,1-Dichloroethene (1,1-DCE)	8260C	19.2	20.0	96	71-118
1,2,4-Trichlorobenzene	8260C	16.7	20.0	84	75-132
1,2-Dibromo-3-chloropropane (DBCP)	8260C	17.0	20.0	85	55-136
1,2-Dibromoethane	8260C	19.2	20.0	96	82-127
1,2-Dichlorobenzene	8260C	17.7	20.0	89	80-119
1,2-Dichloroethane	8260C	21.6	20.0	108	71-127
1,2-Dichloropropane	8260C	20.1	20.0	100	80-119
1,3-Dichlorobenzene	8260C	17.3	20.0	86	83-121
1,4-Dichlorobenzene	8260C	17.2	20.0	86	79-119
2-Butanone (MEK)	8260C	20.2	20.0	101	61-137
2-Hexanone	8260C	21.5	20.0	108	63-124
4-Methyl-2-pentanone	8260C	20.9	20.0	105	66-124
Acetone	8260C	19.4	20.0	97	40-161
Benzene	8260C	19.3	20.0	97	79-119
Bromodichloromethane	8260C	19.2	20.0	96	81-123
Bromoform	8260C	18.2	20.0	91	65-146
Bromomethane	8260C	16.6	20.0	83	42-166
Carbon Disulfide	8260C	21.1	20.0	106	66-128
Carbon Tetrachloride	8260C	16.9	20.0	85	70-127
Chlorobenzene	8260C	17.8	20.0	89	80-121
Chloroethane	8260C	16.9	20.0	85	62-131
Chloroform	8260C	21.4	20.0	107	79-120
Chloromethane	8260C	19.9	20.0	100	65-135
Cyclohexane	8260C	23.5	20.0	117	69-120
Dibromochloromethane	8260C	19.6	20.0	98	72-128
Dichlorodifluoromethane (CFC 12)	8260C	23.5	20.0	117	59-155
Dichloromethane	8260C	19.8	20.0	99	73-122
Ethylbenzene	8260C	17.7	20.0	89	76-120

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Analyzed: 12/11/18

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1813672-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Isopropylbenzene (Cumene)	8260C	16.4	20.0	82	77-128
Methyl Acetate	8260C	20.9	20.0	105	40-112
Methyl tert-Butyl Ether	8260C	21.0	20.0	105	75-118
Methylcyclohexane	8260C	23.8	20.0	119	51-129
Styrene	8260C	18.7	20.0	93	80-124
Tetrachloroethene (PCE)	8260C	15.9	20.0	79	72-125
Toluene	8260C	18.4	20.0	92	79-119
Trichloroethene (TCE)	8260C	16.8	20.0	84	74-122
Trichlorofluoromethane (CFC 11)	8260C	18.5	20.0	92	71-136
Vinyl Chloride	8260C	19.7	20.0	99	74-159
cis-1,2-Dichloroethene	8260C	20.4	20.0	102	80-121
cis-1,3-Dichloropropene	8260C	21.2	20.0	106	77-122
trans-1,2-Dichloroethene	8260C	20.7	20.0	103	73-118
trans-1,3-Dichloropropene	8260C	20.9	20.0	105	71-133



Metals

ALS Environmental—Rochester Laboratory

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Sample Name: Method Blank
Lab Code: R1811858-MB1

Service Request: R1811858
Date Collected: NA
Date Received: NA

Basis: Dry

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	20 U	mg/Kg	20	1	12/12/18 09:35	12/11/18	
Antimony, Total	6010C	6.0 U	mg/Kg	6.0	1	12/12/18 09:35	12/11/18	
Arsenic, Total	6010C	1.0 U	mg/Kg	1.0	1	12/12/18 09:35	12/11/18	
Barium, Total	6010C	2.0 U	mg/Kg	2.0	1	12/12/18 09:35	12/11/18	
Beryllium, Total	6010C	0.30 U	mg/Kg	0.30	1	12/12/18 09:35	12/11/18	
Cadmium, Total	6010C	0.50 U	mg/Kg	0.50	1	12/12/18 09:35	12/11/18	
Calcium, Total	6010C	100 U	mg/Kg	100	1	12/12/18 09:35	12/11/18	
Chromium, Total	6010C	1.0 U	mg/Kg	1.0	1	12/12/18 09:35	12/11/18	
Cobalt, Total	6010C	5.0 U	mg/Kg	5.0	1	12/12/18 09:35	12/11/18	
Copper, Total	6010C	2.0 U	mg/Kg	2.0	1	12/12/18 09:35	12/11/18	
Iron, Total	6010C	20 U	mg/Kg	20	1	12/12/18 09:35	12/11/18	
Lead, Total	6010C	2.5 U	mg/Kg	2.5	1	12/12/18 09:35	12/11/18	
Magnesium, Total	6010C	100 U	mg/Kg	100	1	12/12/18 09:35	12/11/18	
Manganese, Total	6010C	2.0 U	mg/Kg	2.0	1	12/12/18 09:35	12/11/18	
Mercury, Total	7471B	0.033 U	mg/Kg	0.033	1	12/13/18 16:51	12/12/18	
Nickel, Total	6010C	4.0 U	mg/Kg	4.0	1	12/12/18 09:35	12/11/18	
Potassium, Total	6010C	200 U	mg/Kg	200	1	12/12/18 09:35	12/11/18	
Selenium, Total	6010C	1.0 U	mg/Kg	1.0	1	12/12/18 09:35	12/11/18	
Silver, Total	6010C	1.0 U	mg/Kg	1.0	1	12/12/18 09:35	12/11/18	
Sodium, Total	6010C	100 U	mg/Kg	100	1	12/12/18 09:35	12/11/18	
Thallium, Total	6010C	1.0 U	mg/Kg	1.0	1	12/12/18 09:35	12/11/18	
Vanadium, Total	6010C	5.0 U	mg/Kg	5.0	1	12/12/18 09:35	12/11/18	
Zinc, Total	6010C	2.0 U	mg/Kg	2.0	1	12/12/18 09:35	12/11/18	

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Analytical Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1811858-MB2

Service Request: R1811858
Date Collected: NA
Date Received: NA
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Aluminum, Total	6010C	100 U	ug/L	100	1	12/11/18 18:05	12/10/18	
Antimony, Total	6010C	60 U	ug/L	60	1	12/11/18 18:05	12/10/18	
Arsenic, Total	6010C	10 U	ug/L	10	1	12/11/18 18:05	12/10/18	
Barium, Total	6010C	20 U	ug/L	20	1	12/11/18 18:05	12/10/18	
Beryllium, Total	6010C	3.0 U	ug/L	3.0	1	12/11/18 18:05	12/10/18	
Cadmium, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 18:05	12/10/18	
Calcium, Total	6010C	1000 U	ug/L	1000	1	12/11/18 18:05	12/10/18	
Chromium, Total	6010C	10 U	ug/L	10	1	12/11/18 18:05	12/10/18	
Cobalt, Total	6010C	50 U	ug/L	50	1	12/11/18 18:05	12/10/18	
Copper, Total	6010C	20 U	ug/L	20	1	12/11/18 18:05	12/10/18	
Iron, Total	6010C	100 U	ug/L	100	1	12/11/18 18:05	12/10/18	
Lead, Total	6010C	5.0 U	ug/L	5.0	1	12/11/18 18:05	12/10/18	
Magnesium, Total	6010C	1000 U	ug/L	1000	1	12/11/18 18:05	12/10/18	
Manganese, Total	6010C	10 U	ug/L	10	1	12/11/18 18:05	12/10/18	
Mercury, Total	7470A	0.20 U	ug/L	0.20	1	12/13/18 15:02	12/12/18	
Nickel, Total	6010C	40 U	ug/L	40	1	12/11/18 18:05	12/10/18	
Potassium, Total	6010C	2000 U	ug/L	2000	1	12/11/18 18:05	12/10/18	
Selenium, Total	6010C	10 U	ug/L	10	1	12/12/18 15:51	12/10/18	
Silver, Total	6010C	10 U	ug/L	10	1	12/11/18 18:05	12/10/18	
Sodium, Total	6010C	1000 U	ug/L	1000	1	12/11/18 18:05	12/10/18	
Thallium, Total	6010C	10 U	ug/L	10	1	12/11/18 18:05	12/10/18	
Vanadium, Total	6010C	50 U	ug/L	50	1	12/11/18 18:05	12/10/18	
Zinc, Total	6010C	20 U	ug/L	20	1	12/11/18 18:05	12/10/18	

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Collected: 12/06/18
Date Received: 12/06/18
Date Analyzed: 12/12/18 - 12/13/18

Duplicate Matrix Spike Summary
Inorganic Parameters

Sample Name: SP-3 Sediment
Lab Code: R1811858-007

Units: mg/Kg
Basis: Dry

Matrix Spike R1811858-007MS						Duplicate Matrix Spike R1811858-007DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Aluminum, Total	6010C	8590	9230	270	240 #	8960	270	140 #	75-125	3	20
Antimony, Total	6010C	8.1 U	46.7	67.4	69 *	47.2	67.4	70 *	75-125	1	20
Arsenic, Total	6010C	9.2	13.4	5.4	78	13.0	5.4	71 *	75-125	3	20
Barium, Total	6010C	45.8	311	270	98	312	270	99	75-125	<1	20
Beryllium, Total	6010C	0.40 U	6.81	6.74	101	6.86	6.74	102	75-125	<1	20
Cadmium, Total	6010C	0.67 U	6.59	6.74	98	6.66	6.74	99	75-125	1	20
Calcium, Total	6010C	400	620	270	81	610	270	77	75-125	2	20
Chromium, Total	6010C	12.0	38.8	27.0	100	38.8	27.0	100	75-125	<1	20
Cobalt, Total	6010C	8.7	75.3	67.4	99	75.4	67.4	99	75-125	<1	20
Copper, Total	6010C	16.9	49.7	33.7	97	50.1	33.7	98	75-125	<1	20
Iron, Total	6010C	23400	24400	130	747 #	22200	130	-854 #	75-125	9	20
Lead, Total	6010C	14.4	78.8	67.4	96	79.0	67.4	96	75-125	<1	20
Magnesium, Total	6010C	3090	3400	270	116 #	3360	270	100 #	75-125	1	20
Manganese, Total	6010C	560	650	67.4	133 #	499	67.4	-91 #	75-125	26*	20
Mercury, Total	7471B	0.044 U	0.251	0.221	114	0.231	0.214	108	80-120	8	20
Nickel, Total	6010C	18.0	82.1	67.4	95	82.3	67.4	95	75-125	<1	20
Potassium, Total	6010C	810	3150	2700	87	3120	2700	86	75-125	1	20
Selenium, Total	6010C	1.3 U	122	136	90	124	136	91	75-125	1	20
Silver, Total	6010C	1.3 U	6.3	6.7	93	6.3	6.7	94	75-125	1	20
Sodium, Total	6010C	130 U	2650	2700	98	2670	2700	99	75-125	<1	20
Thallium, Total	6010C	1.3 U	245	270	91	247	270	92	75-125	<1	20
Vanadium, Total	6010C	13.0	77.6	67.4	96	77.9	67.4	96	75-125	<1	20
Zinc, Total	6010C	51.8	115	67.4	93	116	67.4	96	75-125	1	20

Results flagged with an asterisk (*) indicate values outside control criteria.

Results flagged with a pound (#) indicate the control criteria is not applicable.

Percent recoveries and relative percent differences (RPD) are determined by the software using values in the calculation which have not been rounded.

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Sediment

Service Request: R1811858
Date Analyzed: 12/12/18 - 12/13/18

Lab Control Sample Summary
Inorganic Parameters

Units:mg/Kg
Basis:Dry

Lab Control Sample
R1811858-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	182	200	91	80-120
Antimony, Total	6010C	45.3	50.0	91	80-120
Arsenic, Total	6010C	3.65	4.0	91	80-120
Barium, Total	6010C	202	200	101	80-120
Beryllium, Total	6010C	4.85	5.00	97	80-120
Cadmium, Total	6010C	5.02	5.00	100	80-120
Calcium, Total	6010C	186	200	93	80-120
Chromium, Total	6010C	20.4	20.0	102	80-120
Cobalt, Total	6010C	51.1	50.0	102	80-120
Copper, Total	6010C	24.4	25.0	98	80-120
Iron, Total	6010C	97.2	100	97	80-120
Lead, Total	6010C	49.9	50.0	100	80-120
Magnesium, Total	6010C	193	200	97	80-120
Manganese, Total	6010C	49.6	50.0	99	80-120
Mercury, Total	7471B	0.166	0.167	100	80-120
Nickel, Total	6010C	49.2	50.0	98	80-120
Potassium, Total	6010C	1900	2000	95	80-120
Selenium, Total	6010C	92.7	101	92	80-120
Silver, Total	6010C	4.76	5.0	95	80-120
Sodium, Total	6010C	1910	2000	95	80-120
Thallium, Total	6010C	184	200	92	80-120
Vanadium, Total	6010C	49.5	50.0	99	80-120
Zinc, Total	6010C	47.4	50.0	95	80-120

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QA/QC Report

Client: Broome County Division of Solid Waste Management
Project: Colesville Landfill
Sample Matrix: Water

Service Request: R1811858
Date Analyzed: 12/11/18 - 12/13/18

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L
Basis:NA

Lab Control Sample
R1811858-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Aluminum, Total	6010C	1800	2000	90	80-120
Antimony, Total	6010C	449	500	90	80-120
Arsenic, Total	6010C	38.4	40	96	80-120
Barium, Total	6010C	1960	2000	98	80-120
Beryllium, Total	6010C	48.2	50.0	96	80-120
Cadmium, Total	6010C	49.4	50.0	99	80-120
Calcium, Total	6010C	2300	2000	117	80-120
Chromium, Total	6010C	195	200	98	80-120
Cobalt, Total	6010C	496	500	99	80-120
Copper, Total	6010C	235	250	94	80-120
Iron, Total	6010C	950	1000	95	80-120
Lead, Total	6010C	491	500	98	80-120
Magnesium, Total	6010C	1900	2000	97	80-120
Manganese, Total	6010C	480	500	96	80-120
Mercury, Total	7470A	1.04	1.00	104	80-120
Nickel, Total	6010C	485	500	97	80-120
Potassium, Total	6010C	18600	20000	93	80-120
Selenium, Total	6010C	1060	1010	105	80-120
Silver, Total	6010C	48	50	95	80-120
Sodium, Total	6010C	18700	20000	94	80-120
Thallium, Total	6010C	1820	2000	91	80-120
Vanadium, Total	6010C	476	500	95	80-120
Zinc, Total	6010C	492	500	98	80-120