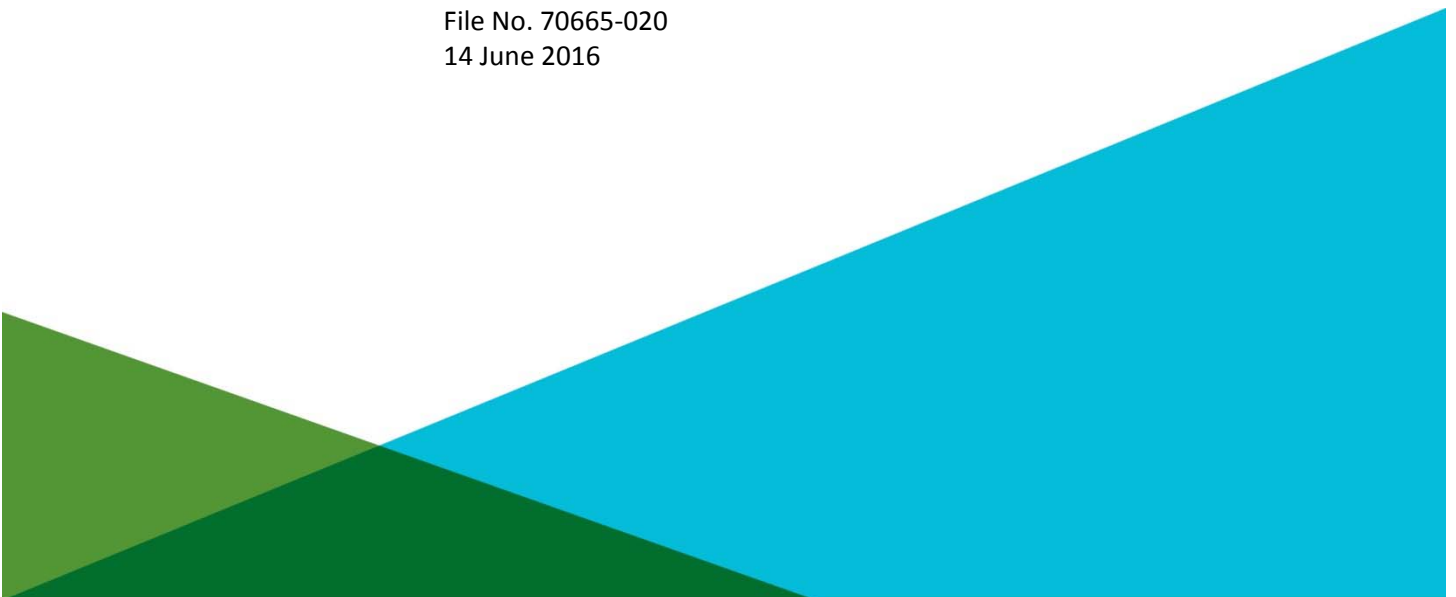


**2015 PERIODIC REVIEW REPORT
COOPERVISION
711 NORTH ROAD
SCOTTSVILLE, NEW YORK**

by Haley & Aldrich of New York
Rochester, New York

for New York State Department of Environmental Conservation
East Avon, New York

File No. 70665-020
14 June 2016





Haley & Aldrich of New York
200 Town Centre Drive
Suite 2
Rochester, NY 14623
585.359.9000

14 June 2016
File No. 70665-020

New York State Department of Environmental Conservation
Division of Environmental Remediation, Region 8
6274 East Avon-Lima Road
East Avon, New York 14414

Attention: Mr. Frank Sowers, P.E.

Subject: CooperVision Facility – VCA Site#V00175
711 North Road
Scottsville, New York

Ladies and Gentlemen:

Haley & Aldrich of New York is pleased to provide this Periodic Review Report (PRR) for the CooperVision Facility (VCA #V00175) located in Scottsville, New York on behalf of CooperVision, Inc. This report summarizes activities performed during the period 16 May 2015 through 16 May 2016. This report also summarizes Site groundwater monitoring and sampling activities, and data from the sub-slab depressurization system.

This report is being submitted to the New York State Department of Environmental Conservation (NYSDEC) in electronic (Adobe Acrobat) format conforming to the requirements of the NYSDEC letter dated 19 April 2016.

Please do not hesitate to contact us should you have any questions regarding this report.

Sincerely yours,
HALEY & ALDRICH OF NEW YORK

A handwritten signature in black ink, appearing to read "Mark N. Ramsdell".

Mark N. Ramsdell, P.E.
Senior Project Manager

A handwritten signature in black ink, appearing to read "Vincent B. Dick".

Vincent B. Dick
Principal Market Segment Leader

Enclosures

c: CooperVision; Chuck Rogers; Bob Ooyama
Baker Hostetler; Christopher H. Marraro, Esq.

Executive Summary

The CooperVision VCA Site#V00175 is located at 711 North Road in Scottsville, New York (See Figures 1 and 2) (the “Site”). The Site has been used for manufacturing of contact lenses since the mid-1970s. It includes the original Site building with later additions comprising an aggregate total building area of approximately 50,000 sq. ft. Soil and groundwater on some portions of the Site have been found to contain certain volatile organic compounds (VOCs), primarily 1,1,1-trichloroethane (1,1,1-TCA) and its breakdown daughter products.

The Site has been remediated as part of the New York State Department of Environmental Conservation (NYSDEC) Voluntary Cleanup Program (VCP). The remedy for the Site included the following:

- Injection of Hydrogen Release Compound (HRC) to stimulate reductive dechlorination of the Site contaminants of concern (performed 2001).
- Installation and operation of a sub-slab depressurization system in the Site building to mitigate potential soil vapor intrusion (constructed and started 2006, operated continuously since).
- Installation of soil-bentonite-cement trench collars along utility lines to mitigate the potential for impacted soil vapors from migrating off-Site via a potential preferential subsurface utility pathway (constructed 2008 and maintained in-place since).

Also included as part of the remedy was the recording of Deed Restrictions; the Deed Restrictions address administrative control requirements of the VCA, including, but not limited to continuing the industrial use of the property, preventing use of groundwater at the Site without prior approval of the state, and other measures required by NYSDEC, such as adherence to a NYSDEC-approved Site Management Plan (SMP) for long-term management of the Site to maintain protection of human health and the environment.

Following approval of the Final Engineering Report (FER) on 16 June 2010 and the SMP on 29 July 2010, the NYSDEC granted CooperVision a release from liability for the Site on 29 November 2010. The Site is maintained in a Site management program per the SMP.

The Site management program consists of implementing institutional and engineering controls (IC/ECs). Engineering controls include maintenance of the existing Site cover, the sub-slab depressurization system (SSDS), and utility trench collars. Monitoring of the engineering controls is conducted periodically per the SMP. Institutional controls include those listed in the Deed Restrictions on the property, which include groundwater and land use restrictions, and adherence to the SMP. The institutional and engineering controls have remained in-place and functioned as designed during the reporting period without exception.

In addition, semi-annual groundwater sampling was conducted to monitor effectiveness of the Site remedy. The groundwater results indicate that the Site conditions are stable with the exception of results of trend analysis for one well, MW-202 which showed an increasing trend starting in the Spring of 2012 based on trend analysis criteria established in the SMP. To address this trend, Emulsified Vegetable Oil (EVO) was injected from November 2013 to October 2014.

Five rounds of sampling have been completed since the injection of the EVO. The results of the groundwater monitoring conducted in October 2015 and April 2016 show changes in the groundwater

geochemistry indicating enhanced reducing conditions within the groundwater and an increase in available organic substrate to support bioremediation of the Site COC in the vicinity of the injection. Even though the concentrations of 1,1-DCE and 1,1-DCA concentrations at MW-202 have decreased demonstrating biodegradation during the reporting period, the Mann Kendall trend analysis of the historical groundwater monitoring data continues to show an “increasing trend”, as that term is defined under the Mann Kendall method (one set of seasonal concentrations shows some increasing values, while the other set of seasonal concentration data remains stable to decreasing).

There were no areas of non-compliance noted during the reporting period. The SMP and Deed Restrictions remain in-place, groundwater has not been used, and Site use is consistent with land use restrictions (commercial/industrial).

We recommend the following changes to the Site management program:

- Decommission MW-1 due to damage to the well screen and bentonite seal.
- Discontinue the use of MW-2, OW-302 during synoptic water level events and suspend the collection of indicator parameters at monitoring well locations MW-501, MW-502, and OWS-302S because sufficient water level and groundwater quality data is provided by other monitoring well locations to evaluate the effectiveness of the remedy implemented at the Site.

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1. Site Overview

The CooperVision VCA Site#V00175 is located at 711 North Road in Scottsville, New York (See Figures 1 and 2) (the "Site"). The Site has been used for manufacturing (fabrication of contact lenses) since the mid-1970s and includes the original building with additions having a total area of approximately 50,000 sq. ft. Soil and groundwater on some portions of the Site contain certain volatile organic compounds (VOCs), primarily 1,1,1-trichloroethane (1,1,1-TCA).

Soil and groundwater investigations were conducted at the Site between 1998 and 2000 as part of application for and acceptance into a 1998 investigation Voluntary Cleanup Agreement (VCA). Following investigation, a remedy was selected for the Site, which consisted of an injection with hydrogen release compound (HRC) to stimulate and enhance intrinsic bioremediation of the VOCs in the soil and groundwater. The HRC injection was conducted in 2001. In addition, a sub-slab depressurization system (SSDS) was installed in a portion of the Site building as a mitigating measure in 2006 as part of an Interim Remedial Measure (IRM).

A supplemental vapor intrusion investigation was conducted on the Site, in the right-of-way to the east of the Site, and on the adjacent apartments/townhomes to the east of the Site in 2008 and 2009. The investigation revealed soil vapors with detectable concentrations of Site compounds (1,1,1-TCA, 1,1-dichloroethane (1,1-DCE), 1,1-dichloroethane (1,1-DCA), chloromethane, and vinyl chloride) along the property line and in the adjacent eastern right-of-way, though the vapors were determined not to be adversely impacting the indoor air or sub-slab vapor at the apartment or townhome buildings to the east (per indoor air and sub-slab vapor testing). In addition to the investigation, a second IRM was completed that consisted of installing soil-bentonite-cement (SBC) trench collars in five (5) locations along existing utilities located on the CooperVision Site and within the adjacent eastern right-of-way. The purpose of the trench collars was to mitigate the potential for Site and nearby utility lines to act as potential preferential pathways for impacted soil vapors and groundwater.

Also included as part of the remedy, was the recording of Deed Restrictions. The Deed Restrictions address administrative control requirements of the VCA, including, but not limited to continuing the industrial use of the property, preventing use of groundwater at the Site without prior approval of the state, and other measures required by NYSDEC, such as adherence to this Site Management Plan for long-term management of the Site to maintain protection of human health and the environment.

Following submittal and approval of a 16 June 2010 Final Engineering Report (FER) and 29 July 2010 Site Management Plan (SMP), the NYSDEC granted CooperVision a release from liability for the Site on 29 November 2010.

This report summarizes activities performed during the period 16 May 2015 through 16 May 2016. Historical data shown in this report contains data collected since the SMP was approved. The corrective action was continued during the reporting period to address concentrations of Site related compounds observed at MW-202 during the 2012 reporting period which were determined through the SMP trend analysis procedure to constitute an increasing trend in the previous reporting period.

A Remedial Action Work Plan (RAWP) was developed and implemented, which included the installation of an array of injection wells between the source area and monitoring well MW-202. The RAWP was

approved by the Department on 18 October 2013 and was implemented in November 2013 with periodic injections of an organic carbon substrate consisting of Emulsified Vegetable Oil (EVO) from December 2013 through October 2014.

The corrective action activities included:

- The installation of seven (7) permanent injection wells
- The installation of two (2) bio augmentation points (BAP)
- The introduction of emulsified oil via gravity infiltration to the wells as a bio-stimulation substrate
- The collection of groundwater samples at the BAP locations (3 events)

The Site has otherwise continued to be maintained under the 2010 Site Management Plan.

2. Compliance Report

2.1 INSTITUTIONAL CONTROLS - REQUIREMENTS AND COMPLIANCE

A series of Site restrictions in the form of Deed Restrictions are in effect at the Site. Those restrictions include prohibition of groundwater use unless rendered safe for the intended purpose and land use restrictions (commercial and/or industrial use, only). The Deed Restrictions also stipulate that the Site be managed under an approved SMP and that it be periodically certified that the engineering controls remain in-place at the Site and continue to be effective. These controls are to be certified annually by the property owner and professional engineer representing the remedial party, which is provided in this report.

On 10 August 2015 NYSDEC acknowledged and approved a Conditional No Exposure Certification for exclusions from permitting under the terms and conditions imposed by NYSDEC SPDES Multi-Sector general permit for storm water discharges associated with the property. The acknowledgement letter is attached in Appendix B.

The Site restrictions have not been breached, and the Deed Restrictions remained in force during the reporting period. Certifications are included in Appendix A.

2.2 ENGINEERING CONTROLS - REQUIREMENTS AND COMPLIANCE

There are three engineering controls in place at the Site, which are as follows and further described in the sections below:

1. Existing Cover
2. Sub-Slab Depressurization System
3. Soil-Bentonite-Cement Utility Trench Collars

2.2.1 Existing Cover

Potential exposure to residual contamination at the Site is prevented by an existing cover, which consists of the CooperVision building slab, pavement, and vegetative cover. The existing cover is required to be maintained in accordance with the SMP. Excavations that breach the existing cover may require additional monitoring and soil management in accordance with the Excavation Management Plan included in the SMP. In addition, certain fill materials imported onto the Site must be tested prior to Site use to demonstrate that they comply with the requirements in the SMP. The cover system is monitored via visual inspection at the time of excavation as required, and during periodic Site visits as part of monitoring and certification.

2.2.1.1 Culvert Replacement

On 6 April, 2016, CooperVision hired John F. Miller Excavation to complete a culvert pipe removal and replacement below the asphalt at the southern entrance to the Site. DEC was not notified of the work. Approximately 40 feet of asphalt was removed to expose the storm water drain pipe, and replaced with a PVC pipe. The trench was located outside the soil and groundwater remediation area identified in the

SMP. Excavated materials were backfilled along with #1 crushed stone from Hanson Stone Facility and repaved. Haley & Aldrich conducted screening of the area with a handheld PID. No impacted soils or elevated PID readings were observed.

2.2.2 Sub-Slab Depressurization System

A sub-slab depressurization (SSD) system was installed as a contingency measure in order to mitigate potential risks of soil vapor intrusion, at the request of the NYSDEC and the New York State Department of Health (NYSDOH). The system was designed according to the “Sub-Slab Depressurization System (Amended Work Plan)” dated 18 May 2006 (Amended SSD Work Plan) and correspondence from the NYSDEC (RE: CooperVision Site #V00175-8, Sub-Slab Depressurization System (Amended Work Plan)) dated 8 August 2006.

Six (6) fans were installed to depressurize the sub-slab in the vicinity of the identified source area of groundwater contamination, each with a discrete suction location (except for the fan above the switch gear room which has two suction locations). The fans are located on the roof of the facility. In addition to the suction points and fans, seventeen (17) permanent vacuum measurement points were installed.

Based on vacuum testing results and regular system monitoring, the sub-slab depressurization system appears to continue to be working as designed. Refer to Section 3.2 below, for additional information, including updates provided with this PRR.

2.2.3 Soil-Bentonite-Cement Utility Trench Collars

In order to reduce the potential for on-Site and off-Site utility lines (natural gas and water) to act as preferred pathways for off-Site migration of soil vapor, five (5) soil-bentonite-cement (SBC) trench collars were installed along both the natural gas and water lines on the CooperVision Site and in the adjacent eastern right-of-way (Figure 2). The trench collars are monitored via visual inspection at the time of utility excavations if and when such excavations are required.

Activities that would have impacted the integrity of the trench collars were not performed during the reporting period. The trench collars therefore remain in-place as designed and installed.

2.2.4 Remedial Action Work Plan Implementation

After determination of the increasing trend analysis for MW-202, a Remedial Action Work Plan (RAWP) was prepared by Haley & Aldrich dated 1 October 2013. The RAWP was for an Emulsified Vegetable Oil Injection to be performed at the Site in close proximity to the MW-202 well. The NYSDEC approved the plan on October 18, 2013, and the implementation was commenced on 18 November 2013.

Two (2) micro well points, useable for bio augmentation, were installed following the injection point installation. The points are to be used for monitoring of the in-situ groundwater conditions. The points were constructed with 1-inch PVC risers with 0.10 slotted well screens extending from 10 to 20 feet bgs. All material removed was loaded into a roll off box and disposed of at Mill Seat landfill in Riga, NY. After installation of the points and micro wells, initial water levels were monitored and the emulsified vegetable oil was poured into each injection point in measured amounts and allowed to penetrate into

the formation via gravity. The gravity feed process was repeated periodically from November 2013 to October 2014. A total of 110 gallons of emulsified vegetable oil has been injected.

No emulsified vegetable oil was injected during this reporting period.

2.3 IC/EC CERTIFICATION

Based on Site visits and interviews with Site personnel, the IC/ECs are herein certified by Robert Ooyama, designated representative of CooperVision Inc. and Mark N. Ramsdell, a professional engineer in the State of New York working for Haley & Aldrich of New York on behalf of CooperVision. Refer to Appendix A for a copy of the appropriate certification documentation.

3. Operations, Maintenance & Monitoring Plan Compliance Report

On-Site monitoring during this reporting period consisted of two (2) groundwater sampling events in accordance with the sampling and analysis plan in the SMP and two (2) rounds of sub slab vacuum measurements of the sub-slab depressurization system (SSDS). Monitoring of the groundwater and operations, maintenance, and monitoring of the SSDS are further described below.

3.1 GROUNDWATER MONITORING

Groundwater sampling was conducted in October 2015 and April 2016. Summary tables (Tables I through III), and groundwater contours (Figures 3 and 4) are attached, and reflect updated information from the reporting period over past year's PRR reports. The laboratory data has been submitted as an EQulS deliverable to the NYSDEC and can be found in Appendix C. Groundwater sampling field forms are in Appendix D. Historical analytical data is presented in Appendix E.

Overall, the data appear consistent with previous sampling events. The following summarizes our observations from the groundwater monitoring program:

3.1.1 Source Area

Refer to Table I for a summary of the results for the source area wells. Wells in the source area (MW-205 and OWS-302S) continue to show evidence that biological degradation is active as described below.

- The groundwater sampling results indicate an overall decreasing concentration for 1,1,1-TCA at well MW-205 over the reporting period. These conditions indicate that this compound is biodegrading as 1,1-DCA continues to be detected at levels consistent with previous sampling events. These conditions indicate that 1,1-DCA is not "stacking" and appears to be degrading even though chloroethane has not been detected at concentrations exceeding the laboratory reporting limits. The biologically mediated reductive dechlorination process for 1,1,1-TCA is shown below:



- 1,1,1-TCA was not detected and chloride ion and chloroethane were detected at OWS-302S during the October 2015 and April 2016 sampling events.
- Metabolic acids, butyric, propionic and acetic were detected at MW-205 indicating that the Hydrogen Release Compound (HRC) injection continues to enhance the reductive dechlorination processes at the Site.
- The presence of ferrous iron (Fe^{2+}) and negative oxidation reduction potential (ORP) readings in the source area indicate that the aquifer conditions continue to be anaerobic, which is conducive to promote further biologically mediated reductive dechlorination.

3.1.2 Mid-plume Area

A summary of mid-gradient area well data (MW-3, MW-501, MW-502) is provided in Table II. Overall, mid-gradient conditions are similar to recent groundwater monitoring events.

- 1,1,1-TCA was not detected at MW-3 during the October 2015 and April 2016 sampling events.
- 1,1-DCA and vinyl chloride concentrations continue to decline or remain steady in the mid plume wells.
- The concentration of chloroethane, the breakdown product of 1,1-DCA, continues to be detected in the mid-plume wells, most notably at MW-502.

3.1.3 Down-gradient Area

Table III provides a summary of groundwater quality for the downgradient wells MW-202, MW-203, MW-204 and OW-306. Overall, down-gradient groundwater conditions at these monitoring well locations are similar to previous monitoring events.

- 1,1,1-TCA concentrations were not detected in the downgradient wells.
- 1,1-DCA and 1,1-dichloroethene (1,1-DCE) were detected in wells MW-202 and MW-204 during the reporting period. The concentrations of 1,1-DCA and 1,1, DCE detected during the April 2016 reporting period was slightly lower than the concentrations detected during the October 2015 and prior sampling events indicating that the plume appears to have stabilized in this area of the Site.
- An increase in the concentration of Total Organic Carbon (TOC) was observed at MW-202 indicating that the carbon substrate injected upgradient has migrated to this area of the Site.
- Chloroethane was not detected in the downgradient wells.
- VOCs were not detected at MW-306 and MW-203.

3.1.4 Remedial Action Monitoring Locations

Bio augmentation points identified as BAP-1 and BAP-2 were installed in November 2013 as part of the corrective action. The points had been sampled in the previous reporting periods and twice this period. The field and indicator parameter data indicate that the injection program has continued to induce reducing groundwater conditions in this area of the Site during the 2015-2016 reporting period. These observations include:

- Negative ORP readings with an average of -233 mV.
- An increase in total alkalinity observed in BAP-01 and BAP-02.
- A lower concentration of sulfate in BAP-01 and BAP-02 relative to MW-202.
- A lower concentration of nitrate than observed in MW-202.

The groundwater conditions in this area of the Site are able to support enhanced biodegradation of the groundwater contaminants via reductive dechlorination. These observations are further supported by the presence of the 1,1,1-TCA daughter products of 1,1-DCA and chloroethane at the BAP monitoring well locations.

With the detection of elevated levels of TOC within the BAP monitoring well locations and MW-202, it is anticipated that the intrinsic microbial population will promote the biodegradation of the Site VOC via

reductive dechlorination as has been observed within the upgradient monitoring well locations (e.g. MW-205, MW-3) at the Site.

3.1.5 Mann-Kendall Trend Analysis

The results of the VOC analyses from the groundwater sampling events conducted during the reporting period in conjunction with the previous sampling events were evaluated using the Mann-Kendall statistical test for trend analysis (Refer to Appendix F).

The Mann-Kendall trend analysis does not take into account magnitude of an increase or decrease; therefore, as 1,1,1-TCA continues to degrade within the source area, it is expected that the daughter compounds, 1,1-DCA and 1,1-DCE will continue to increase in concentration at the downgradient wells prior to establishing a decreasing trend as reductive dechlorination proceeds in the downgradient area of the Site.

In summary, most wells showed no trend, and MW-3 and MW-502 exhibited a decreasing trend. Even though the concentration of 1,1-DCE and 1,1-DCA decreased from October 2015 through April 2016 at MW-202, an increasing trend was determined by the Mann Kendall Analysis for these parameters.

Since the groundwater concentrations for these constituents appear to have stabilized and have decreased during the reporting period, these data indicate that the introduction of the carbon substrate upgradient from MW-202 has increased the intrinsic biodegradation processes in this area of the Site.

3.2 SUB-SLAB DEPRESSURIZATION SYSTEM OPERATIONS, MAINTENANCE, AND MONITORING

The sub-slab depressurization system continuously operates at the Site and is monitored monthly by CooperVision staff. CooperVision staff record the system vacuum readings and operations data on a Maintenance Form. This data is either stored on-Site or sent off-Site by CooperVision for permanent storing at a document storage facility. SSD system and monitoring documentation can be found in Appendix G. No maintenance was required or performed on the system during the reporting period.

The system was evaluated in October 2015 and in April 2016 by Haley & Aldrich. The system evaluation included vacuum measurements at the seventeen (17) existing monitoring points located within the facility. Overall, the system operation is consistent as in the past and acceptably and consistent with its intended function, design and construction. Leaks and/or other system concerns were not observed. The sub-slab vacuum levels were above the design criteria of 0.002 inches of water, except in the switchgear room. The switchgear room was noted during the initial installation and is caused by the negative pressure created by the facility's vacuum pumps located in this room. Vacuum testing results are included in Table IV. Vacuum testing locations are shown on Figure 5.

4. Conclusions & Recommendations

The following are conclusions and recommendations regarding the PRR for the Site during the reporting period:

- Site management complied with the SMP during the reporting period. Excavation and the importation of clean stone from a permitted quarry were conducted during the reporting period and were performed in accordance with the Excavation Management Plan in the SMP.
- The engineering controls (existing cover, sub-slab depressurization system, trench collars) were maintained during the reporting period.
- The Deed Restrictions remain in place. Groundwater has not been used at the Site during the reporting period. Site land use has remained manufacturing during the reporting period as dictated in the deed restrictions.
- Groundwater monitoring results indicate that the groundwater plume remains stable and that biodegradation is continuing; the apparent increasing trend observed during the previous reporting period at well MW-204 has been changed to a “No Trend” as indicated by the Mann-Kendall statistical evaluation.
- The decrease in the observed concentration of Site VOCs at MW-202 suggests that the remedial action implemented upgradient from this location is inducing increased intrinsic biodegradation of these constituents in this area of the Site.
- We recommend the decommission of MW-1 due to damage to the well screen and bentonite seal. The well is not critical to continued on-Site monitoring.
- We recommend discontinuances of the use of MW-2, OW-302 during synoptic water level events and suspend the collection of indicator parameters at monitoring well locations MW-501, MW-502, and OWS-302S because sufficient water level and groundwater quality data is provided by other monitoring well locations to evaluate the effectiveness of the remedy implemented at the Site.
- The implementation of the approved Remedial Action Work Plan has been completed. Three rounds of sampling have been completed since injection initiated, and results show initial effects of the injection such as changed geochemistry are occurring, indicating enhanced reducing conditions and increased organic substrate to support bioremediation.
- Since Total Organic Carbon (TOC) was detected (2.6 mg/L) at MW-202 during the 2015 reporting period. The next reporting period will include the evaluation of the intrinsic microbial population through the use of Biotraps® placed within the BAP locations and the introduction of microbial consortia if deemed necessary based on the results of the Biotrap® testing.

TABLES

TABLE I
COOPERVISION, INC
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
SOURCE AREA WELLS

Location Sample ID Sample Date Sample Type Sample Depth (bgs)	NYSDEC TOGS AMBIENT WATER Class GA	MW-205			OWS-302	
		MW-205_040215	MW-205_100615	MW-205-040716-1315	OWS-302_100615	OWS-302-040716-1130
		04/02/2015	10/06/2015	04/07/2016	10/06/2015	04/07/2016
		N	N	N	N	N
		21.2 - 28 (ft)	21.2 - 28 (ft)	21.2 - 28 (ft)	13 - 17.8 (ft)	13 - 17.8 (ft)
Volatile Organic Compounds (ug/L)						
1,1,1-Trichloroethane	5	61000 ^[A]	43000 ^[A]	57000 ^[A]	ND (1300)	ND (500)
1,1,2,2-Tetrachloroethane	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
1,1,2-Trichloroethane	1	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
1,1-Dichloroethane	5	240000 ^[A]	200000 ^[A]	200000 J ^[A]	ND (1300)	ND (500) J
1,1-Dichloroethene	5	1900 J ^[A]	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
1,2-Dichloroethane	0.6	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
1,2-Dichloropropane	1	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
2-Butanone (Methyl Ethyl Ketone)	50	ND (20000)	ND (20000)	ND (10000)	ND (2500)	ND (1000)
2-Hexanone	50	ND (20000)	ND (20000)	ND (10000)	ND (2500)	ND (1000)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)		ND (20000)	ND (20000)	ND (10000)	ND (2500)	ND (1000)
Acetone	50	ND (20000)	ND (20000)	ND (10000)	ND (2500)	ND (1000)
Benzene	1	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Bromodichloromethane	50	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Bromoform	50	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
Bromomethane (Methyl Bromide)	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Carbon disulfide	60	ND (20000)	ND (20000)	ND (10000)	ND (2500)	ND (1000)
Carbon tetrachloride	5	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
Chlorobenzene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Chloroethane	5	960 J ^[A]	ND (10000)	ND (5000) J	41000 ^[A]	15000 J ^[A]
Chloroform (Trichloromethane)	7	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Chloromethane (Methyl Chloride)	5	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
cis-1,2-Dichloroethene	5	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
cis-1,3-Dichloropropene	0.4	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Dibromochloromethane	50	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Ethylbenzene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
m,p-Xylenes	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Methylene chloride	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
o-Xylene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Styrene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Tetrachloroethene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Toluene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
trans-1,2-Dichloroethene	5	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
trans-1,3-Dichloropropene	0.4	ND (10000)	ND (10000)	ND (5000) J	ND (1300)	ND (500) J
Trichloroethene	5	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)
Vinyl chloride	2	ND (10000)	ND (10000)	ND (5000)	ND (1300)	ND (500)

TABLE I
COOPERVISION, INC
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
SOURCE AREA WELLS

Location Sample ID Sample Date Sample Type Sample Depth (bgs)	NYSDEC TOGS AMBIENT WATER Class GA	MW-205			OWS-302	
		MW-205_040215	MW-205_100615	MW-205-040716-1315	OWS-302_100615	OWS-302-040716-1130
		04/02/2015	10/06/2015	04/07/2016	10/06/2015	04/07/2016
		N	N	N	N	N
		21.2 - 28 (ft)	21.2 - 28 (ft)	21.2 - 28 (ft)	13 - 17.8 (ft)	13 - 17.8 (ft)
Other (mg/L)						
Acetic acid		940	1000	1200		
Alkalinity, Total (as CaCO3)		3400	3490	3310 J-	730	658 J-
Butanoic acid		3100	3100	2900		
Chloride		731	787	738	2660	2660
Lactic Acid		ND (25)	ND (50)	ND (25)		
Nitrate (as N)		ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Nitrite (as N)			ND (20)		ND (40)	
Propionic acid		770	750	830		
Pyruvic Acid		ND (13)	ND (25)	ND (13)		
Sulfate		8.9	10.2	15.2	ND (2)	ND (2)
Sulfide		ND (1)	ND (5)	ND (1)	1.1	ND (1)
Sulfide (Acid Soluble)			ND (5)	ND (1)	1.1	ND (1)
Other (ug/L)						
Ethane		ND (25)	ND (25)	17 J	ND (10)	ND (200)
Ethene		ND (25)	ND (25)	13 J	ND (10)	ND (200)
Methane		3000 D	4000	3300 J	14000	16000
Propane		ND (25)	ND (25)	ND (1) J	ND (10)	ND (200)
Inorganic Compounds (mg/L)						
Nitrite (as N)		0.056				
Inorganic Compounds (ug/L)						
Iron, Dissolved	300		118000 ^[A]	111000 ^[A]	14500 ^[A]	1730 ^[A]
Iron, Total	300		119000 ^[A]	117000 ^[A]	15600 ^[A]	7060 ^[A]

Notes:
Values in bold are detected analytical results
[A] - Results exceed the NYSDEC TOGS Aambient Water Class GA

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
MID-GRADIENT WELLS

Location	Sample ID	NYSDEC TOGS	BAP-01			BAP-02			MW-3		
	Sample Date	AMBIENT WATER Class	BAP-01_040215	BAP-1_100615	BAP-01-040816-0900	BAP-02_040215	BAP-2_100615	BAP-02-040816-1030	MW-3_040115	MW-3_100515	MW-3-040716-1630
	Sample Type		04/02/2015	10/06/2015	04/08/2016	04/02/2015	10/06/2015	04/08/2016	04/01/2015	10/05/2015	04/07/2016
	Sample Depth (bgs)	GA	N	N	N	N	N	N	N	N	N
			10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	3 - 10 (ft)	3 - 10 (ft)	3 - 10 (ft)
Volatile Organic Compounds (ug/L)											
1,1,1-Trichloroethane	5		ND (100)	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	1.9 J	ND (25) J	ND (13)
1,1,2,2-Tetrachloroethane	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
1,1,2-Trichloroethane	1		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
1,1-Dichloroethane	5		1800 [A]	1300 [A]	2000 J- [A]	210 [A]	320 [A]	430 J- [A]	25 [A]	70 J [A]	61 J- [A]
1,1-Dichloroethene	5		1800 [A]	1200 [A]	1100 J- [A]	57 [A]	67 [A]	82 J- [A]	ND (5)	ND (25) J	ND (13) J
1,2-Dichloroethane	0.6		8.6 J [A]	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	ND (5)	ND (25) J	ND (13)
1,2-Dichloropropane	1		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
2-Butanone (Methyl Ethyl Ketone)	50		ND (200)	ND (100)	ND (100)	ND (20)	ND (25)	ND (25)	ND (10)	ND (50) J	ND (25)
2-Hexanone	50		ND (200)	ND (100)	ND (100)	ND (20)	ND (25)	ND (25)	ND (10)	ND (50) J	ND (25)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)			ND (200)	ND (100)	ND (100)	ND (20)	ND (25)	ND (25)	ND (10)	ND (50) J	ND (25)
Acetone	50		ND (200)	ND (100)	ND (100)	3.3 J	ND (25)	ND (25)	2.7 J	ND (50) J	ND (25)
Benzene	1		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Bromodichloromethane	50		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Bromoform	50		ND (100)	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	ND (5)	ND (25) J	ND (13)
Bromomethane (Methyl Bromide)	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Carbon disulfide	60		ND (200)	ND (100)	ND (100)	0.54 J	ND (25)	ND (25)	ND (10)	ND (50) J	ND (25)
Carbon tetrachloride	5		ND (100)	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	ND (5)	ND (25) J	ND (13)
Chlorobenzene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Chloroethane	5		240 [A]	250 [A]	300 J- [A]	7.8 J [A]	22 [A]	14 J- [A]	110 [A]	580 J [A]	310 J- [A]
Chloroform (Trichloromethane)	7		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Chloromethane (Methyl Chloride)	5		ND (100)	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	ND (5)	ND (25) J	ND (13)
cis-1,2-Dichloroethene	5		8.2 J [A]	ND (50)	ND (50)	ND (10)	ND (13)	ND (13)	ND (5)	ND (25) J	ND (13)
cis-1,3-Dichloropropene	0.4		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Dibromochloromethane	50		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Ethylbenzene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
m,p-Xylenes	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Methylene chloride	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
o-Xylene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Styrene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Tetrachloroethene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Toluene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
trans-1,2-Dichloroethene	5		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
trans-1,3-Dichloropropene	0.4		ND (100)	ND (50)	ND (50) J	ND (10)	ND (13)	ND (13) J	ND (5)	ND (25) J	ND (13) J
Trichloroethene	5		25 J [A]	ND (50)	ND (50)	0.56 J	ND (13)	ND (13)	0.31 J	ND (25) J	ND (13)
Vinyl chloride	2		94 J [A]	110 [A]	770 [A]	2.5 J [A]	150 [A]	87 [A]	4 J [A]	54 J [A]	24 [A]

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
MID-GRADIENT WELLS

Location			BAP-01		BAP-02			MW-3			
Sample ID			BAP-01_040215	BAP-1_100615	BAP-01-040816-0900	BAP-02_040215	BAP-2_100615	BAP-02-040816-1030	MW-3_040115	MW-3_100515	MW-3-040716-1630
Sample Date	NYSDEC TOGS		04/02/2015	10/06/2015	04/08/2016	04/02/2015	10/06/2015	04/08/2016	04/01/2015	10/05/2015	04/07/2016
Sample Type	AMBIENT WATER Class		N	N	N	N	N	N	N	N	N
Sample Depth (bgs)	GA		10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	10 - 20 (ft)	3 - 10 (ft)	3 - 10 (ft)	3 - 10 (ft)
Other (mg/L)											
Acetic acid			5.5	10	43	ND (1)	1.8	2.9			
Alkalinity, Total (as CaCO3)			261	261	328 J-	258	276	287 J-		263 J	240 J-
Butanoic acid			ND (2)	ND (2)	ND (2)	ND (2)	ND (2)	ND (2)			
Carbon			6.5	10.1	26.7	6.6	4.3	11.6			
Chloride			496	419	551	580	1410	1020	530	371 J	259
Lactic Acid			ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)			
Nitrate (as N)			ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1) J	ND (1)
Nitrite (as N)				ND (10)			ND (30)			ND (10) J	ND (1)
Propionic acid			ND (1)	2.2	9	ND (1)	ND (1)	ND (1)			
Pyruvic Acid			ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)	ND (0.5)			
Sulfate			189	276	33.3	178	62.3	44.1	20.9	14.8 J	21.7
Sulfide			3.3	9	4	2.4	ND (5)	ND (1)	ND (1)	ND (5)	ND (1)
Sulfide (Acid Soluble)				9	4		ND (5)	ND (1)		ND (5) J	ND (1)
Total Organic Carbon (TOC)				10.1	26.7		4.3	11.6			
Other (ug/L)											
Ethane			ND (5)	ND (5)	ND (25)	4	ND (5)	ND (10)	ND (10)	ND (20) J	ND (25)
Ethene			ND (5)	7.2	ND (25)	ND (1)	ND (5)	ND (10)	25	42 J	29
Methane			280	360	940	71	750	2500	760	1700 J	1300
Propane			ND (5)	ND (5)	ND (25)	1.4	ND (5)	ND (10)	ND (10)	ND (20) J	ND (25)
Inorganic Compounds (mg/L)											
Nitrite (as N)			0.021			0.055			0.142		
Inorganic Compounds (ug/L)											
Iron, Dissolved	300			370 [A]	610 [A]		630 [A]	780 [A]		ND (100) J	ND (100)
Iron, Total	300			247000 [A]	1370 [A]		184000 [A]	38600 [A]		41600 J [A]	9790 [A]

Notes:
Values in bold are detected analytical results
[A] - Results exceed the NYSDEC TOGS Aambient Water Class GA

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
MID-GRADIENT WELLS

Location		MW-501			MW-502		
Sample ID		MW-501_040215	MW-501_100615	MW-501-040716-1430	MW-502_040215	MW-502_100615	MW-502-040716-1020
Sample Date	NYSDEC TOGS	04/02/2015	10/06/2015	04/07/2016	04/02/2015	10/06/2015	04/07/2016
Sample Type	AMBIENT WATER Class	N	N	N	N	N	N
Sample Depth (bgs)	GA	20 - 25 (ft)	20 - 25 (ft)	20 - 25 (ft)	30 - 35 (ft)	30 - 35 (ft)	30 - 35 (ft)
Volatile Organic Compounds (ug/L)							
1,1,1-Trichloroethane	5	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
1,1,2,2-Tetrachloroethane	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
1,1,2-Trichloroethane	1	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
1,1-Dichloroethane	5	140 ^[A]	71 ^[A]	37 J- ^[A]	89 J ^[A]	ND (130)	ND (100) J
1,1-Dichloroethene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
1,2-Dichloroethane	0.6	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
1,2-Dichloropropane	1	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
2-Butanone (Methyl Ethyl Ketone)	50	ND (100)	ND (100)	ND (10)	ND (250)	ND (250)	ND (200)
2-Hexanone	50	ND (100)	ND (100)	ND (10)	ND (250)	ND (250)	ND (200)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)		ND (100)	ND (100)	ND (10)	ND (250)	ND (250)	ND (200)
Acetone	50	ND (100)	ND (100)	ND (10)	ND (250)	ND (250)	ND (200)
Benzene	1	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Bromodichloromethane	50	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Bromoform	50	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
Bromomethane (Methyl Bromide)	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Carbon disulfide	60	ND (100)	ND (100)	ND (10)	ND (250)	ND (250)	ND (200)
Carbon tetrachloride	5	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
Chlorobenzene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Chloroethane	5	1200 ^[A]	990 ^[A]	110 J- ^[A]	3500 ^[A]	4700 ^[A]	2200 J- ^[A]
Chloroform (Trichloromethane)	7	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Chloromethane (Methyl Chloride)	5	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
cis-1,2-Dichloroethene	5	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
cis-1,3-Dichloropropene	0.4	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Dibromochloromethane	50	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Ethylbenzene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
m,p-Xylenes	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Methylene chloride	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
o-Xylene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Styrene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Tetrachloroethene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Toluene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
trans-1,2-Dichloroethene	5	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
trans-1,3-Dichloropropene	0.4	ND (50)	ND (50)	ND (5) J	ND (130)	ND (130)	ND (100) J
Trichloroethene	5	ND (50)	ND (50)	ND (5)	ND (130)	ND (130)	ND (100)
Vinyl chloride	2	88 ^[A]	96 ^[A]	27 ^[A]	270 ^[A]	420 ^[A]	190 ^[A]

TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
MID-GRADIENT WELLS

Location Sample ID Sample Date Sample Type Sample Depth (bgs)	NYSDEC TOGS AMBIENT WATER Class GA	MW-501			MW-502		
		MW-501_040215	MW-501_100615	MW-501-040716-1430	MW-502_040215	MW-502_100615	MW-502-040716-1020
		04/02/2015	10/06/2015	04/07/2016	04/02/2015	10/06/2015	04/07/2016
		N	N	N	N	N	N
		20 - 25 (ft)	20 - 25 (ft)	20 - 25 (ft)	30 - 35 (ft)	30 - 35 (ft)	30 - 35 (ft)
Other (mg/L)							
Acetic acid							
Alkalinity, Total (as CaCO3)		293	379	216 J-	445	446	422 J-
Butanoic acid							
Carbon							
Chloride		5590	3960	5290	780	777	694
Lactic Acid							
Nitrate (as N)		ND (1)	ND (1)	ND (1)	ND (1)	ND (1)	ND (1)
Nitrite (as N)			ND (100)			ND (20)	
Propionic acid							
Pyruvic Acid							
Sulfate		92	82.6	103	2.7	3	5.4
Sulfide		1.1	ND (1)	ND (1)	1.3	ND (5)	ND (1)
Sulfide (Acid Soluble)			ND (1)	ND (1)		ND (5)	ND (1)
Total Organic Carbon (TOC)							
Other (ug/L)							
Ethane		ND (50)	ND (50)	ND (250)	ND (250)	ND (250)	ND (250)
Ethene		ND (50)	ND (50)	ND (250)	ND (250)	ND (250)	ND (250)
Methane		16000 D	9000	16000	15000	20000	23000
Propane		ND (50)	ND (50)	ND (250)	ND (250)	ND (250)	ND (250)
Inorganic Compounds (mg/L)							
Nitrite (as N)		0.011			ND (0.01)		
Inorganic Compounds (ug/L)							
Iron, Dissolved	300		2160 ^[A]	1050 ^[A]		6870 ^[A]	3820 ^[A]
Iron, Total	300		5760 ^[A]	7900 ^[A]	88400 ^[A]	51700 ^[A]	15500 ^[A]

Notes:
Values in bold are detected analytical results
[A] - Results exceed the NYSDEC TOGS Aambient Water Class GA

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
DOWN-GRADIENT WELLS

Location		MW-202			MW-203			MW-204			OW-306		
Sample ID		MW-202_040115	MW-202_100515	MW-202-040716-1550	MW-203_040115	MW-203_100515	MW-203-040816-1500	MW-204_040115	MW-204_100615	MW-204-040816-1410	OW-306_040115	OW-306_100515	OW-306-040816-1320
Sample Date	NYSDEC TOGS AMBIENT WATER Class	04/01/2015	10/05/2015	04/07/2016	04/01/2015	10/05/2015	04/08/2016	04/01/2015	10/06/2015	04/08/2016	04/01/2015	10/05/2015	04/08/2016
Sample Type	GA	N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)		10.1 - 20.3 (ft)	10.1 - 20.3 (ft)	10.2 - 20.3 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	4 - 14 (ft)	4 - 14 (ft)	4 - 14 (ft)
Volatile Organic Compounds (ug/L)													
1,1,1-Trichloroethane	5	1.7 J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	6.6 [A]	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
1,1,2,2-Tetrachloroethane	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
1,1,2-Trichloroethane	1	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
1,1-Dichloroethane	5	64 [A]	72 J [A]	43 J- [A]	ND (5)	ND (5) J	ND (5) J	8.9 [A]	7 [A]	5.3 J- [A]	0.21 J	ND (5) J	ND (5) J
1,1-Dichloroethene	5	50 [A]	59 J [A]	32 J- [A]	ND (5)	ND (5) J	ND (5) J	8.8 [A]	6 [A]	ND (5) J	ND (5)	ND (5) J	ND (5) J
1,2-Dichloroethane	0.6	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
1,2-Dichloropropane	1	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
2-Butanone (Methyl Ethyl Ketone)	50	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10) J	ND (10)
2-Hexanone	50	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10) J	ND (10)
4-Methyl-2-Pentanone (Methyl Isobutyl Ketone)		ND (10)	ND (10) J	ND (10)	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10) J	ND (10)
Acetone	50	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10)	ND (10)	2.7 J	ND (10) J	ND (10)
Benzene	1	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	0.21 J	ND (5) J	ND (5) J
Bromodichloromethane	50	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Bromoform	50	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
Bromomethane (Methyl Bromide)	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Carbon disulfide	60	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10) J	ND (10)	ND (10)	ND (10)	ND (10)	ND (10)	ND (10) J	ND (10)
Carbon tetrachloride	5	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
Chlorobenzene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Chloroethane	5	1.3 J	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Chloroform (Trichloromethane)	7	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Chloromethane (Methyl Chloride)	5	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
cis-1,2-Dichloroethene	5	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
cis-1,3-Dichloropropene	0.4	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Dibromochloromethane	50	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Ethylbenzene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
m,p-Xylenes	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	0.37 J	ND (5) J	ND (5) J
Methylene chloride	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
o-Xylene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Styrene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Tetrachloroethene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Toluene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	0.4 J	ND (5) J	ND (5) J
trans-1,2-Dichloroethene	5	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
trans-1,3-Dichloropropene	0.4	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5) J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5) J	ND (5) J
Trichloroethene	5	0.63 J	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	2.1 J	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)
Vinyl chloride	2	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5) J	ND (5)	ND (5)	ND (5)	ND (5)	ND (5)	ND (5) J	ND (5)

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
DOWN-GRADIENT WELLS

Location	MW-202			MW-203			MW-204			OW-306					
Sample ID	MW-202_040115	MW-202_100515	MW-202-040716-1550	MW-203_040115	MW-203_100515	MW-203-040816-1500	MW-204_040115	MW-204_100615	MW-204-040816-1410	OW-306_040115	OW-306_100515	OW-306-040816-1320			
Sample Date	NYSDEC	TOGS	AMBIENT WATER Class	04/01/2015	10/05/2015	04/07/2016	04/01/2015	10/05/2015	04/08/2016	04/01/2015	10/06/2015	04/08/2016	04/01/2015	10/05/2015	04/08/2016
Sample Type	GA			N	N	N	N	N	N	N	N	N	N	N	N
Sample Depth (bgs)				10.1 - 20.3 (ft)	10.1 - 20.3 (ft)	10.2 - 20.3 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	9.8 - 20 (ft)	4 - 14 (ft)	4 - 14 (ft)	4 - 14 (ft)
Other (mg/L)															
Acetic acid				ND (1)	ND (1) J	ND (1)									
Alkalinity, Total (as CaCO3)				160	136 J	128 J-									
Butanoic acid				ND (2)	ND (2) J	ND (2)									
Carbon				ND (1)	ND (1)	2.8									
Chloride				3800	1540 J	2180									
Lactic Acid				ND (1)	ND (1) J	ND (1)									
Nitrate (as N)				2.6	ND (1) J	1.2									
Nitrite (as N)					ND (40) J										
Propionic acid				ND (1)	ND (1) J	ND (1)									
Pyruvic Acid				ND (0.5)	ND (0.5) J	ND (0.5)									
Sulfate				404	476 J	473									
Sulfide				ND (1)	1	ND (1)									
Sulfide (Acid Soluble)					1 J	ND (1)									
Total Organic Carbon (TOC)					ND (1) J	ND (2)									
Other (ug/L)															
Ethane				ND (1)	ND (1) J	ND (1)									
Ethene				ND (1)	ND (1) J	ND (1)									
Methane				ND (1)	5.6 J	ND (1)									
Propane				ND (1)	ND (1) J	ND (1)									
Inorganic Compounds (mg/L)															
Nitrite (as N)				0.011											
Inorganic Compounds (ug/L)															
Iron, Dissolved	300				ND (100) J	ND (100)									
Iron, Total	300	920 [A]			110 J	120									

Notes:
Values in bold are detected analytical results
[A] - Results exceed the NYSDEC TOGS Aambient Water Class GA

Table IV
Annual SSD System Monitoring

Location (Site/Facil CooperVision
Location (Address) Scottsville, NY
Client: CooperVision

Date: 6-Oct-15
Performed By: J. Sanger
Job Number: 70665-020

Test Point	4/03/2014 Vacuum Reading ("WC)	10/13/2014 Vacuum Reading ("WC)	10/6/2015 Vacuum Reading ("WC)
T-1	0.017	0.022	0.129
T-2	*	*	*
T-3	0.434	0.358	0.394
T-4	0.030	0.025	0.030
T-5	0.043	0.079	0.067
T-6	0.060	0.078	0.062
T-7 (doors closed)	-0.019	-0.025	-0.021
T-7 (doors open)	0.000	0.000	0.000
T-8	0.032	0.034	0.027
T-9 (doors closed)	-0.010	-0.001	0.002
T-9 (doors open)	0.023	0.023	0.029
T-10	0.021	0.023	0.077
T-11	0.744	0.777	0.704
T-12	0.017	0.012	0.018
T-13	0.009	0.008	0.013
T-14	0.019	0.005	0.005
T-15	0.036	0.035	0.039
T-16	0.027	0.021	0.025
T-17	0.024	0.011	0.012
T-18	0.014	0.024	0.018

* T-2 is not a valid test point

Visual Inspection of System:

Everything was in working shape. A few of the caps were difficult to remove (T-5, T-8) were difficult to remove due to rust/corrosion
*T-9 had vacuum when doors were open and closed. T-1 had a large increase in vacuum.

Recommendation Actions:

Replace caps on t-5 and t-8

Description of Past Year Activities:

Successfully monitored SSD system with no problems.

Suction Point	10/13/2014 Vacuum Reading ("WC)	4/1/2015 Vacuum Reading ("WC)	10/6/2015 Vacuum Reading ("WC)
S-1	3.7	3.9	3.8
S-2	3.6	3.4	3.6
S-3	1.5	1.3	1.5
S-4/5	2.1	2.1	2.1
S-6	3.4	3.4	3.4
S-7	1.5	1.6	1.6

Table IV
Annual SSD System Monitoring

Location (Site/Facil CooperVision
Location (Address) Scottsville, NY
Client: CooperVision

Date: 11-Apr-16
Performed By: J. Sanger
Job Number: 70665-020

Test Point	10/13/2014 Vacuum Reading ("WC)	10/6/2015 Vacuum Reading ("WC)	04/7/2016 Vacuum Reading ("WC)
T-1	0.022	0.129	0.019
T-2	*	*	*
T-3	0.358	0.394	0.272
T-4	0.025	0.030	0.023
T-5	0.079	0.067	0.030
T-6	0.078	0.062	0.034
T-7 (doors closed)	-0.025	-0.021	-0.006
T-7 (doors open)	0.000	0.000	-0.001
T-8	0.034	0.027	0.033
T-9 (doors closed)	-0.001	0.002	-0.002
T-9 (doors open)	0.023	0.029	0.024
T-10	0.023	0.077	0.070
T-11	0.777	0.704	0.844
T-12	0.012	0.018	0.010
T-13	0.008	0.013	0.011
T-14	0.005	0.005	0.006
T-15	0.035	0.039	0.034
T-16	0.021	0.025	0.025
T-17	0.011	0.012	0.010
T-18	0.024	0.018	0.162

* T-2 is not a valid test point

Suction Point	4/1/2015 Vacuum Reading ("WC)	10/6/2015 Vacuum Reading ("WC)	04/7/2016 Vacuum Reading ("WC)
S-1	3.9	3.8	3.9
S-2	3.4	3.6	3.7
S-3	1.3	1.5	1.5
S-4/5	2.1	2.1	2.1
S-6	3.4	3.4	3.6
S-7	1.6	1.6	1.7

Visual Inspection of System:

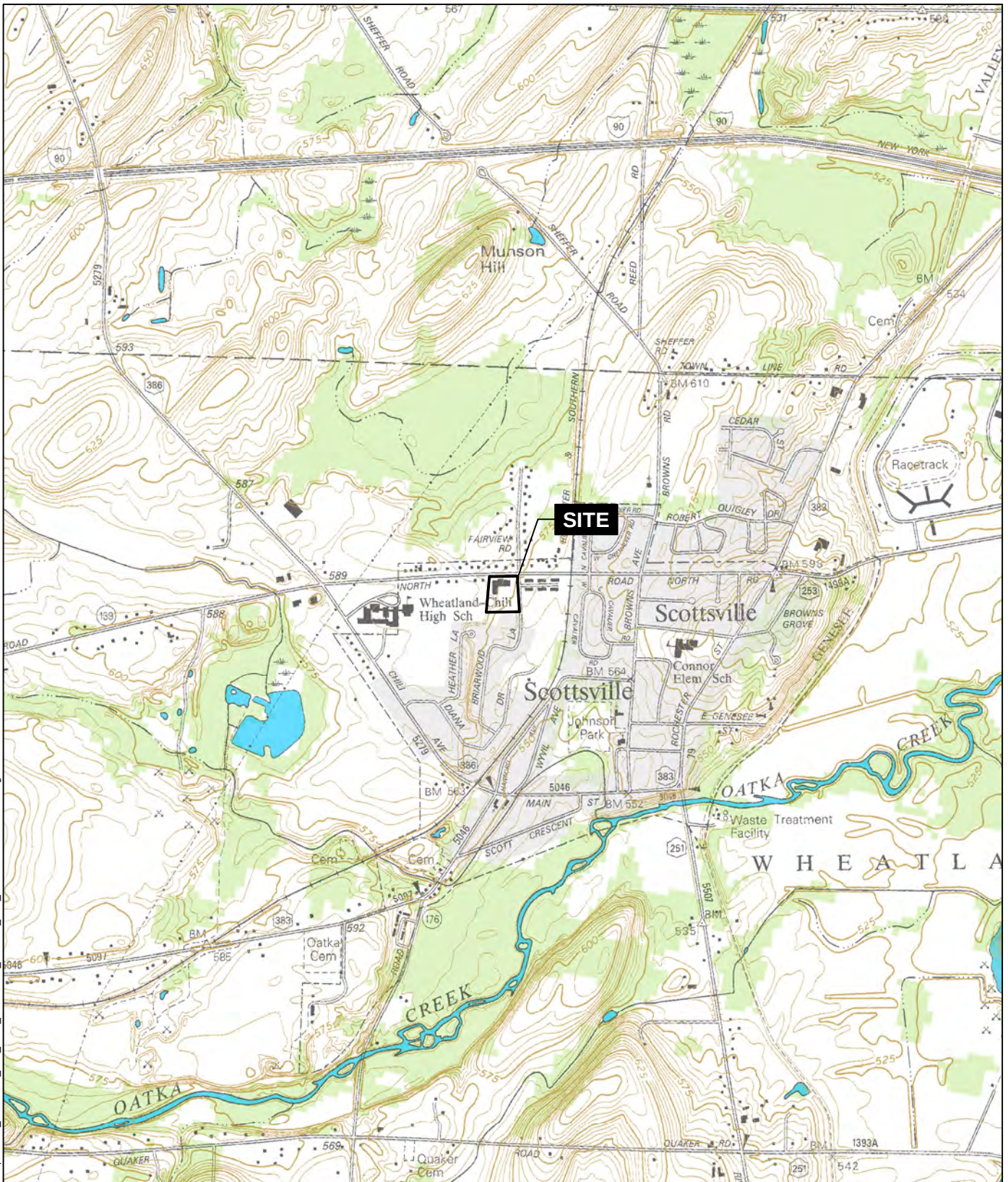
Fans were running. Suction points in good condition. Test points in good condition

Recommendation Actions:

Description of Past Year Activities:

FIGURES

GIS FILE PATH: G:\70665 CooperVision\GIS\Maps\2016_05\70665_020_0001_PROJECT_LOCUS_TJV_AP1.mxd — USER: noelger — LAST SAVED: 5/17/2016 7:11:31 PM



MAP SOURCE: NYS DOT
USGS QUAD: CLIFTON, NEW YORK
SITE COORDINATES: 43°01'39.9"N, 70°45'27.6"W

**HALEY
ALDRICH**

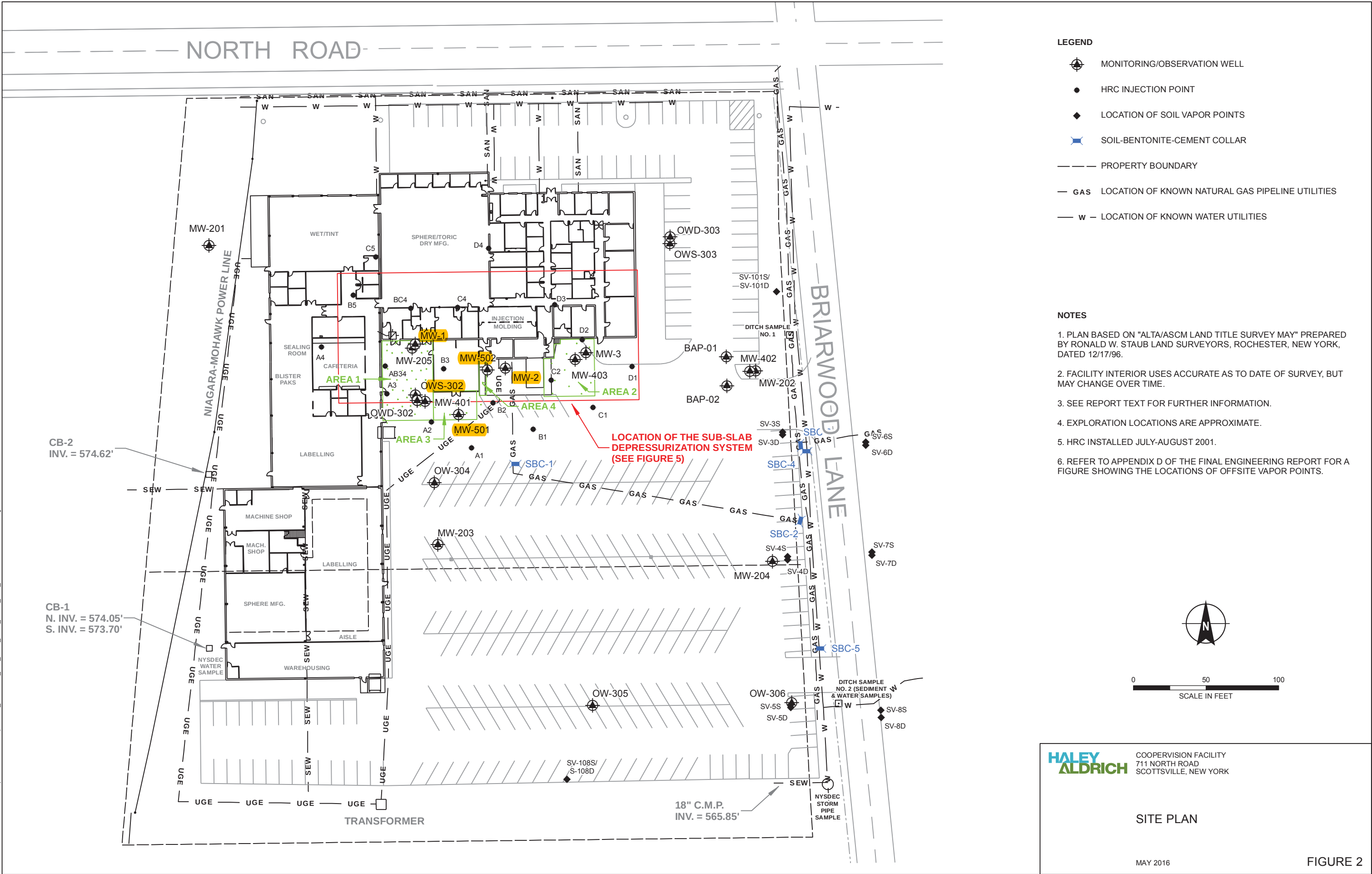
COOPERVISION, INC.
711 NORTH ROAD
SCOTTVILLE, NEW YORK

PROJECT LOCUS

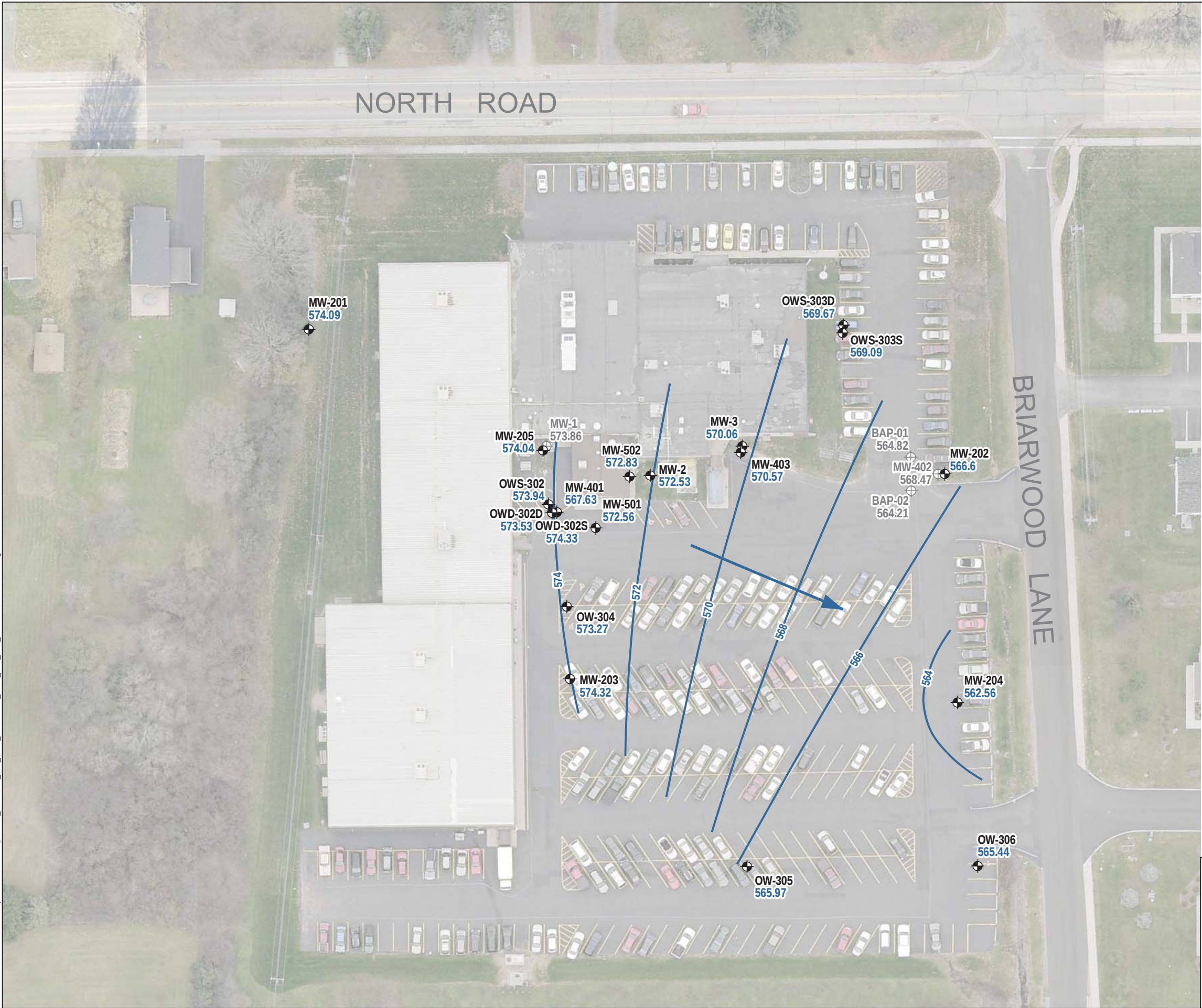
APPROXIMATE SCALE: 1 IN = 2000 FT
MAY 2016

FIGURE 1

GIS FILE PATH: G:\10665 CooperVision\GIS\Maps\2016_09\10665_020_0002_SITE_PLAN_TJV_AP1.mxd — USER: tvogler — LAST SAVED: 5/26/2016 8:52:21 AM



GIS FILE PATH: G:\70665 CooperVision\GIS\Maps\2016_06\70665_020_0003_OCTOBER_2015_GW_TJV_B11.mxd — USER: tvogler — LAST SAVED: 5/27/2016 3:17:54 PM



LEGEND

-  WELLS INCLUDED IN CONTOURS
-  WELLS NOT INCLUDED IN CONTOURS DUE TO SCREEN DEPTH, INCOMPLETE WELL INFORMATION, POOR WELL RECHARGE, OR PROXIMITY TO INJECTION WELLS.
-  GROUNDWATER CONTOUR
-  GROUNDWATER FLOW DIRECTION

NOTES

1. PLAN BASED ON "ALTA/ASCM LAND TITLE SURVEY MAY" PREPARED BY RONALD W. STAUB LAND SURVEYORS, ROCHESTER, NEW YORK, DATED 17 DECEMBER 1996.
2. GROUNDWATER CONTOURS ARE BASED ON DATA COLLECTED ON 5 OCTOBER 2015. ELEVATIONS SHOWN ONLY FOR THOSE WELLS APPLICABLE TO THE ISOPOTENTIAL CONTOURS DEVELOPED.
3. EXPLORATION LOCATIONS ARE APPROXIMATE.



**HALEY
ALDRICH**

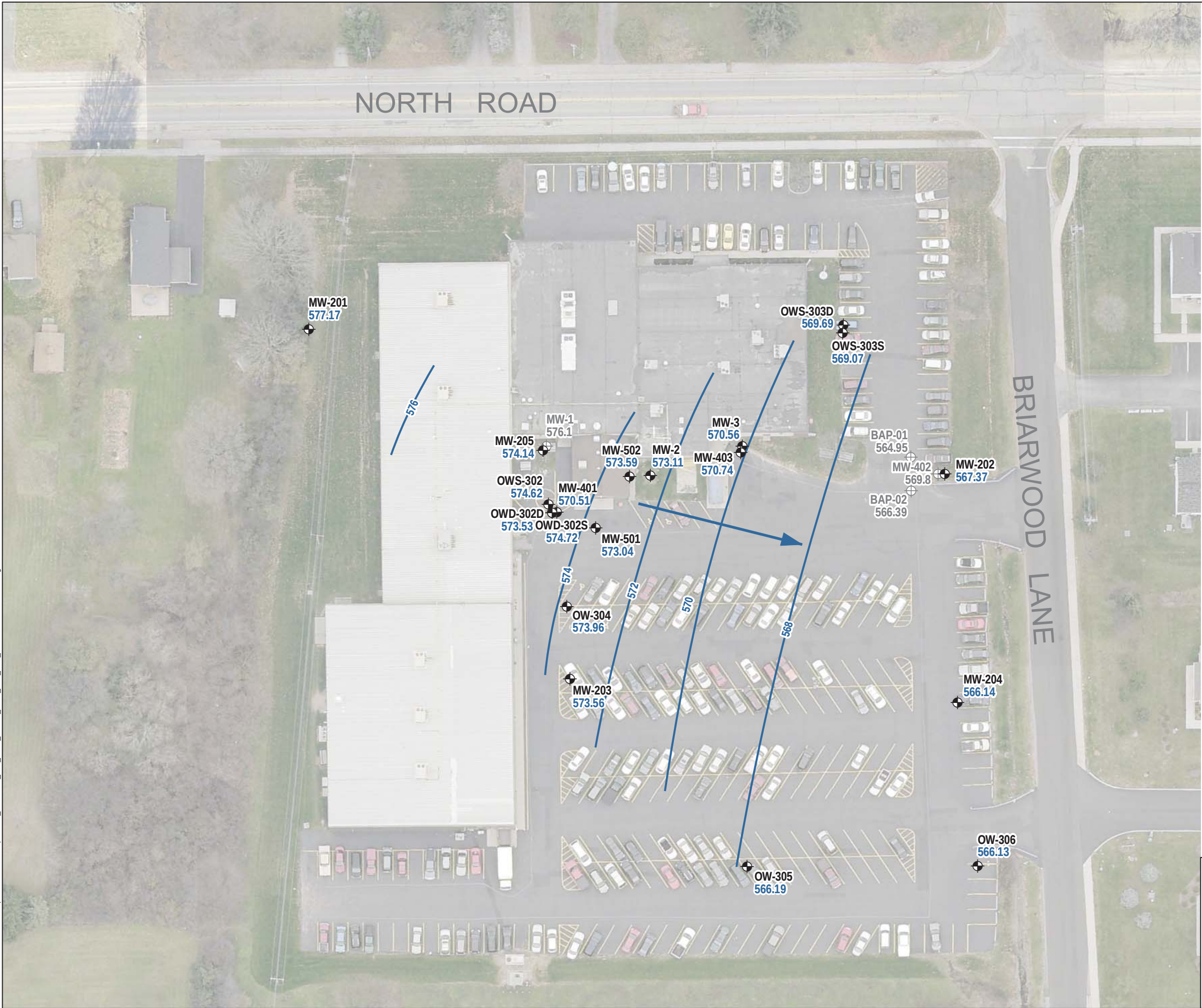
COOPERVISION FACILITY INVESTIGATION
711 NORTH ROAD
SCOTTSVILLE, NEW YORK

GROUNDWATER CONTOUR PLAN
(OCTOBER 2015)

MAY 2016

FIGURE 3

GIS FILE PATH: G:\70665 CooperVision\GIS\Maps\2016_06\70665_020_0004_APRIL_2016_GW_TUV_BL1.mxd — USER: tvogler — LAST SAVED: 5/27/2016 3:47:43 PM



**HALEY
ALDRICH**

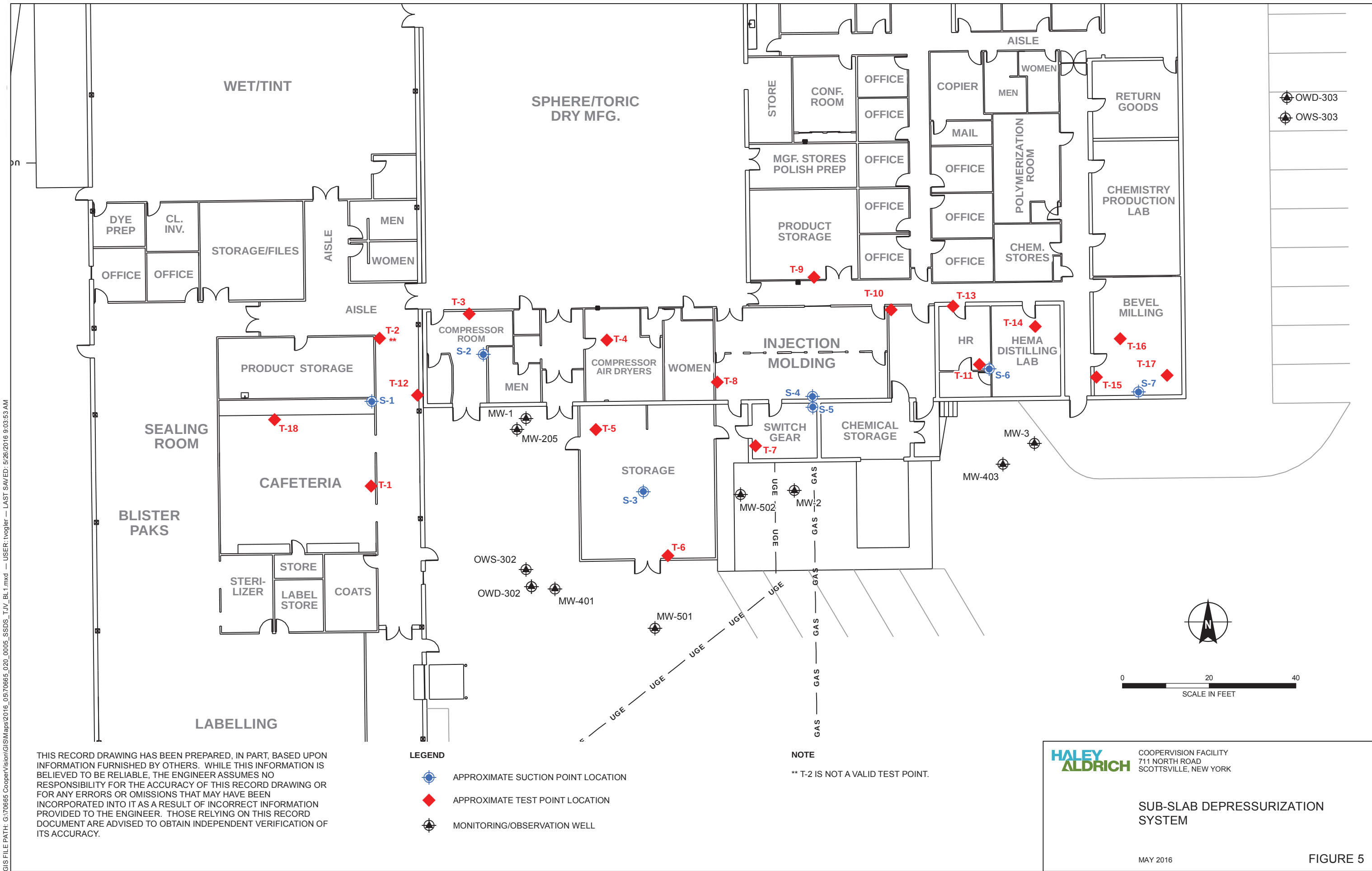
COOPERVISION FACILITY INVESTIGATION
711 NORTH ROAD
SCOTTSVILLE, NEW YORK

GROUNDWATER CONTOUR PLAN
(APRIL 2016)

MAY 2016

FIGURE 4

GIS FILE PATH: G:\70665 CooperVision\GIS\Maps\2016_05\70665_020_0005_SS\SDS_TVJ_BLI.mxd — USER: tvogler — LAST SAVED: 5/26/2016 9:03:53 AM



APPENDIX A

Institutional and Engineering Controls Certification Form



Enclosure 2
NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION
Site Management Periodic Review Report Notice
Institutional and Engineering Controls Certification Form



Site Details

Box 1

Site No. V00175

Site Name 711 North Road (Cooper Vision)

Site Address: 711 North Road Zip Code: 14546-
City/Town: Scottsville
County: Monroe
Site Acreage: 5.5

Reporting Period: May 16, 2015 to May 16, 2016

YES NO

1. Is the information above correct?

☒ ☐

If NO, include handwritten above or on a separate sheet.

2. Has some or all of the site property been sold, subdivided, merged, or undergone a tax map amendment during this Reporting Period?

☐ ☒

3. Has there been any change of use at the site during this Reporting Period (see 6NYCRR 375-1.11(d))?

☐ ☒

4. Have any federal, state, and/or local permits (e.g., building, discharge) been issued for or at the property during this Reporting Period?

☒ ☐

Conditional No Exposure Certification See Appendix B

If you answered YES to questions 2 thru 4, include documentation or evidence that documentation has been previously submitted with this certification form.

5. Is the site currently undergoing development?

☐ ☒

Box 2

YES NO

6. Is the current site use consistent with the use(s) listed below?
Commercial and Industrial

☒ ☐

7. Are all ICs/ECs in place and functioning as designed?

☒ ☐

**IF THE ANSWER TO EITHER QUESTION 6 OR 7 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

Description of Institutional Controls

<u>Parcel</u>	<u>Owner</u>	<u>Institutional Control</u>
187.170-1-18	CooperVision, Inc	Ground Water Use Restriction Landuse Restriction Site Management Plan

Deed Restriction with following provisions:

- 1) Site use limited to Commercial and Industrial Uses;
- 2) groundwater use restriction;
- 3) site disturbance must comply with Site Management Plan; and
- 4) annual certification.

187.170-1-18.1	CooperVision, Inc.	Ground Water Use Restriction Landuse Restriction Site Management Plan
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Deed Restriction with following provisions:

- 1) Site use limited to Commercial and Industrial Uses;
- 2) groundwater use restriction;
- 3) site disturbance must comply with Site Management Plan; and
- 4) annual certification.

Description of Engineering Controls

<u>Parcel</u>	<u>Engineering Control</u>
187.170-1-18	Cover System Subsurface Barriers Vapor Mitigation
187.170-1-18.1	Cover System Subsurface Barriers Vapor Mitigation

Periodic Review Report (PRR) Certification Statements

1. I certify by checking "YES" below that:

a) the Periodic Review report and all attachments were prepared under the direction of, and reviewed by, the party making the certification;

b) to the best of my knowledge and belief, the work and conclusions described in this certification are in accordance with the requirements of the site remedial program, and generally accepted engineering practices; and the information presented is accurate and complete.

YES NO

☒ ☐

2. If this site has an IC/EC Plan (or equivalent as required in the Decision Document), for each Institutional or Engineering control listed in Boxes 3 and/or 4, I certify by checking "YES" below that all of the following statements are true:

(a) the Institutional Control and/or Engineering Control(s) employed at this site is unchanged since the date that the Control was put in-place, or was last approved by the Department;

(b) nothing has occurred that would impair the ability of such Control, to protect public health and the environment;

(c) access to the site will continue to be provided to the Department, to evaluate the remedy, including access to evaluate the continued maintenance of this Control;

(d) nothing has occurred that would constitute a violation or failure to comply with the Site Management Plan for this Control; and

(e) if a financial assurance mechanism is required by the oversight document for the site, the mechanism remains valid and sufficient for its intended purpose established in the document.

YES NO

☒ ☐

**IF THE ANSWER TO QUESTION 2 IS NO, sign and date below and
DO NOT COMPLETE THE REST OF THIS FORM. Otherwise continue.**

A Corrective Measures Work Plan must be submitted along with this form to address these issues.

Signature of Owner, Remedial Party or Designated Representative

Date

RCD
3.8.5

IC CERTIFICATIONS
SITE NO. V00175

Box 6

SITE OWNER OR DESIGNATED REPRESENTATIVE SIGNATURE

I certify that all information and statements in Boxes 1, 2, and 3 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Robert Ooyama at CooperVision, 711 North Road, Scottsville, New York,
print name print business address

am certifying as Designated Representative (Owner or Remedial Party)

for the Site named in the Site Details Section of this form.

Robert Ooyama
Signature of Owner, Remedial Party, or Designated Representative
Rendering Certification

5/10/16
Date

REC
4 of 5

IC/EC CERTIFICATIONS

Box 7

Professional Engineer Signature

I certify that all information in Boxes 4 and 5 are true. I understand that a false statement made herein is punishable as a Class "A" misdemeanor, pursuant to Section 210.45 of the Penal Law.

I Mark N. Ramsdell at Haley & Aldrich of New York, Rochester, New York,
print name print business address

am certifying as a Professional Engineer for the Owner
(Owner or Remedial Party)

Mark N. Ramsdell

Signature of Professional Engineer, for the Owner or
Remedial Party, Rendering Certification



6/3/16

Date

RCD
5 of 5

APPENDIX B

Conditional No Exposure Certification Letter

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

Division of Water, Bureau of Permits
625 Broadway, Albany, New York 12233-3505
P: (518) 402-8111 | F: (518) 402-9029
www.dec.ny.gov

8/10/2015

COOPERVISION
COOPERVISION
711 NORTH RD
SCOTTSVILLE NY 14546

Re: Acknowledgement of the Conditional No Exposure Certification for exclusion from permitting under the SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-12-001)

Dear CAROL S WILSON

This is to acknowledge that the New York State Department of Environmental Conservation (the Department) has received a complete Conditional No Exposure Certification for exclusion from permitting under the terms and conditions imposed by the New York State Department of Environmental Conservation (DEC) SPDES Multi-Sector General Permit for Stormwater Discharges Associated with Industrial Activity (GP-0-12-001) (MSGP) for the following facility:

COOPERVISION
711 NORTH RD
SCOTTSVILLE NY 14546

The Conditional No Exposure Certification identification number for this facility is **NYR00F677**. Please be sure to include this permit identification number on any forms or correspondence you send the Department related to this Conditional No Exposure Certification.

This facility has been granted exclusion from permitting under the terms and conditions imposed by the MSGP, effective 07/02/2015. It is not, however, a Department determination of the validity of the information you provided. Your signature on the Conditional No Exposure Certification form certifies that you have read, understood and are implementing all of the applicable requirements. An important aspect of this certification requires that you have correctly determined whether you are eligible for permitting exclusion under MSGP.

The Conditional No Exposure Certification is valid for a 5 year term. You will need to submit a new Conditional No Exposure Certification Form on or before 07/02/2020 in order to maintain the Conditional No Exposure Certification. The Conditional No Exposure Certification Form can be found on the Department's website at http://www.dec.ny.gov/docs/water_pdf/noexposure.pdf



Department of
Environmental
Conservation

NEW YORK STATE DEPARTMENT OF ENVIRONMENTAL CONSERVATION

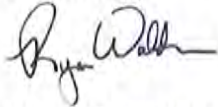
Division of Water, Bureau of Permits
625 Broadway, Albany, New York 12233-3505
P: (518) 402-8111 | F: (518) 402-9029
www.dec.ny.gov

If you determine you are no longer eligible for the Conditional No Exposure Certification, you must apply for coverage under MSGP. Information regarding the MSGP and a copy of the Notice of Intent needed to obtain coverage under the MSGP can be found on the Department's website at <http://www.dec.ny.gov/chemical/9009.html>

Conditional No Exposure Certification only relieves a facility of the responsibility to obtain a permit for stormwater discharges covered by the MSGP. If you have questions whether or not your facility needs other permits related to stormwater discharges, you should contact your Regional Permit Administrator (<http://www.dec.ny.gov/about/39381.html>).

If you have any questions or require additional information, please contact me at (518)-402-8244 or ryan.waldron@dec.ny.gov.

Sincerely,



Ryan P. Waldron, P.E.
MSGP Permit Coordinator



Department of
Environmental
Conservation

APPENDIX C

Laboratory Data Packages



April 13, 2016

Service Request No:R1508432

Mr. Mark Ramsdell
Haley & Aldrich, Inc.
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

Laboratory Results for: Coopervision 10/2015

Dear Mr.Ramsdell,

Enclosed are the results of the sample(s) submitted to our laboratory October 06, 2015
For your reference, these analyses have been assigned our service request number **R1508432**.

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 Karen.Bunker@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Karen Bunker
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

Client: Haley & Aldrich of New York
Project: Coopervision #70665-020
Sample Matrix: Water

Service Request No: R1508432
Date Received: 10/6/15

CASE NARRATIVE

All analyses were performed consistent with the quality assurance program of ALS Environmental (ALS). This report contains analytical results for samples designated for Tier II data deliverables. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses. Additional quality control analyses reported herein include: Laboratory Control Sample (LCS).

Sample Receipt

Eleven (11) water samples and one (1) Trip Blank were collected on the period 10/5-6/15 by H&A and received for analysis at ALS on 10/6/15. The samples were received unbroken. Several bottles were received but not noted on the chain of custody form. The client verified these were to be analyzed. They were added to the chain at the lab and initialed and dated. The cooler temperatures for samples upon lab receipt were above the guidelines of 0-6C at 8.7 and 15.1. The client was notified and permission was granted to analyze the samples.

Inorganic Parameters

Eight (8) water samples were analyzed for a client specific list of parameters: Chloride, Sulfate, Total Alkalinity, Nitrate, Nitrite, Sulfide, and Dissolved Iron. Three (3) samples were analyzed for TOC. Method numbers are included on the data forms in the report. Dissolved metals were field filtered.

All Initial and Continuing Calibration criteria were met for these analytes except for Nitrite CCV3 which was at 89% (limits 90-110%).

All holding times were met for these analyses.

Batch QC is included in the report. All Laboratory Control Sample (LCS) recoveries were within QC limits.

Site QC was not requested on this SDG.

All Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Organic Compounds

Eleven (11) water samples were analyzed for the TCL of Volatile Organics by GC/MS Method 8260C from SW-846. Eight (8) water samples were analyzed for Dissolved Gases by modified GC Method RSK-175 and four (4) samples were analyzed for Metabolic Acids by HPLC methodology.

All Initial Criteria were met for all analyses. Continuing Calibration Verifications were within the 20% Difference (%D) for all compounds except for Bromomethane, Chloromethane, and Vinyl Chloride on 10/8/15 the run and 2-Butanone, Carbon Tetrachloride and Chloromethane on the 10/14/15 run. Any hits for these compounds on the associated CCV should be considered as estimated.

Batch QC is included in the report. All Laboratory Control Samples (LCS) and LCS Duplicate (LCSD) recoveries were within limits were within limits for 8260C, RSK and Metabolic Acids except for the following 8260C compounds: Chloroethane, Chloromethane, and Vinyl Chloride on the 10/8/15 run and Chloromethane on the 10/14/15 run. The exceedences are flagged as “*”. The Relative Percent Difference (RPD) calculations were within QC acceptance limits for Organic Acids and RSK-175 analyses.

Site QC was not requested on this SDG.

Page 2
R1508432 Continued

Hits above the calibration range of the standards are flagged as “E” estimated. The sample is then repeated at the appropriate dilution for the hit. Both sets of data are included in the report. The subsequent dilution hits are flagged as “D”.

All surrogate recoveries were within acceptance limits.

All samples were analyzed within the appropriate holding times. All vials are checked for preservation after analysis. The VOC samples were found to be preserved to a pH of <2 or the samples were analyzed within the 7 day holding time for unpreserved vials.

The Laboratory Method Blanks were free from contamination.

No other problems were encountered during the analysis of these samples.

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020

Service Request:R1508432

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1508432-001	OW-306-100515	10/5/2015	1235
R1508432-002	MW-203-100515	10/5/2015	1330
R1508432-003	MW-202-100515	10/5/2015	1510
R1508432-004	MW-3-100515	10/5/2015	1600
R1508432-005	MW-204-100615	10/6/2015	0955
R1508432-006	MW-501-100615	10/6/2015	1055
R1508432-007	MW-502-100615	10/6/2015	1240
R1508432-008	OWS-302-100615	10/6/2015	1410
R1508432-009	MW-205-100615	10/6/2015	1535
R1508432-010	BAP-1-100615	10/6/2015	1710
R1508432-011	BAP-2-100615	10/6/2015	1730
R1508432-012	TB-100615	10/6/2015	1745
R1508432-013	MW-202-100515 Dissolved	10/5/2015	1510
R1508432-014	MW-3-100515 Dissolved	10/5/2015	1600
R1508432-015	MW-501-100615 Dissolved	10/6/2015	1055
R1508432-016	MW-502-100615 Dissolved	10/6/2015	1240
R1508432-017	OWS-302-100615 Dissolved	10/6/2015	1410
R1508432-018	MW-205-100615 Dissolved	10/6/2015	1535
R1508432-019	BAP-1-100615 Dissolved	10/6/2015	1710
R1508432-020	BAP-2-100615 Dissolved	10/6/2015	1730

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% (25% for CLP) 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 ($\geq 100\%$ 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 Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	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 <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



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.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 12:35
Date Received: 10/06/15 19:05

Sample Name: OW-306-100515
Lab Code: R1508432-001

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
Acetone	10 U	10	1	10/09/15 03:28	
Benzene	5.0 U	5.0	1	10/09/15 03:28	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 03:28	
Bromoform	5.0 U	5.0	1	10/09/15 03:28	
Bromomethane	5.0 U	5.0	1	10/09/15 03:28	
2-Butanone (MEK)	10 U	10	1	10/09/15 03:28	
Carbon Disulfide	10 U	10	1	10/09/15 03:28	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 03:28	
Chlorobenzene	5.0 U	5.0	1	10/09/15 03:28	
Chloroethane	5.0 U	5.0	1	10/09/15 03:28	
Chloroform	5.0 U	5.0	1	10/09/15 03:28	
Chloromethane	5.0 U	5.0	1	10/09/15 03:28	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 03:28	
1,1-Dichloroethane	5.0 U	5.0	1	10/09/15 03:28	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 03:28	
1,1-Dichloroethene	5.0 U	5.0	1	10/09/15 03:28	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:28	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:28	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 03:28	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:28	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:28	
Ethylbenzene	5.0 U	5.0	1	10/09/15 03:28	
2-Hexanone	10 U	10	1	10/09/15 03:28	
Methylene Chloride	5.0 U	5.0	1	10/09/15 03:28	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 03:28	
Styrene	5.0 U	5.0	1	10/09/15 03:28	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 03:28	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 03:28	
Toluene	5.0 U	5.0	1	10/09/15 03:28	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 03:28	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 03:28	
Trichloroethene	5.0 U	5.0	1	10/09/15 03:28	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 03:28	
o-Xylene	5.0 U	5.0	1	10/09/15 03:28	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 03:28	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/09/15 03:28	
Toluene-d8	99	87 - 121	10/09/15 03:28	
Dibromofluoromethane	92	89 - 119	10/09/15 03:28	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 13:30
Date Received: 10/06/15 19:05

Sample Name: MW-203-100515
Lab Code: R1508432-002

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
Acetone	10 U	10	1	10/09/15 03:53	
Benzene	5.0 U	5.0	1	10/09/15 03:53	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 03:53	
Bromoform	5.0 U	5.0	1	10/09/15 03:53	
Bromomethane	5.0 U	5.0	1	10/09/15 03:53	
2-Butanone (MEK)	10 U	10	1	10/09/15 03:53	
Carbon Disulfide	10 U	10	1	10/09/15 03:53	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 03:53	
Chlorobenzene	5.0 U	5.0	1	10/09/15 03:53	
Chloroethane	5.0 U	5.0	1	10/09/15 03:53	
Chloroform	5.0 U	5.0	1	10/09/15 03:53	
Chloromethane	5.0 U	5.0	1	10/09/15 03:53	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 03:53	
1,1-Dichloroethane	5.0 U	5.0	1	10/09/15 03:53	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 03:53	
1,1-Dichloroethene	5.0 U	5.0	1	10/09/15 03:53	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:53	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:53	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 03:53	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:53	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:53	
Ethylbenzene	5.0 U	5.0	1	10/09/15 03:53	
2-Hexanone	10 U	10	1	10/09/15 03:53	
Methylene Chloride	5.0 U	5.0	1	10/09/15 03:53	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 03:53	
Styrene	5.0 U	5.0	1	10/09/15 03:53	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 03:53	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 03:53	
Toluene	5.0 U	5.0	1	10/09/15 03:53	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 03:53	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 03:53	
Trichloroethene	5.0 U	5.0	1	10/09/15 03:53	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 03:53	
o-Xylene	5.0 U	5.0	1	10/09/15 03:53	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 03:53	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/09/15 03:53	
Toluene-d8	100	87 - 121	10/09/15 03:53	
Dibromofluoromethane	95	89 - 119	10/09/15 03:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-202-100515
Lab Code: R1508432-003

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	136	mg/L	2.0	1	10/12/15 13:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	10/08/15 07:26	NA	
Chloride	9056A	1540	mg/L	80	400	10/07/15 11:50	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 10:24	NA	
Nitrite as Nitrogen	9056A	40 U	mg/L	40	400	10/07/15 11:50	NA	
Sulfate	9056A	476	mg/L	20	100	10/10/15 10:30	NA	
Sulfide, Acid-Soluble	9034	1.0	mg/L	1.0	1	10/12/15 14:52	10/12/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-202-100515
Lab Code: R1508432-003

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	110	ug/L	100	1	10/14/15 15:56	10/08/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

Sample Name: MW-202-100515
Lab Code: R1508432-003

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	1.0 U	1.0	1	10/09/15 12:22	
Ethylene	1.0 U	1.0	1	10/09/15 12:22	
Methane	5.6	1.0	1	10/09/15 12:22	
Propane	1.0 U	1.0	1	10/09/15 12:22	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

Sample Name: MW-202-100515
Lab Code: R1508432-003

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
Acetone	10 U	10	1	10/09/15 04:17	
Benzene	5.0 U	5.0	1	10/09/15 04:17	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 04:17	
Bromoform	5.0 U	5.0	1	10/09/15 04:17	
Bromomethane	5.0 U	5.0	1	10/09/15 04:17	
2-Butanone (MEK)	10 U	10	1	10/09/15 04:17	
Carbon Disulfide	10 U	10	1	10/09/15 04:17	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 04:17	
Chlorobenzene	5.0 U	5.0	1	10/09/15 04:17	
Chloroethane	5.0 U	5.0	1	10/09/15 04:17	
Chloroform	5.0 U	5.0	1	10/09/15 04:17	
Chloromethane	5.0 U	5.0	1	10/09/15 04:17	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 04:17	
1,1-Dichloroethane	72	5.0	1	10/09/15 04:17	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 04:17	
1,1-Dichloroethene	59	5.0	1	10/09/15 04:17	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 04:17	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 04:17	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 04:17	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 04:17	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 04:17	
Ethylbenzene	5.0 U	5.0	1	10/09/15 04:17	
2-Hexanone	10 U	10	1	10/09/15 04:17	
Methylene Chloride	5.0 U	5.0	1	10/09/15 04:17	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 04:17	
Styrene	5.0 U	5.0	1	10/09/15 04:17	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 04:17	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 04:17	
Toluene	5.0 U	5.0	1	10/09/15 04:17	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 04:17	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 04:17	
Trichloroethene	5.0 U	5.0	1	10/09/15 04:17	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 04:17	
o-Xylene	5.0 U	5.0	1	10/09/15 04:17	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 04:17	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	10/09/15 04:17	
Toluene-d8	98	87 - 121	10/09/15 04:17	
Dibromofluoromethane	95	89 - 119	10/09/15 04:17	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

Sample Name: MW-202-100515
Lab Code: R1508432-003

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	10/18/15 13:51	
Acetic Acid	1.0 U	1.0	1	10/18/15 13:51	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	10/18/15 13:51	
Lactic Acid	1.0 U	1.0	1	10/18/15 13:51	
Propionic Acid	1.0 U	1.0	1	10/18/15 13:51	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-3-100515
Lab Code: R1508432-004

Service Request: R1508432
Date Collected: 10/05/15 16:00
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	263	mg/L	2.0	1	10/12/15 13:14	NA	
Chloride	9056A	371	mg/L	20	100	10/07/15 12:03	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 10:36	NA	
Nitrite as Nitrogen	9056A	10 U	mg/L	10	100	10/07/15 12:03	NA	
Sulfate	9056A	14.8	mg/L	2.0	10	10/07/15 10:36	NA	
Sulfide, Acid-Soluble	9034	5.0 U	mg/L	5.0	1	10/12/15 14:52	10/12/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-3-100515
Lab Code: R1508432-004

Service Request: R1508432
Date Collected: 10/05/15 16:00
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	41600	ug/L	100	1	10/14/15 16:02	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 16:00
Date Received: 10/06/15 19:05

Sample Name: MW-3-100515
Lab Code: R1508432-004

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	20 U	20	20	10/09/15 13:29	
Ethylene	42	20	20	10/09/15 13:29	
Methane	1700	20	20	10/09/15 13:29	
Propane	20 U	20	20	10/09/15 13:29	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15 16:00
Date Received: 10/06/15 19:05

Sample Name: MW-3-100515
Lab Code: R1508432-004

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
Acetone	50 U	50	5	10/14/15 17:54	
Benzene	25 U	25	5	10/14/15 17:54	
Bromodichloromethane	25 U	25	5	10/14/15 17:54	
Bromoform	25 U	25	5	10/14/15 17:54	
Bromomethane	25 U	25	5	10/14/15 17:54	
2-Butanone (MEK)	50 U	50	5	10/14/15 17:54	
Carbon Disulfide	50 U	50	5	10/14/15 17:54	
Carbon Tetrachloride	25 U	25	5	10/14/15 17:54	
Chlorobenzene	25 U	25	5	10/14/15 17:54	
Chloroethane	580	25	5	10/14/15 17:54	
Chloroform	25 U	25	5	10/14/15 17:54	
Chloromethane	25 U	25	5	10/14/15 17:54	
Dibromochloromethane	25 U	25	5	10/14/15 17:54	
1,1-Dichloroethane	70	25	5	10/14/15 17:54	
1,2-Dichloroethane	25 U	25	5	10/14/15 17:54	
1,1-Dichloroethene	25 U	25	5	10/14/15 17:54	
cis-1,2-Dichloroethene	25 U	25	5	10/14/15 17:54	
trans-1,2-Dichloroethene	25 U	25	5	10/14/15 17:54	
1,2-Dichloropropane	25 U	25	5	10/14/15 17:54	
cis-1,3-Dichloropropene	25 U	25	5	10/14/15 17:54	
trans-1,3-Dichloropropene	25 U	25	5	10/14/15 17:54	
Ethylbenzene	25 U	25	5	10/14/15 17:54	
2-Hexanone	50 U	50	5	10/14/15 17:54	
Methylene Chloride	25 U	25	5	10/14/15 17:54	
4-Methyl-2-pentanone (MIBK)	50 U	50	5	10/14/15 17:54	
Styrene	25 U	25	5	10/14/15 17:54	
1,1,2,2-Tetrachloroethane	25 U	25	5	10/14/15 17:54	
Tetrachloroethene	25 U	25	5	10/14/15 17:54	
Toluene	25 U	25	5	10/14/15 17:54	
1,1,1-Trichloroethane	25 U	25	5	10/14/15 17:54	
1,1,2-Trichloroethane	25 U	25	5	10/14/15 17:54	
Trichloroethene	25 U	25	5	10/14/15 17:54	
Vinyl Chloride	54	25	5	10/14/15 17:54	
o-Xylene	25 U	25	5	10/14/15 17:54	
m,p-Xylenes	25 U	25	5	10/14/15 17:54	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	10/14/15 17:54	
Toluene-d8	99	87 - 121	10/14/15 17:54	
Dibromofluoromethane	95	89 - 119	10/14/15 17:54	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 09:55
Date Received: 10/06/15 19:05

Sample Name: MW-204-100615
Lab Code: R1508432-005

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
Acetone	10 U	10	1	10/09/15 05:05	
Benzene	5.0 U	5.0	1	10/09/15 05:05	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 05:05	
Bromoform	5.0 U	5.0	1	10/09/15 05:05	
Bromomethane	5.0 U	5.0	1	10/09/15 05:05	
2-Butanone (MEK)	10 U	10	1	10/09/15 05:05	
Carbon Disulfide	10 U	10	1	10/09/15 05:05	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 05:05	
Chlorobenzene	5.0 U	5.0	1	10/09/15 05:05	
Chloroethane	5.0 U	5.0	1	10/09/15 05:05	
Chloroform	5.0 U	5.0	1	10/09/15 05:05	
Chloromethane	5.0 U	5.0	1	10/09/15 05:05	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 05:05	
1,1-Dichloroethane	7.0	5.0	1	10/09/15 05:05	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 05:05	
1,1-Dichloroethene	6.0	5.0	1	10/09/15 05:05	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 05:05	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 05:05	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 05:05	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 05:05	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 05:05	
Ethylbenzene	5.0 U	5.0	1	10/09/15 05:05	
2-Hexanone	10 U	10	1	10/09/15 05:05	
Methylene Chloride	5.0 U	5.0	1	10/09/15 05:05	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 05:05	
Styrene	5.0 U	5.0	1	10/09/15 05:05	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 05:05	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 05:05	
Toluene	5.0 U	5.0	1	10/09/15 05:05	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 05:05	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 05:05	
Trichloroethene	5.0 U	5.0	1	10/09/15 05:05	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 05:05	
o-Xylene	5.0 U	5.0	1	10/09/15 05:05	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 05:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/09/15 05:05	
Toluene-d8	97	87 - 121	10/09/15 05:05	
Dibromofluoromethane	93	89 - 119	10/09/15 05:05	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-501-100615
Lab Code: R1508432-006

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	379	mg/L	2.0	1	10/12/15 13:14	NA	
Chloride	9056A	3960	mg/L	200	1000	10/07/15 12:52	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 10:49	NA	
Nitrite as Nitrogen	9056A	100 U	mg/L	100	1000	10/08/15 01:39	NA	
Sulfate	9056A	82.6	mg/L	2.0	10	10/07/15 10:49	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	10/12/15 14:52	10/12/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-501-100615
Lab Code: R1508432-006

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	5760	ug/L	100	1	10/14/15 16:08	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Sample Name: MW-501-100615
Lab Code: R1508432-006

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	50 U	50	50	10/09/15 13:44	
Ethylene	50 U	50	50	10/09/15 13:44	
Methane	9000 E	50	50	10/09/15 13:44	
Propane	50 U	50	50	10/09/15 13:44	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Sample Name: MW-501-100615
Lab Code: R1508432-006

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	100 U	100	100	10/09/15 13:54	
Ethylene	100 U	100	100	10/09/15 13:54	
Methane	9000 D	100	100	10/09/15 13:54	
Propane	100 U	100	100	10/09/15 13:54	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Sample Name: MW-501-100615
Lab Code: R1508432-006

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
Acetone	100 U	100	10	10/14/15 18:18	
Benzene	50 U	50	10	10/14/15 18:18	
Bromodichloromethane	50 U	50	10	10/14/15 18:18	
Bromoform	50 U	50	10	10/14/15 18:18	
Bromomethane	50 U	50	10	10/14/15 18:18	
2-Butanone (MEK)	100 U	100	10	10/14/15 18:18	
Carbon Disulfide	100 U	100	10	10/14/15 18:18	
Carbon Tetrachloride	50 U	50	10	10/14/15 18:18	
Chlorobenzene	50 U	50	10	10/14/15 18:18	
Chloroethane	990	50	10	10/14/15 18:18	
Chloroform	50 U	50	10	10/14/15 18:18	
Chloromethane	50 U	50	10	10/14/15 18:18	
Dibromochloromethane	50 U	50	10	10/14/15 18:18	
1,1-Dichloroethane	71	50	10	10/14/15 18:18	
1,2-Dichloroethane	50 U	50	10	10/14/15 18:18	
1,1-Dichloroethene	50 U	50	10	10/14/15 18:18	
cis-1,2-Dichloroethene	50 U	50	10	10/14/15 18:18	
trans-1,2-Dichloroethene	50 U	50	10	10/14/15 18:18	
1,2-Dichloropropane	50 U	50	10	10/14/15 18:18	
cis-1,3-Dichloropropene	50 U	50	10	10/14/15 18:18	
trans-1,3-Dichloropropene	50 U	50	10	10/14/15 18:18	
Ethylbenzene	50 U	50	10	10/14/15 18:18	
2-Hexanone	100 U	100	10	10/14/15 18:18	
Methylene Chloride	50 U	50	10	10/14/15 18:18	
4-Methyl-2-pentanone (MIBK)	100 U	100	10	10/14/15 18:18	
Styrene	50 U	50	10	10/14/15 18:18	
1,1,2,2-Tetrachloroethane	50 U	50	10	10/14/15 18:18	
Tetrachloroethene	50 U	50	10	10/14/15 18:18	
Toluene	50 U	50	10	10/14/15 18:18	
1,1,1-Trichloroethane	50 U	50	10	10/14/15 18:18	
1,1,2-Trichloroethane	50 U	50	10	10/14/15 18:18	
Trichloroethene	50 U	50	10	10/14/15 18:18	
Vinyl Chloride	96	50	10	10/14/15 18:18	
o-Xylene	50 U	50	10	10/14/15 18:18	
m,p-Xylenes	50 U	50	10	10/14/15 18:18	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	94	85 - 122	10/14/15 18:18	
Toluene-d8	100	87 - 121	10/14/15 18:18	
Dibromofluoromethane	92	89 - 119	10/14/15 18:18	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-502-100615
Lab Code: R1508432-007

Service Request: R1508432
Date Collected: 10/06/15 12:40
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	446	mg/L	2.0	1	10/12/15 13:14	NA	
Chloride	9056A	777	mg/L	40	200	10/07/15 13:04	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 11:01	NA	
Nitrite as Nitrogen	9056A	20 U	mg/L	20	200	10/08/15 01:53	NA	
Sulfate	9056A	3.0	mg/L	2.0	10	10/07/15 11:01	NA	
Sulfide, Acid-Soluble	9034	5.0 U	mg/L	5.0	1	10/12/15 14:52	10/12/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-502-100615
Lab Code: R1508432-007

Service Request: R1508432
Date Collected: 10/06/15 12:40
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	51700	ug/L	100	1	10/14/15 16:14	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 12:40
Date Received: 10/06/15 19:05

Sample Name: MW-502-100615
Lab Code: R1508432-007

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	250 U	250	250	10/09/15 14:21	
Ethylene	250 U	250	250	10/09/15 14:21	
Methane	20000	250	250	10/09/15 14:21	
Propane	250 U	250	250	10/09/15 14:21	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 12:40
Date Received: 10/06/15 19:05

Sample Name: MW-502-100615
Lab Code: R1508432-007

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
Acetone	250 U	250	25	10/14/15 18:43	
Benzene	130 U	130	25	10/14/15 18:43	
Bromodichloromethane	130 U	130	25	10/14/15 18:43	
Bromoform	130 U	130	25	10/14/15 18:43	
Bromomethane	130 U	130	25	10/14/15 18:43	
2-Butanone (MEK)	250 U	250	25	10/14/15 18:43	
Carbon Disulfide	250 U	250	25	10/14/15 18:43	
Carbon Tetrachloride	130 U	130	25	10/14/15 18:43	
Chlorobenzene	130 U	130	25	10/14/15 18:43	
Chloroethane	4700	130	25	10/14/15 18:43	
Chloroform	130 U	130	25	10/14/15 18:43	
Chloromethane	130 U	130	25	10/14/15 18:43	
Dibromochloromethane	130 U	130	25	10/14/15 18:43	
1,1-Dichloroethane	130 U	130	25	10/14/15 18:43	
1,2-Dichloroethane	130 U	130	25	10/14/15 18:43	
1,1-Dichloroethene	130 U	130	25	10/14/15 18:43	
cis-1,2-Dichloroethene	130 U	130	25	10/14/15 18:43	
trans-1,2-Dichloroethene	130 U	130	25	10/14/15 18:43	
1,2-Dichloropropane	130 U	130	25	10/14/15 18:43	
cis-1,3-Dichloropropene	130 U	130	25	10/14/15 18:43	
trans-1,3-Dichloropropene	130 U	130	25	10/14/15 18:43	
Ethylbenzene	130 U	130	25	10/14/15 18:43	
2-Hexanone	250 U	250	25	10/14/15 18:43	
Methylene Chloride	130 U	130	25	10/14/15 18:43	
4-Methyl-2-pentanone (MIBK)	250 U	250	25	10/14/15 18:43	
Styrene	130 U	130	25	10/14/15 18:43	
1,1,2,2-Tetrachloroethane	130 U	130	25	10/14/15 18:43	
Tetrachloroethene	130 U	130	25	10/14/15 18:43	
Toluene	130 U	130	25	10/14/15 18:43	
1,1,1-Trichloroethane	130 U	130	25	10/14/15 18:43	
1,1,2-Trichloroethane	130 U	130	25	10/14/15 18:43	
Trichloroethene	130 U	130	25	10/14/15 18:43	
Vinyl Chloride	420	130	25	10/14/15 18:43	
o-Xylene	130 U	130	25	10/14/15 18:43	
m,p-Xylenes	130 U	130	25	10/14/15 18:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	10/14/15 18:43	
Toluene-d8	98	87 - 121	10/14/15 18:43	
Dibromofluoromethane	91	89 - 119	10/14/15 18:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: OWS-302-100615
Lab Code: R1508432-008

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	730	mg/L	2.0	1	10/12/15 13:14	NA	
Chloride	9056A	2660	mg/L	80	400	10/07/15 13:17	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 11:13	NA	
Nitrite as Nitrogen	9056A	40 U	mg/L	40	400	10/08/15 02:36	NA	
Sulfate	9056A	2.0 U	mg/L	2.0	10	10/07/15 11:13	NA	
Sulfide, Acid-Soluble	9034	1.1	mg/L	1.0	1	10/12/15 14:52	10/12/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: OWS-302-100615
Lab Code: R1508432-008

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	15600	ug/L	100	1	10/14/15 16:32	10/08/15	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Sample Name: OWS-302-100615
Lab Code: R1508432-008

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	200 U	200	200	10/09/15 15:20	
Ethylene	200 U	200	200	10/09/15 15:20	
Methane	14000 D	200	200	10/09/15 15:20	
Propane	200 U	200	200	10/09/15 15:20	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Sample Name: OWS-302-100615
Lab Code: R1508432-008

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	10 U	10	10	10/09/15 12:32	
Ethylene	10 U	10	10	10/09/15 12:32	
Methane	3600 E	10	10	10/09/15 12:32	
Propane	10 U	10	10	10/09/15 12:32	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Sample Name: OWS-302-100615
Lab Code: R1508432-008

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
Acetone	2500 U	2500	250	10/14/15 19:07	
Benzene	1300 U	1300	250	10/14/15 19:07	
Bromodichloromethane	1300 U	1300	250	10/14/15 19:07	
Bromoform	1300 U	1300	250	10/14/15 19:07	
Bromomethane	1300 U	1300	250	10/14/15 19:07	
2-Butanone (MEK)	2500 U	2500	250	10/14/15 19:07	
Carbon Disulfide	2500 U	2500	250	10/14/15 19:07	
Carbon Tetrachloride	1300 U	1300	250	10/14/15 19:07	
Chlorobenzene	1300 U	1300	250	10/14/15 19:07	
Chloroethane	41000	1300	250	10/14/15 19:07	
Chloroform	1300 U	1300	250	10/14/15 19:07	
Chloromethane	1300 U	1300	250	10/14/15 19:07	
Dibromochloromethane	1300 U	1300	250	10/14/15 19:07	
1,1-Dichloroethane	1300 U	1300	250	10/14/15 19:07	
1,2-Dichloroethane	1300 U	1300	250	10/14/15 19:07	
1,1-Dichloroethene	1300 U	1300	250	10/14/15 19:07	
cis-1,2-Dichloroethene	1300 U	1300	250	10/14/15 19:07	
trans-1,2-Dichloroethene	1300 U	1300	250	10/14/15 19:07	
1,2-Dichloropropane	1300 U	1300	250	10/14/15 19:07	
cis-1,3-Dichloropropene	1300 U	1300	250	10/14/15 19:07	
trans-1,3-Dichloropropene	1300 U	1300	250	10/14/15 19:07	
Ethylbenzene	1300 U	1300	250	10/14/15 19:07	
2-Hexanone	2500 U	2500	250	10/14/15 19:07	
Methylene Chloride	1300 U	1300	250	10/14/15 19:07	
4-Methyl-2-pentanone (MIBK)	2500 U	2500	250	10/14/15 19:07	
Styrene	1300 U	1300	250	10/14/15 19:07	
1,1,2,2-Tetrachloroethane	1300 U	1300	250	10/14/15 19:07	
Tetrachloroethene	1300 U	1300	250	10/14/15 19:07	
Toluene	1300 U	1300	250	10/14/15 19:07	
1,1,1-Trichloroethane	1300 U	1300	250	10/14/15 19:07	
1,1,2-Trichloroethane	1300 U	1300	250	10/14/15 19:07	
Trichloroethene	1300 U	1300	250	10/14/15 19:07	
Vinyl Chloride	1300 U	1300	250	10/14/15 19:07	
o-Xylene	1300 U	1300	250	10/14/15 19:07	
m,p-Xylenes	1300 U	1300	250	10/14/15 19:07	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	10/14/15 19:07	
Toluene-d8	100	87 - 121	10/14/15 19:07	
Dibromofluoromethane	93	89 - 119	10/14/15 19:07	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-205-100615
Lab Code: R1508432-009

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	3490	mg/L	2.0	1	10/13/15 13:09	NA	
Chloride	9056A	787	mg/L	40	200	10/07/15 13:29	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 11:26	NA	
Nitrite as Nitrogen	9056A	20 U	mg/L	20	200	10/08/15 02:50	NA	
Sulfate	9056A	10.2	mg/L	2.0	10	10/13/15 12:28	NA	
Sulfide, Acid-Soluble	9034	5.0 U	mg/L	5.0	1	10/12/15 14:52	10/12/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-205-100615
Lab Code: R1508432-009

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	119000	ug/L	1000	10	10/15/15 16:42	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Sample Name: MW-205-100615
Lab Code: R1508432-009

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	100 U	100	100	10/09/15 15:10	
Ethylene	100 U	100	100	10/09/15 15:10	
Methane	4000 D	100	100	10/09/15 15:10	
Propane	100 U	100	100	10/09/15 15:10	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Sample Name: MW-205-100615
Lab Code: R1508432-009

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	25 U	25	25	10/09/15 14:56	
Ethylene	25 U	25	25	10/09/15 14:56	
Methane	4000 E	25	25	10/09/15 14:56	
Propane	25 U	25	25	10/09/15 14:56	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Sample Name: MW-205-100615
Lab Code: R1508432-009

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
Acetone	20000 U	20000	2000	10/09/15 06:43	
Benzene	10000 U	10000	2000	10/09/15 06:43	
Bromodichloromethane	10000 U	10000	2000	10/09/15 06:43	
Bromoform	10000 U	10000	2000	10/09/15 06:43	
Bromomethane	10000 U	10000	2000	10/09/15 06:43	
2-Butanone (MEK)	20000 U	20000	2000	10/09/15 06:43	
Carbon Disulfide	20000 U	20000	2000	10/09/15 06:43	
Carbon Tetrachloride	10000 U	10000	2000	10/09/15 06:43	
Chlorobenzene	10000 U	10000	2000	10/09/15 06:43	
Chloroethane	10000 U	10000	2000	10/09/15 06:43	
Chloroform	10000 U	10000	2000	10/09/15 06:43	
Chloromethane	10000 U	10000	2000	10/09/15 06:43	
Dibromochloromethane	10000 U	10000	2000	10/09/15 06:43	
1,1-Dichloroethane	200000	10000	2000	10/09/15 06:43	
1,2-Dichloroethane	10000 U	10000	2000	10/09/15 06:43	
1,1-Dichloroethene	10000 U	10000	2000	10/09/15 06:43	
cis-1,2-Dichloroethene	10000 U	10000	2000	10/09/15 06:43	
trans-1,2-Dichloroethene	10000 U	10000	2000	10/09/15 06:43	
1,2-Dichloropropane	10000 U	10000	2000	10/09/15 06:43	
cis-1,3-Dichloropropene	10000 U	10000	2000	10/09/15 06:43	
trans-1,3-Dichloropropene	10000 U	10000	2000	10/09/15 06:43	
Ethylbenzene	10000 U	10000	2000	10/09/15 06:43	
2-Hexanone	20000 U	20000	2000	10/09/15 06:43	
Methylene Chloride	10000 U	10000	2000	10/09/15 06:43	
4-Methyl-2-pentanone (MIBK)	20000 U	20000	2000	10/09/15 06:43	
Styrene	10000 U	10000	2000	10/09/15 06:43	
1,1,2,2-Tetrachloroethane	10000 U	10000	2000	10/09/15 06:43	
Tetrachloroethene	10000 U	10000	2000	10/09/15 06:43	
Toluene	10000 U	10000	2000	10/09/15 06:43	
1,1,1-Trichloroethane	43000	10000	2000	10/09/15 06:43	
1,1,2-Trichloroethane	10000 U	10000	2000	10/09/15 06:43	
Trichloroethene	10000 U	10000	2000	10/09/15 06:43	
Vinyl Chloride	10000 U	10000	2000	10/09/15 06:43	
o-Xylene	10000 U	10000	2000	10/09/15 06:43	
m,p-Xylenes	10000 U	10000	2000	10/09/15 06:43	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	10/09/15 06:43	
Toluene-d8	98	87 - 121	10/09/15 06:43	
Dibromofluoromethane	91	89 - 119	10/09/15 06:43	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Sample Name: MW-205-100615
Lab Code: R1508432-009

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	25 U	25	50	10/18/15 12:43	
Acetic Acid	1000	50	50	10/18/15 12:43	
Butanoic Acid (Butyric Acid)	3100	100	50	10/18/15 12:43	
Lactic Acid	50 U	50	50	10/18/15 12:43	
Propionic Acid	750	50	50	10/18/15 12:43	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: BAP-1-100615
Lab Code: R1508432-010

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	261	mg/L	2.0	1	10/12/15 13:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	10.1	mg/L	1.0	1	10/08/15 07:47	NA	
Chloride	9056A	419	mg/L	20	100	10/07/15 13:54	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 11:38	NA	
Nitrite as Nitrogen	9056A	10 U	mg/L	10	100	10/08/15 03:04	NA	
Sulfate	9056A	276	mg/L	20	100	10/07/15 13:54	NA	
Sulfide, Acid-Soluble	9034	9.0	mg/L	5.0	1	10/12/15 14:52	10/12/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: BAP-1-100615
Lab Code: R1508432-010

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	247000	ug/L	1000	10	10/15/15 16:48	10/08/15	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Sample Name: BAP-1-100615
Lab Code: R1508432-010

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	5.0 U	5.0	5	10/09/15 12:53	
Ethylene	7.2	5.0	5	10/09/15 12:53	
Methane	360	5.0	5	10/09/15 12:53	
Propane	5.0 U	5.0	5	10/09/15 12:53	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Sample Name: BAP-1-100615
Lab Code: R1508432-010

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
Acetone	100 U	100	10	10/14/15 17:05	
Benzene	50 U	50	10	10/14/15 17:05	
Bromodichloromethane	50 U	50	10	10/14/15 17:05	
Bromoform	50 U	50	10	10/14/15 17:05	
Bromomethane	50 U	50	10	10/14/15 17:05	
2-Butanone (MEK)	100 U	100	10	10/14/15 17:05	
Carbon Disulfide	100 U	100	10	10/14/15 17:05	
Carbon Tetrachloride	50 U	50	10	10/14/15 17:05	
Chlorobenzene	50 U	50	10	10/14/15 17:05	
Chloroethane	250	50	10	10/14/15 17:05	
Chloroform	50 U	50	10	10/14/15 17:05	
Chloromethane	50 U	50	10	10/14/15 17:05	
Dibromochloromethane	50 U	50	10	10/14/15 17:05	
1,1-Dichloroethane	1300	50	10	10/14/15 17:05	
1,2-Dichloroethane	50 U	50	10	10/14/15 17:05	
1,1-Dichloroethene	1200	50	10	10/14/15 17:05	
cis-1,2-Dichloroethene	50 U	50	10	10/14/15 17:05	
trans-1,2-Dichloroethene	50 U	50	10	10/14/15 17:05	
1,2-Dichloropropane	50 U	50	10	10/14/15 17:05	
cis-1,3-Dichloropropene	50 U	50	10	10/14/15 17:05	
trans-1,3-Dichloropropene	50 U	50	10	10/14/15 17:05	
Ethylbenzene	50 U	50	10	10/14/15 17:05	
2-Hexanone	100 U	100	10	10/14/15 17:05	
Methylene Chloride	50 U	50	10	10/14/15 17:05	
4-Methyl-2-pentanone (MIBK)	100 U	100	10	10/14/15 17:05	
Styrene	50 U	50	10	10/14/15 17:05	
1,1,2,2-Tetrachloroethane	50 U	50	10	10/14/15 17:05	
Tetrachloroethene	50 U	50	10	10/14/15 17:05	
Toluene	50 U	50	10	10/14/15 17:05	
1,1,1-Trichloroethane	50 U	50	10	10/14/15 17:05	
1,1,2-Trichloroethane	50 U	50	10	10/14/15 17:05	
Trichloroethene	50 U	50	10	10/14/15 17:05	
Vinyl Chloride	110	50	10	10/14/15 17:05	
o-Xylene	50 U	50	10	10/14/15 17:05	
m,p-Xylenes	50 U	50	10	10/14/15 17:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	89	85 - 122	10/14/15 17:05	
Toluene-d8	98	87 - 121	10/14/15 17:05	
Dibromofluoromethane	91	89 - 119	10/14/15 17:05	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Sample Name: BAP-1-100615
Lab Code: R1508432-010

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	10/18/15 13:04	
Acetic Acid	10	1.0	1	10/18/15 13:04	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	10/18/15 13:04	
Lactic Acid	1.0 U	1.0	1	10/18/15 13:04	
Propionic Acid	2.2	1.0	1	10/18/15 13:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Sample Name: BAP-2-100615
Lab Code: R1508432-011

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	276	mg/L	2.0	1	10/12/15 13:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	4.3	mg/L	1.0	1	10/08/15 08:08	NA	
Chloride	9056A	1410	mg/L	60	300	10/07/15 14:06	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	10/07/15 12:40	NA	
Nitrite as Nitrogen	9056A	30 U	mg/L	30	300	10/08/15 03:18	NA	
Sulfate	9056A	62.3	mg/L	2.0	10	10/07/15 12:40	NA	
Sulfide, Acid-Soluble	9034	5.0 U	mg/L	5.0	1	10/12/15 14:52	10/12/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: BAP-2-100615
Lab Code: R1508432-011

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	184000	ug/L	1000	10	10/15/15 16:53	10/08/15	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Sample Name: BAP-2-100615
Lab Code: R1508432-011

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	10 U	10	10	10/09/15 13:16	
Ethylene	10 U	10	10	10/09/15 13:16	
Methane	750 D	10	10	10/09/15 13:16	
Propane	10 U	10	10	10/09/15 13:16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Sample Name: BAP-2-100615
Lab Code: R1508432-011

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	5.0 U	5.0	5	10/09/15 13:04	
Ethylene	5.0 U	5.0	5	10/09/15 13:04	
Methane	770 E	5.0	5	10/09/15 13:04	
Propane	5.0 U	5.0	5	10/09/15 13:04	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Sample Name: BAP-2-100615
Lab Code: R1508432-011

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
Acetone	25 U	25	2.5	10/14/15 17:30	
Benzene	13 U	13	2.5	10/14/15 17:30	
Bromodichloromethane	13 U	13	2.5	10/14/15 17:30	
Bromoform	13 U	13	2.5	10/14/15 17:30	
Bromomethane	13 U	13	2.5	10/14/15 17:30	
2-Butanone (MEK)	25 U	25	2.5	10/14/15 17:30	
Carbon Disulfide	25 U	25	2.5	10/14/15 17:30	
Carbon Tetrachloride	13 U	13	2.5	10/14/15 17:30	
Chlorobenzene	13 U	13	2.5	10/14/15 17:30	
Chloroethane	22	13	2.5	10/14/15 17:30	
Chloroform	13 U	13	2.5	10/14/15 17:30	
Chloromethane	13 U	13	2.5	10/14/15 17:30	
Dibromochloromethane	13 U	13	2.5	10/14/15 17:30	
1,1-Dichloroethane	320	13	2.5	10/14/15 17:30	
1,2-Dichloroethane	13 U	13	2.5	10/14/15 17:30	
1,1-Dichloroethene	67	13	2.5	10/14/15 17:30	
cis-1,2-Dichloroethene	13 U	13	2.5	10/14/15 17:30	
trans-1,2-Dichloroethene	13 U	13	2.5	10/14/15 17:30	
1,2-Dichloropropane	13 U	13	2.5	10/14/15 17:30	
cis-1,3-Dichloropropene	13 U	13	2.5	10/14/15 17:30	
trans-1,3-Dichloropropene	13 U	13	2.5	10/14/15 17:30	
Ethylbenzene	13 U	13	2.5	10/14/15 17:30	
2-Hexanone	25 U	25	2.5	10/14/15 17:30	
Methylene Chloride	13 U	13	2.5	10/14/15 17:30	
4-Methyl-2-pentanone (MIBK)	25 U	25	2.5	10/14/15 17:30	
Styrene	13 U	13	2.5	10/14/15 17:30	
1,1,2,2-Tetrachloroethane	13 U	13	2.5	10/14/15 17:30	
Tetrachloroethene	13 U	13	2.5	10/14/15 17:30	
Toluene	13 U	13	2.5	10/14/15 17:30	
1,1,1-Trichloroethane	13 U	13	2.5	10/14/15 17:30	
1,1,2-Trichloroethane	13 U	13	2.5	10/14/15 17:30	
Trichloroethene	13 U	13	2.5	10/14/15 17:30	
Vinyl Chloride	150	13	2.5	10/14/15 17:30	
o-Xylene	13 U	13	2.5	10/14/15 17:30	
m,p-Xylenes	13 U	13	2.5	10/14/15 17:30	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	10/14/15 17:30	
Toluene-d8	99	87 - 121	10/14/15 17:30	
Dibromofluoromethane	94	89 - 119	10/14/15 17:30	

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dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Sample Name: BAP-2-100615
Lab Code: R1508432-011

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	10/18/15 13:26	
Acetic Acid	1.8	1.0	1	10/18/15 13:26	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	10/18/15 13:26	
Lactic Acid	1.0 U	1.0	1	10/18/15 13:26	
Propionic Acid	1.0 U	1.0	1	10/18/15 13:26	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15 17:45
Date Received: 10/06/15 19:05

Sample Name: TB-100615
Lab Code: R1508432-012

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	10/09/15 03:04	
Benzene	5.0 U	5.0	1	10/09/15 03:04	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 03:04	
Bromoform	5.0 U	5.0	1	10/09/15 03:04	
Bromomethane	5.0 U	5.0	1	10/09/15 03:04	
2-Butanone (MEK)	10 U	10	1	10/09/15 03:04	
Carbon Disulfide	10 U	10	1	10/09/15 03:04	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 03:04	
Chlorobenzene	5.0 U	5.0	1	10/09/15 03:04	
Chloroethane	5.0 U	5.0	1	10/09/15 03:04	
Chloroform	5.0 U	5.0	1	10/09/15 03:04	
Chloromethane	5.0 U	5.0	1	10/09/15 03:04	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 03:04	
1,1-Dichloroethane	5.0 U	5.0	1	10/09/15 03:04	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 03:04	
1,1-Dichloroethene	5.0 U	5.0	1	10/09/15 03:04	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:04	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 03:04	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 03:04	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:04	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 03:04	
Ethylbenzene	5.0 U	5.0	1	10/09/15 03:04	
2-Hexanone	10 U	10	1	10/09/15 03:04	
Methylene Chloride	5.0 U	5.0	1	10/09/15 03:04	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 03:04	
Styrene	5.0 U	5.0	1	10/09/15 03:04	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 03:04	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 03:04	
Toluene	5.0 U	5.0	1	10/09/15 03:04	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 03:04	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 03:04	
Trichloroethene	5.0 U	5.0	1	10/09/15 03:04	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 03:04	
o-Xylene	5.0 U	5.0	1	10/09/15 03:04	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 03:04	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	90	85 - 122	10/09/15 03:04	
Toluene-d8	97	87 - 121	10/09/15 03:04	
Dibromofluoromethane	91	89 - 119	10/09/15 03:04	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-202-100515 Dissolved
Lab Code: R1508432-013

Service Request: R1508432
Date Collected: 10/05/15 15:10
Date Received: 10/06/15 19:05

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	10/14/15 16:55	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-3-100515 Dissolved
Lab Code: R1508432-014

Service Request: R1508432
Date Collected: 10/05/15 16:00
Date Received: 10/06/15 19:05

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	10/14/15 17:01	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-501-100615 Dissolved
Lab Code: R1508432-015

Service Request: R1508432
Date Collected: 10/06/15 10:55
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	2160	ug/L	100	1	10/14/15 17:07	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-502-100615 Dissolved
Lab Code: R1508432-016

Service Request: R1508432
Date Collected: 10/06/15 12:40
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	6870	ug/L	100	1	10/14/15 17:13	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: OWS-302-100615 Dissolved
Lab Code: R1508432-017

Service Request: R1508432
Date Collected: 10/06/15 14:10
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	14500	ug/L	100	1	10/14/15 17:19	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: MW-205-100615 Dissolved
Lab Code: R1508432-018

Service Request: R1508432
Date Collected: 10/06/15 15:35
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	118000	ug/L	1000	10	10/15/15 16:59	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: BAP-1-100615 Dissolved
Lab Code: R1508432-019

Service Request: R1508432
Date Collected: 10/06/15 17:10
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	370	ug/L	100	1	10/14/15 17:42	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: BAP-2-100615 Dissolved
Lab Code: R1508432-020

Service Request: R1508432
Date Collected: 10/06/15 17:30
Date Received: 10/06/15 19:05

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	630	ug/L	100	1	10/14/15 17:48	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1508432-MB1

Service Request: R1508432
Date Collected: NA
Date Received: NA
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	10/12/15 13:14	NA	
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	1.0 U	mg/L	1.0	1	10/08/15 05:21	NA	
Chloride	9056A	0.20 U	mg/L	0.20	1	10/07/15 09:57	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	1	10/07/15 09:57	NA	
Nitrite as Nitrogen	9056A	0.10 U	mg/L	0.10	1	10/07/15 09:57	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	1	10/07/15 09:57	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	10/12/15 14:52	10/12/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1508432-MB2

Service Request: R1508432
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	10/13/15 13:09	
Nitrite as Nitrogen	9056A	0.10 U	mg/L	0.10	1	10/07/15 23:32	
Sulfate	9056A	0.20 U	mg/L	0.20	1	10/10/15 05:22	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water
Sample Name: Method Blank
Lab Code: R1508432-MB3

Service Request: R1508432
Date Collected: NA
Date Received: NA
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Sulfate	9056A	0.20 U	mg/L	0.20	1	10/13/15 10:50	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1508432-MB

Service Request: R1508432
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	10/14/15 15:44	10/08/15	
Iron, Total	6010C	100 U	ug/L	100	1	10/14/15 15:44	10/08/15	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1512390-01

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	1.0 U	1.0	1	10/09/15 11:08	
Ethylene	1.0 U	1.0	1	10/09/15 11:08	
Methane	1.0 U	1.0	1	10/09/15 11:08	
Propane	1.0 U	1.0	1	10/09/15 11:08	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1512373-01

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
Acetone	10 U	10	1	10/09/15 00:14	
Benzene	5.0 U	5.0	1	10/09/15 00:14	
Bromodichloromethane	5.0 U	5.0	1	10/09/15 00:14	
Bromoform	5.0 U	5.0	1	10/09/15 00:14	
Bromomethane	5.0 U	5.0	1	10/09/15 00:14	
2-Butanone (MEK)	10 U	10	1	10/09/15 00:14	
Carbon Disulfide	10 U	10	1	10/09/15 00:14	
Carbon Tetrachloride	5.0 U	5.0	1	10/09/15 00:14	
Chlorobenzene	5.0 U	5.0	1	10/09/15 00:14	
Chloroethane	5.0 U	5.0	1	10/09/15 00:14	
Chloroform	5.0 U	5.0	1	10/09/15 00:14	
Chloromethane	5.0 U	5.0	1	10/09/15 00:14	
Dibromochloromethane	5.0 U	5.0	1	10/09/15 00:14	
1,1-Dichloroethane	5.0 U	5.0	1	10/09/15 00:14	
1,2-Dichloroethane	5.0 U	5.0	1	10/09/15 00:14	
1,1-Dichloroethene	5.0 U	5.0	1	10/09/15 00:14	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 00:14	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/09/15 00:14	
1,2-Dichloropropane	5.0 U	5.0	1	10/09/15 00:14	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 00:14	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/09/15 00:14	
Ethylbenzene	5.0 U	5.0	1	10/09/15 00:14	
2-Hexanone	10 U	10	1	10/09/15 00:14	
Methylene Chloride	5.0 U	5.0	1	10/09/15 00:14	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/09/15 00:14	
Styrene	5.0 U	5.0	1	10/09/15 00:14	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/09/15 00:14	
Tetrachloroethene	5.0 U	5.0	1	10/09/15 00:14	
Toluene	5.0 U	5.0	1	10/09/15 00:14	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/09/15 00:14	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/09/15 00:14	
Trichloroethene	5.0 U	5.0	1	10/09/15 00:14	
Vinyl Chloride	5.0 U	5.0	1	10/09/15 00:14	
o-Xylene	5.0 U	5.0	1	10/09/15 00:14	
m,p-Xylenes	5.0 U	5.0	1	10/09/15 00:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	91	85 - 122	10/09/15 00:14	
Toluene-d8	98	87 - 121	10/09/15 00:14	
Dibromofluoromethane	91	89 - 119	10/09/15 00:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1512612-01

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
Acetone	10 U	10	1	10/14/15 13:34	
Benzene	5.0 U	5.0	1	10/14/15 13:34	
Bromodichloromethane	5.0 U	5.0	1	10/14/15 13:34	
Bromoform	5.0 U	5.0	1	10/14/15 13:34	
Bromomethane	5.0 U	5.0	1	10/14/15 13:34	
2-Butanone (MEK)	10 U	10	1	10/14/15 13:34	
Carbon Disulfide	10 U	10	1	10/14/15 13:34	
Carbon Tetrachloride	5.0 U	5.0	1	10/14/15 13:34	
Chlorobenzene	5.0 U	5.0	1	10/14/15 13:34	
Chloroethane	5.0 U	5.0	1	10/14/15 13:34	
Chloroform	5.0 U	5.0	1	10/14/15 13:34	
Chloromethane	5.0 U	5.0	1	10/14/15 13:34	
Dibromochloromethane	5.0 U	5.0	1	10/14/15 13:34	
1,1-Dichloroethane	5.0 U	5.0	1	10/14/15 13:34	
1,2-Dichloroethane	5.0 U	5.0	1	10/14/15 13:34	
1,1-Dichloroethene	5.0 U	5.0	1	10/14/15 13:34	
cis-1,2-Dichloroethene	5.0 U	5.0	1	10/14/15 13:34	
trans-1,2-Dichloroethene	5.0 U	5.0	1	10/14/15 13:34	
1,2-Dichloropropane	5.0 U	5.0	1	10/14/15 13:34	
cis-1,3-Dichloropropene	5.0 U	5.0	1	10/14/15 13:34	
trans-1,3-Dichloropropene	5.0 U	5.0	1	10/14/15 13:34	
Ethylbenzene	5.0 U	5.0	1	10/14/15 13:34	
2-Hexanone	10 U	10	1	10/14/15 13:34	
Methylene Chloride	5.0 U	5.0	1	10/14/15 13:34	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	10/14/15 13:34	
Styrene	5.0 U	5.0	1	10/14/15 13:34	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	10/14/15 13:34	
Tetrachloroethene	5.0 U	5.0	1	10/14/15 13:34	
Toluene	5.0 U	5.0	1	10/14/15 13:34	
1,1,1-Trichloroethane	5.0 U	5.0	1	10/14/15 13:34	
1,1,2-Trichloroethane	5.0 U	5.0	1	10/14/15 13:34	
Trichloroethene	5.0 U	5.0	1	10/14/15 13:34	
Vinyl Chloride	5.0 U	5.0	1	10/14/15 13:34	
o-Xylene	5.0 U	5.0	1	10/14/15 13:34	
m,p-Xylenes	5.0 U	5.0	1	10/14/15 13:34	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	92	85 - 122	10/14/15 13:34	
Toluene-d8	99	87 - 121	10/14/15 13:34	
Dibromofluoromethane	91	89 - 119	10/14/15 13:34	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1512616-01

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	10/18/15 11:38	
Acetic Acid	1.0 U	1.0	1	10/18/15 11:38	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	10/18/15 11:38	
Lactic Acid	1.0 U	1.0	1	10/18/15 11:38	
Propionic Acid	1.0 U	1.0	1	10/18/15 11:38	

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/07/15 - 10/12/15

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1508432-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	18.1	20.0	90	81-112
Carbon, Total Organic (TOC)	SM 5310 C-2000(2011)	9.87	10.0	99	81-118
Chloride	9056A	2.08	2.00	104	80-120
Nitrate as Nitrogen	9056A	1.04	1.00	103	80-120
Nitrite as Nitrogen	9056A	0.922	1.00	92	80-120
Sulfate	9056A	2.00	2.00	100	80-120
Sulfide, Acid-Soluble	9034	3.41	7.2	47	15-124

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/07/15 - 10/13/15

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1508432-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	980	1000	98	81-112
Nitrite as Nitrogen	9056A	0.988	1.00	99	80-120
Sulfate	9056A	1.94	2.00	97	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/13/15

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1508432-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Sulfate	9056A	2.04	2.00	102	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15
Date Received: 10/06/15
Date Analyzed: 10/12/15

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW-202-100515
Lab Code: R1508432-003

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1508432-003DUP	Average	RPD	RPD Limit
				Result			
Sulfide, Acid-Soluble	9034	1.0	1.0	1.0 U	NC	NC	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: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/05/15
Date Received: 10/06/15
Date Analyzed: 10/12/15
Date Extracted: 10/12/15

Matrix Spike Summary
Sulfide, Acid-Soluble

Sample Name: MW-202-100515
Lab Code: R1508432-003
Analysis Method: 9034
Prep Method: EPA 9030B

Units: mg/L
Basis: NA

Matrix Spike
R1508432-003MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Sulfide, Acid-Soluble	1.0	3.2	7.2	31	10-109

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: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15
Date Received: 10/06/15
Date Analyzed: 10/13/15

Duplicate Matrix Spike Summary
Sulfate

Sample Name: MW-205-100615
Lab Code: R1508432-009
Analysis Method: 9056A

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Result	Matrix Spike R1508432-009MS		Result	Duplicate Matrix Spike R1508432-009DMS		% Rec Limits	RPD	RPD Limit
			Spike Amount	% Rec		Spike Amount	% Rec			
Sulfate	10.2	32.0	20.0	109	31.5	20.0	107	80-120	2	15

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: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/14/15

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L**Basis:**NA**Lab Control Sample**

R1508432-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	1010	1000	101	80-120
Iron, Total	6010C	1010	1000	101	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15
Date Received: 10/06/15
Date Analyzed: 10/14/15

Replicate Sample Summary**Inorganic Parameters**

Sample Name: BAP-2-100615 Dissolved
Lab Code: R1508432-020

Units: ug/L
Basis: NA

Duplicate Sample R1508432- 020DUP							
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Iron, Dissolved	6010C	100	630	620	627	2	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: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Collected: 10/06/15
Date Received: 10/06/15
Date Analyzed: 10/14/15
Date Extracted: 10/8/15

**Matrix Spike Summary
Inorganic Parameters**

Sample Name: BAP-2-100615 Dissolved
Lab Code: R1508432-020
Analysis Method: 6010C
Prep Method: EPA 3005A/3010A

Units: ug/L
Basis: NA

Matrix Spike
R1508432-020MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	630	1650	1000	102	75-125

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: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/09/15

Duplicate Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1512390-02					RQ1512390-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ethane	RSK 175	25.1	26.0	97	20.9	26.0	80	75-118	19	30
Ethylene	RSK 175	24.4	24.3	100	21.5	24.3	89	73-129	13	30
Methane	RSK 175	24.3	26.2	93	20.1	26.2	77	65-126	19	30
Propane	RSK 175	26.0	25.5	102	20.7	25.5	81	72-118	23	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/08/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1512373-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	25.5	20.0	127	40-161
Benzene	8260C	20.1	20.0	101	76-118
Bromodichloromethane	8260C	17.2	20.0	86	78-126
Bromoform	8260C	16.2	20.0	81	71-136
Bromomethane	8260C	25.8	20.0	129	42-166
2-Butanone (MEK)	8260C	26.1	20.0	130	61-137
Carbon Disulfide	8260C	22.5	20.0	112	65-127
Carbon Tetrachloride	8260C	18.0	20.0	90	68-125
Chlorobenzene	8260C	20.1	20.0	100	80-121
Chloroethane	8260C	27.0	20.0	135 *	70-127
Chloroform	8260C	19.8	20.0	99	76-120
Chloromethane	8260C	36.0	20.0	180 *	69-145
Dibromochloromethane	8260C	17.6	20.0	88	77-128
1,1-Dichloroethane	8260C	20.8	20.0	104	78-117
1,2-Dichloroethane	8260C	18.8	20.0	94	71-127
1,1-Dichloroethene	8260C	21.0	20.0	105	74-135
cis-1,2-Dichloroethene	8260C	20.2	20.0	101	80-121
trans-1,2-Dichloroethene	8260C	20.4	20.0	102	80-120
1,2-Dichloropropane	8260C	20.6	20.0	103	80-119
cis-1,3-Dichloropropene	8260C	19.1	20.0	96	74-126
trans-1,3-Dichloropropene	8260C	17.4	20.0	87	67-135
Ethylbenzene	8260C	20.2	20.0	101	76-120
2-Hexanone	8260C	24.4	20.0	122	63-124
Methylene Chloride	8260C	19.0	20.0	95	73-122
4-Methyl-2-pentanone (MIBK)	8260C	23.8	20.0	119	66-124
Styrene	8260C	20.9	20.0	104	80-124
1,1,2,2-Tetrachloroethane	8260C	20.0	20.0	100	78-122
Tetrachloroethene	8260C	18.8	20.0	94	78-124
Toluene	8260C	20.3	20.0	101	77-120
1,1,1-Trichloroethane	8260C	18.3	20.0	92	74-120
1,1,2-Trichloroethane	8260C	19.0	20.0	95	82-118
Trichloroethene	8260C	19.2	20.0	96	78-123
Vinyl Chloride	8260C	29.5	20.0	147 *	69-133

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/08/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1512373-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	20.3	20.0	101	80-120
m,p-Xylenes	8260C	41.1	40.0	103	78-123

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/14/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1512612-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	20.1	20.0	101	40-161
Benzene	8260C	18.5	20.0	92	76-118
Bromodichloromethane	8260C	16.4	20.0	82	78-126
Bromoform	8260C	15.4	20.0	77	71-136
Bromomethane	8260C	24.7	20.0	123	42-166
2-Butanone (MEK)	8260C	21.5	20.0	107	61-137
Carbon Disulfide	8260C	17.6	20.0	88	65-127
Carbon Tetrachloride	8260C	16.7	20.0	83	68-125
Chlorobenzene	8260C	19.0	20.0	95	80-121
Chloroethane	8260C	23.8	20.0	119	70-127
Chloroform	8260C	17.5	20.0	87	76-120
Chloromethane	8260C	29.5	20.0	147 *	69-145
Dibromochloromethane	8260C	17.9	20.0	90	77-128
1,1-Dichloroethane	8260C	18.6	20.0	93	78-117
1,2-Dichloroethane	8260C	17.9	20.0	90	71-127
1,1-Dichloroethene	8260C	18.7	20.0	93	74-135
cis-1,2-Dichloroethene	8260C	17.6	20.0	88	80-121
trans-1,2-Dichloroethene	8260C	18.9	20.0	95	80-120
1,2-Dichloropropane	8260C	19.7	20.0	98	80-119
cis-1,3-Dichloropropene	8260C	18.5	20.0	92	74-126
trans-1,3-Dichloropropene	8260C	18.2	20.0	91	67-135
Ethylbenzene	8260C	18.4	20.0	92	76-120
2-Hexanone	8260C	20.8	20.0	104	63-124
Methylene Chloride	8260C	17.5	20.0	87	73-122
4-Methyl-2-pentanone (MIBK)	8260C	20.6	20.0	103	66-124
Styrene	8260C	19.7	20.0	99	80-124
1,1,2,2-Tetrachloroethane	8260C	20.1	20.0	101	78-122
Tetrachloroethene	8260C	18.6	20.0	93	78-124
Toluene	8260C	18.7	20.0	93	77-120
1,1,1-Trichloroethane	8260C	16.5	20.0	82	74-120
1,1,2-Trichloroethane	8260C	18.7	20.0	93	82-118
Trichloroethene	8260C	16.3	20.0	81	78-123
Vinyl Chloride	8260C	26.6	20.0	133	69-133

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/14/15

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1512612-02

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	18.8	20.0	94	80-120
m,p-Xylenes	8260C	38.4	40.0	96	78-123

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision 10/2015/ 70665-020
Sample Matrix: Water

Service Request: R1508432
Date Analyzed: 10/18/15

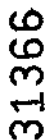
Duplicate Lab Control Sample Summary
Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Units:mg/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1512616-02					RQ1512616-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyruvic Acid	Organic Acids	1.73	2.02	86	1.74	2.02	86	70-130	<1	30
Acetic Acid	Organic Acids	19.5	19.9	98	19.9	19.9	100	70-130	2	30
Butanoic Acid (Butyric Acid)	Organic Acids	19.1	19.8	96	16.7	19.8	84	70-130	13	30
Lactic Acid	Organic Acids	19.7	19.8	100	20.0	19.8	101	70-130	2	30
Propionic Acid	Organic Acids	19.5	20.3	96	19.8	20.3	97	70-130	1	30

2 of

Distribution: White - Lab Copy; Yellow - Return to Originator



PAGE 2 OF 2

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Cooler Receipt and Preservation

R1508432

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Haley & Aldrich, Inc.
Cooperation 10/2016Project/Client H+A

Folder Num.

Cooler received on 10/6/15by: DMCOURIER: ALS UPS FEDEX VELOCITY CLIENT

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

5a	Perchlorate samples have required headspace?	Y N <u>NA</u>
5b	Did VOA vials, Alk, or Sulfide have sig* bubbles?	Y <u>N</u> 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: 10/6/15 Time: 1940ID: IR#3 IR#3From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>8.9°</u>	<u>16.3</u>					
Correction Factor (°C)	<u>-0.2</u>	<u>-1.2</u>					
Corrected Temp (°C)	<u>8.7°</u>	<u>15.1</u>					
Within 0-6°C?	Y <u>N</u>	Y <u>N</u>	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 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 DM on 10/6/15 at 1940
5035 samples placed in storage location: by on at PC Secondary Review: KB 10/7/15 on ack.Cooler Breakdown: Date: 10/7/15 Time: 13:15 by: MAR

- Were all bottle labels complete (i.e. analysis, preservation, etc.)? YES NO
- Did all bottle labels and tags agree with custody papers? YES NO
- Were correct containers used for the tests indicated? YES NO
- Air Samples: Cassettes / Tubes Intact Canisters Pressurized Tedlar® Bags Inflated NA

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH	Yes=All samples OK
≥12	NaOH									
≤2	HNO ₃	X	X	BDB2C146F	08/16	BAP 1/MW-205	1mL	BDB2C146F	Sen 205	205-Samples were preserved at The lab as listed
≤2	H ₂ SO ₄									
<4	NaHSO ₄									
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add Na ₂ S ₂ O ₃ (CN), ascorbic (phenol).						
	Na ₂ S ₂ O ₃	-	-							PM OK to Adjust:
	Zn Acetate	-	-	81114	09/16					
	HCl	**	**	4114070						**Not to be tested before analysis - pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 122214-2AAW, 072015-2AAO, 072715-1BMC, 8-211-002
Other Comments:

8 Sulfide
8 NO₃
8 NO₂
10/5/15
1510-7
1730

PC Secondary Review: KB 10/7/15

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



May 18, 2016

Service Request No:R1603385

Mr. Mark Ramsdell
Haley & Aldrich, Inc.
200 Town Centre Drive
Suite 2
Rochester, NY 14623-4264

Laboratory Results for: Coopervision

Dear Mr.Ramsdell,

Enclosed are the results of the sample(s) submitted to our laboratory April 08, 2016
For your reference, these analyses have been assigned our service request number **R1603385**.

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 7478. You may also contact me via email at Vanessa.Badman@alsglobal.com.

Respectfully submitted,

ALS Group USA, Corp. dba ALS Environmental

Vanessa Badman
Customer Service
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

ALS Environmental

Client: Haley & Aldrich, Inc.
Service Request No.: R1603385
Project: Coopervision
Date Received: April 08, 2016
Sample Matrix: Water
Project/Case No.:

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. When appropriate to the method, method blank results have been reported with each analytical test. Surrogate recoveries have been reported for all applicable organic analyses.

Sample Receipt

Samples were received for analysis at ALS Environmental on 4/8/16. The samples were received in good condition and consistent with the accompanying chain of custody form. The samples were stored in a refrigerator between 1°C and 6°C upon receipt at the laboratory.

Inorganics

Samples were analyzed for a site specific list of inorganics. Please see attached report pages for method numbers.

No site specific QC was requested. Any QC failures are flagged/qualified within the report.

No other analytical or QC problems were encountered.

Metals

Samples were analyzed for a site specific list of Metals. Please see attached report pages for method numbers.

No site specific QC was requested. Any QC failures are flagged/qualified within the report.

No analytical or QC problems were encountered.

Volatile Organics by GC/MS

Samples were analyzed for a site list of Volatile Organics by Methods 8260C from SW-846.

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Bromoform and Bromomethane from the 4-14-16 analytical run. All samples with positive detections for these compounds that associated with these CCV's should be considered as estimated.

Due to sample analyte concentration several samples required dilutions and the MRLs adjusted accordingly.

No site specific QC was requested. Any QC failures are flagged/qualified within the report.

No other analytical or QC problems were encountered, unless otherwise qualified.

Volatile Organics by GC

Samples were analyzed for a site list of Volatile Organics by Method RS-175.

Sample R1603385-007 was received with a pH of 6 pH units.

No site specific QC was requested. Any QC failures are flagged/qualified within the report.

No other analytical or QC problems were encountered, unless otherwise qualified.

HPLC

Samples were analyzed for a site list of Organic Acids..

All Continuing Calibration Verification (CCV) standards were within 20% Difference (D) except Propionic Acid. All samples with positive detections for these compounds that associated with these CCV's should be considered as estimated.

No other analytical or QC problems were encountered.

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001

Service Request:R1603385

SAMPLE CROSS-REFERENCE

<u>SAMPLE #</u>	<u>CLIENT SAMPLE ID</u>	<u>DATE</u>	<u>TIME</u>
R1603385-001	MW3-040716-1630	4/7/2016	1630
R1603385-002	MW3-040716-1630 Dissolved	4/7/2016	1630
R1603385-003	MW502-040716-1020	4/7/2016	1020
R1603385-004	MW502-040716-1020 Dissolved	4/7/2016	1020
R1603385-005	OWS302-040716-1130	4/7/2016	1130
R1603385-006	OWS302-040716-1130 Dissolved	4/7/2016	1130
R1603385-007	MW205-040716-1315	4/7/2016	1315
R1603385-008	MW205-040716-1315 Dissolved	4/7/2016	1315
R1603385-009	MW501-040716-1430	4/7/2016	1430
R1603385-010	MW501-040716-1430 Dissolved	4/7/2016	1430
R1603385-011	MW202-040716-1550	4/7/2016	1550
R1603385-012	MW202-040716-1550 Dissolved	4/7/2016	1550
R1603385-013	BAP01-040816-0900	4/8/2016	0900
R1603385-014	BAP01-040816-0900 Dissolved	4/8/2016	0900
R1603385-015	BAP02-040816-1030	4/8/2016	1030
R1603385-016	BAP02-040816-1030 Dissolved	4/8/2016	1030
R1603385-017	OW306-040816-1320	4/8/2016	1320
R1603385-018	MW204-040816-1410	4/8/2016	1410
R1603385-019	MW203-040816-1500	4/8/2016	1500
R1603385-020	TRIP BLANK	4/8/2016	

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% (25% for CLP) 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 ($\geq 100\%$ 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 Accredited	Nebraska Accredited	294100 A/B
DoD ELAP #65817	New Jersey ID # NY004	Pennsylvania ID# 68-786
Florida ID # E87674	New York ID # 10145	Rhode Island ID # 158
Illinois ID #200047	North Carolina #676	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 <http://www.alsglobal.com/en/Our-Services/Life-Sciences/Environmental/Downloads/North-America-Downloads>



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.

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW3-040716-1630
Lab Code: R1603385-001

Service Request: R1603385
Date Collected: 04/07/16 16:30
Date Received: 04/08/16 16:45

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	240	mg/L	2.0	1	04/18/16 21:31	NA	
Chloride	9056A	259	mg/L	8.0	40	04/12/16 12:44	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 18:02	NA	
Nitrite as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 18:02	NA	
Sulfate	9056A	21.7	mg/L	2.0	10	04/08/16 18:02	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW3-040716-1630
Lab Code: R1603385-001

Service Request: R1603385
Date Collected: 04/07/16 16:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	9790	ug/L	100	1	04/14/16 19:54	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 16:30
Date Received: 04/08/16 16:45

Sample Name: MW3-040716-1630
Lab Code: R1603385-001

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	25 U	25	25	04/12/16 14:38	
Ethylene	29	25	25	04/12/16 14:38	
Methane	1300	25	25	04/12/16 14:38	
Propane	25 U	25	25	04/12/16 14:38	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 16:30
Date Received: 04/08/16 16:45

Sample Name: MW3-040716-1630
Lab Code: R1603385-001

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	25 U	25	2.5	04/12/16 18:06	
Benzene	13 U	13	2.5	04/12/16 18:06	
Bromodichloromethane	13 U	13	2.5	04/12/16 18:06	
Bromoform	13 U	13	2.5	04/12/16 18:06	
Bromomethane	13 U	13	2.5	04/12/16 18:06	
2-Butanone (MEK)	25 U	25	2.5	04/12/16 18:06	
Carbon Disulfide	25 U	25	2.5	04/12/16 18:06	
Carbon Tetrachloride	13 U	13	2.5	04/12/16 18:06	
Chlorobenzene	13 U	13	2.5	04/12/16 18:06	
Chloroethane	310	13	2.5	04/12/16 18:06	
Chloroform	13 U	13	2.5	04/12/16 18:06	
Chloromethane	13 U	13	2.5	04/12/16 18:06	
Dibromochloromethane	13 U	13	2.5	04/12/16 18:06	
1,1-Dichloroethane	61	13	2.5	04/12/16 18:06	
1,2-Dichloroethane	13 U	13	2.5	04/12/16 18:06	
1,1-Dichloroethene	13 U	13	2.5	04/12/16 18:06	
cis-1,2-Dichloroethene	13 U	13	2.5	04/12/16 18:06	
trans-1,2-Dichloroethene	13 U	13	2.5	04/12/16 18:06	
1,2-Dichloropropane	13 U	13	2.5	04/12/16 18:06	
cis-1,3-Dichloropropene	13 U	13	2.5	04/12/16 18:06	
trans-1,3-Dichloropropene	13 U	13	2.5	04/12/16 18:06	
Ethylbenzene	13 U	13	2.5	04/12/16 18:06	
2-Hexanone	25 U	25	2.5	04/12/16 18:06	
Methylene Chloride	13 U	13	2.5	04/12/16 18:06	
4-Methyl-2-pentanone (MIBK)	25 U	25	2.5	04/12/16 18:06	
Styrene	13 U	13	2.5	04/12/16 18:06	
1,1,2,2-Tetrachloroethane	13 U	13	2.5	04/12/16 18:06	
Tetrachloroethene	13 U	13	2.5	04/12/16 18:06	
Toluene	13 U	13	2.5	04/12/16 18:06	
1,1,1-Trichloroethane	13 U	13	2.5	04/12/16 18:06	
1,1,2-Trichloroethane	13 U	13	2.5	04/12/16 18:06	
Trichloroethene	13 U	13	2.5	04/12/16 18:06	
Vinyl Chloride	24	13	2.5	04/12/16 18:06	
o-Xylene	13 U	13	2.5	04/12/16 18:06	
m,p-Xylenes	13 U	13	2.5	04/12/16 18:06	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85 - 122	04/12/16 18:06	
Toluene-d8	104	87 - 121	04/12/16 18:06	
Dibromofluoromethane	109	89 - 119	04/12/16 18:06	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW3-040716-1630 Dissolved
Lab Code: R1603385-002

Service Request: R1603385
Date Collected: 04/07/16 16:30
Date Received: 04/08/16 16:45

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	04/14/16 19:58	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water
Sample Name: MW502-040716-1020
Lab Code: R1603385-003

Service Request: R1603385
Date Collected: 04/07/16 10:20
Date Received: 04/08/16 16:45
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	422	mg/L	2.0	1	04/18/16 21:37	NA	
Chloride	9056A	694	mg/L	40	200	04/12/16 12:57	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 18:27	NA	
Nitrite as Nitrogen	9056A	20 U	mg/L	20	200	04/12/16 12:57	NA	*
Sulfate	9056A	5.4	mg/L	2.0	10	04/08/16 18:27	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water
Sample Name: MW502-040716-1020
Lab Code: R1603385-003

Service Request: R1603385
Date Collected: 04/07/16 10:20
Date Received: 04/08/16 16:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	15500	ug/L	100	1	04/14/16 20:02	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 10:20
Date Received: 04/08/16 16:45

Sample Name: MW502-040716-1020
Lab Code: R1603385-003

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	250 U	250	250	04/12/16 14:51	
Ethylene	250 U	250	250	04/12/16 14:51	
Methane	23000	250	250	04/12/16 14:51	
Propane	250 U	250	250	04/12/16 14:51	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 10:20
Date Received: 04/08/16 16:45

Sample Name: MW502-040716-1020
Lab Code: R1603385-003

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
Acetone	200 U	200	20	04/14/16 14:39	
Benzene	100 U	100	20	04/14/16 14:39	
Bromodichloromethane	100 U	100	20	04/14/16 14:39	
Bromoform	100 U	100	20	04/14/16 14:39	
Bromomethane	100 U	100	20	04/14/16 14:39	
2-Butanone (MEK)	200 U	200	20	04/14/16 14:39	
Carbon Disulfide	200 U	200	20	04/14/16 14:39	
Carbon Tetrachloride	100 U	100	20	04/14/16 14:39	
Chlorobenzene	100 U	100	20	04/14/16 14:39	
Chloroethane	2200	100	20	04/14/16 14:39	
Chloroform	100 U	100	20	04/14/16 14:39	
Chloromethane	100 U	100	20	04/14/16 14:39	
Dibromochloromethane	100 U	100	20	04/14/16 14:39	
1,1-Dichloroethane	100 U	100	20	04/14/16 14:39	
1,2-Dichloroethane	100 U	100	20	04/14/16 14:39	
1,1-Dichloroethene	100 U	100	20	04/14/16 14:39	
cis-1,2-Dichloroethene	100 U	100	20	04/14/16 14:39	
trans-1,2-Dichloroethene	100 U	100	20	04/14/16 14:39	
1,2-Dichloropropane	100 U	100	20	04/14/16 14:39	
cis-1,3-Dichloropropene	100 U	100	20	04/14/16 14:39	
trans-1,3-Dichloropropene	100 U	100	20	04/14/16 14:39	
Ethylbenzene	100 U	100	20	04/14/16 14:39	
2-Hexanone	200 U	200	20	04/14/16 14:39	
Methylene Chloride	100 U	100	20	04/14/16 14:39	
4-Methyl-2-pentanone (MIBK)	200 U	200	20	04/14/16 14:39	
Styrene	100 U	100	20	04/14/16 14:39	
1,1,2,2-Tetrachloroethane	100 U	100	20	04/14/16 14:39	
Tetrachloroethene	100 U	100	20	04/14/16 14:39	
Toluene	100 U	100	20	04/14/16 14:39	
1,1,1-Trichloroethane	100 U	100	20	04/14/16 14:39	
1,1,2-Trichloroethane	100 U	100	20	04/14/16 14:39	
Trichloroethene	100 U	100	20	04/14/16 14:39	
Vinyl Chloride	190	100	20	04/14/16 14:39	
o-Xylene	100 U	100	20	04/14/16 14:39	
m,p-Xylenes	100 U	100	20	04/14/16 14:39	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85 - 122	04/14/16 14:39	
Toluene-d8	116	87 - 121	04/14/16 14:39	
Dibromofluoromethane	110	89 - 119	04/14/16 14:39	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated

Project: Coopervision/70665-001

Sample Matrix: Water

Sample Name: MW502-040716-1020 Dissolved

Lab Code: R1603385-004

Service Request: R1603385

Date Collected: 04/07/16 10:20

Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	3820	ug/L	100	1	04/14/16 20:05	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: OWS302-040716-1130
Lab Code: R1603385-005

Service Request: R1603385
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 16:45

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	658	mg/L	2.0	1	04/18/16 21:45	NA	
Chloride	9056A	2660	mg/L	200	1000	04/12/16 13:10	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 20:17	NA	
Nitrite as Nitrogen	9056A	100 U	mg/L	100	1000	04/12/16 13:10	NA	*
Sulfate	9056A	2.0 U	mg/L	2.0	10	04/08/16 20:17	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: OWS302-040716-1130
Lab Code: R1603385-005

Service Request: R1603385
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	7060	ug/L	100	1	04/14/16 20:32	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 16:45

Sample Name: OWS302-040716-1130
Lab Code: R1603385-005

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	200 U	200	200	04/12/16 15:09	
Ethylene	200 U	200	200	04/12/16 15:09	
Methane	16000	200	200	04/12/16 15:09	
Propane	200 U	200	200	04/12/16 15:09	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 16:45

Sample Name: OWS302-040716-1130
Lab Code: R1603385-005

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
Acetone	1000 U	1000	100	04/14/16 15:40	
Benzene	500 U	500	100	04/14/16 15:40	
Bromodichloromethane	500 U	500	100	04/14/16 15:40	
Bromoform	500 U	500	100	04/14/16 15:40	
Bromomethane	500 U	500	100	04/14/16 15:40	
2-Butanone (MEK)	1000 U	1000	100	04/14/16 15:40	
Carbon Disulfide	1000 U	1000	100	04/14/16 15:40	
Carbon Tetrachloride	500 U	500	100	04/14/16 15:40	
Chlorobenzene	500 U	500	100	04/14/16 15:40	
Chloroethane	15000	500	100	04/14/16 15:40	
Chloroform	500 U	500	100	04/14/16 15:40	
Chloromethane	500 U	500	100	04/14/16 15:40	
Dibromochloromethane	500 U	500	100	04/14/16 15:40	
1,1-Dichloroethane	500 U	500	100	04/14/16 15:40	
1,2-Dichloroethane	500 U	500	100	04/14/16 15:40	
1,1-Dichloroethene	500 U	500	100	04/14/16 15:40	
cis-1,2-Dichloroethene	500 U	500	100	04/14/16 15:40	
trans-1,2-Dichloroethene	500 U	500	100	04/14/16 15:40	
1,2-Dichloropropane	500 U	500	100	04/14/16 15:40	
cis-1,3-Dichloropropene	500 U	500	100	04/14/16 15:40	
trans-1,3-Dichloropropene	500 U	500	100	04/14/16 15:40	
Ethylbenzene	500 U	500	100	04/14/16 15:40	
2-Hexanone	1000 U	1000	100	04/14/16 15:40	
Methylene Chloride	500 U	500	100	04/14/16 15:40	
4-Methyl-2-pentanone (MIBK)	1000 U	1000	100	04/14/16 15:40	
Styrene	500 U	500	100	04/14/16 15:40	
1,1,2,2-Tetrachloroethane	500 U	500	100	04/14/16 15:40	
Tetrachloroethene	500 U	500	100	04/14/16 15:40	
Toluene	500 U	500	100	04/14/16 15:40	
1,1,1-Trichloroethane	500 U	500	100	04/14/16 15:40	
1,1,2-Trichloroethane	500 U	500	100	04/14/16 15:40	
Trichloroethene	500 U	500	100	04/14/16 15:40	
Vinyl Chloride	500 U	500	100	04/14/16 15:40	
o-Xylene	500 U	500	100	04/14/16 15:40	
m,p-Xylenes	500 U	500	100	04/14/16 15:40	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	85 - 122	04/14/16 15:40	
Toluene-d8	116	87 - 121	04/14/16 15:40	
Dibromofluoromethane	109	89 - 119	04/14/16 15:40	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water
Sample Name: OWS302-040716-1130 Dissolved
Lab Code: R1603385-006

Service Request: R1603385
Date Collected: 04/07/16 11:30
Date Received: 04/08/16 16:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	1730	ug/L	100	1	04/14/16 20:36	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water
Sample Name: MW205-040716-1315
Lab Code: R1603385-007

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45
Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	3310	mg/L	2.0	1	04/18/16 22:07	NA	
Chloride	9056A	738	mg/L	80	400	04/12/16 18:17	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 18:15	NA	
Nitrite as Nitrogen	9056A	20 U	mg/L	20	200	04/12/16 13:21	NA	*
Sulfate	9056A	15.2	mg/L	2.0	10	04/08/16 18:15	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water
Sample Name: MW205-040716-1315
Lab Code: R1603385-007

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45
Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	117000	ug/L	2000	20	04/15/16 12:51	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45

Sample Name: MW205-040716-1315
Lab Code: R1603385-007

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	17	1.0	1	04/12/16 15:24	
Ethylene	13	1.0	1	04/12/16 15:24	
Methane	3300	50	50	04/12/16 15:47	
Propane	1.0 U	1.0	1	04/12/16 15:24	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45

Sample Name: MW205-040716-1315
Lab Code: R1603385-007

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10000 U	10000	1000	04/12/16 19:42	
Benzene	5000 U	5000	1000	04/12/16 19:42	
Bromodichloromethane	5000 U	5000	1000	04/12/16 19:42	
Bromoform	5000 U	5000	1000	04/12/16 19:42	
Bromomethane	5000 U	5000	1000	04/12/16 19:42	
2-Butanone (MEK)	10000 U	10000	1000	04/12/16 19:42	
Carbon Disulfide	10000 U	10000	1000	04/12/16 19:42	
Carbon Tetrachloride	5000 U	5000	1000	04/12/16 19:42	
Chlorobenzene	5000 U	5000	1000	04/12/16 19:42	
Chloroethane	5000 U	5000	1000	04/12/16 19:42	
Chloroform	5000 U	5000	1000	04/12/16 19:42	
Chloromethane	5000 U	5000	1000	04/12/16 19:42	
Dibromochloromethane	5000 U	5000	1000	04/12/16 19:42	
1,1-Dichloroethane	200000 D	10000	2000	04/14/16 16:11	
1,2-Dichloroethane	5000 U	5000	1000	04/12/16 19:42	
1,1-Dichloroethene	5000 U	5000	1000	04/12/16 19:42	
cis-1,2-Dichloroethene	5000 U	5000	1000	04/12/16 19:42	
trans-1,2-Dichloroethene	5000 U	5000	1000	04/12/16 19:42	
1,2-Dichloropropane	5000 U	5000	1000	04/12/16 19:42	
cis-1,3-Dichloropropene	5000 U	5000	1000	04/12/16 19:42	
trans-1,3-Dichloropropene	5000 U	5000	1000	04/12/16 19:42	
Ethylbenzene	5000 U	5000	1000	04/12/16 19:42	
2-Hexanone	10000 U	10000	1000	04/12/16 19:42	
Methylene Chloride	5000 U	5000	1000	04/12/16 19:42	
4-Methyl-2-pentanone (MIBK)	10000 U	10000	1000	04/12/16 19:42	
Styrene	5000 U	5000	1000	04/12/16 19:42	
1,1,2,2-Tetrachloroethane	5000 U	5000	1000	04/12/16 19:42	
Tetrachloroethene	5000 U	5000	1000	04/12/16 19:42	
Toluene	5000 U	5000	1000	04/12/16 19:42	
1,1,1-Trichloroethane	57000	5000	1000	04/12/16 19:42	
1,1,2-Trichloroethane	5000 U	5000	1000	04/12/16 19:42	
Trichloroethene	5000 U	5000	1000	04/12/16 19:42	
Vinyl Chloride	5000 U	5000	1000	04/12/16 19:42	
o-Xylene	5000 U	5000	1000	04/12/16 19:42	
m,p-Xylenes	5000 U	5000	1000	04/12/16 19:42	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85 - 122	04/12/16 19:42	
Toluene-d8	106	87 - 121	04/12/16 19:42	
Dibromofluoromethane	109	89 - 119	04/12/16 19:42	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45

Sample Name: MW205-040716-1315
Lab Code: R1603385-007

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	13 U	13	25	04/15/16 13:30	
Acetic Acid	1200	25	25	04/15/16 13:30	
Butanoic Acid (Butyric Acid)	2900	50	25	04/15/16 13:30	
Lactic Acid	25 U	25	25	04/15/16 13:30	
Propionic Acid	830	25	25	04/15/16 13:30	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW205-040716-1315 Dissolved
Lab Code: R1603385-008

Service Request: R1603385
Date Collected: 04/07/16 13:15
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	111000	ug/L	2000	20	04/15/16 12:55	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW501-040716-1430
Lab Code: R1603385-009

Service Request: R1603385
Date Collected: 04/07/16 14:30
Date Received: 04/08/16 16:45

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	216	mg/L	2.0	1	04/18/16 22:14	NA	
Chloride	9056A	5290	mg/L	200	1000	04/12/16 14:10	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 19:41	NA	
Nitrite as Nitrogen	9056A	100 U	mg/L	100	1000	04/12/16 14:10	NA	*
Sulfate	9056A	103	mg/L	8.0	40	04/12/16 14:47	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW501-040716-1430
Lab Code: R1603385-009

Service Request: R1603385
Date Collected: 04/07/16 14:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	7900	ug/L	100	1	04/14/16 20:48	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 14:30
Date Received: 04/08/16 16:45

Sample Name: MW501-040716-1430
Lab Code: R1603385-009

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	250 U	250	250	04/12/16 15:57	
Ethylene	250 U	250	250	04/12/16 15:57	
Methane	16000	250	250	04/12/16 15:57	
Propane	250 U	250	250	04/12/16 15:57	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 14:30
Date Received: 04/08/16 16:45

Sample Name: MW501-040716-1430
Lab Code: R1603385-009

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 17:35	
Benzene	5.0 U	5.0	1	04/12/16 17:35	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 17:35	
Bromoform	5.0 U	5.0	1	04/12/16 17:35	
Bromomethane	5.0 U	5.0	1	04/12/16 17:35	
2-Butanone (MEK)	10 U	10	1	04/12/16 17:35	
Carbon Disulfide	10 U	10	1	04/12/16 17:35	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 17:35	
Chlorobenzene	5.0 U	5.0	1	04/12/16 17:35	
Chloroethane	110	5.0	1	04/12/16 17:35	
Chloroform	5.0 U	5.0	1	04/12/16 17:35	
Chloromethane	5.0 U	5.0	1	04/12/16 17:35	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 17:35	
1,1-Dichloroethane	37	5.0	1	04/12/16 17:35	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 17:35	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 17:35	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 17:35	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 17:35	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 17:35	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 17:35	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 17:35	
Ethylbenzene	5.0 U	5.0	1	04/12/16 17:35	
2-Hexanone	10 U	10	1	04/12/16 17:35	
Methylene Chloride	5.0 U	5.0	1	04/12/16 17:35	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 17:35	
Styrene	5.0 U	5.0	1	04/12/16 17:35	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 17:35	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 17:35	
Toluene	5.0 U	5.0	1	04/12/16 17:35	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 17:35	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 17:35	
Trichloroethene	5.0 U	5.0	1	04/12/16 17:35	
Vinyl Chloride	27	5.0	1	04/12/16 17:35	
o-Xylene	5.0 U	5.0	1	04/12/16 17:35	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 17:35	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	85 - 122	04/12/16 17:35	
Toluene-d8	108	87 - 121	04/12/16 17:35	
Dibromofluoromethane	111	89 - 119	04/12/16 17:35	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW501-040716-1430 Dissolved
Lab Code: R1603385-010

Service Request: R1603385
Date Collected: 04/07/16 14:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	1050	ug/L	100	1	04/14/16 20:52	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	128	mg/L	2.0	1	04/18/16 22:21	NA	
Carbon, Total Organic (TOC), Average	9060A	2.0 U	mg/L	2.0	2	04/12/16 18:58	NA	
Chloride	9056A	2180	mg/L	100	500	04/12/16 15:00	NA	
Nitrate as Nitrogen	9056A	1.2	mg/L	1.0	10	04/08/16 18:39	NA	
Nitrite as Nitrogen	9056A	50 U	mg/L	50	500	04/12/16 15:00	NA	*
Sulfate	9056A	473	mg/L	20	100	04/12/16 15:12	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

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dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	120	ug/L	100	1	04/14/16 20:55	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	1.0 U	1.0	1	04/12/16 16:33	
Ethylene	1.0 U	1.0	1	04/12/16 16:33	
Methane	1.0 U	1.0	1	04/12/16 16:33	
Propane	1.0 U	1.0	1	04/12/16 16:33	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 15:27	
Benzene	5.0 U	5.0	1	04/12/16 15:27	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 15:27	
Bromoform	5.0 U	5.0	1	04/12/16 15:27	
Bromomethane	5.0 U	5.0	1	04/12/16 15:27	
2-Butanone (MEK)	10 U	10	1	04/12/16 15:27	
Carbon Disulfide	10 U	10	1	04/12/16 15:27	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 15:27	
Chlorobenzene	5.0 U	5.0	1	04/12/16 15:27	
Chloroethane	5.0 U	5.0	1	04/12/16 15:27	
Chloroform	5.0 U	5.0	1	04/12/16 15:27	
Chloromethane	5.0 U	5.0	1	04/12/16 15:27	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 15:27	
1,1-Dichloroethane	43	5.0	1	04/12/16 15:27	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 15:27	
1,1-Dichloroethene	32	5.0	1	04/12/16 15:27	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 15:27	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 15:27	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 15:27	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 15:27	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 15:27	
Ethylbenzene	5.0 U	5.0	1	04/12/16 15:27	
2-Hexanone	10 U	10	1	04/12/16 15:27	
Methylene Chloride	5.0 U	5.0	1	04/12/16 15:27	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 15:27	
Styrene	5.0 U	5.0	1	04/12/16 15:27	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 15:27	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 15:27	
Toluene	5.0 U	5.0	1	04/12/16 15:27	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 15:27	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 15:27	
Trichloroethene	5.0 U	5.0	1	04/12/16 15:27	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 15:27	
o-Xylene	5.0 U	5.0	1	04/12/16 15:27	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 15:27	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	105	85 - 122	04/12/16 15:27	
Toluene-d8	103	87 - 121	04/12/16 15:27	
Dibromofluoromethane	108	89 - 119	04/12/16 15:27	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	04/14/16 18:45	
Acetic Acid	1.0 U	1.0	1	04/14/16 18:45	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	04/14/16 18:45	
Lactic Acid	1.0 U	1.0	1	04/14/16 18:45	
Propionic Acid	1.0 U	1.0	1	04/14/16 18:45	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16 15:50
Date Received: 04/08/16 16:45

Sample Name: MW202-040716-1550 Dissolved
Lab Code: R1603385-012

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	04/14/16 20:59	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	328	mg/L	2.0	1	04/18/16 22:45	NA	
Carbon, Total Organic (TOC), Average	9060A	26.7	mg/L	1.0	1	04/11/16 19:44	NA	
Chloride	9056A	551	mg/L	20	100	04/12/16 15:25	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 19:17	NA	
Nitrite as Nitrogen	9056A	10 U	mg/L	10	100	04/12/16 15:25	NA	*
Sulfate	9056A	33.3	mg/L	2.0	10	04/08/16 19:17	NA	
Sulfide, Acid-Soluble	9034	4.0	mg/L	1.0	1	04/12/16 09:00	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	1370	ug/L	100	1	04/14/16 21:03	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	25 U	25	25	04/12/16 16:53	
Ethylene	25 U	25	25	04/12/16 16:53	
Methane	940	25	25	04/12/16 16:53	
Propane	25 U	25	25	04/12/16 16:53	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	100 U	100	10	04/12/16 20:14	
Benzene	50 U	50	10	04/12/16 20:14	
Bromodichloromethane	50 U	50	10	04/12/16 20:14	
Bromoform	50 U	50	10	04/12/16 20:14	
Bromomethane	50 U	50	10	04/12/16 20:14	
2-Butanone (MEK)	100 U	100	10	04/12/16 20:14	
Carbon Disulfide	100 U	100	10	04/12/16 20:14	
Carbon Tetrachloride	50 U	50	10	04/12/16 20:14	
Chlorobenzene	50 U	50	10	04/12/16 20:14	
Chloroethane	300	50	10	04/12/16 20:14	
Chloroform	50 U	50	10	04/12/16 20:14	
Chloromethane	50 U	50	10	04/12/16 20:14	
Dibromochloromethane	50 U	50	10	04/12/16 20:14	
1,1-Dichloroethane	2000 D	100	20	04/14/16 15:09	
1,2-Dichloroethane	50 U	50	10	04/12/16 20:14	
1,1-Dichloroethene	1100	50	10	04/12/16 20:14	
cis-1,2-Dichloroethene	50 U	50	10	04/12/16 20:14	
trans-1,2-Dichloroethene	50 U	50	10	04/12/16 20:14	
1,2-Dichloropropane	50 U	50	10	04/12/16 20:14	
cis-1,3-Dichloropropene	50 U	50	10	04/12/16 20:14	
trans-1,3-Dichloropropene	50 U	50	10	04/12/16 20:14	
Ethylbenzene	50 U	50	10	04/12/16 20:14	
2-Hexanone	100 U	100	10	04/12/16 20:14	
Methylene Chloride	50 U	50	10	04/12/16 20:14	
4-Methyl-2-pentanone (MIBK)	100 U	100	10	04/12/16 20:14	
Styrene	50 U	50	10	04/12/16 20:14	
1,1,2,2-Tetrachloroethane	50 U	50	10	04/12/16 20:14	
Tetrachloroethene	50 U	50	10	04/12/16 20:14	
Toluene	50 U	50	10	04/12/16 20:14	
1,1,1-Trichloroethane	50 U	50	10	04/12/16 20:14	
1,1,2-Trichloroethane	50 U	50	10	04/12/16 20:14	
Trichloroethene	50 U	50	10	04/12/16 20:14	
Vinyl Chloride	770	50	10	04/12/16 20:14	
o-Xylene	50 U	50	10	04/12/16 20:14	
m,p-Xylenes	50 U	50	10	04/12/16 20:14	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	85 - 122	04/12/16 20:14	
Toluene-d8	110	87 - 121	04/12/16 20:14	
Dibromofluoromethane	110	89 - 119	04/12/16 20:14	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	04/14/16 23:00	
Acetic Acid	43	1.0	1	04/14/16 23:00	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	04/14/16 23:00	
Lactic Acid	1.0 U	1.0	1	04/14/16 23:00	
Propionic Acid	9.0	1.0	1	04/14/16 23:00	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: BAP01-040816-0900 Dissolved
Lab Code: R1603385-014

Service Request: R1603385
Date Collected: 04/08/16 09:00
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	610	ug/L	100	1	04/14/16 21:07	04/12/16	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Sample Name: BAP02-040816-1030
Lab Code: R1603385-015

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	287	mg/L	2.0	1	04/18/16 23:07	NA	
Carbon, Total Organic (TOC), Average	9060A	11.6	mg/L	1.0	1	04/11/16 20:03	NA	
Chloride	9056A	1020	mg/L	40	200	04/12/16 15:36	NA	
Nitrate as Nitrogen	9056A	1.0 U	mg/L	1.0	10	04/08/16 19:28	NA	
Nitrite as Nitrogen	9056A	20 U	mg/L	20	200	04/12/16 15:36	NA	*
Sulfate	9056A	44.1	mg/L	2.0	10	04/08/16 19:28	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: BAP02-040816-1030
Lab Code: R1603385-015

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Total	6010C	38600	ug/L	100	1	04/14/16 21:18	04/12/16	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Sample Name: BAP02-040816-1030
Lab Code: R1603385-015

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	10 U	10	10	04/12/16 17:04	
Ethylene	10 U	10	10	04/12/16 17:04	
Methane	2500	50	50	04/12/16 17:18	
Propane	10 U	10	10	04/12/16 17:04	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Sample Name: BAP02-040816-1030
Lab Code: R1603385-015

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	25 U	25	2.5	04/12/16 15:59	
Benzene	13 U	13	2.5	04/12/16 15:59	
Bromodichloromethane	13 U	13	2.5	04/12/16 15:59	
Bromoform	13 U	13	2.5	04/12/16 15:59	
Bromomethane	13 U	13	2.5	04/12/16 15:59	
2-Butanone (MEK)	25 U	25	2.5	04/12/16 15:59	
Carbon Disulfide	25 U	25	2.5	04/12/16 15:59	
Carbon Tetrachloride	13 U	13	2.5	04/12/16 15:59	
Chlorobenzene	13 U	13	2.5	04/12/16 15:59	
Chloroethane	14	13	2.5	04/12/16 15:59	
Chloroform	13 U	13	2.5	04/12/16 15:59	
Chloromethane	13 U	13	2.5	04/12/16 15:59	
Dibromochloromethane	13 U	13	2.5	04/12/16 15:59	
1,1-Dichloroethane	430	13	2.5	04/12/16 15:59	
1,2-Dichloroethane	13 U	13	2.5	04/12/16 15:59	
1,1-Dichloroethene	82	13	2.5	04/12/16 15:59	
cis-1,2-Dichloroethene	13 U	13	2.5	04/12/16 15:59	
trans-1,2-Dichloroethene	13 U	13	2.5	04/12/16 15:59	
1,2-Dichloropropane	13 U	13	2.5	04/12/16 15:59	
cis-1,3-Dichloropropene	13 U	13	2.5	04/12/16 15:59	
trans-1,3-Dichloropropene	13 U	13	2.5	04/12/16 15:59	
Ethylbenzene	13 U	13	2.5	04/12/16 15:59	
2-Hexanone	25 U	25	2.5	04/12/16 15:59	
Methylene Chloride	13 U	13	2.5	04/12/16 15:59	
4-Methyl-2-pentanone (MIBK)	25 U	25	2.5	04/12/16 15:59	
Styrene	13 U	13	2.5	04/12/16 15:59	
1,1,2,2-Tetrachloroethane	13 U	13	2.5	04/12/16 15:59	
Tetrachloroethene	13 U	13	2.5	04/12/16 15:59	
Toluene	13 U	13	2.5	04/12/16 15:59	
1,1,1-Trichloroethane	13 U	13	2.5	04/12/16 15:59	
1,1,2-Trichloroethane	13 U	13	2.5	04/12/16 15:59	
Trichloroethene	13 U	13	2.5	04/12/16 15:59	
Vinyl Chloride	87	13	2.5	04/12/16 15:59	
o-Xylene	13 U	13	2.5	04/12/16 15:59	
m,p-Xylenes	13 U	13	2.5	04/12/16 15:59	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	107	85 - 122	04/12/16 15:59	
Toluene-d8	89	87 - 121	04/12/16 15:59	
Dibromofluoromethane	110	89 - 119	04/12/16 15:59	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Sample Name: BAP02-040816-1030
Lab Code: R1603385-015

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	04/15/16 00:16	
Acetic Acid	2.9	1.0	1	04/15/16 00:16	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	04/15/16 00:16	
Lactic Acid	1.0 U	1.0	1	04/15/16 00:16	
Propionic Acid	1.0 U	1.0	1	04/15/16 00:16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: BAP02-040816-1030 Dissolved
Lab Code: R1603385-016

Service Request: R1603385
Date Collected: 04/08/16 10:30
Date Received: 04/08/16 16:45

Basis: NA

Inorganic Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Iron, Dissolved	6010C	780	ug/L	100	1	04/14/16 21:22	04/12/16	

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dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 13:20
Date Received: 04/08/16 16:45

Sample Name: OW306-040816-1320
Lab Code: R1603385-017

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 14:55	
Benzene	5.0 U	5.0	1	04/12/16 14:55	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 14:55	
Bromoform	5.0 U	5.0	1	04/12/16 14:55	
Bromomethane	5.0 U	5.0	1	04/12/16 14:55	
2-Butanone (MEK)	10 U	10	1	04/12/16 14:55	
Carbon Disulfide	10 U	10	1	04/12/16 14:55	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 14:55	
Chlorobenzene	5.0 U	5.0	1	04/12/16 14:55	
Chloroethane	5.0 U	5.0	1	04/12/16 14:55	
Chloroform	5.0 U	5.0	1	04/12/16 14:55	
Chloromethane	5.0 U	5.0	1	04/12/16 14:55	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 14:55	
1,1-Dichloroethane	5.0 U	5.0	1	04/12/16 14:55	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 14:55	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 14:55	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 14:55	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 14:55	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 14:55	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 14:55	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 14:55	
Ethylbenzene	5.0 U	5.0	1	04/12/16 14:55	
2-Hexanone	10 U	10	1	04/12/16 14:55	
Methylene Chloride	5.0 U	5.0	1	04/12/16 14:55	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 14:55	
Styrene	5.0 U	5.0	1	04/12/16 14:55	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 14:55	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 14:55	
Toluene	5.0 U	5.0	1	04/12/16 14:55	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 14:55	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 14:55	
Trichloroethene	5.0 U	5.0	1	04/12/16 14:55	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 14:55	
o-Xylene	5.0 U	5.0	1	04/12/16 14:55	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 14:55	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85 - 122	04/12/16 14:55	
Toluene-d8	105	87 - 121	04/12/16 14:55	
Dibromofluoromethane	109	89 - 119	04/12/16 14:55	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 14:10
Date Received: 04/08/16 16:45

Sample Name: MW204-040816-1410
Lab Code: R1603385-018

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 14:24	
Benzene	5.0 U	5.0	1	04/12/16 14:24	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 14:24	
Bromoform	5.0 U	5.0	1	04/12/16 14:24	
Bromomethane	5.0 U	5.0	1	04/12/16 14:24	
2-Butanone (MEK)	10 U	10	1	04/12/16 14:24	
Carbon Disulfide	10 U	10	1	04/12/16 14:24	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 14:24	
Chlorobenzene	5.0 U	5.0	1	04/12/16 14:24	
Chloroethane	5.0 U	5.0	1	04/12/16 14:24	
Chloroform	5.0 U	5.0	1	04/12/16 14:24	
Chloromethane	5.0 U	5.0	1	04/12/16 14:24	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 14:24	
1,1-Dichloroethane	5.3	5.0	1	04/12/16 14:24	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 14:24	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 14:24	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 14:24	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 14:24	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 14:24	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 14:24	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 14:24	
Ethylbenzene	5.0 U	5.0	1	04/12/16 14:24	
2-Hexanone	10 U	10	1	04/12/16 14:24	
Methylene Chloride	5.0 U	5.0	1	04/12/16 14:24	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 14:24	
Styrene	5.0 U	5.0	1	04/12/16 14:24	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 14:24	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 14:24	
Toluene	5.0 U	5.0	1	04/12/16 14:24	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 14:24	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 14:24	
Trichloroethene	5.0 U	5.0	1	04/12/16 14:24	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 14:24	
o-Xylene	5.0 U	5.0	1	04/12/16 14:24	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 14:24	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	110	85 - 122	04/12/16 14:24	
Toluene-d8	108	87 - 121	04/12/16 14:24	
Dibromofluoromethane	108	89 - 119	04/12/16 14:24	

ALS Group USA, Corp.
dba ALS Environmental

Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16 15:00
Date Received: 04/08/16 16:45

Sample Name: MW203-040816-1500
Lab Code: R1603385-019

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 13:52	
Benzene	5.0 U	5.0	1	04/12/16 13:52	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 13:52	
Bromoform	5.0 U	5.0	1	04/12/16 13:52	
Bromomethane	5.0 U	5.0	1	04/12/16 13:52	
2-Butanone (MEK)	10 U	10	1	04/12/16 13:52	
Carbon Disulfide	10 U	10	1	04/12/16 13:52	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 13:52	
Chlorobenzene	5.0 U	5.0	1	04/12/16 13:52	
Chloroethane	5.0 U	5.0	1	04/12/16 13:52	
Chloroform	5.0 U	5.0	1	04/12/16 13:52	
Chloromethane	5.0 U	5.0	1	04/12/16 13:52	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 13:52	
1,1-Dichloroethane	5.0 U	5.0	1	04/12/16 13:52	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 13:52	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 13:52	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 13:52	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 13:52	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 13:52	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 13:52	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 13:52	
Ethylbenzene	5.0 U	5.0	1	04/12/16 13:52	
2-Hexanone	10 U	10	1	04/12/16 13:52	
Methylene Chloride	5.0 U	5.0	1	04/12/16 13:52	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 13:52	
Styrene	5.0 U	5.0	1	04/12/16 13:52	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 13:52	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 13:52	
Toluene	5.0 U	5.0	1	04/12/16 13:52	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 13:52	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 13:52	
Trichloroethene	5.0 U	5.0	1	04/12/16 13:52	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 13:52	
o-Xylene	5.0 U	5.0	1	04/12/16 13:52	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 13:52	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	109	85 - 122	04/12/16 13:52	
Toluene-d8	104	87 - 121	04/12/16 13:52	
Dibromofluoromethane	112	89 - 119	04/12/16 13:52	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16
Date Received: 04/08/16 16:45

Sample Name: TRIP BLANK
Lab Code: R1603385-020

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	100	10	1	04/12/16 13:20	
Benzene	5.0 U	5.0	1	04/12/16 13:20	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 13:20	
Bromoform	5.0 U	5.0	1	04/12/16 13:20	
Bromomethane	5.0 U	5.0	1	04/12/16 13:20	
2-Butanone (MEK)	10 U	10	1	04/12/16 13:20	
Carbon Disulfide	10 U	10	1	04/12/16 13:20	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 13:20	
Chlorobenzene	5.0 U	5.0	1	04/12/16 13:20	
Chloroethane	5.0 U	5.0	1	04/12/16 13:20	
Chloroform	5.0 U	5.0	1	04/12/16 13:20	
Chloromethane	5.0 U	5.0	1	04/12/16 13:20	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 13:20	
1,1-Dichloroethane	5.0 U	5.0	1	04/12/16 13:20	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 13:20	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 13:20	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 13:20	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 13:20	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 13:20	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 13:20	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 13:20	
Ethylbenzene	5.0 U	5.0	1	04/12/16 13:20	
2-Hexanone	10 U	10	1	04/12/16 13:20	
Methylene Chloride	5.0 U	5.0	1	04/12/16 13:20	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 13:20	
Styrene	5.0 U	5.0	1	04/12/16 13:20	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 13:20	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 13:20	
Toluene	5.0 U	5.0	1	04/12/16 13:20	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 13:20	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 13:20	
Trichloroethene	5.0 U	5.0	1	04/12/16 13:20	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 13:20	
o-Xylene	5.0 U	5.0	1	04/12/16 13:20	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 13:20	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	106	85 - 122	04/12/16 13:20	
Toluene-d8	107	87 - 121	04/12/16 13:20	
Dibromofluoromethane	111	89 - 119	04/12/16 13:20	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1603385-MB1

Service Request: R1603385
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Date Extracted	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	04/18/16 19:31	NA	
Carbon, Total Organic (TOC), Average	9060A	1.0 U	mg/L	1.0	1	04/11/16 13:21	NA	
Chloride	9056A	0.20 U	mg/L	0.20	1	04/12/16 08:51	NA	
Nitrate as Nitrogen	9056A	0.10 U	mg/L	0.10	1	04/08/16 16:36	NA	
Nitrite as Nitrogen	9056A	0.10 U	mg/L	0.10	1	04/08/16 16:36	NA	
Sulfate	9056A	0.20 U	mg/L	0.20	1	04/08/16 16:36	NA	
Sulfide, Acid-Soluble	9034	1.0 U	mg/L	1.0	1	04/12/16 09:00	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1603385-MB2

Service Request: R1603385
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0 U	mg/L	2.0	1	04/18/16 22:33	
Carbon, Total Organic (TOC), Average	9060A	1.0 U	mg/L	1.0	1	04/12/16 17:46	
Chloride	9056A	0.20 U	mg/L	0.20	1	04/12/16 13:45	
Nitrite as Nitrogen	9056A	0.10 U	mg/L	0.10	1	04/12/16 08:51	
Sulfate	9056A	0.20 U	mg/L	0.20	1	04/12/16 13:45	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1603385-MB3

Service Request: R1603385
Date Collected: NA
Date Received: NA

Basis: NA

General Chemistry Parameters

Analyte Name	Analysis Method	Result	Units	MRL	Dil.	Date Analyzed	Q
Nitrite as Nitrogen	9056A	0.10 U	mg/L	0.10	1	04/12/16 13:45	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Sample Name: Method Blank
Lab Code: R1603385-MB

Service Request: R1603385
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	04/14/16 19:46	04/12/16	
Iron, Total	6010C	100 U	ug/L	100	1	04/14/16 19:46	04/12/16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1603837-01

Units: ug/L
Basis: NA

Dissolved Gases by GC/FID

Analysis Method: RSK 175

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Ethane	1.0 U	1.0	1	04/12/16 13:19	
Ethylene	1.0 U	1.0	1	04/12/16 13:19	
Methane	1.0 U	1.0	1	04/12/16 13:19	
Propane	1.0 U	1.0	1	04/12/16 13:19	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1603844-04

Units: ug/L
Basis: NA

Volatile Organic Compounds by GC/MS

Analysis Method: 8260C

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Acetone	10 U	10	1	04/12/16 12:16	
Benzene	5.0 U	5.0	1	04/12/16 12:16	
Bromodichloromethane	5.0 U	5.0	1	04/12/16 12:16	
Bromoform	5.0 U	5.0	1	04/12/16 12:16	
Bromomethane	5.0 U	5.0	1	04/12/16 12:16	
2-Butanone (MEK)	10 U	10	1	04/12/16 12:16	
Carbon Disulfide	10 U	10	1	04/12/16 12:16	
Carbon Tetrachloride	5.0 U	5.0	1	04/12/16 12:16	
Chlorobenzene	5.0 U	5.0	1	04/12/16 12:16	
Chloroethane	5.0 U	5.0	1	04/12/16 12:16	
Chloroform	5.0 U	5.0	1	04/12/16 12:16	
Chloromethane	5.0 U	5.0	1	04/12/16 12:16	
Dibromochloromethane	5.0 U	5.0	1	04/12/16 12:16	
1,1-Dichloroethane	5.0 U	5.0	1	04/12/16 12:16	
1,2-Dichloroethane	5.0 U	5.0	1	04/12/16 12:16	
1,1-Dichloroethene	5.0 U	5.0	1	04/12/16 12:16	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 12:16	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/12/16 12:16	
1,2-Dichloropropane	5.0 U	5.0	1	04/12/16 12:16	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 12:16	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/12/16 12:16	
Ethylbenzene	5.0 U	5.0	1	04/12/16 12:16	
2-Hexanone	10 U	10	1	04/12/16 12:16	
Methylene Chloride	5.0 U	5.0	1	04/12/16 12:16	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/12/16 12:16	
Styrene	5.0 U	5.0	1	04/12/16 12:16	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/12/16 12:16	
Tetrachloroethene	5.0 U	5.0	1	04/12/16 12:16	
Toluene	5.0 U	5.0	1	04/12/16 12:16	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/12/16 12:16	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/12/16 12:16	
Trichloroethene	5.0 U	5.0	1	04/12/16 12:16	
Vinyl Chloride	5.0 U	5.0	1	04/12/16 12:16	
o-Xylene	5.0 U	5.0	1	04/12/16 12:16	
m,p-Xylenes	5.0 U	5.0	1	04/12/16 12:16	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	104	85 - 122	04/12/16 12:16	
Toluene-d8	108	87 - 121	04/12/16 12:16	
Dibromofluoromethane	111	89 - 119	04/12/16 12:16	

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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1603923-04

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
Acetone	10 U	10	1	04/14/16 12:05	
Benzene	5.0 U	5.0	1	04/14/16 12:05	
Bromodichloromethane	5.0 U	5.0	1	04/14/16 12:05	
Bromoform	5.0 U	5.0	1	04/14/16 12:05	
Bromomethane	5.0 U	5.0	1	04/14/16 12:05	
2-Butanone (MEK)	10 U	10	1	04/14/16 12:05	
Carbon Disulfide	10 U	10	1	04/14/16 12:05	
Carbon Tetrachloride	5.0 U	5.0	1	04/14/16 12:05	
Chlorobenzene	5.0 U	5.0	1	04/14/16 12:05	
Chloroethane	5.0 U	5.0	1	04/14/16 12:05	
Chloroform	5.0 U	5.0	1	04/14/16 12:05	
Chloromethane	5.0 U	5.0	1	04/14/16 12:05	
Dibromochloromethane	5.0 U	5.0	1	04/14/16 12:05	
1,1-Dichloroethane	5.0 U	5.0	1	04/14/16 12:05	
1,2-Dichloroethane	5.0 U	5.0	1	04/14/16 12:05	
1,1-Dichloroethene	5.0 U	5.0	1	04/14/16 12:05	
cis-1,2-Dichloroethene	5.0 U	5.0	1	04/14/16 12:05	
trans-1,2-Dichloroethene	5.0 U	5.0	1	04/14/16 12:05	
1,2-Dichloropropane	5.0 U	5.0	1	04/14/16 12:05	
cis-1,3-Dichloropropene	5.0 U	5.0	1	04/14/16 12:05	
trans-1,3-Dichloropropene	5.0 U	5.0	1	04/14/16 12:05	
Ethylbenzene	5.0 U	5.0	1	04/14/16 12:05	
2-Hexanone	10 U	10	1	04/14/16 12:05	
Methylene Chloride	5.0 U	5.0	1	04/14/16 12:05	
4-Methyl-2-pentanone (MIBK)	10 U	10	1	04/14/16 12:05	
Styrene	5.0 U	5.0	1	04/14/16 12:05	
1,1,2,2-Tetrachloroethane	5.0 U	5.0	1	04/14/16 12:05	
Tetrachloroethene	5.0 U	5.0	1	04/14/16 12:05	
Toluene	5.0 U	5.0	1	04/14/16 12:05	
1,1,1-Trichloroethane	5.0 U	5.0	1	04/14/16 12:05	
1,1,2-Trichloroethane	5.0 U	5.0	1	04/14/16 12:05	
Trichloroethene	5.0 U	5.0	1	04/14/16 12:05	
Vinyl Chloride	5.0 U	5.0	1	04/14/16 12:05	
o-Xylene	5.0 U	5.0	1	04/14/16 12:05	
m,p-Xylenes	5.0 U	5.0	1	04/14/16 12:05	

Surrogate Name	% Rec	Control Limits	Date Analyzed	Q
4-Bromofluorobenzene	108	85 - 122	04/14/16 12:05	
Toluene-d8	117	87 - 121	04/14/16 12:05	
Dibromofluoromethane	110	89 - 119	04/14/16 12:05	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1603942-01

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	04/14/16 14:14	
Acetic Acid	1.0 U	1.0	1	04/14/16 14:14	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	04/14/16 14:14	
Lactic Acid	1.0 U	1.0	1	04/14/16 14:14	
Propionic Acid	1.0 U	1.0	1	04/14/16 14:14	

ALS Group USA, Corp.
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Analytical Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: NA
Date Received: NA

Sample Name: Method Blank
Lab Code: RQ1603973-01

Units: mg/L
Basis: NA

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Analysis Method: Organic Acids

Analyte Name	Result	MRL	Dil.	Date Analyzed	Q
Pyruvic Acid	0.50 U	0.50	1	04/15/16 11:00	
Acetic Acid	1.0 U	1.0	1	04/15/16 11:00	
Butanoic Acid (Butyric Acid)	2.0 U	2.0	1	04/15/16 11:00	
Lactic Acid	1.0 U	1.0	1	04/15/16 11:00	
Propionic Acid	1.0 U	1.0	1	04/15/16 11:00	

ALS Group USA, Corp.
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QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/08/16 - 04/18/16

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1603385-LCS1

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	SM 2320 B-1997(2011)	20.8	20.0	104	81-112
Carbon, Total Organic (TOC), Average	9060A	8.77	10.0	88	85-115
Chloride	9056A	1.95	2.00	97	80-120
Nitrate as Nitrogen	9056A	0.965	1.00	96	80-120
Nitrite as Nitrogen	9056A	0.936	1.00	94	80-120
Sulfate	9056A	1.84	2.00	92	80-120
Sulfide, Acid-Soluble	9034	10.9	12.6	86	15-124

ALS Group USA, Corp.
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QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/12/16 - 04/18/16

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L
Basis:NA

Lab Control Sample
R1603385-LCS2

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	20.8	20.0	104	81-112
Carbon, Total Organic (TOC), Average	9060A	8.56	10.0	86	85-115
Chloride	9056A	1.94	2.00	97	80-120
Nitrite as Nitrogen	9056A	0.939	1.00	94	80-120
Sulfate	9056A	1.87	2.00	94	80-120

ALS Group USA, Corp.

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QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/12/16

Lab Control Sample Summary
General Chemistry Parameters

Units:mg/L**Basis:**NA**Lab Control Sample**

R1603385-LCS3

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Nitrite as Nitrogen	9056A	0.933	1.00	93	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/12/16

Replicate Sample Summary
General Chemistry Parameters

Sample Name: MW202-040716-1550
Lab Code: R1603385-011

Units: mg/L
Basis: NA

				Duplicate Sample R1603385- 011DUP			
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Sulfide, Acid-Soluble	9034	1.0	1.0 U	1.0 U	NC	NC	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: Haley & Aldrich, Incorporated
Project Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16
Date Received: 04/08/16
Date Analyzed: 04/18/16

Replicate Sample Summary
General Chemistry Parameters

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013

Units: mg/L
Basis: NA

Analyte Name	Analysis Method	MRL	Sample Result	Duplicate Sample R1603385-013DUP Result	Average	RPD	RPD Limit
Alkalinity, Total as CaCO3	SM 2320 B-1997(2011)	2.0	328	328	328	<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: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/12/16
Date Extracted: 04/12/16

Matrix Spike Summary
Sulfide, Acid-Soluble

Sample Name: MW202-040716-1550
Lab Code: R1603385-011
Analysis Method: 9034
Prep Method: EPA 9030B

Units: mg/L
Basis: NA

Matrix Spike
R1603385-011MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Sulfide, Acid-Soluble	1.0 U	8.9	12.6	71	10-109

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: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/08/16
Date Received: 04/08/16
Date Analyzed: 04/18/16

Matrix Spike Summary
Alkalinity, Total as CaCO₃

Sample Name: BAP01-040816-0900
Lab Code: R1603385-013
Analysis Method: SM 2320 B-1997(2011)

Units: mg/L
Basis: NA

Matrix Spike
R1603385-013MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Alkalinity, Total as CaCO ₃	328	400	500	15 *	69-114

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/08/16 - 04/12/16

Duplicate Matrix Spike Summary
General Chemistry Parameters

Sample Name: MW501-040716-1430
Lab Code: R1603385-009

Units: mg/L
Basis: NA

Matrix Spike R1603385-009MS						Duplicate Matrix Spike R1603385-009DMS					
Analyte Name	Method	Sample Result	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Chloride	9056A	5290	7070	2000	89	7090	2000	90	80-120	<1	15
Nitrate as Nitrogen	9056A	1.0	11.2	10.0	112	11.2	10.0	112	80-120	<1	15
Nitrite as Nitrogen	9056A	100	920	1000	92	910	1000	91	80-120	<1	15

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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: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/14/16

Lab Control Sample Summary
Inorganic Parameters

Units:ug/L**Basis:**NA**Lab Control Sample**

R1603385-LCS

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	6010C	933	1000	93	80-120
Iron, Total	6010C	933	1000	93	80-120

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16

Replicate Sample Summary**Inorganic Parameters**

Sample Name: MW502-040716-1020 Dissolved
Lab Code: R1603385-004

Units: ug/L
Basis: NA

Duplicate Sample R1603385- 004DUP							
Analyte Name	Analysis Method	MRL	Sample Result	Result	Average	RPD	RPD Limit
Iron, Dissolved	6010C	100	3820	3580	3700	6	20

Results flagged with an asterisk (*) indicate values outside control criteria.

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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: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16
Date Extracted: 04/12/16

**Matrix Spike Summary
Inorganic Parameters**

Sample Name: MW502-040716-1020 Dissolved
Lab Code: R1603385-004
Analysis Method: 6010C
Prep Method: EPA 3005A/3010A

Units: ug/L
Basis: NA

Matrix Spike
R1603385-004MS

Analyte Name	Sample Result	Result	Spike Amount	% Rec	% Rec Limits
Iron, Dissolved	3820	4740	1000	93	75-125

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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: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/12/16

Duplicate Lab Control Sample Summary
Dissolved Gases by GC/FID

Units:ug/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1603837-02					RQ1603837-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Ethane	RSK 175	27.7	26.0	107	26.4	26.0	101	75-118	5	30
Ethylene	RSK 175	25.2	24.3	104	24.3	24.3	100	73-129	4	30
Methane	RSK 175	28.6	26.2	109	27.2	26.2	104	65-126	5	30
Propane	RSK 175	26.9	25.5	106	25.9	25.5	102	72-118	4	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/12/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1603844-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	20.9	20.0	104	40-161
Benzene	8260C	20.0	20.0	100	76-118
Bromodichloromethane	8260C	21.5	20.0	108	78-126
Bromoform	8260C	21.4	20.0	107	71-136
Bromomethane	8260C	20.8	20.0	104	42-166
2-Butanone (MEK)	8260C	18.8	20.0	94	61-137
Carbon Disulfide	8260C	18.5	20.0	92	65-127
Carbon Tetrachloride	8260C	20.8	20.0	104	68-125
Chlorobenzene	8260C	19.4	20.0	97	80-121
Chloroethane	8260C	17.7	20.0	88	70-127
Chloroform	8260C	20.2	20.0	101	76-120
Chloromethane	8260C	18.6	20.0	93	69-145
Dibromochloromethane	8260C	22.0	20.0	110	77-128
1,1-Dichloroethane	8260C	19.4	20.0	97	78-117
1,2-Dichloroethane	8260C	20.0	20.0	100	71-127
1,1-Dichloroethene	8260C	18.5	20.0	92	74-135
cis-1,2-Dichloroethene	8260C	20.3	20.0	102	80-121
trans-1,2-Dichloroethene	8260C	17.5	20.0	87	80-120
1,2-Dichloropropane	8260C	19.6	20.0	98	80-119
cis-1,3-Dichloropropene	8260C	21.0	20.0	105	74-126
trans-1,3-Dichloropropene	8260C	21.4	20.0	107	67-135
Ethylbenzene	8260C	19.7	20.0	98	76-120
2-Hexanone	8260C	19.0	20.0	95	63-124
Methylene Chloride	8260C	17.9	20.0	90	73-122
4-Methyl-2-pentanone (MIBK)	8260C	19.9	20.0	100	66-124
Styrene	8260C	19.2	20.0	96	80-124
1,1,2,2-Tetrachloroethane	8260C	19.8	20.0	99	78-122
Tetrachloroethene	8260C	20.0	20.0	100	78-124
Toluene	8260C	19.6	20.0	98	77-120
1,1,1-Trichloroethane	8260C	21.0	20.0	105	74-120
1,1,2-Trichloroethane	8260C	20.2	20.0	101	82-118
Trichloroethene	8260C	20.0	20.0	100	78-123
Vinyl Chloride	8260C	19.3	20.0	96	69-133

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/12/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1603844-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	19.1	20.0	95	80-120
m,p-Xylenes	8260C	40.0	40.0	100	78-123

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/14/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L
Basis:NA

Lab Control Sample
RQ1603923-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
Acetone	8260C	17.6	20.0	88	40-161
Benzene	8260C	19.9	20.0	99	76-118
Bromodichloromethane	8260C	18.9	20.0	95	78-126
Bromoform	8260C	17.0	20.0	85	71-136
Bromomethane	8260C	13.4	20.0	67	42-166
2-Butanone (MEK)	8260C	19.2	20.0	96	61-137
Carbon Disulfide	8260C	21.0	20.0	105	65-127
Carbon Tetrachloride	8260C	19.0	20.0	95	68-125
Chlorobenzene	8260C	19.7	20.0	98	80-121
Chloroethane	8260C	18.3	20.0	92	70-127
Chloroform	8260C	18.6	20.0	93	76-120
Chloromethane	8260C	18.1	20.0	90	69-145
Dibromochloromethane	8260C	18.4	20.0	92	77-128
1,1-Dichloroethane	8260C	20.8	20.0	104	78-117
1,2-Dichloroethane	8260C	19.9	20.0	99	71-127
1,1-Dichloroethene	8260C	18.7	20.0	93	74-135
cis-1,2-Dichloroethene	8260C	19.3	20.0	96	80-121
trans-1,2-Dichloroethene	8260C	19.8	20.0	99	80-120
1,2-Dichloropropane	8260C	21.1	20.0	106	80-119
cis-1,3-Dichloropropene	8260C	18.6	20.0	93	74-126
trans-1,3-Dichloropropene	8260C	18.9	20.0	94	67-135
Ethylbenzene	8260C	19.3	20.0	96	76-120
2-Hexanone	8260C	20.1	20.0	100	63-124
Methylene Chloride	8260C	18.1	20.0	91	73-122
4-Methyl-2-pentanone (MIBK)	8260C	19.8	20.0	99	66-124
Styrene	8260C	19.7	20.0	98	80-124
1,1,2,2-Tetrachloroethane	8260C	18.9	20.0	95	78-122
Tetrachloroethene	8260C	21.3	20.0	106	78-124
Toluene	8260C	20.1	20.0	100	77-120
1,1,1-Trichloroethane	8260C	19.7	20.0	98	74-120
1,1,2-Trichloroethane	8260C	18.4	20.0	92	82-118
Trichloroethene	8260C	19.2	20.0	96	78-123
Vinyl Chloride	8260C	20.2	20.0	101	69-133

ALS Group USA, Corp.

dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/14/16

Lab Control Sample Summary
Volatile Organic Compounds by GC/MS

Units:ug/L**Basis:**NA**Lab Control Sample**

RQ1603923-03

Analyte Name	Analytical Method	Result	Spike Amount	% Rec	% Rec Limits
o-Xylene	8260C	19.1	20.0	95	80-120
m,p-Xylenes	8260C	39.7	40.0	99	78-123

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/12/16

Duplicate Matrix Spike Summary
Volatile Organic Compounds by GC/MS

Sample Name: MW202-040716-1550
Lab Code: R1603385-011
Analysis Method: 8260C

Units: ug/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1603844-05			Duplicate Matrix Spike RQ1603844-06			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
1,1,1-Trichloroethane	5.0 U	39.2	50.0	78	51.8	50.0	104	74-127	28	30
1,1,2,2-Tetrachloroethane	5.0 U	35.5	50.0	71 *	46.9	50.0	94	72-122	28	30
1,1,2-Trichloroethane	5.0 U	37.5	50.0	75 *	47.9	50.0	96	79-119	24	30
1,1-Dichloroethane	43	76.5	50.0	67 *	87.3	50.0	89	74-132	13	30
1,1-Dichloroethene	32	67.5	50.0	72 *	79.8	50.0	96	74-139	17	30
1,2-Dichloroethane	5.0 U	37.2	50.0	74	47.2	50.0	94	68-130	24	30
1,2-Dichloropropane	5.0 U	35.9	50.0	72 *	46.8	50.0	94	79-124	26	30
2-Butanone (MEK)	10 U	41.2	50.0	82	48.9	50.0	98	46-141	17	30
2-Hexanone	10 U	39.7	50.0	79	48.4	50.0	97	56-132	20	30
4-Methyl-2-pentanone (MIBK)	10 U	43.6	50.0	87	51.6	50.0	103	60-141	17	30
Acetone	10 U	42.6	50.0	85	52.4	50.0	105	29-151	21	30
Benzene	5.0 U	35.9	50.0	72 *	45.4	50.0	91	76-129	24	30
Bromodichloromethane	5.0 U	36.3	50.0	73 *	47.7	50.0	95	76-127	27	30
Bromoform	5.0 U	30.0	50.0	60	40.0	50.0	80	58-133	29	30
Bromomethane	5.0 U	27.3	50.0	55	43.9	50.0	88	10-162	47*	30
Carbon Disulfide	10 U	21.5	50.0	43	26.6	50.0	53	34-162	21	30
Carbon Tetrachloride	5.0 U	35.9	50.0	72	47.4	50.0	95	65-135	28	30
Chlorobenzene	5.0 U	34.4	50.0	69 *	43.7	50.0	87	76-125	24	30
Chloroethane	5.0 U	31.5	50.0	63 *	43.2	50.0	86	70-140	31*	30
Chloroform	5.0 U	36.1	50.0	72 *	47.1	50.0	94	75-130	26	30
Chloromethane	5.0 U	30.6	50.0	61	39.0	50.0	78	55-160	24	30
cis-1,2-Dichloroethene	5.0 U	36.8	50.0	74	49.4	50.0	99	72-133	29	30
cis-1,3-Dichloropropene	5.0 U	27.5	50.0	55	40.4	50.0	81	52-134	38*	30
Dibromochloromethane	5.0 U	33.1	50.0	66 *	44.7	50.0	89	72-128	30	30
Ethylbenzene	5.0 U	33.0	50.0	66 *	45.5	50.0	91	72-134	32*	30
m,p-Xylenes	5.0 U	66.0	100	66 *	89.0	100	89	68-138	30	30
Methylene Chloride	5.0 U	31.6	50.0	63 *	40.6	50.0	81	75-121	25	30
o-Xylene	5.0 U	32.8	50.0	66 *	43.4	50.0	87	68-134	28	30
Styrene	5.0 U	25.1	50.0	50	38.5	50.0	77	34-156	42*	30
Tetrachloroethene	5.0 U	33.8	50.0	68	46.5	50.0	93	67-137	32*	30
Toluene	5.0 U	34.1	50.0	68 *	44.7	50.0	89	79-125	27	30
trans-1,2-Dichloroethene	5.0 U	32.5	50.0	65 *	41.9	50.0	84	77-125	25	30
trans-1,3-Dichloropropene	5.0 U	26.5	50.0	53	40.3	50.0	81	50-142	41*	30
Trichloroethene	5.0 U	37.2	50.0	74	47.8	50.0	96	62-142	25	30
Vinyl Chloride	5.0 U	34.4	50.0	69	44.6	50.0	89	60-157	26	30

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ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/14/16

Duplicate Lab Control Sample Summary
Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Units:mg/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1603942-02					RQ1603942-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyruvic Acid	Organic Acids	1.97	2.01	98	1.97	2.01	98	70-130	<1	30
Acetic Acid	Organic Acids	20.7	20.6	100	20.4	20.6	99	70-130	2	30
Butanoic Acid (Butyric Acid)	Organic Acids	22.2	19.9	112	20.8	19.9	105	70-130	7	30
Lactic Acid	Organic Acids	19.8	20.0	99	19.7	20.0	99	70-130	<1	30
Propionic Acid	Organic Acids	20.3	20.0	101	20.2	20.0	101	70-130	<1	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Analyzed: 04/15/16

Duplicate Lab Control Sample Summary
Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Units:mg/L
Basis:NA

Lab Control Sample					Duplicate Lab Control Sample					
RQ1603973-02					RQ1603973-03					
Analyte Name	Analytical Method	Result	Spike Amount	% Rec	Result	Spike Amount	% Rec	% Rec Limits	RPD	RPD Limit
Pyruvic Acid	Organic Acids	1.94	2.01	96	2.02	2.01	100	70-130	4	30
Acetic Acid	Organic Acids	21.7	20.6	105	20.9	20.6	102	70-130	3	30
Butanoic Acid (Butyric Acid)	Organic Acids	20.8	19.9	105	21.1	19.9	106	70-130	1	30
Lactic Acid	Organic Acids	21.0	20.0	105	20.8	20.0	104	70-130	1	30
Propionic Acid	Organic Acids	20.7	20.0	103	20.9	20.0	105	70-130	1	30

ALS Group USA, Corp.
dba ALS Environmental

QA/QC Report

Client: Haley & Aldrich, Incorporated
Project: Coopervision/70665-001
Sample Matrix: Water

Service Request: R1603385
Date Collected: 04/07/16
Date Received: 04/08/16
Date Analyzed: 04/14/16

Duplicate Matrix Spike Summary

Organic Acids in Aqueous Matrices by High Performance Liquid Chromatography (HPLC) 28 Day Hold Time

Sample Name: MW202-040716-1550
Lab Code: R1603385-011
Analysis Method: Organic Acids

Units: mg/L
Basis: NA

Analyte Name	Sample Result	Matrix Spike RQ1603942-04			Duplicate Matrix Spike RQ1603942-05			% Rec Limits	RPD	RPD Limit
		Result	Spike Amount	% Rec	Result	Spike Amount	% Rec			
Acetic Acid	1.0 U	20.7	20.6	100	20.9	20.6	102	30-147	1	30
Butanoic Acid (Butyric Acid)	2.0 U	18.0	19.9	91	21.2	19.9	107	55-146	16	30
Lactic Acid	1.0 U	20.0	20.0	100	20.4	20.0	102	40-158	2	30
Propionic Acid	1.0 U	19.7	20.0	99	20.7	20.0	103	57-135	5	30
Pyruvic Acid	0.50 U	1.77	2.01	88	1.78	2.01	88	45-144	<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.

Project Name Cooperation		Project Number 70665-020		ANALYSIS REQUESTED (Include Method Number and Container Preservative)																									
Project Manager Mark Ramsdell		Report CC		PRESERVATIVE																									
Company/Address Haley & Aldrich 200 Town Centre Drive Rockester, NY 14623				NUMBER OF CONTAINERS	GC/MS VOCs • 8260 • 824 • CLP GC/MS SVOCs • 8270 • 825 GC VOCs • 8021 • 801/802 PESTICIDES • 8081 • 808 PCBs • 8092 • 808 METALS: TOTAL (List in comments below) METALS: DISSOLVED (List in comments below) TOC Dissolved Gases Alkalinity Sulfide NO₂/NO₃/Cl/Su Fe (total & dissolved) Organic Gases	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 # 585-321 4241		Email mramsdell@haleyaldrich.com				REMARKS/ ALTERNATE DESCRIPTION																							
Sampler's Signature Jon Sanger		Sampler's Printed Name Jon Sanger																											
CLIENT SAMPLE ID						FOR OFFICE USE ONLY LAB ID		SAMPLING DATE		TIME		MATRIX																	
MW 3-040716-1630						4/7/16		1630		GW		12		X															
MW 502-040716-1020						4/7/16		1020		GW		12		X															
OWS 302-040716-1130						4/7/16		1130		GW		12		X															
MW 205-040716-1315						4/7/16		1315		GW		13		X															
MW 501-040716-1430						4/7/16		1430		GW		12		X															
MW 202-040716-1550						4/7/16		1550		GW		14		X															
BAP 01-040816-0900						4/8/16		0900		GW		14		X															
BAP 02-040816-1030						4/8/16		1030		GW		14		X															
OW 306-040816-1320						4/8/16		1320		GW		2		X															
MW 204-040816-1410						4/8/16		1410		GW		2		X															
MW 203-040816-1500						4/8/16		1500		GW		3		X															
SPECIAL INSTRUCTIONS/COMMENTS Metals												TURNAROUND REQUIREMENTS RUSH (SURCHARGES APPLY) 1 day 2 day 3 day 4 day X 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 Jon Sanger				RECEIVED BY Daniel Ward				RELINQUISHED BY				RECEIVED BY				RELINQUISHED BY				RECEIVED BY									
Signature				Signature				Signature				Signature				Signature				Signature									
Printed Name Jon Sanger				Printed Name ALW				Printed Name				Printed Name				Printed Name				Printed Name									
Firm H & A				Firm 4/8/16/1645				Firm				Firm				Firm				Firm									
Date/Time 4/8/16 1645				Date/Time				Date/Time				Date/Time				Date/Time				Date/Time									

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[illegible]



Cooler Receipt and Preservation Check Form

R1603385

5

Haley & Aldrich, Inc.
CooperationProject/Client H+A Folder Number _____Cooler received on 4/8/16 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: Wet ☒ 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: 4/8/16 Time: 1704 ID: IR#3 ~~RHS~~ From: Temp Blank Sample Bottle

Observed Temp (°C)	<u>7.50</u>	<u>11.60</u>					
Correction Factor (°C)	<u>-0.60</u>	<u>-0.60</u>					
Corrected Temp (°C)	<u>6.90</u>	<u>11.00</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 _____ 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 SW on 4/8/16 at 1704
5035 samples placed in storage location: _____ by _____ on _____ at _____

PC Secondary Review: _____

Cooler Breakdown: Date: 4/11/16 Time: 0920 by: SW

- Were all bottle labels complete (i.e. analysis, preservation, etc.)?
- Did all bottle labels and tags agree with custody papers?
- Were correct containers used for the tests indicated?

YES

NO

YES

NO

YES

NO

4. Air Samples: Cassettes / Tubes Intact

Canisters Pressurized

Tedlar® Bags Inflated

N/A

Explain any discrepancies:

pH	Reagent	Yes	No	Lot Received	Exp	Sample ID	Vol. Added	Lot Added	Final pH
≥12	NaOH			<u>87112</u>	<u>3/17</u>				
≤2	HNO ₃	☒		<u>AD261521</u>	<u>4/17</u>				
≤2	H ₂ SO ₄	☒		<u>WC14914513</u>	<u>3/17</u>				
<4	NaHSO ₄								
Residual Chlorine (-)	For CN Phenol and 522			If +, contact PM to add Na ₂ S ₂ O ₃ (CN), ascorbic (phenol).					
	Na ₂ S ₂ O ₃	-	-						
	ZnAcetate	-	-	<u>WC149116F</u>	<u>10/16</u>				
	HCl	**	**	<u>4114070</u>	<u>3/17</u>				

Yes=All samples OK

No=Samples were preserved at The lab as listed

PM OK to Adjust:

**Not to be tested before analysis – pH tested and recorded by VOAs on a separate worksheet

Bottle lot numbers: 5-317-002, 120715-81110, 0104116-1RMC, 071315-21110

Other Comments:

8 Sulfide

8 NO₃8 NO₂

4/7/16

1020 → 1030 (4/8)

H₂SO₄ lot: 86341 exp. 2/17Rec'd H₂SO₄ bottle labelled for NO₂/NO₃ not on COC

PC Secondary Review: _____

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

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APPENDIX D

Groundwater Sampling Field Forms

GROUNDWATER LEVEL MONITORING REPORT

Form FMG 5 1-01
Rev (06-09-09)

Project: Coopervision					Client: Coopervision					File Number: 70665-018				
Location: 711 N Rd Scottsville NY, 14546					Weather: Sunny, 60s					Project Manager: M. Ramsdell				
Reference: Top of Casing					Units: ft					Field Representative: J. Sanger / M. Ramsdell				
Method: Dip					Comments:									

Monitoring Well ID	Area of Interest	Monitoring Interval	Date	Time	Well Dry? (Y/N)	Depth to Floating Product (ft)	Depth to Water (ft)	Depth to Sinking Product (ft)	Depth to Well Bottom (ft)	Top of Riser Elevation (ft)	Calc. Water Elevation (ft)	Remarks	Measured By
MW-1		SEMI-ANNUAL	10/5/15	0830			5.85		14.90	579.71			
MW-2		SEMI-ANNUAL	10/5/15	0912			5.81		11.17	578.34			
MW-3		SEMI-ANNUAL	10/5/15	0820			11.39		9.85	574.45			
MW-201		SEMI-ANNUAL	10/5/15	0927			6.02		19.30	580.11			
MW-202		SEMI-ANNUAL	10/5/15	0833			6.65		44.03	573.25			
MW-203		SEMI-ANNUAL	10/5/15	0904			2.03		19.28	576.35			
MW-204		SEMI-ANNUAL	10/5/15				8.66		18.93	571.12			
MW-205		SEMI-ANNUAL	10/5/15				3.99		27.43	578.03			
OW-304		SEMI-ANNUAL	10/5/15	0908			3.29		13.48	576.56			
OW-305		SEMI-ANNUAL	10/5/15	0857			6.63		13.44	572.60			
MW-401		SEMI-ANNUAL	10/5/15	0			9.26		45.89	576.89			
MW-402		SEMI-ANNUAL	10/5/15	0830			4.09		42.06	572.56			
MW-403		SEMI-ANNUAL	10/5/15	0825			3.85		44.0	574.42			
MW-501		SEMI-ANNUAL	10/5/15	0920			3.99		10.08	576.55			
MW-502		SEMI-ANNUAL	10/5/15	0915			4.63		32.23	577.46			
OWD-302S		SEMI-ANNUAL	10/5/15				2.61		21.64	576.94			
OWD-302D		SEMI-ANNUAL	10/5/15				3.41		32.41	576.94			

GROUNDWATER LEVEL MONITORING REPORT

 Form FMG 5 1-01
Rev (05-09-09)

Project: Coopervision					Client: Coopervision					File Number: 70665-018				
Location: 711 N Rd Scottsville NY, 14546					Weather:					Project Manager: M. Ramsdell				
Reference: Top of Casing					Units: ft					Field Representative:				
Method: Dip					Comments:									

Monitoring Well ID	Area of Interest	Monitoring Interval	Date	Time	Well Dry? (Y/N)	Depth to Floating Product (ft)	Depth to Water (ft)	Depth to Sinking Product (ft)	Depth to Well Bottom (ft)	Top of Riser Elevation (ft)	Calc. Water Elevation (ft)	Remarks	Measured By
OWS-302		SEMI-ANNUAL	10/5/15				3.19		14.35	577.13			
OWS-303S		SEMI-ANNUAL	10/5/15	0843			5.33		25.09	574.42			
OWS-303D		SEMI-ANNUAL	10/5/15	0840			5.02		32.12	574.69			
OW-306		SEMI-ANNUAL	10/5/15	0852			3.20		13.31	568.64			
BAP-01		SEMI-ANNUAL	10/5/15				6.25		19.36	571.07			
BAP-02		SEMI-ANNUAL	10/5/15				5.93		18.44	570.14			

Job Number: 70665-
Well ID: OWS-302
Field Crew: JS/SM

Date: 10/6/15
Start Time: 1315
Finished Time: 1400
Sample Time: 1410

Initial Depth to Water:	3.19
Well Depth:	21.82
Depth to top of screen:	unknown
Depth to bottom of screen:	unknown
Depth of Intake:	21.3

Purging Device: Waterra w/Hydrolift
Tubing in well: No
Tubing Type: HDPE
PID (ppm):

[illegible]

Comments:

OWS-302-100615 collected at 1410

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic)

Has purged dry (occasionally)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Location (Site/Facility Name):

Coopervision

Sample Order

5

WELL ID:

MW-501

Job Number:

70665-

Well ID:

MW-501

Field Crew:

JS/SM

Date: 10/11/15

Start Time: 10:55

Finished Time: 1045

Sample Time: 1055

Initial Depth to Water: 3.99

Well Depth: 10.31

Depth to top of screen: unknown

Depth to bottom of screen: unkown

Depth of Intake: 9.8

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments: MW-501-100615 collected at 1055

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2/\text{NO}_3/\text{Cl}/\text{SO}_4$ (1 plastic), Sulfide (1 plastic)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Location (Site/Facility Name):

Sample Order

9

WELL ID:

MW-204

Coopervision

Job Number:

70665- C2C

Well ID:

MW-204

Field Crew:

JS/SM

Date: 10/6/15

Start Time: 0910

Finished Time: 0950

Sample Time: 0955

Initial Depth to Water: 10.58

Well Depth: 19.12

Depth to top of screen: unkown

Depth to bottom of screen: unknown

Depth of Intake: 18.6

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments: MW-204-100615 collected at 0955

VOCs (3 vials), Alkalinity (1 plastic)

Location (Site/Facility Name): **Coopervision**

Sample Order

1

WELL ID:

MW-3

Job Number: 70665-
Well ID: MW-3
Field Crew: JS/SM

Date: 10/5/15
Start Time: 1115
Finished Time: 1132
Sample Time: 1400

Initial Depth to Water:	4.39
Well Depth:	9.8
Depth to top of screen:	unknown
Depth to bottom of screen:	unknown
Depth of Intake:	9.3

Purging Device: Waterra w/Hydrolift
Tubing in well: No
Tubing Type: HDPE
PID (ppm): 0.0

[illegible]

Comments: Well pumped dry, collected sample after well recharged, MW-3-100515 collected at 1600

VOCs (3 vials), RSK-175 (3 vials), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Will likely pump dry

Coopervision

10

OW-306

70665-

OW-306

JS/SM

Date: 10/5/15

Start Time: 1140

Finished Time: 230

Sample Time: 1235

Initial Depth to Water: 3.20

Well Depth: 13.36

Depth to top of screen: unknown

Depth to bottom of screen: unknown

Depth of Intake: 12.9

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

Comments: OW-306-100515 collected at 1235, 1.5 gallons purged
VOCs (3 vials) All other parameters

VOCs (3 vials), Alkalinity (1 vial)

Job Number:

70665-

Date: 10/5/15

Initial Depth to Water: 10.65

Purging Device: Waterra w/Hydrolift

Well ID:

MW-202

Start Time: 1357

Well Depth: 18.9

Tubing in well: No

Field Crew:

JS/SM

Finished Time: 1500

Depth to top of screen: unknown

Tubing Type: HDPE

Sample Time: 1510

Depth to bottom of screen: unknown

Depth of Intake: 18.4

PID (ppm):

[illegible]

Comments: MM-202-100515 collected at 1510

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2/\text{NO}_3/\text{Cl}/\text{SO}_4$ (1 plastic), Fe (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

- Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Location (Site/Facility Name):

Sample Order

7

WELL ID:

BAP-2

Job Number:

70665-

Well ID:

BAP-2

Field Crew:

18/5m

Date: 10/6/15

Start Time: 1700

Finished Time:

Sample Time: 1730

Initial Depth to Water:

Well Depth: 19.52

Depth to top of screen: unknown

Depth to bottom of screen: unknown

Depth of Intake: 19.0

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

BAP-2-100615 collected at 1730

Comments: Well goes dry, unable to collect more readings. VERY SILTY

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2/\text{NO}_3/\text{Cl}/\text{SO}_4$ (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Keep tubing off the bottom to avoid clogging valve with sediment/sand. May purge dry.

Location (Site/Facility Name):

Coopervision

Sample Order

6

WELL ID:

BAP-1

Job Number:

70665-

Well ID:

BAP-1

Field Crew:

JS/SM

Date: 10/6/15

Start Time: 1630

Finished Time: _____

Sample Time: 1710

Initial Depth to Water:

Well Depth: 20.16

Depth to top of screen: unkown

Depth to bottom of screen: unkown

Depth of Intake: 19.7

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

Well goes dry, unable to get more readings

BAP-1-100615 collected at 1710

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Keep tubing off the bottom to avoid clogging valve with sediment/sand. May purge dry.

Location (Site/Facility Name):

Sample Order

11

WELL ID:

MW-203

Location (Site/Facility Name): Coopervision

Job Number: 70665-

Well ID: MW-203

Field Crew: JS/CM

Date: 10/5/15

Start Time: 1253

Finished Time: 1323

Sample Time: 1330

Initial Depth to Water: 2.03

Well Depth: 19.45

Depth to top of screen: unknown

Depth to bottom of screen: unknown

Depth of Intake: 19.0

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments: MW-203-100515 collected at 1330

VOCs (3 vials), Alkalinity (1 plastic)

Location (Site/Facility Name):

Sample Order

4

WELL ID:

MW-205

Job Number:

70665-

Well ID:

MW-205

Field Crew:

JS/SM

Date: 10/6/15

Start Time: 1456

Finished Time: 1530

Sample Time: 1535

Initial Depth to Water: 3.99

Well Depth: 27.6

Depth to top of screen: unknown

Depth to bottom of screen: unkown

Depth of Intake: 27.1

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

Comments: Sheen noted on water surface, strong odor MW-205-100615 collected at 1535

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

This one tends to read moderately high on PID and tends to have a strong odor.

Location (Site/Facility Name):

2

WELL ID:

MW-502

70665-

MW-502

JS/SM

Date: 10/6/15

Start Time: 1129

Finished Time: 1230

Sample Time: 1240

Initial Depth to Water: 4.63

Well Depth: 32.71

Depth to top of screen: unkown

Depth to bottom of screen: unkown

Depth of Intake: 32.2

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

Comments: MW-502-100615 collected at 1240

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Fe (1 plastic), Sulfide (1 plastic)

Also Fe (filtered and unfiltered) - need to determine if it is field filtered or lab filtered

Has purged dry (occasionally)

Groundwater Level Report

Location (Site/Facility Name):

Location (Address):

Client:

Weather:

CooperVision

Scottsville, NY

CooperVision

Job Number:

70665-020

Date:

Page:

Temperature:

Well	Depth to Water (TOR)
MW-1	3.61
MW-2	5.23
MW-3	3.89
MW-201	2.51
MW-202	5.86
MW-203	2.79
MW-204	4.78
MW-205	Bent - N.R.
OW-304	2.60
MW-401	6.38
MW-402	2.76
MW-403	3.68
MW-501	3.51
MW-502	3.87
OWD-302	Shallow: 2.51 Deep:
OWS-302S	
OWS-303	Shallow: Deep:
OW-306	2.51

OW-305 - 6.41

303D - 5.00
303S - 5.75

OWS 302D - 3.19

BAP-2 - 3.75 (4")

BAP-1 - 6.12 (4")

2.22

Location (Site/Facility Name):

Coopervision

Sample Order

1

WELL ID:

MW-3

Job Number:

70665-

Well ID:

MW-3

Field Crew:

Date:

Date: 4/7/16

Start Time:

Start Time: 11:01.55

Finished Time:

Sample Time:

Sample Time:

Initial Depth to Water:

Initial Depth to Water: 3.89

Well Depth:

Well Depth: 9.8

Depth to top of screen:

Depth to top of screen: unknown

Depth to bottom of screen:

Depth to bottom of screen: unknown

Depth of Intake:

Depth of Intake: 9.3

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPETubing Type: HDPE

PID (ppm):

PID (ppm):

[illegible]

Comments:

VOCs (3 vials), RSK-175 (3 vials), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic), Alkalinity (1 plastic), Fe unfiltered (1 plastic), Fe filtered (1 plastic)

Will likely pump dry

Location (Site/Facility Name):

Coopervision

Sample Order

8

WELL ID:

MW-202

Job Number:

70665-

Well ID:

MW-202

Field Crew:

Date:

Start Time:

Finished Time:

Sample Time:

Initial Depth to Water:

Well Depth:

Depth to top of screen:

Depth to bottom of screen:

Depth of Intake:

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

VOCs (3 vials), TOC (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Fe (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

Fe unfiltered (1 plastic), Fe filtered (1 plastic)

Location (Site/Facility Name):

Coopervision

Sample Order

11

WELL ID:

MW-203

Job Number:

70665-

Well ID:

MW-203

Field Crew:

Date:

418AL6

Start Time:

1426

Finished Time:

Sample Time:

Initial Depth to Water:

3.45

Well Depth:

19.45

Depth to top of screen:

unknown

Depth to bottom of screen:

unknown

Depth of Intake:

19.0

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

VOCs (3 vials)

Location (Site/Facility Name):

Coopervision

Sample Order

9

WELL ID:

MW-204

Job Number:

70665-

Well ID:

MW-204

Field Crew:

Date: 4/8/10

Start Time: 1 1

Finished Time: _____

Sample Time: _____

Initial Depth to Water:

Well Depth: 19.12

Depth to top of screen: unknown

Depth to bottom of screen: unknown

Depth of Intake: 18.6

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

VOCs (3 vials)

Location (Site/Facility Name):

Coopervision

Sample Order

4

WELL ID:

MW-205

Job Number:

70665-

Well ID:

MW-205

Field Crew:

Date: 4/7/16

Start Time: 12:53

Finished Time: _____

Sample Time: _____

Initial Depth to Water: 2.91

Well Depth: 27.6

Depth to top of screen: unkown

Depth to bottom of screen: unkown

Depth of Intake: 27.1

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm): 0.4

[illegible]

Comments:

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2^-/\text{NO}_3^-/\text{Cl}^-/\text{SO}_4^{2-}$ (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass), Fe filtered (1 plastic), Fe unfiltered (1 plastic)

This one tends to read moderately high on PID and tends to have a strong odor.

Location (Site/Facility Name):

Coopervision

Sample Order

3

WELL ID:

OWS-304

Job Number:

70665-

Well ID:

OVS-302

Field Crew:

Date:

Date: 4/7/16

Start Time:

Finished Time:

Sample Time:

Initial Depth to Water:

Well Depth:

21.82

Depth to top of screen:

unkown

Depth to bottom of screen:

unknown

Depth of Intake:

21.3

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

1.5

[illegible]

Comments:

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Sulfide (1 plastic), Fe filtered (1 plastic), Fe unfiltered (1 plastic)

Has purged dry (occasionally)

Low-Flow Field Sampling Form

Location (Site/Facility Name):

Coopervision

Sample Order

10

WELL ID:

OW-306

Job Number:

70665-

Well ID:

OW-306

Field Crew:

Date:

4/8/16

Start Time:

1320

Finished Time:

Sample Time:

Initial Depth to Water:

Well Depth:

13.36

Depth to top of screen:

unknown

Depth to bottom of screen:

unknown

Depth of Intake:

12.9

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

Time Elapsed (Minutes)	Depth to Water (TOR)	Cumulative Purge Volume (gallons)	Temperature (celsius) +/- 10%	pH +/- 0.1	Conductivity (ms/cm) +/- 3%	Dissolved Oxygen (mg/L) +/- 10%	Turbidity (NTU) <50	ORP/eH (mV) +/- 10 mV	Comments
0	1-inch well	0	-	-	-	-	-	-	
5	-	0.1	6.7	7.01	20.67	7.06	101	27.0	100 mL/min
10	-	0.3	6.6	6.96	20.75	6.82	61	37.5	
15	-	0.5	6.9	6.94	20.99	6.80	64	46.1	
20	-	0.7	6.8	6.92	21.03	6.80	68	50.1	
25	-	0.9	6.8	6.93	21.04	6.72	62	61.6	
30	-	1.2	6.6	6.93	21.00	6.71	73	66.7	
35	-	1.3	7.5	6.96	20.72	7.04	62	62.2	
40	-	1.5	7.8	6.93	20.71	7.07	66	69.9	
45	-	1.6	7.9	6.92	20.58	7.00	60	74.4	
									1 Sample
									OW-306-040816-1320

Comments:

VOCs (3 vials)

Location (Site/Facility Name):

Coopervision

Sample Order

5

WELL ID:

MW-501

Job Number:

70665-

Well ID:

MW-501

Field Crew:

Date: 4/7/16
Start Time: 1400
Finished Time:
Sample Time:

Initial Depth to Water:

Well Depth: 10.31

Depth to top of screen: unknown

Depth to bottom of screen: unkown

Depth of Intake: 9.8

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm): 0, 0

[illegible]

Comments:

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2/\text{NO}_3/\text{Cl}/\text{SO}_4$ (1 plastic), Sulfide (1 plastic), Fe filtered (1 plastic), Fe unfiltered (1 plastic)

Location (Site/Facility Name):

Coopervision

Sample Order

2

WELL ID:

MW-502

Job Number:

70665-

Well ID:

MW-502

Field Crew:

Date: 4/7/

Start Time: 9:20

Finished Time:

Sample Time:

Initial Depth to Water: 7.87

Well Depth: 32.71

Depth to top of screen: unknown

Depth to bottom of screen: unkown

Depth of Intake: 32.2

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm): 0, 0

[illegible]

Comments:

VOCs (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), NO₂/NO₃/Cl/SO₄ (1 plastic), Fe unfiltered (1 plastic), Sulfide (1 plastic), Fe filtered (1 plastic)

Has purged dry (occasionally)

Coopervision

6

BAP-1

Job Number: 70665-
Well ID: BAP-1
Field Crew:

Date: 4/8/16
Start Time: _____
Finished Time: _____
Sample Time: _____

Initial Depth to Water:	6.00
Well Depth:	20.16
Depth to top of screen:	unknown
Depth to bottom of screen:	unknown
Depth of Intake:	19.7

Purging Device: Waterra w/Hydrolift
Tubing in well: No
Tubing Type: HDPE
PID (ppm):

13AV01-040816-0900

Keep tubing off the bottom to avoid clogging valve with sediment/sand. May purge dry.

Location (Site/Facility Name):

Coopervision

Sample Order

7

WELL ID:

BAP-2

Job Number:

70665-

Well ID:

BAP-2

Field Crew:

Date:

418/6

Start Time:

940

Finished Time:

Sample Time:

Initial Depth to Water:

5.49

Well Depth:

19.52

Depth to top of screen:

unkown

Depth to bottom of screen:

unkown

Depth of Intake:

19.0

Purging Device: Waterra w/Hydrolift

Tubing in well: No

Tubing Type: HDPE

PID (ppm):

[illegible]

Comments:

VOCs (3 vials), TOC (3 vials), RSK-175 (3 vials), Alkalinity (1 plastic), $\text{NO}_2/\text{NO}_3/\text{Cl}/\text{SO}_4$ (1 plastic), Sulfide (1 plastic), Organic Acids (1 amber glass)

Fe filtered (1 plastic), Fe unfiltered (1 plastic)

Keep tubing off the bottom to avoid clogging valve with sediment/sand. May purge dry.

APPENDIX E

Historical Analytical Data

TABLE I
COOPERVISION, INC.
SUMMARY OF VOLATILE GASES AND DISSOLVED GASES
SOURCE AREA WELLS

All values expressed in mg/L (ppm)

Sample ID: Well Screen Interval (ft): Date Sampled:	OWS-302S 13.0 - 14.0										MW-205 21.2 - 28.0										
Compound:	4/21/10	10/18/10	4/13/11	10/14/11	4/13/12	10/19/12	4/12/13	10/3/13	4/2/14	4/20/15	4/21/10	10/18/10	4/13/11	10/14/11	4/13/12	10/19/12	4/26/13	10/3/13	4/2/14	10/13/14	4/2/15
	500x Dil.	500x Dil.	500x Dil.	500x Dil.	500x Dil.	500x Dil.	500x Dil.	250x Dil.	250x Dil.	250x Dil.	1000x Dil.	2000x Dil.	2000x Dil.	2500x Dil.	2000x Dil.	2000x Dil.	2000x Dil.	2000x Dil.	2000x Dil.	2000x Dil.	2000x Dil.
VOLATILE ORGANICS																					
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	56	10	220 D	ND	ND	ND	0.47	ND	ND	ND	230 D	220	300	230	250	250	240	230	220	200	240
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	1.9 J
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	140	160	130	110	120	210	140	110	75	60	61
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	30	74	7.5	72	52	41	45	36	29	23	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.96 J
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,2-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	0.052	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
SEMI-VOLATILE ORGANICS																					
Bis(2-ethylhexyl) phthalate	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED GASES	10x Dil.	20x Dil.		125x Dil	125x Dil	125x Dil	100x Dil.	200x Dil.	100x Dil.	10x Dil.							5x Dil.	10x Dil.	25x Dil.	20x Dil.	50x Dil.
Methane	0.93	1.3	0.054	11	13	17	6.6	14	8.8	0.46	0.011	0.006	0.130	0.024	0.021	0.015	0.520	1.000	2.200	2.0	3.0
Ethane	ND	ND	0.018	0.0057	ND	ND	ND	ND	ND	ND	0.013	0.006	0.011	0.024	0.021	0.012	0.014	0.010	ND	0.13	ND
Ethene	ND	ND	0.026	0.0052	ND	ND	ND	ND	ND	ND	0.012	0.0062	0.0077	0.017	0.014	0.012	0.011	0.01	ND	0.12	ND

Notes & Abbreviations:
ND: Not Detected
NA: Not Analyzed
DRY: Insufficient Recharge
D: Diluted Result
J: Estimated Result
B: Blank Contamination

1. The tables represent all data as reported from the lab in concentration format (mg/L).

2. The time-trend graphs concentrations have been converted to mmol/L to provide better stoichiometric representation of relative mass of parent (TCA) to daughter (DCA, chloroethane, etc.) compounds. Also note that scale may vary between graphs in order to depict ranges of values for each well.

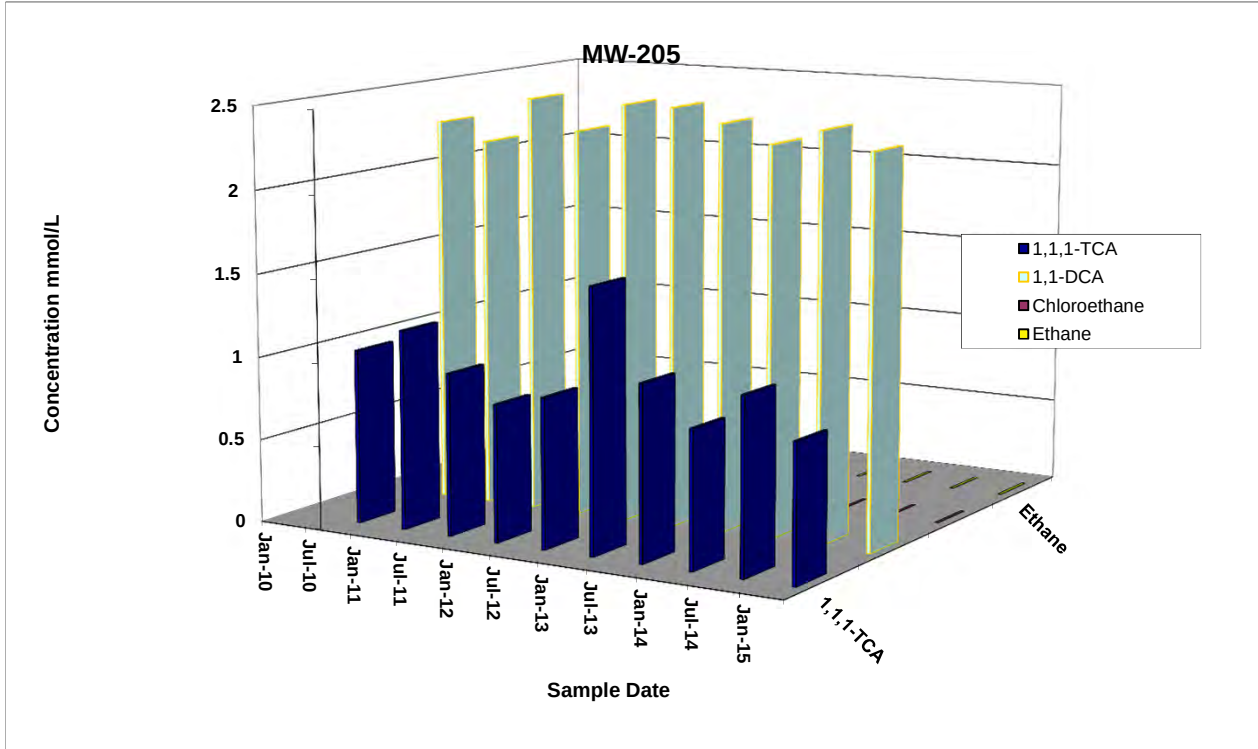
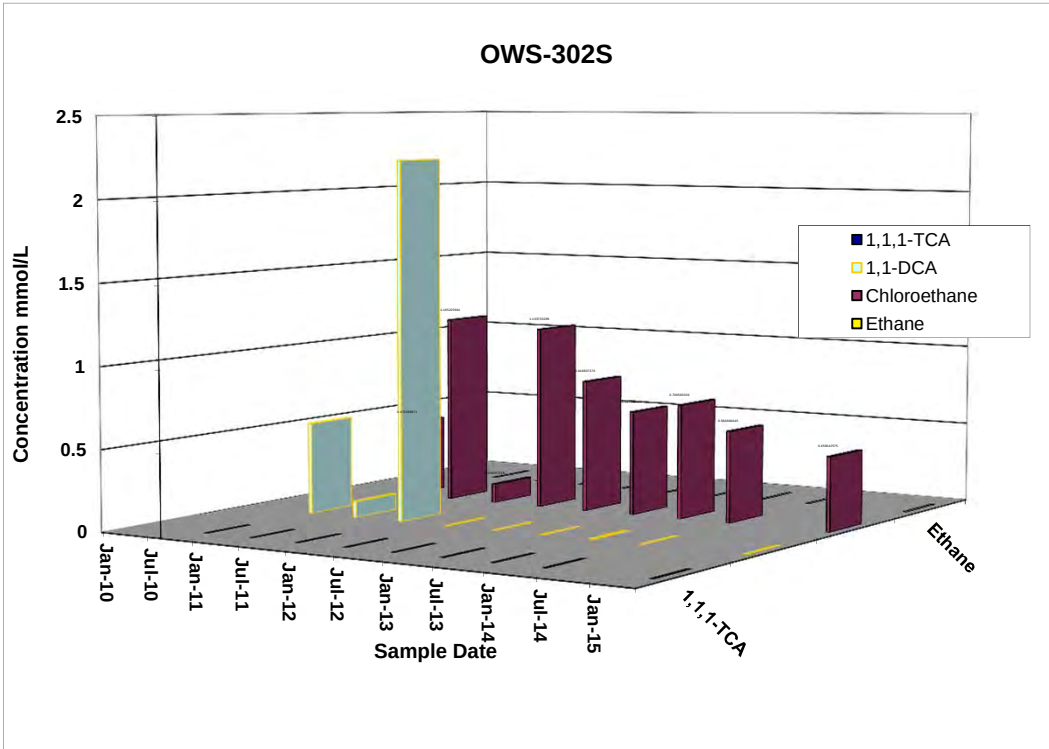


TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE ORGANICS AND DISSOLVED GASES
MID-GRADIENT WELLS

All values expressed in mg/l (ppm)

Sample ID: Well Screen Interval (ft):												MW-501 20.0 - 25.0											
Date Sampled:	4/21/2010	10/19/2010	4/12/2011	10/14/2011	4/13/2012	10/19/2012	4/11/2013	10/3/2013	4/1/2014	10/13/2014	4/1/2015	4/21/2010	10/18/2010	4/13/2011	10/14/2011	4/13/2012	10/19/2012	4/12/2013	10/3/2013	4/2/2014	10/13/2014	4/2/2015	
Compound:																							
VOLATILE ORGANICS	10x Dil.	10x Dil.	10x Dil.	10x Dil.	10x Dil.	10x Dil.	5x Dil.	10x Dil.	5x Dil.	5x Dil.		2.5x Dil.	2.5x Dil.	5x Dil.	5x Dil.	5x Dil.	5x Dil.	5x Dil.	10x Dil.	2x Dil.	10x Dil.	10x Dil.	
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0027J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1-Dichloroethane	0.1	0.16	0.098	0.052	0.096	0.067	0.077	0.093	0.074	0.062	0.025	0.088	0.089	0.15	0.1	0.17	0.16	0.076	0.13	0.063	0.090	0.14	
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.019	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00031J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Chloroethane	1.0	1.7	1.5	1.1	1.7	1.0	0.94	1.2	0.99	0.82	0.11	0.46	0.49 D	1.2 D	0.9 D	0.98 D	1.4 D	0.59	1.4	0.34	1.0	1.2	
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Vinyl Chloride	0.25	0.38	0.32	0.19	0.29	0.14	0.15	0.14	0.083	0.050	0.004J	0.065	0.095	0.1	0.084	0.079	0.09	0.094	0.093	0.055	ND	0.088	
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	
DISSOLVED GASES	10x Dil.	10x Dil.	25x Dil.	25x Dil.			25x Dil.	25x Dil.	25x Dil.			250x Dil.	125x Dil.	250x Dil.	250x Dil.	250x Dil.	250x Dil.	200x Dil.	200x Dil.	200x Dil.	100x Dil.	250x Dil.	
Methane	0.93	1.6 D	1.4	2.4	4.3	3.5	1.7	2.2	1.6	0.44	0.76	15	9.7	19	13	17	12	12	12	10	2.4	16	
Ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	
Ethene	0.020	0.031	0.032	0.053	0.110	0.083	0.048	0.070	0.058	0.042	0.010	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	

Notes & Abbreviations:

ND: Not Detected
NA: Not Analyzed
DRY: Insufficient Recharge
D: Diluted Result
J: Estimated Result
B: Blank Contamination

1. The tables represent all data as reported from the lab in concentration format (mg/L).
2. The time-trend graphs concentrations have been converted to mmol/L to provide better stoichiometric representation of relative mass of parent (TCA) to daughter (DCA, chloroethane, etc.) compounds. Also note that scale may vary between graphs in order to depict ranges of values for each well.

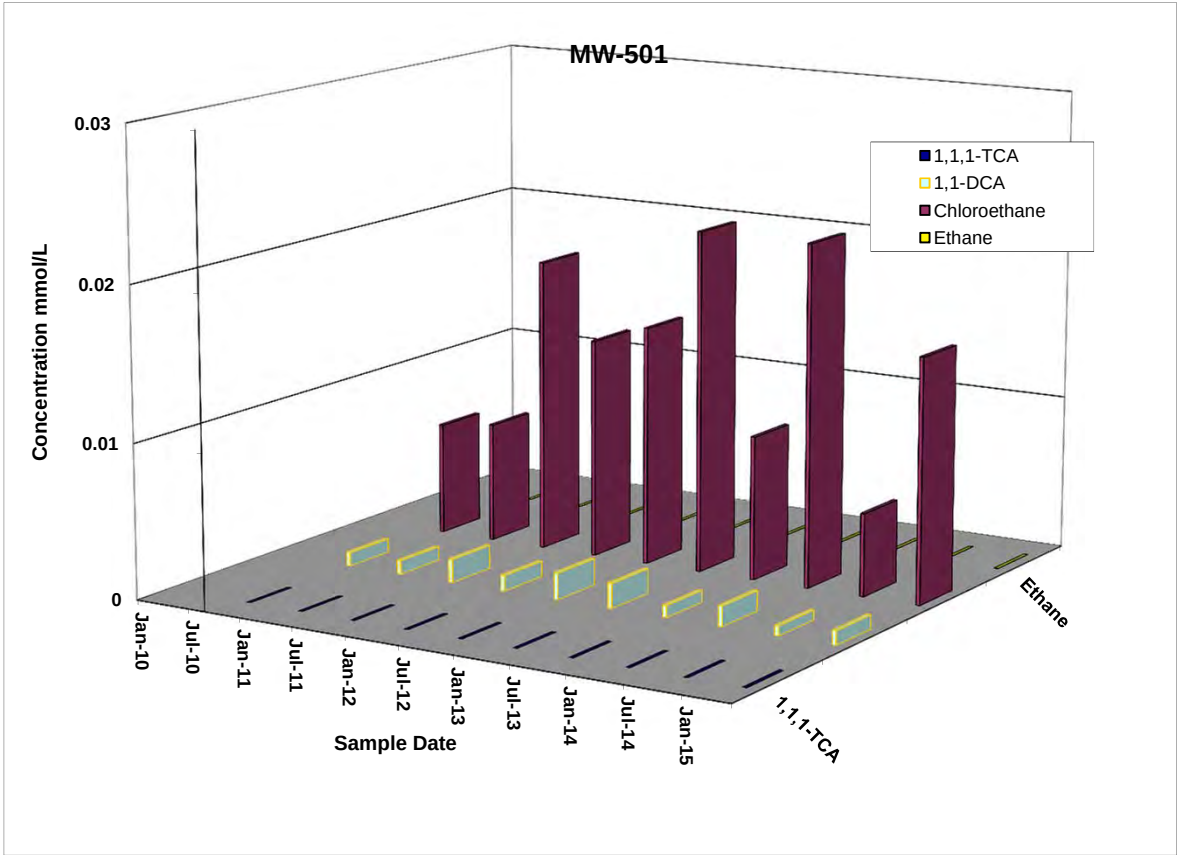
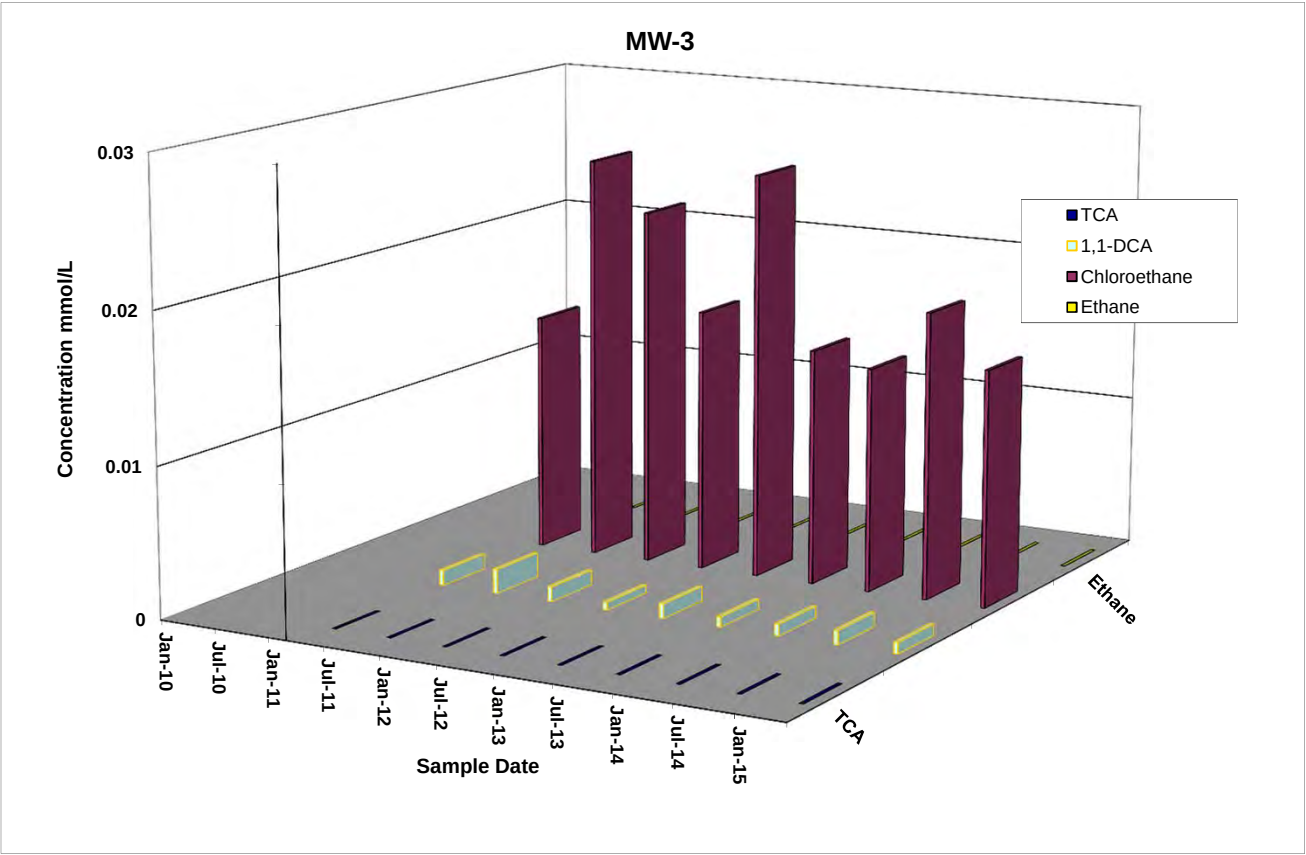


TABLE II
COOPERVISION, INC.
SUMMARY OF VOLATILE ORGANICS AND DISSOLVED GASES
MID-GRADIENT WELLS

All values expressed in mg/l (ppm)

Sample ID: Well Screen Interval (ft):												MW-502 30.0 - 35.0				BAP-01 10.0 - 20.0			BAP-02 10.0 - 20.0		
Date Sampled:	4/21/2010	10/18/2010	4/12/2011	10/14/2011	4/13/2012	10/19/2012	4/12/2013	10/3/2013	4/2/2014	10/9/2014	4/2/2015	4/2/2014	10/14/2014	4/2/2015	4/2/2014	10/13/2014	4/2/2015				
Compound:																					
VOLATILE ORGANICS	50x Dil.	100x Dil.	100x Dil.	100x Dil.	100x Dil.	100x Dil.	25x Dil.	50x Dil.	25x Dil.	25x Dil.	25x Dil.	20x Dil.	20x Dil.	20x Dil.	2x Dil.	2x Dil.	2x Dil.				
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
1,1-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.089 J	1.3	1.6	1.8	0.25	0.35	0.21			
1,1-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	2.3	2.7	1.8	0.18	0.27	0.057				
cis-1,2-Dichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0082 J	ND	ND	ND				
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.019	ND	ND				
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.025 J	ND	ND	ND				
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.25 J	ND	ND	0.00056 J				
Chloroethane	11 D	13	17	16	15	11	4.9	7.2	4.4	5.0	3.5	0.16	0.28	0.24	0.012	0.019	0.0078 J				
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0086 J	ND	ND	ND				
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND				
Vinyl Chloride	ND	ND	ND	ND	0.6	ND	0.28	0.54	0.36	0.29	0.27	0.065	ND	0.094 J	ND	ND	0.0025 J				
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	NA	NA	ND	NA	ND	ND				
DISSOLVED GASES	200x Dil.	200x Dil.	200x Dil.	250x Dil.	250x Dil.	250x Dil.	125x Dil.	250x Dil.	250x Dil.			5x Dil.				10x Dil.					
Methane	15	11	18	17	20	21	8.8	22	16	14	15	0.33	0.39	0.28	0.061	0.33	0.071				
Ethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0011	ND	ND	0.0072	0.0023	0.004				
Ethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0072	0.0088	ND	0.002	0.0023	ND				

Notes & Abbreviations:
ND: Not Detected
NA: Not Analyzed
DRY: Insufficient Recharge
D: Diluted Result
J: Estimated Result
B: Blank Contamination

1. The tables represent all data as reported from the lab in concentration format (mg/L).

2. The time-trend graphs concentrations have been converted to mmol/L to provide better stoichiometric representation of relative mass of parent (TCA) to daughter (DCA, chloroethane, etc.) compounds. Also note that scale may vary between graphs in order to depict ranges of values for each well.

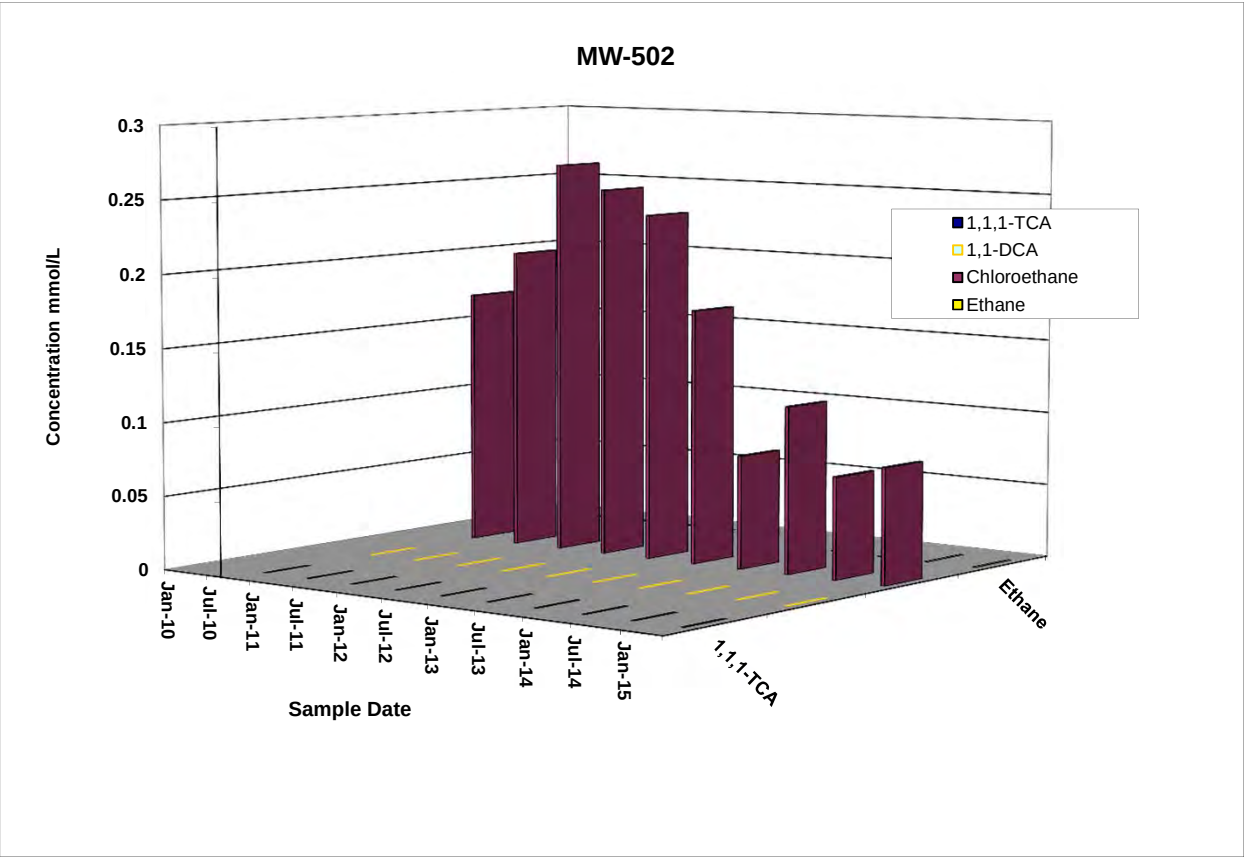


TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE ORGANICS AND DISSOLVED GASES
DOWN-GRADIENT WELLS

All values expressed in mg/l (ppm)

Sample ID: Well Screen Interval (ft):	MW-202 10.1 - 20.3											MW-203 9.8 - 20.0										
Date Sampled:	4/21/10	10/19/10	4/12/11	10/13/11	4/12/12	10/19/12	4/11/13	10/3/13	4/1/14	10/9/14	4/1/15	4/21/10	10/19/10	4/11/11	10/13/11	4/12/12	10/18/12	4/11/13	10/3/13	4/1/14	10/9/14	4/1/15
Compound:																						
VOLATILE ORGANICS																						
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.0130	ND	0.0160	0.0300	0.0180	0.0510	0.0340	0.0300	0.0360	0.0360	0.064	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethene	0.0083	ND	0.0100	0.0200	0.0140	0.0400	0.0320	0.0260	0.0360	0.0350	0.050	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00170 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00063 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0013 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
DISSOLVED GASES																						
Methane	NA	NA	NA	NA	NA	NA	NA	NA	ND	0.004	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	ND	ND	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes & Abbreviations:

ND: Not Detected

NA: Not Analyzed

DRY: Insufficient Recharge

D: Diluted Result

J: Estimated Result

B: Blank Contamination

E: Estimated Result

1. The tables represent all data as reported from the lab in concentration format (mg/L).

TABLE III
COOPERVISION, INC.
SUMMARY OF VOLATILE ORGANICS AND DISSOLVED GASES
DOWN-GRADIENT WELLS

All values expressed in mg/l (ppm)

Sample ID: Well Screen Interval (ft):	MW-204 9.8 - 20.0											OW-306 4.0 - 14.0									
Date Sampled:	4/21/10	10/19/10	4/12/11	10/14/11	4/12/12	10/19/12	4/11/13	10/3/13	4/2/14	10/9/14	4/1/15	4/21/10	10/19/10	4/11/11	10/13/11	4/12/12	10/18/12	4/11/13	10/2/13	4/1/14	10/9/14
Compound:																					
VOLATILE ORGANICS																					
Acetone	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1-Dichloroethane	0.0055	0.0130	0.0059	0.0077	0.0082	0.0071	0.0074	0.0074	0.0074	ND	0.0089	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.00021 J
1,1-Dichloroethene	0.0053	0.0130	ND	0.0087	0.0084	0.0067	0.0092	0.0093	0.0094	0.0061	0.0088	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,1,1-Trichloroethane	ND	0.0063	ND	ND	0.0051	ND	ND	ND	0.005	ND	0.0066	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Tetrachloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Trichloroethene	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	0.0021 J	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Chloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,2-Dichloroethane	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Methylene Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
2-Butanone (MEK)	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
Vinyl Chloride	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND	ND
1,4-Dioxane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND	NA	NA	NA	NA	NA	NA	NA	NA	NA	ND
DISSOLVED GASES																					
Methane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethane	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Ethene	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes & Abbreviations:
ND: Not Detected
NA: Not Analyzed
DRY: Insufficient Recharge
D: Diluted Result
J: Estimated Result
B: Blank Contamination
E: Estimated Result

1. The tables represent all data as reported from the lab in concentration format (mg/L).

TABLE IV
COOPERVISION INCORPORATED
ADDITIONAL ANALYTICAL
PARAMETER SUMMARY

Sample ID	MW-205											MW-3										
Analyte	4/24/10	10/18/10	4/13/11	10/14/11	4/13/12	10/19/12	4/26/13	10/3/13	4/2/14	10/13/14	4/2/15	4/21/10	10/19/10	4/12/11	10/14/11	4/13/12	10/19/12	4/11/13	10/3/13	4/1/14	10/14/14	4/1/15
INORGANICS (mg/L)																						
Nitrite Nitrogen	2	<0.05	<20	0.058	<20	<10	<20	<20	<20	<20	0.056	<0.50	<0.010	<0.010	<0.010	<0.1	<0.1	<10	<10	<10	<1	0.142
Nitrate/Nitrite Nitrogen	NA	NA	NA	<0.05	<0.01	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	<0.05	<0.010	<0.1	NA	NA	NA	NA	NA
Chloride	659	762	830	821	720	748	837	736	760	831	731	257	290	331	407	516	656	633	561	458	406	530
Dissolved Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	-	-	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-	NA	NA	NA
Nitrate Nitrogen	<0.05	<4.0	<5.0	NA	NA	NA	<1	<1	<4	<1	<1	<0.50	<1.0	<1.0	NA	NA	NA	<1	<1	1 R	<1	<1
Total Alkalinity	2610	2750	<2.0	2900	2900	2980	2900	2900	3150	3300	3400	205	212	188	184	183	185	192	210	230	NA	NA
Sulfate	8.8	10.9	10.5	10	10.4	14.9	9.7	10.9	9.3	11.3	8.9	2.6	3.2	3.4	2.7	2.9	3.3	6.9	7.7	15	12.2	20.9
Total Sulfide	1.6	<1.0	<1.0	2.6	1.2	1.2	<1	<1	<1	1.6	<1	1.5	<1.0	<1.0	<1.0	<1.0	1.1	1.1	<1	<1	<1	<1.0
Total Iron	117	10.5	103	106	NA	NA	NA	99.1	NA	NA	NA	21.8	6.7	7.79	18.2	NA	NA	NA	15.2	NA	NA	NA
Total Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HRC COMPONENTS (mg/L)	20x Dil.		20x Dil	25x Dil																		
Lactic Acid (C3)	<20	<1.0	<20	<25	<25	<20	<25	<25	<100	<20	<25	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetic Acid (C2)	310	430 D	400	500	480	550	630	720	850	860	940	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionic Acid (C3)	820	850 D	700	730	790	860	810	890	1000	790	770	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyruvic Acid (C3)	<10	<0.5	<10	<13	<13	<10	<13	<13	<50	<10	<13	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyric Acid (C4)	1800	2600 D	2400	3000	2400	2500	3100	2900	2100	3000	3100	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD PARAMETERS																						
Dissolved Oxygen (mg/L)	1	2.04	3.51	1.6	0.33	0.62	1.32	0.12	5.73	0.14	0.54	NA	NA	NA	NA	NA	NA	12.61	2.18	1.90	6.57	9.92
Redox (mV)	-113	-105	-82	-48	-105	-22	-40.7	-80.7	40.8	-139.2	-17.6	NA	NA	NA	NA	NA	NA	295.2	-94.4	73.6	81	108.8
Conductivity (mS)	12.9	6.75	6.98	0.81	10.52	7.19	7.28	6.86	0.387	7.67	7.53	NA	NA	NA	NA	NA	NA	2.13	1.93	1.94	1.78	1.7
Iron, dissolved (mg/L)	2.5	4.5	6	6	3	NA	5.5	6.5	4.5	5	1.25	0	0.3	NA	NA	NA	NA	0.5	0.0	0.5	0	0
Alkalinity (mg/L)	1460	1600	1840	2200	195	NA	NA	NA	NA	NA	NA	300	240	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide (mg/L)	NA	NA	470	NA	NA	NA	NA	NA	NA	NA	NA	136	80	NA	NA	NA	NA	NA	NA	NA	NA	NA

TABLE IV
COOPERVISION INCORPORATED
ADDITIONAL ANALYTICAL
PARAMETER SUMMARY

Sample ID	MW-501											MW-502										
Analyte	7/19/01	10/18/10	4/13/11	10/14/11	4/13/12	10/19/12	4/12/13	10/3/13	4/2/14	10/13/14	4/2/15	4/21/10	10/18/10	4/12/11	10/14/11	4/12/12	10/19/12	4/12/13	10/3/13	4/2/14	10/9/14	4/2/15
INORGANICS (mg/L)																						
Nitrite Nitrogen	ND	<0.010	<0.100	<0.010	<60	<2.0	<100	<40	<200	<40	0.011	<0.50	<1.0	<1.0	<0.010	<20	<1.0	<20	<20	<20	<20	<0.010
Nitrate/Nitrite Nitrogen	0.063	NA	NA	<0.05	<1	<1.0	NA	NA	NA	NA	<1	NA	NA	NA	<0.050	<1	<1.0	NA	NA	NA	NA	NA
Chloride	355	1460	7500	1940	2820	1940	4260	1860	7090	2310	5590	562	606	693	676	744	884	862	1030	1030	935	780
Dissolved Organic Carbon	3.38	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	-	-	-	-	-	-	-	-	NA	NA	NA	-	-	-	-	-	-	-	-	NA	NA	NA
Nitrate Nitrogen	0.063	<1.0	<1.0	NA	NA	NA	<1	<1	4 R	<1	<1	<0.50	<0.010	<0.010	NA	NA	NA	<1	<1	1 R	<1	<1
Total Alkalinity	201	381	262	424	309	365	217	410	211	413	293	800	751	670	730	656	722	510	489	460	468	445
Sulfate	40.2	7.3	64.1	4.3	31.1	8.1	62.4	36.3	123	53.6	92	<2.0	<2.0	<2.0	<2.0	<2.0	<2.0	<2	<2	<2	<2	2.7
Total Sulfide	<1.00	1.4	<1.0	2.2	6.2	<1.0	1.8	1	<1	1.3	1.1	5.8	1.8	<1.0	<1.0	1.3	<1.0	1.4	<1	<1	<1	1.3
Total Iron	462	6.37	11.8	4.6	NA	NA	NA	21	NA	NA	NA	186	26	571	637	NA	NA	NA	11.5	NA	NA	88.4
Total Manganese	11.8	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HRC COMPONENTS (mg/L)																						
Lactic Acid (C3)	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Acetic Acid (C2)	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Propionic Acid (C3)	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Pyruvic Acid (C3)	<0.1	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Butyric Acid (C4)	<1.0	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
FIELD PARAMETERS																						
Dissolved Oxygen (mg/L)	0.3	0.02	0	0.4	2.11	0.32	6.25	2.00	0.79	5.5	0.52	0	0.17	0	0.3	0.2	0.11	0.24	0.07	0.0	0.09	0.85
Redox (mV)	-280	-339	-122	-194	-82	-149	-34.9	-134.1	-48.2	-31	-13.4	-184	-131	-148	-157	-93	-102.5	-10.1	-143.6	-42.7	-100.7	-53.0
Conductivity (mS)	1.61	5.37	23.2	0.76	9.31	6.69	12.18	6.28	19.92	7.93	20.38	9.64	3.13	2.04	0.36	3.17	3.34	3.36	3.67	3.87	3.54	3.17
Iron, dissolved (mg/L)	ND	1.6	4.6	1	NA	NA	4.25	6.0	3.5	1.5	0.5	0	1	4.2	NA	1	NA	1.5	6.0	NA	NA	0
Alkalinity (mg/L)	920	400	270	500	60	NA	NA	NA	NA	NA	NA	2400	740	650	110	1820	NA	NA	NA	NA	NA	NA
Carbon Dioxide (mg/L)	34	225	194	37.9	217.5	NA	NA	NA	NA	NA	NA	624	NA	3838	NA	NA	NA	NA	NA	NA	NA	NA

TABLE IV
COOPERVISION INCORPORATED
ADDITIONAL ANALYTICAL
PARAMETER SUMMARY

Sample ID	OWS-302-S										MW-202			BAP-01			BAP-02		
Analyte	4/21/10	10/18/10	4/13/11	10/14/11	4/13/12	10/19/12	4/12/13	10/3/13	4/2/14	4/20/15	4/1/14	10/9/14	4/1/15	4/2/14	10/13/14	4/2/15	4/2/14	10/13/14	4/2/15
INORGANICS (mg/L)																			
Nitrite Nitrogen	<0.50	<1.0	<100	0.031	<1.0	<0.020	<50	<100	<100	<100	<100	<30	0.011	<10	<1	0.021	<10	<1	0.055
Nitrate/Nitrite Nitrogen	NA	NA	NA	<0.050	<0.060	<0.010	NA	NA	NA	NA	NA	<1	NA	NA	NA	NA	NA	NA	NA
Chloride	3070	2880	3670	3200	3300	3090	2630	2720	2790	2850	3560	1680	3800	406	466	6.5	434	574	580
Dissolved Organic Carbon	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Total Organic Carbon	-	-	-	-	-	-	-	-	NA	NA	<1	NA	<1	6	NA	6.5	14.5	NA	6.6
Nitrate Nitrogen	<5.0	<0.020	<2.0	<0.050	NA	NA	<1	<1	<1	<1	1.7	<1	2.6	<1	<1	<1	<1	<1	<1
Total Alkalinity	1210	1150	622	958	772	608	676	669	749	762	150	125	160	230	219	261	260	275	258
Sulfate	44.9	2.2	8.7	<2.0	<2.0	<2.0	<2	<2	2.4	2.5	424	490	404	328	223	189	64.9	95.4	178
Total Sulfide	1.2	<1.0	4.2	<1.0	<1.0	<1.0	1.4	<1	<1	<1	<1	<1	<1	1.5	<1	3.3	1.4	<1	2.4
Total Iron	18.1	79.6	52.5	50.6	NA	NA	NA	18.7	NA	NA	NA	NA	0.92	NA	NA	NA	NA	NA	NA
Total Manganese	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
HRC COMPONENTS (mg/L)																			
Lactic Acid (C3)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	<1	<1	<1	<1	<1	<1
Acetic Acid (C2)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	7.3	1	5.5	9.7	8.1	<1
Propionic Acid (C3)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<1	<1	<1	6.5	<1	<1	1.6	1.1	<1
Pyruvic Acid (C3)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<0.5	<0.5	<0.5	<0.5	<0.5	<0.50	<0.5	<0.5	<0.5
Butyric Acid (C4)	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	<2	<2	<2	<2	<2.0	<2	<2	<2	<2
FIELD PARAMETERS																			
Dissolved Oxygen (mg/L)	0.86	3.08	4.66	0.7	4.71	0.48	0.64	0.08	0	2.03	1.26	0.84	2.03	0.67	0.15	2.45	0.04	0.14	6.99
Redox (mV)	-63	-100	-156	-128	-17	-71.8	-68.1	-136.3	-27	-37.6	157.2	90.3	215.8	-186.2	-107.1	-65.1	-210.5	-192.7	-87.8
Conductivity (mS)	9	12.8	17.6	1.2	7.12	9.84	3.52	8.50	9.27	9.39	12.02	6.3	10.97	2.22	2.21	2.28	2.08	2.38	2.56
Iron, dissolved (mg/L)	1.1	5.8	1.6	2.6	5	NA	4.25	7.0	3.5	2	0.0	0.0	0.0	0.0	1.5	NA	NA	NA	NA
Alkalinity (mg/L)	920	1000	900	1000	315	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA
Carbon Dioxide (mg/L)	526	589	1050	150	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA	NA

Notes & Abbreviations

NS - Not Sampled

NA - Not analyzed or results not determined due to field conditions (e.g. - water too turbid to obtain field parameters).

ND - Not detected in field tests

TOC - Total Organic Carbon

D - Diluted

R - Result rejected. See Data Usability Summary Report.

* - The dissolved oxygen values detected may be a result of malfunctioning field equipment and may not be indicative of actual aquifer conditions.

1. Due to the conditions at wells MW-3, OWD-302-D, OWS-302-S, and MW-501 (poor well recharge during purging), dissolved oxygen and redox values will appear variable and may not be indicative of actual aquifer conditions.

APPENDIX F

Mann-Kendall Analysis Results

Mann-Kendall Analysis: Results
 CooperVision, Inc.
 Scottsville, New York
 VCA V00157-8

	2003-2012		2004-2013		2005-2014		2006-2015		2007-2016
	Spring	Fall	Spring	Fall	Spring	Fall	Spring	Fall	Spring
Source Area									
MW-205									
1,1,1-TCA	No Trend	No Trend	No Trend	Increasing	No Trend	No Trend	No Trend	No Trend	No Trend
1,1-DCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
1,1-DCE	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A	N/A
Mid-Gradient Area									
MW-3									
1,1,1-TCA	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	No Trend	Decreasing	No Trend
1,1-DCA	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
1,1-DCE	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing
MW-501									
1,1,1-TCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
1,1-DCA	Decreasing	Decreasing	Decreasing	Decreasing	Decreasing	No Trend	Decreasing	No Trend	Decreasing
1,1-DCE	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
MW-502									
1,1,1-TCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	Decreasing	No Trend	Decreasing
1,1-DCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
1,1-DCE	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
Down-Gradient Area									
MW-202									
1,1,1-TCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend
1,1-DCA	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing
1,1-DCE	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing	Increasing
MW-204									
1,1,1-TCA	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	No Trend	Decreasing	No Trend
1,1-DCA	No Trend	No Trend	No Trend	No Trend	Increasing	No Trend	No Trend	Decreasing	No Trend
1,1-DCE	No Trend	No Trend	No Trend	No Trend	Increasing	No Trend	No Trend	No Trend	No Trend

Notes:

1. This analysis uses the Mann-Kendall test for trend. The test indicates whether or not a set of data is increasing or decreasing at a 95% degree of confidence.
2. A result of "No Trend" is an indication that the data set is not increasing or decreasing significantly at the degree of confidence evaluated, or that the data does not fit the statistical model. It may indicate a stable trend, or it may indicate that the data is not sufficient to establish trend.

References:

1. EPA Practical Methods for Data Analysis, EPA QA/G-9 QA00 UPDATE, July 2000.

Mann-Kendall Analysis: Data Entry
 CooperVision, Inc.
 Scottsville, New York
 VCA V00157-8

1,1,1-Trichloroethane													
Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204	Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204
Spring 2002	300	8.5	0.125 U	0.0125 U	0.0025 U	0.01	Fall 2002	260	3.4	0.025 U	0.0065 U	0.0025 U	0.011
Spring 2003	320	0.125 U	0.125 U	0.25 U	0.0025 U	0.0025 U	Fall 2003	250	0.23	0.0125 U	0.25 U	0.0025 U	0.006
Spring 2004	140	0.9	0.0125 U	0.0125 U	0.0025 U	0.006	Fall 2004	100	0.42	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2005	76	0.23	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2005	80	0.17	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2006	57	0.05 U	0.025 U	0.025 U	0.0025 U	0.0025 U	Fall 2006	62	0.05 U	0.005 U	0.0025 U	0.0025 U	0.097
Spring 2007	41	0.14	0.005 U	0.125 U	0.0025 U	0.03	Fall 2007	84	0.05 U	0.0125 U	0.125 U	0.0025 U	0.0025 U
Spring 2008	42	0.05 U	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2008	57	0.05 U	0.0065 U	0.125 U	0.0025 U	0.0025 U
Spring 2009	48	0.05 U	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2009	99	0.05 U	0.0065 U	0.125 U	0.0025 U	0.0025 U
Spring 2010	140	0.025 U	0.0065 U	0.125 U	0.0025 U	0.0025 U	Fall 2010	160	0.025 U	0.0065 U	0.25 U	0.0025 U	0.0063
Spring 2011	130	0.025 U	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2011	110	0.025 U	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2012	120	0.025 U	0.0125 U	0.125 U	0.0025 U	0.0051	Fall 2012	210	0.025 U	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2013	140	0.0125 U	0.0125 U	0.065 U	0.0025 U	0.0025 U	Fall 2013	110	0.025 U	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2014	75	0.0125 U	0.005 U	0.065 U	0.0025 U	0.005	Fall 2014	60	0.025 U	0.005 U	0.065 U	0.0025 U	0.0025 U
Spring 2015	61	0.0019	0.025 U	0.065 U	0.0017	0.0066	Fall 2015	43	0.025 U	0.025 U	0.065 U	0.0025 U	0.0025 U
Spring 2016	57	0.0065 U	0.0025 U	0.05 U	0.0025 U	0.0025 U	Fall 2016						
Spring 2017							Fall 2017						
Spring 2018							Fall 2018						
Spring 2019							Fall 2019						
Spring 2020							Fall 2020						

Mann-Kendall Analysis: Data Entry
 CooperVision, Inc.
 Scottsville, New York
 VCA V00157-8

1,1-Dichloroethane													
Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204	Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204
Spring 2002	290	2.4	9.9	0.82	0.0025 U	0.01	Fall 2002	260	3.9	2.2	11	0.0025 U	0.01
Spring 2003	290	8.4	7	13	0.0025 U	0.006	Fall 2003	210	0.56	0.4	1.5	0.0025 U	0.008
Spring 2004	200	1	0.56	0.52	0.0025 U	0.006	Fall 2004	230	3.1	0.6	0.25 U	0.0025 U	0.0025 U
Spring 2005	240	0.68	0.79	6.8	0.0025 U	0.0068	Fall 2005	230	1	0.49	0.25 U	0.0025 U	0.0053
Spring 2006	220	0.34	0.48	0.025 U	0.0025 U	0.0025 U	Fall 2006	270	0.51	0.29	0.016	0.0025 U	0.18
Spring 2007	230	0.93	0.31	0.054	0.0025 U	0.074	Fall 2007	390	0.22	0.24	0.125 U	0.0064	0.007
Spring 2008	200	0.36	0.15	0.125 U	0.0053	0.0056	Fall 2008	200	0.36	0.09	0.125 U	0.0025 U	0.006
Spring 2009	200	0.38	0.17	0.125 U	0.0093	0.0056	Fall 2009	200	0.21	0.11	0.125 U	0.011	0.0063
Spring 2010	230	0.1	0.088	0.125 U	0.013	0.0055	Fall 2010	220	0.16	0.089	0.25 U	0.0025 U	0.013
Spring 2011	300	0.098	0.15	0.25 U	0.016	0.0059	Fall 2011	230	0.052	0.1	0.25 U	0.03	0.0077
Spring 2012	250	0.096	0.17	0.25 U	0.018	0.0082	Fall 2012	250	0.067	0.16	0.25 U	0.051	0.0071
Spring 2013	240	0.077	0.076	0.065 U	0.034	0.0074	Fall 2013	230	0.093	0.13	0.25 U	0.03	0.0074
Spring 2014	220	0.0125 U	0.063	0.065 U	0.036	0.0074	Fall 2014	200	0.062	0.097	0.065 U	0.036	0.0025 U
Spring 2015	240	0.025	0.14	0.089	0.064	0.0089	Fall 2015	200	0.07	0.071	0.065 U	0.072	0.007
Spring 2016	200	0.061	0.037	0.05 U	0.043	0.0053	Fall 2016						
Spring 2017							Fall 2017						
Spring 2018							Fall 2018						
Spring 2019							Fall 2019						
Spring 2020							Fall 2020						

Mann-Kendall Analysis: Data Entry
 CooperVision, Inc.
 Scottsville, New York
 VCA V00157-8

1,1-Dichloroethene													
Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204	Date	MW-205	MW-3	MW-501	MW-502	MW-202	MW-204
Spring 2002	--	2	0.0125 U	0.0125 U	0.0025 U	0.007	Fall 2002	--	1.4	0.025 U	0.014	0.0025 U	0.008
Spring 2003	--	1.2	0.125 U	0.25 U	0.0025 U	0.005	Fall 2003	--	0.57	0.0125 U	0.25 U	0.0025 U	0.005
Spring 2004	--	0.33	0.0125 U	0.14 U	0.0025 U	0.006	Fall 2004	--	0.36	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2005	--	0.099	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2005	--	0.1	0.0125 U	0.25 U	0.0025 U	0.0025 U
Spring 2006	--	0.05 U	0.025 U	0.025 U	0.0025 U	0.0025 U	Fall 2006	--	0.05 U	0.005 U	0.0025 U	0.0025 U	0.009
Spring 2007	--	0.05 U	0.005 U	0.125 U	0.0025 U	0.0025 U	Fall 2007	--	0.05 U	0.0125 U	0.125 U	0.0056	0.0067
Spring 2008	--	0.05 U	0.0125 U	0.125 U	0.0025 U	0.0025 U	Fall 2008	--	0.05 U	0.0065 U	0.125 U	0.0025 U	0.0025 U
Spring 2009	--	0.05 U	0.0125 U	0.125 U	0.005	0.0025 U	Fall 2009	--	0.05 U	0.0065 U	0.125 U	0.0078	0.0067
Spring 2010	--	0.025 U	0.0065 U	0.125 U	0.0085	0.0053	Fall 2010	--	0.025 U	0.0065 U	0.25 U	0.0025 U	0.013
Spring 2011	--	0.025 U	0.0125 U	0.25 U	0.01	0.0025 U	Fall 2011	--	0.025 U	0.0125 U	0.25 U	0.02	0.0087
Spring 2012	--	0.025 U	0.0125 U	0.25 U	0.014	0.0084	Fall 2012	--	0.025 U	0.0125 U	0.25 U	0.04	0.0067
Spring 2013	--	0.0125 U	0.0125 U	0.065 U	0.032	0.0092	Fall 2013	--	0.025 U	0.0125 U	0.065 U	0.026	0.0093
Spring 2014	--	0.0125 U	0.005 U	0.065 U	0.036	0.0094	Fall 2014	--	0.025 U	0.005 U	0.065 U	0.035	0.0061
Spring 2015	--	0.0025 U	0.025 U	0.065 U	0.05	0.0088	Fall 2015	--	0.025 U	0.025 U	0.065 U	0.059	0.006
Spring 2016	--	0.0065 U	0.0025 U	0.05 U	0.032 U	0.0025 U	Fall 2016	--					
Spring 2017							Fall 2017	--					
Spring 2018							Fall 2018	--					
Spring 2019							Fall 2019	--					
Spring 2020							Fall 2020	--					

Mann-Kendall Analysis: 1,1,1-TCA (2006-2015)
CooperVision, Inc.
Scottsville, New York
VCA V00157-8

Degree of Confidence (Alpha): 0.05

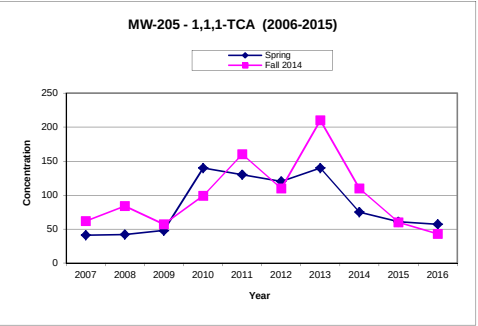
MW-205

S Value	
Neg	Pos
18	26
S Value	8
n	10
P Value	0.242
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	41	42	48	140	130	120	140	75	61	57
	41	1	7	99	89	79	99	34	20	16
	42		6	98	88	78	98	33	19	15
	48			92	82	72	92	27	13	9
	140				-10	-20	0	-65	-79	-83
	130					-10	10	-55	-69	-73
	120						20	-45	-59	-63
	140							-65	-79	-83
	75								-14	-18
	61									-4
	57									

S Value	
Neg	Pos
21	23
S Value	2
n	10
P Value	0.431
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	62	84	57	99	160	110	210	110	60	43
	62	22	-5	37	98	48	148	48	-2	-19
	84		-27	15	76	26	126	26	-24	-41
	57			42	103	53	153	53	3	-14
	99				61	11	111	11	-39	-56
	160					-50	50	-50	-100	-117
	110						100	0	-50	-67
	210							-100	-150	-167
	110								-50	-67
	60									-17
	43									



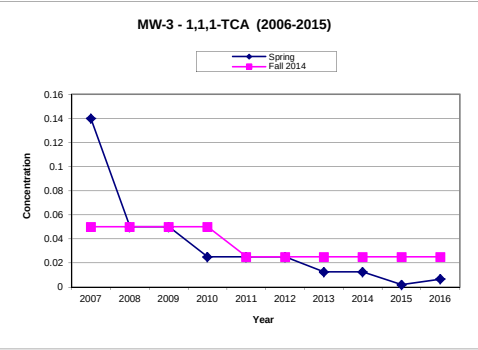
MW-3

S Value	
Neg	Pos
39	1
S Value	-38
n	10
P Value	--
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.14	0.05	0.05	0.025	0.025	0.025	0.0125	0.0125	0.0019	0.0065
	0.14	-0.09	-0.09	-0.115	-0.115	-0.115	-0.1275	-0.1275	-0.1381	-0.1335
	0.05		0	-0.025	-0.025	-0.025	-0.0375	-0.0375	-0.0481	-0.0435
	0.05			-0.025	-0.025	-0.025	-0.0375	-0.0375	-0.0481	-0.0435
	0.025				0	0	-0.0125	-0.0125	-0.0231	-0.0185
	0.025					0	-0.0125	-0.0125	-0.0231	-0.0185
	0.025						-0.0125	-0.0125	-0.0231	-0.0185
	0.0125							0	-0.0106	-0.006
	0.0125								-0.0106	-0.006
	0.0019									0.0046
	0.0065									

S Value	
Neg	Pos
24	0
S Value	-24
n	10
P Value	0.014
Evaluation	Decreasing

Mann-Kendall Trend: Fall										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.05	0.05	0.05	0.05	0.025	0.025	0.025	0.025	0.025	0.025
	0.05	0	0	0	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025
	0.05		0	0	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025
	0.05			0	-0.025	-0.025	-0.025	-0.025	-0.025	-0.025
	0.025				-0.025	-0.025	-0.025	-0.025	-0.025	-0.025
	0.025					0	0	0	0	0
	0.025						0	0	0	0
	0.025							0	0	0
	0.03								0	0
	0.025									0
	0.025									



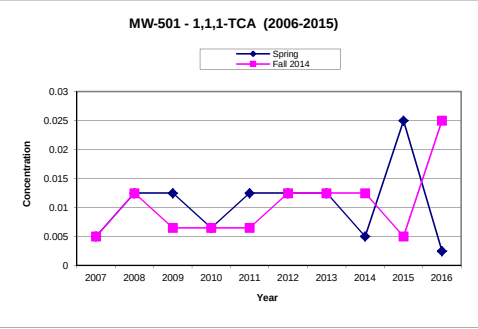
MW-501

S Value	
Neg	Pos
17	17
S Value	0
n	10
P Value	0.5
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.005	0.0125	0.0125	0.0065	0.0125	0.0125	0.0125	0.005	0.025	0.0025
	0.005	0.0075	0.0075	0.0015	0.0075	0.0075	0.0075	0	0.02	-0.0025
	0.0125		0	-0.006	0	0	0	-0.0075	0.0125	-0.01
	0.0125			-0.006	0	0	0	-0.0075	0.0125	-0.01
	0.0065				0.006	0.006	0.006	-0.0015	0.0185	-0.004
	0.0125					0	0	-0.0075	0.0125	-0.01
	0.0125						0	-0.0075	0.0125	-0.01
	0.0125							-0.0075	0.0125	-0.01
	0.005								0.02	-0.0025
	0.025									-0.0225
	0.0025									

S Value	
Neg	Pos
10	25
S Value	15
n	10
P Value	0.108
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.005	0.0125	0.0065	0.0065	0.0065	0.0125	0.0125	0.0125	0.005	0.025
	0.005	0.0075	0.0015	0.0015	0.0015	0.0075	0.0075	0.0075	0	0.02
	0.0125		-0.006	-0.006	-0.006	0	0	0	-0.0075	0.0125
	0.0065			0	0	0.006	0.006	0.006	-0.0015	0.0185
	0.0065				0	0.006	0.006	0.006	-0.0015	0.0185
	0.0125						0	0	-0.0075	0.0125
	0.0125							0	-0.0075	0.0125
	0.0125								-0.0075	0.0125
	0.005									0.02
	0.025									



Mann-Kendall Analysis: 1,1,1-TCA (2006-2015)
CooperVision, Inc.
Scottsville, New York
VCA V00157-8

Degree of Confidence (Alpha): 0.05

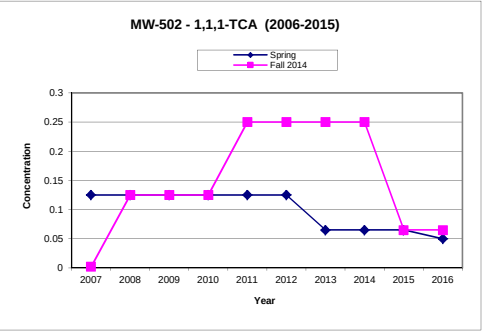
MW-502

S Value	
Neg	Pos
27	0
S Value	-27
n	10
P Value	0.0083
Evaluation	Decreasing

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.125	0.125	0.125	0.125	0.125	0.125	0.065	0.065	0.065	0.05
0.125		0	0	0	0	0	-0.06	-0.06	-0.06	-0.075
0.125			0	0	0	0	-0.06	-0.06	-0.06	-0.075
0.125				0	0	0	-0.06	-0.06	-0.06	-0.075
0.125					0	0	-0.06	-0.06	-0.06	-0.075
0.125						0	-0.06	-0.06	-0.06	-0.075
0.125							-0.06	-0.06	-0.06	-0.075
0.065								0	0	-0.015
0.065									0	-0.015
0.065										-0.015
0.05										

S Value	
Neg	Pos
14	21
S Value	7
n	10
P Value	0.3
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.0025	0.125	0.125	0.125	0.25	0.25	0.25	0.25	0.065	0.065
0.0025		0.1225	0.1225	0.1225	0.2475	0.2475	0.2475	0.2475	0.0625	0.0625
0.125			0	0	0.125	0.125	0.125	0.125	-0.06	-0.06
0.125				0	0.125	0.125	0.125	0.125	-0.06	-0.06
0.125					0.125	0.125	0.125	0.125	-0.06	-0.06
0.25						0	0	0	-0.185	-0.185
0.25							0	0	-0.185	-0.185
0.25								0	-0.185	-0.185
0.25									-0.185	-0.185
0.065										0
0.065										



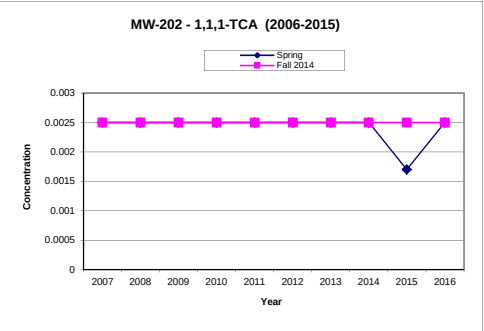
MW-202

S Value	
Neg	Pos
8	1
S Value	-7
n	10
P Value	0.3
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0017	0.0025
0.0025		0	0	0	0	0	0	0	-0.0008	0
0.0025			0	0	0	0	0	0	-0.0008	0
0.0025				0	0	0	0	0	-0.0008	0
0.0025					0	0	0	0	-0.0008	0
0.0025						0	0	0	-0.0008	0
0.0025							0	0	-0.0008	0
0.0025								0	-0.0008	0
0.0025									-0.0008	0
0.0017										0.0008
0.0025										

S Value	
Neg	Pos
0	0
S Value	0
n	10
P Value	0.5
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025	0.0025
0.0025		0	0	0	0	0	0	0	0	0
0.0025			0	0	0	0	0	0	0	0
0.0025				0	0	0	0	0	0	0
0.0025					0	0	0	0	0	0
0.0025						0	0	0	0	0
0.0025							0	0	0	0
0.0025								0	0	0
0.0025									0	0
0.0025										0



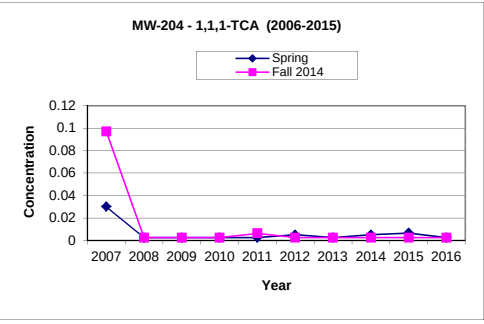
MW-204

S Value	
Neg	Pos
14	16
S Value	2
n	10
P Value	0.431
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.03	0.0025	0.0025	0.0025	0.0025	0.0051	0.0025	0.005	0.0066	0.0025
0.03		-0.0275	-0.0275	-0.0275	-0.0275	-0.0249	-0.0275	-0.025	-0.0234	-0.0275
0.0025			0	0	0	0.0026	0	0.0025	0.0041	0
0.0025				0	0	0.0026	0	0.0025	0.0041	0
0.0025					0	0.0026	0	0.0025	0.0041	0
0.0025						0.0026	0	0.0025	0.0041	0
0.0051							-0.0026	-0.0001	0.0015	-0.0026
0.0025								0.0025	0.0041	0
0.005									0.0016	-0.0025
0.0066										-0.0041
0.0025										

S Value	
Neg	Pos
14	3
S Value	-11
n	10
P Value	0.019
Evaluation	Decreasing

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.097	0.0025	0.0025	0.0025	0.0063	0.0025	0.0025	0.0025	0.0025	0.0025
0.097		-0.0945	-0.0945	-0.0945	-0.0907	-0.0945	-0.0945	-0.0945	-0.0945	-0.0945
0.0025			0	0	0.0038	0	0	0	0	0
0.0025				0	0.0038	0	0	0	0	0
0.0025					0.0038	0	0	0	0	0
0.0063						-0.0038	-0.0038	-0.0038	-0.0038	-0.0038
0.0025							0	0	0	0
0.0025								0	0	0
0.0025									0	0
0.0025										0



Mann-Kendall Analysis: 1,1-DCA (2006-2015)
CooperVision, Inc.
Scottsville, New York
VCA V00157-8

Degree of Confidence (Alpha): 0.05

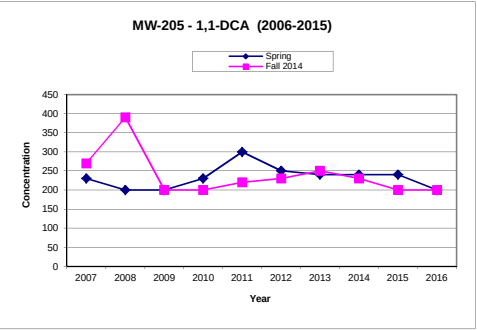
MW-205

S Value	
Neg	Pos
16	23
S Value	7
n	10
P Value	0.3
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	230	200	200	230	300	250	240	240	240	200
230		-30	-30	0	70	20	10	10	10	-30
200			0	30	100	50	40	40	40	0
200				30	100	50	40	40	40	0
230					70	20	10	10	10	-30
300						-50	-60	-60	-60	-100
250							-10	-10	-10	-50
240								0	0	-40
220									20	-20
240										-40
200										

S Value	
Neg	Pos
25	13
S Value	-12
n	10
P Value	0.146
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	270	390	200	200	220	230	250	230	200	200
270		120	-70	-70	-50	-40	-20	-40	-70	-70
390			-190	-190	-170	-160	-140	-160	-190	-190
200				0	20	30	50	30	0	0
200					20	30	50	30	0	0
220						10	30	10	-20	-20
230							20	0	-30	-30
250								-20	-50	-50
230									-30	-30
200										0
200										



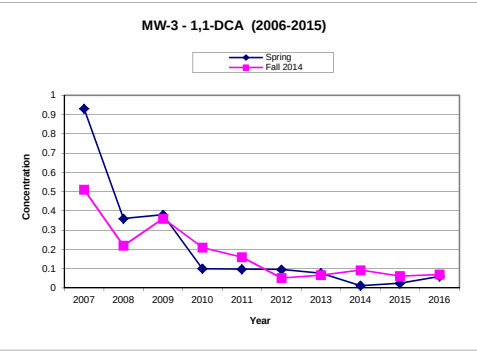
MW-3

S Value	
Neg	Pos
41	4
S Value	-37
n	10
P Value	0.00018
Evaluation	Decreasing

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.93	0.36	0.38	0.1	0.098	0.096	0.077	0.0125	0.025	0.061
0.93		-0.57	-0.55	-0.83	-0.832	-0.834	-0.853	-0.9175	-0.905	-0.869
0.36			0.02	-0.26	-0.262	-0.264	-0.283	-0.3475	-0.335	-0.299
0.38				-0.28	-0.282	-0.284	-0.303	-0.3675	-0.355	-0.319
0.1					-0.002	-0.004	-0.023	-0.0875	-0.075	-0.039
0.098						-0.002	-0.021	-0.0855	-0.073	-0.037
0.096							-0.019	-0.0835	-0.071	-0.035
0.077								-0.0645	-0.052	-0.016
0.0125									0.0125	0.0485
0.025										0.036
0.061										

S Value	
Neg	Pos
37	8
S Value	-29
n	10
P Value	0.0046
Evaluation	Decreasing

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.51	0.22	0.36	0.21	0.16	0.052	0.067	0.093	0.062	0.07
0.51		-0.29	-0.15	-0.3	-0.35	-0.458	-0.443	-0.417	-0.448	-0.44
0.22			0.14	-0.01	-0.06	-0.168	-0.153	-0.127	-0.158	-0.15
0.36				-0.15	-0.2	-0.308	-0.293	-0.267	-0.298	-0.29
0.21					-0.05	-0.158	-0.143	-0.117	-0.148	-0.14
0.16						-0.108	-0.093	-0.067	-0.098	-0.09
0.052							0.015	0.041	0.01	0.018
0.067								0.026	-0.005	0.003
0.093									-0.031	-0.023
0.062										0.008
0.07										



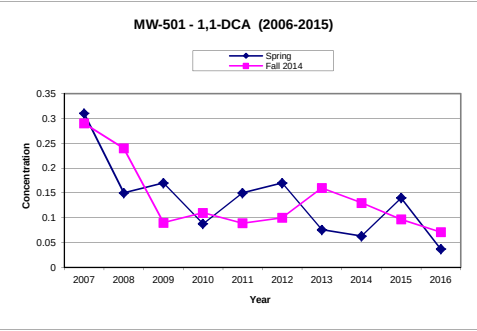
MW-501

S Value	
Neg	Pos
35	8
S Value	-27
n	10
P Value	0.0083
Evaluation	Decreasing

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.31	0.15	0.17	0.088	0.15	0.17	0.076	0.063	0.14	0.037
0.31		-0.16	-0.14	-0.222	-0.16	-0.14	-0.234	-0.247	-0.17	-0.273
0.15			0.02	-0.062	0	0.02	-0.074	-0.087	-0.01	-0.113
0.17				-0.082	-0.02	0	-0.094	-0.107	-0.03	-0.133
0.088					0.062	0.082	-0.012	-0.025	0.052	-0.051
0.15						0.02	-0.074	-0.087	-0.01	-0.113
0.17							-0.094	-0.107	-0.03	-0.133
0.076								-0.013	0.064	-0.039
0.063									0.077	-0.026
0.14										-0.103
0.037										

S Value	
Neg	Pos
32	13
S Value	-19
n	10
P Value	0.054
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.29	0.24	0.09	0.11	0.089	0.1	0.16	0.13	0.097	0.071
0.29		-0.05	-0.2	-0.18	-0.201	-0.19	-0.13	-0.16	-0.193	-0.219
0.24			-0.15	-0.13	-0.151	-0.14	-0.08	-0.11	-0.143	-0.169
0.09				0.02	-0.001	0.01	0.07	0.04	0.007	-0.019
0.11					-0.021	-0.01	0.05	0.02	-0.013	-0.039
0.089						0.011	0.071	0.041	0.008	-0.018
0.1							0.06	0.03	-0.003	-0.029
0.16								-0.03	-0.063	-0.089
0.13									-0.033	-0.059
0.097										-0.026
0.071										



Mann-Kendall Analysis: 1,1-DCA (2006-2015)
CooperVision, Inc.
Scottsville, New York
VCA V00157-8

Degree of Confidence (Alpha): 0.05

MW-502

S Value	
Neg	Pos
24	16
S Value	-8
n	10
P Value	0.242
Evaluation	No Trend

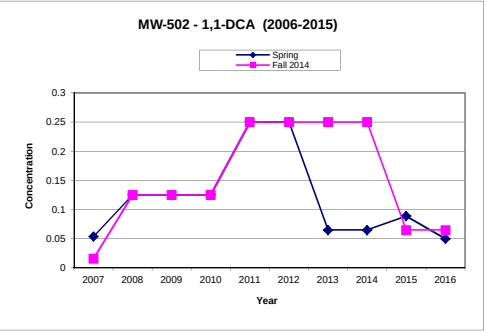
Mann-Kendall Trend: Spring

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.054	0.125	0.125	0.125	0.25	0.25	0.065	0.065	0.089	0.05
	0.054	0.071	0.071	0.071	0.196	0.196	0.011	0.011	0.035	-0.004
	0.125		0	0	0.125	0.125	-0.06	-0.06	-0.036	-0.075
	0.125			0	0.125	0.125	-0.06	-0.06	-0.036	-0.075
	0.125				0.125	0.125	-0.06	-0.06	-0.036	-0.075
	0.25					0	-0.185	-0.185	-0.161	-0.2
	0.25						-0.185	-0.185	-0.161	-0.2
	0.065							0	0.024	-0.015
	0.065								0.024	-0.015
	0.089									-0.039
	0.05									

S Value	
Neg	Pos
14	21
S Value	7
n	10
P Value	0.3
Evaluation	No Trend

Mann-Kendall Trend: Fall

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.016	0.125	0.125	0.125	0.25	0.25	0.25	0.25	0.065	0.065
	0.016	0.109	0.109	0.109	0.234	0.234	0.234	0.234	0.049	0.049
	0.125		0	0	0.125	0.125	0.125	0.125	-0.06	-0.06
	0.125			0	0.125	0.125	0.125	0.125	-0.06	-0.06
	0.125				0.125	0.125	0.125	0.125	-0.06	-0.06
	0.25					0	0	0	-0.185	-0.185
	0.25						0	0	-0.185	-0.185
	0.25							0	-0.185	-0.185
	0.25								-0.185	-0.185
	0.065									0
	0.065									



MW-202

S Value	
Neg	Pos
1	44
S Value	43
n	10
P Value	0.0000028
Evaluation	Increasing

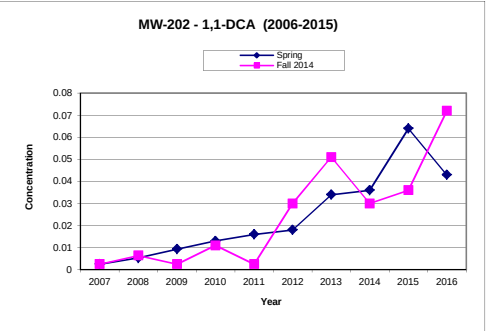
Mann-Kendall Trend: Spring

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.0025	0.0053	0.0093	0.013	0.016	0.018	0.034	0.036	0.064	0.043
	0.0025	0.0028	0.0068	0.0105	0.0135	0.0155	0.0315	0.0335	0.0615	0.0405
	0.0053		0.004	0.0077	0.0107	0.0127	0.0287	0.0307	0.0587	0.0377
	0.0093			0.0037	0.0067	0.0087	0.0247	0.0267	0.0547	0.0337
	0.013				0.003	0.005	0.021	0.023	0.051	0.03
	0.016					0.002	0.018	0.02	0.048	0.027
	0.018						0.016	0.018	0.046	0.025
	0.034							0.002	0.03	0.009
	0.036								0.028	0.007
	0.064									-0.021
	0.043									

S Value	
Neg	Pos
5	36
S Value	31
n	10
P Value	0.0023
Evaluation	Increasing

Mann-Kendall Trend: Fall

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.0025	0.0064	0.0025	0.011	0.0025	0.03	0.051	0.03	0.036	0.072
	0.0025	0.0039	0	0.0085	0	0.0275	0.0485	0.0275	0.0335	0.0695
	0.0064		-0.0039	0.0046	-0.0039	0.0236	0.0446	0.0236	0.0296	0.0656
	0.0025			0.0085	0	0.0275	0.0485	0.0275	0.0335	0.0695
	0.011				-0.0085	0.019	0.04	0.019	0.025	0.061
	0.0025					0.0275	0.0485	0.0275	0.0335	0.0695
	0.03						0.021	0	0.006	0.042
	0.051							-0.021	-0.015	0.021
	0.03								0.006	0.042
	0.036									0.036
	0.072									



MW-204

S Value	
Neg	Pos
21	22
S Value	1
n	10
P Value	0.5
Evaluation	No Trend

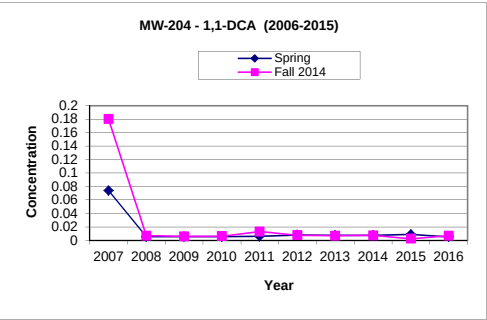
Mann-Kendall Trend: Spring

Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.074	0.0056	0.0056	0.0055	0.0059	0.0082	0.0074	0.0074	0.0089	0.0053
	0.074	-0.0684	-0.0684	-0.0685	-0.0681	-0.0658	-0.0666	-0.0666	-0.0651	-0.0687
	0.0056		0	-0.0001	0.0003	0.0026	0.0018	0.0018	0.0033	-0.0003
	0.0056			-0.0001	0.0003	0.0026	0.0018	0.0018	0.0033	-0.0003
	0.0055				0.0004	0.0027	0.0019	0.0019	0.0034	-0.0002
	0.0059					0.0023	0.0015	0.0015	0.003	-0.0006
	0.0082						-0.0008	-0.0008	0.0007	-0.0029
	0.0074							0	0.0015	-0.0021
	0.0074								0.0015	-0.0021
	0.0089									-0.0036
	0.0053									

S Value	
Neg	Pos
27	17
S Value	-10
n	10
P Value	0.019
Evaluation	Decreasing

Mann-Kendall Trend: Fall

Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.18	0.007	0.006	0.0063	0.013	0.0077	0.0071	0.0074	0.0025	0.007
	0.18	-0.173	-0.174	-0.1737	-0.167	-0.1723	-0.1729	-0.1726	-0.1775	-0.173
	0.007		-0.001	-0.0007	0.006	0.0007	0.0001	0.0004	-0.0045	0
	0.006			0.0003	0.007	0.0017	0.0011	0.0014	-0.0035	0.001
	0.0063				0.0067	0.0014	0.0008	0.0011	-0.0038	0.0007
	0.013					-0.0053	-0.0059	-0.0056	-0.0105	-0.006
	0.0077						-0.0006	-0.0003	-0.0052	-0.0007
	0.0071							0.0003	-0.0046	-0.0001
	0.0074								-0.0049	-0.0004
	0.0025									0.0045
	0.007									



MW-205

Mann-Kendall Trend: Spring

S Value	
Neg	Pos
0	0
S Value	0
n	10
P Value	0.5
Evaluation	No Trend

Mann-Kendall Trend: Fall

The graph displays the concentration of MW-205 - 1,1-DCE over a ten-year period from 2007 to 2016. The y-axis represents concentration, ranging from 0 to 1.0. The x-axis represents the year. Two data series are plotted: Spring (blue line with diamond markers) and Fall (magenta line with square markers). Both series show concentrations that are consistently near zero throughout the entire period.

Year	Spring Concentration	Fall Concentration
2007	0.01	0.01
2008	0.01	0.01
2009	0.01	0.01
2010	0.01	0.01
2011	0.01	0.01
2012	0.01	0.01
2013	0.01	0.01
2014	0.01	0.01
2015	0.01	0.01
2016	0.01	0.01

Mann-Kendall Trend: Spring

S Value	
Neg	Pos
24	0
S Value	-24
n	10
P Value	0.014
Evaluation	Decreasing

Mann-Kendall Trend: Fall

MW-3 - 1,1-DCE (2006-2015)

Year	Spring	Fall 2014
2007	0.05	0.05
2008	0.05	0.05
2009	0.05	0.05
2010	0.025	0.05
2011	0.025	0.025
2012	0.025	0.025
2013	0.012	0.025
2014	0.012	0.025
2015	0.002	0.025
2016	0.007	0.025

Mann-Kendall Trend: Spring

S Value	
Neg	Pos
10	25
S Value	15
n	10
P Value	0.108
Evaluation	No Trend

Mann-Kendall Trend: Fall

MW-501 - 1,1-DCE (2006-2015)

Year	Spring	Fall 2014
2007	0.005	0.005
2008	0.012	0.012
2009	0.012	0.006
2010	0.006	0.006
2011	0.012	0.006
2012	0.012	0.012
2013	0.012	0.012
2014	0.005	0.012
2015	0.025	0.005
2016	0.002	0.025

Mann-Kendall Analysis: 1,1-DCE (2006-2015)
CooperVision, Inc.
Scottsville, New York
VCA V00157-8

Degree of Confidence (Alpha): 0.05

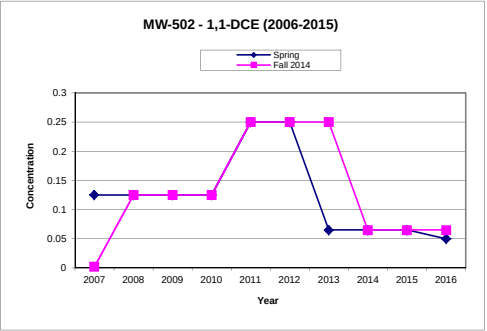
MW-502

S Value	
Neg	Pos
27	8
S Value	-19
n	10
P Value	0.054
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.125	0.125	0.125	0.125	0.25	0.25	0.065	0.065	0.065	0.05
	0.125	0	0	0	0.125	0.125	-0.06	-0.06	-0.06	-0.075
	0.125		0	0	0.125	0.125	-0.06	-0.06	-0.06	-0.075
	0.125			0	0.125	0.125	-0.06	-0.06	-0.06	-0.075
	0.125				0.125	0.125	-0.06	-0.06	-0.06	-0.075
	0.25					0	-0.185	-0.185	-0.185	-0.2
	0.25						-0.185	-0.185	-0.185	-0.2
	0.065							0	0	-0.015
	0.065								0	-0.015
	0.065									-0.015
	0.05									

S Value	
Neg	Pos
18	18
S Value	0
n	10
P Value	0.5
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.0025	0.125	0.125	0.125	0.25	0.25	0.25	0.065	0.065	0.065
	0.0025	0.1225	0.1225	0.1225	0.2475	0.2475	0.2475	0.0625	0.0625	0.0625
	0.125		0	0	0.125	0.125	0.125	-0.06	-0.06	-0.06
	0.125			0	0.125	0.125	0.125	-0.06	-0.06	-0.06
	0.125				0.125	0.125	0.125	-0.06	-0.06	-0.06
	0.25					0	0	-0.185	-0.185	-0.185
	0.25						0	-0.185	-0.185	-0.185
	0.25							-0.185	-0.185	-0.185
	0.065								0	0
	0.065									0
	0.065									
	0.065									



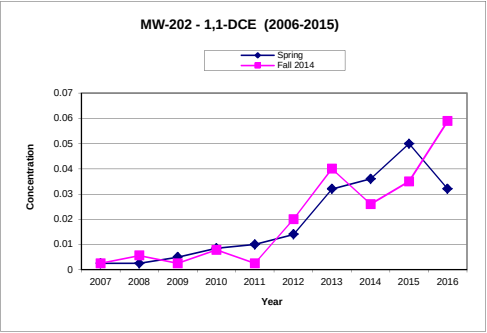
MW-202

S Value	
Neg	Pos
2	41
S Value	39
n	10
P Value	0.000058
Evaluation	Increasing

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.0025	0.0025	0.005	0.0085	0.01	0.014	0.032	0.036	0.05	0.032
	0.0025	0	0.0025	0.006	0.0075	0.0115	0.0295	0.0335	0.0475	0.0295
	0.005			0.0035	0.005	0.009	0.027	0.031	0.045	0.027
	0.0085				0.0015	0.0055	0.0235	0.0275	0.0415	0.0235
	0.01					0.004	0.022	0.026	0.04	0.022
	0.014						0.018	0.022	0.036	0.018
	0.032						0.004	0.022	0.036	0.018
	0.036							0.014	-0.004	-0.018
	0.05									
	0.032									

S Value	
Neg	Pos
5	37
S Value	32
n	10
P Value	0.0011
Evaluation	Increasing

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.0025	0.0056	0.0025	0.0078	0.0025	0.02	0.04	0.026	0.035	0.059
	0.0025	0.0031	0	0.0053	0	0.0175	0.0375	0.0235	0.0325	0.0565
	0.0056		-0.0031	0.0022	-0.0031	0.0144	0.0344	0.0204	0.0294	0.0534
	0.0025			0.0053	0	0.0175	0.0375	0.0235	0.0325	0.0565
	0.0078				-0.0053	0.0122	0.0322	0.0182	0.0272	0.0512
	0.0025					0.0175	0.0375	0.0235	0.0325	0.0565
	0.02						0.02	0.006	0.015	0.039
	0.04							-0.014	-0.005	0.019
	0.026								0.009	0.033
	0.035									0.024
	0.059									



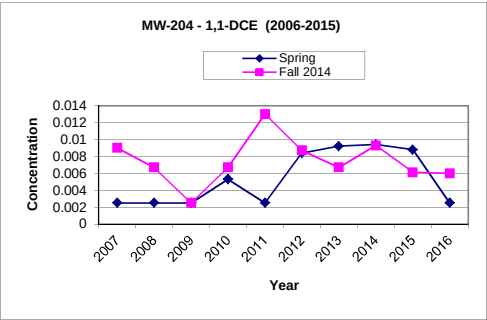
MW-204

S Value	
Neg	Pos
8	27
S Value	19
n	10
P Value	0.054
Evaluation	No Trend

Mann-Kendall Trend: Spring										
Year	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Data	0.0025	0.0025	0.0025	0.0053	0.0025	0.0084	0.0092	0.0094	0.0088	0.0025
	0.0025	0	0	0.0028	0	0.0059	0.0067	0.0069	0.0063	0
	0.0025		0	0.0028	0	0.0059	0.0067	0.0069	0.0063	0
	0.0025			0.0028	0	0.0059	0.0067	0.0069	0.0063	0
	0.0053				-0.0028	0.0031	0.0039	0.0041	0.0035	-0.0028
	0.0025					0.0059	0.0067	0.0069	0.0063	0
	0.0084						0.0008	0.001	0.0004	-0.0059
	0.0092							0.0002	-0.0004	-0.0067
	0.0094								-0.0006	-0.0069
	0.0088									-0.0063
	0.0025									

S Value	
Neg	Pos
25	17
S Value	-8
n	10
P Value	0.242
Evaluation	No Trend

Mann-Kendall Trend: Fall										
Year	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015
Data	0.009	0.0067	0.0025	0.0067	0.013	0.0087	0.0067	0.0093	0.0061	0.006
	0.009	-0.0023	-0.0065	-0.0023	0.004	-0.0003	-0.0023	0.0003	-0.0029	-0.003
	0.0067		-0.0042	0	0.0063	0.002	0	0.0026	-0.0006	-0.0007
	0.0025			0.0042	0.0105	0.0062	0.0042	0.0068	0.0036	0.0035
	0.0067				0.0063	0.002	0	0.0026	-0.0006	-0.0007
	0.013					-0.0043	-0.0063	-0.0037	-0.0069	-0.007
	0.0087						-0.002	0.0006	-0.0026	-0.0027
	0.0067							0.0026	-0.0006	-0.0007
	0.0093								-0.0032	-0.0033
	0.0061									-0.0001
	0.006									



APPENDIX G

SSD System Maintenance and Monitoring Documentation

 CooperVision™	STANDARD OPERATING PROCEDURE	Doc. No. SOP142-30
	Title:	Revision: 5
	Sub-Slab Depressurization System	
	Computer Code: Sub-Slab	Page 1 of 2

1 Purpose

- 1.1 This Standard Operating Procedure (SOP) describes the procedure for maintaining the Sub-Slab Depressurization (SSD) system at CooperVision in Scottsville, NY by performing the PM and making sure system is working properly.

2 Scope

- 2.1 This procedure applies to the Sub-Slab Depressurization (SSD) system at CooperVision.
- 2.2 This PM will be performed monthly.

3 Supporting Documents

- 3.1 The following documents are referenced in this SOP:
- 3.1.1 FM00916 – Monthly SSD System Monitoring
 - 3.1.2 D11163 - Haley and Aldrich SSD Suction Locations Drawing
 - 3.1.3 D11162 – Scottsville Site Map

4 Definitions

- 4.1 SSD-Sub-Slab Depressurization System
- 4.2 PM –Preventive Maintenance
- 4.3 SV-Scottsville
- 4.4 NCR-Non Conformance Report

5 Responsibility

- 5.1 It is the responsibility of the Maintenance department to perform this PM.

6 Safety

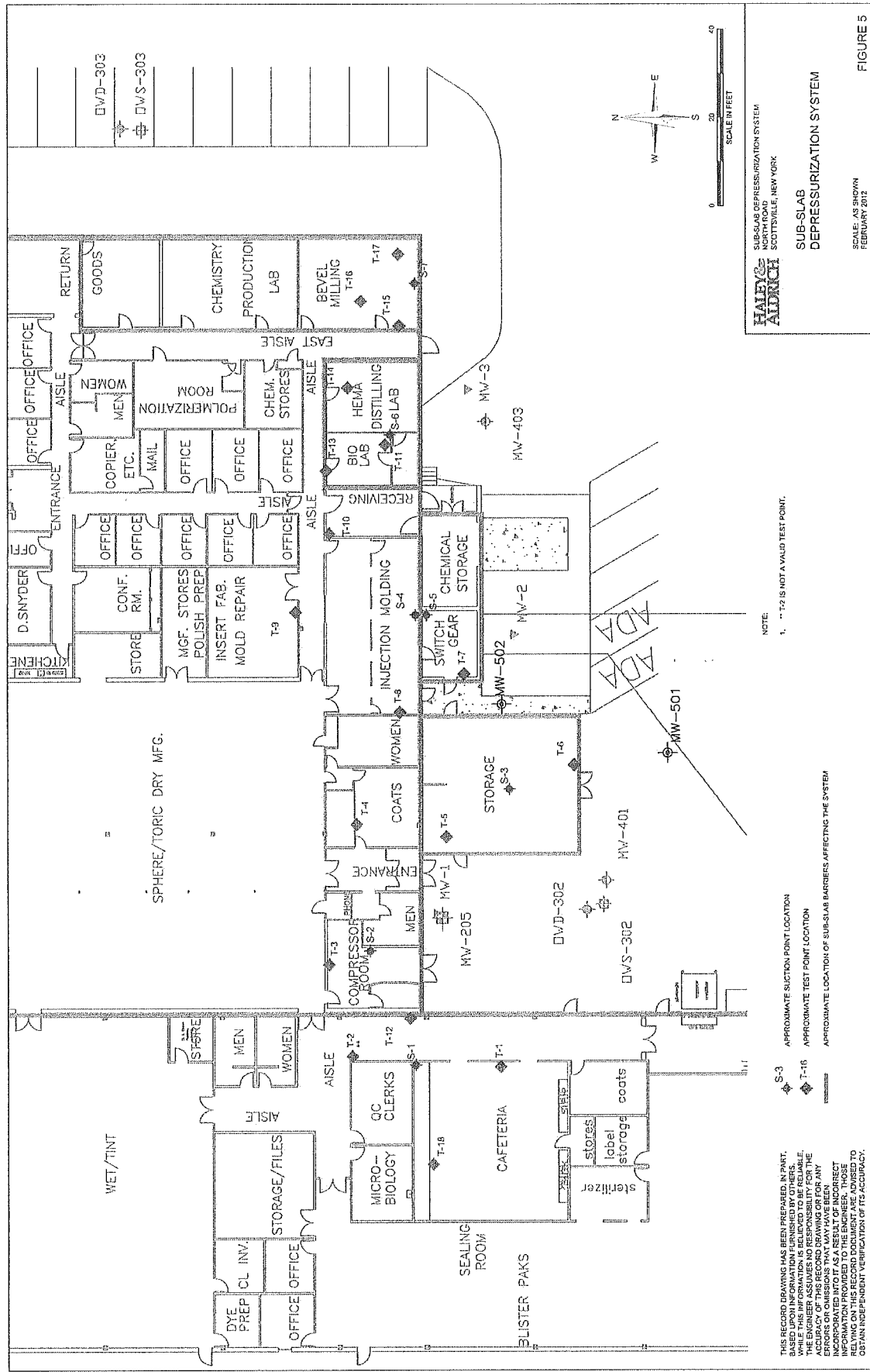
- 6.1 Not applicable; there are no safety requirements.

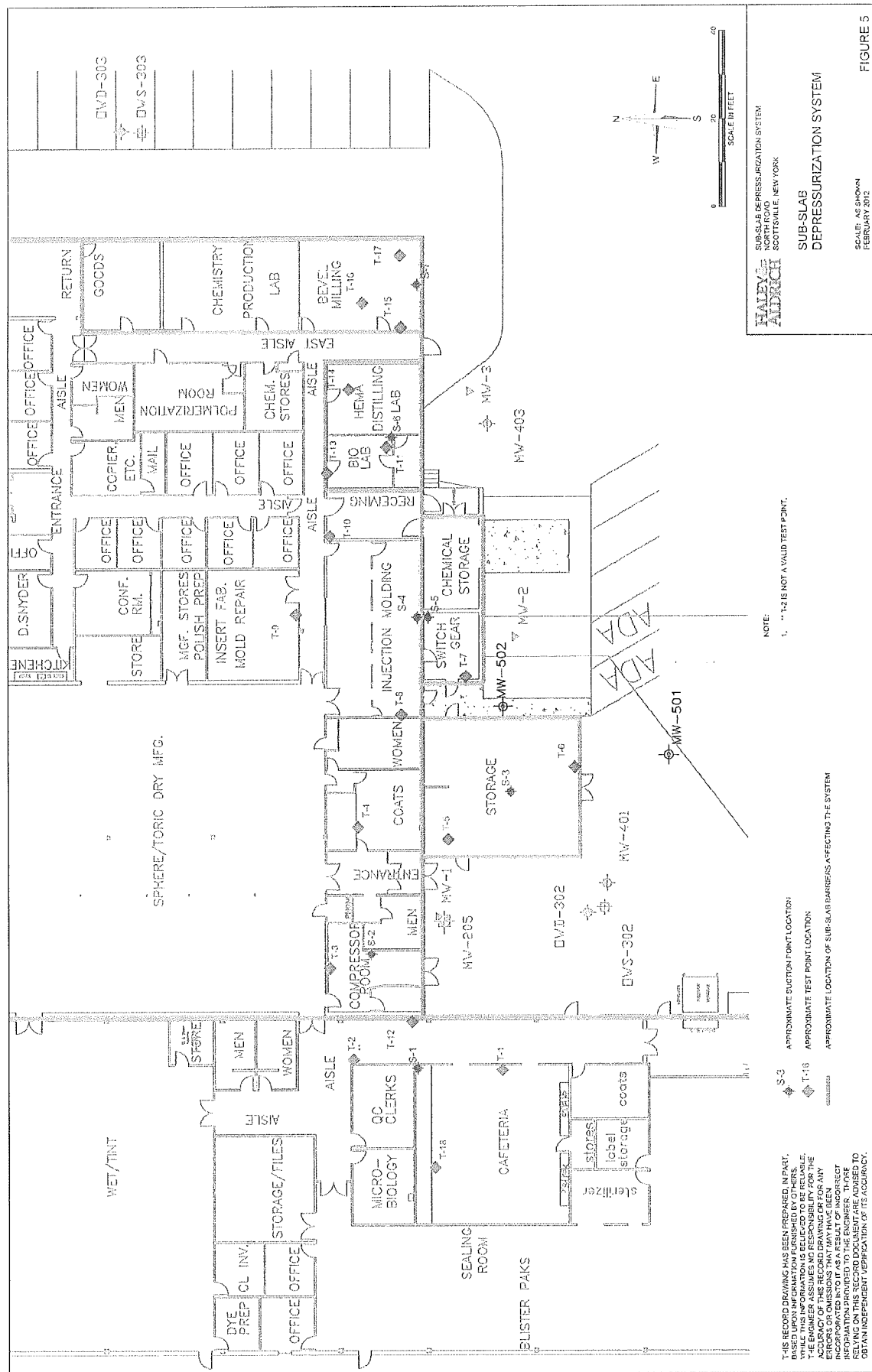
7 Procedure

- 7.1 Refer to attached drawing D11163 for all manometers and depressurization ports locations at the Scottsville facility.
- 7.2 The Maintenance department will perform below activities monthly.
- 7.2.1 Record manometers readings of each location on Monthly SSD System Monitoring form FM00916.
 - 7.2.2 **Notify facility Maintenance Manager if any reading is zero.**
 - 7.2.3 Perform following routine maintenance at the time of above manometer readings:
 - 7.2.3.1 A visual inspection of the complete system (i.e.: roof fan, roof and inside piping, labeling system, urethane seal).

 CooperVision™	STANDARD OPERATING PROCEDURE	Doc. No. SOP142-30
	Title:	Revision: 5
	Sub-Slab Depressurization System	Page 2 of 2
Computer Code: Sub-Slab		

- 7.2.3.2 A visual inspection of manometers.
- 7.2.3.3 Inspection of exhaust points to verify that the air intakes have not been located nearby.
- 7.2.3.4 Audible inspection to verify that a fan's operational performance
- 7.2.3.5 After the inspection; Check "visual inspection" column and write any comments/remarks on both forms.
- 7.2.4 Using drawing D11163 check all depressurization ports to assure they are easily accessible. If ports are not accessible (covered/blocked) please notify the Maintenance Manager or Supervisor immediately.
- 7.2.5 Fill out and complete PM work order and attach summary form FM00916. Forward all documents to facility maintenance manager.
- 7.3 Facility manager will perform below activities:
 - 7.3.1 Email results form FM00916 Yearly to Hailey & Aldrich contact; Scottsville Engineering Manager and Scottsville General Manager.
 - 7.3.2 Email Hailey & Aldrich contact (copy to Scottsville Engineering Manager and Scottsville General Manager) if any monomer reading is zero and if any equipment is observed to be malfunctioning. Initiate a NCR in Agile system; write NCR number on form FM00916 and forward form with completed PM work order to calibration department to file at proper location.
 - 7.3.3 Hailey & Aldrich will make arrangements working with contractor and SV facility Maintenance Manager to perform repair and to get SSD restarted.
 - 7.3.4 Facility manager will make a folder identifying it with NCR number (in case of any failure) to collect all documents like fan specifications, vendor installation document etc. Once fan is installed and all documents collected, folder will be forwarded to calibration department to file.
 - 7.3.5 Calibration department will file folder at proper location.





	TITLE: Monthly SSD System Monitoring	FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30	REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
Location (Address): Scottsville, New York
Client: CooperVision, Inc.

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
5-9-16	DPH	3.8	3.8	1.5	2.2	3.5	1.7	OK	

Notes:
 Document monthly readings
 Email results yearly to contacts
 Readings are in inches of water column (in. w.c.)

Contacts:
 Mark Ramsdell
 Haley & Aldrich 321-4262
Mramsdell@HaleyAldrich.com

 CooperVision	TITLE: Monthly SSD System Monitoring	FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30	REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Scottsville, New York
Location (Address):
 CooperVision, Inc.
Client:

Date	Initials	Vacuum Reading (in. w.c.)					Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport	
4-15-16	DWR	3.8	3.8	1.5	2.2	3.7	1.7	OK

Notes:
 Document monthly readings
 Email results yearly to contacts
 Readings are in inches of water column (in. w.c.)

Contacts:
 Mark Ramsdell
 Haley & Aldrich 321-4262
Mramsdell@HaleyAldrich.com

 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER:	FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3	

Location (Site / Facility Name): CooperVision, Inc.
Location (Address): Scottsville, New York
Client: CooperVision, Inc.

Vacuum Reading (in. w.c.)								Visual Inspection	Comments / Remarks
Date	Initials	S-1	S-2	S-3	S-4/5	S-6	S-7		
3-18-16	Dwp	3.8	3.8	1.5	2.1	3.7	1.7	OK	OK

Notes:

FM01329

Contacts:

Date Printed: 3/18/16

Page 1 of 2

 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER:	FM00916
	REFERENCE SOP: SOP142-30			
REVISION NUMBER: 3				

Location (Site / Facility Name): CooperVision, Inc.
Scottsville, New York
Location (Address):
Client: CooperVision, Inc.

Vacuum Reading (in. w.c.)							Visual Inspection	Comments / Remarks
Date	Initials	S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport	
2-17-16	DSP	3.8	3.8	1.5	2.1	3.7	1.7	Yes All looks good

Notes:
Document monthly readings
Email results yearly to contacts
Readings are in inches of water column (in.w.c.)

Contacts:
Mark Ramsdell
Haley & Aldrich 321-4262
Mramsdell@HaleyAldrich.com

 CooperVision™	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Scottsville, New York
Location (Address):
 CooperVision, Inc.
Client:

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
1-21-16	DJK	3.8	3.8	1.5	2.0	3.7	1.6	good	

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 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Location (Address): Scottsville, New York
 Client: CooperVision, Inc.

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
12-30-15	DWR	3.8	3.8	1.5	2.0	3.7	1.6	X	All Good

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TITLE: Monthly SSD System Monitoring

FORM NUMBER: FM00916

REFERENCE SOP: SOP142-30

REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
Location (Address): Scottsville, New York
Client: CooperVision, Inc.

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
11-30-15	JGR	3.8	3.7	1.5	2.0	3.6	1.6	OK	

Daniel J. Klein

Notes:

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Mrmsdell@HaleyAldrich.com

	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Location (Address): Scottsville, New York
 Client: CooperVision, Inc.

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
11-2-15	DWP	3.8	3.7	1.5	2.0	3.5	1.6		

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Mramsdell@HaleyAldrich.com

 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Scottsville, New York
Location (Address):
 CooperVision, Inc.
Client:

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
10-6-15	DWR	3.8	3.7	1.5	2.0	3.4	1.6	All good	Good

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 CooperVision®	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
Location (Address): Scottsville, New York
Client: CooperVision, Inc.

Vacuum Reading (in. w.c.)								Visual Inspection	Comments / Remarks
Date	Initials	S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
9-3-15	DPH	3.8	3.5	1.5	2.0	3.5	1.5	OK	S-7 last sheet is missing

Notes:
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Mramsdell@HaleyAldrich.com

 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 2

Location (Site / Facility Name): CooperVision, Inc.
 Location (Address): Scottsville, New York
 Client: CooperVision, Inc.

		Vacuum Reading (in. w.c.)							Visual Inspection	Comments / Remarks
Date	Initials	S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport			
8-5-15	Dwp	3.8	3.7	1.5	2.0	3.5	1.5	OK		

Notes:
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 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Location (Address): Scottsville, New York
 Client: CooperVision, Inc.

Date	Initials	Vacuum Reading (in. w.c.)						Visual Inspection	Comments / Remarks
		S-1 Rochester	S-2 Honeoye Falls	S-3 Hilton	S-4/5 Palmyra	S-6 Spencerport	S-7 Brockport		
7-24-15 DDP		3.8	3.7	1.5	2.0	3.5	1.5	OK	

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 CooperVision	TITLE: Monthly SSD System Monitoring		FORM NUMBER: FM00916
	REFERENCE SOP: SOP142-30		REVISION NUMBER: 3

Location (Site / Facility Name): CooperVision, Inc.
 Scottsville, New York
Location (Address):
 CooperVision, Inc.
Client:

Vacuum Reading (in. w.c.)									Visual Inspection	Comments / Remarks
Date	Initials	S-1	S-2	S-3	S-4/5	S-6	S-7			
		Rochester	Honeoye Falls	Hilton	Palmyra	Spencerport R3	Brockport			
4-27-15	SPZ	3.8	3.7	1.5	2.0	3.5	1.5	OK		
5-26-15	SPZ	3.8	3.7	1.5	2.0	3.5	1.5	OK		
6-24-15	SPZ	3.8	3.7	1.5	2.0	3.5	1.5	OK		

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