Glenn Springs Holdings, Inc.

Roger F. Smith, P.G.
Project Manager
Direct Dial (713) 366-5143

5 Greenway Plaza, Suite 110
Houston, TX 77046
Facsimile (972) 687-7524

July 13, 2016

Mr. Mike Negrelli
Emergency and Remedial Response Division
United States Environmental Protection Agency - Region II
290 Broadway, 20th Floor
New York, NY 10007-1866

Dear Mr. Negrelli:

Re: Quarterly Report – Second Quarter 2016 (April through June)
Administrative Orders Hooker Chemical/Ruco Polymer Corporation Site
Index Nos. II-CERCLA-80216, II-CERCLA-94-0210, and II-CERCLA-02-2001-2018

This submittal provides the Quarterly Progress Report covering April through June 2016 for the Hooker/Ruco Site in Hicksville, New York. This Report covers OU-1, OU-2, and OU-3. Please note that the next Quarterly Progress Report will be submitted by October 15, 2016 and will cover July through September 2016. A listing of the primary activities is provided in Table 1.

Quarterly Progress Report

The following activities were performed during the period April through June 2016:

- The Quarterly Progress Report for the time period January through March 2016 was submitted to the USEPA on April 13, 2016.

Operable Unit 1 (On-Site Soil)

All work has been successfully completed. OU-1 is closed.

Operable Unit 2 (Soils Impacted by On-Site Release of PCBs)

All work has been successfully completed. OU-2 is closed.

Operable Unit 3 (Off-Site Groundwater)

The on-site inspection for USEPA's Five Year Review was held on April 7. A conference call was held on May 18 to discuss draft comments received on April 29. To assist the USEPA in finalizing their comments, a copy of the OU-3 O&M Manual dated March 2015 was provided on June 9 and a copy of the soil vapor results obtained during monitoring of the biosparge system was provided on June 29.

A listing of the OU-3 O&M activities performed for this reporting period is provided in Table 2. Additional details for the primary activities are provided in the following sections.

It is noted that the selected remedy for the VCM subplume is also based on the recognition that the Northrop groundwater extraction and treatment system (i.e., pumping of Northrop Wells 1 and 3R and treatment via the Tower 96 system) is containing and remediating a commingled plume of PCE and TCE from the Northrop, NWIRP and Hooker/Ruco sites. The VCM subplume is co-located within the commingled PCE/TCE plume. Most of the PCE and TCE located within the commingled plume is associated with the Northrop and NWIRP sites. The Northrop system captures and treats all of the PCE, TCE and VCM, not being treated by the biosparge system, associated with the Hooker/Ruco Site.

Supplemental Treatment System

i) Operation and monitoring of the GP-1/GP-3R supplemental air treatment system continued.

ii) A problem with the blower heater, observed on April 15, was repaired on April 19, 2016.

iii) The carbon bed was changed out on April 21, 2016.

An analysis was performed of the VCM which would be discharged from Northrop's Tower 96 system groundwater air stripper if operation of the supplemental treatment system was stopped. The analysis was performed to determine if the supplemental system is still needed to treat the VCM in compliance with New York State air quality standards. The standards which need to be met are the:

i) Short-term Guideline Concentration (SGC)

ii) Annual Guideline Concentration (AGC)

iii) The requirements of NYSDEC Subpart 212

The analysis used the model inputs presented in Table 4A of the 2016 First Quarter Operation and Maintenance Monitoring Report for Northrop's OU-2 prepared by ARCADIS. The analysis was performed using the most recent (i.e., March 2016 = 9 µg/L) groundwater VCM concentration for Northrop Well 3R and assumed that there was no treatment of the VCM by Northrop's regenerative vapor phase carbon system. This assumption provides a conservative

(i.e., greater) calculation of the mass of VCM that would be released to the atmosphere if no supplemental treatment was provided.

The analysis (see Attachment A) shows that for an influent VCM concentration of 9 µg/L in Well 3R, the VCM discharge from the Northrop air stripper would be 12.3% of the AGC for an airflow of 4800 actual cubic feet per minute (acfm) and would be less than 1% of the SGC.

Pursuant to NYSDEC Subpart 212 (see Attachment B) treatment of VCM is also needed if the annual discharge is equal to or greater than 100 pounds per year. This is equivalent to 23 µg/L of VCM in 1,000 gpm. Based on the most recent sampling events, the VCM concentrations, pumping rates, and calculated mass of VCM from Well 3R would have been:

Date	VCM Concentration ug/L	Pumping Rate gpm	Equivalent Mass Discharge lbs/year
3/16/2015	29	1014	129
5/5/2015	18	909	72
9/9/2015	13	916	52
12/15/2015	10	938	41
3/14/2016	9	971	38

Thus, since May 2015, the equivalent annual mass discharge of VCM would have been less than 100 lbs/yr if no treatment by the supplemental system had been performed.

Since the AGC and SCG are met and the annual mass loading of VCM is less than 100 pounds, treatment of VCM by the supplemental system is no longer needed. Therefore, GSH is planning to stop operation of the supplemental system when the current potassium permanganate treatment bed is exhausted. That is expected to occur in November 2016.

Biosparge System

See Figures 1 and 2 for system layout and Figures 3 and 4 for system cross-sections. Also shown on Figures 1 and 2 are the most recent VCM groundwater concentrations.

Insertion of samplers for the 1st semi-annual biosparge system performance monitoring event started on April 11. All samplers were inserted and retrieved in April except for MW-58D & D1 and MW-63S & I, which require sequential sampling since all four screens (e.g., MW-58S, I, D and D1) are in the same riser. The samplers for MW-63S & I were inserted on April 28 and retrieved on May 18 and the samplers for MW-58D & D1 were inserted on May 18 and retrieved on June 2. A summary of the wells sampled is provided in Table 3.

The QA/QC review of the results is provided in Attachment C. The electronic data deliverable (EDD) is provided in the attached CD (to USEPA only).

During the reporting period, air injection was temporarily stopped during collection of the groundwater samples for the 1st semi-annual biosparge system performance monitoring event of 2016. For the remainder of this reporting period, air was injected into all north fence wells and all middle fence injection wells except for IW-6D1, IW-6D2, IW-15D2, IW-16D1, IW-17D2, IW-18D1, IW-19D1, and IW-19D2. Maintenance was performed on IW-6D1 and IW-6D2 on May 26 and air injection restarted the same day. For the remainder of the wells, it is believed that there are physical impairments in these wells. It is also believed that air injection into these wells is not essential because air is being injected into the air injection wells immediately adjacent to and above these injection points, the dissolved oxygen (DO) concentrations in the majority of nearby monitoring wells are greater than the target level of 2.0 micrograms per liter (mg/L), and VCM concentrations continue to decrease or remain low level.

Summary of Biosparge System

The DO, total volatile organic compounds (TVOC), and VCM concentration trends for the individual groundwater monitoring wells around the biosparge injection system are shown on Figures 5 through 25. To date, the results show that the biosparge system is operating successfully as demonstrated by the following:

i) DO levels in the groundwater are greater than the target concentration of 2 milligrams per liter (mg/L) in 30 of the 42 monitoring wells measured in April/May 2016 (see Table 4).
ii) Groundwater VCM concentrations are non-detect, low level, or decreased between the October /November 2015 and April/May 2016 performance monitoring events in all of the 52 monitoring wells for the biosparge system as a result of the microbial biodegradation processes.

The 12 wells with low DO concentrations are located in close proximity to either the north fence or the middle fence of injection wells. It is anticipated that as the groundwater flow paths converge as they approach Northrop Well 3R, the groundwater with low DO concentrations will mix with groundwater with higher DO concentrations. This belief is supported by the DO concentrations in wells MW-66D2, MW-67 and MW-68 which are located between the middle fence and Well 3R. The DO concentrations in these wells were 13.3 mg/L in MW-66D2, 20.7 and 4.6 mg/L in MW-67S & D, respectively and 24.4 and 9.2 mg/L, respectively in MW-68S & D.

The VCM concentrations upgradient of the north fence decreased from 51 μg/L (October 2014) to 42 μg/L (October 2015) in well MW-92 and from 7 μg/L (October 2014) to 4 μg/L (October 2015) in well MW-92.

The VCM concentrations along the west edge of the VCM subplume between the north fence and the middle fence decreased from 1.0 µg/L in October/November 2015 to non-detect in April/May 2016 in MW-63 and remained non-detect in well MW-86.

The VCM concentrations along the east edge of the VCM subplume down gradient of the middle fence were 4 µg/L in well MW-89 for both the October/November 2015 and April/May 2016 events and have been non-detect in well MW-85 since the October 2014 monitoring event.

The VCM concentration in Northrop well MW-3-1, located in close proximity to Northrop Well 3R (fka GP-3), was 5 µg/L in June and November 2015.

All of the above indicate that the extent of the VCM subplume is becoming smaller and the VCM concentrations therein are decreasing.

Table 4 of this report has been revised to address USEPA's request to present analytical results for the other primary VOCs in the groundwater (i.e., PCE and TCE) being sampled by the biosparge system monitoring wells. The 3rd through 7th columns of Table 4 previously provided the groundwater level drawdown, well screen volumes purged, pH, temperature and conductivity readings obtained during well purging/sample collection. The purpose of monitoring these parameters was to ensure that groundwater conditions had stabilized prior to sample collection via low-flow purging. In November 2011, with USEPA approval, sample collection changed to the use of passive diffusion bag and HydraSleeve samplers. Thus, monitoring of the referenced parameters was no longer needed. Starting in this report, these five columns have been replaced with the PCE, TCE and VCM concentrations for the time period since the start of operation of the Pilot System in October 2006 (for wells which monitor the Pilot System) and since the start of the remainder of biosparge system in September 2012 (for the wells which monitor the remainder of the system).

As requested by the USEPA, the listed wells have been divided into three groups:

i) Those wells which are monitored in accordance with the sampling frequency specified in Table 7.1 of the OU-3 Interim Remedial Action Report (Base Wells)
ii) Those wells which are sampled periodically on a voluntary basis to obtain a more regional view of chemical presence in the vicinity of the VCM plume (Voluntary Wells)
iii) Those wells monitored by Northrop which aid in interpreting the chemical presence in the vicinity of the VCM plume (Northrop Wells).

For the 43 base wells listed in Table 4, the PCE concentrations since start of the biosparge system operation have:

i) Decreased in 19 wells
ii) Remained relatively constant with random fluctuations in 15 wells

iii) Increased then decreased in 4 wells
iv) Increased in 5 wells

Similarly, the TCE concentrations have:

i) Decreased in 18 wells
ii) Remained relatively constant with random fluctuations in 17 wells
iii) Increased then decreased in 3 wells
iv) Increased in 5 wells

The wells in which both PCE and TCE concentrations increased were MW-81D1&D2, MW-83D2 and MW-87D2 while PCE increased in MW-77D2 and TCE increased in MW-72D2. All of these wells, except MW-77D2, are located in proximity to the western edge of the VCM plume. MW-77D2 is located in proximity to the eastern edge of the VCM plume. The reason for this pattern is uncertain. During installation of the north fence biopsparge system injection and monitoring wells into the VCM impacted groundwater in 2011, groundwater with higher PCE and TCE concentrations were detected in the deeper groundwater below the elevation of the groundwater with VCM(see Figure 3). At that time, it was believed, and still is, that the PCE and TCE at depths below the VCM were due to sources other than the Hooker/Ruc Site. It is possible that the groundwater with higher concentrations is now impacting the groundwater chemistry in the referenced wells.

With regard to the wells which are sampled on a voluntary basis, of note are the large TCE concentration increases in well nest MW-58. It is believed that these increases are due to the increased pumping rate of Northrop Well 3R drawing more of the highly TCE impacted groundwater from Northrop's OU-3.

Also of note is that the PCE and TCE concentrations in the well nests up-gradient of the VCM plume (i.e., MW-92 and MW-93) have decreased significantly (e.g., PCE in MW-92D has decreased from 690 µg/L in April 2011 to 30 µg/L in October 2015). These results combined with the decreasing VCM results indicate that the north up-gradient edge of the VCM plume is migrating southward.

Well Conditions Update

The operational status of the injection and monitoring wells for the biosparge system provided in Table 5 was updated using observations obtained during the April/May 2016 sampling event. The operational status will be updated using observations obtained during the October/November 2016 sampling event.

Planned Third Quarter 2016 Activities

The following activities are planned for the third quarter of 2016:

i) Continue operation and monitoring of the GP-1/GP-3R supplemental air treatment system.
ii) Change-out of the supplemental system carbon bed is scheduled for July 12, 2016.
iii) Cease operation of the supplemental treatment system in November 2016.

Should you have any questions on the above, please do not hesitate to contact me at (713) 366-5143 or e-mail at Roger_Smith@oxy.com.

Yours sincerely,

Roger Smith
Senior Project Manager

KDS/mg/006883/16
Encl.

cc: P. Mannino (USEPA)
M.E. Wieder (USEPA)
S. Scharf (NYSDEC-PDF on CD)
T. Troutman (Covestro)
T. Kelly (Nassau County)
J. Kay (GHD)

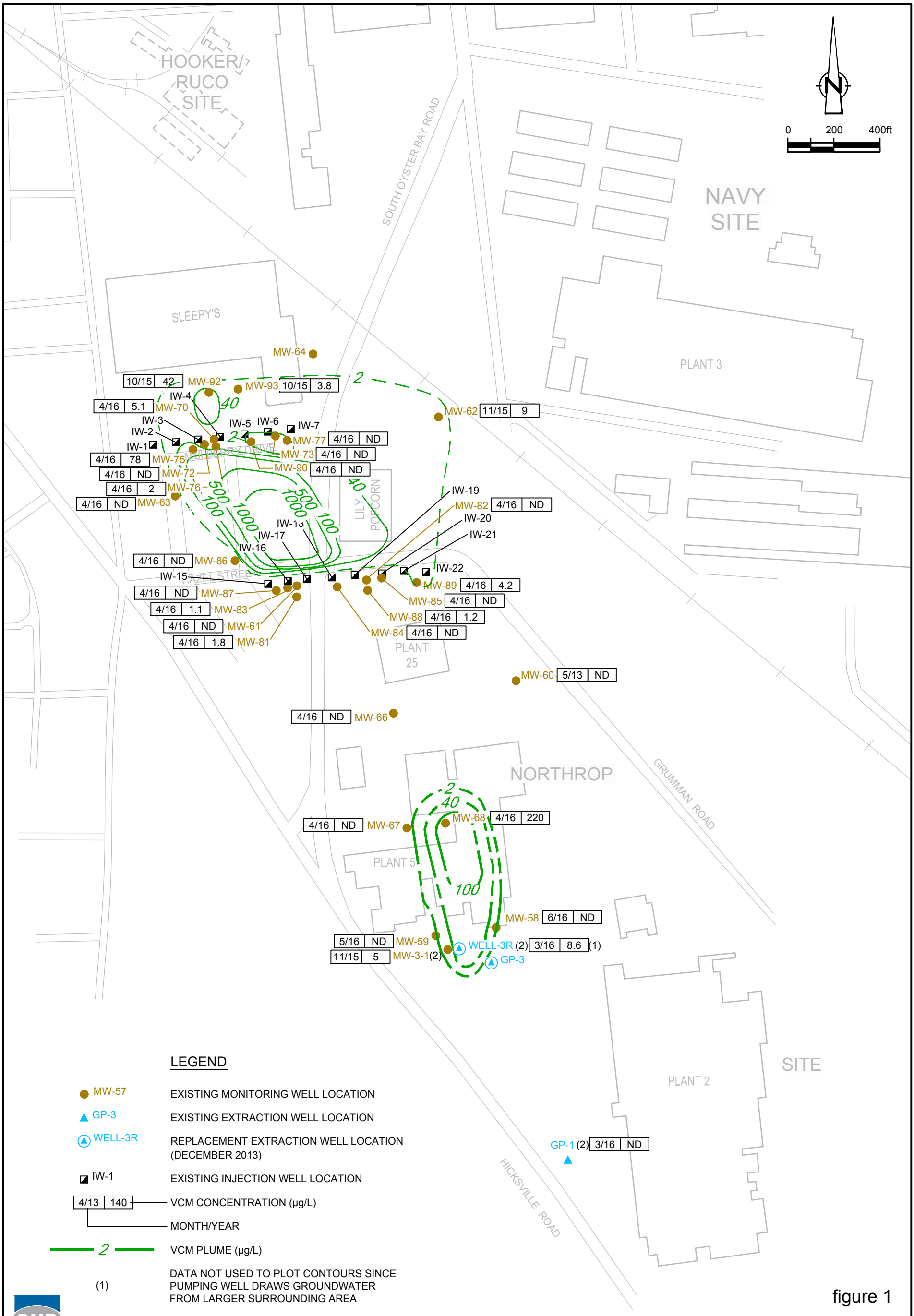


figure 1

MOST RECENT VCM GROUNDWATER CONCENTRATION

Hooker/Ruco Site, Hicksville, New York

06883-D23102(NEGR016)GN-WA001 MAR 31/2016

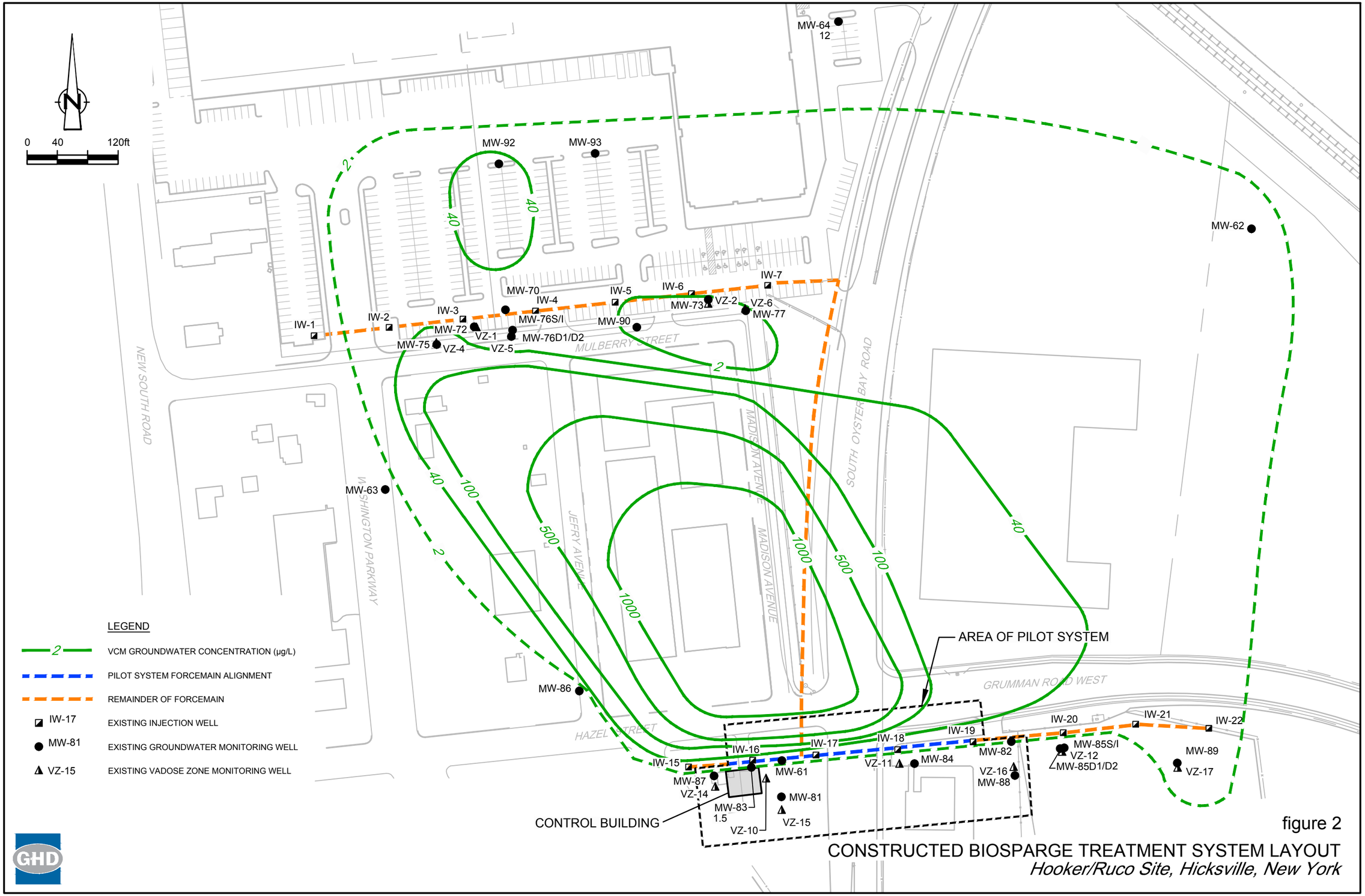
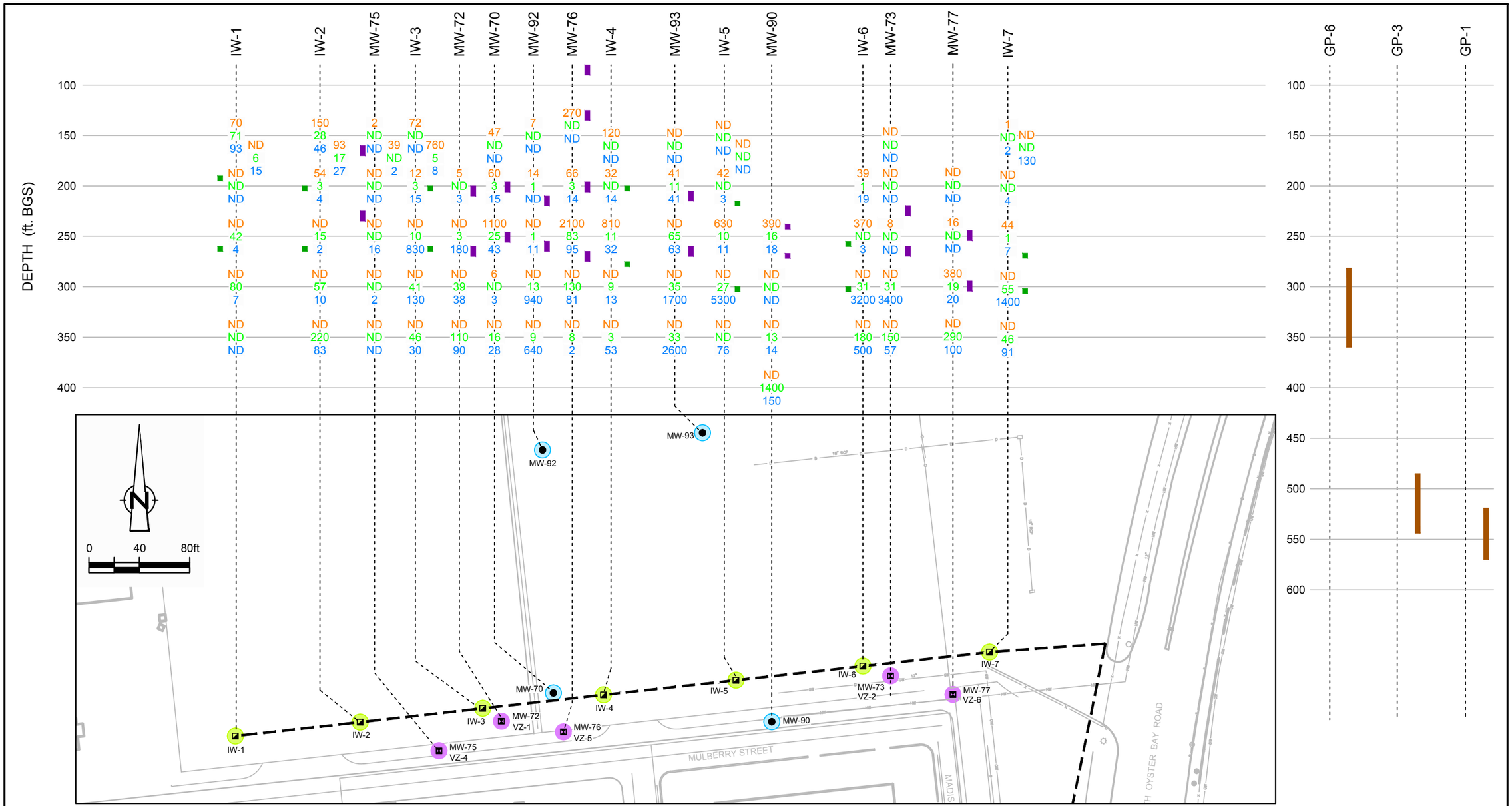


figure 2

CONSTRUCTED BIOSPARGE TREATMENT SYSTEM LAYOUT

Hooker/Ruco Site, Hicksville, New York

06883-D23102(NEGR016)GN-WA002 MAR 31/2016



NOTE: FEBRUARY THROUGH MARCH, 2011 HYDROPUNCH RESULTS

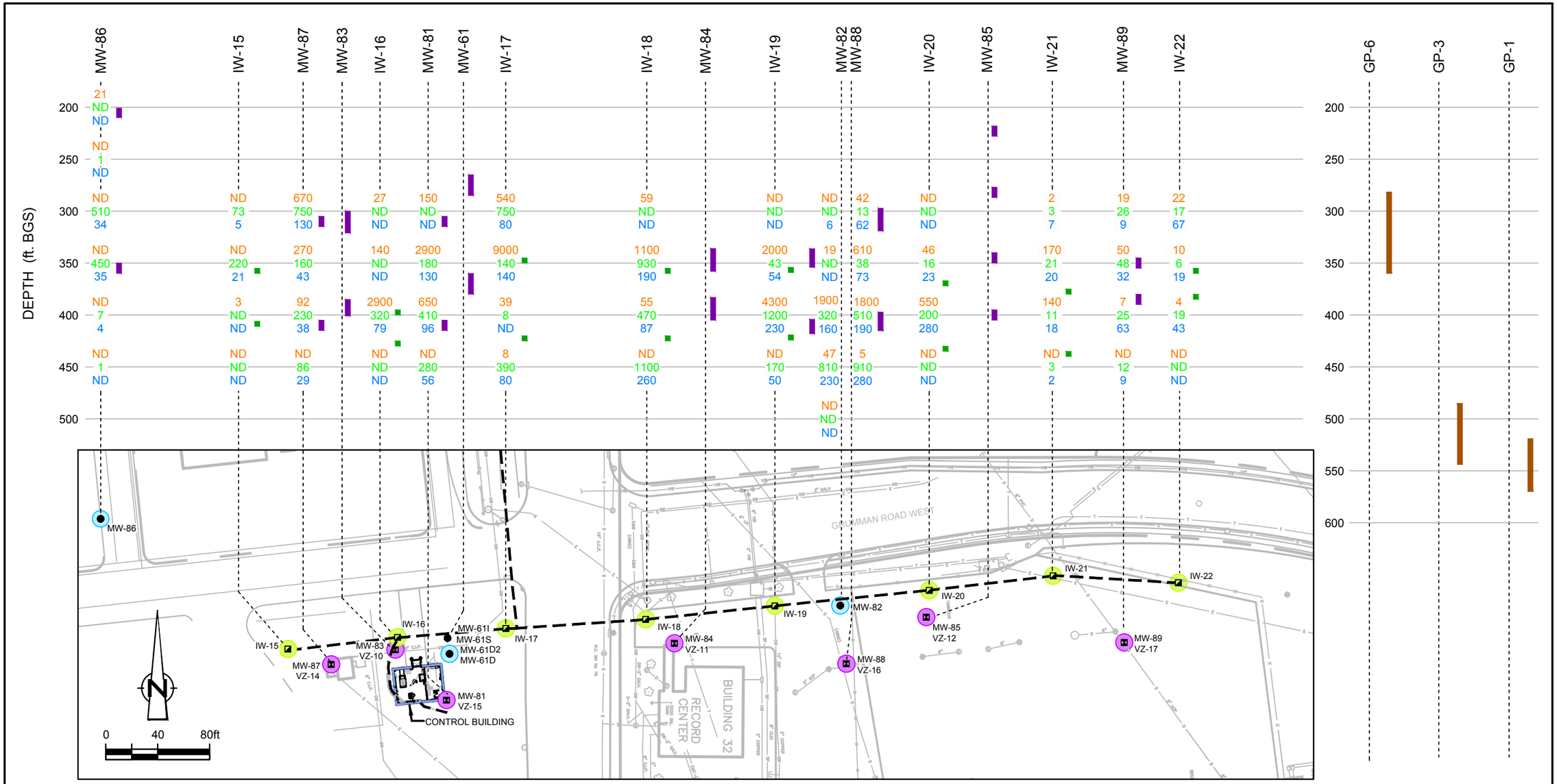
figure 3

NORTH FENCE AIR INJECTION AND GROUNDWATER MONITORING WELL SCREENED INTERVALS

Hooker/Ruco Site, Hicksville, New York

GHD

06883-D23102(NEGR016)GN-WA003 MAR 31/2016



LEGEND

- FORCEMAIN ALIGNMENT
- MW-61 — GROUNDWATER MONITORING WELL LOCATION
- IW-8 — INJECTION WELL LOCATION
- MW-80 VZ-9 — GROUNDWATER AND VADOSE ZONE MONITORING WELL LOCATION
- AIR INJECTION WELL SCREENED INTERVAL
- GROUNDWATER MONITORING WELL SCREENED INTERVAL
- PUMPING WELL SCREENED INTERVAL
- 670 — HYDROPUNCH VCM CONCENTRATION (ppb)
- 750 — HYDROPUNCH TCE CONCENTRATION (ppb)
- 130 — HYDROPUNCH PCE CONCENTRATION (ppb)

OCTOBER THROUGH DECEMBER 2010 HYDROPUNCH RESULTS.

NOTE: PILOT SYSTEM: OCTOBER 2005 THROUGH APRIL 2006 ANALYTICAL RESULTS.
REMAINING COMPONENTS: OCTOBER THROUGH DECEMBER 2010 HYDROPUNCH RESULTS

figure 4

MIDDLE FENCE AIR INJECTION AND GROUNDWATER MONITORING WELL SCREENED INTERVALS

Hooker/Ruco Site, Hicksville, New York

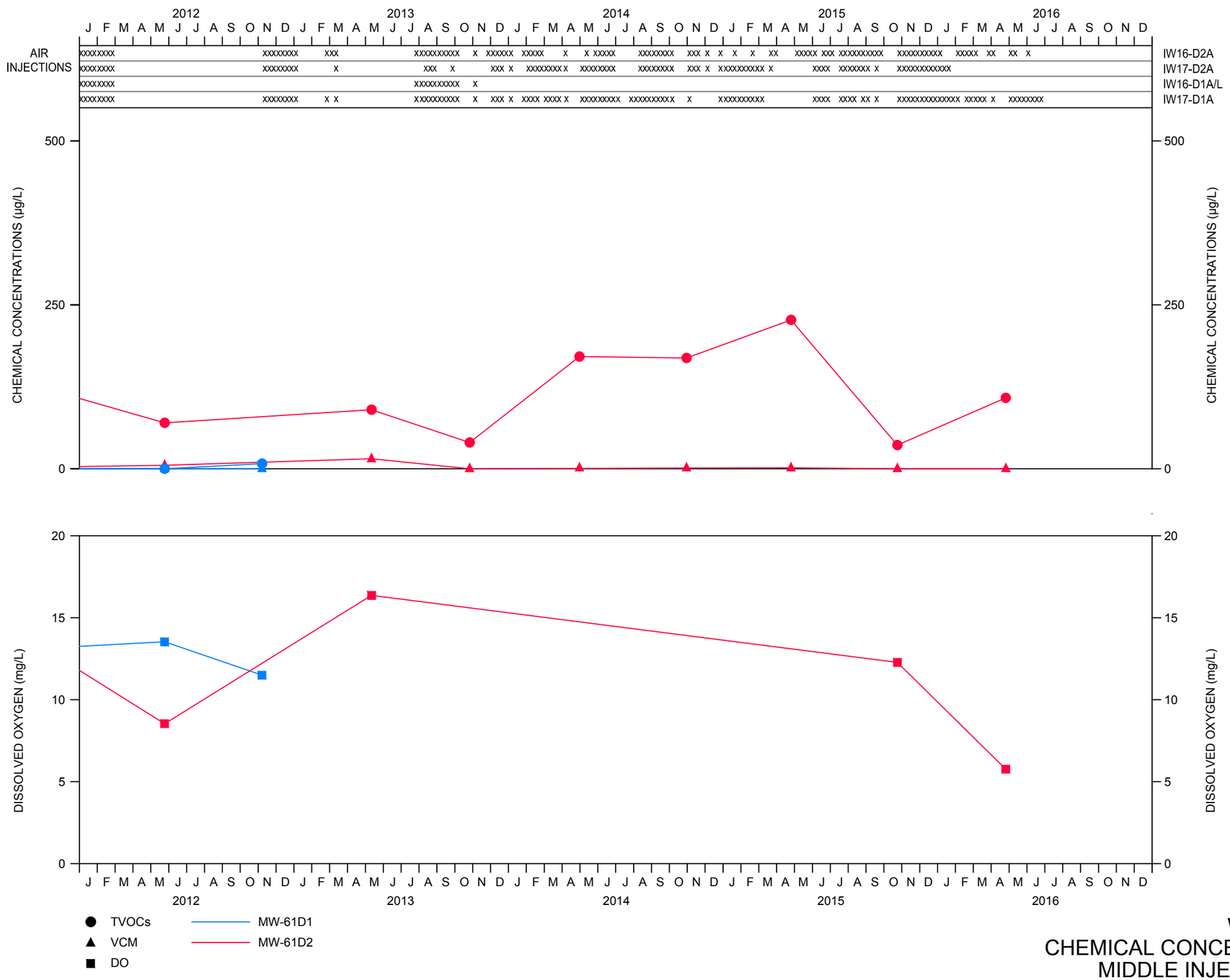


figure 5

WELL NEST MW-61
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

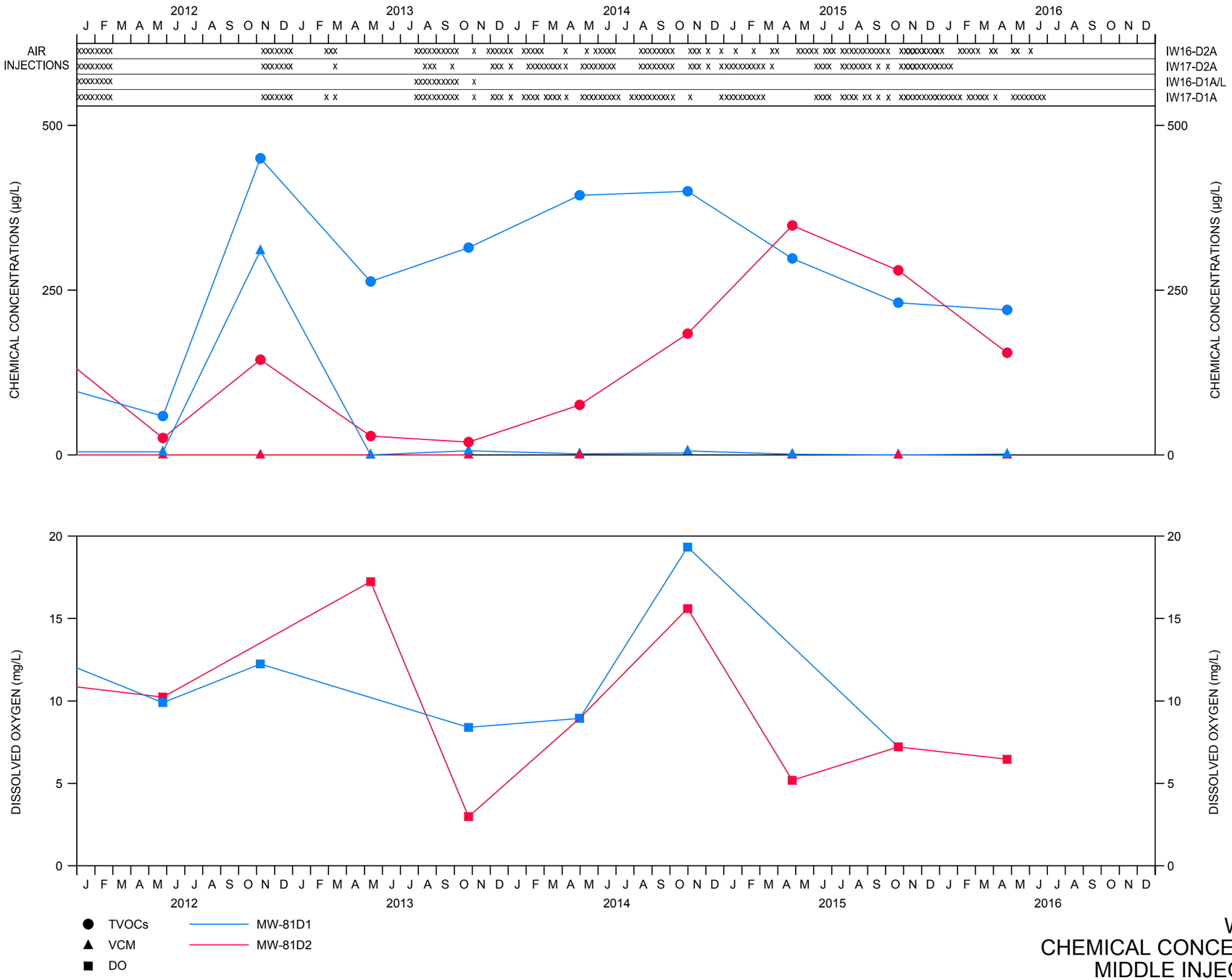


figure 6

WELL NEST MW-81
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

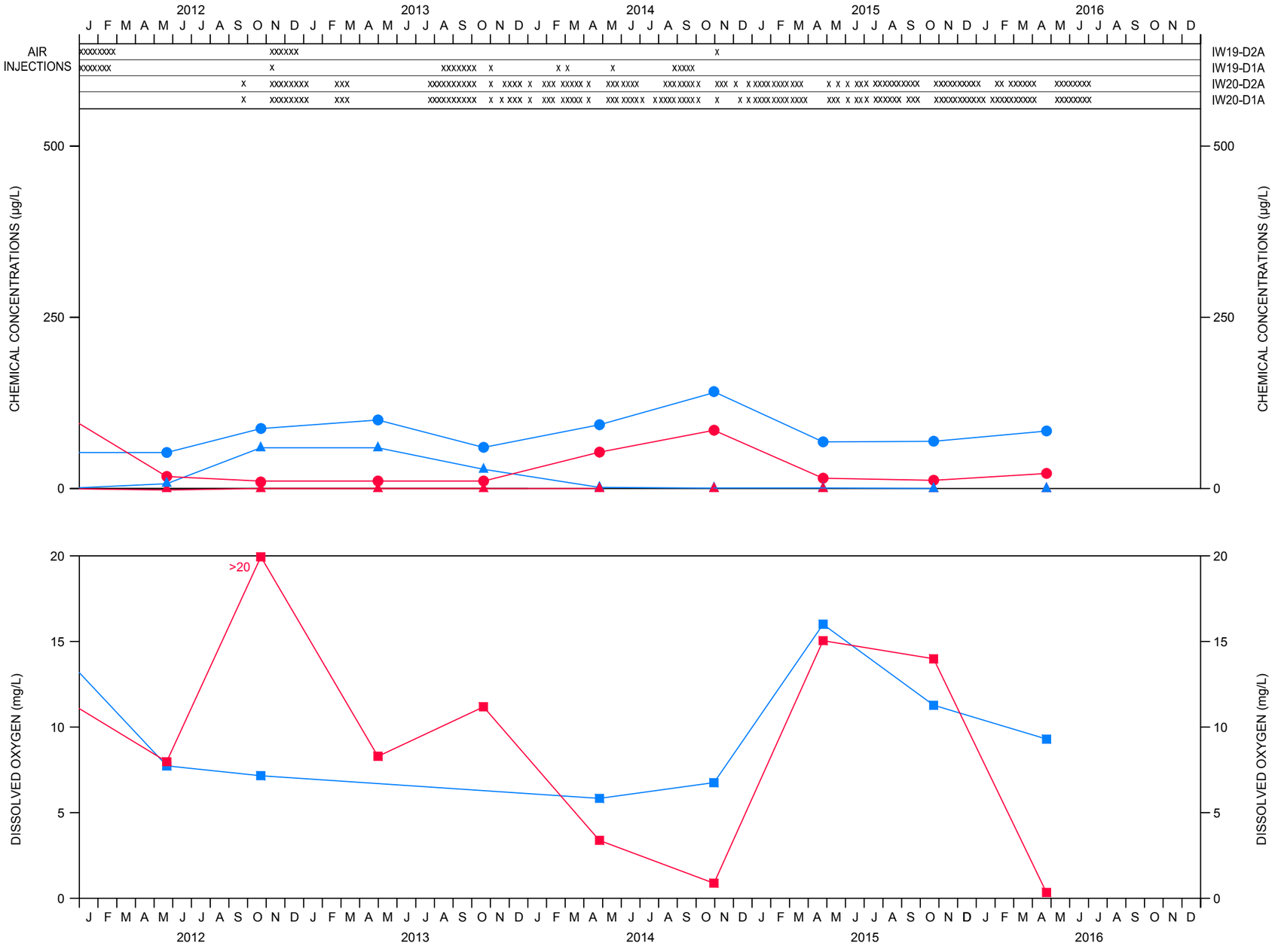


figure 7

WELL NEST MW-82
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

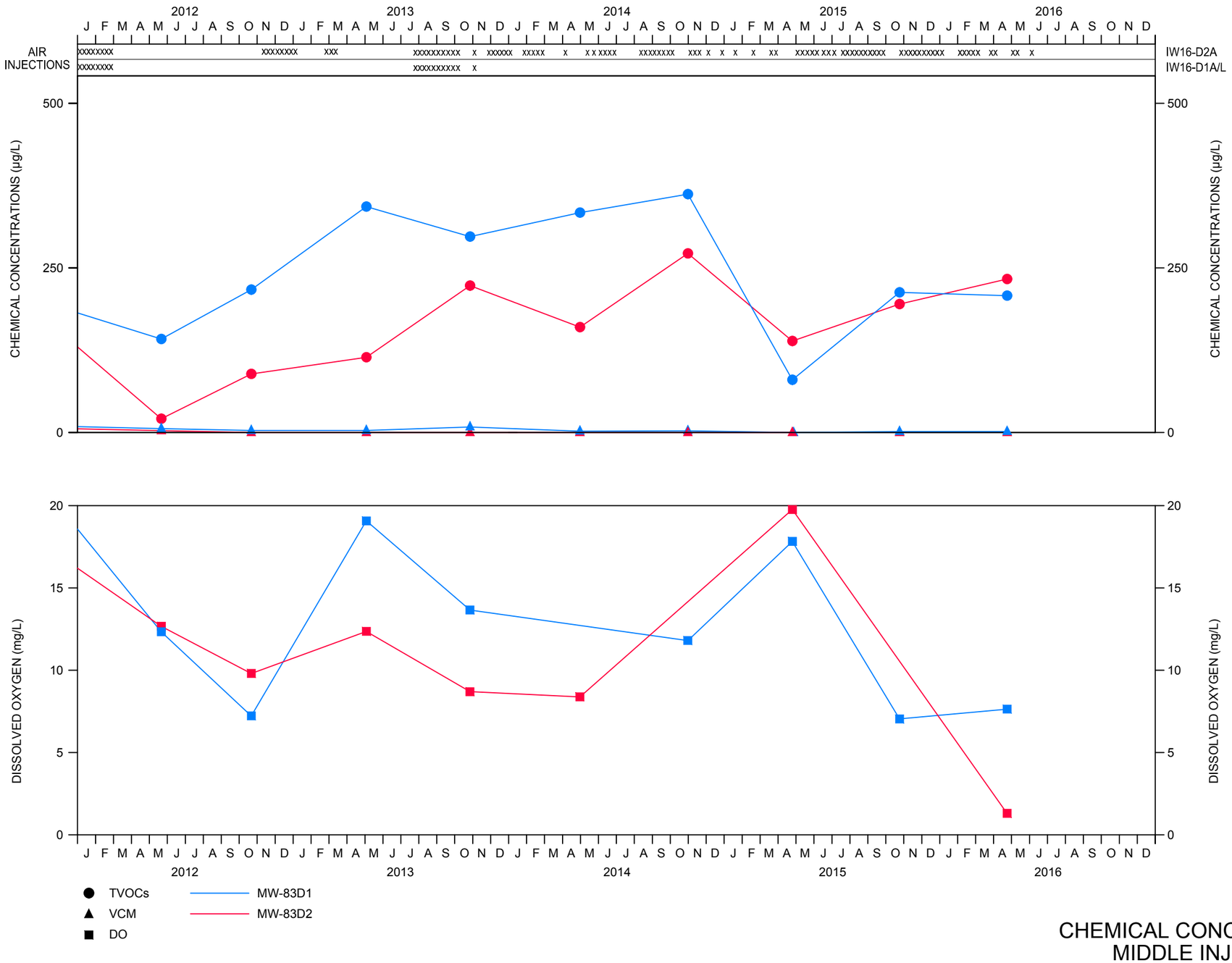
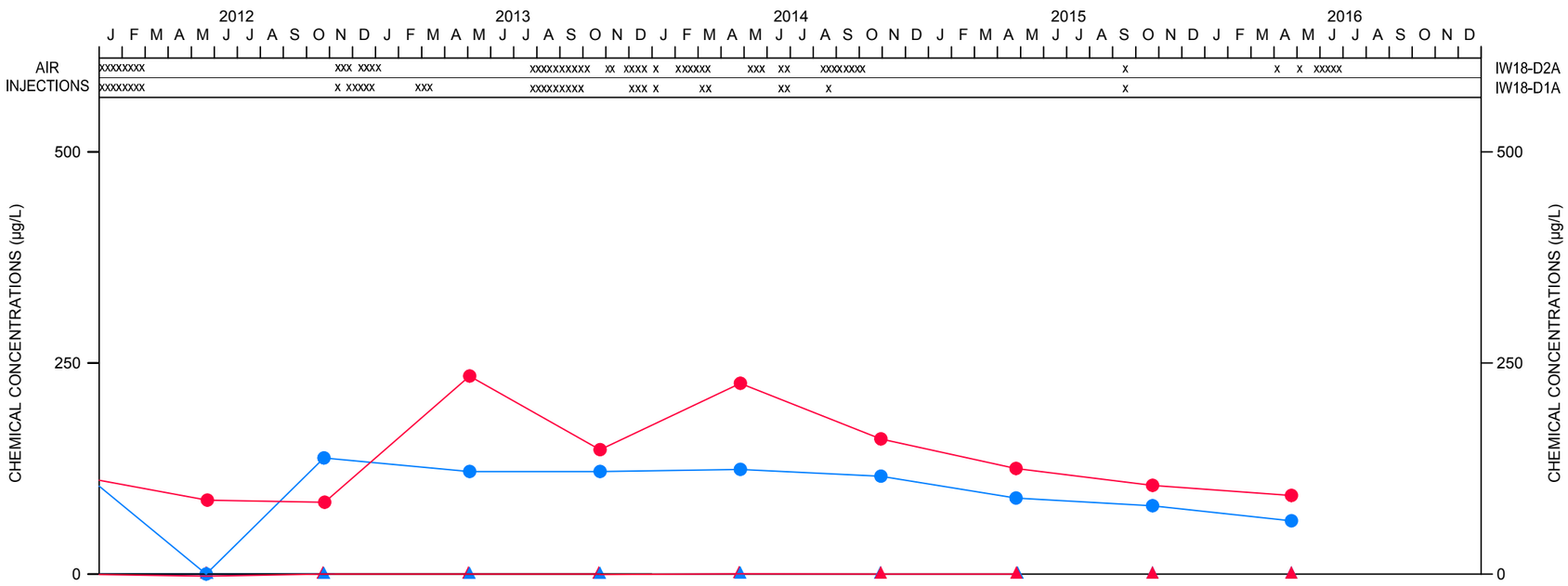


figure 8

WELL NEST MW-83
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York



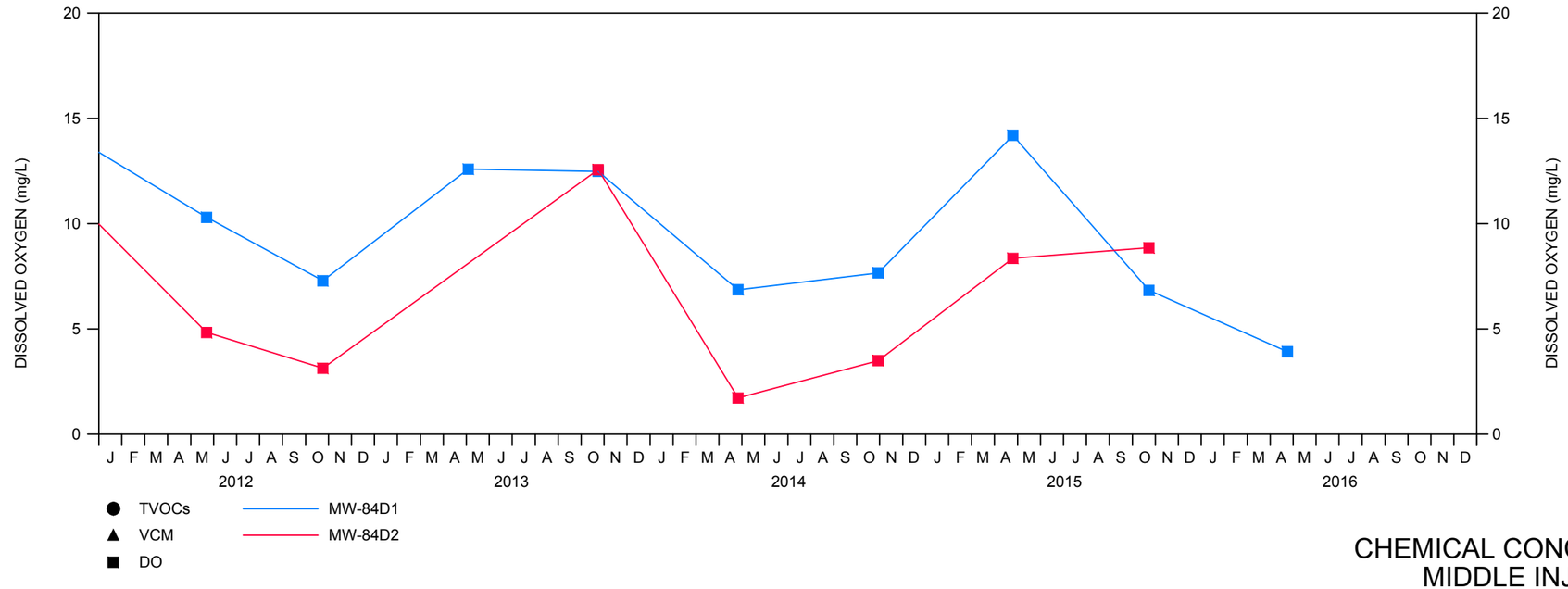


figure 9

WELL NEST MW-84
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

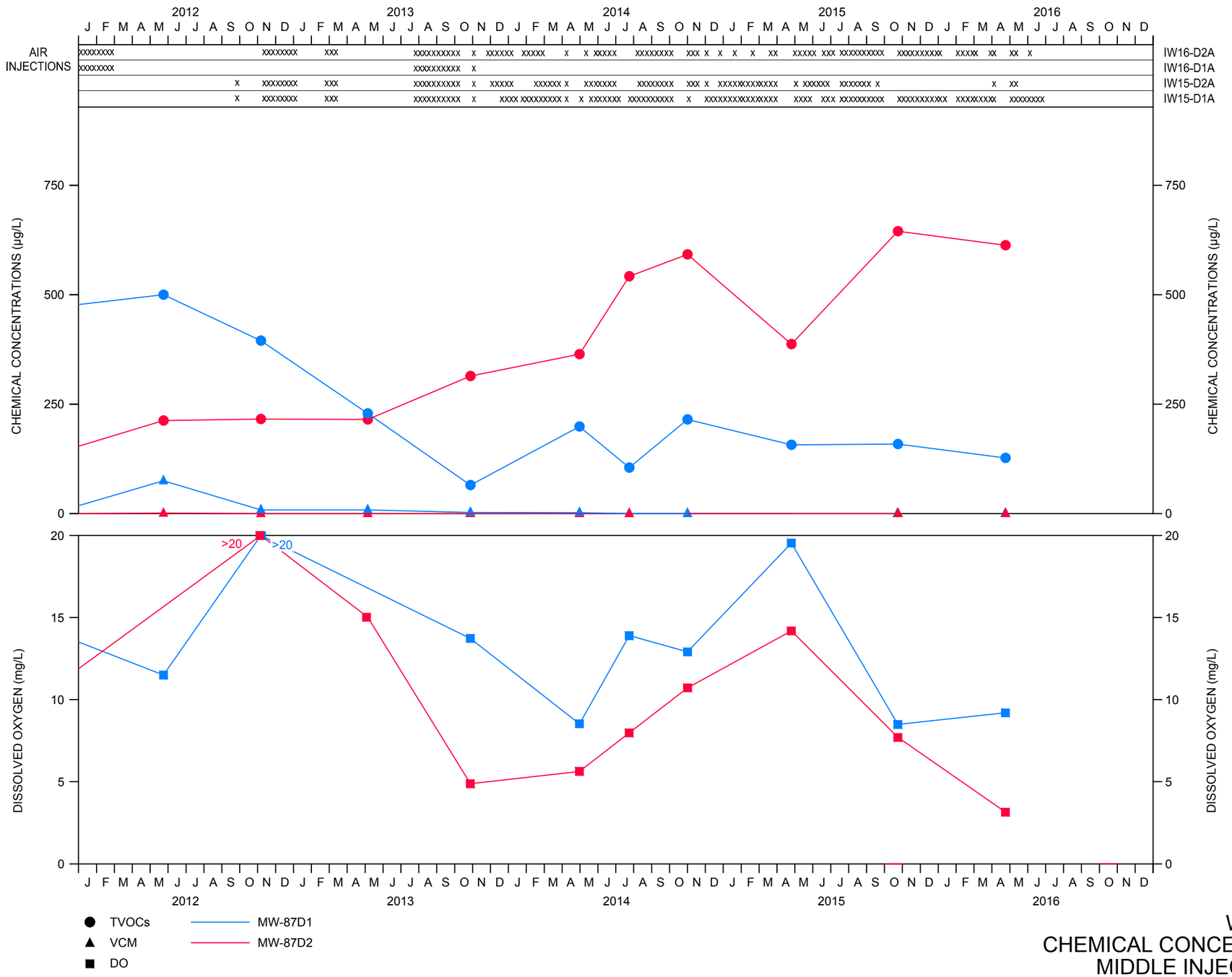


figure 10

WELL NEST MW-87
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD

06883-D23102(NEGR016)GN-WA010 MAR 31/2016

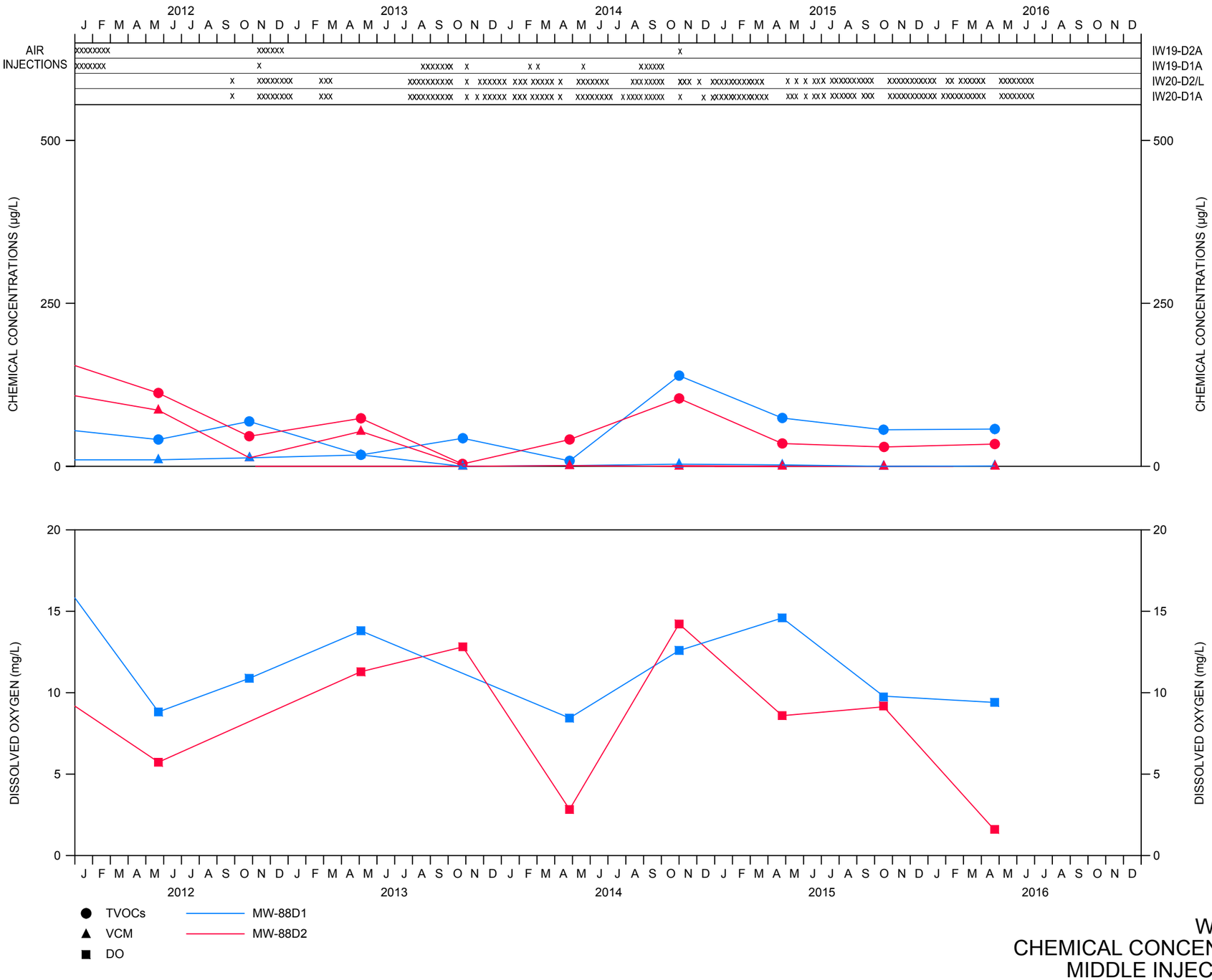


figure 11

WELL NEST MW-88
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD

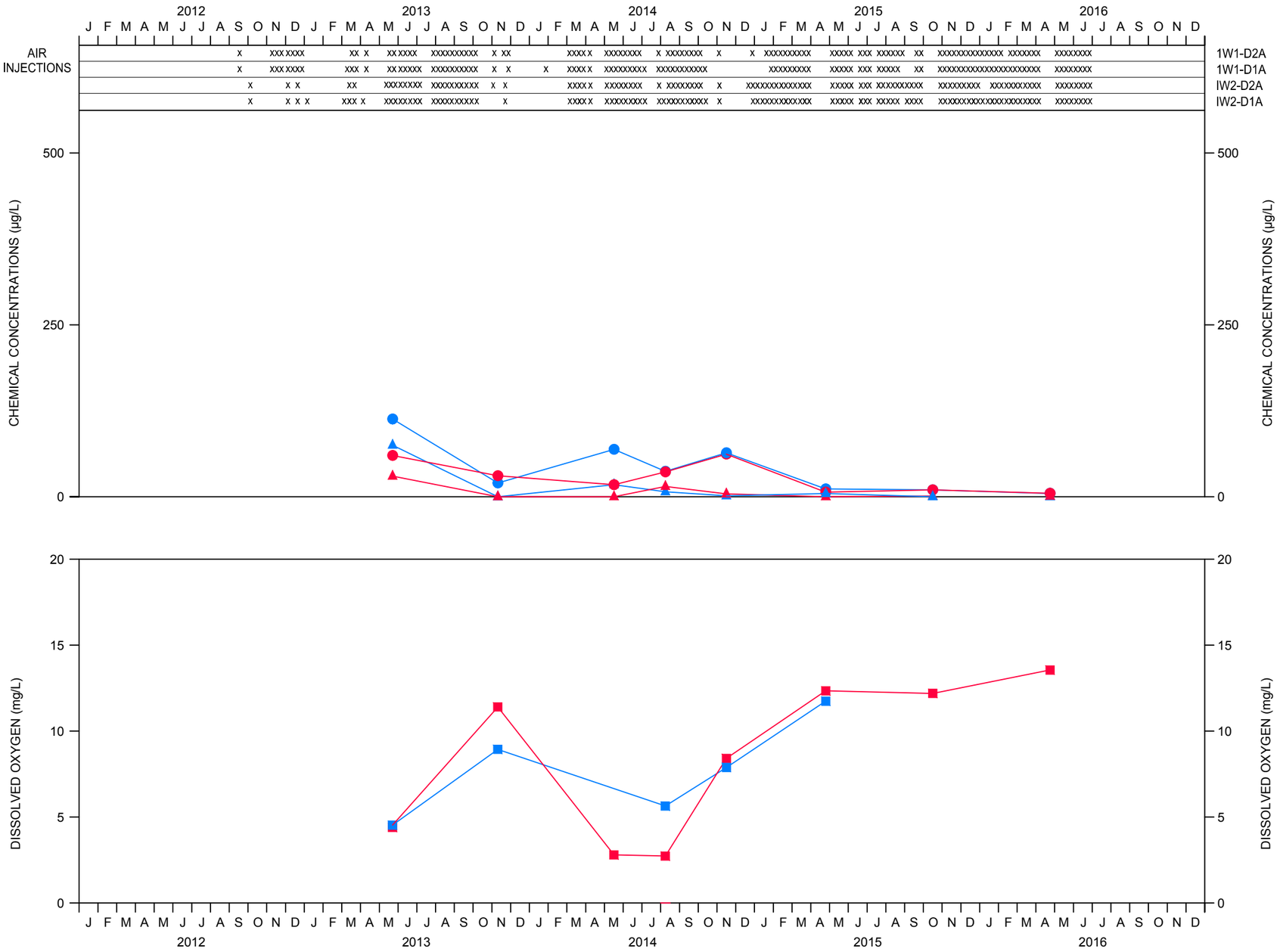


figure 12

WELL NEST MW-63S/I
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

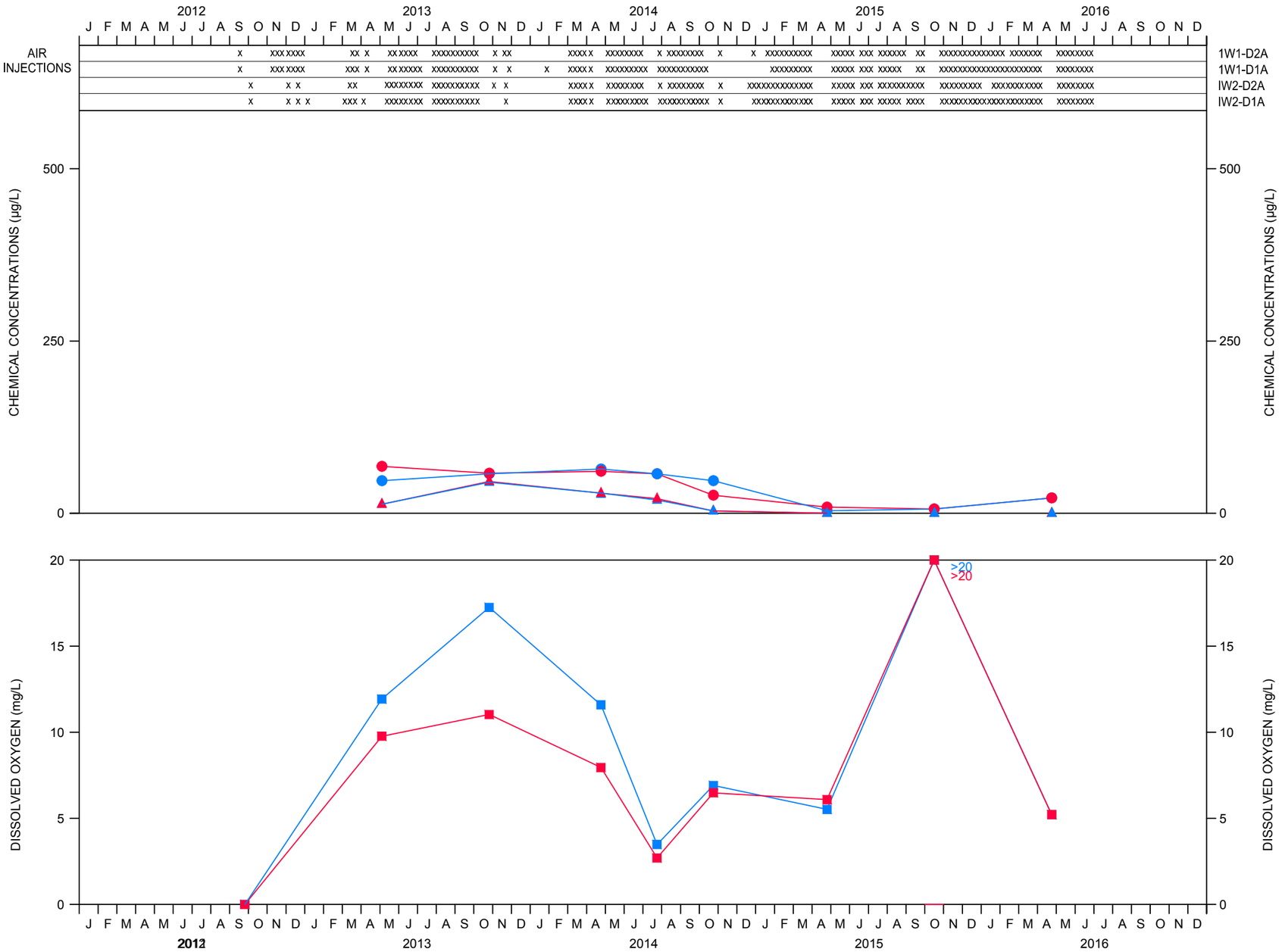


figure 13

WELL NEST MW-63D1/D2
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD

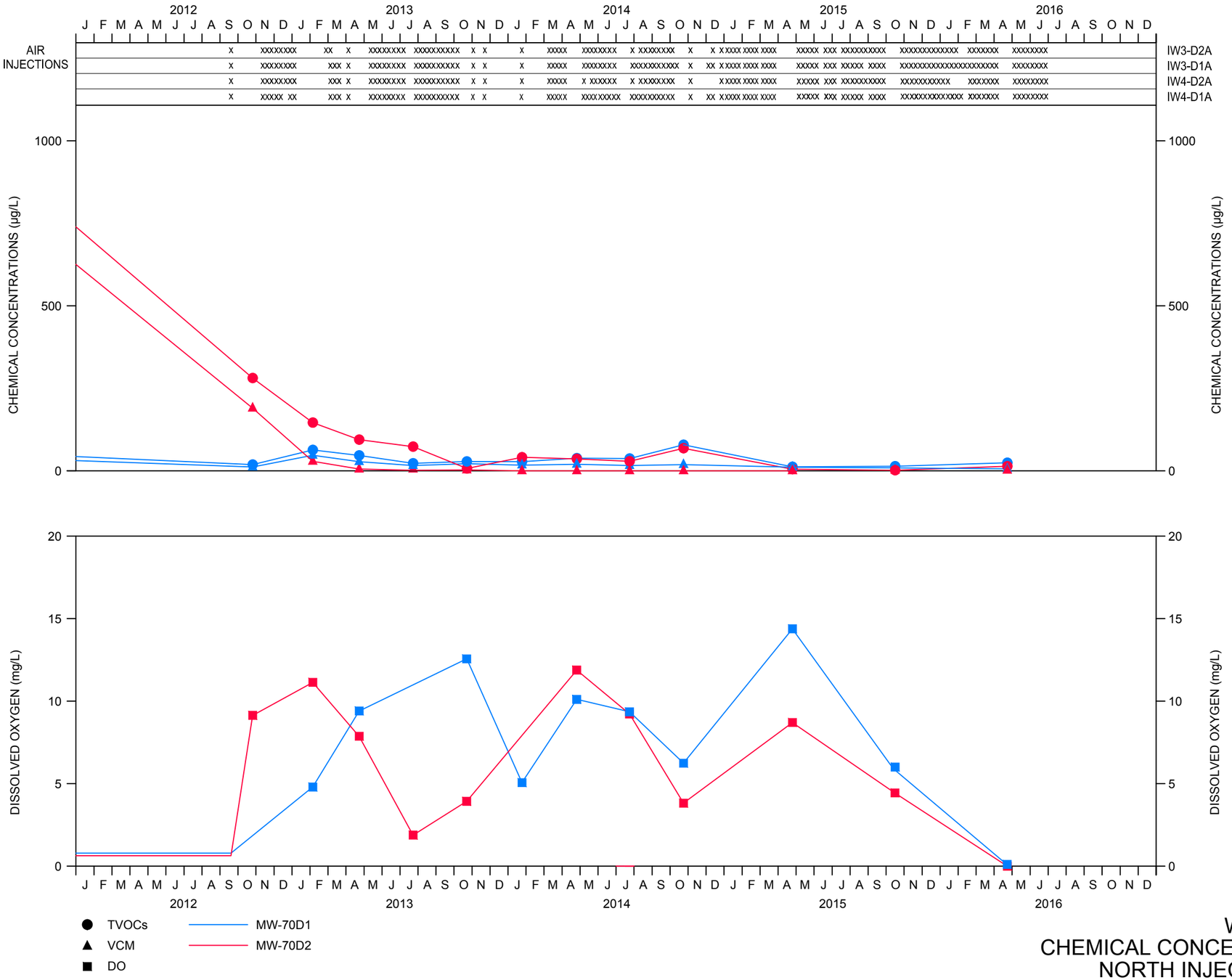


figure 14

WELL NEST MW-70
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

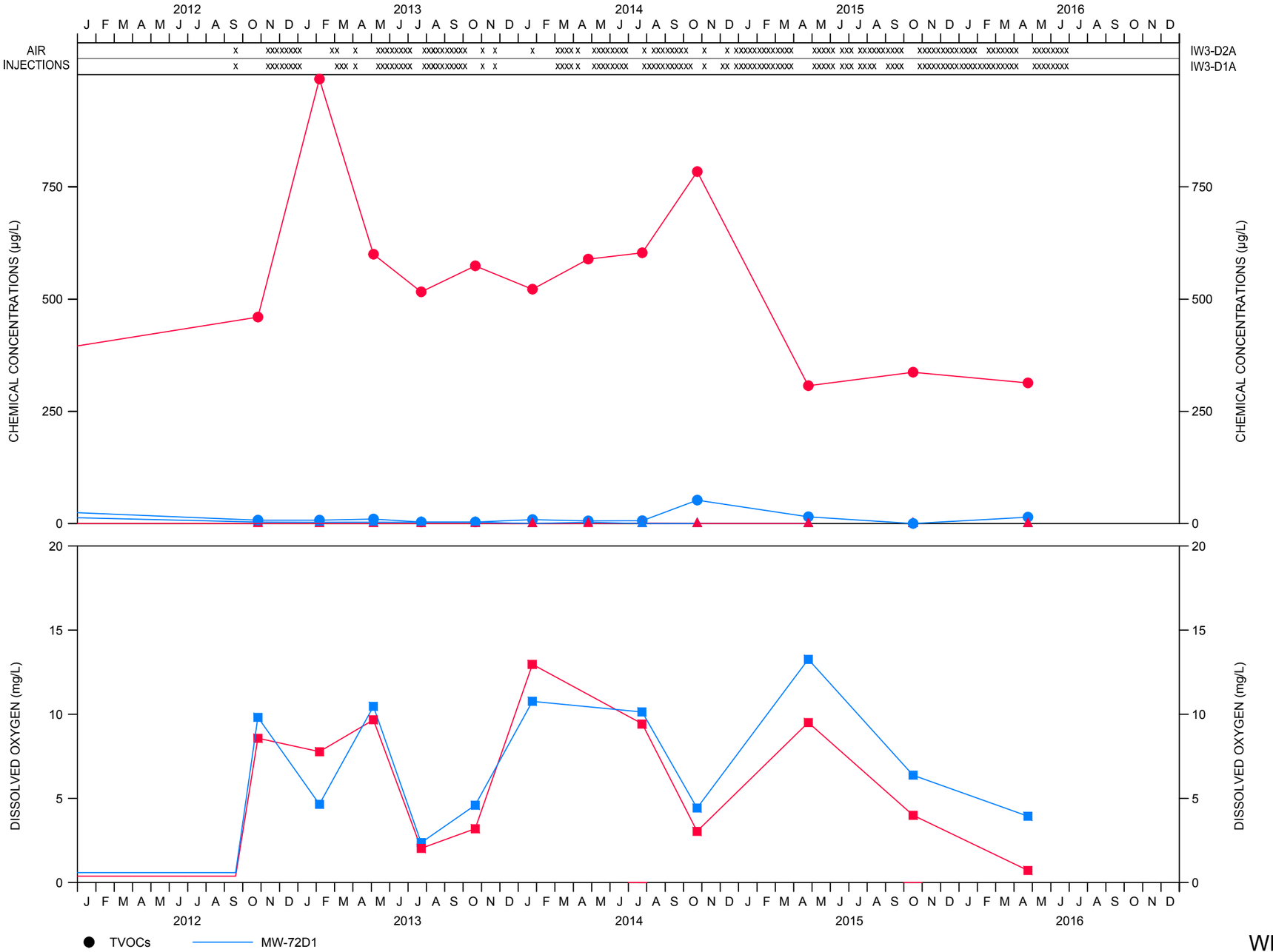


figure 15

WELL NEST MW-72
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

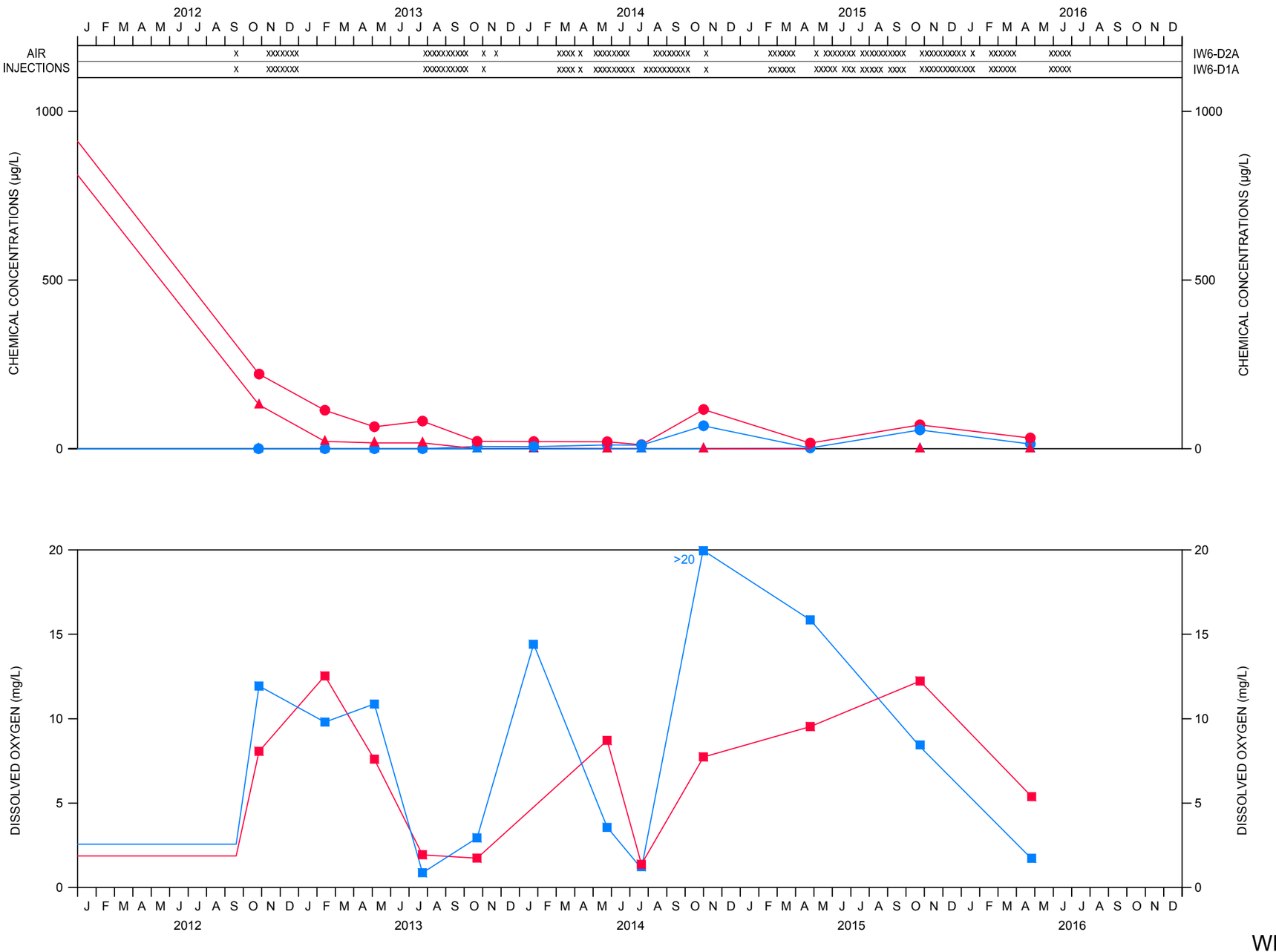


figure 16

WELL NEST MW-73
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

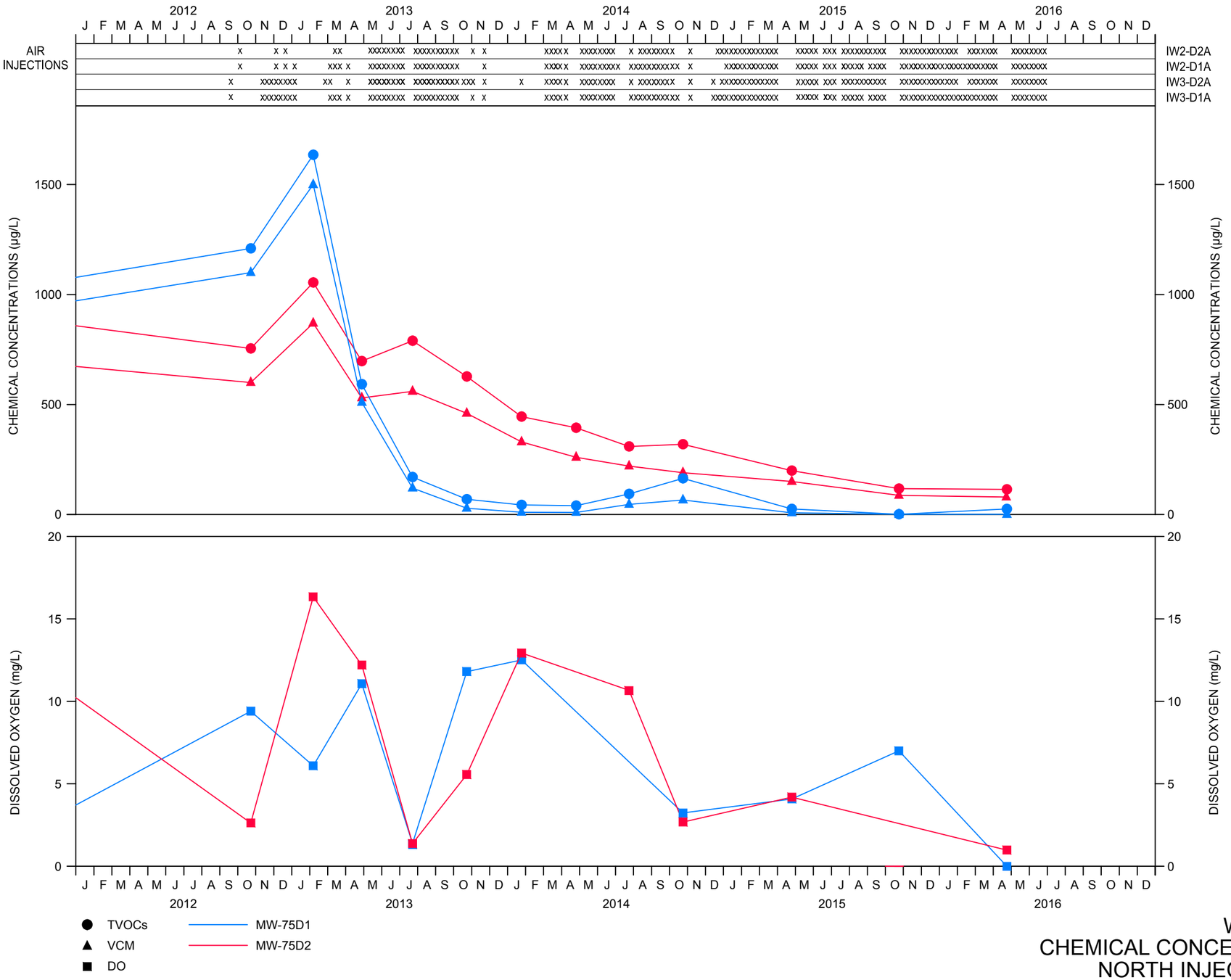


figure 17

WELL NEST MW-75
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

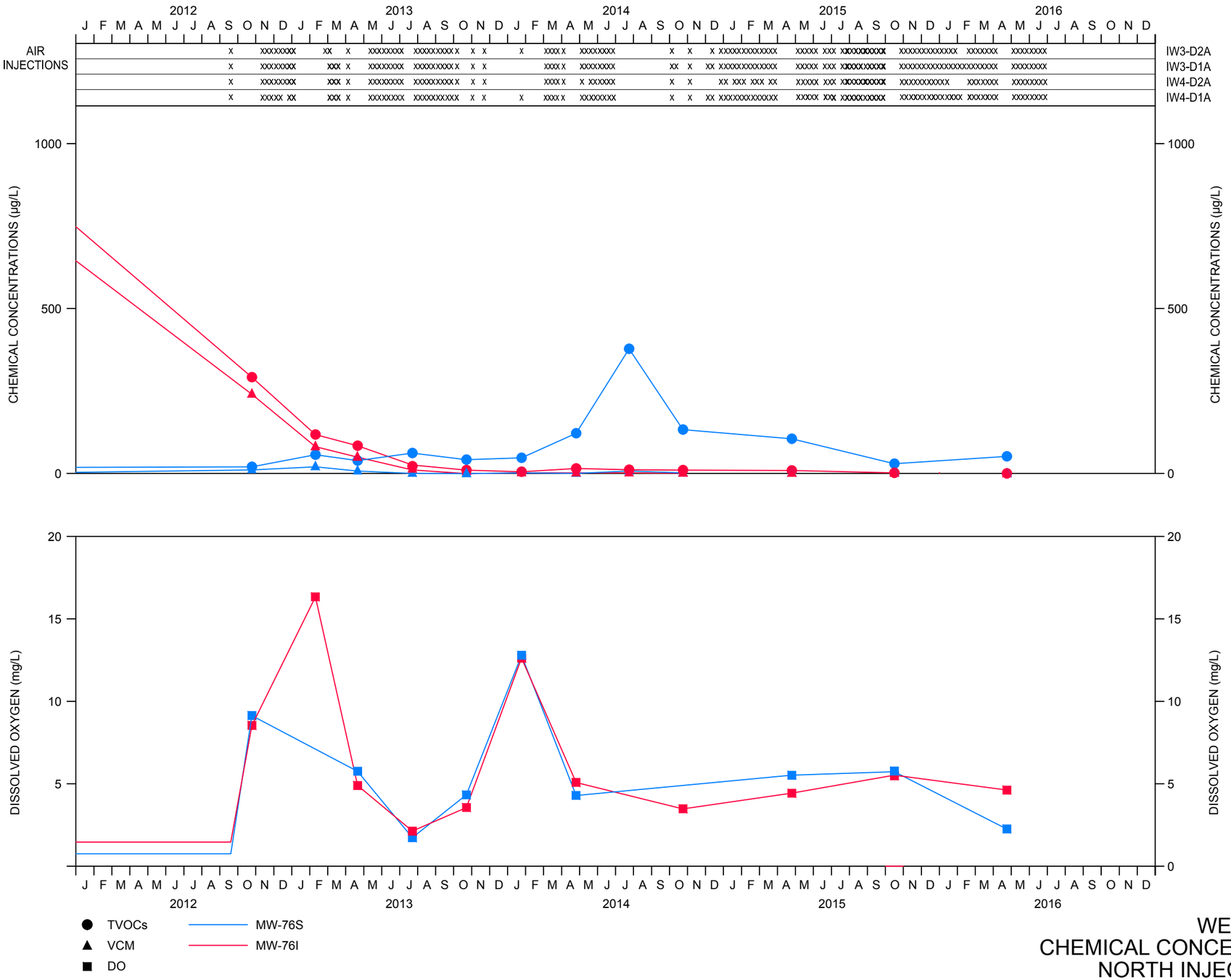


figure 18

WELL NEST MW-76S/I
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

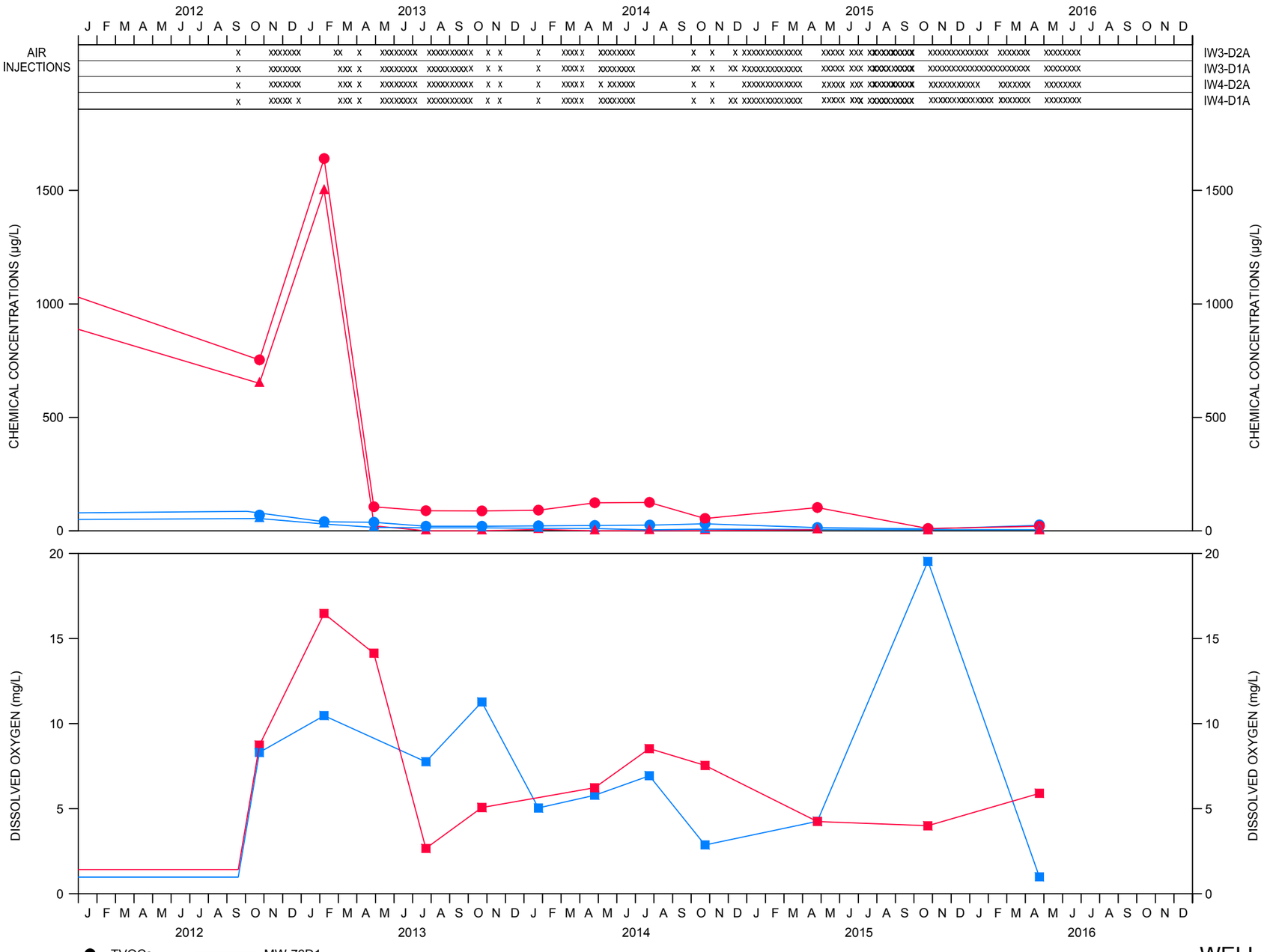


figure 19

WELL NEST MW-76D1/D2
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

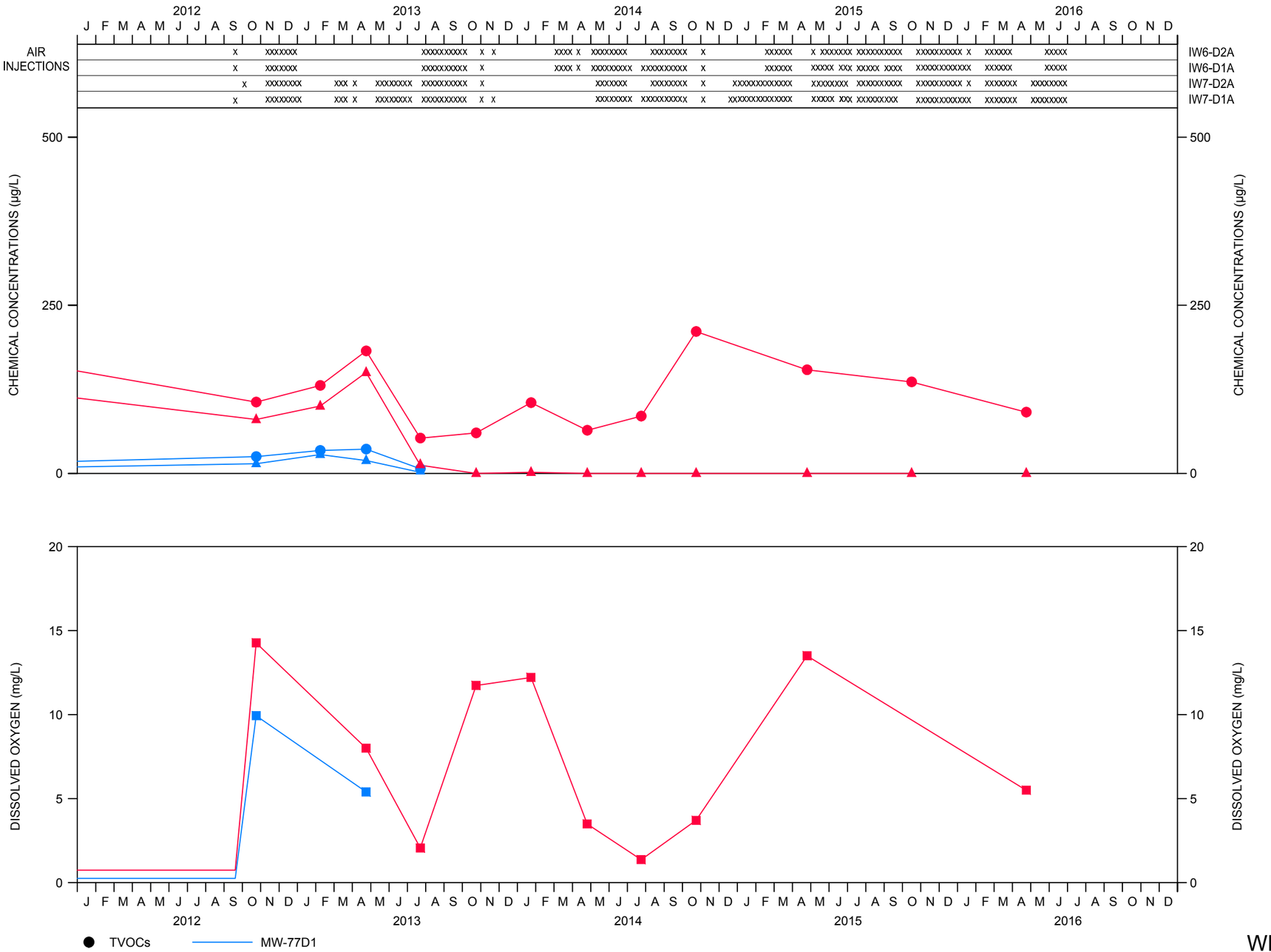


figure 20

WELL NEST MW-77
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

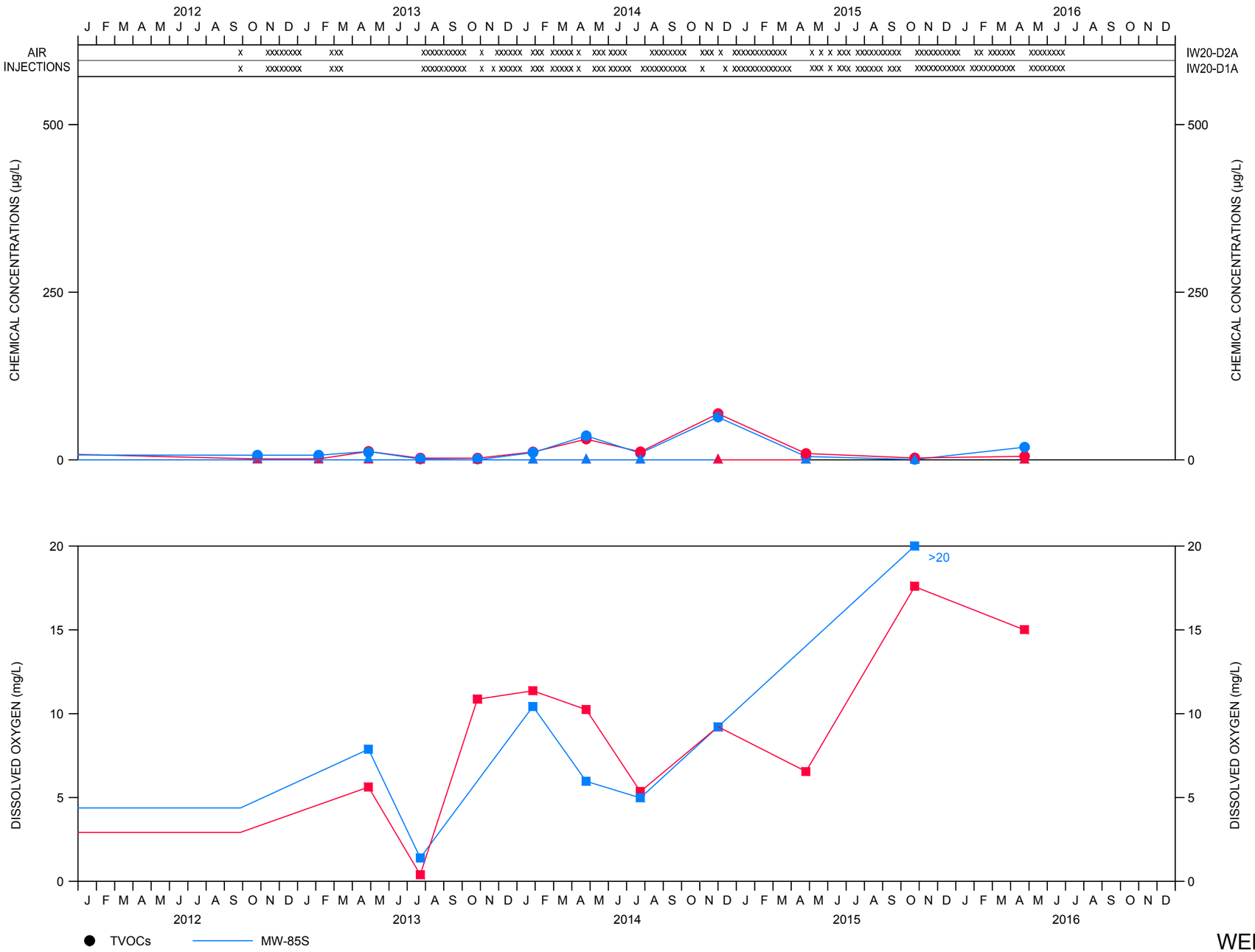


figure 21

WELL NEST MW-85S/I
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD

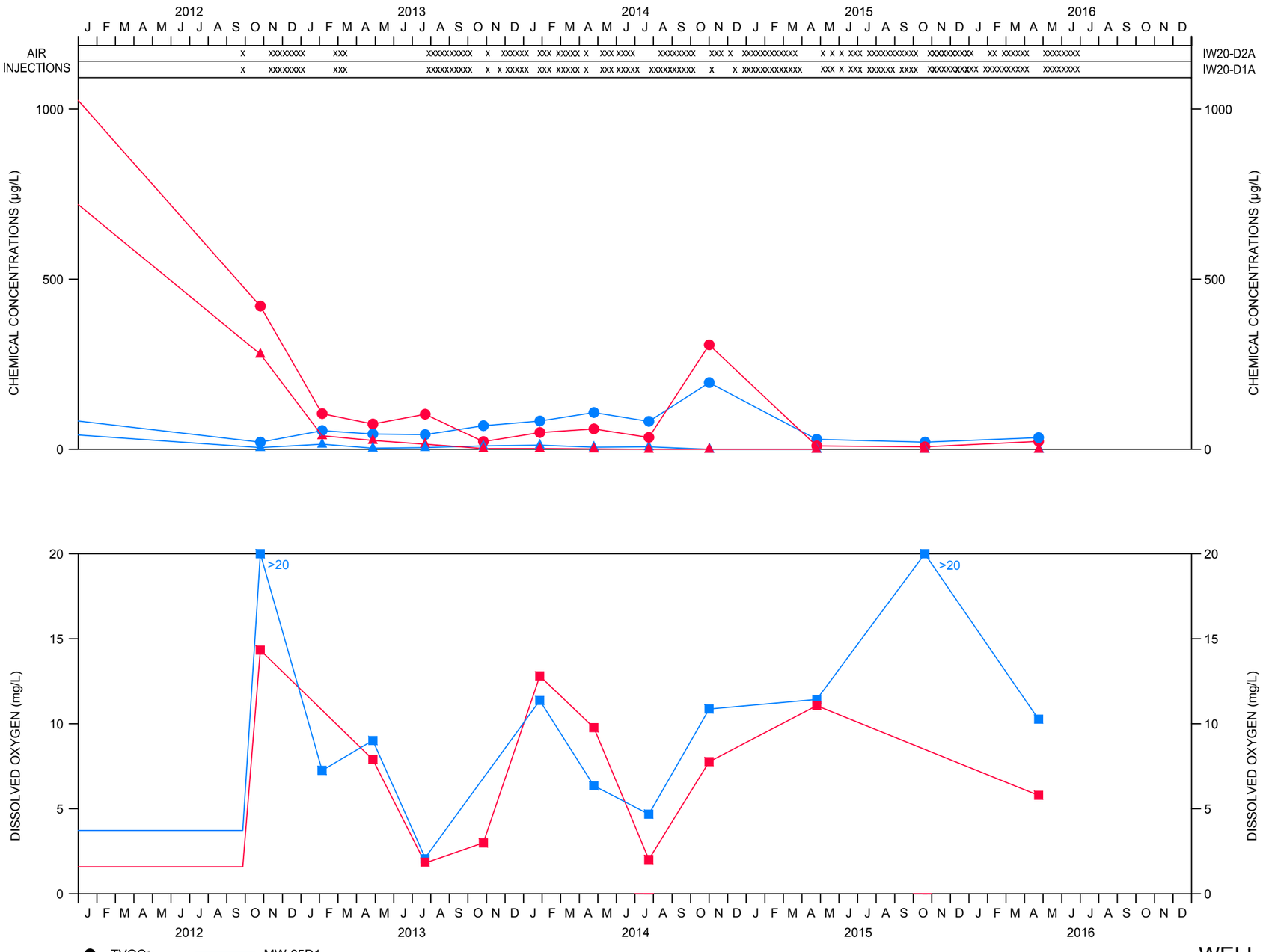
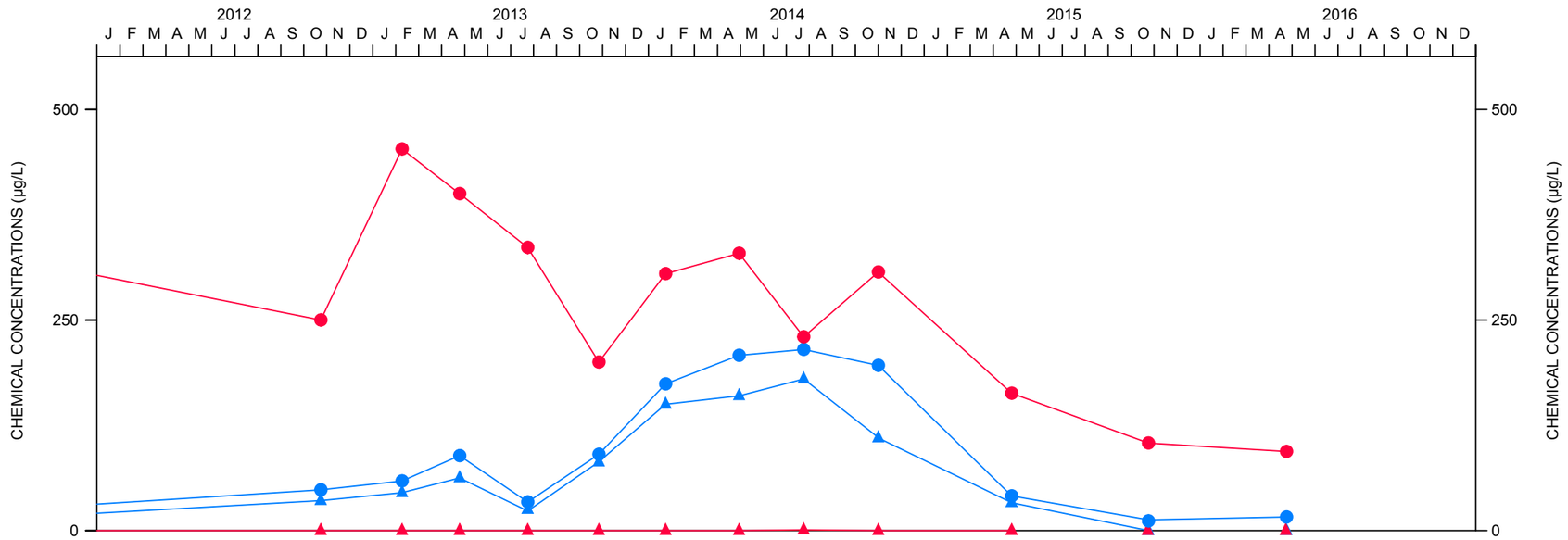


figure 22

WELL NEST MW-85D1/D2
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD



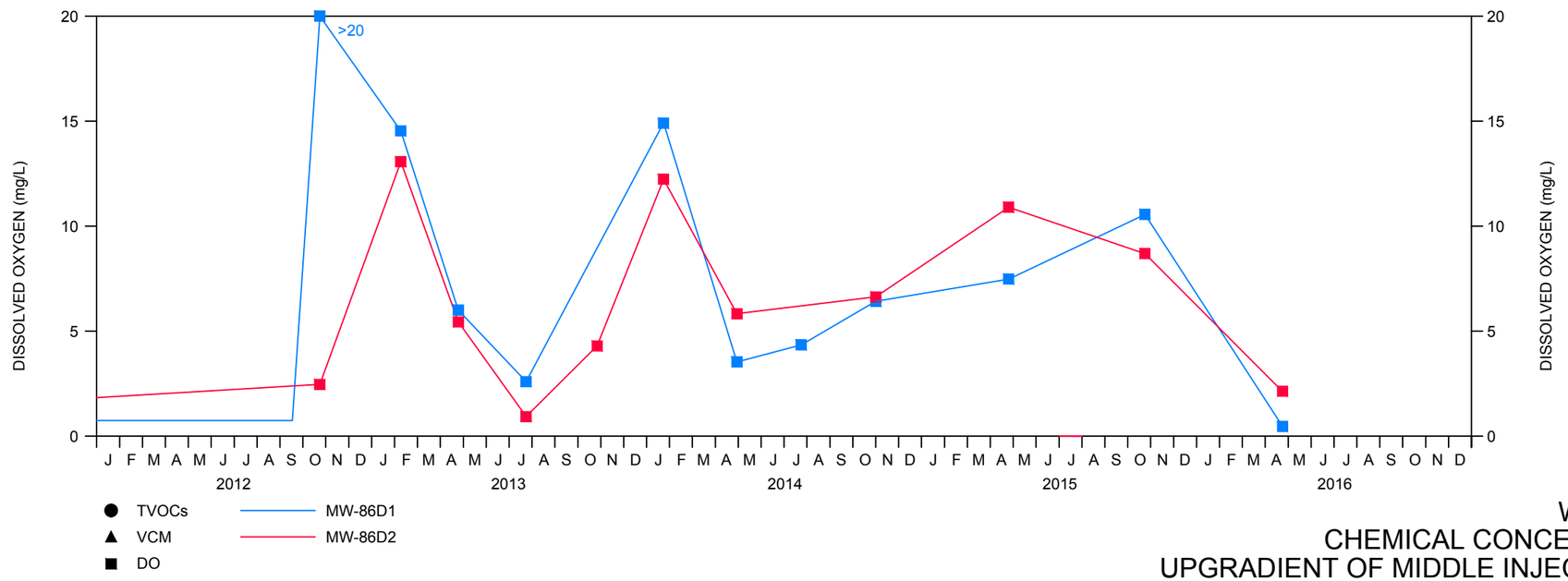


figure 23

WELL NEST MW-86
CHEMICAL CONCENTRATION PLOTS
UPGRADIENT OF MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

GHD

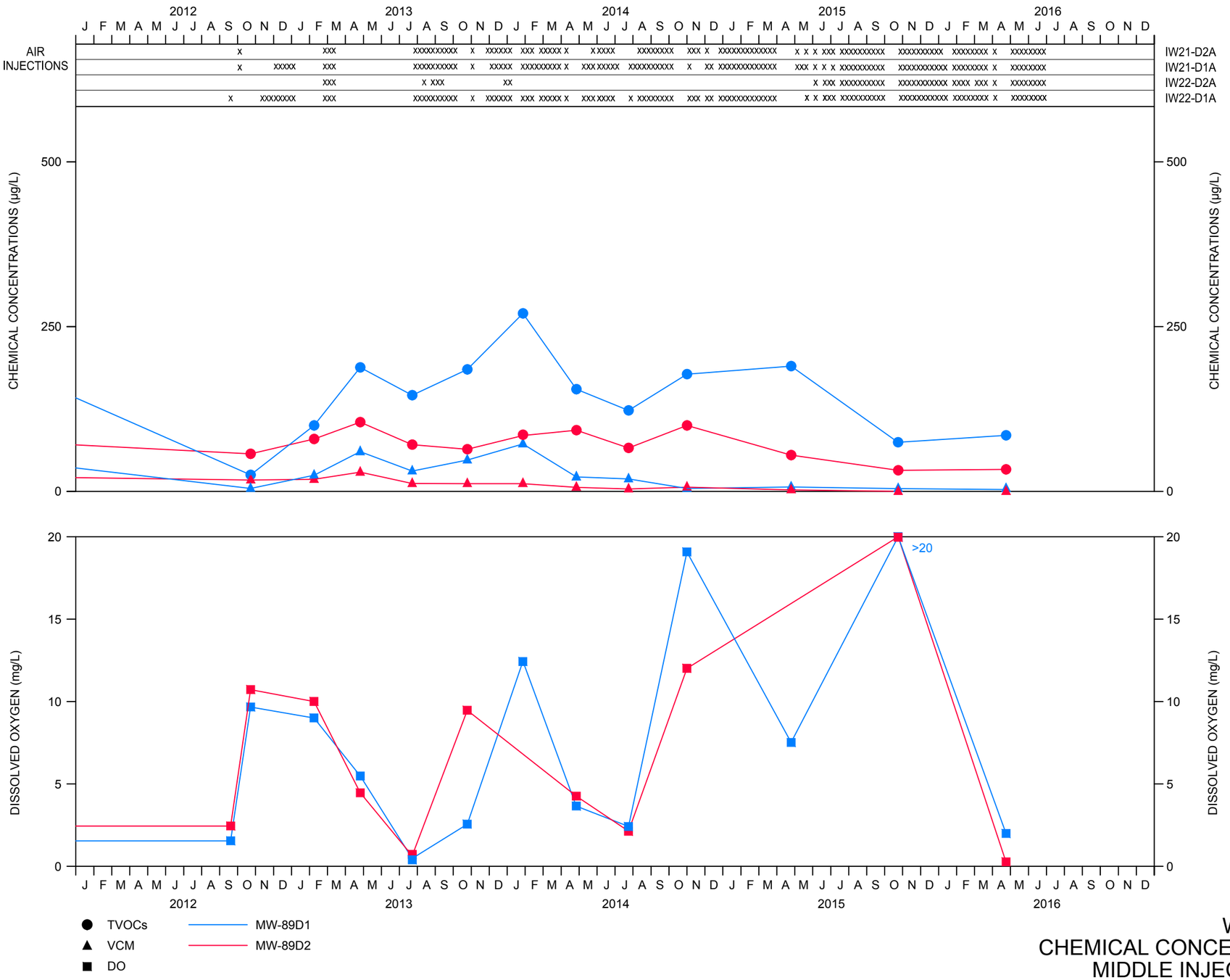


figure 24

WELL NEST MW-89
CHEMICAL CONCENTRATION PLOTS
MIDDLE INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

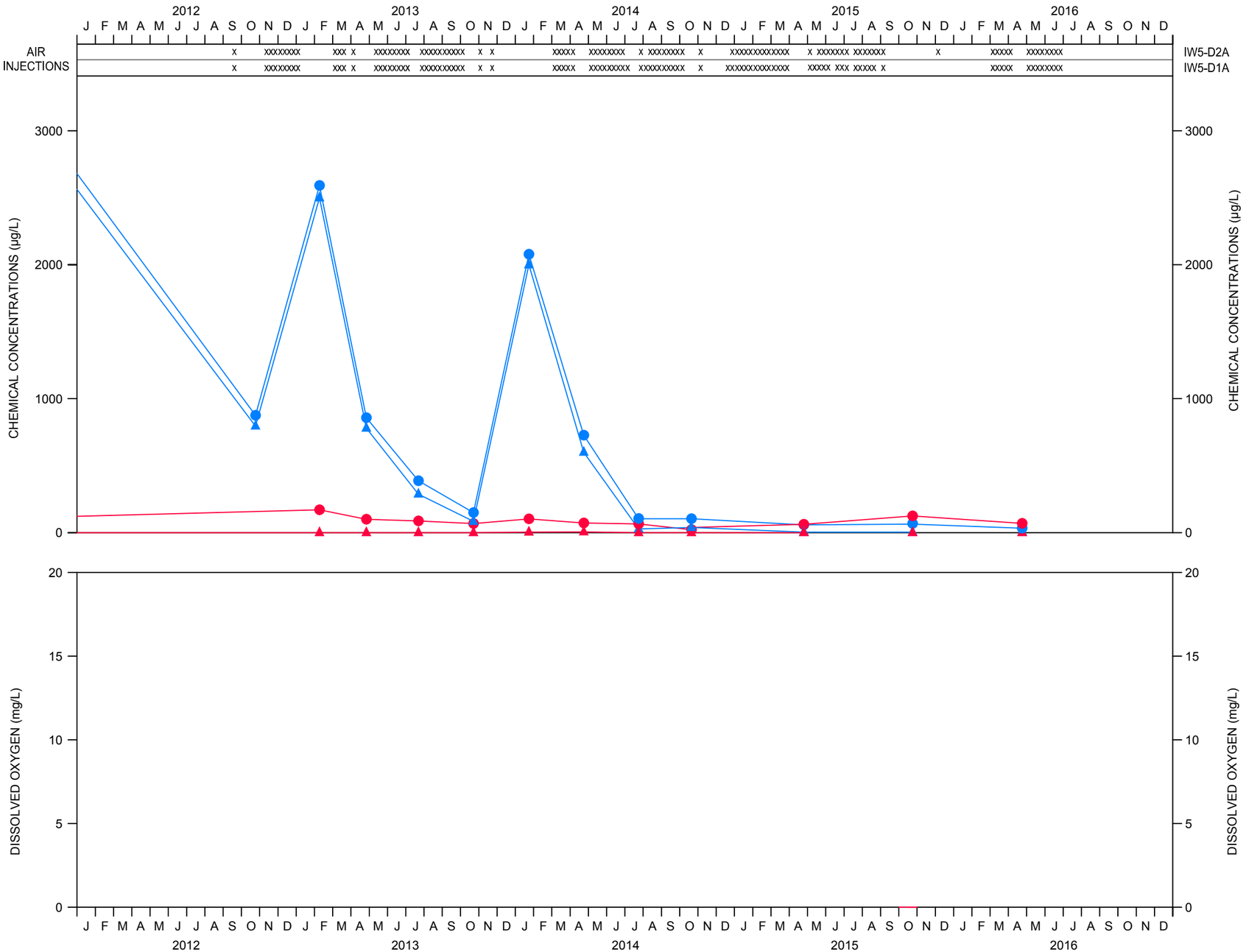


figure 25

WELL NEST MW-90
CHEMICAL CONCENTRATION PLOTS
NORTH INJECTION FENCELINE
Hooker/Ruco Site, Hicksville, New York

Table 1

Glenn Springs Holdings Inc.
Hooker/Ruco Site Operable Unit 3
Hicksville, New York

April through June 2016

Task and Activity	Percentage of Activity Completed	Start Date	Scheduled Completion Date	Completion Date
• Work Plan	100	July 1993		September 23, 1993
• Borehole/Well Installation (MW-50, MW-53, MW-54 and MW-55)	100	September 30, 1994		June 19, 1995
• Well Development, Sampling and Analysis	100	July 10, 1995		August 9, 1995
• Water Level Measurements	100	August 15, 1995		April, 1996
• Interim Report	100	May 23, 1995		June 15, 1995
• Interim Report - Addendum No. 1	100	July 28, 1995		August 2, 1995
• Grumman Production Wells Sample Collection and Analysis	100	August 1, 1995		October 4, 1995
• Well Installation (MW-51, MW-52, MW-56 and MW-57)	100	August 30, 1995		January 26, 1996
• Regional Groundwater Level Monitoring Event	100	October 3, 1995		October 3, 1995
• Well Development, Sampling and Analysis	100	January 22, 1996		July 5, 1996
• Grumman Groundwater Model	100	July 27, 1995		November 20, 1997
• Phase I Report	100	February 21, 1996		April 26, 1996
• Supporting Documentation Regarding the Effectiveness of In Situ Remediation	100	June 10, 1996		August 9, 1996
• Phase II Report	100	February 21, 1996		August 12, 1996
• Comments on DEC Draft Supplemental Feasibility Study	100	September 23, 1996		October 17, 1996
• Responses to Northrop Comments on the Phase I Report	100	April 17, 1997		June 6, 1997
• Comments on DEC Supplemental Feasibility Study	100	June 1, 1997		June 20, 1997
• Comments on Navy Regional Groundwater Feasibility Study	100	July 28, 1997		October 8, 1997
• Revised Pages for Navy Regional Groundwater Feasibility Study	100	July 28, 1997		November 3, 1997
• Comments on Groundwater Flow Model Report	100	November 20, 1997		December 5, 1997
• Comments on Draft Final Regional Groundwater Feasibility Study	100	March 27, 1998		May 1, 1998
• Comments on Northrop Letter Report	100	May 20, 1998		June 4, 1998
• Evaluation of MW-52 Area Groundwater Extraction System	100	July 1, 1998		July 29, 1998
• Remedial Investigation Report	100	December 1, 1998		January 21, 1999
• Feasibility Study Report	100	December 1, 1998		March 16, 1999
• Groundwater Treatability Study (GTS)	100	December 16, 1998		July 19, 1999
• Responses to EPA Comments on RI Report	100	May 25, 1999		June 11, 1999
• Responses to EPA Comments on FS Report	100	June 21, 1999		July 7, 1999
• Scope of Predesign Investigative Activities				
- Initial	100	June 1, 1999		June 11, 1999
- Revised	100	February 16, 2001		May 28, 2001
• Revised RI Report	100	May 25, 1999		November 16, 1999
• Revised FS Report	100	July 7, 1999		December 22, 1999
• Responses to EPA Comments on GTS	100	October 14, 1999		November 3, 1999

Table 1

Glenn Springs Holdings Inc.
Hooker/Ruco Site Operable Unit 3
Hicksville, New York

April through June 2016

Task and Activity	Percentage of Activity Completed	Start Date	Scheduled Completion Date	Completion Date
• Responses to EPA Comments on FS Report Responses	100	October 14, 1999		November 3, 1999
• Obtain access agreements	100	June 1999		December 2001
• Final RI Report	100	March 15, 2000		July 21, 2000
• Final FS Report	100	April 10, 2000		July 25, 2000
• PRAP	100			July 28, 2000
• ROD	100			September 29, 2000
• Unilateral Administrative Order	100			April 26, 2001
• Evaluate VCM presence in GP-3	100			August 15, 2001
• Design Supplemental System for VCM in GP-3	100	August 15, 2001		December 2001
• EPA Conditional Approval for Predesign Activities	100			September 28, 2001
• Issued Request for Bid for Well Installation	100			October 26, 2001
• Contractor Arrangements	100			January 15, 2002
• Arrangements for Biosparge Testing of Existing Wells	100			April 12, 2002
• Biosparge Testing of Existing Wells	100	April 15, 2002		August 13, 2002
• Phase 1 Well Installation	100	February 4, 2002		June 28, 2002
• Upgrade of GP-1/GP-3 Treatment System	100	April 8, 2002		July 9, 2003
• Sample Wells	100	June 17, 2002		July 12, 2002
• Evaluate Pre-Design Information /Develop Scope of Biosparge Remedy	100			November 22, 2002
• Install 2 Additional Wells (MW-67/68)	100	December 18, 2002		February 14, 2003
• Sample Wells MW-67 & MW-68				March 25/26, 2003
• Responses to EPA comments on Predesign Information Report	100	March 6, 2003		March 27, 2003
• EPA Meeting				April 17, 2003
• Closed Well T-1	100			May 12, 2003
• MW-67/68 Installation Report	100			May 23, 2003
• Responses to EPA comments on March 27, 2003 Responses	100	June 25, 2003		July 29, 2003
• Pre-Final (95%) RD Report	100	July 7, 2003		October 31, 2003
• Responses to EPA comments on 95% RD Report	100	April 12, 2004		May 27, 2004
• Submitted Due Diligence Request to Northrop	100			May 10, 2004
• Follow up Due Diligence Clarification to Northrop 6/11 Data Package	100			June 25, 2004
• Offer to Northrop for Property Purchase	100			October 1, 2004
• Sample 13 Wells and Submit Results	100	August 23, 2004		October 14, 2004
• Responses to EPA Comments on 95% RD Report	100	November 17, 2004		December 6, 2004
• Revised Property Purchase offer submitted to Northrop	100	December 22, 2004		December 22,2004
• Prepare 100% RD Report	100	January 12, 2005		May 27, 2005
• Property Purchased	100			June 2005

Table 1

Glenn Springs Holdings Inc.
Hooker/Ruco Site Operable Unit 3
Hicksville, New York

April through June 2016

Task and Activity	Percentage of Activity Completed	Start Date	Scheduled Completion Date	Completion Date
• 100% Design Approved	100			July 7, 2005
• Obtain Building Permits	100	July 11, 2005		November 10, 2005
• Arrange Contractors	100	January 2005		July 22, 2005
• Well Installation	100	September 13, 2005		April 28, 2006
• Biosparge System Installation	100	November 2005		May 2006
• Closure of On-Site and Off-Site Wells	100	November 2005		May 10, 2006
• OU-1 Soil Borings	100	November 2005		January 11, 2006
• Background Groundwater Sampling	100	March 27, 2006		June 14, 2006
• Pre-Start Sampling	100			October 24, 25, and 26, 2006
• Final Inspection	100			October 27, 2006
• Biosparge System Start-Up	100			October 27, 2006
• First Monthly Sampling	100			November 28 to 30, 2006
• Second Monthly Sampling	100			December 20 and 21, 2006
• Noise Survey	100			January 18, 2007
• 2007 First Quarterly Sampling	100			January 23 to 30, 2007
• Submission of Phase I Construction Documents	100			February 1, 2007
• 2007 Second Quarterly Sampling	100			April 18 to 27, 2007
• 2007 Third Quarterly Sampling	100			July 16 to 27, 2007
• 2007 Fourth Quarterly Sampling	100			October 8 to 18, 2007
• Evaluation/Recommendation for Design Modifications	100			January 15, 2008
• 2008 First Quarterly Sampling	100			January 22 to 28, 2008
• 2008 Second Quarterly Sampling	100			April 16 to 25, 2008
• 2008 Third Quarterly Sampling	100			July 15 to 18, 2008
• 2008 Fourth Quarterly Sampling	100			October 21 to 30, 2008
• Construction of North Fence Underground Components	100			December 23, 2008
• 2009 First Semi-Annual Sampling	100			April 7 to 14, 2009
• Response to USEPA Biosparge System Comments	100	August 27, 2009		September 23, 2009
• 2009 Second Semi-Annual Sampling	100			October 13 to 21, 2009
• Submittal of Biodegradation Supporting Information	100			November 30, 2009
• Submittal of Revised Schedule	100			February 3, 2010
• Submittal of PDB/HydraSleeve^{IM} Evaluation	100			February 11, 2010
• Trailing Edge Proposal	100			March 15, 2010
• 2010 First Semi-Annual Sampling	100			May 3 to 25, 2012
• Distribution of RFP for Biosparge System Well Installation	100			June 25, 2010
• Contracted Well Driller	100			August 3, 2010

Table 1

Glenn Springs Holdings Inc.
Hooker/Ruco Site Operable Unit 3
Hicksville, New York

April through June 2016

Task and Activity	Percentage of Activity Completed	Start Date	Scheduled Completion Date	Completion Date
• 2010 Second Semi-Annual Sampling	100			November 15 to 29, 2010
• Install Biosparge System Wells	100	September 20, 2010		May 15, 2011
• 2011 First Semi-Annual Sampling & Site Wide Event	100			April 7 to May 19, 2011
• Distribution of RFP for Biosparge System Expansion	100			May 4, 2011
• Receipt of Bids	100			June 17, 2011
• Submittal of PDB/HydraSleeve™ Evaluation	100			August 31, 2011
• USEPA Concurrence For Use of PDB Samplers	100			September 22, 2011
• Update QAPP	100	September 22, 2011		October 24, 2011
• 2011 Second Semi-Annual Sampling	100			Nov. 30 to Dec. 1, 2011
• Revise Updated QAPP	100	December 6, 2011		January 3, 2012
• Address EPA Comments on revised updated QAPP and resubmit	100	February 17, 2012		April 13, 2012
• Construction of Remainder of Biosparge System	100	March 5, 2012		August 15, 2012
• 2012 First Semi-Annual Sampling	100			May 23 and 24, 2012
• Submit Interim Remedial Action Report	100			September 26, 2012
• Submit Electrical As-Built Drawings	100			October 10, 2012
• 2012 Second Semi-annual Sampling	100			October 24 to November 25, 2012
• 2013 First Quarter Sampling	100			January 8 to February 13, 2013
• Well Rehabilitation Works	100			March 8 to 29, 2013
• 2013 Second Quarter Sampling	100			April 24 to May 23, 2013
• 2013 Third Quarter Sampling	100			July 9 to 25, 2013
• 2013 Fourth Quarter Sampling	100			October 24 to November 7, 2013
• 2014 First Quarter Sampling	100			January 7 to 27, 2014
• 2014 Second Quarter Sampling	100			April 23 to May 15, 2014
• 2014 Third Quarter Sampling	100			July 2 to August 6, 2014
• 2014 Fourth Quarter Sampling	100			October 6 to November 11, 2014
• Responses to EPA Comments	100	December 10, 2014		December 19, 2014
• 2015 First Semi-Annual Sampling	100			April 6 to May 8, 2015
• 2015 Second Semi-Annual Sampling	100			October 6 to November 16, 2015
• 2016 First Semi-Annual Sampling	100			April 11 to June 2, 2016

Table 2

2016 Summary of O&M Activities
Supplemental and Biosparge Systems
Hicksville, New York

Date Observed	Description of Issue	Action Taken	Date of Action	Outcome of Action	Notes
1/19/2016	$KMnO_4$ Bed Change Out due	$KMnO_4$ Bed Changed Out	1/19/2016		
1/20/2016	Carbon Bed Change Out due	Carbon Bed Changed Out	1/20/2016		
1/26/2016	IW-5 appeared to have a loss of communication	Troubleshooting the fuses, wiring, modules, etc.	3/2/2016	Wiring connections in the PLC were not fully engaged. All wiring connections were double checked and repaired. Actuator is working.	
1/29/2016	IW-18 appeared to have a loss of communication	Troubleshooting the fuses, wiring, modules, etc.	3/2/2016	Wiring connections in the PLC were not fully engaged. All wiring connections were double checked and repaired. Actuator is working.	
2/12/2016	Supplemented System air blower bearings failed	Bearings Replaced	2/18/2016	Blower operational	
2/12/2016	$KMnO_4$ vessel roof observed to be in need of repair	Stainless Steel skin roof of $KMnO_4$ vessel repaired	2/22/2016		
4/1/2016	Wells 7D, 15D and 17D were underperforming or receiving no air flow.	After the groundwater sampling was completed, the valves were switched to allow the auxiliary compressor to be used. Using this compressor, every well in the system was subjected to an air flow at a higher pressure in attempt to dislodge any blockage.	5/2/2016 - 5/3/2016	Well 7D received full air flow 15D was unable to receive full air, it continued to only take 30-40 SCFM 17D is completely blocked.	It is believed that this troubleshooting was beneficial to all of the wells. Some wells took a few rounds of air in order to achieve full flow after being down for GW sampling. This will hopefully allow for a cleaner startup process and better overall efficiency.
4/7/2016	Five Year Review	Five Year Review Site Inspection	4/7/2016		
4/11/2016	Groundwater monitoring	Samples collected	4/11/2016 - 6/02/2016		
4/14/2016	Monitoring Well Inspection	No additional action needed	4/14/2016		
4/21/2016	Carbon Bed Change Out due	Carbon Bed Changed Out	4/21/2016		
5/4/2016	Water in Vaults 17 and 18	Pumped out vaults.	5/5/2016	Vaults were pumped out.	Water enters the vaults when the grounds sprinkler is operational.

Table 2

2016 Summary of O&M Activities
Supplemental and Biosparge Systems
Hicksville, New York

Date Observed	Description of Issue	Action Taken	Date of Action	Outcome of Action	Notes
5/5/2016	Computer battery backup stopped working.	A new unit was ordered and replaced.	5/5/2016 - 5/10/2016	Functioning backup battery.	
5/10/2016	Arc flash gloves due for testing	ARC Flash gloves tested	5/10/2016 - 5/31/2016	Gloves passed testing.	
5/13/2016	IW-06 is not functioning properly.	Inspection of the actuators identified that the actuator motor overheated. The actuator was replaced and air injections restarted.	5/26/2016	IW-6 accepting air injections.	Since treated Northrop water is no longer being injected, the water line actuators will be repurposed as spares for the air injection lines.
5/16/2016	OXY router needed to be replaced.	Replacement received and installed.	5/16/2016	Router is functional.	
5/17/2016	Water in Vaults 17 and 18	Pumped out vaults.	5/18/2016	Vaults were pumped out.	
5/18/2016	Annual inspection of alarm system needed.	Inspection performed.	5/26/2016	Alarms system passed inspection	Next inspection May 2017
5/18/2016	Monthly inspection	Inspection of vaults, equipment, etc.	5/18/2016	No follow up action necessary	
5/20/2016	External filters need replacement	External filters replaced.	5/26/2016	No additional action needed.	
6/1/2016	Annual fire extinquisher inspection due	Contacted and met with Fire Foe for testing and inspection	6/1/2016	Fire extinquisher passed inspection	Next inspection June 2017
6/1/16	Crack in blower	Schedule blower repair with Systematic and Northrop Grumman for 7/11/2016 and 7/12/2016	6/1/16	No other action necessary	
6/2/16	Groundwater monitoring	Samples collected	4/11/2016 - 6/2/2016	No follow up action - groundater sampling event completed	next sampling event - October 2016
6/23/16	Area power outage	Restart computer	6/23/16	No additional action needed.	
6/30/16	Groundwater discharged to ground surface in vicinity of MW-61D2	Place cones around affected area until able to open well. Re-fit handle to cap and securely fasten to well head.	6/30/2016-7/1/2016	Well cap is functional	This well will now be inspected weekly to prevent future occurences

Table 3

Summary of Wells Sampled
April/May 2016 Semi-Annual Performance Monitoring Event
Biosparge System, Hicksville, New York

Well ID	Well Scheduled to be Sampled	Well Sampled	Comments	Sampling Frequency
Base Wells				
MW-61I	N	N	Obstruction in well prevents insertion of sampler.	NA
MW-61D1	N	N	Obstruction in well prevents insertion of sampler.	NA
MW-61D2	Y	Y		Semi-Annual
MW-70D1	Y	Y		Semi-Annual
MW-70D2	Y	Y		Semi-Annual
MW-72D1	Y	Y		Semi-Annual
MW-72D2	Y	Y		Semi-Annual
MW-73D1	Y	Y		Semi-Annual
MW-73D2	Y	Y		Semi-Annual
MW-75D1	Y	Y		Semi-Annual
MW-75D2	Y	Y		Semi-Annual
MW-76S	Y	Y		Semi-Annual
MW-76I	Y	Y		Semi-Annual
MW-76D1	Y	Y		Semi-Annual
MW-76D2	Y	Y		Semi-Annual
MW-77D1	N	N	Sampler from prior event stuck in well prevents insertion of new samplers.	NA
MW-77D2	Y	Y		Semi-Annual
MW-81D1	Y	Y	HydraSleeve ripped. No field readings.	Semi-Annual
MW-81D2	Y	Y		Semi-Annual
MW-82D1	Y	Y		Semi-Annual
MW-82D2	Y	Y		Semi-Annual
MW-83D1	Y	Y		Semi-Annual
MW-83D2	Y	Y		Semi-Annual
MW-84D1	Y	Y		Semi-Annual
MW-84D2	Y	Y	HydraSleeve ripped. No field readings.	Semi-Annual
MW-85S	Y	Y	HydraSleeve ripped. No field readings.	Semi-Annual
MW-85I	Y	Y		Semi-Annual
MW-85D1	Y	Y		Semi-Annual
MW-85D2	Y	Y		Semi-Annual
MW-86D1	Y	Y		Semi-Annual
MW-86D2	Y	Y		Semi-Annual
MW-87D1	Y	Y		Semi-Annual
MW-87D2	Y	Y		Semi-Annual
MW-88D1	Y	Y		Semi-Annual
MW-88D2	Y	Y		Semi-Annual
MW-89D1	Y	Y		Semi-Annual
MW-89D2	Y	Y		Semi-Annual
MW-90D1	Y	Y	1-inch diameter well. VOCs only.	Semi-Annual
MW-90D2	Y	Y	1-inch diameter well. VOCs only.	Semi-Annual

Summary of Wells Sampled
April/May 2016 Semi-Annual Performance Monitoring Event
Biosparge System, Hicksville, New York

Well ID	Well Scheduled to be Sampled	Well Sampled	Comments	Sampling Frequency
Voluntary Wells				
MW-58D	Y	Y		Semi-Annual
MW-58D1	Y	Y		Semi-Annual
MW-58D2	Y	Y		Semi-Annual
MW-59D	N	N	Sampler from previous event stuck in well.	NA
MW-59D1	N	N	Sampler from previous event stuck in well.	NA
MW-59D2	N	Y	Stuck sampler from prior sampling event retrieved allowing well to be sampled. HydraSleeve ripped. No field readings.	Semi-Annual
MW-60S	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-60I	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-60D1	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-60D2	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-62I	Y	Y		Biennial
MW-62D	Y	Y		Biennial
MW-63S	Y	Y	HydraSleeve ripped. No field readings.	Semi-Annual
MW-63I	Y	Y		Semi-Annual
MW-63D1	Y	Y		Semi-Annual
MW-63D2	Y	Y		Semi-Annual
MW-64S	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-64I	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-64D	N	N	Well no longer needed to monitor remediation of VCM plume.	NA
MW-66I	N	N	Remediation of VCM plume is adequately monitored by MW-66D2.	NA

Summary of Wells Sampled
April/May 2016 Semi-Annual Performance Monitoring Event
Biosparge System, Hicksville, New York

Well ID	Well Scheduled to be Sampled	Well Sampled	Comments	Sampling Frequency
Voluntary Wells				
MW-66D1	N	N	Remediation of VCM plume is adequately monitored by MW-66D2.	NA
MW-66D2	Y	Y		Semi-Annual
MW-67S	Y	Y		Semi-Annual
MW-67D	Y	Y		Semi-Annual
MW-68S	Y	Y		Semi-Annual
MW-68D	Y	Y		Semi-Annual
MW-92D1	N	N		Biennial
MW-92D2	N	N		Biennial
MW-93D1	N	N		Biennial
MW-93D2	N	N		Biennial
MW-3-1	N	N	Northrop well	Determined by Northrop

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
Base Wells							
MW-61I [(1)]	10/24/2006	NA	NA	NA	102	0.00	2.76
	10/25/2006	NA	NA	NA	112	0.41	3.04
	10/26/2006	5 UJ	5 U	2 J	133	0.00	2.49
	11/29/2006	5 U/5U	5 U/5 U	3 J/2 J	60	0.00	1.96
	12/21/2006	5 U/5 U	5 U/5 U	3 J/4 J	118	0.00	2.17
	1/24/2007	5 U	5 U	3 J	101	1.93	1.84
	4/19/2007	19	95	140	124	3.21	0.03
	7/20/2007	5 U	5 U	4	90	0.37	5.19
	10/11/2007	5 U	5 U	2 U	50	3.56	3.12
	1/24/2008	5 UJ	5 U	4.8	86	1.44	3.11
	4/23/2008	2 J	1 J	4	60	0.45	2.83
	7/16/2008	3.7 J	4.7 J	5.0 U	69	2.78	10.82
	10/28/2008	2 J	1 J	4	351	7.11	1.11
	4/8/2009	3.7 J	4.7 J	5.0 U	306	12.18	0.05
	10/15/2009	7.7	11	1.4 J	366	17.66	0.49
	5/10/2010	6.9	7.8 U	1.6 J	120	10.65	0.0
	1/20/2011	5.6/3.7 J	3.9 J/3.7 J	5.0 U/5.0 UJ	266	11.10	0.0
	4/19/2011	4.6 J/4.6 J	3.8 J/4.0 J	5.0 U/ 5.0	249	10.10	0.0
	11/30/2011	3.7 J	3.3 J	5.0 U	NM	12.81	NM
	5/23/2012	2.3 J	3.6 J	5.0 U	NM	NM	NM
	11/5/2012	4.4 J	4.8 J	5.0 U	111	11.23	3.99
MW-61D1 [(1)]	10/24/2006	NA	NA	NA	110	0.00	2.30
	10/25/2006	NA	NA	NA	107	0.65	3.74
	10/26/2006	5 UJ	5 U	3 J	109	0.00	2.99
	11/29/2006	5 U	5 U	5.7	54	0.00	1.92
	12/21/2006	5 U	5 U	3 J	90	0.00	2.59
	1/23/2007	5 U	5 U	3 J	54	1.21	1.84
	4/19/2007	27	130	200	79	6.66	0.26
	7/20/2007	5 U/5 U	5 U/2 J	4.0/4.0	83	0.44	3.30
	10/10/2007	5 U	5 U	1 J	26	3.39	4.20
	1/24/2008	5 U	5 U	3	78	1.33	3.21
	4/22/2008	5 U	5 U	2 U	60	0.41	2.91
	7/16/2008	5 UJ/5 UJ	5 U/5 U	2/2	87	2.35	2.13
	10/28/2008	2 J	1 J	2 U	335	3.75	0.21
	4/8/2009	3.9J /3.7 J	4.4 J/4.3 J	5.0 U/5.0 U	267	12.77	0.08
	10/15/2009	6.7	9.3	5.0 U	336	10.11	0.96
	5/10/2010	6.3	8.0 U	1.8 J	140	10.15	0.0
	1/20/2011	5.6	3.6 J	5.0 UJ	231	18.80	0.0
	4/19/2011	3.8 J	3.0 J	5.0 U	248	10.38	0.0
	11/30/2011	3.7 J	3.1 J	5.0 U	NM	13.21	NM
	5/23/2012	2.2 J	3.1 J	5.0 U	170	13.55	1.8
	11/5/2012	4.2 J	3.9 J	5.0 U	124	11.85	3.0
MW-61D2 [(1)]	10/24/2006	NA	NA	NA	37	0.00	0.15
	10/25/2006	NA	NA	NA	27	1.42	5.46
	10/26/2006	150 J	450	5800	62	1.94	4.04
	11/29/2006	39	150	1500	110	11.12	1.91
	12/21/2006	130	490	3400	120	9.28	2.36
	1/23/2007	160	590	3100	131	>20	0.89
	4/23/2007	140	580 J	2000	361	>20	0.21
	7/23/2007	200	640	3500	71	13.45	1.34
	10/11/2007	62	210	610	300	11.71	0.21
	1/24/2008	26	140	46	326	>20	0.78
	4/22/2008	11	89	11	248	14.49	0.09
	7/15/2008	40 J	330	39	173	19.99	0.08
	10/27/2008	25	150	33	381	>20	0.18
	4/9/2009	110	360	450	319	17.47	1.95
	10/14/2009	99	300	19	155	16.29	2.80

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-61D2 [1]	5/10/2010	120	360	240	224	19.51	0.0
(cont'd)	11/16/2010	78	360	380	55	8.75	-2
	4/7/2011	110/70	240/240	18 J/10 J	196	17.58	(2)
	5/23/2012	13 J	110	12	123	8.54	9
	5/2/2013	30	120	13	196	16.37	>5.0
	10/29/2013[5]	30	46	1.2 J	NM	NM	NM
	4/29/2014[5]	51	73	1.2 J	NM	NM	NM
	10/30/2014[5]	40 J	59 J	0.88 J	NM	NM	NM
	4/24/2015[5]	52	150	1.3 J	NM	NM	NM
	10/22/2015	11	18	2.0 U	87	12.28	5.0
	4/26/2016	39	51	2.0 U	69	5.76	0.35
MW-63D1 [2]	5/24/2010	6.4 J	9.2	35	166	0.00	0.0
	5/1/2013	17	3.4 J	13	232	11.93	1.6
	10/24/2013	3.2 J	5.6	45	208	17.25	0.9
	4/24/2014	9.9	7.3	29	276	11.59	0.0
	7/17/2014	6.9	6	19	158	3.50	3.2
	10/21/2014	5.5	3.8 J	3.2 J	121	6.91	1.5
	4/22/2015	3.4 J	5.0 U	2.0 U	332	5.52	4.3
	10/20/2015	2.3 J	3.7 J	2.0 U	58	33.76	0.8
	4/28/2016	6.1	2.4 J	2.0 U	264	5.22	0.3
MW-63D2 [2]	5/24/2010	6.4 J	9.1	46	169	0.00	0.00
	5/1/2013	21	4.0 J	13	229	9.77	1.65
	10/24/2013	3.1 J	5.2	46	-17	11.03	3.86
	4/24/2014	7.9	8.1	29	202	7.95	0.11
	7/17/2014	5.6	6.1	21	125	2.70	3.10
	10/21/2014	5.1	3.7 J	3.2 J	167	6.48	1.20
	4/22/2015	2.7 J	5.0 U	2.0 U	280	6.09	2.30
	10/20/2015	2.4 J	3.6 J	2.0 U	53	35.80	2.97
	4/28/2016	4.9 J	1.6 J	2.0 U	256	5.26	0.07
MW-63S [2]	5/21/2010	2.4 J	4.3 J	16	-111	0.00	0.06
	5/23/2013	10	7.8	76	74	4.53	1.33
	11/7/2013	9.4	7.7	5.0 U	7	8.91	3.16
	5/15/2014[5]	7	6	18	NM	NM	NM
	8/6/2014	5.0 UJ	5.5	7.2	145	5.64	0.10
	11/14/2014	3.5 J	3.8 J	1.5 J	203	7.88	25.0
	5/8/2015	5.5	5.0 U	4.7 J	4	11.79	0.3
	11/9/2015[5]	3.3 J	2.5 J	2.0 U	NM	NM	NM
	5/18/2016[5]	1.9 J	5.0 U	2.0 U	NM	NM	NM
MW-63I [2]	5/21/2010	5.4 J	8.3	47	-102	0.00	0.0
	5/23/2013	7.9	5.5	29	75	4.40	1.7
	11/7/2013	12	8.2	5.0 U	70	11.37	0.7
	5/15/2014	1.5 J	5.0 U	3.4 J	36	2.83	0.0
	8/6/2014	5.0 UJ	5.9	15	139	2.73	0.5
	11/14/2014	4.5 J	3.3 J	4.2 J	35	8.41	14.5
	5/8/2015	5.8	5.0 U	2.0 U	87	12.34	0.8
	11/9/2015	2.3 J	2.1 J	0.97 J	265	12.19	NM
	5/18/2016	2.7 J	5.0 U	2.0 U	231	13.55	0.4
MW-70D1 [2]	4/11/2011	13	2.0 J	46	-135	0.69	4.0
	10/25/2012	2.0 J	5.0 U	12	NM	NM	NM
	2/4/2013	8.8	2.1 J	43	8	4.80	3.0
	4/26/2013	6.4	2.0 J	26	170	9.35	3.5
	7/23/2013[5]	5.3	1.3 J	16	NM	NM	NM
	10/24/2013	5.8	1.1 J	21	38	12.56	2.8
	1/23/2014	4.2 J	1.9 J	17	-109	5.06	0.0
	4/23/2014	4.1 J	1.2 J	20	76	10.11	0.0
	7/21/2014	6.6	1.0 J	16	48	9.35	0.0
	10/23/2014	4.3 J	0.92 J	19	30	6.24	2.7

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-70D1 [2]	4/24/2015	3.3 J	5.0 U	11	107	14.38	0.0
(cont'd)	10/22/2015	3.5 J	1.6 J	8.8	62	6.00	1.6
	4/27/2016	1.5 J	5.0 U	5.1	-17	0.08	0.4
MW-70D2 [2]	4/11/2011	47	56	1000	-122	0.66	2.0
	10/25/2012	32	26	190	-4	8.78	3.2
	2/4/2013	62	23	29	27	11.14	0.0
	4/26/2013	51	12	4.2 J	-19	7.89	>5.0
	7/23/2013	49	14	5.0 U	16	1.88	1.2
	10/24/2013	45	13	1.6 J	-17	3.95	0.1
	1/23/2014[5]	20	8.1	5.0 U	NM	NM	NM
	4/23/2014	11	3.8 J	5.0 U	211	11.88	0.0
	7/21/2014	11	1.4 J	5.0 U	-9	9.22	0.0
	10/23/2014	1.8 J	5.0 U	5.0 U	39	3.82	4.5
	4/24/2015	1.6 J	5.0 U	2.0 U	-89	8.70	0.2
	10/22/2015	5.0 U	5.0 U	2.0 U	-21	4.44	NM
	4/27/2016	5.0 U	5.0 U	2.0 U	108	0.00	0.0
MW-72D1 [2]	4/12/2011	13	1.9 J	21	-159	0.57	3.5
	10/25/2012	3.2 J	5.0 U	5.0 U	139	9.82	1.0
	2/4/2013	3.5 J	1.0 J	3.0 J	54	4.65	1.0
	5/1/2013	1.3 J	1.0 J	0.99 J	103	10.48	3.7
	7/23/2013	1.9 J	1.3 J	5.0 U	-11	2.37	>5.0
	10/24/2013	5.0 U	5.0 U	5.0 U	-80	4.60	4.6
	1/24/2014	5.0 U	5.0 U	5.0 U	36	10.78	NM
	4/23/2014[5]	1.3 J	1.6 J	2.9 J	NM	NM	NM
	7/21/2014	5.0 U	5.0 U	5.0 U	-21	10.13	0.0
	10/23/2014	0.74 J	5.0 U	5.0 U	37	4.41	2.6
	4/24/2015	5.0 U	5.0 U	2.0 U	97	13.26	0.5
	10/22/2015	5.0 U	5.0 U	2.0 U	6	6.38	5.0
	4/28/2016	5.0 U	5.0 U	2.0 U	122	3.94	0.1
MW-72D2 [2]	4/13/2011	330	5.3	5.0 U	-210	0.37	2.0
	10/25/2012	380	37	5.0 U	76	7.52	0.8
	2/4/2013	850	51	5.0 U	48	7.77	0.4
	5/1/2013	540	16	5.0 U	-32	9.69	>5.0
	7/23/2013	410	35	5.0 U	-134	2.03	3.7
	10/24/2013	480	25	5.0 U	-144	3.20	3.2
	1/24/2014	400	32	5.0 U	67	12.96	NM
	4/23/2014[5]	450	43	5.0 U	NM	NM	NM
	7/21/2014	500	48	0.59 J	-2	9.43	0.3
	10/23/2014	560	54	5.0 U	52	3.03	2.8
	4/24/2015	240	37	2.0 U	42	9.51	0.5
	10/22/2015	190	29	2.0 U	9	4.73	1.9
	4/28/2016	200	23	2.0 U	284	0.72	0.1
MW-73D1 [2]	4/25/2011	5.0 U	5.0 U	5.0 U	-155	2.56	3.5
	10/26/2012	5.0 U	5.0 U	2.6 J	7	11.93	5.0
	2/13/2013	5.0 U	5.0 U	5.0 U	296	9.91	0.0
	5/1/2013	5.0 U	5.0 U	5.0 U	-44	10.87	>5.0
	7/24/2013	1.9 J	5.0 U	5.0 U	-128	0.86	3.0
	10/25/2013	1.9 J	5.0 U	5.0 U	-51	2.94	0.3
	1/24/2014	5.0 U	5.0 U	5.0 U	143	14.42	NM
	4/24/2014	5.0 U	5.0 U	5.0 U	140	3.56	0.8
	7/18/2014	0.85 J	5.0 U	5.0 U	21	1.22	0.0
	10/30/2014	5.0 U	5.0 U	5.0 U	203	24.68	0.0
	4/24/2015	1.5 J	5.0 U	0.75 J	59	15.86	NM
	10/26/2015	2.5 J	5.0 U	2.0 U	63	8.44	0.1
	4/27/2016	2.9 J	5.0 U	2.0 U	134	1.70	0.9

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-73D2 [(2)]	4/25/2011	38	20	1400	-53	1.86	3.5
	10/26/2012	52	19	130	12	8.07	5.0
	2/13/2013	60	23	22	332	12.53	0.0
	5/1/2013	26	12	16	-95	7.63	>5.0
	7/24/2013	60	17	3.0 J	-29	1.95	3.6
	10/25/2013	13	6.1	0.62 J	-32	1.74	1.3
	1/24/2014[(5)]	6.3	5.7	1.1 J	NM	NM	NM
	4/24/2014	5.3	2.0 J	5.0 U	130	8.71	0.0
	7/18/2014	2.8 J	5.0 U	5.0 U	1	1.37	0.0
	10/30/2014	35	11	5.0 U	55	7.73	>5.0
	4/24/2015	8.5	5.0 U	2.0 U	-58	9.53	1.4
	10/26/2015	9.2	4.0 J	2.0 U	45	12.23	0.5
	4/27/2016	13	5.2	2.0 U	92	5.38	0.0
MW-75D1 [(2)]	12/1/2011	51	23 J	960	NM	3.20	NM
	10/24/2012	32	18	1100	-35	9.41	1.6
	2/4/2013	39	16	1500	-48	6.09	0.0
	4/30/2013	25	7	510	1	11.07	4.1
	7/24/2013	17	6.3	120	-138	1.32	2.2
	10/24/2013	7	2.6 J	28	48	11.80	3.2
	1/24/2014	3.2 J	2.0 J	10	40	12.51	NM
	4/23/2014[(5)]	6.3	4.9 J	9	NM	NM	NM
	7/18/2014[(5)]	10	4.9 J	46	NM	NM	NM
	10/23/2014	9.4	2.8 J	66	47	3.23	>5.0
	4/22/2015	5.1	5.0 U	7.2	117	4.08	NM
	10/22/2015	5.0 U	5.0 U	2.0 U	191	6.86	5.0
	4/28/2016	4.2 J	2.4 J	2.0 U	194	0.00	0.1
MW-75D2 [(2)]	12/1/2011	44	88	680	NM	10.91	NM
	10/24/2012	34	63	600	-23	2.63	0.0
	2/4/2013	46	76	870	-55	16.33	0.0
	4/30/2013	47	58	530	26	12.20	3.9
	7/24/2013	56	87	560	-136	1.32	2.2
	10/24/2013	27	42	460	-92	5.56	0.0
	1/24/2014	26	45	330	0	12.93	NM
	4/23/2014[(5)]	31	47	260	NM	NM	NM
	7/18/2014	20	32	220	-37	10.65	0.0
	10/23/2014	17 J	35 J	190 J	6	2.68	3.5
	4/22/2015	9.3	19	150	-82	4.19	1.4
	10/22/2014[(5)]	8.3	8.6	87	NM	NM	NM
	4/28/2016	1.5 J	5.0 U	78	-41	0.98	0.3
MW-76S [(2)]	4/6/2011	5.0 U	5.0 U	2.4 J	-148	0.78	7.0
	10/25/2012	5.0 U	5.0 U	9.2	45	9.18	1.6
	2/6/2013	5.0 U	5.0 U	19	NM	NM	NM
	4/24/2013[(5)]	5.0 U	5.0 U	5.9	-70	5.76	1.25
	7/23/2013	0.95 J	5.0 U	5.0 U	-157	1.71	2.90
	10/25/2013	5.0 U	5.0 U	2.3 J	-1	4.33	0.56
	1/24/2014	1.0 J	5.0 U	2.0 J	125	12.79	0.0
	4/23/2014	2.0 J	5.0 U	5.0 U	228	4.29	0.0
	7/18/2014[(5)]	1.3 J	5.0 U	7.5	NM	NM	NM
	10/21/2014[(5)]	1.1 J	5.0 U	1.5 J	NM	NM	NM
	4/22/2015	5.0 U	5.0 U	2.0 U	236	5.52	2.2
	10/22/2015	1.4 J	5.0 U	2.0 U	42	5.77	4.8
	4/27/2016	1.4 J	5.0 U	2.0 U	180	2.26	0.0
MW-76I [(2)]	4/8/2011	5.0 U	5.0 U	1000	159	1.48	4.0
	10/25/2012	1.1 J	5.0 U	240	-23	8.51	4.25
	2/6/2013	5.0 U	5.0 U	81	4	16.35	2.2
	4/24/2013	5.0 U	5.0 U	50	-74	4.9	>5.0
	7/23/2013	5.0 U	5.0 U	13	0	2.14	2.9
	10/25/2013	5.0 U	5.0 U	5.1	4	3.56	0.5

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-76I [2] (cont'd)	1/24/2014	0.70 J	5.0 U	3.2 J	-8	12.62	0.7
	4/23/2014	5.0 U	5.0 U	1.5 J	106	5.08	0.05
	7/18/2014[5]	0.74 J	5.0 U	0.96 J	NM	NM	NM
	10/21/2014	0.96 J	5.0 U	0.62 J	73	3.48	3.30
	4/22/2015	5.0 U	5.0 U	2.0 U	-216	4.43	NM
	10/22/2015	1.5 J	1.2 J	2.0 U	16	5.48	5.00
	4/27/2016	1.4 J	5.0 U	2.0 U	78	4.62	0.00
MW-76D1 [2]	4/11/2011	14	1.1 J	52	-123	0.98	2.0
	10/25/2012	6.2	5.0 U	52	-14	8.32	5.00
	2/6/2013	8.7	5.0 U	28	-16	10.47	3.00
	4/30/2013[5]	6.4	1.1 J	17	NM	NM	NM
	7/23/2013	4.6 J	1.0 J	13	-148	7.76	3.94
	10/25/2013	5.6	1.1 J	15	97	11.27	0.08
	1/24/2014	4.2 J	1.4 J	9.9	-117	5.04	NM
	4/23/2014	4.1 J	5.0 U	9.5	153	5.70	0.05
	7/21/2014	5.0 U	5.0 U	3.8 J	143	6.96	1.00
	10/21/2014	6.6	1.1 J	7	73	2.87	2.60
	4/22/2015	3.1 J	5.0 U	5.4	17	4.26	1.20
	10/22/2015	4.1 J	1.3 J	3.9	-75	19.54	1.68
	4/27/2016	2.3 J	5.0 U	2.3	-77	1.00	0.00
MW-76D2 [2]	4/8/2011	74	42	1100	-59	1.37	4.8
	10/25/2012	44	25	650	-19	8.71	0.0
	2/6/2013	63	25	1500	-76	16.45	0.0
	4/30/2013	51	12	19	15	14.13	2.2
	7/23/2013	52	27	5.0 U	-73	2.65	>5.0
	10/25/2013	45	19	4.9 J	13	5.07	5.1
	1/24/2014[5]	40	18	7.6	NM	NM	NM
	4/23/2014	78	17	5.0 U	164	6.23	0.18
	7/21/2014	80	18	0.79 J	91	8.53	0.49
	10/21/2014	26	18	0.72 J	103	7.54	>5.0
	4/22/2015	60	25	2.0 U	-66	4.25	NM
	10/22/2015	3.6 J	1.0 J	2.0 U	-60	4.10	5.00
	4/27/2016	2.8 J	1.0 J	2.0 U	51	5.90	0.00
MW-77D1	4/14/2011	1.6 J	1.7 J	6.2	-194	0.24	3.5
	10/25/2012	2.4 J	5.0 U	16	5	9.93	0.0
	2/6/2013[5]	7.8	5.0 U	24	NM	NM	NM
	4/26/2013	4.1 J	1.0 J	17	-64	8.03	3.52
	7/24/2013[5]	2.6 J/2.7 J	0.54 J/0.56 J	3.5 J/3.7 J	NM	NM	NM
MW-77D2 [2]	4/14/2011	20	28	140	-111	0.72	4.0
	10/25/2012	5.2	12	80	-35	14.28	0.0
	2/6/2013[5]	17/17	11/11	99/100	NM	NM	NM
	4/26/2013	10	7.4	150	-141	5.39	>5.0
	7/24/2013	15	22	13	-79	2.06	1.46
	10/25/2013	40	18	5.0 U	27	11.71	1.17
	1/23/2014	66	28	1.4 J	-107	12.21	1.20
	4/24/2014	33	18	5.0 U	46	3.49	0.0
	7/18/2014	52	19	5.0 U	78	1.37	0.0
	10/21/2014	150	21	5.0 U	174	3.71	>5.0
	4/24/2015	120	23	2.0 U	170	13.50	0.0
	10/23/2015[5]	57	21	0.74 J	NM	NM	NM
	4/27/2016	71	20	2.0 U	189	5.50	0.3
MW-81D1 [1]	10/24/2006	NA	NA	NA	15	2.26	3.23
	10/25/2006	NA	NA	NA	-55	3.01	9.76
	10/26/2006	15 J	18	790	-25	0.00	10.12
	1/29/2007	8	9	690	-55	2.26	2.36
	4/19/2007	20/21	61/61	580/550	-128	0.00	2.06
	7/23/2007	54	190	490	-22	0.74	5.19
	10/9/2007	39	110	620	-77	3.08	4.98

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-81D1 [1]	4/21/2008	14	54	2	-99	0.92	2.69
(cont'd)	10/28/2008	54/54	130/130	3/2	292	17.31	2.04
	4/7/2009	14	48	71	158	0.04	5.52
	10/15/2009	28	170	2.4 J	216	8.90	0.71
	5/6/2010	16	99	180	72	0.00	2.2
	11/17/2010	24	110	1.1 J	327	3.54	0.0
	4/7/2011	20	73	190	27	0.48	2.2
	11/30/2011	13	85	0.71 J	NM	12.58	NM
	5/23/2012	7.3 J	41	0.95 J	80	9.90	0.44
	11/5/2012	14	86	310	112	12.24	2.88
	5/2/2013[5]	44	190	5.0 U	NM	NM	NM
	10/28/2013	64	190	7.5	-137	8.41	0.68
	4/29/2014	97	220	1.8 J	146	8.94	0.00
	10/30/2014	96 J	190 J	6.3 J	87	19.39	0.12
	4/24/2015[5]	97	160	1.3 J	NM	NM	NM
	10/21/2015	82	120	2.0 U	43	7.42	1.35
	4/26/2016[5]	70	110	1.8 J	NM	NM	1.03
MW-81D2 [1]	10/24/2006	NA	NA	NA	78	16.87	2.37
	10/25/2006	NA	NA	NA	73	17.96	0.40
	10/26/2006	5 J	26	4 J	93	15.00	0.74
	1/24/2007	6.2	32	5	-39	2.90	0.98
	4/18/2007	1 J	14	4 J	-110	0.00	2.71
	7/19/2007	15	130	40	48	14.10	1.48
	10/10/2007	13	81	37	35	7.45	9.39
	4/18/2008	2 J	20	2 U	81	4.23	0.45
	10/22/2008	6	32	2	107	>20	0.09
	4/7/2009	13	150	2.4 J	326	10.58	0.45
	10/14/2009	6.7	53	5.5	227	18.39	0.50
	5/10/2010	14	63	5.0 U	93	9.69	0.50
	11/16/2010	21/21	130/130	5.0 U/5.0 U	254	13.28	1
	4/7/2011	67	470	25 U	85	2.92	0.0
	11/30/2011	10	130	5.0 U	NM	11.01	NM
	5/23/2012	1.2 J	18	5.0 U	64	10.23	1.8
	11/5/2012	9.1	110	1.4 J	NM	NM	NM
	5/2/2013	1.9 J	11	5.0 U	46	17.28	3.9
	10/28/2013	1.4 J	12	5.0 U	NM	2.97	0.0
	4/29/2014	5.8	29	5.0 U	119	8.94	0.0
	10/30/2014	18	77	5.0 U	86	15.60	NM
	4/24/2015	150	170	2.0 U	-61	5.18	1.5
	10/21/2015	120	130	2.0 U	90	7.21	1.9
	4/26/2016	95	30	2.0 U	43	6.46	0.0
MW-82D1 [1]	10/24/2006	NA	NA	NA	-119	1.93	6.14
	10/25/2006	NA	NA	NA	-154	0.00	9.36
	10/26/2006	8 J	4 J	1100	-142	2.77	6.32
	11/30/2006	8.8	7.9	1900	-158	0.00	1.86
	12/20/2006	8.2	15	2500	-149	0.00	1.98
	1/25/2007	50	130	5500	-145	1.21	1.94
	4/20/2007	5 U	5 U	860	-153	0.76	2.79
	7/25/2007	120	780 J	3600	95	15.15	2.58
	10/18/2007	19	24	430	125	0.73	5.25
	1/23/2008	14/14	48/49	1600/1600	-38	1.89	5.82
	4/25/2008	38	160	85	108	0.13	1.49
	7/18/2008	64	230	2.2	96	3.38	NM
	10/30/2008	110	230	790	309	<20	NM
	4/13/2009	47	160	1.7 J	328	5.35	0.21
	10/20/2009	21	84	5.0 U	231	8.08	0.26
	5/12/2010	16	64	5.0 U	53	7.01	0.0
	11/17/2010	110	63	3.2 J	307	8.00	NM

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-82D1 [1]	5/19/2011	33/32	48/49	72/76	277	6.70	0.0
(cont'd)	12/1/2011	12	23	9.8	NM	14.35	NM
	5/23/2012	13 J	28	1.0 J	138	7.91	5.0
	10/26/2012	17	23	34	95	7.18	0.67
	5/1/2013[5]	14	18	41	NM	NM	NM
	10/25/2013[5]	14	18	12	NM	NM	NM
	4/25/2014	16	20	1.7 J	177	5.83	0.00
	10/30/2014	32 J	27 J	0.84 J	56	6.75	1.40
	4/24/2015	28	24	0.95 J	7	16.00	0.00
	10/21/2015	26	21	2.0 U	-31	11.27	1.59
	4/26/2016	37	21	2.0 U	98	9.29	1.08
MW-82D2 [1]	10/24/2006	NA	NA	NA	-166	0.38	10.44
	10/25/2006	NA	NA	NA	-95	1.98	11.64
	10/26/2006	61 J	48	1300	-110	3.37	8.60
	11/30/2006	88	78	1300	-179	0.00	2.31
	12/20/2006	52	50	600	-178	0.00	0.34
	1/25/2007	150	110	180	-147	1.70	2.01
	4/20/2007	130	91	47	-183	0.61	1.91
	7/25/2007	320 J	170 J	80	-192	0.50	6.56
	10/18/2007	34	3 J	2100	-359	2.93	1.22
	1/23/2008	150	84	160	-147	1.51	4.74
	4/24/2008	25	18	5	-352	0	2.43
	7/18/2008	21	14	10	-472	0.00	16.32
	10/30/2008	110	230	790	-3	0.84	3.01
	4/13/2009	130	91	3.5 J	282	>20	0.05
	10/20/2009	86	56	96	-260	0.07	1.13
	5/12/2010	100	92	7.1	-137	0.00	1.0
	11/18/2010	71	74	8.3	276	0.83	1.2
	4/27/2011	90	58	5.0 U	-19	3.38	1
	12/1/2011	42	46	6.7	NM	11.74	NM
	5/23/2012	9.1 J	22	5.0 U	123	7.97	5
	10/26/2012	11	17	3.1 J	56	>20	3.2
	5/1/2013	7.5	5.0 J	5.0 U	238	8.33	>5.0
	10/25/2013	4.2 J	3.9 J	5.0 U	-127	11.22	0
	4/25/2014	3.0 J	3.9 J	5.0 U	73	3.38	0.13
	10/30/2014	6.2	4.7 J	5.0 U	76	0.88	0
	4/24/2015	7.3	5.0 U	2.0 U	132	15.04	0
	10/21/2015	6.0	5.3	2.0 U	-61	13.98	2.9
	4/26/2016	3.2 J	3.4 J	2.0 U	62	0.34	0.0
MW-83D1 [1]	10/24/2006	NA	NA	NA	70	0.00	1.94
	10/25/2006	NA	NA	NA	-146	0.00	0.23
	10/26/2006	31	290	140	-64	2.06	0.06
	1/30/2007	44	320	130	6	1.74	0.01
	4/18/2007	5 U	29	7.7	-70	0.00	0.0
	7/17/2007	130	360	310	-14	0.41	0.04
	10/12/2007	68	200	220	64	3.00	0.13
	1/22/2008	140	420	51	174	8.34	0.12
	4/17/2008	40	160	2	151	2.32	0.03
	7/15/2008	130 J	340	34	216	1.91	NM
	10/24/2008	110/110	200/200	2/2	291	8.31	0.04
	4/8/2009	80	190	4.3 J	274	1.44	0.09
	10/14/2009	110	260	3.8 J	361	13.17	0.41
	5/5/2010	96	240	260	284	3.50	NM
	11/15/2010	39	180	13	271	9.14	0.0
	4/7/2011	52 J	180 J	30 J	135	4.18	0.0
	11/30/2011	13	150	8.4	NM	>20	NM
	5/23/2012	9.8 J	120	1.2 J	132	12.32	0.0
	10/24/2012	25	180	5.0 U	276	7.22	0.0
	5/1/2013	30	290	1.4 J	212	19.10	2.9

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-83D1 [1]	10/29/2013	45	200	9	NM	13.65	0.5
(cont'd)	4/29/2014[5]	40	210	2.1 J	NM	NM	NM
	10/30/2014	50 J	200 J	2.6 J	112	11.80	1.2
	4/24/2015	37	41	2.0 U	181	17.82	0.2
	10/22/2015	48	140	1.5 J	59	7.04	1.2
	4/26/2016	55	120	1.1 J	109	7.63	0.1
MW-83D2 [1]	10/24/2006	NA	NA	NA	241	>19.99	9.88
	10/25/2006	NA	NA	NA	179	>20	0.0
	10/26/2006	17	110	74	171	>20	0.06
	1/29/2007	13	75	22	249	13.20	0.0
	4/18/2007	3 J	23	1 J	97	0.00	0.0
	7/17/2007	7.9	43	1 J	289	>19.99	0.08
	10/15/2007	2 J	10	2 U	279	11.44	0.23
	1/22/2008	3	12	2 U	328	>20	0.14
	4/17/2008	5/4 J	22/21	2 U/2 U	295	>20	0.04
	7/15/2008	8.3 J	46	2 U	270	8.50	0.04
	10/21/2008	2 J	14	2 U	297	0.92	0.00
	4/8/2009	5.2	30	5.0 U	370	20.00	0.01
	10/13/2009	6	34	5.0 U	380	19.81	0.01
	5/6/2010	18	110	5.0 U	190	11.32	NM
	11/16/2010	6.2	42	5.0 U	370	16.45	0.0
	4/7/2011	17	96	5.0 U	249	17.54	0.0
	11/30/2011	12/12	98/150	5.0 U/8.1	NM	16.99	NM
	5/23/2012	1.8 J	21	5.0 U	79	12.67	0.0
	10/24/2012	7	71	5.0 U	225	9.81	0.0
	5/1/2013	28	74	5.0 U	162	12.34	1.0
	10/29/2013	40	170	5.0 U	-63	8.73	0.3
	4/29/2014	19	100	5.0 U	172	8.38	0.0
	10/30/2014[5]	43 J	150 J	5.0 U	NM	NM	NM
	4/24/2015	27	94	2.0 U	240	19.73	0.6
	10/22/2015[5]	53	120	2.0 U	NM	NM	NM
	4/26/2016	66	140	2.0 U	129	1.30	0.0
MW-84D1 [1]	10/24/2006	NA	NA	NA	50	7.89	1.44
	10/25/2006	NA	NA	NA	86	8.03	1.37
	10/26/2006	47	350	430	78	6.51	1.19
	1/30/2007	66	640	150	160	7.53	1.24
	4/24/2007	32	560	11	282	>20	0.05
	7/24/2007	47	180	12	301	>20	0.05
	10/17/2007	15/15	48/56	2.1/2.4	304	8.81	0.62
	1/28/2008	19	32	2 U	303	>20	0.0
	4/24/2008	3 J	4 J	2 U	210	0.6	0.03
	7/17/2008	7.1	12	2 U	95	14.51	0.13
	10/29/2008	7	7	2 U	319	12.18	0.0
	4/9/2009	23	24	5.0 U	214	13.34	0.0
	10/19/2009	5.0 U	2.3 J	5.0 U	271	10.98	0.19
	5/12/2010	1.4 J	5.0 U	5.0 U	127	9.85	NM
	11/18/2010	3.9 J	3.5 J	5.0 U	207	7.94	NM
	4/27/2011	27/33	8.5/10	5.0 U/5.0 U	210	7.54	NM
	12/1/2011	94	35	0.52 J	NM	13.98	NM
	5/24/2012	4.3 J	4.4 J	5.0 U	185	10.30	0.00
	10/26/2012	80	54	5.0 U	72	7.29	1.08
	5/1/2013	81	29	5.0 U	250	12.62	0.72
	10/25/2013	83	35	5.0 U	23	12.48	1.50
	4/25/2014	41	30	5.0 U	134	6.86	0.26
	10/23/2014	51	25	5.0 U	110	7.66	2.00
	4/24/2015	54	21	2.0 U	169	14.19	0.00
	10/21/2015	50	23	2.0 U	-9	6.83	2.76
	4/26/2016	23	18	2.0 U	168	3.91	0.88

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-84D2 (1)	10/24/2006	NA	NA	NA	-90	4.69	1.53
	10/25/2006	NA	NA	NA	-47	2.84	0.27
	10/26/2006	19 J	92	140	-77	2.67	0.64
	1/29/2007	15	94	150	7	3.91	0.18
	4/24/2007	69	510	33	138	16.31	0.30
	7/24/2007	59	440	20	139	>20	0.21
	10/17/2007	16	170	7.1	34	4.68	0.23
	1/28/2008	27	250 J	5	97	9.91	0.79
	4/23/2008	11	100	2 U	6	3.96	0.09
	7/17/2008	20	130	2 U	13	14.05	0.27
	10/29/2008	21	110	2 U	160	8.33	0.25
	4/9/2009	15 J	74 J	5.0 U	70	10.15	0.08
	10/16/2009	14	110	5.0 U	135	14.65	1.45
	5/25/2010	23 J	190	1.6 J	-20	11.75	0.0
	11/18/2010	8.6	79	5.0 U	-21	0.79	0.0
	4/15/2011	1.0 J	9.4	5.0 U	-49	0.37	0.0
	12/1/2011	7.7	110	5.0 U	NM	11.00	NM
	5/24/2012	5.7	75	5.0 U	114	4.83	0.5
	10/26/2012	5.4	65	5.0 U	-28	3.14	5.0
	5/1/2013(5)	50	170	5.0 U	NM	NM	NM
	10/25/2013	21	120	5.0 U	-45	12.51	NA
	4/25/2014	28	150	5.0 U	21	1.72	0.26
	10/23/2014	19	100	5.0 U	54	3.49	1.30
	4/24/2015	22	92	2.0 U	89	8.35	0.00
	10/21/2015	20	78	2.0 U	-87	8.85	5.00
	4/26/2016(5)	15	58	2.0 U	NM	NM	NM
MW-85S (2)	4/20/2011	3.6 J	5.0 U	5.0 U	46	4.38	0.5
	10/26/2012	2.0 J	0.60 J	0.89 J	NM	NM	NM
	2/4/2013	2.5 J	5.0 U	5.0 U	NM	NM	NM
	4/30/2013	1.0 J	5.0 U	5.0 U	180	7.88	>5.0
	7/24/2013	5.0 U	5.0 U	5.0 U	12	1.39	0.4
	10/28/2013(5)	5.0 U	5.0 U	5.0 U	NM	NM	NM
	1/27/2014	0.97 J	5.0 U	5.0 U	112	11.37	NM
	4/24/2014	0.99 J	5.0 U	5.0 U	161	5.97	0.0
	7/17/2014	1.1 J	5.0 U	5.0 U	26	4.98	NM
	10/31/2014	2.3 J	5.0 U	5.0 U	20	9.22	1.4
	4/23/2015(5)	5.0 U	5.0 U	2.0 U	NM	NM	NM
	10/20/2015	0.75 J	5.0 U	2.0 U	-44	29.15	0.4
	5/18/2016(5)	5.0 U	5.0 U	2.0 U	NM	NM	NM
MW-85I (2)	4/20/2011	5.2	5.0 U	5.0 U	93	2.90	2.4
	10/26/2012	2.6 J	0.54 J	5.0 U	NM	NM	NM
	2/4/2013	1.9 J	5.0 U	5.0 U	NM	NM	NM
	4/30/2013	1.7 J	0.68 J	5.0 U	-57	5.63	>5.0
	7/24/2013	1.3 J	0.53 J	5.0 U	-139	0.42	0.1
	10/28/2013	2.7 J	5.0 U	5.0 U	-137	10.87	1.3
	1/27/2014	2.2 J	0.78 J	5.0 U	-61	10.43	NM
	4/24/2014	1.2 J	5.0 U	5.0 U	87	10.21	0.19
	7/17/2014	1.2 J	0.67 J	5.0 U	92	5.36	2.30
	10/31/2014	1.2 J	0.68 J	5.0 U	24	9.22	>5.0
	4/23/2015	2.4 J	5.0 U	2.0 U	59	6.55	0.34
	10/20/2015	2.2 J	5.0 U	2.0 U	-3	17.60	NM
	4/25/2016	3.4 J	2.5 J	2.0 U	237	15.03	NM
MW-85D1 (2)	4/20/2011	34/31	10/9.9	70/70	-33	3.75	(3)
	10/26/2012	5.0 U	5.0 U	9.9	18	>20	5.0
	2/4/2013	5.8	9.2	17	1	7.26	2.0
	4/30/2013	15	14	1.4 J	28	9.02	>5.0
	7/24/2013	9.5	17	4.4 J	-130	2.06	>5.0
	10/28/2013(5)	22	26	7.9	NM	NM	NM

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-85D1 [2]	1/27/2014	25	21	12	-83	11.37	NM
(cont'd)	4/24/2014	30	23	5.7	50	6.35	0.0
	7/17/2014	20	26	7.2	39	4.68	2.0
	10/31/2014	13	16	5.0 U	-10	11.29	>5.0
	4/23/2015	4.6 J	14	2.0 U	120	11.43	0.0
	10/20/2015	3.3 J	9.7	2.0 U	33	21.24	0.0
	4/25/2016	4.1 J	10	2.0 U	186	10.27	0.0
MW-85D2 [2]	4/20/2011	170	160	1100	-190	1.59	4.0
	10/26/2012	66	37	280	29	14.34	5.0
	2/4/2013	21/23	24/25	40/40	NM	NM	NM
	4/30/2013	9.2	21	25	155	7.90	>5.0
	7/24/2013	27	44	15	6	1.89	1.6
	10/28/2013	5.7	8.3	2.6 J	-98	3.03	0.7
	1/27/2014	11	21	2.3 J	-98	12.81	NM
	4/24/2014	5.9	13	0.93 J	36	9.77	0.09
	7/17/2014	6.8	14	5.0 U	13	2.82	2.60
	10/31/2014	4.7 J	12	5.0 U	-46	7.77	1.60
	4/23/2015	1.8 J	5.0 U	2.0 U	141	11.07	NM
	10/20/2015[5]	1.0 J	4.3 J	2.0 U	NM	NM	NM
	4/25/2016	2.3 J	5.4	2.0 U	174	5.79	0.24
MW-86D1 [2]	4/18/2011	2.7 J	5.0 U	14	-107	0.74	2.0
	10/24/2012	2.4 J	0.66 J	36	67	>20	0.68
	2/6/2013	6.3	5.0 U	44	87	14.5	1.0
	4/29/2013	6	1.5 J	62	135	5.99	2.5
	7/24/2013	3.1 J	1.3 J	24	-103	2.61	0.0
	10/29/2013[5]	5	1.8 J	78	NM	NM	NM
	1/23/2014	6.7	1.6 J	150	27	14.90	NM
	4/29/2014	8.2	1.3 J	160	25	3.56	0.1
	7/17/2014	9.5	0.89 J	180	-102	4.35	3.0
	10/31/2014	13	1.3 J	110	39	6.42	0.0
	4/24/2015	6.4	5.0 U	33	-37	7.48	0.1
	10/26/2015	3.0 J	5.0 U	2.0 U	-59	10.56	0.6
	4/28/2016	2.3 J	5.0 U	2.0 U	56	0.46	0.2
MW-86D2 [2]	4/18/2011	19	280	5.0 U	-107	1.24	3.0
	10/24/2012	8.2	170	5.0 U	-115	2.49	0.39
	2/6/2013	17	370	0.54 J	-45	13.05	2.0
	4/29/2013	17	320	0.51 J	-64	5.44	3.4
	7/24/2013	13	270	5.0 U	-165	0.93	1.8
	10/29/2013	10	200	5.0 U	-43	4.30	0.0
	1/23/2014	14	240	5.0 U	-101	12.18	0.0
	4/29/2014	17	230	5.0 U	168	5.83	0.0
	7/17/2014[5]	15	170	0.79 J	NM	NM	NM
	10/31/2014	12	180	5.0 U	39	6.63	0.7
	4/24/2015	9.9	130	2.0 U	-89	10.90	0.0
	10/26/2015	7.4	83	2.0 U	-59	8.69	0.1
	4/28/2016	9.8	58	2.0 U	24	2.12	0.5
MW-87D1 [1]	10/24/2006	NA	NA	NA	234	0.70	0.17
	10/25/2006	NA	NA	NA	221	0.00	0.35
	10/26/2006	96 J	320	230	226	2.63	0.05
	1/24/2007	74	410	220	248	0.78	0.10
	4/17/2007	56	470	160	169	0.00	0.14
	7/17/2007	83	400	190	223	0.44	0.09
	10/8/2007	37	190	190	203	4.39	0.40
	4/16/2008	52	240	4	322	8.35	0.05
	10/21/2008	99	360	10	463	>20	0.00
	4/7/2009	10	22	5.0 U	289	8.62	0.00
	10/13/2009	100	410	16	379	16.18	0.17
	5/3/2010	170/170	360/330	41/44	282	5.74	0.0

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-87D1 [1]	11/29/2010	5.0 U/3.8 J	4.8 J/17	5.0 UJ/5.0 UJ	192	2.75	0.0
(cont'd)	4/19/2011	150	420	250	300	3.72	0.0
	11/30/2011	95	300	3.2 J	NM	13.98	NM
	5/24/2012	73 J	270	75	149	11.51	1.4
	11/5/2012	53	290	2.1 J	105	>20	1.6
	5/2/2013[5]	43	160	1.4 J	NM	NM	NM
	10/28/2013	26	36	5.0 U	-67	13.76	0.1
	4/29/2014	88	58	2.2 J	201	8.53	0.0
	7/21/2014	140	22	5.0 U	177	13.90	1.4
	10/31/2014	150	19	5.0 U	123	12.91	1.3
	4/24/2015	130	23	2.0 U	-75	19.54	1.7
	10/22/2015	130	18	2.0 U	179	8.49	3.8
	4/26/2016	99	11	2.0 U	71	9.20	0.2
MW-87D2 [1]	10/24/2006	NA	NA	NA	212	4.00	0.08
	10/25/2006	NA	NA	NA	137	6.68	0.09
	10/26/2006	13	77	5 U	226	4.53	0.02
	1/24/2007	25	96	5 U	131	3.64	0.25
	4/17/2007	14	56	5 U	106	3.89	0.09
	7/16/2007	16	54	2 U	145	3.31	0.07
	10/9/2007	14	32	2 U	287	7.45	0.12
	4/16/2008	12	23	2 U	288	5.39	0.01
	10/21/2008	17	31	2 U	440	9.66	0.00
	4/7/2009	76	370	5.0 U	346	9.90	0.06
	10/13/2009	15	43	5.0 U	341	5.30	0.26
	5/5/2010	18	55	5.0 U	222	4.15	NM
	11/15/2010	35	470	2.7 J	397	12.41	0.0
	4/18/2011	22	75	5.0 U	234	3.46	0.0
	11/30/2011	18	110	5.0 U	NM	11.08	NM
	5/24/2012	16 J/15 J	180/180	5.0 U/5.0 U	NM	NM	2.1
	11/5/2012	25	170	5.0 U	86	>20	1.0
	5/2/2013	35	170	5.0 U	312	15.02	2.2
	10/28/2013	150	150	5.0 U	9	4.86	0.4
	4/29/2014	200	110	5.0 U	160	5.63	0.0
	7/21/2014	420	98	5.0 U	206	7.98	0.0
	10/31/2014	380	120	5.0 U	149	10.72	3.1
	4/24/2015	300	100	2.0 U	172	14.19	2.8
	10/22/2015	470	150	2.0 U	184	7.70	0.5
	4/26/2016	420	170	5.0 U	231	3.15	0.5
MW-88D1 [1]	10/24/2006	NA	NA	NA	-43	0.00	11.04
	10/25/2006	NA	NA	NA	-13	0.00	10.20
	10/26/2006	39 J	9	58	33	3.36	6.56
	1/30/2007	36	7	74	-45	1.16	2.01
	4/19/2007	32	13	330	172	11.88	1.84
	7/26/2007	37	28 J	1500	232	9.48	0.74
	10/16/2007	66	270	1100	3	0.02	5.47
	4/25/2008	20	27	310	225	5.95	0.52
	10/30/2008	40	29	320	339	>20	0.00
	4/13/2009	27	17	410	205	16.71	0.31
	10/21/2009	18/14	24/24	510/330	253	>20	0.47
	5/11/2010	28	32	320	177	19.00	0.50
	11/17/2010	14	20	440	366	13.04	0.0
	4/15/2011	19	19	160	184	14.39	0.0
	12/1/2011	15	20	11	NM	17.16	NM
	5/24/2012	5.4 J	14	11	65	8.82	0.0
	10/26/2012	12	17	8.2	83	10.88	1.15
	5/1/2013	5.4	6.8	0.92 J	202	13.77	1.22
	10/28/2013[5]	12	12	3.2 J	NM	NM	NM
	4/25/2014	8.7	14	1.1 J	197	8.44	0.06
	10/30/2014	12 J	26 J	3.1 J	82	12.59	0.31

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-88D1 [1]	4/24/2015	19	26	2.1	150	14.59	NM
(cont'd)	10/21/2015	16	23	2.0 U	31	9.74	5.00
	4/26/2016	14	17	1.2 J	136	9.45	0.36
MW-88D2 [1]	10/24/2006	NA	NA	NA	-282	1.44	18.96
	10/25/2006	NA	NA	NA	-253	1.97	11.40
	10/26/2006	140 J	180	3200	-212	0.00	NM
	1/25/2007	180/190	180/190	3400/2900	-315	0.82	0.16
	4/19/2007	390	330	1200	-219	0.37	2.17
	7/26/2007	97/94	57 J/56 J	2000/1800	-333	0.44	1.21
	10/16/2007	41	25	31	-291	3.04	9.39
	4/25/2008	280 J	130	230	40	8.02	2.65
	10/31/2008	250	83 J	230	45	8.94	2.70
	4/14/2009	200	86	59	41	9.94	0.98
	10/20/2009	47	43	130	-3	4.67	4.49
	5/11/2010	130	85	81	-5	5.70	0.50
	1/20/2011	56	22	160 J	232	5.58	0.00
	4/19/2011	27	10	170	-585	3.35	0
	12/1/2011	24	12	110	NM	9.81	NM
	5/24/2012	1.7 J	1.7 J	91	22	5.73	0
	10/26/2012	1.7 J	0.82 J	5.0 U	NM	NM	NM
	5/1/2013	14	17 J	38 J	154	11.30	1.56
	10/28/2013	5.0 U	5.0 U	5.0 U	52	12.83	0.46
	4/25/2014	5.0 U	5.0 U	0.85 J	62	2.83	0.00
	10/30/2014	19 J	16 J	5.0 U	91	14.22	0.86
	4/24/2015	15	11	2.0 U	26	8.59	NM
	10/21/2015	15	9.7	2.0 U	-44	9.18	5.00
	4/26/2016	9.2	8.3	2.0 U	67	1.56	0.0
MW-89D1 [2]	4/21/2011	37	47	63	-142	1.57	6.0
	10/24/2012	2.9 J	5.0 U	6.7	17	9.68	0.0
	2/6/2013	20	10	25	-70	8.99	0.0
	4/29/2013	12	8.3	60	-125	5.49	3.8
	7/24/2013	6.9	3.1 J	31	-198	0.43	1.8
	10/28/2013	6.2	2.8 J	51	-52	2.56	0.5
	1/27/2014	15	14	72	239	12.43	NM
	4/24/2014	7.2	3.5 J	22	-88	3.67	0.0
	7/17/2014	17	7.3	19	-45	2.42	3.6
	10/31/2014	37	23	4.6 J	51	19.08	>5.0
	4/23/2015	37	26	6.9	101	7.52	NM
	10/20/2015	12	8.2	4.3	21	22.43	1.5
	4/25/2016	8.9	12	4.2	-10	2.00	0.1
MW-89D2 [2]	4/21/2011	27	16	24	-154	2.43	1.0
	10/24/2012	1.7 J	2.4 J	21	-95	10.73	0.0
	2/6/2013	5	4.6 J	20	-122	10.05	0.0
	4/29/2013	1.2 J	1.9 J	26	-244	4.49	3.0
	7/24/2013	1.1 J	2.1 J	12	-250	0.75	2.7
	10/28/2013	1.6 J	2.4 J	13	-63	9.45	0.8
	1/27/2014[5]	2.7 J	4.0 J	12	NM	NM	NM
	4/24/2014	1.8 J	2.7 J	6.1	-27	4.26	0.0
	7/17/2014	3.9 J	5.6	3.7 J	-40	2.13	2.0
	10/31/2014	5.8	9.4	6.5	6	12.01	1.8
	4/23/2015[5]	10	13	2.3	NM	NM	NM
	10/20/2015	5.7	9.4	2.0 U	-72	19.70	2.2
	4/25/2016	6.7	6.0	2.0 U	-30	0.27	0.4
MW-90D1 [2]	4/25/2007	110	44	6300	-100	0.93	2.30
	4/13/2011	29	12	4100	-103	0.34	NM
	10/25/2012[5]	2.0 J	5.0 U	810	NM	NM	NM
	2/6/2013[5]	27	6.7	2500	NM	NM	NM
	4/30/2013[5]	3.9 J	2.3 J	780	NM	NM	NM

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-90D1 [2]	7/23/2013[5]	32	16	290	NM	NM	NM
(cont'd)	10/25/2013[5]	22	13	84	NM	NM	NM
	1/23/2014[5]	17	18	1600	NM	NM	NM
	4/23/2014[5]	42	24	600	NM	NM	NM
	7/18/2014[5]	33	11	27	NM	NM	NM
	10/21/2014[5]	16	9.9	37	NM	NM	NM
	4/24/2015[5]	25	9.6	3.0	NM	NM	NM
	10/23/2015[5]	23	9.5	1.9 J	NM	NM	NM
	4/27/2016[5]	5.0 U	8.4	2.0 U	NM	NM	NM
MW-90D2 [2]	4/25/2007	46	220 J	49	-47	1.38	1.76
	5/17/2010	26	68	2.1 J	-112	0.00	2.5
	4/14/2011	33	51	1.2 J	12	4.03	1.0
	2/6/2013[5]	120	37	3.1 J	NM	NM	NM
	4/30/2013[5]	57	25	1.8 J	NM	NM	NM
	7/23/2013[5]	43	29	5.0 U	NM	NM	NM
	10/25/2013[5]	44	23	5.0 U	NM	NM	NM
	1/23/2014[5]	39	25	2.9 J	NM	NM	NM
	4/23/2014[5]	37	26	1.5 J	NM	NM	NM
	7/18/2014[5]	22	22	5.0 U	NM	NM	NM
	10/21/2014[5]	6.1	3.5 J	5.0 U	NM	NM	NM
	4/24/2015[5]	26	21	2.0 U	NM	NM	NM
	10/23/2015[5]	74	23	2.0 U	NM	NM	NM
	4/27/2016[5]	27	11	2.0 U	NM	NM	NM
Voluntary Wells							
MW-52S	3/13/2007	25	19	2400	5	1.64	1.66
MW-52I	3/14/2007	14	5	6	259	5.85	0.04
MW-52D	3/14/2007	410	39	5 U	226	3.07	0.11
MW-58D	10/26/2006	20	120	5 U	21	2.42	4.30
	5/18/2010	18	47	5.0 U	30	0.00	1.8
	11/21/2011	8.6	56	5.0 U	74	0.30	NR
	5/23/2013	15 J	110	5.0 U	167	5.94	2
	11/14/2014[5]	500 U	6500	500 U	NM	NM	NM
	6/2/2016	28	6300	2.0 U	-44	9.46	0.0
MW-58D1	10/26/2006	20	150	5 U	-101	2.58	8.80
	5/19/2010	18	44	5.0 U	-50	0.00	2.2
	11/21/2011	2.5 J	20	5.0 U	-48	0.52	NR
	5/23/2013[5]	12 J	73	5.0 U	NM	NM	NM
	11/14/2014[5]	250 U	4300	250 U	NM	NM	NM
	6/2/2016	34	5800	2.0 U	-25	10.58	0.1
MW-58D2	10/25/2006	19 J	120	5 U	-198	0.00	5.16
	4/29/2013	13	74	5.0 U	-81	7.70	3.87
	10/24/2014	20	4900	5.0 U	-10	20.87	0.00
	5/18/2016	38	7600	2.0 U	47	9.57	0.22
MW-59D1	10/25/2006	10 J	32	5 U	-20	0.58	3.24
	11/29/2011	3.5 J	12	5.0 U	-43	0.30	NR
MW-59D2	10/25/2006	11 J	40	5 U	-99	0.47	2.00
	11/29/2011	2.5 J	8.1	5.0 U	-128	0.10	NR
	5/18/2016[5]	5.0 U	5.5	2.0 U	NM	NM	NM
MW-59D	10/26/2006	10	58	5 U	-108	0.00	2.65
	11/29/2011	5.3	13	5.0 U	49	0.35	NR
MW-60S	5/23/2013	45	150	5.0 U	-233	4.74	>5.0
MW-60I	5/23/2013	43	200	5.0 U	-93	3.77	>5.0
MW-60D	5/23/2013	64	99	5.0 U	-204	4.60	2.43
MW-60D1	4/30/2013	1.6 J	26	5.0 U	-108	5.84	>5.0

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-61S	10/19/2009	7.4	10	5.0 U	372	>20	0.02
	5/10/2010	5.4	8.1 U	3.5 J	100	10.95	0.0
MW-62I	5/16/2007	5.1	1 J	3 J	59	0.00	0.69
	5/25/2010	5.1 J	5.0 U	4.2 J	14.8	0.00	4.2
	11/16/2015(5)	14	3.4 J	8.9	NM	NM	2.5
MW-62D	5/16/2007	5 U	5 U	5 U	-125	0.00	0.38
	5/25/2010	2.4 J	8.2	8	-200	0.00	6.2
	11/16/2015	2.5 J	2.0 J	2.3	116	10.94	0.0
MW-64S (2)	4/26/2007	3 J	2 J	8.7	-114	0.00	2.4
	5/24/2010	1.5 J	5.0 U	2.1 J	-98	0.00	4.0
MW-64I (2)	4/26/2007	5	3 J	16	-121	0.00	1.9
	5/24/2010	5.0 UJ	5.0 U	12	-110	0.00	4.0
MW-64D (2)	4/26/2007	5.1	4 J	14	-115	0.00	2.0
	5/24/2010	5.0 UJ	5.0 U	11	-107	0.00	2.3
MW-66D2 (2)	4/25/2013	100	110	5.0 U	-44	6.58	0.2
	10/29/2013	43	58	5.0 U	-111	3.88	0.3
	4/25/2014	47	61	5.0 U	53	4.55	0.7
	10/27/2014	22	25	5.0 U	166	3.42	2.8
	4/23/2015	10	15	2.0 U	161	13.98	NM
	10/21/2015(5)	5.8	10	2.0 U	NM	NM	NM
	4/25/2016	2.9 J	8.0	2.0 U	-4	13.29	0.2
MW-67S (2)	5/20/2010	26/27	37/39	87/95	-170	0.00	7.0
	11/22/2011	1.5 J	8.7	47	-35	0.14	NR
	4/25/2013	2.8 J	19	140	45	5.14	1.9
	10/29/2013	4.6 J	16	100	-161	2.49	1.0
	4/25/2014	4.9 J	9.6	38	77	2.76	0.0
	10/24/2014(5)	18	19	6.2	NM	NM	NM
	4/23/2015	6	5.4	2.0 U	155	12.71	0.4
	10/21/2015	1.7 J	2.5 J	2.0 U	177	11.68	NM
	4/25/2016	58	44	2.0 U	104	20.69	0.7
MW-67D (2)	5/20/2010	74/73	280/280 J	5.0 U/5.0 U	-187	1.30	0.2
	11/22/2011	6.2	58	5.0 U	129	2.97	NR
	4/25/2013	8.6	32	5.0 U	45	11.98	1.9
	10/29/2013	11	36	5.0 U	-204	3.78	0.0
	4/25/2014	4.8 J	25	5.0 U	2	5.35	0.0
	10/24/2014(5)	1.4 J	4.3 J	5.0 U	NM	NM	NM
	4/23/2015	2.9 J	5.0 U	2.0 U	-274	9.51	NM
	10/21/2015(5)	5.0 U	2.1 J	2.0 U	NM	NM	NM
	4/25/2016	5.0 I	1.2 J	2.0 U	53	4.62	0.3
MW-68S (2)	11/28/2011	83	110	690	-107	0.05	NR
	4/25/2013	11	27	940	-190	6.84	1.9
	10/29/2013	6.8	11	580	-128	3.58	1.0
	4/25/2014	99	81	270	-50	2.49	0.0
	10/24/2014	67	93	400	68	21.08	0.0
	4/23/2015	77	110	2.0 U	-15	15.09	NM
	10/21/2015	65	110	260	47	9.22	NM
	4/25/2016	62	100	220	1	24.40	0.0
MW-68D (2)	5/19/2010	320	970	34	-29	0.00	2.4
	11/28/2011	47	290	1.2 J	-38	0.97	NR
	4/25/2013	36	160	1.3 J	-174	5.88	0.7
	10/29/2013	19	78	5.0 U	-91	4.12	0.2
	4/25/2014	7.3	47	5.0 U	-71	5.27	0.0
	10/24/2014	2.2 J	14	5.0 U	36	12.79	0.0
	4/23/2015(5)	1.8 J	6.8	1.0 J	NM	NM	NM
	10/21/2015(5)	1.7 J	5.9	2.0 U	NM	NM	NM
	4/25/2016	5.0 U	4.3 J	2.0 U	37	9.21	0.0

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
MW-92D1	4/12/2011	5.7	1.3 J	100	-190	1.13	4.0
	4/24/2013	3.7 J	6.2	79	12	6.57	3.0
	10/27/2014	3.4 J	4.6 J	51	-18	2.62	4.1
	10/23/2015	3.9 J	6.2	42	32	6.61	1.0
MW-92D2	4/25/2011	690	12	5.0 U	-156	2.00	1.5
	4/24/2013	280	17	5.0 U	-104	5.52	>5.0
	10/27/2014	92	8.2	5.0 U	-120	2.20	75.0
	10/23/2015	30	5.4	2.0 U	-77	8.07	0.1
MW-93D1	4/26/2011	21	3.7 J	190	-191	2.18	2.5
	4/24/2013	14	4.5 J	20	-140	5.16	2.2
	10/27/2014	16	2.3 J	7.0	33	3.10	2.3
	10/23/2015	8	1.2 J	3.8	11	9.79	0.2
MW-93D2	4/26/2011	110	15	5.0 U	-219	2.96	2.0
	4/23/2013	24	21	5.0 U	-105	4.58	4.5
	10/27/2014	1.0 J	5.0 U	5.0 U	-12	2.98	3.4
	10/23/2015	5.0 U	5.0 U	2.0 U	-105	9.40	0.0
Northrop Wells							
GP-1 (Well 1)	9/25/2006	NR	NA	ND	NR	NR	NR
	10/23/2006	NR	NA	ND	NR	NR	NR
	11/13/2006	NR	NA	ND	NR	NR	NR
	12/18/2006	NR	634	ND	NR	NR	NR
	1/15/2007	NR	547	ND	NR	NR	NR
	2/12/2007	NR	373	ND	NR	NR	NR
	3/12/2007	NR	439	ND	NR	NR	NR
	4/16/2007	NR	473	ND	NR	NR	NR
	5/14/2007	NR	587	ND	NR	NR	NR
	6/18/2007	NR	414	ND	NR	NR	NR
	7/23/2007	NR	410	ND	NR	NR	NR
	8/13/2007	NR	333	ND	NR	NR	NR
	9/11/2007	NR	452	ND	NR	NR	NR
	10/15/2007	NR	285	ND	NR	NR	NR
	11/12/2007	NR	428	ND	NR	NR	NR
	12/18/2007	NR	371	ND	NR	NR	NR
	1/14/2008	NR	273	ND	NR	NR	NR
	2/18/2008	NR	373	ND	NR	NR	NR
	3/17/2008	NR	212	ND	NR	NR	NR
	4/14/2008	NR	233	ND	NR	NR	NR
	5/19/2008	NR	195	ND	NR	NR	NR
	6/16/2008	NR	113	ND	NR	NR	NR
	7/15/2008	NR	353	ND	NR	NR	NR
	8/18/2008	NR	54	ND	NR	NR	NR
	9/22/2008	NR	78	ND	NR	NR	NR
	10/13/2008	NR	78	ND	NR	NR	NR
	11/18/2008	NR	145	ND	NR	NR	NR
	12/16/2008	NR	82	ND	NR	NR	NR
	1/05/2009	NR	106	ND	NR	NR	NR
	2/16/2009	NR	186	ND	NR	NR	NR
	3/16/2009	NR	202	ND	NR	NR	NR
	4/13/2009	NR	203	ND	NR	NR	NR
	5/18/2009	NR	217	ND	NR	NR	NR
	6/15/2009	NR	93	ND	NR	NR	NR
	7/21/2009	NR	156	ND	NR	NR	NR
	8/18/2009	NR	126	ND	NR	NR	NR
	9/16/2009	NR	112	ND	NR	NR	NR
	10/20/2009	NR	132	ND	NR	NR	NR
	11/16/2009	NR	173	ND	NR	NR	NR
	12/4/2009	NR	151	ND	NR	NR	NR
	1/18/2010	NR	106	ND	NR	NR	NR

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
GP-1 (Well 1) (cont'd)	2/15/2010	NR	108	ND	NR	NR	NR
	3/15/2010	NR	149	ND	NR	NR	NR
	4/20/2010	NR	368	ND	NR	NR	NR
	7/28/2010	NR	NA	ND	NR	NR	NR
	8/20/2010	NR	101	ND	NR	NR	NR
	5/08/2012	48	410	ND	NR	NR	NR
	12/11/2012	51	410	ND	NR	NR	NR
	2/18/2013	49	360	ND	NR	NR	NR
	6/06/2013	48	380	ND	NR	NR	NR
	8/21/2013	48/44	400/390	ND/ND	NR	NR	NR
	2/24/2014	39	400	ND	NR	NR	NR
	6/10/2014	40	490	ND	NR	NR	NR
	9/11/2014	35	730	ND	NR	NR	NR
	11/13/2014	39	695	ND	NR	NR	NR
	3/16/2015	41	713	ND	NR	NR	NR
	5/05/2015	31	748	ND	NR	NR	NR
	9/09/2015	35	852	ND	NR	NR	NR
	12/12/2015	31	768	ND	NR	NR	NR
	3/14/2016	30	792	ND	NR	NR	NR
GP-3 (Well 3R)	09/25/2006	NR	NR	100	NR	NR	NR
	10/23/2006	NR	NR	122	NR	NR	NR
	11/13/2006	NR	NR	143	NR	NR	NR
	12/18/2006	NR	3968	148	NR	NR	NR
	1/15/2007	NR	3038	121	NR	NR	NR
	2/12/2007	NR	2545	81	NR	NR	NR
	3/12/2007	NR	2200	74	NR	NR	NR
	4/16/2007	NR	2476	49	NR	NR	NR
	5/14/2007	NR	3107	144	NR	NR	NR
	6/18/2007	NR	2268	92	NR	NR	NR
	7/23/2007	NR	2900	128	NR	NR	NR
	8/13/2007	NR	1964	113	NR	NR	NR
	9/11/2007	NR	2013	114	NR	NR	NR
	10/15/2007	NR	2080	117	NR	NR	NR
	11/12/2007	NR	2123	113	NR	NR	NR
	12/18/2007	NR	2264	130	NR	NR	NR
	1/14/2008	NR	1655	109	NR	NR	NR
	2/18/2008	NR	1472	143	NR	NR	NR
	3/17/2008	NR	1700	146	NR	NR	NR
	4/14/2008	NR	1717	130	NR	NR	NR
	5/19/2008	NR	985	81	NR	NR	NR
	6/16/2008	NR	1196	86	NR	NR	NR
	7/15/2008	NR	1106	89	NR	NR	NR
	8/18/2008	NR	907	51	NR	NR	NR
	9/22/2008	NR	1083	101	NR	NR	NR
	10/13/2008	NR	1130	98	NR	NR	NR
	11/18/2008	NR	846	112	NR	NR	NR
	12/16/2008	NR	1227	83	NR	NR	NR
	1/12/2009	NR	862	93	NR	NR	NR
	2/16/2009	NR	1159	104	NR	NR	NR
	3/16/2009	NR	1082	112	NR	NR	NR
	4/13/2009	NR	1410	153	NR	NR	NR
	0/18/2009	NR	1012	151	NR	NR	NR
	6/15/2009	NR	856	94	NR	NR	NR
	7/21/2009	NR	1180	148	NR	NR	NR
	8/18/2009	NR	1226	151	NR	NR	NR
	9/16/2009	NR	1462	163	NR	NR	NR
	10/20/2009	NR	1591	178	NR	NR	NR
	11/16/2009	NR	1262	182	NR	NR	NR

Table 4

Select Laboratory and Field Parameter Results
Second Quarter 2016 (April through June)
Hooker Ruco Site
Hicksville, New York

Well	Date Sampled	PCE (µg/L)	TCE (µg/L)	VCM (µg/L)	ORP (mV)	DO (mg/L)	Fe^{+2} (mg/L)
GP-3 (Well 3R)	12/14/2009	NR	1262	179	NR	NR	NR
(cont'd)	1/18/2010	NR	1263	188	NR	NR	NR
	2/15/2010	NR	1191	177	NR	NR	NR
	3/15/2010	NR	852	134	NR	NR	NR
	4/20/2010	NR	890	173	NR	NR	NR
	6/21/2010	NR	450	135	NR	NR	NR
	7/19/2010	NR	308	137	NR	NR	NR
	8/12/2010	NR	132	155	NR	NR	NR
	5/08/2012	58	1700	140	NR	NR	NR
	12/11/2012	51	1500	84	NR	NR	NR
	2/18/2013	53	1400	72	NR	NR	NR
	6/06/2013	54	1400	60	NR	NR	NR
	8/21/2013	57	1200	58	NR	NR	NR
	2/24/2014 (6)	38	98	38	NR	NR	NR
	6/10/2014 (6)	40	140	36	NR	NR	NR
	9/11/2014 (6)	43	270	36	NR	NR	NR
	11/13/2014 (6)	44	394	35	NR	NR	NR
	3/16/2015 (6)	44	493	29	NR	NR	NR
	5/05/2015 (6)	34	533	18	NR	NR	NR
	9/09/2015 (6)	37	557	13	NR	NR	NR
	12/15/2015 (6)	34	510	10	NR	NR	NR
	3/14/2016 (6)	31	529	9	NR	NR	NR
MW-3-1	1/30/2012 (7)	150	240	170	NR	NR	NR
	3/28/2012	56	220	1300	NR	NR	NR
	6/19/2013	7.8	37	78	NR	NR	NR
	6/5/2015	12	68	4.8	NR	NR	NR
	11/11/2015	11	58	5.2	NR	NR	NR

Notes:

(1) Pilot System Monitoring Well
(2) Remainder of System Monitoring Well
(3) Black colored water prevented reading on colorimetric meter
(4) Orange colored water prevented reading on colorimeter meter
(5) Insufficient sample volume to obtain measurement/reading.
(6) Sample from replacement well 3R
(7) Sample collected from vertical profile boring at depth 439 ft bgs.

NA - Not analyzed
NM - Not measured (insufficient sample volume for all samples subsequent to 11/30/2011)
NR - Not reported by Northrop.
U - Not detected at associated value
J - Estimated concentration

Table 5

Well Status June 30, 2016
Operable Unit-3 Biosparge System
Hooker/Ruco Site, Hicksville, New York

Well Designation	Date Completed	Well Functional	Comments/Proposed Action
IW-1D1A	04/28/11	Y	
IW-1D1L	04/28/11	Y	
IW-1D2A	04/28/11	Y	
IW-2D1A	04/8/11	Y	
IW-2D1L	04/8/11	Y	
IW-2D2A	04/8/11	Y	
IW-3D1A	03/25/11	Y	
IW-3D1L	03/25/11	Y	
IW-3D2A	03/25/11	Y	
IW-4D1A	01/27/11	Y	
IW-4D1L	01/27/11	Y	
IW-4D2A	01/27/11	Y	
IW-5D1A	04/12/11	Y	Actuator replaced May 26, 2016, injections restarted.
IW-5D1L	04/12/11	Y	
IW-5D2A	04/12/11	Y	Actuator replaced May 26, 2016, injections restarted.
IW-6D1A	01/17/11	Y	
IW-6D1L	01/17/11	Y	
IW-6D2A	01/17/11	Y	
IW-7D1A	03/29/11	Y	
IW-7D1L	03/29/11	Y	
IW-7D2A	03/29/11	Y	
IW-15D1A	10/05/10	Y	
IW-15DlL	10/05/10	Y	
IW-15D2A	10/05/10	N	DO in downgradient MW-87 >2.0 mg/L. No action planned.
IW-16D1A	11/01/05	N	DO in downgradient MW-83 >2.0 mg/L. No action planned.
IW-16D1L	11/01/05	Y	
IW-16D2A	11/01/05	Y	
IW-17D1A	12/01/05	Y	
IW-17D1L	12/01/05	Y	
IW-17D2A	12/01/05	N	Attempts to restart air injection on May 2 and 3 using higher pressures were not successful. DO in downgradient MW-81 >2.0 mg/L. No further action planned.
IW-18D1A	01/09/06	N	DO in downgradient MW-84 >2.0 mg/L. No action planned.
IW-18D1L	01/09/06	Y	
IW-18D2A	01/09/06	Y	
IW-19D1A	01/13/06	N	DO in downgradient MW-82/88 >2.0 mg/L. No action planned.
IW-19D1L	01/13/06	Y	
IW-19D2A	01/13/06	N	DO in downgradient MW-82/88 >2.0 mg/L. No action planned.
IW-20D1A	10/13/10	Y	
IW-20D1L	10/13/10	Y	
IW-20D2A	10/13/10	Y	
IW-21D1A	10/23/10	Y	
IW-21D1L	10/23/10	Y	
IW-21D2A	10/23/10	Y	
IW-22D1A	11/03/10	Y	
IW-22D1L	11/03/10	Y	
IW-22D2A	11/03/10	Y	
MW-50D1	02/23/95	N	Abandoned by Bayer during site closure.
MW-50D2	02/13/95	N	Abandoned by Bayer during site closure.
MW-51D1	10/24/95	N	Well no longer needed to monitor remediation of VCM subplume.
MW-51D2	10/02/95	N	Well no longer needed to monitor remediation of VCM subplume.
MW-52S	01/17/96	N	Abandoned March 2007
MW-52I	12/14/95	N	Abandoned March 2007
MW-52D	12/12/95	N	Abandoned March 2007
MW-53I	06/08/95	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-53D1	06/19/95	N	Well no longer needed to monitor remediation of VCM subplume. Well paved over.

Well Status June 30, 2016
Operable Unit-3 Biosparge System
Hooker/Ruco Site, Hicksville, New York

Well Designation	Date Completed	Well Functional	Comments/Proposed Action
MW-53D2	06/05/95	Y	Well no longer needed to monitor remediation of VCM subplume. Obstruction in well prevents sampler insertion.
MW-56S	01/26/96	N	Abandoned October 2000
MW-56I	01/25/96	N	Abandoned October 2000
MW-57S	01/23/96	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-57I	01/25/96	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-58D	03/26/02	Y	
MW-58D1	03/26/02	Y	
MW-58D2	03/26/02	Y	
MW-59D	04/06/02	N	VCM subplume can be monitored using Northrop well MW-3-1.
MW-59D1	04/06/02	N	VCM subplume can be monitored using Northrop well MW-3-1.
MW-59D2	04/06/02	Y	Previously lodged sampler retrieved from well in April 2016 allowing well to be sampled.
MW-60D1	03/05/02	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-60S	03/08/02	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-60I	03/08/02	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-60D	03/08/02	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-61S	02/22/02	Y	Well no longer needed to monitor remediation of VCM subplume.
MW-61I	02/22/02	N	Obstruction at 130 ftbgs prevents insertion of sampler. Monitoring of MW-61D2 sufficient to monitor VCM subplume.
MW-61D1	02/22/02	N	Obstruction at 130 ftbgs prevents insertion of sampler. Monitoring of MW-61D2 sufficient to monitor VCM subplume.
MW-61D2	03/12/02	Y	
MW-62I	05/14/02	Y	
MW-62D	04/20/02	Y	
MW-63S	02/18/02	Y	
MW-63I	02/18/02	Y	
MW-63D1	02/18/02	Y	
MW-63D2	02/18/02	Y	
MW-64S	02/09/02	N	Well no longer needed to monitor remediation of VCM subplume. Sampler stuck in well.
MW-64I	02/09/02	N	Well no longer needed to monitor remediation of VCM subplume. Sampler stuck in well.
MW-64D	02/09/02	N	Well no longer needed to monitor remediation of VCM subplume. Sampler stuck in well.
MW-66D2	06/08/02	Y	
MW-66I	06/19/02	N	Remediation of VCM subplume is adequately monitored by MW-66D2. Well no longer needed.
MW-66D1	06/19/02	N	Remediation of VCM subplume is adequately monitored by MW-66D2. Well no longer needed.
MW-67S	01/11/03	Y	
MW-67D	01/11/03	Y	
MW-68S	02/09/03	Y	
MW-68D	02/09/03	Y	
MW-70D1	02/02/11	Y	
MW-70D2	02/02/11	Y	
MW-72D1	03/16/11	Y	
MW-72D2	03/16/11	Y	
MW-73D1	02/11/11	Y	
MW-73D2	02/11/11	Y	
MW-75D1	05/02/11	Y	
MW-75D2	05/02/11	Y	
MW-76S	03/03/11	Y	
MW-76I	03/03/11	Y	
MW-76D1	02/15/11	Y	Test weight fell and became stuck in bottom of well in October 2015; samplers were able to be inserted and retrieved properly.
MW-76D2	02/15/11	Y	
MW-77D1	02/26/11	N	Samplers stuck in well. Monitoring of MW-77D2 sufficient to monitor VCM Subplume. Abandonment of MW-77D1 could adversely impact functionality of MW-77D2. No action
MW-77D2	02/26/11	Y	

Table 5

Well Status June 30, 2016
Operable Unit-3 Biosparge System
Hooker/Ruco Site, Hicksville, New York

Well Designation	Date Completed	Well Functional	Comments/Proposed Action
MW-81D1	11/01/05	Y	
MW-81D2	11/01/05	Y	
MW-82D1	02/15/06	Y	
MW-82D2	02/15/06	Y	
MW-83D1	11/06/05	Y	
MW-83D2	11/06/05	Y	
MW-84D1	04/12/06	Y	
MW-84D2	04/12/06	Y	
MW-85S	12/04/10	Y	
MW-85I	12/04/10	Y	
MW-85D1	12/02/10	Y	
MW-85D2	12/02/10	Y	
MW-86D1	11/11/10	Y	
MW-86D2	11/11/10	Y	
MW-87D1	10/04/05	Y	
MW-87D2	10/04/05	Y	
MW-88D1	03/21/06	Y	
MW-88D2	03/21/06	Y	
MW-89D1	12/19/10	Y	
MW-89D2	12/19/10	Y	
MW-90D1	03/28/06	Y	
MW-90D2	03/28/06	Y	
MW-92D1	03/11/11	Y	
MW-92D2	03/11/11	Y	
MW-93D1	03/03/11	Y	
MW-93D2	03/03/11	Y	
VZ-1S	03/15/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-1D	03/15/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-2S	02/12/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-2D	02/12/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-4S	04/30/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-4D	04/30/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-5S	03/11/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-5D	03/11/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-6S	02/26/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-6D	02/26/11	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-10S	01/19/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-10D	01/19/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-11S	02/28/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-11D	02/28/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-12S	12/05/10	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-12D	12/05/10	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-14S	10/07/05	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-14D	10/07/05	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-15S	11/04/05	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-15D	11/04/05	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-16S	01/23/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-16D	01/23/06	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-17S	12/20/10	Y	Well no longer scheduled to monitor remediation of VCM subplume.
VZ-17D	12/20/10	Y	Well no longer scheduled to monitor remediation of VCM subplume.

Notes:

NA Not Applicable

Attachment A

Memorandum

To:	Klaus Schmidtke Jim Kay	Ref. No.:	006883-D23102-403
From:	Gordon Reusing/Kaitlin Raheb/cb/188	Date:	July 14, 2016

Re: Hooker/Ruco Site - Revised Assessment for VCM Emissions from Air Stripper

Air dispersion modeling was performed to determine the maximum off-site concentration of vinyl chloride monomer (VCM) to ensure that current emissions (based on March 2016 groundwater concentrations) comply with the off-site ambient air guidelines published by the New York State Department of Environmental Conservation (NYSDEC) Division of Air Resources-1 (DAR-1). The modeling is based on the most recent edition of DAR-1.

SCREEN3 is a conservative air dispersion model recommended by the USEPA for screening purposes. It was selected as the appropriate model to determine the maximum off-site concentration of the chemical of concern.

The SCREEN3 modeling inputs include: a point source from the stripper exhaust, building downwash, simple terrain with no terrain above stack base, 1.5 meter receptor height, full meteorology, and an urban setting. The air concentration was calculated at a receptor height of 1.5 meters above ground level to represent a human inhalation level. The results could vary significantly if an elevated receptor such as a building intake was used.

A summary of modeling parameters including exhaust temperature, air flow rate, stack height, stack diameter, and building dimensions are presented in Table 1. The stack was assumed to be vertical and without a cap. A standard temperature of 70°F was used, per the calibrated air flow meter on the system. The SCREEN3 model was run with an exhaust air flow rate of 4800 acfm.

The model runs were performed using an emission rate of 1 g/s, to obtain a SCREEN3 unitary dispersion factor. The SCREEN3 modelling parameters are summarized in Table 1.

The emission rate for each chemical was estimated based on the following:

- Updated chemical concentration data for VCM for GP1 and GP3
- GP1 is pumped at a rate of 800 US gallons per minute (gpm)
- GP3 is pumped at a rate of 971 gpm
- Stripper emissions are considered to be uncontrolled
- Stripper treats groundwater from GP1 and GP3 simultaneously at their respective pumping rates

GHD Limited
651 Colby Drive Waterloo Ontario N2V 1C2 Canada
T 519 884 0510 F 519 884 0525 W www.ghd.com

The estimated emission rate for VCM is presented on Table 2. The maximum off-site concentration for VCM was estimated by multiplying the estimated emission rate and the unitized SCREEN3 dispersion factor. Table 2 presents the resultant off-site concentrations.

The calculated maximum off-site concentrations were compared to the Annual Guideline Concentration (AGC) and Short-term (1-hour) Guideline Concentration (SGC) listed in DAR-1. The USEPA time averaging conversion factor of 0.08 was used to convert the 1-hour ground level concentrations to an annual average concentration for comparison to the AGC.

As indicated on Table 2, the maximum off-site concentrations of VCM are well within the DAR-1 AGC and SGC guidelines for both flow rate scenarios.

Vinyl Chloride is considered to be a High Toxicity Air Contaminant within New York Codes, Rules and Regulations subpart 212-2. Per 6 CRR-NY 212-2.2, the mass emission limit for vinyl chloride is100 pounds per year (lb/yr). Assuming continuous operation, the mass emissions of vinyl chloride from the stripper are currently estimated to be 38.25 lb/yr, which is well below the limit.

Table 1

Screen3 Air Modeling Parameters
Air Stripper
Hooker / Ruco Site
Hicksville, New York

Parameter	Value
Unit Emission Rate	1.0 grams/second
Exhaust Air Temperature	89 deg. F 305 K
Ambient Air Temperature	277 K
Air Flow Rate	4631 scfm 70 standard temp. (^{o}F) 4,800 acfm
Stack Diameter	20 inches 0.508 meters
Stack Gas Velocity	11.28 meters/second
Total Stack Heights	55 feet 16.8 meters
Building Dimensions	42' x 32' x 22' H (12.8 m x 9.8 m x 6.7 m)
Shortest Distance to Property Line	30 feet 9.1 meters
Receptor Height - inhalation level	1.5 meters
Rural or Urban Setting?	Urban

Table 2

Maximum Ground Level Concentrations Summary Table
Hooker / Ruco Site
Hicksville, New York

Chemical	CAS #	Concentration		Emission Rate (1)	Maximum 1-Hour Off-Site Concentration	Maximum Annual Off-Site Concentration (3)	AGC (annual)	SGC (1-hr)	Percentage of Criteria (%)	
		GP1 (µg/L)	GP3 (µg/L)	(g/s)	(µg/m^3)	(µg/m^3)	(µg/m^3)	(µg/m^3)	AGC	SGC
Vinyl Chloride Monomer (VCM)	75-01-4	ND	9	5.51E-04	1.04E-01 (2)	8.34E-03	0.068	180,000	12.26%	<1%

Notes:

SGC - Short-term (one hour) Guideline Concentration
AGC - Annual Guideline Concentration
(1) No emission controls have been considered.
(2) Based on the Screen 3 unitary dispersion factor of 189 for the exhaust flow rate of 4,800 acfm.
(3) Calculated by using the USEPA time averaging factor of 0.08 to convert the 1-hour average concentration to an annual average concentration.
(4) Assuming continous operation, the calculated g/s emission rate can be converted to an annual emission rate of: **38.25 (lb/yr)**

Attachment B

1. **Subpart 212-2 Allowable Emissions**

(Statutory authority: Environmental Conservation Law, §§ Sections 1-0101, 3-0301, 19-0105, 19-0303, 19-0311, 71-2103 and 71-2105)

[Filed 5/14/15. Effective 30 days after filing.]

[page 1 of 1]

For administrative information about this posting, contact: Division of Air Resources. The Bureau of Air Quality Analysis & Research (518) 402-8402 or the Bureau of Stationary Sources at (518) 402-8403 are the contacts for technical questions pertaining to this rule.

2. **Contents:**

Sec.

3. **§212-2.1. Requirements.**

Emissions of air contaminants to the outdoor atmosphere from any process emission source or emission point are restricted as follows:

(a) for an air contaminant listed in Section 212-2.2 Table 2 - High Toxicity Air Contaminant List, of this Part, the facility owner or operator shall either limit the actual annual emissions from all process operations at the facility so as to not exceed the mass emission limit listed for the individual HTAC; or demonstrate compliance with the air cleaning requirements for the HTAC as specified in Subdivision 212-2.3(b), Table 4 - Degree of Air Cleaning Required for Non-Criteria Air Contaminants, of this Part for the environmental rating assigned to the contaminant by the department.

(b) for any air contaminant not listed on Table 2, unless it is a solid particulate described in subdivision (c) of this Section, the facility owner or operator shall not allow emissions of an air contaminant to violate the requirements specified in Subdivision 212-2.3(a), Table 3 - Degree of Air Cleaning Required for Criteria Air Contaminants, or Subdivision 212-2.3(b), Table 4 - Degree of Air Cleaning Required for Non-Criteria Air Contaminants, as applicable, for the environmental rating assigned to the contaminant by the department.

(c) for a solid particulate assigned an environmental rating of B or C emitted from a process emission source, the facility owner or operator shall not allow emissions of particulate to exceed the requirements specified in Subpart 212-2.4 of this Part.

4. **§212-2.2 Table 2 - High Toxicity Air Contaminant List**

CAS Number	Contaminant Name	Mass Emission Limit (pounds per year)	PB Trigger Applicable
000050-00-0	Formaldehyde	100	
000056-23-5	Carbon tetrachloride	100	
000062-53-3	Aniline	1000	
000064-67-5	Diethyl sulfate	250	
000067-66-3	Chloroform	100	
000071-43-2	Benzene	100	
000074-90-8	Hydrogen cyanide	100	
000075-01-4	Vinyl chloride	100	
000075-07-0	Acetaldehyde	1000	
000075-21-8	Ethylene oxide	25	
000075-44-5	Phosgene	500	
000077-78-1	Dimethyl sulfate	250	
000078-87-5	Propylene dichloride	1000	
000079-00-5	1,1,2 trichloroethane	100	
000079-01-6	Trichloroethylene	500	

000079-06-1	Acrylamide	10	
000079-11-8	Chloroacetic acid	1000	
000079-34-5	1,1,2,2-tetrachloroethane	1000	
000079-46-9	2-nitropropane	5000	
000091-94-1	3,3'-dichlorobenzidine	5	
000092-87-5	Benzidine	0.1	
000095-53-4	O-toluidine	5000	
000096-45-7	Ethylene thiourea	100	
000100-44-7	Benzyl chloride	25	
000106-93-4	1,2-dibromoethane	5	
000106-99-0	1,3-butadiene	25	
000107-02-8	Acrolein	25	
000107-06-2	1,2-dichloroethane	100	
000107-13-1	Acrylonitrile	25	
000107-18-6	Allyl alcohol	500	
000109-86-4	2-methoxy ethanol	5000	
000118-74-1	Hexachlorobenzene	5	Yes
000122-66-7	Diphenyl hydrazine	10	
000127-18-4	Perchloroethylene	1000	
000302-01-2	Hydrazine	0.1	
000542-75-6	1,3-dichloropropene	500	
000593-60-2	Vinyl bromide	500	
000625-31-0	4-penten-2-ol	500	
001336-36-3	Polychlorinated biphenyls (PCBs)	1	Yes
001395-21-7	Subtilisin	NA*	
001746-01-6	2,3,7,8 TCDD TEF Polychlorinated Dibenzodioxins Polychlorinated Dibenzofurans	0.0001	Yes
002465-27-2	Auramine	0.1	
007440-62-2	Vanadium	25	
007550-45-0	Titanium tetrachloride	0.1	
007784-42-1	Arsine	10	
009014-01-1	Subtilisin, fermentation product	NA*	
029082-74-4	Octachlorostyrene	NA*	Yes
	Arsenic compounds	1	
	Beryllium compounds	1	
	Brominated Flame Retardants**	100	Yes
	Cadmium compounds	25	Yes
	Chromium compounds	250	
	Chromium (VI) compounds	0.1	
	Diisocyanate compounds	100	

	Lead compounds	5	Yes
	Manganese compounds	10	
	Mercury compounds	5	Yes
	Nickel compounds	10	
	Pesticide, herbicide, rodenticide, insecticide***	NA*	Yes
	Polycyclic organic matter (POM)	1	Yes
	Polytetrafluoroethylene (decomposition)	NA*	

*These HTACs are not eligible for demonstrating compliance with a mass emission limit
**Including but not limited to Polybrominated diphenyl ethers (PBDEs), Tetrabromobisphenol A (TBBPA), Hexabromocyclododecane (HBCD)
*** Aldrin/Dieldrin (000309-00-2), Chlordane (000057-74-9 and 012789-03-6), DDE (000072-55-9), DDT (000050-29-3), Heptachlor (000076-44-8), Isodrin (000465 73-6), Methoxychlor (000072-43-5), Pendimethalin (040487-42-1), Pentachlorobenzene (000608-93-5), (000079-94-7), Toxaphene (008001-35-2), Trifluralin (001582-09-8)

5. **§212-2.3 Degree of Air Cleaning Required**

(a) Table 3 - Degree of Air Cleaning Required for Criteria Air Contaminants

Degree of Air Cleaning Required for Criteria Air Contaminants Gases and Liquid Particulate Emissions (Environmental Rating A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D)									
EMISSION RATE POTENTIAL (LBS/HR)									
Environmental Rating	**Less than 1**	**≥ 1 to 10**	**≥ 10 to 20**	**≥ 20 to 100**	**≥ 100 to 500**	**≥ 500 to 1,000**	**≥ 1,000 to 1,500**	**≥ 1,500 to 4,000**	**≥ 4,000 to 10,000**	**10,000 or greater**
A	NAAQS *	99%								
B	NAAQS *		90%	91%	94%	96%		97%	98%	99% or greater
C	NAAQS *		70%	75%	85%	90%		93%	95%	98% or greater
D	NO AIR CLEANING REQUIRED									

* Using air dispersion modeling demonstrate that the maximum offsite air concentration is less than the respective National Ambient Air Quality Standard.

(b) Table 4 - Degree of Air Cleaning Required for Non-Criteria Air Contaminants

Degree of Air Cleaning Required for Non-Criteria Air Contaminants Gases and Liquid Particulate Emissions (Environmental Rating A, B, C or D) and Solid Particulate Emissions (Environmental Rating A or D)					
EMISSION RATE POTENTIAL					
Environmental Rating	**Less than 0.1 lbs/hr and lbs/yr ≤ PB trigger**	**≥ 0.1 to 1 lbs/hr or lbs/yr > PB trigger**	**≥ 1 to 10 lbs/hr**	**≥ 10 to 25 lbs/hr**	**Greater than 25 lbs/hr**
A	Guideline Concentration*	90%	99%	99.5%	99.5%
B	Guideline Concentration*			90%	
C	Guideline Concentration*			75%	
D	NO AIR CLEANING REQUIRED				

* - Using air dispersion modeling demonstrate that the maximum offsite air concentration is less than the applicable AGC/SGC

6. §212-2.4 Control of particulate emissions released from existing process emission sources.

(a) Emissions from any process emission source for which an application was received by the department prior to July 1, 1973 are restricted as follows:

(1) No facility owner or operator shall cause or allow emissions of particulate that exceed 0.15 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where the determination of the permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5 (a) and (b) of this Part.

(b) The control of particulate emissions released from new and modified process emission sources.

Emissions from any process emission source for which an application was received by the department after July 1, 1973 are restricted as follows:

(1) No facility owner or operator shall cause or allow emissions of particulate that exceed 0.050 grains per cubic foot of exhaust gas, expressed at standard conditions on a dry gas basis, except in instances where determination of permissible emission rate using process weight for a specific source category emitting solid particulate is based upon Table 5 and Table 6 of Subdivisions 212-2.5(a) and (b) of this Part.

(c) Emissions of particulates shall be measured by using the emission testing method found in 40 CFR part 60 Appendix A-3 Method 5.

7. §212-2.5 Tables

(a) Table 5 - Process Weight Source Categories

Process Operations for which Permissible Emission Rate is Based on Process Weight	
a.	Stone dryers (asphalt concrete plants)
b.	Expanded aggregate kilns (lightweight aggregate plants)
c.	Continuous process material dryers emitting solid particulates and water only
d.	Brass and bronze melting furnaces
e.	Ferro alloy production furnaces
f.	Lime kilns
g.	Glass production furnaces
h.	Graphitizing and silicon carbide furnaces
i.	Gypsum dryers
j.	Primary aluminum reduction pot lines

(b) Table 6 - Permissible Emission Rate

Process weight per hour (lb/hr)	**Permissible emission rate (lb/hr)**	
	Existing emission source*	**New emission source or modification**
100	0.51	0.51
500	1.5	1.5
1,000	2.4	2.4
5,000	6.8	6.8
10,000	11	11.0
25,000	20	20
50,000	32	32
75,000	42	42
100,000	51	51
250,000	58	0.030 grain per standard cubic foot of undiluted exhaust gas on a dry basis
500,000	64	
750,000	68	

1,000,000	71	
2,000,000	78	
5,000,000	88	

* Existing emission sources are ones for which applications for permits were received prior to July 1, 1973
To determine values of permissible emission rate not shown in table:
For all process weight sources up to 100,000 lb/hr, use $E = 0.024P^{0.67}$
For existing process weight sources in excess of 100,000 lb/hr, use
$E = (39P^{0.082})- 50$ where E = permissible emission rate; P = process weight in lb/hr.

Attachment C

Memorandum

To:	Klaus Schmidtke	Ref. No.:	006883
From:	Kathy Willy/adh/15	Date:	July 8, 2016

Re: Analytical Results and Full Validation
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

1. Introduction

This document details a validation of analytical results for groundwater samples collected in support of the Semiannual Groundwater Monitoring at the Hicksville site during May-June 2016. Samples were submitted to Spectrum Analytical, Inc., located in North Kingstown, Rhode Island. A sample collection and analysis summary is presented in Table 1. The validated analytical results are summarized in Table 2. A summary of the analytical methodology is presented in Table 3.

Full Contract Laboratory Program (CLP) equivalent raw data deliverables were provided by the laboratory. Evaluation of the data was based on information obtained from the finished data sheets, raw data, chain of custody forms, calibration data, blank data, duplicate data, and recovery data from surrogate spikes/laboratory control samples (LCS)/matrix spike (MS) samples. The assessment of analytical and in-house data included checks for: data consistency (by observing comparability of duplicate analyses), adherence to accuracy and precision criteria, and transmittal errors.

The quality assurance/quality control (QA/QC) criteria by which these data have been assessed are outlined in the analytical methods referenced in Table 3 and applicable guidance from the documents entitled:

i) "USEPA Contract Laboratory Program National Functional Guidelines for Inorganic Superfund Data Review", United States Environmental Protection Agency (USEPA) 540-R-10-011, January 2010

ii) "USEPA Contract Laboratory Program National Functional Guidelines for Superfund Organic Methods Data Review", USEPA 540-R-08-01, June 2008

Items i) and ii) will subsequently be referred to as the "Guidelines" in this Memorandum.

2. Sample Holding Time and Preservation

The sample holding time criteria for the analyses are summarized in Table 3. Sample chain of custody documents and analytical reports were used to determine sample holding times. All samples were prepared and analyzed within the required holding times.

GHD Services Inc.
2055 Niagara Falls Boulevard Niagara Falls New York 14304 USA
T 716 297 6150 **F** 716 297 2265 **W** www.ghd.com

All samples were properly preserved, delivered on ice, and stored by the laboratory at the required temperature (0-6°C).

3. Gas Chromatography/Mass Spectrometer (GC/MS) – Tuning and Mass Calibration (Instrument Performance Check)

Prior to volatile organic compound (VOC) analysis, GC/MS instrumentation is tuned to ensure optimization over the mass range of interest. To evaluate instrument tuning, the method requires the analysis of specific tuning compound bromofluorobenzene (BFB). The resulting spectra must meet the criteria cited in the methods before analysis is initiated. Analysis of the tuning compound must then be repeated every 12 hours throughout sample analysis to ensure the continued optimization of the instrument.

Tuning compounds were analyzed at the required frequency throughout the VOC analysis periods. All tuning criteria were met, indicating that proper optimization of the instrumentation was achieved.

4. Initial Calibration - Organic Analyses

To quantify VOCs of interest in samples, calibration of the GC/MS over a specific concentration range must be performed. Initially, a five-point calibration curve containing all compounds of interest is analyzed to characterize instrument response for each analyte over a specific concentration range. Linearity of the calibration curve and instrument sensitivity are evaluated against the following criteria:

i) All relative response factors (RRFs) must be greater than or equal to 0.05.

ii) The percent relative standard deviation (RSD) values must not exceed 30.0 percent or a minimum correlation coefficient (R) of 0.995 and minimum coefficient of determination (R^2) of 0.99 if linear and quadratic equation calibration curves, respectively, are used.

The initial calibration data for VOCs were reviewed. All compounds met the above criteria for sensitivity and linearity.

5. Initial Calibration – Inorganic Analyses

Initial calibration of the instruments ensures that they are capable of producing satisfactory quantitative data at the beginning of a series of analyses. For instrumental general chemistry analyses, a calibration blank and a minimum of five standards must be analyzed to establish the analytical curve, and resulting correlation coefficients (R) must be 0.995 or greater.

After the analyses of the calibration curves, an initial calibration verification (ICV) standard must be analyzed to verify the analytical accuracy of the calibration curves. All analyte recoveries from the analyses of the ICVs must be within the following control limits:

Analytical Method	Parameter	Control Limits
Instrumental Wet Chemistry	Total Organic Carbon (TOC), ammonia, nitrate, nitrite	85 - 115%

Upon review of the data, it was determined that the calibration curves and ICVs were analyzed at the proper frequencies and that all of the above-specified criteria were met. The laboratory effectively demonstrated that the instrumentation used for metals and general chemistry analyses were properly calibrated prior to sample analysis.

6. Continuing Calibration - Organic Analyses

To ensure that instrument calibration for VOC analyses is acceptable throughout the sample analysis period, continuing calibration standards must be analyzed and compared to the initial calibration curve every 12 hours.

The following criteria were employed to evaluate continuing calibration data:

i) All RRF values must be greater than or equal to 0.05 (0.01 for poor responders).

ii) Percent difference (%D) values must not exceed 25 percent (40 percent for poor responders).

Calibration standards were analyzed at the required frequency, and the results met the above criteria for instrument sensitivity and stability.

7. Continuing Calibration - Inorganic Analyses

To ensure that instrument calibration is acceptable throughout the sample analysis period, continuing calibration verification (CCV) standards are analyzed on a regular basis. Each CCV is deemed acceptable if all analyte recoveries are within the control limits specified above for the ICVs. If some of the CCV analyte recoveries are outside the control limits, samples analyzed before and after the CCV, up until the previous and proceeding CCV analyses, are affected.

For this study, CCVs were analyzed at the proper frequency. All analyte recoveries reported for the CCVs were within the specified limits.

8. Laboratory Blank Analyses

Method blanks are prepared from a purified matrix and analyzed with investigative samples to determine the existence and magnitude of sample contamination introduced during the analytical procedures. Additionally, initial and continuing calibration blanks (ICBs/CCBs) are routinely analyzed after each ICV/CCV for the inorganic parameters.

For this study, laboratory method blanks were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

8.1 Organic Analyses

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

8.2 Inorganic Analyses

All method blank results were non-detect, indicating that laboratory contamination was not a factor for this investigation.

9. Surrogate Spike Recoveries

In accordance with the methods employed, all samples, blanks, and QC samples analyzed for organics are spiked with surrogate compounds prior to sample analysis. Surrogate recoveries provide a means to evaluate the effects of laboratory performance on individual sample matrices.

All samples submitted for VOC determinations were spiked with the appropriate number of surrogate compounds prior to sample analysis.

Surrogate recoveries were assessed against laboratory control limits. All surrogate recoveries met the laboratory criteria.

10. Internal Standards (IS) Analyses

IS data were evaluated for all VOC sample analyses.

To ensure that changes in the GC/MS sensitivity and response do not affect sample analysis results, IS compounds are added to each sample prior to analysis. All results are then calculated as a ratio of the IS responses.

The sample IS results were evaluated against the following criteria:

i) The retention time of the IS must not vary more than ±30 seconds from the associated calibration standard.

ii) IS area counts must not vary by more than a factor of two (-50 percent to +100 percent) from the associated calibration standard.

All organic IS recoveries and retention times met the above criteria.

11. Laboratory Control Sample Analyses

LCS and/or laboratory control sample duplicates (LCSD) are prepared and analyzed as samples to assess the analytical efficiencies of the methods employed, independent of sample matrix effects. The relative percent difference (RPD) of the LCS/LCSD recoveries is used to evaluate analytical precision.

For this study, LCS/LCSD were analyzed at a minimum frequency of 1 per 20 investigative samples and/or 1 per analytical batch.

11.1 Organic Analyses

The LCS/LCSD contained all compounds of interest. All LCS recoveries and RPDs were within the laboratory control limits, demonstrating acceptable analytical accuracy and precision.

11.2 Inorganic Analyses

The LCS/LCSD contained all analytes of interest. LCS recoveries were assessed per the "Guidelines". All LCS recoveries and RPDs were within the control limits, demonstrating acceptable analytical accuracy and precision.

12. Matrix Spike/Matrix Spike Duplicate (MS/MSD) Analyses

To evaluate the effects of sample matrices on the distillation process, measurement procedures, and accuracy of a particular analysis, samples are spiked with a known concentration of the analyte of concern and analyzed as MS/MSD samples. The RPD between the MS and MSD is used to assess analytical precision.

MS/MSD analyses were not performed on investigative samples from this sampling event.

13. Field QA/QC Samples

The field QA/QC consisted of six trip blank samples and four rinse blank samples.

13.1 Trip Blank Sample Analysis

To evaluate contamination from sample collection, transportation, storage, and analytical activities, six trip blanks were submitted to the laboratory for VOC analysis. All results were non-detect for the compounds of interest with the exception of a low concentration of trichloroethene. Associated samples with concentrations similar to that found in the trip blank were qualified as non-detect. A summary of qualified results is presented in Table 4.

13.2 Rinse Blank Sample Analysis

To assess field decontamination procedures, ambient conditions at the site, and cleanliness of sample containers, four rinse blanks were submitted for analysis, as identified in Table 1. All results were non-detect for the analytes of interest with the exception of a low concentration of phosphorous. Associated positive sample results were all greater than that of the rinse blank and no qualification of the data was necessary.

14. Analyte Reporting

The laboratory reported detected results down to the laboratory's Method Detection Limit (MDL) for each analyte. Positive analyte detections less than the Practical Quantitation Limit (PQL) but greater than the MDL were qualified as estimated (J) in Table 2 unless qualified otherwise in this memorandum. Non-detect results were presented as non-detect at the reporting limit (RL) in Table 2.

15. Target Compound Identification

To minimize erroneous compound identification during organic analyses, qualitative criteria including compound retention time and mass spectra (if applicable) were evaluated according to the identification

criteria established by the methods. The samples identified in Table 1 were reviewed. The organic compounds reported adhered to the specified identification criteria.

16. Conclusion

Based on the assessment detailed in the foregoing, the data summarized in Table 2 are acceptable with the specific qualifications noted herein.

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: Ammonia	Nitrate, Nitrite	Phosphorous	VOCs	TOC	Comments
GW051816TB046	MW-63S	Groundwater	05/18/2016	09:05				x		
GW051816TB047	MW-63I	Groundwater	05/18/2016	09:10	x	x	x	x	x	
GW051816TB048	MW-59D2	Groundwater	05/18/2016	10:05	x	x	x	x	x	
GW051816TB049	MW-58D2	Groundwater	05/18/2016	11:00	x	x	x	x	x	
GW051816TB050	MW-85S	Groundwater	05/18/2016	12:30		x		x	x	
GW051816TB051	--	Water	05/18/2016	12:40	x	x	x	x	x	Field Blank
GW060216TB052	MW-58D	Groundwater	06/02/2016	09:00	x	x	x	x		
GW060216TB053	MW-58D1	Groundwater	06/02/2016	09:15	x	x	x	x	x	
GW42516TB001	MW-66D2	Groundwater	04/25/2016	08:30	x	x	x	x	x	
GW42516TB002	MW-67S	Groundwater	04/25/2016	08:40	x	x	x	x	x	
GW42516TB003	MW-67D	Groundwater	04/25/2016	09:00	x	x	x	x	x	
GW42516TB004	MW-68S	Groundwater	04/25/2016	09:30	x	x	x	x	x	
GW42516TB005	MW-68D	Groundwater	04/25/2016	09:45	x	x	x	x	x	
GW42516TB006	MW-89D1	Groundwater	04/25/2016	11:00	x	x	x	x	x	
GW42516TB007	MW-89D2	Groundwater	04/25/2016	11:10	x	x	x	x	x	
GW42516TB008	MW-85I	Groundwater	04/25/2016	11:30	x	x	x	x	x	
GW42516TB009	MW-85D1	Groundwater	04/25/2016	11:45	x	x	x	x	x	
GW42516TB010	MW-85D2	Groundwater	04/25/2016	12:30	x	x	x	x	x	
GW42516TB011	--	Water	04/25/2016	13:15	x	x	x	x	x	Field Blank
GW42616TB012	MW-88D1	Groundwater	04/26/2016	08:30	x	x	x	x	x	
GW42616TB013	MW-88D2	Groundwater	04/26/2016	08:40	x	x	x	x	x	
GW42616TB014	MW-82D2	Groundwater	04/26/2016	09:10	x	x	x	x	x	
GW42616TB015	MW-82D1	Groundwater	04/26/2016	09:20	x	x	x	x	x	
GW42616TB016	MW-84D2	Groundwater	04/26/2016	09:50		x		x	x	
GW42616TB017	MW-84D1	Groundwater	04/26/2016	10:00	x	x	x	x	x	
GW42616TB019	MW-81D2	Groundwater	04/26/2016	11:20	x	x	x	x	x	
GW42616TB020	MW-61D2	Groundwater	04/26/2016	11:30	x	x	x	x	x	
GW42616TB021	MW-83D1	Groundwater	04/26/2016	12:00	x	x	x	x	x	
GW42616TB022	MW-83D2	Groundwater	04/26/2016	12:15	x	x	x	x	x	
GW42616TB023	MW-87D1	Groundwater	04/26/2016	12:40	x	x	x	x	x	
GW42616TB024	MW-87D2	Groundwater	04/26/2016	13:00	x	x	x	x	x	
GW42716TB025	MW-77D2	Groundwater	04/27/2016	08:05	x	x	x	x	x	
GW42716TB026	MW-73D1	Groundwater	04/27/2016	08:15	x	x	x	x	x	
GW42716TB027	MW-73D2	Groundwater	04/27/2016	08:45	x	x	x	x	x	

Table 1

Sample Collection and Analysis Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Sample Identification	Location	Matrix	Collection Date (mm/dd/yyyy)	Collection Time (hr:min)	Analysis/Parameters: Ammonia	Nitrate, Nitrite	Phosphorous	VOCs	TOC	Comments
GW42716TB028	MW-90D1	Groundwater	04/27/2016	09:00				x		
GW42716TB029	MW-90D2	Groundwater	04/27/2016	09:45				x		
GW42716TB030	MW-70D1	Groundwater	04/27/2016	10:00	x	x	x	x	x	
GW42716TB031	MW-70D2	Groundwater	04/27/2016	10:30	x	x	x	x	x	
GW42716TB032	MW-76I	Groundwater	04/27/2016	10:45	x	x	x	x	x	
GW42716TB033	MW-76S	Groundwater	04/27/2016	11:00	x	x	x	x	x	
GW42716TB034	MW-76D1	Groundwater	04/27/2016	11:35	x	x	x	x	x	
GW42716TB035	MW-76D2	Groundwater	04/27/2016	12:05	x	x	x	x	x	
GW42716TB036	--	Water	04/27/2016	13:00	x	x	x	x	x	Field Blank
GW42816TB037	MW-63D1	Groundwater	04/28/2016	08:15	x	x	x	x	x	
GW42816TB038	MW-63D2	Groundwater	04/28/2016	08:30	x	x	x	x	x	
GW42816TB039	MW-72D1	Groundwater	04/28/2016	09:15	x	x	x	x	x	
GW42816TB040	MW-72D2	Groundwater	04/28/2016	09:25	x	x	x	x	x	
GW42816TB041	MW-75D1	Groundwater	04/28/2016	10:00	x	x	x	x	x	
GW42816TB042	MW-75D2	Groundwater	04/28/2016	10:20	x	x	x	x	x	
GW42816TB043	MW-86D1	Groundwater	04/28/2016	10:30	x	x	x	x	x	
GW42816TB044	MW-86D2	Groundwater	04/28/2016	11:10	x	x	x	x	x	
GW42816TB045	--	Water	04/28/2016	11:15	x	x	x	x	x	Field Blank
TRIP BLANK	--	Water	06/02/2016	--				x		Trip Blank
TRIP BLANK 5/18/16	--	Water	05/18/2016	--				x		Trip Blank
TRIP BLANK_4/25/16	--	Water	04/25/2016	--				x		Trip Blank
TRIP BLANK_4/26/16	--	Water	04/26/2016	--				x		Trip Blank
TRIP BLANK_4/27/16	--	Water	04/27/2016	--				x		Trip Blank
TRIP BLANK_4/28/16	--	Water	04/28/2016	--				x		Trip Blank

Notes:

TOC - Total Organic Carbon
VOCs - Volatile Organic Compounds
- - Not applicable

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-58D	MW-58D1	MW-58D2	MW-59D2	MW-61D2	MW-63D1	MW-63D2
Sample Name:		GW060216TB052	GW060216TB053	GW051816TB049	GW051816TB048	GW42616TB020	GW42816TB037	GW42816TB038
Sample Date:		06/02/2016	06/02/2016	05/18/2016	05/18/2016	04/26/2016	04/28/2016	04/28/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	3.0 J	5.0 U	2.7 J	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	12	13	13	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	32	29	33	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	6.9	7.2	4.6 J	4.4 J	16	14	16
Benzene	µg/L	5.0 U	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	15	32	14	5.0 U	2.3 J	5.0 U	5.0 U
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	28	34	38	5.0 U	39	6.1	4.9 J
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	6300	5800	7600	5.5	51	2.4 J	1.6 J
Vinyl chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-58D	MW-58D1	MW-58D2	MW-59D2	MW-61D2	MW-63D1	MW-63D2
Sample Name:		GW060216TB052	GW060216TB053	GW051816TB049	GW051816TB048	GW42616TB020	GW42816TB037	GW42816TB038
Sample Date:		06/02/2016	06/02/2016	05/18/2016	05/18/2016	04/26/2016	04/28/2016	04/28/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	2.74	2.76	2.43	4.04	3.57	0.097 J	0.088 J
Nitrate (as N)	mg/L	1.04	1.00 U	2.00 U	1.00 U	1.39	1.43	0.990
Nitrite (as N)	mg/L	1.00 U	1.00 U	2.00 U	1.00 U	0.686 J	0.500 U	0.500 U
Phosphorus	mg/L	0.23	0.08	0.06	0.03	0.11	0.05	0.05
Total organic carbon (TOC)	mg/L	--	1.0 U	3.6	2.0	1.0 U	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-63I	MW-63S	MW-66D2	MW-67D	MW-67S	MW-68D	MW-68S
Sample Name:		GW051816TB047	GW051816TB046	GW42516TB001	GW42516TB003	GW42516TB002	GW42516TB005	GW42516TB004
Sample Date:		05/18/2016	05/18/2016	04/25/2016	04/25/2016	04/25/2016	04/25/2016	04/25/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	1.5 J	5.0 U	1.2 J	1.5 J	10 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	3.6 J
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Acetone	µg/L	3.6 J	3.6 J	16	18	14	14	16
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	7.6 J
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	13	5.0 U	9.9 J
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Tetrachloroethene	µg/L	2.7 J	1.9 J	2.9 J	5.0 U	58	5.0 U	62
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U
Trichloroethene	µg/L	5.0 U	5.0 U	8.0	1.2 J	44	4.3 J	100
Vinyl chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	220
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	10 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

	Location ID:	MW-63I	MW-63S	MW-66D2	MW-67D	MW-67S	MW-68D	MW-68S
	Sample Name:	GW051816TB047	GW051816TB046	GW42516TB001	GW42516TB003	GW42516TB002	GW42516TB005	GW42516TB004
	Sample Date:	05/18/2016	05/18/2016	04/25/2016	04/25/2016	04/25/2016	04/25/2016	04/25/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	0.044 J	--	1.16	0.684	0.366	1.83	1.86
Nitrate (as N)	mg/L	1.00 U	--	2.67	2.12	1.00 U	3.34	1.52
Nitrite (as N)	mg/L	1.00 U	--	1.00 U	1.00 U	1.00 U	0.860	0.813 J
Phosphorus	mg/L	0.04	--	0.04	0.26	0.12	0.08	0.07
Total organic carbon (TOC)	mg/L	1.0 U	--	1.0 U	1.0 U	1.4	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-70D1	MW-70D2	MW-72D1	MW-72D2	MW-73D1	MW-73D2	MW-75D1
Sample Name:		GW42716TB030	GW42716TB031	GW42816TB039	GW42816TB040	GW42716TB026	GW42716TB027	GW42816TB041
Sample Date:		04/27/2016	04/27/2016	04/28/2016	04/28/2016	04/27/2016	04/27/2016	04/28/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	18	13	14	13	11	14	15
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	75	5.0 U	5.0 U	2.0 J
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	1.5 J	5.0 U	5.0 U	200	2.9 J	13	4.2 J
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	2.4 J	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	5.0 U	23	5.0 U	5.2	2.4 J
Vinyl chloride	µg/L	5.1	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-70D1	MW-70D2	MW-72D1	MW-72D2	MW-73D1	MW-73D2	MW-75D1
Sample Name:		GW42716TB030	GW42716TB031	GW42816TB039	GW42816TB040	GW42716TB026	GW42716TB027	GW42816TB041
Sample Date:		04/27/2016	04/27/2016	04/28/2016	04/28/2016	04/27/2016	04/27/2016	04/28/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	0.213	0.522	0.098 J	0.665	0.476	0.725	0.201
Nitrate (as N)	mg/L	1.94 J	2.00 U	2.00 U	1.00 U	3.31 J	2.00 U	1.00 U
Nitrite (as N)	mg/L	2.00 U	2.00 U	2.00 U	1.00 U	3.44 J	2.00 U	1.00 U
Phosphorus	mg/L	0.08	0.05	0.07	0.09	0.36	0.08	0.11
Total organic carbon (TOC)	mg/L	1.0 U	1.0 U	1.1	1.0 U	1.3	1.0 U	2.2

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-75D2	MW-76D1	MW-76D2	MW-76I	MW-76S	MW-77D2	MW-81D1
Sample Name:		GW42816TB042	GW42716TB034	GW42716TB035	GW42716TB032	GW42716TB033	GW42716TB025	GW42616TB018
Sample Date:		04/28/2016	04/27/2016	04/27/2016	04/27/2016	04/27/2016	04/27/2016	04/26/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	13	19	15	5.0 U	13	5.0 U	14
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	13
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	20	5.0 U	1.1 J	5.0 U	38	5.0 U	11
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	1.5 J	2.3 J	2.8 J	1.4 J	1.4 J	71	70
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	5.0 U	5.0 U	1.0 J	5.0 U	5.0 U	20	110
Vinyl chloride	µg/L	78	2.3	2.0 U	2.0 U	2.0 U	2.0 U	1.8 J
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-75D2	MW-76D1	MW-76D2	MW-76I	MW-76S	MW-77D2	MW-81D1
Sample Name:		GW42816TB042	GW42716TB034	GW42716TB035	GW42716TB032	GW42716TB033	GW42716TB025	GW42616TB018
Sample Date:		04/28/2016	04/27/2016	04/27/2016	04/27/2016	04/27/2016	04/27/2016	04/26/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	0.524	0.404	0.512	0.248	0.296	1.60	--
Nitrate (as N)	mg/L	1.00 U	2.00 U	2.00 U	1.00 U	1.00 U	2.00 U	--
Nitrite (as N)	mg/L	1.00 U	2.00 U	2.00 U	1.00 U	1.00 U	1.66 J	--
Phosphorus	mg/L	0.03	0.10	0.26	0.04	0.08	0.08	--
Total organic carbon (TOC)	mg/L	2.8	1.0 U	2.8	1.0 U	1.0 U	1.0 U	--

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-81D2	MW-82D1	MW-82D2	MW-83D1	MW-83D2	MW-84D1	MW-84D2
Sample Name:		GW42616TB019	GW42616TB015	GW42616TB014	GW42616TB021	GW42616TB022	GW42616TB017	GW42616TB016
Sample Date:		04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	5.0 U	6.8	5.0 U	0.60 J	5.0 U	4.8 J	1.9 J
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	1.6 J	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	12	15	15	15	12	13	14
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	5.0 U	1.9 J	5.0 U	6.4	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	18	2.0 J	5.0 U	9.9	15	1.7 J	3.5 J
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	95	37	3.2 J	55	66	23	15
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	30	21	3.4 J	120	140	18	58
Vinyl chloride	µg/L	2.0 U	2.0 U	2.0 U	1.1 J	2.0 U	2.0 U	2.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-81D2	MW-82D1	MW-82D2	MW-83D1	MW-83D2	MW-84D1	MW-84D2
Sample Name:		GW42616TB019	GW42616TB015	GW42616TB014	GW42616TB021	GW42616TB022	GW42616TB017	GW42616TB016
Sample Date:		04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016	04/26/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	1.30	0.125	3.71	0.250	0.273	0.167	--
Nitrate (as N)	mg/L	1.73	2.32	1.00 U	1.65	4.94	6.65	3.15 J
Nitrite (as N)	mg/L	0.500 U	0.500 U	1.00 U	1.00 U	0.500 U	0.500 U	4.00 U
Phosphorus	mg/L	0.45	0.02	0.08	0.13	0.17	0.09	--
Total organic carbon (TOC)	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-85D1	MW-85D2	MW-85I	MW-85S	MW-86D1	MW-86D2	MW-87D1
Sample Name:		GW42516TB009	GW42516TB010	GW42516TB008	GW051816TB050	GW42816TB043	GW42816TB044	GW42616TB023
Sample Date:		04/25/2016	04/25/2016	04/25/2016	05/18/2016	04/28/2016	04/28/2016	04/26/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	3.9 J	1.5 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	11	13	13	5.5	14	15	15
Benzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	1.3 J	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	2.8 J	5.0 U	5.0 U	5.0 U	5.0 U	11	2.0 J
cis-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	4.1 J	2.3 J	3.4 J	5.0 U	2.3 J	9.8	99
Toluene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	10	5.4	2.5 J	5.0 U	5.0 U	58	11
Vinyl chloride	µg/L	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U	2.0 U
Xylenes (total)	µg/L	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-85D1	MW-85D2	MW-85I	MW-85S	MW-86D1	MW-86D2	MW-87D1
Sample Name:		GW42516TB009	GW42516TB010	GW42516TB008	GW051816TB050	GW42816TB043	GW42816TB044	GW42616TB023
Sample Date:		04/25/2016	04/25/2016	04/25/2016	05/18/2016	04/28/2016	04/28/2016	04/26/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	0.200 U	0.996	0.165 J	--	0.904	1.57	0.078 J
Nitrate (as N)	mg/L	2.94	2.00 U	2.00 U	10.0 U	2.00 U	1.00 U	1.50
Nitrite (as N)	mg/L	1.48 J	2.00 U	2.00 U	10.0 U	2.00 U	1.00 U	0.500 U
Phosphorus	mg/L	0.02 U	0.32	0.10	--	0.02 U	0.08	0.09
Total organic carbon (TOC)	mg/L	1.0 U	1.0 U	1.0 U	1.0 U	1.6	1.0 U	1.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-87D2	MW-88D1	MW-88D2	MW-89D1	MW-89D2	MW-90D1	MW-90D2
Sample Name:		GW42616TB024	GW42616TB012	GW42616TB013	GW42516TB006	GW42516TB007	GW42716TB028	GW42716TB029
Sample Date:		04/26/2016	04/26/2016	04/26/2016	04/25/2016	04/25/2016	04/27/2016	04/27/2016
Parameters	**Unit**							
Volatile Organic Compounds								
1,1,1-Trichloroethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2,2-Tetrachloroethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1,2-Trichloroethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,1-Dichloroethane	µg/L	13 U	5.0 U	1.5 J	1.7 J	2.8 J	5.0 U	5.0 U
1,1-Dichloroethene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloroethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
1,2-Dichloropropane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Butanone (Methyl ethyl ketone) (MEK)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
2-Hexanone	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
4-Methyl-2-pentanone (Methyl isobutyl ketone) (MIBK)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Acetone	µg/L	13 U	12	15	15	13	22	24
Benzene	µg/L	13 U	5.0 U	5.0 U	1.4 J	5.0 U	5.0 U	5.0 U
Bromodichloromethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromoform	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Bromomethane (Methyl bromide)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon disulfide	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Carbon tetrachloride	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chlorobenzene	µg/L	13 U	5.0 U	5.0 U	1.8 J	5.0 U	5.0 U	5.0 U
Chloroethane	µg/L	13 U	8.1	5.0 U	4.9 J	5.0 U	5.0 U	5.0 U
Chloroform (Trichloromethane)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Chloromethane (Methyl chloride)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
cis-1,2-Dichloroethene	µg/L	23	4.5 J	5.0 U	35	4.2 J	3.0 J	7.3
cis-1,3-Dichloropropene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Dibromochloromethane	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Ethylbenzene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Methylene chloride	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Styrene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Tetrachloroethene	µg/L	420	14	9.2	8.9	6.7	5.0 U	27
Toluene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,2-Dichloroethene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
trans-1,3-Dichloropropene	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U
Trichloroethene	µg/L	170	17	8.3	12	6.0	8.4	11
Vinyl chloride	µg/L	5.0 U	1.2 J	2.0 U	4.2	2.0 U	2.0 U	2.0 U
Xylenes (total)	µg/L	13 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U	5.0 U

Table 2

Analytical Results Summary
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Location ID:		MW-87D2	MW-88D1	MW-88D2	MW-89D1	MW-89D2	MW-90D1	MW-90D2
Sample Name:		GW42616TB024	GW42616TB012	GW42616TB013	GW42516TB006	GW42516TB007	GW42716TB028	GW42716TB029
Sample Date:		04/26/2016	04/26/2016	04/26/2016	04/25/2016	04/25/2016	04/27/2016	04/27/2016
Parameters	**Unit**							
Wet Chemistry								
Ammonia-N	mg/L	0.237	0.173	0.861	0.120 J	0.184 J	--	--
Nitrate (as N)	mg/L	2.62	1.00 U	1.00 U	1.83 J	0.982 J	--	--
Nitrite (as N)	mg/L	0.500 U	1.00 U	1.20	2.00 U	1.00 U	--	--
Phosphorus	mg/L	0.04	0.07	0.06	0.10	0.13	--	--
Total organic carbon (TOC)	mg/L	1.0 U	1.0 U	1.0 U	3.9	1.0 U	--	--

Notes:

J - Estimated concentration
U - Not detected at the associated reporting limit
-- - Not applicable

Table 3

Analytical Methods and Holding Time Criteria
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

			Holding Time	
Parameter	**Method**	**Matrix**	**Collection to Extraction**	**Collection or Extraction to Analysis**
TCL VOC	SW-846 8260 [1]	Water	--	14 days
Ammonia	E350.1 [3]	Water	--	28 days
Phosphorous	SM 4500P [2]	Water	--	28 days
Nitrate, Nitrite	E353.2 [3]	Water	--	48 hours
Total Organic Carbon (TOC)	415.1 [3]	Water	--	28 days

Notes:

[1] - "Test Methods for Evaluating Solid Waste, Physical/Chemical Methods", SW-846, Third Edition, 1986, with subsequent revisions
[2] - "Standard Methods for the Examination of Water and Wastewater", 18th Edition, 1992, with subsequent revisions
[3] - "Methods for Chemical Analysis of Water and Wastes", USEPA-600/4-79-020, March 1983 with subsequent revisions
[4] - "Compendium of Methods for the Determination of Toxic Organic Compounds in Ambient Air", EPA-625/R-96/010b, January 1999
TCL - Target Compound List
VOC - Volatile Organic Compounds
-- - Not applicable

Table 4

Qualified Sample Data Due to Analyte Concentrations in the Trip Blanks
Semiannual Groundwater Monitoring
Glenn Springs Holdings, Inc.
Hicksville, New York
May-June 2016

Parameter	Blank Date (mm/dd/yyyy)	Analyte	Blank Result	Associated Sample ID	Original Result	Qualified Result	Units
VOCs	05/18/2016	Trichloroethene	1.6 J	GW051816TB046	1.7 J	5.0 J	µg/L
				GW051816TB047	1.9 J	5.0 J	µg/L

Notes:

VOCS - Volatile Organic Compounds
J - Estimated concentration