AECOM
250 Apollo Drive
Chelmsford, MA 01824

978.905.2100 tel
978.905.2101 fax

May 2, 2016

Mr. Mark Baldi
Bureau of Waste Site Cleanup
Massachusetts Department of Environmental Protection
Central Region Office
627 Main Street
Worcester, MA 01608

Subject: **Post-Temporary Solution Status Report and Remedial Monitoring Report**
No. 2 Fuel Oil Source Area
Former BOC Gases Facility
Acton, Massachusetts
RTN #2-11461

Dear Mr. Baldi,

On behalf of Linde, LLC (Linde), AECOM Technical Services, Inc. (AECOM) is pleased to submit this Post-Temporary Solution (formerly referred to as Class C Response Action Outcome [RAO]) Status Report and Remedial Monitoring Report (RMR) for the above-referenced site in accordance with provisions of 310 CMR 40.0881 of the Massachusetts Contingency Plan (MCP). Light non-aqueous phase liquid (LNAPL) removal continues, as necessary, as part of Temporary Solution, operation, maintenance, and monitoring (OM&M) activities. This report documents, per 310 CMR 40.0898, the OM&M activities performed to maintain the conditions upon which the original Class C RAO is based and to achieve further progress towards a Permanent Solution. The period for this Remediation Monitoring Report includes the activities performed between October 1, 2015 and March 31, 2016.

Background

The LNAPL was discovered at the BOC Gases facility (now Linde) at 37 Lawsbrook Road in Acton, Massachusetts (see **Figure 1**) during subsurface investigation activities, and was reported to the Massachusetts Department of Environmental Protection (MassDEP) on October 25, 1996. Based on the results of a comprehensive site assessment, the area impacted with LNAPL (the source area) is understood to be limited to a portion of the parking lot and wooded area adjacent to the office building (see **Figure 2**). This release was assigned release tracking number RTN 2-11461 by the MassDEP and was classified as a Tier 1C site on October 23, 1997. LNAPL recovery system operations were initiated on May 26, 1999. After completion of the Phase II Comprehensive Site Assessment and Phase III Identification, Evaluation, and Selection of Comprehensive Remedial Action Alternatives, a Class C RAO (Temporary Solution) was submitted to the MassDEP on January 31, 2003. The Class C RAO (Temporary Solution) was submitted because it was apparent that a Permanent Solution was not achievable while LNAPL thickness measurements greater than 0.5 inches were present at the release site. A Phase IV Remedy Implementation Plan, As-Built

Construction Report, and Inspection Report were submitted to MassDEP on February 14, 2003, which detailed the remedial efforts implemented to remove LNAPL from the subsurface.

Continued LNAPL recovery and monitoring of wells are performed under Post-Temporary Solution OM&M status, pursuant to Section 310 CMR 40.0896(4) of the MCP. These operation and maintenance activities are performed to maintain the conditions of the original Class C RAO and to make further progress towards a Permanent Solution. The LNAPL recovery activities follow the OM&M plan developed as part of the Phase IV activities with the addition of hand bailing and LNAPL removal with LNAPL-absorbent socks as documented in post-Temporary Solution status reports issued since 2003. The activities are reported to MassDEP every six months in accordance with the format outlined in 310 CMR 40.0892.

The party assuming responsibility for conducting the post-Temporary Solution activities is:

Linde, LLC (formerly BOC Gases and Airco Gases)
575 Mountain Avenue
Murray Hill, NJ 07974
(908) 771-1082

Contact Person: David Sordi, P.E., Sr. Project Manager

The LSP-of-Record is:

David G. Austin, Lic. # 2062
AECOM
250 Apollo Drive
Chelmsford, MA 01824

Status and Frequency of Operation, Maintenance and Monitoring Activities

The original LNAPL recovery system consists of six recovery wells, RW-1 through RW-6 (see **Figure 2**), installed along the central axis of the LNAPL area and several surrounding monitoring wells. The original system consisted of pneumatic skimmer pumps placed in the recovery wells. When sufficient LNAPL was present, LNAPL recovery was accomplished with the pneumatic skimmer pumps that were placed in the recovery wells, which employed a passive (hydrophobic membrane) collection system to entrain LNAPL. The system also had a tank overfill sensor that shuts off the free product recovery system when the recovery tank (drum) was filled. Periodic LNAPL level readings at the six recovery wells dictated the level at which the skimmer pumps were placed. When the system was operating, maintenance of the system and monitoring of the recovery wells took place at least on a monthly basis. The observations were documented into a field log book.

When groundwater levels were at historic lows during the latter part of 2002 and the early part of 2003, the mobility of LNAPL temporarily increased and LNAPL flowed freely into the recovery wells, where it was collected. By May of 2003, the groundwater levels had recovered enough to saturate the LNAPL-containing soils, at which point LNAPL flow into the recovery wells essentially ceased, due to the relative immobility of LNAPL below the water table. The system was shut down on May 2, 2003 for lack of recoverable LNAPL and subsequently was only operated occasionally when enough recoverable LNAPL was observed in the recovery wells. The pneumatic skimmer pumps cannot efficiently remove the small amounts of LNAPL (less than 6 inches). After LNAPL levels

remained too low for LNAPL-recovery to occur via the skimmer pump, the individual pumps were removed from the recovery wells to allow subsequent hand-bailing of LNAPL from the wells. The pneumatic skimmer pumps were removed from wells RW-1 and RW-2 on January 8, 2006, and from wells RW-3 through RW-6 on February 20, 2009 due to the decline in the amount of free-product found in recovery wells.

To continue LNAPL monitoring and recovery as was intended with the original system, approximately once per month, a set of monitoring wells and recovery wells in and surrounding the source area are measured for water table elevations and LNAPL presence and thickness. In addition, LNAPL is removed manually from wells where it is observed during gauging. In wells where LNAPL is observed regularly at 0.5 inch thickness measurements, absorbent socks are placed and replaced during gauging events. Where LNAPL levels increase to greater than 3 inches, the frequency of LNAPL recovery bailing is increased to weekly until LNAPL levels no longer recover to that thickness.

The thickness of LNAPL reported during monthly site gauging visits triggered the need for weekly gauging that began during the last reporting period on September 16, 2015, and continued through January 29, 2016. Weekly gauging did not occur during the first three weeks of February and the first two weeks of March. Weekly gauging occurred during the remainder of this reporting period. Historical operations have shown that operation of the skimmer pump is no more effective than hand bailing when thicknesses of less than six to twelve inches are present as noted above. Therefore, hand bailing and LNAPL removal with LNAPL-absorbent socks has been performed in the recovery wells and nearby monitoring wells in lieu of automated LNAPL removal techniques, which is consistent with the original intent of the LNAPL removal system.

Groundwater and LNAPL Gauging Results

Groundwater and LNAPL gauging was undertaken mostly weekly between October 1, 2015 and March 31, 2016. During this period groundwater was reported to range in depth from 52.93 feet below ground level (October 8, 2015 – MW-18S) to a maximum of 61.44 feet below ground level (January 29, 2016 – B-34) in the wells located near the plume. The groundwater flow direction is toward the northeast. Due to low water table, monitoring wells MW-18S, MW-19S, B-31 and EX-1 were dry during some gauging events this reporting period. Refer to **Figure 2** for the water table elevations and groundwater contour map based on the September 16, 2015 data.

LNAPL thickness data are summarized in **Table 1**. Measureable detections were observed in the following wells throughout the reporting period: monitoring wells MW-17S, MW-40, MW-41, MW-42, MW-45, EX-1, B-31, B-34 and B-38, and recovering wells RW-1 through RW-6. Some wells could not be gauged in February or March 2015 due to weather. **Figure 3** depicts the location of wells that contained LNAPL during this reporting period, and **Appendix I** depicts graphs of LNAPL thickness in the recovery wells since system operation began and graphs of LNAPL thickness in monitoring wells MW-17S, MW-40, MW-41 and MW-45.

The LNAPL found in monitoring wells and recovery wells during this reporting period was removed via hand-bailing or via absorbent sock and placed into appropriate containers on-site. Due to recurrent observation of LNAPL in some wells, LNAPL-absorbent socks were placed (and replaced as necessary) in monitoring wells B-31, B-34, B-38, EX-1, MW-17S, MW-40, MW-41 and MW-45 and recovery wells RW-2, RW-4, RW-5 and RW-6. During this reporting period, approximately 83 gallons of free product and water mixture were recovered from the wells.

The highest thickness measured was 17.64 inches in monitoring well MW-40 on December 11, 2015.

Significant Modifications to the System

No significant modifications to the free product recovery program have been made since the last report.

Significant Conditions or Problems and Corrective Measures

No significant conditions arose during this reporting period.

Groundwater Sampling and Analysis Results

In accordance with Post-Temporary Solution activities outlined in the original Class C RAO Statement, no groundwater sampling was performed during this six month period. A representative set of wells in and around the LNAPL recovery system area will be sampled in September 2016 for extractable petroleum hydrocarbons (EPH) and volatile petroleum hydrocarbons (VPH) to monitor potential plume migration and attenuation. The groundwater monitoring program consists of fifteen select wells across the site (B-34, B-38, MW-4S, MW-4D, MW-15S, MW-17S, MW-19S, MW-40, MW-41, MW-42, MW-43S, MW-43D, MW-44, MW-45, and MW-46). Far down-gradient monitoring wells MW-6S and MW-7S, where EPH and VPH concentrations have remained consistently below detection limits, were previously removed from the active monitoring well network. Monitoring wells MW-4S and MW-4D, which are directly down-gradient of the area where prior trend analysis indicated the potential for increasing trends, were retained as down-gradient sentry wells.

The analytical results from the September 2015 sampling event were presented in the Post-Temporary Solution Status Report and Remedial Monitoring Report dated November 2, 2015.

Remediation Waste Management

During this reporting period, one 55-gallon drum of non-hazardous oily solids and one 55-gallon drum of non-hazardous oily water was removed from the site by TMC Environmental on December 10, 2015 and disposed of at ENPRO Services of Maine Inc. in South Portland, Maine. To date, since the system has been operating, the total volume of liquids recovered is approximately 3,159 gallons, of which approximately 1,575 gallons has been product and 1,584 gallons has been a product/water emulsion. During this reporting period, approximately 83 gallons of free product and water mixture were recovered by hand bailing and absorption by the monitoring well skimming socks, and placed in a 55-gallon drum. Waste disposal documentation is included as **Appendix II**.

Status of Post-Temporary Solution and Operations, Maintenance, and Monitoring Activities

The conditions upon which the temporary solution at the site were based included elimination of potential Substantial Hazards, and operations, maintenance, and monitoring activities to maintain the temporary solution and progress toward a permanent solution. Substantial Hazards did not exist at the time the Class C RAO (Temporary Solution) was achieved. No change in potential receptors has occurred. Therefore, the conditions of the original Temporary Solution remain in place. However, recently there has been an increase in volume and extent of LNAPL, and possible change in the extent of dissolved impacts at the site. This is likely due to a drop in the water table elevations due to drought conditions in the area. The recent increase in LNAPL volume is consistent

with observations and conditions noted back in 2002/2003 when a similar significant drop in the water table elevations occurred. Because of this and in light of the recent regulation changes concerning LNAPL in 2014 and recent LNAPL Guidance by MassDEP (Final Policy #WSC-16-450, Light Nonaqueous Phase Liquid and the MCP: Guidance on Site Assessment and Closure, February 2016), evaluation of other actions to take to ensure compliance with MassDEP requirements and policies will be evaluated.

Future actions for the next six-month operation, maintenance, and monitoring period will include monthly observations of LNAPL to evaluate the need for more frequent LNAPL removal. In addition, it is expected that recovery wells and nearby monitoring wells will continue to be hand bailed when greater than one half-inch of LNAPL is present. Nearby monitoring wells and recovery wells will continue to have LNAPL-absorbent socks installed and/or replaced as warranted. Dissolved-phase petroleum constituent measurements will also continue to be assessed to track the behavior of the dissolved-phase plume associated with the LNAPL.

Other remediation actions

No new remedial actions have been implemented since the last Status Report, which was submitted in November 2015.

Remedial Monitoring Report

The following is a summary of RMR information, required pursuant to 310 CMR 40.0027(2):

- The active LNAPL recovery system was inactive during this reporting period, but weekly bailing of LNAPL was instituted during the period of greater LNAPL presence to increase the effectiveness of the remedy. There were 22 total LNAPL measurement/monitoring events during the reporting period from October 1, 2015 through March 31, 2016.
- Approximately 83 gallons of LNAPL and water mixture were recovered during this reporting period.
- There are no discharges or effluent associated with the system which is not active. Accumulated LNAPL and water are disposed as non-hazardous waste under a Uniform Hazardous Waste manifest, as necessary. During this reporting period, one 55-gallon drum consisting of non-hazardous oily water and one 55-gallon drum of non-hazardous oily solids were disposed of under Uniform Hazardous Waste manifest number 002630674.
- LNAPL occurrences during this reporting period are presented in **Figure 3** of this report and LNAPL thickness data are presented in **Table 1** and **Appendix I**.
- No remedial additives were applied during this reporting period.

Changes to the Monitoring Program and Other Possible Actions

Consistent with the changes described in the *5-Year Periodic Review of a Temporary Solution: Class C-1 RAO* submitted by AECOM in January of 2014, AECOM plans to sample 15 wells in the free product area (B-34, B-38, MW-4S, MW-4D, MW-15S, MW-17S, MW-19S, MW-40, MW-41, MW-42, MW-43S, MW-43D, MW-44, MW-45, and MW-46) during the next yearly sampling event, scheduled to occur in September 2016.

In light of the 2014 MCP regulation changes and recent MassDEP LNAPL Guidance, and a recent fluctuation in volume and extent of LNAPL impacts at the site, evaluation of other actions to take to ensure compliance with the MassDEP requirements and policies will be evaluated. The effectiveness of the recovery program will continue to be evaluated in regard to the objectives of the Class C RAO and Phase IV report submitted in 2003.

The next post-Temporary Solution Status Report and RMR will be submitted in November 2016 and will cover April 2016 through September 2016 activities. If you have any questions, please contact us at (978) 905-2100.

Yours sincerely,

Jaime Taylor
Project Manager
jaime.taylor@aecom.com

David Austin, LSP
Technical Leader I, Science
david.austin@aecom.com

cc: David Sordi, Linde
R. Leva, Linde (Acton)
D. Johnson, Town of Acton
D. Halley, Acton Board of Health
J. Ceraso, Water Supply District, Acton
M. Michelman, ACES
PIP Repository, Acton Public Library
D. Golden, US EPA
J. McWeeney, MassDEP

Attachments:

Figure 1 – Site Location Map

Figure 2 – Groundwater Contour Map

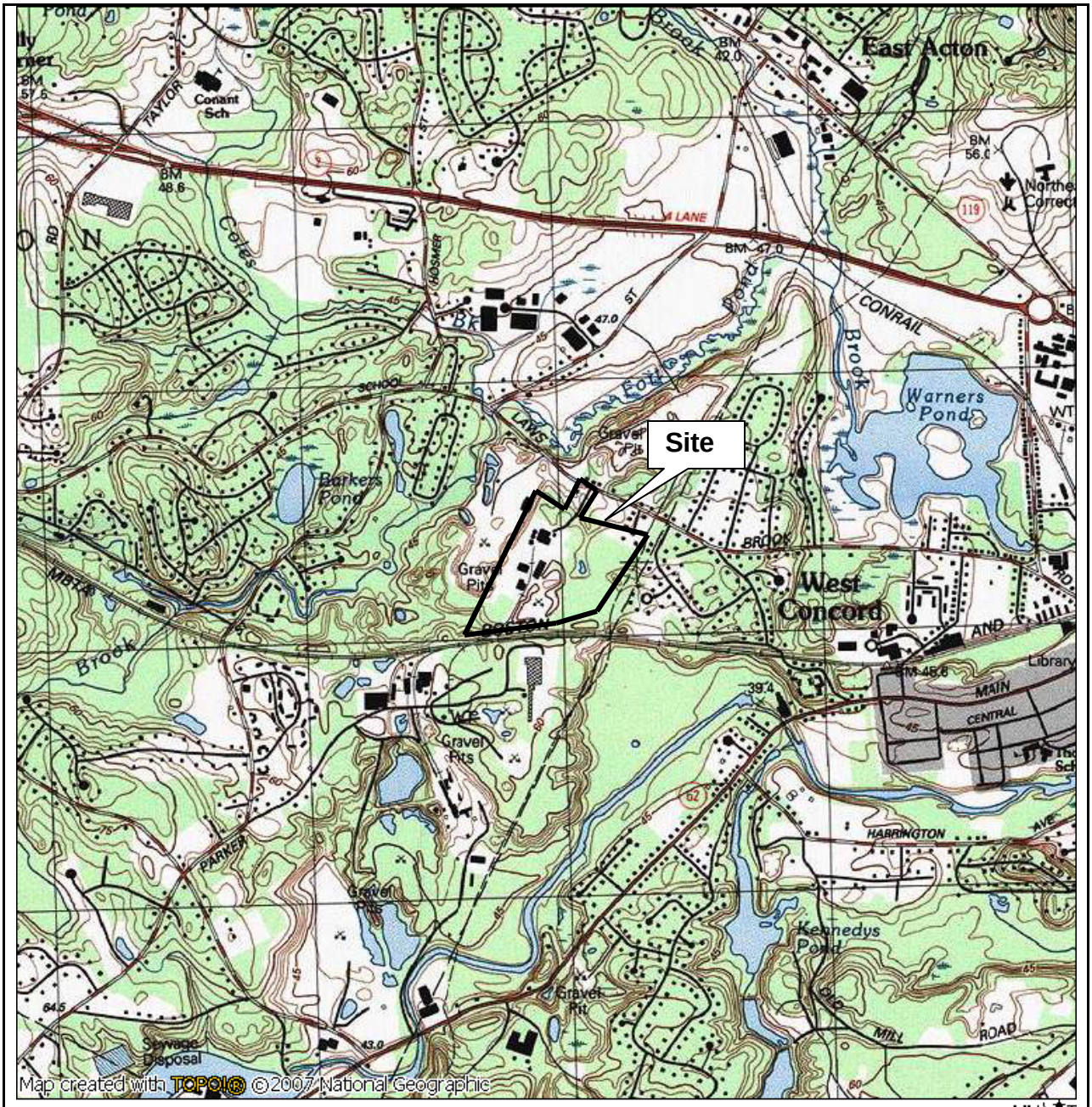
Figure 3 – LNAPL Petroleum Map

Table 1 – Summary of LNAPL Gauging Data

Appendix I – Apparent Product Thickness in Recovery Wells and Monitoring Wells MW-17S, MW-40, MW-41 and MW-45

Appendix II – Uniform Hazardous Waste Manifest

Figures



0.0 0.5 1.0 miles
0.0 0.5 1.0 1.5 km

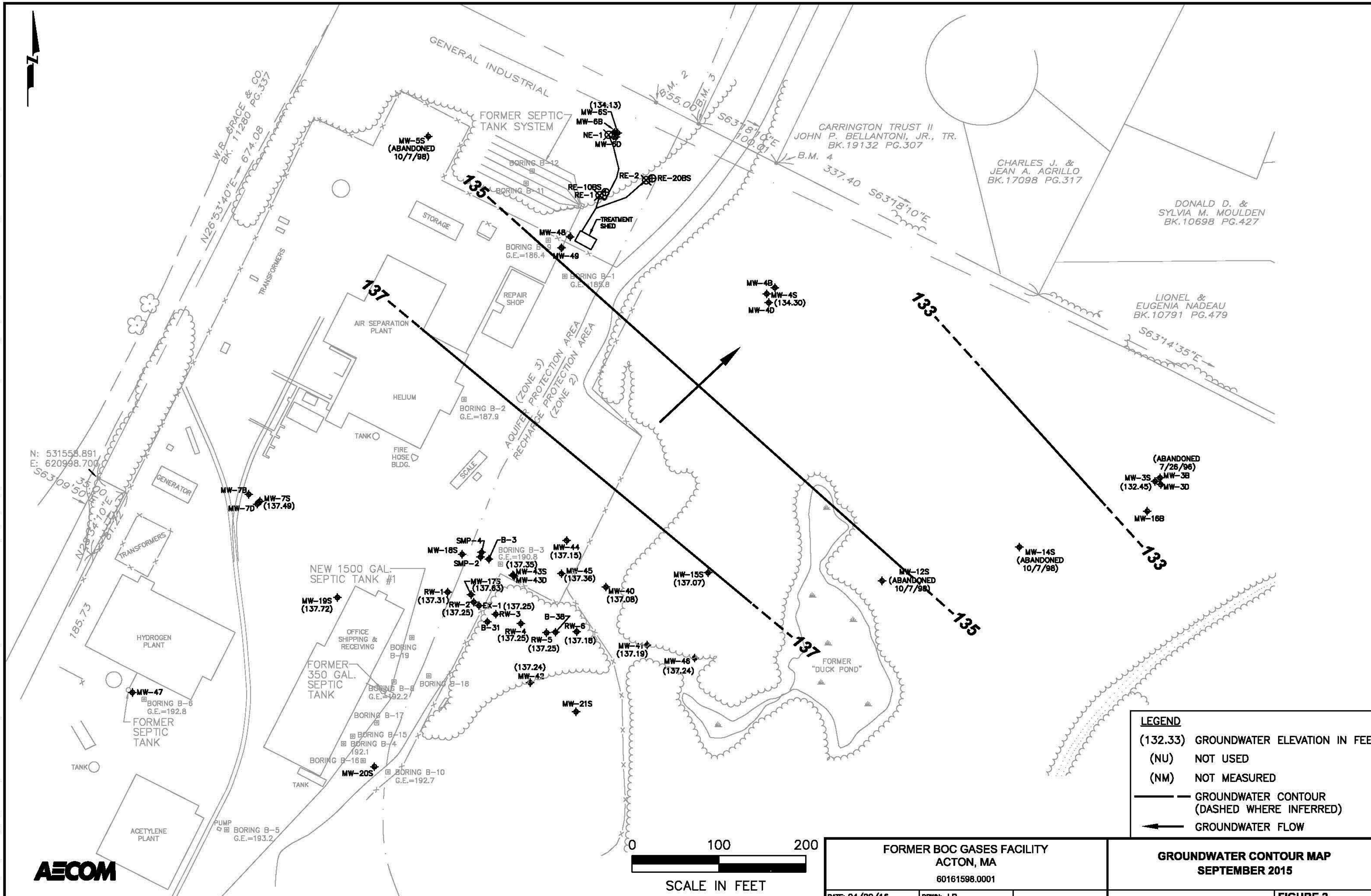
MN T
15°
04/20/10

AECOM

Former BOC Gases, Inc.
Acton, Massachusetts

Site Location Map

Project # 60161598 **Figure 1**


GENERAL INDUSTRIAL
FORMER SEPTIC TANK SYSTEM
W.R. GRACE & CO. BK. 11280 PG.337
N26°53'40"E 674.08
B.M. 2
B.M. 3
B.M. 4
555.00
S63°18'10"E 100.01
337.40 S63°18'10"E
CARRINGTON TRUST II JOHN P. BELLANTONI, JR., TR. BK.19132 PG.307
CHARLES J. & JEAN A. AGRILLO BK.17098 PG.317
DONALD D. & SYLVIA M. MOULDEN BK.10698 PG.427
LIONEL & EUGENIA NADEAU BK.10791 PG.479
S63°14'35"E
MW-5S (ABANDONED 10/7/98)
(134.13) MW-6S
MW-6B
NE-1
MW-6D
RE-2
RE-20BS
RE-10BS
RE-1
TREATMENT SHED
BORING B-12
BORING B-11
STORAGE
MW-48
MW-49
BORING B-9 G.E.=186.4
BORING B-1 G.E.=185.8
TRANSFORMERS
REPAIR SHOP
AIR SEPARATION PLANT
HELIUM
BORING B-2 G.E.=187.9
TANK
FIRE HOSE BLDG.
SCALE
AQUIFER PROTECTION AREA (ZONE 3)
RECHARGE PROTECTION AREA (ZONE 2)
MW-4B
MW-4S (134.30)
MW-4D
135
137
133
N: 531558.891
E: 620998.700
S63°09'50"E
N29°34'10"E
185.73
GENERATOR
MW-7B
MW-7S (137.49)
MW-7D
TRANSFORMERS
SMP-1
B-3
BORING B-3 G.E.=190.8
MW-18S
SMP-2
(137.35)
MW-44 (137.15)
MW-45 (137.36)
MW-43S
MW-43D
MW-40 (137.08)
MW-15S (137.07)
MW-12S (ABANDONED 10/7/98)
MW-14S (ABANDONED 10/7/98)
(ABANDONED 7/26/96)
MW-3S (132.45)
MW-3B
MW-3D
MW-16B
NEW 1500 GAL. SEPTIC TANK #1
MW-19S (137.72)
RW-1 (137.31)
MW-17S (137.63)
RW-2 (137.25)
EX-1 (137.25)
RW-3
B-31
RW-4 (137.25)
RW-5 (137.25)
B-38
RW-6 (137.18)
MW-41 (137.19)
MW-46 (137.24)
(137.24) MW-42
MW-21S
HYDROGEN PLANT
OFFICE SHIPPING & RECEIVING
BORING B-19
FORMER 350 GAL. SEPTIC TANK
BORING B-8 G.E.=192.2
BORING B-18
BORING B-17
BORING B-15
BORING B-4 192.1
BORING B-16
MW-20S
BORING B-10 G.E.=192.7
MW-47
BORING B-6 G.E.=192.8
FORMER SEPTIC TANK
TANK
TANK
PUMP
BORING B-5 G.E.=193.2
ACETYLENE PLANT
FORMER "DUCK POND"
0 100 200
SCALE IN FEET

LEGEND

(132.33)	GROUNDWATER ELEVATION IN FEET
(NU)	NOT USED
(NM)	NOT MEASURED
— —	GROUNDWATER CONTOUR (DASHED WHERE INFERRED)
←	GROUNDWATER FLOW

AECOM

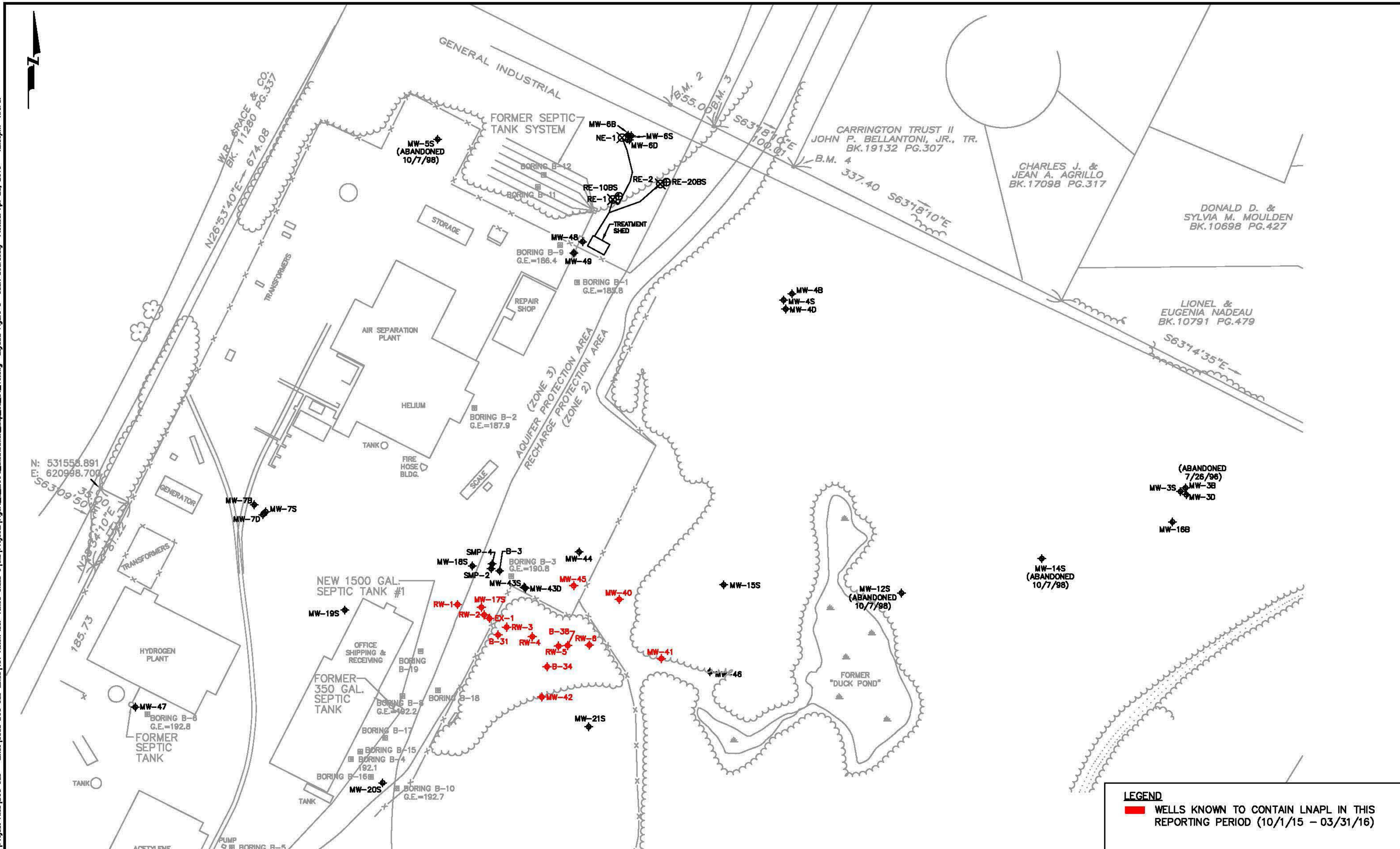
FORMER BOC GASES FACILITY
ACTON, MA
60161598.0001

DATE: 04/20/16 DRWN: J.B.

GROUNDWATER CONTOUR MAP
SEPTEMBER 2015

FIGURE 2

File: P:\Jobs\Rem_Eng\Project Files\BOC Gas - Linde\0035 BOC Gas-Linde\197 Acton MCP renew Class C\GIS\Projects\Figure_2_Groundwater_Contour_Map_09_15.dwg Layout: Figure 2 User: bourdeauj Plotted: Apr 20, 2016 - 1:36pm Xref's:


GENERAL INDUSTRIAL
FORMER SEPTIC TANK SYSTEM
MW-5S (ABANDONED 10/7/98)
W.R. GRACE & CO. BK. 11280 PG.337
N26°53'40"E 674.08
MW-6B
NE-1
MW-6S
MW-6D
RE-2
RE-20BS
RE-10BS
RE-1
BORING B-12
BORING B-11
STORAGE
TREATMENT SHED
MW-48
MW-49
BORING B-9 G.E.=186.4
BORING B-1 G.E.=185.8
REPAIR SHOP
TRANSFORMERS
AIR SEPARATION PLANT
HELIUM
BORING B-2 G.E.=187.9
TANK
FIRE HOSE BLDG.
SCALE
(ZONE 3) AQUIFER PROTECTION AREA
RECHARGE PROTECTION AREA (ZONE 2)
B.M. 2
B.M. 3
155.00
S63°18'10"E 100.01
B.M. 4
337.40 S63°18'10"E
CARRINGTON TRUST II JOHN P. BELLANTONI, JR., TR. BK.19132 PG.307
CHARLES J. & JEAN A. AGRILLO BK.17098 PG.317
DONALD D. & SYLVIA M. MOULDEN BK.10698 PG.427
LIONEL & EUGENIA NADEAU BK.10791 PG.479
S63°14'35"E
MW-4B
MW-4S
MW-4D
N: 531558.891
E: 620998.700
GENERATOR
MW-7B
MW-7S
MW-7D
TRANSFORMERS
(ABANDONED 7/26/96)
MW-3S
MW-3B
MW-3D
MW-16B
MW-14S (ABANDONED 10/7/98)
SMP-4
B-3
MW-18S
SMP-2
BORING B-3 G.E.=190.8
MW-44
MW-43S
MW-43D
MW-45
MW-40
MW-15S
MW-12S (ABANDONED 10/7/98)
NEW 1500 GAL. SEPTIC TANK #1
MW-19S
RW-1
MW-17S
RW-2
EX-1
RW-3
B-38
RW-8
B-31
RW-4
RW-5
B-34
MW-41
MW-46
MW-42
MW-21S
FORMER "DUCK POND"
HYDROGEN PLANT
OFFICE SHIPPING & RECEIVING
BORING B-19
FORMER 350 GAL. SEPTIC TANK
BORING B-6 G.E.=192.2
BORING B-18
MW-47
BORING B-8 G.E.=192.8
FORMER SEPTIC TANK
BORING B-17
BORING B-15
BORING B-4 192.1
BORING B-16
MW-20S
BORING B-10 G.E.=192.7
TANK
TANK
PUMP
BORING B-5 G.E.=193.2
ACETYLENE PLANT
185.73
0 100 200
SCALE IN FEET
LEGEND
WELLS KNOWN TO CONTAIN LNAPL IN THIS REPORTING PERIOD (10/1/15 – 03/31/16)

AECOM

FORMER BOC GASES FACILITY
ACTON, MA
60161598.0001

DATE: 04/20/16 | DRWN: J.E.B.

LNAPL DISTRIBUTION MAP

FIGURE 3

File: P:\Jobs\Rem_Eng\Project Files\BOC Gas - Linde\0035 BOC Gas-Linde\197 Acton MCP renew Class C(GS)\Projects\Figure_3_LNAPL_Distribution_Map_03_31_16.dwg Layout: Figure 3 User: bourdeauj Plotted: Apr 20, 2016 - 12:59pm Xref's:

Table

Table 1
Summary of LNAPL Gauging Data
Former BOC Gases
Acton, Massachusetts

Date	Measured LNAPL thickness (feet)																							
	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	MW-15S	MW-17S	MW-18S	MW-19S	MW-21S	MW-24S	MW-40	MW-41	MW-42	MW-43S	MW-43D	MW-44	MW-45	MW-46	B-31	B-32	B-34	B-38	EX-1
11/9/2006	0.00	**0.01**	**0.39**	0.00	0.00	0.00	0.00	**0.95**	0.00	0.00	0.00	0.00	**0.02**	**0.56**	0.00	0.00	0.00	0.00	0.00	0.00	**0.11**		0.00	0.00	**0.14**
12/18/2006	0.00	**0.26**	**0.20**	0.00	0.00	0.00	0.00	**0.65**	0.00	0.00	0.00	0.00	**0.06**	**0.52**	0.00	0.00	0.00	0.00	0.00	0.00	**0.08**		0.00	0.00	**0.11**
1/29/2007	0.00	**0.11**	**0.07**	0.00	0.00	0.00	0.00	**0.41**	0.00	0.00	0.00	0.00	**0.08**	**0.57**	0.00	0.00	0.00	0.00	0.00	0.00	**0.04**		0.00	**0.02**	**0.14**
5/2/2007	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00
10/11/2007	0.00	0.00	**0.13**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.59**	0.00	0.00	0.00	0.00	0.00	0.00	**0.01**		0.00	**0.22**	**0.04**
9/24/2008	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
10/16/2008	0.00	0.00	0.00	0.00	0.00	**0.23**	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
11/26/2008	0.00	0.00	0.00	0.00	0.00	**0.24**	0.00	0.00	0.00	0.00	0.00		0.00	**0.40**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	**0.25**	0.00
12/29/2008	0.00	0.00	0.00	0.00	0.00	**0.26**	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
1/27/2009	0.00			0.00	0.00	**0.27**	0.00			0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2/20/2009	0.00		0.00	0.00	0.00	**0.25**	0.00			0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3/25/2009							0.00	0.00		0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	
4/29/2009	0.00	0.00	0.00	0.00	0.00	**0.25**	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
6/29/2009	0.00	0.00	0.00	0.00	0.00	**0.25**		0.00	0.00	0.00											0.00		0.00	0.00	0.00
7/31/2009	0.00	0.00	0.00	0.00	0.00	**0.20**	0.00	0.00	0.00	0.00	0.00		0.00	**0.28**	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00
8/28/2009	0.00	0.00	0.00	0.00	0.00	**0.20**		0.00	0.00	0.00			0.00	**0.35**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
9/4/2009							0.00	0.00		0.00	0.00		0.00		0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	
10/9/2009	0.00	0.00	**0.04**	0.00	0.00	**0.19**		0.00	0.00	0.00			0.00	**0.40**		0.00	0.00		0.00		**0.01**		0.00	**0.19**	0.00
11/20/2009	0.00	0.00	**0.36**	0.00	0.00	**0.15**		0.00	0.00	0.00			0.00	**0.42**		0.00	0.00		0.00		**0.40**		0.00	**0.12**	**0.14**
12/11/2009	0.00		**0.43**	0.00	0.00	**0.17**		0.00		0.00			0.00	**0.44**		0.00	0.00		0.00		**0.46**		0.00	**0.12**	
1/25/2010	0.00		**0.41**	0.00	0.00	**0.14**				0.00			0.00	**0.40**		0.00	0.00		0.00		**0.43**		0.00	**0.10**	
2/18/2010	0.00		**0.46**	**0.24**	0.00	**0.22**			0.00	0.00			0.00	**0.43**		0.00	0.00		0.00		**0.36**		0.00	**0.07**	
3/24/2010	0.00	0.00	0.00	**0.19**	0.00	**0.19**	0.00	0.00		0.00			0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	
4/27/2010	0.00	0.00	0.00	**0.14**	0.00	**0.13**		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
5/14/2010	0.00	0.00	0.00	**0.22**	0.00	**0.19**		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		**1.04**		0.00	0.00	0.00
5/20/2010				**0.18**		**0.15**															**0.69**				
5/27/2010				**0.19**		**0.20**															**1.38**				
6/3/2010	0.00	0.00	**0.32**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		**1.32**		0.00	0.00	0.00
6/10/2010			**0.65**	0.00		0.00															**0.20**				
6/16/2010			**0.98**	0.00		0.00															**1.26**				
6/21/2010			**1.20**	0.00		0.00															**1.45**				
7/2/2010			**0.98**	0.00		0.00															**0.79**				
7/9/2010	0.00	0.00	**0.95**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		**0.74**		0.00	0.00	0.00
8/24/2010	0.00	0.00	**1.09**	**0.02**	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		**0.07**		0.00	**0.04**	0.00
9/8/2010			**0.31**	**0.01**	0.00	0.00															**0.03**			0.00	
9/21/2010	0.00	0.00	**0.52**	0.00	0.00	0.00	0.00	**0.40**	0.00	0.00	0.00		**0.02**	**0.35**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	**0.09**	0.00
10/12/2010	0.00	0.00	**0.13**	0.00	0.00	0.00		**0.37**	0.00	0.00			**0.01**	**0.35**		0.00	0.00		0.00		0.00		0.00	**0.01**	0.00
11/2/2010	0.00	0.00	0.00	0.00	0.00	0.00		**0.08**	0.00	0.00			**0.01**	**0.33**		0.00	0.00		0.00		0.00		0.00	0.00	**0.11**
12/6/2010	0.00	0.00	**0.05**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.20**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
1/13/2011			0.00	0.00	0.00	0.00				0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
2/10/2011	0.00		0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
3/8/2011	0.00		**0.01**	**0.03**	0.00	0.00	0.00	0.00		0.00			**0.04**	**0.21**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	**0.05**	
4/6/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.05**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
5/6/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.01**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
6/6/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
7/6/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
8/9/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
9/26/2011	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	**0.19**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	0.00
10/17/2011	0.00	0.00	**0.02**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.04**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
11/2/2011	0.00	0.00	**0.03**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.03**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
12/12/2011	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.03**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
1/17/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.01**		0.00	0.00		0.00		0.00		0.00	0.00	0.00
2/16/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
3/8/2012	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		0.00			0.00	**0.02**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	
4/6/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
5/2/2012	0.00	0.00	**0.08**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
6/1/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
7/20/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
8/2/2012	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
9/12/2012	0.00	0.00	**0.57**	**0.12**	**0.01**	0.00	0.00	**0.02**		0.00			**0.02**	**0.07**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	**0.22**	
9/20/2012	0.00	0.00	**0.17**	0.00	**0.01**	0.00		**0.01**					**0.01**	0.00										0.00	

Table 1
Summary of LNAPL Gauging Data
Former BOC Gases
Acton, Massachusetts

Date	Measured LNAPL thickness (feet)																						
	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	MW-15S	MW-17S	MW-18S	MW-19S	MW-21S	MW-24S	MW-40	MW-41	MW-42	MW-43S	MW-43D	MW-44	MW-45	MW-46	B-31	B-32	B-34	B-38	EX-1
10/10/2012	0.00	0.00	**0.06**	0.00	**0.03**	0.00		**0.02**					0.00	0.00									0.00	0.00	
11/16/2012	0.00	**0.17**	**0.05**	0.00	**0.03**	0.00		**0.01**					**0.01**	0.00									0.00	0.00	
12/7/2012	0.00	**0.14**	**0.04**	0.00	**0.02**	0.00		**0.01**					**0.01**	0.00									0.00	0.00	
1/11/2013	0.00		**0.01**	0.00	0.00	0.00							**0.01**	0.00									0.00	0.00	
2/22/2013	0.00		**0.01**	0.00	**0.04**	**0.13**							**0.01**	0.00									0.00	0.00	
3/11/2013			0.00	0.00	**0.05**	**0.15**	0.00			0.00			**0.03**	0.00	0.00	0.00	0.00	0.00	0.00	0.00			0.00	0.00	
4/18/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	
5/16/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
6/19/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
7/12/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
8/5/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
9/24/2013	0.00	0.00	0.00	**0.01**	0.00	0.00	0.00	0.00		0.00			**0.84**	**0.20**	0.00	0.00	0.00	0.00	0.00	0.00			0.00	**0.02**	
9/25/2013													**0.02**	**0.03**											
10/3/2013	0.00	0.00	0.00	**0.03**	0.00	0.00		0.00	0.00	0.00			**0.95**	**0.28**		0.00	0.00		0.00		**0.21**		**0.03**	**0.06**	**0.17**
10/7/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.75**	**0.37**		0.00	0.00		0.00		**0.10**		**0.06**	**0.04**	**0.07**
10/16/2013	0.00	0.00	0.00	0.00	0.00	**0.02**		0.00	0.00	0.00			**0.64**	**0.29**		0.00	0.00		0.00		**0.08**		**0.01**	**0.01**	**0.33**
10/25/2013	0.00	0.00	0.00	0.00	0.00	**0.01**		0.00	0.00	0.00			**0.53**	**0.41**		0.00	0.00		0.00		**0.05**		0.00	**0.02**	0.00
10/31/2013	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.47**	**0.13**		0.00	0.00		0.00		**0.10**		0.00	**0.02**	**0.13**
11/8/2013	0.00	**0.02**	**0.01**	**0.04**	0.00	**0.03**		0.00	0.00	0.00			**0.12**	0.00		0.00	0.00		0.00		**0.11**		**0.05**	**0.02**	0.00
12/6/2013	0.00	**0.02**	**0.02**	**0.09**	0.00	**0.07**		**0.65**	0.00	0.00			**0.08**	0.00		0.00	0.00		0.00		**0.21**		0.00	**0.17**	0.00
12/10/2013	0.00	**0.01**	**0.01**	**0.03**	0.00	**0.03**		**0.06**	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
1/6/2014	0.00	0.00	**0.02**	**0.12**	0.00	0.00		0.00	0.00	0.00			**0.10**	0.00		0.00	0.00		0.00		**0.16**		0.00	0.00	0.00
2/3/2014	0.00	0.00	0.00	**0.10**	0.00	**0.03**		**0.19**	0.00	0.00			**0.04**	0.00		0.00	0.00		0.00		0.00		0.00	**0.47**	0.00
2/14/2014	0.00		0.00	**0.05**	0.00	**0.01**			0.00	0.00			**0.02**	0.00		0.00	0.00		0.00		**0.02**		0.00	**0.68**	
2/21/2014	0.00		0.00	**0.01**	0.00	**0.01**				0.00			**0.01**	0.00		0.00	0.00		0.00		**0.02**		0.00	**0.20**	
3/10/2014	0.00		0.00	**0.01**	0.00	**0.02**				0.00			**0.02**	0.00		0.00	0.00		0.00		**0.13**		0.00	**0.94**	
3/20/2014	0.00		**0.02**	**0.02**	**0.03**	**0.91**				0.00			**0.06**	**0.50**		0.00	0.00		0.00		0.00		0.00	**0.99**	
3/27/2014	0.00		0.00	0.00	0.00	**0.46**			0.00	0.00			0.00	**1.20**		0.00	0.00		0.00		0.00		0.00	**0.02**	
4/3/2014	0.00	0.00	**0.03**	**0.27**	**0.15**	**0.25**		**0.38**	0.00	0.00			**0.03**	**0.90**		0.00	0.00		0.00		0.00		0.00	**0.02**	0.00
4/8/2014	0.00	**0.28**	**0.01**	0.00	0.00	**0.21**		**0.17**	0.00	0.00			**0.03**	**0.34**		0.00	0.00		0.00		**0.16**		**0.11**	**0.13**	**0.28**
4/15/2014	0.00	0.00	**0.01**	0.00	0.00	0.00		0.00	0.00	0.00			0.00	**0.13**		0.00	0.00		0.00		0.00		**0.16**	0.00	0.00
5/2/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.29**	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
5/8/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.11**	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
6/9/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.04**	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
7/2/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
8/1/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			0.00	0.00		0.00	0.00		0.00		0.00		0.00	0.00	0.00
9/9/2014	0.00	**0.04**	**0.05**	0.00	0.00	**0.30**	0.00	**0.35**		0.00			**0.68**	**0.60**	**0.03**	0.00	0.00	0.00	**0.79**	0.00			**0.72**	**0.48**	
9/19/2014	0.00	**0.04**	**0.05**	**0.04**	0.00	**0.13**		**0.01**	0.00	0.00			**0.58**	**0.23**	**0.02**	0.00	0.00		**0.65**		**0.53**		**0.25**	**0.10**	0.00
9/25/2014	0.00	**0.02**	**0.03**	**0.02**	0.00	**0.06**		**0.02**	0.00	0.00			**0.17**	**0.11**	**0.02**	0.00	0.00		**0.36**		**0.18**		**0.16**	**0.06**	0.00
9/30/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.83**	0.00	0.00	0.00	0.00		**0.78**		**0.11**		0.00	0.00	0.00
10/8/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.63**	**0.04**	0.00	0.00	0.00		**0.85**		0.00		0.00	0.00	0.00
10/17/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.72**	**0.17**	0.00	0.00	0.00		**0.70**		0.00		0.00	0.00	0.00
10/22/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.50**	**0.02**	0.00	0.00	0.00		**0.39**		0.00		0.00	0.00	0.00
10/29/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.10**	**0.08**	0.00	0.00	0.00		**0.01**		**0.02**		**0.04**	**0.05**	0.00
11/12/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.04**	**0.06**	0.00	0.00	0.00		**0.02**		**0.03**		**0.05**	**0.05**	0.00
12/8/2014	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.04**	**0.05**	0.00	0.00	0.00		0.00		**0.02**		**0.02**	**0.04**	0.00
1/12/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.03**	**0.03**	0.00	0.00	0.00		0.00		**0.03**		**0.01**	**0.02**	0.00
2/19/2015	0.00									0.00															
3/19/2015	0.00		0.00	0.00	0.00	0.00				0.00			0.00	0.00	0.00	0.00	0.00		0.00		**0.01**		0.00	**0.02**	
4/17/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.01**	**0.03**	0.00	0.00	0.00		0.00		0.00		0.00	0.00	0.00
5/26/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.03**	**0.01**	0.00	0.00	0.00		0.00		0.00		0.00	0.00	0.00
6/29/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.01**	0.00	0.00	0.00	0.00		0.00		0.00		0.00	0.00	0.00
7/20/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.02**	0.00	0.00	0.00	0.00		0.00		0.00		0.00	0.00	0.00
8/18/2015	0.00	0.00	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.04**	**0.06**	0.00	0.00	0.00		**0.05**		0.00		0.00	**0.06**	0.00
9/16/2015	0.00	**0.01**	0.00	**0.06**	0.00	**0.24**	0.00	**0.22**	0.00	0.00			**0.51**	**0.22**	0.00	0.00	0.00	0.00	**0.13**	0.00			**0.37**	**0.09**	
9/24/2015	0.00	0.00	0.00	0.00	0.00	**0.11**		0.00	0.00	0.00			**0.58**	**0.25**	0.00	0.00	0.00	0.00	**0.34**		**0.28**		**0.03**	**0.04**	**0.04**
10/1/2015	0.00	0.00	0.00	0.00	0.00	**0.01**		0.00	0.00	0.00			**0.61**	**0.30**	0.00	0.00	0.00	0.00	**0.44**		0.00		**0.06**	**0.07**	**0.34**
10/8/2015	0.00	0.00	0.00	0.00	0.00	**0.03**		0.00	0.00	ND Dry			**0.47**	**0.11**	0.00	0.00	0.00	0.00	**0.32**		**0.09**		**0.01**	**0.02**	**0.02**
10/16/2015	0.00	**0.05**	0.00	0.00	0.00	0.00		0.00	0.00	ND Dry			**0.85**	**0.54**	0.00	0.00	0.00	0.00	**0.30**		0.00		**0.01**	0.00	**0.10**
10/23/2015	0.00	**0.50**	0.00	0.00	0.00	0.00		0.00	0.00	0.00			**0.63**	**0.47**	0.00	0.00	0.00	0.00	**0.22**		0.00		**0.01**	0.00	**0.03**
10/29/2015	0.00	**0.02**	0.00	0.00	0.00	0.00		**0.02**	0.00	ND Dry			**0.45**	**0.42**	0.00	0.00	0.00	0.00	**0.18**		0.00		0.00	0.00	**0.02**
11/5/2015	0.00	**0.02**	**0.01**	**0.01**	**0.06**	**0.05**		**0.30**	0.00	0.00			**0.69**	**0.61**	0.00	0.00	0.00	0.00	**0.51**		**0.06**		**0.25**	**0.12**	ND Dry
11/10/2015	0.00	0.00	0.00	**0.03**	**0.06**	**0.06**		**0.06**	0.00	0.00			**0.79**	**0.30**	0.00	0.00	0.00	0.00	**0.45**		**0.05**		0.00	**0.09**	**0.18**
11/17/2015	0.00	0.00	0.00	0.00	**0.05**	**0.04**		**0.01**	0.00	0.00			**0.76**	**0.24**	0.00	0.00	0.00	0.00	**0.39**		**0.02**		0.00	**0.06**	**0.03**

Table 1
Summary of LNAPL Gauging Data
Former BOC Gases
Acton, Massachusetts

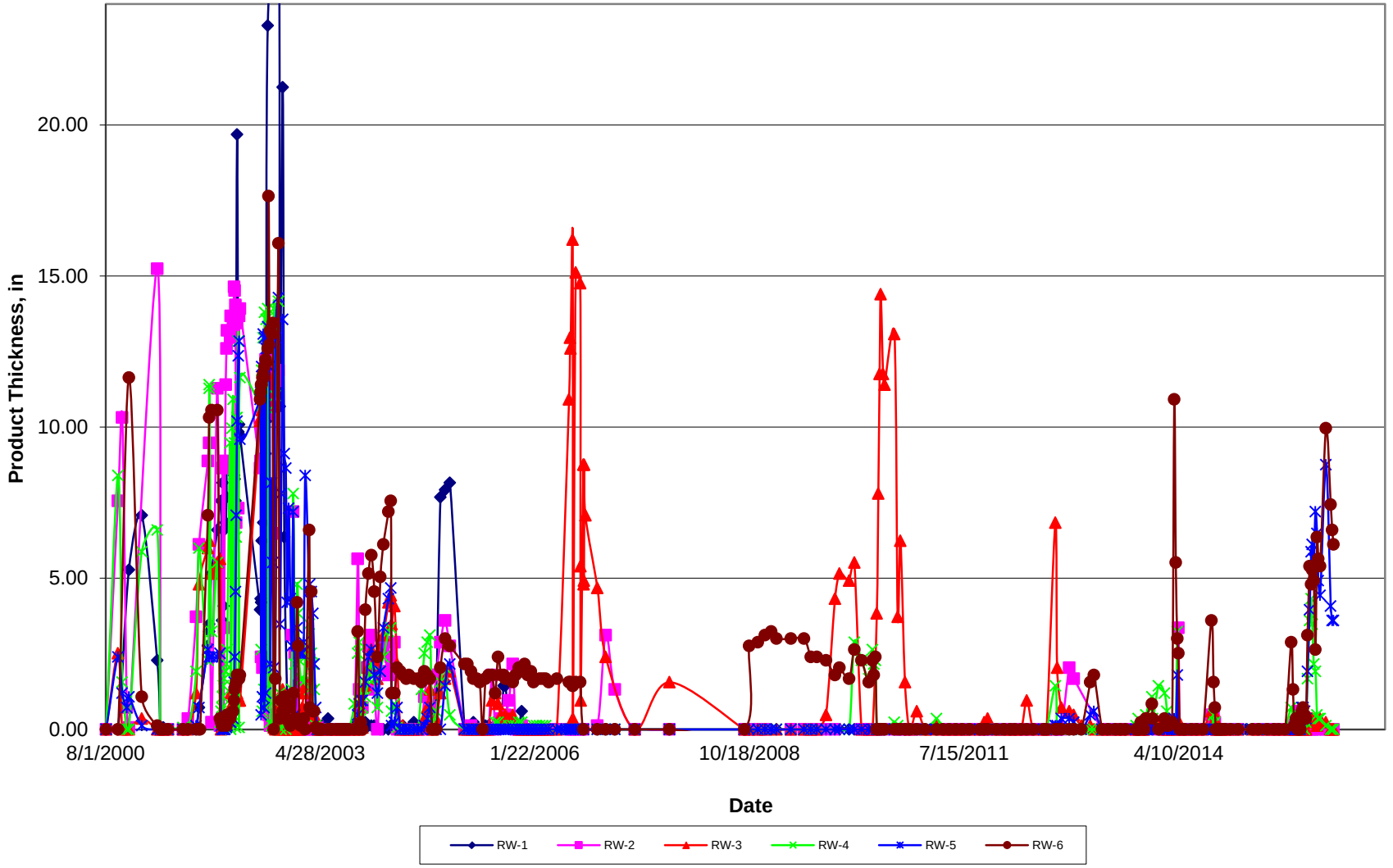
Date	Measured LNAPL thickness (feet)																							
	RW-1	RW-2	RW-3	RW-4	RW-5	RW-6	MW-15S	MW-17S	MW-18S	MW-19S	MW-21S	MW-24S	MW-40	MW-41	MW-42	MW-43S	MW-43D	MW-44	MW-45	MW-46	B-31	B-32	B-34	B-38	EX-1
11/24/2015	0.00	0.00	0.00	**0.02**	**0.03**	**0.03**		**0.02**	0.00	0.00			**0.65**	**0.27**	0.00	0.00	0.00	0.00	**0.31**		**0.03**		0.00	**0.04**	**0.01**
12/1/2015	**0.01**	0.00	**0.02**	**0.14**	**0.16**	**0.26**		**0.09**	0.00	0.00			**1.35**	**0.61**	**0.02**	0.00	0.00	0.00	**0.50**		**0.09**		**0.05**	**0.25**	**0.10**
12/11/2015	0.00	0.00	**0.02**	**0.30**	**0.33**	**0.45**		**0.33**	ND Dry	0.00			**1.47**	**0.75**	**0.03**	0.00	0.00		**0.61**		**0.14**		**0.16**	**0.20**	**0.16**
12/18/2015	0.00	**0.02**	**0.03**	**0.36**	**0.49**	**0.40**		**0.15**	ND Dry	0.00			**1.00**	**0.86**	**0.01**	0.00	0.00		**0.01**		**0.04**		0.00	**0.56**	**0.20**
12/23/2015	0.00	0.00	**0.03**	**0.29**	**0.51**	**0.44**		**0.12**	ND Dry	0.00			**0.93**	**0.82**	**0.02**	0.00	0.00		**0.02**		**0.02**		0.00	**0.47**	**0.11**
12/30/2015	0.00		**0.02**	**0.18**	**0.47**	**0.41**		**0.04**	ND Dry	0.00			**0.84**	**0.79**	0.00	0.00	0.00		**0.01**		**0.01**		0.00	**0.36**	
1/7/2016	0.00		**0.02**	**0.16**	**0.60**	**0.22**		0.00	0.00	0.00			**0.32**	**0.58**	0.00	0.00	0.00		0.00		0.00		0.00	**0.27**	
1/14/2016	0.00		**0.01**	**0.04**	**0.54**	**0.53**		**0.60**	ND Dry	0.00			0.00	**0.88**	**0.03**	0.00	0.00		**0.14**		0.00		0.00	**0.88**	
1/20/2016	0.00		**0.02**	**0.03**	**0.41**	**0.47**		**0.39**	ND Dry	0.00			**0.02**	**0.51**		0.00	0.00		**0.04**		0.00		0.00	**0.35**	
1/29/2016	0.00	0.00	**0.03**	**0.03**	**0.37**	**0.45**		**0.48**	ND Dry	0.00			**0.04**	**0.34**	**0.01**	0.00	0.00		**0.02**		0.00		0.00	**0.30**	
2/25/2016	0.00	0.00	**0.02**	**0.01**	**0.73**	**0.83**		**0.65**	ND Dry	ND Dry			**0.04**	**0.82**	0.00	0.00	0.00		**0.45**		ND Dry		0.00	**0.75**	ND Dry
3/18/2016	0.00	0.00	0.00	0.00	**0.34**	**0.62**		**0.47**	ND Dry	ND Dry			**0.16**	**0.49**	0.00	0.00	0.00		**0.25**		0.00		0.00	**0.25**	ND Dry
3/25/2016	0.00	0.00	0.00	0.00	**0.30**	**0.55**		**0.36**	ND Dry	ND Dry			**0.11**	**0.50**	0.00	0.00	0.00		**0.29**		ND Dry		0.00	**0.22**	ND Dry
3/31/2016	0.00	0.00	0.00	0.00	**0.30**	**0.51**		**0.50**	ND Dry	ND Dry			**0.14**	**0.47**	0.00	0.00	0.00		**0.32**		ND Dry		0.00	**0.34**	ND Dry

Notes:
ND Dry= not detected, well was dry.
Detections of LNAPL are presented in **bold text**.
Blank entries indicate that well was not gauged on that date.

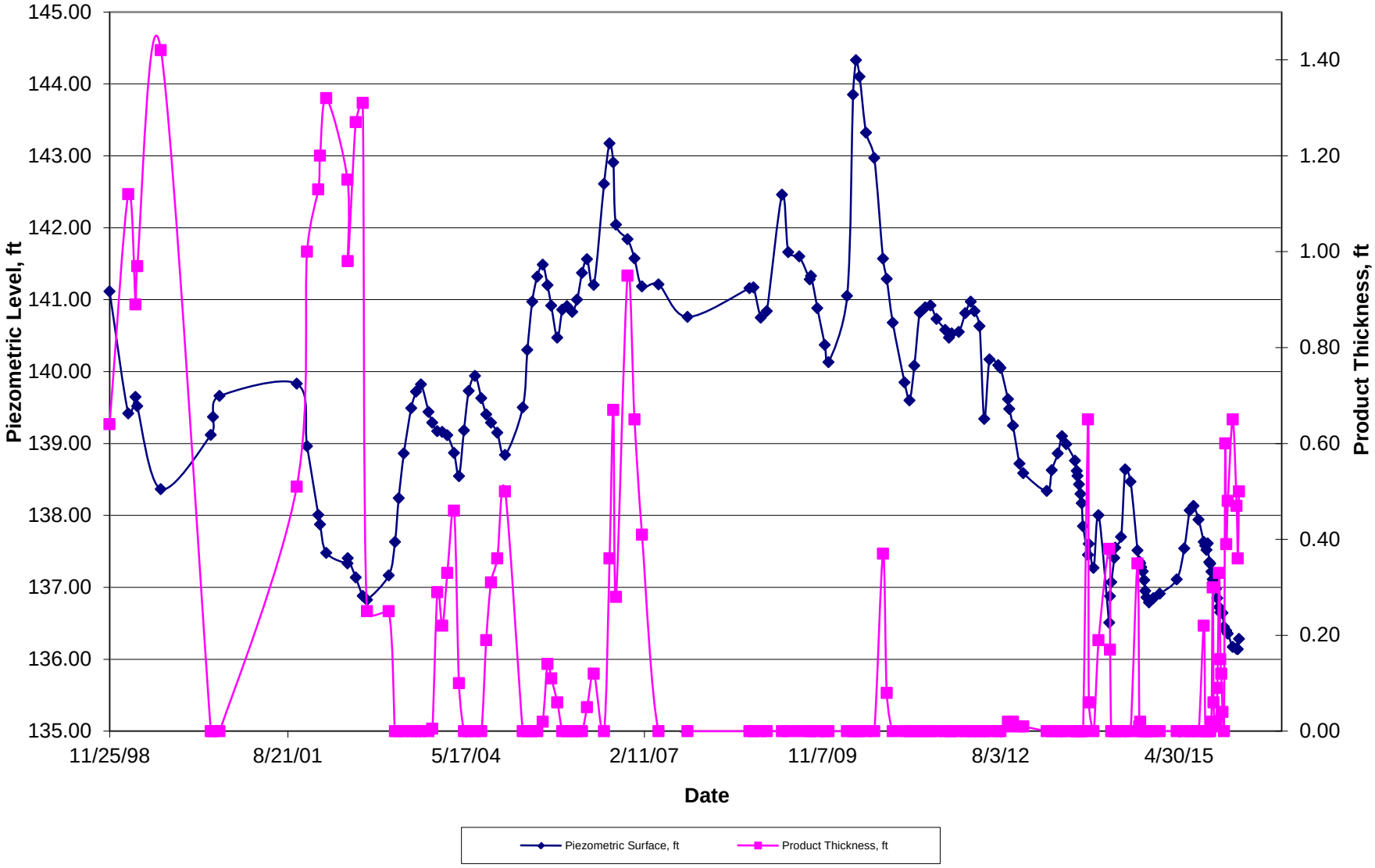
Appendix I

Apparent Product Thickness in Recovery Wells and Monitoring Wells MW-17S, MW-40, MW-41 and MW-45

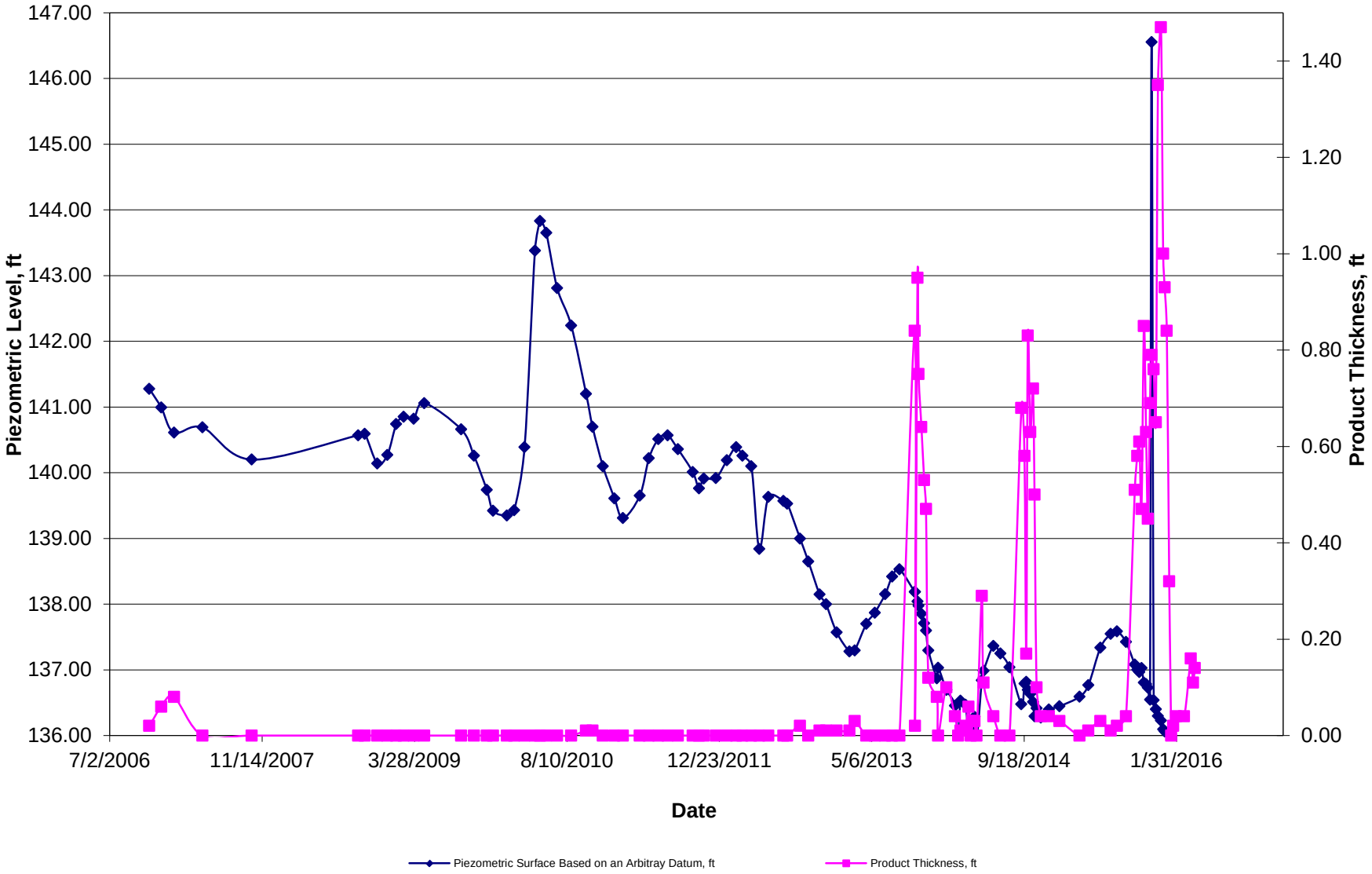
Graph 1
Apparent LNAPL Thickness in Recovery Wells
Linde Gases
Acton, Massachusetts



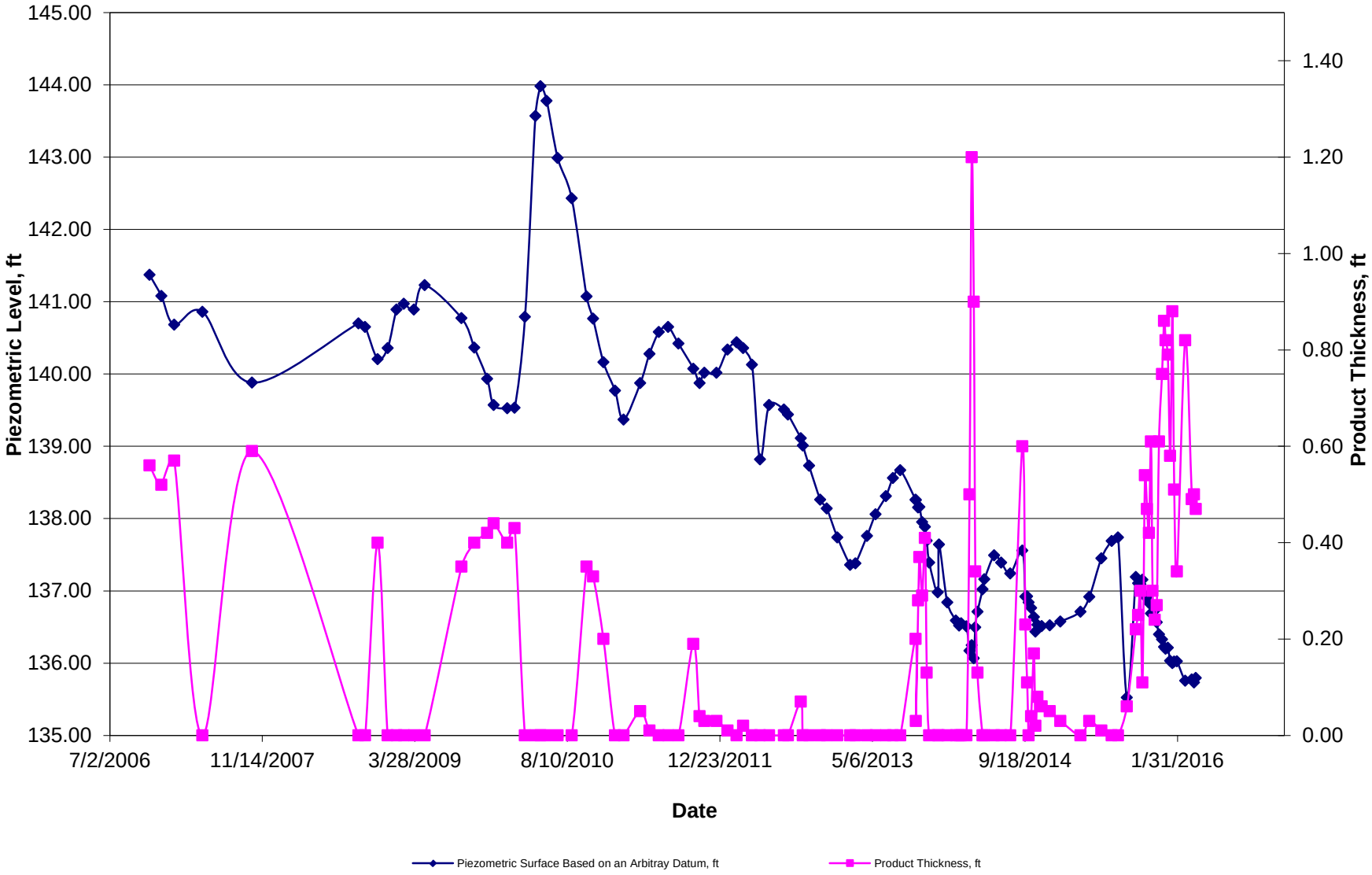
Graph 2
Apparent LNAPL Thickness in Well MW-17S
Linde Gases
Acton, Massachusetts



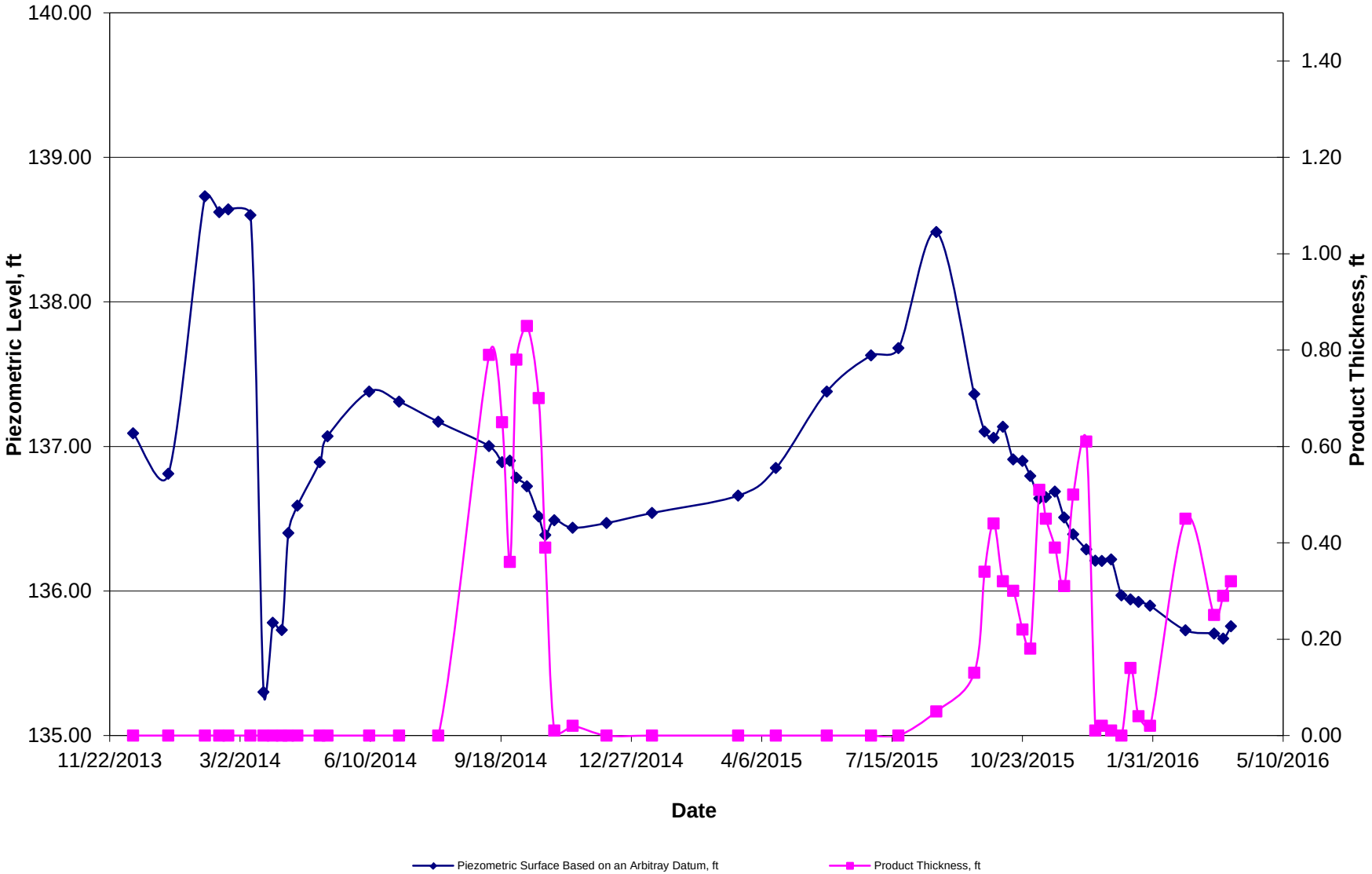
Graph 3
Apparent LNAPL Thickness in Well MW-40
Linde Gases
Acton, Massachusetts



Graph 4
Apparent LNAPL Thickness in Well MW-41
Linde Gases
Acton, Massachusetts



Graph 5
Apparent LNAPL Thickness in Well MW-45
Linde Gases
Acton, Massachusetts



Appendix II

Uniform Hazardous Waste Manifest

Please print or type. (Form designed for use on elite (12-pitch) typewriter.)

SCANNED

Form Approved. OMB No. 2050-0039

UNIFORM HAZARDOUS WASTE MANIFEST	1. Generator ID Number	2. Page 1 of	3. Emergency Response Phone	4. Manifest Tracking Number
	MAD093081799	1	800 223-8865	002630674 GBF

GENERATOR

5. Generator's Name and Mailing Address
BOC Specialty Gases, Inc
37 Lewe Brook Road
Acton MA 01720
Generator's Phone: 978 263-1454

Att: Rick Leva

Generator's Site Address (if different than mailing address)

6. Transporter 1 Company Name
TMC Environmental

U.S. EPA ID Number
MAC300019924

7. Transporter 2 Company Name

U.S. EPA ID Number

8. Designated Facility Name and Site Address
ENPRO Services of Maine, Inc
106 Main Street
South Portland ME 04106
Facility's Phone: 207 799-0850

U.S. EPA ID Number
MED019051069

9a. HM	9b. U.S. DOT Description (including Proper Shipping Name, Hazard Class, ID Number, and Packing Group (if any))	10. Containers No.	10. Containers Type	11. Total Quantity	12. Unit WL/Vol.	13. Waste Codes		
	1 Non-RCRA, Non-DOT State Regulated Oily Solid	XX1	DM	XX220	P	MA01		
	2 Non-RCRA, Non-DOT State Regulated Oily Liquid	XX1	DM	XX180	P	MA98		
	3.							
	4.							

14. Special Handling Instructions and Additional Information
TMC Project #1015-1611 CA P7422
1) (S) Approval # ME-1215-09591; 1 x 55g DM
2) (L) Approval # ME-1215-09590; 1 x 55g DM

15. **GENERATOR'S/OFFEROR'S CERTIFICATION:** I hereby declare that the contents of this consignment are fully and accurately described above by the proper shipping name, and are classified, packaged, marked and labeled/placarded, and are in all respects in proper condition for transport according to applicable international and national governmental regulations. If export shipment and I am the Primary Exporter, I certify that the contents of this consignment conform to the terms of the attached EPA Acknowledgment of Consent.
I certify that the waste minimization statement identified in 40 CFR 262.27(a) (if I am a large quantity generator) or (b) (if I am a small quantity generator) is true.

Generator's/Offeror's Printed/Typed Name	Signature	Month	Day	Year
Rick Leva		12	10	15

INT'L

16. International Shipments ☐ Import to U.S. ☐ Export from U.S. Port of entry/exit:
Transporter signature (for exports only): Date leaving U.S.:

TRANSPORTER

17. Transporter Acknowledgment of Receipt of Materials

Transporter 1 Printed/Typed Name	Signature	Month	Day	Year
Joshua Trinidad		12	10	15
Transporter 2 Printed/Typed Name	Signature	Month	Day	Year

DESIGNATED FACILITY

18. Discrepancy

18a. Discrepancy Indication Space ☐ Quantity ☐ Type ☐ Residue ☐ Partial Rejection ☐ Full Rejection

Manifest Reference Number:

18b. Alternate Facility (or Generator) U.S. EPA ID Number

Facility's Phone:

18c. Signature of Alternate Facility (or Generator) Month Day Year

19. Hazardous Waste Report Management Method Codes (i.e., codes for hazardous waste treatment, disposal, and recycling systems)

1.	2.	3.	4.
H141	H141		

20. Designated Facility Owner or Operator: Certification of receipt of hazardous materials covered by the manifest except as noted in Item 18a

Printed/Typed Name	Signature	Month	Day	Year
William L Rollo		12	11	15

EPA Form 8700-22 (Rev. 3-05) Previous editions are obsolete.

Massachusetts Department of Environmental Protection

eDEP Transaction Copy

Here is the file you requested for your records.

To retain a copy of this file you must save and/or print.

Username:	**LSPGOD**
Transaction ID:	**826981**
Document:	**BWSC108 Comp. Res. Action Transmittal Form & Phase I**
Size of File:	**234.91K**
Status of Transaction:	**Submitted**
Date and Time Created:	**5/4/2016:10:22:48 AM**

Note: This file only includes forms that were part of your transaction as of the date and time indicated above. If you need a more current copy of your transaction, return to eDEP and select to “Download a Copy” from the Current Submittals page.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

Release Tracking Number
2 - 11461

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

A. SITE LOCATION:

1. Site Name: FMR. BOC GASES

2. Street Address: 37 LAWSBROOK RD

3. City/Town: ACTON 4. ZIP Code: 017200000

þ 5. Check here if the disposal site that is the source of the release is Tier Classified. Check the current Tier Classification Category:

þ a. Tier I ¨ b. Tier ID ¨ c. Tier II

B. THIS FORM IS BEING USED TO: (check all that apply)

¨ 1. Submit a **Phase I Completion Statement,** pursuant to 310 CMR 40.0484.

¨ 2. Submit a **Revised Phase I Completion Statement,** pursuant to 310 CMR 40.0484.

¨ 3. Submit a **Phase II Scope of Work,** pursuant to 310 CMR 40.0834.

¨ 4. Submit an **interim Phase II Report.** This report does not satisfy the response action deadline requirements in 310 CMR 40.0500.

¨ 5. Submit a **final Phase II Report and Completion Statement,** pursuant to 310 CMR 40.0836.

¨ 6. Submit a **Revised Phase II Report and Completion Statement,** pursuant to 310 CMR 40.0836.

¨ 7. Submit a **Phase III Remedial Action Plan and Completion Statement,** pursuant to 310 CMR 40.0862.

¨ 8. Submit a **Revised Phase III Remedial Action Plan and Completion Statement,** pursuant to 310 CMR 40.0862.

¨ 9. Submit a **Phase IV Remedy Implementation Plan,** pursuant to 310 CMR 40.0874.

¨ 10. Submit a **Modified Phase IV Remedy Implementation Plan,** pursuant to 310 CMR 40.0874.

¨ 11. Submit an **As-Built Construction Report,** pursuant to 310 CMR 40.0875.

¨ 12. Submit a **Phase IV Status Report,** pursuant to 310 CMR 40.0877.

¨ 13. Submit a **Phase IV Completion Statement,** pursuant to 310 CMR 40.0878 and 40.0879.

Specify the outcome of Phase IV activities: (check one)

¨ a. Phase V Operation, Maintenance or Monitoring of the Comprehensive Remedial Action is necessary to achieve a Permanent or Temporary Solution.

¨ b. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

¨ c. The requirements of a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.

B. THIS FORM IS BEING USED TO (cont.): (check all that apply)

☐ 14. Submit a **Revised Phase IV Completion Statement,** pursuant to 310 CMR 40.0878 and 40.0879.

☐ 15. Submit a **Phase V Status Report,** pursuant to 310 CMR 40.0892.

☒ 16. Submit a **Remedial Monitoring Report.** (This report can only be submitted through eDEP.)

a. Type of Report: (check one) ☐ i. Initial Report ☒ ii. Interim Report ☐ iii. Final Report

b. Frequency of Submittal: (check all that apply)

☐ i. A Remedial Monitoring Report(s) submitted monthly to address an Imminent Hazard.

☐ ii. A Remedial Monitoring Report(s) submitted monthly to address a Condition of Substantial Release Migration.

☒ iii. A Remedial Monitoring Report(s) submitted every six months, concurrent with a Status Report.

☐ iv. A Remedial Monitoring Report(s) submitted annually, concurrent with a Status Report.

c. Status of Site: (check one) ☐ i. Phase IV ☐ ii. Phase V ☐ iii. Remedy Operation Status ☒ iv. Temporary Solution

d. Number of Remedial Systems and/or Monitoring Programs: 1

A separate BWSC108A, CRA Remedial Monitoring Report, must be filled out for each Remedial System and/or Monitoring Program addressed by this transmittal form.

☐ 17. Submit a **Remedy Operation Status,** pursuant to 310 CMR 40.0893.

☐ 18. Submit a **Status Report to maintain a Remedy Operation Status,** pursuant to 310 CMR 40.0893(2).

☐ 19. Submit a **Transfer and/or a Modification of Persons Maintaining a Remedy Operation Status (ROS),** pursuant to 310 CMR 40.0893(5) (check one, or both, if applicable).

☐ a. Submit a Transfer of Persons Maintaining an ROS (the transferee should be the person listed in Section D, "Person Undertaking Response Actions").

☐ b. Submit a Modification of Persons Maintaining an ROS (the primary representative should be the person listed in Section D, "Person Undertaking Response Actions").

c. Number of Persons Maintaining an ROS not including the primary representative:

☐ 20. Submit a **Termination of a Remedy Operation Status,** pursuant to 310 CMR 40.0893(6).(check one)

☐ a. Submit a notice indicating ROS performance standards have not been met. A plan and timetable pursuant to 310 CMR 40.0893(6)(b) for resuming the ROS are attached.

☐ b. Submit a notice of Termination of ROS.

☐ 21. Submit a **Phase V Completion Statement,** pursuant to 310 CMR 40.0894.

Specify the outcome of Phase V activities: (check one)

☐ a. The requirements of a Permanent Solution have been met. A completed Permanent Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ b. The requirements for a Temporary Solution have been met. A completed Temporary Solution Statement and Report (BWSC104) will be submitted to DEP.

☐ 22. Submit a **Revised Phase V Completion Statement,** pursuant to 310 CMR 40.0894.

☒ 23. Submit a **Temporary Solution Status Report,** pursuant to 310 CMR 40.0898.

☐ 24. Submit a **Plan for the Application of Remedial Additives** near a sensitive receptor, pursuant to 310 CMR 40.0046(3).

a. Status of Site: (check one)

☐ i. Phase IV ☐ ii. Phase V ☐ iii. Remedy Operation Status ☐ iv. Temporary Solution

C. LSP SIGNATURE AND STAMP:

I attest under the pains and penalties of perjury that I have personally examined and am familiar with this transmittal form, including any and all documents accompanying this submittal. In my professional opinion and judgment based upon application of (i) the standard of care in 309 CMR 4.02(1), (ii) the applicable provisions of 309 CMR 4.02(2) and (3), and 309 CMR 4.03(2), and (iii) the provisions of 309 CMR 4.03(3), to the best of my knowledge, information and belief,

> *if Section B indicates that a* ***Phase I, Phase II, Phase III, Phase IV or Phase V Completion Statement*** *and/or a* ***Termination of a Remedy Operation Status*** *is being submitted,* the response action(s) that is (are) the subject of this submittal (i) has (have) been developed and implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that a* ***Phase II Scope of Work*** *or a* ***Phase IV Remedy Implementation Plan*** *is being submitted,* the response action (s) that is (are) the subject of this submittal (i) has (have) been developed in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal;

> *if Section B indicates that an* ***As-Built Construction Report,*** *a* ***Remedy Operation Status,*** *a* ***Phase IV, Phase V or Temporary Solution Status Report,*** *a* ***Status Report to Maintain a Remedy Operation Status,*** *a* ***Transfer or Modification of Persons Maintaining a Remedy Operation Status*** *and/or a* ***Remedial Monitoring Report*** *is being submitted,* the response action(s) that is (are) the subject of this submittal (i) is (are) being implemented in accordance with the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, (ii) is (are) appropriate and reasonable to accomplish the purposes of such response action(s) as set forth in the applicable provisions of M.G.L. c. 21E and 310 CMR 40.0000, and (iii) comply(ies) with the identified provisions of all orders, permits, and approvals identified in this submittal.

I am aware that significant penalties may result, including, but not limited to, possible fines and imprisonment, if I submit information which I know to be false, inaccurate or materially incomplete.

1. LSP#: 2062

2. First Name: DAVID G 3. Last Name: AUSTIN

4. Telephone: 978-905-2114 5. Ext.: 6. Email:

7. Signature: DAVID G AUSTIN

8. Date: 5/4/2016 (mm/dd/yyyy)

9. LSP Stamp:

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT

Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

D. PERSON UNDERTAKING RESPONSE ACTIONS:

1. Check all that apply: þ a. change in contact name ¨ b. change of address ¨ c. change in the person undertaking response actions

2. Name of Organization: LINDE LLC

3. Contact First Name: DAVID 4. Last Name: SORDI

5. Street: 575 MOUNTAIN AVE 6. Title: P.E., SR PROJECT MGR

7. City/Town: NEW PROVIDENCE 8. State: NJ 9. ZIP Code: 079742097

10. Telephone: 603-941-0132 11. Ext: 12. Email:

E. RELATIONSHIP TO SITE OF PERSON UNDERTAKING RESPONSE ACTIONS: ¨ Check here to change relationship

þ 1. RP or PRP ¨ a. Owner ¨ b. Operator ¨ c. Generator ¨ d. Transporter

þ e. Other RP or PRP Specify: NON-SPECIFIED PRP

¨ 2. Fiduciary, Secured Lender or Municipality with Exempt Status (as defined by M.G.L. c. 21E, s. 2)

¨ 3. Agency or Public Utility on a Right of Way (as defined by M.G.L. c. 21E, s. 5(j))

¨ 4. Any Other Person Undertaking Response Actions Specify Relationship:

F. REQUIRED ATTACHMENT AND SUBMITTALS:

¨ 1. Check here if the Response Action(s) on which this opinion is based, if any, are (were) subject to any order(s), permit(s) and/or approval(s) issued by DEP or EPA. If the box is checked, you MUST attach a statement identifying the applicable provisions thereof.

¨ 2. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the submittal of any Phase Reports to DEP.

¨ 3. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase III Remedial Action Plan.

¨ 4. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of the availability of a Phase IV Remedy Implementation Plan.

¨ 5. Check here to certify that the Chief Municipal Officer and the Local Board of Health have been notified of any field work involving the implementation of a Phase IV Remedial Action.

¨ 6. If submitting a Transfer of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for the person making this submittal (transferee) is attached.

¨ 7. If submitting a Modification of a Remedy Operation Status (as per 310 CMR 40.0893(5)), check here to certify that a statement detailing the compliance history for each new person making this submittal is attached.

¨ 8. Check here if any non-updatable information provided on this form is incorrect, e.g. Release Address/Location Aid. Send corrections to: BWSC.eDEP@state.ma.us.

þ 9. Check here to certify that the LSP Opinion containing the material facts, data, and other information is attached.

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup

BWSC 108

Release Tracking Number
2 - 11461

COMPREHENSIVE RESPONSE ACTION TRANSMITTAL FORM & PHASE I COMPLETION STATEMENT
Pursuant to 310 CMR 40.0484 (Subpart D) and 40.0800 (Subpart H)

G. CERTIFICATION OF PERSON UNDERTAKING RESPONSE ACTIONS:

1. I, DAVID SORDI , attest under the pains and penalties of perjury (i) that I have personally examined and am familiar with the information contained in this submittal, including any and all documents accompanying this transmittal form, (ii) that, based on my inquiry of those individuals immediately responsible for obtaining the information, the material information contained in this submittal is, to the best of my knowledge and belief, true, accurate and complete, and (iii) that I am fully authorized to make this attestation on behalf of the entity legally responsible for this submittal. I/the person or entity on whose behalf this submittal is made am/is aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate, or incomplete information.

>*if Section B indicates that this is a* **Modification of a Remedy Operation Status (ROS),** I attest under the pains and penalties of perjury that I am fully authorized to act on behalf of all persons performing response actions under the ROS as stated in 310 CMR 40.0893(5)(d) to receive oral and written correspondence from MassDEP with respect to performance of response actions under the ROS, and to receive a statement of fee amount as per 4.03(3).

I understand that any material received by the Primary Representative from MassDEP shall be deemed received by all the persons performing response actions under the ROS, and I am aware that there are significant penalties, including, but not limited to, possible fines and imprisonment, for willfully submitting false, inaccurate or incomplete information.

2. By: DAVID SORDI (Signature) 3. Title: P.E., SR PROJECT MGR

4. For: LINDE LLC (Name of person or entity recorded in Section D) 5. Date: 5/4/2016 (mm/dd/yyyy)

€ 6. Check here if the address of the person providing certification is different from address recorded in Section D.

7. Street:

8. City/Town: 9. State: 10. ZIP Code:

11. Telephone: 12. Ext.: 13. Email:

YOU ARE SUBJECT TO AN ANNUAL COMPLIANCE ASSURANCE FEE OF UP TO $10,000 PER BILLABLE YEAR FOR THIS DISPOSAL SITE. YOU MUST LEGIBLY COMPLETE ALL RELEVANT SECTIONS OF THIS FORM OR DEP MAY RETURN THE DOCUMENT AS INCOMPLETE. IF YOU SUBMIT AN INCOMPLETE FORM, YOU MAY BE PENALIZED FOR MISSING A REQUIRED DEADLINE.

Date Stamp (DEP USE ONLY:)

Received by DEP on 5/4/2016 9:07:45 AM

Massachusetts Department of Environmental Protection
Bureau of Waste Site Cleanup
CRA REMEDIAL MONITORING REPORT
Pursuant to 310 CMR 40.0800 (SUBPART H)
Remedial System or Monitoring Program: 1 of: 1

BWSC108 -A

Release Tracking Number
2 - 11461

A. DESCRIPTION OF ACTIVE OPERATION AND MAINTENANCE ACTIVITY:

1. Type of Active Operation and Maintenance Activity: (check all that apply)

þ a. Active Remedial System: (check all that apply)

þ i. NAPL Recovery ¨ ii. Soil Vapor Extraction/Bioventing ¨ iii. Vapor-phase Carbon Adsorption
¨ iv. Groundwater Recovery ¨ v. Dual/Multi-phase Extraction ¨ vi. Aqueous-phase Carbon Adsorption
¨ vii. Air Stripping ¨ viii. Sparging/Biosparging ¨ ix. Cat/Thermal Oxidation
¨ x. Other Describe: _____

¨ b. Active Exposure Pathway Elimination Measure
Active Exposure Pathway Mitigation System to address (check one): ¨ i. Indoor Air ¨ ii. Drinking Water

¨ c. Application of Remedial Additives: (check all that apply)
¨ i. To the Subsurface ¨ ii. To Groundwater (Injection) ¨ iii. To the Surface

¨ d. Active Remedial Monitoring Program Without the Application of Remedial Additives: (check all that apply; Sections C, D and E are not required; attach supporting information, data, maps and/or sketches needed by checking Section G5)
¨ i. Reactive Wall ¨ ii. Natural Attenuation ¨ iii. Other Describe: _____

2. Mode of Operation: (check one)
¨ a. Continuous þ b. Intermittent ¨ c. Pulsed ¨ d. One-time Event Only ¨ e. Other: _____

3. System Effluent/Discharge: (check all that apply)
¨ a. Sanitary Sewer/POTW
¨ b. Groundwater Re-infiltration/Re-injection: (check one) ¨ i. Downgradient ¨ ii. Upgradient
¨ c. Vapor-phase Discharge to Ambient Air: (check one) ¨ i. Off-gas Controls ¨ ii. No Off-gas Controls
¨ d. Drinking Water Supply
¨ e. Surface Water (including Storm Drains)
¨ f. Other Describe: _____

B. MONITORING FREQUENCY:

1. Reporting period that is the subject of this submittal: From: 10/1/2015 (mm/dd/yyyy) To: 3/31/2016 (mm/dd/yyyy)

2. Number of monitoring events during the reporting period: (check one)
¨ a. System Startup: (if applicable)
¨ i. Days 1, 3, 6, and then weekly thereafter, for the first month.
¨ ii. Other Describe: _____

þ b. Post-system Startup (after first month) or Monitoring Program:
¨ i. Monthly
¨ ii. Quarterly
¨ iii. Annually
þ iv. Other Describe: MONTHLY AND CONDITIONAL WEEKLY MONITORING

¨ 3. Check here to certify that the number of required monitoring events were conducted during the reporting period.

C. EFFLUENT/DISCHARGE REGULATION: (check one to indicate how the effluent/discharge limits were established)

¨ 1. NPDES: (check one) ¨ a. Remediation General Permit ¨ b. Individual Permit
¨ c. Emergency Exclusion Effective Date of Permit: _____ (mm/dd/yyyy)

¨ 2. MCP Performance Standard MCP Citations(s): _____

¨ 3. DEP Approval Letter Date of Letter: _____ (mm/dd/yyyy)

þ 4. Other Describe: DISPOSAL UNDER UNIFORM HAZARDOUS WASTE MANIFEST

D. WASTEWATER TREATMENT PLANT OPERATOR: (check one)

- 1. Required due to Remedial Wastewater Treatment Plant in place for more than 30 days.
  a. Name: _____ b. Grade: _____
  c. License No: _____ d. License Exp. Date: _____ (mm/dd/yyyy)
- 2. Not Required
- 3. Not Applicable

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (check all that apply)

- 1. The Active Remedial System was functional one or more days during the Reporting Period.
  a. Days System was Fully Functional: 22 b. GW Recovered (gals): 3
  c. NAPL Recovered (gals): 80 d. GW Discharged (gals): _____
  e. Avg. Soil Gas Recovery Rate (scfm): _____ f. Avg. Sparging Rate (scfm): _____
- 2. Remedial Additives: (check all that apply)
  - a. No Remedial Additives applied during the Reporting Period.
  - b. Enhanced Bioremediation Additives applied: (total quantity applied at the site for the current reporting period)
    - i. Nitrogen/Phosphorus:

Name of Additive	Date	Quantity	Units

    - ii. Peroxides:

Name of Additive	Date	Quantity	Units

    - iii. Microorganisms:

Name of Additive	Date	Quantity	Units

    - iv. Other:

Name of Additive	Date	Quantity	Units

  - c. Chemical oxidation/reduction additives applied: (total quantity applied at the site for the current reporting period)
    - i. Permanganates:

Name of Additive	Date	Quantity	Units

    - ii. Peroxides:

Name of Additive	Date	Quantity	Units

    - iii. Persulfates:

Name of Additive	Date	Quantity	Units

    - iv. Other:

Name of Additive	Date	Quantity	Units

E. STATUS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM DURING REPORTING PERIOD: (cont.)

¿ d. Other additives applied: (total quantity applied at the site for the current reporting period)

Name of Additive	Date	Quantity	Units

Name of Additive	Date	Quantity	Units

¿ e. Check here if any additional Remedial Additives were applied. Attach list of additional additives and include Name of Additive, Date Applied, Quantity Applied and Units (in gals. or lbs.)

F. SHUTDOWNS OF ACTIVE REMEDIAL SYSTEM OR ACTIVE REMEDIAL MONITORING PROGRAM: (check all that apply)

¿ 1. The Active Remedial System had unscheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Unscheduled Shutdowns: _____ b. Total Number of Days of Unscheduled Shutdowns: _____

c. Reason(s) for Unscheduled Shutdowns: _____

þ 2. The Active Remedial System had scheduled shutdowns on one or more occasions during the Reporting Period.

a. Number of Scheduled Shutdowns: 1 b. Total Number of Days of Scheduled Shutdowns: 161

c. Reason(s) for Scheduled Shutdowns: INSUFFICIENT NAPL FOR AUTOMATIC SKIMMING

¿ 3. The Active Remedial System or Active Remedial Monitoring Program was permanently shutdown/discontinued during the Reporting Period.

a. Date of Final System or Monitoring Program Shutdown: _____
(mm/dd/yyyy)

¿ b. No Further Effluent Discharges.

¿ c. No Further Application of Remedial Additives planned; sufficient monitoring completed to demonstrate compliance with 310 CMR 40.0046.

¿ d. No Further Submittals Planned.

¿ e. Other: Describe: _____

G. SUMMARY STATEMENTS: (check all that apply for the current reporting period)

¿ 1. All Active Remedial System checks and effluent analyses required by the approved plan and/or permit were performed when applicable.

¿ 2. There were no significant problems or prolonged (>25% of reporting period) unscheduled shutdowns of the Active Remedial System.

þ 3. The Active Remedial System or Active Remedial Monitoring Program operated in conformance with the MCP, and all applicable approval conditions and/or permits.

4. Indicate any Operational Problems or Notes:

¿ 5. Check here if additional/supporting Information, data, maps, and/or sketches are attached to the form.