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Vanasse Hangen Brustlin, Inc.

January 13, 2000

Ref: 71057

Ms. Alexandra Callam
Hinckley, Allen and Snyder
1500 Fleet Center
Providence, Rhode Island 02903

Re: Metech International, Inc.
Allens Avenue Facility, Providence, RI
RIDEM Case No. 99-060

Dear Ms. Callam:

Vanasse Hangen Brustlin Inc. (VHB) is pleased to submit the results of our recently completed round of groundwater sampling conducted at the former Metech International (Metech) facility off Allens Avenue in Providence, Rhode Island. This sampling was conducted as part of Metech's response to the above-referenced Letter of Responsibility, to assess RIDEM's concern for potential leaching of certain metals to the groundwater at this site. VHB collected groundwater samples for dissolved metals from the eight groundwater monitoring wells currently located at the subject property identified as 434 Allens Avenue and further defined as Plat Map 47, Lot 601 in the City of Providence, Rhode Island (the Site).

VHB installed eight groundwater monitoring wells at the subject site on January 14 and 15, 1998 during a previous sampling event associated with the remediation of PCB contaminated soil. During this round of sampling, VHB arranged for Environmental Sampling Technology Inc. (EST) of Needham, Massachusetts to sample these eight groundwater monitoring wells at the Site on December 13 and 14, 1999. EST purged and collected groundwater samples using a low-flow submersible centrifugal pump constructed of stainless steel with a sediment filter attachment and equipped with dedicated polyethylene tubing. The equipment was decontaminated between wells in a solution of alconox and deionized water. Groundwater monitoring wells were purged of three to five well volumes and sampled in accordance to the USEPA Region 1 Low Stress (low flow) Purging and Sampling Procedure for the Collection of Groundwater Samples from Monitoring Wells, dated July 30, 1996.

All samples were collected in a 250 milliliter plastic bottle preserved with nitric acid and submitted to a Rhode Island certified laboratory for analysis of dissolved metals via EPA Method 6010/7470. Dissolved metals analyzed include the following: arsenic, barium, cadmium, chromium, copper, lead, selenium, silver, and mercury. These specific compounds were chosen based on information

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provided in Roy F. Weston, Inc.'s "Final Site Inspection Report for Boliden Metech, Inc. Providence, Rhode Island," dated February 19, 1993. This report lists ten metal compounds detected in soils during a 1988 soil sampling event at the site conducted by USEPA personnel. It should be noted that calcium was detected in the 1993 report but excluded from the groundwater sampling event due to lack of RIDEM standards for this compound.

Dissolved metals were not detected in any of the eight groundwater monitoring wells (designated MW-1 through MW-8) with the exception of barium. Barium was detected in MW-1 through MW-7 at levels ranging from 0.10 ppm to 0.75 ppm. These levels are below RIDEM GA Groundwater Objective of 2.0 ppm. Be advised that the groundwater at the subject site is actually classified as GB by RIDEM. The GB classification is used to designate groundwater that is presumed to be degraded. VHB compared the results of this sampling to the more stringent GA groundwater quality standards which are meant to be protective of potential drinking water resources.

Please refer to the attachments to this letter for a site plan and a copy of the analytical report.

It is VHB's opinion that no further assessment of this site is necessary based on information gained during our December 1999 sampling event and the presumption that an Environmental Land Usage Restriction (ELUR) will be placed on the property. Should you have any questions or comments regarding this matter please feel free to call Pamela Fromm or myself at your convenience.

Very truly yours,

VANASSE HANGEN BRUSTLIN, INC.

Timothy M. O'Connor P.E.
Project Manager

enclosure

cc: John D. Koskinas, Metech
Chris Jedson, Metech

TOXIKON CORPORATION
15 WIGGINS AVENUE
BEDFORD, MA 01730
TEL: (781) 275-3330

December 28, 1999

PAM FROMM
VANASSE HAGEN BRUSTLIN
530 BROADWAY
PROVIDENCE, RI 02909
TEL: (401) 272-8100
FAX: (401) 273-9694

RE: LOW FLOW GROUNDWATER SAMPLI Order No.: 9912352

Dear PAM FROMM,

Toxikon received 4 samples on 12/15/99 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in a Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Paul Lezberg

Toxikon

Date: *28-Dec-99*

CLIENT: VANASSE HAGEN BRUSTLIN
Project: LOW FLOW GROUNDWATER SAMPLING
Lab Order: 9912352
Date Received: 12/15/99

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date
9912352-01A	MW-1	12/14/99 12:15:00 PM
9912352-02A	MW-5	12/14/99 8:30:00 AM
9912352-03A	MW-6	12/14/99 9:45:00 AM
9912352-04A	MW-3	12/14/99 11:20:00 AM

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-1
Lab Order:	9912352	**Collection Date:**	12/14/99 12:15:00 PM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912352-01A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.62	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-5
Lab Order:	9912352	**Collection Date:**	12/14/99 8:30:00 AM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912352-02A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.10	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-6
Lab Order:	9912352	**Collection Date:**	12/14/99 9:45:00 AM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912352-03A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.32	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-3
Lab Order:	9912352	**Collection Date:**	12/14/99 11:20:00 AM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912352-04A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.75	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

TOXIKON CORPORATION
15 WIGGINS AVENUE
BEDFORD, MA 01730
TEL: (781) 275-3330

December 28, 1999

PAM FROMM
VANASSE HAGEN BRUSTLIN
530 BROADWAY
PROVIDENCE, RI 02909
TEL: (401) 272-8100
FAX: (401) 273-9694

RE: LOW FLOW GROUNDWATER SAMPLI Order No.: 9912353

Dear PAM FROMM,

Toxikon received 4 samples on 12/15/99 for the analyses presented in the following report.

There were no problems with the analyses and all data for associated QC met EPA or laboratory specifications except where noted in a Case Narrative.

If you have any questions regarding these tests results, please feel free to call.

Sincerely,

Paul Lezberg

Certifications: MA: MA 064, NH: 204099A and 204099B, ME: MA064, RI: 55, VT: MA064, TN: MA
NY: 10778, FL: E87143 and 87394, NC: 286, PA 68-461, CT: PH 0563, NJ: 59538, MD

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN
Project:	LOW FLOW GROUNDWATER SAMPLING
Lab Order:	9912353
Date Received:	12/15/99

Work Order Sample Summary

Lab Sample ID	Client Sample ID	Collection Date
9912353-01A	MW-8	12/13/99 4:15:00 PM
9912353-02A	MW-4	12/13/99 2:45:00 PM
9912353-03A	MW-7	12/13/99 1:45:00 PM
9912353-04A	MW-2	12/13/99 11:05:00 AM

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-8
Lab Order:	9912353	**Collection Date:**	12/13/99 4:15:00 PM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912353-01A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	ND	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-4
Lab Order:	9912353	**Collection Date:**	12/13/99 2:45:00 PM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912353-02A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.14	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-7
Lab Order:	9912353	**Collection Date:**	12/13/99 1:45:00 PM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912353-03A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		SW6010B				Analyst: A
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.11	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		SW7470A				Analyst: AS
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Toxikon

Date: *28-Dec-99*

CLIENT:	VANASSE HAGEN BRUSTLIN	**Client Sample ID:**	MW-2
Lab Order:	9912353	**Collection Date:**	12/13/99 11:05:00 AM
Project:	LOW FLOW GROUNDWATER SAMPLING	**Matrix:**	AQUEOUS
Lab ID:	9912353-04A		

Analyses	Result	Rpt Limit	Qual	Units	DF	Date Analyzed
ICP METALS, DISSOLVED		**SW6010B**				Analyst: **A**
Arsenic	ND	0.010		mg/L	1	12/17/99
Barium	0.50	0.050		mg/L	1	12/17/99
Cadmium	ND	0.0050		mg/L	1	12/17/99
Chromium	ND	0.010		mg/L	1	12/17/99
Copper	ND	0.010		mg/L	1	12/17/99
Lead	ND	0.0050		mg/L	1	12/17/99
Selenium	ND	0.0050		mg/L	1	12/17/99
Silver	ND	0.0050		mg/L	1	12/17/99
MERCURY, DISSOLVED		**SW7470A**				Analyst: **AS**
Mercury	ND	0.0010		mg/L	1	12/17/99

Qualifiers:

ND - Not Detected at the Reporting Limit

J - Analyte detected below quantitation limits

B - Analyte detected in the associated Method Blank

* - Value exceeds Maximum Contaminant Level

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

ENVIRONMENTAL SAMPLING TECHNOLOGY

■ 85 Franklin Street ■ Needham ■ MA 02494 ■ (781) 455-0003 ■ Fax (781) 455-8336

GROUNDWATER MONITORING REPORT

Client: Metech International
120 Main Street
Mapleville, RI 02839
Attention: Chris Jedson
Report Date: 12/22/99

Site Location: 434 Allens Avenue, Providence, RI
Sample Date: 12/13-14/99
Field Technicians: Chris Mazzolini
Weather Conditions: Sunny, Windy 35-45°F

Location ID	Depth (feet)	SWL (feet)	pH (S.U.)	Temp (°C)	Cond (umhos)	DO (mg/L)	ORP (mv)	Turbidity (NTU)
MW-1	14.65	8.15	6.82	13.74	1271	6.12	<93.0>	4.2
MW-2	15.10	7.75	6.47	12.94	1100	0.77	107.2	5.0
MW-3	16.10	11.00	6.82	13.96	1330	6.98	<111.8>	4.0
MW-4	13.45	8.90	7.05	13.44	14638	0.41	<99.0>	4.9
MW-5	14.50	8.90	6.78	11.74	10285	4.20	<25.3>	4.2
MW-6	14.20	8.25	6.86	13.23	1005	6.77	<110.1	4.0
MW-7	14.50	8.81	7.32	12.40	370	3.05	82.0	5.0
MW-8	14.50	9.05	7.00	11.40	27886	4.30	38.4	4.0

Notes: All samples delivered to Toxikon Laboratories in Bedford, MA with the associated Chain of Custody documentation.

cc: Mr. Tim O'Connor, VHB

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-1

LOCATION: 434 Allens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/14 | SAMPLE TIME: 1215

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 8.15 (FT) | WELL DEPTH: 14.65 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1130	8.20	400ml/min	1L	13.45	1302	6.85	-66.9	5.45	—	
1140	8.20	500ml/min	5L	13.66	1279	6.87	-81.0	5.75	10.0	
1150	8.20	500ml/min	10L	13.71	1272	6.82	-92.6	6.11	5.2	
1200	8.20	500ml/min	15L	13.74	1270	6.82	-93.0	6.12	4.2	
1210	8.20	500ml/min	20L	13.74	1271	6.82	-93.0	6.12	4.2	

FINAL FIELD DATA

pH: 6.82 (S.U.) | DO: 6.12 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 1271 (umhos/cm) | TURBIDITY: 4.2 (NTU)

TEMPERATURE: 13.74 (°C) | ORP: -93.0 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: Clear, odorless

WEATHER CONDITIONS: Cold, windy 33°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: Y (N) | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe: Flush mounted well

SAMPLER'S SIGNATURE: Chris Mazzolini

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-2

LOCATION: 434 Athens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1105

PURGING DATA

REFERENCE POINT: (PVC) | PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 7.75 (FT) | WELL DEPTH: 15.10 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
0850	7.90	150	—	10.44	614	6.64	-41.9	1.18	50	
0855	8.00	150	2	10.85	652	6.63	-53.9	.94	42	
0900	8.20	150	3.5	11.08	705	6.61	-60.2	.95	25	
0910	8.20	150	5.0	11.39	817	6.56	-67.5	.73	20.9	
0920	8.20	150	6.5	11.53	897	6.54	-70.5	.70	20.5	
0930	8.25	150	8.0	11.75	927	6.52	-72.0	.68	19.9	
0940	8.25	150	9.5	12.63	955	6.50	-73.5	.66	19.5	
0950	8.25	150	11.0	12.45	983	6.48	-60.5	1.48	15.4	
1000	8.25	150	12.5	12.80	1030	6.47	-50.8	1.13	13.1	
1010	8.25	150	14.0	12.89	1051	6.47	-63.5	1.91	6.5	
1020	8.25	150	15.5	12.96	1061	6.47	81.9	.75	5.0	
1030	8.25	150	17.0	13.08	1073	6.46	80.0	.69	5.0	
1040	8.25	150	18.5	13.09	1088	6.46	106	.80	5.0	
1050	8.25	150	20.0	12.9	1098	6.46	108.5	.78	5.0	

FINAL FIELD DATA

pH: (S.U.) | DO: (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: (umhos/cm) | TURBIDITY: (NTU)

TEMPERATURE: (°C) | ORP: (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE:

WEATHER CONDITIONS: Sunny, 40°F

WELL CONDITION DATA

Protective Casing Present:	(Y)	N	Concrete/Grout Pad present:	(Y)	N	Cap on well riser:	(Y)	N
Protective Casing Locked:	(Y)	N	Standing Water:	Y	(N)	Visible Heaving:	Y	(N)
Physical Damage:								

If yes, Describe: Flush mounted well

SAMPLER'S SIGNATURE: Chris Mazzolini

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-2

LOCATION: 434 Allens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1105

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 7.75 (FT) | WELL DEPTH: 15.10 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (^{0}C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1100	8.25	150	21.5	12.94	1100	6.47	107.2	.77	5.0	

FINAL FIELD DATA

pH: 6.47 (S.U.) | DO: .77 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 1100 (umhos/cm) | TURBIDITY: 5.0 (NTU)

TEMPERATURE: 12.94 (^{0}C) | ORP: 107.2 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear, odorless

WEATHER CONDITIONS: sunny, chilly, 40°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: (Y) N | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe: Flush mounted well

SAMPLER'S SIGNATURE: Ch Mazz

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-

LOCATION: 434 Allens Ave.

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/14 | SAMPLE TIME: 1120

PURGING DATA

REFERENCE POINT: (PVC) | PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 11.0 (FT) | WELL DEPTH: 16.1 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
0955	11.25	300ml/min	1 L	13.40	1339	6.82	-73.2	7.45	—	
1000	11.35	300ml/min	2.5	13.75	1344	6.81	-85.5	8.35	—	
1005	11.55	200ml/min	4.0	13.80	1355	6.81	-96.0	6.79	40	
1015	11.55	200ml/min	6.0	13.91	1344	6.81	-102.1	6.84	7.7	
1025	11.55	200ml/min	8.0	13.94	1340	6.81	-106.2	6.93	4.9	
1035	11.55	200ml/min	10.0	13.96	1335	6.82	-109.2	6.94	4.2	
1045	11.55	200ml/min	12.0	13.95	1330	6.82	-111.4	6.95	4.1	
1055	11.55	200ml/min	14.0	13.96	1330	6.83	-112.1	6.96	4.0	
1105	11.55	200ml/min	16.0	13.97	1330	6.82	-111.9	6.98	4.0	
1115	11.55	200ml/min	18.0	13.96	1330	6.82	-111.8	6.98	4.0	

FINAL FIELD DATA

pH: 6.82 (S.U.) | DO: 6.98 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 1330 (umhos/cm) | TURBIDITY: 4.0 (NTU)

TEMPERATURE: 13.96 (°C) | ORP: -111.8 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear odorless

WEATHER CONDITIONS: windy, cold - 33°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: Y N | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe:

SAMPLER'S SIGNATURE: Ch Mazzolini

ESI - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: mw-4

LOCATION: 434 Allens Ave.

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1445

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 8.90 (FT) | WELL DEPTH: 13.45 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1355	8.90	500 ml/min	1	13.33	14852	7.04	-76.5	.42	> 200	
1400	8.80	500 ml/min	3.5	13.34	14852	7.04	-81.7	.29	100	
1410	8.80	500 ml/min	8.5	13.39	14747	7.04	-89.5	.44	25	
1420	8.80	500 ml/min	13.5	13.41	14642	7.05	-95.3	.41	12.0	
1430	8.80	500 ml/min	18.5	13.45	14640	7.05	-98.7	.42	5.0	
1440	8.80	500 ml/min	23.5	13.44	14638	7.05	-99.0	.41	4.9	

FINAL FIELD DATA

pH: 7.05 (S.U.) | DO: .41 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 14638 (umhos/cm) | TURBIDITY: 4.9 (NTU)

TEMPERATURE: 13.44 (°C) | ORP: -99 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear odorless

WEATHER CONDITIONS: chilly, 45°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: (Y) N | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe:

SAMPLER'S SIGNATURE: Chris Mazzolini

ESI - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-
LOCATION: 434 Allens Ave
SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/14 | SAMPLE TIME: 0830

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump
DEPTH TO WATER: 8.90 (FT) | WELL DEPTH: 14.50 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
0715	8.90	150	1 L	11.62	24213	6.86	-89.9	4.05	—	
0720	9.10	250	1.75	12.02	20000	6.85	-84.2	4.38	7 200	
0730	9.10	250	4.25	11.87	14719	6.79	-71.1	5.21	54.6	
0740	9.10	250	6.75	11.88	10243	6.76	-39.8	6.67	20.2	
0750	9.10	250	9.25	11.80	10050	6.77	-31.2	7.15	10.0	
0800	9.10	250	11.75	11.76	10146	6.78	-28.6	4.43	7.5	
0810	9.10	250	14.25	11.80	10270	6.78	-27.2	4.21	4.5	
0820	9.10	250	16.75	11.75	10280	6.78	-25.4	4.20	4.3	
0825	9.10	250	18.00	11.74	10285	6.78	-25.3	4.20	4.2	

FINAL FIELD DATA

pH: 6.78 (S.U.) | DO: 4.20 (mg/L) | COMMENTS:
SPECIFIC CONDUCTANCE: 10285 (umhos/cm) | TURBIDITY: 4.2 (NTU)
TEMPERATURE: 11.74 (°C) | ORP: -25.3 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear odorless
WEATHER CONDITIONS: cold, windy, 38°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: (Y) N | Cap on well riser: (Y) N
Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)
Physical Damage:
If yes, Describe:

SAMPLER'S SIGNATURE: Chris Mazzolini

ESI - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-6

LOCATION: 434 Allens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/14 | SAMPLE TIME: 0945

PURGING DATA

REFERENCE POINT: (PVC) | PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 8.25 (FT) | WELL DEPTH: 14.20 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
0845	8.35	500 ml/min	1 L	12.70	1091	6.95	-84.3	11.07	55	
0855	8.35	500 ml/min	6 L	12.96	1039	6.92	-93.4	10.87	25	
0905	8.35	500 ml/min	11 L	13.19	1015	6.88	-108.4	7.15	10	
0915	8.35	500 ml/min	16 L	13.23	1004	6.87	-109.2	6.93	6.4	
0925	8.35	500 ml/min	21 L	13.23	1006	6.86	-110.5	6.77	4.1	
0935	8.35	500 ml/min	26 L	13.24	1005	6.87	-110.2	6.78	4.0	
0940	8.35	500 ml/min	28.5 L	13.23	1005	6.86	-110.1	6.77	4.0	

FINAL FIELD DATA

pH: 6.86 (S.U.) | DO: 6.77 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 1005 (umhos/cm) | TURBIDITY: 4.0 (NTU)

TEMPERATURE: 13.23 (°C) | ORP: -110.1 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear, odorless

WEATHER CONDITIONS: cold, windy, 33°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: Y (N) | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe:

SAMPLER'S SIGNATURE: Ch Mazzolini

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-7

LOCATION: 434 Allens Ave.

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1345

PURGING DATA

REFERENCE POINT: (PVC) | PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 8.81 (FT) | WELL DEPTH: 14.50 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1120	9.20	120 mL/min	1 L	13.07	373	7.06	134	.75	> 200	
1130	10.30	120	2.5	12.77	372	7.06	148	.75	50.0	
1140	10.50	120	3.7	11.91	369	7.08	159	.99	42.9	
1150	10.70	120	4.9	11.90	368	7.09	167	.87	42.0	
1200	10.70	120	6.1	11.56	367	7.12	158.7	1.19	40.1	
1210	10.70	120	7.3	11.87	363	7.18	145.3	2.33	24.7	
1220	10.70	120	8.5	11.70	363	7.20	143.2	2.69	20.4	
1230	10.70	120	9.7	11.66	361	7.23	133.5	2.85	15.8	
1240	10.70	120	10.9	11.91	361	7.25	123.6	2.95	14.7	
1250	10.70	120	12.1	12.08	363	7.27	113	2.84	12.2	
1300	10.70	120	13.3	12.18	364	7.29	104.2	2.99	10.0	
1310	10.70	120	14.5	12.35	365	7.30	91.0	3.09	8.7	
1320	10.70	120	15.7	12.36	369	7.31	83.0	3.03	6.2	
1330	10.70	120	16.9	12.40	376	7.32	82.0	3.05	5.0	

FINAL FIELD DATA

pH: (S.U.) | DO: (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: (umhos/cm) | TURBIDITY: (NTU)

TEMPERATURE: (°C) | ORP: (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear, odorless

WEATHER CONDITIONS: chilly, 45°F

WELL CONDITION DATA

Protective Casing Present:	(Y)	N	Concrete/Grout Pad present:	(Y)	N	Cap on well riser:	(Y)	N
Protective Casing Locked:	(Y)	N	Standing Water:	Y	(N)	Visible Heaving:	Y	(N)
Physical Damage:								

If yes, Describe: ~~Chilly - 45°F~~

SAMPLER'S SIGNATURE: Chris Mazzolini

EST - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-7

LOCATION: 434 Allens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1345

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 8.81 (FT) | WELL DEPTH: 14.50 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (^{0}C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1340	10.70	120 ml/min	18.1	12.40	370	7.32	82.0	3.05	5.0	

FINAL FIELD DATA

pH: 7.32 (S.U.) | DO: 3.05 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 370 (umhos/cm) | TURBIDITY: 5.0 (NTU)

TEMPERATURE: 12.40 (^{0}C) | ORP: 82.0 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: Clear, odorless

WEATHER CONDITIONS: Chilly, 45°F

WELL CONDITION DATA

Protective Casing Present:	(Y)	N	Concrete/Grout Pad present:	(Y)	N	Cap on well riser:	(Y)	N
Protective Casing Locked:	(Y)	N	Standing Water:	Y	(N)	Visible Heaving:	Y	(N)

Physical Damage:

If yes, Describe:

SAMPLER'S SIGNATURE: Chris Mazzolini

ESI - LOW FLOW GROUNDWATER SAMPLING RECORD

PROJECT NAME: Metech | PROJECT #: | WELL ID: MW-8

LOCATION: 434 Allens Ave

SAMPLING CREW: Chris Mazzolini | SAMPLE DATE: 12/13 | SAMPLE TIME: 1615

PURGING DATA

REFERENCE POINT: (PVC) PROTECTIVE CASING | PURGING DEVICE: Bladder Pump

DEPTH TO WATER: 9.05 (FT) | WELL DEPTH: 14.5 (FT)

CLOCK TIME	WATER DEPTH (FT)	PURGE RATE (ML)	CUM. VOLUME PURGED (L)	TEMP (°C)	SP. COND (umhos/cm)	pH (s.u.)	ORP/Eh (MV)	DO (mg/L)	Turb (NTU)	COMMENTS
1455	9.20	400 ml/min	1L	12.35	28213	7.06	7.4	5.87	100	
1500	9.30	350 ml/min	3L	11.85	27951	7.03	20.2	6.37	10	
1510	9.50	350 ml/min	6.5L	11.52	27859	7.04	37.6	6.43	4.5	
1520	9.60	200 ml/min	10.0L	11.40	27846	7.03	40.7	5.89	4.3	
1530	9.70	150 ml/min	11.0L	11.34	27848	7.02	41.0	5.45	4.2	
1540	9.70	150 ml/min	12.5	11.37	27853	7.01	40.4	4.79	4.0	
1550	9.70	150 ml/min	14.0	11.39	27880	7.00	38.7	4.36	4.0	
1600	9.70	150 ml/min	15.5	11.40	27885	7.00	38.5	4.30	4.0	
1610	9.70	150 ml/min	17.0	11.40	27886	7.00	38.4	4.30	4.0	

FINAL FIELD DATA

pH: 7.00 (S.U.) | DO: 4.30 (mg/L) | COMMENTS:

SPECIFIC CONDUCTANCE: 27886 (umhos/cm) | TURBIDITY: 4.0 (NTU)

TEMPERATURE: 11.40 (°C) | ORP: 38.4 (MV)

ODOR AND PHYSICAL APPEARANCE OF SAMPLE: clear, odorless

WEATHER CONDITIONS: cold, 40°F

WELL CONDITION DATA

Protective Casing Present: (Y) N | Concrete/Grout Pad present: (Y) N | Cap on well riser: (Y) N

Protective Casing Locked: (Y) N | Standing Water: Y (N) | Visible Heaving: Y (N)

Physical Damage:

If yes, Describe:

SAMPLER'S SIGNATURE: Ch. Mazz