3855 NORTH OCOEE STREET SUITE 200, CLEVELAND, TN 37312
OFFICE: (423) 336-4000 FAX: (423) 336-4166

October 29, 2010

Mr. Alex Czuhanich
New York State Dept. of Environmental. Conservation
Division of Hazardous Waste
625 Broadway
Albany , NY 12233

re: Semiannual Report: Olin Chemicals
Buffalo Ave. Facility, Niagara Falls, NY

Dear Mr. Czuhanich:

This is the second Semiannual report for 2010 as required by Olin's Administrative Order on Consent (AOC) for our Niagara Falls Plant, (Index #R9-4171-94-08, Site Registry #9-32-051A, and B). The timeframe for this report covers the period from April 1, 2010 through September 30, 2010. A full copy of this report is also included as a PDF file on the attached CD.

Operation / Maintenance issues :
Details of the implementation of routine maintenance tasks and trouble shooting activities are included for this reporting period in the six monthly memoranda from Olin's consultant, Mactec Engineering and Consulting, (***Attachment 1, on CD***). The most significant metrics of system performance are the tracking of downtime and of target drawdown levels. Historically, when the system is running and operating efficiently, hydraulic capture is achieved. The monthly O&M reports document the details of all issues. Operations during this reporting period were affected by a lightning strike that disabled much of the treatment plant's control hardware. The resulting down time is documented in the attached monthly memoranda. The downtime began on July 28 with operations resuming manually within about two weeks and in fully automated capacity in early September.

Hydraulic Capture:
Attachment 2 on CD includes PDF files of piezometric maps for each hydraulic zone representing the most recent two quarters. That attachment also includes tables and hydrographs documenting empirical monthly hydraulic capture comparisons ***Attachment 2*** on CD also includes piezometric data and system flow data.

A-zone: The A-zone groundwater capture criteria are via empirical comparison to Gill Creek stage and Buffalo Avenue sewer invert levels. In general, A-zone capture is being achieved over the 300 foot boundary with Gill Creek, and relative to potential northward flow toward Buffalo Avenue. This is largely aided by seasonally dry conditions. A-zone capture has been maintained during the two reporting quarters.

B-zone: Capture is also being maintained. C-zone: C and CD-zone gradients indicate flow toward and capture by high volume Production well in Plant 1.

Groundwater Quality:
The recovery well header groundwater data for the most recent two quarters are included on the CD as ***Attachment 3***. The annual site groundwater monitoring was completed in May, 2010, with results presented in ***Attachment 3***.

Overview of extracted groundwater volume and contaminant mass:
The volume of pumped groundwater for the two quarters comprising this reporting period was approximately 14.8 million gallons. The total volume of groundwater extracted and treated since system startup is approximately 331 million gallons. Since startup the system has extracted over 70,600 pounds of organics, 332 pounds of pesticides and approximately 4 pounds of mercury. The CD (***Attachment 3***) contains tables showing mass removed per quarter and mass removed over the operational life of the system to date.

We believe that we are continuing to make significant progress in removing contaminant mass from Olin's Niagara Falls Plant site via our remediation system. We will continue to improve the system and monitor its effectiveness. Please direct any questions or comments to me at 423/336-4587.

Sincerely,

Michael J. Bellotti

Michael J. Bellotti
OLIN CORPORATION

List of Attachments on CD

Attachment 1:

- Monthly Operation and Maintenance Status Reports:

Attachment 2:

- Piezometric maps, hydrographs and supporting data
- Piezometric data
- System Flow Data

Attachment 3:

- Groundwater Quality Data:
  - May, 2010 quarterly recovery well header data and annual groundwater monitoring data
  - August, 2010 quarterly recovery well header data
- Contaminant Removed Tables and Graphs:
  - Quarterly Contaminant mass removed tables
  - Summary of Groundwater Flow and Mass Removed

cc:
Pat Concannon - NYSDEC Buffalo, NY
Gina Senia: Olin Niagara Falls, NY
Ellen Stein: USEPA: Region II, New York, NY
Rick Marotte: Mactec Engineering: Kennesaw, GA

Olin Niagara Falls
Plant 2 Area Remediation

	Summary: Contaminant Mass and Groundwater Extracted							
		Since system start-up: December - 1997						
Quarter	organics		mercury		pesticides		g.w. extracted	
	lb	Ann. Tot.	lb	Ann. Tot.	lb	Ann. Tot.	gal	Ann. Tot.
Startup/Q1-98 [est]	27.81		0.02		0.2		210,000	
Q2-98	154.5		0.1		1.3		1,175,799	
Q3-98	595.5		0.6		4.9		2,583,159	
Q4-98	1273.1		0.1		5.2		4,054,996	
		2,051		1		12		8,023,954
Q1-99	817.3		0.05		8.5		4,233,521	
Q2-99	1034.7		0.05		7.1		3,991,584	
Q3-99	1188.2		0.1		8.7		5,219,207	
Q4-99	976.3		0.02		6.9		6,366,935	
		4,017		0.22		31		19,811,247
Q1-00	1422.9		0.06		6.2		6,757,602	
Q2-00	1514.9		0.06		10.3		6,663,345	
Q3-00	1071.6		0.06		18.6		6,007,756	
Q4-00	1260.7		0.03		9.7		6,803,495	
		5,270		0.21		45		26,232,198
Q1-01	1406.2		0.06		8.9		7,379,548	
Q2-01	2704.8		0.04		11.9		8,474,363	
Q3-01	1576.8		0.05		9.5		7,607,539	
Q4-01	637.0		0.05		8.4		5,642,388	
		6,325		0.20		39		29,103,838
Q1-02	1319.8		0.06		6.9		6,781,550	
Q2-02	530.7		0.08		7.2		8,693,727	
Q3-02	1251.8		0.07		6.0		5,950,649	
Q4-02	490.8		0.07		3.5		5,385,584	
		3,593		0.28		24		26,811,510
Q1-03	922.6		0.58		3.6		5,151,629	
Q2-03	1884.7		0.06		5.2		7,276,723	
Q3-03	1611		0.1		0.0		6,598,467	
Q4-03	1954.4		0.1		8.5		6,735,421	
		6,373		0.84		17		25,762,240
Q1-04	1479.6		0.04		4.8		5,846,144	
Q2-04	2158.2		0.08		5.7		6,826,643	
Q3-04	1880.3	[a]	0.05	[a]	5.6	[a]	6,262,226	
Q4-04	3665.6		0.18		5.5		7,152,900	
		9,184		0.35		22		26,087,913
Q1-05	2648.9	[a]	0.14	[a]	4.3	[a]	5,870,533	
Q2-05	1168		0.04		3.5		5,910,496	
Q3-05	860.2	[a]	0.04	[a]	2.8	[a]	7,113,517	
Q4-05	887.8		0.09		6.7		5,271,114	
		5,565		0.31		17		24,165,660
Q1-06	1056		0.02		3.2		5,139,061	
Q2-06	1160		0.04		4.5		8,872,651	
Q3-06	1169		0.02		4.2		8,253,471	
Q4-06	1175.0		0.04		4.9		8,959,291	
		4,560		0.12		17		31,224,474
Q1-07	1409.0	.	0.02		4.0		7,250,389	
Q2-07	1692.0		0.04		4.2		8,203,421	
Q3-07	1222.0		0.004		3.5		6,553,414	
Q4-07	498.0		0.012		6.9		5,741,687	
		4,821		0.08		19		27,748,911
Q1-08	933.0	.	0.054		3.3		6,394,472	
Q2-08	1268.0		0.01		4.3		6,750,450	
Q3-08	1686.0		0.008		6.73		8,159,637	
Q4-08	2034.0		0.011		7.57		9,010,318	
		5,921		0.08		22		30,314,877
Q1-09	1667.0	.	0.007		5.8		7,487,247	
Q2-09	1686.0		0.010		5.65		6,960,098	
Q3-09	1887.0		0.009		12.77		8,806,214	
Q4-09	1713.0		0.022		30.3		9,730,305	
		6,953		0.05		55		32,983,864
Q1-10	2226.0		0.007		6.21		8,157,833	
Q2-10	2045.0		0.005		4.27		7,255,865	
Q3-10	1761.0		0.041		4.00		7,532,651	
Q4-10								
		6,032		0.05		14		22,946,349
TOTAL		**70,664**		**3.6**		**332**		**331,217,035**

[a] estimated loading based on replication of previous quarter's constituent concentrations.
Flow data are actual for each quarter

Olin Niagara Falls Plant Site: Plant 2 Area Remediation
Groundwater Contaminant Mass Removed
Q2-10

ORGANICS

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	31.367	3.8	2.20E-06	0.00026223	1190476.19	358,485	94
RW2	0.253	3.8	2.20E-06	0.00000212	1190476.19	3,757,281	8
RW3	0.703	3.8	2.20E-06	0.00000588	1190476.19	208,523	1
RW4	0.969	3.8	2.20E-06	0.00000810	1190476.19	99,738	1
PR4	6.770	3.8	2.20E-06	0.00005660	1190476.19	251,804	14
RW5	103.333	3.8	2.20E-06	0.00086386	1190476.19	1,984,346	1714
PR12	44.360	3.8	2.20E-06	0.00037085	1190476.19	518,708	192
OBA9AR	31.061	3.8	2.20E-06	0.00025967	1190476.19	76,980	19.99
TOTAL							**2,045**

MERCURY

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	0.0014	3.8	2.20E-06	0.00000001	1190476.19	358,485	0.004
RW2	0.0000	3.8	2.20E-06	0.00000000	1190476.19	3,757,281	0.000
RW3	0.0003	3.8	2.20E-06	0.00000000	1190476.19	208,523	0.001
RW4	0.0006	3.8	2.20E-06	0.00000001	1190476.19	99,738	0.001
PR4	0.0000	3.8	2.20E-06	0.00000000	1190476.19	251,804	0.000
RW5	0.0000	3.8	2.20E-06	0.00000000	1190476.19	1,984,346	0.000
PR12	0.0000	3.8	2.20E-06	0.00000000	1190476.19	518,708	0.000
OBA9AR	0.0000	3.8	2.20E-06	0.00000000	1190476.19	76,980	0.000
TOTAL							**0.005**

PESTICIDES

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	0.0056	3.8	2.20E-06	0.00000005	1190476.19	358,485	0.02
RW2	0.0002	3.8	2.20E-06	0.00000000	1190476.19	3,757,281	0.01
RW3	0.0078	3.8	2.20E-06	0.00000006	1190476.19	208,523	0.01
RW4	0.0138	3.8	2.20E-06	0.00000012	1190476.19	99,738	0.01
PR4	0.3414	3.8	2.20E-06	0.00000285	1190476.19	251,804	0.72
RW5	0.1499	3.8	2.20E-06	0.00000125	1190476.19	1,984,346	2.49
PR12	0.1197	3.8	2.20E-06	0.00000100	1190476.19	518,708	0.52
OBA9AR	0.7720	3.8	2.20E-06	0.00000645	1190476.19	76,980	0.497
TOTAL							**4.27**

[A] = Total of parameter group in quarterly sample from recovery well discharge header.

7,255,865
total flow (gal)

Olin NIagara Falls
May 2010 GW System Header Data

LocationID	Analytical Method	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	Result	total
OBA-9AR	SW8260B	1,1,1-Trichloroethane	5.9		Y	1.0	0.82	0.82	5/3/2010	N	ug/l	N	5.9	
OBA-9AR	SW8260B	1,1,2,2-Tetrachloroethane	15		Y	1.0	0.21	0.21	5/3/2010	N	ug/l	N	15	
OBA-9AR	SW8260B	1,1,2-Trichloroethane	1.5		Y	1.0	0.23	0.23	5/3/2010	N	ug/l	N	1.5	
OBA-9AR	SW8260B	1,1-Dichloroethene	2.6		Y	1.0	0.29	0.29	5/3/2010	N	ug/l	N	2.6	
OBA-9AR	SW8260B	1,2,4-Trichlorobenzene	9300		Y	200	82	82	5/3/2010	N	ug/l	N	9300	
OBA-9AR	SW8260B	1,2-Dichlorobenzene	8300		Y	200	160	160	5/3/2010	N	ug/l	N	8300	
OBA-9AR	SW8260B	1,3-Dichlorobenzene	1300		Y	200	160	160	5/3/2010	N	ug/l	N	1300	
OBA-9AR	SW8260B	1,4-Dichlorobenzene	7700		Y	200	170	170	5/3/2010	N	ug/l	N	7700	
OBA-9AR	SW8260B	Benzene	440		Y	200	82	82	5/3/2010	N	ug/l	N	440	
OBA-9AR	SW8260B	Carbon tetrachloride			N	1.0	0.27	0.27	5/3/2010	N	ug/l	N	0	
OBA-9AR	SW8260B	Chlorobenzene	570		Y	200	150	150	5/3/2010	N	ug/l	N	570	
OBA-9AR	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/3/2010	N	ug/l	N	0	
OBA-9AR	SW8260B	cis-1,2-Dichloroethene	110	E	Y	200	160	160	5/3/2010	N	ug/l	N	110	
OBA-9AR	SW8260B	Methylene chloride (Dichloromethane)			N	1.0	0.44	0.44	5/3/2010	N	ug/l	N	0	
OBA-9AR	SW8260B	Tetrachloroethene (PCE)	1400		Y	200	73	73	5/3/2010	N	ug/l	N	1400	
OBA-9AR	SW8260B	trans-1,2-Dichloroethene	4.2		Y	1.0	0.90	0.90	5/3/2010	N	ug/l	N	4.2	
OBA-9AR	SW8260B	Trichloroethene (TCE)	1900		Y	200	92	92	5/3/2010	N	ug/l	N	1900	
OBA-9AR	SW8260B	Vinyl Chloride	12		Y	1.0	0.90	0.90	5/3/2010	N	ug/l	N	12	**31,061**
PR-12	SW8260B	1,1,1-Trichloroethane	64		Y	1.0	0.82	0.82	5/3/2010	N	ug/l	N	64	
PR-12	SW8260B	1,1,2,2-Tetrachloroethane			N	1.0	0.21	0.21	5/3/2010	N	ug/l	N	0	
PR-12	SW8260B	1,1,2-Trichloroethane	77		Y	1.0	0.23	0.23	5/3/2010	N	ug/l	N	77	
PR-12	SW8260B	1,1-Dichloroethene	38		Y	1.0	0.29	0.29	5/3/2010	N	ug/l	N	38	
PR-12	SW8260B	1,2,4-Trichlorobenzene	540		Y	500	200	200	5/3/2010	N	ug/l	N	540	
PR-12	SW8260B	1,2-Dichlorobenzene	69		Y	1.0	0.79	0.79	5/3/2010	N	ug/l	N	69	
PR-12	SW8260B	1,3-Dichlorobenzene	96		Y	1.0	0.78	0.78	5/3/2010	N	ug/l	N	96	
PR-12	SW8260B	1,4-Dichlorobenzene	270	E	Y	500	420	420	5/3/2010	N	ug/l	N	270	
PR-12	SW8260B	Benzene	230	E	Y	1.0	0.41	0.41	5/3/2010	N	ug/l	N	230	
PR-12	SW8260B	Carbon tetrachloride	120	E	Y	1.0	0.27	0.27	5/3/2010	N	ug/l	N	120	
PR-12	SW8260B	Chlorobenzene	89		Y	1.0	0.75	0.75	5/3/2010	N	ug/l	N	89	
PR-12	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/3/2010	N	ug/l	N	0	
PR-12	SW8260B	cis-1,2-Dichloroethene	2100		Y	500	400	400	5/3/2010	N	ug/l	N	2100	
PR-12	SW8260B	Methylene chloride (Dichloromethane)	100		Y	1.0	0.44	0.44	5/3/2010	N	ug/l	N	100	
PR-12	SW8260B	Tetrachloroethene (PCE)	12000		Y	500	180	180	5/3/2010	N	ug/l	N	12000	
PR-12	SW8260B	trans-1,2-Dichloroethene	47		Y	1.0	0.90	0.90	5/3/2010	N	ug/l	N	47	
PR-12	SW8260B	Trichloroethene (TCE)	28000		Y	500	230	230	5/3/2010	N	ug/l	N	28000	
PR-12	SW8260B	Vinyl Chloride	520		Y	500	450	450	5/3/2010	N	ug/l	N	520	**44,360**
PR-4	SW8260B	1,1,1-Trichloroethane			N	40	33	33	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	1,1,2,2-Tetrachloroethane			N	40	8.5	8.5	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	1,1,2-Trichloroethane			N	40	9.2	9.2	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	1,1-Dichloroethene			N	40	12	12	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	1,2,4-Trichlorobenzene	3500		Y	40	16	16	5/3/2010	N	ug/l	N	3500	
PR-4	SW8260B	1,2-Dichlorobenzene	140		Y	40	32	32	5/3/2010	N	ug/l	N	140	
PR-4	SW8260B	1,3-Dichlorobenzene	380		Y	40	31	31	5/3/2010	N	ug/l	N	380	
PR-4	SW8260B	1,4-Dichlorobenzene	350		Y	40	34	34	5/3/2010	N	ug/l	N	350	
PR-4	SW8260B	Benzene	170		Y	40	16	16	5/3/2010	N	ug/l	N	170	
PR-4	SW8260B	Carbon tetrachloride			N	40	11	11	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	Chlorobenzene	380		Y	40	30	30	5/3/2010	N	ug/l	N	380	
PR-4	SW8260B	Chloromethane (Methyl chloride)			N	40	14	14	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	cis-1,2-Dichloroethene	790		Y	40	32	32	5/3/2010	N	ug/l	N	790	
PR-4	SW8260B	Methylene chloride (Dichloromethane)			N	40	18	18	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	Tetrachloroethene (PCE)	280		Y	40	15	15	5/3/2010	N	ug/l	N	280	
PR-4	SW8260B	trans-1,2-Dichloroethene			N	40	36	36	5/3/2010	N	ug/l	N	0	
PR-4	SW8260B	Trichloroethene (TCE)	520		Y	40	18	18	5/3/2010	N	ug/l	N	520	
PR-4	SW8260B	Vinyl Chloride	260		Y	40	36	36	5/3/2010	N	ug/l	N	260	**6,770**
RW-1	SW8260B	1,1,1-Trichloroethane	13		Y	1.0	0.82	0.82	5/3/2010	N	ug/l	N	13	
RW-1	SW8260B	1,1,2,2-Tetrachloroethane	48		Y	1.0	0.21	0.21	5/3/2010	N	ug/l	N	48	
RW-1	SW8260B	1,1,2-Trichloroethane	20		Y	1.0	0.23	0.23	5/3/2010	N	ug/l	N	20	
RW-1	SW8260B	1,1-Dichloroethene	63		Y	1.0	0.29	0.29	5/3/2010	N	ug/l	N	63	
RW-1	SW8260B	1,2,4-Trichlorobenzene	3800		Y	200	82	82	5/3/2010	N	ug/l	N	3800	
RW-1	SW8260B	1,2-Dichlorobenzene	180	J	Y	200	160	160	5/3/2010	N	ug/l	N	180	
RW-1	SW8260B	1,3-Dichlorobenzene	280		Y	200	160	160	5/3/2010	N	ug/l	N	280	

LocationID	Analytical Method	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	Result	total
RW-1	SW8260B	1,4-Dichlorobenzene	120	J	Y	200	170	170	5/3/2010	N	ug/l	N	120	
RW-1	SW8260B	Benzene	280		Y	200	82	82	5/3/2010	N	ug/l	N	280	
RW-1	SW8260B	Carbon tetrachloride	0.67	J	Y	1.0	0.27	0.27	5/3/2010	N	ug/l	N	0.67	
RW-1	SW8260B	Chlorobenzene	170	J	Y	200	150	150	5/3/2010	N	ug/l	N	170	
RW-1	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/3/2010	N	ug/l	N	0	
RW-1	SW8260B	cis-1,2-Dichloroethene	2900		Y	200	160	160	5/3/2010	N	ug/l	N	2900	
RW-1	SW8260B	Methylene chloride (Dichloromethane)	700		Y	200	88	88	5/3/2010	N	ug/l	N	700	
RW-1	SW8260B	Tetrachloroethene (PCE)	4100		Y	200	73	73	5/3/2010	N	ug/l	N	4100	
RW-1	SW8260B	trans-1,2-Dichloroethene	62		Y	1.0	0.90	0.90	5/3/2010	N	ug/l	N	62	
RW-1	SW8260B	Trichloroethene (TCE)	18000		Y	200	92	92	5/3/2010	N	ug/l	N	18000	
RW-1	SW8260B	Vinyl Chloride	630		Y	200	180	180	5/3/2010	N	ug/l	N	630	**31,367**
RW-2	SW8260B	1,1,1-Trichloroethane			N	2.0	1.6	1.6	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	1,1,2,2-Tetrachloroethane	10		Y	2.0	0.43	0.43	5/3/2010	N	ug/l	N	10	
RW-2	SW8260B	1,1,2-Trichloroethane			N	2.0	0.46	0.46	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	1,1-Dichloroethene			N	2.0	0.59	0.59	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	1,2,4-Trichlorobenzene	11		Y	2.0	0.82	0.82	5/3/2010	N	ug/l	N	11	
RW-2	SW8260B	1,2-Dichlorobenzene			N	2.0	1.6	1.6	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	1,3-Dichlorobenzene			N	2.0	1.6	1.6	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	1,4-Dichlorobenzene			N	2.0	1.7	1.7	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	Benzene			N	2.0	0.82	0.82	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	Carbon tetrachloride			N	2.0	0.53	0.53	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	Chlorobenzene			N	2.0	1.5	1.5	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	Chloromethane (Methyl chloride)			N	2.0	0.69	0.69	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	cis-1,2-Dichloroethene	29		Y	2.0	1.6	1.6	5/3/2010	N	ug/l	N	29	
RW-2	SW8260B	Methylene chloride (Dichloromethane)			N	2.0	0.88	0.88	5/3/2010	N	ug/l	N	0	
RW-2	SW8260B	Tetrachloroethene (PCE)	73		Y	2.0	0.73	0.73	5/3/2010	N	ug/l	N	73	
RW-2	SW8260B	trans-1,2-Dichloroethene			N	2.0	1.8	1.8	5/3/2010	N	ug/l	N		
RW-2	SW8260B	Trichloroethene (TCE)	130		Y	2.0	0.92	0.92	5/3/2010	N	ug/l	N	130	
RW-2	SW8260B	Vinyl Chloride			N	2.0	1.8	1.8	5/3/2010	N	ug/l	N	0	**253**
RW-3	SW8260B	1,1,1-Trichloroethane			N	1.0	0.82	0.82	5/4/2010	N	ug/l	N	0	
RW-3	SW8260B	1,1,2,2-Tetrachloroethane	26		Y	1.0	0.21	0.21	5/4/2010	N	ug/l	N	26	
RW-3	SW8260B	1,1,2-Trichloroethane			N	1.0	0.23	0.23	5/4/2010	N	ug/l	N	0	
RW-3	SW8260B	1,1-Dichloroethene	0.75	J	Y	1.0	0.29	0.29	5/4/2010	N	ug/l	N	0.75	
RW-3	SW8260B	1,2,4-Trichlorobenzene	19		Y	1.0	0.41	0.41	5/4/2010	N	ug/l	N	19	
RW-3	SW8260B	1,2-Dichlorobenzene	3.6		Y	1.0	0.79	0.79	5/4/2010	N	ug/l	N	3.6	
RW-3	SW8260B	1,3-Dichlorobenzene	20		Y	1.0	0.78	0.78	5/4/2010	N	ug/l	N	20	
RW-3	SW8260B	1,4-Dichlorobenzene	12		Y	1.0	0.84	0.84	5/4/2010	N	ug/l	N	12	
RW-3	SW8260B	Benzene	2.4		Y	1.0	0.41	0.41	5/4/2010	N	ug/l	N	2.4	
RW-3	SW8260B	Carbon tetrachloride	0.53	J	Y	1.0	0.27	0.27	5/4/2010	N	ug/l	N	0.53	
RW-3	SW8260B	Chlorobenzene	5.4		Y	1.0	0.75	0.75	5/4/2010	N	ug/l	N	5.4	
RW-3	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/4/2010	N	ug/l	N	0	
RW-3	SW8260B	cis-1,2-Dichloroethene	180		Y	4.0	3.2	3.2	5/4/2010	N	ug/l	N	180	
RW-3	SW8260B	Methylene chloride (Dichloromethane)			N	1.0	0.44	0.44	5/4/2010	N	ug/l	N	0	
RW-3	SW8260B	Tetrachloroethene (PCE)	170		Y	4.0	1.5	1.5	5/4/2010	N	ug/l	N	170	
RW-3	SW8260B	trans-1,2-Dichloroethene	2.6		Y	1.0	0.90	0.90	5/4/2010	N	ug/l	N	2.6	
RW-3	SW8260B	Trichloroethene (TCE)	240		Y	4.0	1.8	1.8	5/4/2010	N	ug/l	N	240	
RW-3	SW8260B	Vinyl Chloride	11		Y	1.0	0.90	0.90	5/4/2010	N	ug/l	N	11	**693**
RW-3D	SW8260B	1,1,1-Trichloroethane			N	1.0	0.82	0.82	5/4/2010	FD	ug/l	N	0	
RW-3D	SW8260B	1,1,2,2-Tetrachloroethane	25		Y	1.0	0.21	0.21	5/4/2010	FD	ug/l	N	25	
RW-3D	SW8260B	1,1,2-Trichloroethane			N	1.0	0.23	0.23	5/4/2010	FD	ug/l	N	0	
RW-3D	SW8260B	1,1-Dichloroethene	0.76	J	Y	1.0	0.29	0.29	5/4/2010	FD	ug/l	N	0.76	
RW-3D	SW8260B	1,2,4-Trichlorobenzene	22		Y	1.0	0.41	0.41	5/4/2010	FD	ug/l	N	22	
RW-3D	SW8260B	1,2-Dichlorobenzene	3.4		Y	1.0	0.79	0.79	5/4/2010	FD	ug/l	N	3.4	
RW-3D	SW8260B	1,3-Dichlorobenzene	19		Y	1.0	0.78	0.78	5/4/2010	FD	ug/l	N	19	
RW-3D	SW8260B	1,4-Dichlorobenzene	12		Y	1.0	0.84	0.84	5/4/2010	FD	ug/l	N	12	
RW-3D	SW8260B	Benzene	2.4		Y	1.0	0.41	0.41	5/4/2010	FD	ug/l	N	2.4	
RW-3D	SW8260B	Carbon tetrachloride			N	1.0	0.27	0.27	5/4/2010	FD	ug/l	N	0	
RW-3D	SW8260B	Chlorobenzene	5.2		Y	1.0	0.75	0.75	5/4/2010	FD	ug/l	N	5.2	
RW-3D	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/4/2010	FD	ug/l	N	0	
RW-3D	SW8260B	cis-1,2-Dichloroethene	180		Y	4.0	3.2	3.2	5/4/2010	FD	ug/l	N	180	
RW-3D	SW8260B	Methylene chloride (Dichloromethane)			N	1.0	0.44	0.44	5/4/2010	FD	ug/l	N	0	

LocationID	Analytical Method	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	Result	total
RW-3D	SW8260B	Tetrachloroethene (PCE)	170		Y	4.0	1.5	1.5	5/4/2010	FD	ug/l	N	170	
RW-3D	SW8260B	trans-1,2-Dichloroethene	2.4		Y	1.0	0.90	0.90	5/4/2010	FD	ug/l	N	2.4	
RW-3D	SW8260B	Trichloroethene (TCE)	250		Y	4.0	1.8	1.8	5/4/2010	FD	ug/l	N	250	
RW-3D	SW8260B	Vinyl Chloride	11		Y	1.0	0.90	0.90	5/4/2010	FD	ug/l	N	11	**703**
RW-4	SW8260B	1,1,1-Trichloroethane			N	1.0	0.82	0.82	5/4/2010	N	ug/l	N	0	
RW-4	SW8260B	1,1,2,2-Tetrachloroethane	9.5		Y	1.0	0.21	0.21	5/4/2010	N	ug/l	N	9.5	
RW-4	SW8260B	1,1,2-Trichloroethane			N	1.0	0.23	0.23	5/4/2010	N	ug/l	N	0	
RW-4	SW8260B	1,1-Dichloroethene	0.79	J	Y	1.0	0.29	0.29	5/4/2010	N	ug/l	N	0.79	
RW-4	SW8260B	1,2,4-Trichlorobenzene	85		Y	5.0	2.0	2.0	5/4/2010	N	ug/l	N	85	
RW-4	SW8260B	1,2-Dichlorobenzene	9.8		Y	1.0	0.79	0.79	5/4/2010	N	ug/l	N	9.8	
RW-4	SW8260B	1,3-Dichlorobenzene	54		Y	1.0	0.78	0.78	5/4/2010	N	ug/l	N	54	
RW-4	SW8260B	1,4-Dichlorobenzene	23		Y	1.0	0.84	0.84	5/4/2010	N	ug/l	N	23	
RW-4	SW8260B	Benzene	11		Y	1.0	0.41	0.41	5/4/2010	N	ug/l	N	11	
RW-4	SW8260B	Carbon tetrachloride			N	1.0	0.27	0.27	5/4/2010	N	ug/l	N	0	
RW-4	SW8260B	Chlorobenzene	23		Y	1.0	0.75	0.75	5/4/2010	N	ug/l	N	23	
RW-4	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/4/2010	N	ug/l	N	0	
RW-4	SW8260B	cis-1,2-Dichloroethene	140		Y	5.0	4.0	4.0	5/4/2010	N	ug/l	N	140	
RW-4	SW8260B	Methylene chloride (Dichloromethane)			N	1.0	0.44	0.44	5/4/2010	N	ug/l	N	0	
RW-4	SW8260B	Tetrachloroethene (PCE)	190		Y	5.0	1.8	1.8	5/4/2010	N	ug/l	N	190	
RW-4	SW8260B	trans-1,2-Dichloroethene	3.1		Y	1.0	0.90	0.90	5/4/2010	N	ug/l	N	3.1	
RW-4	SW8260B	Trichloroethene (TCE)	400		Y	5.0	2.3	2.3	5/4/2010	N	ug/l	N	400	
RW-4	SW8260B	Vinyl Chloride	20		Y	1.0	0.90	0.90	5/4/2010	N	ug/l	N	20	**969**
RW-5	SW8260B	1,1,1-Trichloroethane	200	E	Y	1.0	0.82	0.82	5/3/2010	N	ug/l	N	200	
RW-5	SW8260B	1,1,2,2-Tetrachloroethane	7700		Y	1000	210	210	5/3/2010	N	ug/l	N	7700	
RW-5	SW8260B	1,1,2-Trichloroethane	150	E	Y	1.0	0.23	0.23	5/3/2010	N	ug/l	N	150	
RW-5	SW8260B	1,1-Dichloroethene	76		Y	1.0	0.29	0.29	5/3/2010	N	ug/l	N	76	
RW-5	SW8260B	1,2,4-Trichlorobenzene	1100		Y	1000	410	410	5/3/2010	N	ug/l	N	1100	
RW-5	SW8260B	1,2-Dichlorobenzene	87		Y	1.0	0.79	0.79	5/3/2010	N	ug/l	N	87	
RW-5	SW8260B	1,3-Dichlorobenzene	140	E	Y	1.0	0.78	0.78	5/3/2010	N	ug/l	N	140	
RW-5	SW8260B	1,4-Dichlorobenzene	230	E	Y	1.0	0.84	0.84	5/3/2010	N	ug/l	N	230	
RW-5	SW8260B	Benzene	150	E	Y	1.0	0.41	0.41	5/3/2010	N	ug/l	N	150	
RW-5	SW8260B	Carbon tetrachloride	410	E	Y	1.0	0.27	0.27	5/3/2010	N	ug/l	N	410	
RW-5	SW8260B	Chlorobenzene	150	E	Y	1.0	0.75	0.75	5/3/2010	N	ug/l	N	150	
RW-5	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	5/3/2010	N	ug/l	N	0	
RW-5	SW8260B	cis-1,2-Dichloroethene	5100		Y	1000	810	810	5/3/2010	N	ug/l	N	5100	
RW-5	SW8260B	Methylene chloride (Dichloromethane)	640	E	Y	1.0	0.44	0.44	5/3/2010	N	ug/l	N	640	
RW-5	SW8260B	Tetrachloroethene (PCE)	24000		Y	1000	360	360	5/3/2010	N	ug/l	N	24000	
RW-5	SW8260B	trans-1,2-Dichloroethene	100	E	Y	1.0	0.90	0.90	5/3/2010	N	ug/l	N	100	
RW-5	SW8260B	Trichloroethene (TCE)	62000		Y	1000	460	460	5/3/2010	N	ug/l	N	62000	
RW-5	SW8260B	Vinyl Chloride	1100		Y	1000	900	900	5/3/2010	N	ug/l	N	1100	**103,333**
OBA-9AR	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D	0	
OBA-9AR	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0	**0**
PR-12	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D		
PR-12	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0	**0**
PR-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D		
PR-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0	**0**
RW-1	SW7470A	Mercury	0.0006		Y	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D		
RW-1	SW7470A	Mercury	0.0014		Y	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0.0014	**0.0014**
RW-2	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D		
RW-2	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0	**0**
RW-3	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/4/2010	N	mg/l	D		
RW-3	SW7470A	Mercury	0.0003		Y	0.0002	0.0001	0.0001	5/4/2010	N	mg/l	T	0.0003	**0.0003**
RW-3D	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/4/2010	FD	mg/l	D		
RW-3D	SW7470A	Mercury	0.0002		Y	0.0002	0.0001	0.0001	5/4/2010	FD	mg/l	T	0.0002	**0.0002**
RW-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/4/2010	N	mg/l	D		
RW-4	SW7470A	Mercury	0.0006		Y	0.0002	0.0001	0.0001	5/4/2010	N	mg/l	T	0.0006	**0.0006**
RW-5	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	D		
RW-5	SW7470A	Mercury			N	0.0002	0.0001	0.0001	5/3/2010	N	mg/l	T	0	**0**

LocationID	Analytical Method	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	Result	total
OBA-9AR	SW8081A	alpha-BHC	450		Y	48	6.3	6.3	5/3/2010	N	ug/l		450	
OBA-9AR	SW8081A	beta-BHC	22		Y	2.4	1.2	1.2	5/3/2010	N	ug/l		22	
OBA-9AR	SW8081A	delta-BHC	10		Y	2.4	0.48	0.48	5/3/2010	N	ug/l		10	
OBA-9AR	SW8081A	gamma-BHC	290		Y	48	5.7	5.7	5/3/2010	N	ug/l		290	**772**
PR-12	SW8081A	alpha-BHC	51		Y	2.4	0.31	0.31	5/3/2010	N	ug/l	N	51	
PR-12	SW8081A	beta-BHC	8.2		Y	2.4	1.2	1.2	5/3/2010	N	ug/l	N	8.2	
PR-12	SW8081A	delta-BHC	6.5		Y	2.4	0.48	0.48	5/3/2010	N	ug/l	N	6.5	
PR-12	SW8081A	gamma-BHC	54		Y	2.4	0.28	0.28	5/3/2010	N	ug/l	N	54	**119.7**
PR-4	SW8081A	alpha-BHC	150		Y	24	3.2	3.2	5/3/2010	N	ug/l	N	150	
PR-4	SW8081A	beta-BHC	8.4		Y	2.4	1.2	1.2	5/3/2010	N	ug/l	N	8.4	
PR-4	SW8081A	delta-BHC	13		Y	2.4	0.49	0.49	5/3/2010	N	ug/l	N	13	
PR-4	SW8081A	gamma-BHC	170		Y	24	2.9	2.9	5/3/2010	N	ug/l	N	170	**341.4**
RW-1	SW8081A	alpha-BHC	1.5		Y	0.94	0.12	0.12	5/3/2010	N	ug/l	N	1.5	
RW-1	SW8081A	beta-BHC	2.8		Y	0.94	0.47	0.47	5/3/2010	N	ug/l	N	2.8	
RW-1	SW8081A	delta-BHC	0.44	J	Y	0.94	0.19	0.19	5/3/2010	N	ug/l	N	0.44	
RW-1	SW8081A	gamma-BHC	0.84	J	Y	0.94	0.11	0.11	5/3/2010	N	ug/l	N	0.84	**5.58**
RW-2	SW8081A	alpha-BHC	0.13		Y	0.047	0.0062	0.0062	5/3/2010	N	ug/l	N	0.13	
RW-2	SW8081A	beta-BHC			N	0.047	0.023	0.023	5/3/2010	N	ug/l	N	0	
RW-2	SW8081A	delta-BHC			N	0.047	0.0095	0.0095	5/3/2010	N	ug/l	N	0	
RW-2	SW8081A	gamma-BHC	0.11		Y	0.047	0.0057	0.0057	5/3/2010	N	ug/l	N	0.11	**0.24**
RW-3	SW8081A	alpha-BHC	2.6		Y	0.25	0.032	0.032	5/4/2010	N	ug/l	N	2.6	
RW-3	SW8081A	beta-BHC	0.39		Y	0.25	0.12	0.12	5/4/2010	N	ug/l	N	0.39	
RW-3	SW8081A	delta-BHC	0.72		Y	0.25	0.050	0.050	5/4/2010	N	ug/l	N	0.72	
RW-3	SW8081A	gamma-BHC	2.7		Y	0.25	0.029	0.029	5/4/2010	N	ug/l	N	2.7	**6.41**
RW-3D	SW8081A	alpha-BHC	3.3		Y	0.25	0.033	0.033	5/4/2010	FD	ug/l	N	3.3	
RW-3D	SW8081A	beta-BHC	0.41		Y	0.25	0.12	0.12	5/4/2010	FD	ug/l	N	0.41	
RW-3D	SW8081A	delta-BHC	0.76		Y	0.25	0.050	0.050	5/4/2010	FD	ug/l	N	0.76	
RW-3D	SW8081A	gamma-BHC	3.3		Y	0.25	0.030	0.030	5/4/2010	FD	ug/l	N	3.3	**7.77**
RW-4	SW8081A	alpha-BHC	6.6		Y	1.2	0.16	0.16	5/4/2010	N	ug/l	N	6.6	
RW-4	SW8081A	beta-BHC	0.97		Y	0.25	0.12	0.12	5/4/2010	N	ug/l	N	0.97	
RW-4	SW8081A	delta-BHC	0.84		Y	0.25	0.050	0.050	5/4/2010	N	ug/l	N	0.84	
RW-4	SW8081A	gamma-BHC	5.4		Y	0.25	0.029	0.029	5/4/2010	N	ug/l	N	5.4	**13.81**
RW-5	SW8081A	alpha-BHC	72		Y	12	1.6	1.6	5/3/2010	N	ug/l	N	72	
RW-5	SW8081A	beta-BHC	6.3		Y	2.4	1.2	1.2	5/3/2010	N	ug/l	N	6.3	
RW-5	SW8081A	delta-BHC	6.6		Y	2.4	0.49	0.49	5/3/2010	N	ug/l	N	6.6	
RW-5	SW8081A	gamma-BHC	65		Y	2.4	0.29	0.29	5/3/2010	N	ug/l	N	65	**149.9**

Olin Niagara Falls Plant Site: Plant 2 Area Remediation
Groundwater Contaminant Mass Removed
Q3-10

ORGANICS

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	31.620	3.8	2.20E-06	0.00026434	1190476.19	165,862	44
RW2	0.292	3.8	2.20E-06	0.00000244	1190476.19	3,243,832	8
RW3	0.382	3.8	2.20E-06	0.00000319	1190476.19	623,374	2
RW4	0.310	3.8	2.20E-06	0.00000259	1190476.19	476,507	1
PR4	4.546	3.8	2.20E-06	0.00003800	1190476.19	777,919	30
RW5	108.130	3.8	2.20E-06	0.00090397	1190476.19	1,823,709	1649
PR12	8.300	3.8	2.20E-06	0.00006939	1190476.19	398,728	28
OBA9AR	0.929	3.8	2.20E-06	0.00000777	1190476.19	22,720	0.18
TOTAL							**1,761**

MERCURY

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	0.0031	3.8	2.20E-06	0.00000003	1190476.19	165,862	0.004
RW2	0.0000	3.8	2.20E-06	0.00000000	1190476.19	3,243,832	0.000
RW3	0.0069	3.8	2.20E-06	0.00000006	1190476.19	623,374	0.036
RW4	0.0000	3.8	2.20E-06	0.00000000	1190476.19	476,507	0.000
PR4	0.0000	3.8	2.20E-06	0.00000000	1190476.19	777,919	0.000
RW5	0.0000	3.8	2.20E-06	0.00000000	1190476.19	1,823,709	0.000
PR12	0.0002	3.8	2.20E-06	0.00000000	1190476.19	398,728	0.001
OBA9AR	0.0000	3.8	2.20E-06	0.00000000	1190476.19	22,720	0.000
TOTAL							**0.041**

PESTICIDES

WELL	conc [A] mg/l	conv liter / gal	conv lb /mg	conversion lb/gallon	conversion gal/lb	flow gal/qtr	MASS lb/qtr
RW1	0.0200	3.8	2.20E-06	0.00000017	1190476.19	165,862	0.03
RW2	0.0010	3.8	2.20E-06	0.00000001	1190476.19	3,243,832	0.03
RW3	0.0140	3.8	2.20E-06	0.00000012	1190476.19	623,374	0.07
RW4	0.0040	3.8	2.20E-06	0.00000003	1190476.19	476,507	0.02
PR4	0.1680	3.8	2.20E-06	0.00000140	1190476.19	777,919	1.09
RW5	0.1750	3.8	2.20E-06	0.00000146	1190476.19	1,823,709	2.67
PR12	0.0250	3.8	2.20E-06	0.00000021	1190476.19	398,728	0.08
OBA9AR	0.0700	3.8	2.20E-06	0.00000059	1190476.19	22,720	0.013
TOTAL							**4.00**

[A] = Total of parameter group in quarterly sample from recovery well discharge header.

7,532,651
total flow (gal)

LocationID	AnalyticalMethod	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	total ug/l	total mg/l
OBA-9AR	SW8081A	alpha-BHC	31	B	Y	2.4	0.31	0.31	8/25/2010	N	ug/l	N	31		
OBA-9AR	SW8081A	beta-BHC	12		Y	2.4	1.2	1.2	8/25/2010	N	ug/l	N	12		
OBA-9AR	SW8081A	delta-BHC	2.0	J	Y	2.4	0.48	0.48	8/25/2010	N	ug/l	N	2		
OBA-9AR	SW8081A	gamma-BHC	25		Y	2.4	0.28	0.28	8/25/2010	N	ug/l	N	25	**70**	**0.070**
PR-12	SW8081A	alpha-BHC	10	B	Y	0.94	0.12	0.12	8/25/2010	N	ug/l	N	10		
PR-12	SW8081A	beta-BHC	2.6		Y	0.94	0.47	0.47	8/25/2010	N	ug/l	N	2.6		
PR-12	SW8081A	delta-BHC	2.4		Y	0.94	0.19	0.19	8/25/2010	N	ug/l	N	2.4		
PR-12	SW8081A	gamma-BHC	10		Y	0.94	0.11	0.11	8/25/2010	N	ug/l	N	10	**25**	**0.025**
PR-4	SW8081A	alpha-BHC	92	B	Y	4.9	0.64	0.64	8/25/2010	N	ug/l	N	92		
PR-4	SW8081A	beta-BHC	8.3		Y	4.9	2.4	2.4	8/25/2010	N	ug/l	N	8.3		
PR-4	SW8081A	delta-BHC	9.4		Y	4.9	0.98	0.98	8/25/2010	N	ug/l	N	9.4		
PR-4	SW8081A	gamma-BHC	58		Y	4.9	0.58	0.58	8/25/2010	N	ug/l	N	58	**167.7**	**0.168**
RW-1	SW8081A	alpha-BHC	14	B	Y	4.8	0.63	0.63	8/25/2010	N	ug/l	N	14		
RW-1	SW8081A	beta-BHC	3.0	J	Y	4.8	2.4	2.4	8/25/2010	N	ug/l	N	3		
RW-1	SW8081A	delta-BHC	1.3	J	Y	4.8	0.97	0.97	8/25/2010	N	ug/l	N	1.3		
RW-1	SW8081A	gamma-BHC	1.3	J	Y	4.8	0.58	0.58	8/25/2010	N	ug/l	N	1.3	**19.6**	**0.020**
RW-2	SW8081A	alpha-BHC	0.22	B	Y	0.049	0.0064	0.0064	8/25/2010	N	ug/l	N	0.22		
RW-2	SW8081A	beta-BHC	0.16		N	0.049	0.024	0.024	8/25/2010	N	ug/l	N	0.16		
RW-2	SW8081A	delta-BHC	0.031	J	N	0.049	0.0098	0.0098	8/25/2010	N	ug/l	N	0.031		
RW-2	SW8081A	gamma-BHC	0.13		Y	0.049	0.0058	0.0058	8/25/2010	N	ug/l	N	0.13	**0.541**	**0.001**
RW-3	SW8081A	alpha-BHC	4.7	B	Y	0.97	0.13	0.13	8/25/2010	N	ug/l	N	4.7		
RW-3	SW8081A	beta-BHC	0.84	J	Y	0.97	0.48	0.48	8/25/2010	N	ug/l	N	0.84		
RW-3	SW8081A	delta-BHC	2.7		Y	0.97	0.20	0.20	8/25/2010	N	ug/l	N	2.7		
RW-3	SW8081A	gamma-BHC	6.0		Y	0.97	0.12	0.12	8/25/2010	N	ug/l	N	6	**14.24**	**0.014**
RW-4	SW8081A	alpha-BHC	1.6	B	Y	0.48	0.063	0.063	8/25/2010	N	ug/l	N	1.6		
RW-4	SW8081A	beta-BHC	0.37	J	Y	0.48	0.24	0.24	8/25/2010	N	ug/l	N	0.37		
RW-4	SW8081A	delta-BHC	0.81		Y	0.48	0.096	0.096	8/25/2010	N	ug/l	N	0.81		
RW-4	SW8081A	gamma-BHC	1.3		Y	0.48	0.057	0.057	8/25/2010	N	ug/l	N	1.3	**4.08**	**0.004**
RW-5	SW8081A	alpha-BHC	81	B	Y	4.8	0.63	0.63	8/25/2010	N	ug/l	N	81		
RW-5	SW8081A	beta-BHC	8.7		Y	4.8	2.4	2.4	8/25/2010	N	ug/l	N	8.7		
RW-5	SW8081A	delta-BHC	7.9		Y	4.8	0.97	0.97	8/25/2010	N	ug/l	N	7.9		
RW-5	SW8081A	gamma-BHC	62		Y	4.8	0.58	0.58	8/25/2010	N	ug/l	N	62	**159.6**	**0.160**
RW-5D	SW8081A	alpha-BHC	89	B	Y	4.8	0.63	0.63	8/25/2010	FD	ug/l	N	89		
RW-5D	SW8081A	beta-BHC	9.4		Y	4.8	2.4	2.4	8/25/2010	FD	ug/l	N	9.4		
RW-5D	SW8081A	delta-BHC	8.7		Y	4.8	0.97	0.97	8/25/2010	FD	ug/l	N	8.7		
RW-5D	SW8081A	gamma-BHC	68		Y	4.8	0.58	0.58	8/25/2010	FD	ug/l	N	68	**175.1**	**0.175**
													0		
OBA-9AR	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0		**0**
PR-12	SW7470A	Mercury	0.0002		Y	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0.0002		**0.0002**
PR-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0		**0**
RW-1	SW7470A	Mercury	0.0031		Y	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0.0031		**0.0031**
RW-2	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0		**0**
RW-3	SW7470A	Mercury	0.0069		Y	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0.0069		**0.0069**
RW-4	SW7470A	Mercury			Y	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0		**0**
RW-5	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	T	0		**0**
RW-5D	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	FD	mg/l	T	0		**0**
													0		**0**
OBA-9AR	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
PR-12	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
PR-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
RW-1	SW7470A	Mercury	0.0012		Y	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0.0012		**0.0012**
RW-2	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
RW-3	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
RW-4	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
RW-5	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	N	mg/l	D	0		**0**
RW-5D	SW7470A	Mercury			N	0.0002	0.0001	0.0001	8/25/2010	FD	mg/l	D	0		**0**

LocationID	AnalyticalMethod	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	total ug/l	total mg/l
OBA-9AR	SW8260B	1,1,1-Trichloroethane			Y	4.0	3.3	3.3	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	1,1,2,2-Tetrachloroethane	15		Y	4.0	0.85	0.85	8/25/2010	N	ug/l	N	15		
OBA-9AR	SW8260B	1,1,2-Trichloroethane			Y	4.0	0.92	0.92	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	1,1-Dichloroethene			Y	4.0	1.2	1.2	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	1,2,4-Trichlorobenzene	170		Y	4.0	1.6	1.6	8/25/2010	N	ug/l	N	170		
OBA-9AR	SW8260B	1,2-Dichlorobenzene	69		Y	4.0	3.2	3.2	8/25/2010	N	ug/l	N	69		
OBA-9AR	SW8260B	1,3-Dichlorobenzene	18		Y	4.0	3.1	3.1	8/25/2010	N	ug/l	N	18		
OBA-9AR	SW8260B	1,4-Dichlorobenzene	87		Y	4.0	3.4	3.4	8/25/2010	N	ug/l	N	87		
OBA-9AR	SW8260B	Benzene	2.9	J	Y	4.0	1.6	1.6	8/25/2010	N	ug/l	N	2.9		
OBA-9AR	SW8260B	Carbon tetrachloride			N	4.0	1.1	1.1	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	Chlorobenzene	6.6		Y	4.0	3.0	3.0	8/25/2010	N	ug/l	N	6.6		
OBA-9AR	SW8260B	Chloromethane (Methyl chloride)			N	4.0	1.4	1.4	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	cis-1,2-Dichloroethene	110		Y	4.0	3.2	3.2	8/25/2010	N	ug/l	N	110		
OBA-9AR	SW8260B	Methylene chloride (Dichloromethane)			N	4.0	1.8	1.8	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	Tetrachloroethene (PCE)	140		Y	4.0	1.5	1.5	8/25/2010	N	ug/l	N	140		
OBA-9AR	SW8260B	trans-1,2-Dichloroethene			Y	4.0	3.6	3.6	8/25/2010	N	ug/l	N	0		
OBA-9AR	SW8260B	Trichloroethene (TCE)	310		Y	4.0	1.8	1.8	8/25/2010	N	ug/l	N	310		
OBA-9AR	SW8260B	Vinyl Chloride			Y	4.0	3.6	3.6	8/25/2010	N	ug/l	N	0	**929**	**0.929**
PR-12	SW8260B	1,1,1-Trichloroethane			Y	80	66	66	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	1,1,2,2-Tetrachloroethane	360		N	80	17	17	8/25/2010	N	ug/l	N	360		
PR-12	SW8260B	1,1,2-Trichloroethane			Y	80	18	18	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	1,1-Dichloroethene			Y	80	23	23	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	1,2,4-Trichlorobenzene	170		Y	80	33	33	8/25/2010	N	ug/l	N	170		
PR-12	SW8260B	1,2-Dichlorobenzene			Y	80	63	63	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	1,3-Dichlorobenzene			Y	80	62	62	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	1,4-Dichlorobenzene			Y	80	67	67	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Benzene			Y	80	33	33	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Carbon tetrachloride			Y	80	21	21	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Chlorobenzene			Y	80	60	60	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Chloromethane (Methyl chloride)			N	80	28	28	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	cis-1,2-Dichloroethene	570		Y	80	65	65	8/25/2010	N	ug/l	N	570		
PR-12	SW8260B	Methylene chloride (Dichloromethane)			Y	80	35	35	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Tetrachloroethene (PCE)	2800		Y	80	29	29	8/25/2010	N	ug/l	N	2800		
PR-12	SW8260B	trans-1,2-Dichloroethene			Y	80	72	72	8/25/2010	N	ug/l	N	0		
PR-12	SW8260B	Trichloroethene (TCE)	4400		Y	80	37	37	8/25/2010	N	ug/l	N	4400		
PR-12	SW8260B	Vinyl Chloride			Y	80	72	72	8/25/2010	N	ug/l	N	0	**8,300**	**8.300**
PR-4	SW8260B	1,1,1-Trichloroethane			N	10	8.2	8.2	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	1,1,2,2-Tetrachloroethane	12		N	10	2.1	2.1	8/25/2010	N	ug/l	N	12		
PR-4	SW8260B	1,1,2-Trichloroethane			N	10	2.3	2.3	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	1,1-Dichloroethene			N	10	2.9	2.9	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	1,2,4-Trichlorobenzene	1500		Y	20	8.2	8.2	8/25/2010	N	ug/l	N	1500		
PR-4	SW8260B	1,2-Dichlorobenzene	180		Y	10	7.9	7.9	8/25/2010	N	ug/l	N	180		
PR-4	SW8260B	1,3-Dichlorobenzene	490		Y	10	7.8	7.8	8/25/2010	N	ug/l	N	490		
PR-4	SW8260B	1,4-Dichlorobenzene	460		Y	10	8.4	8.4	8/25/2010	N	ug/l	N	460		
PR-4	SW8260B	Benzene	120		Y	10	4.1	4.1	8/25/2010	N	ug/l	N	120		
PR-4	SW8260B	Carbon tetrachloride			N	10	2.7	2.7	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	Chlorobenzene	450		Y	10	7.5	7.5	8/25/2010	N	ug/l	N	450		
PR-4	SW8260B	Chloromethane (Methyl chloride)			N	10	3.5	3.5	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	cis-1,2-Dichloroethene	710		Y	10	8.1	8.1	8/25/2010	N	ug/l	N	710		
PR-4	SW8260B	Methylene chloride (Dichloromethane)			N	10	4.4	4.4	8/25/2010	N	ug/l	N	0		
PR-4	SW8260B	Tetrachloroethene (PCE)	75		Y	10	3.6	3.6	8/25/2010	N	ug/l	N	75		
PR-4	SW8260B	trans-1,2-Dichloroethene	9.4	J	N	10	9.0	9.0	8/25/2010	N	ug/l	N	9.4		
PR-4	SW8260B	Trichloroethene (TCE)	140		Y	10	4.6	4.6	8/25/2010	N	ug/l	N	140		
PR-4	SW8260B	Vinyl Chloride	400		Y	10	9.0	9.0	8/25/2010	N	ug/l	N	400	**4,546**	**4.546**
RW-1	SW8260B	1,1,1-Trichloroethane			Y	200	160	160	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	1,1,2,2-Tetrachloroethane			Y	200	43	43	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	1,1,2-Trichloroethane			Y	200	46	46	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	1,1-Dichloroethene			Y	200	59	59	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	1,2,4-Trichlorobenzene	5100		Y	200	82	82	8/25/2010	N	ug/l	N	5100		
RW-1	SW8260B	1,2-Dichlorobenzene	220		Y	200	160	160	8/25/2010	N	ug/l	N	220		
RW-1	SW8260B	1,3-Dichlorobenzene	370		Y	200	160	160	8/25/2010	N	ug/l	N	370		
RW-1	SW8260B	1,4-Dichlorobenzene			Y	200	170	170	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	Benzene	180	J	Y	200	82	82	8/25/2010	N	ug/l	N	180		
RW-1	SW8260B	Carbon tetrachloride			Y	200	53	53	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	Chlorobenzene	180	J	Y	200	150	150	8/25/2010	N	ug/l	N	180		

LocationID	AnalyticalMethod	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	total ug/l	total mg/l
RW-1	SW8260B	Chloromethane (Methyl chloride)			N	200	69	69	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	cis-1,2-Dichloroethene	2400		Y	200	160	160	8/25/2010	N	ug/l	N	2400		
RW-1	SW8260B	Methylene chloride (Dichloromethane)	170	J	Y	200	88	88	8/25/2010	N	ug/l	N	170		
RW-1	SW8260B	Tetrachloroethene (PCE)	4800		Y	200	73	73	8/25/2010	N	ug/l	N	4800		
RW-1	SW8260B	trans-1,2-Dichloroethene			Y	200	180	180	8/25/2010	N	ug/l	N	0		
RW-1	SW8260B	Trichloroethene (TCE)	18000		Y	200	92	92	8/25/2010	N	ug/l	N	18000		
RW-1	SW8260B	Vinyl Chloride	200		Y	200	180	180	8/25/2010	N	ug/l	N	200	31,620	31.620
RW-2	SW8260B	1,1,1-Trichloroethane			N	2.0	1.6	1.6	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	1,1,2,2-Tetrachloroethane	9.3		Y	2.0	0.43	0.43	8/25/2010	N	ug/l	N	9.3		
RW-2	SW8260B	1,1,2-Trichloroethane			N	2.0	0.46	0.46	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	1,1-Dichloroethene			N	2.0	0.59	0.59	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	1,2,4-Trichlorobenzene	8.8		Y	2.0	0.82	0.82	8/25/2010	N	ug/l	N	8.8		
RW-2	SW8260B	1,2-Dichlorobenzene			N	2.0	1.6	1.6	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	1,3-Dichlorobenzene	1.9	J	N	2.0	1.6	1.6	8/25/2010	N	ug/l	N	1.9		
RW-2	SW8260B	1,4-Dichlorobenzene			N	2.0	1.7	1.7	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Benzene			N	2.0	0.82	0.82	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Carbon tetrachloride			N	2.0	0.53	0.53	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Chlorobenzene			N	2.0	1.5	1.5	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Chloromethane (Methyl chloride)			N	2.0	0.69	0.69	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	cis-1,2-Dichloroethene	47		Y	2.0	1.6	1.6	8/25/2010	N	ug/l	N	47		
RW-2	SW8260B	Methylene chloride (Dichloromethane)			N	2.0	0.88	0.88	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Tetrachloroethene (PCE)	95		Y	2.0	0.73	0.73	8/25/2010	N	ug/l	N	95		
RW-2	SW8260B	trans-1,2-Dichloroethene			N	2.0	1.8	1.8	8/25/2010	N	ug/l	N	0		
RW-2	SW8260B	Trichloroethene (TCE)	130		Y	2.0	0.92	0.92	8/25/2010	N	ug/l	N	130		
RW-2	SW8260B	Vinyl Chloride			N	2.0	1.8	1.8	8/25/2010	N	ug/l	N	0	292	0.292
RW-3	SW8260B	1,1,1-Trichloroethane			N	1.0	0.82	0.82	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	1,1,2,2-Tetrachloroethane	7.0		Y	1.0	0.21	0.21	8/25/2010	N	ug/l	N	7		
RW-3	SW8260B	1,1,2-Trichloroethane			N	1.0	0.23	0.23	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	1,1-Dichloroethene			Y	1.0	0.29	0.29	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	1,2,4-Trichlorobenzene	77		Y	1.0	0.41	0.41	8/25/2010	N	ug/l	N	77		
RW-3	SW8260B	1,2-Dichlorobenzene	9.8		Y	1.0	0.79	0.79	8/25/2010	N	ug/l	N	9.8		
RW-3	SW8260B	1,3-Dichlorobenzene	40		Y	1.0	0.78	0.78	8/25/2010	N	ug/l	N	40		
RW-3	SW8260B	1,4-Dichlorobenzene	36		Y	1.0	0.84	0.84	8/25/2010	N	ug/l	N	36		
RW-3	SW8260B	Benzene	4.2		Y	1.0	0.41	0.41	8/25/2010	N	ug/l	N	4.2		
RW-3	SW8260B	Carbon tetrachloride			Y	1.0	0.27	0.27	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	Chlorobenzene	20		Y	1.0	0.75	0.75	8/25/2010	N	ug/l	N	20		
RW-3	SW8260B	Chloromethane (Methyl chloride)			N	1.0	0.35	0.35	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	cis-1,2-Dichloroethene	49		Y	1.0	0.81	0.81	8/25/2010	N	ug/l	N	49		
RW-3	SW8260B	Methylene chloride (Dichloromethane)			N	1.0	0.44	0.44	8/25/2010	N	ug/l	N	0		
RW-3	SW8260B	Tetrachloroethene (PCE)	60		Y	1.0	0.36	0.36	8/25/2010	N	ug/l	N	60		
RW-3	SW8260B	trans-1,2-Dichloroethene	1.2		Y	1.0	0.90	0.90	8/25/2010	N	ug/l	N	1.2		
RW-3	SW8260B	Trichloroethene (TCE)	64		Y	1.0	0.46	0.46	8/25/2010	N	ug/l	N	64		
RW-3	SW8260B	Vinyl Chloride	14		Y	1.0	0.90	0.90	8/25/2010	N	ug/l	N	14	382	0.382
RW-4	SW8260B	1,1,1-Trichloroethane			N	2.0	1.6	1.6	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	1,1,2,2-Tetrachloroethane	6.8		Y	2.0	0.43	0.43	8/25/2010	N	ug/l	N	6.8		
RW-4	SW8260B	1,1,2-Trichloroethane			N	2.0	0.46	0.46	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	1,1-Dichloroethene			Y	2.0	0.59	0.59	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	1,2,4-Trichlorobenzene	17		Y	2.0	0.82	0.82	8/25/2010	N	ug/l	N	17		
RW-4	SW8260B	1,2-Dichlorobenzene			Y	2.0	1.6	1.6	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	1,3-Dichlorobenzene	9.9		Y	2.0	1.6	1.6	8/25/2010	N	ug/l	N	9.9		
RW-4	SW8260B	1,4-Dichlorobenzene	5.9		Y	2.0	1.7	1.7	8/25/2010	N	ug/l	N	5.9		
RW-4	SW8260B	Benzene	2.5		Y	2.0	0.82	0.82	8/25/2010	N	ug/l	N	2.5		
RW-4	SW8260B	Carbon tetrachloride			N	2.0	0.53	0.53	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	Chlorobenzene	3.1		Y	2.0	1.5	1.5	8/25/2010	N	ug/l	N	3.1		
RW-4	SW8260B	Chloromethane (Methyl chloride)			N	2.0	0.69	0.69	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	cis-1,2-Dichloroethene	39		Y	2.0	1.6	1.6	8/25/2010	N	ug/l	N	39		
RW-4	SW8260B	Methylene chloride (Dichloromethane)			N	2.0	0.88	0.88	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	Tetrachloroethene (PCE)	96		Y	2.0	0.73	0.73	8/25/2010	N	ug/l	N	96		
RW-4	SW8260B	trans-1,2-Dichloroethene			Y	2.0	1.8	1.8	8/25/2010	N	ug/l	N	0		
RW-4	SW8260B	Trichloroethene (TCE)	130		Y	2.0	0.92	0.92	8/25/2010	N	ug/l	N	130		
RW-4	SW8260B	Vinyl Chloride			Y	2.0	1.8	1.8	8/25/2010	N	ug/l	N	0	310	0.310
RW-5	SW8260B	1,1,1-Trichloroethane	200		Y	100	82	82	8/25/2010	N	ug/l	N	200		
RW-5	SW8260B	1,1,2,2-Tetrachloroethane	7300		Y	100	21	21	8/25/2010	N	ug/l	N	7300		
RW-5	SW8260B	1,1,2-Trichloroethane	750		Y	100	23	23	8/25/2010	N	ug/l	N	750		
RW-5	SW8260B	1,1-Dichloroethene	110		Y	100	29	29	8/25/2010	N	ug/l	N	110		
RW-5	SW8260B	1,2,4-Trichlorobenzene	2000		Y	100	41	41	8/25/2010	N	ug/l	N	2000		
RW-5	SW8260B	1,2-Dichlorobenzene	360		Y	100	79	79	8/25/2010	N	ug/l	N	360		
RW-5	SW8260B	1,3-Dichlorobenzene	200		Y	100	78	78	8/25/2010	N	ug/l	N	200		
RW-5	SW8260B	1,4-Dichlorobenzene	360		Y	100	84	84	8/25/2010	N	ug/l	N	360		
RW-5	SW8260B	Benzene	160		Y	100	41	41	8/25/2010	N	ug/l	N	160		

Olin NIagara Falls
August 2010 GW System Header Data

LocationID	AnalyticalMethod	ParameterName	Result	Validation Flags	Detect Flag	Reporting Detection Limit	Quantitation Limit	Method Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	total ug/l	total mg/l
RW-5	SW8260B	Carbon tetrachloride	350		Y	100	27	27	8/25/2010	N	ug/l	N	350		
RW-5	SW8260B	Chlorobenzene	200		Y	100	75	75	8/25/2010	N	ug/l	N	200		
RW-5	SW8260B	Chloromethane (Methyl chloride)			N	100	35	35	8/25/2010	N	ug/l	N	0		
RW-5	SW8260B	cis-1,2-Dichloroethene	5500		Y	100	81	81	8/25/2010	N	ug/l	N	5500		
RW-5	SW8260B	Methylene chloride (Dichloromethane)	810		Y	100	44	44	8/25/2010	N	ug/l	N	810		
RW-5	SW8260B	Tetrachloroethene (PCE)	25000		Y	1000	360	360	8/25/2010	N	ug/l	N	25000		
RW-5	SW8260B	trans-1,2-Dichloroethene	130		Y	100	90	90	8/25/2010	N	ug/l	N	130		
RW-5	SW8260B	Trichloroethene (TCE)	59000		Y	1000	460	460	8/25/2010	N	ug/l	N	59000		
RW-5	SW8260B	Vinyl Chloride	840		Y	100	90	90	8/25/2010	N	ug/l	N	840	103,270	103.270
RW-5D	SW8260B	1,1,1-Trichloroethane			Y	1000	820	820	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	1,1,2,2-Tetrachloroethane	6900		Y	1000	210	210	8/25/2010	FD	ug/l	N	6900		
RW-5D	SW8260B	1,1,2-Trichloroethane			Y	1000	230	230	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	1,1-Dichloroethene			Y	1000	290	290	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	1,2,4-Trichlorobenzene	1900		Y	1000	410	410	8/25/2010	FD	ug/l	N	1900		
RW-5D	SW8260B	1,2-Dichlorobenzene			Y	1000	790	790	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	1,3-Dichlorobenzene			Y	1000	780	780	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	1,4-Dichlorobenzene			Y	1000	840	840	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	Benzene			Y	1000	410	410	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	Carbon tetrachloride			Y	1000	270	270	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	Chlorobenzene			Y	1000	750	750	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	Chloromethane (Methyl chloride)			N	1000	350	350	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	cis-1,2-Dichloroethene	5500		Y	1000	810	810	8/25/2010	FD	ug/l	N	5500		
RW-5D	SW8260B	Methylene chloride (Dichloromethane)	890	J	Y	1000	440	440	8/25/2010	FD	ug/l	N	890		
RW-5D	SW8260B	Tetrachloroethene (PCE)	28000		Y	1000	360	360	8/25/2010	FD	ug/l	N	28000		
RW-5D	SW8260B	trans-1,2-Dichloroethene			Y	1000	900	900	8/25/2010	FD	ug/l	N	0		
RW-5D	SW8260B	Trichloroethene (TCE)	64000		Y	1000	460	460	8/25/2010	FD	ug/l	N	64000		
RW-5D	SW8260B	Vinyl Chloride	940	J	Y	1000	900	900	8/25/2010	FD	ug/l	N	940	108,130	108.130
														-	

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Don Greer, Mike Sebring, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: May 11, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for April 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for April 2010:

Ground-Water Collection and Treatment System Status
April 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	3.3	557.1	557.5	27
RW-2	28.8	557.3	557.7	29
RW-3	1.8	557.0	557.5	29
RW-4	1.3	557.2	557.5	29
PR-4	1.9	554.9	556.7	28
RW-5	14.6	557.4	557.5	24
PR-12	4.3	554.9	558.5	30
OBA-9AR	0.5	557.4	557.7	25

Prepared By: AWE 5/10/2010
Checked By: BSA 5/10/2010

Flow rates at the site remain consistent to previous months. Exceedances of the drawdown target levels were minor and due mostly to fluctuating water levels. Each well's average water level for the month met the drawdown target level.

On April 9, 2010, the existing steel, 2000 lb carbon vessels were replaced with fiberglass, 1400 lb carbon vessels manufactured by Siemens. The new vessels are online and operating properly. This vessel change-out was implemented to mitigate the persistent problem of vessel corrosion. This change does not constitute a system process change.

The following is a list of downtimes occurring in April and their associated causes.

DOWNTIMES

Well	Date	Duration (hrs)	Reason
SYSTEM	**4/6/2010**	**0.75**	Rain event – high 7S level
SYSTEM	**4/6/2010**	**1.1**	Rain event – high 7S level
SYSTEM	**4/7/2010**	**1.25**	Rain event – high 7S level
SYSTEM	**4/8/2010**	**2**	Not documented
SYSTEM	**4/8/2010**	**0.8**	Not documented
SYSTEM	**4/10/2010**	**10**	Not documented
SYSTEM	**4/11/2010**	**8.5**	Not documented
SYSTEM	**4/27/2010**	**0.6**	Not documented
SYSTEM	**4/27/2010**	**0.75**	Not documented
SYSTEM	**4/27/2010**	**2**	Not documented
SYSTEM	**4/27/2010**	**0.7**	Not documented
RW-4	**4/27/2010-4/30/2010**	**55.5**	Not documented
RW-5	**4/27/2010-4/30/2010**	**55.5**	Not documented

Prepared By: AWE 5/11/2010
Checked By: BSA 5/11/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	4/6/2010	-0.06	-0.03	
	4/14/2010	-0.05	-0.03	
	4/20/2010	-0.02	-0.03	
	4/27/2010	-0.12	-0.02	
RW-2	4/6/2010	-0.03	-0.01	
	4/14/2010	-0.03	-0.10	
	4/20/2010	0.02	-0.09	
	4/27/2010	0.00	-0.14	
RW-3	4/6/2010	0.18	-0.06	
	4/14/2010	0.18	-0.06	
	4/20/2010	0.22	-0.06	
	4/27/2010	0.08	-0.06	
RW-4	4/6/2010	0.12	0.02	
	4/14/2010	0.20	0.02	
	4/20/2010	0.21	0.04	
	4/27/2010	0.22	0.06	
PR-4	4/6/2010	-0.38	0.46	
	4/14/2010	0.18	0.24	
	4/20/2010	0.09	0.26	
	4/27/2010	0.29	0.49	
RW-5	4/6/2010	-0.25	-0.05	
	4/14/2010	-0.07	-0.05	
	4/20/2010	-0.21	-0.04	
	4/27/2010	-0.16	-0.05	
PR-12	4/6/2010	0.04	NA	
	4/14/2010	-0.13	NA	
	4/20/2010	0.07	NA	
	4/27/2010	-0.02	NA	
OBA-9AR	4/6/2010	0.08	-0.38	
	4/14/2010	0.11	-0.32	
	4/20/2010	0.06	-0.34	
	4/27/2010	0.08	-0.38	

Prepared By: AWE 5/11/2010
Checked By: BSA 5/11/2010

DNAPL INSPECTION

On April 5, 2010, one well was inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	75	

Prepared By: AWE 5/11/2010
Checked By: BSA 5/11/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Rich O'Hara, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: September 8, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for August 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for August 2010:

Ground-Water Collection and Treatment System Status
August 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation* (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	0.6	557.94	557.5	0
RW-2	18.8	557.67	557.7	7
RW-3	5.2	557.68	557.5	7
RW-4	3.1	557.41	557.5	7
PR-4	5.9	556.85	556.7	7
RW-5	10.6	557.48	557.5	14
PR-12	2.5	557.53	558.5	21
OBA-9AR	0.0	561.56	557.7	0

***- due to instrument failures resulting from the lightning strike of July 28, 2010, the average groundwater elevation was calculated from manual measurements taken on August 17, 24, and 31. The days meeting target drawdown were estimated based on the August 17, 24, and 31 manual water level readings**

Prepared By: BSA 9/20/2010 BSA 9/20/2010
Checked By: AWE 9/20/2010 AWE 9/20/2010

A lightning strike occurred on July 28, 2010 which damaged many of the electrical and control components of the system. The majority of the downtimes and resulting drawdown level exceedances are the result of this incident. Olin worked throughout the month of August to make the necessary repairs to the system.

SYSTEM DOWNTIMES

Well/System	Date/Time From	Date/Time To	Duration (Hrs)	Reason
System	8/1/2010 0:00	8/5/10 10:45	106.7	electrical/control damage from lightning strike - system down for repairs
RW-1	8/5/10 10:50	8/17/10 10:55	288.1	bad pump - replaced
System	8/5/10 12:55	8/10/10 12:50	119.9	system down for further repairs from lightning strike
System	8/10/10 13:45	8/11/10 5:10	15.4	system down for further repairs from lightning strike
System	8/11/10 6:15	8/11/10 8:00	1.8	system down for further repairs from lightning strike
System	8/11/10 10:50	8/12/10 6:05	19.2	system down for further repairs from lightning strike
System	8/12/10 15:10	8/12/10 15:45	0.6	system down for further repairs from lightning strike
PR-4	8/12/10 16:05	8/13/10 12:10	20.1	well did not restart automatically with system - had to be restarted manually
RW-5	8/13/10 11:05	8/13/10 12:10	1.1	not documented
System	8/16/2010 1:00	8/16/10 10:40	9.7	system down for further repairs from lightning strike
System	8/19/10 21:55	8/20/10 7:55	10.0	system down for further repairs from lightning strike
System	8/22/10 1:30	8/22/10 6:00	4.5	repairs to 7S sewer
System	8/25/10 20:15	8/25/10 21:10	0.9	system down for further repairs from lightning strike
System	8/30/10 8:20	8/30/10 9:25	1.1	system down for further repairs from lightning strike
System	8/30/10 10:15	8/30/10 13:55	3.7	system down for further repairs from lightning strike
RW-2	8/31/10 15:25	8/31/10 16:10	0.8	well shutdown to calibrate transducer
PR-4	8/31/2010 15:25	8/31/10 23:55	8.5	well shutdown to calibrate transducer/control system wouldn't allow well to restart.

Prepared By: BSA 9/20/2010 BSA 9/20/2010
Checked By: AWE 9/20/2010 AWE 9/20/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	8/17/2010	-0.05	-0.04	
	8/24/2010	-0.06	-0.03	
	8/31/2010	-0.06	-0.04	
RW-2	8/17/2010	NA	-0.01	Bad transducer – replacement on order
	8/24/2010	NA	-0.08	Bad transducer – replacement on order
	8/31/2010	NA	-0.04	Bad transducer – replacement on order
RW-3	8/17/2010	0.34	-0.06	
	8/24/2010	0.54	-0.06	
	8/31/2010	0.25	-0.06	
RW-4	8/17/2010	-0.89	0.25	
	8/24/2010	0.04	0.04	
	8/31/2010	-0.11	0.07	
PR-4	8/17/2010	NA	-0.02	Bad transducer – replacement on order
	8/24/2010	NA	-0.10	Bad transducer – replacement on order
	8/31/2010	-0.17	0.27	
RW-5	8/17/2010	0.03	-0.05	
	8/24/2010	0.22	-0.05	
	8/31/2010	0.08	-0.05	
PR-12	8/17/2010	2.38	NA	
	8/24/2010	3.89	NA	
	8/31/2010	0.53	NA	
OBA-9AR	8/17/2010	0.09	-1.36	
	8/24/2010	0.19	-0.07	
	8/31/2010	0.05	-0.31	

Prepared By: BSA 9/20/2010 BSA 9/20/2010
Checked By: AWE 9/20/2010 AWE 9/20/2010

DNAPL INSPECTION

On August 24, 2010, seven wells were inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	750	
PN-12B	1.0	NO	---	
PN-14B	1.0	NO	---	
PN-21B	1.0	NO	---	
PN-22B	1.0	YES	80	
PN-23B	1.0	NO	---	
PR-12	1.0	NO	---	

Prepared By: BSA 9/20/2010 BSA 9/20/2010
Checked By: AWE 9/20/2010 AWE 9/20/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Rich O'Hara, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: August 17, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for July 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for July 2010:

Ground-Water Collection and Treatment System Status
July 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	0.7	558.0	557.5	1
RW-2	26.7	557.6	557.7	21
RW-3	2.1	557.5	557.5	11
RW-4	3.9	557.5	557.5	7
PR-4	2.6	556.6	556.7	11
RW-5	13.8	557.6	557.5	5
PR-12	3.3	554.8	558.5	27
OBA-9AR	0.5	558.6	557.7	11

Prepared By: BSA 8/17/2010 BSA 8/17/2010
Checked By: AWE 8/17/2010 AWE 8/17/2010

Exceedances of target drawdown levels were observed in each of the recovery wells. Exceedances in RW-1 were the result of low flowrates and downtimes caused by carbonate fouling. The acid injection system was replaced in July and acid was pumped to RW-1 to dissolve the carbonate scaling. Exceedances in other wells were caused by high site water levels and also downtimes associated with installation of the acid system and a lightning strike which damaged several key electrical components of the system. The lightning strike occurred on July 28, 2010 and electrical repairs are ongoing. The following is a list of downtimes occurring in July and their associated causes.

SYSTM DOWNTIMES

	Date/Time		Duration	
Well/System	**From**	**To**	**(Hrs)**	**Reason**
RW-1	7/1/10 0:00	7/2/10 12:30	36.5	Carbonate Fouling
RW-1	7/8/10 11:05	7/13/10 13:35	122.5	Carbonate Fouling
System	7/9/10 9:55	7/9/10 16:30	6.6	High air stripper sump level
System	7/14/10 15:30	7/14/10 16:20	0.8	High air stripper sump level
System	7/19/10 11:55	7/19/10 14:05	2.2	High air stripper sump level
System	7/19/10 15:30	7/19/10 19:20	3.8	High air stripper sump level
RW-5	7/19/10 20:25	7/20/10 7:05	10.7	High air stripper sump level
RW-1	7/21/10 11:00	7/27/10 2:45	135.8	Carbonate Fouling
RW-5	7/21/10 11:25	7/21/10 14:25	3.0	Pump maintenance
System	7/22/10 12:15	7/22/10 12:45	0.5	High air stripper sump level
System	7/22/10 13:45	7/22/10 14:20	0.6	High air stripper sump level
RW-3	7/22/10 17:05	7/23/10 4:55	11.8	shutdown for acid washing
System	7/23/10 5:00	7/23/10 6:25	1.4	High air stripper sump level
System	7/23/10 9:25	7/23/10 10:55	1.5	High air stripper sump level
PR-4	7/23/10 11:05	7/23/10 11:55	0.8	Control system did not restart well automatically after system restarted - manually restarted
System	7/23/10 12:55	7/23/10 13:30	0.6	High air stripper sump level
PR-4	7/23/2010 15:25	7/24/10 17:45	26.3	Control system did not restart well automatically after system restarted - manually restarted
System	7/24/10 15:10	7/24/10 15:55	0.8	High air stripper sump level
System	7/24/10 16:45	7/24/10 17:45	1.0	High air stripper sump level
System	7/26/10 16:05	7/26/10 17:00	0.9	High air stripper sump level
System	7/26/10 17:25	7/26/10 18:45	1.3	High air stripper sump level
PR-4	7/26/10 20:00	7/27/10 7:25	11.4	Control system did not restart well automatically after system restarted - manually restarted
RW-1	7/28/10 4:45	7/28/10 18:10	13.4	Carbonate Fouling
System	7/28/10 18:15	7/31/10 23:55	77.7	Lightning strike damaged several electrical components

Prepared By: BSA 8/17/2010 BSA 8/17/2010
Checked By: AWE 8/17/2010 AWE 8/17/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	7/6/2010	-0.12	0.00	
	7/13/2010	-0.14	-0.08	
	7/20/2010	0.00	-0.06	
	7/27/2010	-0.07	-0.06	
RW-2	7/6/2010	0.07	-0.14	
	7/13/2010	0.04	-0.05	
	7/20/2010	0.09	-0.07	
	7/27/2010	0.10	-0.03	
RW-3	7/6/2010	0.19	-0.06	
	7/13/2010	0.24	-0.06	
	7/20/2010	0.32	-0.06	
	7/27/2010	0.23	-0.06	
RW-4	7/6/2010	0.16	0.04	
	7/13/2010	0.21	0.04	
	7/20/2010	0.16	0.04	
	7/27/2010	0.21	0.04	
PR-4	7/6/2010	0.14	0.15	
	7/13/2010	0.19	0.08	
	7/20/2010	0.14	0.01	
	7/27/2010	0.23	-0.03	
RW-5	7/6/2010	-0.16	-0.05	
	7/13/2010	-0.11	0.00	
	7/20/2010	-0.16	0.00	
	7/27/2010	-0.07	-0.01	
PR-12	7/6/2010	0.01	NA	
	7/13/2010	-0.02	NA	
	7/20/2010	0.04	NA	
	7/27/2010	0.02	NA	
OBA-9AR	7/6/2010	-0.12	-0.04	
	7/13/2010	-0.02	0.09	
	7/20/2010	0.08	-0.27	
	7/27/2010	0.00	0.03	

Prepared By: BSA 8/17/2010 BSA 8/17/2010
Checked By: AWE 8/17/2010 AWE 8/17/2010

DNAPL INSPECTION

On July 12, 2010, one well was inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	150	

Prepared By: BSA 8/17/2010 BSA 8/17/2010
Checked By: AWE 8/17/2010 AWE 8/17/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Rich O'Hara, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: July 6, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for March 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for June 2010:

Ground-Water Collection and Treatment System Status
June 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	1.9	557.3	557.72	6
RW-2	28.9	557.4	557.52	29
RW-3	1.3	557.1	557.37	29
RW-4	0.3	557.3	557.41	29
PR-4	2.0	555.7	554.78	28
RW-5	15.8	557.5	557.55	2
PR-12	3.8	554.8	554.64	30
OBA-9AR	0.7	557.7	558.40	8

Prepared By: BSA 7/2/2010
Checked By: AWE 7/6/2010

Significant exceedances of target drawdown levels were observed in wells RW-1, RW-5, and OBA-9AR. The flowrate in RW-1 decreased due to carbonate fouling in the well and piping. The RW-1 flowrate will be corrected by a change out of its acid delivery pump to remove the fouling and increase the flowrate. This changeout is anticipated to be completed in July 2010. The flowrates in RW-5 and OBA-9AR were consistent with previous months, but the water levels have risen above target levels. Both wells are pumping at their maximum rates in their current configuration. Days above target levels in other wells were minor.

The following is a list of downtimes occurring in June and their associated causes.

DOWNTIMES

Well	Date	Duration (hrs)	Reason
SYSTEM	6/1/2010	6	Not documented
SYSTEM	6/2/2010	1.2	Not documented
SYSTEM	6/3/2010	0.6	Not documented
SYSTEM	6/5/2010	1.7	Not documented
SYSTEM	6/6/2010	4.8	Not documented
SYSTEM	6/8/2010	3.1	Not documented
SYSTEM	6/10/2010	1.3	Not documented
SYSTEM	6/13/2010	1.3	Not documented
SYSTEM	6/16/2010	1.2	Not documented
RW-2	6/17/2010	3.1	Not documented
SYSTEM	6/21/2010	2.2	Not documented
RW-4	6/21/2010	3.7	Not documented
RW-4	6/22/2010-6/30/2010	195	Not documented
SYSTEM	6/24/2010	0.7	Not documented
SYSTEM	6/27/2010	3.5	Not documented
RW-2	6/28/2010	12.7	Not documented
RW-1	6/29/2010-6/30/2010	30.5	Not documented

Prepared By: BSA 7/2/2010
Checked By: AWE 7/6/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the

APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	6/1/2010	-0.03	-0.02	
	6/8/2010	-0.03	-0.02	
	6/15/2010	-0.06	-0.01	
	6/22/2010	-0.07	-0.01	
	6/29/2010	0.18	-0.06	
RW-2	6/1/2010	-0.06	-0.19	
	6/8/2010	0.01	-0.14	
	6/15/2010	-0.03	-0.14	
	6/22/2010	0.07	-0.12	
	6/29/2010	0.14	-0.25	
RW-3	6/1/2010	0.23	-0.06	
	6/8/2010	0.23	-0.06	
	6/15/2010	0.23	-0.06	
	6/22/2010	0.21	-0.06	
	6/29/2010	0.38	-0.06	
RW-4	6/1/2010	0.10	0.09	
	6/8/2010	0.05	-0.05	
	6/15/2010	0.04	0.04	
	6/22/2010	0.04	0.10	
	6/29/2010	0.05	0.04	
PR-4	6/1/2010	0.18	0.58	
	6/8/2010	0.05	0.28	
	6/15/2010	0.15	0.51	
	6/22/2010	-0.01	0.75	
	6/29/2010	0.11	0.25	
RW-5	6/1/2010	-0.17	-0.05	
	6/8/2010	-0.06	-0.05	
	6/15/2010	-0.16	-0.05	
	6/22/2010	-0.14	-0.05	
	6/29/2010	-0.05	-0.05	
PR-12	6/1/2010	-0.10	NA	
	6/8/2010	-0.03	NA	
	6/15/2010	0.17	NA	
	6/22/2010	0.04	NA	
	6/29/2010	-0.03	NA	
OBA-9AR	6/1/2010	-0.22	0.01	
	6/8/2010	0.03	-0.32	
	6/15/2010	0.06	-0.33	
	6/22/2010	0.03	-0.21	
	6/29/2010	0.03	-0.24	

Prepared By: BSA 7/2/2010
Checked By: AWE 7/6/2010

DNAPL INSPECTION

On June 3, 2010, one well was inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	80	

Prepared By: BSA 7/2/2010
Checked By: AWE 7/6/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Don Greer, Mike Sebring, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: June 10, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for May 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for May 2010:

Ground-Water Collection and Treatment System Status
May 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	3.1	557.1	557.5	30
RW-2	28.2	557.3	557.7	31
RW-3	1.6	557.0	557.5	31
RW-4	0.7	557.1	557.5	31
PR-4	1.8	554.3	556.7	30
RW-5	15.0	557.3	557.5	25
PR-12	3.8	554.7	558.5	31
OBA-9AR	0.6	558.2	557.7	17

Prepared By: AWE 6/9/2010
Checked By: BSA 6/9/2010

Flow rates at the site remain consistent to previous months. Exceedances of the drawdown target levels were minor and due mostly to fluctuating water levels. Each well's average water level for the month met the drawdown target level with the exception of OBA-9AR. The OBA-9AR pumping rate is at its maximum but the static pumping water level has increased, most likely due to seasonal rainfall.

The following is a list of downtimes occurring in May and their associated causes.

DOWNTIMES

Well	Date	Duration (hrs)	Reason
OBA-9AR	5/3/2010-5/4/2010	17.5	Not documented
SYSTEM	5/5/2010-5/6/2010	2	Not documented
SYSTEM	5/7/2010-5/8/2010	2.75	Not documented
SYSTEM	5/12/2010	4.2	Not documented
SYSTEM	5/13/2010-5/14/2010	5.9	Not documented
SYSTEM	5/18/2010	0.7	Not documented
SYSTEM	5/19/2010	12.25	Not documented
SYSTEM	5/20/2010	7.3	Not documented
SYSTEM	5/21/2010	5.4	Not documented
SYSTEM	5/22/2010	10.7	Not documented
SYSTEM	5/24/2010	1.6	Not documented
RW-4	5/24/2010-5/25/2010	18	Not documented
RW-5	5/24/2010-5/25/2010	18	Not documented
PR-12	5/25/2010	0.7	Not documented
PR-12	5/28/2010	10.2	Not documented

Prepared By: AWE 6/9/2010
Checked By: BSA 6/9/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	5/4/2010	0.02	-0.05	
	5/11/2010	-0.12	-0.01	
	5/18/2010	0.02	-0.02	
	5/25/2010	-0.07	-0.05	
RW-2	5/4/2010	0.02	-0.15	
	5/11/2010	-0.04	-0.07	
	5/18/2010	0.02	-0.14	
	5/25/2010	0.02	-0.02	
RW-3	5/4/2010	0.02	-0.06	
	5/11/2010	0.23	-0.06	
	5/18/2010	0.24	-0.06	
	5/25/2010	0.22	-0.06	
RW-4	5/4/2010	0.02	0.04	
	5/11/2010	0.06	0.04	
	5/18/2010	0.09	0.04	
	5/25/2010	0.10	0.04	
PR-4	5/4/2010	0.14	0.23	
	5/11/2010	0.14	2.18	
	5/18/2010	0.09	0.33	
	5/25/2010	0.12	0.67	
RW-5	5/4/2010	-0.16	-0.05	
	5/11/2010	-0.16	-0.05	
	5/18/2010	-0.17	-0.05	
	5/25/2010	-0.15	-0.05	
PR-12	5/4/2010	-0.02	NA	
	5/11/2010	-0.01	NA	
	5/18/2010	0.01	NA	
	5/25/2010	-0.03	NA	
OBA-9AR	5/4/2010	0.00	-0.27	
	5/11/2010	-0.04	0.23	
	5/18/2010	-0.06	-0.32	
	5/25/2010	-0.02	-0.36	

Prepared By: AWE 6/9/2010
Checked By: BSA 6/9/2010

DNAPL INSPECTION

On May 3, 2010, sixteen wells were inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	500	
OBA-10A	1.0	YES	5	
PN-12B	1.0	YES	450	
PN-14B	1.0	YES	100	
PN-21B	1.0	YES	750	
PN-22B	1.0	YES	100	
PN-23B	1.0	YES	350	
PR-10	1.0	YES	5	
PR-12	1.0	NO	---	
PR-4	1.0	NO	---	
PR-9	1.0	NO	---	
RW-1	1.0	NO	---	
RW-2	1.0	NO	---	
RW-3	1.0	NO	---	
RW-4	1.0	NO	---	
RW-5	1.0	NO	---	

Prepared By: AWE 6/9/2010
Checked By: BSA 6/9/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal

MACTEC

MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Rich O'Hara, and Gina Senia @ Olin-Niagara.

From: Tony Englund/Rick Marotte

Date: October 8, 2010

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for September 2010**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6107100001

This memo addresses the status of the O&M issues for the ground-water collection and treatment system at the Olin –Niagara Plant, Niagara Falls, New York.

SYSTEM STATUS

The following table presents general treatment system data for September 2010:

Ground-Water Collection and Treatment System Status
September 2010

Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	2.5	557.7	557.5	16
RW-2	28.0	557.5	557.7	30
RW-3	6.9	557.2	557.5	27
RW-4	3.8	557.7	557.5	5
PR-4	9.3	556.6	556.7	14
RW-5	17.0	557.3	557.5	28
PR-12	3.2	558.4	558.5	13
OBA-9AR	0.0	561.77	557.7	0

***- The average GW elevations for RW-2 and OBA-9AR were calculated from weekly measurements due to instrumentation disruptionsresulting from the lightning strike in July.**

Prepared By: BSA 10/8/2010 BSA 10/8/2010
Checked By: AWE 10/8/2010 AWE 10/8/2010

A lightning strike occurred on July 28, 2010 which damaged many of the electrical and control components of the system. The majority of the downtimes and resulting drawdown level exceedances are the result of this incident. Olin worked throughout the month of August to make the necessary repairs to the system.

SYSTEM DOWNTIMES

Well/System	Date/Time From	Date/Time To	Duration (Hrs)	Reason
PR-4	9/1/2010 0:00	9/1/10 7:50	7.8	well shutdown to calibrate transducer/control system wouldn't allow well to restart.
System	9/1/2010 7:55	9/1/10 12:15	4.3	system shutdown for carbon system repairs
System	9/1/2010 12:55	9/1/10 13:10	0.2	system shutdown for carbon system repairs
System	9/1/2010 13:50	9/1/10 15:50	2.0	system shutdown for carbon system repairs
System	9/4/10 12:30	9/4/10 13:55	1.4	instrument failure - repaired
System	9/9/10 6:45	9/9/10 7:25	0.7	system level upset - cleared and reset
System	9/10/10 9:40	9/10/10 10:00	0.3	system level upset - cleared and reset
System	9/10/10 13:20	9/10/10 14:05	0.8	system level upset - cleared and reset
System	9/12/10 2:10	9/12/10 5:30	3.3	system level upset - cleared and reset
System	9/12/10 10:10	9/12/10 11:35	1.4	system level upset - cleared and reset
System	9/12/10 13:25	9/12/10 14:15	0.8	system level upset - cleared and reset
System	9/12/10 15:35	9/12/10 23:00	7.4	system level upset - cleared and reset
System	9/13/2010 6:15	9/13/10 7:05	0.8	system level upset - cleared and reset
PR-4	9/13/10 17:25	9/14/10 10:10	16.7	system level upset - cleared and reset
System	9/14/10 12:00	9/14/10 12:45	0.8	system level upset - cleared and reset
System	9/18/2010 1:50	9/18/10 9:20	7.5	system level upset - cleared and reset
System	9/18/10 12:25	9/18/10 14:05	1.7	system level upset - cleared and reset
System	9/20/10 8:35	9/20/10 9:35	1.0	system level upset - cleared and reset
System	9/20/10 12:30	9/20/10 13:30	1.0	system level upset - cleared and reset
System	9/20/2010 15:20	9/20/10 17:15	1.9	system level upset - cleared and reset
System	9/20/10 20:30	9/20/10 21:35	1.1	system level upset - cleared and reset
System	9/20/10 23:35	9/21/10 7:15	7.7	system level upset - cleared and reset
System	9/21/10 7:45	9/21/10 9:20	1.6	system level upset - cleared and reset
System	9/21/10 12:40	9/21/10 13:50	1.2	system level upset - cleared and reset
System	9/22/10 7:10	9/22/10 8:25	1.3	system level upset - cleared and reset
System	9/22/10 11:50	9/22/10 12:25	0.6	system level upset - cleared and reset
OBA-9AR	9/1/10 0:00	9/30/10 23:55	719.9	damaged level instrumentation - troubleshooting in progress

***system level upsets typically caused by stripper sump level, 7S sump level, or adjustment tank pH**

Prepared By: BSA 10/8/2010 BSA 10/8/2010
Checked By: AWE 10/8/2010 AWE 10/8/2010

WELL INSPECTIONS

Each week, the recovery wells are inspected for well loss and transducer calibration. Consistent differences of a foot or greater between the well and the piezometer indicate unacceptable well loss, which is generally corrected by acid washing the well. Any differences seen between the APACs measurement and the actual measurement are generally a result of level changes between the time the readings are collected or differences caused by signal noise. If high differences (>1 ft) are seen consistently, the transducer will be checked, cleaned, and/or replaced, if necessary. The following table summarizes the results of those inspections and any actions taken to correct problems:

	Date	Piez/APACS Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	9/7/2010	-0.02	-0.02	
	9/14/2010	-0.07	-0.01	
	9/21/2010	-0.24	-0.02	
	9/28/2010	-0.07	-0.06	
RW-2	9/7/2010	2.91	-0.13	New transducer will not calibrate properly – replacement on order
	9/14/2010	2.33	-0.14	New transducer will not calibrate properly – replacement on order
	9/21/2010	1.81	-0.11	New transducer will not calibrate properly – replacement on order
	9/28/2010	3.32	-0.07	New transducer will not calibrate properly – replacement on order
RW-3	9/7/2010	0.30	-0.06	
	9/14/2010	0.38	-0.06	
	9/21/2010	0.18	-0.06	
	9/28/2010	0.29	-0.06	
RW-4	9/7/2010	-0.03	0.04	
	9/14/2010	0.10	0.06	
	9/21/2010	-0.07	0.04	
	9/28/2010	0.01	0.04	
PR-4	9/7/2010	-0.04	-0.03	
	9/14/2010	-0.07	0.07	
	9/21/2010	-0.02	0.08	
	9/28/2010	-0.01	-0.82	
RW-5	9/7/2010	0.12	-0.05	
	9/14/2010	0.24	-0.05	
	9/21/2010	-0.03	-0.05	
	9/28/2010	0.06	0.02	
PR-12	9/7/2010	0.63	NA	
	9/14/2010	1.08	NA	
	9/21/2010	-0.18	NA	
	9/28/2010	0.22	NA	
OBA-9AR	9/7/2010	0.04	-0.21	
	9/14/2010	-0.02	-0.25	
	9/21/2010	0.03	-0.25	
	9/28/2010	0.08	0.01	

Prepared By: BSA 10/8/2010 BSA 10/8/2010
Checked By: AWE 10/8/2010 AWE 10/8/2010

DNAPL INSPECTION

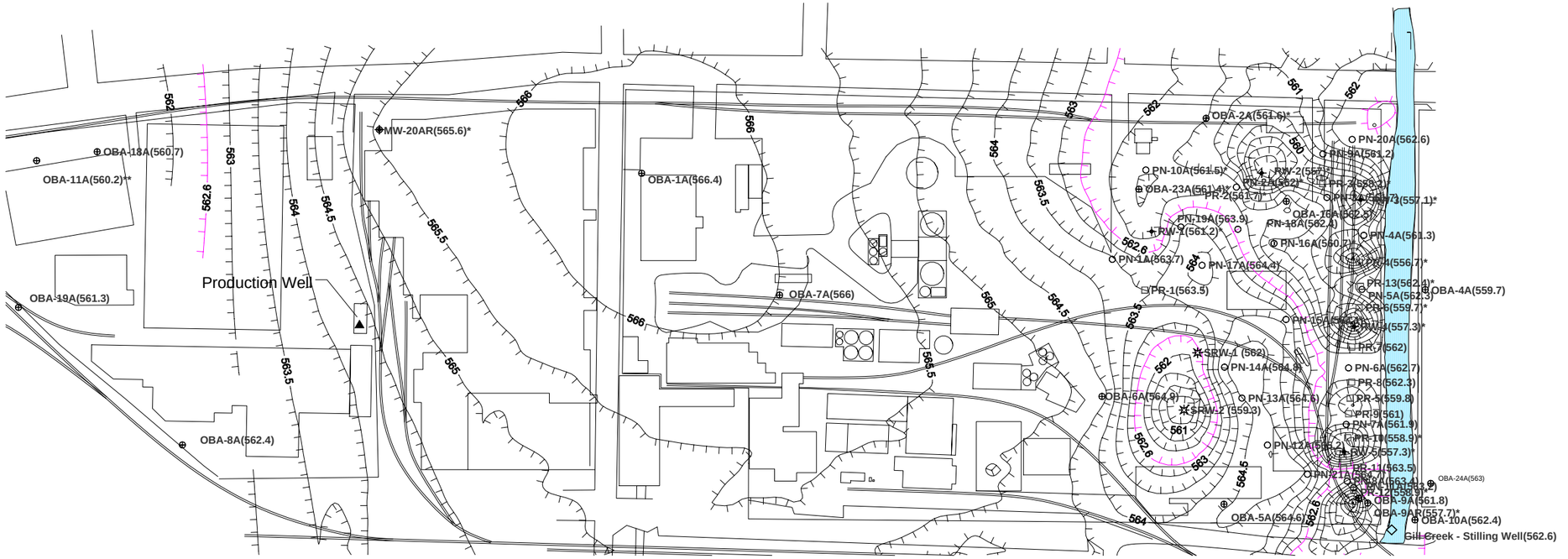
On September 13, 2010, one well was inspected for the presence of DNAPL. The following table presents the results of the inspection:

Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
OBA-9AR	1.0	YES	750	

Prepared By: BSA 10/8/2010 BSA 10/8/2010
Checked By: AWE 10/8/2010 AWE 10/8/2010

Anthony W. Englund
Senior Engineer

Frederick K. Marotte
Project Principal



LEGEND

- GILL CREEK MONITORING POINT
- OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- A/B ZONE PIEZOMETER NESTS
- GROUNDWATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SUPPLEMENTAL REMEDIATION WELL (PASSIVE)
- PROPERTY LINE
- 565 ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION (HACH LINES SHOWING FLOW DIRECTION)
- GILL CREEK AREA

Extraction Well	Average Flow Rate (gpm)***
RW-1	3.4
RW-2	30.4
RW-3	1.9
RW-4	0.9
RW-5	16.6
PR-4	2.0
PR-12	4.2
OBA-9AR	0.6

*** : Averaged using daily flow rates for May 3, 2010. The water levels in RW-1, RW-3, RW-4, RW-5, PR-4, PR-12, and OBA-9AR were below the bottom of the A-zone.

0 200 400

Scale 1 inch = 200 feet

NOTES

* : Well dry or water level below the bottom of the A-zone, elevation of bottom of A-Zone used in contouring.

Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is estimated as the bottom of the A-zone. The bottom of the A-zone along Buffalo Avenue was estimated from borings OBA-1A, OBA-2A, OBA-3A, and OBA-11A.

** : Procasing broken

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well. The average diurnal elevation on May 3, 2010 (562.6 ft msl) was used in contouring the A zone.

All elevation data are measured above sea level and referenced to NGVD 29

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

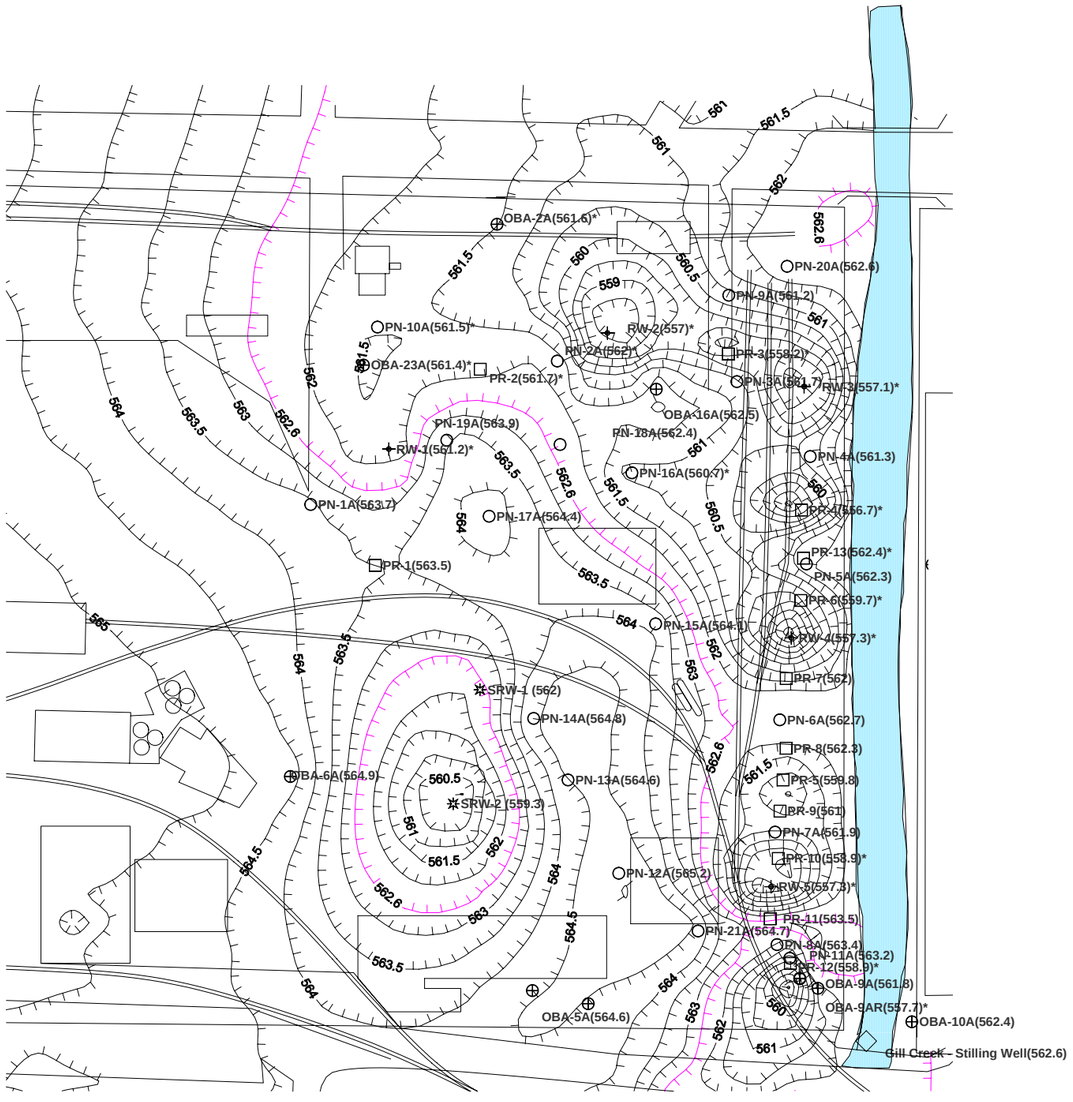
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- A ZONE (MAY 3, 2010)

Job No.: 6107-10-0001

Figure 1



Extraction Well	Average Flow Rate (gpm)***
RW-1	3.4
RW-2	30.4
RW-3	1.9
RW-4	0.9
RW-5	16.6
PR-4	2.0
PR-12	4.2
OBA-9AR	0.6

*** : Averaged using daily flow rates for May 3, 2010.
The water levels in RW-1, RW-3, RW-4, RW-5, PR-4, PR-12, and OBA-9AR were below the bottom of the A-zone.

N

LEGEND

- GILL CREEK MONITORING POINT
- OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- A/B ZONE PIEZOMETER NESTS
- GROUND WATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SUPPLEMENTAL REMEDIATION WELL (PASSIVE)
- PROPERTY LINE
- 565 — ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION (HACH LINES SHOWING FLOW DIRECTION)
- GILL CREEK AREA

0 120 240
Scale 1 inch = 120 feet

NOTES

* : Well dry or water level below the bottom of the A-zone, elevation of bottom of A-Zone used in contouring.

Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is estimated as the bottom of the A-zone. The bottom of the A-zone along Buffalo Avenue was estimated from borings OBA-1A, OBA-2A, OBA-3A, and OBA-11A.

NM : Not measured

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well. The average diurnal elevation on May 3, 2010 (562.6 ft msl) was used in contouring the A zone.

All elevation data are measured above sea level and referenced to NGVD 29

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

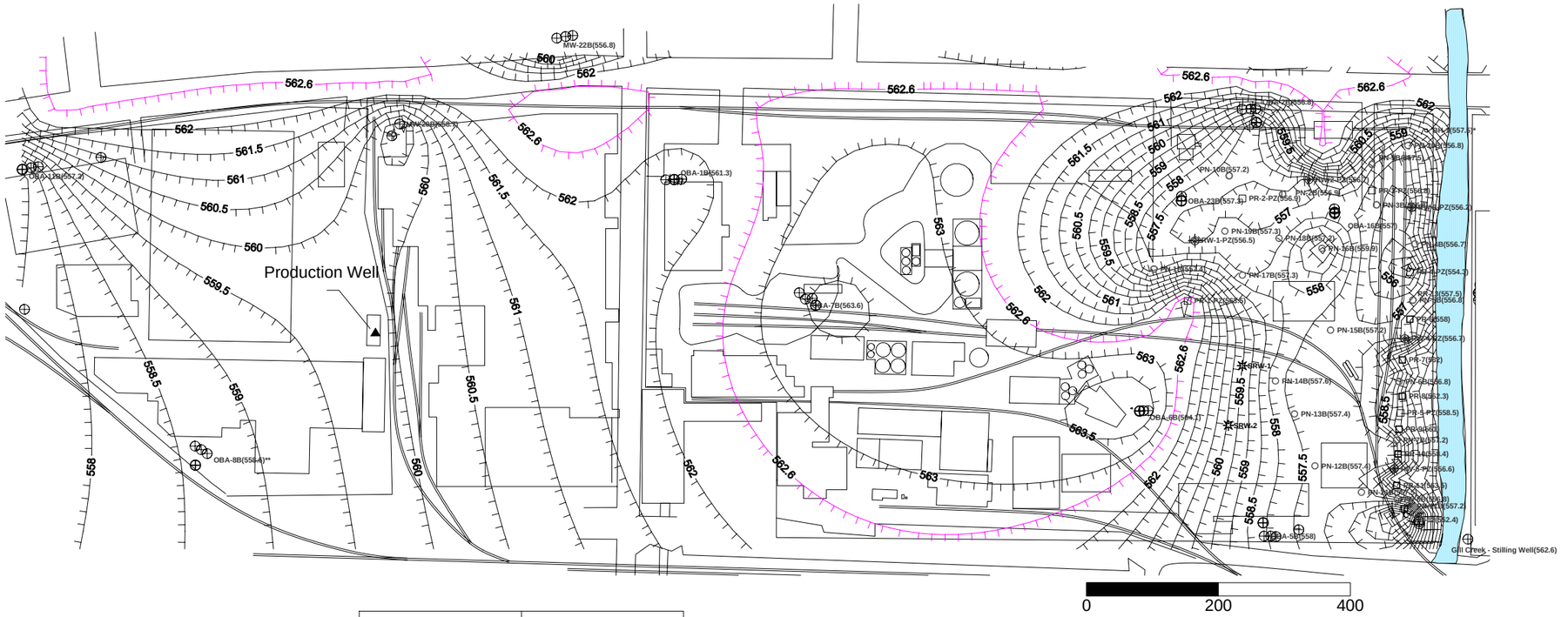
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

ARGC AREA
POTENTIOMETRIC SURFACE -- A ZONE
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 1A



Scale: 1 inch = 200 feet

LEGEND

- GILL CREEK MONITORING POINT
- OLIN PRODUCTION WELL
- A/B ZONE PIEZOMETER NESTS
- GROUNDWATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SUPPLEMENTAL REMEDIATION WELL (PASSIVE)
- PROPERTY LINE
- 565 ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- GILL CREEK AREA

Extraction Well	Average Flow Rate (gpm)***
RW-1	3.4
RW-2	30.4
RW-3	1.9
RW-4	0.9
RW-5	16.6
PR-4	2.0
PR-12	4.2
OBA-9AR	0.6

*** : Averaged using daily flow rates for May 3, 2010.
The water levels in RW-1, RW-3, RW-4, RW-5, PR-4, PR-12, and OBA-9AR were below the bottom of the A-zone.

NOTES

** Procasing broken
▲ :Olin Production Well.
Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is not known.
The ground water contours were estimated based on the sewer invert elevation.

NM: Not measured
The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well.
Contour interval = 0.5 foot
All elevation data are measured above sea level and referenced to NGVD 29

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

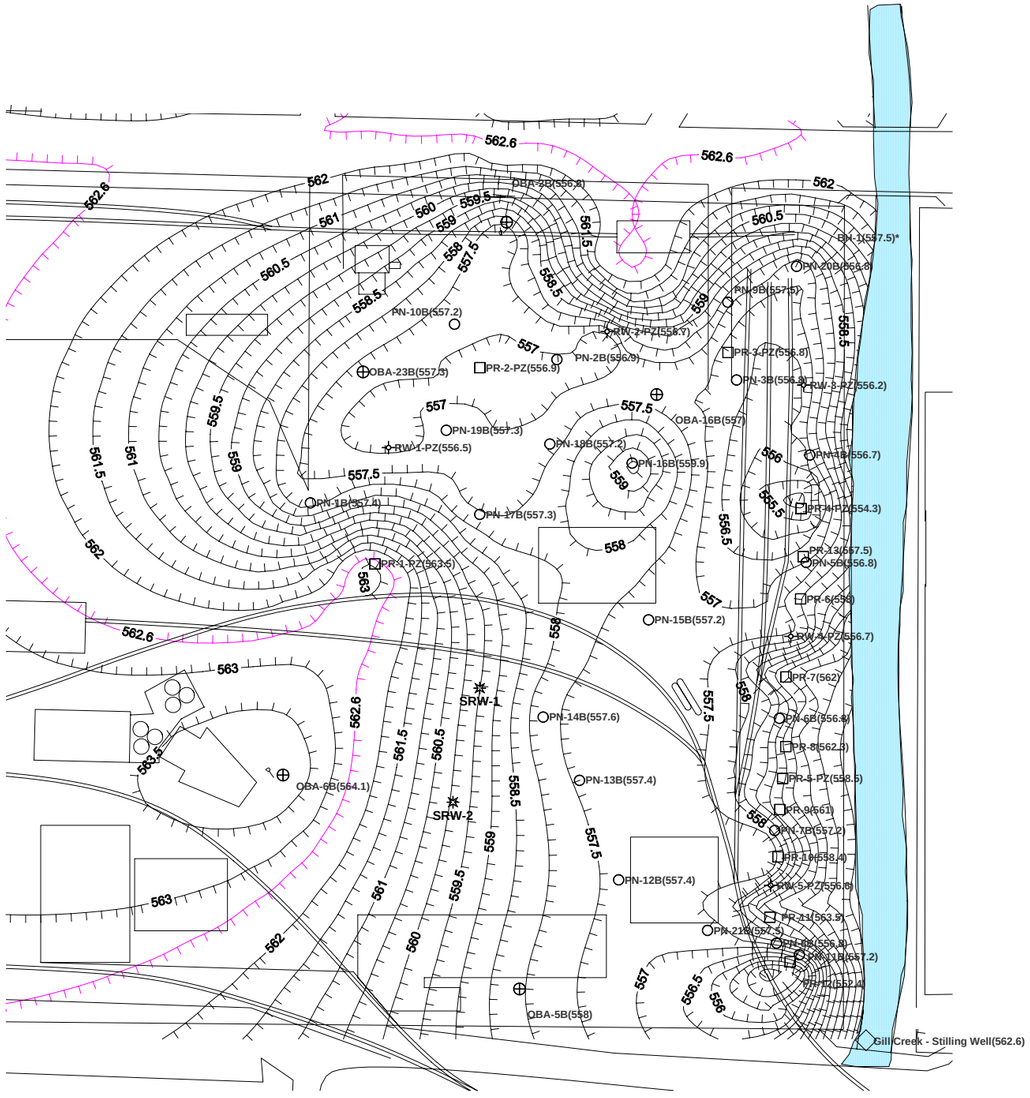
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- B ZONE
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 2



Extraction Well	Average Flow Rate (gpm)***
RW-1	3.4
RW-2	30.4
RW-3	1.9
RW-4	0.9
RW-5	16.6
PR-4	2.0
PR-12	4.2
OBA-9AR	0.6

*** : Averaged using daily flow rates for May 3, 2010.
The water levels in RW-1, RW-3, RW-4, RW-5, PR-4, PR-12, and OBA-9AR were below the bottom of the A-zone.

N

LEGEND

- GILL CREEK MONITORING POINT
- A/B ZONE PIEZOMETER NESTS
- GROUND WATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SUPPLEMENTAL REMEDIATION WELL (PASSIVE)
- PROPERTY LINE
- 565 — ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- GILL CREEK AREA

0 120 240

Scale: 1 inch = 120 feet

NOTES

** : Procasing broken
NM : Not measured
Buffalo Avenue Sewer invert is assumed to be a ground-water sink. The piezometric surface is not known.
The ground water contours were estimated based on the sewer invert elevation.

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well.
Contour interval = 0.5 foot
All elevation data are measured above sea level and referenced to NGVD 29

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

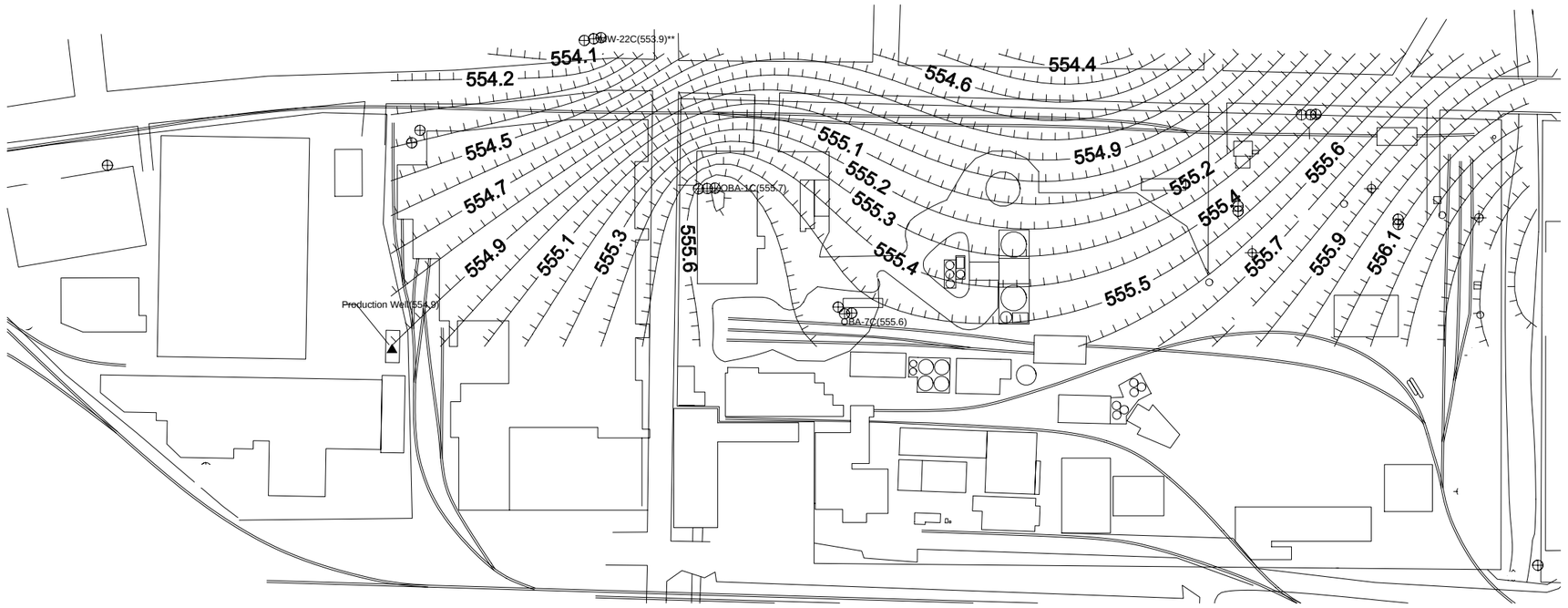
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

ARGC AREA
POTENTIOMETRIC SURFACE -- B ZONE
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 2A



LEGEND

- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- PROPERTY LINE
- 565 ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION

Well	Average Flow Rate (gpm)
Olin Production Well	501

Pumping Rate to Water Elevation Conversion:
Y = -0.00613915 (X) + 557.951

Where:
Y = Water Elevation (ft)
X = Pumping Rate (gpm)

NOTES

All elevation data are measured above sea level and referenced to NGVD 29

0 200 400
Scale 1 inch = 200 feet

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

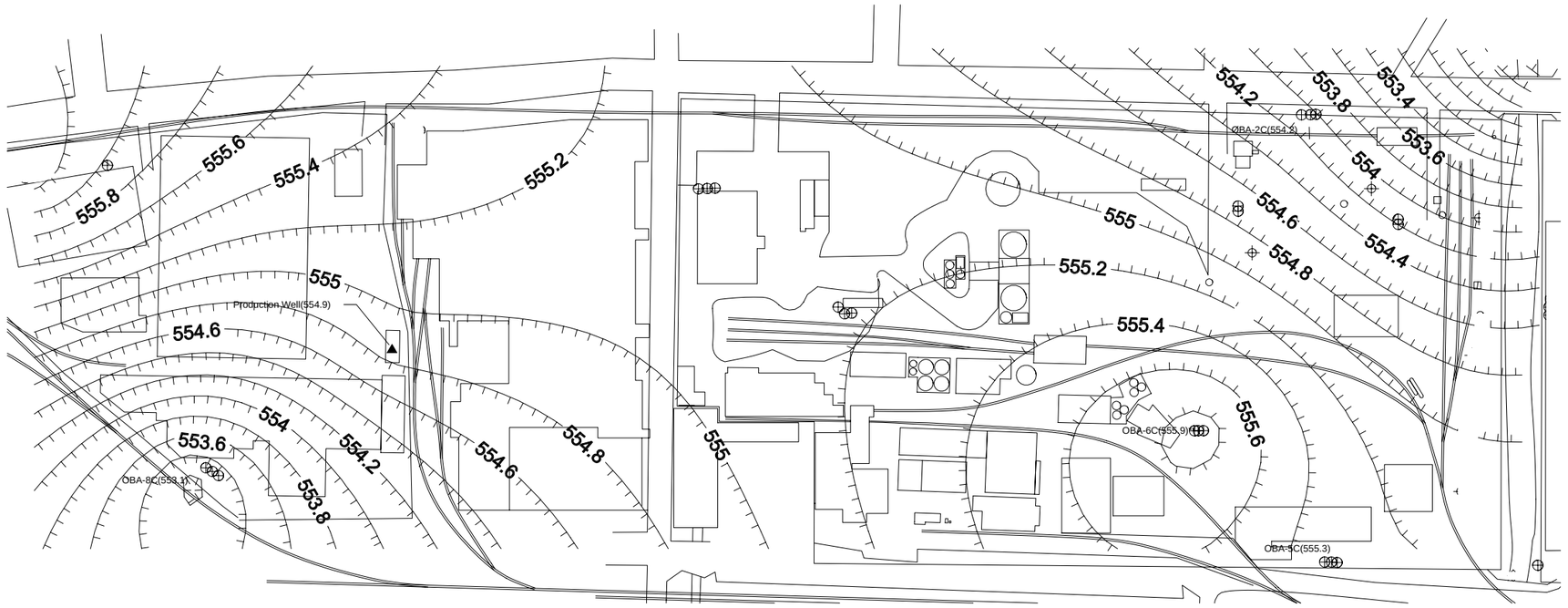
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- C ZONE
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 3



LEGEND

- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- PROPERTY LINE
- 565 ESTIMATED GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION

Well	Average Flow Rate (gpm)
Olin Production Well	501

Pumping Rate to Water Elevation Conversion:
Y = -0.00613915 (X) + 557.951

Where:
Y = Water Elevation (ft)
X = Pumping Rate (gpm)

NOTES

All elevation data are measured above sea level and referenced to NGVD 29

0 200 400

Scale 1 inch = 200 feet

POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

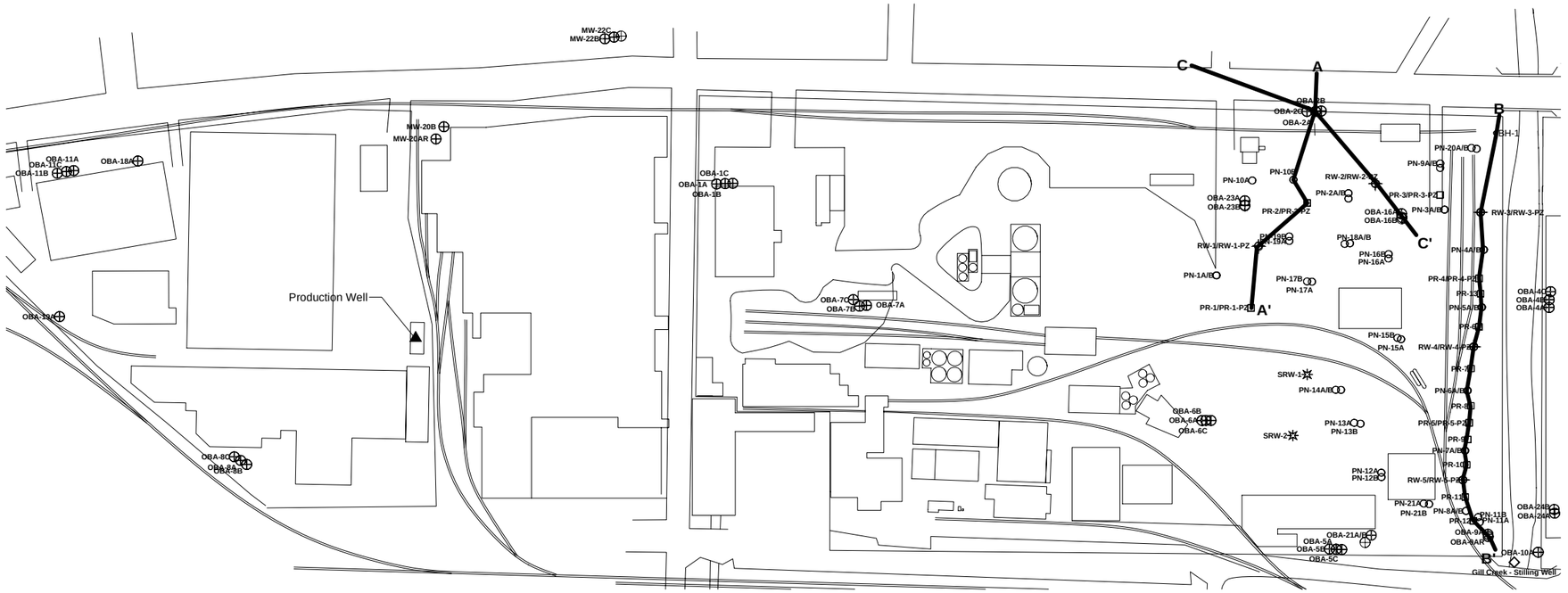
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- CD ZONE
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 4



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- ○ A/B ZONE PIEZOMETER NESTS
- ⌖ GROUNDWATER RECOVERY WELLS
- □ PASSIVE RELIEF WELLS
- ● SEWER INVERT ELEVATION
- ✲ SUPPLEMENTAL REMEDIATION WELL
- ——— PROPERTY LINE

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

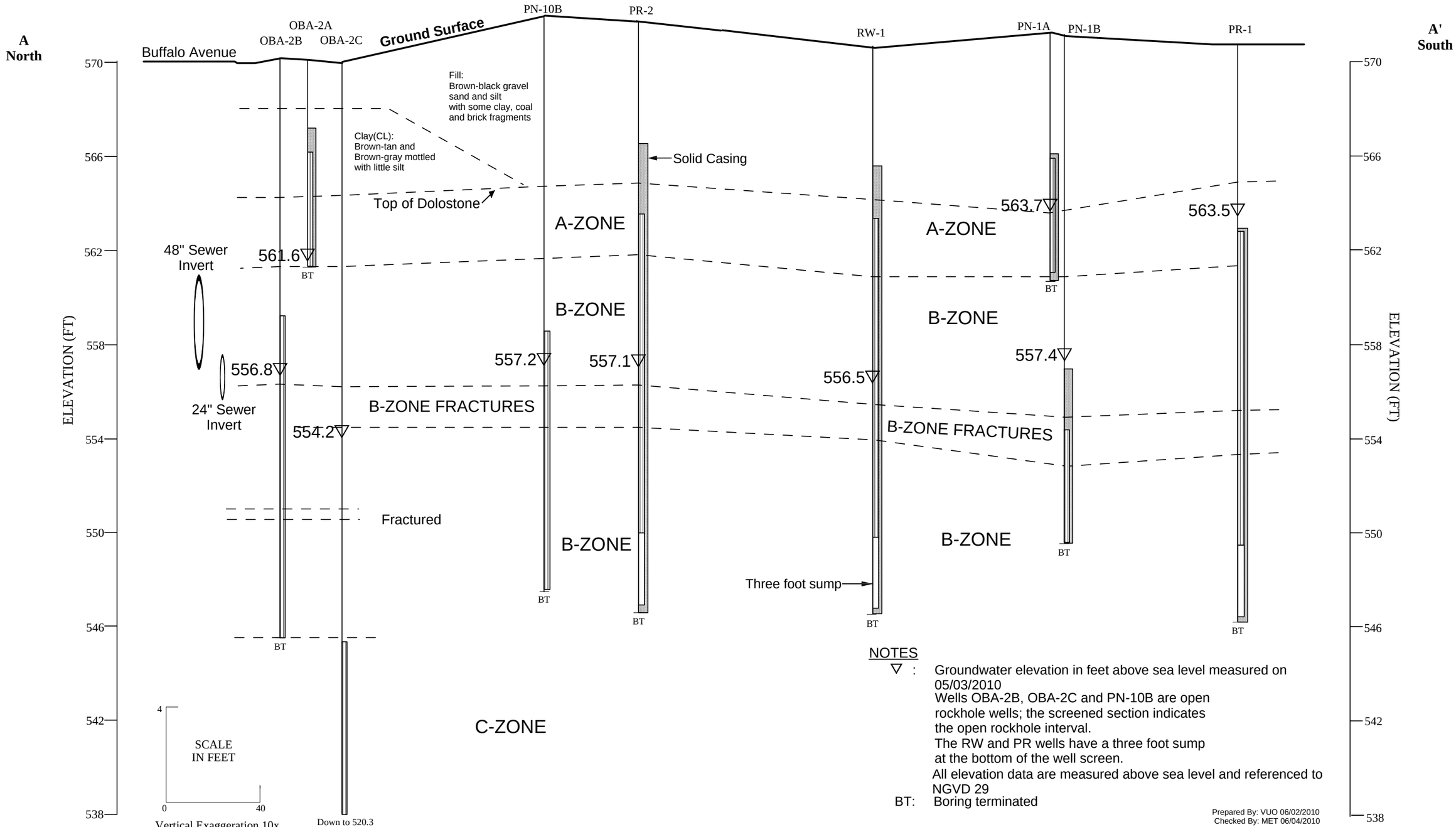
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

CROSS SECTION LOCATION MAP
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 5



NOTES

▽ : Groundwater elevation in feet above sea level measured on 05/03/2010

Wells OBA-2B, OBA-2C and PN-10B are open rockhole wells; the screened section indicates the open rockhole interval.

The RW and PR wells have a three foot sump at the bottom of the well screen.

All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

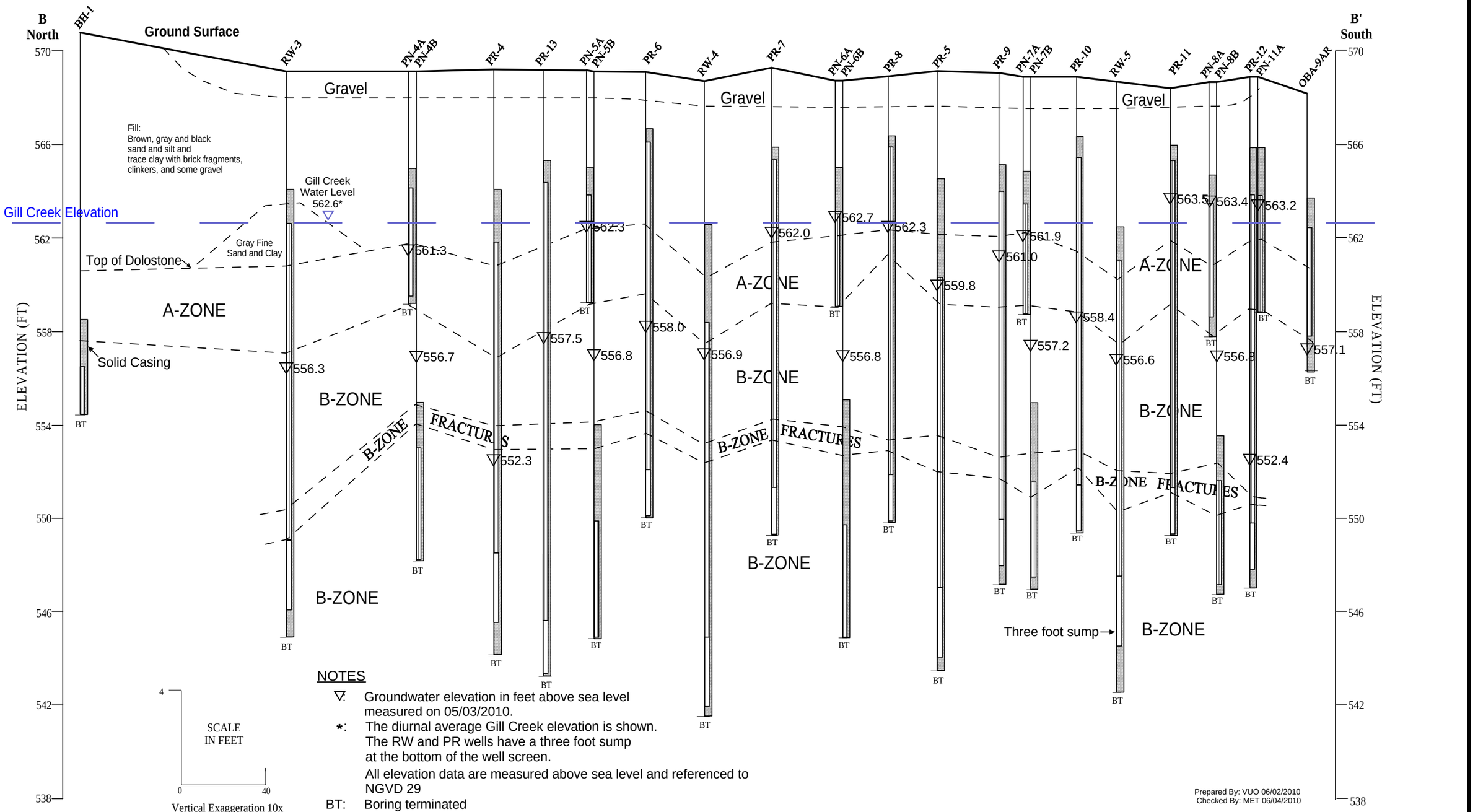
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION AA'
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 6



NOTES

▽: Groundwater elevation in feet above sea level measured on 05/03/2010.

*: The diurnal average Gill Creek elevation is shown. The RW and PR wells have a three foot sump at the bottom of the well screen.

All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

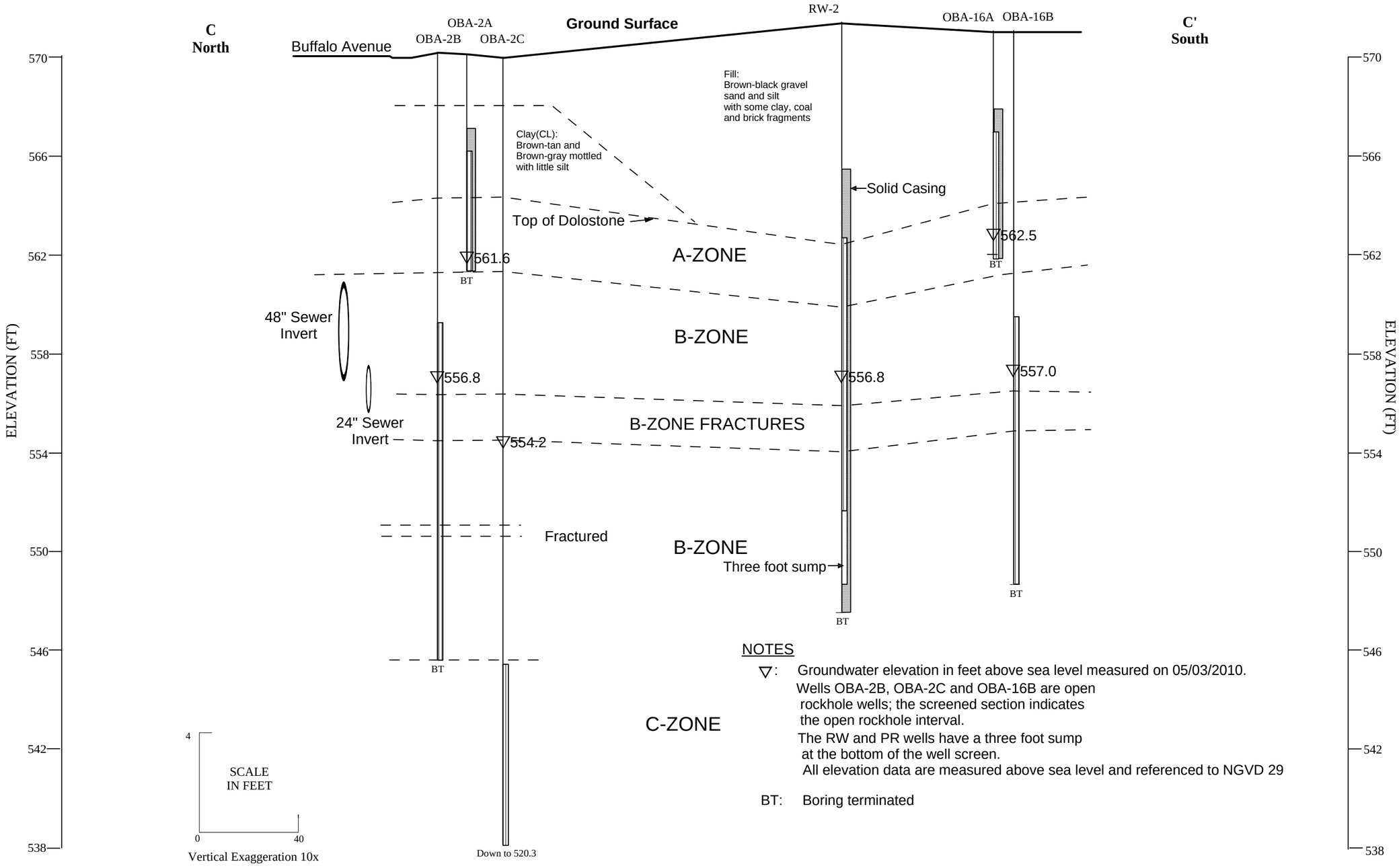
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION BB'
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 7



NOTES

▽: Groundwater elevation in feet above sea level measured on 05/03/2010.
Wells OBA-2B, OBA-2C and OBA-16B are open rockhole wells; the screened section indicates the open rockhole interval.
The RW and PR wells have a three foot sump at the bottom of the well screen.
All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 06/02/2010
Checked By: MET 06/04/2010

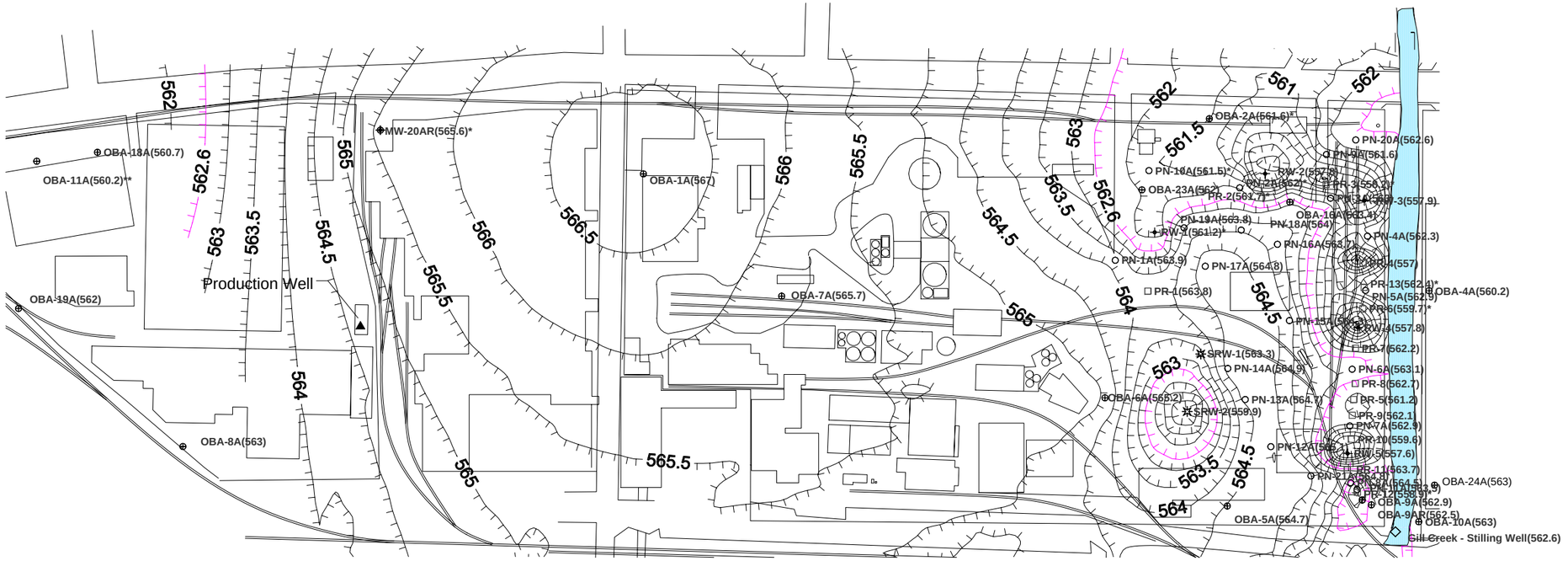
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION CC'
(MAY 3, 2010)

Job No.: 6107-10-0001

Figure 8



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- ○ A/B ZONE PIEZOMETER NESTS
- ⌖ GROUNDWATER RECOVERY WELLS
- □ PASSIVE RELIEF WELLS
- ✲ SUPPLEMENTAL REMEDIATION WELL (PASSIVE)

565 GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)

EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION (HACH LINES SHOWING FLOW DIRECTION)

GILL CREEK AREA

Extraction Well	Average Flow Rate (gpm)***
RW-1	1.4
RW-2	31.0
RW-3	8.6
RW-4	5.1
RW-5	17.9
PR-4	10.4
PR-12	3.9
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 24, 2010. The water levels in RW-1, RW-3, RW-4, and PR-12 were below the bottom of the A-zone.

0 200 400

Scale 1 inch = 200 feet

NOTES

* : Well dry or water level below the bottom of the A-zone, elevation of bottom of A-Zone used in contouring.

Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is estimated as the bottom of the A-zone. The bottom of the A-zone along Buffalo Avenue was estimated from borings OBA-1A, OBA-2A, OBA-3A, and OBA-11A.

** : Procasing broken

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well. The average diurnal elevation on August 24, 2010 (562.6 ft msl) was used in contouring the A zone.

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

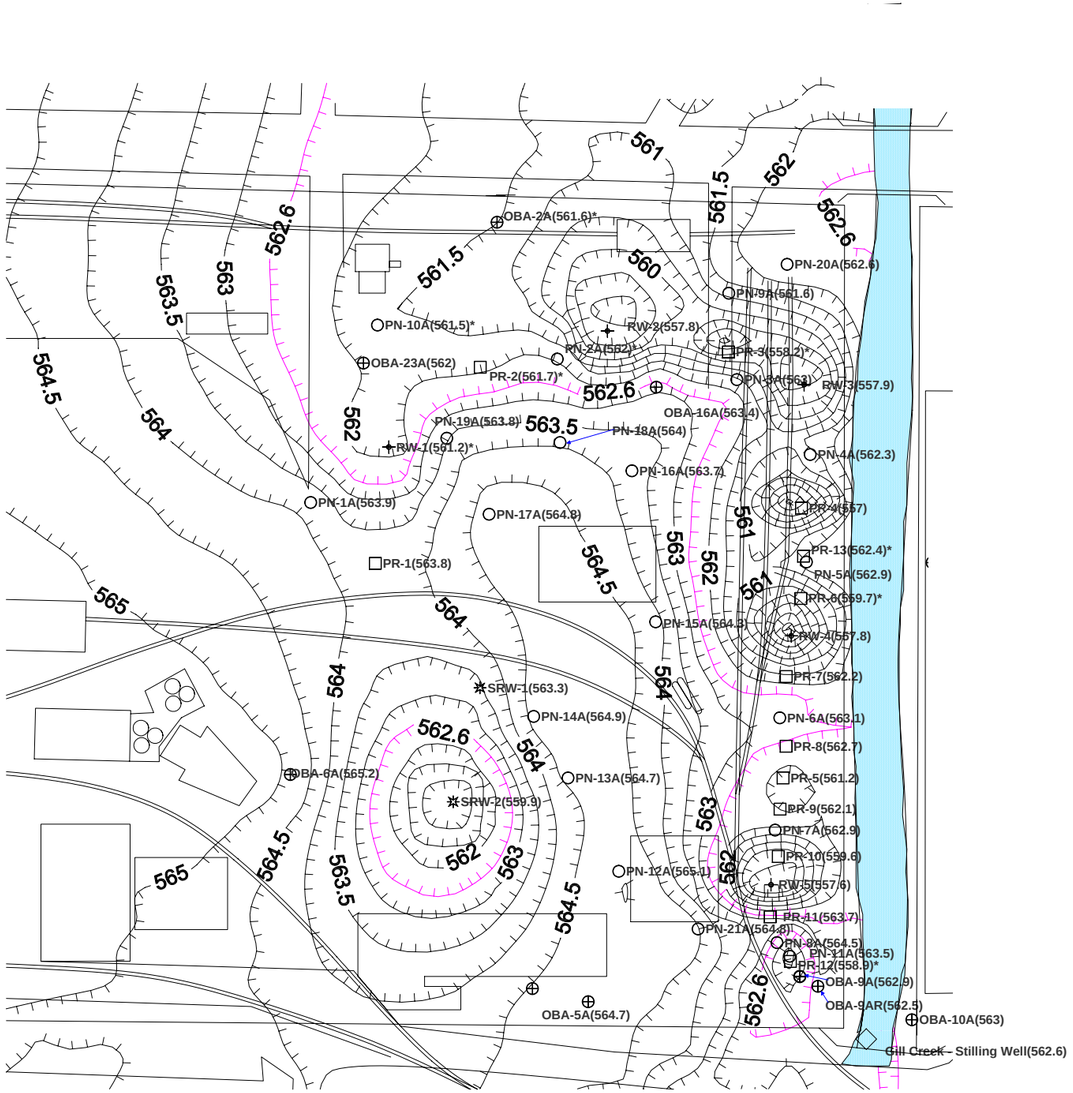
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- A ZONE (AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 1



Extraction Well	Average Flow Rate (gpm)***
RW-1	1.4
RW-2	31.0
RW-3	8.6
RW-4	5.1
RW-5	17.9
PR-4	10.4
PR-12	3.9
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 24, 2010. The water levels in RW-1, RW-3, RW-4, and PR-12 were below the bottom of the A-zone.

N

LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- ○ A/B ZONE PIEZOMETER NESTS
- ⌖ GROUND WATER RECOVERY WELLS
- □ PASSIVE RELIEF WELLS
- ✳ SUPPLEMENTAL REMEDIATION WELL (PASSIVE)
- 565 GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION (HACH LINES SHOWING FLOW DIRECTION)
- GILL CREEK AREA

0 120 240

Scale 1 inch = 120 feet

NOTES

* : Well dry or water level below the bottom of the A-zone, elevation of bottom of A-Zone used in contouring.

Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is estimated as the bottom of the A-zone. The bottom of the A-zone along Buffalo Avenue was estimated from borings OBA-1A, OBA-2A, OBA-3A, and OBA-11A.

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well. The average diurnal elevation on August 24, 2010 (562.6 ft msl) was used in contouring the A zone.

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

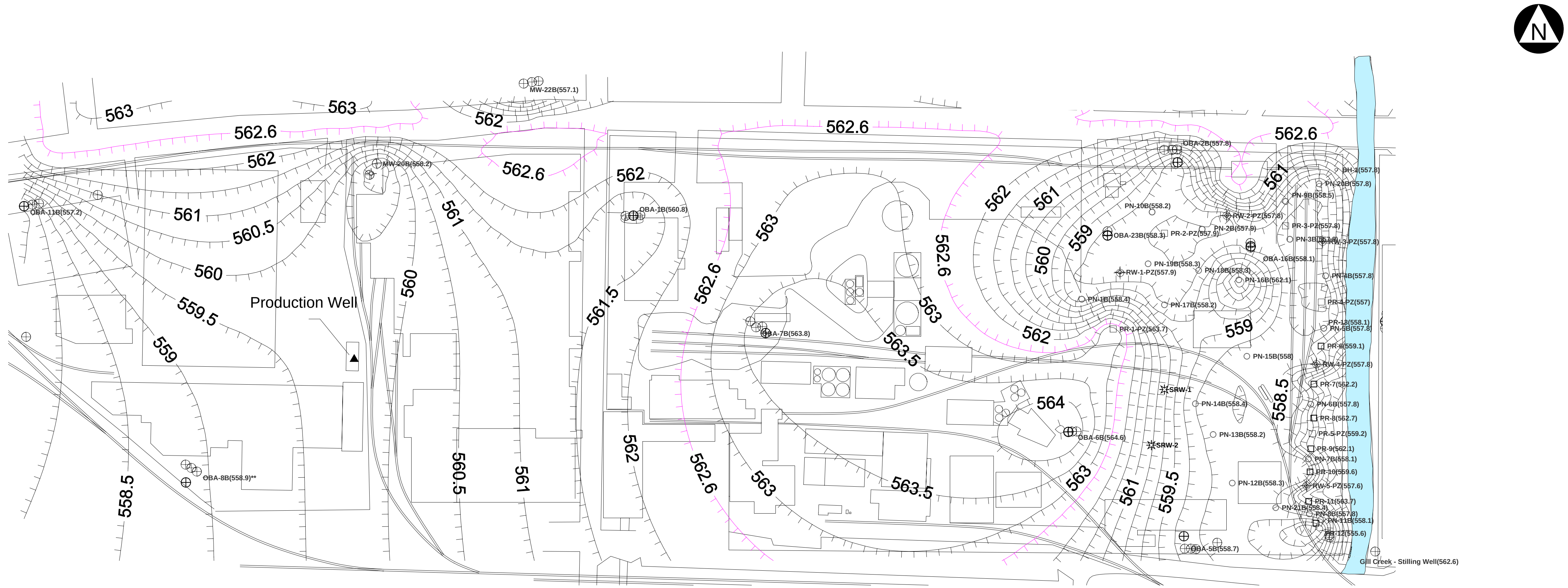
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

ARGC AREA
POTENTIOMETRIC SURFACE -- A ZONE
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 1A



0 200 400

Scale: 1 inch = 200 feet

LEGEND

◇ GILL CREEK MONITORING POINT

▲ OLIN PRODUCTION WELL

○ A/B ZONE PIEZOMETER NESTS

⌖ GROUNDWATER RECOVERY WELLS

□ PASSIVE RELIEF WELLS

SUPPLEMENTAL REMEDIATION WELL (PASSIVE)

EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION
(HACH LINES SHOWING FLOW DIRECTION)

565 GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)

GILL CREEK AREA

Extraction Well	Average Flow Rate (gpm)***
RW-1	1.4
RW-2	31.0
RW-3	8.6
RW-4	5.1
RW-5	17.9
PR-4	10.4
PR-12	3.9
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 24, 2010.
The water levels in RW-1, RW-3, RW-4, and PR-12
were below the bottom of the A-zone.

NOTES

** Procasing broken

▲ : Olin Production Well.

Buffalo Avenue Sewer invert is assumed to be a groundwater sink. The piezometric surface is not known.
The ground water contours were estimated based on the sewer invert elevation.

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well.
Contour interval = 0.5 foot

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

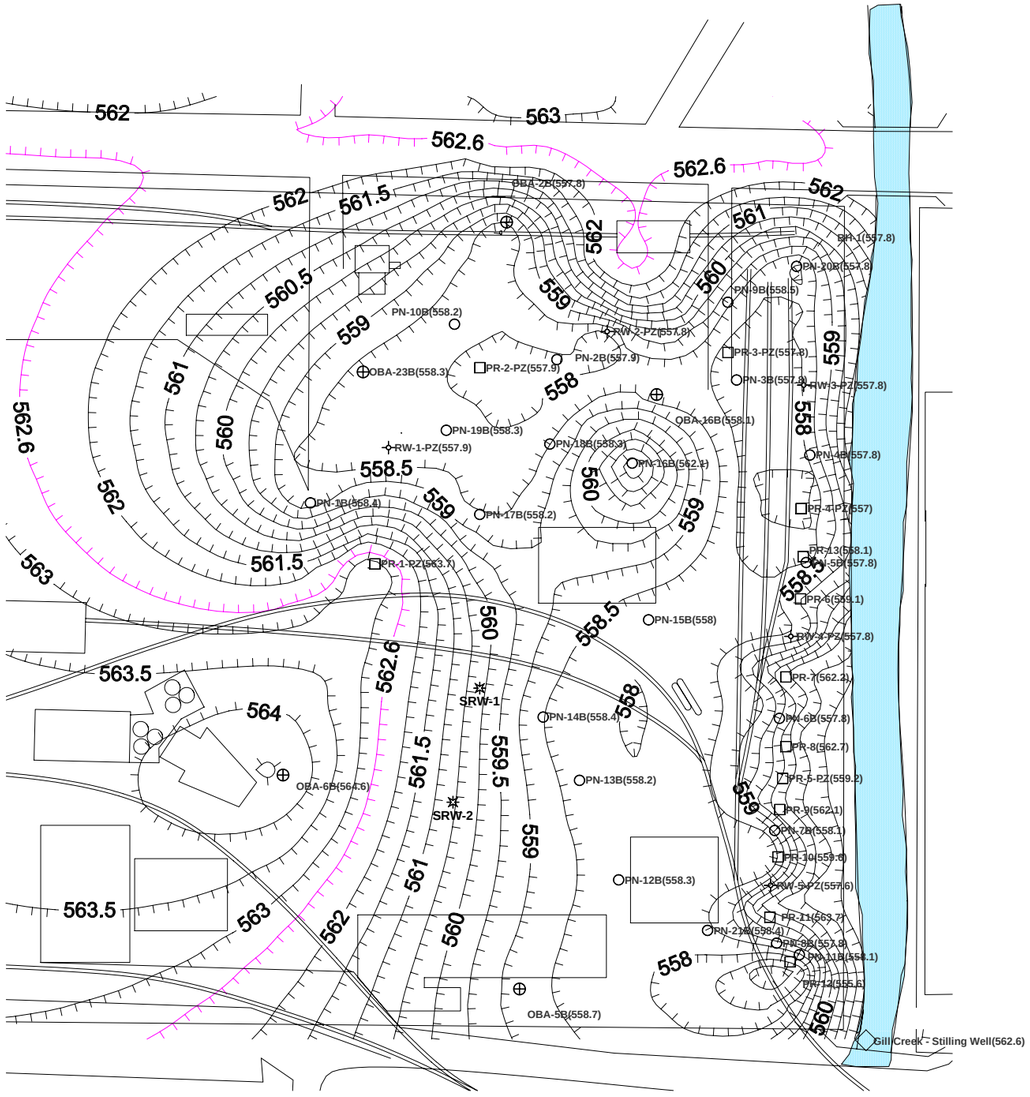
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- B ZONE
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 2



Extraction Well	Average Flow Rate (gpm)***
RW-1	1.4
RW-2	31.0
RW-3	8.6
RW-4	5.1
RW-5	17.9
PR-4	10.4
PR-12	3.9
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 24, 2010. The water levels in RW-1, RW-3, RW-4, and PR-12 were below the bottom of the A-zone.

N

LEGEND

- GILL CREEK MONITORING POINT
- WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- GROUND WATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SUPPLEMENTAL REMEDIATION WELL
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION (HACH LINES SHOWING FLOW DIRECTION)
- 565 — GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION (CONTOUR INTERVAL: 0.5 FOOT)
- GILL CREEK AREA

0 120 240

Scale: 1 inch = 120 feet

NOTES

Buffalo Avenue Sewer invert is assumed to be a ground-water sink. The piezometric surface is not known. The ground water contours were estimated based on the sewer invert elevation.

The Gill Creek elevation is continuously monitored (1 hr intervals), using a data logging transducer installed in the Gill Creek stilling well.
Contour interval = 0.5 foot

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

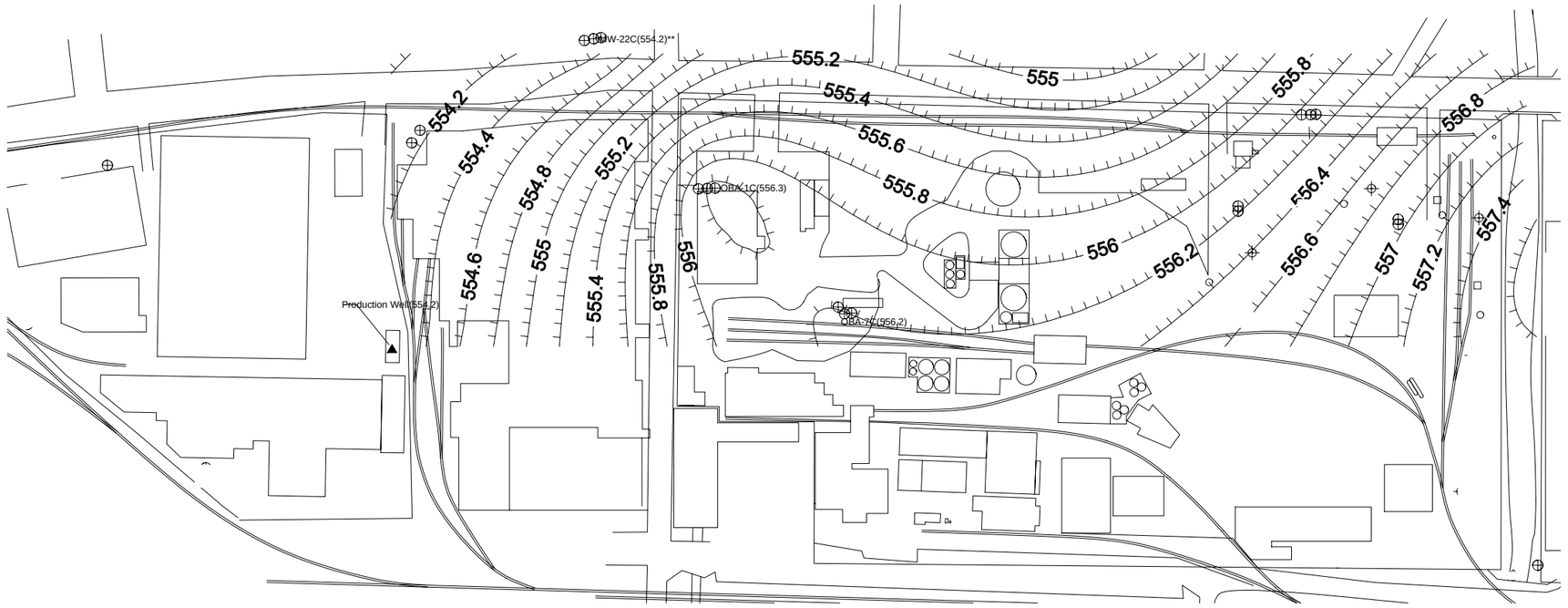
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

ARGC AREA
POTENTIOMETRIC SURFACE -- B ZONE
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 2A



LEGEND

- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- 565 GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION

Well	Average Flow Rate (gpm)
Olin Production Well	610

Pumping Rate to Water Elevation Conversion:
Y = -0.00613915 (X) + 557.951

Where:
Y = Water Elevation (ft)
X = Pumping Rate (gpm)

NOTES

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

0 200 400

Scale 1 inch = 200 feet

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

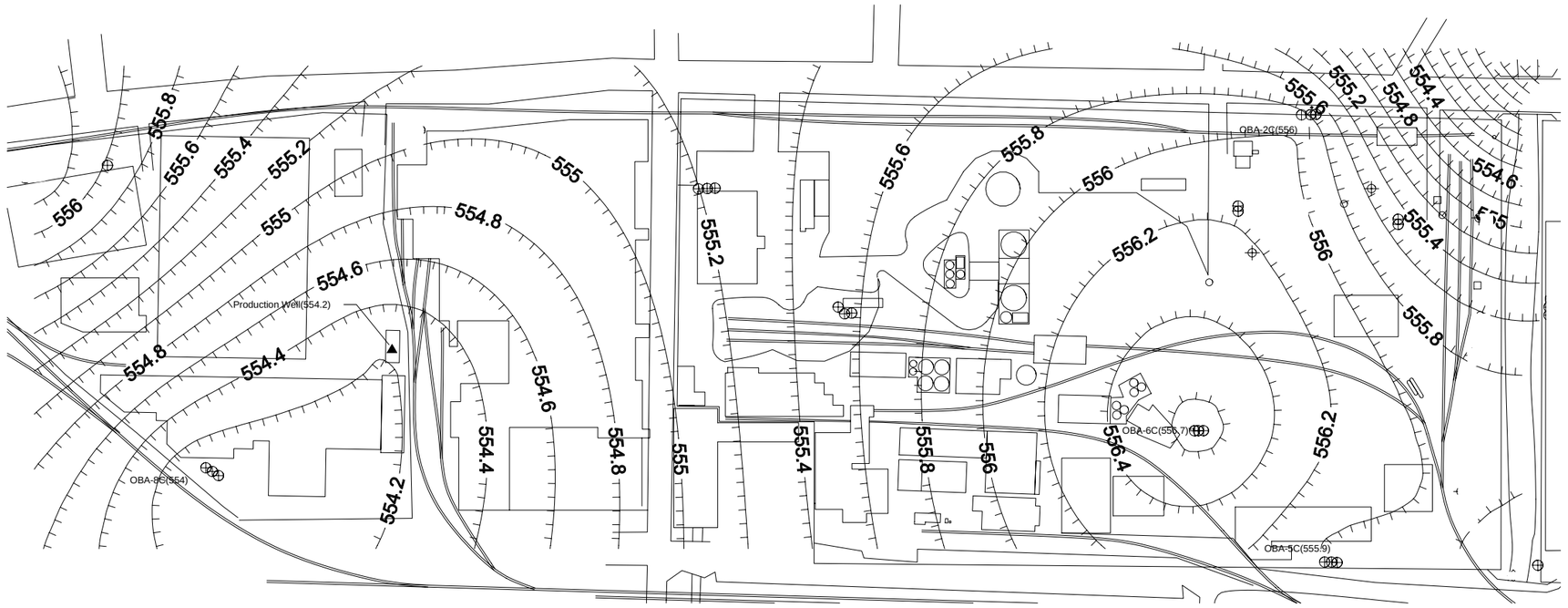
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- C ZONE
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 3



LEGEND

- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- 565 GROUNDWATER CONTOUR LINES WITH HACH SHOWING FLOW DIRECTION

Well	Average Flow Rate (gpm)
Olin Production Well	610

Pumping Rate to Water Elevation Conversion:
Y = -0.00613915 (X) + 557.951

Where:
Y = Water Elevation (ft)
X = Pumping Rate (gpm)

NOTES

All elevation data are measured above sea level and referenced to NGVD 29

Only points onsite are shown. Points offsite are not included for clarity

0 200 400

Scale 1 inch = 200 feet

POTENTIOMETRIC SURFACE CONTOUR USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002.

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

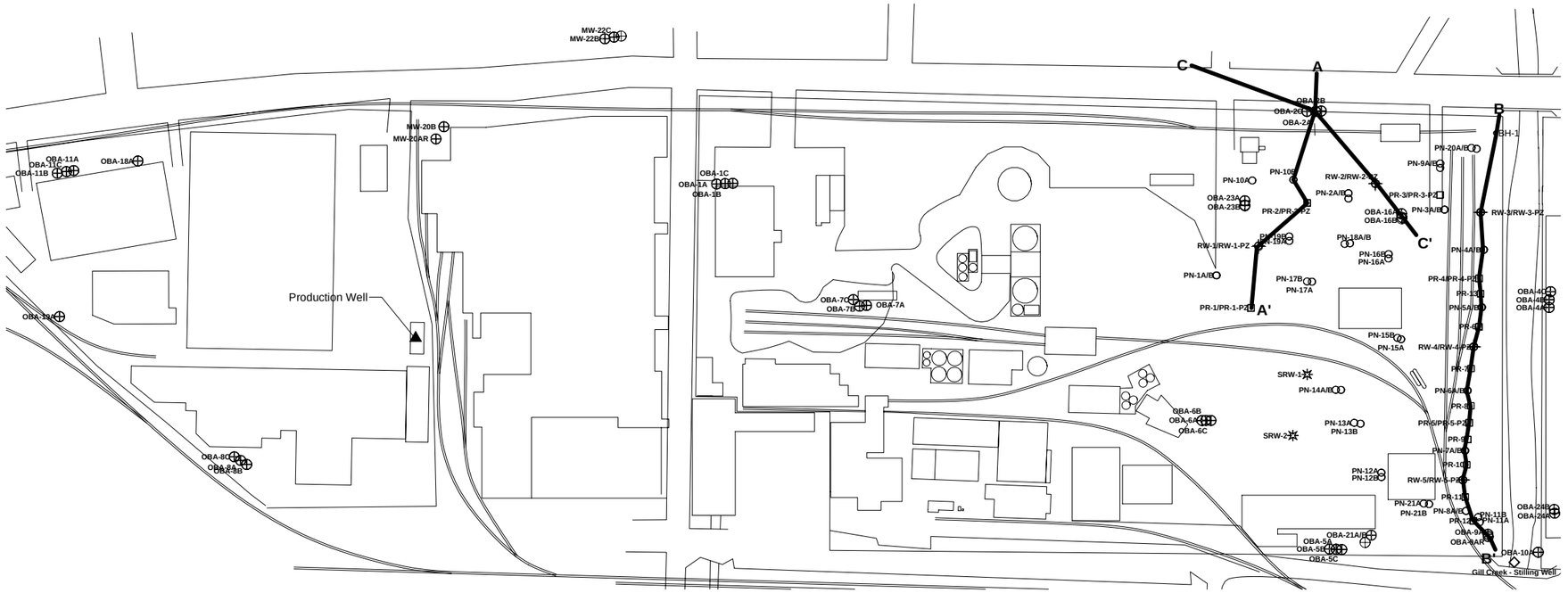
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

POTENTIOMETRIC SURFACE -- CD ZONE
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 4



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL
- ⊕ WATER QUALITY MONITORING WELLS
- ○ A/B ZONE PIEZOMETER NESTS
- ⌖ GROUNDWATER RECOVERY WELLS
- □ PASSIVE RELIEF WELLS
- ● SEWER INVERT ELEVATION
- ✲ SUPPLEMENTAL REMEDIATION WELL
- ——— PROPERTY LINE

0 200 400

Scale 1 inch = 200 feet

Prepared By: VUO 10/8/2010

Checked By: MET 10/11/2010

OLIN CORPORATION
NIAGARA FALLS, NEW YORK

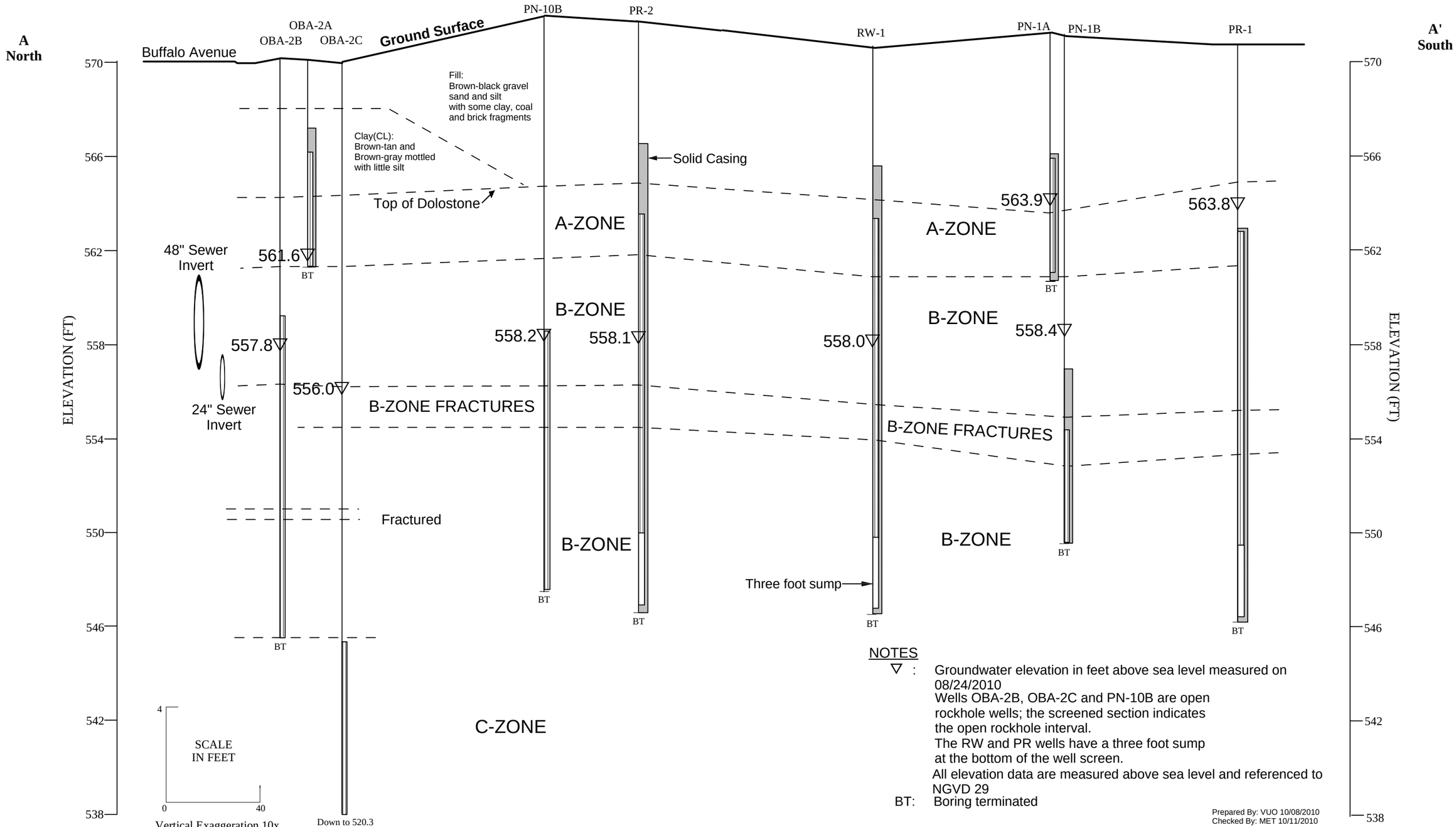
MACTEC

CROSS SECTION LOCATION MAP

(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 5



NOTES

▽ : Groundwater elevation in feet above sea level measured on 08/24/2010

Wells OBA-2B, OBA-2C and PN-10B are open rockhole wells; the screened section indicates the open rockhole interval.

The RW and PR wells have a three foot sump at the bottom of the well screen.

All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

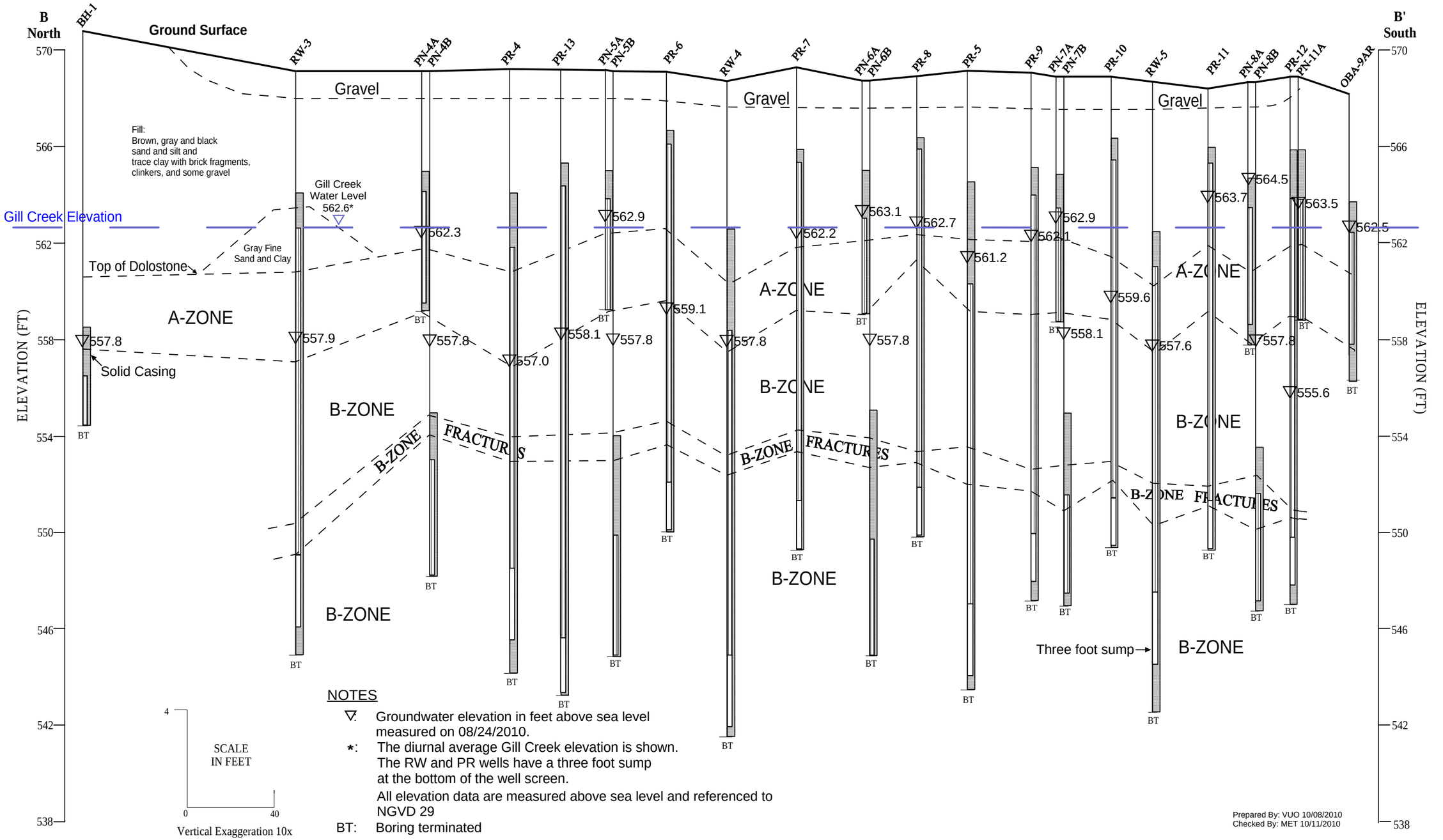
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION AA'
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 6



NOTES

▽: Groundwater elevation in feet above sea level measured on 08/24/2010.

*: The diurnal average Gill Creek elevation is shown. The RW and PR wells have a three foot sump at the bottom of the well screen.

All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

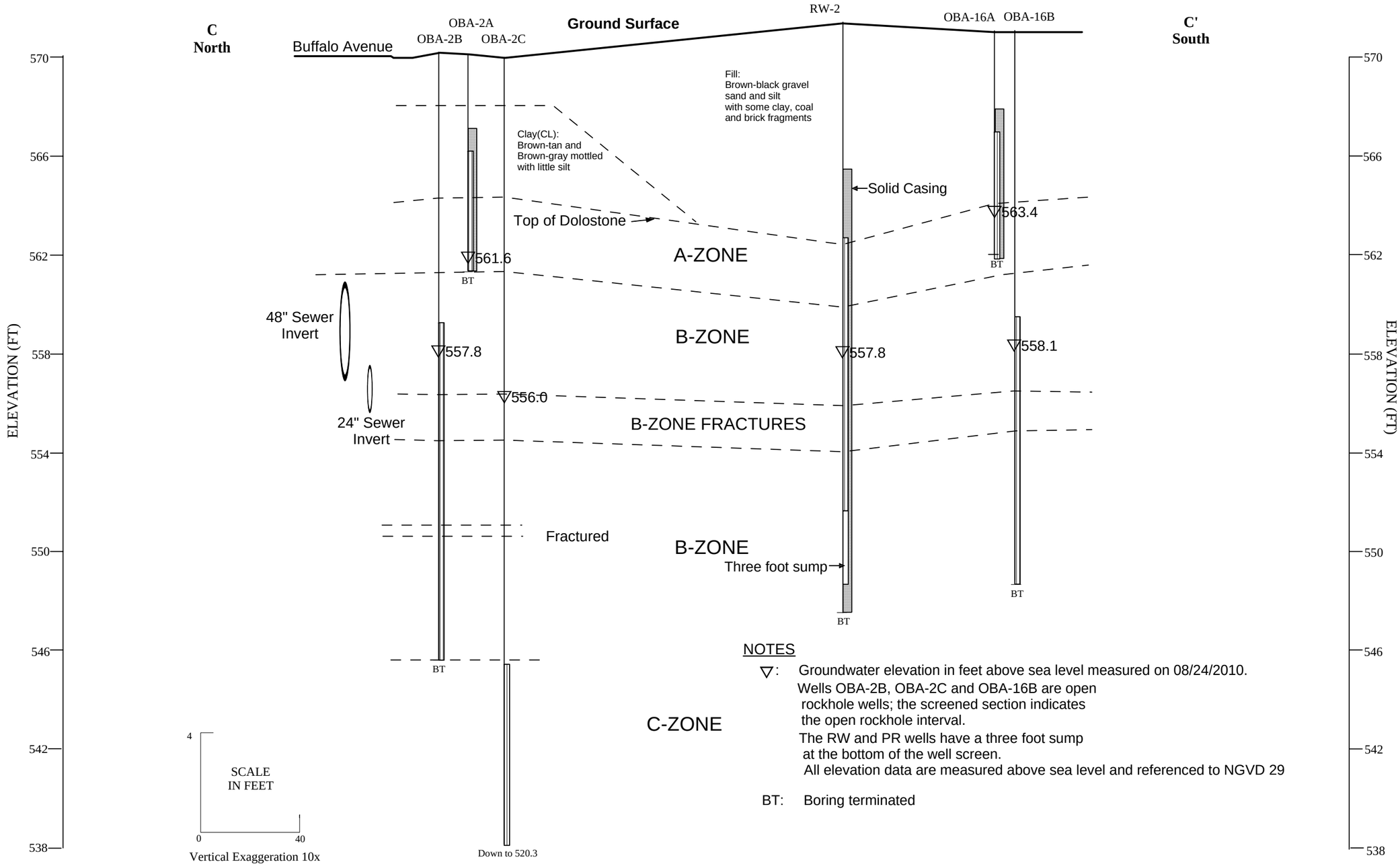
OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION BB'
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 7



NOTES

▽: Groundwater elevation in feet above sea level measured on 08/24/2010.
Wells OBA-2B, OBA-2C and OBA-16B are open rockhole wells; the screened section indicates the open rockhole interval.
The RW and PR wells have a three foot sump at the bottom of the well screen.
All elevation data are measured above sea level and referenced to NGVD 29

BT: Boring terminated

Prepared By: VUO 10/08/2010
Checked By: MET 10/11/2010

OLIN CORPORATION
NIAGARA FALLS, NEW YORK

MACTEC

HYDROGEOLOGIC CROSS SECTION CC'
(AUGUST 24, 2010)

Job No.: 6107-10-0001

Figure 8

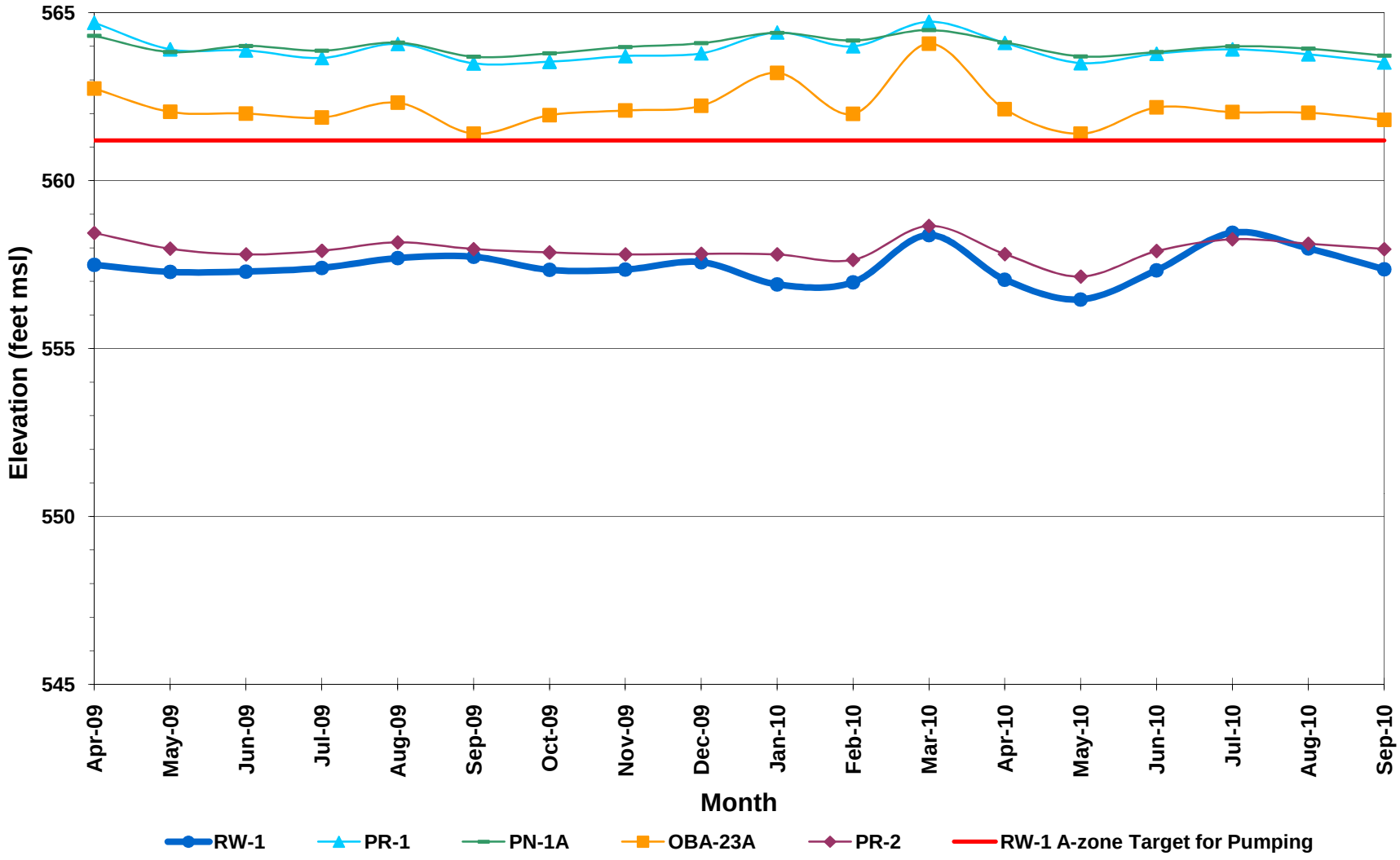
Table A-1
A-Zone
RW-1 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
PR-1	564.70	563.91	563.88	563.65	564.07	563.49	563.54	563.71	563.79	564.41	564.00	564.73	564.10	563.50	563.78	563.91	563.76	563.52
PN-1A	564.31	563.83	564.01	563.87	564.11	563.69	563.79	563.98	564.09	564.40	564.17	564.48	564.12	563.70	563.83	564.00	563.93	563.72
RW-1	557.49	557.28	557.29	557.40	557.69	557.73	557.34	557.35	557.57	556.91	556.97	558.38	557.05	556.46	557.33	558.45	557.98	557.36
OBA-23A	562.74	562.05	562.00	561.88	562.32	561.40	561.95	562.09	562.23	563.21	561.99	564.08	562.13	561.40	562.18	562.04	562.02	561.81
PR-2	558.44	557.97	557.80	557.91	558.16	557.96	557.86	557.80	557.82	557.80	557.64	558.65	557.81	557.14	557.90	558.25	558.12	557.96
RW-1 A-zone Target	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20

Notes:
Elevations are reported in feet above mean seal level (msl)
*An elevation of 561.40 feet msl for OBA-23A indicates that this well is dry.
#N/A Unable to collect water level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-1
RW-1 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

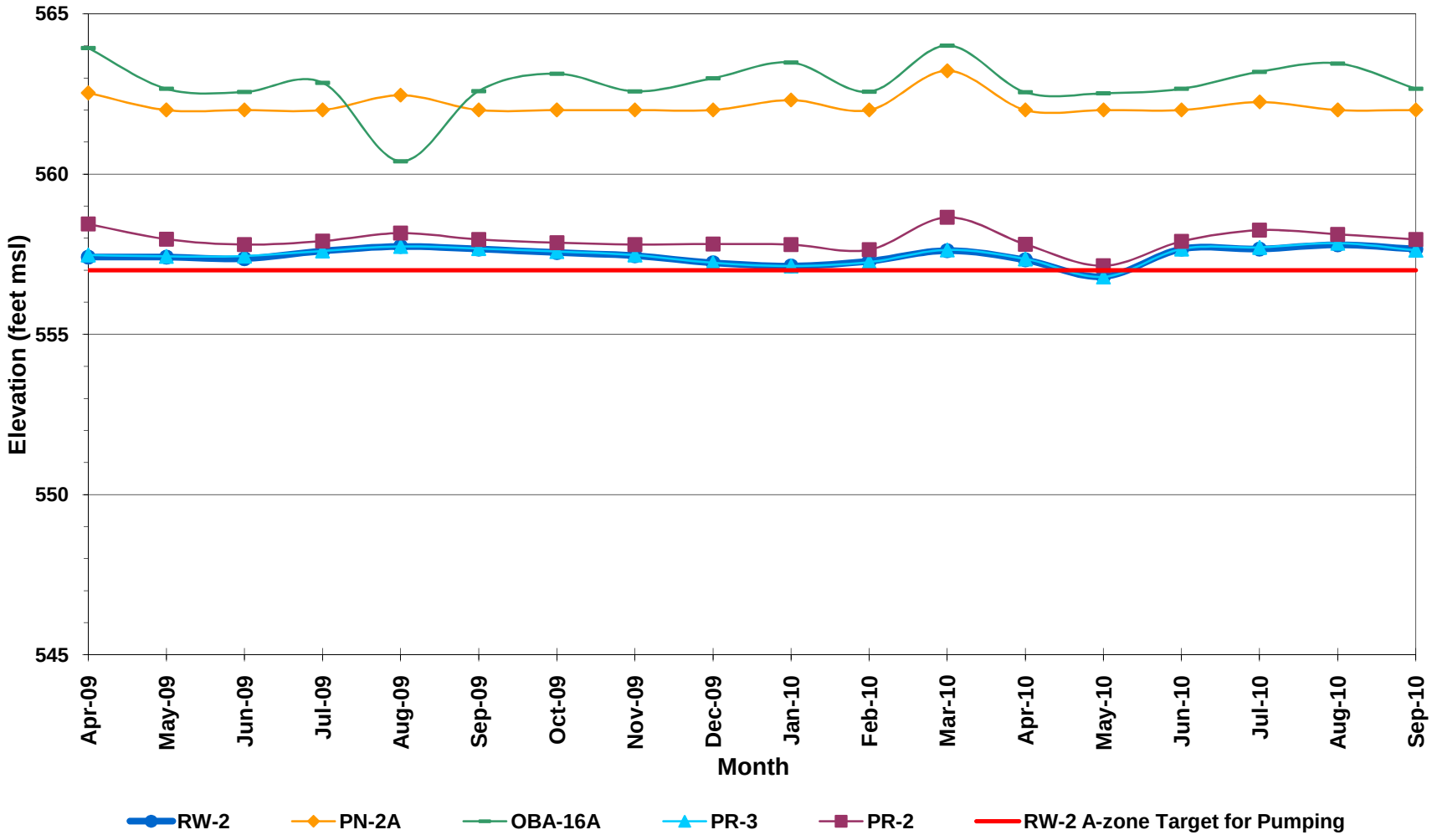
Table A-2
A-Zone
RW-2 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
PN-2A*	562.53	562.00	562.00	562.00	562.46	562.00	562.00	562.00	562.00	562.31	562.00	563.22	562.00	562.00	562.00	562.25	562.00	562.00
RW-2	557.41	557.41	557.36	557.60	557.74	557.66	557.55	557.45	557.23	557.13	557.28	557.61	557.32	556.80	557.66	557.66	557.79	557.66
OBA-16A	563.93	562.66	562.56	562.85	560.40	562.59	563.13	562.58	562.99	563.48	562.57	564.01	562.55	562.52	562.66	563.19	563.45	562.66
PR-3	557.47	557.43	557.44	557.60	557.74	557.67	557.58	557.47	557.23	557.13	557.25	557.63	557.35	556.79	557.66	557.71	557.84	557.62
PR-2	558.44	557.97	557.80	557.91	558.16	557.96	557.86	557.80	557.82	557.80	557.64	558.65	557.81	557.14	557.90	558.25	558.12	557.96
RW-2 A-zone Target	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00

Notes:
Elevations are reported in feet above mean seal level (msl)
*An elevation of 562.00 feet msl for PN-2A indicates that the piezometer is dry.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-2
RW-2 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

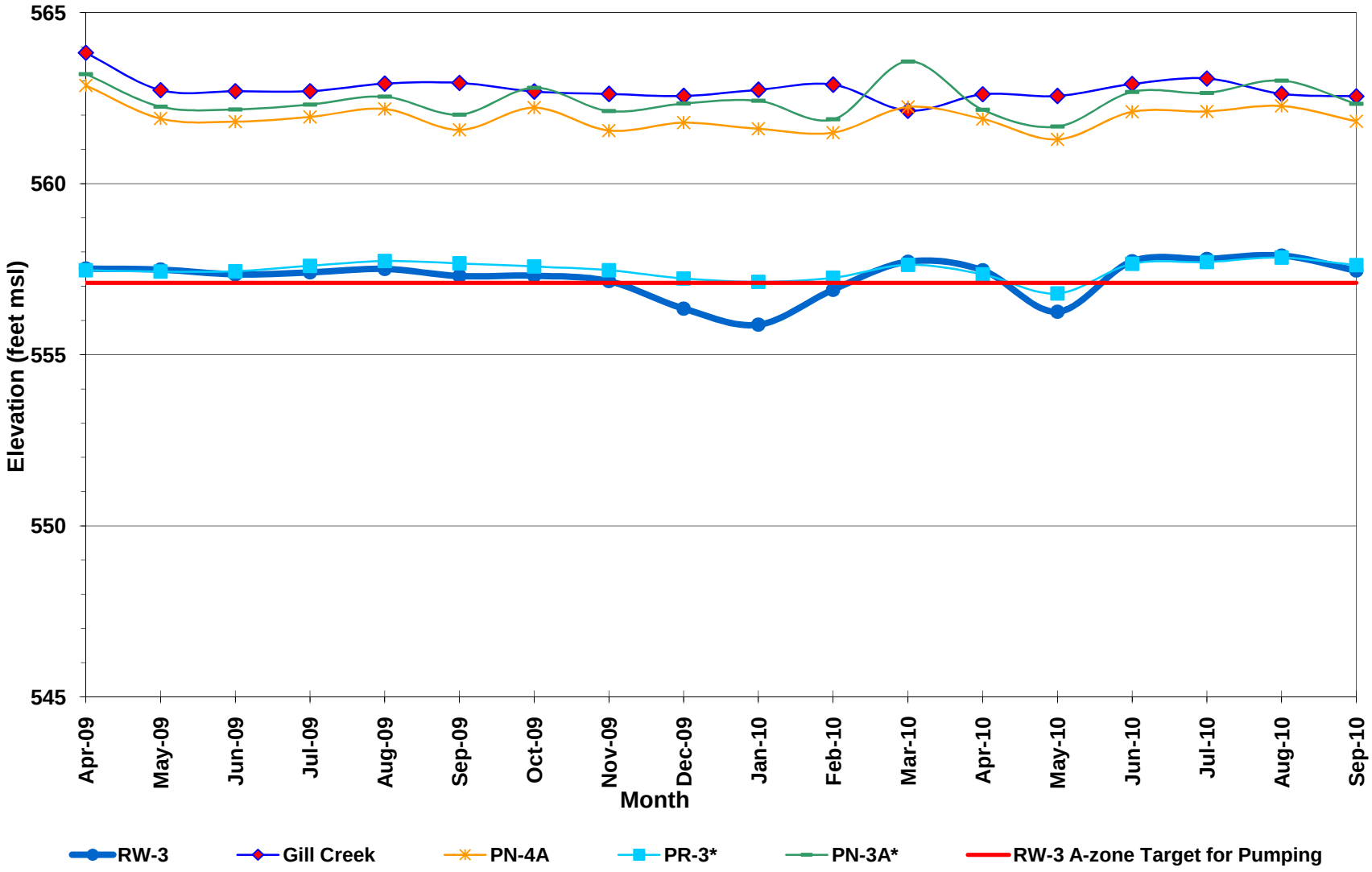
Table A-3
A-Zone
RW-3 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PN-3A	563.20	562.25	562.17	562.31	562.54	562.02	562.80	562.12	562.34	562.42	561.88	563.57	562.16	561.67	562.68	562.65	563.01	562.33
RW-3	557.52	557.49	557.35	557.41	557.51	557.30	557.31	557.15	556.35	555.88	556.90	557.72	557.47	556.26	557.73	557.80	557.90	557.46
PN-4A	562.87	561.90	561.81	561.95	562.18	561.57	562.22	561.55	561.78	561.60	561.49	562.24	561.89	561.29	562.10	562.11	562.27	561.82
PR-3	557.47	557.43	557.44	557.60	557.74	557.67	557.58	557.47	557.23	557.13	557.25	557.63	557.35	556.79	557.66	557.71	557.84	557.62
RW-3 A-zone Target	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10

Note:
Elevations are reported in feet above mean seal level (msl)

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-3
RW-3 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Table A-4

A-Zone

RW-4 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PN-5A	562.92	562.53	562.59	562.80	562.84	562.63	562.88	562.36	562.50	562.47	562.22	562.73	562.52	562.29	562.64	562.83	562.93	562.67
PR-13**	558.08	557.88	557.76	558.02	558.09	557.97	557.89	557.84	557.64	557.58	557.56	558.05	557.77	557.55	557.94	557.95	558.07	557.88
RW-4	555.93	556.25	557.08	557.56	557.62	557.45	557.55	557.46	557.25	557.16	557.31	557.64	557.41	556.86	557.66	557.69	557.77	557.60
PN-6A	563.44	563.04	563.09	563.00	563.20	562.74	563.13	562.72	562.92	562.98	562.82	563.45	563.11	562.70	563.11	563.10	563.13	562.91
PR-6*	560.84	559.90	559.72	559.59	559.72	559.75	559.63	559.34	558.93	558.63	558.61	559.24	558.74	558.03	558.73	558.87	559.11	559.16
PR-7*	563.88	562.37	562.25	562.47	562.26	562.26	562.10	562.18	562.13	562.30	561.39	563.97	562.39	562.04	562.29	562.48	562.23	562.11
RW-4 A-zone Target	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30

Notes:

Elevations are reported in feet above mean seal level (msl)

Due to significant well loss documented in RW-4 for March-02, the water level in RW-4-PZ is used as a more accurate water level for RW-4.

* Passive relief well installed in September 2002.

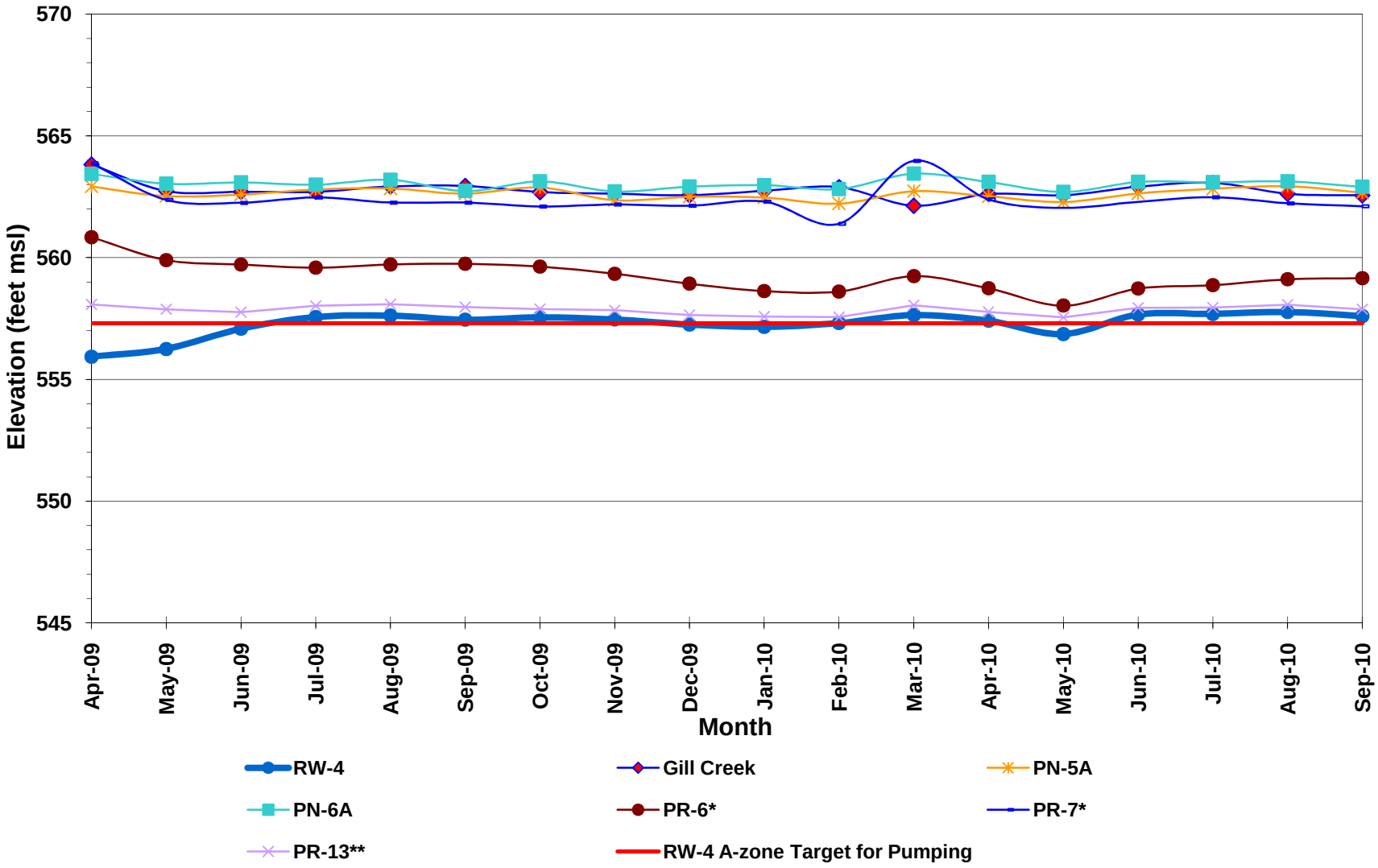
** Passive relief well Installed June 2003

NI - Not Installed

Prepared by : AWE 10/7/2010

Checked by: KPH 10/12/2010

Figure A-4
RW-4 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

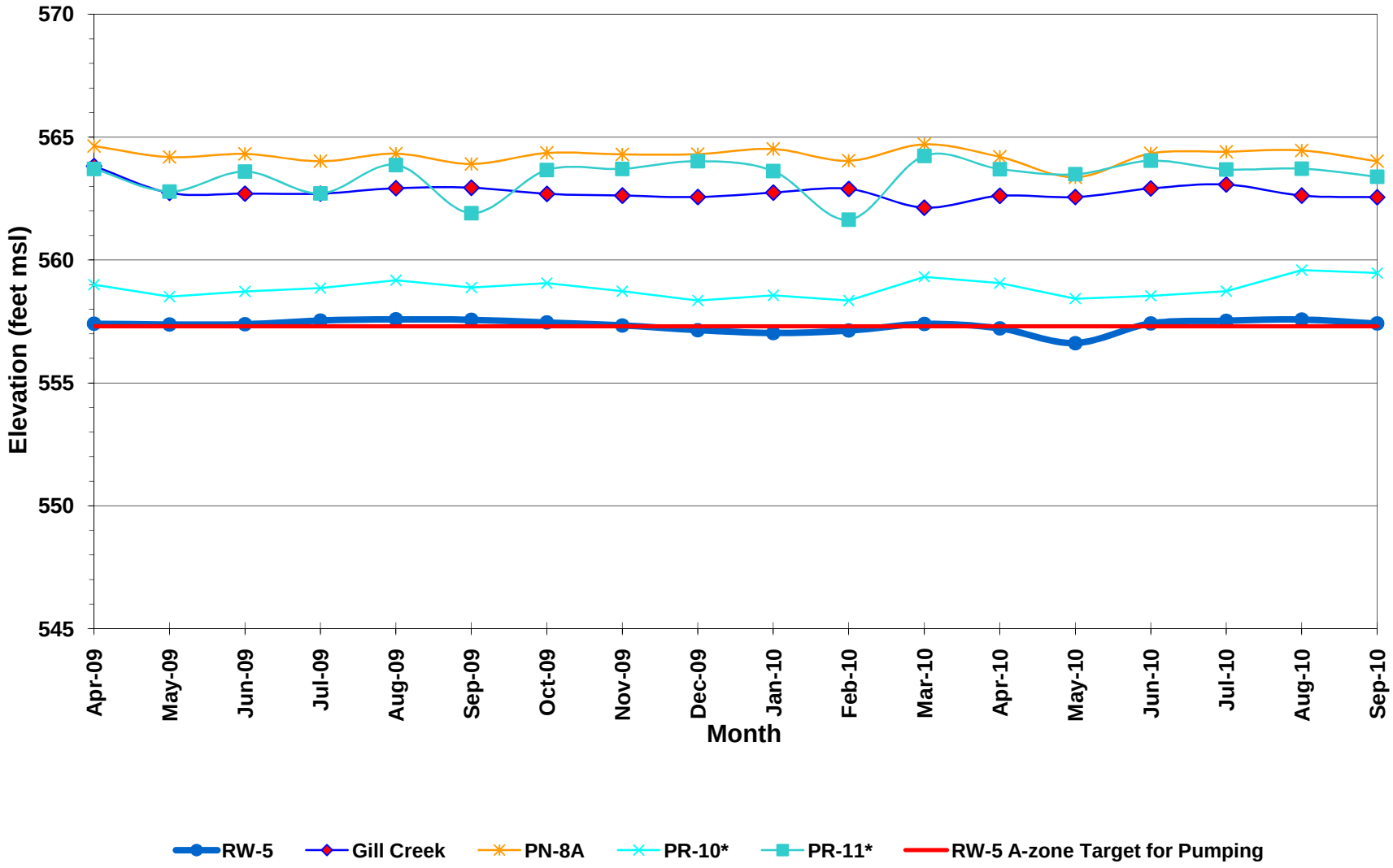
Table A-5
A-Zone
RW-5 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
RW-5	557.41	557.38	557.39	557.54	557.59	557.57	557.46	557.34	557.15	557.03	557.13	557.40	557.22	556.62	557.42	557.53	557.58	557.42
PN-8A	564.64	564.19	564.32	564.02	564.33	563.91	564.36	564.30	564.31	564.52	564.04	564.71	564.20	563.37	564.34	564.41	564.46	564.02
PR-10*	559.00	558.51	558.72	558.86	559.18	558.88	559.06	558.73	558.35	558.56	558.35	559.32	559.06	558.43	558.54	558.73	559.59	559.47
PR-11*	563.71	562.79	563.60	562.71	563.87	561.91	563.66	563.71	564.02	563.62	561.64	564.24	563.70	563.49	564.04	563.69	563.72	563.39
RW-5 A-zone Target	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30

Notes:
Elevations are reported in feet above mean seal level (msl)
*Passive relief well installed September 2002.
NI - Not Installed

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-5
RW-5 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

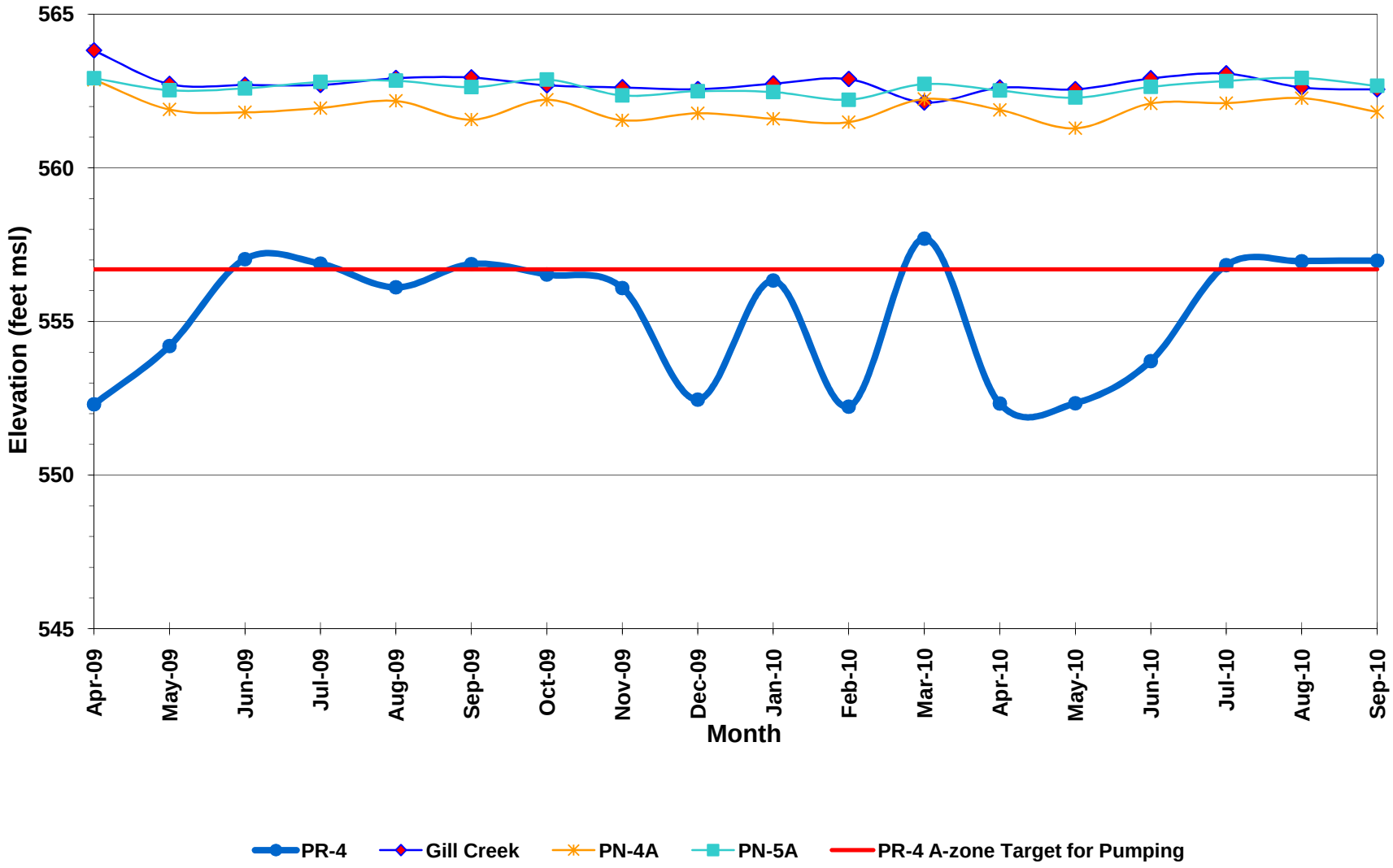
Table A-6
A-Zone
PR-4 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PR-4	552.30	554.20	557.03	556.88	556.11	556.87	556.53	556.09	552.46	556.33	552.23	557.70	552.33	552.34	553.71	556.83	556.96	556.98
PN-4A	562.87	561.90	561.81	561.95	562.18	561.57	562.22	561.55	561.78	561.60	561.49	562.24	561.89	561.29	562.10	562.11	562.27	561.82
PN-5A	562.92	562.53	562.59	562.80	562.84	562.63	562.88	562.36	562.50	562.47	562.22	562.73	562.52	562.29	562.64	562.83	562.93	562.67
PR-4 A-zone Target	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70

Notes:
Elevations are reported in feet above mean seal level (msl)

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-6
PR-4 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

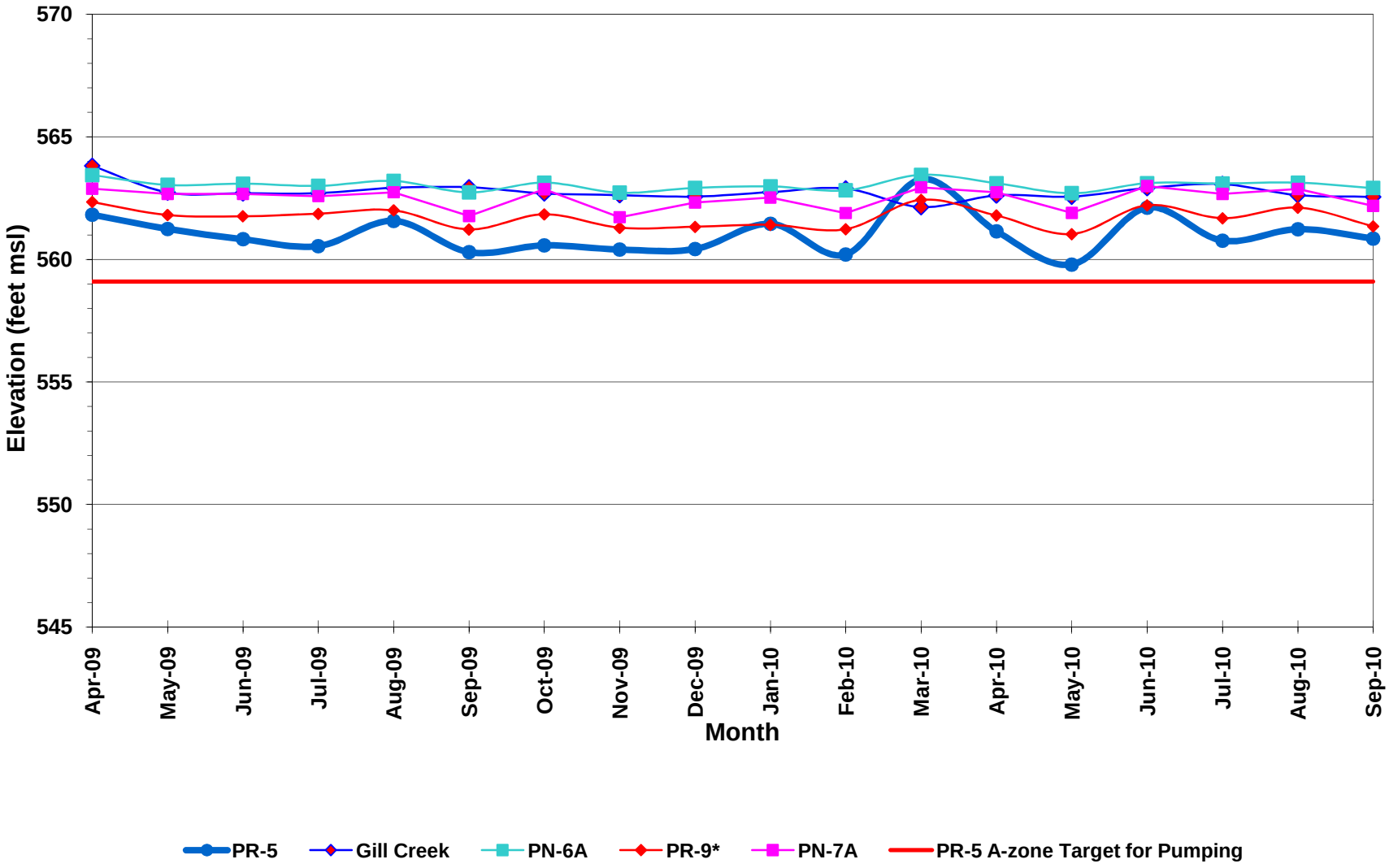
Table A-7
A-Zone
PR-5 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PR-5	561.82	561.24	560.82	560.54	561.57	560.29	560.57	560.40	560.42	561.45	560.20	563.27	561.14	559.79	562.11	560.76	561.23	560.85
PN-7A	562.88	562.67	562.67	562.58	562.74	561.77	562.86	561.72	562.32	562.52	561.89	562.94	562.74	561.90	562.99	562.67	562.87	562.18
PR-9*	562.34	561.81	561.76	561.86	562.00	561.22	561.84	561.29	561.33	561.41	561.23	562.43	561.79	561.03	562.21	561.68	562.11	561.35
PN-6A	563.44	563.04	563.09	563.00	563.20	562.74	563.13	562.72	562.92	562.98	562.82	563.45	563.11	562.70	563.11	563.10	563.13	562.91
PR-5 A-zone Target	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10

Notes:
Elevations are reported in feet above mean seal level (msl)
* Passive relief well installed September 2002.
NM - Not Measured

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-7
PR-5 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

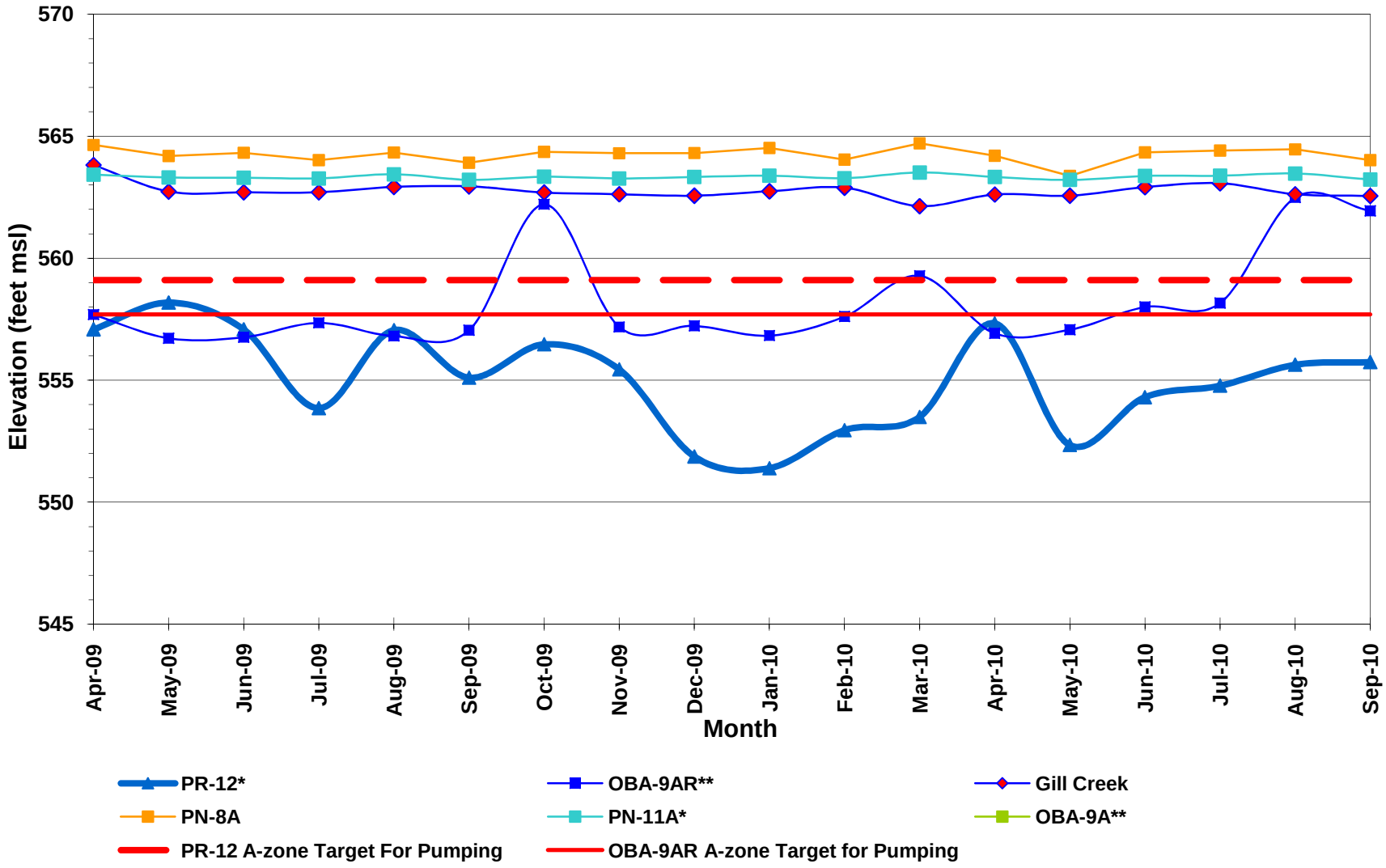
Table A-8
A-Zone
PR-12 and OBA-9AR and Adjacent Monitoring Point Water Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PN-8A	564.64	564.19	564.32	564.02	564.33	563.91	564.36	564.30	564.31	564.52	564.04	564.71	564.20	563.37	564.34	564.41	564.46	564.02
PR-12*	557.08	558.18	557.08	553.85	557.05	555.10	556.47	555.44	551.87	551.39	552.95	553.49	557.33	552.34	554.30	554.77	555.63	555.74
PN-11A*	563.42	563.31	563.30	563.27	563.44	563.21	563.34	563.27	563.33	563.38	563.28	563.51	563.33	563.21	563.37	563.38	563.47	563.22
OBA-9AR**	557.69	556.72	556.76	557.35	556.81	557.05	562.21	557.18	557.23	556.83	557.61	559.28	556.92	557.07	558.00	558.16	562.49	561.94
PR-12 A-zone Target	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10
OBA-9AR A-zone Target	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70

Notes:
Elevations are reported in feet above mean seal level (msl)
* Passive relief well installed September 2002.
** Well added to quarterly monitoring program in October 2002.
NM - Not Measured

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure A-8
PR-12 and OBA-9AR Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

msl - mean sea level

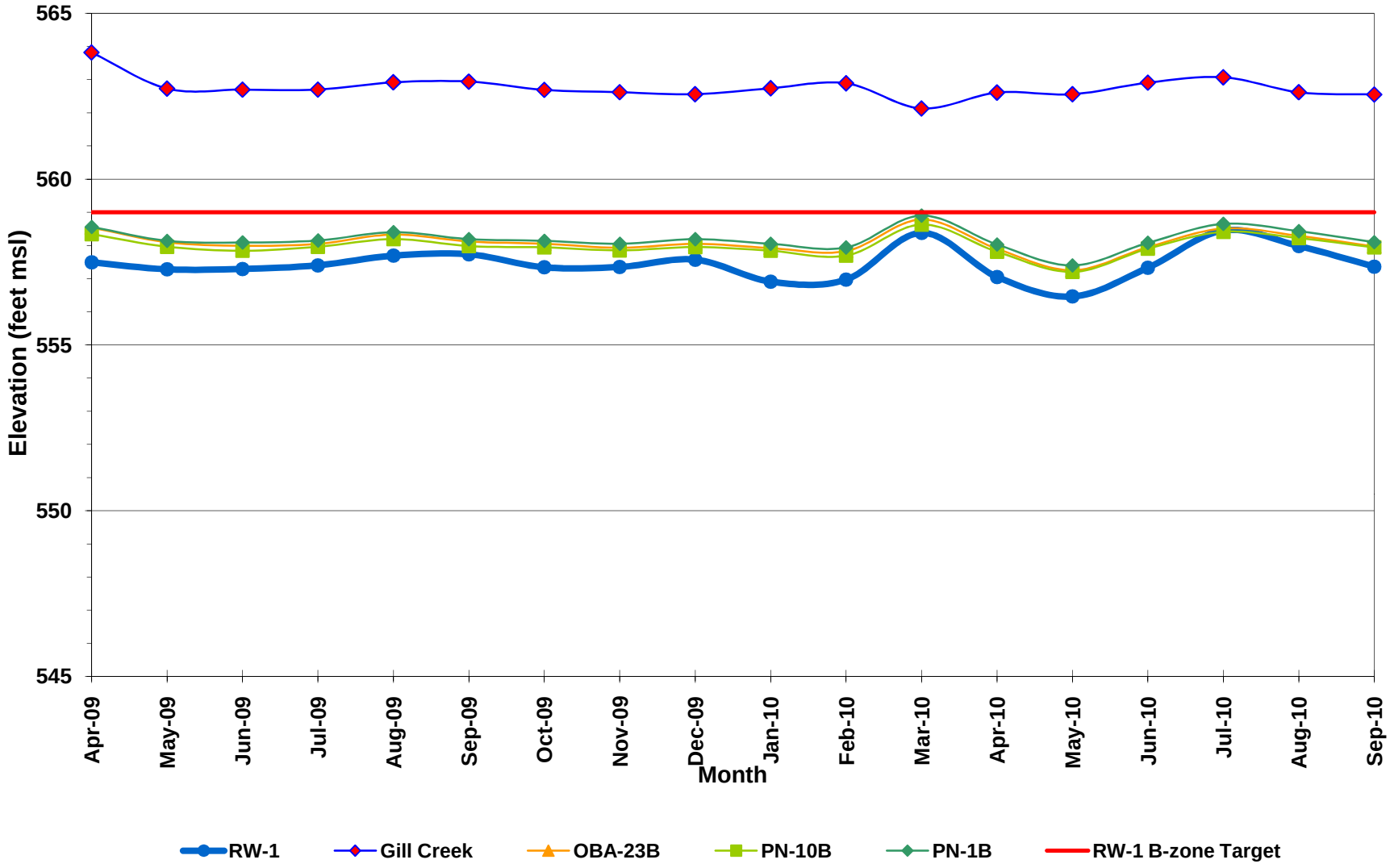
Table B-1
B-Zone
RW-1 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-1	557.49	557.28	557.29	557.40	557.69	557.73	557.34	557.35	557.57	556.91	556.97	558.38	557.05	556.46	557.33	558.45	557.98	557.36
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-23B	558.54	558.10	557.99	558.05	558.33	558.12	558.05	557.93	558.05	557.92	557.83	558.78	557.90	557.25	557.95	558.51	558.29	557.97
PN-10B	558.34	557.96	557.84	557.96	558.19	557.98	557.94	557.85	557.95	557.84	557.69	558.63	557.81	557.20	557.90	558.41	558.22	557.94
PN-1B	558.56	558.14	558.09	558.15	558.40	558.19	558.14	558.05	558.19	558.05	557.94	558.90	558.03	557.40	558.08	558.65	558.43	558.10
RW-1 B-zone Target	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-1
RW-1 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

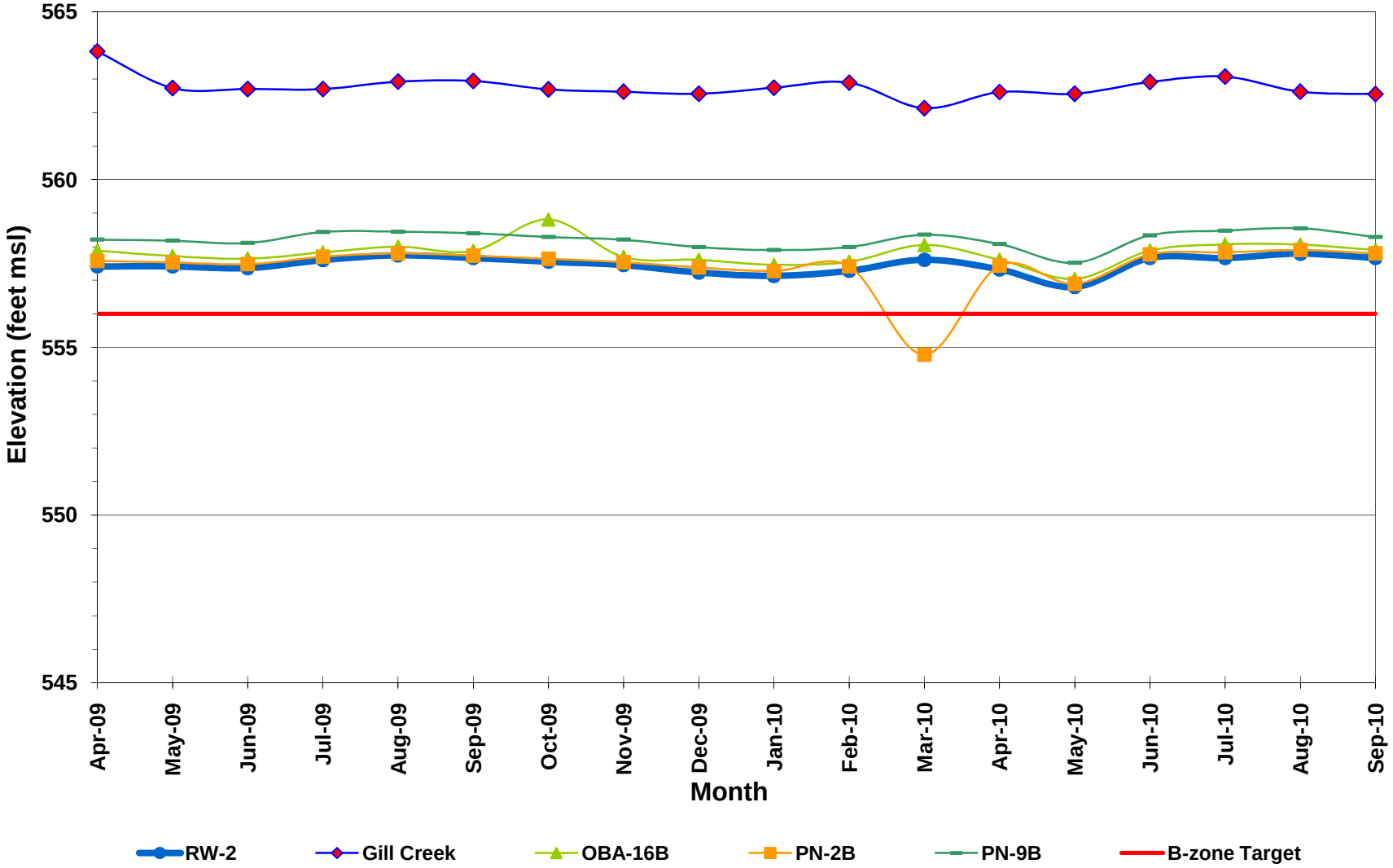
Table B-2
B-Zone
RW-2 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-2	557.41	557.41	557.36	557.60	557.74	557.66	557.55	557.45	557.23	557.13	557.28	557.61	557.32	556.80	557.66	557.66	557.79	557.66
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-16B	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88	558.07	558.06	557.90
PN-2B	557.58	557.53	557.48	557.70	557.80	557.73	557.64	557.54	557.38	557.27	557.41	554.78	557.44	556.89	557.77	557.83	557.90	557.80
PN-9B	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34	558.48	558.55	558.29
RW-2 B-zone Target	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-2
RW-2 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

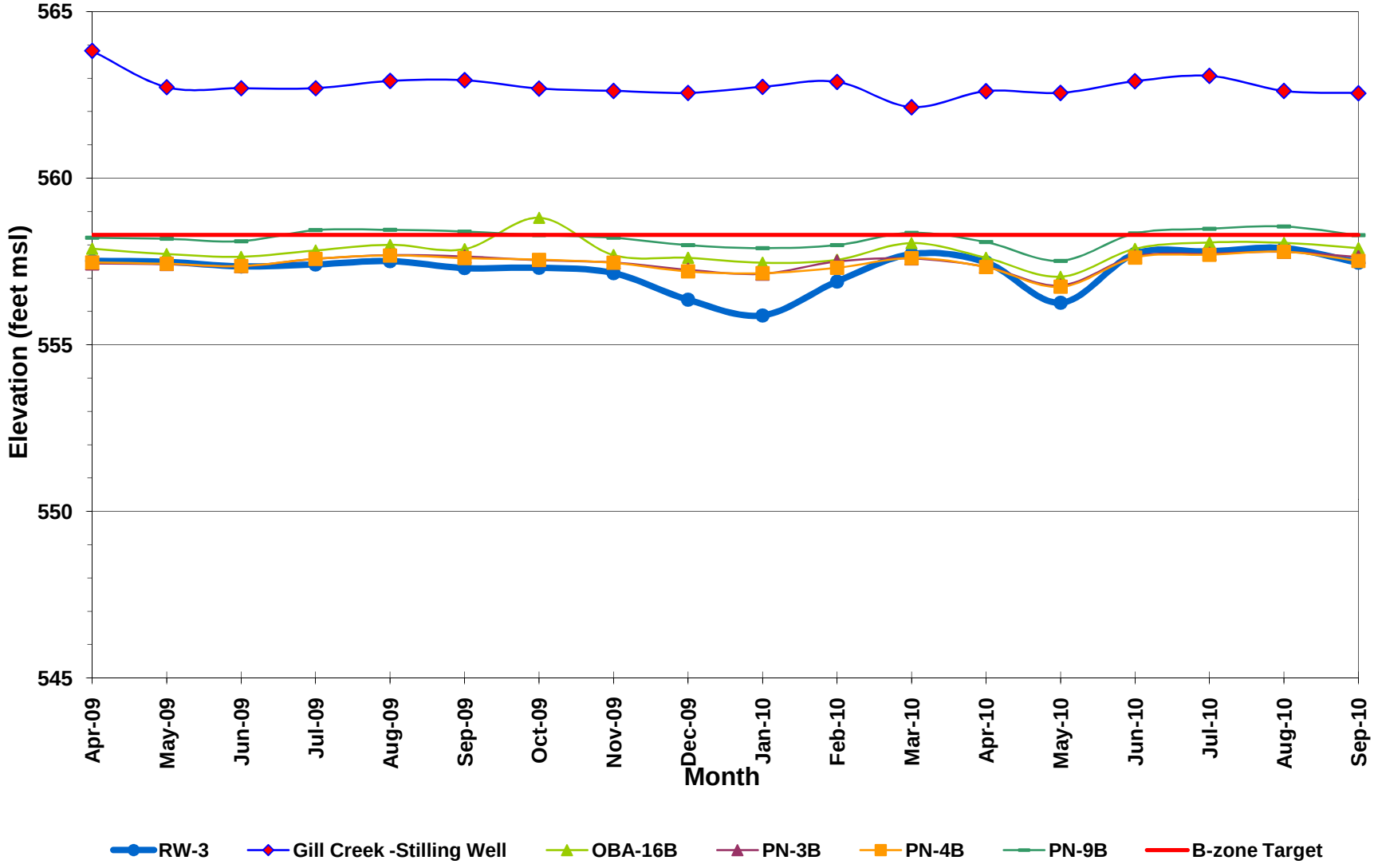
Table B-3
B-Zone
RW-3 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-3	557.52	557.49	557.35	557.41	557.51	557.30	557.31	557.15	556.35	555.88	556.90	557.72	557.47	556.26	557.73	557.80	557.90	557.46
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-16B	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88	558.07	558.06	557.90
PN-3B	557.44	557.42	557.36	557.58	557.69	557.65	557.54	557.47	557.25	557.13	557.50	557.59	557.34	556.78	557.65	557.73	557.79	557.63
PN-4B	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62	557.70	557.79	557.52
PN-9B	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34	558.48	558.55	558.29
B-zone Target	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-3
RW-3 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

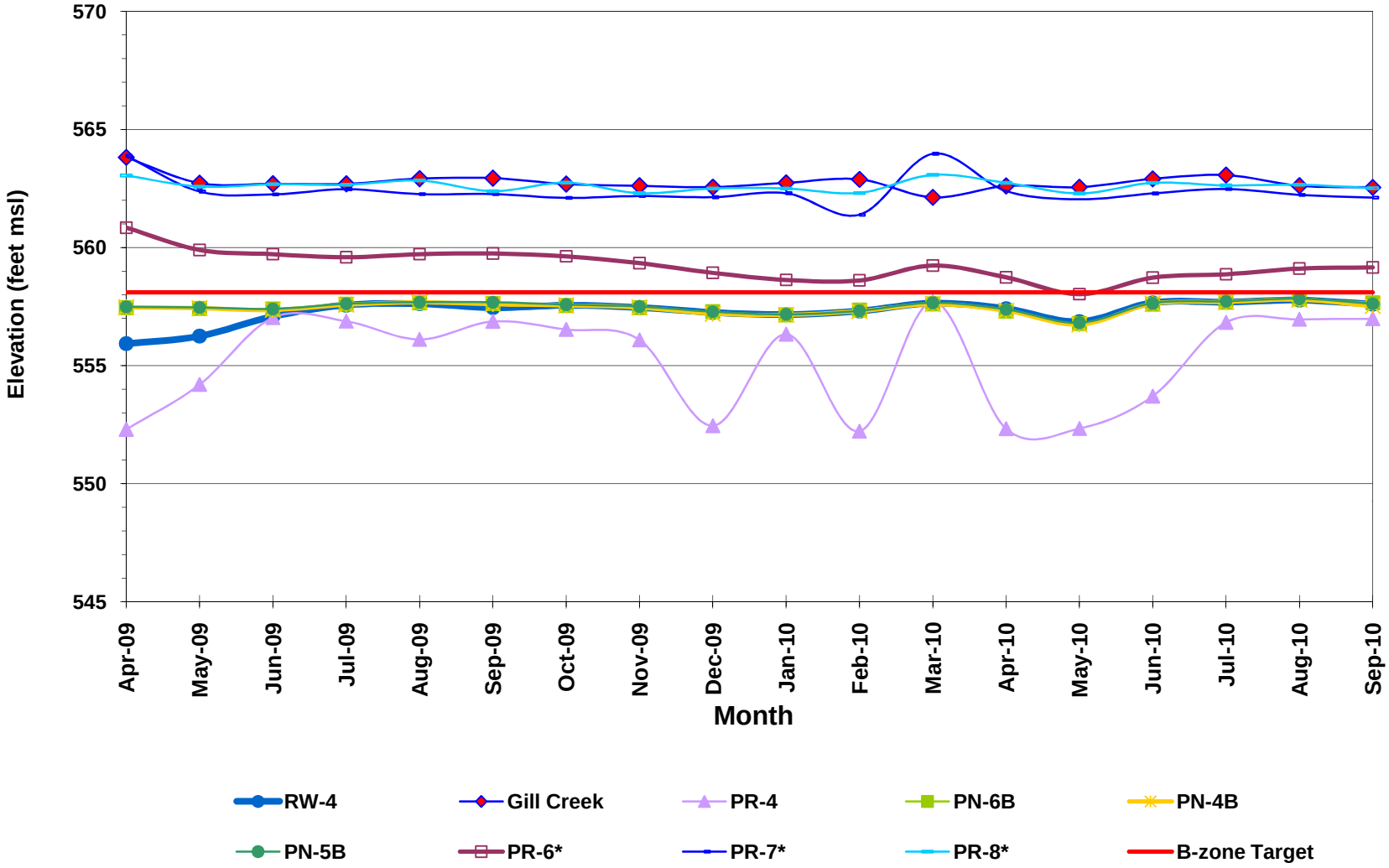
Table B-4
B-Zone
RW-4, PR-4 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-4	555.93	556.25	557.08	557.56	557.62	557.45	557.55	557.46	557.25	557.16	557.31	557.64	557.41	556.86	557.66	557.69	557.77	557.60
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PR-4	552.30	554.20	557.03	556.88	556.11	556.87	556.53	556.09	552.46	556.33	552.23	557.70	552.33	552.34	553.71	556.83	556.96	556.98
PN-6B	557.45	557.42	557.40	557.60	557.66	557.63	557.55	557.46	557.28	557.15	557.35	557.61	557.31	556.78	557.60	557.68	557.82	557.66
PN-4B	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62	557.70	557.79	557.52
PN-5B	557.49	557.46	557.40	557.62	557.68	557.68	557.58	557.50	557.28	557.17	557.32	557.66	557.38	556.82	557.64	557.72	557.83	557.62
PR-6*	560.84	559.90	559.72	559.59	559.72	559.75	559.63	559.34	558.93	558.63	558.61	559.24	558.74	558.03	558.73	558.87	559.11	559.16
PR-7*	563.88	562.37	562.25	562.47	562.26	562.26	562.10	562.18	562.13	562.30	561.39	563.97	562.39	562.04	562.29	562.48	562.23	562.11
PR-8*	563.05	562.58	562.68	562.66	562.84	562.39	562.75	562.30	562.50	562.50	562.31	563.08	562.74	562.29	562.74	562.63	562.66	562.51
B-zone Target	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-4
RW-4 and PR-4 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

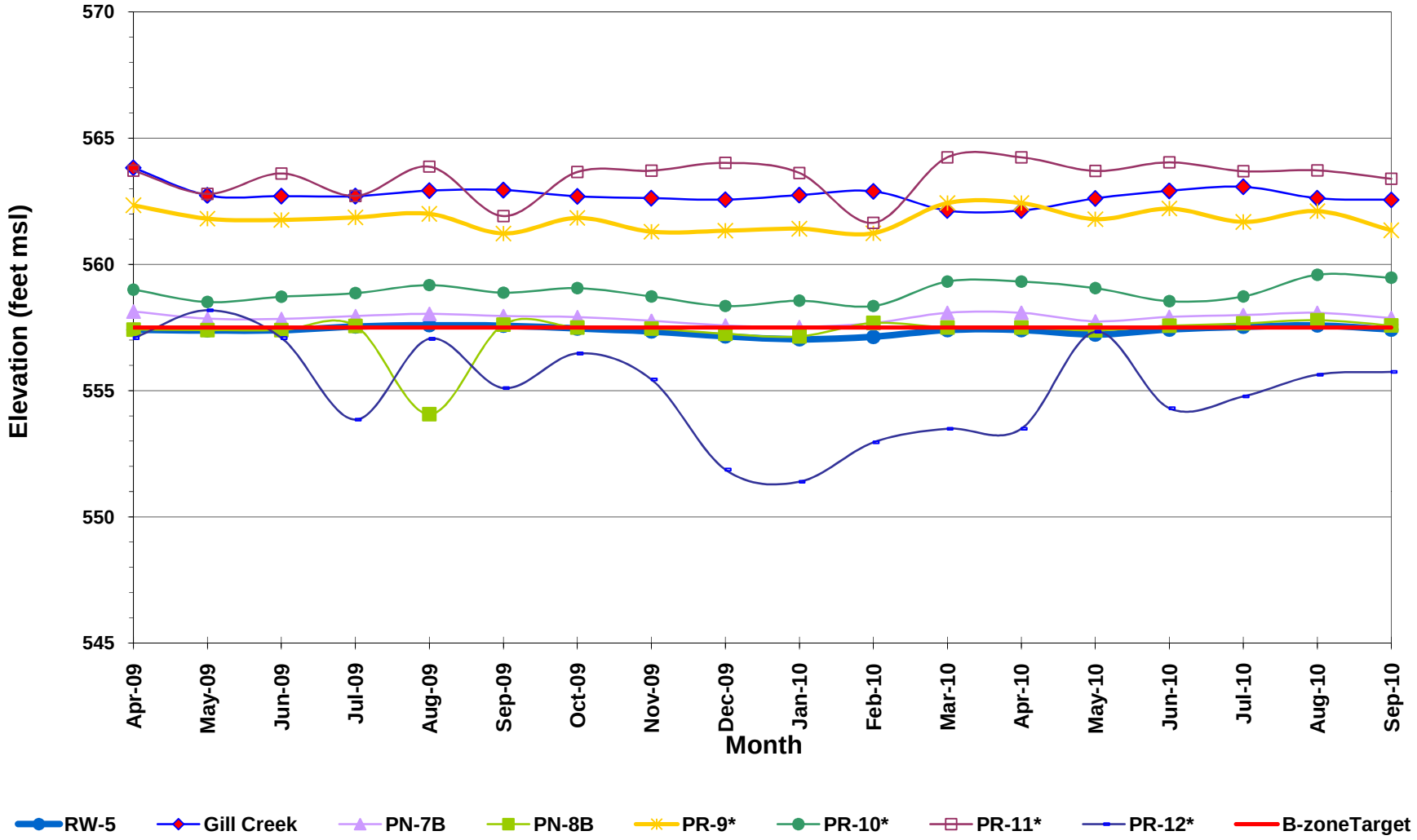
Table B-5
B-Zone
RW-5 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-5	557.41	557.38	557.39	557.54	557.59	557.57	557.46	557.34	557.15	557.03	557.13	557.40	557.40	557.22	557.42	557.53	557.58	557.42
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.13	562.61	562.91	563.07	562.62	562.55
PN-7B	558.13	557.85	557.84	557.95	558.04	557.95	557.91	557.76	557.58	557.52	557.67	558.08	558.08	557.74	557.92	557.99	558.08	557.87
PN-8B	557.42	557.40	557.40	557.56	554.07	557.61	557.50	557.46	557.25	557.15	557.68	557.50	557.50	557.39	557.57	557.66	557.79	557.58
PR-9*	562.34	561.81	561.76	561.86	562.00	561.22	561.84	561.29	561.33	561.41	561.23	562.43	562.43	561.79	562.21	561.68	562.11	561.35
PR-10*	559.00	558.51	558.72	558.86	559.18	558.88	559.06	558.73	558.35	558.56	558.35	559.32	559.32	559.06	558.54	558.73	559.59	559.47
PR-11*	563.71	562.79	563.60	562.71	563.87	561.91	563.66	563.71	564.02	563.62	561.64	564.24	564.24	563.70	564.04	563.69	563.72	563.39
PR-12*	557.08	558.18	557.08	553.85	557.05	555.10	556.47	555.44	551.87	551.39	552.95	553.49	553.49	557.33	554.30	554.77	555.63	555.74
B-zoneTarget	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002
NI - Not Installed

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-5
RW-5 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

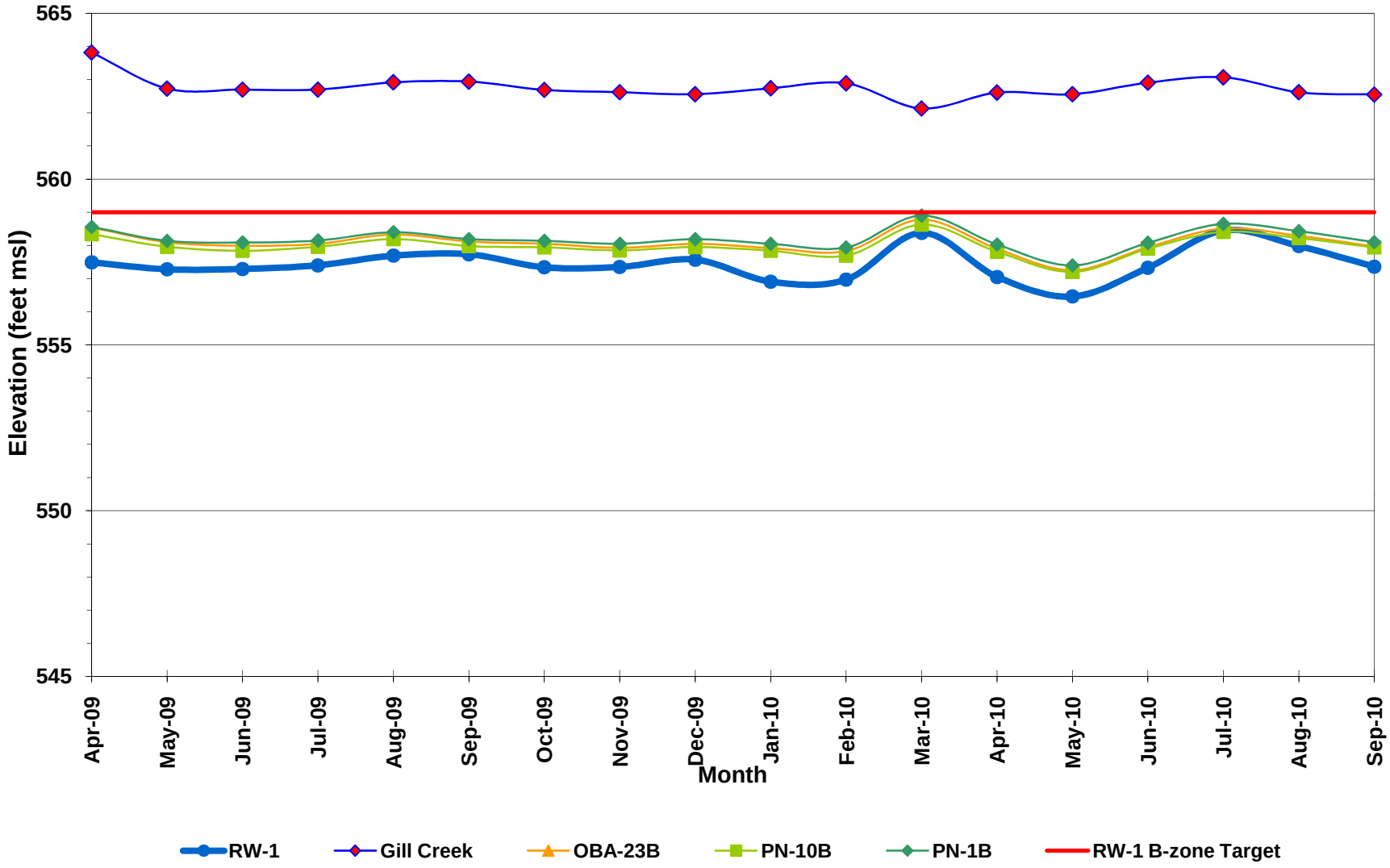
Table B-1
B-Zone
RW-1 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-1	557.49	557.28	557.29	557.40	557.69	557.73	557.34	557.35	557.57	556.91	556.97	558.38	557.05	556.46	557.33	558.45	557.98	557.36
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-23B	558.54	558.10	557.99	558.05	558.33	558.12	558.05	557.93	558.05	557.92	557.83	558.78	557.90	557.25	557.95	558.51	558.29	557.97
PN-10B	558.34	557.96	557.84	557.96	558.19	557.98	557.94	557.85	557.95	557.84	557.69	558.63	557.81	557.20	557.90	558.41	558.22	557.94
PN-1B	558.56	558.14	558.09	558.15	558.40	558.19	558.14	558.05	558.19	558.05	557.94	558.90	558.03	557.40	558.08	558.65	558.43	558.10
RW-1 B-zone Target	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-1
RW-1 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

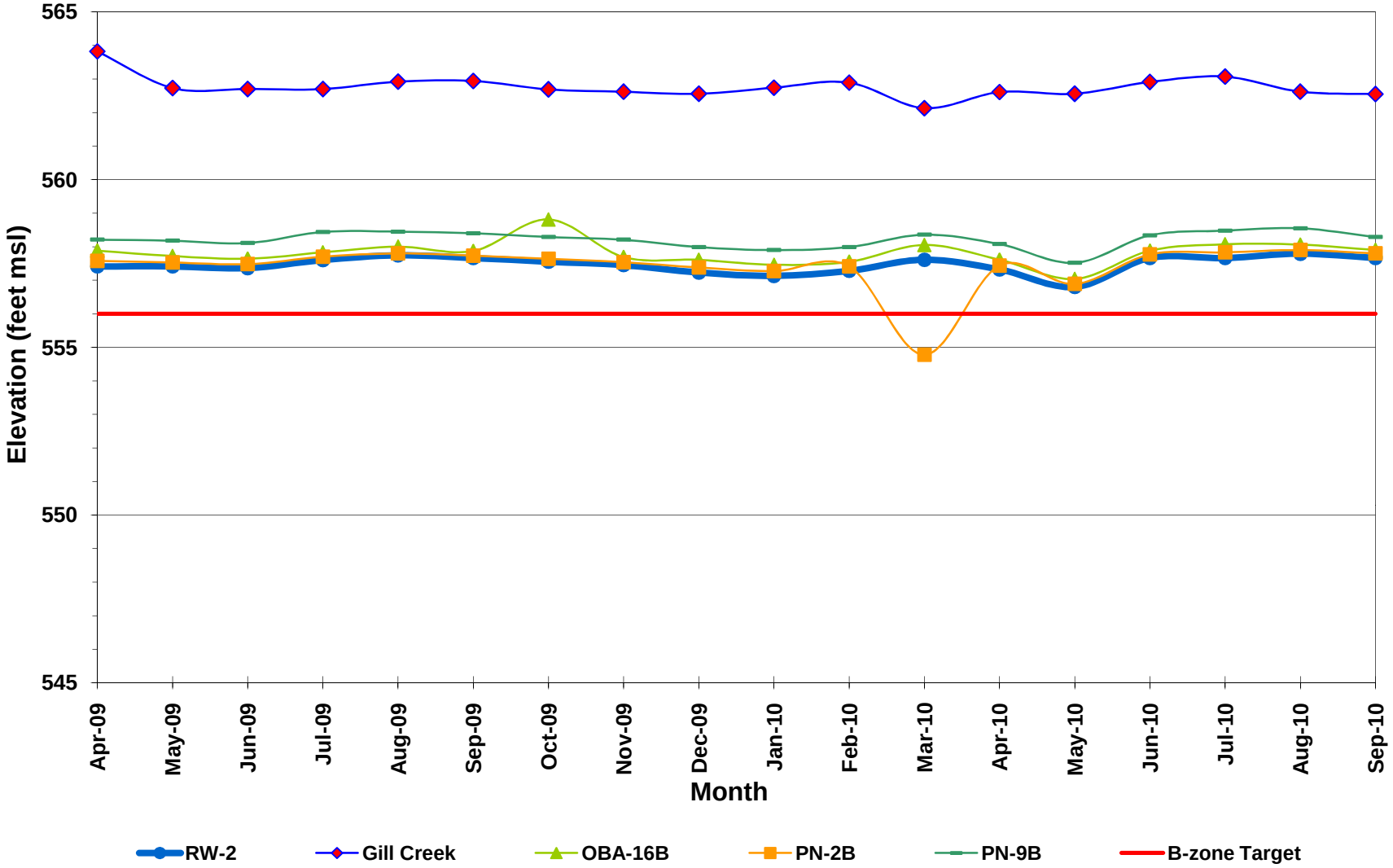
Table B-2
B-Zone
RW-2 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-2	557.41	557.41	557.36	557.60	557.74	557.66	557.55	557.45	557.23	557.13	557.28	557.61	557.32	556.80	557.66	557.66	557.79	557.66
Gill Creek -Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-16B	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88	558.07	558.06	557.90
PN-2B	557.58	557.53	557.48	557.70	557.80	557.73	557.64	557.54	557.38	557.27	557.41	554.78	557.44	556.89	557.77	557.83	557.90	557.80
PN-9B	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34	558.48	558.55	558.29
RW-2 B-zone Target	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-2
RW-2 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

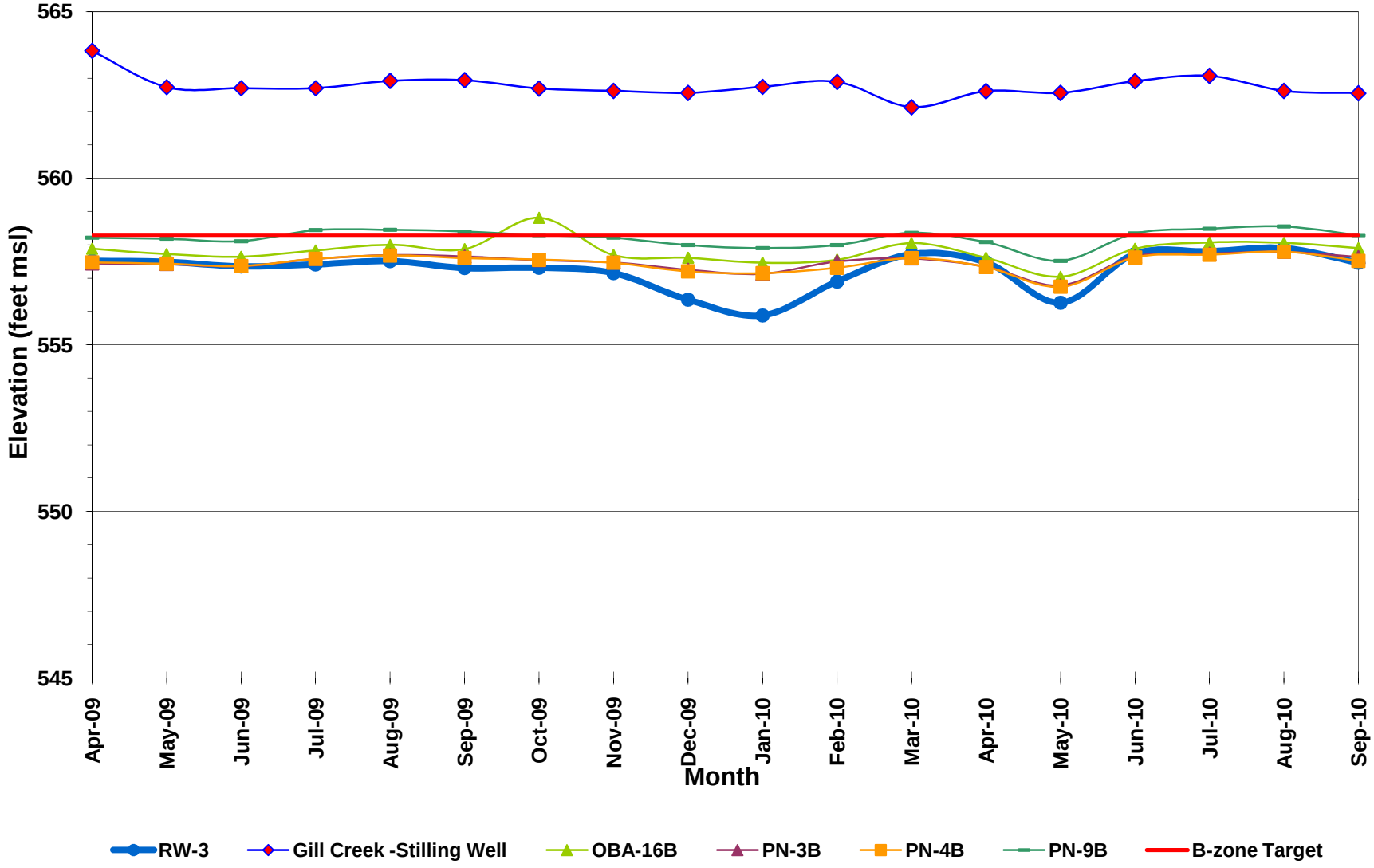
Table B-3
B-Zone
RW-3 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-3	557.52	557.49	557.35	557.41	557.51	557.30	557.31	557.15	556.35	555.88	556.90	557.72	557.47	556.26	557.73	557.80	557.90	557.46
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
OBA-16B	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88	558.07	558.06	557.90
PN-3B	557.44	557.42	557.36	557.58	557.69	557.65	557.54	557.47	557.25	557.13	557.50	557.59	557.34	556.78	557.65	557.73	557.79	557.63
PN-4B	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62	557.70	557.79	557.52
PN-9B	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34	558.48	558.55	558.29
B-zone Target	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-3
RW-3 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

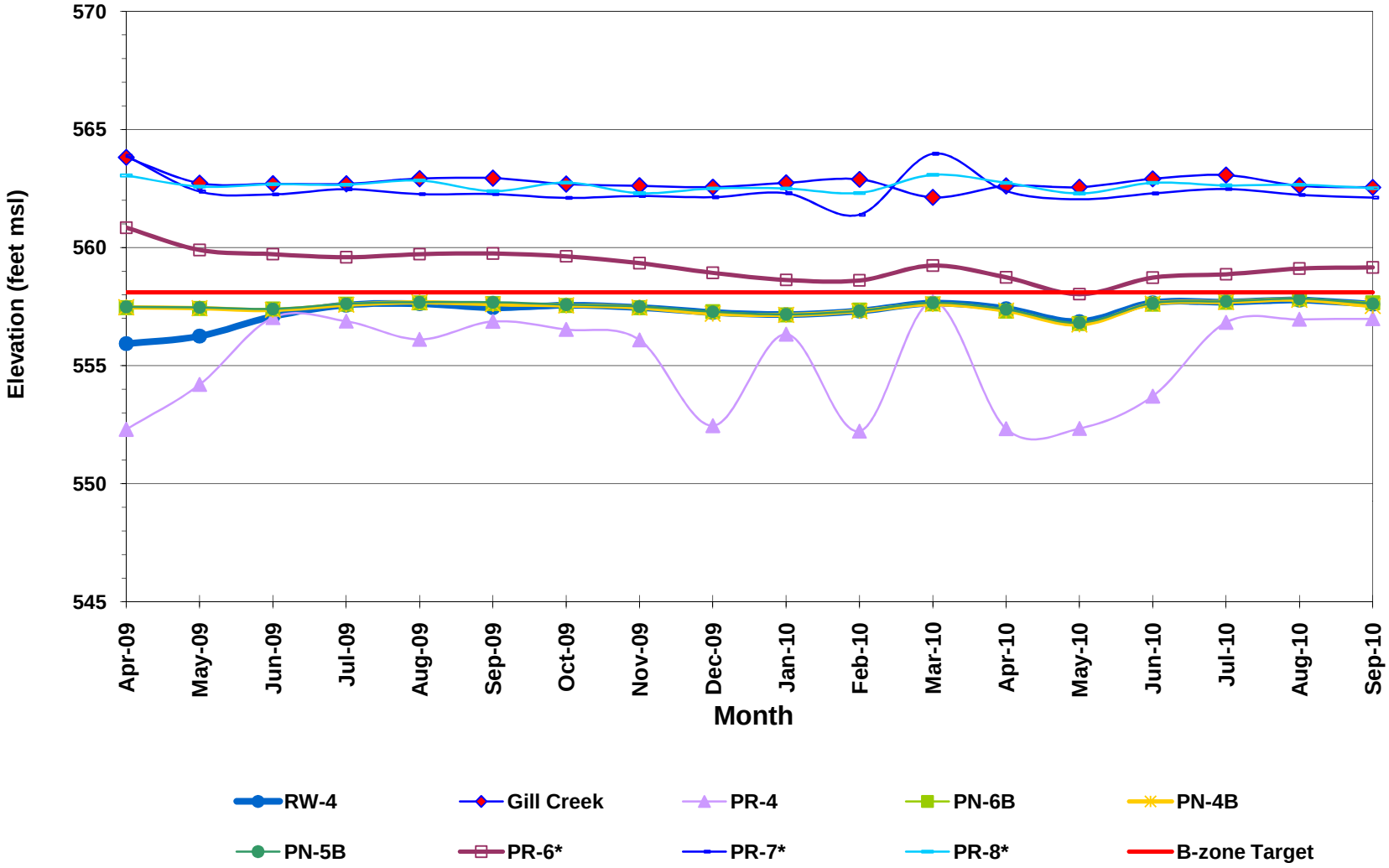
Table B-4
B-Zone
RW-4, PR-4 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-4	555.93	556.25	557.08	557.56	557.62	557.45	557.55	557.46	557.25	557.16	557.31	557.64	557.41	556.86	557.66	557.69	557.77	557.60
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91	563.07	562.62	562.55
PR-4	552.30	554.20	557.03	556.88	556.11	556.87	556.53	556.09	552.46	556.33	552.23	557.70	552.33	552.34	553.71	556.83	556.96	556.98
PN-6B	557.45	557.42	557.40	557.60	557.66	557.63	557.55	557.46	557.28	557.15	557.35	557.61	557.31	556.78	557.60	557.68	557.82	557.66
PN-4B	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62	557.70	557.79	557.52
PN-5B	557.49	557.46	557.40	557.62	557.68	557.68	557.58	557.50	557.28	557.17	557.32	557.66	557.38	556.82	557.64	557.72	557.83	557.62
PR-6*	560.84	559.90	559.72	559.59	559.72	559.75	559.63	559.34	558.93	558.63	558.61	559.24	558.74	558.03	558.73	558.87	559.11	559.16
PR-7*	563.88	562.37	562.25	562.47	562.26	562.26	562.10	562.18	562.13	562.30	561.39	563.97	562.39	562.04	562.29	562.48	562.23	562.11
PR-8*	563.05	562.58	562.68	562.66	562.84	562.39	562.75	562.30	562.50	562.50	562.31	563.08	562.74	562.29	562.74	562.63	562.66	562.51
B-zone Target	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-4
RW-4 and PR-4 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

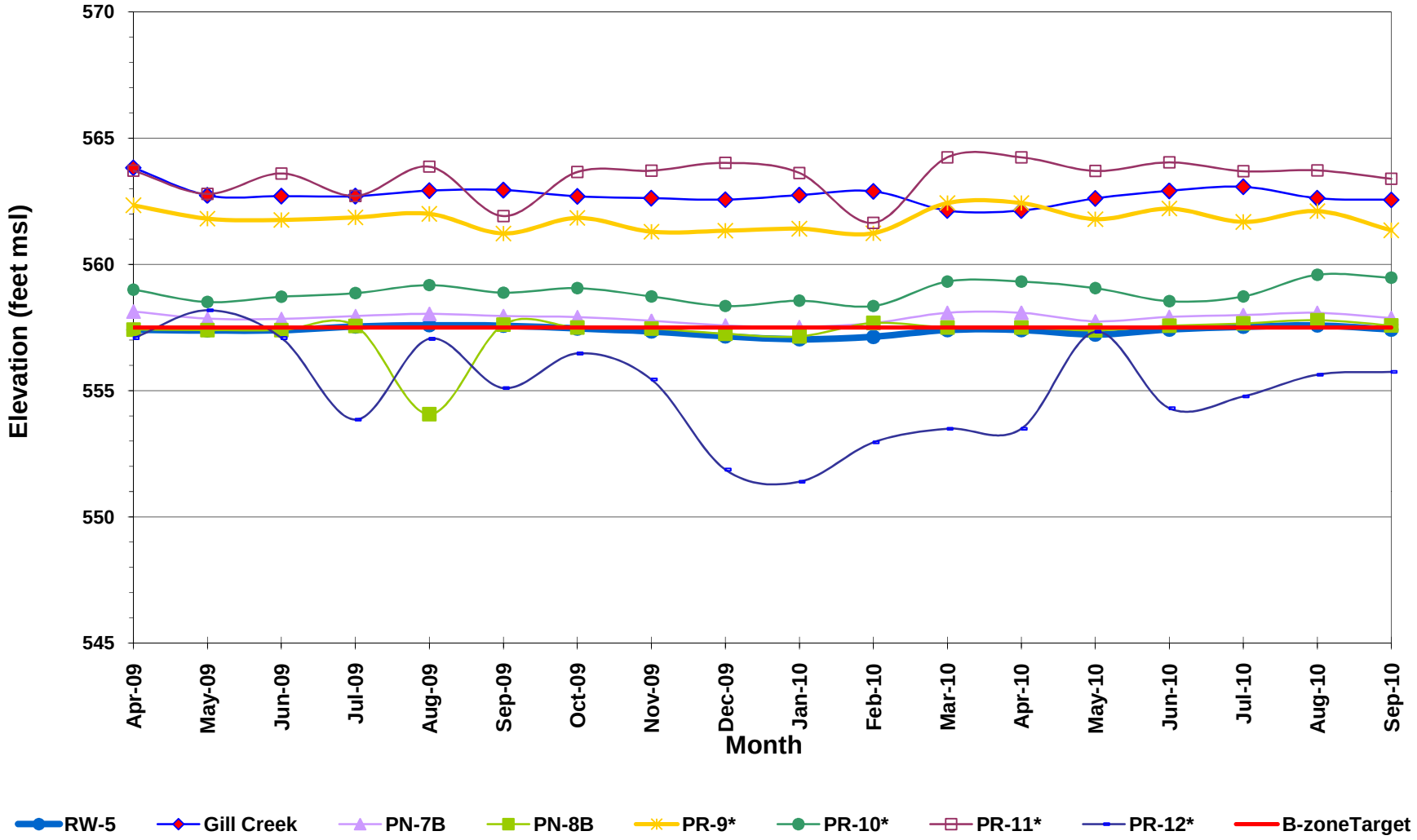
Table B-5
B-Zone
RW-5 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10	Jul-10	Aug-10	Sep-10
RW-5	557.41	557.38	557.39	557.54	557.59	557.57	557.46	557.34	557.15	557.03	557.13	557.40	557.40	557.22	557.42	557.53	557.58	557.42
Gill Creek - Stilling Well	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.13	562.61	562.91	563.07	562.62	562.55
PN-7B	558.13	557.85	557.84	557.95	558.04	557.95	557.91	557.76	557.58	557.52	557.67	558.08	558.08	557.74	557.92	557.99	558.08	557.87
PN-8B	557.42	557.40	557.40	557.56	554.07	557.61	557.50	557.46	557.25	557.15	557.68	557.50	557.50	557.39	557.57	557.66	557.79	557.58
PR-9*	562.34	561.81	561.76	561.86	562.00	561.22	561.84	561.29	561.33	561.41	561.23	562.43	562.43	561.79	562.21	561.68	562.11	561.35
PR-10*	559.00	558.51	558.72	558.86	559.18	558.88	559.06	558.73	558.35	558.56	558.35	559.32	559.32	559.06	558.54	558.73	559.59	559.47
PR-11*	563.71	562.79	563.60	562.71	563.87	561.91	563.66	563.71	564.02	563.62	561.64	564.24	564.24	563.70	564.04	563.69	563.72	563.39
PR-12*	557.08	558.18	557.08	553.85	557.05	555.10	556.47	555.44	551.87	551.39	552.95	553.49	553.49	557.33	554.30	554.77	555.63	555.74
B-zoneTarget	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002
NI - Not Installed

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

Figure B-5
RW-5 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 10/7/2010
Checked by: KPH 10/12/2010

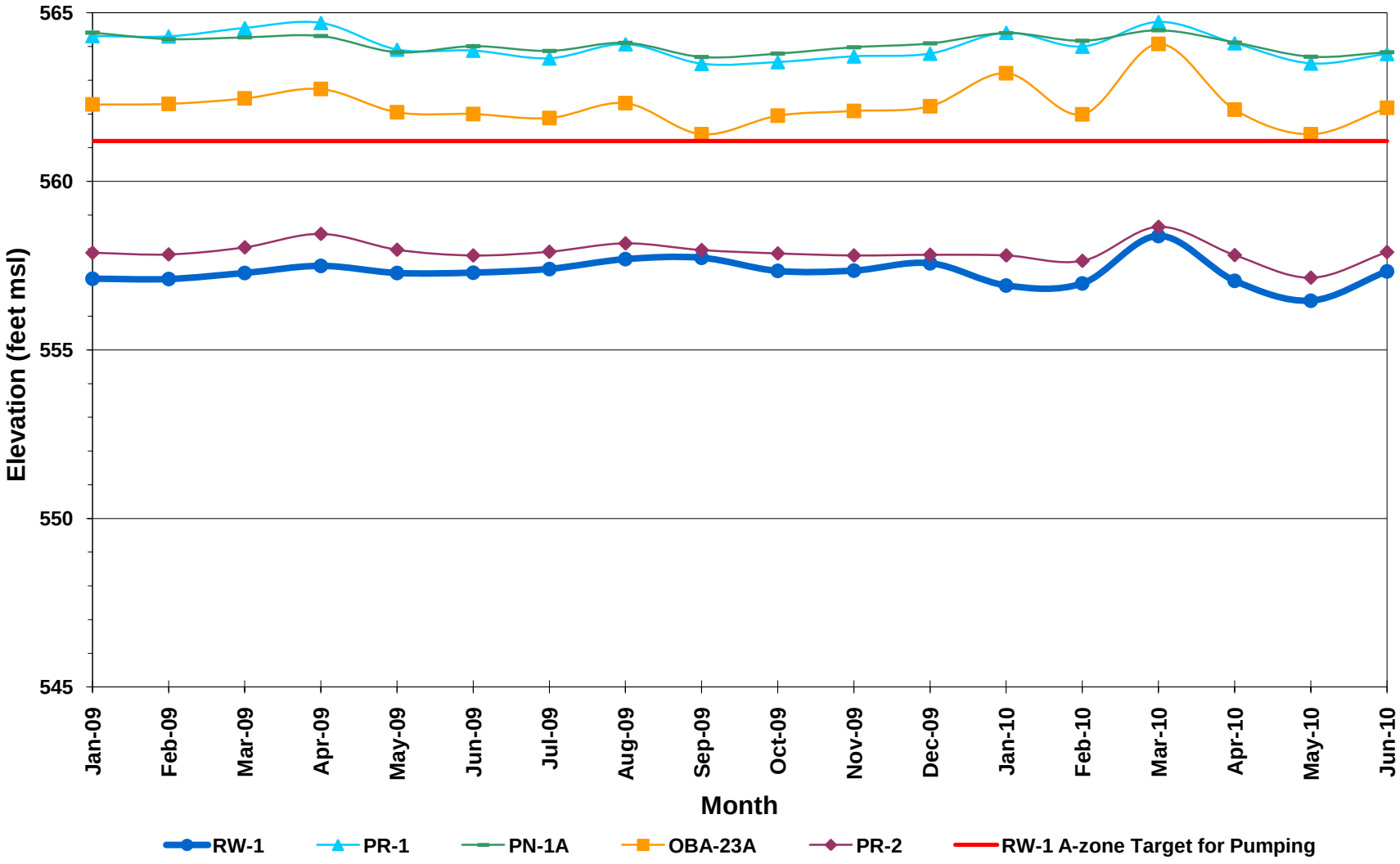
Table A-1
A-Zone
RW-1 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
PR-1	564.31	564.30	564.55	564.70	563.91	563.88	563.65	564.07	563.49	563.54	563.71	563.79	564.41	564.00	564.73	564.10	563.50	563.78
PN-1A	564.41	564.22	564.27	564.31	563.83	564.01	563.87	564.11	563.69	563.79	563.98	564.09	564.40	564.17	564.48	564.12	563.70	563.83
RW-1	557.11	557.10	557.28	557.49	557.28	557.29	557.40	557.69	557.73	557.34	557.35	557.57	556.91	556.97	558.38	557.05	556.46	557.33
OBA-23A	562.28	562.30	562.46	562.74	562.05	562.00	561.88	562.32	561.40	561.95	562.09	562.23	563.21	561.99	564.08	562.13	561.40	562.18
PR-2	557.88	557.83	558.04	558.44	557.97	557.80	557.91	558.16	557.96	557.86	557.80	557.82	557.80	557.64	558.65	557.81	557.14	557.90
RW-1 A-zone Target	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20	561.20

Notes:
Elevations are reported in feet above mean seal level (msl)
*An elevation of 561.40 feet msl for OBA-23A indicates that this well is dry.
#N/A Unable to collect water level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-1
RW-1 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

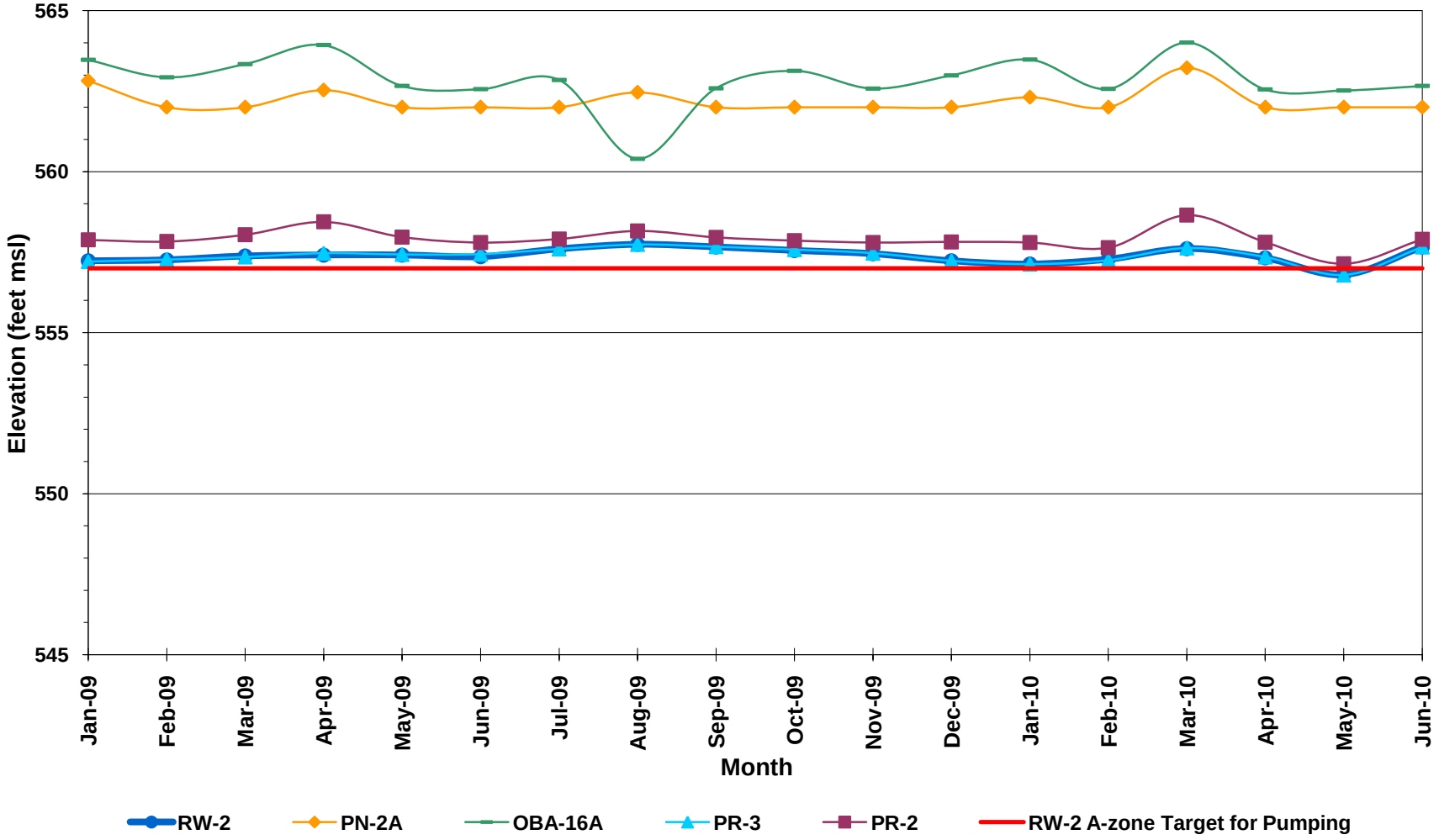
Table A-2
A-Zone
RW-2 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
PN-2A*	562.82	562.00	562.00	562.53	562.00	562.00	562.00	562.46	562.00	562.00	562.00	562.00	562.31	562.00	563.22	562.00	562.00	562.00
RW-2	557.23	557.26	557.38	557.41	557.41	557.36	557.60	557.74	557.66	557.55	557.45	557.23	557.13	557.28	557.61	557.32	556.80	557.66
OBA-16A	563.47	562.93	563.34	563.93	562.66	562.56	562.85	560.40	562.59	563.13	562.58	562.99	563.48	562.57	564.01	562.55	562.52	562.66
PR-3	557.21	557.27	557.35	557.47	557.43	557.44	557.60	557.74	557.67	557.58	557.47	557.23	557.13	557.25	557.63	557.35	556.79	557.66
PR-2	557.88	557.83	558.04	558.44	557.97	557.80	557.91	558.16	557.96	557.86	557.80	557.82	557.80	557.64	558.65	557.81	557.14	557.90
RW-2 A-zone Target	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00	557.00

Notes:
Elevations are reported in feet above mean seal level (msl)
*An elevation of 562.00 feet msl for PN-2A indicates that the piezometer is dry.

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-2
RW-2 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

msl - mean sea level

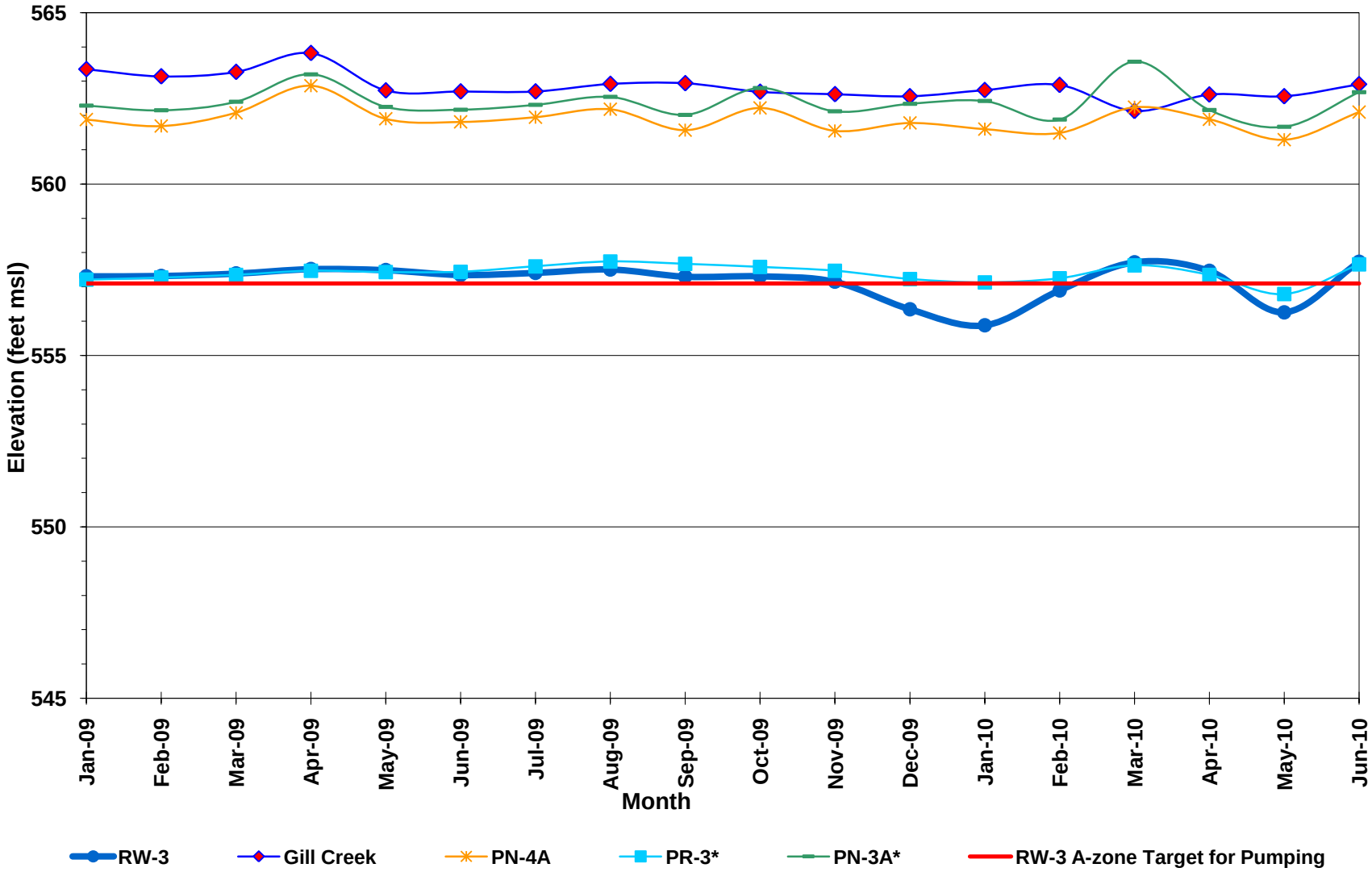
Table A-3
A-Zone
RW-3 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PN-3A	562.29	562.15	562.40	563.20	562.25	562.17	562.31	562.54	562.02	562.80	562.12	562.34	562.42	561.88	563.57	562.16	561.67	562.68
RW-3	557.31	557.32	557.39	557.52	557.49	557.35	557.41	557.51	557.30	557.31	557.15	556.35	555.88	556.90	557.72	557.47	556.26	557.73
PN-4A	561.88	561.69	562.08	562.87	561.90	561.81	561.95	562.18	561.57	562.22	561.55	561.78	561.60	561.49	562.24	561.89	561.29	562.10
PR-3	557.21	557.27	557.35	557.47	557.43	557.44	557.60	557.74	557.67	557.58	557.47	557.23	557.13	557.25	557.63	557.35	556.79	557.66
RW-3 A-zone Target	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10	557.10

Note:
Elevations are reported in feet above mean seal level (msl)

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-3
RW-3 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

msl - mean sea level

Table A-4

A-Zone

RW-4 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek -Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PN-5A	562.47	562.38	562.53	562.92	562.53	562.59	562.80	562.84	562.63	562.88	562.36	562.50	562.47	562.22	562.73	562.52	562.29	562.64
PR-13**	557.84	557.78	557.91	558.08	557.88	557.76	558.02	558.09	557.97	557.89	557.84	557.64	557.58	557.56	558.05	557.77	557.55	557.94
RW-4	555.27	555.29	555.50	555.93	556.25	557.08	557.56	557.62	557.45	557.55	557.46	557.25	557.16	557.31	557.64	557.41	556.86	557.66
PN-6A	563.05	563.06	563.25	563.44	563.04	563.09	563.00	563.20	562.74	563.13	562.72	562.92	562.98	562.82	563.45	563.11	562.70	563.11
PR-6*	559.92	560.62	560.49	560.84	559.90	559.72	559.59	559.72	559.75	559.63	559.34	558.93	558.63	558.61	559.24	558.74	558.03	558.73
PR-7*	562.25	561.86	562.03	563.88	562.37	562.25	562.47	562.26	562.26	562.10	562.18	562.13	562.30	561.39	563.97	562.39	562.04	562.29
RW-4 A-zone Target	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30

Notes:

Elevations are reported in feet above mean seal level (msl)

Due to significant well loss documented in RW-4 for March-02, the water level in RW-4-PZ is used as a more accurate water level for RW-4.

* Passive relief well installed in September 2002.

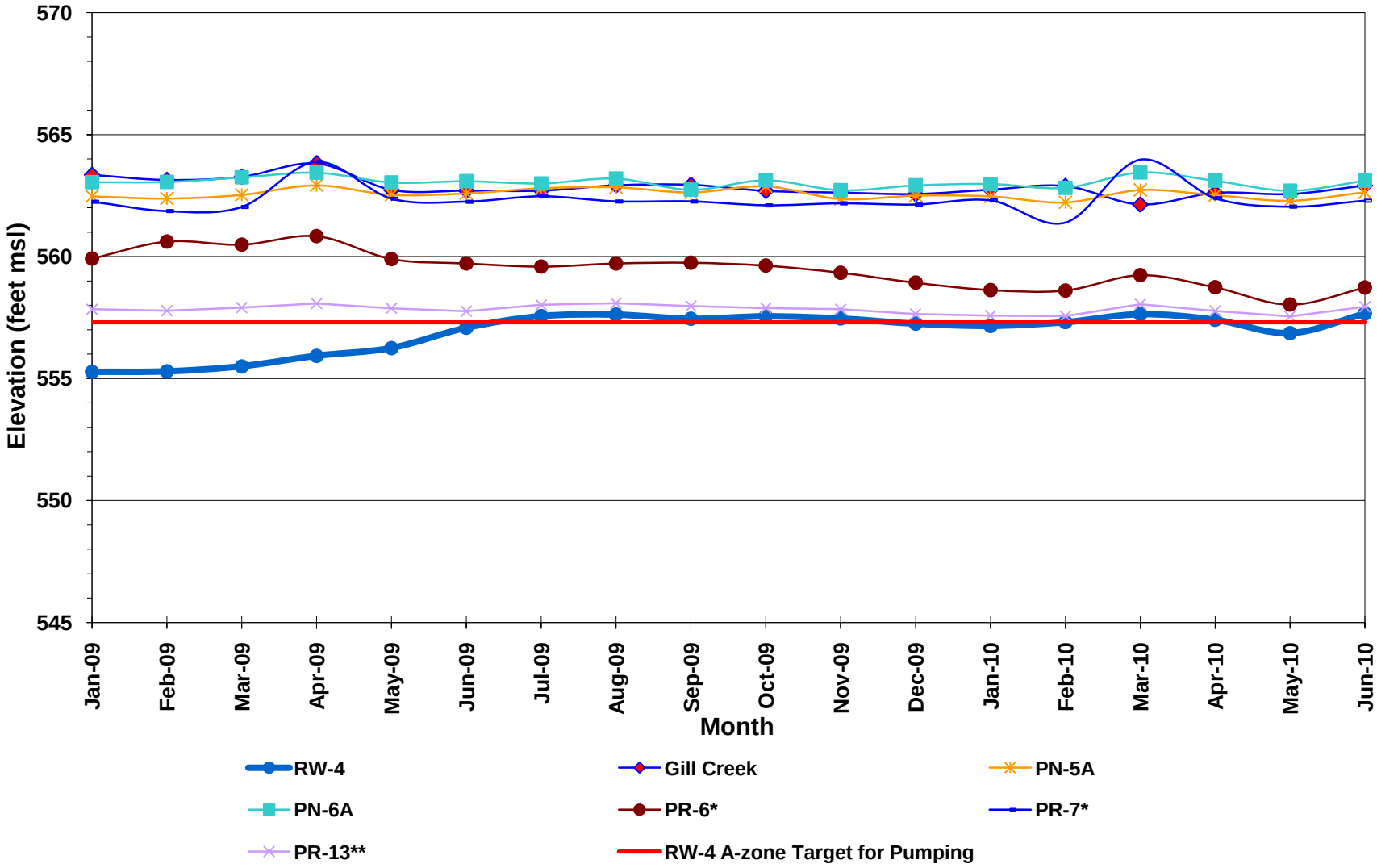
** Passive relief well Installed June 2003

NI - Not Installed

Prepared by : AWE 7/28/2010

Checked by: BSA 7/29/2010

Figure A-4
RW-4 Drawdown and Adjacent A-Zone Water Table Surface



Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

msl - mean sea level

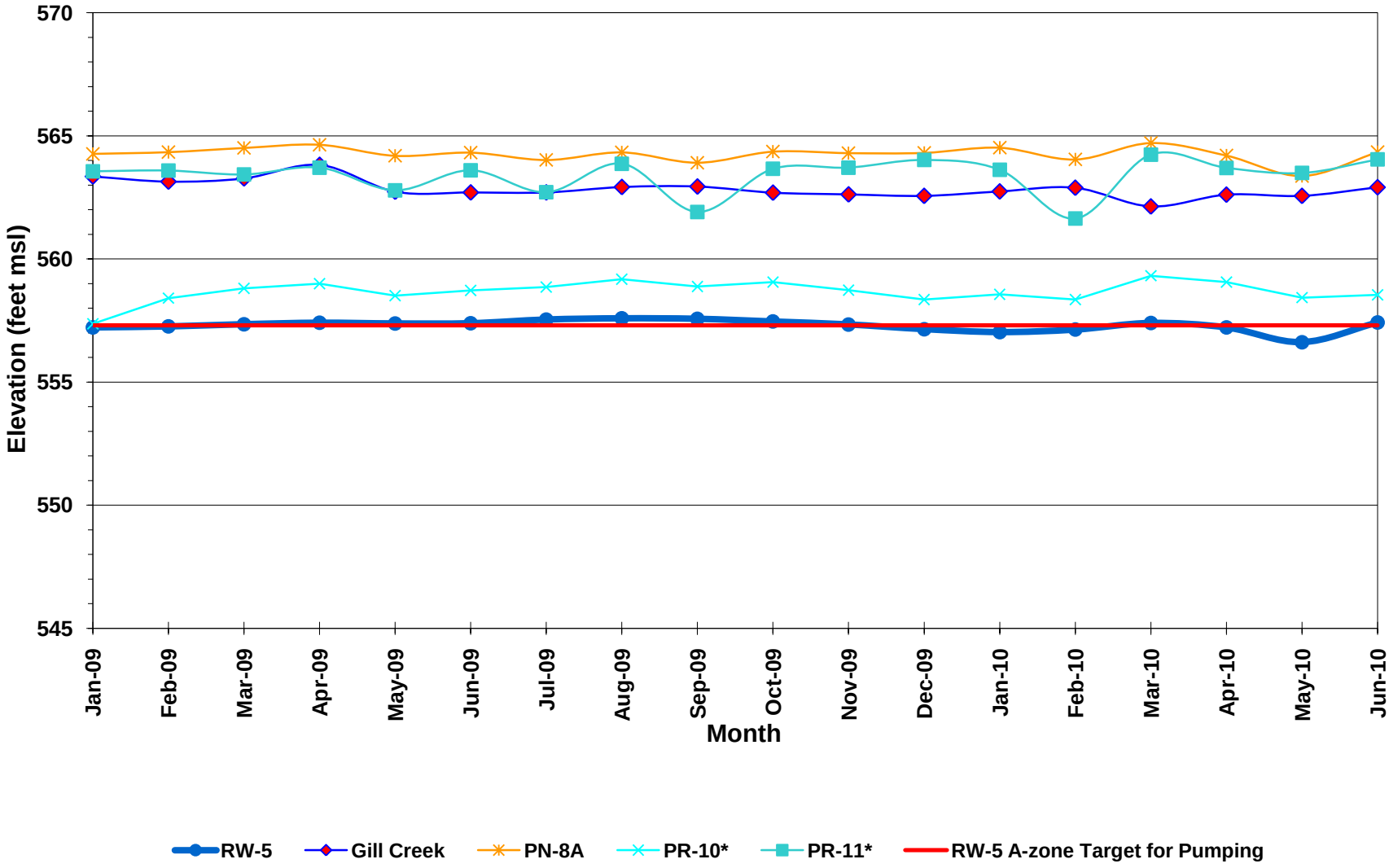
Table A-5
A-Zone
RW-5 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
RW-5	557.22	557.26	557.35	557.41	557.38	557.39	557.54	557.59	557.57	557.46	557.34	557.15	557.03	557.13	557.40	557.22	556.62	557.42
PN-8A	564.27	564.34	564.51	564.64	564.19	564.32	564.02	564.33	563.91	564.36	564.30	564.31	564.52	564.04	564.71	564.20	563.37	564.34
PR-10*	557.37	558.41	558.81	559.00	558.51	558.72	558.86	559.18	558.88	559.06	558.73	558.35	558.56	558.35	559.32	559.06	558.43	558.54
PR-11*	563.56	563.59	563.43	563.71	562.79	563.60	562.71	563.87	561.91	563.66	563.71	564.02	563.62	561.64	564.24	563.70	563.49	564.04
RW-5 A-zone Target	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30	557.30

Notes:
Elevations are reported in feet above mean seal level (msl)
*Passive relief well installed September 2002.
NI - Not Installed

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-5
RW-5 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

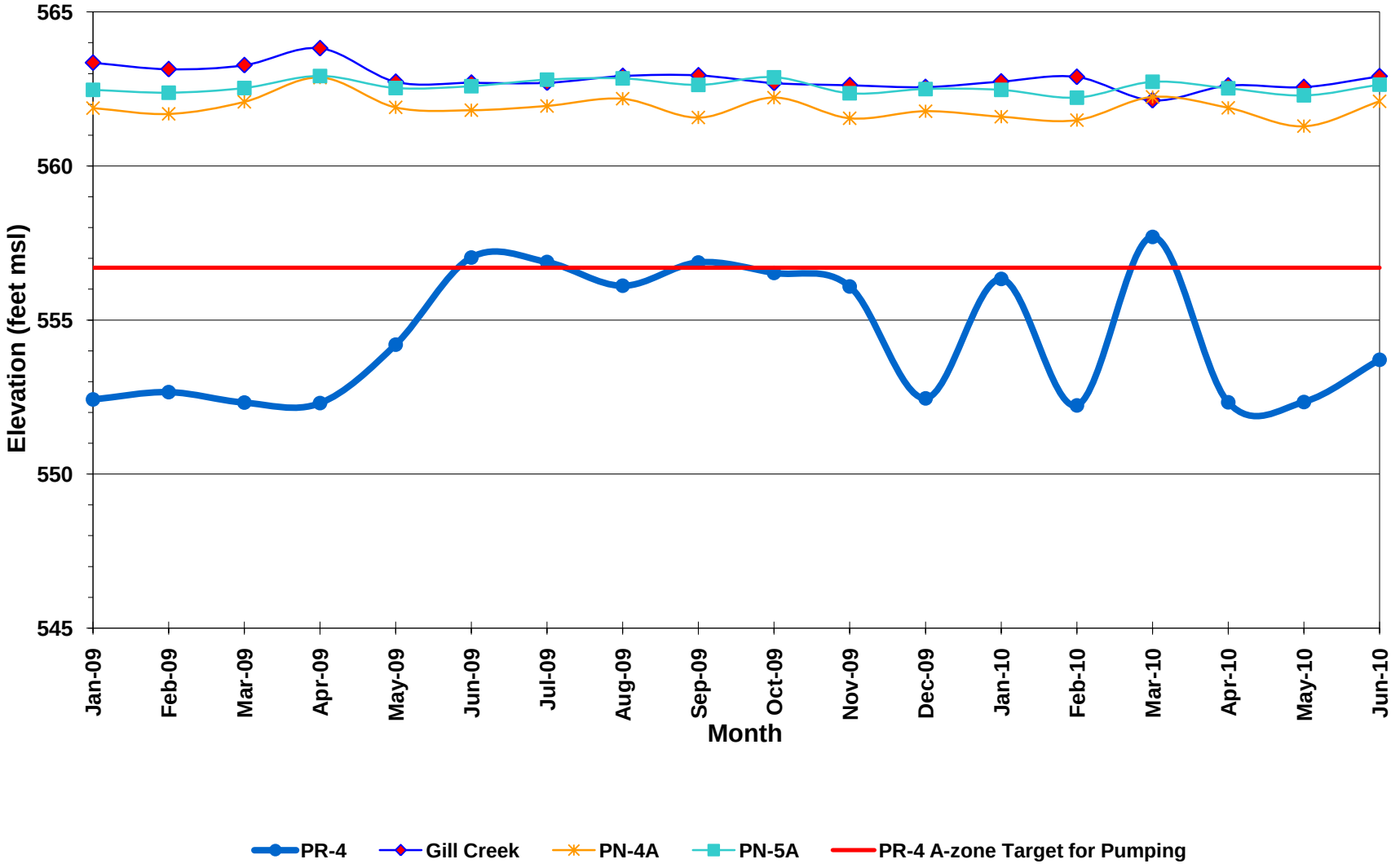
Table A-6
A-Zone
PR-4 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PR-4	552.42	552.66	552.32	552.30	554.20	557.03	556.88	556.11	556.87	556.53	556.09	552.46	556.33	552.23	557.70	552.33	552.34	553.71
PN-4A	561.88	561.69	562.08	562.87	561.90	561.81	561.95	562.18	561.57	562.22	561.55	561.78	561.60	561.49	562.24	561.89	561.29	562.10
PN-5A	562.47	562.38	562.53	562.92	562.53	562.59	562.80	562.84	562.63	562.88	562.36	562.50	562.47	562.22	562.73	562.52	562.29	562.64
PR-4 A-zone Target	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70	556.70

Notes:
Elevations are reported in feet above mean seal level (msl)

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-6
PR-4 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

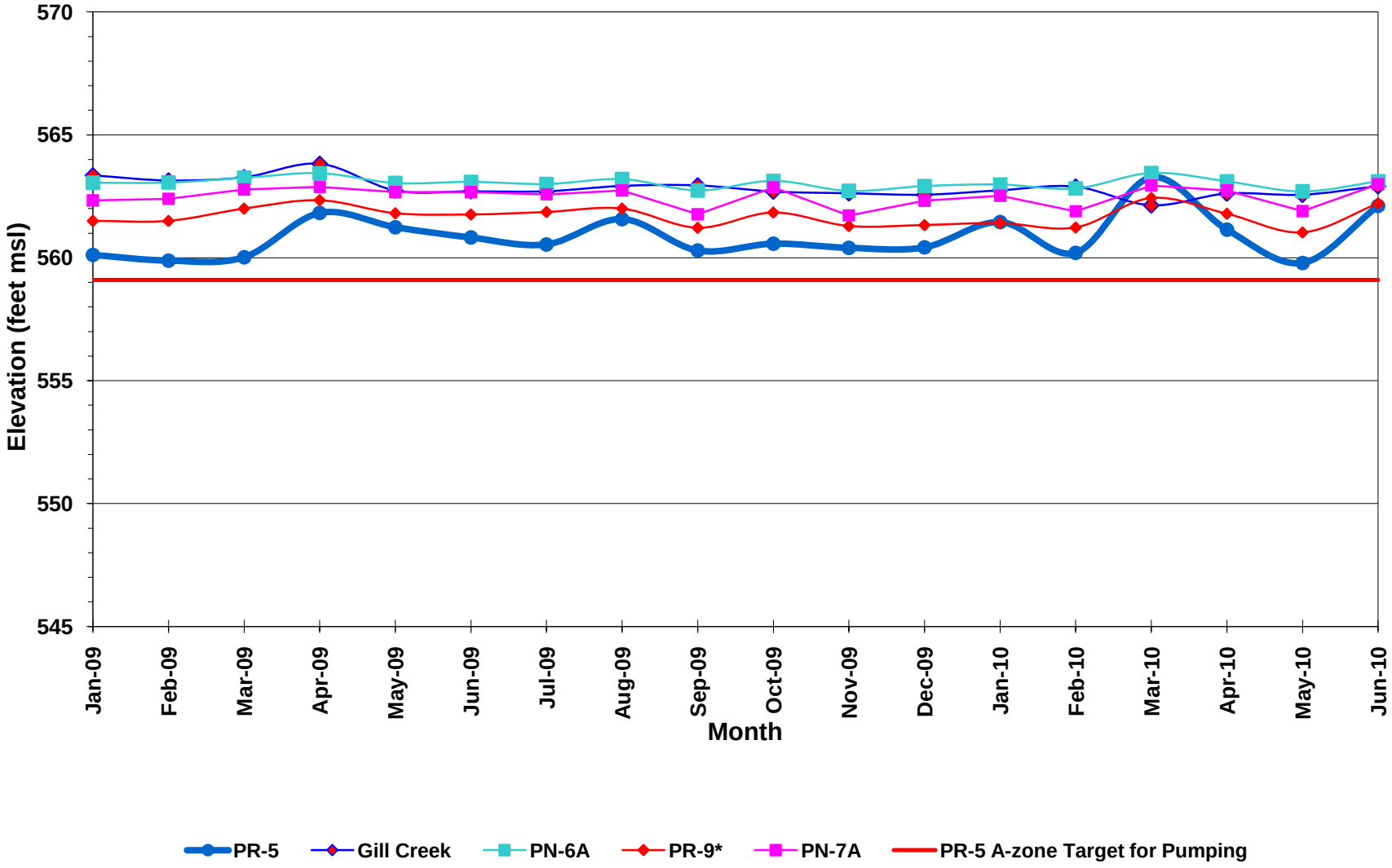
Table A-7
A-Zone
PR-5 and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PR-5	560.11	559.88	560.02	561.82	561.24	560.82	560.54	561.57	560.29	560.57	560.40	560.42	561.45	560.20	563.27	561.14	559.79	562.11
PN-7A	562.33	562.40	562.78	562.88	562.67	562.67	562.58	562.74	561.77	562.86	561.72	562.32	562.52	561.89	562.94	562.74	561.90	562.99
PR-9*	561.50	561.50	562.00	562.34	561.81	561.76	561.86	562.00	561.22	561.84	561.29	561.33	561.41	561.23	562.43	561.79	561.03	562.21
PN-6A	563.05	563.06	563.25	563.44	563.04	563.09	563.00	563.20	562.74	563.13	562.72	562.92	562.98	562.82	563.45	563.11	562.70	563.11
PR-5 A-zone Target	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10

Notes:
Elevations are reported in feet above mean seal level (msl)
* Passive relief well installed September 2002.
NM - Not Measured

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-7
PR-5 Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

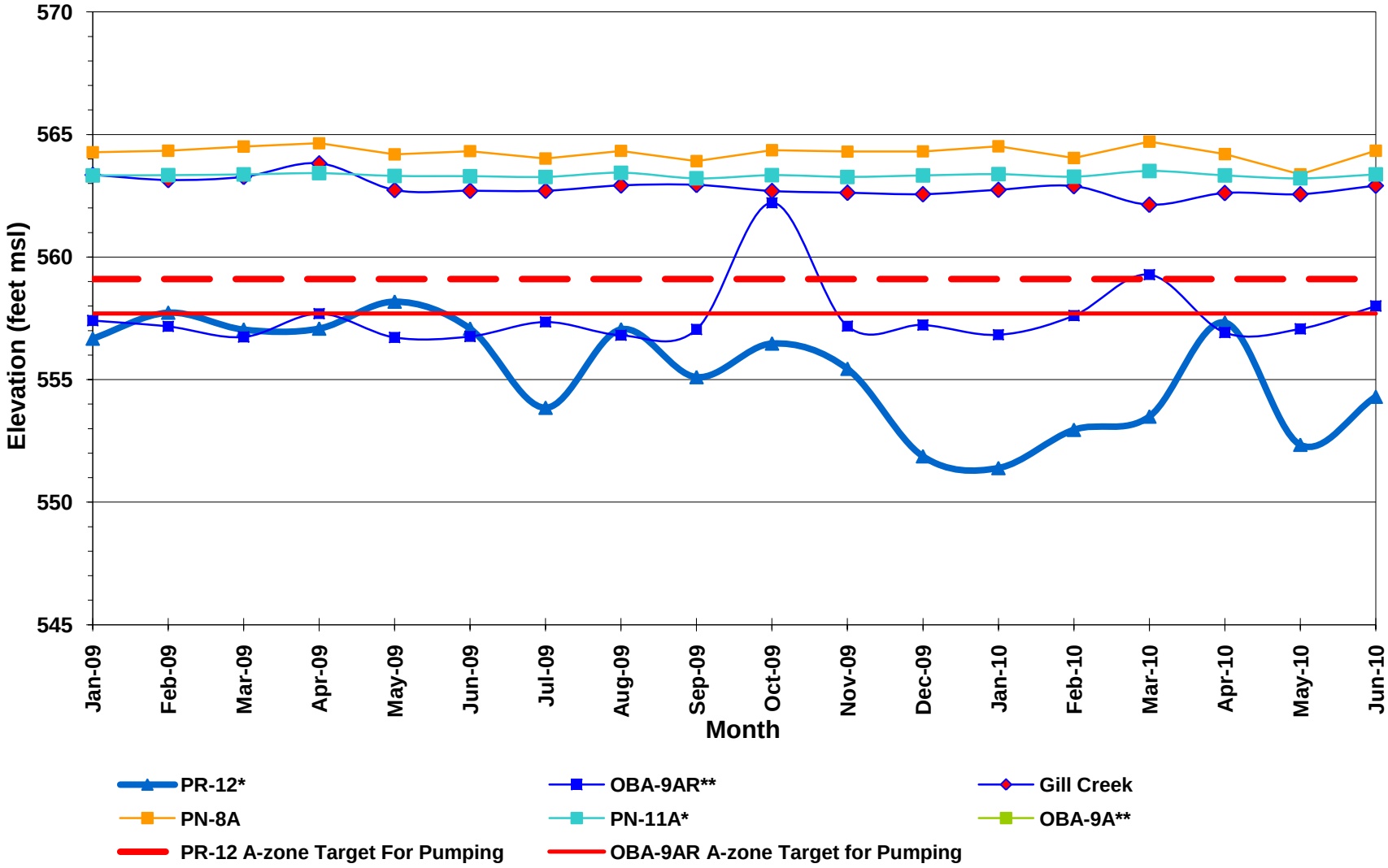
Table A-8
A-Zone
PR-12 and OBA-9AR and Adjacent Monitoring Point Water Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
Gill Creek -Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PN-8A	564.27	564.34	564.51	564.64	564.19	564.32	564.02	564.33	563.91	564.36	564.30	564.31	564.52	564.04	564.71	564.20	563.37	564.34
PR-12*	556.67	557.73	557.04	557.08	558.18	557.08	553.85	557.05	555.10	556.47	555.44	551.87	551.39	552.95	553.49	557.33	552.34	554.30
PN-11A*	563.33	563.34	563.37	563.42	563.31	563.30	563.27	563.44	563.21	563.34	563.27	563.33	563.38	563.28	563.51	563.33	563.21	563.37
OBA-9AR**	557.41	557.17	556.74	557.69	556.72	556.76	557.35	556.81	557.05	562.21	557.18	557.23	556.83	557.61	559.28	556.92	557.07	558.00
PR-12 A-zone Target	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10	559.10
OBA-9AR A-zone Target	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70	557.70

Notes:
Elevations are reported in feet above mean seal level (msl)
* Passive relief well installed September 2002.
** Well added to quarterly monitoring program in October 2002.
NM - Not Measured

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure A-8
PR-12 and OBA-9AR Drawdown and Adjacent A-Zone Water Table Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

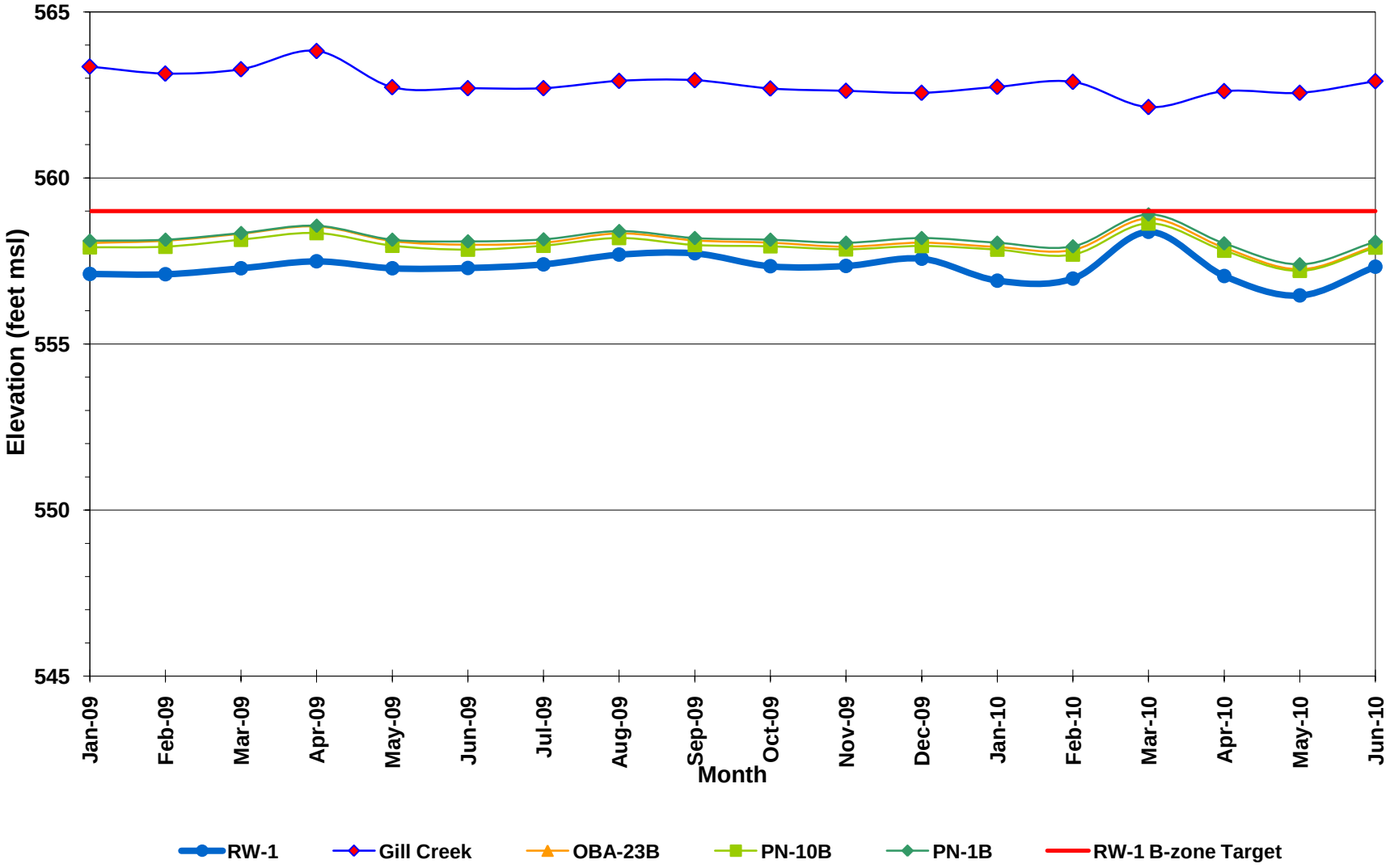
Table B-1
B-Zone
RW-1 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
RW-1	557.11	557.10	557.28	557.49	557.28	557.29	557.40	557.69	557.73	557.34	557.35	557.57	556.91	556.97	558.38	557.05	556.46	557.33
Gill Creek -Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
OBA-23B	558.04	558.11	558.32	558.54	558.10	557.99	558.05	558.33	558.12	558.05	557.93	558.05	557.92	557.83	558.78	557.90	557.25	557.95
PN-10B	557.91	557.93	558.14	558.34	557.96	557.84	557.96	558.19	557.98	557.94	557.85	557.95	557.84	557.69	558.63	557.81	557.20	557.90
PN-1B	558.11	558.14	558.34	558.56	558.14	558.09	558.15	558.40	558.19	558.14	558.05	558.19	558.05	557.94	558.90	558.03	557.40	558.08
RW-1 B-zone Target	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559	559

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure B-1
RW-1 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

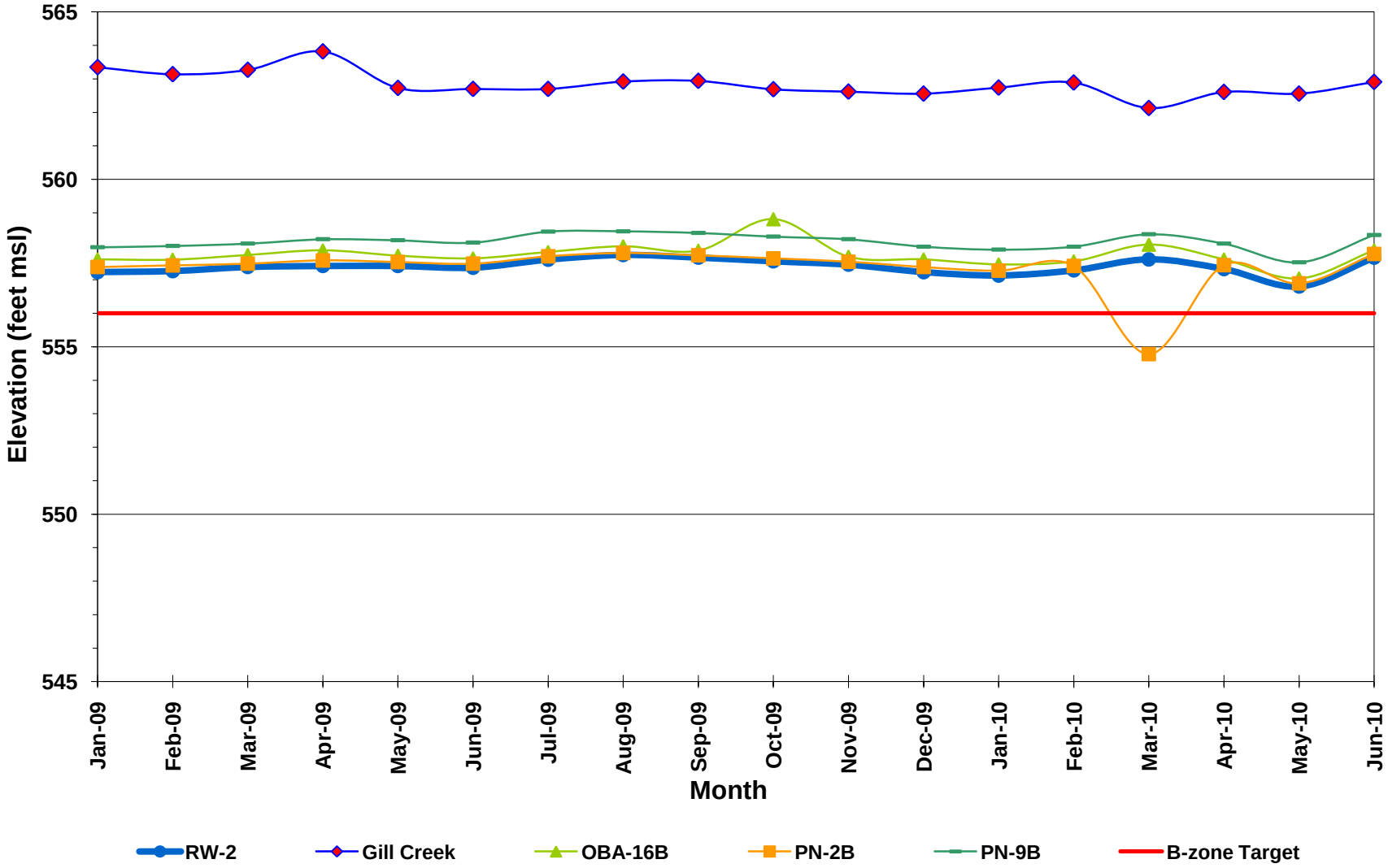
Table B-2
B-Zone
RW-2 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
RW-2	557.23	557.26	557.38	557.41	557.41	557.36	557.60	557.74	557.66	557.55	557.45	557.23	557.13	557.28	557.61	557.32	556.80	557.66
Gill Creek -Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
OBA-16B	557.61	557.60	557.74	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88
PN-2B	557.38	557.43	557.48	557.58	557.53	557.48	557.70	557.80	557.73	557.64	557.54	557.38	557.27	557.41	554.78	557.44	556.89	557.77
PN-9B	557.97	558.01	558.08	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34
RW-2 B-zone Target	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556	556

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure B-2
RW-2 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

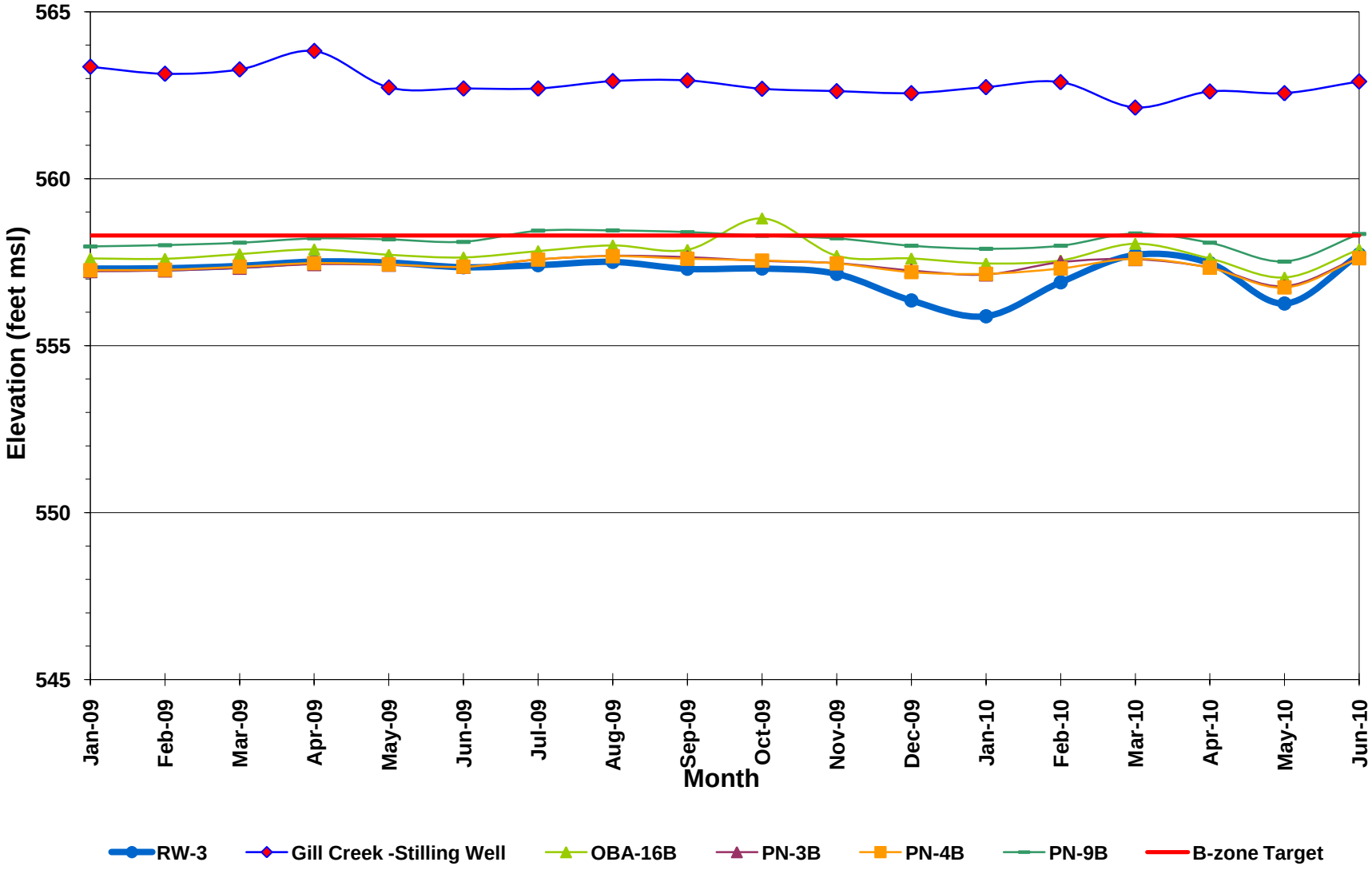
Table B-3
B-Zone
RW-3 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
RW-3	557.31	557.32	557.39	557.52	557.49	557.35	557.41	557.51	557.30	557.31	557.15	556.35	555.88	556.90	557.72	557.47	556.26	557.73
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
OBA-16B	557.61	557.60	557.74	557.88	557.72	557.64	557.83	558.00	557.87	558.81	557.69	557.61	557.46	557.55	558.05	557.61	557.04	557.88
PN-3B	557.23	557.25	557.33	557.44	557.42	557.36	557.58	557.69	557.65	557.54	557.47	557.25	557.13	557.50	557.59	557.34	556.78	557.65
PN-4B	557.26	557.27	557.36	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62
PN-9B	557.97	558.01	558.08	558.21	558.18	558.11	558.44	558.45	558.40	558.29	558.21	557.99	557.90	557.99	558.36	558.08	557.52	558.34
B-zone Target	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3	558.3

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure B-3
RW-3 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

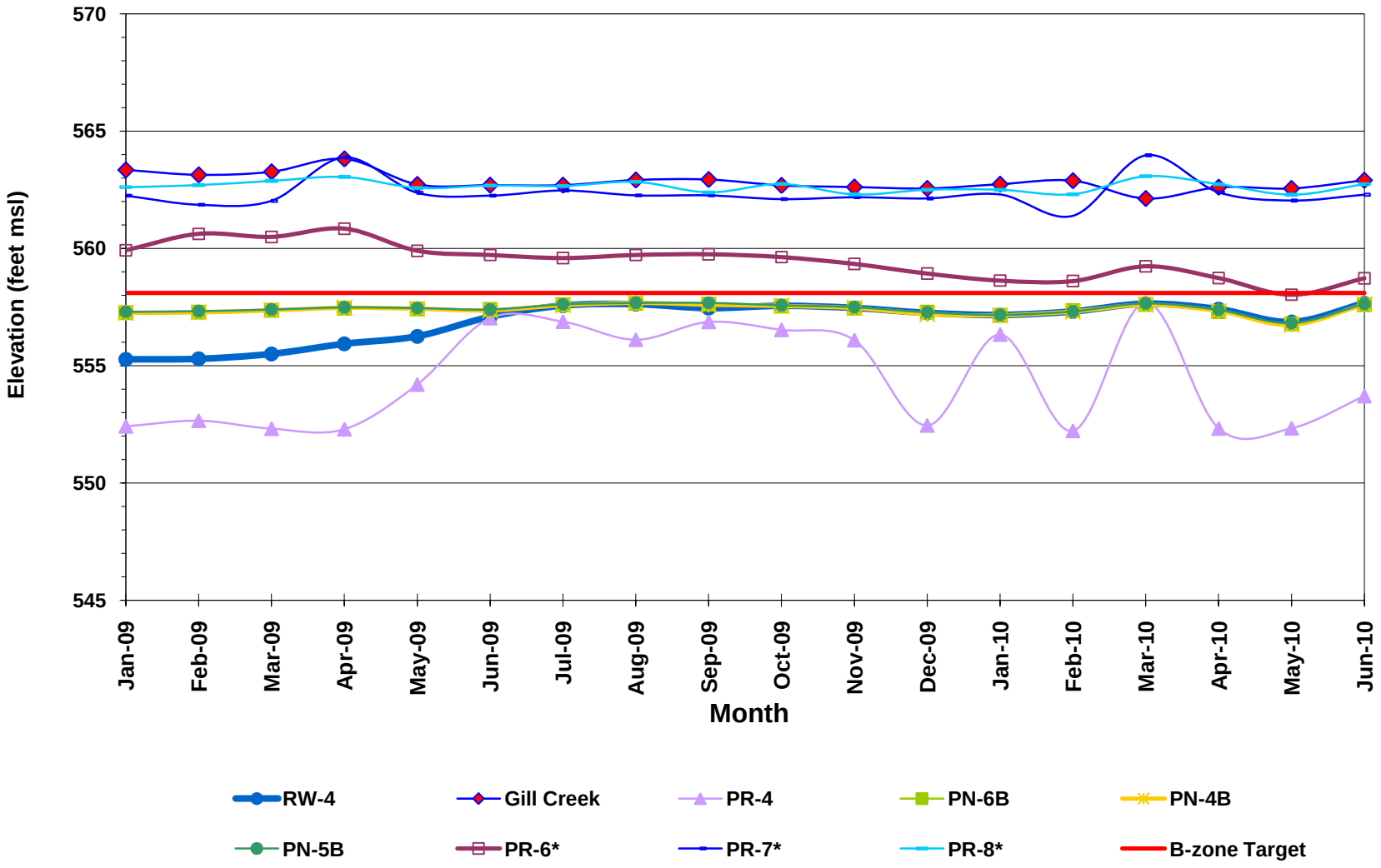
Table B-4
B-Zone
RW-4, PR-4 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
RW-4	555.27	555.29	555.50	555.93	556.25	557.08	557.56	557.62	557.45	557.55	557.46	557.25	557.16	557.31	557.64	557.41	556.86	557.66
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.61	562.56	562.91
PR-4	552.42	552.66	552.32	552.30	554.20	557.03	556.88	556.11	556.87	556.53	556.09	552.46	556.33	552.23	557.70	552.33	552.34	553.71
PN-6B	557.26	557.28	557.36	557.45	557.42	557.40	557.60	557.66	557.63	557.55	557.46	557.28	557.15	557.35	557.61	557.31	556.78	557.60
PN-4B	557.26	557.27	557.36	557.47	557.43	557.36	557.58	557.68	557.60	557.55	557.46	557.20	557.15	557.31	557.60	557.33	556.74	557.62
PN-5B	557.30	557.33	557.40	557.49	557.46	557.40	557.62	557.68	557.68	557.58	557.50	557.28	557.17	557.32	557.66	557.38	556.82	557.64
PR-6*	559.92	560.62	560.49	560.84	559.90	559.72	559.59	559.72	559.75	559.63	559.34	558.93	558.63	558.61	559.24	558.74	558.03	558.73
PR-7*	562.25	561.86	562.03	563.88	562.37	562.25	562.47	562.26	562.26	562.10	562.18	562.13	562.30	561.39	563.97	562.39	562.04	562.29
PR-8*	562.61	562.70	562.88	563.05	562.58	562.68	562.66	562.84	562.39	562.75	562.30	562.50	562.50	562.31	563.08	562.74	562.29	562.74
B-zone Target	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10	558.10

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure B-4
RW-4 and PR-4 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

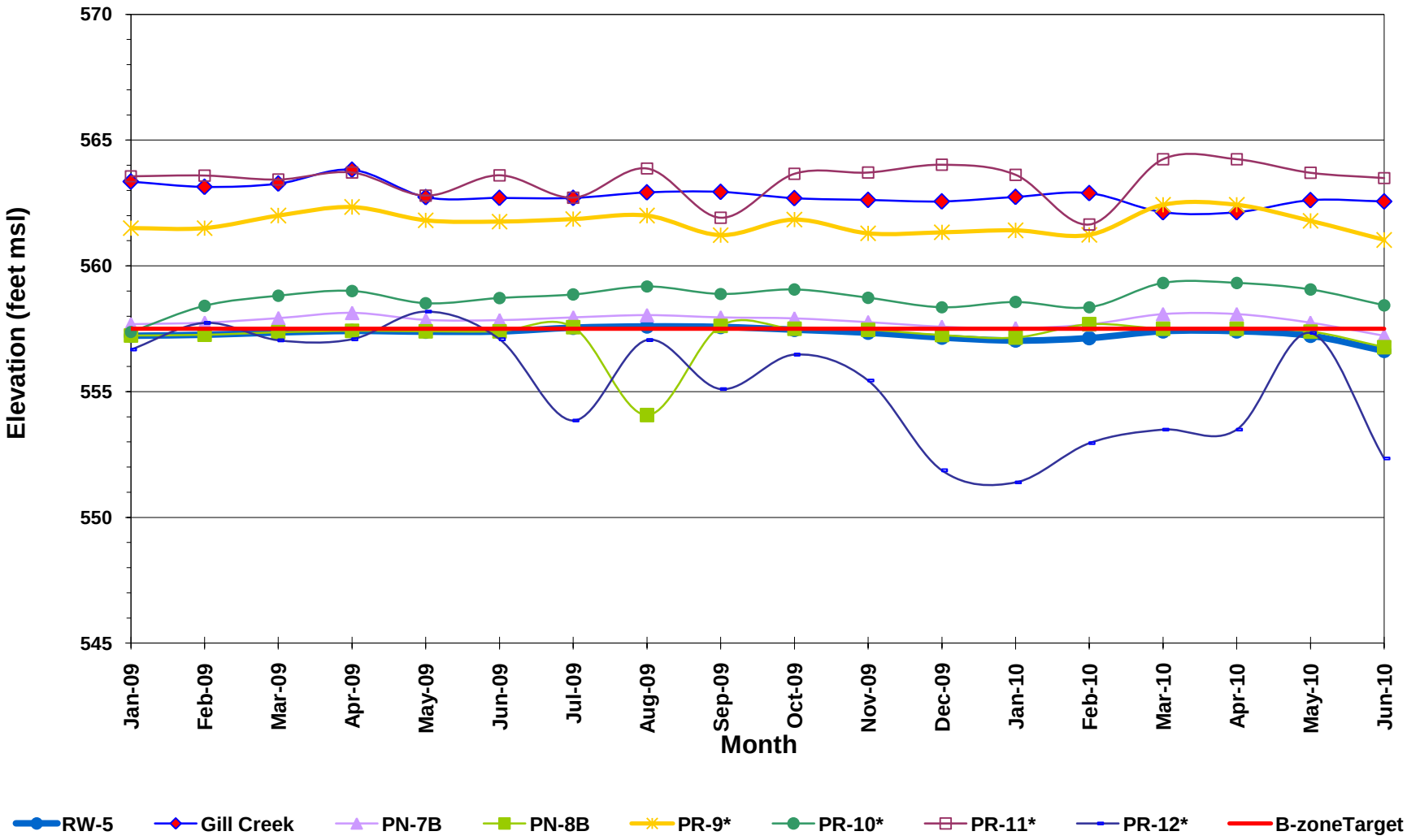
Table B-5
B-Zone
RW-5 and Adjacent Monitoring Point Peizometric Elevations

Location ID	Jan-09	Feb-09	Mar-09	Apr-09	May-09	Jun-09	Jul-09	Aug-09	Sep-09	Oct-09	Nov-09	Dec-09	Jan-10	Feb-10	Mar-10	Apr-10	May-10	Jun-10
RW-5	557.22	557.26	557.35	557.41	557.38	557.39	557.54	557.59	557.57	557.46	557.34	557.15	557.03	557.13	557.40	557.40	557.22	556.62
Gill Creek - Stilling Well	563.35	563.14	563.27	563.82	562.73	562.70	562.70	562.92	562.94	562.69	562.62	562.56	562.74	562.89	562.13	562.13	562.61	562.56
PN-7B	557.68	557.74	557.92	558.13	557.85	557.84	557.95	558.04	557.95	557.91	557.76	557.58	557.52	557.67	558.08	558.08	557.74	557.22
PN-8B	557.23	557.26	557.36	557.42	557.40	557.40	557.56	554.07	557.61	557.50	557.46	557.25	557.15	557.68	557.50	557.50	557.39	556.77
PR-9*	561.50	561.50	562.00	562.34	561.81	561.76	561.86	562.00	561.22	561.84	561.29	561.33	561.41	561.23	562.43	562.43	561.79	561.03
PR-10*	557.37	558.41	558.81	559.00	558.51	558.72	558.86	559.18	558.88	559.06	558.73	558.35	558.56	558.35	559.32	559.32	559.06	558.43
PR-11*	563.56	563.59	563.43	563.71	562.79	563.60	562.71	563.87	561.91	563.66	563.71	564.02	563.62	561.64	564.24	564.24	563.70	563.49
PR-12*	556.67	557.73	557.04	557.08	558.18	557.08	553.85	557.05	555.10	556.47	555.44	551.87	551.39	552.95	553.49	553.49	557.33	552.34
B-zoneTarget	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5	557.5

Notes:
Elevations are reported in feet above mean seal level (msl)
Gill Creek level data is provided only for reference and does not effect B-zone capture.
*Installed September 2002
NI - Not Installed

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Figure B-5
RW-5 Drawdown and Adjacent B-Zone Potentiometric Surface



msl - mean sea level

Prepared by : AWE 7/28/2010
Checked by: BSA 7/29/2010

Table 1
Summary of A-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation (Feet msl)	Reference Point Elevation (Feet msl)	08/24/10	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
Gill Creek - Still Well	NM	571.49	8.54	563.0
MW-20AR	565.61	570.51	Dry	NM
OBA-1A	562.8	571.02	4.04	567.0
OBA-2A	561.6	572.93	Dry	561.6
OBA-3A	552.6	572.50	14.82	557.7
OBA-4A	558.7	572.88	12.71	560.2
OBA-5A	558.2	572.21	7.51	564.7
OBA-6A	561.4	570.75	5.60	565.2
OBA-7A	563	573.97	8.28	565.7
OBA-8A	560.2	573.52	10.49	563.0
OBA-9A	558.3	569.88	6.88	563.0
OBA-9AR	557.7	570.68	8.19	562.5
OBA-10A	552.5	568.92	5.93	563.0
OBA-11A	559.2	573.22	13.00	560.2
OBA-12A	563.9	573.89	9.35	564.5
OBA-13A	553.6	573.98	16.47	557.5
OBA-14A	552.5	571.10	13.11	558.0
OBA-15A	551	573.08	15.37	557.7
OBA-16A	560.9	573.55	10.10	563.4
OBA-18A	559.9	573.85	13.17	560.7
OBA-19A	558.6	574.34	12.33	562.0
OBA-23A	561.4	570.72	8.70	562.0
OBA-24A	558.23	569.45	6.37	563.1
OBA-25A	558.44	569.47	5.31	564.2
OBA-26A	556.2	570.04	6.51	563.5
PN-1A	560.8	571.01	7.08	563.9
PN-2A	562	571.20	Dry	562.0
PN-3A	559.7	571.43	8.42	563.0
PN-4A	559.1	568.78	6.51	562.3
PN-5A	559.1	569.10	6.17	562.9
PN-6A	559.2	568.93	5.80	563.1
PN-7A	558.9	568.70	5.83	562.9
PN-8A	557.8	568.83	4.37	564.5
PN-10A	561.5	570.57	Dry	561.5
PN-11A	558.9	567.99	4.53	563.5
PN-12A	559.33	570.54	5.40	565.1
PN-13A	560.46	573.70	8.96	564.7
PN-14A	561.05	573.79	8.94	564.9
PN-15A	559.93	571.15	6.83	564.3
PN-16A	560.67	570.92	7.17	563.7
PN-17A	560.81	571.04	6.21	564.8
PN-18A	562.03	570.77	6.78	564.0
PN-19A	562.43	571.20	7.36	563.8
PN-20A	558.82	570.49	7.86	562.6
PN-21A	559.19	569.88	5.09	564.8
PR-13	562.4	569.07	11.00	558.1

NOTES:

* - From 1997 performance monitoring test.

** Buffalo Avenue measurement

NM - Not measured.

NI - Not Installed

DRY - Water elevation not applicable.

Bottom of screened interval used in contouring.

MW-20AR is overburden well, 565.61 is the bottom of the well

Prepared By: AWE 10/11/2010
Checked By: KPH 10/11/2010

Table 2
Summary of B-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation	Reference Point Elevation (Feet msl)	08/24/10	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
BH-1	557.53	574.38	16.61	557.8
OBA-1B	563.3	570.90	10.13	560.8
OBA-2B	561.7	573.07	15.25	557.8
OBA-3B	552.9	572.17	17.93	554.2
OBA-4B	558.3	573.49	15.47	558.0
OBA-5B	558.4	572.70	14.02	558.7
OBA-6B	561.7	570.71	6.07	564.6
OBA-7B	560	574.47	10.63	563.8
OBA-8B	560.1	573.24	14.36	558.9
OBA-11B	559.5	573.29	16.04	557.2
OBA-12B	563.9	574.04	15.79	558.3
OBA-13B	552.1	574.26	16.88	557.4
OBA-14B	552.3	571.26	13.71	557.5
OBA-16B	560.9	573.47	15.41	558.1
OBA-21AB	559	572.46	7.85	564.6
OBA-23B	561.3	570.54	12.25	558.3
OBA-24B	558.23	569.28	11.33	558.0
OBA-25B	558.44	569.45	11.36	558.1
OBA-26B	556.2	570.04	11.96	558.1
PN-1B	560.8	570.87	12.44	558.4
PN-2B	562	571.01	13.11	557.9
PN-3B	559.7	571.36	13.57	557.8
PN-4B	559.1	568.89	11.10	557.8
PN-5B	559.1	569.10	11.27	557.8
PN-6B	559.2	569.07	11.25	557.8
PN-7B	558.9	568.95	10.87	558.1
PN-8B	557.8	568.38	10.59	557.8
PN-9B	560.22	571.90	13.35	558.5
PN-10B	561.53	571.63	13.41	558.2
MW-20B		570.09	11.84	558.2
MW-22B		569.86	12.79	557.1
PN-11B	559.05	568.21	10.16	558.1
PN-12B	558.81	570.43	12.16	558.3
PN-13B	560.45	573.73	15.49	558.2
PN-14B	560.06	573.76	15.40	558.4
PN-15B	559.96	571.14	13.12	558.0
PN-16B	560.15	570.85	8.73	562.1
PN-17B	560.94	571.07	12.83	558.2
PN-18B	562.1	570.83	12.58	558.3
PN-19B	562.45	571.11	12.77	558.3
PN-20B	557.49	570.21	12.42	557.8
PN-21B	559.17	569.85	11.50	558.4
PR-13	562.4	569.07	11.00	558.1

NOTES:
NM - Not Measured
NI - Not Installed
N/A - Not Accessible

Prepared By: AWE 10/11/2010
Checked By: KPH 10/11/2010

Table 3
Summary of C-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Reference Point Elevation (Feet msl)	08/24/10	
		Water Level (Feet BTOC)	Water Elevation (Feet msl)
OBA-1C	570.96	14.68	556.3
OBA-4C	573.54	15.83	557.7
OBA-7C	574.85	18.64	556.2
OBA-12C	574.31	20.02	554.3
OBA-14C	570.61	13.95	556.7
OBA-15B	573.58	15.87	557.7
MW-22C	570.09	15.84	554.2

Prepared By: AWE 10/11/2010
Checked By: KPH 10/11/2010

Table 4
Summary of CD-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Reference Point Elevation (Feet msl)	8/24/2010	
		Water Level (Feet BTOC)	Water Elevation (Feet msl)
OBA-2C	573.12	17.14	556.0
OBA-3C	573.14	16.75	556.4
OBA-5C	572.46	16.51	555.9
OBA-6C	569.49	14.02	555.5
OBA-8C	573.26	19.80	553.5
OBA-11C	573.37	16.98	556.4
OBA-13C	574.08	21.86	552.2
MW-22D	570.67	NM	NM

Notes:
NM - Not Measured.

Prepared By: AWE 10/11/2010
Checked By: KPH 10/11/2010

Table 5
Summary of Recovery and Passive Relief Well
Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation (Feet msl)	Reference Point Elevation (Feet msl)	8/24/2010	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
RW-1	561.2	573.69	15.71	558.0
RW-1-PZ	561.2	572.73	14.79	557.9
RW-2	557	572.49	14.70	557.8
RW-2-PZ	557	572.22	14.46	557.8
RW-3	557.1	570.09	12.19	557.9
RW-3-PZ	557.1	570.03	12.19	557.8
RW-4	557.3	569.77	12.00	557.8
RW-4-PZ	557.3	569.81	11.97	557.8
RW-5	557.3	569.79	12.21	557.6
RW-5-PZ	557.3	569.74	12.17	557.6
PR-1	561.8	572.82	9.06	563.8
PR-1-PZ	561.8	571.58	7.87	563.7
PR-2	561.7	572.72	14.60	558.1
PR-2-PZ	561.7	572.70	14.83	557.9
PR-3	558.2	572.79	14.95	557.8
PR-3-PZ	558.2	572.16	14.35	557.8
PR-4	556.7	570.21	13.25	557.0
PR-4-PZ	556.7	570.14	13.18	557.0
PR-5	559.1	570.68	9.45	561.2
PR-5-PZ	559.1	569.69	10.51	559.2
PR-6	559.7	568.70	9.59	559.1
PR-7	558.9	569.06	6.83	562.2
PR-8	559.2	568.42	5.76	562.7
PR-9	557.6	568.72	6.61	562.1
PR-10	558.9	568.44	8.85	559.6
PR-11	558.8	568.01	4.29	563.7
PR-12	558.9	568.54	14.14	554.4
SRW-1	558.6	572.57	9.23	563.3
SRW-2	556	573.04	13.09	559.9
PR-13	562.4	569.07	11.00	558.1

NOTES:

Below bottom of A-zone

NM - Not Measured

NR - Not Recorded

NI - Not Installed

1 - Water level from previous month with similar flow rate used for contouring.

msl - above mean sea level

Prepared By: AWE 10/11/2010

Checked By: KPH 10/11/2010

Table 1
Summary of A-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation (Feet msl)	Reference Point Elevation (Feet msl)	05/03/10	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
Gill Creek - Still Well	NM	571.49	8.51	563.0
MW-20AR	565.61	570.51	DRY	NM
OBA-1A	562.8	571.02	4.62	566.4
OBA-2A	561.6	572.93	DRY	561.6
OBA-3A	552.6	572.50	15.92	556.6
OBA-4A	558.7	572.88	13.19	559.7
OBA-5A	558.2	572.21	7.58	564.6
OBA-6A	561.4	570.75	5.88	564.9
OBA-7A	563	573.97	7.98	566.0
OBA-8A	560.2	573.52	11.09	562.4
OBA-9A	558.3	569.88	7.98	561.9
OBA-9AR	557.7	570.68	13.61	557.1
OBA-10A	552.5	568.92	6.48	562.4
OBA-11A	559.2	573.22	13.02	560.2
OBA-12A	563.9	573.89	9.39	564.5
OBA-13A	553.6	573.98	17.21	556.8
OBA-14A	552.5	571.10	13.86	557.2
OBA-15A	551	573.08	16.32	556.8
OBA-16A	560.9	573.55	11.03	562.5
OBA-18A	559.9	573.85	13.19	560.7
OBA-19A	558.6	574.34	13.02	561.3
OBA-23A	561.4	570.72	DRY	561.4
OBA-24A	558.23	569.45	6.78	562.7
OBA-25A	558.44	569.47	5.49	564.0
OBA-26A	556.2	570.04	6.52	563.5
PN-1A	560.8	571.01	7.31	563.7
PN-2A	562	571.20	DRY	562.0
PN-3A	559.7	571.43	9.76	561.7
PN-4A	559.1	568.78	7.49	561.3
PN-5A	559.1	569.10	6.81	562.3
PN-6A	559.2	568.93	6.23	562.7
PN-7A	558.9	568.70	6.80	561.9
PN-8A	557.8	568.83	5.46	563.4
PN-10A	561.5	570.57	DRY	561.5
PN-11A	558.9	567.99	4.79	563.2
PN-12A	559.33	570.54	5.38	565.2
PN-13A	560.46	573.70	9.06	564.6
PN-14A	561.05	573.79	8.97	564.8
PN-15A	559.93	571.15	7.08	564.1
PN-16A	560.67	570.92	DRY	560.7
PN-17A	560.81	571.04	6.65	564.4
PN-18A	562.03	570.77	8.38	562.4
PN-19A	562.43	571.20	7.34	563.9
PN-20A	558.82	570.49	7.89	562.6
PN-21A	559.19	569.88	5.13	564.7
PR-13	562.4	569.07	11.52	557.5

NOTES:

* - From 1997 performance monitoring test.

** Buffalo Avenue measurement

NM - Not measured.

NI - Not Installed

DRY - Water elevation not applicable.

Bottom of screened interval used in contouring.

MW-20AR is overburden well, 565.61 is the bottom of the well

Prepared By: AWE 7/28/2010
Checked By: BSA 7/29/2010

Table 2
Summary of B-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation	Reference Point Elevation (Feet msl)	05/03/10	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
BH-1	557.53	574.38	DRY	557.5
OBA-1B	563.3	570.90	9.56	561.3
OBA-2B	561.7	573.07	16.29	556.8
OBA-3B	552.9	572.17	18.67	553.5
OBA-4B	558.3	573.49	15.66	557.8
OBA-5B	558.4	572.70	14.69	558.0
OBA-6B	561.7	570.71	6.63	564.1
OBA-7B	560	574.47	10.85	563.6
OBA-8B	560.1	573.24	14.66	558.6
OBA-11B	559.5	573.29	16.09	557.2
OBA-12B	563.9	574.04	16.56	557.5
OBA-13B	552.1	574.26	17.72	556.5
OBA-14B	552.3	571.26	14.58	556.7
OBA-16B	560.9	573.47	16.43	557.0
OBA-21AB	559	572.46	9.73	562.7
OBA-23B	561.3	570.54	13.29	557.3
OBA-24B	558.23	569.28	12.03	557.3
OBA-25B	558.44	569.45	12.16	557.3
OBA-26B	556.2	570.04	12.78	557.3
PN-1B	560.8	570.87	13.47	557.4
PN-2B	562	571.01	14.12	556.9
PN-3B	559.7	571.36	14.58	556.8
PN-4B	559.1	568.89	12.15	556.7
PN-5B	559.1	569.10	12.28	556.8
PN-6B	559.2	569.07	12.29	556.8
PN-7B	558.9	568.95	11.73	557.2
PN-8B	557.8	568.38	11.61	556.8
PN-9B	560.22	571.90	14.38	557.5
PN-10B	561.53	571.63	14.43	557.2
MW-20B		570.09	11.43	558.7
MW-22B		569.86	13.02	556.8
PN-11B	559.05	568.21	11.03	557.2
PN-12B	558.81	570.43	13.02	557.4
PN-13B	560.45	573.73	16.34	557.4
PN-14B	560.06	573.76	16.17	557.6
PN-15B	559.96	571.14	13.95	557.2
PN-16B	560.15	570.85	11.00	559.9
PN-17B	560.94	571.07	13.82	557.3
PN-18B	562.1	570.83	13.61	557.2
PN-19B	562.45	571.11	13.81	557.3
PN-20B	557.49	570.21	13.43	556.8
PN-21B	559.17	569.85	12.32	557.5
PR-13	562.4	569.07	11.52	557.5

NOTES:
NM - Not Measured
NI - Not Installed
N/A - Not Accessible

Prepared By: AWE 7/28/2010
Checked By: BSA 7/29/2010

Table 3
Summary of C-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Reference Point Elevation (Feet msl)	05/03/10	
		Water Level (Feet BTOC)	Water Elevation (Feet msl)
OBA-1C	570.96	15.23	555.7
OBA-4C	573.54	16.87	556.7
OBA-7C	574.85	19.30	555.6
OBA-12C	574.31	20.42	553.9
OBA-14C	570.61	14.97	555.6
OBA-15B	573.58	16.86	556.7
MW-22C	570.09	16.15	553.9

Prepared By: AWE 7/28/2010
Checked By: BSA 7/29/2010

Table 4
Summary of CD-Zone Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Reference Point Elevation (Feet msl)	5/3/2010	
		Water Level (Feet BTOC)	Water Elevation (Feet msl)
OBA-2C	573.12	18.96	554.2
OBA-3C	573.14	17.82	555.3
OBA-5C	572.46	17.21	555.3
OBA-6C	569.49	14.81	554.7
OBA-8C	573.26	20.68	552.6
OBA-11C	573.37	17.06	556.3
OBA-13C	574.08	22.28	551.8
MW-22D	570.67	NM	NM

Notes:
NM - Not Measured.

Prepared By: AWE 7/28/2010
Checked By: BSA 7/29/2010

Table 5
Summary of Recovery and Passive Relief Well
Water Levels
Olin Chemical
Niagara Falls, NY

Well I.D.	Bottom of A-Zone Elevation (Feet msl)	Reference Point Elevation (Feet msl)	5/3/2010	
			Water Level (Feet BTOC)	Water Elevation (Feet msl)
RW-1	561.2	573.69	17.23	556.5
RW-1-PZ	561.2	572.73	16.23	556.5
RW-2	557	572.49	15.69	556.8
RW-2-PZ	557	572.22	15.49	556.7
RW-3	557.1	570.09	13.83	556.3
RW-3-PZ	557.1	570.03	13.82	556.2
RW-4	557.3	569.77	12.91	556.9
RW-4-PZ	557.3	569.81	13.11	556.7
RW-5	557.3	569.79	13.17	556.6
RW-5-PZ	557.3	569.74	13.13	556.6
PR-1	561.8	572.82	9.32	563.5
PR-1-PZ	561.8	571.58	8.09	563.5
PR-2	561.7	572.72	15.58	557.1
PR-2-PZ	561.7	572.70	15.83	556.9
PR-3	558.2	572.79	16.00	556.8
PR-3-PZ	558.2	572.16	15.39	556.8
PR-4	556.7	570.21	17.87	552.3
PR-4-PZ	556.7	570.14	15.83	554.3
PR-5	559.1	570.68	10.89	559.8
PR-5-PZ	559.1	569.69	11.24	558.5
PR-6	559.7	568.70	10.67	558.0
PR-7	558.9	569.06	7.02	562.0
PR-8	559.2	568.42	6.13	562.3
PR-9	557.6	568.72	7.69	561.0
PR-10	558.9	568.44	10.01	558.4
PR-11	558.8	568.01	4.52	563.5
PR-12	558.9	568.54	17.43	551.1
SRW-1	558.6	572.57	10.53	562.0
SRW-2	556	573.04	13.74	559.3
PR-13	562.4	569.07	11.52	557.5

NOTES:

Below bottom of A-zone

NM - Not Measured

NR - Not Recorded

NI - Not Installed

1 - Water level from previous month with similar flow rate used for contouring.

msl - above mean sea level

Prepared By: AWE 7/28/2010

Checked By: BSA 7/29/2010