



P. Concanon

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October 31, 2007

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

RECEIVED

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NY STATE DEPT OF ENVIRONMENTAL CONSERVATION
DIVISION OF HAZARDOUS WASTE
REL UNREL

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

Dear Mr. Czuhanych:

This is the 40th Quarterly report 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 July 1, 2007 through September 30, 2007.

Operation / Maintenance issues :

Details of the implementation of routine maintenance tasks and trouble shooting activities are included for the most recent quarter in the monthly memoranda from Olin's consultant, Mactec Engineering and Consulting, (**Attachment 1**). 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.

The primary O&M issues are the response to the POTW discharge excursion that occurred in June, 2007, and the lightning strike of August 3, 2007.

In response to the excursion of June, 2007, Olin reduced the pumped groundwater volume to decrease discharge loadings to the POTW. This was documented, per my email to you of June 29, 2007, notifying you of our need to reduce pump rates. Our monitoring has confirmed that discharge loadings have stabilized to pre-excursion levels. However, in order to avoid future excursions, we plan to install a carbon polish at the discharge end of our groundwater treatment system. The planning and design for that addition is underway. I will keep you apprised of progress. We plan to maintain the reduced pumping rates until the carbon polish addition is online, planned for approximately the end of year, 2007.

Lightning strike on August 3, 2007 knocked out power to the recovery/treatment system and damaged a number of transducers. This event caused some system down time, as noted in the monthly memoranda, and necessitated the replacement of a number of transducers. These replacements are now complete and the system is functioning properly. Email documentation of Olin's notification to NYSDEC is included in **Attachment 5**.

Hydraulic Capture:

Attachment 2 includes piezometric maps for each hydraulic zone representing the most recent quarter. That attachment also includes tables and hydrographs documenting empirical monthly hydraulic capture comparisons. Data for piezometric levels are included electronically on the CD in **Attachment 3**.

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 most of the 300 foot boundary with Gill Creek, and relative to potential northward flow toward Buffalo Avenue. This is largely aided by seasonally dry conditions. This is the lowest A-zone level since the start of remediation in 1997. As indicated on the piezometric plots and hydraulic cross sections, many of the A-zone piezometers are dry. Thus, capture evaluation in the A-zone is not at issue. In response to a POTW excursion in June, 2007, we reduced our overall pump rate by about 15%. This reduction could have resulted in possible capture inefficiency, in isolated areas along Gill Creek. However, the dry conditions negated any potential for A-zone capture loss. As noted above, we are installing a carbon polish system to avoid future excursions, and we will resume normal pump rates after it is online, toward the end of calendar year 2007. B-zone: Capture is being maintained. C-zone: C and CD-zone capture is achieved, with flow gradients consistent over time, per the pumping at the high volume Production well in Plant 1. This groundwater is captured by the Olin production well, and is demonstrated by piezometric plots showing gradients consistent with historic gradients toward the production well. Some easterly groundwater flow is possibly influenced by pumping from the Solvent site to the east.

Groundwater Quality:

The third quarter recovery well header groundwater data are included on the CD in **Attachment 3**. This attachment also includes piezometric data and system flow data.

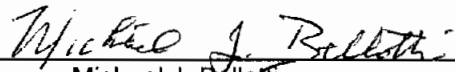
Overview of extracted groundwater volume and contaminant mass:

The volume of pumped groundwater for this quarter was approximately 6.5 million gallons. The total volume of groundwater extracted and treated since system startup is approximately 239 million gallons. Since startup the system has extracted over 51,000 pounds of organics, 235 pounds of pesticides and 3 pounds of mercury. Pumped volume and withdrawn mass of contaminants are lower this quarter, in part due to extremely dry conditions and in part due to reduced pump rates as described above.

Attachment 4 contains data and tables to support calculations of mass removed during the currently reported quarter and for the entire project duration. Included are recovery well flow data, recovery well header contaminant concentrations, estimated mass removed for each quarter by parameter group and a table of groundwater flow and mass removed since start-up. **Attachment 4** also contains tables of chemical analysis data for discharge headers.

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
OLIN CORPORATION

List of Attachments

Attachment 1:

Monthly Operation and Maintenance Status Reports:

Attachment 2:

Piezometric maps, hydrographs and supporting data

Attachment 3:

Data CD:

- Piezometric data
- Groundwater Quality Data:
- Groundwater collection system flow data

Attachment 4:

- Quarterly Contaminant mass removed
- Groundwater flow and mass removed since project start-up
- Recovery well header and constituent concentrations (hard copy)

Attachment 5

Correspondence

CC:

Pat Concannon - NYSDEC Buffalo, NY

Gina Senia: Olin Niagara Falls, NY

Dale Carpenter: USEPA: Region II, New York, NY

Rick Marotte: Mactec Engineering: Kennesaw, GA

ATTACHMENT 1



MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Don Greer, Gil Doucet, Greg Moslow, Gina Senia @ Olin-Niagara; Margaret Tanner and Rick Marotte @ MACTEC.

From: Tony Englund

Date: August 8, 2007

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for July 2007**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6100070001

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 2007:

Ground-Water Collection and Treatment System Status				
July 2007				
Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	2.8	557.26	559	31
RW-2	33.6	557.73	556	0
RW-3	5.2	557.61	558.3	31
RW-4	3.7	557.64	558.1	31
PR-4	0.5	557.69	556.7	1
RW-5	3.9	557.15	557.5	27
PR-12	3.3	558.19	558.9	31
OBA-9AR	0.0	559.38*	559.8	31

* Value based on average of weekly piezometer measurements

All wells but RW-2 and PR-4 consistently met their target drawdown levels in July 2007. The few exceedances were caused by minor system upsets and routine maintenance. The PR-4 flowrate was intentionally lowered as part of an investigation of pesticide concentrations in captured GW.

RW-2 operated consistently at a flowrate averaging 33.6 gpm but the water level continued to be higher than the target drawdown level. This flowrate and resulting drawdown provided capture based on the May 2007 potentiometric surface evaluation. The potentiometric surface and capture effectiveness will be evaluated again in August 2007.

DOWNTIMES

	Date	Duration (hrs:min)	Reason
PR-12	7/2/2007	2:15	Investigation of the presence of pesticides in captured groundwater
System	7/3/2007	3:10	Investigation of the presence of pesticides in captured groundwater
System	7/11/2007	1:00	Investigation of the presence of pesticides in captured groundwater
PR-12	7/17/2007 – 7/18/2007	20:45	Olin personnel unable to determine; restarted manually; water level unaffected
PR-4	7/17/2007- 7/18/2007	10:40	Bad transducer, replaced 7/18/07
System	7/19/2007	1:30	High Rain Event
PR-12	7/31/07	7:45	Olin personnel investigating

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 and is generally corrected by acid washing the well. Any differences seen between the OMNX 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/OMNX Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	7/2/2007	0.20	-0.22	
	7/10/2007	0.12	1.03	
	7/17/2007	0.31	1.34	
	7/24/2007	0.23	1.53	
	7/31/2007	0.30	1.79	
RW-2	7/2/2007	-0.15	-0.01	
	7/10/2007	-0.11	-0.05	
	7/17/2007	-0.08	-0.03	
	7/24/2007	-0.12	-0.03	
	7/31/2007	-0.07	-0.02	
RW-3	7/2/2007	-0.03	-0.05	
	7/10/2007	-0.05	0.01	
	7/17/2007	0.03	-0.03	
	7/24/2007	0.02	-0.04	
	7/31/2007	0.04	-0.04	
RW-4	7/2/2007	-0.10	0.04	
	7/10/2007	-0.15	0.04	
	7/17/2007	-0.03	0.04	
	7/24/2007	0.17	0.04	
	7/31/2007	0.15	0.07	
PR-4	7/2/2007	-0.92	-0.07	
	7/10/2007	-0.91	0.49	
	7/17/2007	-8.59	0.67	Transducer replaced.
	7/24/2007	0.28	0.49	Transducer recalibrated
	7/31/2007	0.04	0.98	
RW-5	7/2/2007	0.77	-0.05	
	7/10/2007	0.46	-0.02	
	7/17/2007	0.43	-0.29	
	7/24/2007	0.07	-0.02	
	7/31/2007	0.23	-0.05	
PR-12	7/2/2007	-0.03	NM	NM = Not Measured
	7/10/2007	-0.06	NM	
	7/17/2007	-0.16	NM	
	7/24/2007	-0.09	NM	
	7/31/2007	-0.04	NM	
OBA-9AR	7/2/2007	NM	0.03	OMNX problem
	7/10/2007	NM	-0.03	OMNX problem
	7/17/2007	NM	0.00	OMNX problem
	7/24/2007	NM	0.04	OMNX problem
	7/31/2007	NM	1.98	OMNX problem

The PR-4 transducer was replaced on July 18, 2007. No water level for OBA-9AR is being reported by OMNX; the problem is being investigated.

DNAPL INSPECTION

On July 2, 2007, seven recovery wells and seven monitoring wells were inspected for the presence of DNAPL. The following table presents the results of the inspection:

Recovery Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
RW-1	1	NO		
RW-2	1	NO		
RW-3	1	NO		
RW-4	1	YES	Trace	
RW-5	1	NO		
PR-4	1	YES	Trace	
PR-5	1	NO		
OBA-9AR	1	NO		
PR-7	1	YES	Trace	
PN-11B	1	NO		
PN-12B	3	YES	500 mL	
PN-14B	1	YES	100 mL	
PN-15B	1	YES	50 mL	
PN-21B	1	NO		
OBA-10A	1	NO		



MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Don Greer, Gil Doucet, Greg Moslow, Gina Senia @ Olin-Niagara; Margaret Tanner and Rick Marotte @ MACTEC.

From: Tony Englund

Date: September 29, 2007

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for August 2007**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6100070001

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 2007:

Ground-Water Collection and Treatment System Status				
August 2007				
Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	2.3	557.57	559	31
RW-2	29.2	557.72	556	0
RW-3	6.2	557.75	558.3	28
RW-4	2.4	557.76	558.1	28
PR-4	0.0	557.86	556.7	0
RW-5	3.4	557.58	557.5	16
PR-12	3.4	557.80	558.9	28
OBA-9AR	0.0014	556.67	557.7	28

* Value based on average of weekly piezometer measurements

A lightning strike occurred at the plant on August 3, 2007. The strike affected all the wells and their transducers. RW-1 and RW-3 were the first wells to be brought back online. PR-4 was the last well brought back online (in early September). The transducer in RW-3 needs to be replaced, however, manual readings at the well indicate that it was meeting its target draw down level for the duration of the month once it came back online after the lightning strike.

RW-2 operated consistently at a flowrate averaging 29.2 gpm but the water level continued to be higher than the target drawdown level. Based on this flowrate and the potentiometric surface maps generated with August 2007 water levels suggest that RW-2 is providing capture at this draw down level.

DOWNTIMES

	Date	Duration (hrs:min)	Reason
PR-12	8/1/2007 14:00	16:35	Olin personnel believe shut down was due to extreme heat
System	8/3/2007 17:35	3 days	Lightning strike at plant damaged all controllers and transducers; (RW-4 and PR-12 down for 3 days)
RW-1/System	8/3/2007 17:35	13:15	Lightning strike at plant damaged all controllers and transducers; RW-1 back online after 13 hours
RW-3/System	8/3/2007 17:35	20:40	Lightning strike at plant damaged all controllers and transducers; RW-3 back online after 20 hours
RW-5	8/6/2007 23:55	8:05	Lightning strike at plant damaged all controllers and transducers; RW-5 back online steadily
System	8/3/2007 17:35	3+days	Lightning strike at plant damaged all controllers and transducers; System reset
PR-4	8/3/2007 17:35	28 days	Lightning strike at plant; problems getting PR-4 online again, Olin personnel to investigate week of 9/2/07
PR-4	8/29/2007 13:55	1:40	System shutdown manually for work on an IO panel

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 and is generally corrected by acid washing the well. Any differences seen between the OMNX 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/OMNX Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	8/7/2007	-23.31	1.85	Lightning strike
	8/14/2007	0.08	2.23	
	8/21/2007	0.10	2.60	
	8/28/2007	0.09	2.58	
RW-2	8/7/2007	-10.26	-0.03	Lightning strike
	8/14/2007	-0.06	-0.04	
	8/21/2007	-0.10	-0.02	
	8/28/2007	-0.07	-0.02	
RW-3	8/7/2007	-9.24	-0.02	Lightning strike – bad transducer
	8/14/2007	-23.41	-0.03	Bad transducer
	8/21/2007	-23.63	-0.01	Bad transducer
	8/28/2007	-23.52	-0.03	Bad transducer
RW-4	8/7/2007	-12.02	0.04	Lightning strike
	8/14/2007	6.27	0.04	
	8/21/2007	0.62	0.19	
	8/28/2007	-0.29	0.04	
PR-4	8/7/2007	-6.64	-0.23	Lightning strike – bad transducer
	8/14/2007	-6.57	-0.13	Bad transducer
	8/21/2007	-6.84	-0.12	Bad transducer
	8/28/2007	-6.22	-0.10	Bad transducer
RW-5	8/7/2007	9.38	-12.25	Lightning strike
	8/14/2007	0.16	-0.03	
	8/21/2007	0.05	-0.05	
	8/28/2007	-0.01	-0.05	
PR-12	8/7/2007	NM	NA	Not reading in OMNX
	8/14/2007	NM	NA	Not reading in OMNX
	8/21/2007	NM	NA	Not reading in OMNX
	8/28/2007	NM	NA	Not reading in OMNX
OBA-9AR	8/7/2007	NM	0.01	Not reading in OMNX
	8/14/2007	NM	-0.11	Not reading in OMNX
	8/21/2007	NM	-0.08	Not reading in OMNX
	8/28/2007	NM	0.08	Not reading in OMNX

The lightning strike on August 3rd affected all the OMNX readings for the first two weeks of August while Olin personnel worked to bring the system back online. No water level for PR-12 or OBA-9AR was being reported by OMNX following the lightning strike (this issue has been resolved).

DNAPL INSPECTION

On August 1, 2007, eight recovery wells and seventeen monitoring wells were inspected for the presence of DNAPL. The following table presents the results of the inspection:

Recovery Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
PR-1	1	NO		
PR-2	1	NO		
PR-3	1	NO		
PR-4	1	YES	10ml	
PR-5	1	NO		
PR-6	1	YES	TRACE	
PR-7	1	NO		
PR-8	1	NO		
PR-9	1	NO		
PR-10	1.5	YES	200ml	
PR-11	1	NO		
PR-12	1	NO		
PR-13	1	NO		
RW-1	1	NO		
RW-2	1	NO		
RW-3	1	NO		
RW-4	1	NO		
RW-5	1	YES	TRACE	
OBA-9AR	1	YES	80ml	
OBA-10A	1	NO		
PN-11 B	1	NO		
PN-12 B	1	YES	40ml	
PN-14B	1	YES	40ml	
PN-15 B	1	YES	TRACE	
PN-21 B	1	YES	TRACE	



MEMORANDUM

To: Mike Bellotti @ Olin-Charleston; Don Greer, Gil Doucet, Greg Moslow, Gina Senia @ Olin-Niagara; Margaret Tanner and Rick Marotte @ MACTEC.

From: Tony Englund

Date: October 12, 2007

Subject: **Monthly O&M Status Update for Ground-Water Collection and Treatment System for September 2007.**
Olin Corporation, Niagara Falls, New York
MACTEC Job # 6100070001

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 2007:

Ground-Water Collection and Treatment System Status				
September 2007				
Recovery Well	Average Flowrate (gpm)	Average GW Elevation (ft MSL)	Target Drawdown Level (ft MSL)	Days Meeting Target Drawdown
RW-1	2.2	557.41	559	30
RW-2	30.6	557.60	556	0
RW-3	7.3	557.41	558.3	30
RW-4	1.6	557.63	558.1	29
PR-4	0.9	557.01	556.7	5
RW-5	4.6	557.44	557.5	27
PR-12	1.0	557.60	558.9	30
OBA-9AR	0.08	556.98	557.7	30

* Value based on average of weekly piezometer measurements

With the exception of RW-2 and PR-4, all wells operated at an adequate flowrate to achieve the desired drawdown. Due to the concern of pesticides in the discharge, the flowrate of PR-4 has been limited. The limited flowrate is the reason that PR-4 has not met its drawdown target for most of September. An activated carbon polish system is being designed and is scheduled for installation by the end of 2007. The carbon system will remove pesticides from the discharge; and therefore, allow the recovery well flowrates to be maximized.

RW-2 operated consistently at a flowrate averaging 30.6 gpm but the water level continued to be higher than the target drawdown level. Based on this flowrate and the potentiometric surface maps generated with August 2007 water levels suggest that RW-2 is providing capture at this draw down level.

DOWNTIMES

	Date	Duration (hrs:min)	Reason
System	9/9/2007	1:25	Rain Event – High level in 7S Sewer
	9/11/2007	1:25	Rain Event – High level in 7S Sewer
	9/26/2007	5:35	Rain Event – High level in 7S Sewer
	9/26/2007	2:05	Rain Event – High level in 7S Sewer
PR-4	9/1/2007 -- 9/5/2007	4.5 days	Electrical problems from lightning strike in august

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 and is generally corrected by acid washing the well. Any differences seen between the OMNX 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/OMNX Difference (ft)	Piez/Well Difference (ft)	Comment
RW-1	9/3/2007	0.06	2.55	
	9/18/2007	-0.02	2.04	
	9/25/2007	0.07	1.18	
RW-2	9/3/2007	-0.09	-0.07	
	9/18/2007	-0.10	-0.03	
	9/25/2007	-0.02	-0.02	
RW-3	9/3/2007	-23.83	-0.05	Bad transducer – replacement on order
	9/18/2007	-23.91	-0.03	Bad transducer – replacement on order
	9/25/2007	-23.90	-0.05	Bad transducer – replacement on order
RW-4	9/3/2007	-4.36	0.05	
	9/18/2007	-0.02	-0.38	
	9/25/2007	0.08	0.06	
PR-4	9/3/2007	-6.99	-0.25	Bad transducer – replacement on order
	9/18/2007	-7.76	0.19	Bad transducer – replacement on order
	9/25/2007	-7.93	0.26	Bad transducer – replacement on order
RW-5	9/3/2007	-0.01	NM	
	9/18/2007	0.08	-0.05	
	9/25/2007	0.10	-0.05	
PR-12	9/3/2007	-14.24	NA	Bad transducer – replacement on order
	9/18/2007	3.16	NA	Bad transducer – replacement on order
	9/25/2007	2.52	NA	Bad transducer – replacement on order
OBA-9AR	9/3/2007	2.35	-0.04	
	9/18/2007	0.15	-0.06	
	9/25/2007	0.16	0.56	

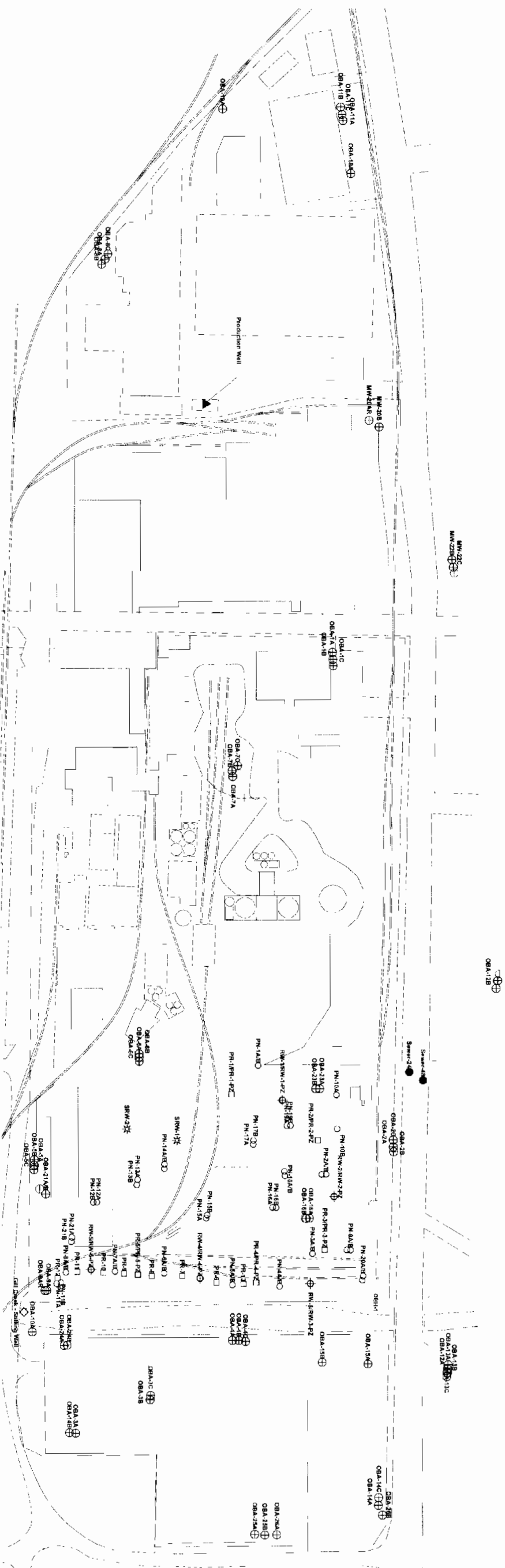
Transducers are on order for RW-3, PR-4, and PR-12. Also, RW-1 is scheduled for an acid cleaning.

DNAPL INSPECTION

On September 5, 2007, seven recovery wells and seven monitoring wells were inspected for the presence of DNAPL. The following table presents the results of the inspection:

Recovery Well	Volume Purged (gallons)	DNAPL Presence	DNAPL Quantity Removed (mL)	Comment
RW-1	1	NO		
RW-2	1	NO		
RW-3	1	NO		
RW-4	1	NO		
RW-5	NM	NM	NM	Piping leak in well at pitless adapter – seals to be changed
PR-4	1	YES	TRACE	
OBA-9AR	1	NO		
PR-5	1	NO		
OBA-10A	1.5	YES	200 mL	
PN-11 B	1	YES	TRACE	
PN-12 B	1.5	YES	500 mL	
PN-14B	1	YES	200 mL	
PN-15 B	1	NO		
PN-21 B	1	NO		

ATTACHMENT 2



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

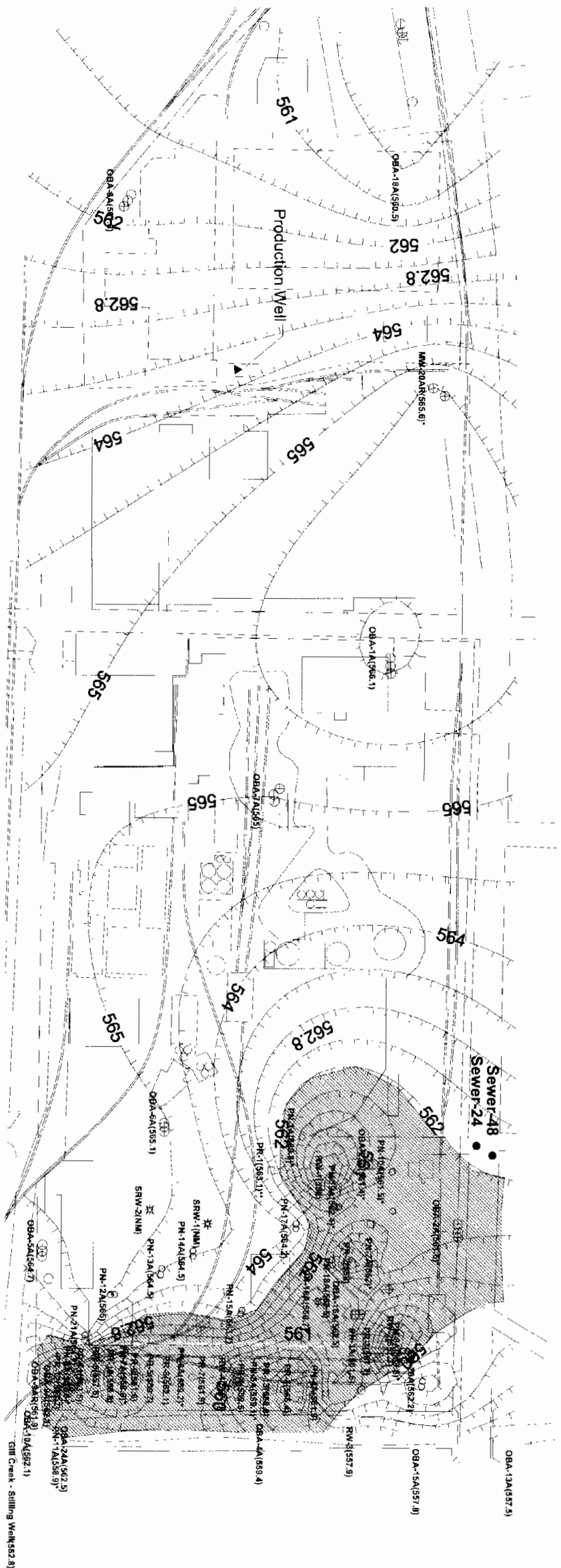
OLIN CORPORATION
NIAGARA FALLS, NEW YORK



WELL LOCATION MAP

Job No.: 6100-07-0001

POTENTIOMETRIC SURFACE MAPS



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- ⊕ WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- ⊙ GROUNDWATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SEWER INVERT
- ☆ SUPPLEMENTAL REMEDIATION WELL
- PROPERTY LINE
- 565 ESTIMATED GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL: 0.5 FOOT)
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION
- ESTIMATED DRY AREA IN ZONE A

Extraction Well	Average Flow Rate (gpm)**
RW-1	2.7
RW-2	33.6
RW-3	5.2
RW-4	3.8
RW-5	3.9
PR-4	0.5
PR-12	2.3
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 2007.
: OBA-9AR was down for repair on August 1, 2007.
: The water levels in RW-1, RW-5, PR-4, and PR-12 were below the bottom of the A-zone.

NOTES

- : Well dry, elevation of bottom of A-Zone used in contouring.
- : Cap on pro-casing is missing.
- ER : Elevation not used for contouring due to suspected anomalous measurement.
- : 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 August 2, 2007 (562.8 ftmsl) was used in contouring the A zone.

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

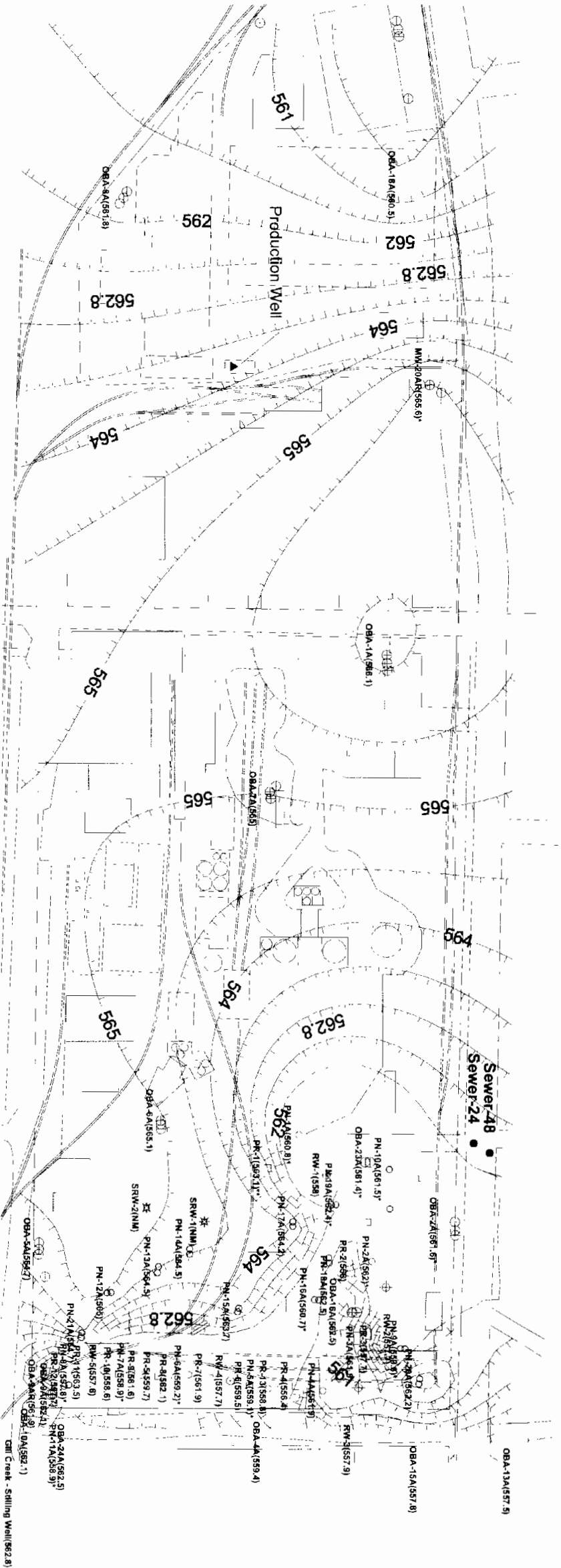
Prepared By: VUD 09/15/2007
Checked By: AWE 09/16/2007

OLIN CORPORATION
NIAGARA FALLS, NEW YORK



POTENTIOMETRIC SURFACE -- A ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- ⊕ GROUNDWATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SEWER INVERT
- ★ SUPPLEMENTAL REMEDIATION WELL
- PROPERTY LINE
- ESTIMATED GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL: 0.5 FOOT)
- EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION
- ESTIMATED DRY AREA IN ZONE A

Extraction Well	Average Flow Rate (gpm)***
RW-1	2.7
RW-2	33.6
RW-3	5.2
RW-4	3.8
RW-5	3.9
PR-4	0.5
PR-12	2.3
OBA-9AR	0.0

*** : Averged using daily flow rates for August 2007.
: OBA-9AR was down for repair on August 1, 2007.
: The water levels in RW-1, RW-5, PR-4, and PR-12 were below the bottom of the A-zone.

NOTES

- : Well dry, elevation of bottom of A-Zone used in contouring.
 - : Cap on pro-casing is missing.
 - : Elevation not used for contouring due to suspected anomalous measurement.
 - : 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 August 2, 2007 (562.8 ft msl) was used in contouring the A zone.

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

Prepared By VJO 08/15/2007
Checked By AWE 08/16/2007

OLIN CORPORATION
NIAGARA FALLS, NEW YORK

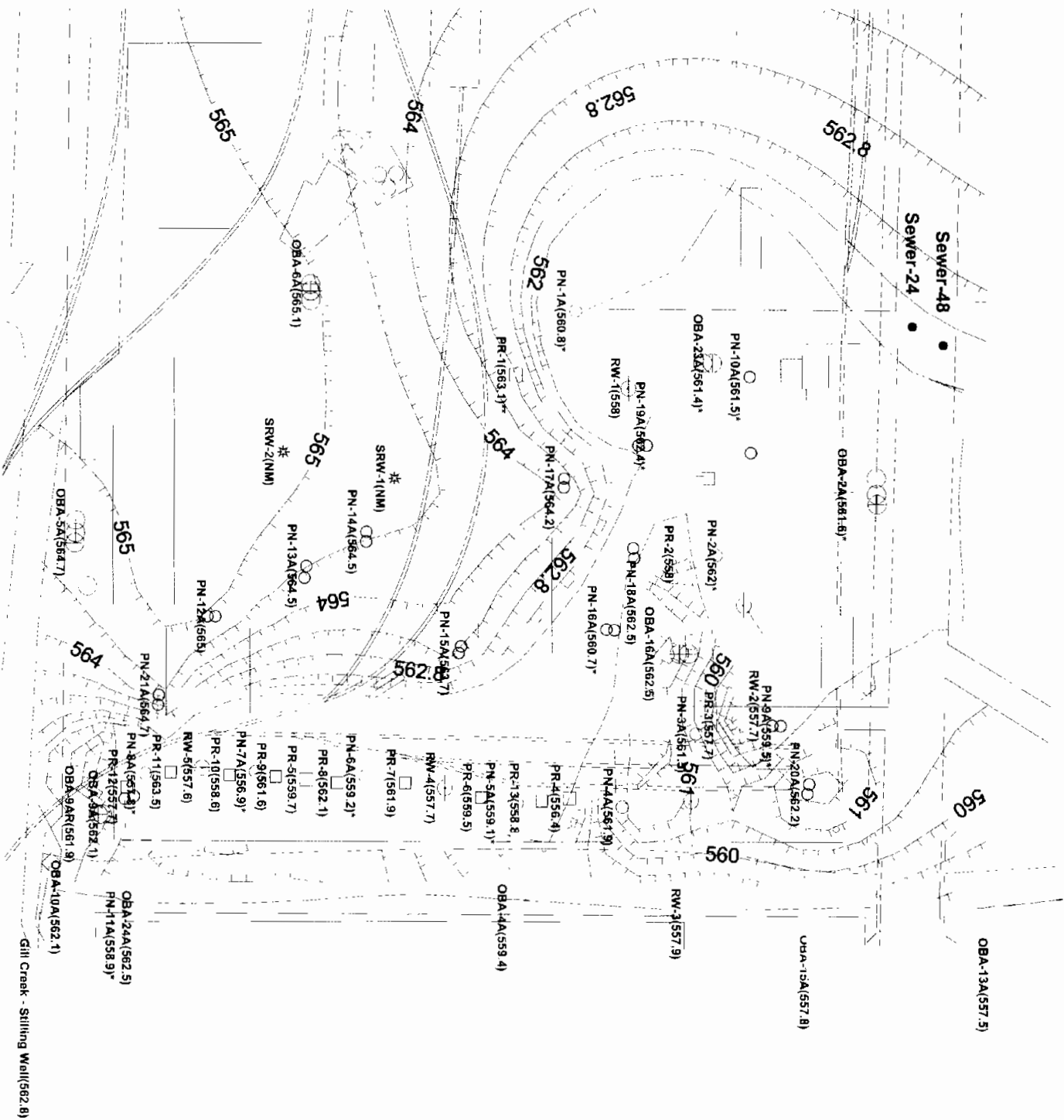


POTENTIOMETRIC SURFACE -- A ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Figure 1

OBA



Extraction Well	Average Flow Rate (gpm)***
RW-1	2.7
RW-2	33.6
RW-3	5.2
RW-4	3.8
RW-5	3.9
PR-4	0.5
PR-12	2.3
OBA-9AR	0.0

*** : Averaged using daily flow rates for August 2007.
: OBA-9AR was down for repair on August 1, 2007.
: The water levels in RW-1, RW-5, PR-4, and PR-12 were below the bottom of the A-zone.

LEGEND

◇	GILL CREEK MONITORING POINT
▲	OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
○	WATER QUALITY MONITORING WELLS
○	A/B ZONE PIEZOMETER NESTS
○	GROUND WATER RECOVERY WELLS
□	PASSIVE RELIEF WELLS
●	SEWER INVERT
☆	SUPPLEMENTAL REMEDIATION WELL
—	PROPERTY LINE
565 —	ESTIMATED GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL: 0.5 FOOT)
—	EQUIPOTENTIAL CONTOUR EQUIVALENT TO GILL CREEK ELEVATION

ESTIMATED DRY AREA IN THE A-ZONE



NOTES

- : Well dry, elevation of bottom of A-Zone used in contouring.
- ** : Cap on pie-casing is missing.
- ER : Elevation not used for contouring due to suspected anomalous measurement.
- : 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 August 2, 2007 (562.8 ft msl) was used in contouring the A zone.

Prepared By: VUD 08/15/2007
Checked By: AWE 08/16/2007

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

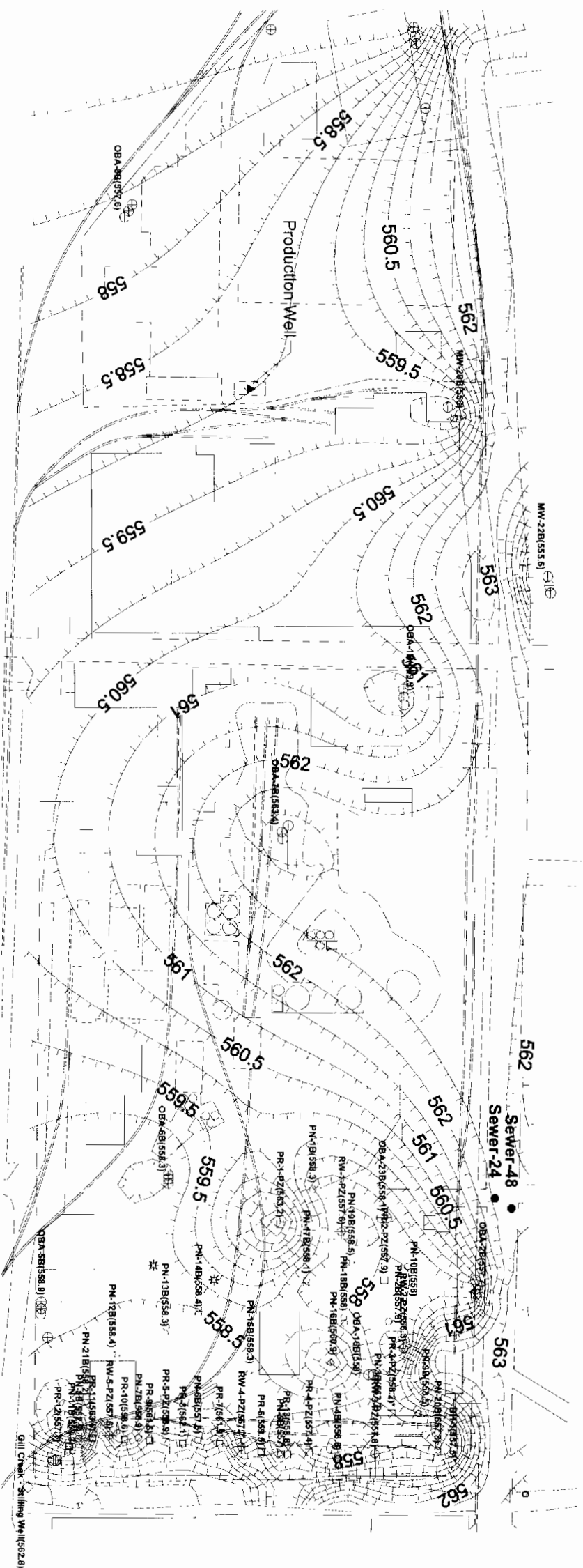
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NIAGARA FALLS, NEW YORK



ARGC AREA
POTENTIOMETRIC SURFACE -- A ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Figure 1A



- LEGEND**
- ◇ GILL CREEK MONITORING POINT
 - ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
 - ⊖ WATER QUALITY MONITORING WELLS
 - A/B ZONE PIEZOMETER NESTS
 - GROUNDWATER RECOVERY WELLS
 - PASSIVE RELIEF WELLS
 - SEWER INVERT
 - ✱ SUPPLEMENTAL REMEDIATION WELL

Extraction Well	Average Flow Rate (gpm)***
RW-1	2.7
RW-2	33.6
RW-3	5.2
RW-4	3.8
RW-5	3.9
PR-4	0.5
PR-12	2.3
OBA-9AR	0.0

*** : Averged using daily flow rates for August 2007.
: OBA-9AR was down for repair on August 1, 2007.
: The water levels in RW-1, RW-5, PR-4, and PR-12 were below the bottom of the A-zone.

NOTES

- ▲ : 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.
- PN-2B elevation used as dummy points north of RW-2.
- 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
- Hypothetical data points (563.4 feet msl) added along southern portion of Gill Creek in area without monitoring wells to account for leakage.



Scale: 1 inch = 200 feet

565 ESTIMATED GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL: 0.5 FOOT)

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

Prepared By: VJO 08/15/2007
Checked By: AWE 08/16/2007

OLIN CORPORATION
NIAGARA FALLS, NEW YORK



POTENTIOMETRIC SURFACE -- B ZONE
(AUGUST1, 2007)

Job No.: 6100-07-0001

Figure 2

Extraction Well	Average Flow Rate (gpm)***
RW-1	2.7
RW-2	33.6
RW-3	5.2
RW-4	3.8
RW-5	3.9
PR-4	0.5
PR-12	2.3
OBA-9AR	0.0

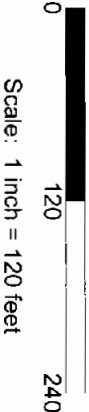
*** : Averaged using daily flow rates for August 2007.
: OBA-9AR was down for repair on August 1, 2007.
: The water levels in RW-1, RW-5, PR-4, and PR-12 were below the bottom of the A-zone.



LEGEND

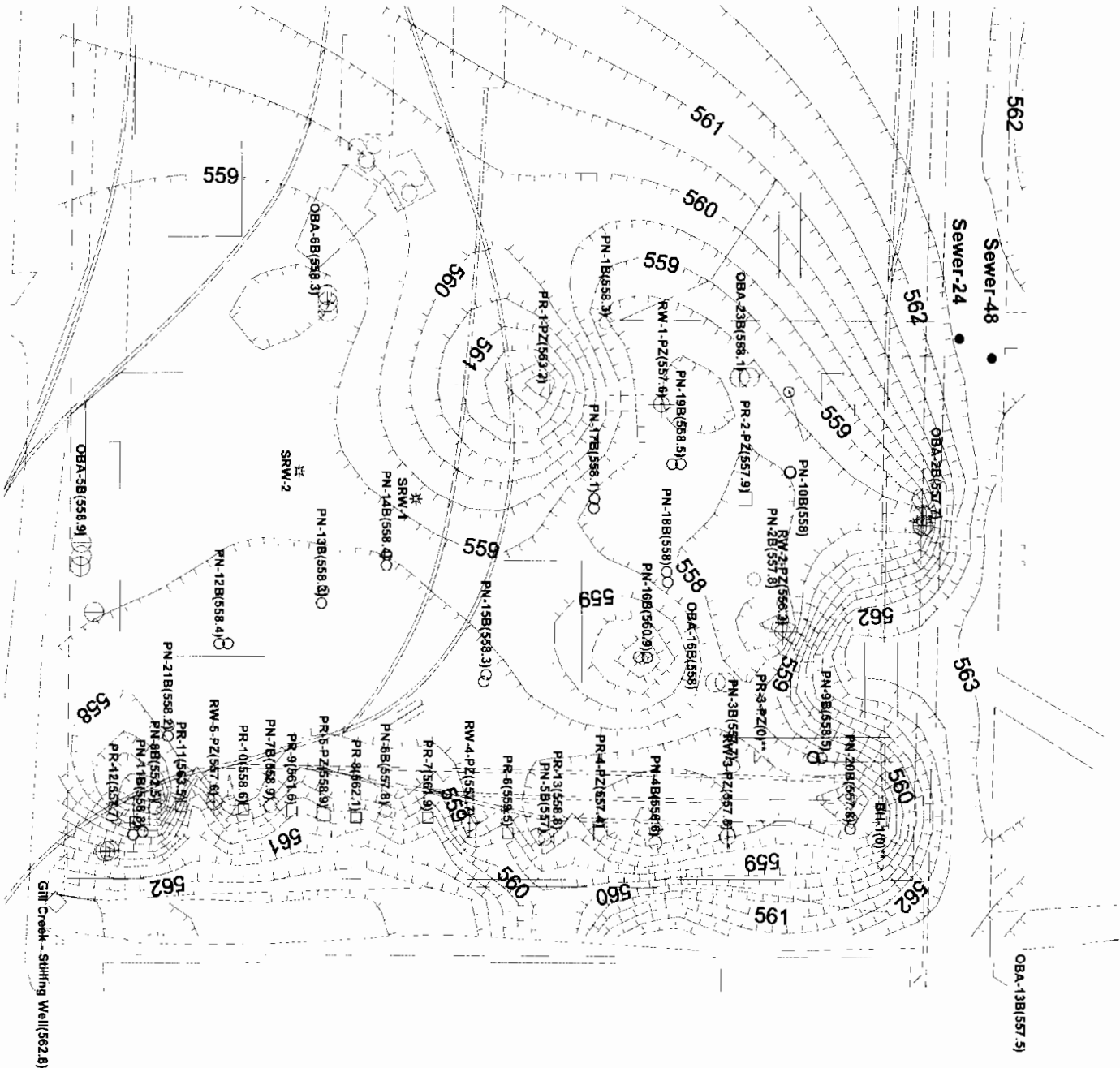
- GILL CREEK MONITORING POINT
- OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- GROUND WATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SEWER INVERT
- SUPPLEMENTAL REMEDIATION WELL

565 ESTIMATED GROUNDWATER CONTOUR LINES
(CONTOUR INTERVAL: 0.5 FEET)



NOTES

- Elevation not used in contouring.
- Bottom of casing elevation used contouring
- Olin Production Well.
- 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
- PN-2B elevation used as dummy points north of RW-2.
- 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
- Hypothetical data points (563.4 feet msl) added along southern portion of Gill Creek in area without monitoring wells to account for leakage.



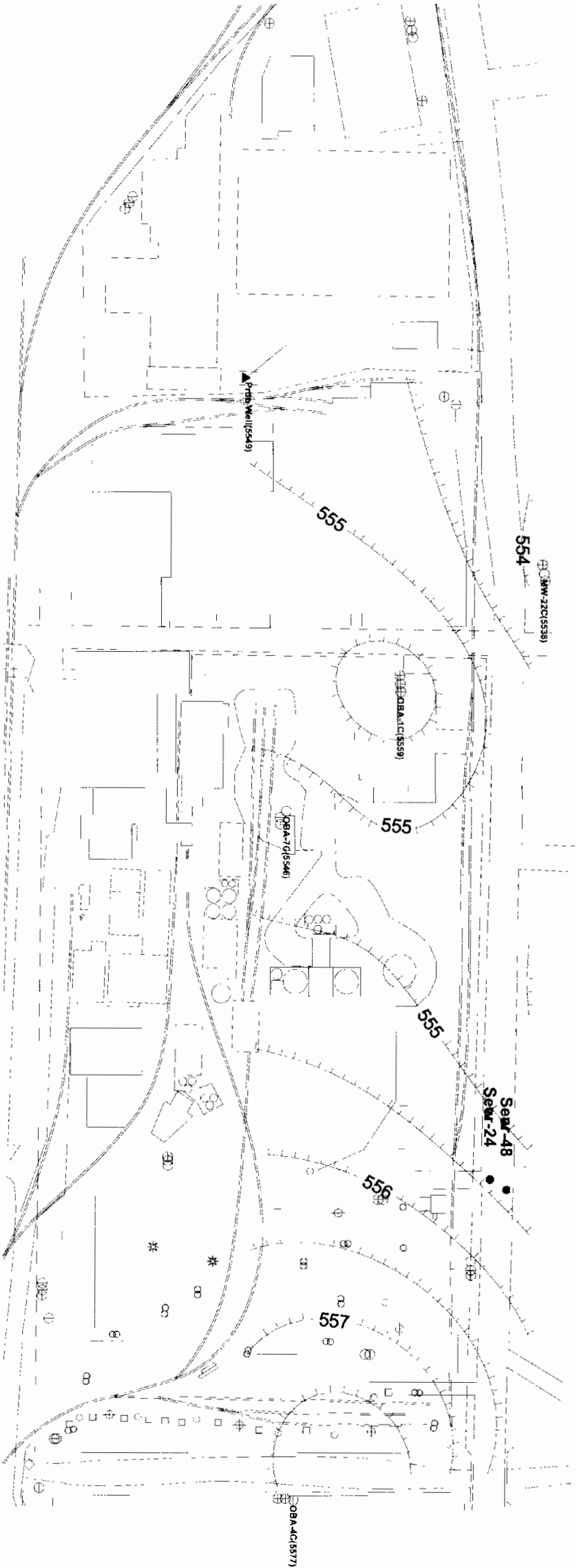
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NIAGARA FALLS, NEW YORK



ARGC AREA
POTENTIOMETRIC SURFACE -- B ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Figure 2A



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM PUMP)
- ⊖ WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- ⊕ GROUNDWATER RECOVER WELLS (FLOW RATE FROM PUMP)
- PASSIVE RELIEF WELLS
- SEWER INVERT
- PROPERTY LINE

565 ESTIMATED GROUNDWATER CONTOUR LINES (CONTOUR INTERVAL: 0.5 FOOT)

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

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Well	Average Flow Rate (gpm)
Olin Production Well	49

Pumping Rate to Water Elevation Conversion:
Y=0.006195 (X-557.91)

Where:

Y=Water Elevation (ft)

X=Pumpin g Rate (gpm)

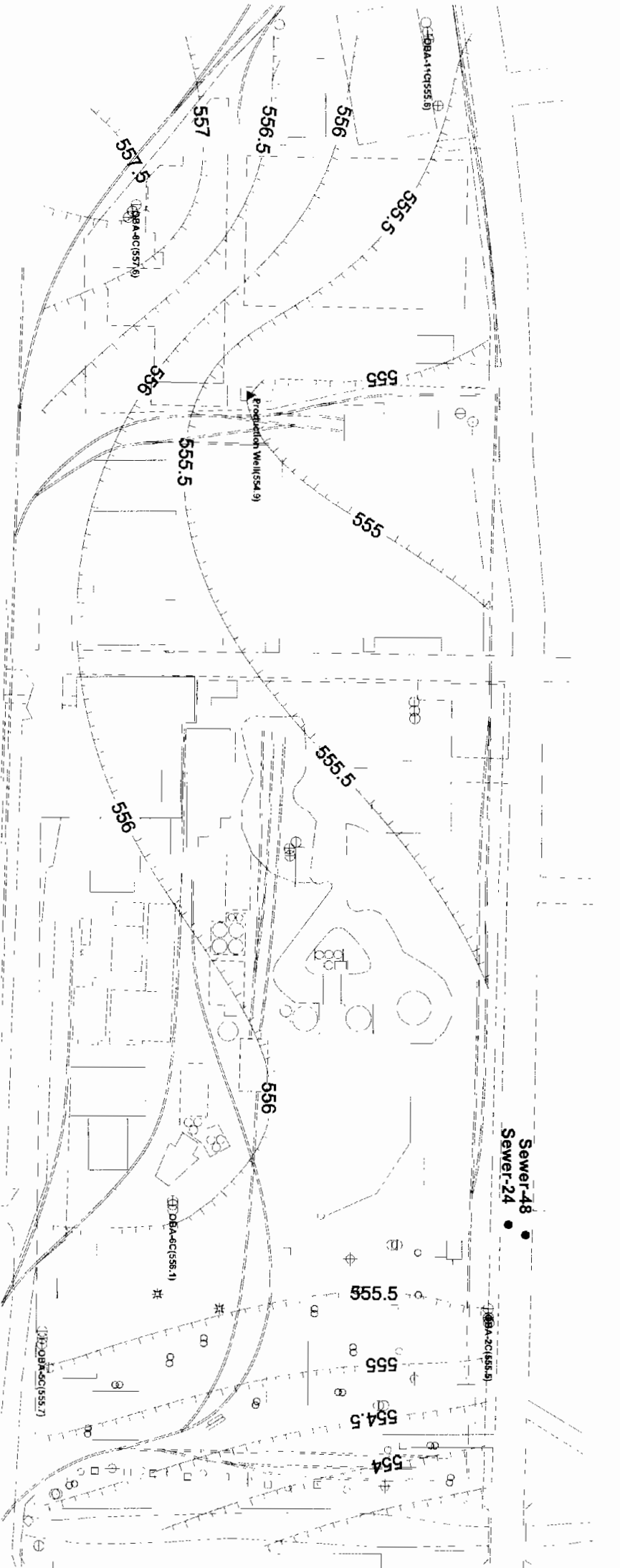


Scale 1 inch = 200 feet

Prepared By: VLO 06/15/2007
Checked By: AWE 06/16/2007

POTENTIOMETRIC SURFACE -- C ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL (FLOW RATE FROM DUPONT)
- ⊖ WATER QUALITY MONITORING WELLS
- A/B ZONE PIEZOMETER NESTS
- ⊕ GROUNDWATER RECOVERY WELLS (FLOW RATE FROM OMNX SYSTEM)
- PASSIVE RELIEF WELLS
- SEWER INVERT

PROPERTY LINE

565 ESTIMATED GROUNDWATER CONTOUR LINES

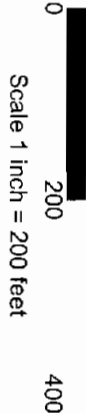
POTENTIOMETRIC SURFACE CONTOUR GENERATED USING SURFER 8 FOR WINDOWS BY GOLDEN SOFTWARE, INC. 2002

Well	Average Flow Rate (gpm)
Olin Production Well	495

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

Where:

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



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NIAGARA FALLS, NEW YORK

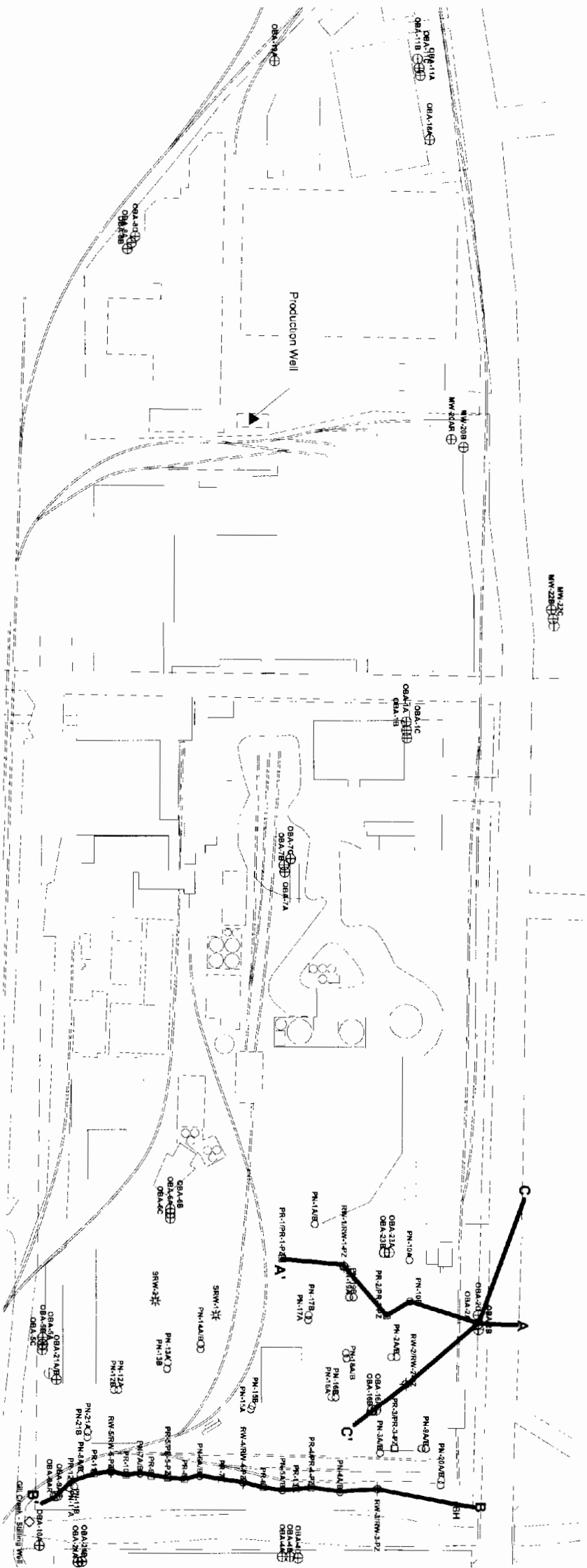


POTENTIOMETRIC SURFACE -- CD ZONE
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Figure 4

CROSS SECTIONS



LEGEND

- ◇ GILL CREEK MONITORING POINT
- ▲ OLIN PRODUCTION WELL
- WATER QUALITY MONITORING WELLS
- AIB ZONE PIEZOMETER NESTS
- GROUNDWATER RECOVERY WELLS
- PASSIVE RELIEF WELLS
- SEWER INVERT ELEVATION
- ✱ SUPPLEMENTAL REMEDIATION WELL
- PROPERTY LINE

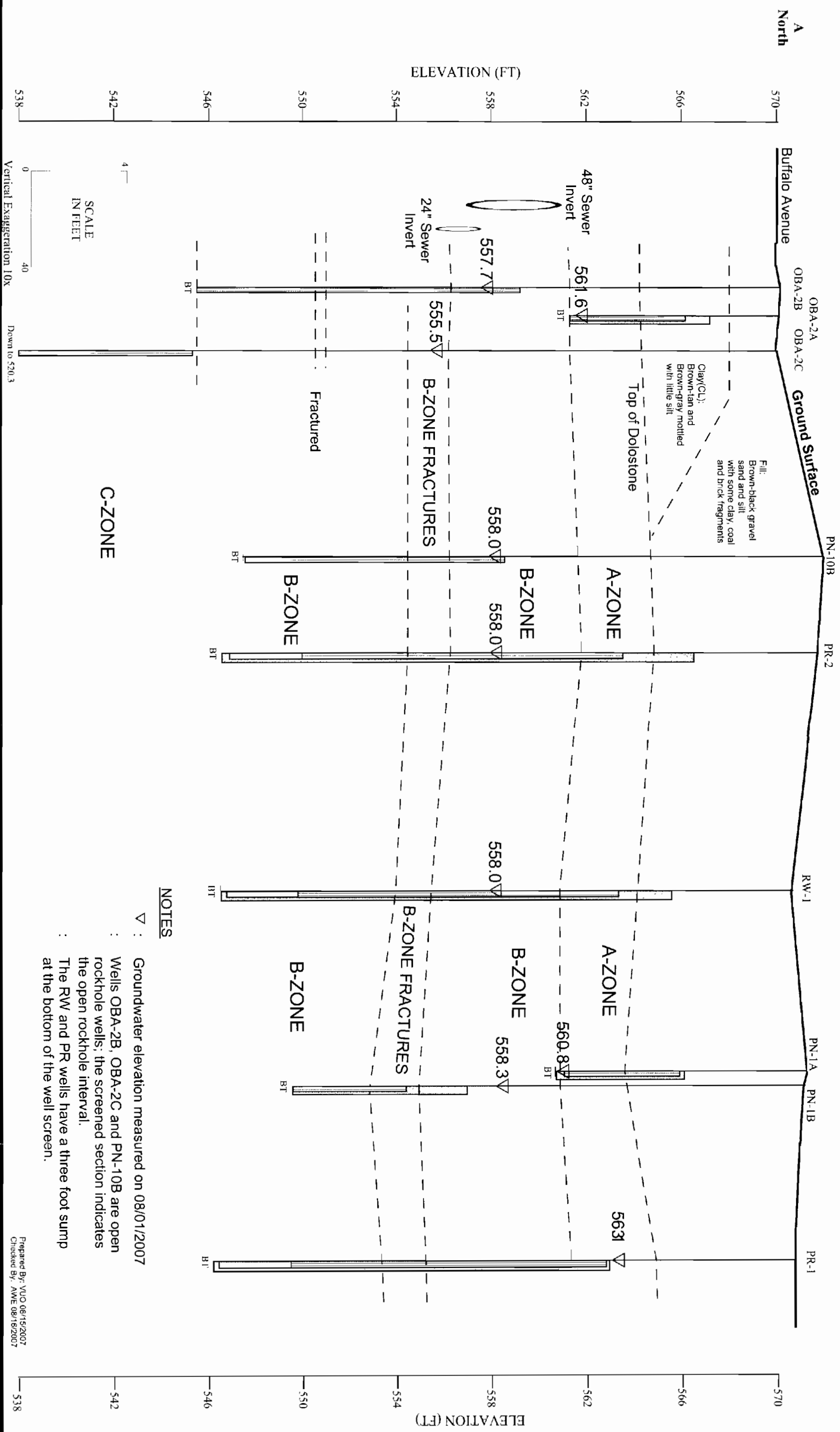
OLIN CORPORATION
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CROSS SECTION LOCATION MAP
(AUGUST 1, 2006)

Job No.: 6100-07-0001

Figure 5



**OLIN CORPORATION
NIAGARA FALLS, NEW YORK**

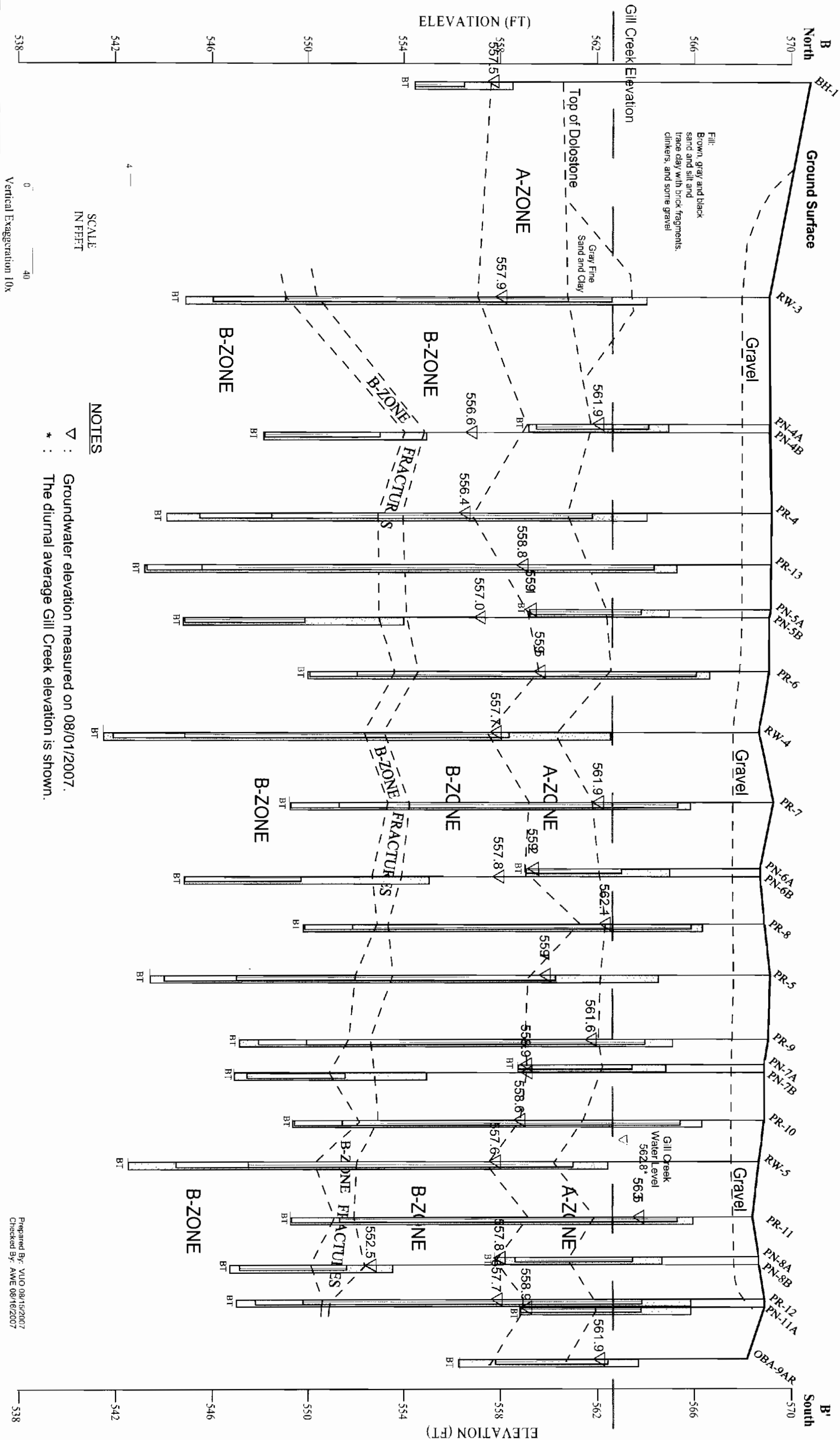


HYDROGEOLOGIC CROSS SECTION AA'
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Figure 6

Prepared By: VUO 08/15/2007
Checked By: AWE 08/16/2007



OLIN CORPORATION
NIAGARA FALLS, NEW YORK

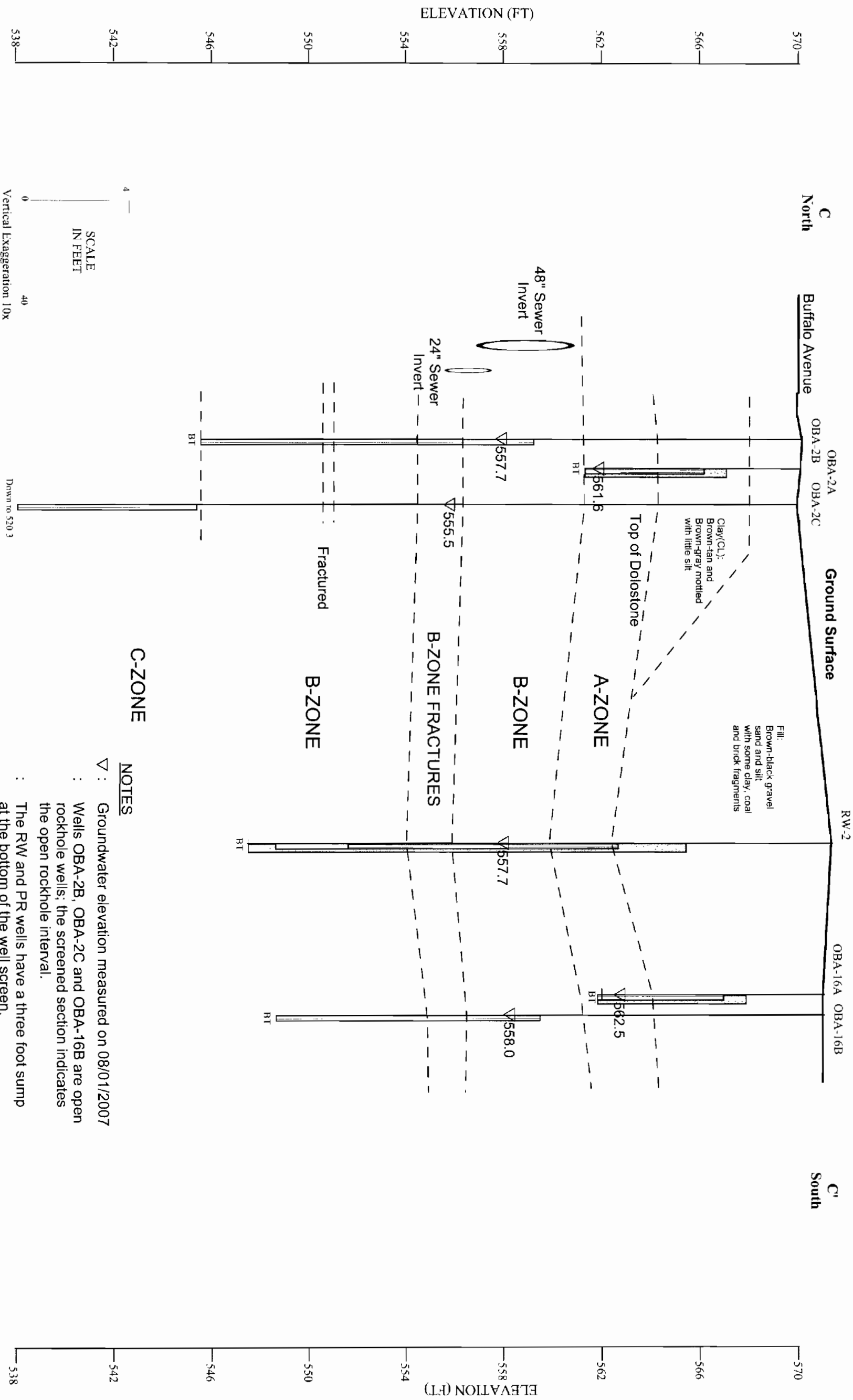


HYDROGEOLOGIC CROSS SECTION BB'
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Prepared By: VUO 08/15/2007
Checked By: AWE 08/16/2007

Figure 7



C-ZONE

NOTES

- ▽ : Groundwater elevation measured on 08/01/2007
- : 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.

OLIN CORPORATION
NIAGARA FALLS, NEW YORK



HYDROGEOLOGIC CROSS SECTION CC'
(AUGUST 1, 2007)

Job No.: 6100-07-0001

Prepared By: VUO 08/15/2007
Checked By: AWE 08/16/2007

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HYDROGRAPHS

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

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
PR-1	563.26	562.98	562.66	562.51	563.49	563.61	563.33	563.63	563.91	563.60	563.39	563.92	564.00	563.90	563.40	563.04	563.09	562.63
PN-1A	564.49	564.13	563.75	563.40	564.18	565.19	564.13	564.34	564.33	564.25	564.19	564.34	564.29	564.27	560.80	558.33	560.80	562.95
RW-1	555.41	555.11	552.87	554.07	552.92	552.88	558.10	552.97	557.47	556.68	557.38	557.15	556.95	557.26	556.26	556.48	557.99	554.91
ODA-23A	562.46	561.76	561.89	562.46	562.05	562.44	562.16	562.34	562.28	561.98	561.40	562.36	562.41	562.36	561.81	561.40	561.40	561.40
PR-2	557.95	558.00	558.05	558.10	558.44	558.44	558.46	558.04	558.38	558.08	558.04	558.04	558.21	558.00	557.88	561.70	558.02	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 sea 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 10/1/2007

Checked by: LMS 10/10/2007

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

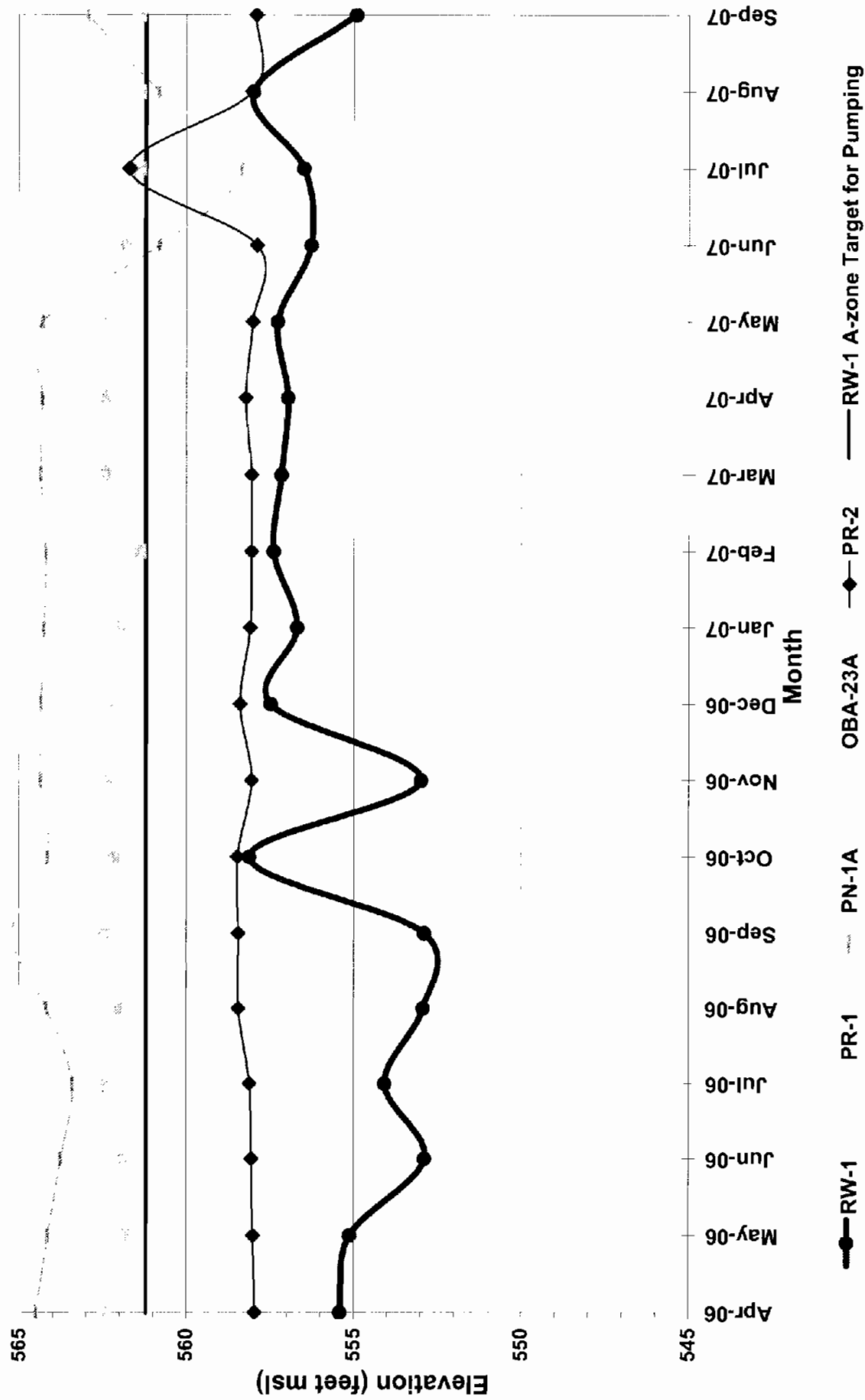


Table A-2
A-Zone
RW-2 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
PN-2A *	562.00	562.00	562.00	562.00	562.40	562.00	562.00	562.44	562.00	562.00	562.00	562.00	562.00	562.00	562.00	562.00	562.00	562.00
RW-2	557.66	557.51	557.39	557.45	557.68	557.56	557.52	557.38	557.28	557.29	557.31	557.25	557.38	556.68	557.39	559.07	557.72	557.47
OB/A-16A	562.58	562.54	562.58	562.55	563.51	563.68	563.62	564.07	563.92	562.74	562.60	562.62	562.74	562.64	560.90	560.90	562.45	562.51
PR-3	557.59	557.54	557.49	557.65	557.79	557.61	557.66	557.47	557.36	557.38	557.40	557.34	557.38	556.78	557.45	558.20	557.70	557.58
PR-2	557.95	558.00	558.05	558.10	558.44	558.44	558.46	558.04	558.38	558.08	558.04	558.04	558.21	558.00	557.88	561.70	558.02	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 10/1/2007

Checked by: LMS 10/10/2007

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

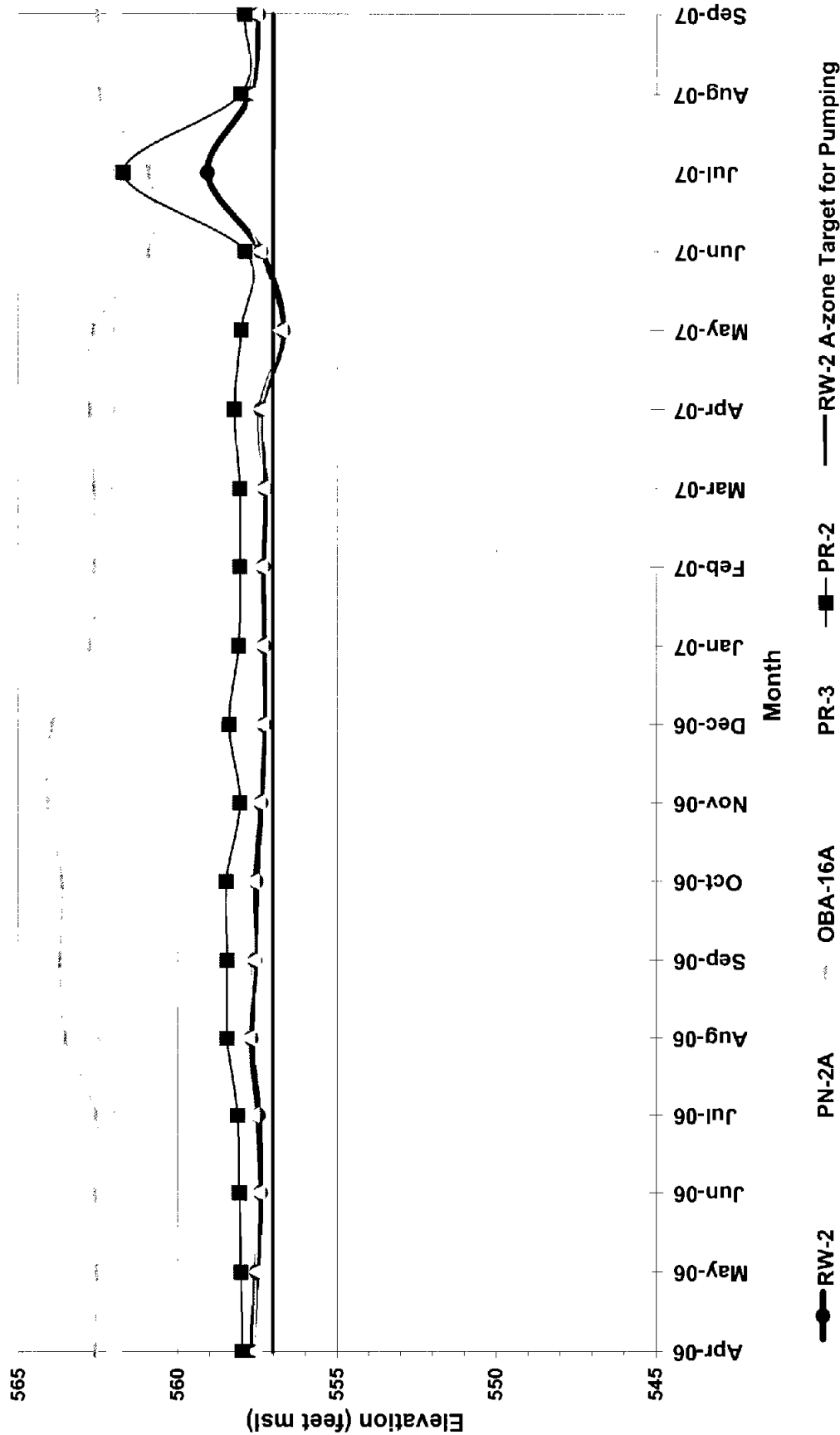


Table A-3
A-Zone
RW-3 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PN-3A	561.73	561.65	562.12	561.54	562.52	563.10	562.91	563.52	563.39	562.26	561.92	562.12	562.23	562.23	561.67	561.09	561.45	561.72
RW-3	557.30	557.27	557.30	557.60	557.79	557.46	557.63	557.41	557.27	557.20	557.20	557.18	557.17	554.11	557.33	557.38	557.88	557.36
PN-4A	560.78	561.02	561.37	560.52	561.82	562.08	561.96	563.26	562.60	561.84	561.96	561.33	561.96	561.98	561.26	560.87	561.87	560.57
PR-3	557.59	557.54	557.49	557.65	557.79	557.61	557.66	557.47	557.36	557.38	557.40	557.34	557.38	556.78	557.45	558.20	557.70	557.58
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 sea level (msl)

Prepared by : AWC 10/1/2007

Checked by: LMS 10/10/2007

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

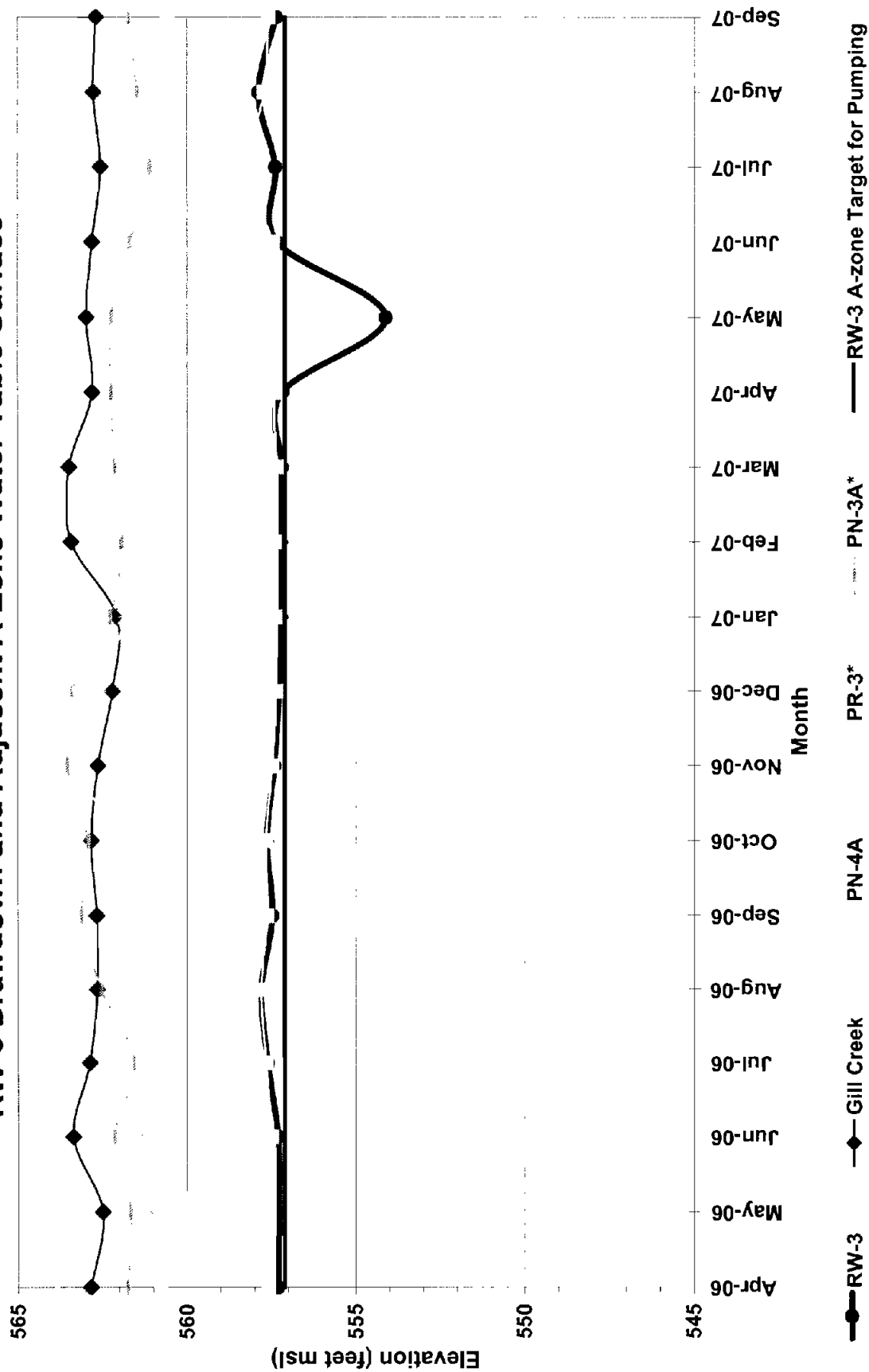


Table A-4
A-Zone
RW-4 and Adjacent Monitoring Point Water Elevations

Location ID	Oct-05	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek Stilling Well	563.04	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PN-5A	562.37	562.03	562.44	562.06	562.68	562.79	562.80	562.99	562.68	562.27	562.29	562.08	562.50	562.58	562.20	561.91	559.10	562.00
PR-11**	559.20	559.35	559.24	559.14	559.36	559.10	559.16	559.24	559.20	558.95	558.20	NM	559.17	558.80	561.82	558.66	558.76	558.15
RW-4	556.49	556.90	556.49	557.30	557.52	557.49	557.56	555.61	555.99	554.79	557.06	557.00	556.79	555.02	557.54	557.46	557.66	557.45
PN-6A	562.72	562.80	562.90	562.36	562.97	563.13	563.21	563.46	563.31	563.11	562.96	562.95	563.30	563.27	562.69	562.43	559.20	562.17
PR-6*	560.25	560.04	560.28	559.89	560.10	559.88	559.97	559.93	560.59	560.20	559.97	560.52	562.53	560.11	559.99	559.70	559.47	559.09
PR-7*	562.41	562.34	562.54	562.10	562.65	562.78	562.78	563.80	562.69	562.56	562.25	562.33	562.53	562.53	562.31	562.05	561.87	561.54
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 10-1-2007

Checked by : LMS 10/10/2007

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

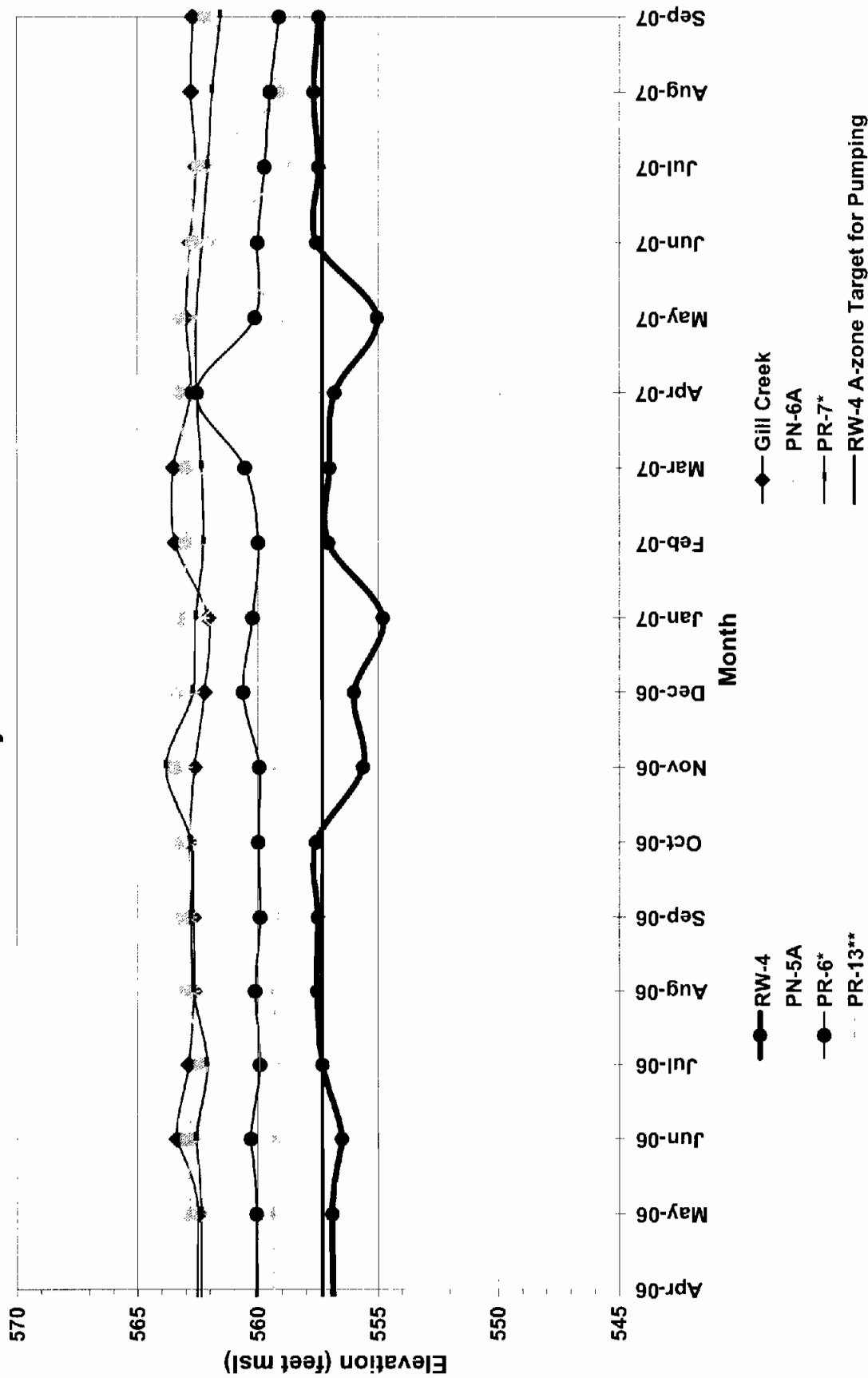


Table A-5
A-Zone
RW-5 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
RW-5	552.19	547.85	547.77	546.47	556.88	556.77	554.31	549.65	546.38	551.87	548.60	547.47	546.92	556.68	557.35	557.47	557.61	NM
PN-8A	564.06	563.96	563.93	563.76	564.25	564.56	564.42	564.60	564.57	564.45	563.92	564.26	564.33	564.33	563.98	563.88	557.80	563.52
PR-10*	559.27	559.26	559.61	559.21	559.22	559.07	559.32	559.42	558.37	558.42	558.57	NM	558.72	558.52	558.97	558.53	558.63	558.42
PR-11*	562.80	562.61	564.04	562.82	564.10	564.29	564.24	564.30	564.37	564.19	563.33	563.90	564.13	564.03	563.66	563.29	563.52	562.81
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 sea level (msl)

*Passive relief well installed September 2002.

NI - Not installed

Prepared by : AWE 10/1/2007

Checked by : LMS 10/10/2007

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

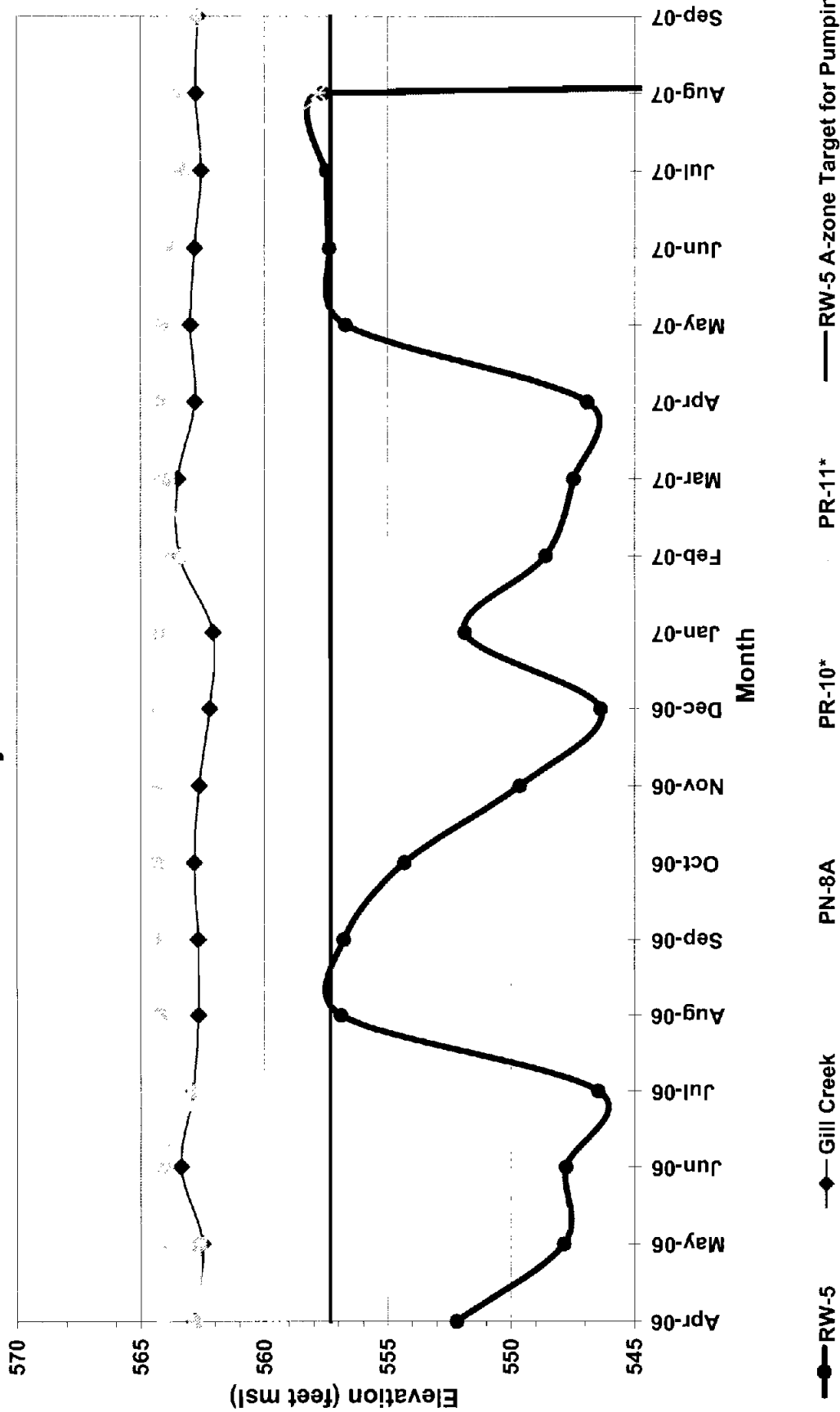


Table A-6
A-Zone
PR-4 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PR-4	554.34	552.93	555.23	555.19	554.53	552.19	558.29	556.71	554.38	552.20	553.55	554.30	552.30	553.66	554.30	557.21	556.37	554.40
PN-4A	560.78	561.02	561.37	560.52	561.82	562.08	561.96	563.26	562.60	561.84	561.96	561.33	561.96	561.98	561.26	560.87	561.87	560.57
PN-5A	562.06	562.03	562.44	562.06	562.68	562.79	562.80	562.99	562.68	562.27	562.29	562.08	562.50	562.58	562.20	561.91	559.10	562.00
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 sea level (msl)

Prepared by AWE 10/12/007

Checked by: LMS 10/10/2007

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

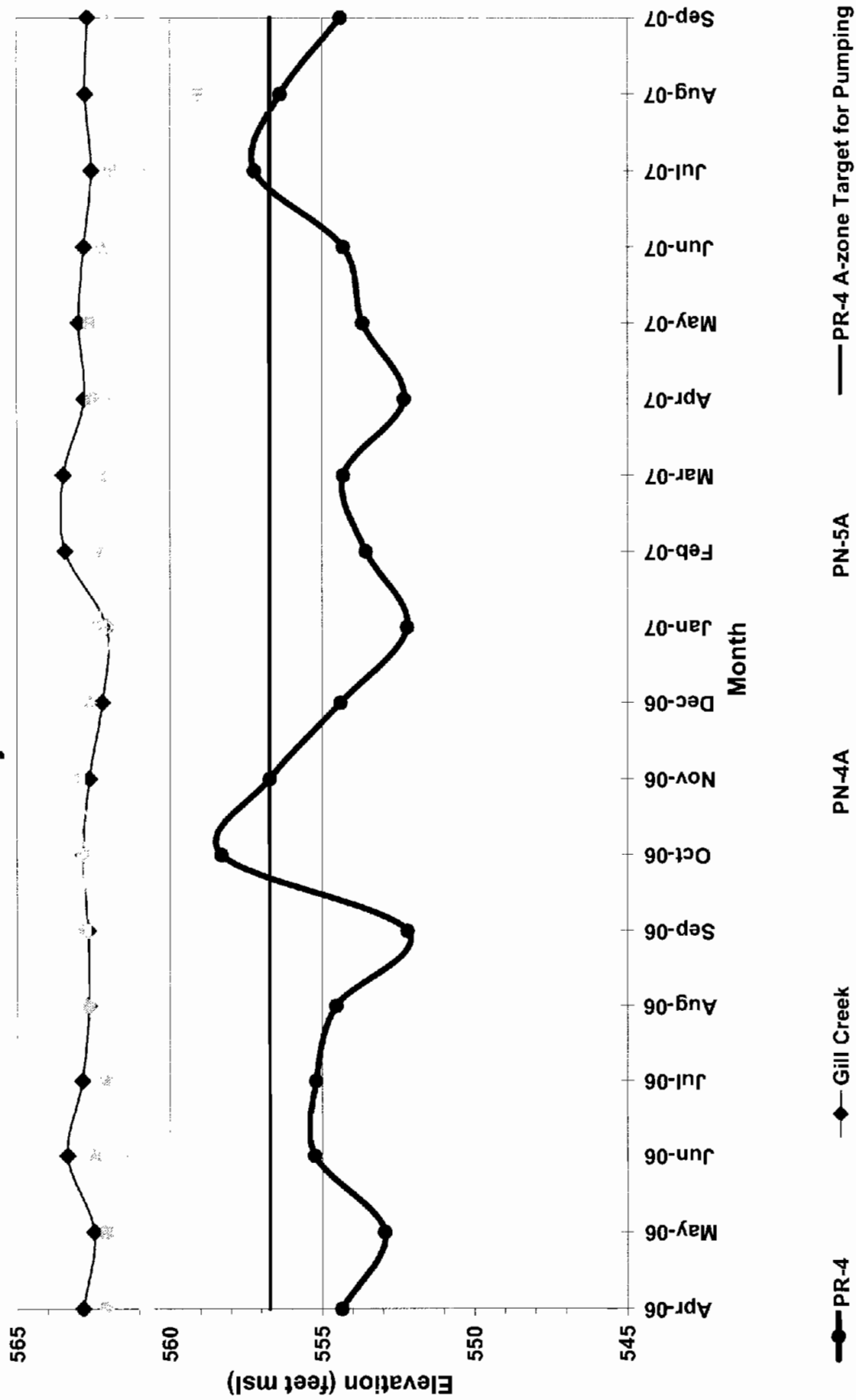


Table A-7
A-Zone
PR-5 and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PR-5	559.41	559.85	560.35	559.40	559.07	558.97	559.77	560.00	559.75	559.17	559.64	559.42	560.56	559.87	559.51	559.10	559.68	559.47
PN-7A	562.39	561.97	563.15	561.42	561.61	561.64	562.03	562.73	562.29	NM	563.08	562.17	562.57	562.58	561.76	561.49	558.90	561.33
PR-9*	561.90	561.68	562.54	560.79	560.64	560.21	561.08	561.67	561.15	561.89	561.51	560.84	562.02	562.16	561.60	561.15	561.56	561.23
PN-6A	562.80	562.80	562.90	562.36	562.97	563.13	563.21	563.46	563.31	563.11	562.96	562.95	563.30	563.27	562.69	562.43	559.20	562.17
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 sea level (msl)

• Passive relief well installed September 2002.

NM – Not Measured

Prepared by: AWF 10/1/2007

Checked by: LMS 10/10/2007

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

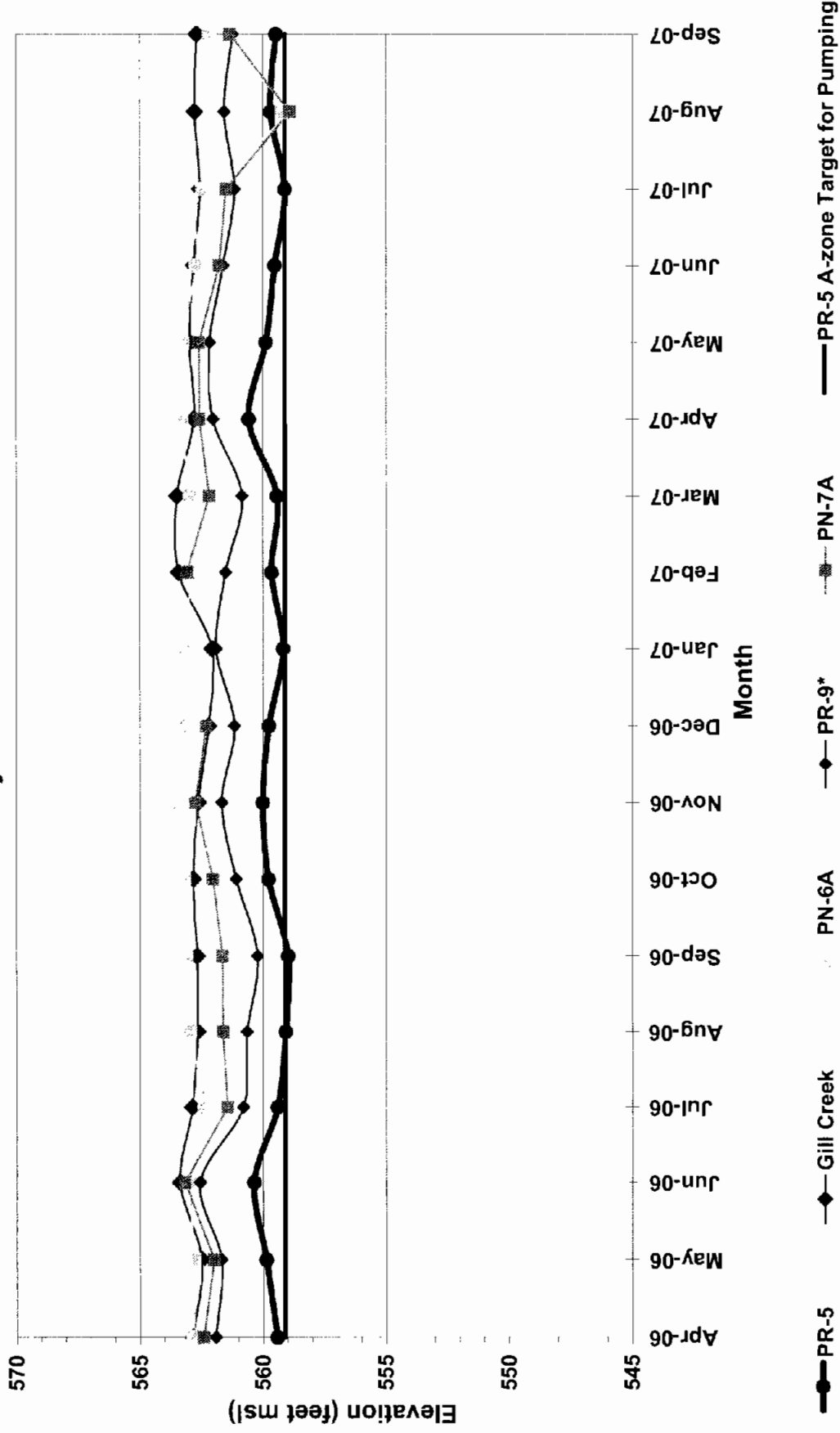


Table A-8
A-Zone
PR-12 and OBA-9AR and Adjacent Monitoring Point Water Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
Gill Creek -Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PN-8A	564.06	563.96	563.93	563.76	564.25	564.56	564.42	564.60	564.57	564.45	563.92	564.26	564.33	564.33	563.98	563.88	557.80	563.52
PR-12*	552.12	553.65	553.39	DRY	554.47	556.65	557.02	NM	563.89	563.74	557.34	556.96	557.07	556.55	557.33	557.22	557.68	557.46
PN-11A*	563.28	563.23	563.59	563.81	563.52	563.39	563.88	564.06	563.59	563.46	563.22	563.30	563.36	563.39	563.20	563.16	558.90	562.61
OBA-9A**	562.92	562.59	563.63	563.83	562.16	561.18	563.85	564.04	563.58	563.12	562.91	561.14	562.53	563.26	561.84	561.94	562.14	NM
OBA-9AR**	563.46	563.24	564.15	564.48	561.33	558.47	564.42	564.58	564.11	563.15	562.80	556.73	557.08	557.22	557.19	561.39	561.89	556.38
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	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75	559.75

Notes:

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

* Passive relief well installed September 2002.

** Well added to quarterly monitoring program in October 2002.

NM - Not Measured

Prepared by AWF 10/1/2007

Checked by LMS 10/10/2007

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

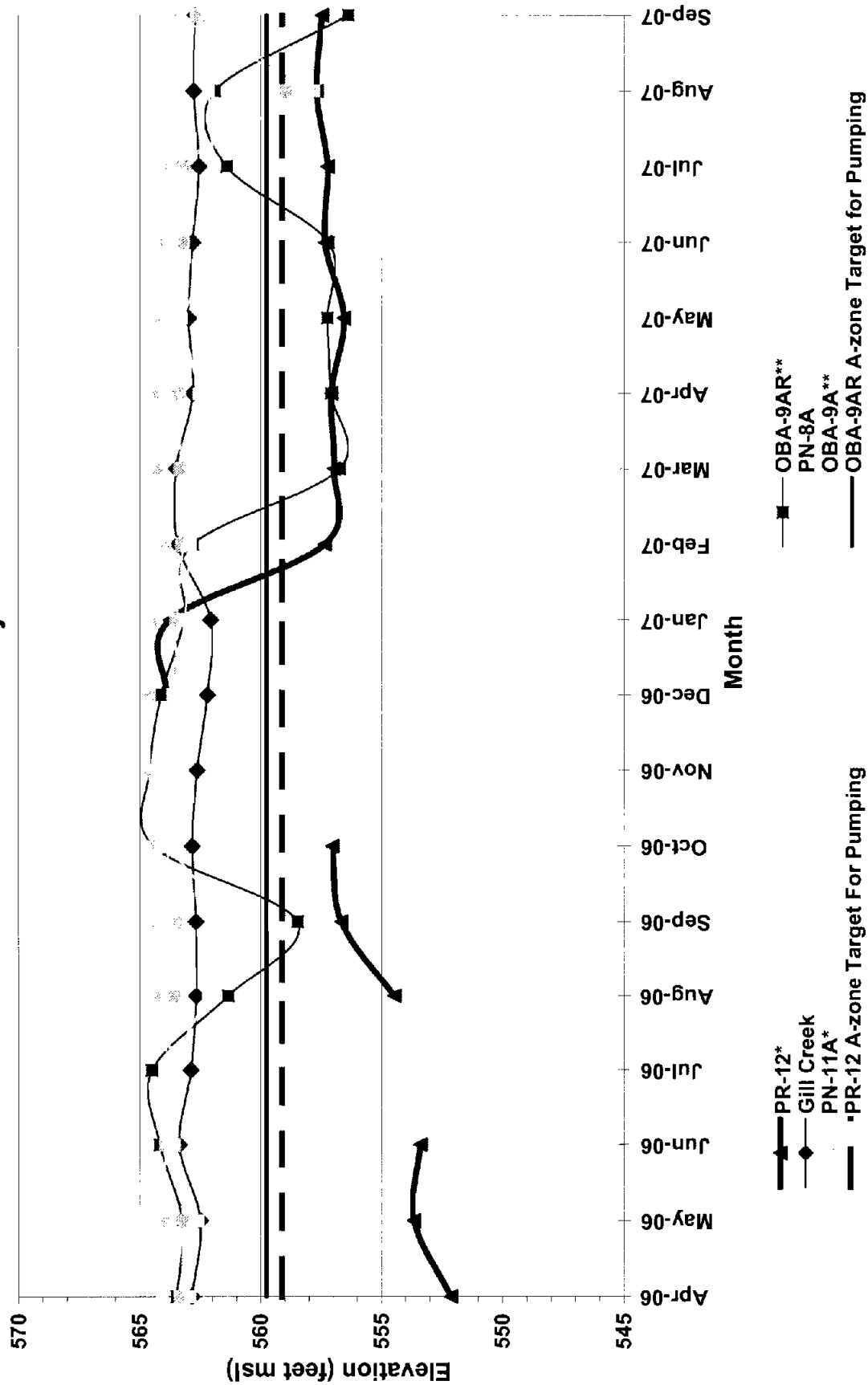


Table B-1
B-Zone
RW-1 and Adjacent Monitoring Point Piezometric Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
RW-1 Gill Creek -Stilling Well	555.41	555.11	552.87	554.07	552.92	552.88	558.10	552.97	557.47	556.68	557.38	557.15	556.95	557.26	556.26	556.48	557.99	554.91
	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
	558.02	558.07	558.13	558.22	558.56	558.63	558.68	558.59	558.60	558.28	558.23	558.18	558.37	558.23	557.99	558.01	558.12	557.99
PN-10B	557.95	558.02	558.11	558.15	558.49	558.50	558.56	558.47	558.39	558.10	558.05	558.09	558.21	558.07	557.89	557.91	557.98	557.91
PN-1B	558.21	558.21	558.28	558.34	558.70	558.77	558.80	558.75	558.71	558.36	558.37	558.34	558.52	558.39	558.23	563.36	558.26	558.15
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 : AWF: 10/1/2007

Checked by: LMS 10/10/2007

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

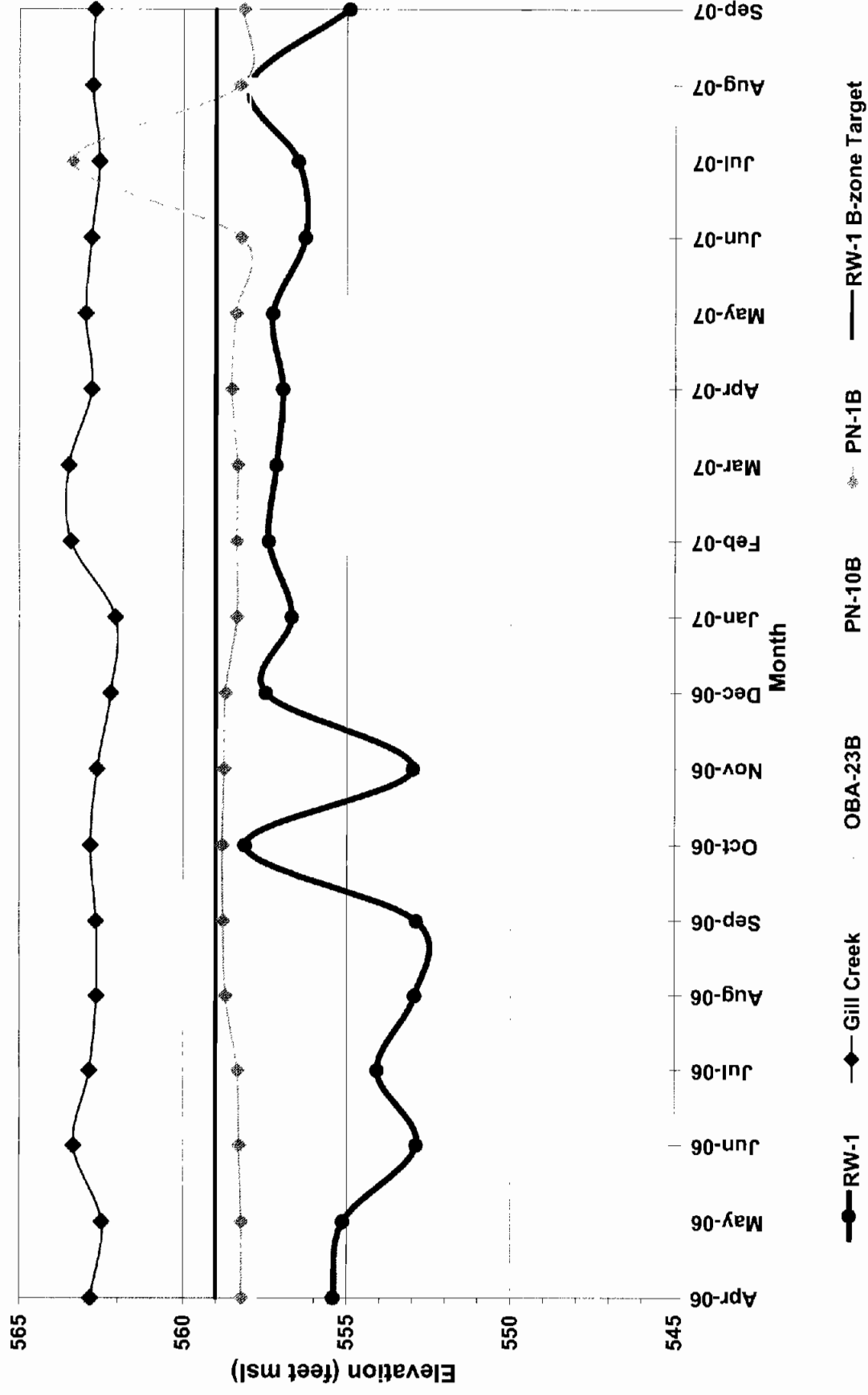


Table B-2
B-Zone
RW-2 and Adjacent Monitoring Point Piezometric Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
RW-2																		
Gill Creek -Stilling Well	557.66	557.51	557.39	557.45	557.68	557.56	557.52	557.38	557.28	557.29	557.31	557.25	557.38	556.68	557.39	559.07	557.72	557.47
	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
OBA-16B	558.00	558.00	558.05	558.09	558.31	558.23	558.26	558.18	558.10	557.88	557.82	557.86	557.97	557.71	557.82	557.76	557.97	557.77
PN-2B	557.73	557.73	557.71	557.80	557.97	557.81	557.90	557.75	557.69	557.61	557.60	557.67	557.55	557.11	557.87	557.71	557.80	557.64
PN-9B	558.34	558.27	558.24	558.37	558.52	558.32	558.41	558.20	558.09	558.10	558.14	558.07	558.11	557.50	558.20	NM	558.49	558.27
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 sea level (msl)

Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWF 10/1/2007

Checked by: LMS 10/10/2007

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

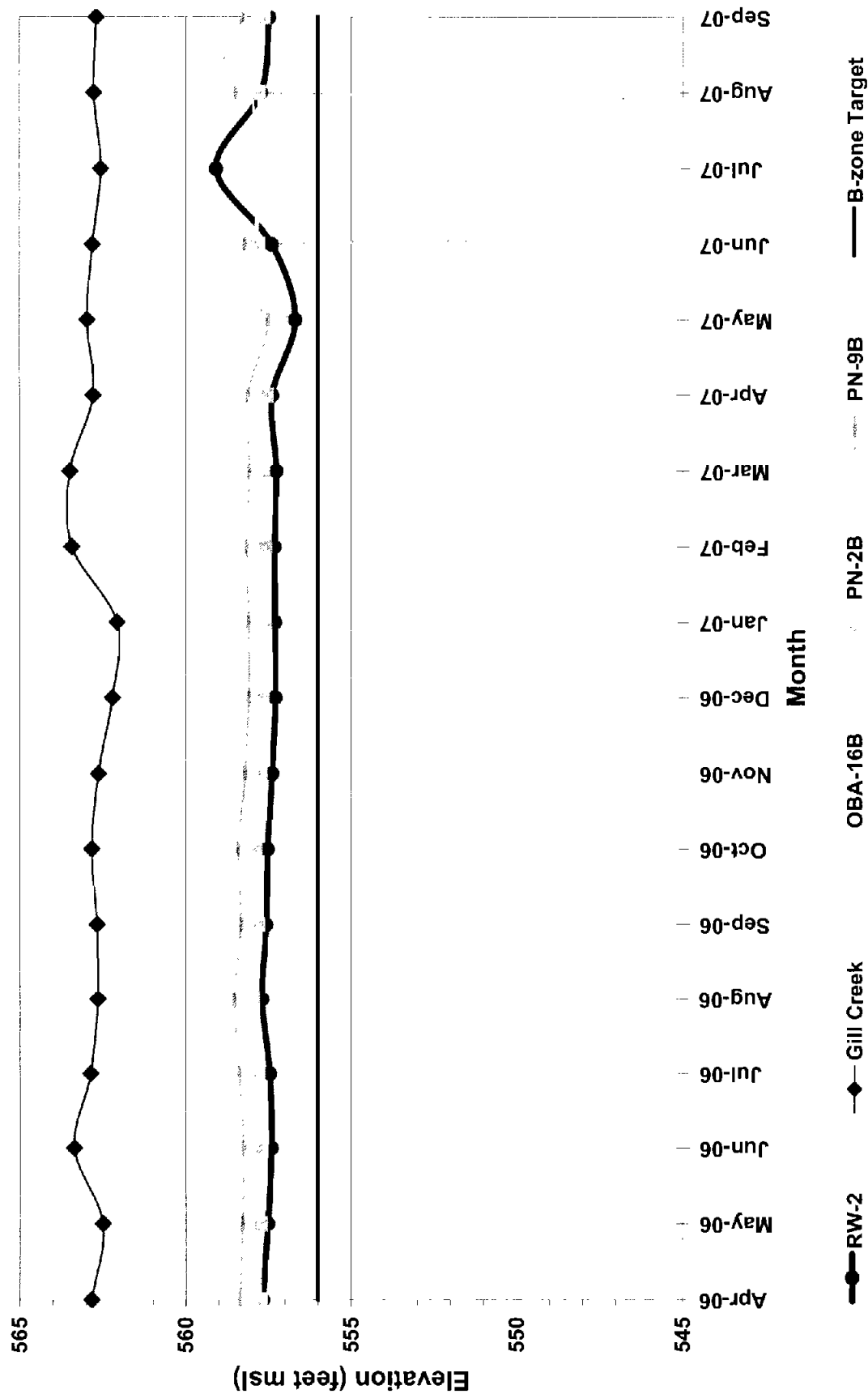


Table B-3
B-Zone
RW-3 and Adjacent Monitoring Point Piezometric Elevations

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
RW-3	557.30	557.27	557.30	557.60	557.79	557.46	557.63	557.41	557.27	557.20	557.20	557.18	557.17	554.11	557.33	557.38	557.88	557.36
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
OBA-16B	558.00	558.00	558.05	558.09	558.31	558.23	558.26	558.18	558.10	557.88	557.82	557.86	557.97	557.71	557.82	557.76	557.97	557.77
PN-3B	557.57	557.56	557.49	557.61	557.77	557.59	557.65	557.45	557.35	557.35	557.39	557.33	557.36	556.78	557.46	557.63	557.69	557.55
PN-4B	557.64	557.58	557.54	557.67	557.80	557.63	557.69	557.48	557.38	557.40	557.42	557.43	557.39	556.83	557.59	557.55	556.64	557.57
PN-9B	558.34	558.27	558.24	558.37	558.52	558.32	558.41	558.20	558.09	558.10	558.14	558.07	558.11	557.50	558.20	NM	558.49	558.27
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 sea level (msl)

Gill Creek level data is provided only for reference and does not effect B-zone capture.

Prepared by : AWE 10/1/2007

Checked by: LMS 10/10/2007

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

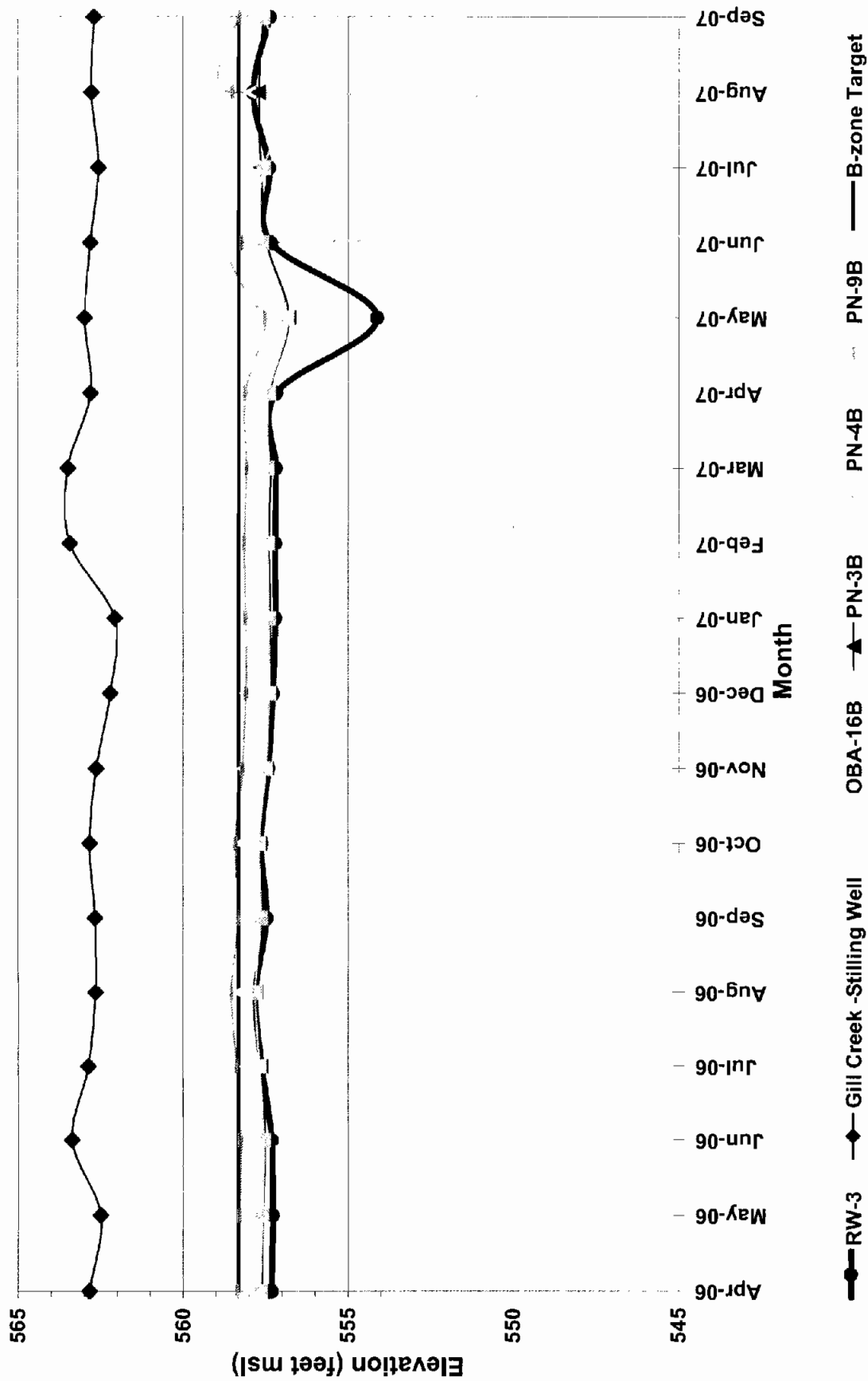


**Table B-4
B-Zone
RW-4, PR-4 and Adjacent Monitoring Point Piezometric Elevations**

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
RW-4	557.19	556.90	556.49	557.30	557.52	557.49	557.56	555.61	555.99	554.79	557.06	557.00	556.79	555.02	557.54	557.46	557.66	557.45
Gill Creek - Stillling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PR-4	554.34	552.93	555.23	555.19	554.53	552.19	558.29	556.71	554.38	552.20	553.55	554.30	552.30	553.66	554.30	557.21	556.37	554.40
PN-6B	557.55	557.56	557.49	557.60	557.80	557.64	557.68	557.44	557.36	557.37	557.39	557.42	557.34	556.75	557.59	557.63	557.77	557.56
PN-4B	557.64	557.58	557.54	557.67	557.80	557.63	557.69	557.48	557.38	557.40	557.42	557.43	557.39	556.83	557.59	557.55	556.64	557.57
PN-5B	557.71	557.66	557.66	557.73	557.89	557.70	557.76	557.34	557.44	557.46	557.48	557.49	557.43	556.87	557.64	556.82	557.00	557.61
PR-6*	560.15	560.04	560.28	559.89	560.10	559.88	559.97	559.93	560.59	560.20	559.97	560.52	562.53	560.11	559.99	559.70	559.47	559.09
PR-7*	562.38	562.34	562.54	562.10	562.65	562.78	562.78	563.80	562.69	562.56	562.25	562.33	562.53	562.53	562.31	562.05	561.87	561.54
PR-8*	562.45	562.38	562.55	562.05	562.46	562.52	562.69	562.92	562.76	562.60	562.45	562.51	562.94	562.85	562.37	562.11	562.14	561.95
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 10/1/2007

Checked by: LMS 10/10/2007

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

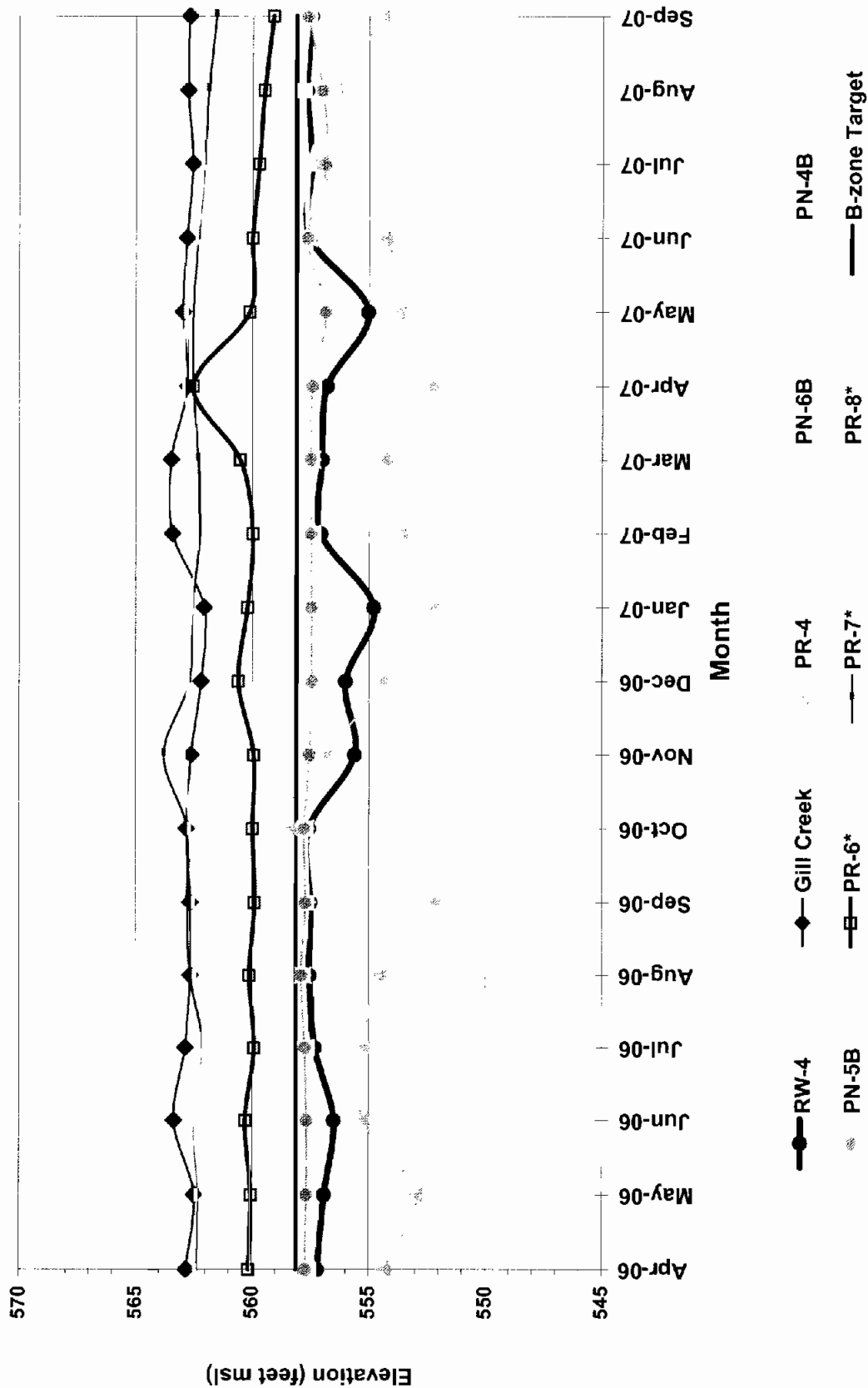


**Table B-5
B-Zone
RW-5 and Adjacent Monitoring Point Piezometric Elevations**

Location ID	Apr-06	May-06	Jun-06	Jul-06	Aug-06	Sep-06	Oct-06	Nov-06	Dec-06	Jan-07	Feb-07	Mar-07	Apr-07	May-07	Jun-07	Jul-07	Aug-07	Sep-07
RW-5	552.19	547.85	547.77	546.47	556.88	556.77	554.31	549.65	546.38	551.87	548.60	547.47	546.92	556.68	557.35	557.47	557.61	NM
Gill Creek - Stilling Well	562.83	562.48	563.35	562.86	562.64	562.66	562.82	562.62	562.20	562.06	563.42	563.48	562.79	562.97	562.80	562.55	562.76	562.69
PN-7B	558.42	558.44	558.53	558.51	558.58	558.39	558.47	558.49	558.33	558.16	558.25	558.09	558.25	557.30	557.43	558.22	558.93	558.23
PN-8B	557.58	557.61	557.57	557.73	557.84	557.67	557.68	557.53	557.43	557.41	557.36	557.37	557.50	556.73	557.57	557.61	552.47	557.51
PR-9*	561.90	561.68	562.54	560.79	560.64	560.21	561.08	561.67	561.15	561.89	561.51	560.84	562.02	562.16	561.60	561.15	561.56	561.23
PR-10*	559.27	559.26	559.61	559.21	559.22	559.07	559.32	559.42	558.37	558.42	558.57	NM	558.72	558.52	558.97	558.53	558.63	558.42
PR-11*	562.80	562.61	564.04	562.82	564.10	564.29	564.24	564.30	564.37	564.19	563.33	563.90	564.13	564.03	563.66	563.29	563.52	562.81
PR-12*	552.12	553.65	553.39	DRY	554.47	556.65	557.02	NM	563.89	563.74	557.34	556.96	557.07	556.55	557.33	557.22	557.68	557.46
B-zone Target	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 sea level (msl)

Gill Creek level data is provided only for reference and does not effect B-zone capture.

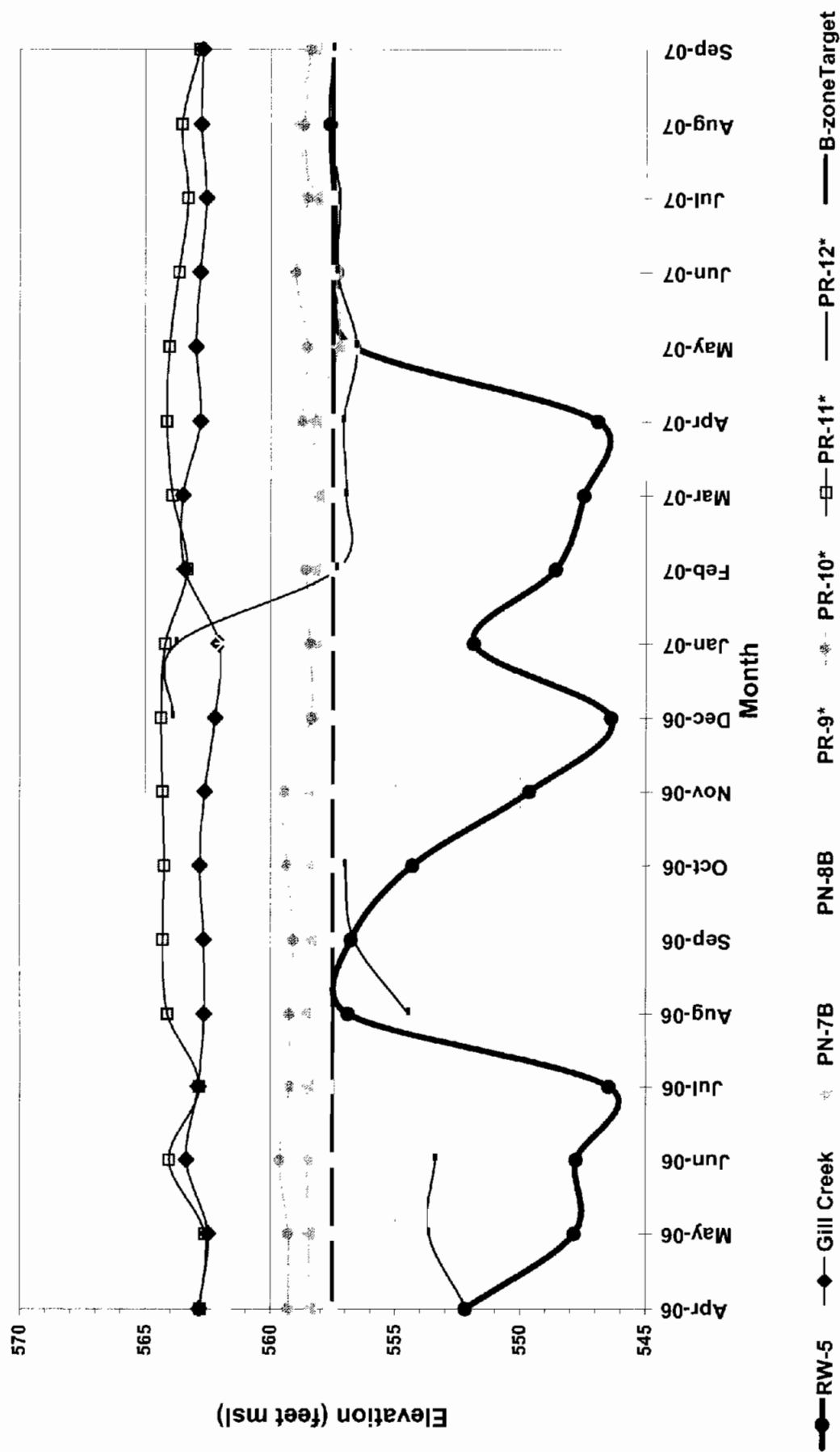
* Installed September 2002

N1 - Not Installed

Prepared by : AWE 10/1/2007

Checked by: LMS 10/10/2007

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



ATTACHMENT 4

**Olin Niagara Falls
Plant 2 Area Remediation**

Summary: Contaminant Mass and Groundwater Extracted
Since system start-up: December - 1997

Quarter	organics lb	Ann. Tot.	mercury lb	Ann. Tot.	pesticides lb	Ann. Tot.	g.w. extracted 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								
		4,323		0.06		12		22,007,224
TOTAL		51,260		3		235		239,230,258

[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
Q3-07

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	38.100	3.8	2.20E-06	0.00031852	1190476.19	325,008	104
RW2	0.491	3.8	2.20E-06	0.00000410	1190476.19	4,129,592	17
RW3	18.100	3.8	2.20E-06	0.00015132	1190476.19	824,867	125
RW4	96.000	3.8	2.20E-06	0.00080256	1190476.19	343,424	276
PR4	27.800	3.8	2.20E-06	0.00023241	1190476.19	63,397	15
RW5	63.100	3.8	2.20E-06	0.00052752	1190476.19	521,999	275
PR12	143.600	3.8	2.20E-06	0.00120050	1190476.19	341,578	410
OBA9AR	24.200	3.8	2.20E-06	0.00020231	1190476.19	3,549	0.72
TOTAL							1,222

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	0.0001	3.8	2.20E-06	0.00000000	1190476.19	325,008	0.000
RW2	0.0000	3.8	2.20E-06	0.00000000	1190476.19	4,129,592	0.000
RW3	0.0000	3.8	2.20E-06	0.00000000	1190476.19	824,867	0.000
RW4	0.0002	3.8	2.20E-06	0.00000000	1190476.19	343,424	0.001
PR4	0.0028	3.8	2.20E-06	0.00000002	1190476.19	63,397	0.001
RW5	0.0002	3.8	2.20E-06	0.00000000	1190476.19	521,999	0.001
PR12	0.0003	3.8	2.20E-06	0.00000000	1190476.19	341,578	0.001
OBA9AR	0.0000	3.8	2.20E-06	0.00000000	1190476.19	3,549	0.000
TOTAL							0.004

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	0.0204	3.8	2.20E-06	0.00000017	1190476.19	325,008	0.06
RW2	0.0002	3.8	2.20E-06	0.00000000	1190476.19	4,129,592	0.01
RW3	0.1108	3.8	2.20E-06	0.00000093	1190476.19	824,867	0.76
RW4	0.1792	3.8	2.20E-06	0.00000150	1190476.19	343,424	0.51
PR4	1.0780	3.8	2.20E-06	0.00000901	1190476.19	63,397	0.57
RW5	0.2048	3.8	2.20E-06	0.00000171	1190476.19	521,999	0.89
PR12	0.2450	3.8	2.20E-06	0.00000205	1190476.19	341,578	0.70
OBA9AR	0.3360	3.8	2.20E-06	0.00000281	1190476.19	3,549	0.01
TOTAL							3.5

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

6,553,414
total flow (gal)

August - 2007 Header Data Mercury

LocationID	AnalyticalMethod	ParameterName	Result	LabFlag	Detect Flag	DetectionLimit	SampleDate	SampleType	Units	Total or Dissolved	result	Total
OBA-9AR	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	T	0	
PR-12	SW7470	Mercury	0.31		Y	0.062	8/16/2007	Normal	ug/l	T	0.31	
PR-4	SW7470	Mercury	2.8		Y	0.062	9/5/2007	Normal	ug/l	T	2.8	
RW-1	SW7470	Mercury	1.2		Y	0.062	8/16/2007	Normal	ug/l	T	1.2	
RW-2	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	T	0	
RW-3	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	T	0	
RW-4	SW7470	Mercury	0.24		Y	0.062	8/16/2007	Normal	ug/l	T	0.24	
RW-5	SW7470	Mercury	0.22		Y	0.062	8/16/2007	Normal	ug/l	T	0.22	
OBA-9AR	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	
PR-12	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	
PR-4	SW7470	Mercury		U	N	0.062	9/5/2007	Normal	ug/l	D	0	
RW-1	SW7470	Mercury	1.3		Y	0.062	8/16/2007	Normal	ug/l	D	1.3	
RW-2	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	
RW-3	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	
RW-4	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	
RW-5	SW7470	Mercury		U	N	0.062	8/16/2007	Normal	ug/l	D	0	

August - 2007 Header Data Pesticides

LocationID	AnalyticalMethod	ParameterName	Result	LabFlag	Detect Flag	DetectionLim it	SampleDate	SampleType	Units	Total or Dissolved	Total
OBA-9AR	SW8081A	alpha-BHC	140		Y	1.3	8/16/2007	Normal	ug/l	N	
OBA-9AR	SW8081A	beta-BHC	23		Y	2.2	8/16/2007	Normal	ug/l	N	
OBA-9AR	SW8081A	delta-BHC	13	J	Y	2.4	8/16/2007	Normal	ug/l	N	
OBA-9AR	SW8081A	gamma-BHC	160		Y	2	8/16/2007	Normal	ug/l	N	336
PR-12	SW8081A	alpha-BHC	120		Y	0.86	8/16/2007	Normal	ug/l	N	
PR-12	SW8081A	beta-BHC	12		Y	1.5	8/16/2007	Normal	ug/l	N	
PR-12	SW8081A	delta-BHC	13		Y	1.6	8/16/2007	Normal	ug/l	N	
PR-12	SW8081A	gamma-BHC	100		Y	1.4	8/16/2007	Normal	ug/l	N	245
PR-4	SW8081A	alpha-BHC	410		Y	4.3	9/5/2007	Normal	ug/l	N	
PR-4	SW8081A	beta-BHC	21	J	Y	7.5	9/5/2007	Normal	ug/l	N	
PR-4	SW8081A	delta-BHC	47	J	Y	8.1	9/5/2007	Normal	ug/l	N	
PR-4	SW8081A	gamma-BHC	600		Y	6.8	9/5/2007	Normal	ug/l	N	1078
RW-1	SW8081A	alpha-BHC	16		Y	0.086	8/16/2007	Normal	ug/l	N	
RW-1	SW8081A	beta-BHC	3.5		Y	0.15	8/16/2007	Normal	ug/l	N	
RW-1	SW8081A	delta-BHC		U	N	0.16	8/16/2007	Normal	ug/l	N	
RW-1	SW8081A	gamma-BHC	0.90	J	Y	0.14	8/16/2007	Normal	ug/l	N	20.4
RW-2	SW8081A	alpha-BHC	0.083		Y	0.0043	8/16/2007	Normal	ug/l	N	
RW-2	SW8081A	beta-BHC	0.071		Y	0.0075	8/16/2007	Normal	ug/l	N	
RW-2	SW8081A	delta-BHC	0.022	J	Y	0.0081	8/16/2007	Normal	ug/l	N	
RW-2	SW8081A	gamma-BHC	0.059		Y	0.0068	8/16/2007	Normal	ug/l	N	0.235
RW-3	SW8081A	alpha-BHC	59		Y	0.43	8/16/2007	Normal	ug/l	N	
RW-3	SW8081A	beta-BHC	3.8	J	Y	0.75	8/16/2007	Normal	ug/l	N	
RW-3	SW8081A	delta-BHC	7.0		Y	0.81	8/16/2007	Normal	ug/l	N	
RW-3	SW8081A	gamma-BHC	41		Y	0.68	8/16/2007	Normal	ug/l	N	110.8
RW-4	SW8081A	alpha-BHC	92		Y	0.86	8/16/2007	Normal	ug/l	N	
RW-4	SW8081A	beta-BHC	9.0	J	Y	1.5	8/16/2007	Normal	ug/l	N	
RW-4	SW8081A	delta-BHC	9.2	J	Y	1.6	8/16/2007	Normal	ug/l	N	
RW-4	SW8081A	gamma-BHC	69		Y	1.4	8/16/2007	Normal	ug/l	N	179.2
RW-5	SW8081A	alpha-BHC	100		Y	0.86	8/16/2007	Normal	ug/l	N	
RW-5	SW8081A	beta-BHC	9.8	J	Y	1.5	8/16/2007	Normal	ug/l	N	
RW-5	SW8081A	delta-BHC	10		Y	1.6	8/16/2007	Normal	ug/l	N	
RW-5	SW8081A	gamma-BHC	85		Y	1.4	8/16/2007	Normal	ug/l	N	204.8

August - 2007 Header Data Organics

LocationID	AnalyticalMethod	ParameterName	Result	LabFlag	Detect Flag	Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	Result	Total
OBA-9AR	SW8260B	1,1,1-Trichloroethane	U	N	N	35	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	1,1,2,2-Tetrachloroethane	U	N	N	160	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	1,1,2-Trichloroethane	U	N	N	40	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	1,1-Dichloroethene	U	N	N	18	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	1,2,4-Trichlorobenzene	990	Y	Y	37	8/16/2007	Normal	ug/l	N	990	
OBA-9AR	SW8260B	1,2-Dichlorobenzene	2600	Y	Y	18	8/16/2007	Normal	ug/l	N	2600	
OBA-9AR	SW8260B	1,3-Dichlorobenzene	560	Y	Y	22	8/16/2007	Normal	ug/l	N	560	
OBA-9AR	SW8260B	1,4-Dichlorobenzene	3100	Y	Y	24	8/16/2007	Normal	ug/l	N	3100	
OBA-9AR	SW8260B	Benzene	610	Y	Y	12	8/16/2007	Normal	ug/l	N	610	
OBA-9AR	SW8260B	Carbon tetrachloride	U	N	N	27	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	Chlorobenzene	640	Y	Y	20	8/16/2007	Normal	ug/l	N	640	
OBA-9AR	SW8260B	Chloromethane (Methyl chloride)	U	N	N	32	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	cis-1,2-Dichloroethene	U	N	N	18	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	Methylene chloride (Dichloromethane)	U	N	N	35	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	Tetrachloroethene (PCE)	3700	Y	Y	26	8/16/2007	Normal	ug/l	N	3700	
OBA-9AR	SW8260B	trans-1,2-Dichloroethene	U	N	N	20	8/16/2007	Normal	ug/l	N	0	
OBA-9AR	SW8260B	Trichloroethene (TCE)	12000	Y	Y	22	8/16/2007	Normal	ug/l	N	12000	
OBA-9AR	SW8260B	Vinyl Chloride	U	N	N	44	8/16/2007	Normal	ug/l	N	0	24,200
PR-12	SW8260B	1,1,1-Trichloroethane	U	N	N	88	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	1,1,2,2-Tetrachloroethane	4900	Y	Y	400	8/16/2007	Normal	ug/l	N	4900	
PR-12	SW8260B	1,1,2-Trichloroethane	U	N	N	99	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	1,1-Dichloroethene	U	N	N	45	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	1,2,4-Trichlorobenzene	4200	Y	Y	92	8/16/2007	Normal	ug/l	N	4200	
PR-12	SW8260B	1,2-Dichlorobenzene	U	N	N	45	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	1,3-Dichlorobenzene	U	N	N	54	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	1,4-Dichlorobenzene	U	N	N	61	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Benzene	U	N	N	31	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Carbon tetrachloride	U	N	N	68	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Chlorobenzene	U	N	N	51	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Chloromethane (Methyl chloride)	U	N	N	80	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	cis-1,2-Dichloroethene	3500	Y	Y	45	8/16/2007	Normal	ug/l	N	3500	
PR-12	SW8260B	Methylene chloride (Dichloromethane)	U	N	N	88	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Tetrachloroethene (PCE)	13000	Y	Y	64	8/16/2007	Normal	ug/l	N	13000	
PR-12	SW8260B	trans-1,2-Dichloroethene	U	N	N	50	8/16/2007	Normal	ug/l	N	0	
PR-12	SW8260B	Trichloroethene (TCE)	38000	Y	Y	54	8/16/2007	Normal	ug/l	N	38000	
PR-12	SW8260B	Vinyl Chloride	U	N	N	110	8/16/2007	Normal	ug/l	N	0	143,600
PR-4	SW8260B	1,1,1-Trichloroethane	U	N	N	35	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	1,1,2,2-Tetrachloroethane	500	Y	Y	160	9/5/2007	Normal	ug/l	N	500	
PR-4	SW8260B	1,1,2-Trichloroethane	U	N	N	40	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	1,1-Dichloroethene	U	N	N	18	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	1,2,4-Trichlorobenzene	4600	Y	Y	37	9/5/2007	Normal	ug/l	N	4600	
PR-4	SW8260B	1,2-Dichlorobenzene	U	N	N	18	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	1,3-Dichlorobenzene	U	N	N	22	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	1,4-Dichlorobenzene	U	N	N	24	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Benzene	U	N	N	12	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Carbon tetrachloride	U	N	N	27	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Chlorobenzene	U	N	N	20	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Chloromethane (Methyl chloride)	U	N	N	32	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	cis-1,2-Dichloroethene	3600	Y	Y	18	9/5/2007	Normal	ug/l	N	3600	

August - 2007 Header Data Organics

LocationID	AnalyticalMethod	ParameterName	Result	LabFlag	Detect Flag	Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	Total
PR-4	SW8260B	Methylene chloride (Dichloromethane)		U	N	35	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Tetrachloroethene (PCE)	5100	U	Y	26	9/5/2007	Normal	ug/l	N	5100	
PR-4	SW8260B	trans-1,2-Dichloroethene		U	N	20	9/5/2007	Normal	ug/l	N	0	
PR-4	SW8260B	Trichloroethene (TCE)	14000	U	Y	22	9/5/2007	Normal	ug/l	N	14000	
PR-4	SW8260B	Vinyl Chloride		U	N	44	9/5/2007	Normal	ug/l	N	0	27,800
RW-1	SW8260B	1,1,1-Trichloroethane		U	N	49	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,1,2,2-Tetrachloroethane		U	N	220	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,1,2-Trichloroethane		U	N	55	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,1-Dichloroethene		U	N	25	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,2,4-Trichlorobenzene	5200	U	Y	52	8/16/2007	Normal	ug/l	N	5200	
RW-1	SW8260B	1,2-Dichlorobenzene		U	N	25	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,3-Dichlorobenzene		U	N	30	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	1,4-Dichlorobenzene		U	N	34	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Benzene		U	N	18	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Carbon tetrachloride		U	N	38	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Chlorobenzene		U	N	29	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Chloromethane (Methyl chloride)		U	N	45	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	cis-1,2-Dichloroethene	3100	U	Y	25	8/16/2007	Normal	ug/l	N	3100	
RW-1	SW8260B	Methylene chloride (Dichloromethane)		U	N	49	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Tetrachloroethene (PCE)	3700	U	Y	36	8/16/2007	Normal	ug/l	N	3700	
RW-1	SW8260B	trans-1,2-Dichloroethene		U	N	28	8/16/2007	Normal	ug/l	N	0	
RW-1	SW8260B	Trichloroethene (TCE)	26000	U	Y	30	8/16/2007	Normal	ug/l	N	26000	
RW-1	SW8260B	Vinyl Chloride		U	N	62	8/16/2007	Normal	ug/l	N	0	38,000
RW-2	SW8260B	1,1,1-Trichloroethane		U	N	0.35	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	1,1,2,2-Tetrachloroethane	18	U	Y	1.6	8/16/2007	Normal	ug/l	N	18	
RW-2	SW8260B	1,1,2-Trichloroethane		U	N	0.4	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	1,1-Dichloroethene		U	N	0.18	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	1,2,4-Trichlorobenzene	6.7	U	Y	0.37	8/16/2007	Normal	ug/l	N	6.7	
RW-2	SW8260B	1,2-Dichlorobenzene		U	N	0.18	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	1,3-Dichlorobenzene		U	N	0.22	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	1,4-Dichlorobenzene		U	N	0.24	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Benzene		U	N	0.12	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Carbon tetrachloride		U	N	0.27	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Chlorobenzene		U	N	0.2	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Chloromethane (Methyl chloride)		U	N	0.32	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	cis-1,2-Dichloroethene	66	U	Y	0.18	8/16/2007	Normal	ug/l	N	66	
RW-2	SW8260B	Methylene chloride (Dichloromethane)		U	N	0.35	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Tetrachloroethene (PCE)	170	U	Y	0.26	8/16/2007	Normal	ug/l	N	170	
RW-2	SW8260B	trans-1,2-Dichloroethene		U	N	0.2	8/16/2007	Normal	ug/l	N	0	
RW-2	SW8260B	Trichloroethene (TCE)	230	U	Y	0.22	8/16/2007	Normal	ug/l	N	230	
RW-2	SW8260B	Vinyl Chloride		U	N	0.44	8/16/2007	Normal	ug/l	N	0	491
RW-3	SW8260B	1,1,1-Trichloroethane		U	N	18	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	1,1,2,2-Tetrachloroethane	450	U	Y	80	8/16/2007	Normal	ug/l	N	450	
RW-3	SW8260B	1,1,2-Trichloroethane		U	N	20	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	1,1-Dichloroethene		U	N	9	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	1,2,4-Trichlorobenzene	680	U	Y	18	8/16/2007	Normal	ug/l	N	680	
RW-3	SW8260B	1,2-Dichlorobenzene		U	N	9	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	1,3-Dichlorobenzene		U	N	11	8/16/2007	Normal	ug/l	N	0	

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LocationID	AnalyticalMethod	ParameterName	Result	LabFlag	Detect Flag	Detection Limit	SampleDate	SampleType	Units	Total or Dissolved	result	Total
RW-3	SW8260B	1,4-Dichlorobenzene	U	N	N	12	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Benzene	U	N	N	6.2	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Carbon tetrachloride	U	N	N	14	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Chlorobenzene	U	N	N	10	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Chloromethane (Methyl chloride)	U	N	N	16	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	cis-1,2-Dichloroethene	2700	Y	Y	9	8/16/2007	Normal	ug/l	N	2700	
RW-3	SW8260B	Methylene chloride (Dichloromethane)	U	N	N	18	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Tetrachloroethene (PCE)	4600	Y	Y	13	8/16/2007	Normal	ug/l	N	4600	
RW-3	SW8260B	trans-1,2-Dichloroethene	U	N	N	10	8/16/2007	Normal	ug/l	N	0	
RW-3	SW8260B	Trichloroethene (TCE)	9400	Y	Y	11	8/16/2007	Normal	ug/l	N	9400	
RW-3	SW8260B	Vinyl Chloride	270	Y	Y	22	8/16/2007	Normal	ug/l	N	270	18,100
RW-4	SW8260B	1,1,1-Trichloroethane	U	N	N	70	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	1,1,2,2-Tetrachloroethane	6100	Y	Y	320	8/16/2007	Normal	ug/l	N	6100	
RW-4	SW8260B	1,1,2-Trichloroethane	U	N	N	79	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	1,1-Dichloroethene	U	N	N	36	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	1,2,4-Trichlorobenzene	1800	Y	Y	74	8/16/2007	Normal	ug/l	N	1800	
RW-4	SW8260B	1,2-Dichlorobenzene	U	N	N	36	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	1,3-Dichlorobenzene	U	N	N	43	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	1,4-Dichlorobenzene	U	N	N	49	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Benzene	U	N	N	25	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Carbon tetrachloride	U	N	N	54	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Chlorobenzene	U	N	N	41	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Chloromethane (Methyl chloride)	U	N	N	64	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	cis-1,2-Dichloroethene	5100	Y	Y	36	8/16/2007	Normal	ug/l	N	5100	
RW-4	SW8260B	Methylene chloride (Dichloromethane)	23000	Y	Y	70	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Tetrachloroethene (PCE)	U	N	N	51	8/16/2007	Normal	ug/l	N	23000	
RW-4	SW8260B	trans-1,2-Dichloroethene	U	N	N	40	8/16/2007	Normal	ug/l	N	0	
RW-4	SW8260B	Trichloroethene (TCE)	60000	Y	Y	43	8/16/2007	Normal	ug/l	N	60000	
RW-4	SW8260B	Vinyl Chloride	U	N	N	88	8/16/2007	Normal	ug/l	N	0	96,000
RW-5	SW8260B	1,1,1-Trichloroethane	U	N	N	140	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	1,1,2,2-Tetrachloroethane	5300	Y	Y	640	8/16/2007	Normal	ug/l	N	5300	
RW-5	SW8260B	1,1,2-Trichloroethane	U	N	N	160	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	1,1-Dichloroethene	U	N	N	72	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	1,2,4-Trichlorobenzene	3000	Y	Y	150	8/16/2007	Normal	ug/l	N	3000	
RW-5	SW8260B	1,2-Dichlorobenzene	U	N	N	72	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	1,3-Dichlorobenzene	U	N	N	86	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	1,4-Dichlorobenzene	U	N	N	98	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Benzene	U	N	N	50	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Carbon tetrachloride	U	N	N	110	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Chlorobenzene	U	N	N	82	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Chloromethane (Methyl chloride)	U	N	N	130	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	cis-1,2-Dichloroethene	3800	Y	Y	72	8/16/2007	Normal	ug/l	N	3800	
RW-5	SW8260B	Methylene chloride (Dichloromethane)	U	N	N	140	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Tetrachloroethene (PCE)	13000	Y	Y	100	8/16/2007	Normal	ug/l	N	13000	
RW-5	SW8260B	trans-1,2-Dichloroethene	U	N	N	80	8/16/2007	Normal	ug/l	N	0	
RW-5	SW8260B	Trichloroethene (TCE)	38000	Y	Y	86	8/16/2007	Normal	ug/l	N	38000	
RW-5	SW8260B	Vinyl Chloride	U	N	N	180	8/16/2007	Normal	ug/l	N	0	63,100