DuPont Corporate Remediation Group
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(716) 278-5100

November 28, 2011

Ms. Gloria Sosa
Western New York Remediation Section
New York Remediation Branch
Emergency and Remediation Response Division
U.S. Environmental Protection Agency – Region 2
290 Broadway, 20th Floor
New York, NY 10007-1866

Dear Ms. Sosa:

NECCO PARK THIRD QUARTER 2011 DATA PACKAGE

Enclosed are three copies of the *Third Quarter 2011 (3Q11) Data Package* for the E. I. du Pont de Nemours and Company (DuPont) Necco Park Hydraulic Control System (HCS) in accordance with the approved Long Term Groundwater Monitoring Plan. The data package includes an operational summary, process sample analytical data, and figures showing potentiometric surface contours, vertical gradients, and drawdown contours. The data package also includes a 3Q11 monitoring summary for dense non-aqueous phase liquid (DNAPL).

Pumping system uptime for 3Q11 was 91.7 percent. The total volume of groundwater treated was 2,947,721 gallons. No measureable DNAPL was observed or recovered during the period.

Please contact me at (716) 278-5496 if you have any questions or comments regarding this submittal.

Sincerely,

CORPORATE REMEDIATION GROUP

Paul F. Mazierski
Project Director

PFM/EAF
Enc.

cc: M. Hinton/NYSDEC
E. Felter/Parsons
Carol Luttrell/DuPont
T. Pezzino/URS

SOURCE AREA HYDRAULIC CONTROL SYSTEM
THIRD QUARTER 2011
GROUNDWATER MONITORING DATA PACKAGE
DUPONT NECCO PARK
NIAGARA FALLS, NIAGARA COUNTY, NEW YORK

EPA ID No. NYD980532162

Prepared For:

DuPont Corporate Remediation Group

Buffalo Avenue and 26th Street
Niagara Falls, New York 14302

Prepared By:

PARSONS

40 La Riviere Drive, Suite 350
Buffalo, New York 14202
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November 2011

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ATTACHMENT 1

Electronic Copy of Groundwater Elevation Data - Third Quarter 2011

SECTION 1

DATA PACKAGE SUMMARY

1.1 INTRODUCTION

This data package presents a summary of operating and monitoring data collected during the third quarter of 2011 (3Q11) for groundwater remediation measures at the E. I. du Pont de Nemours and Company (DuPont) Necco Park Site (Necco Park) in Niagara Falls, New York. Submission of this data package meets the reporting requirements defined in the agency-approved Long-Term Groundwater Monitoring Plan (LTGMP) and the Sampling, Analysis, and Monitoring Plan (SAMP) (DuPont Corporate Remediation Group 2005).

This data package is the 25th submitted since the 2005 startup of the Necco Park Hydraulic Control System (HCS) and includes a summary of operations for the pumping wells and the Groundwater Treatment Facility (GWTF). Included are figures depicting groundwater elevation contours for seven groundwater flow zones (Figures 1, 4, and 7 through 11) and groundwater elevation data (Appendix A). An electronic copy of the groundwater elevation data are provided as Attachment 1. Figures illustrating drawdown for the AT-Zone and A-Zone and vertical gradients between the AT-Zone and A-Zone and A-Zone and B-Zone are also included (Figures 2, 3, 5, and 6).

Figures 2 and 5 present the vertical gradient (in feet per foot [ft/ft]) for selected well pairs between the AT-Zone and A-Zone and the A-Zone and B-Zones, respectively. Vertical gradients are calculated by subtracting the elevation of the upper zone from the elevation of the lower zone and dividing the result by the difference in the elevation of the center of the well screen (for the AT-Zone and A-Zone wells) or the center of the open rock zone (for B-Zone wells).

Figures 3 and 6 present potentiometric contours of the net drawdown in selected wells between April 5, 2005 (immediately prior to HCS startup) and the groundwater elevation in each well on August 31, 2011.

1.2 OPERATIONAL SUMMARY

The following table provides a summary of average HCS uptime, total gallons of groundwater treated, and gallons of dense non-aqueous phase liquid (DNAPL) removed for 3Q11:

	HCS Uptime (%)	Groundwater Treated (gallons)	DNAPL Removed (gallons)
July	96.6%	933,039	0
August	90.9%	975,105	0
September	87.4%	979,577	0
3Q11 Total	**91.7%**	**2,947,721**	**0**

System downtime is categorized into two groups: individual recovery well downtime and complete HCS system downtime. Table 1 summarizes any individual recovery well downtime that exceeded a 48-hour period during 3Q11.

Scheduled downtime that exceeded 48 hours in 3Q11 was limited to well rehabilitation efforts at RW-5 (55.8 hours) and RW-11 (100.5 hours) during September. The following two unscheduled recovery well downtime events that exceeded a 48-hour period occurred during 3Q11:

1. Unscheduled downtime due to a flow meter malfunction at RW-5 in August: 76.3 hours
2. Unscheduled downtime due to a low flow interlock at RW-5 in September: 77.8 hours

There were approximately 28.5 hours of scheduled HCS downtime in August to inspect the air emissions stack. The inspection identified minor maintenance and repairs which are schedule for 4Q2011. There was no reportable unscheduled HCS downtime during 3Q11.

Table 2 provides an historical operations summary by quarter since HCS operations began.

Monthly DNAPL monitoring was completed on July 27, August 31, and September 21, 2011. No measurable thickness of DNAPL was observed in any of the wells during the monthly monitoring during the quarter. As such, no DNAPL was removed during the quarter. Trace DNAPL was noted in well 204C during the three months of the quarter and in July in well RW-5.

Pumping well rehabilitation at RW-5 and RW-11 were competed in September. This was the second rehabilitation at RW-5 in 2011 and the first rehabilitation at RW-11 since it was installed. Hydraulic and chemistry data were collected and are currently being analyzed. The annual report will include additional details regarding these events and the results.

1.3 GWTF PROCESS SAMPLING

In accordance with the SAMP, GWTF influent samples (from B/C-Zone and D/E/F-Zone) and a combined effluent sample were collected in 3Q11. Samples were collected by TestAmerica Laboratories of Amherst, New York, on August 31, 2011, and shipped to the TestAmerica Laboratories in North Canton, Ohio, for analysis. Sample results for the process sampling are included in Appendix B.

1.4 POTW COMPLIANCE

As required by the publicly-owned treatment works (POTW) discharge permit for the site, the Necco GWTF discharge is sampled and reported quarterly to the Niagara Falls Water Board. The Necco Park 3Q11 wastewater samples were collected on July 13, 2011. There were no permit limit exceedances for the quarter. The Necco POTW discharge permit was renewed in May 2009 and remains valid through May 1, 2014.

SECTION 2

REFERENCES

DuPont Corporate Remediation Group. 2005. DuPont Necco Park Operations and Maintenance Plan. November 11, 2005.

TABLES

Table 1
Individual Well Shutdown Summary for 3Q11
DuPont Necco Park

	Well ID	Date(s)	Length of Shutdown (hours)	Reason for Shutdown	Remarks
July					No wells were down in July 2011.
August	RW-5	August 27 through August 29	76.3	Flow meter malfunction.	Unscheduled
September	RW-5	September 3 through September 6	77.8	Low flow condition caused acid valve interlock to shut down the pump. Pump was operated in manual mode due to faulty level sensor.	Unscheduled
	RW-5	September 14 through September 16	55.8	Well rehabilitation.	Scheduled
	RW-11	September 18 through September 22	100.5	Well rehabilitation.	Scheduled

Table 2
Historical HCS Operational Summary - 3Q11
DuPont Necco Park

Reporting Period	HCS Uptime (%)	HCS Uptime Excluding Scheduled Maintenance Downtime (%)	Groundwater Treated (Gallons)	DNAPL Removed (Gallons)
2Q05	97.3	97.6	3,349,590	73.5
3Q05	89.3	91.4	3,117,280	30
4Q05	93.6	96.5	3,225,819	0
1Q06	99.4	99.4	2,889,134	24
2Q06	97.5	98.1	3,486,835	74
3Q06	88.7	90.9	3,181,365	28
4Q06	91.0	93.8	2,787,745	25
1Q07	91.2	91.2	2,638,005	15
2Q07	93.8	94.2	2,882,064	52
3Q07	92.0	92.5	3,497,149	51
4Q07	91.2	92.0	2,697,915	35
1Q08	92.6	93.5	2,761,674	65
2Q08	95.9	95.9	2,902,261	279
3Q08	77.2	80.0	3,112,202	124
4Q08	70.3	72.2	3,468,710	44
1Q09	88.7	89.6	4,442,026	0
2Q09	95.0	95.0	4,117,084	0
3Q09	95.3	95.3	4,069,280	0
4Q09	95.8	95.8	3,663,740	0
1Q10	98.3	98.3	3,921,478	90
2Q10	77.0	100.0	3,259,485	0
3Q10	100.0	100.0	3,398,078	0
4Q10	93.8	99.1	3,195,727	0
1Q11	94.6	97.6	3,679,957	70
2Q11	89.6	89.6	3,370,066	48
3Q11	91.7	96.2	2,947,721	0
TOTALS	**---**	**---**	**86,062,390**	**1,128**
AVERAGE	**91.6**	**93.7**	**---**	**---**

FIGURES

DUPONT NECCO PARK

119AT
572.97

129AT
573.18

572

572.5

571.5

571

571

184AT
570.34

185AT
570.31

570.5

187AT
570.41

180AT
570.87

186AT
570.22

570.5

188AT
570.73

189AT
570.76

190AT
570.72

571

571.5

572

572.5

573

573.5

193AT
574.41

194AT
573.30

191AT
570.77

192AT
570.67

CECOS SECURE CELLS

Scale: Feet

0 50 100 150 200

Contour Interval = 0.5 feet

Elevation datum feet AMSL

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Checked by	EAF
Project Manager	EAF
Job number: 445357.02022	

LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road

Figure 1
Potentiometric Surface Map
DuPont Necco Park: AT-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - AT PZ - F1.srf

DUPONT NECCO PARK

119AT/A
0.04

129AT/A
-0.02

184AT/A
NA

185AT/A
0.14

186AT/A
-0.33

187AT/A
NA

188AT/A
-0.53

189AT/A
-0.40

190AT/A
-0.25

191AT/A
0.00

192AT/A
0.01

193AT/A
NA

194AT/A
-0.20

CECOS SECURE CELLS

Scale: Feet

0 50 100 150 200

*NA - some wells were not measured due to wasps nests.

Negative value indicates downward vertical gradient

Elevation datum feet AMSL

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Job number: 445357.02022	

LEGEND

3B Well ID

Monitoring Well

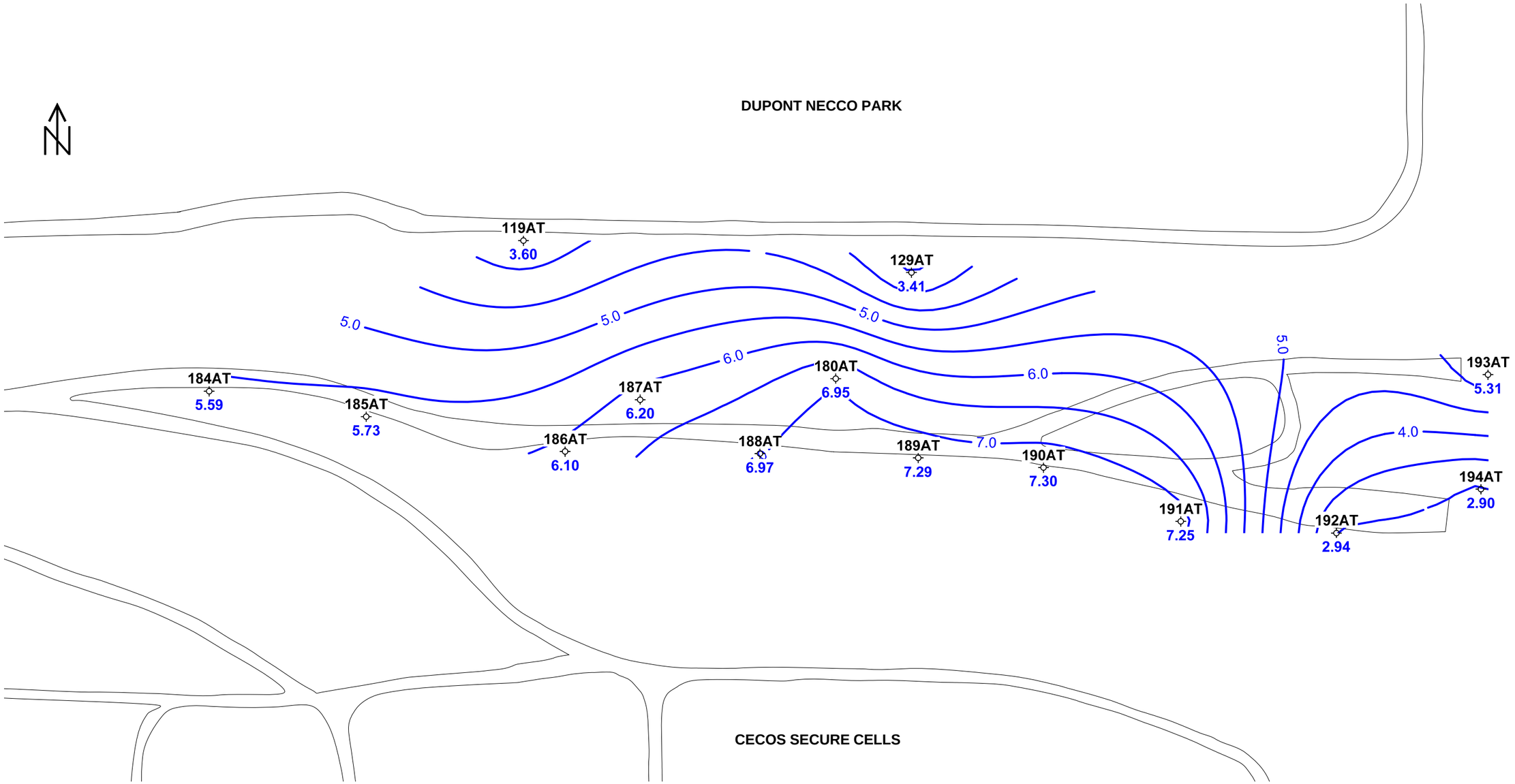
Pumping Well

Structure

Road

Figure 2
Vertical Gradient: AT-Zone to A-Zone
DuPont Necco Park
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - ATAvgrad - F2.srf



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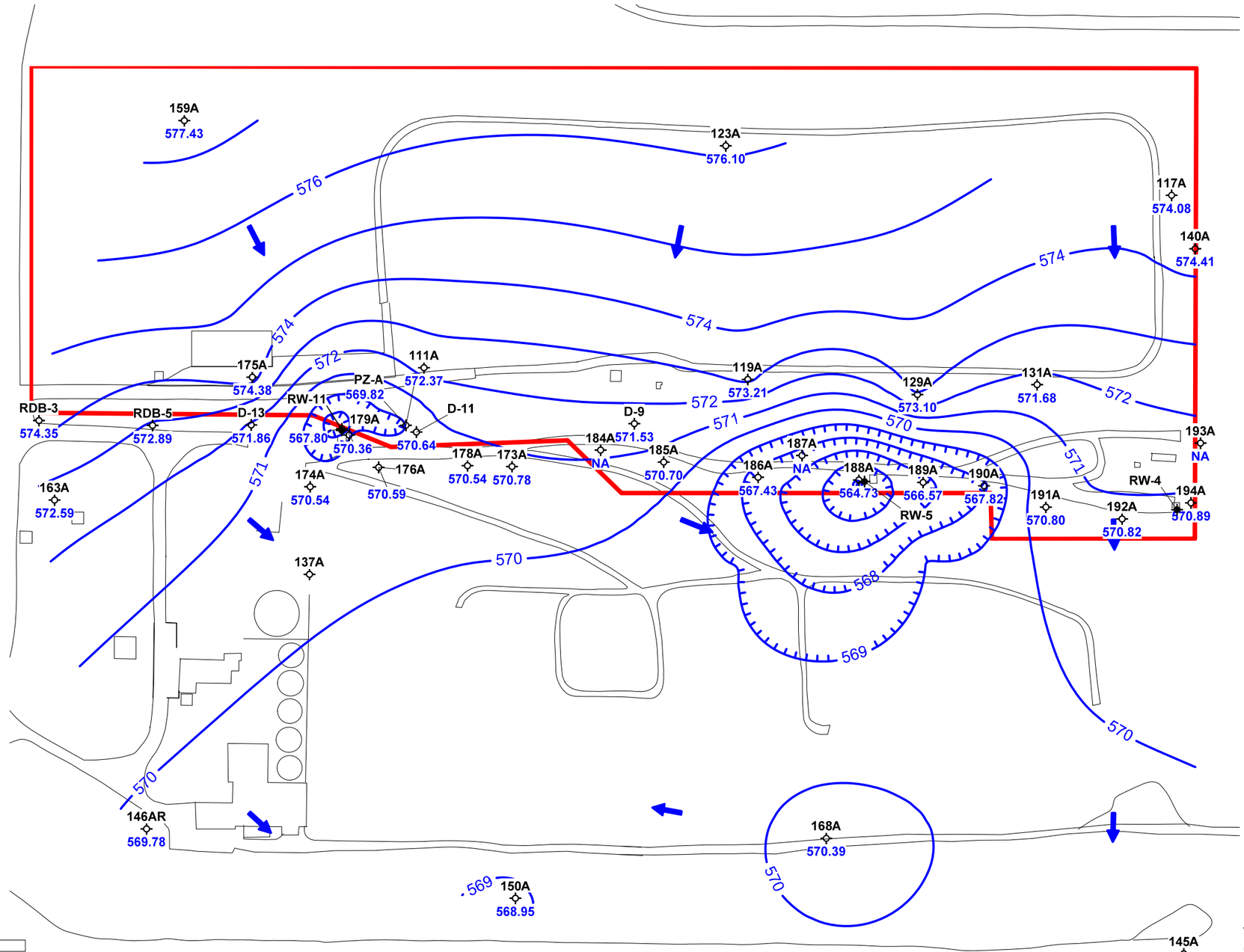
LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road

Figure 3
Drawdown Contour Map
DuPont Necco Park: AT-Zone
April 5, 2005 (Static) to August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - AT DD F3.srf



Scale: Feet

0 100 200 300 400

Contour Interval = 1 foot **Elevation datum feet AMSL**

Notes: Well 137A and 139A measurements were not included in the contour this round due to anomalous results.
Wells 184A, 187A, and 193A were not measured due to aggressive wasp activity.

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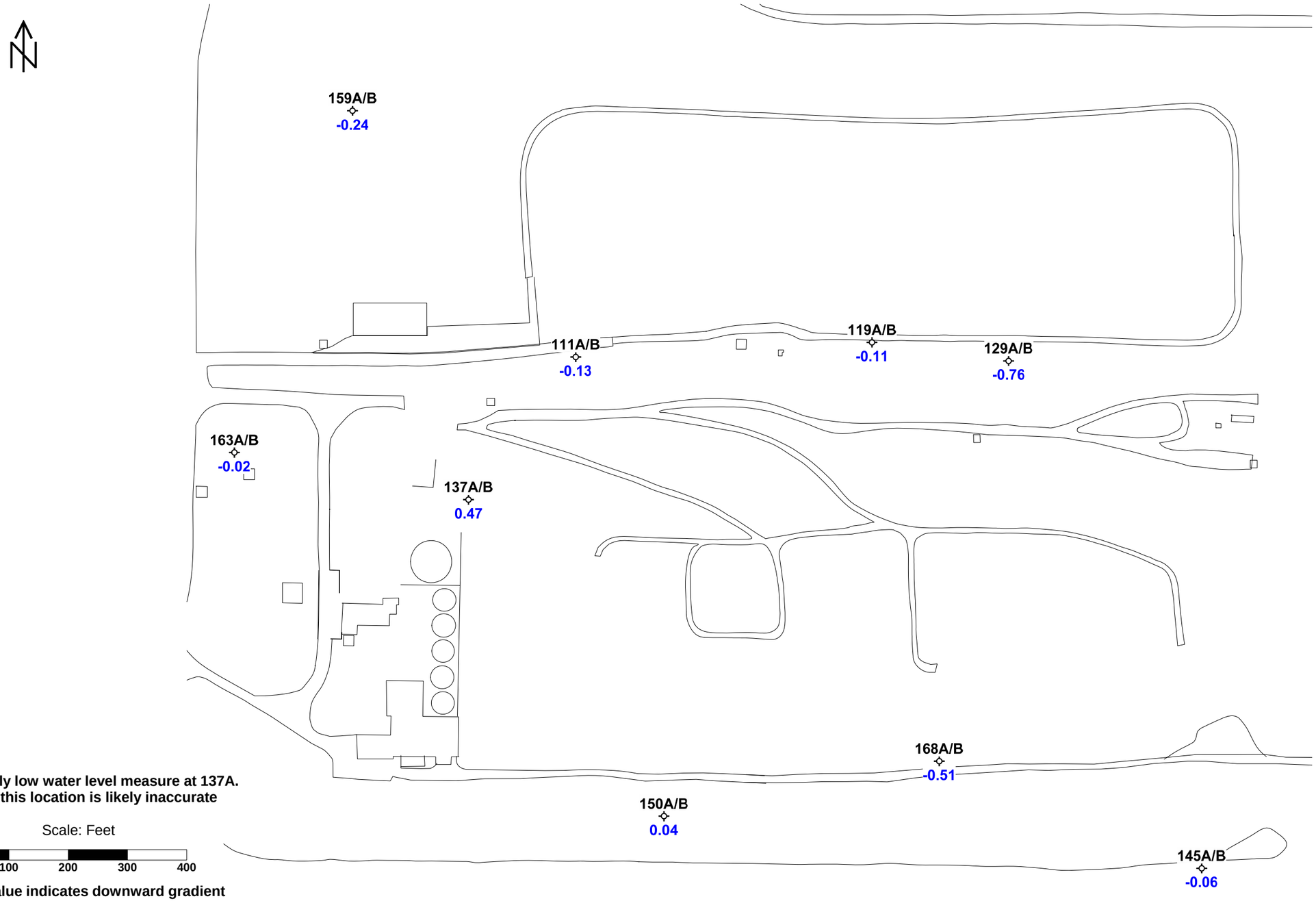
LEGEND

3B	Well ID	Potentiometric Contour	Source Area Extent
	Monitoring Well	Structure	
	Pumping Well	Road	

Figure 4
Potentiometric Surface Map
DuPont Necco Park: A-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-06-08 NEC Contour Tool/2011-08-31 - A PZ - F4.srf



Anomalously low water level measure at 137A. Gradient at this location is likely inaccurate

Scale: Feet

0 100 200 300 400

Negative value indicates downward gradient

Elevation datum feet AMSL

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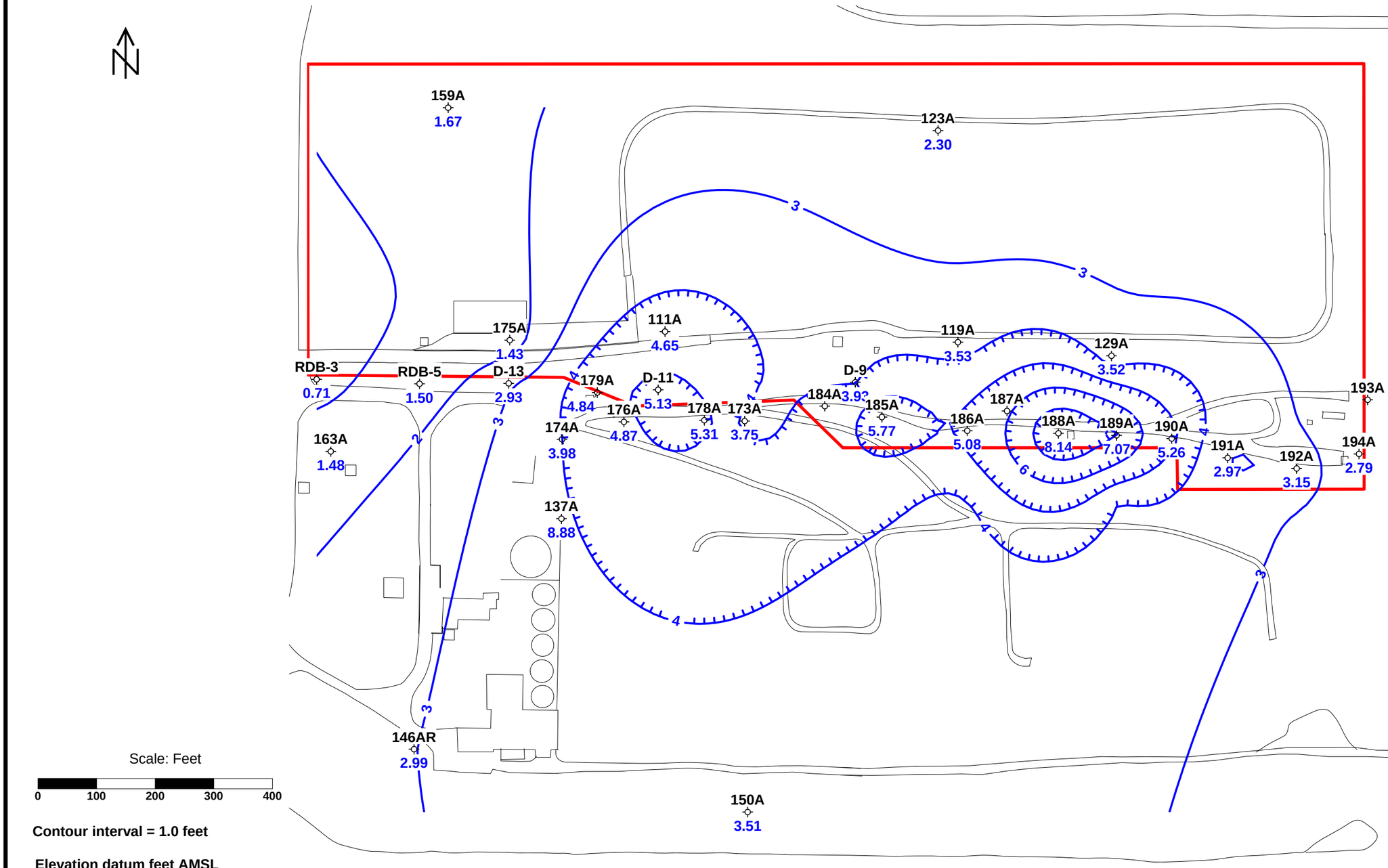
Job number: 445357.02022	

LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Road
- Structure

Figure 5
Vertical Gradient: A-Zone to B-Zone
DuPont Necco Park
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - ABvgrad - F5.srf



Contour interval = 1.0 feet

Elevation datum feet AMSL

Note:140A was not used in the contour method.
Well 137A drawdown was very large and therefore not contoured.

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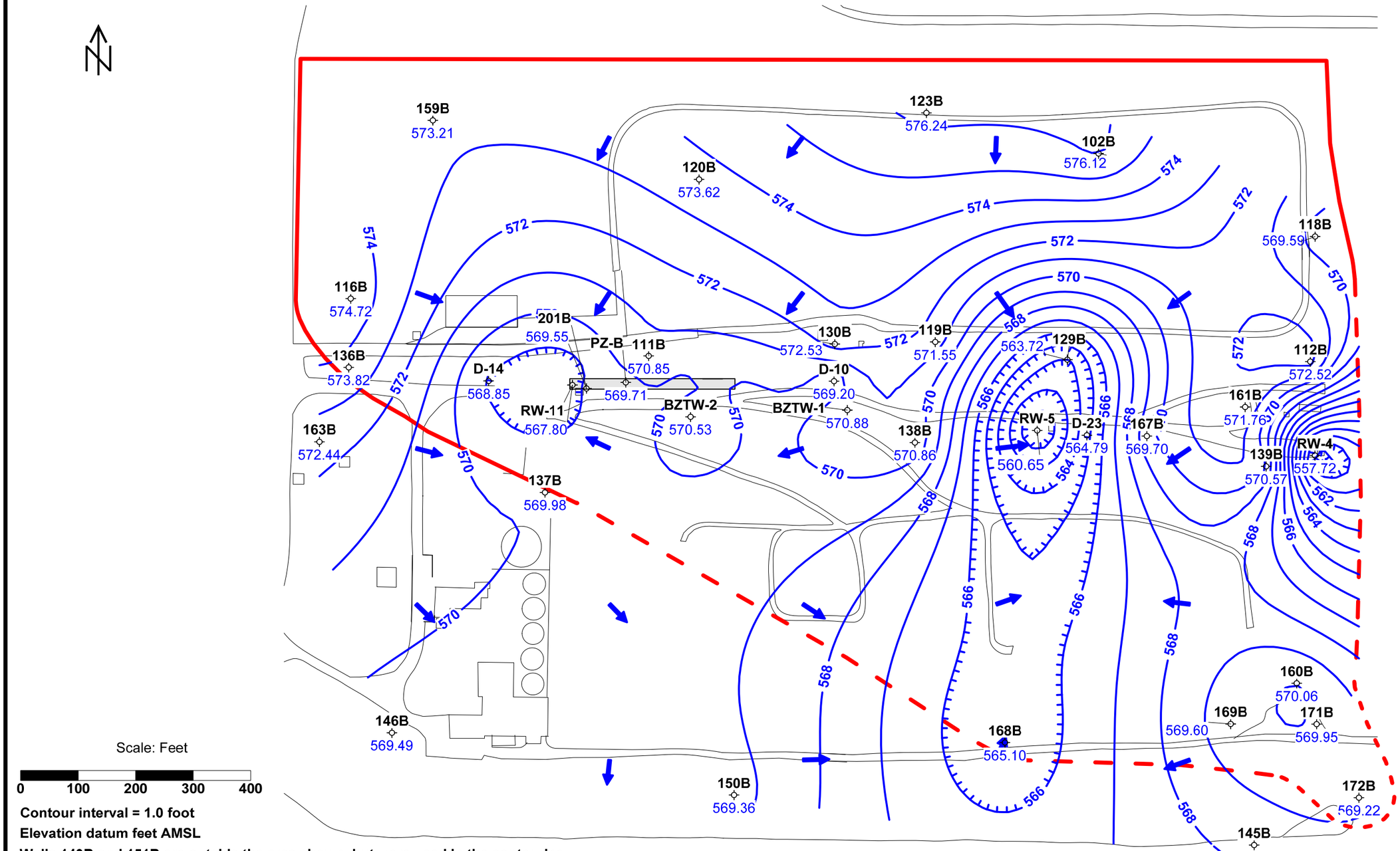
Project Manager: EAF	Date:	10-17-11
Job number: 445230.02022		

LEGEND

- 3B — Well ID
- Monitoring Well
- Potentiometric Contour
- Road
- Source Area Extent
- Structure

Figure 6
Drawdown Contour Map
DuPont Necco Park: A-Zone
April 5, 2005 (Static) to August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - A DD F6.srf



Scale: Feet

0 100 200 300 400

Contour interval = 1.0 foot

Elevation datum feet AMSL

Wells 149B and 151B are outside the area shown, but were used in the contouring.

Wells 170B, TRW-6 and TRW-7 were not used in the contouring.

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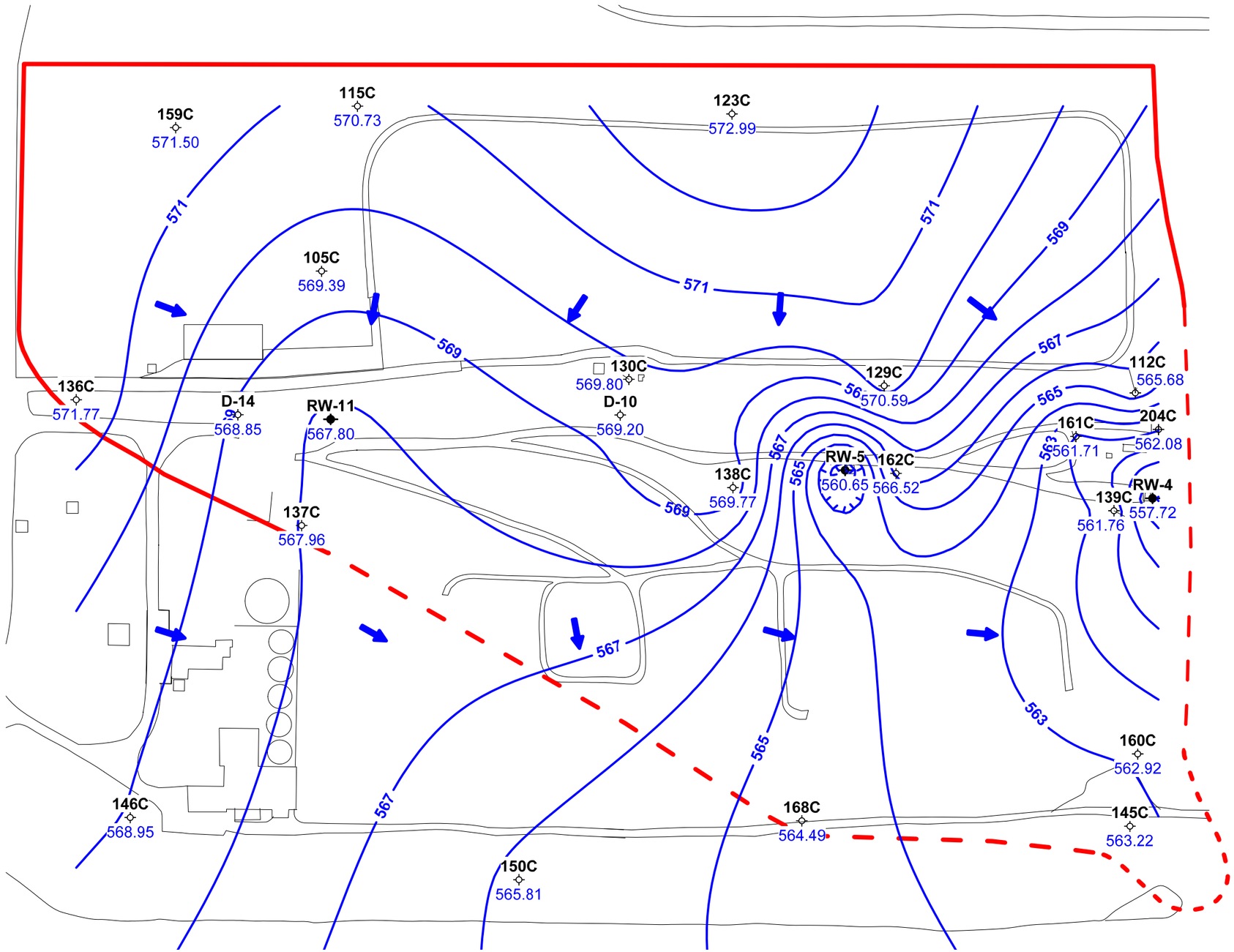
Job number: 445230.05041	

LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road
- Source Area Extent
- Bedrock Fractured Blast Trench

Figure 7
Potentiometric Surface Map
DuPont Necco Park: B-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - PZ B - F7.srf



Scale: Feet

0 100 200 300 400

Contour interval = 1.0 foot

Elevation datum feet AMSL

Well 112C was not used in the contouring due to suspect casing. Inlcuded for qualitative purposes.

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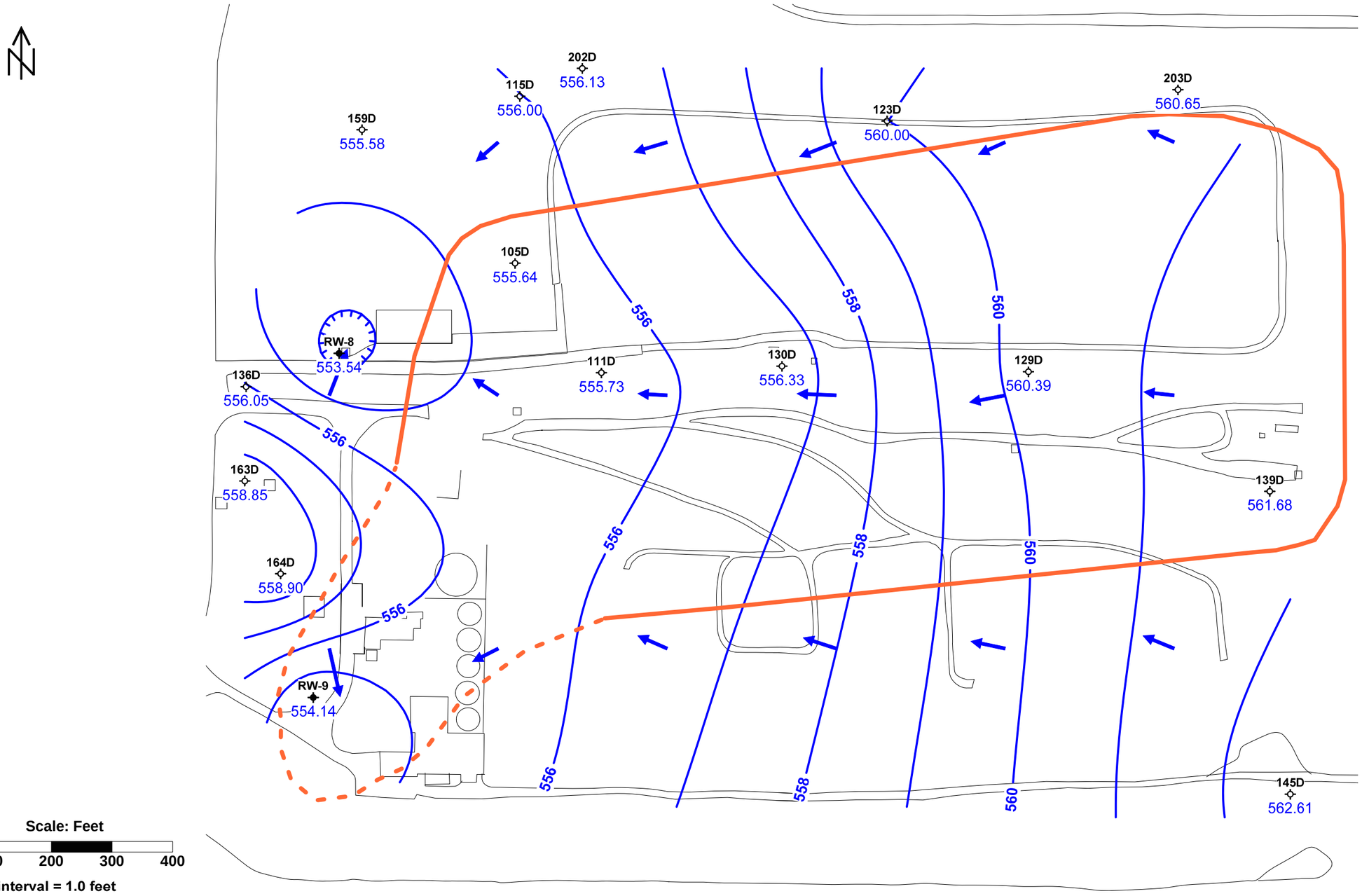
LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road
- Source Area Extent

Figure 8
Potentiometric Surface Map
DuPont Necco Park: C-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - PZ C - F8.srf



Scale: Feet

0 100 200 300 400

Contour interval = 1.0 feet

Elevation datum feet AMSL

Well 149, located outside the map area, was used in the contour interpolation.

Well 137D, 148D, 158D, and 165D, were not used in the interpolation.

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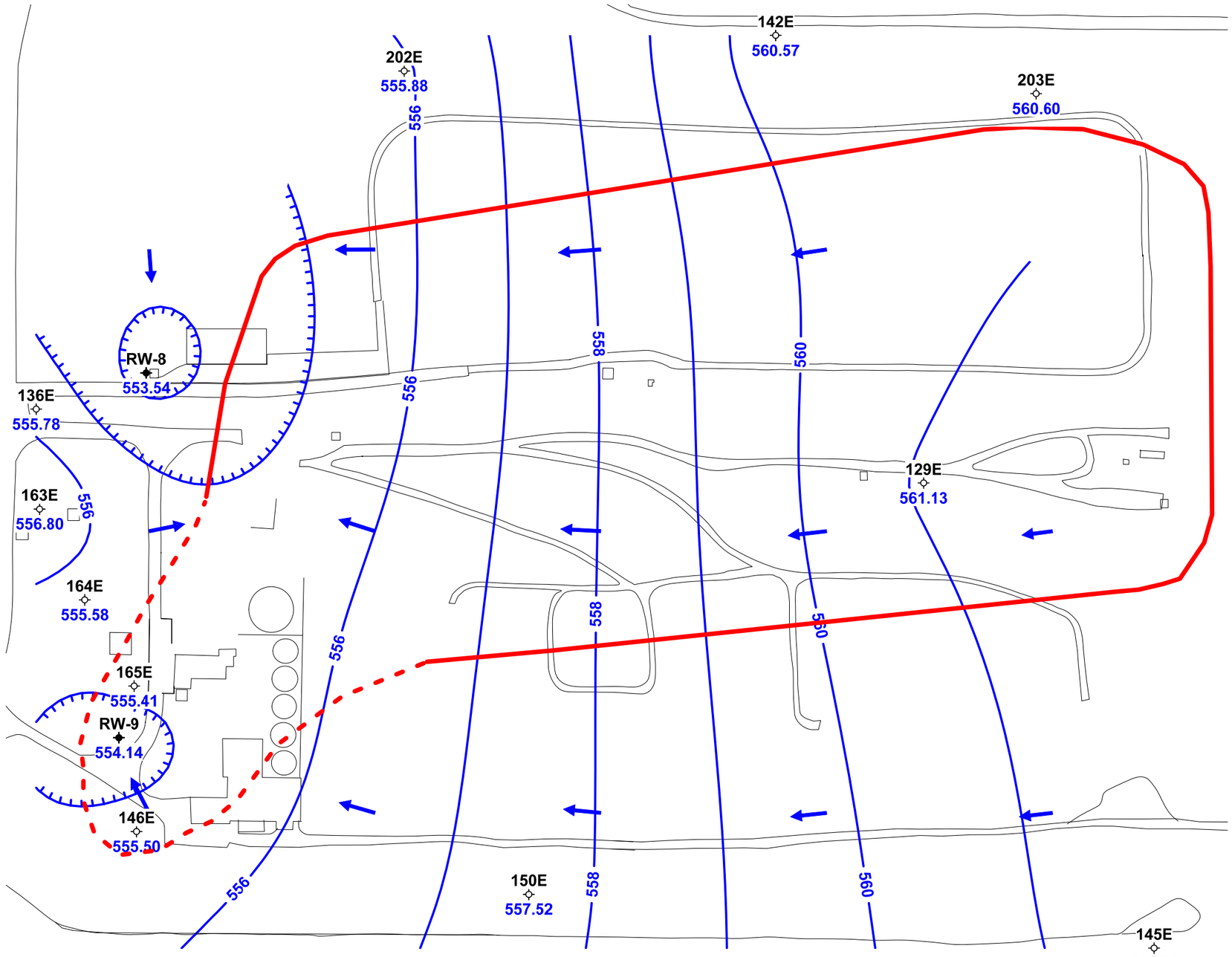
Job number: 445357.02022	

LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road
- Source Area Extent

Figure 9
Potentiometric Surface Map
DuPont Necco Park: D-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool2011-08-31 - PZ D - F9.srf



Scale: Feet

0 100 200 300 400

Contour interval = 0.5 foot

Elevation datum feet AMSL

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Checked by: EAF	Date: 10-20-11
Project Manager:EAF	Date: 10-20-11

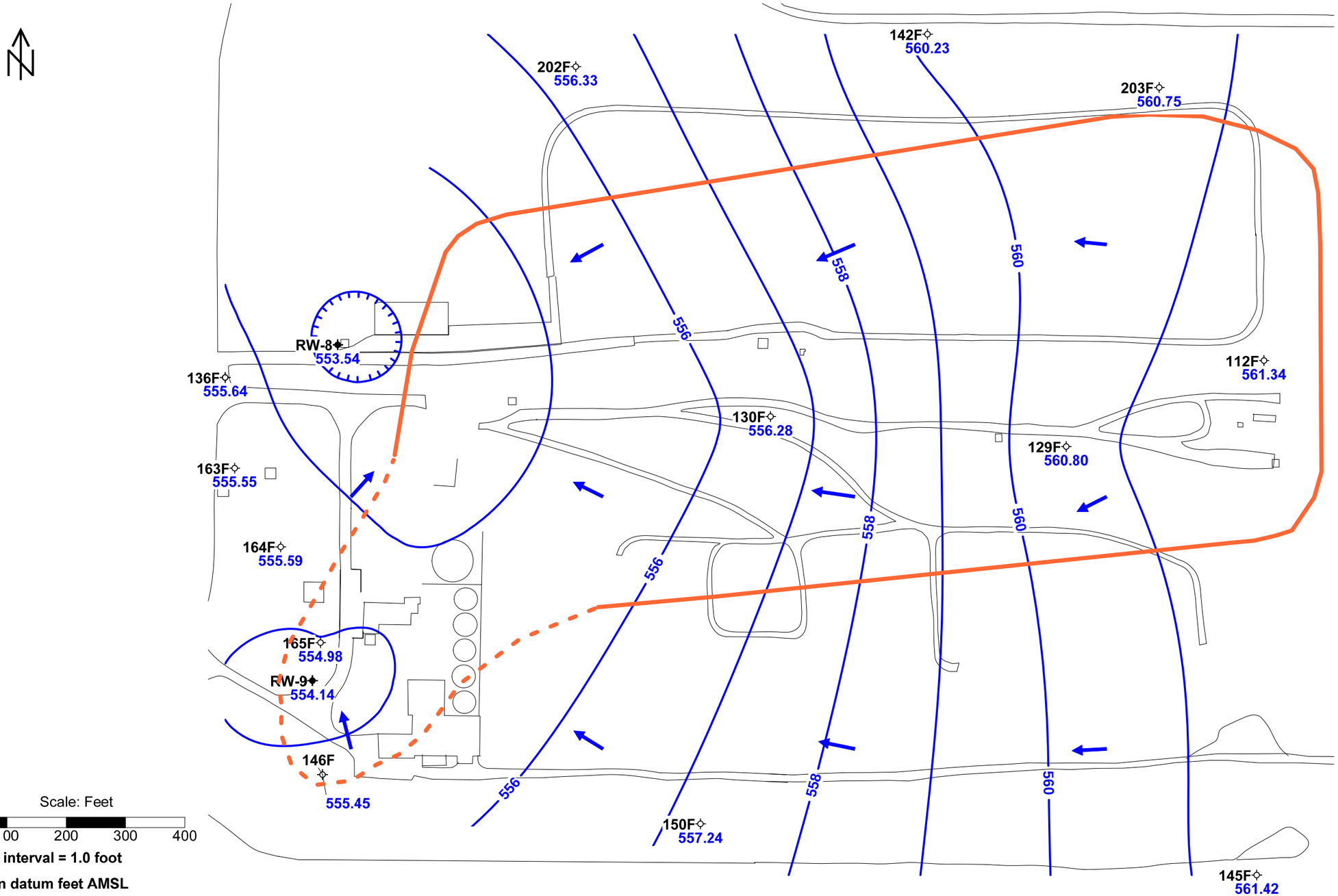
Job number: 445237.02022

LEGEND

3B	Well ID	Potentiometric Contour	Source Area Extent
	Monitoring Well	Structure	
	Pumping Well	Road	

Figure 10
Potentiometric Surface Map
DuPont Necco Park: E-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - PZ E - F10.srf



Scale: Feet

0 100 200 300 400

Contour interval = 1.0 foot

Elevation datum feet AMSL

Wells 123F and 148F were not used in the interpolation

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Created by: JWS	Date: 10-18-11
Checked by: EAF	Date: 10-21-11
Project Manager:EAF	Date: 10-21-11
Job number: 445231.02022	

LEGEND

- 3B — Well ID
- Monitoring Well
- Pumping Well
- Potentiometric Contour
- Structure
- Road
- Source Area Extent

Figure 11
Potentiometric Surface Map
DuPont Necco Park: F-Zone
August 31, 2011

U:/Necco/HydroGeo/Hydro/GW_contours/2011-08-31 NEC Contour Tool/2011-08-31 - PZ F - F11.srf

APPENDIX A

GROUNDWATER ELEVATION DATA
THIRD QUARTER 2011

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
136F	08/31/11	24.69	580.33	555.64	1056	
136G	08/31/11	19.22	579.76	560.54	1055	
136E	08/31/11	23.81	579.59	555.78	1057	
136D	08/31/11	23.63	579.68	556.05	1058	
136C	08/31/11	9.85	581.62	571.77	1059	
136B	08/31/11	7.87	581.69	573.82	1100	
116B	08/31/11	15.33	590.05	574.72	1120	
RW-8	08/31/11	31.98	585.52	553.54	1121	
RDB-5	08/31/11	5.68	578.57	572.89	1104	
BZTW-4	08/31/11	4.95	578.18	573.23	1105	
PZ 200-AT	08/31/11	7.99	586.46	578.47	1228	
PZ 199-AT	08/31/11	6.77	584.92	578.15	1226	
PZ 198-AT	08/31/11	5.68	583.93	578.25	1224	
PZ 197-AT	08/31/11	6.33	584.57	578.24	1222	
PZ 196-AT	08/31/11	7.48	585.71	578.23	1220	
PZ 195-AT	08/31/11	6.57	584.80	578.23	1217	
163A	08/31/11	5.55	578.14	572.59	1117	
163B	08/31/11	5.50	577.94	572.44	1116	
163D	08/31/11	19.97	578.82	558.85	1115	
163E	08/31/11	22.26	579.06	556.80	1114	
163F	08/31/11	23.21	578.76	555.55	1113	
164D	08/31/11	18.52	577.42	558.90	1109	
164E	08/31/11	21.74	577.32	555.58	1110	
164F	08/31/11	21.68	577.27	555.59	1111	
111A	08/31/11	14.52	586.89	572.37	1124	
111B	08/31/11	14.09	584.94	570.85	1125	
111D	08/31/11	28.57	584.30	555.73	1126	
130B	08/31/11	13.10	585.63	572.53	1128	
130C	08/31/11	15.71	585.51	569.80	1129	
130D	08/31/11	28.63	584.96	556.33	1130	
119A	08/31/11	13.13	586.34	573.21	1133	
119AT	08/31/11	13.65	586.62	572.97	1132	
119B	08/31/11	15.22	586.77	571.55	1133	
129A	08/31/11	11.70	584.80	573.10	1140	
129AT	08/31/11	11.76	584.94	573.18	1139	
129B	08/31/11	21.52	585.24	563.72	1138	
129C	08/31/11	15.09	585.68	570.59	1137	
129D	08/31/11	25.64	586.03	560.39	1136	
131A	08/31/11	13.75	585.43	571.68	1142	
112B	08/31/11	9.38	581.90	572.52	1145	
112C	08/31/11	17.25	582.93	565.68	1146	
118B	08/31/11	14.31	583.90	569.59	1154	
117A	08/31/11	6.44	580.52	574.08	1156	
158D	08/31/11	37.64	598.20	560.56	1201	
102B	08/31/11	22.89	599.01	576.12	1203	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
123A	08/31/11	21.83	597.93	576.10	1205	
123B	08/31/11	19.74	595.98	576.24	1207	
123C	08/31/11	22.43	595.42	572.99	1208	
123D	08/31/11	36.51	596.51	560.00	1209	
123F	08/31/11	39.08	598.57	559.49	1206	
120B	08/31/11	25.56	599.18	573.62	1212	
136F	08/31/11	24.68	580.33	555.65	1234	
136G	08/31/11	19.08	579.76	560.68	1235	
RDB-3	08/31/11	4.96	579.31	574.35	1101	
112F	08/31/11	21.95	583.29	561.34	1144	
141G	08/31/11	25.88	582.53	556.65	1158	
175A	08/31/11	12.43	586.81	574.38	1122	
140A	08/31/11	7.02	581.43	574.41	1153	
142E	08/31/11	25.43	586.00	560.57	1219	
142F	08/31/11	25.46	585.69	560.23	1159	
141C	08/31/11	15.21	580.05	564.84	1154	
105C	08/31/11	25.89	595.28	569.39	1215	
105D	08/31/11	39.13	594.77	555.64	1216	
115C	08/31/11	25.20	595.93	570.73	1220	
115D	08/31/11	40.62	596.62	556.00	1221	
143G	08/31/11	34.35	591.34	556.99	1230	
159A	08/31/11	18.73	596.16	577.43	1223	
159B	08/31/11	23.16	596.37	573.21	1224	
159C	08/31/11	25.86	597.36	571.50	1225	
159D	08/31/11	42.09	597.67	555.58	1226	
165D	08/31/11	12.56	577.52	564.96	1131	
165E	08/31/11	22.15	577.56	555.41	1132	
165F	08/31/11	22.74	577.72	554.98	1133	
RW-9	08/31/11	20.99	575.13	554.14	1135	
146AR	08/31/11	7.14	576.92	569.78	1120	
146B	08/31/11	7.41	576.90	569.49	1121	
146C	08/31/11	7.40	576.35	568.95	1122	
146E	08/31/11	20.58	576.08	555.50	1123	
146F	08/31/11	20.59	576.04	555.45	1124	
168A	08/31/11	8.33	578.72	570.39	1113	
168B	08/31/11	13.80	578.90	565.10	1114	
168C	08/31/11	14.72	579.21	564.49	1115	
169B	08/31/11	10.83	580.43	569.60	1100	
170B	08/31/11	12.05	579.10	567.05	1102	
160B	08/31/11	12.69	582.75	570.06	1104	
160C	08/31/11	19.80	582.72	562.92	1105	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
171B	08/31/11	9.59	579.54	569.95	1107	
145C	08/31/11	12.68	575.90	563.22	1109	
145D	08/31/11	13.44	576.05	562.61	1111	
150A	08/31/11	6.91	575.86	568.95	1138	
150B	08/31/11	6.63	575.99	569.36	1139	
150C	08/31/11	10.32	576.13	565.81	1140	
150E	08/31/11	18.63	576.15	557.52	1141	
150F	08/31/11	18.74	575.98	557.24	1142	
145A	08/31/11	6.45	575.84	569.39	1145	
145B	08/31/11	7.25	575.48	568.23	1146	
145E	08/31/11	14.42	575.98	561.56	1147	
145F	08/31/11	14.63	576.05	561.42	1148	
172B	08/31/11	7.73	576.95	569.22	1150	
148D	08/31/11	9.55	579.38	569.83	1156	
148F	08/31/11	21.04	576.21	555.17	1157	
151B	08/31/11	7.19	573.36	566.17	1205	
151C	08/31/11	7.47	573.18	565.71	1206	
149B	08/31/11	4.36	572.87	568.51	1210	
149C	08/31/11	6.17	573.26	567.09	1211	
149D	08/31/11	16.32	572.86	556.54	1212	
PZ-A	08/31/11	9.24	579.06	569.82	1117	
PZ-B	08/31/11	9.76	579.47	569.71	1118	
RW-11*	08/31/11	9.09	578.78	567.80	1116	
TRW-7	08/31/11	7.71	577.89	570.18	1105	
174A	08/31/11	7.08	577.62	570.54	1106	
176A	08/31/11	9.44	580.03	570.59	1113	
179A	08/31/11	8.65	579.01	570.36	1115	
D-11	08/31/11	7.43	578.07	570.64	1119	
BZTW-2	08/31/11	8.85	579.38	570.53	1121	
178A	08/31/11	9.38	579.92	570.54	1120	
173A	08/31/11	9.93	580.71	570.78	1122	
TRW-6	08/31/11	9.48	580.21	570.73	1123	
184AT	08/31/11	9.35	579.69	570.34	1124	
184A	08/31/11		579.88			could not access wasp in well
130G	08/31/11	23.63	580.79	557.16	1125	
130F	08/31/11	25.21	581.49	556.28	1126	
D-10	08/31/11	10.82	580.02	569.20	1128	
D-9	08/31/11	8.62	580.15	571.53	1127	
BZTW-1	08/31/11	8.79	579.67	570.88	1129	
185AT	08/31/11	10.38	580.69	570.31	1131	
185A	08/31/11	10.14	580.84	570.70	1130	
186AT	08/31/11	9.88	580.10	570.22	1135	
186A	08/31/11	12.33	579.76	567.43	1134	
138C	08/31/11	17.29	587.06	569.77	1133	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
138B	08/31/11	13.12	583.98	570.86	1132	
187AT	08/31/11	8.89	579.30	570.41	1135	
187A	08/31/11		579.94			could not access wasp in well
188AT	08/31/11	9.86	580.59	570.73	1136	
188A	08/31/11	16.18	580.91	564.73	1137	
53	08/31/11	12.68	578.20	565.52	1139	
180AT	08/31/11	8.60	579.47	570.87	1211	
189AT	08/31/11	9.64	580.40	570.76	1143	
189A	08/31/11	13.25	579.82	566.57	1142	
RW-5*	08/31/11	14.31	578.88	560.65	1138	
162C	08/31/11	14.48	581.00	566.52	1140	
129F	08/31/11	20.56	581.36	560.80	1145	
129E	08/31/11	19.75	580.88	561.13	1144	
D-23	08/31/11	15.76	580.55	564.79	1141	
190AT	08/31/11	10.20	580.92	570.72	1147	
190A	08/31/11	12.76	580.58	567.82	1146	
167B	08/31/11	11.23	580.93	569.70	1148	
191AT	08/31/11	10.29	581.06	570.77	1150	
191A	08/31/11	9.82	580.62	570.80	1149	
192AT	08/31/11	13.79	584.46	570.67	1153	
192A	08/31/11	13.26	584.08	570.82	1152	
194AT	08/31/11	11.63	584.93	573.30	1159	
194A	08/31/11	13.46	584.35	570.89	1158	
161C	08/31/11	20.93	582.64	561.71	1202	
161B	08/31/11	11.08	582.84	571.76	1203	
193AT	08/31/11	8.68	583.09	574.41	1200	
193A	08/31/11		584.13			could not access wasp in well
139D	08/31/11	23.81	585.49	561.68	1156	
139C	08/31/11	23.51	585.27	561.76	1155	
139B	08/31/11	14.82	585.39	570.57	1154	
139A	08/31/11	13.91	585.14	571.23	1151	
RW-4	08/31/11	23.80	581.52	557.72	1157	
D-13	08/31/11	7.21	579.07	571.86	1104	
D-14	08/31/11	10.16	579.01	568.85	1103	
137A	08/31/11	12.63	578.47	565.84	1111	
137B	08/31/11	8.33	578.31	569.98	1109	
137C	08/31/11	10.43	578.39	567.96	1108	
137D	08/31/11	12.91	579.09	566.18	1110	
201B	08/31/11	9.70	579.25	569.55	1114	
202D	08/31/11	36.60	592.73	556.13	1218	
202E	08/31/11	36.85	592.73	555.88	1219	
202F	08/31/11	36.40	592.73	556.33	1220	
203D	08/31/11	33.20	593.85	560.65	1223	
203E	08/31/11	33.25	593.85	560.60	1224	
203F	08/31/11	33.10	593.85	560.75	1225	
204C	08/31/11	19.69	581.77	562.08	1201	

* RW-11 and RW-5 water elevations were read from well probe, due to short pump outage.

APPENDIX B

GWTF PROCESS SAMPLING RESULTS
THIRD QUARTER 2011

APPENDIX B
Summary of Analytical Results

LabAnalyte	Location Date Units	BC-INFLUENT 8/31/11 FS	DEF-INFLUENT 8/31/11 FS	COMB-EFFLUENT 8/31/11 FS	FILTER-BLK 8/31/11 FS	TBLK 8/31/11 TB
Field Parameters						
COLOR QUALITATIVE (FIELD)	NS	grey/blue	grey	grey/blue	NS	NS
ODOR (FIELD)	NS	moderate	moderate	slight	NS	NS
PH (FIELD)	STD UNITS	5.45	6.92	7.37	NS	NS
REDOX (FIELD)	MV	-95	-210	-61	NS	NS
SPECIFIC CONDUCTANCE (FIELD)	UMHOS/CM	12260	4172	6558	NS	NS
TEMPERATURE (FIELD)	DEGREES C	16.2	13.5	17.5	NS	NS
TURBIDITY QUANTITATIVE (FIELD)	NTU	179	51.9	84.5	NS	NS
Volatile Organics						
1,1,2,2-TETRACHLOROETHANE	UG/L	4300	1500	980	NS	<0.18
1,1,2-TRICHLOROETHANE	UG/L	4600	2400	560	NS	<0.27
1,1-DICHLOROETHENE	UG/L	380	300	<0.76	NS	<0.19
1,2-DICHLOROETHANE	UG/L	680	180	32	NS	<0.22
CARBON TETRACHLORIDE	UG/L	1500	1200	2.1 J	NS	<0.13
CHLOROFORM	UG/L	24000	4100	140	NS	<0.16
CIS-1,2-DICHLOROETHENE	UG/L	6600	11000	140	NS	<0.17
METHYLENE CHLORIDE	UG/L	3000	5100	140	NS	<0.33
TETRACHLOROETHENE	UG/L	5300	1300	34	NS	<0.29
TRANS-1,2-DICHLOROETHENE	UG/L	410	640	1.9 J	NS	<0.19
TRICHLOROETHENE	UG/L	17000	6400	43	NS	<0.17
VINYL CHLORIDE	UG/L	1300	2500	<0.88	NS	<0.22
Other Organics						
2,4,5-TRICHLOROPHENOL	UG/L	40 J	360	290 J	NS	NS
2,4,6-TRICHLOROPHENOL	UG/L	15 J	180	130 J	NS	NS
3-METHYLPHENOL & 4-METHYLPHENOL	UG/L	41 J	14 J	<14	NS	NS
HEXACHLOROBENZENE	UG/L	5.4 J	<1.2	<1.9	NS	NS
HEXACHLOROBUTADIENE	UG/L	580	32 J	640 J	NS	NS
HEXACHLOROETHANE	UG/L	<15	11 J	45 J	NS	NS
PENTACHLOROPHENOL	UG/L	78 J	210 J	280 J	NS	NS
PHENOL	UG/L	290	44 J	120 J	NS	NS
TIC 1	UG/L	1400 J	890 J	1500 J	NS	NS
Inorganics						
BARIUM, DISSOLVED	UG/L	77000	73 J	290	NS	NS
BARIUM, TOTAL	UG/L	230000	60 J	29000	<0.67	NS
SULFATE	UG/L	3500	770000	420000	NS	NS
CYANIDE, TOTAL	UG/L	4200	42	830	NS	NS

< and ND = Non detect at stated reporting limit

ATTACHMENT 1

NECCO PARK
3Q11 WATER LEVELS

(ELECTRONIC FORMAT ONLY)

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
136F	08/31/11	24.69	580.33	555.64	1056	
136G	08/31/11	19.22	579.76	560.54	1055	
136E	08/31/11	23.81	579.59	555.78	1057	
136D	08/31/11	23.63	579.68	556.05	1058	
136C	08/31/11	9.85	581.62	571.77	1059	
136B	08/31/11	7.87	581.69	573.82	1100	
116B	08/31/11	15.33	590.05	574.72	1120	
RW-8	08/31/11	31.98	585.52	553.54	1121	
RDB-5	08/31/11	5.68	578.57	572.89	1104	
BZTW-4	08/31/11	4.95	578.18	573.23	1105	
PZ 200-AT	08/31/11	7.99	586.46	578.47	1228	
PZ 199-AT	08/31/11	6.77	584.92	578.15	1226	
PZ 198-AT	08/31/11	5.68	583.93	578.25	1224	
PZ 197-AT	08/31/11	6.33	584.57	578.24	1222	
PZ 196-AT	08/31/11	7.48	585.71	578.23	1220	
PZ 195-AT	08/31/11	6.57	584.80	578.23	1217	
163A	08/31/11	5.55	578.14	572.59	1117	
163B	08/31/11	5.50	577.94	572.44	1116	
163D	08/31/11	19.97	578.82	558.85	1115	
163E	08/31/11	22.26	579.06	556.80	1114	
163F	08/31/11	23.21	578.76	555.55	1113	
164D	08/31/11	18.52	577.42	558.90	1109	
164E	08/31/11	21.74	577.32	555.58	1110	
164F	08/31/11	21.68	577.27	555.59	1111	
111A	08/31/11	14.52	586.89	572.37	1124	
111B	08/31/11	14.09	584.94	570.85	1125	
111D	08/31/11	28.57	584.30	555.73	1126	
130B	08/31/11	13.10	585.63	572.53	1128	
130C	08/31/11	15.71	585.51	569.80	1129	
130D	08/31/11	28.63	584.96	556.33	1130	
119A	08/31/11	13.13	586.34	573.21	1133	
119AT	08/31/11	13.65	586.62	572.97	1132	
119B	08/31/11	15.22	586.77	571.55	1133	
129A	08/31/11	11.70	584.80	573.10	1140	
129AT	08/31/11	11.76	584.94	573.18	1139	
129B	08/31/11	21.52	585.24	563.72	1138	
129C	08/31/11	15.09	585.68	570.59	1137	
129D	08/31/11	25.64	586.03	560.39	1136	
131A	08/31/11	13.75	585.43	571.68	1142	
112B	08/31/11	9.38	581.90	572.52	1145	
112C	08/31/11	17.25	582.93	565.68	1146	
118B	08/31/11	14.31	583.90	569.59	1154	
117A	08/31/11	6.44	580.52	574.08	1156	
158D	08/31/11	37.64	598.20	560.56	1201	
102B	08/31/11	22.89	599.01	576.12	1203	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
123A	08/31/11	21.83	597.93	576.10	1205	
123B	08/31/11	19.74	595.98	576.24	1207	
123C	08/31/11	22.43	595.42	572.99	1208	
123D	08/31/11	36.51	596.51	560.00	1209	
123F	08/31/11	39.08	598.57	559.49	1206	
120B	08/31/11	25.56	599.18	573.62	1212	
136F	08/31/11	24.68	580.33	555.65	1234	
136G	08/31/11	19.08	579.76	560.68	1235	
RDB-3	08/31/11	4.96	579.31	574.35	1101	
112F	08/31/11	21.95	583.29	561.34	1144	
141G	08/31/11	25.88	582.53	556.65	1158	
175A	08/31/11	12.43	586.81	574.38	1122	
140A	08/31/11	7.02	581.43	574.41	1153	
142E	08/31/11	25.43	586.00	560.57	1219	
142F	08/31/11	25.46	585.69	560.23	1159	
141C	08/31/11	15.21	580.05	564.84	1154	
105C	08/31/11	25.89	595.28	569.39	1215	
105D	08/31/11	39.13	594.77	555.64	1216	
115C	08/31/11	25.20	595.93	570.73	1220	
115D	08/31/11	40.62	596.62	556.00	1221	
143G	08/31/11	34.35	591.34	556.99	1230	
159A	08/31/11	18.73	596.16	577.43	1223	
159B	08/31/11	23.16	596.37	573.21	1224	
159C	08/31/11	25.86	597.36	571.50	1225	
159D	08/31/11	42.09	597.67	555.58	1226	
165D	08/31/11	12.56	577.52	564.96	1131	
165E	08/31/11	22.15	577.56	555.41	1132	
165F	08/31/11	22.74	577.72	554.98	1133	
RW-9	08/31/11	20.99	575.13	554.14	1135	
146AR	08/31/11	7.14	576.92	569.78	1120	
146B	08/31/11	7.41	576.90	569.49	1121	
146C	08/31/11	7.40	576.35	568.95	1122	
146E	08/31/11	20.58	576.08	555.50	1123	
146F	08/31/11	20.59	576.04	555.45	1124	
168A	08/31/11	8.33	578.72	570.39	1113	
168B	08/31/11	13.80	578.90	565.10	1114	
168C	08/31/11	14.72	579.21	564.49	1115	
169B	08/31/11	10.83	580.43	569.60	1100	
170B	08/31/11	12.05	579.10	567.05	1102	
160B	08/31/11	12.69	582.75	570.06	1104	
160C	08/31/11	19.80	582.72	562.92	1105	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
171B	08/31/11	9.59	579.54	569.95	1107	
145C	08/31/11	12.68	575.90	563.22	1109	
145D	08/31/11	13.44	576.05	562.61	1111	
150A	08/31/11	6.91	575.86	568.95	1138	
150B	08/31/11	6.63	575.99	569.36	1139	
150C	08/31/11	10.32	576.13	565.81	1140	
150E	08/31/11	18.63	576.15	557.52	1141	
150F	08/31/11	18.74	575.98	557.24	1142	
145A	08/31/11	6.45	575.84	569.39	1145	
145B	08/31/11	7.25	575.48	568.23	1146	
145E	08/31/11	14.42	575.98	561.56	1147	
145F	08/31/11	14.63	576.05	561.42	1148	
172B	08/31/11	7.73	576.95	569.22	1150	
148D	08/31/11	9.55	579.38	569.83	1156	
148F	08/31/11	21.04	576.21	555.17	1157	
151B	08/31/11	7.19	573.36	566.17	1205	
151C	08/31/11	7.47	573.18	565.71	1206	
149B	08/31/11	4.36	572.87	568.51	1210	
149C	08/31/11	6.17	573.26	567.09	1211	
149D	08/31/11	16.32	572.86	556.54	1212	
PZ-A	08/31/11	9.24	579.06	569.82	1117	
PZ-B	08/31/11	9.76	579.47	569.71	1118	
RW-11*	08/31/11	9.09	578.78	567.80	1116	
TRW-7	08/31/11	7.71	577.89	570.18	1105	
174A	08/31/11	7.08	577.62	570.54	1106	
176A	08/31/11	9.44	580.03	570.59	1113	
179A	08/31/11	8.65	579.01	570.36	1115	
D-11	08/31/11	7.43	578.07	570.64	1119	
BZTW-2	08/31/11	8.85	579.38	570.53	1121	
178A	08/31/11	9.38	579.92	570.54	1120	
173A	08/31/11	9.93	580.71	570.78	1122	
TRW-6	08/31/11	9.48	580.21	570.73	1123	
184AT	08/31/11	9.35	579.69	570.34	1124	
184A	08/31/11		579.88			could not access wasp in well
130G	08/31/11	23.63	580.79	557.16	1125	
130F	08/31/11	25.21	581.49	556.28	1126	
D-10	08/31/11	10.82	580.02	569.20	1128	
D-9	08/31/11	8.62	580.15	571.53	1127	
BZTW-1	08/31/11	8.79	579.67	570.88	1129	
185AT	08/31/11	10.38	580.69	570.31	1131	
185A	08/31/11	10.14	580.84	570.70	1130	
186AT	08/31/11	9.88	580.10	570.22	1135	
186A	08/31/11	12.33	579.76	567.43	1134	
138C	08/31/11	17.29	587.06	569.77	1133	

APPENDIX A
NECCO PARK WATERLEVELS

SAMPLE POINT	DATE	DEPTH TO WATER	CASING ELEVATION	GW ELEVATION	TIME	Comments
138B	08/31/11	13.12	583.98	570.86	1132	
187AT	08/31/11	8.89	579.30	570.41	1135	
187A	08/31/11		579.94			could not access wasp in well
188AT	08/31/11	9.86	580.59	570.73	1136	
188A	08/31/11	16.18	580.91	564.73	1137	
53	08/31/11	12.68	578.20	565.52	1139	
180AT	08/31/11	8.60	579.47	570.87	1211	
189AT	08/31/11	9.64	580.40	570.76	1143	
189A	08/31/11	13.25	579.82	566.57	1142	
RW-5*	08/31/11	14.31	578.88	560.65	1138	
162C	08/31/11	14.48	581.00	566.52	1140	
129F	08/31/11	20.56	581.36	560.80	1145	
129E	08/31/11	19.75	580.88	561.13	1144	
D-23	08/31/11	15.76	580.55	564.79	1141	
190AT	08/31/11	10.20	580.92	570.72	1147	
190A	08/31/11	12.76	580.58	567.82	1146	
167B	08/31/11	11.23	580.93	569.70	1148	
191AT	08/31/11	10.29	581.06	570.77	1150	
191A	08/31/11	9.82	580.62	570.80	1149	
192AT	08/31/11	13.79	584.46	570.67	1153	
192A	08/31/11	13.26	584.08	570.82	1152	
194AT	08/31/11	11.63	584.93	573.30	1159	
194A	08/31/11	13.46	584.35	570.89	1158	
161C	08/31/11	20.93	582.64	561.71	1202	
161B	08/31/11	11.08	582.84	571.76	1203	
193AT	08/31/11	8.68	583.09	574.41	1200	
193A	08/31/11		584.13			could not access wasp in well
139D	08/31/11	23.81	585.49	561.68	1156	
139C	08/31/11	23.51	585.27	561.76	1155	
139B	08/31/11	14.82	585.39	570.57	1154	
139A	08/31/11	13.91	585.14	571.23	1151	
RW-4	08/31/11	23.80	581.52	557.72	1157	
D-13	08/31/11	7.21	579.07	571.86	1104	
D-14	08/31/11	10.16	579.01	568.85	1103	
137A	08/31/11	12.63	578.47	565.84	1111	
137B	08/31/11	8.33	578.31	569.98	1109	
137C	08/31/11	10.43	578.39	567.96	1108	
137D	08/31/11	12.91	579.09	566.18	1110	
201B	08/31/11	9.70	579.25	569.55	1114	
202D	08/31/11	36.60	592.73	556.13	1218	
202E	08/31/11	36.85	592.73	555.88	1219	
202F	08/31/11	36.40	592.73	556.33	1220	
203D	08/31/11	33.20	593.85	560.65	1223	
203E	08/31/11	33.25	593.85	560.60	1224	
203F	08/31/11	33.10	593.85	560.75	1225	
204C	08/31/11	19.69	581.77	562.08	1201	

* RW-11 and RW-5 water elevations were read from well probe, due to short pump outage.