



DuPont Corporate Remediation Group  
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Niagara Falls, NY 14302  
(716) 278-5100

November 6, 2006

Ms. Gloria Sosa  
Western New York Remediation Section  
New York Remediation Branch  
Emergency and Remediation Response Division  
U.S. EPA – Region II  
290 Broadway, 20<sup>th</sup> Floor  
New York, NY 10007-1866

Dear Ms. Sosa:

**NECCO PARK THIRD QUARTER 2006 DATA PACKAGE**

Enclosed are three copies of the *Third Quarter (3Q06) Data Package* for the DuPont Necco Park Hydraulic Control System (HCS) in accordance with the approved Long Term Groundwater Monitoring Plan. The data package includes an operational summary, potentiometric surface contour maps, and DNAPL removal summary for the third quarter 2006 (3Q06). This report also provides a summary of the well rehabilitation efforts to improve yield from recovery well RW-10 and the installation of two D/E/F-Zone piezometer pairs on the landfill to enhance hydraulic monitoring. This work was completed per the recommendations of the 2005 Annual Report.

Pumping system uptime for 3Q06 was 87.4 percent. Total volume of groundwater treated was 3,181,365 gallons. Approximately 28 gallons of DNAPL was removed in 3Q06.

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/mac

Enc.

T:\\\\7537 Long Term GW Mon\\Reports\\Quarterly Data Packets\\2006\\3Q06\\necco 3Q06 data pkg cvr ltr.doc

cc: J. Kaczor/Earth Tech  
M. Hinton/NYSDEC  
G. Shanahan/NYSDEC

# SOURCE AREA HYDRAULIC CONTROL SYSTEM THIRD QUARTER 2006 GROUNDWATER MONITORING DATA PACKAGE DUPONT NECCO PARK

Date: November 6, 2006

DuPont Project No: 7537  
URS Project No: 18984677



CORPORATE REMEDIATION GROUP

*An Alliance between  
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Barley Mill Plaza, Building 27  
Wilmington, Delaware 19805

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## APPENDICES

- Appendix A Groundwater Elevation Data – Third Quarter 2006  
Appendix B GWTF Process Sampling Results– Third Quarter 2006  
Appendix C 2006 Recovery Well Sampling Results

## **1.0 DATA PACKAGE SUMMARY**

This data package presents a summary of operating and monitoring data collected during the third quarter of 2006 (3Q06) for groundwater remediation measures at the DuPont Necco Park Site (Necco Park) in Niagara Falls, New York. Submission of this data package summary meets reporting requirements defined in the Long Term Groundwater Monitoring Plan (LTGMP) and the Sampling, Analysis, and Monitoring Plan (SAMP).

This data packet is the sixth issued subsequent to the 2005 start-up of the Necco Park Hydraulic Control System (HCS) and includes a summary of operations for the pumping wells and Groundwater Treatment Facility (GWTF). Included are figures depicting monthly groundwater elevation contours for seven groundwater flow zones, groundwater elevation data (Appendix A), quarterly process system analytical sample results (Appendix B), and annual recovery well sampling results (Appendix C). This data package includes a summary of well rehabilitation efforts to improve the yield of recovery well RW-10 and the installation of two D/E/F piezometers pairs on the landfill.

Groundwater elevation data collected during 3Q06 indicate that inward hydraulic gradients are developed in AT through F zones while the HCS is operating, thereby decreasing the potential of off-site groundwater flow.

### **1.1 Operational Summary**

	HCS Uptime (%)	Groundwater Treated (Gallons)	DNAPL Removed (Gallons)
July	96.6	1,061,068	16
August	82.6	1,132,079	0
September	86.9	988,218	12
<b>3Q06 Total</b>	<b>87.4</b>	<b>3,181,365</b>	<b>28</b>

Individual extraction well downtime greater than 24 hours was limited to B/C-Zone extraction wells RW-4 and RW-10 in August. Well RW-4 was not operating from August 1<sup>st</sup> to August 18<sup>th</sup> due to level probe issues. Well RW-10 was not operational from August 1<sup>st</sup> to August 7<sup>th</sup> to complete the well rehabilitation. All DNAPL removed in 3Q06 was derived from pumping well RW-5.

### **1.2 GWTF Process Sampling**

In accordance with the SAMP, groundwater influent samples (B/C and D/E/F-Zone) and a combined effluent sample were collected in 3Q06. The first annual samples from the recovery wells were also collected in 3Q06. The samples were collected by STL Laboratories of Amherst, New York on August 22, 2006 and shipped to STL Laboratories in North Canton, Ohio for analysis. Sample results for the process and recovery well sampling is provided in Appendix B and Appendix C, respectively.

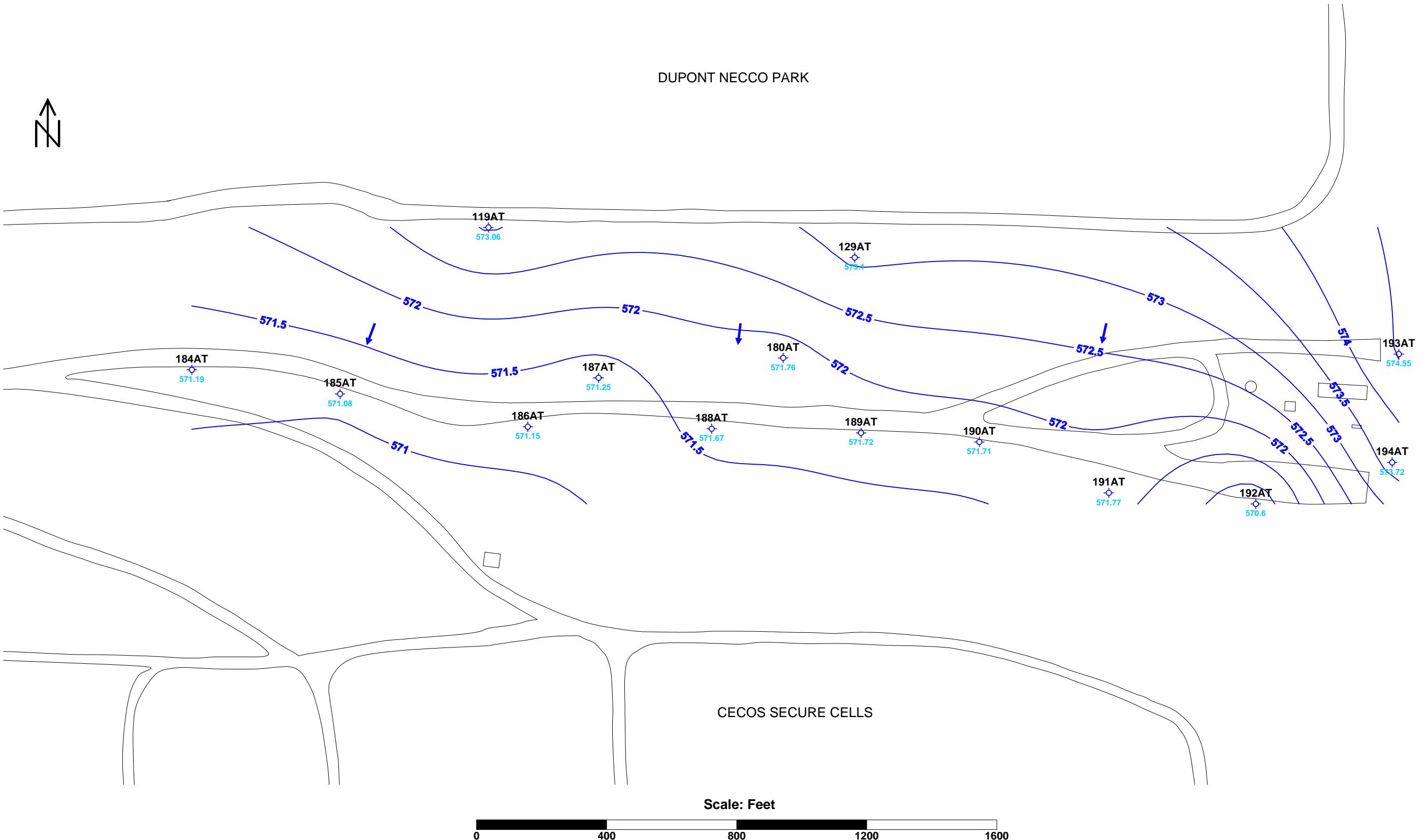
### **1.3 Additional Activities**

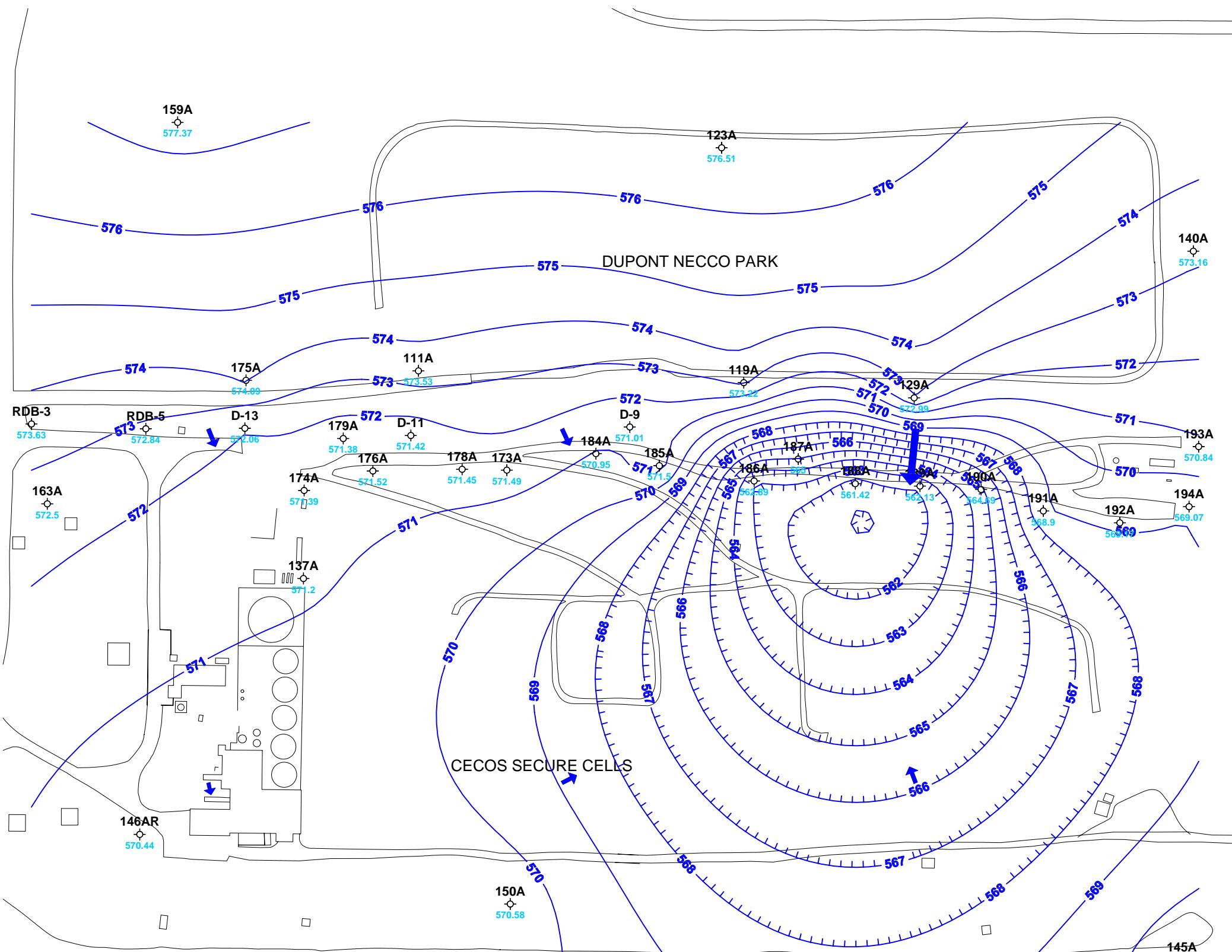
During the week ending August 4, 2006, rehabilitation of RW-10 was conducted. Both physical (surging) and chemical (sulfuric acid) methods were used in an attempt to increase yield from the recovery well. In addition to the rehabilitation of RW-10, seven new piezometers were drilled and installed at the site: 201B, 202D, 202E, 202F, 203D, 203E and 203F. The 202 and 203 piezometers were completed using the Solinst's continuous molded tubing (CMT) well casing with three channels in one borehole.

Groundwater pieziometric contour coverage was improved with the installation of the new piezometers and with the inclusion of three additional existing wells: 145A, 142D and 142F. The E-Zone map includes data collected from existing and new E-Zone piezometers (202E and 203E) on September 26, 2006. For comparison purposes, the D-Zone and F-Zone maps include August 22, 2006, elevation data from existing piezometers and September 26, 2006, elevation data from the new piezometers. All 4Q06 D-Zone, E-Zone and F-Zone maps will use same day elevation data.

A complete discussion of the rehabilitation efforts at RW-10 and the installation of new piezometers will be presented in the 2006 Annual Report.

## **FIGURES**





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3B

Well ID



Monitoring Well



Pumping Well

### LEGEND



Potentiometric Contour

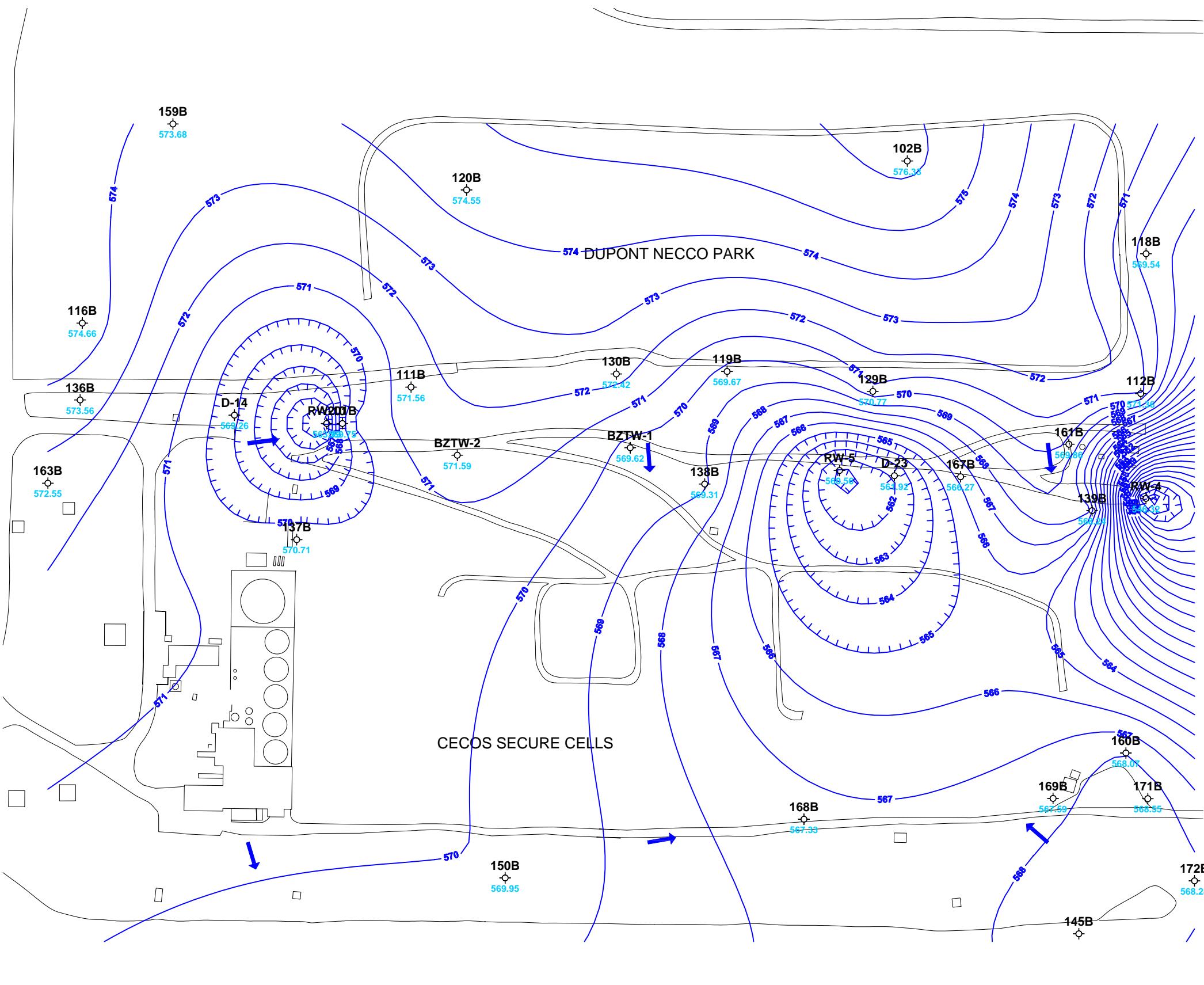


Structure



Road

Figure 2  
Potentiometric Surface Map  
DuPont Necco Park: A-Zone  
August 22, 2006



Scale: Feet

0 400 800 1200 1600



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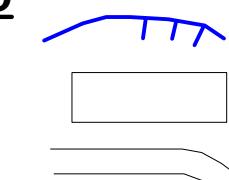
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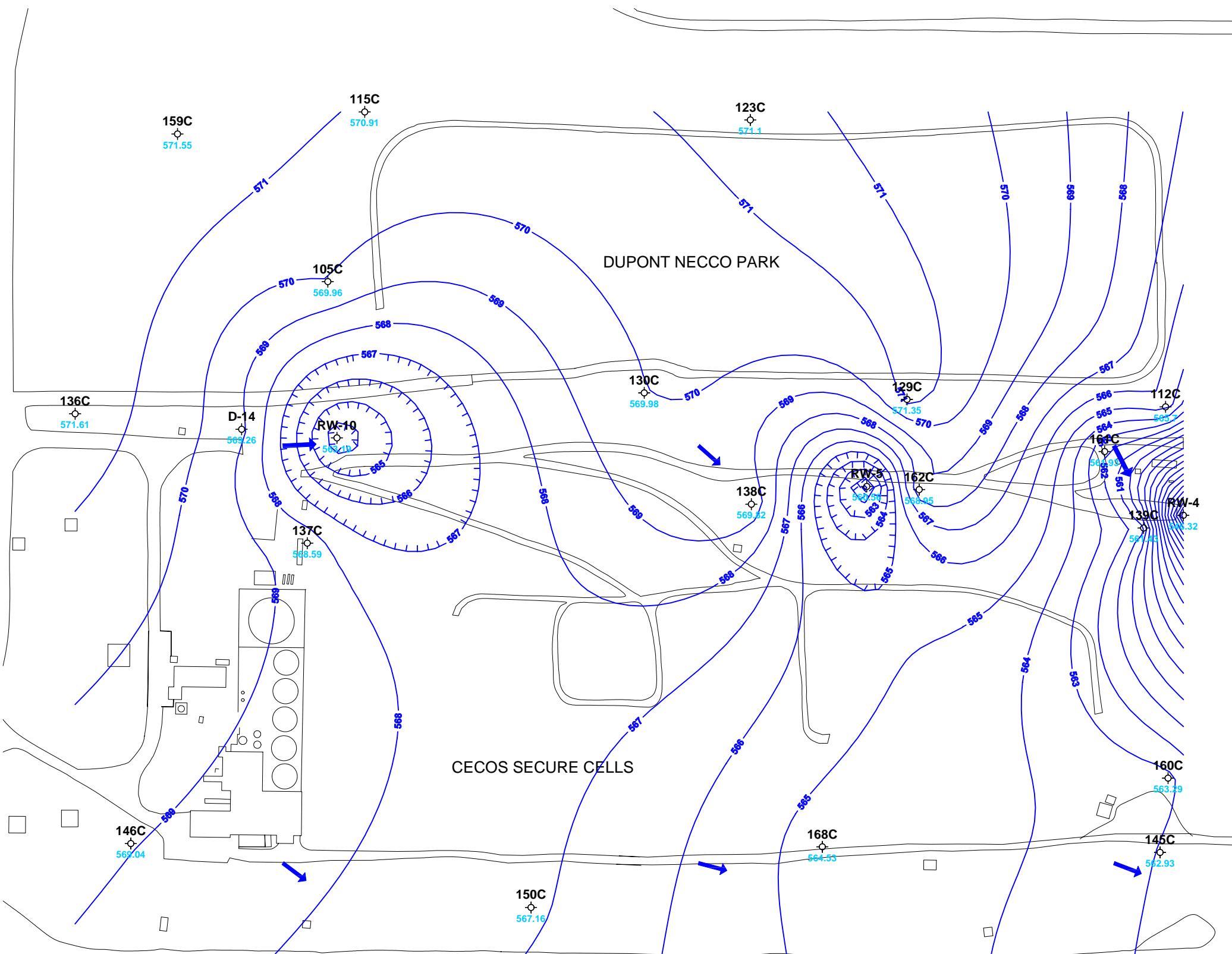
- 3B Well ID
- Monitoring Well
- Pumping Well

### LEGEND



- Potentiometric Contour
- Structure
- Road

Figure 3  
Potentiometric Surface Map  
DuPont Necco Park: B-Zone  
August 22, 2006



Scale: Feet



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3B

Well ID



Monitoring Well



Pumping Well

### LEGEND



Potentiometric Contour

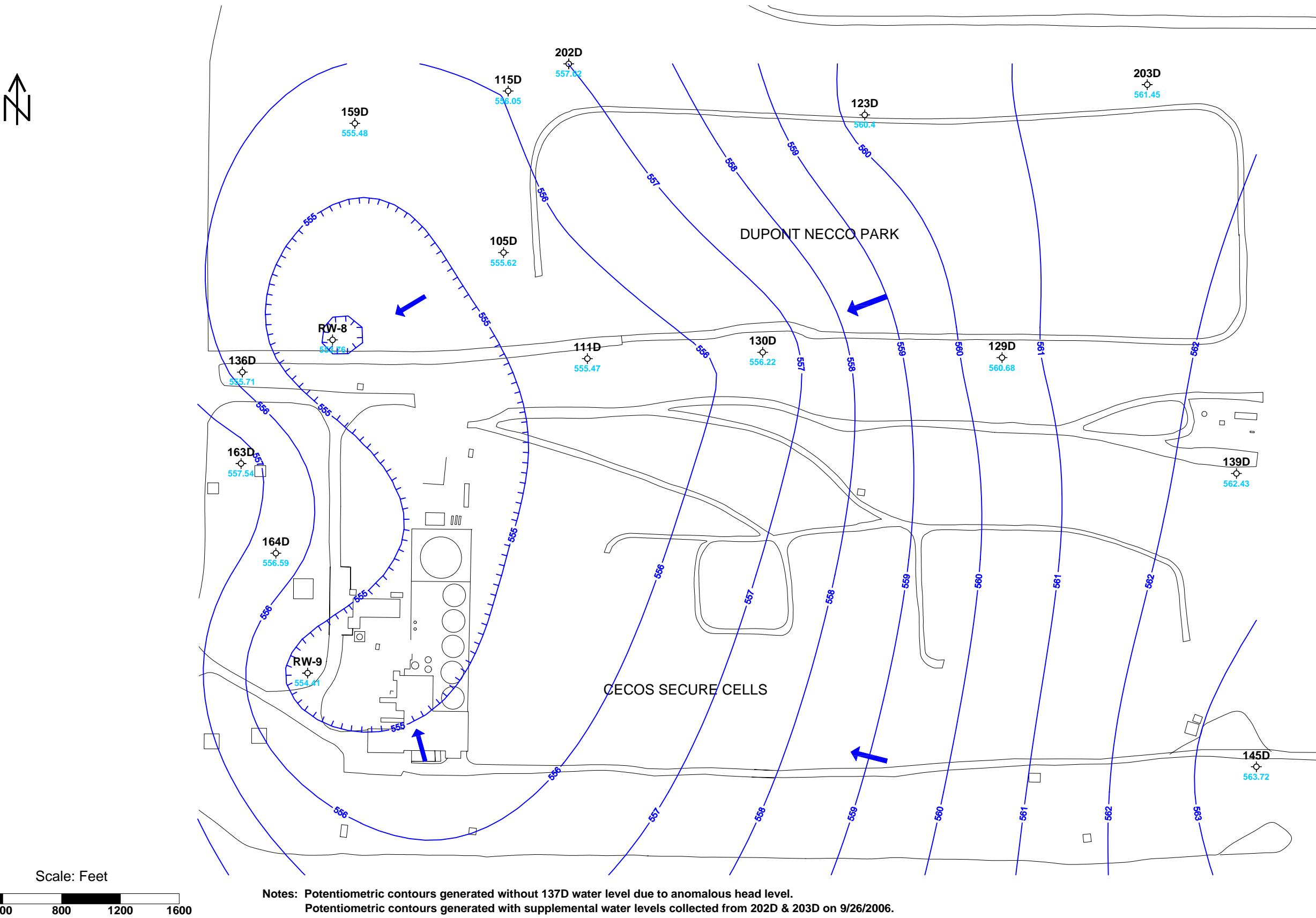


Structure



Road

**Figure 4**  
**Potentiometric Surface Map**  
**DuPont Necco Park: C-Zone**  
**August 22, 2006**



## **Corporate Remediation Group**

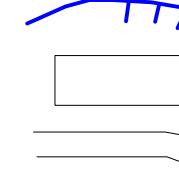
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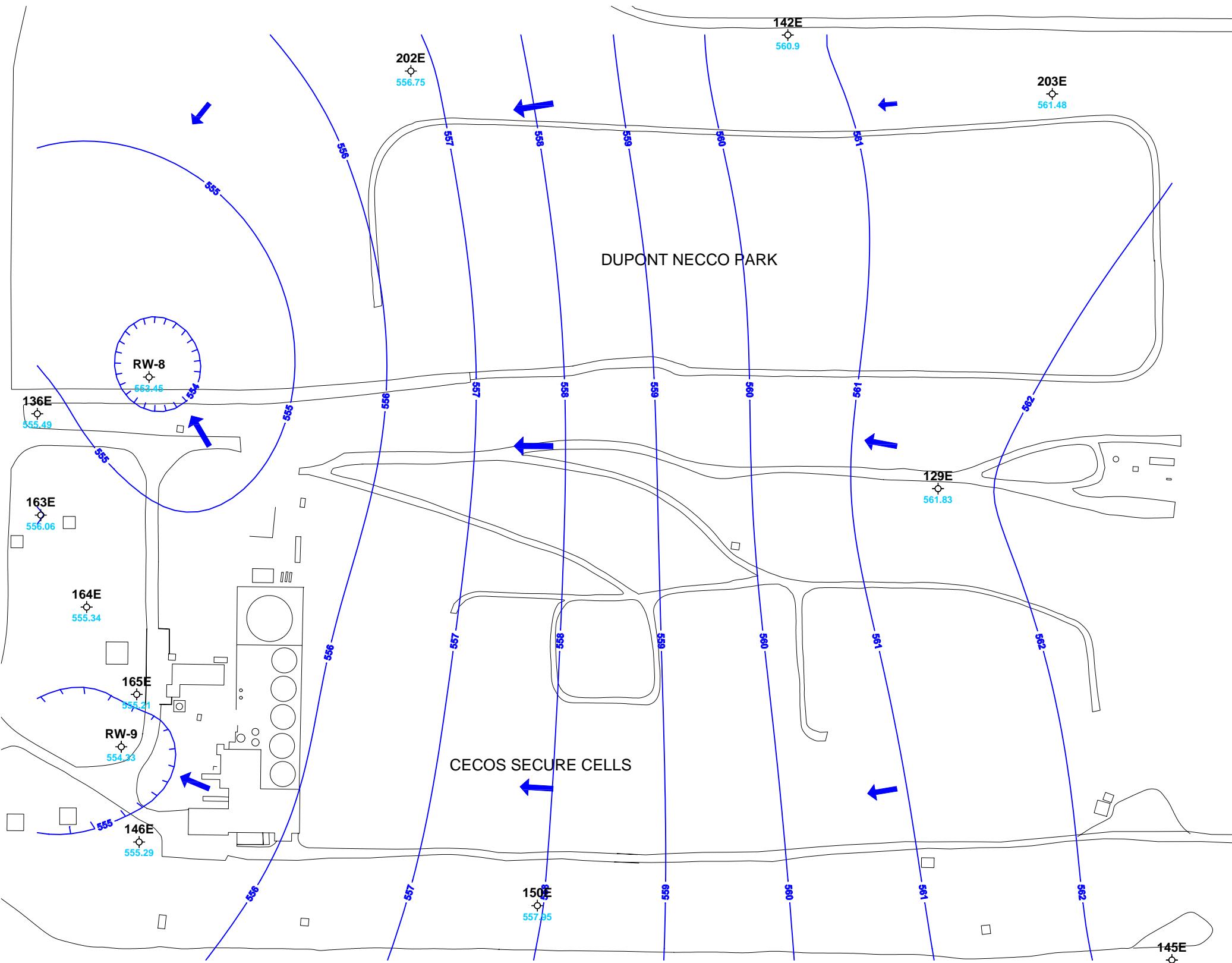
<b>3B</b>	<b>Well ID</b>
	<b>Monitoring Well</b>
	<b>Pumping Well</b>

## LEGEND

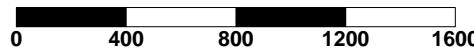


- Potentiometric Contour
- Structure
- Road

**Figure 5**  
**Potentiometric Surface Map**  
**DuPont Necco Park: D-Zone**  
**August 22, 2006**



Scale: Feet



Note: E-Zone potentiometric surface map completed with 9/26/2006 supplemental E-Zone WL data.



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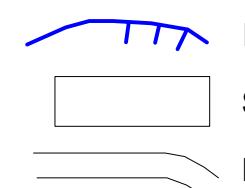
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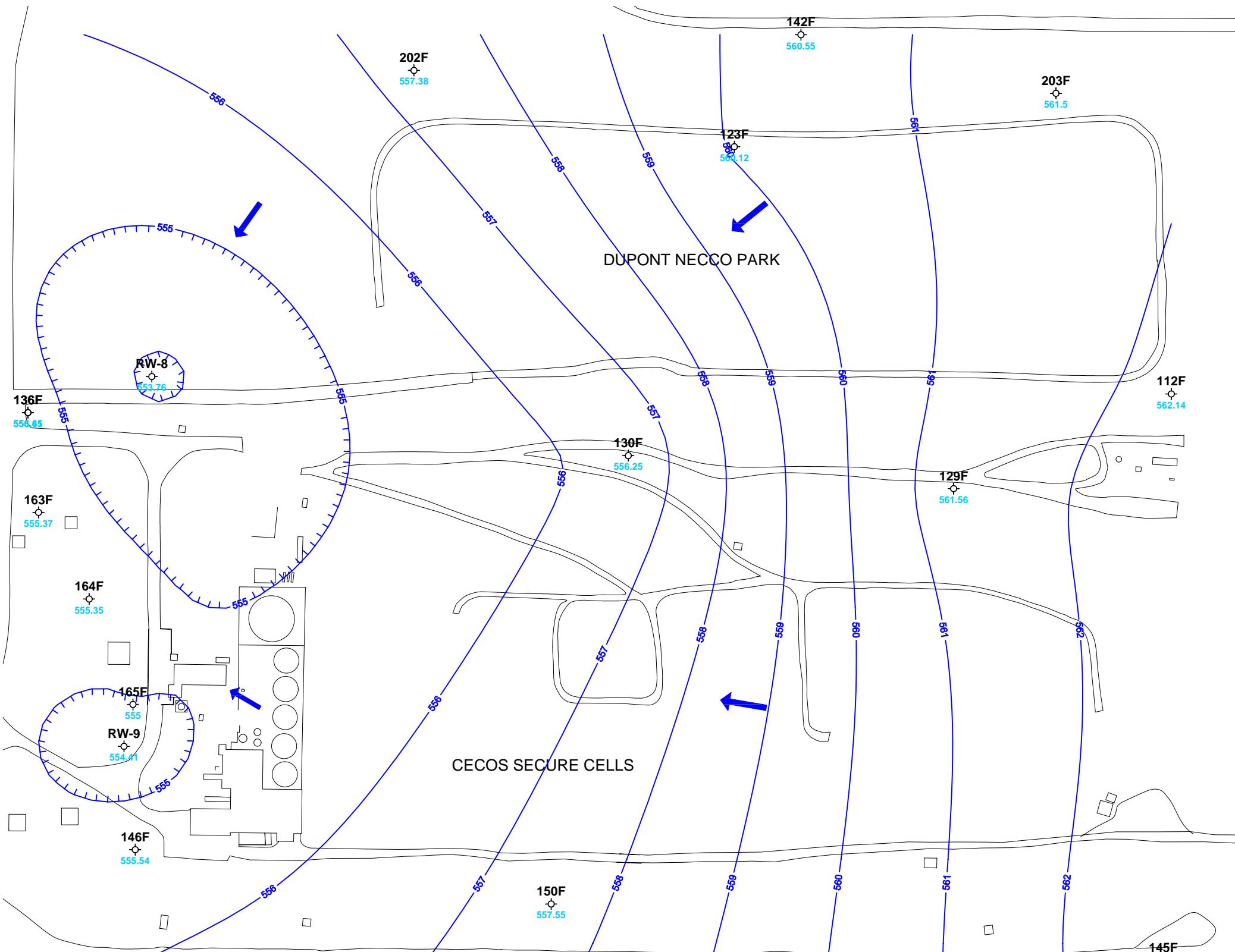
- 3B Well ID  
○ Monitoring Well  
● Pumping Well

### LEGEND



- Potentiometric Contour  
Structure  
Road

**Figure 6**  
**Potentiometric Surface Map**  
**DuPont Necco Park: E-Zone**  
**September 26, 2006**



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- 3B    Well ID  
○    Monitoring Well  
●    Pumping Well

### LEGEND

- Potentiometric Contour  
 Structure  
 Road

**Figure 7**  
**Potentiometric Surface Map**  
**DuPont Necco Park: F-Zone**  
**August 22, 2006**

## **APPENDICES**

## **Appendix A**

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### **Groundwater Elevation Data**

**Appendix A**  
**Groundwater Elevation Data**  
**3rd Quarter 2006**  
**DuPont Necco Park**

Location	Northing	Easting	Depth to Water	Casing Elevation	Groundwater Elevation	Date	Time
53	1127946.73	1038055.79	8.4	578.20	569.80	8/22/2006	11:17
102B	1128360.69	1038131.75	22.68	599.01	576.33	8/22/2006	12:01
105C	1128184.79	1037198.27	25.32	595.28	569.96	8/22/2006	13:00
105D	1128183.25	1037219.94	39.15	594.77	555.62	8/22/2006	12:58
111A	1128045.35	1037339.18	13.36	586.89	573.53	8/22/2006	11:28
111B	1128002.60	1037345.81	13.38	584.94	571.56	8/22/2006	11:29
111D	1128002.93	1037362.53	28.83	584.30	555.47	8/22/2006	11:30
112B	1127992.48	1038501.56	10.54	581.90	571.36	8/22/2006	11:51
112C	1127992.67	1038482.45	17.23	582.93	565.70	8/22/2006	11:50
112F	1128008.20	1038491.26	21.15	583.29	562.14	8/22/2006	11:52
115C	1128444.91	1037254.81	25.02	595.93	570.91	8/22/2006	12:55
115D	1128458.17	1037227.74	40.57	596.62	556.05	8/22/2006	12:53
116B	1128103.94	1036825.21	15.39	590.05	574.66	8/22/2006	11:23
117A	1128311.81	1038492.92	5.84	583.28	577.44	8/22/2006	11:57
118B	1128213.86	1038509.90	14.36	583.90	569.54	8/22/2006	11:54
119A	1128027.31	1037838.80	13.12	586.34	573.22	8/22/2006	11:38
119AT	1128026.87	1037830.98	13.56	586.62	573.06	8/22/2006	11:39
119B	1128027.36	1037846.33	17.1	586.77	569.67	8/22/2006	11:40
120B	1128314.92	1037433.77	24.63	599.18	574.55	8/22/2006	12:11
123A	1128388.18	1037804.86	21.42	597.93	576.51	8/22/2006	12:08
123B	1128432.49	1037831.02	19.38	595.98	576.60	8/22/2006	12:07
123C	1128432.59	1037845.93	24.32	595.42	571.10	8/22/2006	12:05
123D	1128417.50	1037834.13	36.11	596.51	560.40	8/22/2006	12:06
123F	1128387.18	1037821.84	38.45	598.57	560.12	8/22/2006	12:09
129A	1128004.00	1038100.68	11.81	584.80	572.99	8/22/2006	11:42
129AT	1128003.66	1038112.64	11.84	584.94	573.10	8/22/2006	11:43
129B	1127995.87	1038077.21	14.47	585.24	570.77	8/22/2006	11:44
129C	1128003.98	1038086.06	14.33	585.68	571.35	8/22/2006	11:45
129D	1128004.61	1038067.56	25.35	586.03	560.68	8/22/2006	11:46
129E	1127863.87	1038139.43	19.05	580.88	561.83	9/26/2006	11:27
129E	1127863.87	1038139.43	19.11	580.88	561.77	8/22/2006	11:13
129F	1127863.10	1038157.84	19.8	581.36	561.56	8/22/2006	11:14
130B	1128023.54	1037670.85	13.21	585.63	572.42	8/22/2006	11:32
130C	1128014.18	1037683.21	15.53	585.51	569.98	8/22/2006	11:33
130D	1128013.73	1037660.60	28.74	584.96	556.22	8/22/2006	11:34
130F	1127913.72	1037659.29	25.24	581.49	556.25	8/22/2006	11:36
130G	1127915.17	1037646.06	22.04	580.79	558.75	8/22/2006	11:37
131A	1128019.25	1038285.32	15.95	585.43	569.48	8/22/2006	11:48
136B	1127982.31	1036821.69	8.13	581.69	573.56	8/22/2006	11:05
136C	1127981.98	1036810.91	10.01	581.62	571.61	8/22/2006	11:04
136D	1127980.00	1036775.87	23.97	579.68	555.71	8/22/2006	11:03
136E	1127978.64	1036757.99	24.1	579.59	555.49	8/22/2006	11:02
136E	1127978.64	1036757.99	24.1	579.59	555.49	9/26/2006	11:37
136F	1127979.63	1036739.60	24.92	580.33	555.41	8/22/2006	11:00
136F	1127979.63	1036739.60	23.68	580.33	556.65	8/22/2006	12:17
136G	1127970.14	1036748.01	17.81	579.76	561.95	8/22/2006	11:01
136G	1127970.14	1036748.01	17.54	579.76	562.22	8/22/2006	12:16
137A	1127726.25	1037162.58	7.89	579.09	571.20	8/22/2006	11:56
137B	1127761.15	1037164.63	7.6	578.31	570.71	8/22/2006	11:54
137C	1127783.63	1037166.76	9.88	578.47	568.59	8/22/2006	11:53
137D	1127744.57	1037163.52	13.02	578.39	565.37	8/22/2006	11:55
138B	1127849.27	1037810.91	14.67	583.98	569.31	8/22/2006	11:27
138C	1127843.37	1037847.46	17.24	587.06	569.82	8/22/2006	11:26
139A	1127805.44	1038404.59	14.37	585.14	570.77	8/22/2006	10:57
139B	1127807.13	1038424.39	17.15	585.39	568.24	8/22/2006	11:00
139C	1127806.90	1038448.81	23.84	585.27	561.43	8/22/2006	11:01
139D	1127807.64	1038466.13	23.06	585.49	562.43	8/22/2006	11:02
140A	1128229.21	1038529.40	8.27	581.43	573.16	8/22/2006	11:55
141G	1128492.05	1038510.64	24.31	582.53	558.22	8/22/2006	11:58
142E	1128559.48	1037909.07	25.16	586.00	560.84	8/22/2006	12:05
142E	1128559.48	1037909.07	25.1	586.00	560.90	9/26/2006	12:03
142F	1128558.81	1037923.88	25.14	585.69	560.55	8/22/2006	12:06

**Appendix A**  
**Groundwater Elevation Data**  
**3rd Quarter 2006**  
**DuPont Necco Park**

Location	Northing	Easting	Depth to Water	Casing Elevation	Groundwater Elevation	Date	Time
143G	1128463.51	1036776.15	32.51	591.34	558.83	8/22/2006	12:50
145A	1127140.37	1038511.74	5.18	575.84	570.66	8/22/2006	11:47
145B	1127137.11	1038403.39	7.16	575.48	568.32	8/22/2006	11:44
145C	1127309.48	1038474.02	12.97	575.90	562.93	8/22/2006	12:23
145D	1127308.84	1038499.95	12.33	576.05	563.72	8/22/2006	12:25
145E	1127141.08	1038498.04	13.65	575.98	562.33	8/22/2006	11:45
145E	1127141.08	1038498.04	13.53	575.98	562.45	9/26/2006	11:54
145F	1127140.18	1038479.05	13.27	576.05	562.78	8/22/2006	11:42
146AR	1127333.16	1036911.14	6.48	576.92	570.44	8/22/2006	12:02
146C	1127323.07	1036896.17	7.31	576.35	569.04	8/22/2006	12:04
146E	1127322.13	1036914.16	20.79	576.08	555.29	9/26/2006	11:47
146E	1127322.13	1036914.16	20.73	576.08	555.35	8/22/2006	12:05
146F	1127309.67	1036903.82	20.5	576.04	555.54	8/22/2006	12:06
148D	1127204.71	1035908.79	8.48	576.38	567.90	8/22/2006	11:06
148F	1127202.85	1035931.55	20.18	576.21	556.03	8/22/2006	11:00
149B	1126896.31	1037086.11	4.32	572.87	568.55	8/22/2006	11:17
149C	1126909.02	1037087.33	5.8	573.26	567.46	8/22/2006	11:18
149D	1126923.37	1037088.12	15.67	572.86	557.19	8/22/2006	11:49
150A	1127226.06	1037480.28	5.28	575.86	570.58	8/22/2006	11:32
150B	1127225.61	1037494.87	6.04	575.99	569.95	8/22/2006	11:34
150C	1127225.08	1037509.65	8.97	576.13	567.16	8/22/2006	11:36
150E	1127224.48	1037524.83	17.92	576.15	558.23	8/22/2006	11:38
150E	1127224.48	1037524.83	18.2	576.15	557.95	9/26/2006	11:51
150F	1127226.41	1037541.14	18.43	575.98	557.55	8/22/2006	11:40
151B	1126333.87	1038025.23	7.85	573.36	565.51	8/22/2006	11:01
151C	1126332.94	1038039.88	8.23	573.18	564.95	8/22/2006	11:16
158D	1128335.04	1038260.34	16.67	598.25	581.58	8/22/2006	12:00
159A	1128427.18	1036969.45	18.79	596.16	577.37	8/22/2006	12:48
159B	1128419.28	1036968.72	22.69	596.37	573.68	8/22/2006	12:47
159C	1128411.01	1036967.85	25.81	597.36	571.55	8/22/2006	12:46
159D	1128403.06	1036967.10	42.19	597.67	555.48	8/22/2006	12:45
160B	1127423.38	1038477.86	14.68	582.75	568.07	8/22/2006	12:17
160C	1127423.38	1038486.28	19.43	582.72	563.29	8/22/2006	12:18
161B	1127912.18	1038387.68	12.98	582.84	569.86	8/22/2006	10:56
161C	1127924.10	1038388.90	20.71	582.64	561.93	8/22/2006	10:55
162C	1127865.75	1038104.77	12.05	581.00	568.95	8/22/2006	11:11
163A	1127841.02	1036769.18	5.64	578.14	572.50	8/22/2006	11:18
163B	1127850.55	1036770.59	5.39	577.94	572.55	8/22/2006	11:17
163D	1127824.60	1036773.57	21.28	578.82	557.54	8/22/2006	11:16
163E	1127823.25	1036763.28	23	579.06	556.06	9/26/2006	11:39
163E	1127823.25	1036763.28	22.82	579.06	556.24	8/22/2006	11:15
163F	1127826.67	1036755.67	23.39	578.76	555.37	8/22/2006	11:14
164D	1127671.92	1036832.82	20.83	577.42	556.59	8/22/2006	11:12
164E	1127682.25	1036833.59	21.98	577.32	555.34	9/26/2006	11:40
164E	1127682.25	1036833.59	21.93	577.32	555.39	8/22/2006	11:11
164F	1127693.84	1036833.27	21.92	577.27	555.35	8/22/2006	11:10
165D	1127571.16	1036911.60	12.82	577.52	564.70	8/22/2006	12:39
165E	1127548.43	1036910.54	22.35	577.56	555.21	9/26/2006	11:44
165E	1127548.43	1036910.54	22.32	577.56	555.24	8/22/2006	12:37
165F	1127532.25	1036900.44	22.72	577.72	555.00	8/22/2006	12:35
167B	1127860.78	1038216.11	14.66	580.93	566.27	8/22/2006	11:05
168B	1127318.51	1037968.12	11.57	578.90	567.33	8/22/2006	12:10
168C	1127317.98	1037956.21	14.68	579.21	564.53	8/22/2006	12:11
169B	1127351.42	1038362.54	12.84	580.43	567.59	8/22/2006	12:14
170B	1127350.74	1038446.71	13.86	579.10	565.24	8/22/2006	12:16
171B	1127351.06	1038512.59	10.99	579.54	568.55	8/22/2006	12:21
172B	1127220.99	1038586.57	8.67	576.95	568.28	8/22/2006	11:05
173A	1127892.76	1037475.06	9.22	580.71	571.49	8/22/2006	11:42
174A	1127861.59	1037163.61	6.23	577.62	571.39	8/22/2006	11:50
175A	1128030.81	1037074.39	12.72	586.81	574.09	8/22/2006	11:26
176A	1127891.47	1037269.18	8.51	580.03	571.52	8/22/2006	11:47
178A	1127894.12	1037406.32	8.47	579.92	571.45	8/22/2006	11:43

**Appendix A**  
**Groundwater Elevation Data**  
**3rd Quarter 2006**  
**DuPont Necco Park**

Location	Northing	Easting	Depth to Water	Casing Elevation	Groundwater Elevation	Date	Time
179A	1127941.44	1037223.72	7.63	579.01	571.38	8/22/2006	11:48
180AT	1127926.46	1038057.62	7.71	579.47	571.76	8/22/2006	11:15
184A	1127918.16	1037611.75	8.93	579.88	570.95	8/22/2006	11:39
184AT	1127917.34	1037602.93	8.5	579.69	571.19	8/22/2006	11:40
185A	1127899.64	1037709.18	9.34	580.84	571.50	8/22/2006	11:30
185AT	1127898.83	1037716.92	9.61	580.69	571.08	8/22/2006	11:29
186A	1127876.22	1037854.69	16.87	579.76	562.89	8/22/2006	11:25
186AT	1127873.53	1037861.26	8.95	580.10	571.15	8/22/2006	11:24
187A	1127909.85	1037922.53	14.94	579.94	565.00	8/22/2006	11:22
187AT	1127911.17	1037915.70	8.05	579.30	571.25	8/22/2006	11:23
188A	1127871.92	1038010.28	19.49	580.91	561.42	8/22/2006	11:20
188AT	1127871.96	1038002.60	8.92	580.59	571.67	8/22/2006	11:21
189A	1127868.38	1038109.46	17.69	579.82	562.13	8/22/2006	11:09
189AT	1127868.82	1038117.50	8.68	580.40	571.72	8/22/2006	11:08
190A	1127863.02	1038203.44	15.89	580.58	564.69	8/22/2006	11:07
190AT	1127861.83	1038208.42	9.21	580.92	571.71	8/22/2006	11:06
191A	1127830.07	1038298.90	11.72	580.62	568.90	8/22/2006	11:04
191AT	1127822.66	1038308.01	9.29	581.06	571.77	8/22/2006	11:03
192A	1127811.87	1038416.54	14.91	584.08	569.17	8/22/2006	10:58
192AT	1127814.19	1038420.99	13.86	584.46	570.60	8/22/2006	10:59
193A	1127929.03	1038537.56	13.29	584.13	570.84	8/22/2006	10:54
193AT	1127929.44	1038531.02	8.54	583.09	574.55	8/22/2006	10:53
194A	1127836.71	1038522.85	15.28	584.35	569.07	8/22/2006	10:51
194AT	1127846.12	1038525.85	11.21	584.93	573.72	8/22/2006	10:52
BZTW-1	1127906.69	1037692.81	10.05	579.67	569.62	8/22/2006	11:31
BZTW-2	1127894.81	1037418.98	7.79	579.38	571.59	8/22/2006	11:44
BZTW-4	1127954.49	1036932.54	5.01	578.18	573.17	8/22/2006	11:07
D-10	1127957.91	1037669.50	10.08	580.02	569.94	8/22/2006	11:33
D-11	1127946.03	1037327.59	6.65	578.07	571.42	8/22/2006	11:45
D-13	1127957.08	1037072.61	7.01	579.07	572.06	8/22/2006	12:00
D-14	1127958.30	1037066.15	9.75	579.01	569.26	8/22/2006	11:59
D-23	1127862.27	1038111.33	18.63	580.55	561.92	8/22/2006	11:10
D-9	1127959.11	1037663.85	9.14	580.15	571.01	8/22/2006	11:34
RDB-3	1127963.86	1036745.00	5.68	579.31	573.63	8/22/2006	12:15
RDB-5	1127956.35	1036920.48	5.73	578.57	572.84	8/22/2006	11:06
RW-10	1127945.07	1037212.21	14.71	577.90	563.19	8/22/2006	11:49
RW-2	1127934.91	1038056.54	16.48	577.26	560.78	8/22/2006	11:16
RW-4	1127826.43	1038509.67	35.2	581.52	546.32	8/22/2006	10:50
RW-5	1127870.67	1038024.41	18.32	578.88	560.56	8/22/2006	11:18
RW-8	1128034.87	1036929.26	32.07	585.52	553.45	9/26/2006	12:14
RW-8	1128034.87	1036929.26	31.76	585.52	553.76	8/22/2006	11:22
RW-9	1127468.08	1036886.74	20.72	575.13	554.41	8/22/2006	12:33
RW-9	1127468.08	1036886.74	20.8	575.13	554.33	9/26/2006	11:46
TRW-6	1127892.93	1037489.11	10.01	581.29	571.28	8/22/2006	11:41
TRW-7	1127856.77	1037163.17	8.52	577.89	569.37	8/22/2006	11:51
195AT	1128563.08	1037826.92	5.99	584.80	578.81	8/22/2006	11:59
196AT	1128562.67	1037966.88	6.94	585.71	578.77	8/22/2006	12:00
197AT	1128561.31	1038110.52	5.79	584.57	578.78	8/22/2006	12:01
198AT	1128559.30	1038264.72	5.16	583.93	578.77	8/22/2006	12:02
199AT	1128559.34	1038394.18	6.15	584.92	578.77	8/22/2006	12:03
200AT	1128557.32	1038527.61	7.64	586.46	578.82	8/22/2006	12:04
201B	1127945.07	1037212.21	9.5	579.25	569.75	8/22/2006	15:10
202D	1128504.19	1037330.86	36.71	593.73	557.02	9/26/2006	11:03
202E	1128504.19	1037330.86	36.98	593.73	556.75	9/26/2006	11:05
202F	1128504.19	1037330.86	36.35	593.73	557.38	9/26/2006	11:06
203D	1128468.98	1038314.52	32.41	593.86	561.45	9/26/2006	11:10
203E	1128468.98	1038314.52	32.38	593.86	561.48	9/26/2006	11:11
203F	1128468.98	1038314.52	32.36	593.86	561.50	9/26/2006	11:13

## **Appendix B**

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### **Indicator Parameter Analysis**

Appendix B  
 GWTF Process System Sampling 3Q06  
 DuPont Necco Park  
 Niagara Falls, NY

Analyte	units	BC-INFLUENT	COMB-EFFLUENT	DEF-INFLUENT
		8/22/06	8/22/06	8/22/06
<b>Field Parameters</b>				
SPECIFIC CONDUCTANCE (FIELD)	UMHOS/CM	32420	72223	4097
TEMPERATURE (FIELD)	DEGREES C	17.7	16.2	13.3
COLOR QUALITATIVE (FIELD)	NS	grey	cloudy	Sl. Turbid
PH (FIELD)	STD UNITS	5.69	7.17	7.05
REDOX (FIELD)	MV	-111	-78	-230
DISSOLVED OXYGEN (FIELD)	ug/l	66.6	77.3	46.5
<b>Volatile Organics</b>				
1,1,2,2-TETRACHLOROETHANE	ug/l	5100	960	1500
1,1,2-TRICHLOROETHANE	ug/l	2600	710	2700
1,1-DICHLOROETHENE	ug/l	530 J	<11	520
1,2-DICHLOROETHANE	ug/l	850 J	28 J	190 J
CARBON TETRACHLORIDE	ug/l	1700	<11	1700
CHLOROFORM	ug/l	22000	120	6100
CIS-1,2 DICHLOROETHENE	ug/l	17000	170	11000
TETRACHLOROETHYLENE	ug/l	5300	19 J	1900
TRANS-1,2-DICHLOROETHENE	ug/l	850 J	<9.4	870
TRICHLOROETHENE	ug/l	18000	58 J	11000
VINYL CHLORIDE	ug/l	4700 J	<12	2600 J
<b>Semivolatile Organics</b>				
2,4,5-TRICHLOROPHENOL	ug/l	120 J	370 J	470 J
2,4,6-TRICHLOROPHENOL	ug/l	47 J	190 J	230 J
3- AND 4- METHYLPHENOL	ug/l	560 J	81 J	18 J
HEXAChLOROBENZENE	ug/l	<1.6 UJ	7.1 J	<0.81 UJ
HEXAChLOROBUTADIENE	ug/l	790 J	570 J	59 J
HEXAChLOROETHANE	ug/l	450 J	32 J	18 J
PENTACHLOROPHENOL	ug/l	520 J	680 J	820 J
PHENOL	ug/l	460 J	96 J	50 J
TIC01	ug/l	6800 J	670 J	1100 J
<b>Inorganics</b>				
BARIUM	ug/l	1020000	510	170 J
BARIUM	ug/l	1060000	20500	120 J
SULFATE	ug/l	12300 J	522000	824000
<b>Total Volatiles</b>	ug/l	79870	2667	40157

## **Appendix C**

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### **Recovery Well Sampling Results**

Appendix C  
 GWTF Recovery Well Sampling - 3Q06  
 DuPont Necco Park  
 Niagara Falls, NY

Analyte	Sample ID units	RW-4	RW-4 Duplicate	RW-5	RW-8	RW-9	RW-10	EQBLK	TBLK
<b>Field Parameters</b>									
SPECIFIC CONDUCTANCE (FIELD)	UMHOS/CM	7509	NS	4484	3776	4300	9744	N/A	N/A
TEMPERATURE (FIELD)	DEGREES C	20.1	NS	15	12.5	12.8	17.3	N/A	N/A
COLOR QUALITATIVE (FIELD)	NS	TURBID YELLOW	NS	GREY	CLEAR	CLEAR	GREY	N/A	N/A
PH (FIELD)	STD UNITS	7.29	NS	6.43	6.97	7.07	7.65	N/A	N/A
REDOX (FIELD)	MV	-301	NS	-154	-249	-260	-244	N/A	N/A
TURBIDITY QUANTITATIVE (FIELD)	NTU	141	NS	4.08	2.65	2.02	51.1	N/A	N/A
<b>Volatile Organics</b>									
1,1,2,2-TETRACHLOROETHANE	ug/l	8400	930	5600	1400	1500	3100	<0.22	<0.22
1,1,2-TRICHLOROETHANE	ug/l	410 J	44 J	2200	2700	2600	3200	<0.22	<0.22
1,1-DICHLOROETHENE	ug/l	<90	<11	650 J	400	600	1200 J	<0.18	<0.18
1,2-DICHLOROETHANE	ug/l	<80	<10	740 J	210 J	140 J	1200 J	<0.16	<0.16
CARBON TETRACHLORIDE	ug/l	2000	210	1600	2700	1100	2700	<0.19	<0.19
CHLOROFORM	ug/l	4400	460	9700	8300	4100	49000	<0.16	<0.16
CIS-1,2 DICHLOROETHENE	ug/l	390 J	42 J	25000	8100	13000	9900	<0.21	<0.21
TETRACHLOROETHYLENE	ug/l	1500	160	2700	3200	1500	15000	<0.19	<0.19
TRANS-1,2-DICHLOROETHENE	ug/l	100 J	10 J	1500	720	960	450 J	<0.16	<0.16
TRICHLOROETHENE	ug/l	2300	240	11000	13000	9900	40000	<0.28	<0.28
VINYL CHLORIDE	ug/l	210 J	21 J	9600	1500	3300	2000	<0.21	<0.21
<b>Semivolatile Organics</b>									
2,4,5-TRICHLOROPHENOL	ug/l	<120 UJ	<96 UJ	<38 UJ	700 J	250 J	390 J	<0.96 UJ	NS
2,4,6-TRICHLOROPHENOL	ug/l	<180 UJ	<140 UJ	<56 UJ	420 J	76 J	150 J	<1.4 UJ	NS
3- AND 4- METHYLPHENOL	ug/l	<0.75 UJ	<0.75 UJ	520 J	19 J	26 J	710 J	<0.75 UJ	NS
HEXAChLOROBENZENE	ug/l	<8.1 UJ	<6.5 UJ	<2.6 UJ	<1.3 UJ	<0.43 UJ	<2.6 UJ	<0.065 UJ	NS
HEXAChLOROBUTADIENE	ug/l	3800 J	3200 J	1100 J	110 J	9.7 J	480 J	<0.51 UJ	NS
HEXAChLOROETHANE	ug/l	520 J	610 J	520 J	31 J	<3.9 UJ	46 J	<0.58 UJ	NS
PENTACHLOROPHENOL	ug/l	<60 UJ	<48 UJ	89 J	1600 J	31 J	1600 J	<0.48 UJ	NS
PHENOL	ug/l	<120 UJ	<96 UJ	330 J	22 J	72 J	1000 J	<0.96 UJ	NS
TIC01	ug/l	350 J	290 J	5900 J	990 J	1000 J	8700 J	<NS J	NS
<b>Inorganics</b>									
BARIUM, DISSOLVED	ug/l	410	390	1820000	380	150 J	1400	<3.2	NS
CHLORIDE	ug/l	2460000	2450000	26100000	780000	582000	3270000	2200 J	NS
<b>Total Volatiles</b>	ug/l	24030	5927	71910	42371	38710	128276	0	0

< and ND = Non detect at stated reporting limit

J = Estimated concentration

UU= Analyte not detected. Reporting limit is estimated