

April 21, 2006

Michael J. Hinton, P.E. Division of Environmental Remediation New York State Department of Environmental Conservation 270 Michigan Ave. Buffalo, NY 14203-2999

Subject: Quarterly Groundwater Gauging Report

Booth Oil Site

North Tonawanda, New York NYSDEC Site No. 9-32-100

Mr. Hinton:

On behalf of the Booth Oil Site Administrative Group (BOSAG), AMEC Earth and Environmental, Inc. (AMEC) presents this *Quarterly Groundwater Gauging Report* for the above referenced site (**Figure 1**). The groundwater gauging event was performed on March 23, 2006. Work was performed according to the approved site Operations and Maintenance Plan. The following sections of this report discuss the observations and activities completed during the gauging event.

GROUNDWATER GAUGING

Shallow overburden monitoring wells MW-101 through MW-104 were gauged for depth-to-water and light non-aqueous phase liquid (LNAPL) measurements during the March 23, 2006 site visit. A summary of the gauging results is presented in **Table 1**.

The depth-to-water results of the gauging event were utilized to develop a groundwater contour map (Figure 2). As illustrated on Figure 2, groundwater during the March 2006 monitoring event was projected to flow towards the west-southwest.

No LNAPL was observed in any of the wells.

SURFACE SITE CONDITIONS

An inspection of the surface conditions at the Site was conducted during the March 23, 2006 gauging event.

The drainage ditches were generally unobstructed with minor erosion noted. The sediment control devices in the drainage ditches appear to be deteriorating and will be replaced prior to the next monitoring event.

A photographic log of the Site conditions has been included as **Attachment 1**.

SURFACE WATER SAMPLING

No surface water samples were collected during this quarterly monitoring period. It is anticipated that a sample will be collected before the next quarterly monitoring event, and the results will be presented in the June 2006 report.

SUMMARY

During the gauging event, no new erosional features were noted. In general, the Site appeared well maintained. Some of the sediment control devises near the catch basins appear to deteriorating and will be replaced.

The groundwater elevation data indicates groundwater flow is to the west-southwest. This is consistent with previous groundwater flow directions which generally range from southwest to northwest. No LNAPL was present in any of the wells gauged.

Should you have any questions or comments concerning this report, please contact me or Tim Ahrens at (518) 372-0905. I can also be contacted by email at Jeffrey.LaRock@amec.com and Tim Ahrens can be contacted by email at Tim.Ahrens@amec.com.

Sincerely.

AMEC Earth and Environmental Inc.

Jeffrey W. LaRock Project Geologist

cc: BOSAG Steering Committee
BOSAG Technical Committee

Paul J. Kurzanski, CSXT Gary Litwin, NYSDOH

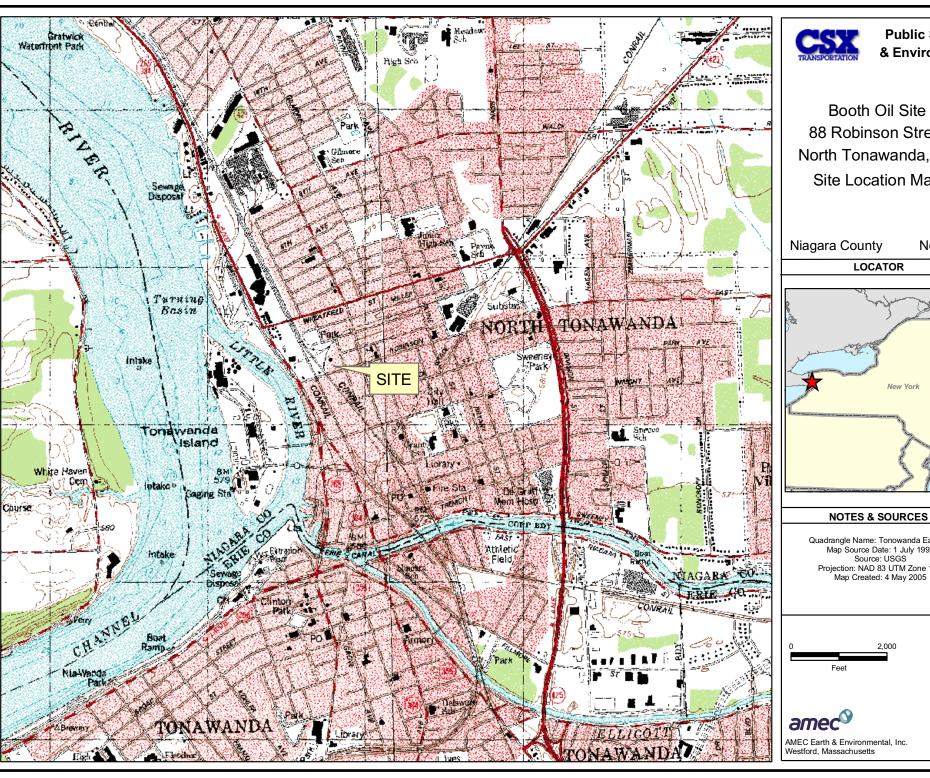
Matthew J. Forcucci, NYSDOH

TABLES

Groundwater Gauging Results Table 1

	Units	MW-101	MW-102	MW-103	MW-104
Top of Casing Elevation	ft-msl	579.2	579.66	579.84	580.6
Ground Surface Elevation	ft-msl	576.5	576.6	576.9	577.7
Stickup	feet	2.72	3.02	2.9	2.9
Depth to Top of Screen	ft-bas	2.5	3	4.1	3.7
Top of Screen Elevation	ft-msl	574	573.6	572.8	574
Depth to Top of Clay	ft-bgs	4.9	6	6.5	5.9
Top of Clay Elevation	ft-msl	571.6	570.6	570.4	571.8
Depth to Bottom of Screen	ft-bgs	7.5	8	9.1	8.7
Bottom of Screen Elevation	ft-msl	569	568.6	567.8	569
18-Oct-04	11-11151	309	300.0	307.0	309
	0.1	- D	Б.	Б.	
Depth to Groundwater	ft-toc	Dry	Dry	Dry	Dry
Groundwater Elevation	ft-msl	Dry	Dry	Dry	Dry
Depth to Groundwater	ft-bgs	Dry	Dry	Dry	Dry
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within					
Screened Interval?					
Saturated Thickness above Clay	feet	0	0	0	0
13-Dec-04					
Depth to Groundwater	ft-toc	5.34	10.1	8.48	5.48
Groundwater Elevation	ft-msl	573.86	569.56	571.36	575.12
Depth to Groundwater	ft-bgs	2.62	7.08	5.58	2.58
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within		1		1	
Screened Interval?		Yes	Yes	Yes	No, High
Saturated Thickness above Clay	feet	2.28	-1.08	0.92	3.32
30-Mar-05				0.02	0.02
Depth to Groundwater	ft-toc	4.51	8.39	Dn/	Dry
Groundwater Elevation		574.69	571.27	Dry	
	ft-msl			Dry	Dry
Depth to Groundwater	ft-bgs	1.79	5.37	Dry	Dry
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within					
Screened Interval?		No, High	Yes		
Saturated Thickness above Clay	feet	3.09	0.67	0	0
22-Jun-05					
Depth to Groundwater	ft-toc	6.77	6.75	8.5	8.59
Groundwater Elevation	ft-msl	572.43	572.91	571.34	572.01
Depth to Groundwater	ft-bgs	4.07	3.69	5.56	5.69
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within					
Screened Interval?		Yes	Yes	Yes	Yes
Saturated Thickness above Clay	feet	0.83	2.31	0.94	0.21
14-Sep-05					
Depth to Groundwater	ft-toc	6.69	10.37	8.76	9.63
•		572.51		571.08	570.97
Groundwater Elevation	ft-msl		569.29		
Depth to Groundwater	ft-bgs	3.99	7.31	5.82	6.73
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within			.,	.,	.,
Screened Interval?		Yes	Yes	Yes	Yes
Saturated Thickness above Clay	feet	0.91	-1.31	0.68	-0.83
01-Dec-05					
Depth to Groundwater	ft-toc	4.55	10.6	8.55	6.35
Groundwater Elevation	ft-msl	574.65	569.06	571.29	574.25
Depth to Groundwater	ft-bgs	1.85	7.54	5.61	3.45
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within					
Screened Interval?		No, High	Yes	Yes	No, High
Saturated Thickness above Clay	feet	3.05	-1.54	0.89	2.45
23-Mar-06	1001	0.00	1.07	3.00	2.70
	f+ +	E 00	6.04	0.40	E 40
Depth to Groundwater	ft-toc	5.36	6.84	8.49	5.42
Groundwater Elevation	ft-msl	573.84	572.82	571.35	575.18
Depth to Groundwater	ft-bgs	2.66	3.78	5.55	2.52
Was LNAPL Present?		No	No	No	No
Was Groundwater Table within					
Screened Interval?		Yes	Yes	Yes	No, High
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FIGURES



Public Safety & Environment

Booth Oil Site 88 Robinson Street North Tonawanda, NY Site Location Map

New York



Quadrangle Name: Tonowanda East NY Map Source Date: 1 July 1995 Source: USGS Projection: NAD 83 UTM Zone 17N Map Created: 4 May 2005

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FIGURE

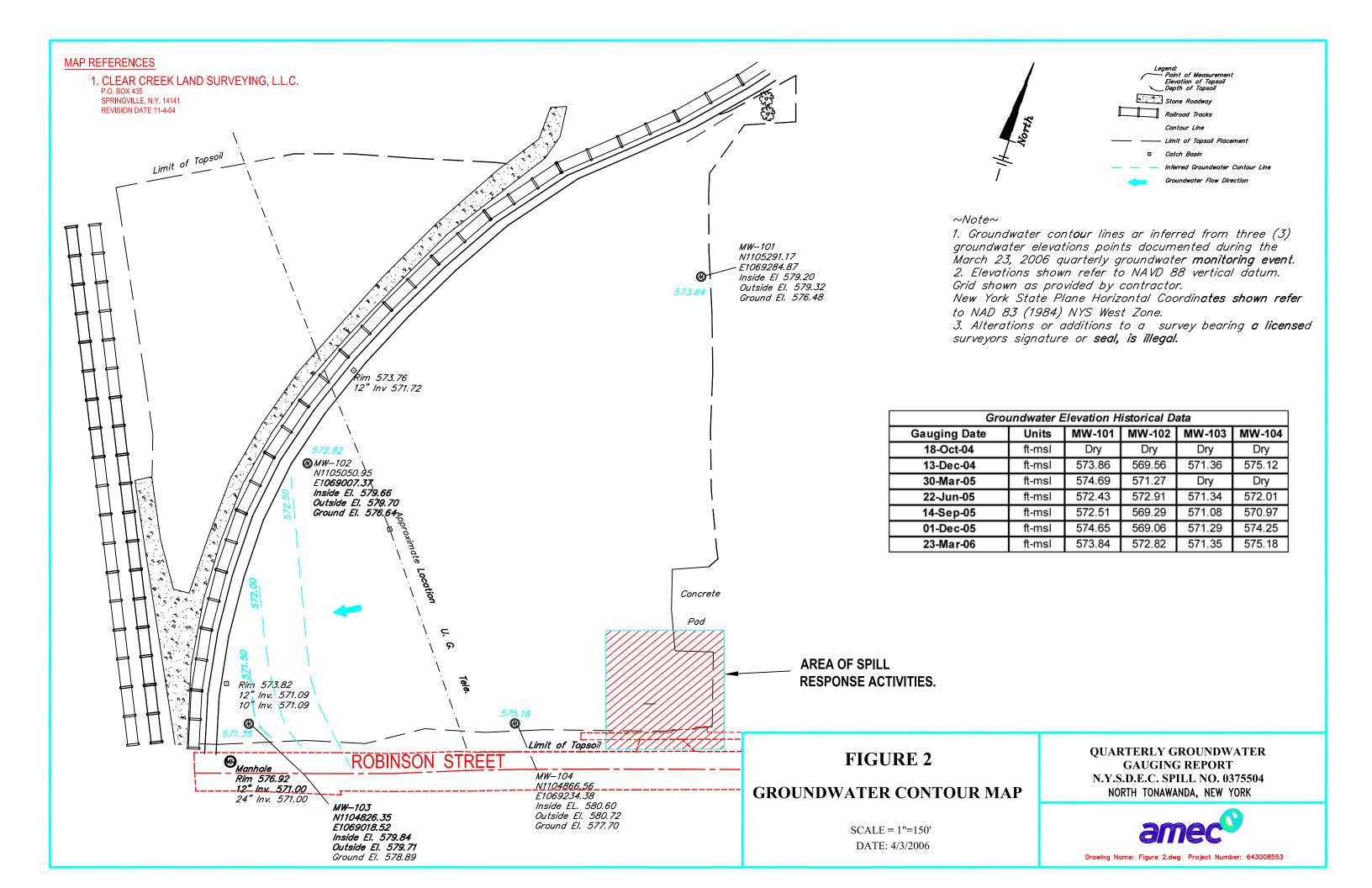






Photo # 1

Booth Oil Site, Facing
Northwest



Photo # 2

Booth Oil Site, Facing South



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BOOTH OIL SITE RECONNAISSANCE BUFFALO, NY CSX TRANSPORTATION

PHOTOGRAPH LOG



Photo # 3

Booth Oil Site, Facing West.



Photo # 4

View of Drainage
Ditch Facing East.



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PHOTOGRAPH LOG



Photo # 5 View of the Site Facing Northeast.



Photo # 6

View of the Site, Facing Southwest.



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PHOTOGRAPH LOG