PROGRESS REPORT NO. 7
REMEDIAL INVESTIGATION AND FEASIBILITY STUDY
VALEO FORMER GM – DELCO CHASSIS FACILITY
1555 LYELL AVENUE, ROCHESTER, NEW YORK
Site No. 8-28-099, EPA ID No. NYD002215226

by

Haley & Aldrich of New York Rochester, New York

for

General Motors Corporation Detroit, Michigan

File No. 70436-242 July 2004



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HALEY& ALDRICH

27 July 2004 File No. 70436-242

New York State Department of Environmental Conservation Division of Environmental Remediation Region 8 6274 East Avon-Lima Road Avon, New York 14414-9519

Attention: Regional Hazardous Waste Remediation Engineer

Subject: Remedial Investigation Quarterly Progress Report No. 7

Site No. 8-28-099, EPA ID No. NYD002215226 Valeo Former GM – Delco Chassis Facility

1555 Lyell Avenue Rochester, New York

OFFICES

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Tucson Arizona

Washington District of Columbia

Gentlemen:

Please find enclosed two copies of Remedial Investigation Progress Report No. 7 for NYSDEC Registry Site No. 8-28-099, the Valeo Former GM – Delco Chassis Facility located at 1555 Lyell Avenue in the City of Rochester, Monroe County, New York. The Valeo Former GM – Delco Chassis Facility is hereinafter referred to as the "site." The site location is shown on Figure 1 of this report.

This report is submitted on behalf of General Motors Corporation (GM). It has been prepared in accordance with the terms of an Order On Consent between NYSDEC and GM ("RI/FS Order," Index # B8-0543-98-08) and our letter to the Department dated 10 May 2004.

This report covers the period from January through July 2004. Activities performed during the reporting period included the following supplemental remedial investigations specified in Work Plan Amendment No. 2 (presented in RI/FS Progress Report No. 2):

- additional soil and groundwater sampling to determine the extent of contamination detected in soil at the Melonite process wastewater sump; and
- test borings to determine the extent of contamination in overburden groundwater in and around the area of soil contamination at location TP-15-1 in AOR #7 (the presumed source of groundwater contamination detected at bedrock monitoring well MW-307-1).

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Please feel free to contact us if you have any questions about the enclosed report.

Sincerely yours,

HALEY & ALDRICH OF NEW YORK

Jeffrey E. Loney

Vice President

Thomas D. Wells

Senior Environmental Geologist

Tour Will

c:

General Motors Corporation - M. Dedyne

Valeo - J. Kolanek

NYSDEC Environmental Enforcement Division, Buffalo - G. Bailey, Senior Attorney

NYSDEC Environmental Remediation Div., Albany - E. Belmore, Chief Western Section

MCDOH - R. Elliott

NYSDOH - M. Forcucci

Environ - CY Jeng

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I. INTRODUCTION

This report is the seventh progress report covering remedial investigation (RI) activities performed at the Valeo Former GM – Delco Chassis Facility site. This report covers the period from February 2004 through July 2004.

This report has been prepared in accordance with the terms of an Order On Consent between the New York State Department of Environmental Conservation (NYSDEC) and the General Motors Corporation (GM) for a remedial investigation and feasibility study of the site ("RI/FS Order", Index # B8-0543-98-08). The site is listed as Site # 8-28-099 on the New York State Registry of Inactive Hazardous Waste Disposal Sites, and it is identified under state and federal programs regulating management of hazardous waste by U.S. Environmental Protection Agency (EPA) identification number NYD002215226.

The site is located at 1555 Lyell Avenue in the City of Rochester, Monroe County, New York. The site location is shown on Figure 1, and a site plan showing sampling locations and site features is presented on Figure 2.



II. RI/FS ACTIVITIES COMPLETED

Investigative activities performed during the reporting period included the supplemental remedial investigations specified in Work Plan Amendment No. 2 (presented in RI/FS Progress Report No. 2):

- soil and groundwater sampling to determine the extent of contamination of soil at the Melonite process wastewater sump in Building A;
- test borings and temporary well installations to determine the extent of contamination in overburden groundwater in and around the area of soil contamination at location TP-15-1 in AOR #7;
- laboratory analysis of soil and groundwater samples collected during the reporting period;
- validation of laboratory analysis results; and
- a site walkover by project team members for the purposes of ecological and human-health risk assessment reconnaissance.

Drilling services were performed by Nothnagle Drilling of Scottsville, New York. Laboratory analysis was performed by STL Laboratories of Buffalo, New York. The risk assessment walkover was conducted by Environ personnel in conjunction with a project-update meeting held at the site on 6 May 2004. The meeting was conducted with representatives of NYSDEC, the state and county health departments, GM, Valeo, Environ, and Haley & Aldrich to summarize the progress and findings of the RI activities completed to date.

Melonite Process Wastewater Sump Area

The supplemental investigations at the Melonite Sump focused on contamination by various metals detected in soil adjacent to the sump at previous test boring B-501. Previous sample analysis results for B-501, which are summarized on Table 1, indicated that the soil horizon at the top of bedrock (from 4 to 5.4 feet) contained copper, lead, zinc, and other metals at concentrations that indicated a possible past release of wastewater from the sump.

Two test borings were therefore drilled at locations 20 feet east (B-527) and west (B-528) of the sump. Soil sampling was performed at both locations on 9 April 2004, and bedrock drilling was performed at B-527 for the purpose of installing an overburden-bedrock interface monitoring well (MW-527). The well was developed after installation, and groundwater sampling using low-flow purging and sampling methods was performed on 28 April 2004. Soil samples from both borings and a groundwater sample from MW-527 were submitted to STL for analysis of previously-detected metal contaminants by US EPA SW 846 methods.

Test boring and well locations are shown on Figure 2. Test boring logs, a monitoring well installation report, and groundwater sampling records are presented in Appendix A. Soil and groundwater sample analysis results are presented in Table 1.



TP-15-1 Area in AOR #7

Soil contamination at the location of previous test pit TP-15-1 is the apparent source of groundwater contamination detected during the RI at downgradient bedrock monitoring well MW-307-1. Benzene, toluene, ethyl benzene, and xylene (BTEX) are present in a subsurface layer of contaminated soil at the TP-15-1 location, and these contaminants have been detected in RI samples from MW-307-1 at concentrations of up to 0.1 milligrams per liter (mg/L; equal to parts per million, ppm).

Previous soil sampling had delineated the lateral and vertical extent of contaminated soil and the nature of the soil profile in this area. To determine if and to what extent contaminated groundwater is present in the overburden in this area, soil sampling was performed at five locations in the immediate vicinity of the TP-15-1 location to assess the degree of groundwater saturation in soil. Borings were advanced to the apparent top of bedrock and continuous soil sampling was performed using direct push sampling methods at each boring. Visual observations of soil conditions did not indicate that groundwater or saturated soil were present in overburden at any of the locations.

In two of the borings, temporary PVC monitoring wells were installed to the top of rock. One temporary well (TW-1) was installed in the approximate center of the contaminated soil layer at TP-15-1, and the second (TW-2) was installed beyond the western extent of the contaminated soil layer approximately halfway between the center location and downgradient well MW-307-1. Temporary well locations are shown on Figure 2.

After installation, the temporary wells were checked on several occasions in April, May, and July 2004 for the presence of groundwater. Groundwater was not observed in either well.

The spring and early summer period during which the two temporary wells have been monitored for groundwater has been one of unseasonably wet weather. On the basis of the results of the soil sampling and temporary well installations, we therefore conclude that groundwater is not present in the overburden in the immediate vicinity of the TP-15-1 soil contamination and that the water table occurs below the top of bedrock in this area of the site.



III. UPCOMING RI/FS ACTIVITIES

No field activities are planned for the upcoming reporting period of June and July 2004. RI data evaluation and risk assessment activities will continue during the period.

IV. CITIZEN PARTICIPATION ACTIVITIES

The Citizen Participation Plan for the Valeo Former Delco Chassis site was updated to reflect changes in project personnel. The updated page is presented in Appendix B. No Citizen Participation activities are planned for the next reporting period.



REFERENCES

RI/FS Work Plan, Valeo Former GM - Delco Chassis Facility Site, 1555 Lyell Avenue, Rochester, New York, Registry Site #8-28-099. Haley & Aldrich of New York, December 2000.

Amendment No. 1 to the RI/FS Work Plan, Valeo Former GM-Delco Chassis Facility, Rochester, New York, Registry Site #8-28-099. Haley & Aldrich of New York, April 2002.

Citizen Participation Plan for the Valeo/Former GM - Delco Chassis Facility Inactive Hazardous Waste Disposal Site, Rochester, New York, Registry Site # 8-28-099. Haley & Aldrich of New York, July 2002.

Report for the Preliminary Site Assessment at the Abandoned Chemical Sales Facility Site, Rochester, New York, Site Number: 8-28-105. Ecology and Environment Engineering, P.C., March 2002.

Remedial Investigation Quarterly Progress Report No. 1, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, December 2002.

Remedial Investigation Quarterly Progress Report No. 2, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, February 2003.

Remedial Investigation Quarterly Progress Report No. 3, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, May 2003.

Remedial Investigation Quarterly Progress Report No. 4, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, August 2003.

Remedial Investigation Quarterly Progress Report No. 5, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, November 2003.

Remedial Investigation Quarterly Progress Report No. 6, Site No. 8-28-099, EPA ID No. NYD002215226, Valeo Former GM – Delco Chassis Facility, 1555 Lyell Avenue, Rochester, New York. Haley & Aldrich of New York, February 2004.

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TABLE 1 SUMMARY OF APRIL 2004 SAMPLE ANALYSIS RESULTS VALEO FORMER GM-DELCO CHASSIS FACILITY SITE ROCHESTER, NEW YORK

Draft, Privileged & Confidential -- Prepared at the request of GM Legal Counsel

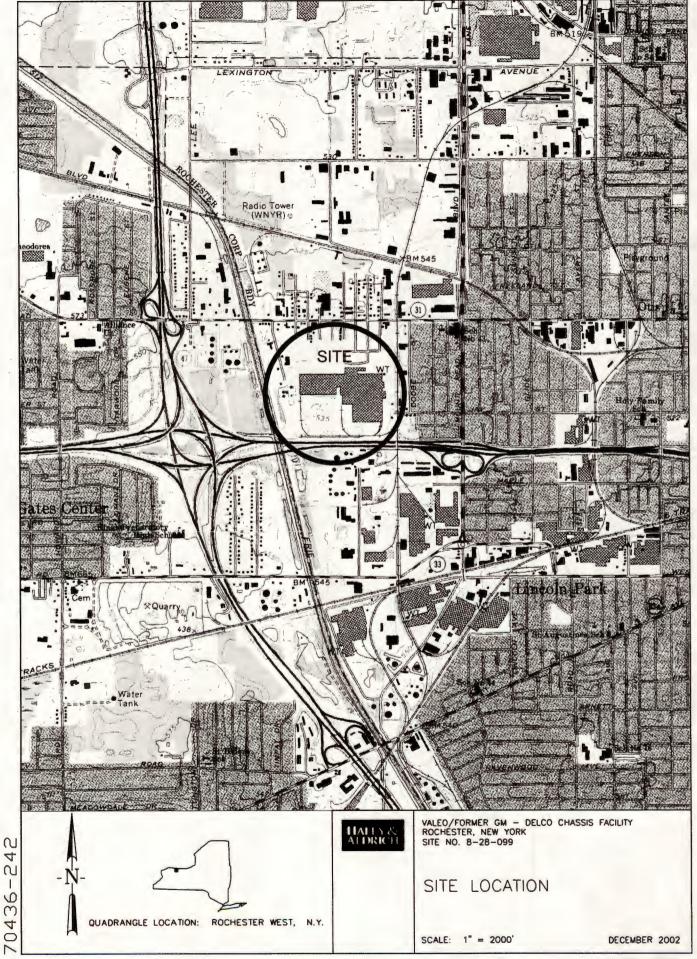
AREA OF REVIEW	Melonite Process Was	tewater Sump	
SAMPLE ID NUMBER	0886-042804-0941	0886-040904-1020	0886-040904-1015
SAMPLE DATE	4/28/04	4/9/04	4/9/04
SAMPLE LOCATION	MW-527	B-527	B-528
SAMPLE MATRIX	Groundwater	Soil	Soil
SAMPLE DEPTH	-	4.0 - 6.0 ft	6.0 - 8.0 ft.
Concentration Units	mg/L (ppm)	mg/KG (ppm)	mg/KG (ppm)
Antimony	ND < 0.020	ND < 17.3	ND < 16.5
Arsenic	0.0041	2.4	2.7
Beryllium	ND < 0.020	0.5	0.28
Cadmium	ND < 0.001	ND < 0.23	ND < 0.22
Chromium	ND < 0.004	13.6	7.9
Copper	ND < 0.010	17.1	12
Lead	ND < 0.006	9.9	4.4
Mercury	ND < 0.0002	ND < 0.024	ND < 0.022
Nickel	ND < 0.010	18.8	7.9
Selenium	ND < 0.015	ND < 4.6	ND < 4.4
Silver	ND < 0.003	ND < 0.58	ND < 0.55
Thallium	ND < 0.020	ND < 6.9	ND < 6.6
Zinc	ND < 0.020	59.2	22.7

Previously-re	eported sample data	for the Melonite Proc	ess Wastewater Sur	mp		
SAMPLE LOCATION		B-501				
SAMPLE DATE		6/30/2002				
SAMPLE MATRIX						
SAMPLE DEPTH	1.0 - 1.8 ft.	1.8 - 2.6 ft.	2.6 - 4.0 ft.	4.0 - 5.4 ft.		
Concentration Units	mg/KG (ppm)	mg/KG (ppm)	mg/KG (ppm)	mg/KG (ppm)		
Antimony	0.34J	0.58J	0.74J	70.53		
Arsenic	2.8	3	4.1	215		
Beryllium	0.27J	0.14J	0.32J	5.7		
Cadmium	0.21J	0.07J	0.17J	9.8		
Chromium	7.5J	7.9J	10.4J	260		
Copper	9.2	6.4	8.3	739		
Lead	8.8	8.4	36	1080		
Mercury	0.015J	0.013J	0.093	ND < 0.005		
Nickel	8.3J	3.9J	6.3J	93.6J		
Selenium	ND < 0.52	0.67	ND < 0.58	205		
Silver	0.2J	ND < 0.08	ND < 0.08	14.4		
Thallium	0.59J	. 1J	ND < 0.51	228		
Zinc	21.5J	9.6J	54.2J	3630J		
Cyanide (total)	ND < 10	ND < 10	ND < 10	ND < 10		

NOTES:

ND - Indicates that the analyte was analyzed and not detected above the quantitation limit shown.

J - Indicates a value greater than or equal to the instrument detection limit, but less than the quantitation limit.



APPENDIX A

Field Records



Client REALM Contractor Nothnagle Drilling, Inc. Casing Sampler Barrel Drilling Equipment and Procedures Rig Make & Model: Bit Type: Drill Mud: Casing: Hoist/Hammer: Visual-Manual Identification and Description (Density/consistency, color, GROUP NAME, max. particle size², structure, odor, moisture, optional descriptions, geologic interpretation											Во	rin	ıg l	No		В	-52	7		
Project Client Contrac	REA	ALM					co Chassis	Facilit	y Site Rochester, Ne	ew York		S	ile N heei tart	t No		043 l of	-	52		
			Ca	sing	Sam	pler	Barrel		Drilling Equipment	and Proce	dures		inish rille			Je	ff			
lamme	r Wei	ght (I					-	Bit To	ype: Mud: ng:			E	H&A Rep. D. Krause Elevation 535 +/- Datum RCD Location					e		
Depth (ft.)	Sample No.	& Rec. (in.)	Sample Depth (ft.)	Well Diagram	Elev./Depth (ft.)	USCS Symbol	(Densit	y/consi	stency, color, GROUP	NAME, max	particle size ² ,	Granse D	avel	eg e	% Medium		% Fines		Toughness a	Plasticity
0							Concrete													
	2	S1 10	0.8		0.8		petroleum	odor, r	•		PID = 0.1 ppi	n			70	5	25			
3	3 2	S2 18	2.0 4.0				Stiff to sof petroleum		n to black SAND with s nps 10mm	silt, moist,	PID = 0.5 pp	n								
. 2	3 2 3	S3 16	4.0				petroleum	odor, r	on to black SAND with some 10mm 1904-1020 B-527:4 to 6											
10	00	S4	6.0				No recove	erv												
	6	No cover	0.0	ED				•												
10 -				NO WELL INSTALLED	8.0		Refusal at See Core	Boring	Report sal at 8.0 ft.											
15 -																				
20		Ma	tos I au	to I De							2									
Date	Т		Time (hr.) Bottom Bottom Water T Thin Wall Tube Screen							Summary verburden (lin. ft.) 8.0 ock Cored (lin. ft.) 7.0 umples 4S										
								S	Split Spoon Geoprobe	c c	rout	Bori) .	71		-52	7	
Field 7	Test			Dilat	ancy:	P	Rapid, S-S	lover A	None Di-		onplastic, L-Low	14 1	lo di-	1000	Lt	U:-			-	



CORE BORING REPORT

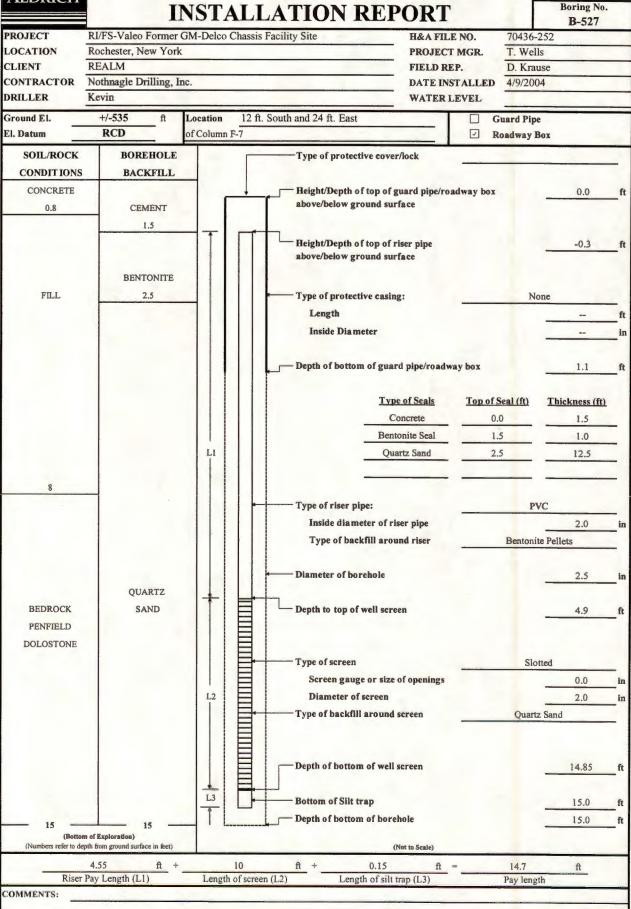
Boring No. B-527 File No. 70436-252

								G REPORT File No. 70436-252 Sheet No. 2 of 2
Depth	Drilling Rate	Run	Depth	Recove	ry/RQD	Weath-	Elev./ Depth	Visual Description
(ft)	Min./ft	No.	(ft)	in.	%	ering	(ft)	and Remarks
								SEE TEST BORING REPORT FOR OVERBURDEN DETAILS
								Began coring at 8.0 ft.
10 -		C1	8.0 13.0	60 38	100 53	Fresh Slight	8.0	Hard, fresh to slightly weathered, fine-grained, light gray DOLOSTONE, low angle to horizontal beds, closely spaced beds, weathered fracture surfaces -PENFIELD DOLOSTONE-
		C2	13.0 15.0	23 9	98 38	Fresh		Hard, fresh to slightly weathered, fine-grained, light gray DOLOSTONE, low angle to horizontal beds, closely spaced beds, weathered fracture surfaces with zones of pits and mineral deposition in voids and fractures at 14.2 ft. to 14.5 ft. -PENFIELD DOLOSTONE-
15 —							15.0	Notes: Approximately 100 to 150 gallons of water lost during drilling.
20 -								

HALEY & ALDRICH

OBSERVATION WELL INSTALLATION REPORT

Well No.
MW-527
Boring No.



HA AL	LEY o	& H					TEST	BORING REPOR	кт	4		Во	rir	ng	No		E	3-5	28	
Proj Clie: Con	nt	REALM					co Chassis	Facility Site Rochester, N	lew York		Sh	le N neet	t N		043 1 of					
			Ca	asing	Sam	pler	Barrel	Drilling Equipment	t and Procedures			nish rille	-		Te	ett				
Type Inside Diameter (in.) Hammer Weight (lb.) Hammer Fall (in.) Oethors (t.) Oethors Oet							-	Driller Jeff H&A Rep. D. Krause Elevation 535 +/- Datum RCD Location												
-		9.5	~	ш	E .	<u>o</u>	,	figured Manual Identification	and Description		-	avel	1	San	d		F	ield	Test	t
o Depth (ft	SPT	Sample R & Rec. (ii	Sample Depth (ft.	Well Diagn	Elev./Dep (ft.)	USCS Sym	(Densit	/isual-Manual Identification y/consistency, color, GROUP dor, moisture, optional descri	NAME, max, particle size	², ation)	% Coarse	% Fine	% Coarse	% Medium	% Fine	% Fines	Dilatancy	Toughness	Plasticity	Strength
0							Concrete													
- 5 -					4.9		in., no odd Very stiff, in., no odd Dense, ligi gravel, mp		SAND with											
					4.7			o black sandy SILT with grave a., vary slight petroleum odor	el, mps 0.75											
		S1	6.5 8.5	GD CE																
- 10 -				NO WELL INSTALLED	8.5		Refusal at (sample 08	8.5 ft. 886-040904-1015 B-528:6.5 to	8.5 ft.)											
				•																
		Wa	ter Lev	el Da	ta			Sample Identification	Well Diagram			5	Sun	nma	ary					_
Da	ite	Time	Elaps Time (l	hr B	Dept ottom Casing	Botto of Ho	m Motor	O Open End Rod T Thin Wall Tube U Undisturbed Sample	Riser Pipe Screen Filter Sand Cuttings	Ro		urde Core	en ((lin.	ft.))	3.5			
Fiel	ld Tes	ts:		Dilata		R-R	Rapid, S-Slo	S Split Spoon G Geoprobe ow, N-None Plas	Grout Concrete Bentonite Seal sticity: N-Nonplastic, L-	Во	rin	g I				B	-52	8		
		npler blov	ws per 6	Tougl	hness: Max	L-L	ow, M-Med	dium. H-High Dry (mm) is determined by direct obs sual-manual methods of th	Strength: N-None, L-Li servation within the limitatio	ow. M-	-Med	diun	n, l	H-H	ligh,	W.	Ver	y Hi	gh	

HALEY &	
ALDRICH	

PROJECT		RI/FS Valeo	Former GM-D	elco Chassis Fa	cility						H&A FILE	NO. 70436-	242			
LOCATION	N Rochester, New York										PROJECT M	1GR. T. Wel	ls			
CLIENT		REALM					_				FIELD REP	D. Krai	ıse			
CONTRACT	OR						_				DATE	04/28/0)4			
Sampling Da	ita:															
Well ID:	M	W-527	Well Dep	th:	_		ft Initial	Depth To Wat	ter:	ft	Purging D	Device:	low flow, co	omp. gas		
Start time:			Depth To	Top Of Screen			ft Depth	Of Pump Intai	ke:	ft.	Tubing Pr	esent In Well:	Yes	☑ No		
Finish Tir	ne:		Depth To	Bottom Of Scr	een		ft				Tubing Type: HDPE					
Elapsed Time (24 hour)	Depth To Water From Casing (ft)	Pump Setting (ml/min) or (gal/min)	Purge Rate (ml/min) or (gal/min)	Cumulative Purge Vol. (liters) or (gal)	Temperature (°F) or (°C)	рН	Conduct- ivity (us/cm)	Dissolved Oxygen (mg/L)	Turbidity (NTU)	ORP/eH (mv)	Iron (mg/L)	Aikalinity (mg/L)	CO2 (mg/L)	Comments		
920					23.02	7.4	1.77	1.02	120.0	87						
923					23.15	7.43	1.78	0.51	83.6	50						
926					23.18	7.42	1.77	0.34	65.0	32						
929					23.2	7.41	1.77	0.26	51.6	17						
932					23.21	7.41	1.76	0.22	43.0	8						
935					23.22	7.41	1.75	0.19	37.9	-2						
938			-h-		23.22	7.41	1.75	0.12	30.1	-9						
941	Sample	#0886-042804	4-0941								0.2	360.0	520.0			
		GW- PP Meta	ls													
	NOTES:	M/W/-5115	-	manent piezom ere sounded an												
						/ 34										

APPENDIX B

Updated page for the Citizen Participation Plan



7. List of Project Contacts for the Valeo/Former GM - Delco Chassis Facility Site

For additional information about the program to investigate the Valeo/Former GM-Delco Chassis Facility site, we encourage you to contact any of the following people:

New York State Department of Environmental Conservation:

Todd M. Caffoe, P.E., Project Manager Citizen Participation Specialist NYSDEC 6274 East Avon-Lima Road Avon, NY 14414-9519 (585) 226-5350 (585) 226-5326

You can also call toll-free 1-800-342-9296. Calls are recorded 24 hours a day. Leave your name, number and a brief message and someone will get back to you shortly.

New York State Department of Health:

Matthew Forcucci, Technical Lead NYSDOH 584 Delaware Avenue Buffalo, NY 14202

Monroe County Health Department:

Joseph Albert (585) 274-6904 Monroe County Health Department 111 Westfall Road PO Box 92832 Rochester, NY 14692

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300 Renaissance Center
Detroit, MI 48265-3000

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James Kolanek (248) 340-3723 Environmental Safety & Health Valeo Wiper Systems & Electric Motors 3000 University Drive Auburn Hills, MI 48326-2356