



ENGINEERS

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October 2, 2013

CON 12-15
Doc # 28780

Mr. Matt Culp
Iowa Department of Natural Resources
Contaminated Sites Section
Wallace State Office Building
Des Moines, Iowa 50319

**RE: SEPTEMBER 2013 SITE MONITORING
SMITH OIL COMPANY
MT. AYR, IOWA**

Dear Mr. Culp:

MPS Engineers is pleased to submit this report of site monitoring activities completed at the above-referenced site in the month of September 2013. The following samples were collected during this event:

Monitoring well MW-3 (source), MW-16 (Down gradient well), and onsite tap sample. These locations are depicted on the attached site map. Copies of laboratory data sheet and groundwater data tabulation are also presented as attachments.

We will conduct the next sampling event in April 2014.

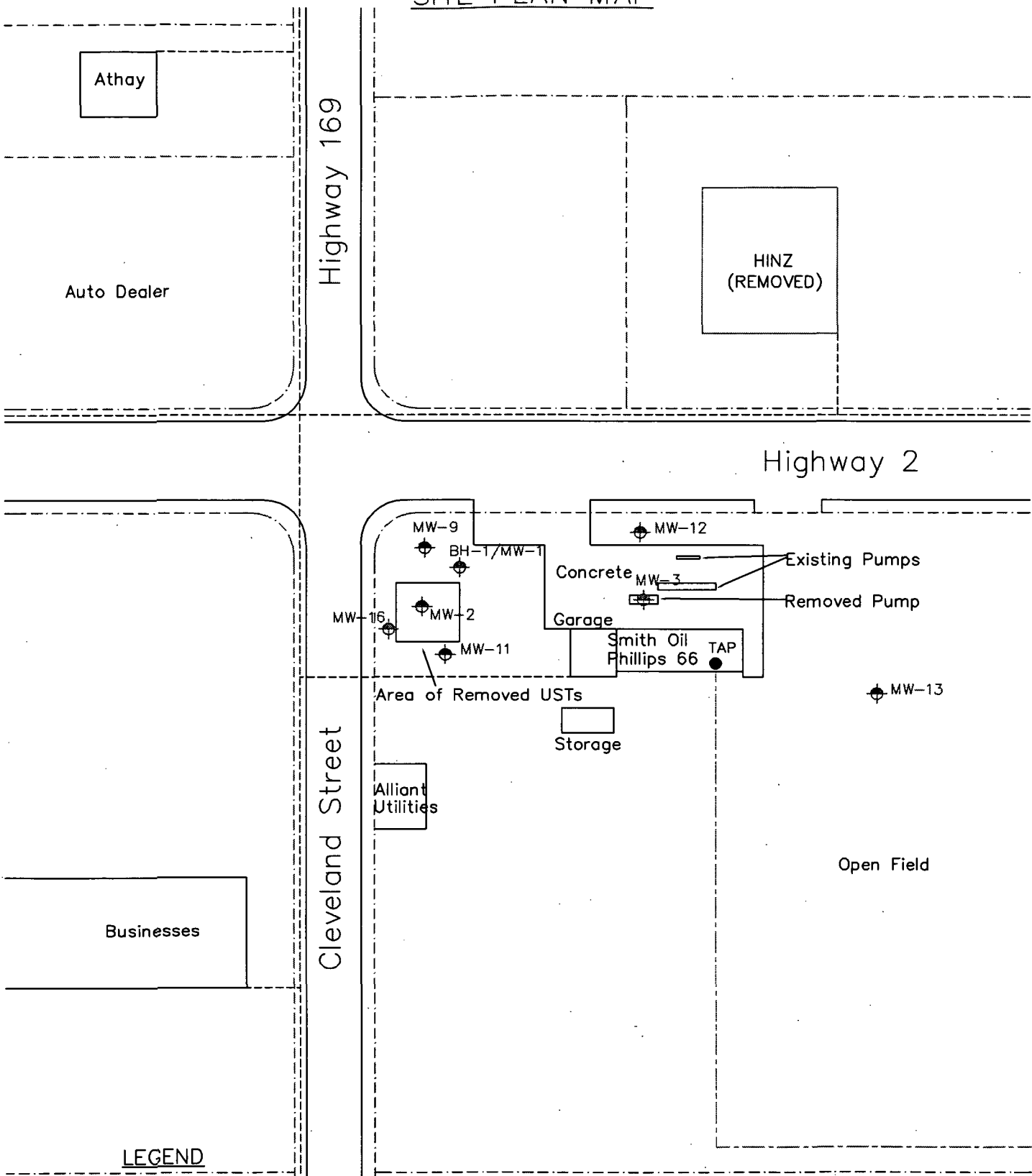
If you have any questions, please contact me at (515) 681-7215.

Sincerely,
MPS ENGINEERS

Amit A. Pradhan, PE
Project Manager

Cc: Mr. Chad Smith
File #1507

SITE PLAN MAP



LEGEND

- = SOIL BORING
- = MONITORING WELL
- = SANITARY SEWER
- = WATER
- = PROPERTY LINE



MPS ENGINEERS
Environmental Consultants

PROJECT			
SMITH OIL SITE HIGHWAY 2 & 169 MOUNT AYR, IOWA			
JOB NO. 1507	DVG. A	DATE 10.2.13	DRAWN AAP

**Groundwater Data Tabulation
Smith Oil Company
Mt. Ayr, Iowa**

	9/26/2005	3/1/2006	10/10/2006	3/12/2007	12/4/2007	3/19/2008	10/18/2008	6/29/2009	12/4/2009	3/16/2010	9/28/2010	3/12/2011	12/21/2011	10/31/2012	9/4/2013
Sample Location	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3	MW-3
Benzene	19100	19400	25300	13700	25600	20000	3870	25400	18400	19500	12400	16100	25500	19100	15100
Toluene	48900	44000	33800	23200	51700	54300	29800	32400	29800	37000	22000	37100	51200	37000	33800
Ethylbenzene	4970	3510	2690	3390	4270	7130	4450	3200	2210	2960	1640	2910	4640	2540	2870
Xylene	26500	18200	15500	14600	20200	37900	25600	15600	11100	15000	9030	14700	22000	13500	12900

	9/26/2005	3/1/2006	10/10/2006	3/12/2007	12/4/2007	3/19/2008	10/18/2008	6/29/2009	12/4/2009	3/16/2010	9/28/2010	3/12/2011	12/21/2012	12/21/2012	9/4/2013
Sample Location	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16	MW-16
Benzene	<1	<1	<1	<1	48	9	<1	14	5.9	2.4	<1	2.6	<1	636	<1
Toluene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	816	<1
Ethylbenzene	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	<1	96	<1
Xylene	<2	<2	<2	<2	<2	<2	3	<2	<2	<2	<2	<2	<2	480	2

	9/26/2005	3/1/2006	10/10/2006	3/12/2007	12/4/2007	3/19/2008	3/19/2008	6/29/2009	12/4/2009	3/16/2010	9/28/2010	3/12/2011	12/21/2012	12/21/2012	9/4/2013
Sample Location	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP	TAP
Benzene	<1	<1	<1	2	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1
Toluene	<1	<1	<1	5	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1
Ethylbenzene	<1	<1	<1	1	<1	<1	<1	<1	<1	<1	<1	<1	<2	<2	<1
Xylene	<2	<2	<2	9	<2	<2	<2	<2	<2	<2	<2	<2	<4	<4	<2

ANALYTICAL REPORT

September 11, 2013

Work Order: 1I30397

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Report To
Amit Pradhan MPS Engineers 1444 Illinois St. Des Moines, IA 50314

Work-Order Information
Date Received: 09/06/2013 10:50AM Collector: Wilkinson, Charles Phone: (515) 221-9832 PO Number: 1507

Project : UST

Project Number: Smith Oil Site # 1507

Analyte	Result	MRL	Batch	Method	Analyst	Analyzed	Qualifier
1I30397-01	MW-3			Matrix: Water		Collected: 09/04/13 10:00	
Benzene	15100 ug/L	100	1WI0227	Iowa OA-1	TKD	09/09/13 15:13	
Toluene	33800 ug/L	100	1WI0227	Iowa OA-1	TKD	09/09/13 15:13	
Ethylbenzene	2870 ug/L	100	1WI0227	Iowa OA-1	TKD	09/09/13 15:13	
Xylenes, total	12900 ug/L	200	1WI0227	Iowa OA-1	TKD	09/09/13 15:13	
Surrogate: Chlorobenzene	98.2 %			74-127	TKD	09/09/13 15:13	
1I30397-02	MW-16			Matrix: Water		Collected: 09/04/13 10:15	
Benzene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 17:19	
Toluene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 17:19	
Ethylbenzene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 17:19	
Xylenes, total	<2.0 ug/L	2.0	1WI0227	Iowa OA-1	TKD	09/09/13 17:19	
Surrogate: Chlorobenzene	98.7 %			74-127	TKD	09/09/13 17:19	
1I30397-03	Tap Water			Matrix: Water		Collected: 09/04/13 10:30	
Benzene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 16:37	
Toluene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 16:37	
Ethylbenzene	<1.0 ug/L	1.0	1WI0227	Iowa OA-1	TKD	09/09/13 16:37	
Xylenes, total	<2.0 ug/L	2.0	1WI0227	Iowa OA-1	TKD	09/09/13 16:37	
Surrogate: Chlorobenzene	101 %			74-127	TKD	09/09/13 16:37	

The results in this report apply to the samples analyzed in accordance with the chain of custody document. This analytical report must be reproduced in its entirety. Samples were preserved in accordance with 40 CFR for pH adjustment unless otherwise noted. MRL= Method Reporting Limit.

MPS Engineers
1444 Illinois St.
Des Moines, IA 50314

September 11, 2013
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Work Order: 1I30397

Determination of Volatile Petroleum Hydrocarbons - Quality Control
Keystone Laboratories, Inc. - Newton

Analyte	Result	Reporting Limit	Units	Spike Level	Source Result	%REC	%REC Limits	RPD	RPD Limit	Notes
Batch 1WI0227 - EPA 5030B										
Blank (1WI0227-BLK1)				Prepared & Analyzed: 09/09/13						
<i>Surrogate: Chlorobenzene</i>	112		ug/L	112.000		99.8	74-127			
Benzene	ND	1.0	"							
Toluene	ND	1.0	"							
Ethylbenzene	ND	1.0	"							
Xylenes, total	ND	2.0	"							
LCS (1WI0227-BS1)				Prepared & Analyzed: 09/09/13						
<i>Surrogate: Chlorobenzene</i>	112		ug/L	112.000		99.7	70-130			
Benzene	92.3	1.0	"	103.400		89.3	72-131			
Toluene	101.3	1.0	"	100.700		101	79-126			
Ethylbenzene	103.8	1.0	"	104.000		99.8	75-126			
Xylenes, total	211.1	2.0	"	218.100		96.8	76-130			
Matrix Spike (1WI0227-MS1)				Source: 1I30397-02		Prepared & Analyzed: 09/09/13				
<i>Surrogate: Chlorobenzene</i>	111		ug/L	112.000		98.9	70-130			
Benzene	907.8	10.0	"	1034.00	ND	87.8	72-131			
Toluene	1004	10.0	"	1007.00	ND	99.7	80-125			
Ethylbenzene	1031	10.0	"	1040.00	ND	99.2	76-123			
Xylenes, total	2090	20.0	"	2181.00	ND	95.8	76-128			
Matrix Spike Dup (1WI0227-MSD1)				Source: 1I30397-02		Prepared & Analyzed: 09/09/13				
<i>Surrogate: Chlorobenzene</i>	109		ug/L	112.000		97.7	70-130			
Benzene	901.0	10.0	"	1034.00	ND	87.1	72-131	0.751	15	
Toluene	1008	10.0	"	1007.00	ND	100	80-125	0.460	13	
Ethylbenzene	1041	10.0	"	1040.00	ND	100	76-123	0.945	13	
Xylenes, total	2106	20.0	"	2181.00	ND	96.6	76-128	0.779	13	

ND = Non Detect; REC= Recovery; RPD= Relative Percent Difference

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MPS Engineers
1444 Illinois St.
Des Moines, IA 50314

September 11, 2013
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Work Order: 1I30397

Certified Analyses included in this Report


Method/Matrix	Analyte	Certifications
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Iowa OA-1 in Water

Benzene	SIA1X
Toluene	SIA1X
Ethylbenzene	SIA1X
Xylenes, total	SIA1X

Code	Description	Number	Expires
KS-KC	Kansas Department of Health and Environment-KC	E-10110	04/30/2014
KS-NT	Kansas Department of Health and Environment	E-10287	10/30/2013
MO-KC	Missouri Department of Natural Resources	140	04/30/2014
NE-LAC	New Jersey Department of Environmental Protection	IA001	06/30/2014
SIA1X	Iowa Department of Natural Resources	95	02/01/2014

End of Report



Keystone Laboratories, Inc.

Sue Thompson
Project Manager II

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CHAIN OF CUSTODY RECORD



600 E. 17th St. S.
 Newton, IA 50208
 Phone: 641-792-8451
 Fax: 641-792-7989

3012 Ansbrough Ave.
 Waterloo, IA 50701
 Phone: 319-235-4440
 Fax: 319-235-2480
 www.keystonelabs.com

1155 Adams, Suite 120
 Kansas City, KS 66103
 Phone: 913-321-7856
 Fax: 913-321-7937

PAGE 1 OF 1

PRINT OR TYPE INFORMATION BELOW
 SAMPLER: Charles Wilkinson
 SITE NAME: Smith oil site # 1507
 ADDRESS: Hwy 2 and 169
 CITY/ST/ZIP: Mt Ayr IA
 PHONE: _____

REPORT TO:
 NAME: Amit Pradhan
 COMPANY NAME: MPS
 ADDRESS: 1444 Illinois St
 CITY/ST/ZIP: DM IA 50314
 PHONE: 515 221 9832
 FAX: 515 222 2625

BILL TO:
 NAME: _____
 COMPANY NAME: SAME
 ADDRESS: _____
 CITY/ST/ZIP: _____
 PHONE: _____
 Keystone Quote No.: _____
(If Applicable)

CLIENT SAMPLE NUMBER	DATE	TIME	SAMPLE LOCATION	NO. OF CONTAINERS	MATRIX	GRAB/COMPOSITE	ANALYSES REQUIRED										LAB USE ONLY			
																	LABORATORY WORK ORDER NO.	SAMPLE TEMPERATURE UPON RECEIPT: °C	LABORATORY SAMPLE NUMBER	
MW 3	9-4-13	1000		2	H2O	G	X											1130397		01
MW 16	↓	1015		2	↓	↓	↓													02
Tap Water	↓	1030		2	↓	↓	↓													03

Relinquished by: (Signature) <u>Ch Wilk</u>	Date <u>9-4-13</u> Time <u>600 pm</u>	Received by: (Signature) _____	Date _____	Turn-Around: <input checked="" type="checkbox"/> Standard <input type="checkbox"/> Rush
Relinquished by: (Signature) _____	Date _____	Received for Lab by: (Signature) <u>Ed W...</u>	Date <u>9-6-13</u> Time <u>1050</u>	Remarks: _____