202 GW -

MONITORING REPORTS





Pro-Kem, Inc. Monitor Well Report Section 15, T16S, R36E Lea County, New Mexico

June 27, 2003



Prepared for:

Pro-Kem, Inc. P.O. Box 1506 Lovington, New Mexico 88260

By:

Safety & Environmental Solutions, Inc. 703 E. Clinton, Suite 102 Hobbs, New Mexico 88240 (505) 397-0510

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1. 1.

I. Background

The subject property is located in south Lovington, New Mexico adjacent to NM Highway 18 in Section 15, Township 16S, Range 36E. Safety & Environmental Solutions, Inc. (SESI) performed sampling and data collection on the three (3) ground water monitor wells previously installed in November 1997 at the site (See Vicinity Map). The casing size in all wells is 2".

II. Work Performed

On June 27, 2003 an environmental technician with SESI arrived at the site. Ground water samples were taken from each well after a hand bailer was used to develop the wells. Three to five casing volumes of water were removed from each well until pH and temperature of the water were stabilized. The samples were obtained and placed in appropriate containers, preserved and transported under chain of custody to Cardinal Laboratories of Hobbs, New Mexico for analysis for the contaminants Carbon Tetrachloride, and BTEX. (See Analytical Data)

In addition to the sampling, SESI also measured the depth to the top of the water table and the total depth of each well. The depth to the top of ground water was measured using a Solinst water level indicator. The total depth of each well was measured in order to compute the proper casing volumes. A groundwater potentiometric and gradient map was prepared using the measured depth to water and previously surveyed top of casing elevations. A summary of this data follows:

ID	DATE	TOP OF	DEPTH	POTENTIO	TOTAL	FREE
		CASING	ТО	METRIC	WELL	PRODUCT
		ELEVATION	WATER	ELEVATION	DEPTH	THICKNESS
MW – 1	6/27/03	3895.67'	61.66'	3834.01'	73.22'	0.00
MW – 2	6/27/03	3894.33'	60.98'	3833.35'	70.20'	0.00
MW – 3	6/27/03	3894.13'	61.66'	3832.47'	71.20'	0.00

III. Analytical Results

The analysis of the groundwater samples performed by Cardinal Laboratories are summarized as follows:

CONTAMINANT	WQCC STANDARD	MW #1	MW #2	MW #3
Carbon Tet.	0.01 ppm	0.263ppm	0.011ppm	0.105ppm
Benzene	0.01 ppm	<0.005ppm	<0.005ppm	<0.005ppm
Toluene	0.75 ppm	<0.005ppm	<0.005ppm	<0.005ppm
Ethyl Benzene	0.75 ppm	<0.005ppm	<0.005ppm	<0.005ppm
Total Xylenes	0.62 ppm	<0.010ppm	<0.010ppm	<0.010ppm

IV. Figures and Appendices

Figures1 - Vicinity Map Figure 2 - Potentiometric Map Appendix A - Cumulative Well Water Quality Data Results Appendix B - Analytical Results

Figure 1 Vicinity Map



Figure 2 Potentiometric Map



Appendix A Cumulative Well Water Quality Data Results

ProKem, Inc. Cumulative Well Data

Monitor Well #1

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CONTAMINANT	WQCC STANDARD	TEST DATE 1/8/99	TEST DATE 4/16/99	TEST DATE 12/8/99
Chloride	250.0ppm	56ppm	N/A	N/A
Carbon Tetrachloride	0.002ppm	.342ppm	.338ppm	.366ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
E. Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm
ТРН	N/A	<1.0ppm	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 2/22/00	TEST DATE 6/16/00	TEST DATE 9/6/00
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	.589ppm	0.144ppm	0.460ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.005ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
E. Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.004ppm	<0.015ppm
TPH	N/A	N/A	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 3/19/01	TEST DATE 6/25/02	TEST DATE 6/27/03
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	0.817ppm	0.528ppm	0.263ppm
Benzene	0.01ppm	<0.005ppm	<0.005ppm	<0.005ppm
Toluene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
E. Benzene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.010ppm	<0.010ppm	<0.010ppm
ТРН	N/A	N/A	N/A	N/A

Monitor Well #2

CONTAMINANT	WQCC STANDARD	TEST DATE 1/8/99	TEST DATE 4/16/99	TEST DATE 12/8/99
Chloride	250.0ppm	94ppm	N/A	N/A
Carbon Tetrachloride	0.002ppm	0.17ppm	0.15ppm	.008ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm
ТРН	N/A	1.47ppm	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 2/22/00	TEST DATE 6/16/00	TEST DATE 9/6/00
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	.354ppm	0.006ppm	<0.005ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.005ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.004ppm	<0.015ppm
TPH	N/A	N/A	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 3/19/01	TEST DATE 6/25/02	TEST DATE 6/27/03
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	0.023ppm	0.022ppm	0.011ppm
Benzene	0.01ppm	<0.005ppm	<0.005ppm	<0.005ppm
Toluene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
Ethyl Benzene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.010ppm	<0.010ppm	<0.010ppm
TPH	N/A	N/A	N/A	N/A

Monitor Well #3

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CONTAMINANT	WQCC STANDARD	TEST DATE 1/8/99	TEST DATE 4/16/99	TEST DATE 12/8/99
Chloride	250.0ppm	116ppm	N/A	N/A
Carbon Tetrachloride	0.002ppm	.111ppm	.109ppm	.353ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.002ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.002ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.006ppm	<0.006ppm
TPH	N/A	<1.0ppm	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 2/22/00	TEST DATE 6/16/00	TEST DATE 9/6/00
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	.007ppm	0.438ppm	0.155ppm
Benzene	0.01ppm	<0.002ppm	<0.002ppm	<0.005ppm
Toluene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
Ethyl Benzene	0.75ppm	<0.002ppm	<0.002ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.006ppm	<0.004ppm	<0.015ppm
TPH	N/A	N/A	N/A	N/A

CONTAMINANT	WQCC STANDARD	TEST DATE 3/19/01	TEST DATE 6/25/02	TEST DATE 6/27/03
Chloride	250.0ppm	N/A	N/A	N/A
Carbon Tetrachloride	0.002ppm	0.136ppm	0.115ppm	0.105ppm
Benzene	0.01ppm	<0.005ppm	<0.005ppm	<0.005ppm
Toluene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
Ethyl Benzene	0.75ppm	<0.005ppm	<0.005ppm	<0.005ppm
Total Xylenes	0.62ppm	<0.010ppm	<0.010ppm	<0.010ppm
TPH	N/A	N/A	N/A	N/A

Appendix B Analytical Results



PHONE (915) 673-7001 • 2111 BEECHWOOD • ABILENE, TX 79603

PHONE (505) 393-2326 • 101 E. MARLAND • HOBBS, NM 88240

ANALYTICAL RESULTS FOR SAFETY & ENVIRONMENTAL SOLUTIONS, INC. ATTN: BOB ALLEN 703 E. CLINTON, #103 HOBBS, NM 88240 FAX TO: (505) 393-4388

Receiving Date: 06/27/03 Reporting Date: 07/02/03 Project Number: PRO-01-001 Project Name: PRO-KEM Project Location: LOVINGTON, NM Lab Number: H7773-1 Sample ID: MW #1

Analysis Date: 06/30/03 Sampling Date: 06/27/03 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC

	Sample Result	Method			True Value		
VOLATILES (mg/L)	· · · ·	Blank	QC	%Recov.	QC		
Benzene	< 0.005	<0.005	0.100	100	0.100		
Carbon Tetrachloride	0.263	<0.005	0.114	114	0.100		
Toluene	< 0.005	<0.005	0.109	109	0.100		
Ethylbenzene	<0.005	<0.005	0.103	103	0.100		
m,p-Xylene	< 0.005	<0.005	0.199	99.5	0.200		
o-Xylene	< 0.005	<0.005	0.101	101	0.100		

	% RECOVERY	
Dibromofluoromethane	87	
Toluene-d8	89	
Bromofluorobenzene	86	

METHODS: EPA SW-846 8260/624

Burgess J. A. Cooke, Ph. D

103

Date

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Receiving Date: 06/27/03 Reporting Date: 07/02/03 Project Number: PRO-01-001 Project Name: PRO-KEM Project Location: LOVINGTON, NM Lab Number: H7773-2 Sample ID: MW #2

Analysis Date: 06/30/03 Sampling Date: 06/27/03 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC

	Sample Result	Method			True Value
VOLATILES (mg/L)		Blank	QC	%Recov.	QC
Benzene	<0.005	<0.005	0.100	100	0.100
Carbon Tetrachloride	0.011	<0.005	0.114	114	0.100
Toluene	< 0.005	<0.005	0.109	109	0.100
Ethylbenzene	< 0.005	< 0.005	0.103	103	0.100
m,p-Xylene	< 0.005	< 0.005	0.199	99.5	0.200
o-Xylene	< 0.005	<0.005	0.101	101	0.100

	% RECOVERY	
Dibromofluoromethane	100	
Toluene-d8	98	
Bromofluorobenzene	91	

METHODS: EPA SW-846 8260/624

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Receiving Date: 06/27/03 Reporting Date: 07/02/03 Project Number: PRO-01-001 Project Name: PRO-KEM Project Location: LOVINGTON, NM Lab Number: H7773-3 Sample ID: MW #3 Analysis Date: 06/30/03 Sampling Date: 06/27/03 Sample Type: GROUNDWATER Sample Condition: COOL & INTACT Sample Received By: BC Analyzed By: BC

	Sample Result	Method		True Value			
VOLATILES (mg/L)	•	Blank	QC	%Recov.	QC		
Benzene	<0.005	<0.005	0.100	100	0.100		
Carbon Tetrachloride	0.105	<0.005	0.114	114	0.100		
Toluene	< 0.005	<0.005	0.109	109	0.100		
Ethylbenzene	< 0.005	< 0.005	0.103	103	0.100		
m,p-Xylene	< 0.005	< 0.005	0.199	99.5	0.200		
o-Xylene	< 0.005	<0.005	0.101	101	0.100		

	% RECOVERY	
Dibromofluoromethane	80	
Toluene-d8	84	
Bromofluorobenzene	89	

METHODS: EPA SW-846 8260/624

Date

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