

AP - 59

APPROVALS

YEAR(S):

2009

Hansen, Edward J., EMNRD

From: Hansen, Edward J., EMNRD
Sent: Thursday, January 08, 2009 9:40 AM
To: 'Hack Conder'
Cc: Price, Wayne, EMNRD; Johnson, Larry, EMNRD; 'Katie Lee'
Subject: Suspension of laboratory analyses for BTEX
Attachments: ROC_BTEX Summary.xls

Dear Mr. Conder:

Upon review of the requests for suspension of laboratory analyses for BTEX, dated December 16, 2008, the New Mexico Oil Conservation Division (OCD) hereby approves the suspension of laboratory analyses for BTEX at the specified groundwater monitoring wells on the attached list.

[The well at the Hobbs SWD O-5 site (1R428-69) needs one additional groundwater sampling event with BTEX analytical results indicating that the respective standards have been met. Please resubmit your request for this well to the OCD once the results are available.]

The above approval is based on either eight consecutive sampling events that indicate that the respective standards have been met or that the four initial sampling events have indicated that there has been no detection of BTEX. However, the OCD may require additional sampling on a case-by-case basis (e.g., increasing concentration trend or elevated concentrations of BTEX in the vadose zone). Therefore, future requests for suspension of laboratory analyses for BTEX must be submitted to the OCD on a case-by-case basis, which include a table of all soil and groundwater monitoring results.

Please be advised that this OCD approval does not relieve the owner/operator of responsibility should operations pose a threat to ground water, surface water, human health or the environment. In addition, OCD approval does not relieve the owner/operator of responsibility for compliance with any OCD, federal, state, or local laws and/or regulations.

If you have any questions regarding this matter, please contact me at 505-476-3489.

Edward J. Hansen
Hydrologist
Environmental Bureau

System	Site	NMOCD case #	Last Submission	MWs where BTEX is ND, # of Quarters	# wells to stop BTEX Analysis
BD	B-29	1R426-169	Status Report	MW1&2: BTEX 4Q	2
EME	M-5 SWD	1R424	Final Closure Report	1: BTEX 13Q, 2: BTEX 22Q	2
EME	K-33-1	1R0427-92	Stage 1 AP	1: BTEX 22Q, 2: BTEX 7Q, 3: BTEX 8Q, 4: BTEX 4Q	4
Hobbs	jct. E-33-1	1R428-67	Corrective Action Plan	BTEX: 10Q	1
Hobbs	O-5	1R428-69	Status Report	EX 7Q, BT 3Q	1
Hobbs	M-4 vent	1R428-76	CAP	BTEX 4Q	1
Hobbs	F-29 SWD	AP-64	Stage 1 & 2	2: BTEX 5Q, 3: BTEX 8Q, 4: BTEX 26Q, 5: BTEX 5Q	4
Vacuum	F-35 SWD	AP-59	AP Amendment Proposal	2: BTEX 10Q, 3D & 3S: BTEX 6Q	3
Vacuum	G-35 SWD	AP-59	AP Amendment Proposal	2: BTEX 10Q, 3D: BTEX 8Q, 3S: BTEX 7Q	3

Total Wells with Proposed BTEX Suspension

21

R. T. HICKS CONSULTANTS, LTD.

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December 16, 2008

Edward J. Hansen
NMOCD Environmental Bureau
1220 South St. Francis Drive
Santa Fe, New Mexico 87505
Via E-mail and Hand Delivery

RECEIVED
DEC 16 2008
Environmental Bureau
Oil Conservation Division

RE: ROC Vacuum F-35 SWD & G-35 SWD NMOCD: AP-59
Plans to discontinue lab analysis of Benzene, Toluene, Ethyl benzene, & Xylenes
Section 35, 17S, 35E, Units F and G

Dear Mr. Hansen:

When Rice Operating Company observes three consecutive quarters of laboratory analysis showing any constituent of concern below detection limits, ROC will request from NMOCD a discontinuation of laboratory analysis for that constituent during quarterly sampling, unless evidence suggests that conditions have changed.

In the monitoring well at the above referenced sites, laboratory analyses for Benzene, Toluene, Ethyl benzene and Xylenes have been below detection limits for more than the last 3 quarters, as follows:

F-35 SWD	
MW-2	since June 2006
MW-3 deep	since September 2007
MW-3 shallow	since September 2007

G-35 SWD	
MW-2	since June 2006
MW-3 deep	since January 2007
MW-3 shallow	since May 2007

Ground water at all of these wells was below detection limits for these constituents from the dates above to the most recent sampling event in November 2008. As such, ROC requests discontinuation of laboratory analysis for these constituents beginning in our next quarter of data collection.

Please note, as these constituents continue to be above detection limits in the following wells, ROC will continue to conduct laboratory analyses for BTEX at F-35 SWD MW-1 and G-35 SWD MW-1 and MW-4.

The attached table presents all ground water data for both sites. If you have questions, please contact us or ROC.

Sincerely,
R.T. Hicks Consultants, Ltd.



Katie Lee
Project Scientist

Copy: Rice Operating Company

Vac F-35 GW data

Vacuum F-35 SWD

MW	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
						(mg/L)		
1	1/10/2002	5200	9425	0.05	0.053	0.05	0.09	5
1	5/15/2002	3720	7050	0.744	0.207	0.51	0.309	3.2
1	8/19/2002	3630	6040	0.705	0.172	0.112	0.076	10.7
1	11/11/2002	3720	6020	1.21	0.343	0.835	0.431	2.8
1	2/28/2003	2200	4040	0.909	0.84	0.321	0.124	26.2
1	6/5/2003	2300	4180	0.632	0.134	0.061	0.067	20.3
1	8/21/2003	2060	4000	0.617	0.36	0.202	0.192	4.9
1	11/19/2003	2000	3760	0.797	0.301	0.264	0.248	5.1
1	2/18/2004	1819	3932	0.349	0.038	0.121	0.027	0.19
1	5/27/2004	1759	4008	0.726	0.176	0.268	0.215	8.7
1	9/7/2004	1040	3000	0.429	0.221	0.143	0.2247	19.9
1	11/24/2004	1260	2740	0.0489	0.313	0.209	0.2507	51
1	3/21/2005	1220	2210	2.2	1.61	0.848	1.283	110
1	5/11/2005	1490	2970	686	451	374	176.2	24.6
1	8/15/2005	1340	2890	0.819	0.393	0.666	0.584	69.5
1	10/25/2005	1080	2540	0.779	0.243	0.394	0.3062	72.7
1	1/23/2006	886	2080	0.447	0.222	0.28	0.3006	88.2
1	4/25/2006	1420	3040	0.227	0.0956	0.174	0.1614	62.5
1	10/24/2006	1460	3190	0.462	0.489	0.23	0.745	45.2
1	1/9/2007	1510	2980	0.486	0.577	0.185	0.333	67.2
1	5/23/2007	1500	2850	0.557	0.387	0.323	0.681	44.4
1	9/19/2007	1380	2902	0.902	0.706	0.582	1.14	23.2
1	11/19/2007	1260	2642	0.719	0.203	0.429	0.665	44.2
1	2/15/2008	1240	2650	0.305	0.099	0.218	0.563	49.7
1	6/3/2008	1460	2840	<0.002	<0.002	<0.002	<0.006	25.4
1	7/28/2008	1120	2510	0.051	0.023	0.066	0.172	35
1	10/23/2008	1150	2580	0.193	0.013	0.232	0.526	27

*continued
BTEX analysis*

MW	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
						(mg/L)		
2	6/6/2006	97.6	724	<0.001	<0.001	<0.001	<0.001	63.3
2	10/24/2006	89.1	598	<0.001	<0.001	<0.001	<0.001	67.2
2	1/9/2007	101	590	<0.001	<0.001	<0.001	<0.001	69.4
2	5/23/2007	88.3	512	<0.001	<0.001	<0.001	<0.001	61
2	9/19/2007	100	587	<0.002	<0.002	<0.002	<0.006	71.7
2	11/18/2007	96	571	<0.002	<0.002	<0.002	<0.006	85.7
2	2/4/2008	100	652	<0.002	<0.002	<0.002	<0.006	60.6
2	4/28/2008	96	604	<0.002	<0.002	<0.002	<0.006	79.8
2	7/28/2008	96	586	<0.001	<0.001	<0.001	<0.003	62
2	10/23/2008	100	710	<0.001	<0.001	<0.001	<0.003	77.7

Vac F-35 GW data

MW	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
		(mg/L)						
3 Deep	1/9/2007	133	500	<0.001	0.0103	<0.001	<0.001	86.9
3 Deep	5/23/2007	91.9	452	<0.001	0.00241	<0.001	<0.001	47.5
3 Deep	9/19/2007	204	772	<0.002	<0.002	<0.002	<0.006	72.8
3 Deep	11/19/2007	216	735	<0.002	<0.002	<0.002	<0.006	64.6
3 Deep	2/5/2008	52	393	<0.002	<0.002	<0.002	<0.006	59.8
3 Deep	4/28/2008	104	485	<0.002	<0.002	<0.002	<0.006	65.2
3 Deep	7/28/2008	96	510	<0.001	<0.001	<0.001	<0.003	52
3 Deep	10/22/2008	72	665	<0.001	<0.001	<0.001	<0.003	160

MW	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
		(mg/L)						
3 Shallow	1/9/2007	144	512	<0.001	0.015	<0.001	<0.001	99
3 Shallow	5/23/2007	117	494	<0.001	0.0013	<0.001	<0.001	56.9
3 Shallow	9/19/2007	192	789	<0.002	<0.002	<0.002	<0.006	73.5
3 Shallow	11/19/2007	104	467	<0.002	<0.002	<0.002	<0.006	66.3
3 Shallow	2/5/2008	212	821	<0.002	<0.002	<0.002	<0.006	60.6
3 Shallow	4/28/2008	116	502	<0.002	<0.002	<0.002	<0.006	63.1
3 Shallow	7/28/2008	164	650	<0.001	<0.001	<0.001	<0.003	58
3 Shallow	10/22/2008	104	690	<0.001	<0.001	<0.001	<0.003	74.3

Vac G-35 GW data

Vacuum G-35 SWD

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
1	53.6	1/10/2002	568	1284	0.011	0.022	0.034	0.055	23
1	52.89	5/15/2002	1950	3260	0.414	0.057	0.131	0.065	2.1
1	53.02	8/19/2002	1950	3850	0.705	0.598	0.209	0.253	7
1	53.08	11/11/2002	3630	6740	0.921	0.078	0.154	0.131	5.8
1	53.06	2/28/2003	2730	4770	0.713	0.01	0.018	0.027	24.6
1	53.2	5/22/2003	3860	7320	0.583	0.002	0.12	0.027	5.3
1	53.21	8/21/2003	5010	8850	0.689	0.004	0.307	0.032	3.5
1	53.29	11/19/2003	1930	3590	0.012	0.002	0.09	0.003	20.9
1	53.3	2/18/2004	2579	5000	0.059	<0.002	0.35	0.007	1.49
1	52.9	5/27/2004	1899	4188	1.17	0.308	0.357	0.319	2.15
1	52.6	9/7/2004	4700	8270	1.11	0.0525	0.346	0.1382	17.7
1	52.91	11/24/2004	5200	10400	0.881	0.0226	0.133	0.0717	799
1	52.4	3/21/2005	5750	9190	2.76	0.247	0.399	0.2862	136
1		5/11/2005	5890	10700	2490	466	672	693	9.75
1	52.35	8/15/2005	4430	6960	1.07	0.226	0.396	0.2417	126
1	52.51	10/25/2005	2360	4420	0.799	0.0607	0.146	0.0839	166
1	52.46	1/23/2006	1960	3540	0.141	J[0.00537]	0.078	0.0229	80.5
1	52.7	4/25/2006	1540	3280	0.749	0.0143	0.093	0.0282	67.4
1	52.88	10/25/2006	1350	2800	0.394	0.0204	0.0774	0.0438	45.2
1	53.08	1/9/2007	873	1950	0.188	<0.001	0.0883	0.00764	34.6
1	53.2	5/24/2007	873	1820	0.143	0.00735	0.0664	0.0227	41.2
1	53.37	9/20/2007	800	1738	0.189	0.004	0.082	0.029	22.2
1	53.39	11/20/2007	320	969	0.003	<0.002	<0.002	<0.006	35.3
1	53.68	2/4/2008	540	1380	0.159	0.061	0.087	0.058	23.1
1	53.74	4/29/2008	440	1150	0.109	0.02	0.074	0.038	22.4
1	53.81	7/29/2008	860	2160	0.915	0.261	0.74	0.649	<10
1	53.9	10/23/2008	680	1790	0.785	0.192	0.531	0.45	<10
MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
2	52.08	6/6/2006	17.4	286	<0.001	j[0.000839]	j[0.000385]	0.0044	24.7
2	52.35	10/25/2006	13.4	264	<0.001	<0.001	<0.001	<0.001	22.8
2	53.01	4/29/2008	16	283	<0.002	<0.002	<0.002	<0.006	23.8
2	52.56	1/9/2007	13.7	322	<0.001	j[0.000540]	<0.001	<0.001	21.7
2	52.66	5/24/2007	17.2	254	<0.001	<0.001	<0.001	<0.001	20.1
2	52.84	9/20/2007	16	262	<0.002	<0.002	<0.002	<0.006	25.6
2	52.86	11/20/2007	16	283	<0.002	<0.002	<0.002	<0.006	25
2	52.95	2/4/2008	16	296	<0.002	<0.002	<0.002	<0.006	23
2	53.15	7/29/2008	16	312	<0.001	<0.001	<0.001	<0.003	24
2	53.36	10/23/2008	16	386	<0.001	<0.001	<0.001	<0.003	24.6
MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
3 Deep	52.77	1/9/2007	313	830	<0.001	0.0136	<0.001	<0.001	46.5
3 Deep	52.9	5/24/2007	648	1090	<0.001	j[0.000320]	<0.001	<0.001	34.7
3 Deep	53.11	9/20/2007	570	1442	<0.002	<0.002	<0.002	<0.006	34
3 Deep	53.15	11/20/2007	570	1312	<0.002	<0.002	<0.002	<0.006	42.5
3 Deep	53.29	2/5/2008	820	1710	<0.002	<0.002	<0.002	<0.006	32.7
3 Deep	53.31	4/29/2008	930	1920	<0.002	<0.002	<0.002	<0.006	36.7
3 Deep	53.47	7/29/2008	1010	2110	<0.001	<0.001	<0.001	<0.003	40
3 Deep	53.6	10/22/2008	670	1710	<0.001	<0.001	<0.001	<0.003	<10

continue
BTEX

Vac G-35 GW data

MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
3 Shallow	52.77	1/9/2007	311	804	<0.001	0.0191	<0.001	<0.001	48.9
3 Shallow	52.9	5/24/2007	599	1070	<0.001	j[0.000380]	<0.001	<0.001	34.5
3 Shallow	53.11	9/20/2007	500	1373	<0.002	<0.002	<0.002	<0.006	39.1
3 Shallow	53.15	11/20/2007	776	1670	<0.002	<0.002	<0.002	<0.006	40.4
3 Shallow	53.29	2/5/2008	670	1590	<0.002	<0.002	<0.002	<0.006	34.3
3 Shallow	53.31	4/29/2008	750	1790	<0.002	<0.002	<0.002	<0.006	31.8
3 Shallow	53.47	7/29/2008	760	1870	<0.001	<0.001	<0.001	<0.003	27
3 Shallow	53.6	10/22/2008	464	1570	<0.001	<0.001	<0.001	<0.003	68.6
MW	Depth to Water	Sample Date	Cl	TDS	Benzene	Toluene	Ethyl Benzene	Total Xylenes	Sulfate
(mg/L)									
4	53.33	4/29/2008	1800	3370	0.529	0.222	0.15	0.176	11.2
4	52.98	5/24/2007	1200	2050	0.0521	0.0582	0.017	0.02819	43.2
4	53.18	9/20/2007	1600	3262	0.146	0.058	0.023	0.042	17.8
4	53.21	11/20/2007	1600	3256	0.036	0.034	0.01	0.017	26
4	53.28	2/4/2008	2680	5140	0.411	0.151	0.082	0.092	9.94
4	53.43	7/29/2008	1420	2620	0.208	0.086	0.041	0.06	20
4	53.52	10/23/2008	1040	2110	0.189	0.137	0.078	0.109	21.5

continue
BTEX