3R - 357

GENERAL CORRESPONDENCE

YEAR(S):
2004-1994

PATINA
OIL & GAS CORPORATION

June 7, 2004

Mr. William Olson
Environmental Bureau
NM Energy, Minerals & Natural Resources Dept.
1220 South Saint Francis Drive
Santa Fe, NM 87505

RE: Rio Bravo #1 (Formerly Templeton #1)

Dear Bill,

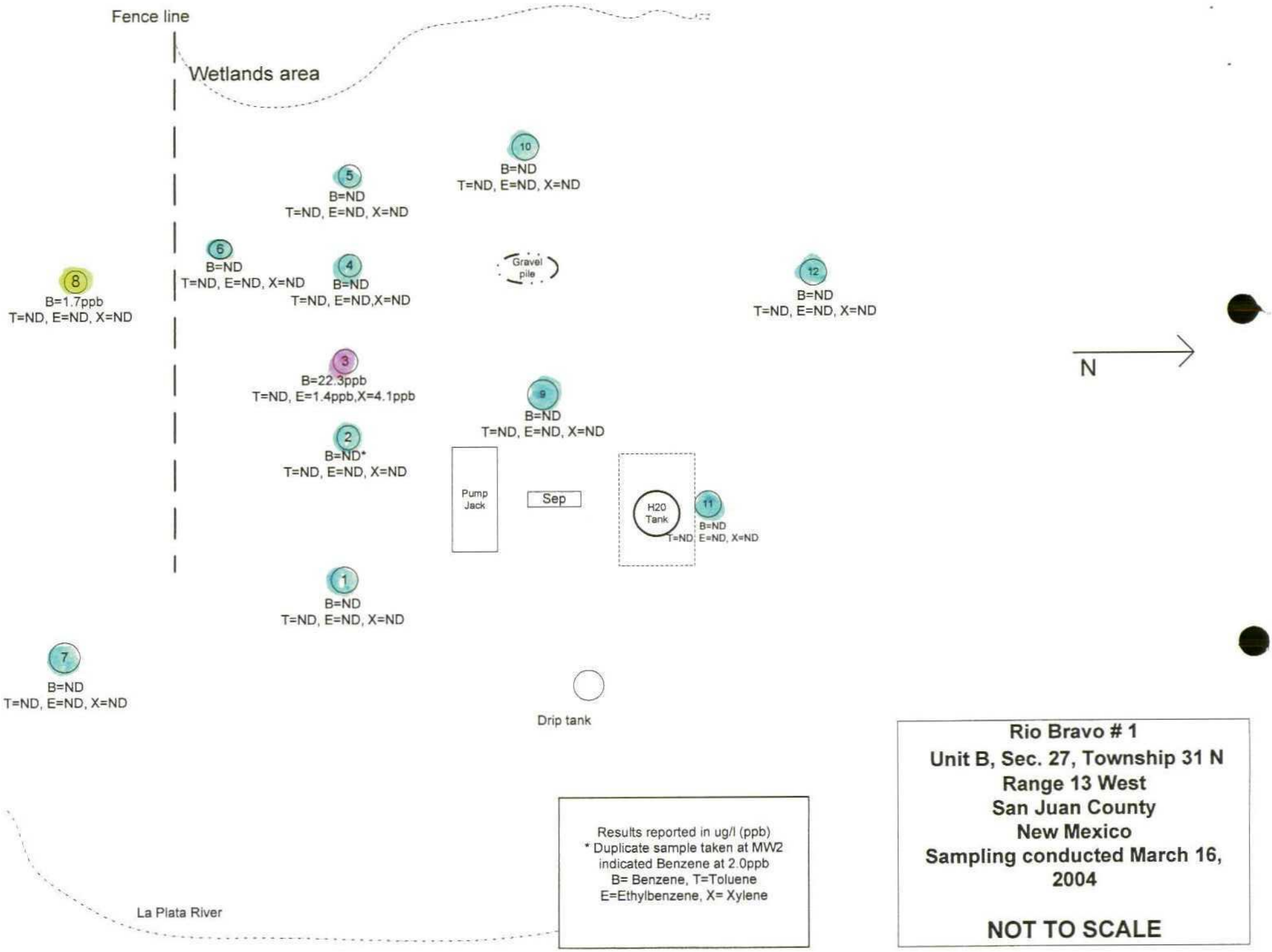
Attached I have included a synopsis of ground water test data found in files at Patina's Farmington office. Also included are data sent to me by Shawn Adams of Contract Environmental Services and the latest round of testing conducted in March of 2004. As one can surmise, over time some of the monitor wells may have been designated by different numbers, etc. I have done my best to summarize the information correctly.

Based upon the latest laboratory data, I would like to propose that Monitor Wells 2 through 4 and well number 8 be put on a annual testing frequency until natural attenuation has run its course and the ground water has been remediated to meet water quality criteria. If you have any reservations regarding this proposal, please feel free to contact me.

Sincerely,

John Nussbaumer

1625 Broadway, Suite 2000
Denver, CO 80202


Fence line
Wetlands area
10
B=ND
T=ND, E=ND, X=ND
5
B=ND
T=ND, E=ND, X=ND
6
B=ND
T=ND, E=ND, X=ND
4
B=ND
T=ND, E=ND,X=ND
Gravel pile
12
B=ND
T=ND, E=ND, X=ND
8
B=1.7ppb
T=ND, E=ND, X=ND
N
3
B=22.3ppb
T=ND, E=1.4ppb,X=4.1ppb
9
B=ND
T=ND, E=ND, X=ND
2
B=ND*
T=ND, E=ND, X=ND
Pump Jack
Sep
H20 Tank
11
B=ND
T=ND, E=ND, X=ND
1
B=ND
T=ND, E=ND, X=ND
7
B=ND
T=ND, E=ND, X=ND
Drip tank
La Plata River
Results reported in ug/l (ppb)
* Duplicate sample taken at MW2 indicated Benzene at 2.0ppb
B= Benzene, T=Toluene
E=Ethylbenzene, X= Xylene
Rio Bravo # 1
Unit B, Sec. 27, Township 31 N
Range 13 West
San Juan County
New Mexico
Sampling conducted March 16, 2004
NOT TO SCALE

Rio Bravo # 1 (Formally Templeton #1) Site Historical Ground Water Test Data

May, 1997*	Benzene	Toluene	Ethylbenzene	Xylene (s)
MW1	0.5	2.8	1.1	6.1
MW2	162.1	64.6	306	4,136.6
MW3	4,287.7	10,634.6	797.9	8,566.7
MW4	1,704.9	5,175.4	464.8	4,871

*Note: It is not certain that monitor wells mentioned in files prior to 2001 were numbered in the same sequence as those sampled from 2001. Also, excavation, air stripping of ground water and eventual air sparging were completed between 1997 and 2000.

NOTE: All units are in Parts Per Billion (PPB)

June -July, 2000	Benzene	Toluene	Ethylbenzene	Xylene (s)
Temp-100 R1	2.7	ND	07	ND
Temp-101 R2	300	32	50	190
Temp-102 R3	1.6	ND	10	20.9
Temp-103 R4	1.6	ND	10	20.9
Temp-104 R5	ND	ND	ND	ND
Temp-105 R6	ND	ND	ND	ND
Temp-106 R7	ND	ND	ND	ND
Temp-107 R8	ND	ND	ND	ND
Temp-108 R9	ND	ND	ND	ND
Temp-109 R10	ND	2	1.1	0.7
Temp-110 R11	ND	ND	ND	ND
Temp-111 R12	ND	ND	ND	ND

September, 2000	Benzene	Toluene	Ethylbenzene	Xylene (s)
Temp-800 R2	1.0	ND	0.6	ND
Temp-801 R3	160	1.9	14	60
Temp-802 R4	0.9	ND	8.1	24.7

December, 2000	Benzene	Toluene	Ethylbenzene	Xylene (s)
Temp-200R1	ND	ND	1.2	ND
Temp-201R2	ND	ND	ND	ND
Temp-202R3	93	ND	4.8	4.8
Temp-203R4	ND	ND	1	7.2
Temp-204R10	ND	ND	ND	ND

February, 2001	Benzene	Toluene	Ethylbenzene	Xylene (s)
R1 MW	ND	ND	0.6	ND
R2 MW	ND	ND	ND	ND
R3 MW	100	ND	9.3	26.8
R4 MW	ND	ND	5	19
R10 MW	ND	ND	ND	ND

May, 2001	Benzene	Toluene	Ethylbenzene	Xylene (s)
Temp 900 #1	ND	ND	0.7	ND
Temp 901 #2	0.7	ND	ND	ND
Temp 902 #3	300	2.2	4.4	44
Temp 903 #4	ND	ND	3.8	10.6
Temp 904#5	ND	0.7	ND	ND

August, 2001	Benzene	Toluene	Ethylbenzene	Xylene (s)
Temp 100	ND	ND	0.6	1.9
Temp 101	1.8	ND	ND	ND
Temp 102	9.1	ND	1.8	2.7
Temp 103	ND	ND	7.6	6.4
Temp 104	ND	0.6	0.7	ND

March, 2004	Benzene	Toluene	Ethylbenzene	Xylene (s)
MW 1	ND	ND	ND	ND
MW 2	ND*	ND	ND	ND
MW 3	223	ND	1.4	4.1
MW 4	ND	ND	ND	ND
MW 5	ND	ND	ND	ND
MW 6	ND	ND	ND	ND
MW 7	ND	ND	ND	ND
MW 8	1.7	ND	ND	ND
MW 9	ND	ND	ND	ND
MW10	ND	ND	ND	ND
MW 11	ND	ND	ND	ND
MW 12	ND	ND	ND	ND

* Duplicate sample taken at this well indicated a concentration of benzene in water at 2.0ppb

Gulf Coast
ACCUTEST.
Laboratories

03/30/04

Technical Report for

LT Environmental

Farmington

PAT0402

Accutest Job Number: T7101

Report to:

LT Environmental

ksiesser@ltenv.com

ATTN: Kyle Siesser

Total number of pages in report: 27

ACCREDITED IN ACCORDANCE WITH nelac

Test results contained within this data package meet the requirements of the National Environmental Laboratory Accreditation Conference and/or state specific certification programs as applicable.

Ron Martino
Laboratory Manager

Table of Contents

Sections: 1 2 3 4

-1-

Sample Summary

LT Environmental

Job No: T7101

Farmington
Project No: PAT0402

Sample Number	Collected Date	Time	By	Received	Matrix Code	Matrix Type	Client Sample ID
T7101-1	03/16/04	09:10	KGS	03/17/04	AQ	Ground Water	MW01
T7101-2	03/16/04	09:15	KGS	03/17/04	AQ	Ground Water	MW02
T7101-3	03/16/04	09:20	KGS	03/17/04	AQ	Ground Water	MW03
T7101-4	03/16/04	09:25	KGS	03/17/04	AQ	Ground Water	MW04
T7101-5	03/16/04	09:30	KGS	03/17/04	AQ	Ground Water	MW05
T7101-6	03/16/04	09:35	KGS	03/17/04	AQ	Ground Water	MW06
T7101-7	03/16/04	09:00	KGS	03/17/04	AQ	Ground Water	MW07
T7101-8	03/16/04	09:05	KGS	03/17/04	AQ	Ground Water	MW08
T7101-9	03/16/04	09:50	KGS	03/17/04	AQ	Ground Water	MW09
T7101-10	03/16/04	09:40	KGS	03/17/04	AQ	Ground Water	MW10
T7101-11	03/16/04	09:55	KGS	03/17/04	AQ	Ground Water	MW11
T7101-12	03/16/04	09:45	KGS	03/17/04	AQ	Ground Water	MW12
T7101-13	03/16/04	09:18	KGS	03/17/04	AQ	Ground Water	FARM02

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW01		
Lab Sample ID:	T7101-1	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8259.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-124%
17060-07-0	1,2-Dichloroethane-D4	103%		78-129%
2037-26-5	Toluene-D8	107%		70-134%
460-00-4	4-Bromofluorobenzene	127%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range

J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW02		
Lab Sample ID:	T7101-2	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8260.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-124%
17060-07-0	1,2-Dichloroethane-D4	104%		78-129%
2037-26-5	Toluene-D8	109%		70-134%
460-00-4	4-Bromofluorobenzene	121%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW03		
Lab Sample ID:	T7101-3	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8261.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	22.3	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	1.4	2.0	1.0	ug/l	J
1330-20-7	Xylene (total)	4.1	6.0	2.0	ug/l	J

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-124%
17060-07-0	1,2-Dichloroethane-D4	104%		78-129%
2037-26-5	Toluene-D8	108%		70-134%
460-00-4	4-Bromofluorobenzene	123%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW04		
Lab Sample ID:	T7101-4	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8262.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	102%		80-124%
17060-07-0	1,2-Dichloroethane-D4	103%		78-129%
2037-26-5	Toluene-D8	108%		70-134%
460-00-4	4-Bromofluorobenzene	125%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW05		
Lab Sample ID:	T7101-5	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8263.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	101%		80-124%
17060-07-0	1,2-Dichloroethane-D4	104%		78-129%
2037-26-5	Toluene-D8	111%		70-134%
460-00-4	4-Bromofluorobenzene	118%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW06		
Lab Sample ID:	T7101-6	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8264.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	103%		80-124%
17060-07-0	1,2-Dichloroethane-D4	106%		78-129%
2037-26-5	Toluene-D8	111%		70-134%
460-00-4	4-Bromofluorobenzene	118%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW07		
Lab Sample ID:	T7101-7	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8289.D	1	03/29/04	JH	n/a	n/a	VZ435
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-124%
17060-07-0	1,2-Dichloroethane-D4	98%		78-129%
2037-26-5	Toluene-D8	111%		70-134%
460-00-4	4-Bromofluorobenzene	120%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW08		
Lab Sample ID:	T7101-8	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8272.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	1.7	2.0	1.0	ug/l	J
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	93%		80-124%
17060-07-0	1,2-Dichloroethane-D4	85%		78-129%
2037-26-5	Toluene-D8	108%		70-134%
460-00-4	4-Bromofluorobenzene	117%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW09		
Lab Sample ID:	T7101-9	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8290.D	1	03/29/04	JH	n/a	n/a	VZ435
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-124%
17060-07-0	1,2-Dichloroethane-D4	98%		78-129%
2037-26-5	Toluene-D8	114%		70-134%
460-00-4	4-Bromofluorobenzene	126%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW10		
Lab Sample ID:	T7101-10	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8291.D	1	03/29/04	JH	n/a	n/a	VZ435
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	98%		80-124%
17060-07-0	1,2-Dichloroethane-D4	99%		78-129%
2037-26-5	Toluene-D8	111%		70-134%
460-00-4	4-Bromofluorobenzene	121%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW11		
Lab Sample ID:	T7101-11	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8292.D	1	03/29/04	JH	n/a	n/a	VZ435
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	99%		80-124%
17060-07-0	1,2-Dichloroethane-D4	100%		78-129%
2037-26-5	Toluene-D8	113%		70-134%
460-00-4	4-Bromofluorobenzene	119%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	MW12		
Lab Sample ID:	T7101-12	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8293.D	1	03/29/04	JH	n/a	n/a	VZ435
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	100%		80-124%
17060-07-0	1,2-Dichloroethane-D4	103%		78-129%
2037-26-5	Toluene-D8	111%		70-134%
460-00-4	4-Bromofluorobenzene	119%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Accutest Laboratories

Report of Analysis

Client Sample ID:	FARM02		
Lab Sample ID:	T7101-13	**Date Sampled:**	03/16/04
Matrix:	AQ - Ground Water	**Date Received:**	03/17/04
Method:	SW846 8260B	**Percent Solids:**	n/a
Project:	Farmington		

	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
Run #1	Z8273.D	1	03/27/04	JH	n/a	n/a	VZ434
Run #2							

	Purge Volume
Run #1	5.0 ml
Run #2	

Purgeable Aromatics

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	2.0	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries	Run# 1	Run# 2	Limits
1868-53-7	Dibromofluoromethane	92%		80-124%
17060-07-0	1,2-Dichloroethane-D4	86%		78-129%
2037-26-5	Toluene-D8	109%		70-134%
460-00-4	4-Bromofluorobenzene	117%		86-139%

ND = Not detected MDL - Method Detection Limit
RL = Reporting Limit
E = Indicates value exceeds calibration range
J = Indicates an estimated value
B = Indicates analyte found in associated method blank
N = Indicates presumptive evidence of a compound

Misc. Forms

Custody Documents and Other Forms

Includes the following where applicable:

- Chain of Custody

CHAIN OF CUSTODY

ACCUTEST. Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking # | Bottle Order Control #

Accutest Quote # | Accutest Job # T7101

Client / Reporting Information

Company Name: LT Environmental
Address: 4400 W 46th Ave
City: Denver State: CO Zip: 80212
Project Contact: Kyle Siesser E-mail: ksiesser@ltenv.com
Phone #: 303-433-9788
Sampler's Name: Kyle G Siesser

Project Information

Project Name: Farmington
Street: US HWY 170
City: Farmington State: NM
Project #: PAT0402
Fax #: 303-433-1432
Client Purchase Order #

Requested Analysis

BTEX 8021B

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection Date	Collection Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: U	HCl	H2SO4	NaOH	HNO3	NaOH	ZnOAc	LAB USE ONLY
	MW01		3-16-04	0910	KGS	GW	3	3							X
	MW02			0915											X
	MW03			0920											X
	MW04			0925											X
	MW05			0930											X
	MW06			0935											X
	MW07			0900											X
	MW08			0905											X
	MW09			0950											X
	MW10			0940											X

Turnaround Time (Business Days)

- ☐ 10 Day STANDARD — Approved By: / Date:
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Reduced Tier 1
- ☐ Full Tier 1
- ☐ TRRP13
- ☐ EDD Format ____

Commercial "A" = Results Only

Comments / Remarks

Please fax results to LTE

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler	Date Time:	Received by:	Relinquished by	Date Time:	Received by:
1 Kyle Siesser	3-16-04 1200	1 Fed ex	2		2
Relinquished by:	Date Time:	Received by:	Relinquished by	Date Time:	Received by:
3		3	4		4
Relinquished by:	Date Time:	Received by:	Custody Seal #	Preserved where applicable ☐	On Ice: X Cooler Temp: 2°C
5	3-17-04	5 1000			

T7101: Chain of Custody
Page 1 of 3

ACCUTEST. Laboratories

CHAIN OF CUSTODY

ACCUTEST Laboratories

10165 Harwin Drive, Ste. 150, Houston, TX 77036
TEL. 713-271-4700 FAX: 713-271-4770
www.accutest.com

FED-EX Tracking #: | Bottle Order Control #:
Accutest Quote #: | Accutest Job #: T7101

Client / Reporting Information

Company Name: LT Environmental
Address: 4400 W 46th Ave
City: Denver State: CO Zip: 80212
Project Contact: Kyle Siesser E-mail: KSiesser@ltenv.com
Phone #: 303-433-9788
Sampler's Name: Kyle G Siesser

Project Information

Project Name: Farmington
Street: US Hwy 170
City: Farmington State: NM
Project #: ~~PAT~~ PAT0402
Fax #: 303-433-1432
Client Purchase Order #:

Requested Analysis

BTEX 8021B

Matrix Codes

DW - Drinking Water
GW - Ground Water
WW - Water
SW - Surface Water
SO - Soil
SL - Sludge
OI - Oil
LIQ - Other Liquid
AIR - Air
SOL - Other Solid
WP - Wipe

Accutest Sample #	Field ID / Point of Collection	SUMMA # / MEOH Vial #	Collection: Date	Time	Sampled By	Matrix	# of bottles	Number of preserved Bottles: HCl	HNO3	H2SO4	NaOH	Zn Acet	MeOH	NaHSO4	Other	LAB USE ONLY
	MW11		3-16-04	0955	KGS	GW	3	3								X
	MW12		3-16-04	0945	KGS	GW	3	3								X
	FARM02		3-16-04	0918	KGS	GW	3	3								X

Turnaround Time (Business Days)

- ☐ 10 Day STANDARD — Approved By: / Date:
- ☐ 5 Day RUSH
- ☐ 3 Day EMERGENCY
- ☐ 2 Day EMERGENCY
- ☐ 1 Day EMERGENCY
- ☐ Other

Emergency & Rush T/A data available VIA LabLink

Data Deliverable Information

- ☐ Commercial "A"
- ☐ Commercial "B"
- ☐ Reduced Tier 1
- ☐ Full Tier 1
- ☐ TRRP13
- ☐ EDD Format ____

Commercial "A" = Results Only

Comments / Remarks

Please fax results to LTE

Sample Custody must be documented below each time samples change possession, including courier delivery.

Relinquished by Sampler:	Date Time:	Received by:	Relinquished by	Date Time:	Received by:
1 Kyle Siesser	3-16-04 1300	1 Fed ex	2		2
Relinquished by:	Date Time:	Received by	Relinquished by:	Date Time:	Received by:
3		3	4		4
Relinquished by:	Date Time:	Received by:	Custody Seal #	Preserved where applicable ☐	On Ice ☐	Cooler Temp.
5		5				

3.1 3

T7101: Chain of Custody
Page 2 of 3

ACCUTEST Laboratories

ACCUTEST.

SAMPLE RECEIPT LOG

JOB #: T7101

DATE/TIME RECEIVED: 3-17-04 1000

CLIENT: LT Env.

INITIALS: [illegible]

Condition/Variance (Circle "Y" for yes and "N" for no. If "N" is circled, see variance for explanation):

1. (Y) N Sample received in undamaged condition.
2. (Y) N Samples received within temp. range.
3. Y (NA) Sample received with proper pH.
4. (Y) N Sample received in proper containers.
5. (Y) N Sample volume sufficient for analysis.
6. (Y) N Sample received with chain of custody.
7. (Y) N Chain of Custody matches sample IDs on containers.
8. Y (NA) Custody seal received intact and tamper evident on cooler.
9. Y (NA) Custody seal received intact and tamper evident on bottles.

SAMPLE or FIELD ID	BOTTLE #	DATE SAMPLED	MATRIX	VOLUME	LOCATION	PRESERV.	PH
1-13	1-3	3-16-04	GW	40ml	VRef	1,(2),3,4,5,6	U, <2, >12, (NA)
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA
						1,2,3,4,5,6	U, <2, >12, NA

3-17-04

LOCATION: WI: Walk-In VR: Volatile Refrig. SUB: Subcontract EF: Encore Freezer

PRESERVATIVES: 1: None 2: HCL 3: HNO3 4: H2SO4 5: NAOH 6: Other

pH of waters checked excluding volatiles

pH of soils N/A

Comments:

Delivery method: Courier:

Tracking#:

COOLER TEMP: 2°C

COOLER TEMP:

COOLER TEMP:

COOLER TEMP:

Method of sample disposal: (circle one) Accutest disposal Hold Return to Client

Form: SM012

3.1 3

T7101: Chain of Custody

Page 3 of 3

GC/MS Volatiles

QC Data Summaries

Includes the following where applicable:

- Method Blank Summaries
- Blank Spike Summaries
- Matrix Spike and Duplicate Summaries

Method Blank Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ434-MB	Z8258.D	1	03/27/04	JH	n/a	n/a	VZ434

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-1, T7101-2, T7101-3, T7101-4, T7101-5, T7101-6, T7101-8, T7101-13

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	101%	80-124%
17060-07-0	1,2-Dichloroethane-D4	100%	78-129%
2037-26-5	Toluene-D8	108%	70-134%
460-00-4	4-Bromofluorobenzene	121%	86-139%

Method Blank Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ435-MB	Z8281.D	1	03/29/04	JH	n/a	n/a	VZ435

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-7, T7101-9, T7101-10, T7101-11, T7101-12

CAS No.	Compound	Result	RL	MDL	Units	Q
71-43-2	Benzene	ND	2.0	1.0	ug/l	
100-41-4	Ethylbenzene	ND	2.0	1.0	ug/l	
108-88-3	Toluene	ND	2.0	1.0	ug/l	
1330-20-7	Xylene (total)	ND	6.0	2.0	ug/l	

CAS No.	Surrogate Recoveries		Limits
1868-53-7	Dibromofluoromethane	97%	80-124%
17060-07-0	1,2-Dichloroethane-D4	93%	78-129%
2037-26-5	Toluene-D8	112%	70-134%
460-00-4	4-Bromofluorobenzene	121%	86-139%

Blank Spike Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ434-BS	Z8257.D	1	03/27/04	JH	n/a	n/a	VZ434

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-1, T7101-2, T7101-3, T7101-4, T7101-5, T7101-6, T7101-8, T7101-13

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	20.4	82	70-116
100-41-4	Ethylbenzene	25	23.3	93	74-117
108-88-3	Toluene	25	23.0	92	72-116
1330-20-7	Xylene (total)	75	70.9	95	75-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	102%	80-124%
17060-07-0	1,2-Dichloroethane-D4	103%	78-129%
2037-26-5	Toluene-D8	110%	70-134%
460-00-4	4-Bromofluorobenzene	115%	86-139%

Blank Spike Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
VZ435-BS	Z8280.D	1	03/29/04	JH	n/a	n/a	VZ435

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-7, T7101-9, T7101-10, T7101-11, T7101-12

CAS No.	Compound	Spike ug/l	BSP ug/l	BSP %	Limits
71-43-2	Benzene	25	19.0	76	70-116
100-41-4	Ethylbenzene	25	22.7	91	74-117
108-88-3	Toluene	25	23.0	92	72-116
1330-20-7	Xylene (total)	75	69.5	93	75-119

CAS No.	Surrogate Recoveries	BSP	Limits
1868-53-7	Dibromofluoromethane	95%	80-124%
17060-07-0	1,2-Dichloroethane-D4	94%	78-129%
2037-26-5	Toluene-D8	113%	70-134%
460-00-4	4-Bromofluorobenzene	115%	86-139%

Matrix Spike Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T7101-13MS [a]	Z8274.D	1	03/27/04	JH	n/a	n/a	VZ434
T7101-13	Z8273.D	1	03/27/04	JH	n/a	n/a	VZ434

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-1, T7101-2, T7101-3, T7101-4, T7101-5, T7101-6, T7101-8, T7101-13

CAS No.	Compound	T7101-13 ug/l	Q	Spike ug/l	MS ug/l	MS %	Limits
71-43-2	Benzene	2.0		25	24.4	90	59-122
100-41-4	Ethylbenzene	ND		25	23.0	92	67-125
108-88-3	Toluene	ND		25	23.5	94	61-125
1330-20-7	Xylene (total)	ND		75	71.0	95	68-124

CAS No.	Surrogate Recoveries	MS	T7101-13	Limits
1868-53-7	Dibromofluoromethane	0%*	92%	80-124%
17060-07-0	1,2-Dichloroethane-D4	2%*	86%	78-129%
2037-26-5	Toluene-D8	0%*	109%	70-134%
460-00-4	4-Bromofluorobenzene	2%*	117%	86-139%

(a) No MSD and surrogate due to instrument failure..

Matrix Spike/Matrix Spike Duplicate Summary

Job Number: T7101
Account: LTENCODE LT Environmental
Project: Farmington

Sample	File ID	DF	Analyzed	By	Prep Date	Prep Batch	Analytical Batch
T7101-12MS	Z8294.D	1	03/29/04	JH	n/a	n/a	VZ435
T7101-12MSD	Z8295.D	1	03/29/04	JH	n/a	n/a	VZ435
T7101-12	Z8293.D	1	03/29/04	JH	n/a	n/a	VZ435

The QC reported here applies to the following samples: **Method:** SW846 8260B

T7101-7, T7101-9, T7101-10, T7101-11, T7101-12

CAS No.	Compound	T7101-12 ug/l	Q	Spike ug/l	MS ug/l	MS %	MSD ug/l	MSD %	RPD	Limits Rec/RPD
71-43-2	Benzene	ND		25	19.2	77	19.5	78	2	59-122/15
100-41-4	Ethylbenzene	ND		25	22.6	90	23.0	92	2	67-125/18
108-88-3	Toluene	ND		25	22.7	91	23.1	92	2	61-125/18
1330-20-7	Xylene (total)	ND		75	69.6	93	70.1	93	1	68-124/16

CAS No.	Surrogate Recoveries	MS	MSD	T7101-12	Limits
1868-53-7	Dibromofluoromethane	100%	99%	100%	80-124%
17060-07-0	1,2-Dichloroethane-D4	101%	102%	103%	78-129%
2037-26-5	Toluene-D8	113%	114%	111%	70-134%
460-00-4	4-Bromofluorobenzene	115%	114%	119%	86-139%

CONTRACT ENVIRONMENTAL SERVICES, INC.
410 N. Auburn
Farmington, New Mexico 87401
Phone (505) 325-1198

April 9, 2001

New Mexico Energy, Minerals
And Natural Resources Department
Oil Conservation Division
Mr. Roger Anderson
2040 South Pacheco Street
Santa Fe, New Mexico 87505

RE: GROUNDWATER CLOSURE TEMPLETON 1E WELL SITE, SAN JUAN COUNTY, NEW MEXICO, RESPONSE TO NMOCD LETTER DATED OCTOBER 27, 2000

Dear Mr. Anderson,

This letter is in response to NMOCD Letter to Greystone Energy, Inc. (GEI) dated October 27, 2000 concerning groundwater closure for the Templeton 1E Well Site. This is an annual report on groundwater remediation and monitoring for the last year.

Remediation Activities

Greystone Energy, Inc. has conducted air sparging in the general area where contaminated groundwater was determined. The air sparging has included pumping forced air into ten (10) total locations alternating between the monitoring wells and in-between injectors consisting of blank open-ended PVC Pipe that extends approximately ten feet (10') into the water table. Air sparging has not been operated most recently each day for the full twenty-four (24) hour period due to winter conditions. Throughout the winter months we estimate on average the air sparging unit operated one hundred (100) to one hundred fifty (150) hour each week, sometimes continually but more often intermittently. The air sparging unit runs on fuel gas making maintenance much simpler.

Monitoring Action

Periodically, approximately quarterly, the air sparging was halted to gather water samples from each of the monitor wells in the affected areas. Records of the results are maintained and reported to GEI as monitored and summarized as necessary for a more complete review. The report attached outlines in more detail the results of the last two (2) sampling periods and forms conclusions and makes recommendations.

No further action has been taken this last year in efforts to remediate or monitor the Templeton 1E Well Location on groundwater conditions. GEI will inform NMOCD if our plans change concerning this site. If you require additional information please don't

hesitate to contact CES at (505) 325-1198 or stop by at 410 N. Auburn Avenue, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

Cc: NMOCD Office – Aztec

CONTRACT ENVIRONMENTAL SERVICES, INC.
410 N. Auburn
Farmington, New Mexico 87401
Phone (505) 325-1198

April 9, 2001

Greystone Energy, Inc.
Mr. Chester Deal
5802 U S Hwy 64
Farmington, NM 87401

RE: Templeton #1E Monitor Well Sampling

Dear Mr. Deal,

Contract Environmental Services, Inc. (CES) is pleased to present this letter report for the monitor well sampling that was conducted on February 2, 2001. This report contains Sampling Procedures, Laboratory Analyses, Regulatory Guidelines, Conclusions and Recommendations.

Previously, five (5) monitor wells were sampled to help with the assessment on the groundwater condition. December , 2000 the previous round of groundwater sampling was conducted. Recently, the third round of monitor well sampling was completed. This report compares the results from the last two sample intervals to determine the actual affects of air sparging in the area of contamination.

Sampling Procedures

Each monitor well was measured for water level present and depth to bottom of well. A well volume of water was calculated and three (3) well volumes of water were removed prior to sampling. In the instances where the monitor well water went dry, sufficient time was allowed for recharge prior to sampling. This procedure is in accordance with sampling techniques discussed in the New Jersey Field Sampling Procedures Manual for monitor well sampling.

Water samples were collected in 40 ml VOA Vials. The samples were refrigerated after sampling and during transport to the laboratory.

Laboratory Analyses

Each water sample was analyzed for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) using SW8021B for Aromatic Volatiles. The individual analyses are presented in the following table.

Table 1-1.

** Note: all units are in Parts Per Billion (PPB)

Previous Round Of Sampling **December Sampling**

Sample No.	Previous Benzene	Previous Toluene	Previous Ethylbenzene	Previous Xylenes
Temp-200 R1	ND	ND	1.2	ND
Temp-201 R2	ND	ND	ND	ND
Temp-202 R3	93	ND	4.8	4.8
Temp-203 R4	ND	ND	1	7.2
Temp-204 R10	ND	ND	ND	ND

Current Round Of Sampling

Sample No.	Current Benzene	Current Toluene	Current Ethylbenzene	Current Xylenes
R1 MW	ND	ND	0.6	ND
R2 MW	ND	ND	ND	ND
R3 MW	100	ND	9.3	26.8

(cont.)

Sample No.	Current Benzene	Current Toluene	Current Ethylbenzene	Current Xylenes
R4 MW	ND	ND	5	19
R10 MW	ND	ND	ND	ND

** All other samples not shown were ND in concentration of contaminants

Regulatory Guidelines

The Safe Drinking Water Act allows for Benzene levels of 0.005 mg/l (PPM). The above laboratory levels are reported in ug/l (PPB). Each concentration value above should be divided by 1000 to convert PPB to PPM and then compared to the Standard of 0.005 PPM.

The State Of New Mexico Guidelines for Benzene are 0.01 (PPM), for Ethylbenzene 0.75 (PPM), and for Xylenes 0.62 (PPM).

Conclusions

Sample R3 MW has a Benzene level of 100 PPB. This is equivalent to 0.1 PPM and that is twenty times (20x) the EPA allowed level of Benzene.

For the State Of New Mexico, sample R3 MW is still 10 times (10x) the allowed level of Benzene. R3 MW contained the highest level of contamination. All other values measured were significantly less or below groundwater standards.

Recent groundwater information was used to generate a water table elevation map. This map is attached and shows approximate elevation contours. (Note: Monitor well R1 was arbitrarily given an elevation of 100.00, this does not mean it is 100' to groundwater from the surface.) Water table elevations ranged from 3-5' below ground level.

Recommendations

CES recommends that Greystone Energy, Inc. begin air sparging for the monitor wells that have manhole covers (R2 MW, R3 MW, R4 NW, R5 NW) in April and follow up with another set of water analyses in two to three (2-3) months. If at that point the groundwater is free of contaminants then only continue monitoring the wells until three (3) consecutive series of data confirm this.

Contract Environmental Services, Inc. appreciates this opportunity to present this letter report to Greystone Energy, Inc. If you have any questions or require additional information, please don't hesitate to contact us at (505) 325-1198 or stop by our offices at 410 N. Auburn, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

OFF: (505) 325-5667
FAX: (505) 327-1496

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *13-Feb-01*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E
Work Order:	0102004	**Client Sample ID:**	R1 MW
Lab ID:	0102004-01A **Matrix:** AQUEOUS	**Collection Date:**	2/2/2001 12:00:00 PM
Project:	Templeton #1E	**COC Record:**	11110

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	2/7/2001
Toluene	ND	0.5		µg/L	1	2/7/2001
Ethylbenzene	0.6	0.5		µg/L	1	2/7/2001
m,p-Xylene	ND	1		µg/L	1	2/7/2001
o-Xylene	ND	0.5		µg/L	1	2/7/2001

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *13-Feb-01*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E
Work Order:	0102004	**Client Sample ID:**	R2 MW
Lab ID:	0102004-02A **Matrix:** AQUEOUS	**Collection Date:**	2/2/2001 12:10:00 PM
Project:	Templeton #1E	**COC Record:**	11110

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	2/7/2001
Toluene	ND	0.5		µg/L	1	2/7/2001
Ethylbenzene	ND	0.5		µg/L	1	2/7/2001
m,p-Xylene	ND	1		µg/L	1	2/7/2001
o-Xylene	ND	0.5		µg/L	1	2/7/2001

Qualifiers:

- PQL - Practical Quantitation Limit
- ND - Not Detected at Practical Quantitation Limit
- J - Analyte detected below Practical Quantitation Limit
- B - Analyte detected in the associated Method Blank
- S - Spike Recovery outside accepted recovery limits
- R - RPD outside accepted recovery limits
- E - Value above quantitation range
- Surr: - Surrogate

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ANALYTICAL REPORT

Date: *13-Feb-01*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E
Work Order:	0102004	**Client Sample ID:**	R3 MW
Lab ID:	0102004-03A **Matrix:** AQUEOUS	**Collection Date:**	2/2/2001 12:20:00 PM
Project:	Templeton #1E	**COC Record:**	11110

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	100	0.5		µg/L	1	2/7/2001
Toluene	ND	0.5		µg/L	1	2/7/2001
Ethylbenzene	9.3	0.5		µg/L	1	2/7/2001
m,p-Xylene	22	1		µg/L	1	2/7/2001
o-Xylene	4.8	0.5		µg/L	1	2/7/2001

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *13-Feb-01*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E
Work Order:	0102004	**Client Sample ID:**	R4 MW
Lab ID:	0102004-04A **Matrix:** AQUEOUS	**Collection Date:**	2/2/2001 12:30:00 PM
Project:	Templeton #1E	**COC Record:**	11110

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	2/7/2001
Toluene	ND	0.5		µg/L	1	2/7/2001
Ethylbenzene	5	0.5		µg/L	1	2/7/2001
m,p-Xylene	18	1		µg/L	1	2/7/2001
o-Xylene	1	0.5		µg/L	1	2/7/2001

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *13-Feb-01*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E
Work Order:	0102004	**Client Sample ID:**	R10 MW
Lab ID:	0102004-05A **Matrix:** AQUEOUS	**Collection Date:**	2/2/2001 12:40:00 PM
Project:	Templeton #1E	**COC Record:**	11110

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	2/7/2001
Toluene	ND	0.5		µg/L	1	2/7/2001
Ethylbenzene	ND	0.5		µg/L	1	2/7/2001
m,p-Xylene	ND	1		µg/L	1	2/7/2001
o-Xylene	ND	0.5		µg/L	1	2/7/2001

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

P.O. BOX 2606 • FARMINGTON, NM 87499

On Site Technologies, LTD.

Date: *13-Feb-01*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:

Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35092**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	ND	0.5									

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Feb-01*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0102003-23AMS** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:
Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35093**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	215.9	2.5	200	24.01	95.9%	84	111				
Ethylbenzene	506.1	2.5	200	335.8	85.1%	84	111				
m,p-Xylene	365.7	5	400	3.556	90.5%	84	108				
Methyl tert-Butyl Ether	277.9	5	200	98.88	89.5%	80	117				
o-Xylene	187.8	2.5	200	0	93.9%	89	107				
Toluene	190.1	2.5	200	0	95.1%	90	107				

Sample ID: **0102003-23AMSD** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:
Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35094**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	221	2.5	200	24.01	98.5%	84	111	215.9	2.3%	8	
Ethylbenzene	516.3	2.5	200	335.8	90.2%	84	111	506.1	2.0%	7	
m,p-Xylene	373.8	5	400	3.556	92.6%	84	108	365.7	2.2%	7	
Methyl tert-Butyl Ether	281	5	200	98.88	91.1%	80	117	277.9	1.1%	6	
o-Xylene	191	2.5	200	0	95.5%	89	107	187.8	1.7%	6	
Toluene	194.6	2.5	200	0	97.3%	90	107	190.1	2.3%	6	

Qualifiers: ND - Not Detected at the Reporting Limit; J - Analyte detected below quantitation limits; S - Spike Recovery outside accepted recovery limits; R - RPD outside accepted recovery limits; B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Feb-01*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:

Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35091**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	39.49	0.5	40	0	98.7%	92	109				
Ethylbenzene	38.98	0.5	40	0	97.4%	92	112				
m,p-Xylene	77.13	1	80	0	96.4%	91	108				
Methyl tert-Butyl Ether	36.86	1	40	0	92.1%	89	116				
o-Xylene	39.04	0.5	40	0	97.6%	93	109				
Toluene	39.2	0.5	40	0	98.0%	93	108				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *13-Feb-01*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0012** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:

Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35088**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.22	0.5	20	0	101.1%	85	115				
Ethylbenzene	20.08	0.5	20	0	100.4%	85	115				
m,p-Xylene	39.82	1	40	0	99.6%	85	115				
Methyl tert-Butyl Ether	18.52	1	20	0	92.6%	85	115				
o-Xylene	20.17	0.5	20	0	100.9%	85	115				
Toluene	19.98	0.5	20	0	99.9%	85	115				
1,4-Difluorobenzene	75.08	0	80	0	93.9%	85	103				
4-Bromochlorobenzene	79.13	0	80	0	98.9%	93	108				
Fluorobenzene	77.1	0	80	0	96.4%	88	103				

Sample ID: **CCV2 BTEX_0012** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:

Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35089**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	19.72	0.5	20	0	98.6%	85	115				
Ethylbenzene	19.59	0.5	20	0	97.9%	85	115				
m,p-Xylene	38.85	1	40	0	97.1%	85	115				
Methyl tert-Butyl Ether	17.94	1	20	0	89.7%	85	115				
o-Xylene	19.76	0.5	20	0	98.8%	85	115				
Toluene	19.52	0.5	20	0	97.6%	85	115				
1,4-Difluorobenzene	75.27	0	80	0	94.1%	85	103				
4-Bromochlorobenzene	80.52	0	80	0	100.7%	93	108				
Fluorobenzene	76.96	0	80	0	96.2%	88	103				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0012** Batch ID: **GC-1_010207** Test Code: **SW8021B** Units: **µg/L** Analysis Date **2/7/2001** Prep Date:

Client ID: **0102004** Run ID: **GC-1_010207A** SeqNo: **35090**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	38.44	0.5	40	0	96.1%	85	115				
Ethylbenzene	37.85	0.5	40	0	94.6%	85	115				
m,p-Xylene	75.01	1	80	0	93.8%	85	115				
Methyl tert-Butyl Ether	36.02	1	40	0	90.1%	85	115				
o-Xylene	38.18	0.5	40	0	95.5%	85	115				
Toluene	38.19	0.5	40	0	95.5%	85	115				
1,4-Difluorobenzene	74.86	0	80	0	93.6%	85	103				
4-Bromochlorobenzene	78.91	0	80	0	98.6%	93	108				
Fluorobenzene	76.67	0	80	0	95.8%	88	103				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 13-Feb-01

CLIENT: Contract Environmental Services, Inc.
Work Order: 0102004
Project: Templeton #1E
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0102003-21A	98.9	96.3	102
0102003-23A	96.2	98.4	97.3
0102003-23AMS	95.6	100	97
0102003-23AMSD	95.4	99	97.3
0102003-24A	97	98.3	95.4
0102003-25A	98.2	99.9	96.1
0102003-28A	94	99.6	94.4
0102003-30A	99	97.8	99
0102003-32A	97.4	99.5	98.3
0102003-33A	101	105	100
0102003-34A	95.5	99.6	96.8
0102003-35A	95	98.5	96.2
0102004-01A	93.9	98.6	95.4
0102004-02A	97.3	102	99.7
0102004-03A	90.6	96	91.5
0102004-04A	92.7	96.1	93.6
0102004-05A	94.5	101	97.3
0102005-01A	105 *	99.4	98
0102005-02A	95.5	99.5	97.6
0102005-03A	95.5	96.7	97.2
0102005-04A	94.8	100	97
CCV1 BTEX_00121	93.8	98.9	96.4
CCV2 BTEX_00121	94.1	101	96.2
CCV3 BTEX_00121	93.6	98.6	95.8
LCS WATER	93.9	99.7	95.6
MB1	95.2	98.3	96.8

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	85-103
4BCBZ	=	4-Bromochlorobenzene	93-108
FLBZ	=	Fluorobenzene	88-103

*** Surrogate recovery outside acceptance limits**

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 4/2/01

Page: 1 of 1

Purchase Order No.:		Project No.	
SEND INVOICE TO — Name			
Company		Dept.	
Address			
City, State, Zip			
PROJECT LOCATION:			
SAMPLER'S SIGNATURE:			

REPORT RESULTS TO		
Name		Title
Company		
Mailing Address		
City, State, Zip		
Telephone No.		Telefax No.

SAMPLE IDENTIFICATION	SAMPLE DATE	TIME	MATRIX	PRES.	Number of Containers	ANALYSIS REQUESTED	LAB ID

Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Rush | 24-48 Hours | 10 Working Days | By Date

Authorized by: _____ Date _____

(Client Signature Must Accompany Request)

Special Instructions / Remarks:

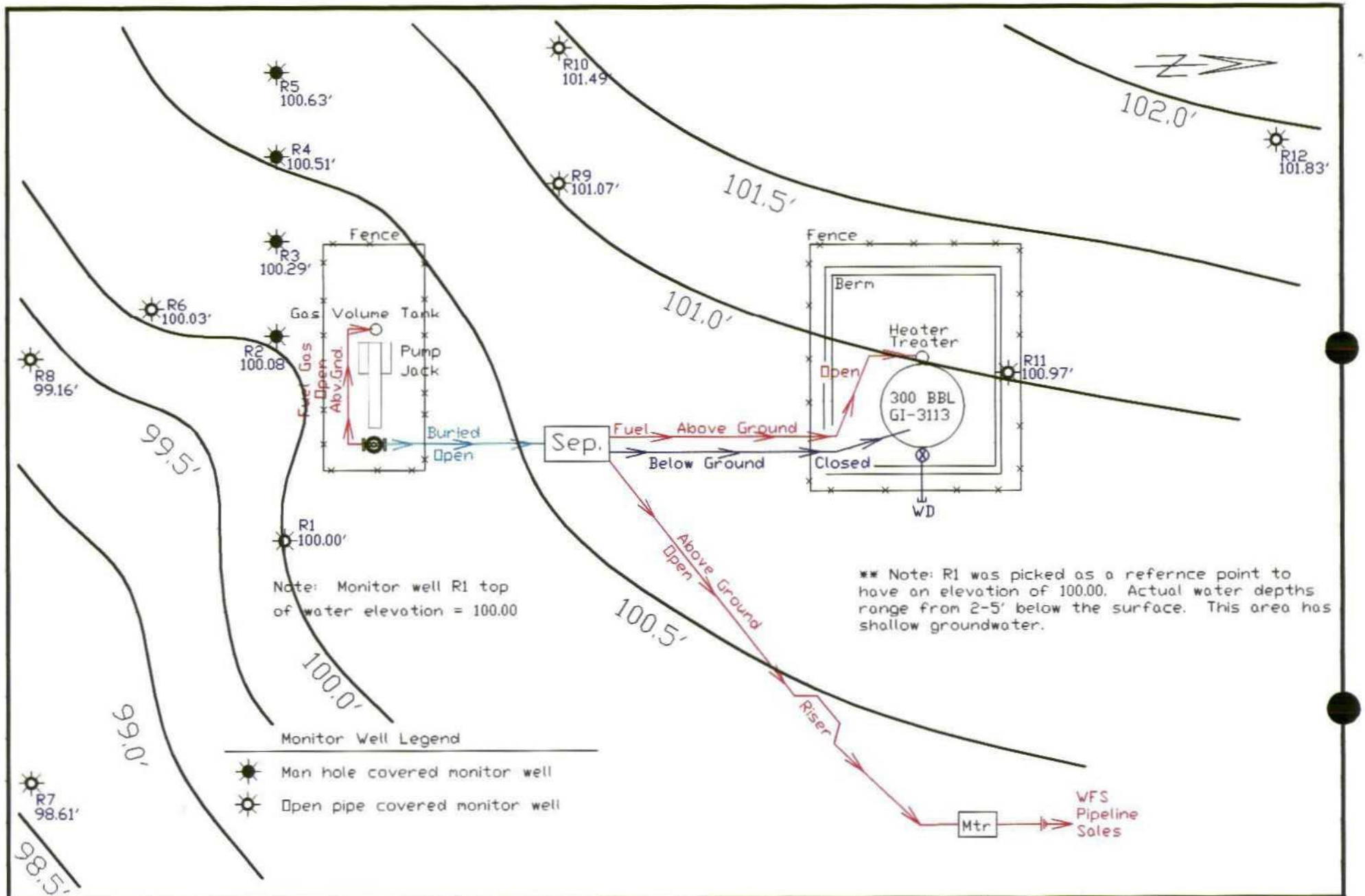
Distribution: White - On Site; Yellow - LAB; Pink - Sampler

Water Gradient Survey - Templeton #1E

	Water Depth (inches)	Relative Heights (feet) R1=0.000'	R.H. (inches)	Invert R.H. (inches)	Adj.Height (inches)
R1	43.563	0.000	0.000	0.000	0.000
R2	32.250	0.865	10.380	-10.380	0.933
R3	33.625	0.535	6.420	-6.420	3.518
R4	31.000	0.540	6.480	-6.480	6.083
R5	40.938	-0.415	-4.980	4.980	7.605
R6	38.938	0.355	4.260	-4.260	0.365
R7	56.500	0.315	3.780	-3.780	-16.717
R8	43.438	0.855	10.260	-10.260	-10.135
R9	34.500	-0.319	-3.828	3.828	12.891
R10	31.938	-0.517	-6.204	6.204	17.829
R11	57.813	-2.163	-25.956	25.956	11.706
R12	35.063	-1.123	-13.476	13.476	21.976

Water Gradient Survey - Templeton #1E

	Water Depth (inches)	Relative Heights (feet) R1=0.000'	R.H. (inches)	Invert R.H. (inches)	Adj.Height (inches)
R1	43.563	0.000	0.000	0.000	0.000
R2	32.250	0.865	10.380	-10.380	0.933
R3	33.625	0.535	6.420	-6.420	3.518
R4	31.000	0.540	6.480	-6.480	6.083
R5	40.938	-0.415	-4.980	4.980	7.605
R6	38.938	0.355	4.260	-4.260	0.365
R7	56.500	0.315	3.780	-3.780	-16.717
R8	43.438	0.855	10.260	-10.260	-10.135
R9	34.500	-0.319	-3.828	3.828	12.891
R10	31.938	-0.517	-6.204	6.204	17.829
R11	57.813	-2.163	-25.956	25.956	11.706
R12	35.063	-1.123	-13.476	13.476	21.976



Date: February 9, 2001

Water GOW

Oil Gas

Greystone Energy, Inc.
5802 U.S. Highway 64
Farmington, NM 87401

Templeton #1E
Monitor Well Contours

CONTRACT ENVIRONMENTAL SERVICES, INC.
410 N. Auburn
Farmington, New Mexico 87401
Phone (505) 325-1198

August 28, 2000

New Mexico Energy, Minerals
And Natural Resources Department
Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

AUG 29 2000

RE: NMOCD Letter Dated February 14, 2000 Concerning GW-184 Templeton #1E Well Site, San Juan County, New Mexico.

Dear Mr. Olson,

Contract Environmental Services, Inc. (CES) would like to inform NMOCD on behalf of Greystone Energy, Inc. (GEI) formerly (Chateau Oil and Gas) that we no longer have a need for the discharge plan at the above referenced site. The air stripping process previously permitted for this site has not been utilized in the past two years and will not be reinstated.

Currently, GEI is performing air sparging in the area of last known contamination. Air is being pumped into a manifold system that will disburse it below groundwater level to add aeration and speed the remediation process.

CES will periodically monitor the closest monitor wells to the affected area in efforts to chart the progress. Copies of any pertinent reporting will be delivered to NMOCD as they are developed.

Contract Environmental Services, Inc. appreciates this opportunity to present the site update to NMOCD. If you have coments or questions, please don't hesitate to contact our offices at (505) 325-1198 or stop by our offices at 410 N. Auburn, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Servies, Inc.

CONTRACT ENVIRONMENTAL SERVICES, INC.
410 N. Auburn
Farmington, New Mexico 87401
Phone (505) 325-1198

July 27, 2000

Greystone Energy, Inc.
Mr. Chester Deal
5802 U S Hwy 64
Farmington, NM 87401

RE: Templeton #1E Monitor Well Sampling

Dear Mr. Deal,

Contract Environmental Services, Inc. (CES) is pleased to present this letter report for the monitor well sampling that began on June 29, 2000. This report contains Background Information, Sampling Procedures, Laboratory Analyses, Regulatory Guidelines, Conclusions and Recommendations.

Background Information

The Templeton #1E has completed an extensive excavation program. During the excavation process groundwater was circulated through an air stripper to further lower hydrocarbon levels present. Following the air stripper process, twelve (12) monitor wells were installed to help with the assessment on the groundwater condition. June 29, 2000 the first round of groundwater sampling began. July 6, 2000 the final monitor wells were sampled.

Sampling Procedures

CES located each monitor well and found that four (4) of the casings were completed as manhole covers and the remaining eight (8) were completed with open casings protruding approximately twelve (12") above ground level. Please see attached Site Security Diagram for monitor well locations.

Each monitor well was measured for water level present and depth to bottom of well. A well volume of water was calculated and three (3) well volumes of water were removed prior to sampling. In the instances where the monitor well water went dry, sufficient time was allowed for recharge prior to sampling. This procedure is in accordance with sampling techniques discussed in the New Jersey Field Sampling Procedures Manual for monitor well sampling.

Water samples were collected in 40 ml VOA Vials. The samples were refrigerated during sampling and transport to the laboratory.

Laboratory Analyses

Each water sample was analyzed for Benzene, Toluene, Ethylbenzene and Xylenes (BTEX) using SW8021B for Aromatic Volatiles. The individual analysis are presented in the following table.

Table 1-1.

** Note: all units are in Parts Per Billion (PPB)

Sample No.	Benzene	Toluene	Ethylbenzene	Xylenes
Temp-100 R1	ND	ND	1.6	ND
Temp-101 R2	2.7	ND	0.7	ND
Temp-102 R3	300	32	50	190
Temp-103 R4	1.6	ND	10	20.9
Temp-104 R5	ND	ND	ND	ND

(Table 1-1 Continued)

Sample No.	Benzene	Toluene	Ethylbenzene	Xylenes
Temp-105 R6	ND	ND	ND	ND
Temp-106 R7	ND	ND	ND	ND
Temp-107 R8	ND	ND	ND	ND
Temp-108 R9	ND	ND	ND	ND
Temp-109 R10	ND	2	1.1	0.7
Temp-110 R11	ND	ND	ND	ND
Temp-111 R12	ND	ND	ND	ND

Regulatory Guidelines

The Safe Drinking Water Act allows for Benzene levels of 0.005 mg/l (PPM). The above laboratory levels are reported in ug/l (PPB). Each concentration value above should be divided by 1000 to convert PPB to PPM and then compared to the Standard of 0.005 PPM.

The State Of New Mexico Guidelines for Benzene are 0.01 (PPM), for Ethylbenzene 0.75 (PPM), and for Xylenes 0.62 (PPM). Please see attached Table.

Conclusions

Sample Temp-102 R3 has a Benzene level of 300 PPB. This is equivalent to 0.3 PPM and that is 60 times the EPA allowed level of Benzene.

For the State Of New Mexico, sample Temp-102 is still 30 times (30x) the allowed level of Benzene. All other values measured were below groundwater standards.

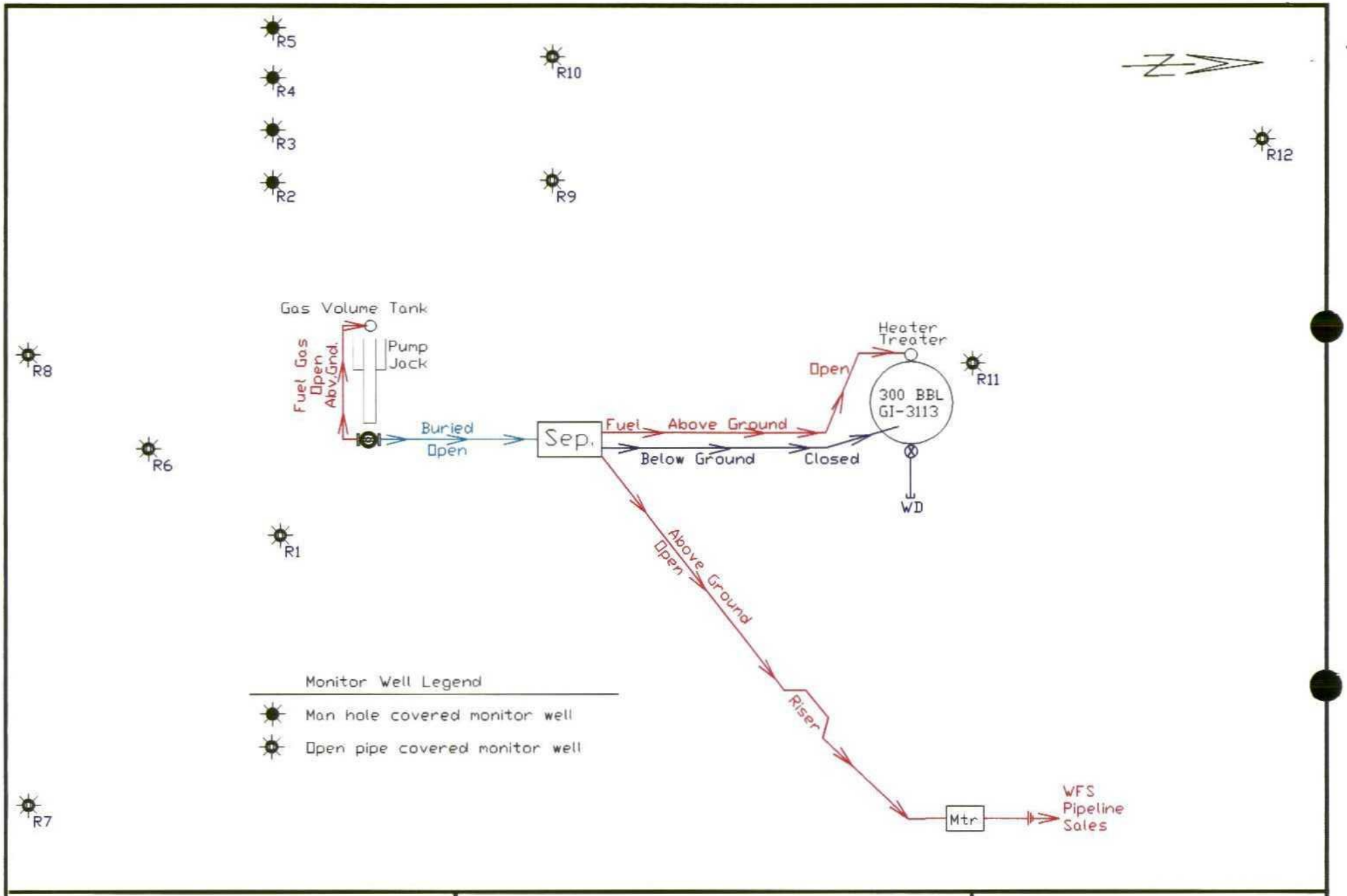
Recommendations

CES recommends that Greystone Energy, Inc. perform air sparging as planned for the monitor wells that have manhole covers (Temp-101 R2, -102 R3, -103 R4, -104 R5) and follow up with another set of water analyses in six (6) months. If at that point the groundwater is free of contaminants then only continue monitoring the wells until three (3) consecutive series of data confirm this.

Contract Environmental Services, Inc. appreciates this opportunity to present this letter report to Greystone Energy, Inc. If you have any questions or require additional information, please don't hesitate to contact us at (505) 325-1198 or stop by our offices at 410 N. Auburn, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.



Date: July 25, 2000 Water — GOW Oil — Gas	Greystone Energy, Inc. 5802 U.S. Highway 64 Farmington, NM 87401	Templeton #1E Sec.27, T31N, R13W Lease No. Fee

copper		1.3 (al)	1.3	
cyanide	0.2	0.2	0.2	
fluoride	1.6	4.0		
fluoride (a)		2		
iron (a)	1.0	0.3		
lead	0.05	0.015 (al)	Zero	
manganese (a)	0.2	0.05		
mercury	0.002	0.002	0.002	
molybdenum	1.0 (i)			0.05
nickel	0.2 (i)	0.1	0.1	
nitrate - N	10	10	10	
nitrite - N		1	1	
nitrate + nitrite (as N)		10	10	
selenium	0.05	0.05	0.05	
silver	0.05	0.05	0.05	
silver (a)		0.1		
sodium				20
strontium				17
sulfate	600 (a)	250 (a) / 400 (p)	400	
thallium		0.002	0.0005	
vanadium				0.02
zinc (a)	10.0	5		
Radioactive Contaminants				
Gross alpha (pCi/L) *		15	Zero	
Gross beta & photon emitters (mrem/yr) **		4	Zero	
radium 226 (pCi/L)		20 (p)	Zero	
radium 228 (pCi/L)		20 (p)	Zero	
radium 226 + 228 (pCi/L)	30	5	Zero	
radon 222 (pCi/L)		300 (p)	Zero	
uranium	5	0.02 (p)	Zero	
Benzenes				
benzene	0.01	0.005	Zero	
Alkyl Benzenes				
methylbenzene (toluene)	0.75	1 (p) / 0.04 (a)	1	
ethylbenzene	0.75	0.7 (p) / 0.03 (a)	0.7	
dimethyl benzene isomers (xylenes)	0.62	10 (p) / 0.02 (a)	10	
vinylbenzene (styrene)		0.1	0.1	

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LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-100 R1
Lab ID:	0006066-01A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 9:15:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/10/2000
Toluene	ND	0.5		µg/L	1	7/10/2000
Ethylbenzene	1.6	0.5		µg/L	1	7/10/2000
m,p-Xylene	ND	1		µg/L	1	7/10/2000
o-Xylene	ND	0.5		µg/L	1	7/10/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-101 R2
Lab ID:	0006066-02A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 10:15:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	2.7	0.5		µg/L	1	7/10/2000
Toluene	ND	0.5		µg/L	1	7/10/2000
Ethylbenzene	0.7	0.5		µg/L	1	7/10/2000
m,p-Xylene	ND	1		µg/L	1	7/10/2000
o-Xylene	ND	0.5		µg/L	1	7/10/2000

Qualifiers:

PQL - Practical Quantitation Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-102 R3
Lab ID:	0006066-03A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 10:30:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	300	2.5		µg/L	5	7/11/2000
Toluene	32	0.5		µg/L	1	7/10/2000
Ethylbenzene	50	0.5		µg/L	1	7/10/2000
m,p-Xylene	160	1		µg/L	1	7/10/2000
o-Xylene	30	0.5		µg/L	1	7/10/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

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R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-103 R4
Lab ID:	0006066-04A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 10:45:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	1.6	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	10	0.5		µg/L	1	7/11/2000
m,p-Xylene	19	1		µg/L	1	7/11/2000
o-Xylene	1.9	0.5		µg/L	1	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit
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R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-104 R5
Lab ID:	0006066-05A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 11:00:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/10/2000
Toluene	ND	0.5		µg/L	1	7/10/2000
Ethylbenzene	ND	0.5		µg/L	1	7/10/2000
m,p-Xylene	ND	1		µg/L	1	7/10/2000
o-Xylene	ND	0.5		µg/L	1	7/10/2000

Qualifiers:

PQL - Practical Quantitation Limit
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R - RPD outside accepted recovery limits
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Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	TEMP-105 R6
Lab ID:	0006066-06A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000 11:30:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

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B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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ANALYTICAL REPORT

Date: *18-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton 1E MW
Work Order:	0006066	**Client Sample ID:**	Trip Blank
Lab ID:	0006066-07A **Matrix:** AQUEOUS	**Collection Date:**	6/29/2000
Project:	Templeton #1E Monitor Wells	**COC Record:**	10762

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DM**
Benzene	ND	0.5		µg/L	1	7/11/2000
Toluene	ND	0.5		µg/L	1	7/11/2000
Ethylbenzene	ND	0.5		µg/L	1	7/11/2000
m,p-Xylene	ND	1		µg/L	1	7/11/2000
o-Xylene	ND	0.5		µg/L	1	7/11/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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On Site Technologies, LTD.

Date: *18-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:

Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29792**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0768	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29854**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	.0595	0.5									J
Ethylbenzene	ND	0.5									
m,p-Xylene	ND	1									
Methyl tert-Butyl Ether	ND	1									
o-Xylene	ND	0.5									
Toluene	.0916	0.5									J

Qualifiers:
ND - Not Detected at the Reporting Limit
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R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *18-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0006072-21AMS** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29793**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5448	50	4000	1282	104.2%	73	126				
Ethylbenzene	4165	50	4000	7.25	103.9%	88	113				
m,p-Xylene	7840	100	8000	0	98.0%	83	112				
Methyl tert-Butyl Ether	15690	100	4000	11680	100.3%	81	125				
o-Xylene	4167	50	4000	4.16	104.1%	93	110				
Toluene	4193	50	4000	8.53	104.6%	76	126				

Sample ID: **0006072-21AMSD** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29794**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	5270	50	4000	1282	99.7%	73	126	5448	3.3%	6	
Ethylbenzene	4029	50	4000	7.25	100.6%	88	113	4165	3.3%	5	
m,p-Xylene	7587	100	8000	0	94.8%	83	112	7840	3.3%	7	
Methyl tert-Butyl Ether	15410	100	4000	11680	93.2%	81	125	15690	1.8%	9	
o-Xylene	4046	50	4000	4.16	101.0%	93	110	4167	2.9%	6	
Toluene	4057	50	4000	8.53	101.2%	76	126	4193	3.3%	6	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0006072-29AMS** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29855**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10880	100	8000	2621	103.3%	73	126				
Ethylbenzene	9217	100	8000	919.5	103.7%	88	113				
m,p-Xylene	16530	200	16000	844.8	98.1%	83	112				
Methyl tert-Butyl Ether	37240	200	8000	30020	90.2%	81	125				
o-Xylene	8424	100	8000	62.34	104.5%	93	110				
Toluene	8474	100	8000	86.84	104.8%	76	126				

Sample ID: **0006072-29AMSD** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29856**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	10610	100	8000	2621	99.9%	73	126	10880	2.5%	6	
Ethylbenzene	8993	100	8000	919.5	100.9%	88	113	9217	2.5%	5	
m,p-Xylene	16140	200	16000	844.8	95.6%	83	112	16530	2.4%	7	
Methyl tert-Butyl Ether	36330	200	8000	30020	78.8%	81	125	37240	2.5%	9	S
o-Xylene	8255	100	8000	62.34	102.4%	93	110	8424	2.0%	6	
Toluene	8278	100	8000	86.84	102.4%	76	126	8474	2.4%	6	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *18-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:

Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29791**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	42.25	0.5	40	0	105.6%	89	112				
Ethylbenzene	41.89	0.5	40	0	104.7%	93	112				
m,p-Xylene	78.94	1	80	0	98.7%	88	108				
Methyl tert-Butyl Ether	42.18	1	40	0	105.5%	87	115				
o-Xylene	41.96	0.5	40	0	104.9%	93	112				
Toluene	42.15	0.5	40	0.0768	105.2%	92	111				

Sample ID: **LCS WATER** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:

Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29853**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.66	0.5	40	0.0595	104.0%	89	112				
Ethylbenzene	41.39	0.5	40	0	103.5%	93	112				
m,p-Xylene	78.06	1	80	0	97.6%	88	108				
Methyl tert-Butyl Ether	41.46	1	40	0	103.7%	87	115				
o-Xylene	41.44	0.5	40	0	103.6%	93	112				
Toluene	41.62	0.5	40	0.0916	103.8%	92	111				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *18-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29788**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.47	0.5	20	0	107.4%	85	115				
Ethylbenzene	21.34	0.5	20	0	106.7%	85	115				
m,p-Xylene	40.44	1	40	0	101.1%	85	115				
Methyl tert-Butyl Ether	21.4	1	20	0	107.0%	85	115				
o-Xylene	21.36	0.5	20	0	106.8%	85	115				
Toluene	21.41	0.5	20	0	107.0%	85	115				
1,4-Difluorobenzene	89.09	0	100	0	89.1%	80	105				
4-Bromochlorobenzene	85.8	0	100	0	85.8%	78	108				
Fluorobenzene	87.55	0	100	0	87.5%	78	108				

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29789**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.8	0.5	20	0	104.0%	85	115				
Ethylbenzene	20.57	0.5	20	0	102.9%	85	115				
m,p-Xylene	38.96	1	40	0	97.4%	85	115				
Methyl tert-Butyl Ether	21.51	1	20	0	107.5%	85	115				
o-Xylene	20.72	0.5	20	0	103.6%	85	115				
Toluene	20.74	0.5	20	0	103.7%	85	115				
1,4-Difluorobenzene	89.24	0	100	0	89.2%	80	105				
4-Bromochlorobenzene	85.18	0	100	0	85.2%	78	108				
Fluorobenzene	87.28	0	100	0	87.3%	78	108				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0007** Batch ID: **GC-1_000710** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/10/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000710A** SeqNo: **29790**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.26	0.5	40	0	100.7%	85	115				
Ethylbenzene	39.86	0.5	40	0	99.6%	85	115				
m,p-Xylene	75.3	1	80	0	94.1%	85	115				
Methyl tert-Butyl Ether	42.87	1	40	0	107.2%	85	115				
o-Xylene	40.35	0.5	40	0	100.9%	85	115				
Toluene	40.3	0.5	40	0	100.7%	85	115				
1,4-Difluorobenzene	88.77	0	100	0	88.8%	80	105				
4-Bromochlorobenzene	85.68	0	100	0	85.7%	78	108				
Fluorobenzene	87.02	0	100	0	87.0%	78	108				

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29850**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.97	0.5	20	0	109.8%	85	115				
Ethylbenzene	21.8	0.5	20	0	109.0%	85	115				
m,p-Xylene	41.3	1	40	0	103.2%	85	115				
Methyl tert-Butyl Ether	21.84	1	20	0	109.2%	85	115				
o-Xylene	21.96	0.5	20	0	109.8%	85	115				
Toluene	21.9	0.5	20	0	109.5%	85	115				
1,4-Difluorobenzene	89.22	0	100	0	89.2%	80	105				
4-Bromochlorobenzene	85.5	0	100	0	85.5%	78	108				
Fluorobenzene	87.73	0	100	0	87.7%	78	108				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29851**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.06	0.5	20	0	105.3%	85	115				
Ethylbenzene	20.8	0.5	20	0	104.0%	85	115				
m,p-Xylene	39.43	1	40	0	98.6%	85	115				
Methyl tert-Butyl Ether	21.51	1	20	0	107.5%	85	115				
o-Xylene	21.03	0.5	20	0	105.2%	85	115				
Toluene	21.03	0.5	20	0	105.1%	85	115				
1,4-Difluorobenzene	89.09	0	100	0	89.1%	80	105				
4-Bromochlorobenzene	85.09	0	100	0	85.1%	78	108				
Fluorobenzene	87.47	0	100	0	87.5%	78	108				

Sample ID: **CCV3 BTEX_0007** Batch ID: **GC-1_000711** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/11/2000** Prep Date:
Client ID: **0006066** Run ID: **GC-1_000711A** SeqNo: **29852**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	41.47	0.5	40	0	103.7%	85	115				
Ethylbenzene	41.06	0.5	40	0	102.7%	85	115				
m,p-Xylene	77.66	1	80	0	97.1%	85	115				
Methyl tert-Butyl Ether	43.51	1	40	0	108.8%	85	115				
o-Xylene	41.46	0.5	40	0	103.6%	85	115				
Toluene	41.6	0.5	40	0	104.0%	85	115				
1,4-Difluorobenzene	88.8	0	100	0	88.8%	80	105				
4-Bromochlorobenzene	84.38	0	100	0	84.4%	78	108				
Fluorobenzene	87.12	0	100	0	87.1%	78	108				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 18-Jul-00

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0006066-01A	88	84.2	87
0006066-02A	87	83.1	86.1
0006066-03A	87.7	83.5	86.2
0006066-04A	87.5	81.9	85.6
0006066-05A	89.5	85.2	88.2
0006066-06A	89.8	85.5	88.2
0006066-07A	89.7	84.9	88.1
0006069-02A	89.7	85.2	88.1
0006069-03A	89.7	85.4	88.1
0006070-02A	88.2	83.4	86.8
0006072-19A	88.1	84.9	87
0006072-20A	89.4	85.4	87.8
0006072-21A	89.3	85.6	87.4
0006072-21AMS	88.1	86.3	86.4
0006072-21AMSD	88.2	86.2	86.5
0006072-24A	89.2	85.4	87.3
0006072-27A	88.5	84.9	87.3
0006072-29A	89	84.6	87.4
0006072-29AMS	88.1	85.5	86.5
0006072-29AMSD	88.4	86	86.8
0006072-30A	88.6	84.3	86.9
0006072-32A	89.4	85.6	87.9
0006072-33A	94.4	84	91.8
0006072-34A	88.8	85.6	87
0006072-35A	89.2	83.7	87.2
0006072-36A	89.6	85.5	88.1
0006072-37A	89.2	85.2	88.3

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	80-105
4BCBZ	=	4-Bromochlorobenzene	78-108
FLBZ	=	Fluorobenzene	78-108

*** Surrogate recovery outside acceptance limits**

/

CLIENT: Contract Environmental Services, Inc.
Work Order: 0006066
Project: Templeton #1E Monitor Wells
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
0006072-38A	89.6	85.2	88.2					
0006073-01A	89.1	84.5	87.9					
0006073-02A	90	84.8	88.6					
0006074-01A	89.4	84.4	88.2					
0006074-02A	89.7	84.9	88.2					
0006074-03A	88.5	83.6	88.7					
0006074-04A	89.7	85.4	88.5					
CCV1 BTEX_00070	89.2	85.5	87.7					
CCV2 BTEX_00070	89.1	85.1	87.5					
CCV3 BTEX_00070	88.8	84.4	87.1					
LCS WATER	88.7	85.7	87.1					
MB1	89.4	85.1	88.4					

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	80-105
4BCBZ	=	4-Bromochlorobenzene	78-108
FLBZ	=	Fluorobenzene	78-108

*** Surrogate recovery outside acceptance limits**

10762

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 6/29/00

Page: 1 of 1

Purchase Order No.:		Project No.	
SEND INVOICE TO	Name: Chester Deal		
	Company: Greystone Energy	Dept.	
	Address: 5802 US Hwy 64		
	City, State, Zip: Farmington		
REPORT RESULTS TO	Name: SHARON ADAMS	Title	
	Company: CONTRACT ENVIRONMENTAL SVCS.		
	Mailing Address: 410 N. Auburn		
	City, State, Zip: Farmington NM 87401		
	Telephone No.: 325-1198	Telefax No.	

PROJECT LOCATION: Templeton #1E monitor wells

SAMPLER'S SIGNATURE: Sharon Adams

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: VOA VIALS	BTEX in H2O	LAB ID
TEMP-100 Templeton 1E MW	6/29/00	9:15	H_2O	HCl	2	X	X	R1
TEMP-101 " MW	"	10:15	"	"	"	X	X	R2
TEMP-102 " MW	"	10:30	"	"	"	X	X	R3
TEMP-103 " MW	"	10:45	"	"	"	X	X	R4
TEMP-104 " MW	"	11:00	"	"	"	X	X	R5
TEMP-105 " MW	"	11:30	"	"	"	X	X	R6
TRIP BLANK								

Relinquished by: Sharon Adams	Date/Time 6/29/00 1:19P	Received by: David Martin	Date/Time 6/29/00 1320
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Rush | 24-48 Hours | 10 Working Days | By Date

Authorized by: SAA Date 6/29

(Client Signature Must Accompany Request)

Special Instructions / Remarks: STD TAT

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

OFF: (505) 325-5667
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ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556
FAX: (505) 327-1496

ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-106 R7
Lab ID:	0007006-01A **Matrix:** AQUEOUS	**Collection Date:**	7/6/2000 5:01:00 PM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-107 R8
Lab ID:	0007006-02A **Matrix:** AQUEOUS	**Collection Date:**	7/6/2000 5:05:00 PM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-108 R9
Lab ID:	0007006-03A **Matrix:** AQUEOUS	**Collection Date:**	7/6/2000 5:40:00 PM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
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S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-109 R10
Lab ID:	0007006-04A **Matrix:** AQUEOUS	**Collection Date:**	7/6/2000 5:42:00 PM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/18/2000
Toluene	2	0.5		µg/L	1	7/18/2000
Ethylbenzene	1.1	0.5		µg/L	1	7/18/2000
m,p-Xylene	ND	1		µg/L	1	7/18/2000
o-Xylene	0.7	0.5		µg/L	1	7/18/2000

Qualifiers:

PQL - Practical Quantitation Limit

ND - Not Detected at Practical Quantitation Limit

J - Analyte detected below Practical Quantitation Limit

B - Analyte detected in the associated Method Blank

S - Spike Recovery outside accepted recovery limits

R - RPD outside accepted recovery limits

E - Value above quantitation range

Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-110 R11
Lab ID:	0007006-05A **Matrix:** AQUEOUS	**Collection Date:**	7/7/2000 9:30:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Temp-111 R12
Lab ID:	0007006-06A **Matrix:** AQUEOUS	**Collection Date:**	7/7/2000 9:50:00 AM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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ANALYTICAL REPORT

Date: *19-Jul-00*

Client:	Contract Environmental Services, Inc.	**Client Sample Info:**	Templeton #1E Monitor Wells
Work Order:	0007006	**Client Sample ID:**	Trip Blank
Lab ID:	0007006-07A **Matrix:** AQUEOUS	**Collection Date:**	7/6/2000 12:00:00 PM
Project:	Templeton #1E Monitor Wells	**COC Record:**	10785

Parameter	Result	PQL	Qual	Units	DF	Date Analyzed
AROMATIC VOLATILES BY GC/PID		**SW8021B**				Analyst: **DC**
Benzene	ND	0.5		µg/L	1	7/12/2000
Toluene	ND	0.5		µg/L	1	7/12/2000
Ethylbenzene	ND	0.5		µg/L	1	7/12/2000
m,p-Xylene	ND	1		µg/L	1	7/12/2000
o-Xylene	ND	0.5		µg/L	1	7/12/2000

Qualifiers:

PQL - Practical Quantitation Limit
ND - Not Detected at Practical Quantitation Limit
J - Analyte detected below Practical Quantitation Limit
B - Analyte detected in the associated Method Blank
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
E - Value above quantitation range
Surr: - Surrogate

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On Site Technologies, LTD.

Date: *19-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Method Blank

Sample ID: **MB1** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29926**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	.1388	0.5									J
m,p-Xylene	.4757	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1557	0.5									J
Toluene	.2024	0.5									J

Sample ID: **MB1** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29970**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	ND	0.5									
Ethylbenzene	.1445	0.5									J
m,p-Xylene	.4384	1									J
Methyl tert-Butyl Ether	ND	1									
o-Xylene	.1801	0.5									J
Toluene	.1111	0.5									J

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *19-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Sample Matrix Spike

Sample ID: **0006074-03AMS** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29927**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2059	25	2000	46.08	100.7%	88	112				
Ethylbenzene	2805	25	2000	776.7	101.4%	86	113				
m,p-Xylene	9997	50	4000	6132	96.6%	85	108				
Methyl tert-Butyl Ether	2166	50	2000	46.08	106.0%	86	117				
o-Xylene	2352	25	2000	299.2	102.6%	92	110				
Toluene	2130	25	2000	38.93	104.5%	88	116				

Sample ID: **0006074-03AMSD** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29928**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	2001	25	2000	46.08	97.8%	88	112	2059	2.9%	6	
Ethylbenzene	2725	25	2000	776.7	97.4%	86	113	2805	2.9%	6	
m,p-Xylene	9715	50	4000	6132	89.6%	85	108	9997	2.9%	6	
Methyl tert-Butyl Ether	2137	50	2000	46.08	104.6%	86	117	2166	1.3%	7	
o-Xylene	2285	25	2000	299.2	99.3%	92	110	2352	2.9%	6	
Toluene	2040	25	2000	38.93	100.1%	88	116	2130	4.3%	6	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Sample Matrix Spike

Sample ID: **0007004-02BMS** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29971**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	406.4	5	400	0.5	101.5%	88	112				
Ethylbenzene	409.4	5	400	1	102.1%	86	113				
m,p-Xylene	784.6	10	800	2	97.8%	85	108				
Methyl tert-Butyl Ether	388.6	10	400	0	97.2%	86	117				
o-Xylene	410.9	5	400	1	102.5%	92	110				
Toluene	478	5	400	65	103.2%	88	116				

Sample ID: **0007004-02BMSD** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29972**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	396.6	5	400	0.5	99.0%	88	112	406.4	2.4%	6	
Ethylbenzene	399.7	5	400	1	99.7%	86	113	409.4	2.4%	6	
m,p-Xylene	765.3	10	800	2	95.4%	85	108	784.6	2.5%	6	
Methyl tert-Butyl Ether	383.2	10	400	0	95.8%	86	117	388.6	1.4%	7	
o-Xylene	401.4	5	400	1	100.1%	92	110	410.9	2.3%	6	
Toluene	465.2	5	400	65	100.1%	88	116	478	2.7%	6	

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *19-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Laboratory Control Spike - generic

Sample ID: **LCS WATER** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29925**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.32	0.5	40	0	100.8%	96	111				
Ethylbenzene	40.29	0.5	40	0.1388	100.4%	96	111				
m,p-Xylene	76.04	1	80	0.4757	94.4%	92	105				
Methyl tert-Butyl Ether	40.39	1	40	0	101.0%	93	113				
o-Xylene	40.55	0.5	40	0.1557	101.0%	97	110				
Toluene	40.52	0.5	40	0.2024	100.8%	97	109				

Sample ID: **LCS WATER** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29969**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.23	0.5	40	0	100.6%	96	111				
Ethylbenzene	40.59	0.5	40	0.1445	101.1%	96	111				
m,p-Xylene	77.95	1	80	0.4384	96.9%	92	105				
Methyl tert-Butyl Ether	38.89	1	40	0	97.2%	93	113				
o-Xylene	40.66	0.5	40	0.1801	101.2%	97	110				
Toluene	40.76	0.5	40	0.1111	101.6%	97	109				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: *19-Jul-00*

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT

Continuing Calibration Verification Standard

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29922**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	21.07	0.5	20	0	105.4%	85	115				
Ethylbenzene	21.12	0.5	20	0	105.6%	85	115				
m,p-Xylene	40.04	1	40	0	100.1%	85	115				
Methyl tert-Butyl Ether	20.54	1	20	0	102.7%	85	115				
o-Xylene	21.16	0.5	20	0	105.8%	85	115				
Toluene	21.21	0.5	20	0	106.1%	85	115				
1,4-Difluorobenzene	89.52	0	100	0	89.5%	79	101				
4-Bromochlorobenzene	85.38	0	100	0	85.4%	78	99				
Fluorobenzene	87.65	0	100	0	87.6%	76	103				

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29923**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.82	0.5	20	0	104.1%	85	115				
Ethylbenzene	20.84	0.5	20	0	104.2%	85	115				
m,p-Xylene	39.65	1	40	0	99.1%	85	115				
Methyl tert-Butyl Ether	21.62	1	20	0	108.1%	85	115				
o-Xylene	21.03	0.5	20	0	105.2%	85	115				
Toluene	20.94	0.5	20	0	104.7%	85	115				
1,4-Difluorobenzene	89.55	0	100	0	89.6%	79	101				
4-Bromochlorobenzene	84.58	0	100	0	84.6%	78	99				
Fluorobenzene	87.93	0	100	0	87.9%	76	103				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV3 BTEX_0007** Batch ID: **GC-1_000712** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/12/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000712A** SeqNo: **29924**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	40.54	0.5	40	0	101.3%	85	115				
Ethylbenzene	40.45	0.5	40	0	101.1%	85	115				
m,p-Xylene	77.29	1	80	0	96.6%	85	115				
Methyl tert-Butyl Ether	35.83	1	40	0	89.6%	85	115				
o-Xylene	40.94	0.5	40	0	102.3%	85	115				
Toluene	40.74	0.5	40	0	101.8%	85	115				
1,4-Difluorobenzene	90.08	0	100	0	90.1%	79	101				
4-Bromochlorobenzene	88.66	0	100	0	88.7%	78	99				
Fluorobenzene	88.92	0	100	0	88.9%	76	103				

Sample ID: **CCV1 BTEX_0007** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:
Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29967**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.33	0.5	20	0	101.7%	85	115				
Ethylbenzene	20.68	0.5	20	0	103.4%	85	115				
m,p-Xylene	39.68	1	40	0	99.2%	85	115				
Methyl tert-Butyl Ether	19.91	1	20	0	99.6%	85	115				
o-Xylene	20.7	0.5	20	0	103.5%	85	115				
Toluene	20.63	0.5	20	0	103.2%	85	115				
1,4-Difluorobenzene	90.28	0	100	0	90.3%	79	101				
4-Bromochlorobenzene	89.37	0	100	0	89.4%	78	99				
Fluorobenzene	89.23	0	100	0	89.2%	76	103				

Qualifiers: ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells

QC SUMMARY REPORT
Continuing Calibration Verification Standard

Sample ID: **CCV2 BTEX_0007** Batch ID: **GC-1_000718** Test Code: **SW8021B** Units: **µg/L** Analysis Date: **7/18/2000** Prep Date:

Client ID: **0007006** Run ID: **GC-1_000718A** SeqNo: **29968**

Analyte	Result	PQL	SPK value	SPK Ref Val	%REC	LowLimit	HighLimit	RPD Ref Val	%RPD	RPDLimit	Qual
Benzene	20.11	0.5	20	0	100.6%	85	115				
Ethylbenzene	20.45	0.5	20	0	102.3%	85	115				
m,p-Xylene	39.14	1	40	0	97.9%	85	115				
Methyl tert-Butyl Ether	19.79	1	20	0	98.9%	85	115				
o-Xylene	20.57	0.5	20	0	102.8%	85	115				
Toluene	20.37	0.5	20	0	101.9%	85	115				
1,4-Difluorobenzene	89.79	0	100	0	89.8%	79	101				
4-Bromochlorobenzene	87.66	0	100	0	87.7%	78	99				
Fluorobenzene	88.77	0	100	0	88.8%	76	103				

Qualifiers:
ND - Not Detected at the Reporting Limit
J - Analyte detected below quantitation limits
S - Spike Recovery outside accepted recovery limits
R - RPD outside accepted recovery limits
B - Analyte detected in the associated Method Blank

On Site Technologies, LTD.

Date: 19-Jul-00

CLIENT: Contract Environmental Services, Inc.
Work Order: 0007006
Project: Templeton #1E Monitor Wells
Test No: SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ
0006069-01A	90	84.6	88.7
0006070-01A	86.4	83.8	85.7
0006074-03A	89.8	83.4	88.2
0006074-03AMS	87.5	84.5	86.8
0006074-03AMSD	87.5	85.4	86.6
0007003-01A	89.9	84.9	88.4
0007004-02B	90.1	88.1	89.2
0007004-02BMS	89.5	88.1	88.3
0007004-02BMSD	89.6	88	88.4
0007005-01A	89.4	84.7	88.5
0007006-01A	90.4	83.9	88.6
0007006-02A	89.9	83.2	88.9
0007006-03A	90.1	85.1	88.5
0007006-04A	88.9	87.2	86.4
0007006-05A	90.4	85.1	88.5
0007006-06A	89.6	85.4	88.8
0007006-07A	89.7	84.8	88.6
0007007-01A	89.3	84.8	88.7
0007007-02A	107 *	86.4	88.8
0007007-03A	90	84.9	88.8
0007007-04A	149 *	85.4	103 *
0007007-05A	89.7	84.6	88.6
0007007-06A	89.8	84.8	88.4
0007007-07A	89.3	85	88.4
CCV1 BTEX_00070	90.3	89.4	89.2
CCV2 BTEX_00070	89.8	87.6	88.8
CCV3 BTEX_00070	90.1	88.7	88.9

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	79-101
4BCBZ	=	4-Bromochlorobenzene	78-99
FLBZ	=	Fluorobenzene	76-103

*** Surrogate recovery outside acceptance limits**

CLIENT:	Contract Environmental Services, Inc.
Work Order:	0007006
Project:	Templeton #1E Monitor Wells
Test No:	SW8021B

QC SUMMARY REPORT
SURROGATE RECOVERIES

Aromatic Volatiles by GC/PID

Sample ID	14FBZ	4BCBZ	FLBZ					
LCS WATER	89.7	89.5	88.4					
MB1	90.4	90.4	89.3					

Acronym		Surrogate	QC Limits
14FBZ	=	1,4-Difluorobenzene	79-101
4BCBZ	=	4-Bromochlorobenzene	78-99
FLBZ	=	Fluorobenzene	76-103

*** Surrogate recovery outside acceptance limits**

10785

CHAIN OF CUSTODY RECORD

ON SITE TECHNOLOGIES, LTD.

612 E. Murray Dr. • P.O. Box 2606 • Farmington, NM 87499
LAB: (505) 325-5667 • FAX: (505) 327-1496

Date: 7/7/2000

Page: 1 of 1

Purchase Order No.:	Project No.		
SEND INVOICE TO Name: Chester Deal		**REPORT RESULTS TO** Name: Sharon Adams	Title: Owner
Company: Greystone Energy	Dept.	Company: Contract Environmental Services, Inc.	
Address: 5802 US Hwy. 64		Mailing Address: 410 N. Auburn	
City, State, Zip: Farmington, NM 87401		City, State, Zip: Farmington, NM 87401	
		Telephone No.: 505-325-1198	Telefax No.: Same

PROJECT LOCATION: Templeton #1E Monitor Wells

SAMPLER'S SIGNATURE:

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	SAMPLE MATRIX	SAMPLE PRES.	Number of Containers	ANALYSIS REQUESTED: VOA Vials	BTEX in H_2O	LAB ID
Temp - 106	7/6	5:01	H_2O	HCl	2	X	X	R7
Temp - 107	7/6	5:05	"	"	2	X	X	R8
Temp - 108	7/6	5:40	"	"	2	X	X	R9
Temp - 109	7/6	5:42	"	"	2	X	X	R10
Temp - 110	7/7	9:30	"	"	2	X	X	R11
Temp - 111	7/7	9:50	"	"	2	X	X	R12
[illegible]	[illegible]	[illegible]			1	X	X	
				1:35				

Relinquished by: Sharon Adams	Date/Time 7/7 [illegible]	Received by: [signature]	Date/Time 7/7/00 [illegible]
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time
Method of Shipment:		Rush	24-48 Hours	10 Working Days	By Date

Authorized by: TA Date 7/7/2000
(Client Signature Must Accompany Request)

Special Instructions / Remarks:
PS & TA

Distribution: White - On Site Yellow - LAB Pink - Sampler Goldenrod - Client

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

February 14, 2000

CERTIFIED MAIL
RETURN RECEIPT NO: Z-559-572-904

Mr. Chester Deal
Chateau Oil and Gas Inc.
5802 Hwy. 64
Farmington, New Mexico 87401

RE: GROUND WATER DISCHARGE PLAN GW-184
TEMPLETON #1E WELL SITE
SAN JUAN COUNTY, NEW MEXICO

Dear Mr. Deal:

On February 20, 1995, the ground water discharge plan, GW-184 for the Templeton #1E well site located in Unit B, Section 27, Township 31 North, Range 13 West, San Juan County, New Mexico was approved by the Director of the New Mexico Oil Conservation Division (OCD). This discharge plan was required and submitted pursuant to New Mexico Water Quality Control Commission (WQCC) regulations and was approved for a period of five years. The approval expires on February 20, 2000.

If your facility continues to have potential or actual effluent or leachate discharges, you must renew your discharge plan. Please submit a renewal application to the OCD by April 14, 2000. Please submit an original application and one copy to the OCD Santa Fe Office and one copy to the OCD Aztec District Office. Note that the completed and signed application form must be submitted with your discharge plan renewal request (Copies of the WQCC regulations and the application form and guidelines can be found on the OCD web page at www.emnrd.state.nm.us/ocd/). Please indicate whether you have made, or intend to make, any changes in your system, and if so, please include these modifications in your application for renewal.

The discharge plan renewal application for the Templeton #1E well site is subject to the WQCC Regulation 3114 discharge plan fees. Every billable facility submitting a discharge plan renewal will be assessed a fee equal to the filling fee of $50.00 plus a flat fee of $690.00 for ground water remediations.

The $50.00 filing fee is to be submitted with the discharge plan renewal application and is nonrefundable. The flat fee for an approved discharge plan renewal may be paid in a single payment due at the time of approval, or in equal installments over the duration of the discharge plan.

Please make all checks payable to the **NMED Water Quality Management Fund** and addressed to the OCD Santa Fe Office.

If you no longer have any actual or potential discharges, a discharge plan is not needed and you need to notify this office. If you have any questions regarding this matter, please do not hesitate to contact Bill Olson of my staff at (505) 827-7154.

Sincerely,

Roger C. Anderson
Environmental Bureau Chief

xc: Denny Foust, OCD Aztec District Office
Shawn Adams, Contract Environmental Services, Inc.

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION
2040 S. PACHECO
SANTA FE, NEW MEXICO 87505
(505) 827-7131

July 15, 1997

CERTIFIED MAIL
RETURN RECEIPT NO. P-410-431-194

Mr. Chester Deal
Chateau Oil and Gas, Inc.
5802 Hwy. 64
Farmington, New Mexico 87401

RE: TEMPLETON #1E GROUND WATER INVESTIGATION

Dear Mr. Deal:

The New Mexico Oil Conservation Division (OCD) has completed a review of the following Chateau Oil and Gas, Inc.'s (COGI) documents that contain the results of COGI's recent site remedial actions and a proposed work plan for additional ground water investigations and modification of the site remediation system:

- May 7, 1997 "CHATEAU OIL AND GAS, INC. TEMPLETON #1E GROUNDWATER INVESTIGATION REPORT, SECTION 27, T31N, R13W".

- May 7, 1997 "MARCH 20,1997 NMOCD LETTER, TEMPLETON 1E WELL SITE".

- May 9, 1997 "QUARTERLY REPORTING, AIR STRIPPER, DISCHARGE PLAN APPLICATION GW-184".

The site investigation and remedial actions as contained in the above referenced documents is approved with the following conditions:

1. The proposed ground water investigation plan does not define the downgradient extent of ground water contamination that is in excess of New Mexico Water Quality Control Commission (WQCC) ground water standards. Therefore the OCD requires that, in addition to the proposed monitor wells, COGI will install 3 downgradient monitor wells at the locations shown on the attached map.

2. COGI will develop each well upon completion using EPA approved procedures.

3. All wastes generated will be disposed of at an OCD approved facility or in an OCD approved manner.

4. Ground water from all site monitor wells will be sampled and analyzed for concentrations of benzene, toluene, ethylbenzene, xylene (BTEX) using EPA approved methods and quality assurance/quality control (QA/QC).

5. COGI will submit a report on the investigation to the OCD by October 3, 1997. The report will contain:

   a. A description of all activities which occurred during the investigation including conclusions and recommendations.

   b. A summary of all laboratory analytic results of soil and water quality sampling and copies of all laboratory analyses and associated QA/QC data.

   c. A water table elevation map using the water table elevation of the ground water in all monitor wells.

   d. A geologic log and well completion diagram for each monitor well and air sparging well.

6. COGI will notify the OCD at least 48 hours in advance of all scheduled activities such that the OCD has the opportunity to witness the events and/or split samples.

7. All documents submitted for approval will be submitted to the OCD Santa Fe Office with copies provided to the OCD Aztec District Office.

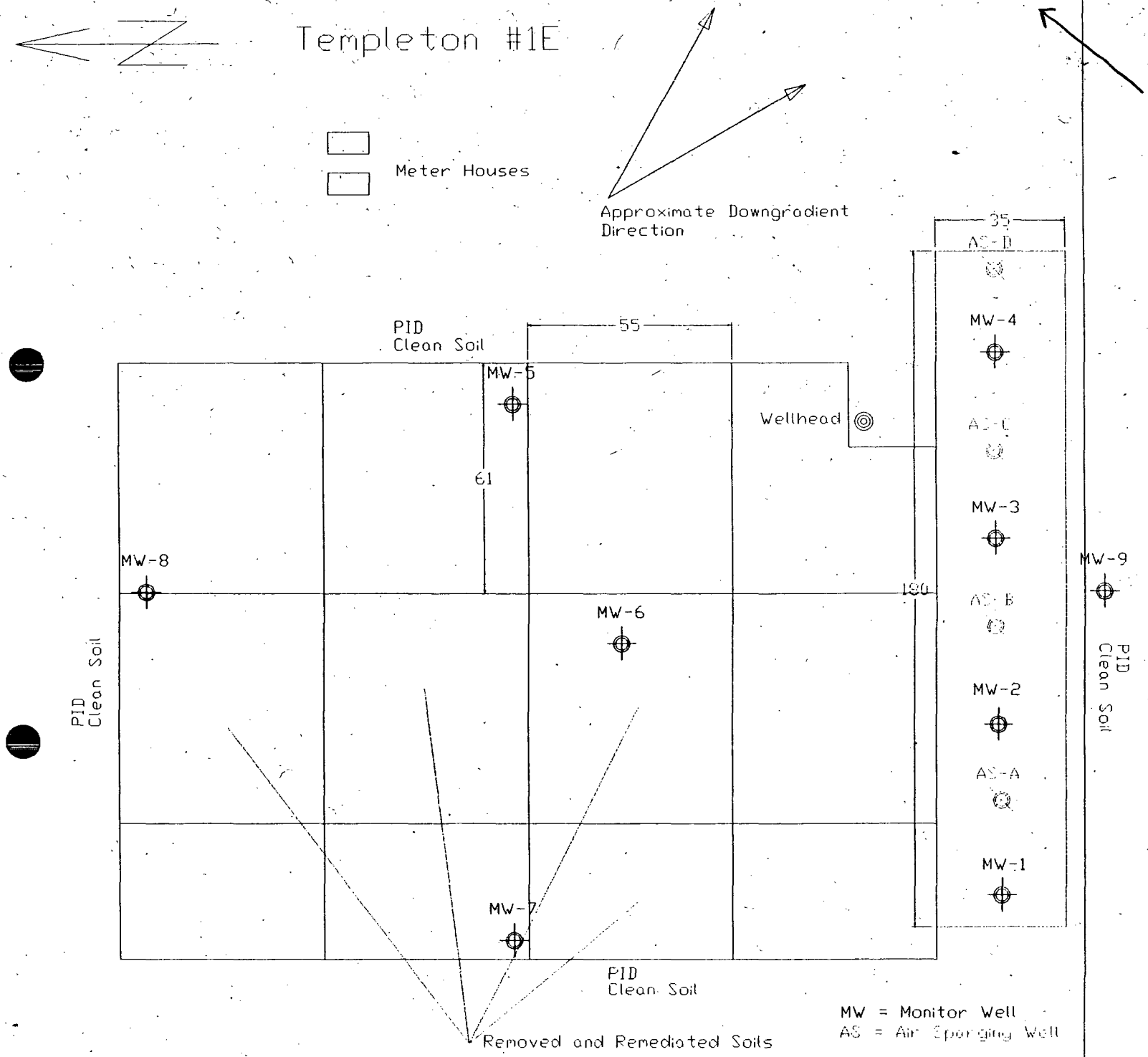
Please be advised that OCD approval does not relieve COGI of liability if contamination exists which is beyond the scope of the plan or if the activities fail to adequately determine the extent of contamination related to their activities. In addition, OCD approval does not relieve COGI of responsibility for compliance with any other federal, state, tribal or local laws and/or regulations. If you have any questions, please call me at (505) 827-7154.

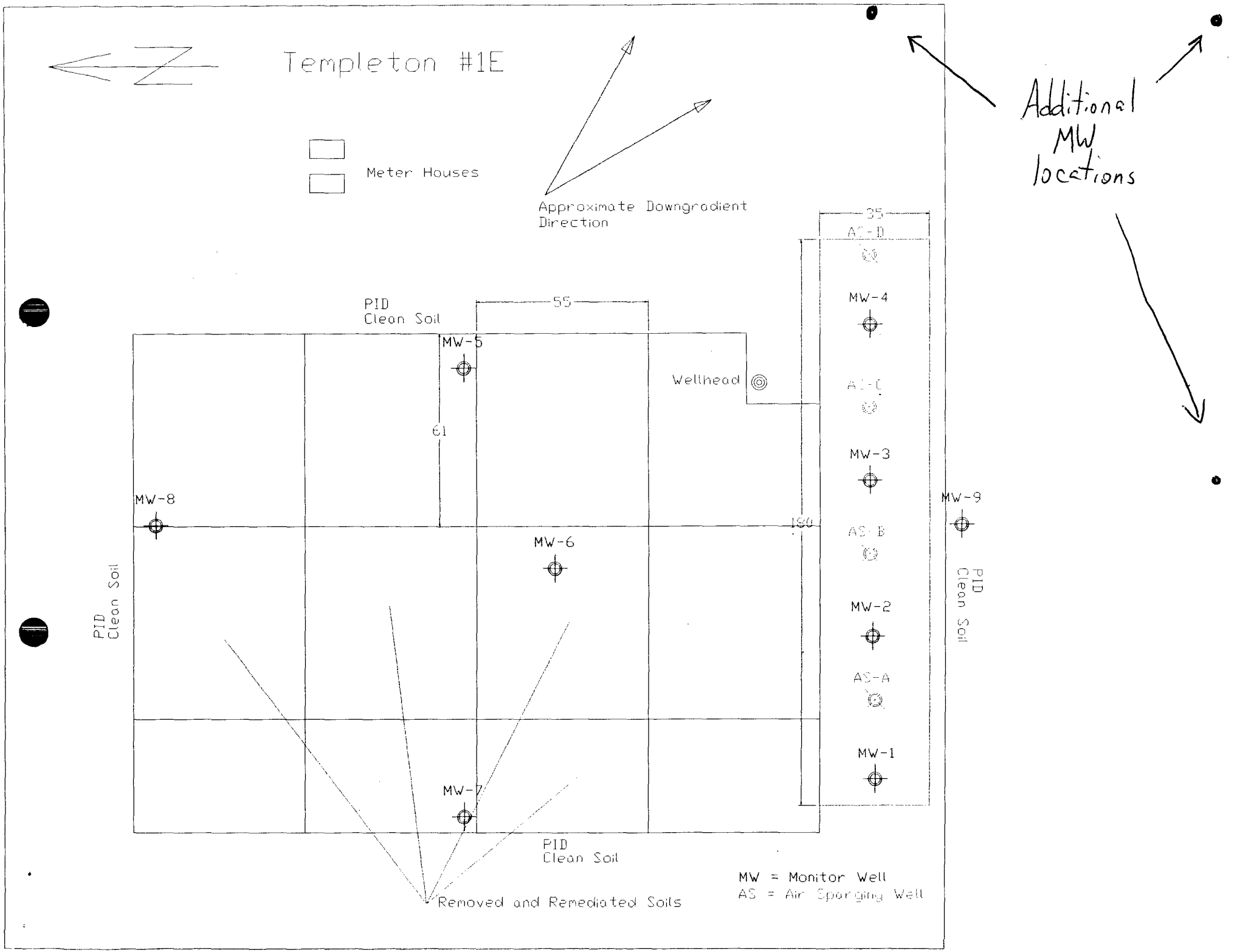
Sincerely,

William C. Olson
Hydrogeologist/Environmental Bureau

attachment

xc: Denny Foust, OCD Aztec Office
Shawn Adams, Contract Environmental Services


Templeton #1E
Meter Houses
Approximate Downgradient Direction
Additional MW locations
35
AS-D
MW-4
PID
Clean Soil
55
MW-5
Wellhead
AS-C
61
MW-3
MW-8
MW-9
150
AS-B
MW-6
PID
Clean Soil
PID
Clean Soil
MW-2
AS-A
MW-1
MW-7
PID
Clean Soil
Removed and Remediated Soils
MW = Monitor Well
AS = Air Sparging Well


Templeton #1E
N
Meter Houses
Approximate Downgradient Direction
Additional MW locations
35
AS-D
MW-4
PID
Clean Soil
55
MW-5
Wellhead
AS-C
61
MW-3
MW-8
MW-9
180
AS-B
MW-6
PID
Clean Soil
PID
Clean Soil
MW-2
AS-A
MW-1
MW-7
PID
Clean Soil
Removed and Remediated Soils
MW = Monitor Well
AS = Air Sparging Well

May 7, 1997

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: March 20, 1997 NMOCD letter, Templeton 1E Well Site

Dear Mr. Olson,

Contract Environmental Services, Inc. (CES) is pleased to present the following comprehensive work plan on behalf of Chateau Oil and Gas, Inc. (COG) to assess groundwater contamination at the Templeton 1E well location, Sec 27, T31N, R13W. This plan includes Background Information, Additional Work Planned, Monitor Well Detail, Air Sparging Well Detail, Remediation Level Achieved, Additional Remediation Anticipated, Conclusions and Recommendations.

Background Information

Numerous excavations have been completed across the wellpad as shown on Figure 1. Open excavations quickly filled with groundwater and had the contaminated water cycled through an air stripper to remove hydrocarbons. The sun and wind helped in the remediation of the groundwater by further breaking down hydrocarbons. The soils excavated were then spread on location and tilled or disced until it reached an acceptable level of contamination. Once remediated, the soils were placed back in the open excavation. The soil farm area was then utilized for another spreading of excavated soil.

On February 4 through February 6, 1997 a total of four (4) monitor wells were installed across the last remaining contaminated zone in efforts to assess existing contamination. Water samples were collected from each of the wells for analysis. The description of these sampling procedures and findings are included in a separate report entitled "Chateau Oil and Gas, Inc. Templeton # 1E Groundwater Investigation Report".

Additional Work Planned

Five (5) monitor wells are planned to more effectively characterize groundwater remediation across the entire well location. The locations of these planned installations are pointed out on Figure 1.

A minimum of four (4) air sparging wells will be installed across this last zone requiring remediation of soil and groundwater. All information to date will be gathered and summarized in a final report complete with conclusions and recommendations. If necessary, COG may open trenches to allow contaminated water to be processed through the air stripper currently on location.

Monitor Well Detail

Efforts will be made to remain consistent with the previous five (5) monitor wells installed. A slotted steel 6" casing will be placed in the subsurface a minimum of five (5) feet below the water table. Excavated soils will then be backfilled around the steel casing. A four (4) inch PVC monitor well casing will be installed within the 6" steel casing and the PVC will be sandpacked. The slotted PVC will extend approximately five foot into the water table and will continue approximately five (5) foot above. This zone will allow for seasonal fluctuations in the water table. The monitor wells will be purged to remove fine material (silts) within the PVC casing. The blank PVC above the perforated zone will have a bentonite seal to prevent infiltration from above. A cemented manhole cover or monument will be completed to allow for ease of sampling and adequate security.

Air Sparging Well Detail

The five (5) monitor wells will be placed in an alternating sequence with the monitoring wells installed on February 4 through 6, 1997. The sparging wells will be completed with 2" heavy wall PVC. The bottom of the PVC casing will have an 18" screened section with 0.020 slots to allow the injected air to enter the water zone. The sparging wells are to be placed so as to allow for seasonal fluctuations in the water table and still maintain submersion. A manifold system of 2" PVC will link the sparging wells at the surface and one common blower will be utilized. Each individual sparging well will have an air inlet control to vary injection as needed.

Remediation Level Achieved

Information gathered from analyzing the water in these monitor wells will be used to establish the remediation level achieved. A groundwater hydrocarbon concentration map will be developed using this same information. This map will be a tool for deciding most effective locations of air sparging wells.

Additional Remediation Anticipated

Expectations are that the only area requiring further groundwater remediation will be the contaminated zone that has not been excavated. This strip of ground is some 35' x 180' in size and is located on the southern edge of the well location. Water analyses indicate considerable contamination within this small strip.

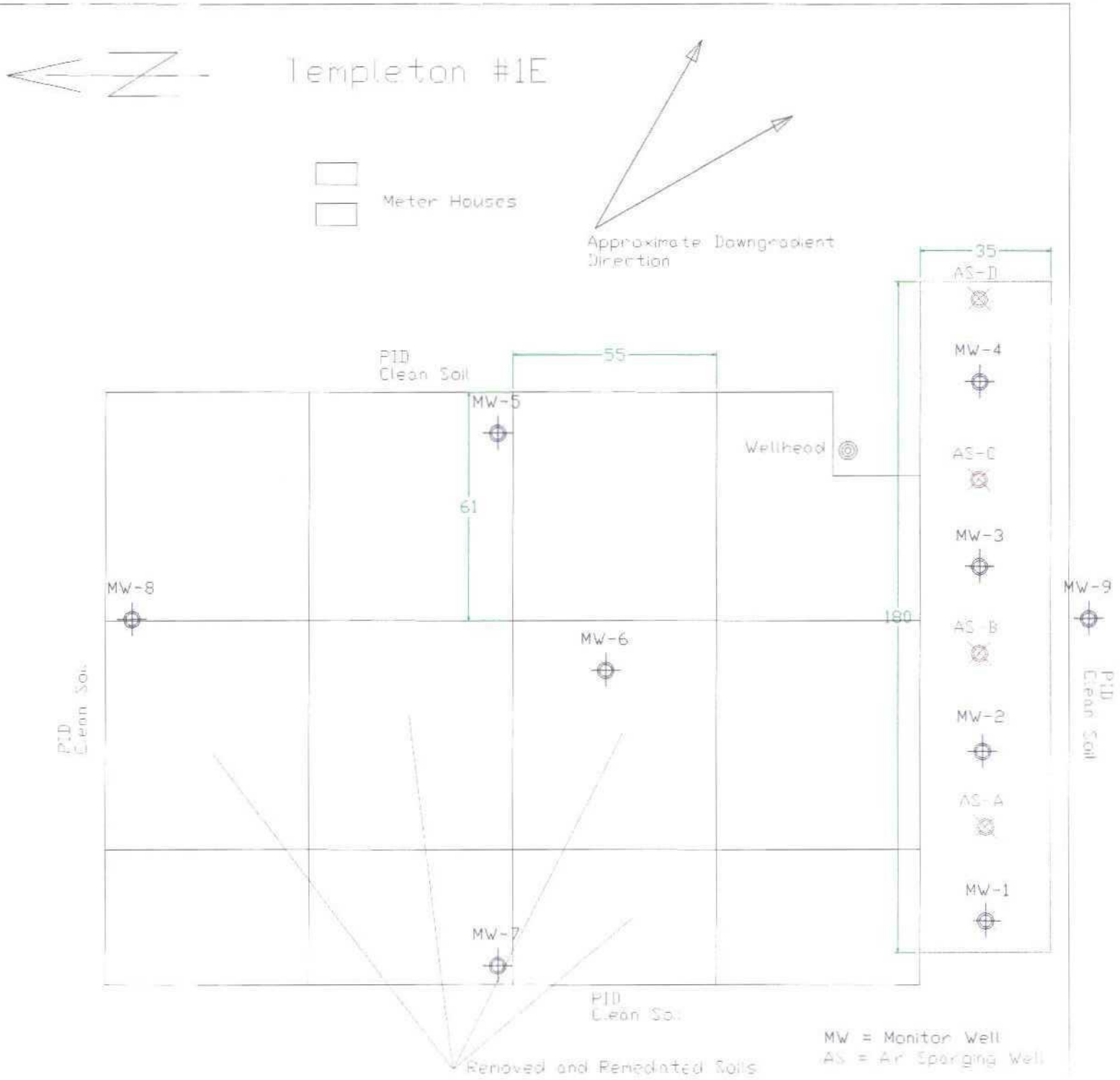
Conclusions and Recommendations

Upon approval, Chateau Oil and Gas, Inc. will activate this work plan and begin installations of monitor wells to assess the overall groundwater condition. This information will be used to decide practical locations of air sparging wells and will give us the levels of contamination (if any) present. CES on behalf of Chateau Oil and Gas, Inc. appreciate this opportunity to present this work plan to the New Mexico Oil Conservation Division. If you require additional information, please don't hesitate to contact us at (505) 325-1198 or stop by our offices at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: Mr. Denny Foust, NMOCD Office, Aztec, New Mexico


Templeton #1E
Meter Houses
Approximate Downgradient Direction
35
AS-D
MW-4
PID Clean Soil
55
MW-5
Wellhead
AS-C
61
MW-3
MW-8
MW-9
180
AS-B
MW-6
PID Clean Soil
PID Clean Soil
MW-2
AS-A
MW-1
MW-7
PID Clean Soil
MW = Monitor Well
AS = Air Sparging Well
Removed and Remediated Soils

Contract Environmental Services, Inc.
Post Office Box 3376
Farmington, New Mexico 87499-3376
Phone (505) 325-1198

May 7, 1997

New Mexico Oil Conservation Division
Mr. William Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Chateau Oil and Gas, Inc. Templeton # 1E Groundwater Investigation Report, Section 27, T31N, R13W

Dear Mr. Olson,

In response to your letter dated March 20, 1997, Contract Environmental Services, Inc. (CES) is pleased to present this Investigation Report for groundwater monitor wells at the Templeton # 1E well location on behalf of Chateau Oil and Gas, Inc. (COG). This report includes the following sections: Site Characteristics, Monitor Well Installation, Monitor Well Completion, Sampling Results, and Conclusions.

Site Characteristics

The Templeton #1E well location is located in the La Plata River Valley. Underlying this location is primarily alluvium material and sand. Groundwater is very shallow and can be usually encountered within the first five (5) foot of digging. Public Service Company of New Mexico (PNM) formerly Gas Company of New Mexico (GCNM) also has earthen pit contamination further to the east of Chateau Oil and Gas, Inc. Figure 3 presents the geologic log observed during excavations. Figure 4 presents groundwater depths with contour lines approximated.

Monitor Well Installation

The area chosen to install the initial four monitor wells was the strip of contaminated subsurface soils approximately 180 feet long and averaging 30 feet wide that runs east to west across the southern end of the well location. The area has been defined during previous excavations and is presented in Figure 1.

The monitor wells were spaced evenly (approximately 36 feet apart) across this area following the center line. A backhoe was utilized to dig the excavations since the water table is shallow and due to the alluvium material present. The soil was backfilled around the steel casings until equal to the grade of the surrounding area. PVC monitor wells were sandpacked within the steel casings only after the water level could be accurately measured. Placement was designed to achieve a screened interval of five (5) feet above and five (5) feet below the water table. The PVC screened pipe was sand-packed to prevent fine-particle intrusion into the wellbore. Figure 2 is a diagram of the monitor well detail.

Monitor Well Completion

Each of the four (4) monitor wells was completed with a ten (10) foot slotted PVC casing attached to a five (5) foot blank PVC casing. All PVC monitor well casings had four (4) inch diameter. Approximately one and one-half (1 1/2) bags of twenty (20) grit silica sand was used to pack the space between the steel and PVC casings. Two (2) bags of bentonite pellets were used to seal the wellbore around the PVC casing. At the surface, three (3) bags of quick-rete was utilized for stabilizing the steel casing. Once the four monitor

wells were completed, the water within the wells was purged and/or developed a minimum of three times the well volume.

Sampling Results

Upon completing the installation of the four monitor wells, a small water pump was used to purge and develop the wells. Each well had a minimum of four well volumes removed to complete the development. Purging in this manner allows the flow channels of both the steel casing and the slotted PVC pipe to be properly developed for uniform groundwater movement through the well. After purging, the wells were left undisturbed for one day before sampling.

Following development and prior to sampling, each of the four monitor wells had a water sample screened with a photo-ionization detector (PID) meter. The results of the screening are presented in the following table.

Table 1-1.

Source	Concentration	Units
Monitor Well #1	200	PPM
Monitor Well #2	130	PPM
Monitor Well #3	100	PPM
Monitor Well #4	1,200	PPM

The monitor wells were bailed the standard three (3) well volumes prior to sampling. Water samples were collected in 40 ml VOA vials with chemical preservative. The samples were kept cool and transported to an accredited laboratory for analysis of Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) as per EPA Method 8020. The results are given below in Table 1-2. Attached are copies of the laboratory analytical reports.

Table 1-2.

Monitor Well	Benzene	Toluene	Ethylbenzene	Xylene(s)
MW-1	0.5	2.8	1.1	6.1
MW-2	162.2	64.6	306	4,136.6
MW-3	4,287.7	10,634.6	797.9	8,566.7
MW-4	1,704.9	5,175.4	464.8	4,871

Allowable concentrations under New Mexico Groundwater Regulations in Parts Per Billion (PPB) are as follows:

	Benzene	Toluene	Ethylbenzene	Xylene(s)
	5.0	1,000	700	10,000

One (1) monitor well (MW-1) had a rigorous water analysis conducted that included tests for Cations / Anions, Metals, and Nitrates using EPA Methods. The selection was made the day the monitor wells were installed. Monitor well #1 was selected due to the nearness to the original earthen pit. CES will determine the frequency of sampling jointly with NMOCD. In addition to the above laboratory results, monitor well #1 had the following analyses performed:

Parameter	Results	Units	Parameter	Results	Units
Sodium	822	PPM	Calcium	474	PPM
Magnesium	142	PPM	Potassium	19	PPM
Chloride	267	PPM	Sulfate	3,107	PPM
Carbonate	<1	PPM	Bicarbonate	400	PPM
Hydroxide	<1	PPM	Sulfide	NA	
Iron	0.2	PPM	TDS	5,231	PPM
pH	7.42		Resistivity	1.7094	Ohm-m
Spec. Gravity	1.0044		Total Hardness	1768	
Cation/Anion Dif 7.2		Me/L	Mercury	ND	PPM
Arsenic	ND	PPM	Barium	1.16	PPM
Cadmium	ND	PPM	Chromium	ND	PPM
Lead	ND	PPM	Selenium	ND	PPM
Silver	ND	PPM	Nitrite	ND	PPM
Nitrate	ND	PPM	Acenaphthene	ND	PPB
Acenaphthylene	ND	PPB	Anthracene	ND	PPB
Benz(a)anthracene	ND	PPB	Benzo(B)Fluoranthene	ND	PPB
Benzo(k)Fluoranthene	ND	PPB	Benzo(ghi)Perylene	ND	PPB
Benzo(a)Pyrene	ND	PPB	Chrysene	ND	PPB
Dibenz(a,h)anthracene	ND	PPB	Fluoranthene	ND	PPB
Fluorene	ND	PPB	Naphthalene	ND	PPB
Phenanthrene	ND	PPB	Pyrene	ND	PPB
Indeno(1,2,3-cal)Pyrene	ND	PPB	2-methylnaphthalene	ND	PPB

Conclusions

Contract Environmental Services, Inc. anticipates finding that the majority of soil and groundwater contamination has already been successfully remediated. These efforts were accomplished using excavation, soil farms, air stripper, and open trench techniques. Groundwater contamination remains in the area where the monitor wells have just been placed. Contract Environmental Services, Inc. feel that air sparging will be an effective method for cleaning this last remaining zone with surficial disturbance minimized.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: Mr. Denny Foust, NMOCD Aztec Office

jb:winword/soco/tempwel2

Figure 1.

Templeton #1E

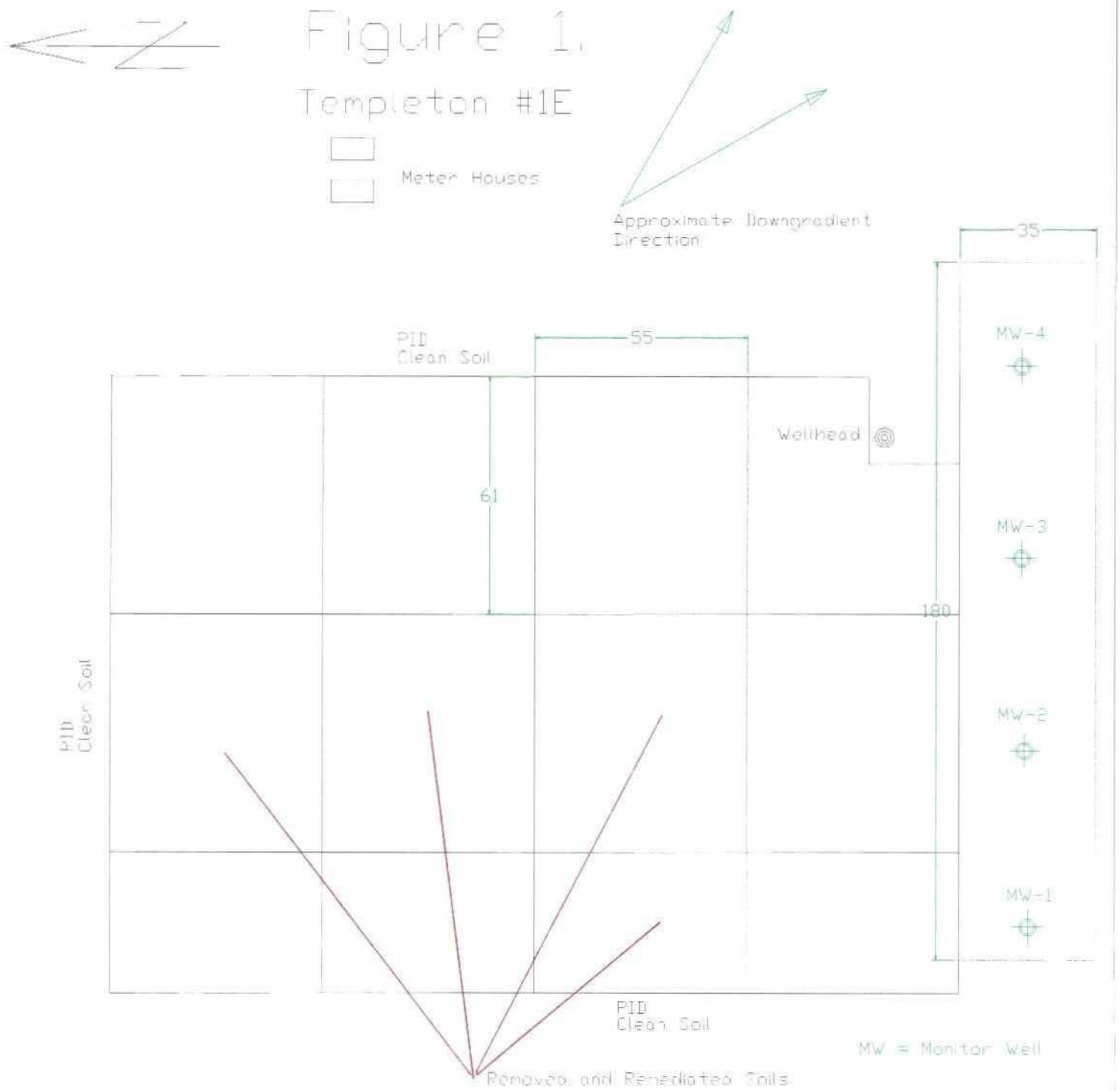
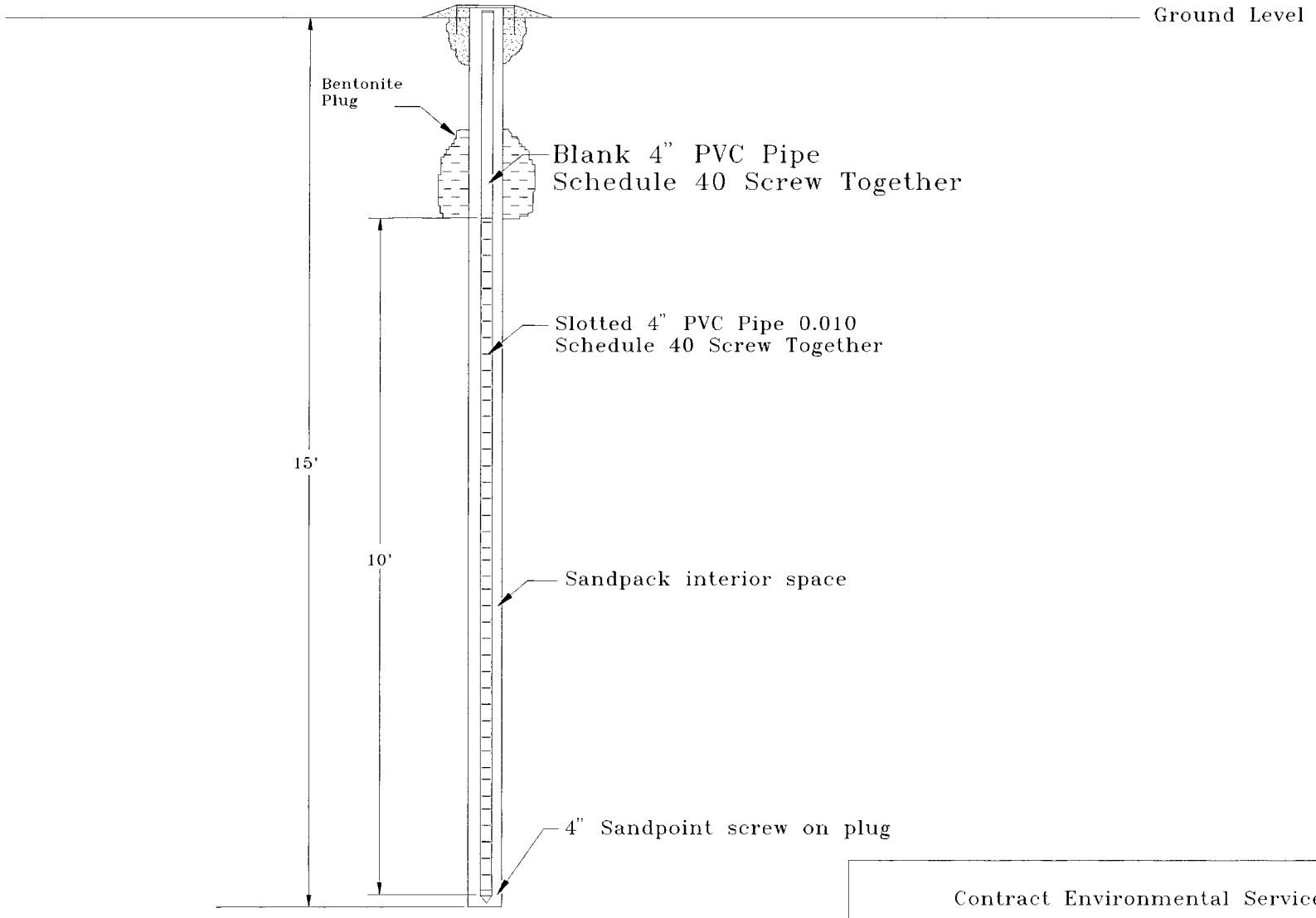
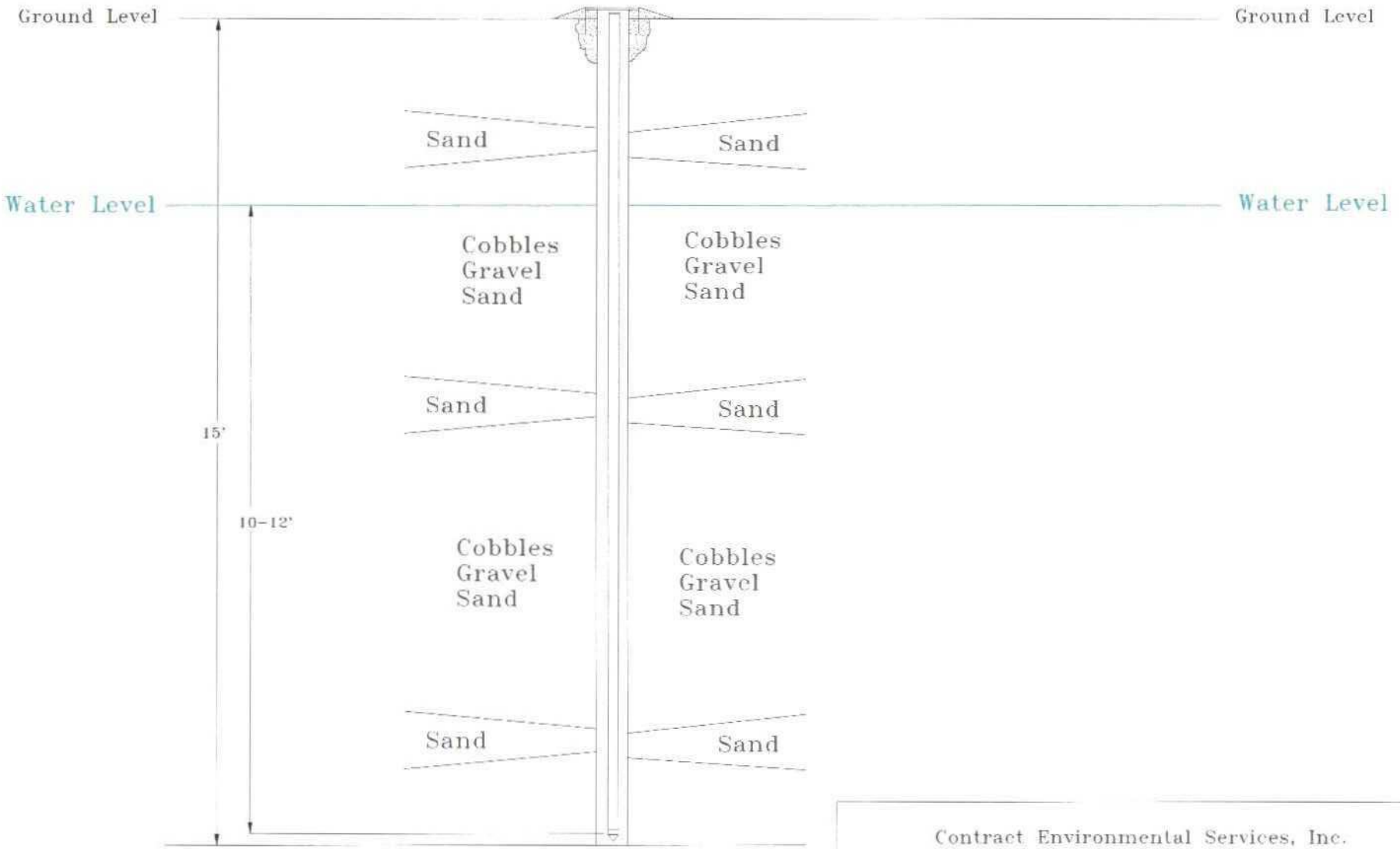


Figure 2.



Contract Environmental Services, Inc.
Monitor Wellbore Diagram
Dr. By: Shawn A. Adams — Scale: Full
Date: 9/9/94

Figure 3.



Contract Environmental Services, Inc.

Geologic Log Diagram

Dr. By: Shawn A. Adams Scale: Full

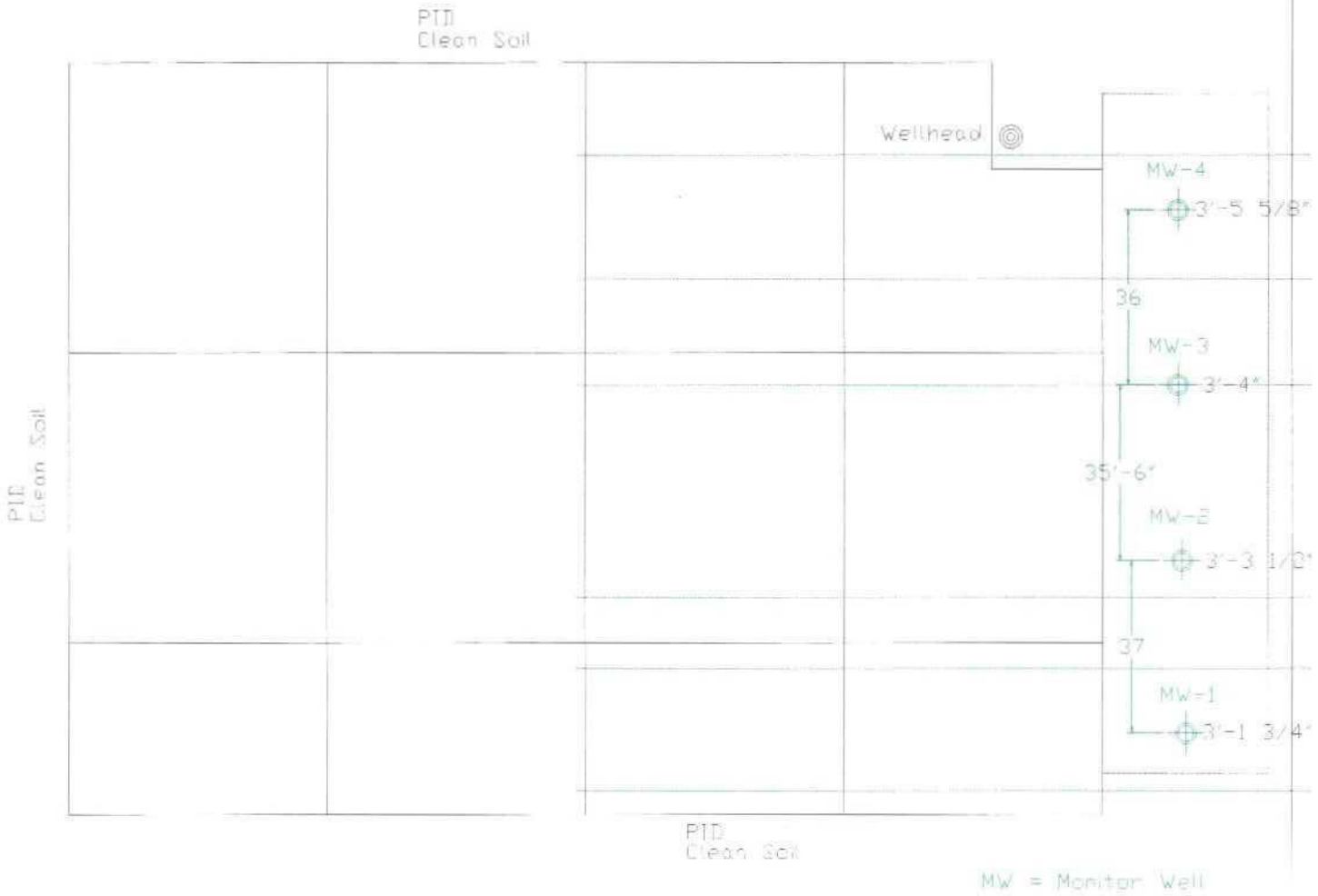
Date: 9/9/94

Figure 4.

Templeton #1E

Meter Houses

Approximate Downgradient Direction



Note: A. Cortour Lines Are Measurements Below Wellhead Flange

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	12-Feb-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*4371*
Address:	*P.O. Box 505*	Sample No.:	*13671*
City, State:	*Kirtland, NM 87417*	Job No.:	*2-1000*

Project Name:	***Chateau Oil & Gas, Inc. - Templeton 1E***				
Project Location:	***TEMP-100; MW #1***				
Sampled by:	JB	Date:	11-Feb-97	Time:	14:30
Analyzed by:	DC	Date:	12-Feb-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	0.5	ug/L	0.2	ug/L
Toluene	2.8	ug/L	0.2	ug/L
Ethylbenzene	1.1	ug/L	0.2	ug/L
m,p-Xylene	5.2	ug/L	0.2	ug/L
o-Xylene	0.9	ug/L	0.2	ug/L
TOTAL	10.6	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 2/12/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	14-Feb-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*4371*
Address:	*P.O. Box 505*	Sample No.:	*13670*
City, State:	*Kirtland, NM 87417*	Job No.:	*2-1000*

Project Name:	***Chateau Oil & Gas, Inc. - Templeton 1E***				
Project Location:	***TEMP-200; MW #2***				
Sampled by:	JB	Date:	11-Feb-97	Time:	13:30
Analyzed by:	DC	Date:	14-Feb-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	162.2	ug/L	0.2	ug/L
Toluene	64.6	ug/L	0.2	ug/L
Ethylbenzene	306.0	ug/L	0.2	ug/L
m,p-Xylene	3852.1	ug/L	0.2	ug/L
o-Xylene	284.5	ug/L	0.2	ug/L
TOTAL	4669.3	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DaG

Date: 2/14/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	14-Feb-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*4371*
Address:	*P.O. Box 505*	Sample No.:	*13669*
City, State:	*Kirtland, NM 87417*	Job No.:	*2-1000*

Project Name:	***Chateau Oil & Gas, Inc. - Templeton 1E***				
Project Location:	***TEMP-300; MW #3***				
Sampled by:	JB	Date:	11-Feb-97	Time:	13:00
Analyzed by:	DC	Date:	14-Feb-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	4287.7	ug/L	0.2	ug/L
Toluene	10634.6	ug/L	0.2	ug/L
Ethylbenzene	797.9	ug/L	0.2	ug/L
m,p-Xylene	7046.8	ug/L	0.2	ug/L
o-Xylene	1519.9	ug/L	0.2	ug/L
TOTAL	24286.9	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DLG

Date: 2/14/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

ANALYTICAL REPORT

Attn:	*Shawn Adams*	Date:	14-Feb-97
Company:	*Contract Environmental Services, Inc.*	COC No.:	*4371*
Address:	*P.O. Box 505*	Sample No.:	*13668*
City, State:	*Kirtland, NM 87417*	Job No.:	*2-1000*

Project Name:	***Chateau Oil & Gas, Inc. - Templeton 1E***				
Project Location:	***TEMP-400; MW #4***				
Sampled by:	JB	Date:	11-Feb-97	Time:	12:00
Analyzed by:	DC	Date:	14-Feb-97		
Sample Matrix:	*Liquid*				

Laboratory Analysis

Parameter	*Result*	*Unit of Measure*	*Detection Limit*	*Unit of Measure*
Benzene	1704.9	ug/L	0.2	ug/L
Toluene	5175.4	ug/L	0.2	ug/L
Ethylbenzene	464.8	ug/L	0.2	ug/L
m,p-Xylene	3985.3	ug/L	0.2	ug/L
o-Xylene	886.0	ug/L	0.2	ug/L
TOTAL	12216.4	ug/L		

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 2/14/97

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 12-Feb-97

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	*Result*	*Unit of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.6	2	15%
Toluene	ppb	20.0	20.7	3	15%
Ethylbenzene	ppb	20.0	21.2	6	15%
m,p-Xylene	ppb	40.0	40.9	2	15%
o-Xylene	ppb	20.0	20.9	5	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	95	93	(39-150)	1	20%
Toluene	99	98	(46-148)	1	20%
Ethylbenzene	102	100	(32-160)	1	20%
m,p-Xylene	98	96	(35-145)	1	20%
o-Xylene	100	98	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*Laboratory Identification*	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovered	(70-130)		*Limit Percent Recovered*	(70-130)	
13671-4371	96				

S1: *Flourobenzene*

OFF: (505) 325-5667

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-1556

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 14-Feb-97

Internal QC No.: 0527-STD
Surrogate QC No.: 0528-STD
Reference Standard QC No.: 0417-QC

Method Blank

Parameter	*Result*	*Unit of Measure*
Average Amount of All Analytes In Blank	<0.2	ppb

Calibration Check

Parameter	*Unit of Measure*	*True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20.0	19.8	1	15%
Toluene	ppb	20.0	20.5	3	15%
Ethylbenzene	ppb	20.0	20.9	5	15%
m,p-Xylene	ppb	40.0	40.6	1	15%
o-Xylene	ppb	20.0	20.6	3	15%

Matrix Spike

Parameter	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	95	93	(39-150)	1	20%
Toluene	99	98	(46-148)	1	20%
Ethylbenzene	102	100	(32-160)	1	20%
m,p-Xylene	98	96	(35-145)	1	20%
o-Xylene	100	98	(35-145)	1	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*Laboratory Identification*	*S1 Percent Recovered*	*S2 Percent Recovered*
Limit Percent Recovered	(70-130)		*Limit Percent Recovered*	(70-130)	
13668-4371	95				
13669-4371	95				
13670-4371	96				

S1: *Flourobenzene*

DL

Analytical Report

Mountain States Analytical
The Quality Solution

On Site Technologies, Ltd.
612 E Murray Drive
Farmington, NM 87401

Attn: Mr. David Cox
Project: Chateau Oil and Gas, Inc.

MSAI Sample: 59079
MSAI Group: 15281
Date Reported: 02/27/97
Discard Date: 03/29/97
Date Submitted: 02/14/97
Date Sampled: 02/11/97
Collected by: DC
Purchase Order: 4371
Project No.:

Sample ID: 13671-4371
Matrix: Waste Water

Test	Analysis	Results as Received	Units	Limit of Quantitation
0259B	Mercury by CVAA, w/ww, 7470 Method: SW-846 7470	ND	mg/l	0.0005
0392I	Flame/ICP Prep, w/ww, 3005A Method: SW-846 3005A	Complete		
0392M	Mercury Prep CVAA, w/ww, 7470 Method: SW-846 7470	Complete		
7245	Arsenic by ICP Method: SW-846 6010A	ND	mg/l	0.15
7246	Barium by ICP Method: SW-846 6010A	1.16	mg/l	0.02
7249	Cadmium by ICP Method: SW-846 6010A	ND	mg/l	0.020
7251	Chromium by ICP Method: SW-846 6010A	ND	mg/l	0.050
7255	Lead by ICP Method: SW-846 6010A	ND	mg/l	0.20
7264	Selenium by ICP Method: SW-846 6010A	ND	mg/l	0.35
7266	Silver by ICP Method: SW-846 6010A	ND	mg/l	0.030
0332	Nitrogen, Nitrite Method: EPA 354.1	ND	mg/l	0.01
0368	Nitrogen, Nitrate Method: EPA 353.3	ND	mg/l	0.2

Mountain States Analytical
The Quality Solution

On Site Technologies, Ltd.

MSAI Sample: 59079
MSAI Group: 15281

Sample ID: 13671-4371

Test	Analysis	Results as Received	Units	Limit of Quantitation
6719	Polycyclic Aromatic Hydrocarbons Method: SW-846 8270A			
	Acenaphthene	ND	ug/l	(1) 10
	Acenaphthylene	ND	ug/l	10
	Anthracene	ND	ug/l	10
	Benz(a)anthracene	ND	ug/l	10
	Benzo(b)fluoranthene	ND	ug/l	10
	Benzo(k)fluoranthene	ND	ug/l	10
	Benzo(ghi)perylene	ND	ug/l	10
	Benzo(a)pyrene	ND	ug/l	10
	Chrysene	ND	ug/l	10
	Dibenz(a,h)anthracene	ND	ug/l	10
	Fluoranthene	ND	ug/l	10
	Fluorene	ND	ug/l	10
	Naphthalene	ND	ug/l	10
	Phenanthrene	ND	ug/l	10
	Pyrene	ND	ug/l	10
	Indeno(1,2,3-cd)pyrene	ND	ug/l	10
	2-Methylnaphthalene	ND	ug/l	10
3000	SVOA Extraction, Water Method: SW-846 3510B	Complete		

(1) Two surrogates in this sample exceeded method QC limits. There was insufficient volume to re-extract this sample. Any results should be taken as approximate.

ND - Not detected at the limit of quantitation

Respectfully Submitted,
Reviewed and Approved by:

Rolf E. Larsen
Project Manager

1B

SEMIVOLATILE ORGANICS ANALYSIS DATA SHEET

EPA SAMPLE NO.

SBLK01

Lab Name: MTN STATES ANALYTICAL Contract:

Lab Code: MSAI Case No.: SAS No.: SDG No.: OST

Matrix: (soil/water) WATER Lab Sample ID: 970218WB

Sample wt/vol: 1000 (g/mL) ML Lab File ID: X0261

Level: (low/med) LOW Date Received: _____

% Moisture: _____ decanted: (Y/N)___ Date Extracted: 02/18/97

Concentrated Extract Volume: 1000(uL) Date Analyzed: 02/19/97

Injection Volume: 1.0(uL) Dilution Factor: 1.0

GPC Cleanup: (Y/N) N pH: 7.0

CAS NO.	COMPOUND	CONCENTRATION UNITS: (ug/L or ug/Kg) UG/L	Q
91-20-3	Naphthalene	10	U
91-57-6	2-Methylnaphthalene	10	U
208-96-8	Acenaphthylene	10	U
83-32-9	Acenaphthene	10	U
86-73-7	Fluorene	10	U
85-01-8	Phenanthrene	10	U
120-12-7	Anthracene	10	U
206-44-0	Fluoranthene	10	U
129-00-0	Pyrene	10	U
56-55-3	Benzo(a)anthracene	10	U
218-01-9	Chrysene	10	U
205-99-2	Benzo(b)fluoranthene	10	U
207-08-9	Benzo(k)fluoranthene	10	U
50-32-8	Benzo(a)pyrene	10	U
193-39-5	Indeno(1,2,3-cd)pyrene	10	U
53-70-3	Dibenz(a,h)anthracene	10	U
191-24-2	Benzo(g,h,i)perylene	10	U

WATER SEMIVOLATILE SURROGATE RECOVERY

Lab Name: MTN STATES ANALYTICAL Contract:

Lab Code: MSAI Case No.: SAS No.: SDG No.: OST

	EPA SAMPLE NO.	S1 (2FP) #	S2 (PHL) #	S3 (NBZ) #	S4 (FBP) #	S5 (TBP) #	S6 (TPH) #	S7 #	S8 #	TOT OUT
01	SBLK01	31	24	60	60	60	66			0
02	SBLK01LCS	42	30	58	60	80	81			0
03	SBLK01LCSD	42	31	64	65	80	77			0
04	13671-4371	2*	2*	49	53	18	59			2
05										
06										
07										
08										
09										
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30										

	QC LIMITS
S1 (2FP) = 2-Fluorophenol	(21-110)
S2 (PHL) = Phenol-d6	(10-110)
S3 (NBZ) = Nitrobenzene-d5	(35-114)
S4 (FBP) = 2-Fluorobiphenyl	(43-116)
S5 (TBP) = 2,4,6-Tribromophenol	(10-123)
S6 (TPH) = Terphenyl-d14	(33-141)

Column to be used to flag recovery values
* Values outside of contract required QC limits
D Surrogate diluted out

FORM 3
WATER SEMIVOLATILE LAB CONTROL SAMPLE

Lab Name: MTN STATES ANALYTICAL Contract:

Lab Code: MSAI Case No.: SAS No.: SDG No.: OST

Matrix Spike - Sample No.: SBLK01

COMPOUND	SPIKE ADDED (ug/L)	SAMPLE CONCENTRATION (ug/L)	LCS CONCENTRATION (ug/L)	LCS % REC #	QC. LIMITS REC.
Phenol	100	0.0	34	34	5-112
2-Chlorophenol	100	0.0	67	67	23-134
1,4-Dichlorobenzene	100	0.0	46	46	20-124
N-Nitrosodi-n-propylami	100	0.0	66	66	1-230
1,2,4-Trichlorobenzene	100	0.0	55	55	44-142
4-Chloro-3-methylphenol	100	0.0	85	85	22-147
Acenaphthene	100	0.0	77	77	47-145
4-Nitrophenol	100	0.0	38	38	1-132
2,4-Dinitrotoluene	100	0.0	93	93	39-139
Pentachlorophenol	100	0.0	88	88	14-176
Pyrene	100	0.0	88	88	52-115

COMPOUND	SPIKE ADDED (ug/L)	LCSD CONCENTRATION (ug/L)	LCSD % REC #	% RPD #	QC LIMITS RPD	QC LIMITS REC.
Phenol	100	35	35	3	42	5-112
2-Chlorophenol	100	66	66	2	40	23-134
1,4-Dichlorobenzene	100	60	60	26	28	20-124
N-Nitrosodi-n-propylami	100	75	75	13	38	1-230
1,2,4-Trichlorobenzene	100	67	67	20	28	44-142
4-Chloro-3-methylphenol	100	86	86	1	42	22-147
Acenaphthene	100	82	82	6	31	47-145
4-Nitrophenol	100	38	38	0	50	1-132
2,4-Dinitrotoluene	100	93	93	0	38	39-139
Pentachlorophenol	100	80	80	10	50	14-176
Pyrene	100	88	88	0	31	52-115

Column to be used to flag recovery and RPD values with an asterisk
* Values outside of QC limits

RPD: 0 out of 11 outside limits
Spike Recovery: 0 out of 22 outside limits

COMMENTS: _____

_____

SEMIVOLATILE METHOD BLANK SUMMARY

EPA SAMPLE NO.

SBLK01

Lab Name: MTN STATES ANALYTICAL Contract:

Lab Code: MSAI Case No.: SAS No.: SDG No.: OST

Lab File ID: X0261 Lab Sample ID: 970218WB

Instrument ID: HP_3 Date Extracted: 02/18/97

Matrix: (soil/water) WATER Date Analyzed: 02/19/97

Level:(low/med) LOW Time Analyzed: 2308

THIS METHOD BLANK APPLIES TO THE FOLLOWING SAMPLES, MS and MSD:

	EPA SAMPLE NO.	LAB SAMPLE ID	LAB FILE ID	DATE ANALYZED
01	SBLK01LCS	970218WL	X0262	02/19/97
02	SBLK01LCSD	970218WLD	X0263	02/20/97
03	13671-4371	59079A	X0264	02/20/97
04				
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COMMENTS:

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/17/97
16:04:07
Group: 15281

Analysis Batch Number: 0332 -02/14/97-066 -1
Test Identification : 0332 -Nitrogen, Nitrite
Number of Samples : 2
Batch Data-Date/Time : 02/17/97 / 15:36:07

Sequence :

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
BLK-2	Nitrite Nitrogen	0.0030	0.0030
BLK-1	Nitrite Nitrogen	0.0020	0.0030

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
15281-59079	Nitrite Nitrogen	0.2000	0.0050	0.1900	92.5	81.4	115.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
15281-59079D	Nitrite Nitrogen	0.1900	0.1920	1.0	4.2	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
SRM-3419	Nitrite Nitrogen	0.1890	0.2000	94.5	86.0	116.8
STD-2	Nitrite Nitrogen	0.1930	0.2000	96.5	86.0	116.8
SRM-3419	Nitrite Nitrogen	6.6720	6.9000	96.7	86.0	116.8

Groups & Samples

15281-59079 15281-59079D

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/17/97
16:04:10
Group: 15281

Analysis Batch Number: 0368 -02/14/97-066 -1
Test Identification : 0368 -Nitrogen, Nitrate
Number of Samples : 2
Batch Data-Date/Time : 02/15/97 / 15:51:17

Sequence :

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
BLK-2	Nitrate Nitrogen	ND	0.0500
BLK-1	Nitrate Nitrogen	ND	0.0500

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
15281-59079	Nitrate Nitrogen	0.4000	0.0900	0.5400	112.5	75.0	125.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
15281-59079D	Nitrate Nitrogen	0.5400	0.5400	0.0	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
STD-1	Nitrate Nitrogen	0.8700	0.8000	108.7	90.0	110.0
STD-2	Nitrate Nitrogen	0.7200	0.8000	90.0	90.0	110.0

Groups & Samples

15281-59079 15281-59079D

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:30
Group: 15281

Analysis Batch Number: 0259T-02/17/97-107 -1
Test Identification : 0259T-Mercury by CVAA, TCLP, 7470 Sequence : 0259T-1
Number of Samples : 14
Batch Data-Date/Time : 02/18/97 / 08:20:38

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW1-908	Mercury	0.0100	0.5000
PBW2-908-2	Mercury	-0.0400	0.5000
PBW-909-3	Mercury	0.0320	0.5000

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
15250-59003	Mercury	1.0000	0.0000	1.1600	116.0	80.0	120.0
15245-58991-2	Mercury	1.0000	0.0400	1.1500	111.0	80.0	120.0

MSD

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	QC LIMITS LOWER	QC LIMITS UPPER	RPD #	LIMIT
15250-59003	Mercury	1.0000	0.0000	1.1100	111.0	80.0	120.0	4.4	20.0
15245-58991-2	Mercury	1.0000	0.0400	1.1000	106.0	80.0	120.0	4.6	20.0

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
15250-59003	Mercury	0.0000	0.0000	0.0	20.0	1.00
15245-58991-2	Mercury	0.0000	0.0000	0.0	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
LCSW-908	Mercury	2.5200	2.5000	100.8	80.0	120.0
LCSW-909-2	Mercury	2.5800	2.5000	103.2	80.0	120.0

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
ICV-	Mercury	3.0000	3.2000	106.7	90.0	110.0
CCV--2	Mercury	5.0000	4.9800	99.6	80.0	120.0
CCV--3	Mercury	5.0000	4.9500	99.0	80.0	120.0
CCV--4	Mercury	5.0000	4.9100	98.2	80.0	120.0
CCV--5	Mercury	5.0000	4.9700	99.4	80.0	120.0

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
ICB-	Mercury	-0.0100	0.5000
CCB-	Mercury	0.0100	0.5000
CCB-	Mercury	-0.0300	0.5000
CCB-	Mercury	0.0100	0.5000
CCB-	Mercury	0.0300	0.5000

Groups & Samples

15236-58961 15245-58991 15248-59001 15250-59003 15250-59004 15250-59005 15260-59025 15260-59026
15260-59027 15260-59028 15260-59029 15260-59030 15270-59057 15281-59079

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:33
Group: 15281

Analysis Batch Number: ICPWA-02/25/97-061 -3
Test Identification : ICPWA-Metals by ICP
Number of Samples : 14
Batch Data-Date/Time : 02/26/97 / 17:29:24

Sequence : DATA055

BLANK#	ANALYTE	CONC FOUND #	CONC LIMIT
PBW1-913	Silver	0.0015	0.0060
	Arsenic	0.0067	0.0300
	Barium	0.0022	0.0030
	Cadmium	0.0021	0.0040
	Chromium	0.0041	0.0100
	Copper	0.0025	0.0100
	Iron	0.0276	0.2000
	Molybdenum	ND	0.0300
	Nickel	ND	0.0300
	Lead	0.0188	0.0400
	Selenium	0.0079	0.0700
PBW2-913-2	Silver	ND	0.0060
	Arsenic	0.0056	0.0300
	Barium	0.0012	0.0030
	Cadmium	ND	0.0040
	Chromium	0.0002	0.0100
	Copper	0.0002	0.0100
	Iron	0.1115	0.2000
	Molybdenum	ND	0.0300
	Nickel	ND	0.0300
	Lead	0.0158	0.0400
	Selenium	0.0217	0.0700

SPIKE

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	CONC SPIKE	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
15283-59081	Silver	0.0500	0.0022	0.0465	88.6	80.0	120.0
	Arsenic	2.0000	0.1263	2.0986	98.6	80.0	120.0
	Barium	2.0000	0.0245	1.3249	65.0(A1)	80.0	120.0
	Cadmium	0.0500	0.0008	0.0398	78.0(A)	80.0	120.0
	Chromium	0.2000	0.0001	0.1575	78.7(A)	80.0	120.0
	Copper	0.2500	0.0049	0.2464	96.6	80.0	120.0
	Iron	1.0000	0.0833	0.8213	73.8(B)	80.0	120.0
	Molybdenum	0.5000	0.2259	0.6663	88.1	80.0	120.0
	Nickel	0.5000	0.0034	0.3795	75.2(A)	80.0	120.0
	Lead	0.5000	-0.0303	0.4038	86.8	80.0	120.0
	Selenium	2.0000	0.0033	2.1112	105.4	80.0	120.0

MSD

SAMPLE#	ANALYTE	CONC ADDED	CONC SAMPLE	RESULT 2	%REC2 #	QC LIMITS LOWER	QC LIMITS UPPER	RPD #	LIMIT
15283-59081	Silver	0.0500	0.0022	0.0467	89.0	80.0	120.0	0.5	20.0
	Arsenic	2.0000	0.1263	2.0417	95.8	80.0	120.0	2.9	20.0
	Barium	2.0000	0.0245	1.5298	75.3(A1)	80.0	120.0	14.7	20.0
	Cadmium	0.0500	0.0008	0.0407	79.8(A)	80.0	120.0	2.3	20.0
	Chromium	0.2000	0.0001	0.1578	78.9(A)	80.0	120.0	0.3	20.0
	Copper	0.2500	0.0049	0.2396	93.9	80.0	120.0	2.8	20.0
	Iron	1.0000	0.0833	1.2771	119.4	80.0	120.0	47.2(B)	20.0
	Molybdenum	0.5000	0.2259	0.6484	84.5	80.0	120.0	4.2	20.0
	Nickel	0.5000	0.0034	0.3785	75.0(A)	80.0	120.0	0.3	20.0
	Lead	0.5000	-0.0303	0.3902	84.1	80.0	120.0	3.2	20.0
	Selenium	2.0000	0.0033	2.0712	103.4	80.0	120.0	1.9	20.0

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:34
Group: 15281

Analysis Batch Number: ICPWA-02/25/97-061 -3
Test Identification : ICPWA-Metals by ICP
Number of Samples : 14
Batch Data-Date/Time : 02/26/97 / 17:29:24

Sequence : DATA055

DUPLICATE

SAMPLE#	ANALYTE	RESULT 1	RESULT 2	RPD #	LIMIT	DILUTION
15283-59081	Silver	0.0022	0.0004	138.5(11)	20.0	1.00
	Arsenic	0.1263	0.1263	0.0	20.0	1.00
	Barium	0.0245	0.0234	4.6	20.0	1.00
	Cadmium	0.0008	0.0018	76.9(11)	20.0	1.00
	Chromium	0.0001	0.0000	200.0(11)	20.0	1.00
	Copper	0.0049	0.0013	116.1(11)	20.0	1.00
	Iron	0.0833	0.0089	161.4(11)	20.0	1.00
	Molybdenum	0.2259	0.2306	2.1	20.0	1.00
	Nickel	0.0034	0.0000	200.0(11)	20.0	1.00
	Lead	-0.0303	0.0000	200.0(11)	20.0	1.00
	Selenium	0.0033	0.0000	200.0(11)	20.0	1.00

CONTROL

SAMPLE#	ANALYTE	CONC FOUND	CONC KNOWN	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
LCSW-913	Silver	0.0527	0.0500	105.4	80.0	120.0
	Arsenic	2.1164	2.0000	105.8	80.0	120.0
	Barium	2.0760	2.0000	103.8	80.0	120.0
	Cadmium	0.0515	0.0500	103.0	80.0	120.0
	Chromium	0.2091	0.2000	104.5	80.0	120.0
	Copper	0.2613	0.2500	104.5	80.0	120.0
	Iron	1.0433	1.0000	104.3	80.0	120.0
	Molybdenum	0.5113	0.5000	102.3	80.0	120.0
	Nickel	0.5262	0.5000	105.2	80.0	120.0
	Lead	0.5164	0.5000	103.3	80.0	120.0
	Selenium	2.1034	2.0000	105.2	80.0	120.0

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC #	QC LIMITS LOWER	QC LIMITS UPPER
ICV-	Silver	0.4000	0.3880	97.0	90.0	110.0
	Arsenic	1.6000	1.6230	101.4	90.0	110.0
	Barium	4.0000	3.8766	96.9	90.0	110.0
	Cadmium	4.0000	3.9632	99.1	90.0	110.0
	Chromium	4.0000	3.9766	99.4	90.0	110.0
	Copper	4.0000	3.9064	97.7	90.0	110.0
	Iron	4.0000	3.8917	97.3	90.0	110.0
	Molybdenum	20.0000	19.9892	99.9	90.0	110.0
	Nickel	8.0000	7.9205	99.0	90.0	110.0
	Lead	20.0000	19.7448	98.7	90.0	110.0
	Selenium	1.6000	1.6316	102.0	90.0	110.0
CCV1--2	Silver	0.4000	0.3906	97.6	90.0	110.0
	Arsenic	1.6000	1.6605	103.8	90.0	110.0
	Barium	4.0000	3.8686	96.7	90.0	110.0
	Cadmium	4.0000	4.0436	101.1	90.0	110.0
	Chromium	4.0000	4.0340	100.9	90.0	110.0
	Copper	4.0000	3.9090	97.7	90.0	110.0
	Iron	4.0000	4.0422	101.1	90.0	110.0
	Molybdenum	20.0000	20.0987	100.5	90.0	110.0
	Nickel	8.0000	8.0240	100.3	90.0	110.0
	Lead	20.0000	19.8848	99.4	90.0	110.0

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:35
Group: 15281

Analysis Batch Number: ICPWA-02/25/97-061 -3
Test Identification : ICPWA-Metals by ICP
Number of Samples : 14
Batch Data-Date/Time : 02/26/97 / 17:29:24

Sequence : DATA055

CCV #	ANALYTE	TRUE VALUE	BATCH READ	% REC	#	QC LIMITS LOWER	QC LIMITS UPPER
CCV1--2	Selenium	1.6000	1.6184	101.2		90.0	110.0
CCV2--3	Silver	0.4000	0.3885	97.1		90.0	110.0
	Arsenic	1.6000	1.6314	102.0		90.0	110.0
	Barium	4.0000	3.9183	98.0		90.0	110.0
	Cadmium	4.0000	4.0493	101.2		90.0	110.0
	Chromium	4.0000	4.0504	101.3		90.0	110.0
	Copper	4.0000	3.9596	99.0		90.0	110.0
	Iron	4.0000	3.9566	98.9		90.0	110.0
	Molybdenum	20.0000	20.1229	100.6		90.0	110.0
	Nickel	8.0000	8.0723	100.9		90.0	110.0
	Lead	20.0000	20.0173	100.1		90.0	110.0
	Selenium	1.6000	1.6578	103.6		90.0	110.0
CCV3--4	Silver	0.4000	0.3815	95.4		90.0	110.0
	Arsenic	1.6000	1.6041	100.3		90.0	110.0
	Barium	4.0000	3.9358	98.4		90.0	110.0
	Cadmium	4.0000	3.9861	99.7		90.0	110.0
	Chromium	4.0000	4.0097	100.2		90.0	110.0
	Copper	4.0000	3.9715	99.3		90.0	110.0
	Iron	4.0000	3.9244	98.1		90.0	110.0
	Molybdenum	20.0000	20.0219	100.1		90.0	110.0
	Nickel	8.0000	7.9749	99.7		90.0	110.0
	Lead	20.0000	19.6465	98.2		90.0	110.0
	Selenium	1.6000	1.5903	99.4		90.0	110.0
CCV4--5	Silver	0.4000	0.3828	95.7		90.0	110.0
	Arsenic	1.6000	1.6030	100.2		90.0	110.0
	Barium	4.0000	3.9459	98.6		90.0	110.0
	Cadmium	4.0000	3.9877	99.7		90.0	110.0
	Chromium	4.0000	4.0137	100.3		90.0	110.0
	Copper	4.0000	3.9889	99.7		90.0	110.0
	Iron	4.0000	3.9604	99.0		90.0	110.0
	Molybdenum	20.0000	19.9550	99.8		90.0	110.0
	Nickel	8.0000	7.9735	99.7		90.0	110.0
	Lead	20.0000	19.6216	98.1		90.0	110.0
	Selenium	1.6000	1.6293	101.8		90.0	110.0

CCB#	ANALYTE	CONC FOUND	#	CONC LIMIT
ICB-	Silver	0.0002		0.0060
	Arsenic	0.0142		0.0300
	Barium	0.0022		0.0030
	Cadmium	0.0025		0.0040
	Chromium	0.0050		0.0100
	Copper	ND		0.0100
	Iron	ND		0.2000
	Molybdenum	ND		0.0300
	Nickel	0.0067		0.0300
	Lead	ND		0.0400
	Selenium	0.0008		0.0700
CCB1-	Silver	0.0028		0.0060
	Arsenic	0.0093		0.0300

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:36
Group: 15281

Analysis Batch Number: ICPWA-02/25/97-061 -3
Test Identification : ICPWA-Metals by ICP
Number of Samples : 14
Batch Data-Date/Time : 02/26/97 / 17:29:24

Sequence : DATA055

CCB#	ANALYTE	CONC FOUND #	CONC LIMIT
CCB1-	Barium	0.0018	0.0030
	Cadmium	0.0011	0.0040
	Chromium	0.0038	0.0100
	Copper	0.0022	0.0100
	Iron	ND	0.2000
	Molybdenum	0.0063	0.0300
	Nickel	0.0053	0.0300
	Lead	0.0067	0.0400
	Selenium	ND	0.0700
CCB2-	Silver	0.0003	0.0060
	Arsenic	ND	0.0300
	Barium	0.0014	0.0030
	Cadmium	ND	0.0040
	Chromium	0.0024	0.0100
	Copper	ND	0.0100
	Iron	ND	0.2000
	Molybdenum	ND	0.0300
	Nickel	0.0011	0.0300
	Lead	0.0215	0.0400
	Selenium	ND	0.0700
CCB3-	Silver	0.0011	0.0060
	Arsenic	0.0021	0.0300
	Barium	0.0020	0.0030
	Cadmium	0.0023	0.0040
	Chromium	0.0005	0.0100
	Copper	0.0009	0.0100
	Iron	ND	0.2000
	Molybdenum	ND	0.0300
	Nickel	0.0036	0.0300
	Lead	0.0043	0.0400
	Selenium	0.0081	0.0700
CCB4-	Silver	ND	0.0060
	Arsenic	ND	0.0300
	Barium	0.0024	0.0030
	Cadmium	0.0018	0.0040
	Chromium	0.0005	0.0100
	Copper	ND	0.0100
	Iron	ND	0.2000
	Molybdenum	ND	0.0300
	Nickel	ND	0.0300
	Lead	ND	0.0400
	Selenium	0.0230	0.0700

---------- Result Footnotes ----------
(A1) - Matrix Interference with regard to digestion
(A) - Matrix Interference inherent to the sample
(B) - Nonhomogeneous sample
(11) - Both Duplicate results are less than the MDL.

Mountain States Analytical, Inc.
Daily QC Batching Data
Data Released for Reporting

02/26/97
18:08:36
Group: 15281

Analysis Batch Number: ICPWA-02/25/97-061 -3
Test Identification : ICPWA-Metals by ICP
Number of Samples : 14
Batch Data-Date/Time : 02/26/97 / 17:29:24

Sequence : DATA055

Groups & Samples

15239-58981	15239-58982	15262-59041	15262-59042	15262-59043	15262-59044	15262-59045	15281-59079
15282-59080	15283-59081	15283-59082	15283-59083	15283-59084	15283-59085		

2-B3

CHAIN OF CUSTODY RECORD

5007

ON SITE TECHNOLOGIES, LTD.

Date: 2/13/97

Page 1 of 1

~~657 W. Maple~~ • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Purchase Order No.: 4371	Job No.		
SEND INVOICE TO: Name	ACCOUNTS PAYABLE	REPORT RESULTS TO: Name	DAVID COX
Company	ON SITE	Company	ON SITE TECH
Dept.		Title	
Address	P.O. BOX 2606	Mailing Address	612 E. MURRAY DR
City, State, Zip	FARMINGTON, NM 87499	City, State, Zip	FARMINGTON, NM 87401
		Telephone No.	505-325-2432
		Telefax No.	505 325-6256

Sampling Location: CHATEAU OIL & GAS, INC.

Sampler: JB

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	RCRA METALS	NITRATE/ NITRITE	PAH							3.5°C ICE	LAB ID
TEMPLETON IE ; TEMP-100 MW-1	2/11/97	1400	H_2O	—	3	✓	✓	✓								13671-4371

Relinquished by:	Date/Time 2/13/97 1600	Received by: Dietrich Maupin	Date/Time 2/14/97 1330
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: _____ Date 2/13/97
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

ution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

CHAIN OF CUSTODY RECORD

4371

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 2/11/97

Page 1 of 1

Purchase Order No.:	Job No.		
SEND INVOICE TO: Name	Chester Deal	REPORT RESULTS TO: Name	Shawn Adams
Company	Chaco Oil and Gas, Inc. Dept.	Company	Contract Environmental Services, Inc.
Address	5802 US Hwy 64	Mailing Address	PO Box 505
City, State, Zip	Farmington, NM 87401	City, State, Zip	Kirtland, NM 87417
		Telephone No.	325-1198 Telefax No.

Sampling Location: Templeton 1E Monitor Wells

Sampler: Jayson Blanchard

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	BTEX	PAH	CATION/ANION	Metals	Nitrate	LAB ID
Temp-400 MW #4	2/11/97	12:00PM	H2O	HCl	2	X					13668-4371
Temp-300 MW #3	"	1:00PM	"	HCl	2	X					13669
Temp-200 MW #2	"	1:30PM	"	HCl	2	X					13670
Temp-100 MW #1	"	2:30PM	"	HCl	6	X	X	X	X	X	13671

Relinquished by: Jayson Blanchard	Date/Time 2/11/97 3:??	Received by:	Date/Time 2/11/97 1670
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: Jayson Blanchard Date 2/11/97
(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:

Distribution: White – On Site Y... LAB Pink – Sampler Goldenrod – Client

May 9, 1997

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Quarterly Reporting, Air Stripper, Discharge Plan Application GW-184

Dear Mr. Olson,

Contract Environmental Services, Inc. (CES) presents the following report on the Air Stripper located at the Templeton 1E well location (Sec.27 T31N, R13W). This report contains background information, sampling detail, lab analyses, volume estimations and conclusions. Chateau Oil and Gas, Inc. (COG), formerly Snyder Oil Corporation (SOCO) has operated the air stripper located on the Templeton 1E well location intermittently since the last Quarterly Report. Following each new excavation of contaminated soil, the air stripper was utilized to clean up groundwater that filled the excavation. Each operation is the equivalent of three (3) consecutive twenty-four (24) hour periods.

Our records show that on each of the dates listed below, the air stripper began operation for its average three day cycle. We estimate approximately fifteen days of operation since last reported. Those sample dates followed by an asterick indicate water samples were collected from the pond water and / or air stripper discharge. Laboratory analytical reports are also attached for the dates with astericks.

- May 13, 1995
- August 16, 1995
- March 12, 1996 *
- July 18, 1995 *
- February 6, 1996

Sampling Detail

On occasion, water from the excavation pond was sampled and/or the discharge from the air stripper itself was sampled. Grab samples were collected from the pond water and placed in 40 ml VOA vials with preservative. The samples were refrigerated throughout the field work and during transportation to the analytical laboratory. Grab samples were collected from the four inch discharge line of the air stripper during operation. These samples were also placed in 40 ml VOA vials. The discharge samples were preserved in the same fashion as the pond water samples. All samples were entered on a chain-of-custody form that accompanied the samples during field transportation and while at the analytical laboratory. The chain-of-custody report is attached with the laboratory reports for your viewing.

Since the last Quarterly Report, dated March 31, 1995 a total of three (3) excavations have taken place. After each excavation, the contaminated soil was spread on location and disked / tilled with farm equipment. Each time a new excavation was opened, the air stripper was operated for three days. Additional operation intervals were completed to be certain all hydrocarbons had been properly removed.

Lab Analyses

As in the first Quarterly Report, the air stripper discharge was sampled periodically with the pond water sampling to ensure proper removal of hydrocarbons continued. March 12, 1996 was the next sampling interval that included air stripper discharge sampling. The results of the pond and air stripper sampling are summarized below in Table 1-1.

Table 1-1.

Sample No.	Location	Benzene	Toluene	Ethylbenzene	Xylenes	Dates
Temp-100	Water Pond	0.2	ND	ND	0.6	7/24/95
Temp-900	Water Pond	ND	ND	ND	ND	10/23/95
Temp-500	Water Pond	ND	ND	ND	ND	3/12/96
Temp-501	Air Stripper Discharge	ND	0.62	ND	ND	3/12/96

Individual laboratory reports for the above referenced analyses are attached for you viewing.

Volume Estimations

On five separate occasions the air stripper was operated for an average period of three days. The air stripper discharge was measured at approximately 18,400 gallons treated in any given twenty-four (24) hour period. That yields approximately 92,000 gallons treated through the air stripper over this intermittent operation period. The third quarter of 1995 and the first quarter of 1996 showed the most activity with two operation intervals each. The air stripper operation periods are presented in the following table.

Table 1-2.

	First Quarter	Second Quarter	Third Quarter	Fourth Quarter
1995	Not Operated	1 Interval	2 Intervals	Not Operated
1996	2 Intervals	Not Operated	Not Operated	Not Operated
1997	Not Operated	(Pending)		

Conclusions

The air stripper at the Templeton 1E well location has for the most part remained inactive. It was utilized following each new excavation to treat the water that filled the excavation. When the treatment process was complete (approximately three days) a water sample was usually collected to confirm successful treatment. In all cases, the water samples indicated contamination levels far below the Groundwater Standards setforth by the New Mexico Environment Department (NMED). The air stripper discharge sample further confirms the fact that the air stripper is successfully removing hydrocarbons from the water.

We have plans to continue remediation of soil and groundwater at the Templeton 1E location and have already installed four monitor wells in 1997. A plan has been submitted with this report to further our investigation efforts at this location. As activity picks up, we will keep NMOCD informed of the changes.

With the large amounts of inactivity, the quarterly reports were discontinued. Our focus was directed away from the La Plata, New Mexico area and redirected to the Jicarilla Apache Reservation for the bulk of our remediation efforts of 1996.

Contract Environmental Services, Inc. (CES) appreciates this opportunity to present this letter report on the operational status of the air stripper on the Templeton 1E well location. If you have questions or require additional information, please don't hesitate to contact us at (505) 325-1198 or stop by our offices at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: Mr. Denny Foust, NMOCD Aztec Office
Mr. Bill Liese, BLM Farmington Office

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	7/24/95
Company:	*Contract Environmental Services, Inc.*	*COC No.:*	*3159*
Address:	*P.O. Box 505*	*Sample No.*	*7423*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Templeton 1E Water Pond***				
Project Location:	***Temp-100***				
Sampled by:	SA	Date:	7/21/95	Time:	8:00
Analyzed by:	DC/GB	Date:	7/21/95		
Type of Sample:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	0.2	*0.2*
Toluene	ND	*0.2*
Ethylbenzene	ND	*0.2*
m,p-Xylene	0.3	*0.2*
o-Xylene	0.3	*0.2*
	TOTAL 0.8 *ug/L*	

ND - Not Detectable

Method - *SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by: DLS
Date: 7/24/95

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

QUALITY ASSURANCE REPORT

for EPA Method 8020

Date Analyzed: 7/21/95

Internal QC No.: 0419-STD
Surrogate QC No.: 0420-STD
Reference Standard QC No.: 0355-STD

Method Blank

Analytes in Blank	*Amount*
Average Amount of All Analytes In Blank	<0.2 ppb

Calibration Check

Calibration Standards	*Units of Measure*	**True Value*	*Analyzed Value*	*% Diff*	*Limit*
Benzene	ppb	20	20	1	15%
Toluene	ppb	20	20	1	15%
Ethylbenzene	ppb	20	19	4	15%
m,p-Xylene	ppb	40	40	0	15%
o-Xylene	ppb	20	19	4	15%

Spike Results

Analyte	*1- Percent Recovered*	*2 - Percent Recovered*	*Limit*	*%RSD*	*Limit*
Benzene	124	121	(39-150)	2	20%
Toluene	121	117	(46-148)	2	20%
Ethylbenzene	118	114	(32-160)	2	20%
m,p-Xylene	123	118	(35-145)	3	20%
o-Xylene	113	109	(35-145)	2	20%

Surrogate Recoveries

Laboratory Identification	*S1 Percent Recovered*	*S2 Percent Recovered*	*S3 Percent Recovered*
Limits	(70-130)		
7423-3159	100		

S1: Flourobenzene

ON SITE TECHNOLOGIES, LTD.

657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

CHAIN OF CUSTODY RECORD

3159

Date: 7/21/95

Page 1 of 1

Purchase Order No.:	Job No.	
SEND INVOICE TO — Name	Chester	
Company	Snyder Oil Corp.	Dept.
Address	PO Box 2038	
City, State, Zip	Fmn NM 87499	
REPORT RESULTS TO — Name	Shawn	Title
Company	CES INC	
Mailing Address	PO Box 505	
City, State, Zip	Kirtland NM 87417	
Telephone No.	325-1198	Telefax No.

Sampling Location: Templeton 1E Water Bond

Sampler: S Adams

ANALYSIS REQUESTED

SAMPLE IDENTIFICATION	SAMPLE DATE	SAMPLE TIME	MATRIX	PRES.	Number of Containers	VOC BTEX	8260								LAB ID
TEMP-100	7/21/95	8:00	water	Hg Cl2	2	X	X								7423
(2 VOAS)															
SAME SAMPLE															

Relinquished by: [signature]	Date/Time 7/21/95 8:00	Received by: [illegible]	Date/Time [illegible]
Relinquished by:	Date/Time	Received by:	Date/Time
Relinquished by:	Date/Time	Received by:	Date/Time

Method of Shipment:

Authorized by: [signature] Date

(Client Signature Must Accompany Request)

Rush	24-48 Hours	10 Working Days	Special Instructions:
24 Hr TAT			

D[illegible] White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

ANALYTICA
ENVIRONMENTAL LABORATORY

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID:	Templeton 1E	Report Date:	10/25/95
Sample ID:	Temp - 900	Date Sampled:	10/23/95
Lab ID:	1728	Date Received:	10/23/95
Sample Matrix:	Water	Date Analyzed:	10/25/95
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50
Total BTEX	**ND**	

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	105	88 - 110%
Bromofluorobenzene	106	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix:	Water	Report Date:	10/25/95
Lab ID:	MB34997	Date Analyzed:	10/25/95

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	88 - 110%
Bromofluorobenzene	103	86 - 115%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANALYTICA

ENVIRONMENTAL LABORATORY

807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

PROJECT MANAGER:

Analytica Lab I.D.:

LAB RESULTS

Company: CONTRACT ENVIRONMENTAL SERV.

Address: PO Box 505, KIRTLAND 87417

Phone: 325-1198

Fax: SAME

Bill To: Chester Deal

Company: Snyder Oil Corp

Address: PO Box 2039 Farmington

					ORGANIC ANALYSES													WATER ANALYSES								METALS			
Sample ID	Date	Time	Matrix	Lab ID	Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs BTEX/MTBE (602/8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1/503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify):	Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids : TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN	Oil and Grease	Other (specify):	Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (specify)
TEMP-900	10/23/95	8:30A	water					X											TEMPLETON #1E WATER POND										

Project Information	Sample Receipt
Proj. #:	No. Containers:
Proj Name: TEMPLETON 1E	Custody Seals: Y / N / NA
P.O. No.	Received Intact:
Shipped Via:	Received Cold
Required Turnaround Time (Prior Authorization Required for Rush)	

Sampled by:	Relinquished by:	Relinquished by:
Signature [signature] Date: 10/23/95 9:00	Signature SAME Date: 10/23/95	Signature Date:
Company: Time:	Company: Time:	Company: Time:
Received By:	**Received By:**	**Received By:**
Signature Date:	Signature Date:	Signature [signature] Date: 10/23
Company: Time:	Company: Time:	Company: Analytica Time: 9:05

ANALYTICA
ENVIRONMENTAL LABORATORY

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID:	Templeton 1E	Report Date:	03/14/96
Sample ID:	Temp - 500	Date Sampled:	03/12/96
Lab ID:	2890	Date Received:	03/13/96
Sample Matrix:	Water	Date Analyzed:	03/13/96
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	0.62	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

Total BTEX	**0.62**

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	102	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANALYTICA
ENVIRONMENTAL LABORATORY

PURGEABLE AROMATICS

Contract Environmental Services, Inc.

Project ID:	Templeton 1E	Report Date:	03/14/96
Sample ID:	Temp - 501	Date Sampled:	03/12/96
Lab ID:	2891	Date Received:	03/13/96
Sample Matrix:	Water	Date Analyzed:	03/13/96
Preservative:	Cool		
Condition:	Intact		

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

Total BTEX	**ND**

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	100	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

PURGEABLE AROMATICS

Quality Control Report

Method Blank Analysis

Sample Matrix:	Water	Report Date:	03/14/96
Lab ID:	MB35137	Date Analyzed:	03/13/96

Target Analyte	Concentration (ug/L)	Detection Limit (ug/L)
Benzene	ND	0.50
Toluene	ND	0.50
Ethylbenzene	ND	0.50
m,p-Xylenes	ND	1.00
o-Xylene	ND	0.50

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	101	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Matrix Spike Analysis

Lab ID:	2890Spk	Report Date:	03/14/96
Sample Matrix:	Water	Date Sampled:	03/12/96
Preservative:	Cool	Date Received:	03/13/96
Condition:	Intact	Date Analyzed:	03/13/96

Target Analyte	Spike Added (ug/L)	Original Conc. (ug/L)	Spiked Sample Conc. (ug/L)	% Recovery	Acceptance Limits (%)
Benzene	10	ND	9.42	93%	39 -150
Toluene	10	0.62	9.91	93%	46 - 148
Ethylbenzene	10	ND	9.41	92%	32 - 160
m,p-Xylenes	20	ND	19.5	94%	NE
o-Xylene	10	ND	9.79	96%	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Spike acceptance range not established by the EPA.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Trifluorotoluene	92	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

Purgeable Aromatics

Duplicate Analysis

Lab ID:	2882Dup	Report Date:	03/14/96
Sample Matrix:	Water	Date Sampled:	03/08/96
Preservative:	Cool, HCl	Date Received:	03/11/96
Condition:	Intact	Date Analyzed:	03/13/96

Target Analyte	Original Conc. (ug/L)	Duplicate Conc. (ug/L)	Acceptance Range (ug/L)
Benzene	195	195	159 - 231
Toluene	515	513	421 - 608
Ethylbenzene	688	684	452 - 920
m,p-Xylenes	1,480	1,470	NE
o-Xylene	717	712	NE

ND - Analyte not detected at the stated detection limit.
NA - Not applicable or not calculated.
NE - Duplicate acceptance range not established by the EPA.

	Surrogate	Percent Recovery	Acceptance Limits
Quality Control:	Trifluorotoluene	96	88 - 110%

Reference: Method 602.2, Purgeable Aromatics; Federal Register, Vol. 49, No. 209, Oct. 1984.

Comments:

Analyst

Review

ANALYTICA
ENVIRONMENTAL LABORATORY
807 S. CARLTON • FARMINGTON, NM 87401 • (505) 326-2395

CHAIN OF CUSTODY

PROJECT MANAGER:
Analytica Lab I.D.:

RESULTS
Company: CONTRACT ENVIRONMENTAL SERV.
Address: PO Box 505
KIRTLAND, NM 87417
Phone: 325-1198 ↑
Fax:

Bill To: Snyder Oil Corp
Company: PO Box 7038
Address: Farmington NM 87499

Sample ID	Date	Time	Matrix	Lab ID	Petroleum Hydrocarbons (418.1)	Gasoline / Diesel (mod. 8015)	Gasoline (GRO)	Aromatic HCs (BTEX/MTBE (602 / 8020)	Chlorinated Hydrocarbons (8010)	SDWA Volatiles (502.1 / 503.1)	Chlorinated Pesticides / PCBs (608 / 8080)	Herbicides (615 / 8150)	Volatiles GC/MS (624 / 8240 / 8260)	Base / Neutral / Acid GC/MS (625 / 8270)	Polynuclear Aromatic Hydrocarbons (8100)	TCLP Extraction	Other (specify): VOA VIALS (2) 1 of 2 5 2 of 2	Cation / Anion	Specific Cations (specify):	Specific Anions (specify):	BOD / Fecal / Total Coliform	Solids: TDS / TSS / SS	Nutrients: NH4+ / NO2- / NO3- / TKN	Oil and Grease	Other (specify):	Priority Pollutants	RCRA Metals (Total)	RCRA Metals TCLP (1311)	Other (specify):	COMMENTS
TEMP-500	3/12/96	4:15P	water					X									X									TEMPLETON IE				AIR STRIPPER DISCHARGE
TEMP-501	3/12/96	4:17P	water					X									X									TEMPLETON IE				POND WATER

Project Information	Sample Receipt
Proj. #:	No. Containers: 4
Proj. Name:	Custody Seals: Y / N / NA
P. O. No:	Received Intact:
Shipped Via:	Received Cold:

Required Turnaround Time (Prior Authorization Required for Rush)

Sampled By:	Relinquished By:	Relinquished By:
Signature: S Adams	Signature:	Signature:
Date: 3/12/96	Date: 3/13/96	Date: 3/13/96
Company: CES Inc.	Company:	Company: CES Inc.
Time:	Time:	Time: 7:25 am
Received By:	**Received By:**	**Received By:**
Signature:	Signature:	Signature: M. Wilson
Date:	Date:	Date: 3/13/96
Company:	Company:	Company: Analytica
Time:	Time:	Time: 9:25

Please Fill Out Thoroughly.

Shaded areas for lab use only.

White/Yellow: Analytica
Pink: Client

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

January 29, 1997

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

RE: Chateau Oil and Gas, Inc. Templeton # 1E Monitor Wells, Section 27, T31N, R13W

Dear Mr. Olson,

Contract Environmental Services, Inc. (CES) is pleased to present this plan for monitor wells at the Templeton # 1E well location on behalf of Chateau Oil and Gas, Inc. (COG). This plan includes the following sections: Background Information, Action Plan, Development and Sampling Procedures, and Reporting Procedures.

Background Information

At present, numerous excavations have been completed to remove and remediate soil contaminated with hydrocarbons associated with an abandoned water disposal pit. Only one area of soil approximately 35 ft. by 180 ft. remains that has not been excavated or remediated. Please notice the attached site plan (Figure 1). All other areas beneath the well pad have had the soil removed, remediated and then backfilled.

Efforts have been focused on excavating and landfarming contaminated soil and treating groundwater through an air stripper unit to remove the hydrocarbons present. In addition to this, COG has allowed the groundwater to remain exposed to the elements to assist in the remediation process.

Action Plan

COG would like to address remaining impacts (if any) to the groundwater for this particular location. Installing monitor wells will allow COG to evaluate the present condition of the groundwater.

CES plans to place up to four (4) monitor wells within the last strip of unremediated soil. The monitor wells will be placed evenly across the affected area. The monitor wells will be placed in such a manner that one (1) will be in an upgradient direction from the abandoned water disposal pit and the remaining wells will be in the anticipated downgradient direction.

The monitor wells will be installed with a slotted steel casing initially. A backhoe will be utilized to dig the excavation since the water table is shallow and due to the alluvium material present. The soil will be backfilled around the steel casing until it is equal to the grade of the surrounding area. A PVC monitor well will then be completed within the steel casing when the water level can be accurately measured to achieve a screened interval of five (5) feet above and five (5) feet below the water table. Once the PVC screened pipe is placed in the steel casing, it will be sand-packed to prevent fine-particle intrusion into the wellbore. Figure 2 is a diagram of the monitor well detail.

In addition to the monitor wells, COG plans to install air sparging wells across this same area. The air sparging wells will be completed as described in Figure 3. Air sparging would be used as a method to cleanup groundwater and to work on reducing levels of contamination in the soils within and above the water table. A constant supply of air will be injected through the air sparging wells into the contaminated zone of the water table. Air flow will then be outward and upward through the zone of contamination. Contact between the air bubbles and the hydrocarbons will promote remediation through volatilization of the hydrocarbons.

Development And Sampling Procedures

The wells may be developed within the steel casing prior to inserting the PVC until the water enters as clear. The monitor wells will initially be bailed the standard three (3) well volumes prior to sampling. Water samples will be collected in 40 ml VOA vials with preservative. The samples will be kept cool and transported to an accredited laboratory for analysis of Benzene, Toluene, Ethylbenzene, and total Xylenes (BTEX) as per EPA Method 8020.

One (1) monitor well will have a rigorous water analysis conducted that will include tests for Cations / Anions, Metals, and Nitrates using EPA Methods. The selection will be made the day the monitor wells are installed or following BTEX analyses, selecting the worst apparent well. Following receipt of the first laboratory reports, CES will determine the frequency of sampling jointly with NMOCD.

If the contamination is more extensive than anticipated, additional monitor wells and air sparging wells may be necessary. The need for additional monitor wells will be determined at the time of installation.

Reporting Procedures

Laboratory results will be reported each time or summarized on a quarterly report issued to NMOCD. The initial report is expected to be presented within two (2) to three (3) weeks following the installation of the monitor wells.

Contract Environmental Services, Inc. appreciates this opportunity to present this Action Plan for the Templeton # 1E monitor well installations. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

CC: Mr. Denny Foust, NMOCD Aztec Office

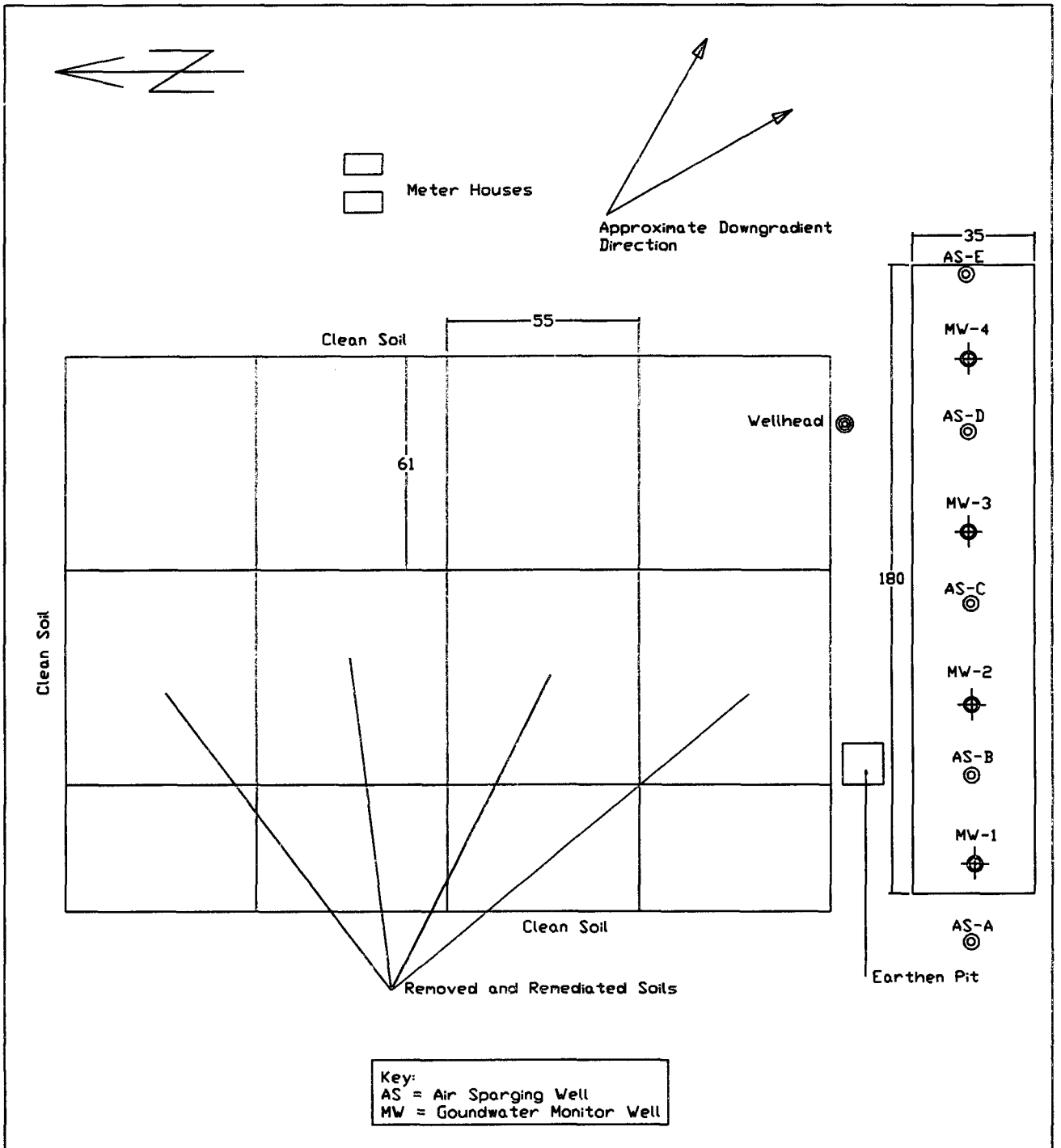


Figure 1. Templeton #1E Site Diagram.

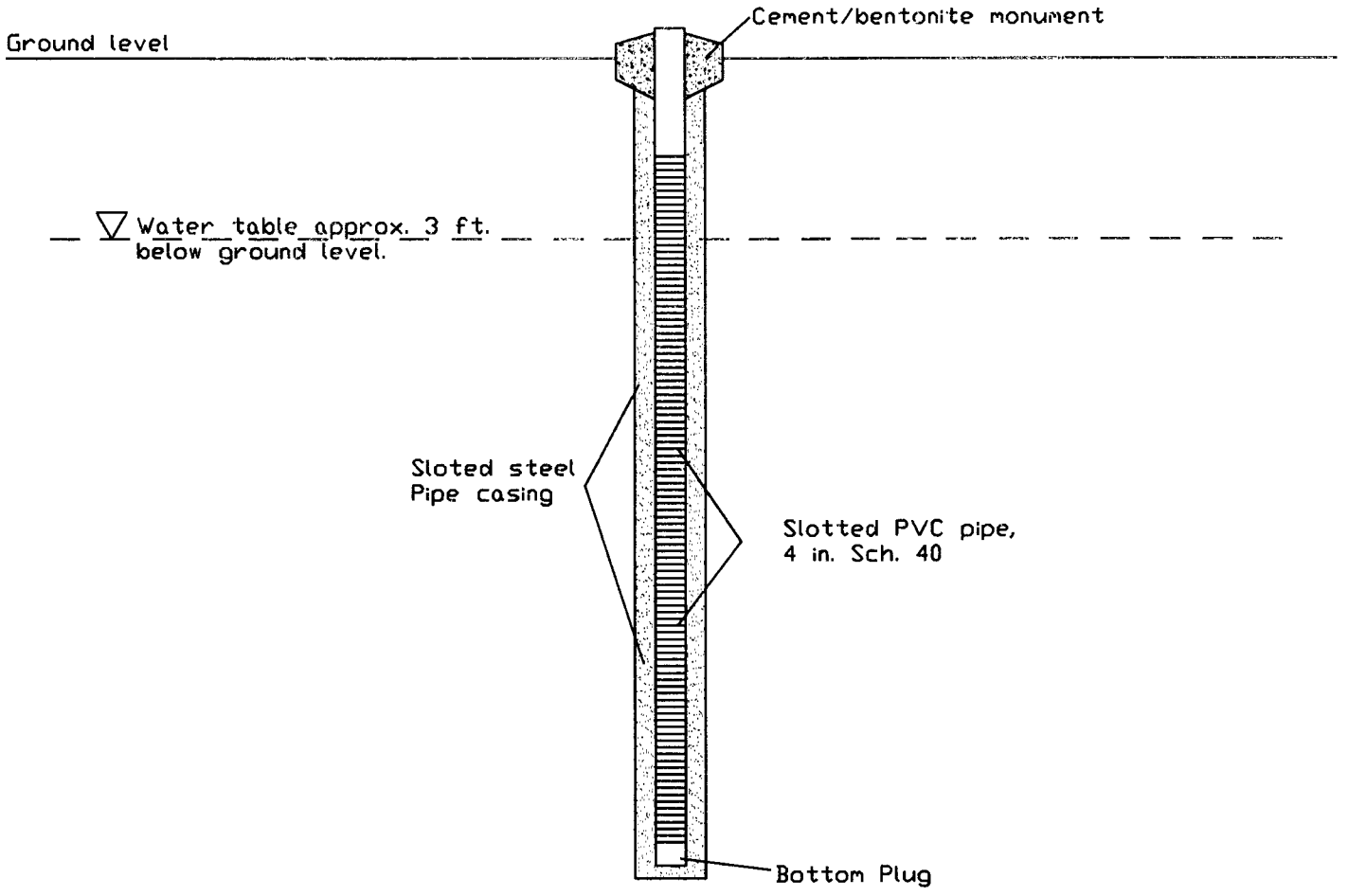


Figure 2. Monitor Well Detail.

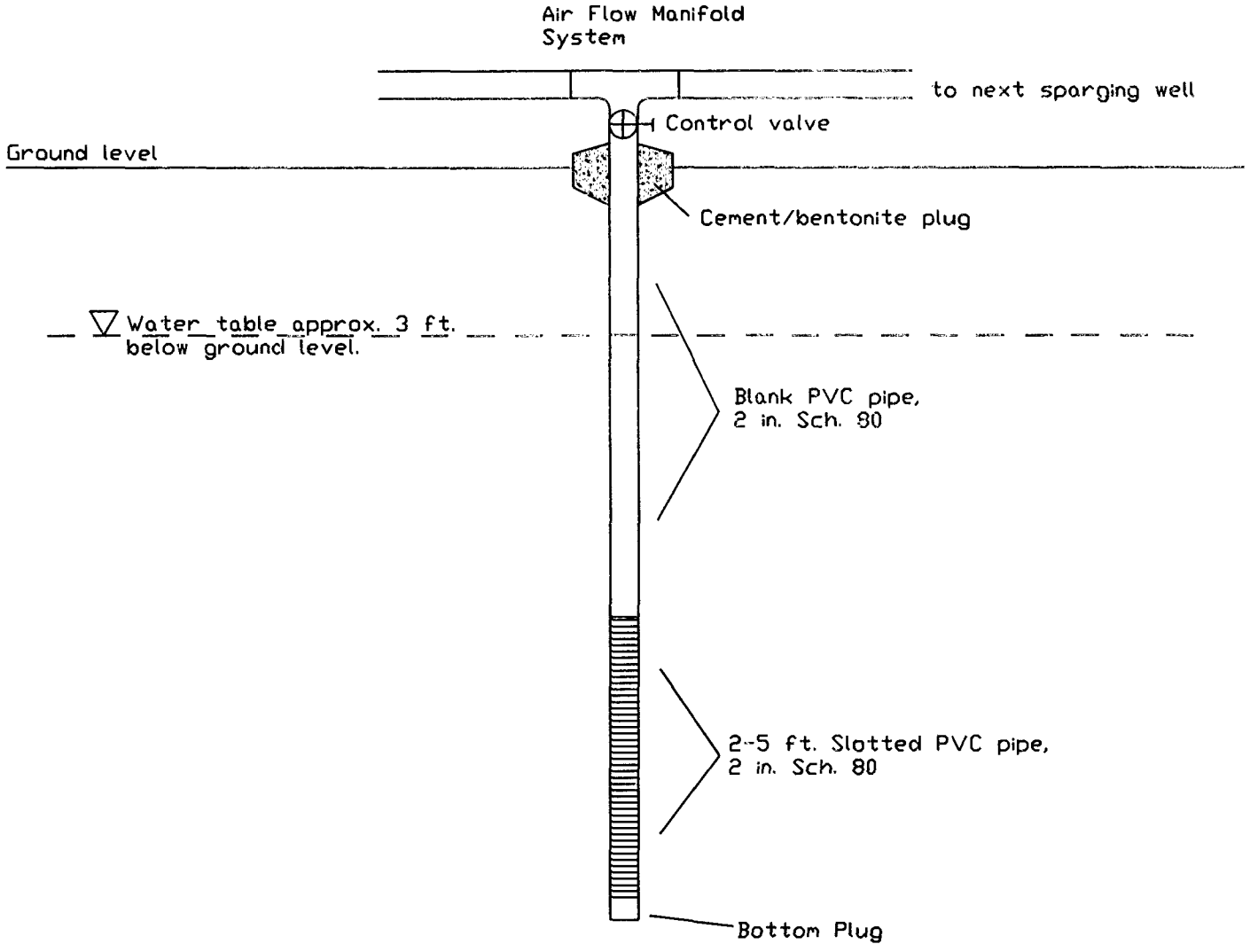


Figure 3. Air Sparging Well Detail.

ACKNOWLEDGEMENT OF RECEIPT OF CHECK/CASH

I hereby acknowledge receipt of check No. 15232 dated 8/30/95,
or cash received on 9/12/95 in the amount of $ 1430.00
from Snyder Oil
for Templeton IE Remediation (Facility Name) GW-184 (DP No.)
Submitted by: _____ Date: _____
Submitted to ASD by: Roger Anderson Date: 9/13/95
Received in ASD by: Angie Allen Date: 9/13/95
Filing Fee X New Facility X Renewal ___
Modification ___ Other _____ (specify)
Organization Code 521.07 Applicable FY 96

To be deposited in the Water Quality Management Fund.
Full Payment X or Annual Increment ___

SOCO
nyder Oil Corporation
77 Main Street, Suite 2500
ort Worth, Texas 76102

NationsBank
NationsBank of Texas, N.A.
WICHITA FALLS, TEXAS

88-130/1119

WORKING FUND
CHECK NUMBER 015232

DATE	AMOUNT
8-30-95	$1,430.00

One Thousand Four Hundred Thirty and No/100 Dollars

THE ORDER OF:
New Mexico Environment Department
Water Quality Management Fund
Oil Conservation Division
2040 South Pacheco
Santa Fe, NM 87505

Snyder Oil Corporation
Peggy Gilbreath
AUTHORIZED REPRESENTATIVE

⑈015232⑈ ⑆111901302⑆ ⑈2330006577⑈

Snyder Oil Corporation
777 Main Street, Suite 2500
Fort Worth, Texas 76102 (817) 338-4043

PAYMENT ADVICE

INVOICE NUMBER	INVOICE DATE	COMMENT	GROSS	DEDUCTIONS	AMOUNT PAID
		ground water remediation discharge paln GW-184 Templeton 1E well site			

DETACH BEFORE DEPOSITING

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

March 31, 1995

New Mexico Oil Conservation Division
Mr. Bill Olson
2040 South Pacheco
Santa Fe, New Mexico 87505

Dear Mr. Olson

In accordance with the New Mexico Oil Conservation Division (NMOCD) discharge plan approval dated February 20, 1995, Contract Environmental Services, Inc. (CES) presents the following quarterly report on behalf of Snyder Oil Corporation (SOCO). This, the first of such reports, concerns the groundwater discharge plan for the air stripper on the Templeton #1E well location found in Section 27, T31N, R13W NMPM, San Juan County, New Mexico.

The air stripper has been operated on five (5) separate occasions for a minimum of three (3) days and a maximum of five (5) days each. The total estimated volume of treated water is 367,200 gallons. The majority of this treatment occurred during the Temporary Discharge Permit time frame. The Temporary Discharge Permit was issued on May 23, 1994 and continued until September 21, 1994 or for a period of 120 days. On February 20, 1995 a five (5) year groundwater discharge plan was approved that will expire February 20, 2000.

The air stripper has been inactive since December 21, 1994 when the last request was received for Total Dissolved Solids (TDS) testing. Our plans are to continue the remediation on the Templeton #1E well location by cleaning contaminated soil and groundwater. The air stripper will be utilized intermittently as before for cleanup of the groundwater as other excavations are opened.

As discussed with you on March 3, 1995 we will take exception to the paragraph concerned with netting on the discharge plan approval. We similarly plan to submit a modification to the original plan that would allow up to five (5) locations to be listed for the Multiple Site Discharge Permit of the air stripper. Notification will be made in advance to the NMOCD if changes to the original permit are necessary.

The total volume of product recovered during the air stripper process is not applicable (N/A). The design of the air stripper evaporates and/or volatilizes the hydrocarbons that are removed from the water. No recovery of hydrocarbons is noticed. Residue may be left in the packing material and after accumulation it may reach a point where the packing will need to be replaced or cleaned. The spent packing material will be properly disposed of in accordance with state and federal regulations as necessary.

Laboratory Results

Laboratory results are presented below in tabular form, chain-of-custody records and individual laboratory reports are presented following this section for your review.

Tabular Form

3/16/94

Sample No. SOCO-001 A,B Water Sample On Templeton #1E From Test Pits.

Date	Analysis Performed	Results (ug/l, PPB)
3/16/94	Test Pit #1 BTEX	B 1,530 (PPB)
		T 1,920 (PPB)
		E 3,650 (PPB)
		X 42,600 (PPB)

Sample No. SOCO-001 C,D Water Sample On Templeton #1E From Test Pits.

Date	Analysis Performed	Results (ug/l, PPB)
3/16/94	Test Pit #1X BTEX	B 1,100 (PPB)
		T 870 (PPB)
		E 1,070 (PPB)
		X 11,510 (PPB)

Sample No. SOCO-002 A,B Water Sample On Templeton #1E From Test Pits.

Date	Analysis Performed	Results (ug/l, PPB)
3/16/94	Test Pit #2 BTEX	B 705 (PPB)
		T 88.7 (PPB)
		E 887 (PPB)
		X 8,630 (PPB)

Sample No. SOCO-003 A,B Water Sample On Templeton #1E From Test Pits.

Date	Analysis Performed	Results (ug/l, PPB)
3/16/94	Test Pit #3 BTEX	B 48.2 (PPB)
		T 1,670 (PPB)
		E 713 (PPB)
		X 6,810 (PPB)

4/13/94

Sample No. SOC-00A1 Water Sample From Test Pit A.

Date	Analysis Performed	Results (ug/l, PPB)
4/13/94	Test Pit A BTEX	B 9,670 (PPB)
		T 34,800 (PPB)
		E 4,310 (PPB)
		X 81,200 (PPB)

Sample No. SOC-00B1 Water Sample From Test Pit B

Date	Analysis Performed	Results (ug/l, PPB)
4/13/94	Test Pit B BTEX	B 41 (PPB)
		T ND
		E 77 (PPB)
		X 237 (PPB)

5/31/94

Sample No. SOC-704 Air Stripper Discharge Sample

Date		Analysis Performed	Results (mg/l, PPM)
5/31/94		Bicarbonate	284
		Carbonate	<1.0
		Chloride	328
		Hydroxide	<1.0
		pH	6.5 pH units
		Sulfate	2860
		Arsenic	<0.05
		Barium	<0.01
		Cadmium	<0.005
		Calcium	400
		Chromium	<0.01
		Lead	<0.05
		Mercury	<0.0002
		Magnesium	292
		Potassium	6.7
		Selenium	<0.1
		Silver	<0.01
		Sodium	707
	8020	Benzene	1.1 (ug/l PPB)
		Toluene	10
		Ethylbenzene	1.5
		Xylenes	28
		Napthalene	ND
		Cation Sum	74.91
		Anion Sum	73.45
		Cation Balance	1.97

6/28/94

Sample No. TEMP-050 Grab Water Sample From Center Of Excavation Pond For New Excavation Opened 6/24/94.

8020	Benzene	10 (ug/l PPB)
	Toluene	200
	Ethylbenzene	ND
	Xylenes	1100

9/13/94

Sample No.	TEMP-007 A,B Air Stripper Discharge Sample.	
8020	Benzene	ND (ug/l PPB)
	Toluene	ND
	Ethylbenzene	ND
	Xylenes	1.0

11/14/94

Sample No.	TEMP-200 Grab Water Sample From Center Of Excavation Pond Open Since 9/21/94.	
8020	Benzene	ND (ug/l PPB)
	Toluene	1.3
	Ethylbenzene	0.2
	Xylenes	ND

12/21/94

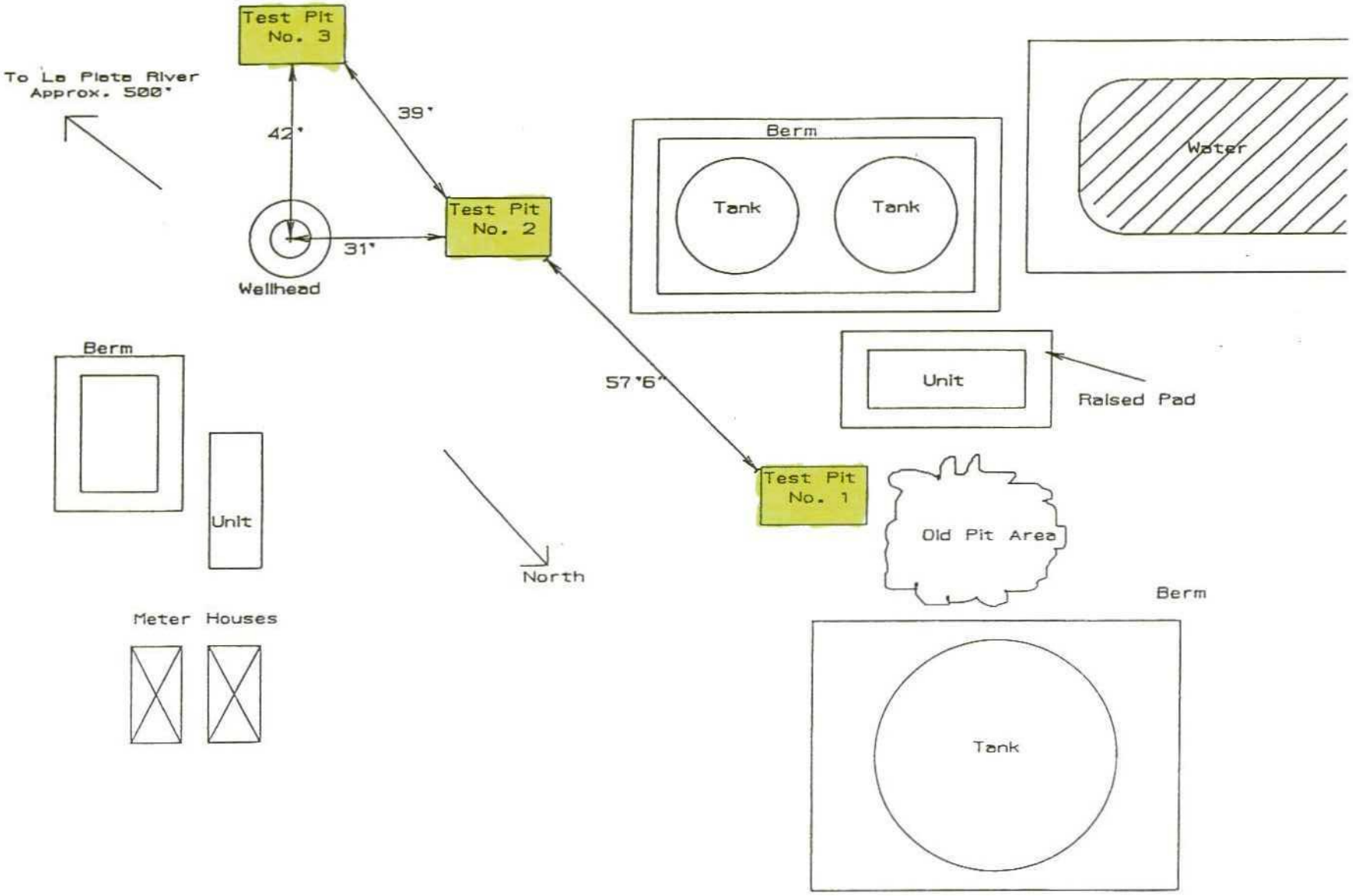
Sample No.	TEMP-501 Air Stripper Discharge Sample	
TDS	Total Dissolved Solids	3,332 (mg/l PPM)
Sample No.	TEMP-500 Grab Water Sample From South End Of Excavation Pond Open Since 9/21/94.	
TDS	Pond Groundwater TDS	3,338

Contract Environmental Services, Inc. appreciates this opportunity to present this quarterly report for the Templeton #1E Air Stripper on behalf of Snyder Oil Corporation. If you have questions or require additional information, please don't hesitate to contact our offices at (505) 325-1198 or stop by at 4200 Hawkins Road, Farmington.

Sincerely,

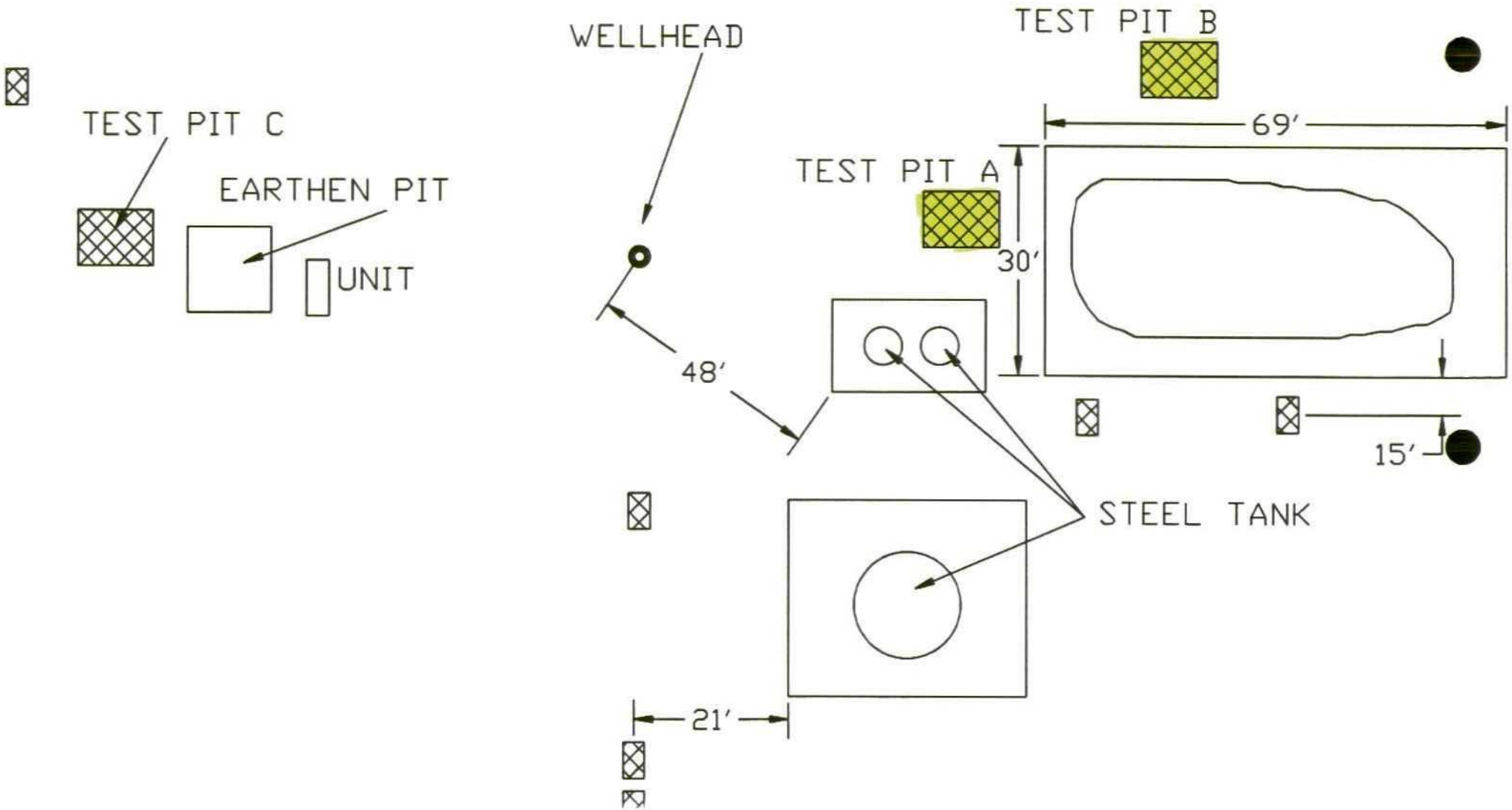
Shawn A. Adams
Contract Environmental Services, Inc.

Snyder Oil Corporation
Templeton 1E



Snyder Oil Corporation

Templeton #1e Well Site, SJC



Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-001 A	Date Sampled:	03/15/94
Lab ID:	4938	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,530	1.0
Toluene	1,920	1.0
Ethylbenzene	3,650	1.0
m,p-Xylenes	25,900	1.0
o-Xylene	16,700	1.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	116.0	88 -110%
Bromofluorobenzene	130.2	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments: *Surrogate recoveries outside of limits, concentrations estimated.

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-001 C	Date Sampled:	03/15/94
Lab ID:	4939	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,100	0.2
Toluene	870	0.2
Ethylbenzene	1,070	0.2
m,p-Xylenes	6,640	0.2
o-Xylene	4,870	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8*	117.2	88 -110%
Bromofluorobenzene	102.2	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments: *Toluene-d8 surrogate recovery high due to background interferences.

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-002 A	Date Sampled:	03/15/94
Lab ID:	4940	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	705	0.2
Toluene	88.7	0.2
Ethylbenzene	887	0.2
m,p-Xylenes	6,640	0.2
o-Xylene	1,990	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	104.8	88 -110%
Bromofluorobenzene	101.7	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-003 A	Date Sampled:	03/15/94
Lab ID:	4941	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	48.2	0.2
Toluene	1,670	0.2
Ethylbenzene	713	0.2
m,p-Xylenes	4,960	0.2
o-Xylene	1,850	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	105.0	88 -110%
Bromofluorobenzene	102.6	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

Inter-Mountain Laboratories, In

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil

Project ID:	Templeton IE	Report Date:	04/22/94
Sample ID:	SOC 00A1	Date Sampled:	04/12/94
Lab ID:	0394G00284	Date Received:	04/13/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	04/19/94

Target Analyte	Concentration (ppb)	Detection Limit (ppm)
Benzene	9,670	2.0
Toluene	34,800	2.0
Ethylbenzene	4,310	2.0
m,p-Xylenes	58,600	2.0
o-Xylene	22,600	2.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	97.5	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc

2506 W Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil

Project ID:	Templeton IE	Report Date:	04/22/94
Sample ID:	SOC 00B1	Date Sampled:	04/12/94
Lab ID:	0394G00285	Date Received:	04/13/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	04/19/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	41	20.0
Toluene	ND	20.0
Ethylbenzene	77	20.0
m,p-Xylenes	237	20.0
o-Xylene	ND	20.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	98.5	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0005
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Anion Sum	73.45	1	meq/l		06/27/94	RIF
Cation/Anion Balance	1.97				06/27/94	RIF
Cation Sum	74.91	1	meq/l		06/27/94	RIF
Arsenic, Total (As)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Barium, Total (Ba)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Cadmium, Total (Cd)	<0.005	0.005	mg/L	6010 (2)	06/07/94	GAG
Calcium, Total (Ca)	400	1	mg/L	6010 (2)	06/07/94	GAG
Chromium, Total (Cr)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Lead, Total (Pb)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Mercury, Total (Hg)	<0.0002	0.0002	mg/L	7470 (2)	06/17/94	LMT
Magnesium, Total (Mg)	292	1	mg/L	6010 (2)	06/07/94	GAG
Potassium, Total (K)	6.7	0.1	mg/L	6010 (2)	06/07/94	GAG
Selenium, Total (Se)	<0.1	0.1	mg/L	6010 (2)	06/07/94	GAG
Silver, Total (Ag)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Sodium, Total (Na)	707	10	mg/L	6010 (2)	06/07/94	GAG
8020 - AROMATIC VOLATILE ORGANICS		*1		8020 (2)	06/03/94	JHT
Benzene	1.1	0.5	ug/L			
Toluene	10	0.5	ug/L			
Ethyl benzene	1.5	0.5	ug/L			
Xylenes	28	0.5	ug/L			
4-Bromofluorobenzene (surrogate)	101	0	% Recovery	Limit (85-115)		
Time Analyzed	1602	0				
Naphthalene	ND	5	ug/l	8270 (2)		

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0004
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Bicarbonate (Unfilt.)	284	5	mg/L	403 (3)	06/14/94	KDS
Carbonate (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
Chloride (Unfilt.)	328	1	mg/L	325.2 (1)	06/21/94	DME
Hydroxide (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
pH (Unfilt.)	6.50	0.01	pH Units	150.1 (1)	06/14/94	KDS
Sulfate (Unfilt.)	2860	200	mg/L	375.2 (1)	06/20/94	DME

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
07/13/94

JOB NUMBER: 941608 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: SOC-002
DATE SAMPLED.....: 06/28/94
TIME SAMPLED.....: 11:45
WORK DESCRIPTION...: TEMP-050

LABORATORY I.D...: 941608-0003
DATE RECEIVED....: 06/29/94
TIME RECEIVED....: 10:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
8020 - AROMATIC VOLATILE ORGANICS		*10		8020 (2)	07/13/94	JHT
Benzene	18	5	ug/L			
Toluene	200	5	ug/L			
Ethyl benzene	ND	5	ug/L			
Xylenes	1100	5	ug/L			
4-Bromofluorobenzene (surrogate)	102	0	% Recovery	85-115% Limit		
Time Analyzed	0959	0				

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
09/22/94

JOB NUMBER: 942294 CUSTOMER: SNYDER OIL CORPORATION ATTN: CHESTER DEAL

CLIENT I.D.....: SOIL & GROUNDWATER REMEDIATION
DATE SAMPLED.....: 09/13/94
TIME SAMPLED.....: 14:25
WORK DESCRIPTION...: TEMP-007(A) & (B)

LABORATORY I.D...: 942294-0001
DATE RECEIVED....: 09/15/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
8020 - AROMATIC VOLATILE ORGANICS		*1		8020 (2)	09/15/94	JHT
Benzene	ND	0.5	ug/L			
Toluene	ND	0.5	ug/L			
Ethyl benzene	ND	0.5	ug/L			
Xylenes	1.0	0.5	ug/L			
4-Bromofluorobenzene (surrogate)	103	0	% Recovery	85-115% Limit		
Time Analyzed	2152	0				

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

OFF: (505) 325-8786

ON SITE TECHNOLOGIES, LTD.

LAB: (505) 325-5667

AROMATIC VOLATILE ORGANICS

Attn:	*Shawn Adams*	Date:	11/15/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2296*
Address:	*P.O. Box 505*	*Sample ID:*	*3986*
City, State:	*Kirtland, NM 87417*	*Job No.*	*2-1000*

Project Name:	***Snyder Oil Corp.***				
Project Location:	***TEMP-200 Templeton***				
Sampled by:	SA	Date:	11/14/94	Time:	10:15
Analyzed by:	DLA	Date:	11/15/94		
Sample Matrix:	*Water*				

Aromatic Volatile Organics

Component	***Measured Concentration ug/L***	***Detection Limit Concentration ug/L***
Benzene	ND	*0.2*
Toluene	1.3	*0.2*
Ethylbenzene	0.2	*0.2*
m,p-Xylene	ND	*0.2*
o-Xylene	ND	*0.2*
	TOTAL *1.5 ug/L*	

ND - Not Detectable

Method *- SW-846 EPA Method 8020 Aromatic Volatile Organics by Gas Chromatography*

Approved by:
Date: 11/15/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

GENERAL WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	12/22/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2198*
Address:	*P.O. Box 505*	*Sample No.*	*4483*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Snyder Oil Corporation***			
Project Location:	***TEMP - 501 Templeton #1 E Discharge TDS***			
Sampled by:	SA	Date:	12/21/94	Time:
Analyzed by:	DA	Date:	12/22/94	
Type of Sample:	*Water*			

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Dissolved Solids***
4483-2198	*Snyder Oil Corporation* ***TEMP - 501 Templeton #1 E Discharge TDS***	3,332 *mg/L*

Method - *Standard Methods for the Examination of Water and Wastewater 2540 C, Total Dissolved Solids*

Approved by: Jack
Date: 12/22/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

GENERAL WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	12/22/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2198*
Address:	*P.O. Box 505*	*Sample No.*	*4482*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Snyder Oil Corporation***			
Project Location:	***TEMP - 500 Templeton #1 E Pond GW TDS***			
Sampled by:	SA	Date:	12/21/94	Time:
Analyzed by:	DA	Date:	12/22/94	
Type of Sample:	*Water*			

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Dissolved Solids***
4482-2198	*Snyder Oil Corporation* ***TEMP - 500 Templeton #1 E Pond GW TDS***	3,338 *mg/L*

Method - *Standard Methods for the Examination of Water and Wastewater 2540 C, Total Dissolved Solids*

Approved by:
Date: 12/22/94

'95 MAR 13 AM 8 52

AFFIDAVIT OF PUBLICATION

No. 34221

STATE OF NEW MEXICO
County of San Juan:

ROBERT LOVETT being duly sworn says: That he is the Classified Manager of THE DAILY TIMES, a daily newspaper of general circulation published in English at Farmington, said county and state, and that the hereto attached Legal Notice was published in a regular and entire issue of the said DAILY TIMES, a daily newspaper duly qualified for the purpose within the meaning of Chapter 167 of the 1937 Session Laws of the State of New Mexico for publication on the following day(s):

Friday, January 13, 1995

and the cost of publication was: $56.06

Robert Lovett

On 3/9/95 ROBERT LOVETT appeared before me, whom I know personally to be the person who signed the above document.

Mary L. Sneal

My Commission Expires March 21, 1998.

COPY OF PUBLICATION

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

Notice is hereby g1ven that pursuant to New Mexico Water Quality Control Commission (WQCC) Regulations, the following discharge plan application has been submitted to the Director of the Oil Conservation Division, Energy Minerals and Natural Resources Building, 2040 South Pacheco St., Santa Fe, New Mexico 87505, Telephone (505) 827-7152:

(GW-40) - Snyder Oil Corporation, Chester Deal, Superintendent, P.O. Box 2038, Farmington, New Mexico 87499, has submitted a discharge application for their Templeton #1E well site located in the NW 1/4, NE 1/4 of Section 27, Township 31 North, Range 13 West NMPM, San Juan County, New Mexico. The application adresses discharges to ground water associated with the remediation of petroleum contaminated ground water. Approximately 1,890 gallons per minute of ground water with a total dissolved solids concentration of approximately 3,300 mg/l is processed through a treatment system to remove contaminants to below WQCC ground water standards prior to reinjection. Groundwater most likely to be affected by an accidental discharge is at a depth of approximately 3 to 4 feet with a total dissolved solids concentration of approximately 3,300 mg/l. The discharge plan addresses system operation and monitoring and how spills, leaks, and other accidental discharges to the surface will be managed.

Any interested person may obtain further information from the Oil Conservation Division and may submit written comments to the Director of the Oil Conservation Division at the address given above. The discharge plan applications may be viewed at the above address between 8:00 a.m. and 4:00 p.m., Monday through Friday. Prior to ruling on any proposed discharge plan or its modification, the Director of the Oil Conservation Division shall allow at least thirty (30) days after the date of publication of this notice during which comments may be submitted to him and public hearing may be requested by any interested person. Request for public hearing shall set forth the reasons why a hearing shall be held. A hearing will be held if the Director determines that there is significant public interest.

If no hearing is held, the Director will approve or disapprove the plan based on the information available. If a public hearing is held, the Director will approve the plan based on the information in the plan and information presented at the hearing.

GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 4th day of January, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MICHAEL E. STOGNER, Acting Director

SEAL

Legal No. 34221 published in The Daily Times, Farmington, New Mexico on Friday, January 13,

NOTICE OF PUBLICATION

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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

[signature]

MICHAEL E. STOGNER, Acting Director

SEAL

NO EFFECT FINDING

The described action will have no effect on listed species, wetlands, or other important wildlife resources.

Date January 27, 1995

Consultation # 2-22-95-I-142

Approved by *R. Mark Wilson*

U.S. FISH and WILDLIFE SERVICE
NEW MEXICO ECOLOGICAL SERVICES FIELD OFFICE
ALBUQUERQUE, NEW MEXICO

AFFIDAVIT OF PUBLICATION

No.34221

STATE OF NEW MEXICO
County of San Juan:

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Friday, January 13, 1995

and the cost of publication was: $57.21

Robert Lovett

On 1/17 ROBERT LOVETT appeared before me, whom I know personally to be the person who signed the above document.

Jennie Booth

My Commission Expires April 22, 1997.

COPY OF PUBLICATION

NOTICE OF PUBLICATION

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 4th day of January, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MICHAEL E. STOGNER, Acting Director

SEAL

Legal No. 34221 published in The Daily Times, Farmington, New Mexico on Friday, January 13, 1995.

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 6, 1995

ALBUQUERQUE JOURNAL
717 Silver Southwest
Albuquerque, New Mexico 87102

ATTN: ADVERTISING MANAGER

RE: NOTICE OF PUBLICATION

_____
_____
_____
_____

Dear Sir/Madam:

Please publish the attached notice one time immediately on receipt of this request. Please proofread carefully, as any error in a land description or in a key word or phrase can invalidate the entire notice.

Immediately upon completion of publication, please send the following to this office:

1. ***Publisher's affidavit in duplicate.***
2. ***Statement of cost (also in duplicate.)***
3. ***CERTIFIED invoices for prompt payment.***

We should have these immediately after publication in order that the legal notice will be available for the hearing which it advertises, and also so that there will be no delay in your receiving payment.

Please publish the notice no later than January 13, 1995, 1994.

Sincerely,

Sally Martinez

Sally E. Martinez
Administrative Secretary

Attachment

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

January 6, 1995

FARMINGTON DAILY TIMES
P. O. Box 450
Farmington, New Mexico 87401

ATTN: ADVERTISING MANAGER

RE: NOTICE OF PUBLICATION

_____
_____
_____
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Administrative Secretary

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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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GIVEN under the Seal of New Mexico Conservation Commission at Santa Fe, New Mexico, on this 4th day of January, 1994.

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

MICHAEL E. STOGNER, Acting Director

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ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

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STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

SEAL

MICHAEL E. STOGNER, Acting Director

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

RECEIVED
JAN 04 1995
OIL CONSERVATION DIV.
SANTA FE

GENERAL WATER ANALYSIS

Attn:	*Shawn Adams*	Date:	12/22/94
Company:	*Contract Environmental Services, Inc.*	*Lab ID:*	*2198*
Address:	*P.O. Box 505*	*Sample No.*	*4482*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Snyder Oil Corporation***			
Project Location:	***TEMP - 500 Templeton #1 E Pond GW TDS***			
Sampled by:	SA	Date:	12/21/94	Time:
Analyzed by:	DA	Date:	12/22/94	
Type of Sample:	*Water*			

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Dissolved Solids***
4482-2198	*Snyder Oil Corporation* ***TEMP - 500 Templeton #1 E Pond GW TDS***	3,338 *mg/L*

Method - *Standard Methods for the Examination of Water and Wastewater 2540 C, Total Dissolved Solids*

Approved by:
Date: 12/22/94

OFF: (505) 325-8786

ON SITE
TECHNOLOGIES, LTD.

LAB: (505) 325-5667

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Address:	*P.O. Box 505*	*Sample No.*	*4483*
City, State:	*Kirtland, NM 87417-0505*	*Job No.*	*2-1000*

Project Name:	***Snyder Oil Corporation***			
Project Location:	***TEMP - 501 Templeton #1 E Discharge TDS***			
Sampled by:	SA	Date:	12/21/94	Time:
Analyzed by:	DA	Date:	12/22/94	
Type of Sample:	*Water*			

Laboratory Analysis

Laboratory Identification	***Sample Identification***	***Total Dissolved Solids***
4483-2198	*Snyder Oil Corporation* ***TEMP - 501 Templeton #1 E Discharge TDS***	3,332 *mg/L*

Method - *Standard Methods for the Examination of Water and Wastewater 2540 C, Total Dissolved Solids*

Approved by:
Date: 12/22/94

CHAIN OF CUSTODY RECORD

2193

ON SITE TECHNOLOGIES, LTD.
657 W. Maple • P. O. Box 2606 • Farmington NM 87499
LAB: (505) 325-5667 • FAX: (505) 325-6256

Date: 12/21/94

Page 1 of 1

Purchase Order No.:
Reference No.:

SEND INVOICE TO
Name: Chester L. Deal
Company: Snyder Oil Corporation
Dept.:
Address: PO Box 2038
City, State, Zip: Farmington, NM 87499

REPORT RESULTS TO
Name: Shawn Adams
Title:
Company: Contract Environmental Services, Inc.
Mailing Address: PO Box 505
City, State, Zip: Kirtland NM 87417-0505
Telephone No.: 325-1198
Telefax No.:

Special Instructions: . Run Total Dissolved Solids (TDS) on each sample
Total 2 Analyses

Sampler: SADAMS

SAMPLE IDENTIFICATION	DATE/TIME SAMPLED	COMPOSITE/ GRAB	PRESERVATIVES	Number of Containers	ANALYSIS REQUESTED	40 ml									Remarks (matrix)
Temp - 500 Templeton #1E Pre-GW TDS	12/21/94	G	no	X		X						4402-2198			
Temp - 501 Templeton #1E Discharge TDS	12/21/94	G	no	X		X						4403-2198			

Relinquished by: Shawn Adams — Date/Time 12/21/94 3:50P
Received by: [signature] — Date/Time 12/21/94 3:54
Relinquished by: — Date/Time
Received by: — Date/Time
Relinquished by: — Date/Time
Received by: — Date/Time

Method of Shipment:
Authorized by: SAdams Date
(Client Signature Must Accompany Request)

Rush: 24 HR TAT As Promised
5 Working Days
10 Working Days
Sampling Location:

Distribution: White – On Site Yellow – LAB Pink – Sampler Goldenrod – Client

State of New Mexico
ENERGY, MINERALS and NATURAL RESOURCES DEPARTMENT
Santa Fe, New Mexico 87505

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

MEMORANDUM OF MEETING OR CONVERSATION

☑ Telephone ☐ Personal	Time 9:00 am	Date 12/16/94

Originating Party	Other Parties
Bill Olson - Envir. Bureau	Shawn Adams - Contract Envir. Services 325-1198

Subject

Snyder Oil
Templeton #1 well site Discharge Plan Application

Discussion

Requested TDS of discharge from air stripper and ground water

Told him OCD wants him to operate ground water remediation system while DP is pending

Conclusions or Agreements

Gave verbal approval to proceed with remediation while DP application is pending.
He will provide OCD with TDS requested

Distribution

Signed Bill Olson

State of New Mexico
Energy, Minerals and Natural Resources Department
OIL CONSERVATION DIVISION
P.O. Box 2088
Santa Fe, NM 87501

RECEIVED
NOV 0 8 1995
OIL CONSERVATION DIV
SANTA FE

DISCHARGE PLAN APPLICATION FOR NATURAL GAS PROCESSING PLANTS, OIL REFINERIES AND GAS COMPRESSOR STATIONS

(Refer to OCD Guidelines for assistance in completing the application.)

I. TYPE: Natural Gas Production

II. OPERATOR: Snyder Oil Corporation

ADDRESS: Post Office Box 2038, Farmington, New Mexico 87499

CONTACT PERSON: Mr. Chester L. Deal PHONE: 505-632-8056

III. LOCATION: NW /4 NE /4 Section 27 Township 31N Range 13W
Submit large scale topographic map showing exact location.

IV. Attach the name and address of the landowner(s) of the disposal facility site.

V. Attach description of the facility with a diagram indicating location of fences, pits, dikes, and tanks on the facility.

VI. Attach a description of sources, quantities and quality of effluent and waste solids.

VII. Attach a description of current liquid and solid waste transfer and storage procedures.

VIII. Attach a description of current liquid and solid waste disposal procedures.

IX. Attach a routine inspection and maintenance plan to ensure permit compliance.

X. Attach a contingency plan for reporting and clean-up of spills or releases.

XI. Attach geological/hydrological evidence demonstrating that disposal of oil field wastes will not adversely impact fresh water. Depth to and quality of ground water must be included.

XII. Attach such other information as is necessary to demonstrate compliance with any other OCD rules, regulations and/or orders.

XIII. CERTIFICATION

I hereby certify that the information submitted with this application is true and correct to the best of my knowledge and belief.

Name: Chester L. Deal Title: Superintendent

Signature: Chester L. Deal Date: Nov. 4, 1994

DISTRIBUTION: Original and one copy to Santa Fe with one copy to appropriate Division District Office.

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

November 4, 1994

State Of New Mexico
Energy, Minerals and Natural Resources Department
Oil Conservation Division
Mr. Bill Olsen
Post Office Box 2088
Santa Fe, New Mexico 87501

RE: Discharge Permit Application for Templeton #1E Well Location, Sec.27, T31N, R13W

Contract Environmental Services, Inc. (CES) is pleased to present this Discharge Plan Application on behalf of Snyder Oil Corporation (SOCO) for the Templeton #1E well location. The Templeton #1E well is located within the La Plata River Valley in San Juan County.

Background Information

The Templeton #1E well is a dual location which produces from the Gallup and Basin Dakota zones and has a history of retrieving large quantities of formation water along with the natural gas. On March 15, 1994 it was discovered during a subsurface investigation that the underlying soils and groundwater had been impacted with hydrocarbon contamination. An Investigation And Remediation Plan for earthen pits and a Groundwater Remediation Plan were prepared in March, 1994. These plans were approved on March 23, 1994. In April and May a specific groundwater remediation plan was prepared for the Templeton #1E well location. This plan was approved on May 24, 1994. Together, these plans cover the remediation of the soils and groundwater for the Templeton #1E well location. The groundwater plan calls for extraction and treatment through an air stripper unit to remove the hydrocarbons. The treated groundwater will then be returned to a water storage pond where it will recharge the groundwater. The groundwater resides at a depth of approximately 3-4' below ground level. The groundwater for this particular area has a high concentration of salts naturally occurring.

Snyder Oil Corporation applied for and received a Temporary Permit To Discharge (attached) from the Santa Fe office of the New Mexico Oil Conservation Division (NMOCD). This temporary permit was granted on May 23, 1994 and remained valid for a period of 120 days from date of issuance and expired on September 21, 1994. SOCO is seeking a permit to discharge for the duration of the remediation project which is now estimated to be 30% complete. The soils are removed and farmed on location and during this process the excavation fills up with groundwater. SOCO uses the air stripper to remediate this trench water and then return it to either the water pond adjacent to the location or to the opposite end of the trench. All discharge will cease on the expiration date of the Temporary Permit To Discharge (September 21, 1994) and will remain so until the Permit To Discharge is in place.

Body

I. Type of Operation

The major purpose of this facility is to produce natural gas from the Gallup and Basin Dakota zones to be transferred and sold through pipelines to an acceptable market.

II. Name of Operator or Legally Responsible Party and Local Representative

Snyder Oil Corporation
Mr. Chester L. Deal
Post Office Box 2038
Farmington, New Mexico 87499
Phone (505) 632-8056

III. Location of Discharge

Unit Letter B of Section 27, Township 31 North, Range 13 West with footages of 890' FNL, 1820'FEL, San Juan County, New Mexico

IV. Landowners

The landowner is Charles S. Lewis

V. Facility Description

Please see the attached site diagram (Figure 1.) that indicates the location of wellbore, tanks, berms, meter-runs, earthen pits, excavations and boundaries.

VI. Materials Stored or Used at the Facility

Hydrochloric Acid (liquid) for trickle treatment of water to prevent buildup in air stripper, two 100 barrel produced water tanks, one 400 barrel condensate tank. Gasoline will be stored in a 55 gallon steel drum to operate the air stripper fan and pump.

VII. Sources and Quantities of Effluent and Waste Solids Generated at the Facility

Produced water is currently being hauled off location at an approximate rate of 80 barrels per day and is being trucked by water trucks. Snyder Oil Corporation is currently using Three Rivers Trucking to perform this service.

VIII. Description of Current Liquid and Solid Waste Collection/Storage/Disposal Procedures

Produced water is currently being hauled to the Langendorf #3 injection well and evaporation pond owned and operated by Snyder Oil Corporation where it is re-injected into the Mesa Verde zone for disposal purposes.

There is currently one earthen pond that remains unlined on the Templeton #1E. It is found on the west side of this location where the treated water is pumped to be re-introduced into the groundwater. The dimensions of this earthen pit are approximately 20' x 50'. This pit is currently fenced and bermed around its perimeter.

At the completion of the soil remediation phase of this project, groundwater monitoring wells will be installed to allow for sampling and monitoring of the groundwater. The monitor wells will be placed in a down gradient direction in such a way that treatment (if required) will flush waters across the zone of contamination. The monitor wells will be installed in accordance with the diagram (Figure 2.) attached.

IX. Proposed Modifications

Not Applicable

X. Inspection, Maintenance and Reporting

The produced water tanks (100 bbl) will be inspected daily by the pumper, these are steel tanks with double bottoms and have leak detection built in. Periodically the pumper will inspect the double bottom access to determine if the initial tank bottom is adequate. If the double bottom tank is determined to have a leak that allows the produced water to escape into the subsurface, the NMOCD will be notified within twenty-four (24) hours.

Design of Sampling -

Currently, water sampling is conducted using grab methods and samples have been taken from the open excavation after it has had time to recharge. Grab samples are placed in 40 ml VOA Vials with HCL preservative added. Samples are given a unique number, entered on a Chain-of-custody record, placed in a cooler at 4°C and transferred to the analytical laboratory for analysis. Water samples are being tested for Benzene, Toluene, Ethylbenzene and Total Xylenes (BTEX) using EPA Method 602.

The air stripper treats water at an approximate rate of 45 gallons per minute. This volume was measured on the discharge side of the air stripper on 9/13/94.

At the close of the excavation process, monitoring wells will be installed similar to the drawing (Figure 2) attached. If additional groundwater cleanup is required following the soil remediation and air stripping of the trench water, the air stripper unit will be utilized for this treatment. Monitoring wells will be used as extraction wells and the treated water will then be returned to the upgradient pond to recharge the groundwater. The monitoring wells will be placed in such a manner that the contaminated zone will be flushed as the groundwater remediation progresses.

During air stripping with extraction wells, the discharge water will be sampled every two weeks to ensure proper stripping is taking place. Results of this sampling will be presented to NMOCD in letter reports on a monthly basis.

Following acceptable cleanup of the groundwater, the monitoring wells will be sampled quarterly to confirm cleanup. If monitoring after groundwater cleanup reveals no return of contaminants for a period of two quarterly sampling periods, the wells will be grouted and closed. All sampling will cease from that point on.

Contingency Plan For Leaks And Spills -

Air stripper equipment (i.e. fan, pump) will be operated from the same temporary fuel source. This will be a 55 gallon steel drum that is mounted in such a way to gravity feed the pump and fan. This fuel tank will have secondary containment that consists of a fiberglass spill pan placed directly under it to catch unplanned discharge.

Any leaks found during the daily visit such as suction or discharge lines to the water pump will immediately be repaired. Any leaks that are substantial (above 5 gallons per day) may cause the air stripping to cease until necessary repairs have been completed. The pumper and /or maintenance crew members will carry replacement hosing and PVC repair equipment to remedy leaks found. Leaks on the discharge side of the air stripper will be treated as ordinary groundwater in accordance with the last laboratory data collected from the discharge.

Soil Description -

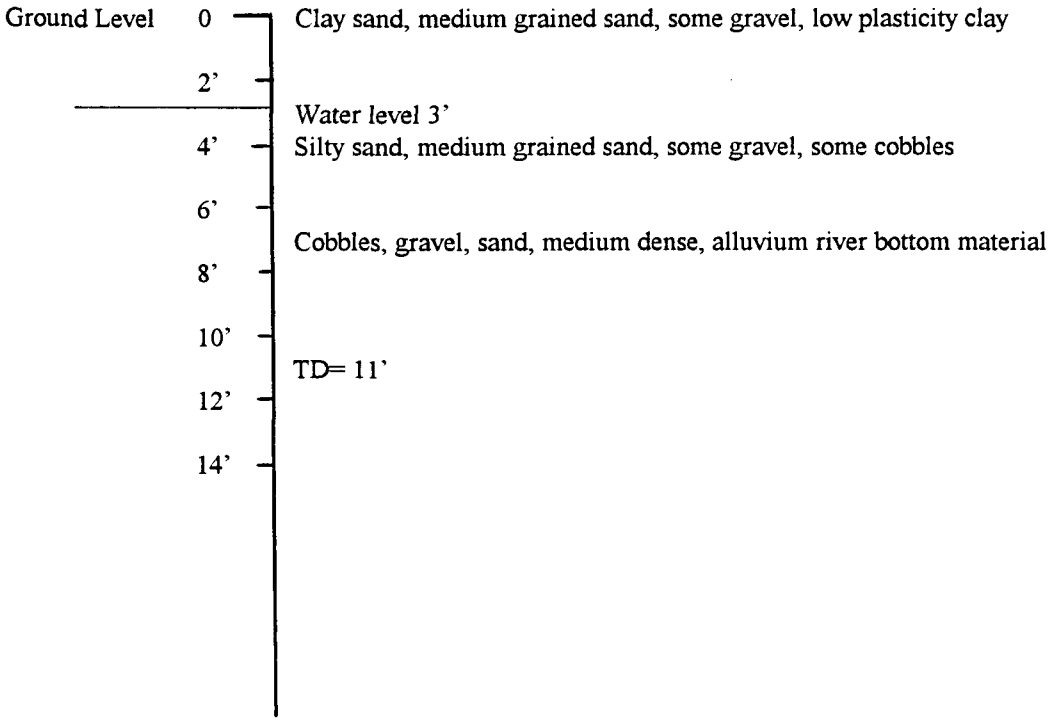


Figure 1.

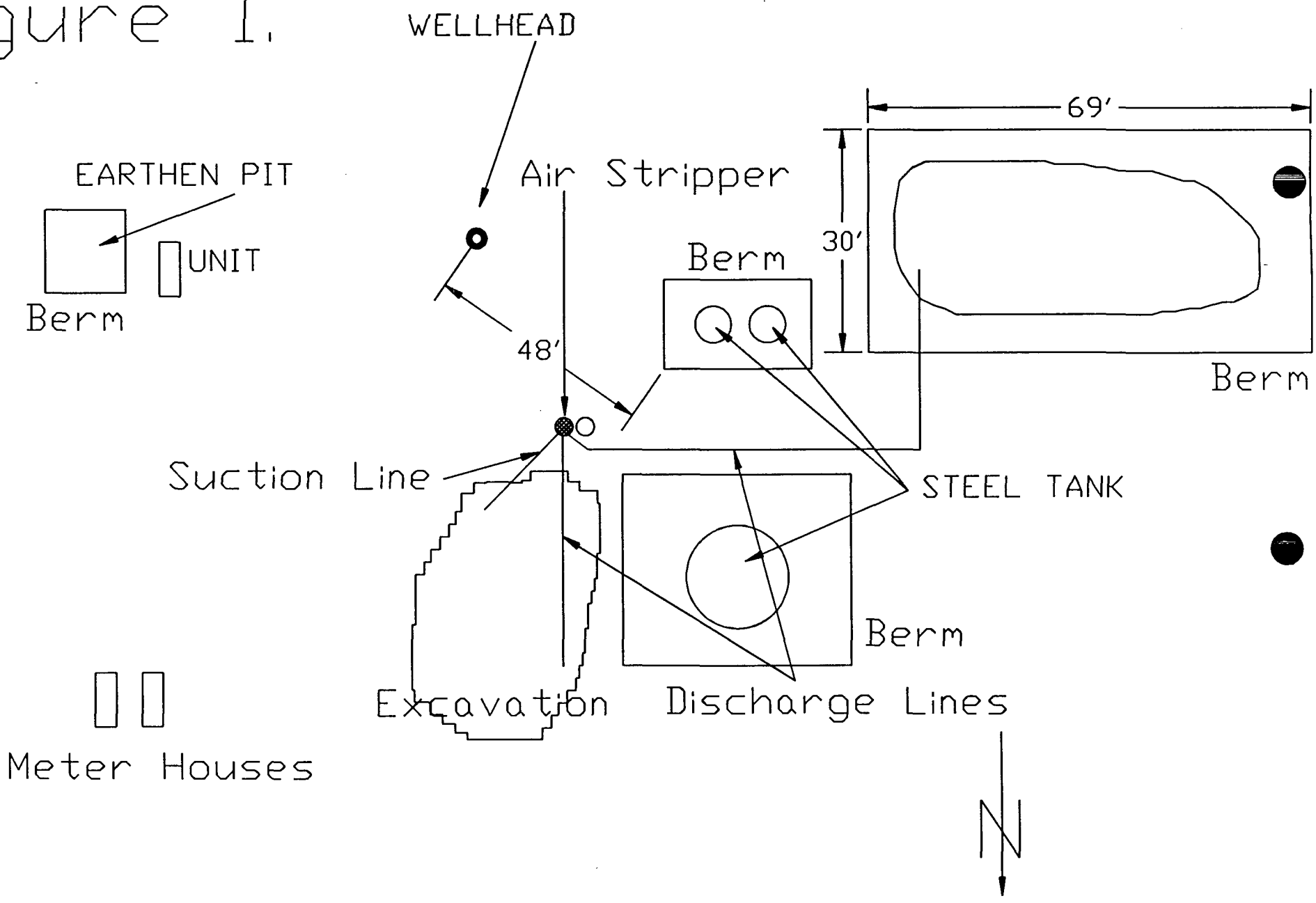
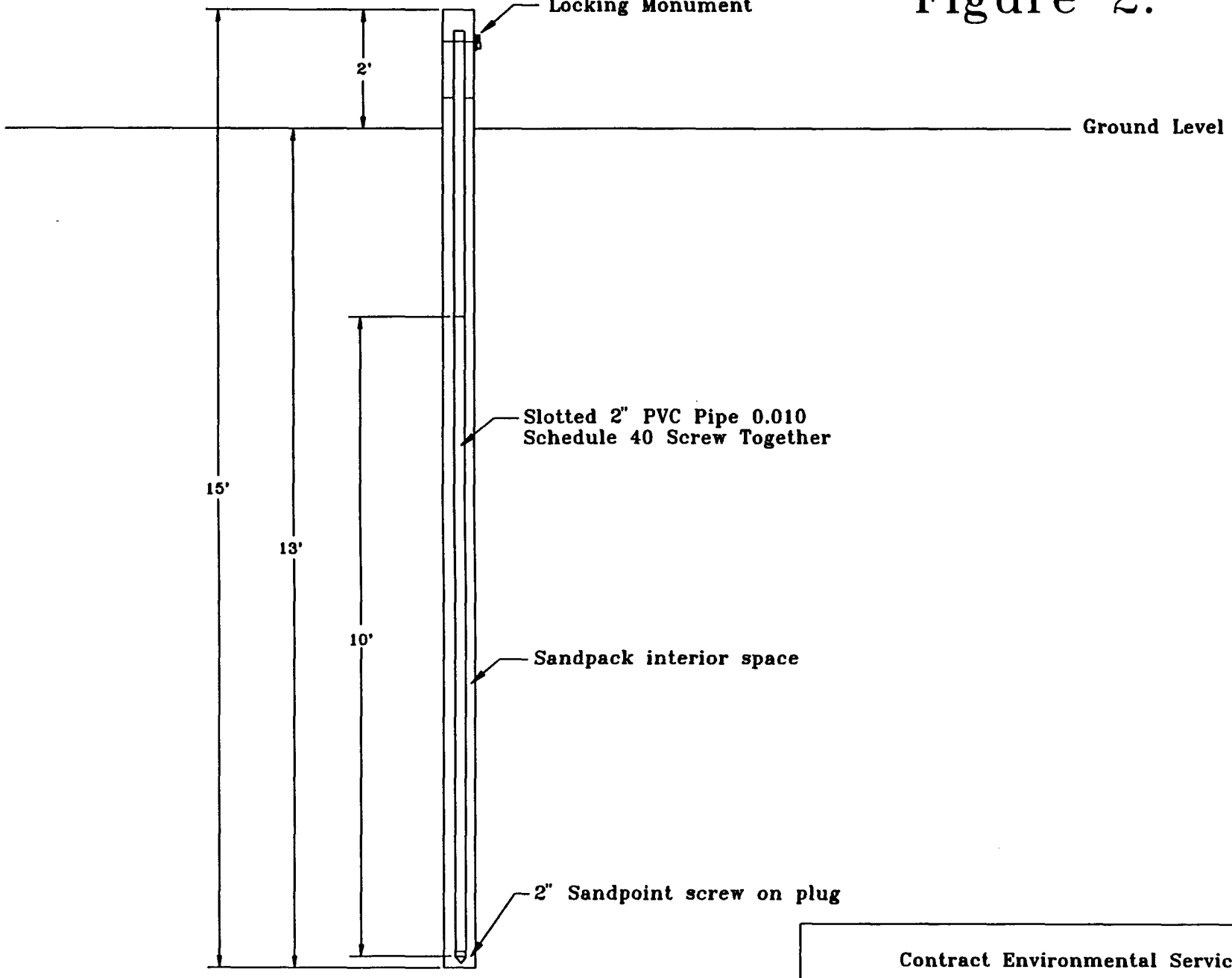

WELLHEAD
69'
EARTHEN PIT
Air Stripper
UNIT
30'
Berm
Berm
48'
Berm
Suction Line
STEEL TANK
Berm
Excavation
Discharge Lines
Meter Houses
N

Figure 2.



Contract Environmental Services, Inc.
Monitor Wellbore Diagram
Dr. By: Shawn A. Adams — Scale: Full
Date: 9/9/94

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

DRUG FREE

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

May 23, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-114

Mr. Chester L. Deal
Superintendent
Snyder Oil Corporation
P.O. Box 2038
Farmington, New Mexico 87499

RE: TEMPORARY DISCHARGE AUTHORIZATION FOR GROUND WATER REMEDIATION
TEMPLETON #1E WELL SITE
SNYDER OIL CORPORATION

Dear Mr. Deal:

The New Mexico Oil Conservation Division (OCD) has completed a review of Snyder Oil Corporation's (SOC) May 20, 1994 request for authorization to temporarily discharge air stripper effluent into a trench system at SOC's Templeton #1E located in the NW 1/4, NE 1/4 of Section 27, T31N, R13W NMPM San Juan County, New Mexico. The air stripper effluent results from the treatment of contaminated ground water related to prior disposal practices at the Templeton #1E well site. SOC requests this temporary discharge authority for a period of 120 days. Ground water in the vicinity is at a depth of approximately 3 feet and has a total dissolved solids of approximately 2500 mg/l.

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulation 3-106.B. you are hearby authorized to discharge without an approved discharge plan until September 21, 1994 with the following conditions:

1. The initial air stripper effluent sampling will also include an analysis for concentrations of polynuclear aromatic hydrocarbons.

2. SOC will submit the results of the initial sampling of the air stripper effluent to OCD upon receipt from the laboratory.

3. After the initial water quality sampling event, SOC will analyze the air stripper effluent on a monthly basis for benzene, toluene, ethylbenzene and xylene.

4. SOC will meter the inlet line to the air stripper such that the volume of ground water treated can be monitored.

5. On first day of each month, SOC will provide OCD with a report containing the analytical results of the air stripper effluent quality monitoring and the volume treated.

6. If SOC plans to continue operation of the air stripper after September 21, 1994, SOC will submit a WQCC discharge plan application to the OCD for approval.

Please be advised that OCD authorization does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters or the environment which may be actionable under other laws and/or regulations. In addition, this authorization does not relieve you of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact William Olson of my staff at (505)827-5885.

Sincerely,

William J. LeMay
Director

xc: OCD Aztec Office
Shawn A. Adams, Buchanan Consultants, Ltd.

Inter-Mountain Laboratories, Inc.

BEFORE AIR STRIPPING

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil

Project ID:	Templeton IE	Report Date:	04/22/94
Sample ID:	SOC 00A1	Date Sampled:	04/12/94
Lab ID:	0394G00284	Date Received:	04/13/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	04/19/94

Target Analyte	Concentration (ppb)	Detection Limit (ppm)
Benzene	9,670	2.0
Toluene	34,800	2.0
Ethylbenzene	4,310	2.0
m,p-Xylenes	58,600	2.0
o-Xylene	22,600	2.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	97.5	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

BEFORE AIR STRIPPING

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil

Project ID:	Templeton IE	Report Date:	04/22/94
Sample ID:	SOC 00B1	Date Sampled:	04/12/94
Lab ID:	0394G00285	Date Received:	04/13/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	04/19/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	41	20.0
Toluene	ND	20.0
Ethylbenzene	77	20.0
m,p-Xylenes	237	20.0
o-Xylene	ND	20.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	98.5	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

Inter·Mountain Laboratories, Inc.

BEFORE AIR STRIPPING

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil

Project ID:	Templeton IE	Report Date:	04/22/94
Sample ID:	SOC 00C1	Date Sampled:	04/12/94
Lab ID:	0394G00286	Date Received:	04/13/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	04/19/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,460	200.0
Toluene	5,080	200.0
Ethylbenzene	1,270	200.0
m,p-Xylenes	12,000	200.0
o-Xylene	5,650	200.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Bromofluorobenzene	101.4	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh

Review

WESTERN ATLAS

AIR STRIPPER DISCHARGE

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0005
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Anion Sum	73.45	1	meq/l		06/27/94	RIF
Cation/Anion Balance	1.97				06/27/94	RIF
Cation Sum	74.91	1	meq/l		06/27/94	RIF
Arsenic, Total (As)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Barium, Total (Ba)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Cadmium, Total (Cd)	<0.005	0.005	mg/L	6010 (2)	06/07/94	GAG
Calcium, Total (Ca)	400	1	mg/L	6010 (2)	06/07/94	GAG
Chromium, Total (Cr)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Lead, Total (Pb)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Mercury, Total (Hg)	<0.0002	0.0002	mg/L	7470 (2)	06/17/94	LMT
Magnesium, Total (Mg)	292	1	mg/L	6010 (2)	06/07/94	GAG
Potassium, Total (K)	6.7	0.1	mg/L	6010 (2)	06/07/94	GAG
Selenium, Total (Se)	<0.1	0.1	mg/L	6010 (2)	06/07/94	GAG
Silver, Total (Ag)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Sodium, Total (Na)	707	10	mg/L	6010 (2)	06/07/94	GAG
8020 - AROMATIC VOLATILE ORGANICS		*1		8020 (2)	06/03/94	JHT
Benzene	1.1	0.5	ug/L			
Toluene	10	0.5	ug/L			
Ethyl benzene	1.5	0.5	ug/L			
Xylenes	28	0.5	ug/L			
4-Bromofluorobenzene (surrogate)	101	0	% Recovery	Limit (85-115)		
Time Analyzed	1602	0				
Naphthalene	ND	5	ug/l	8270 (2)		

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

AIR STRIPPER DISCHARGE

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

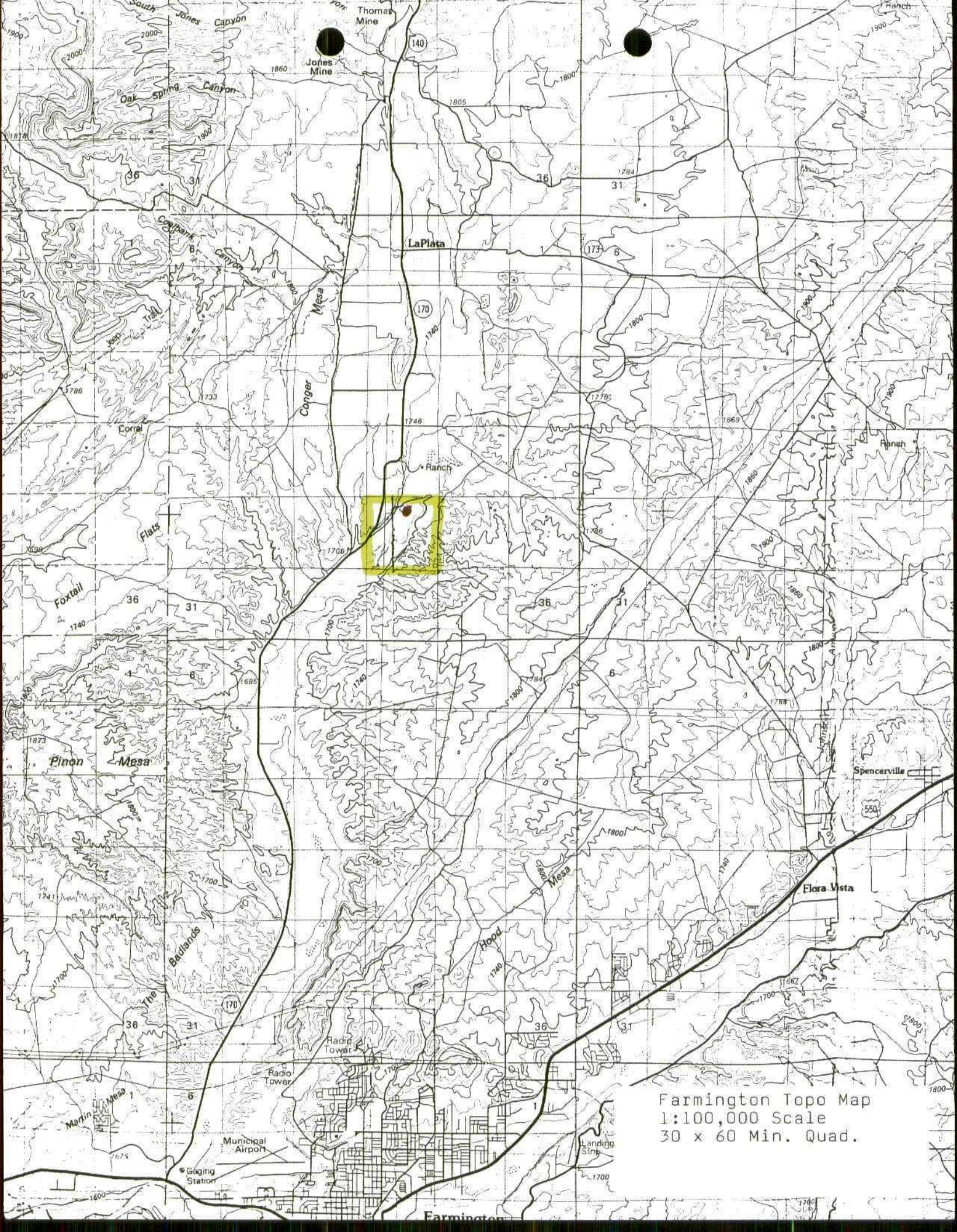
JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

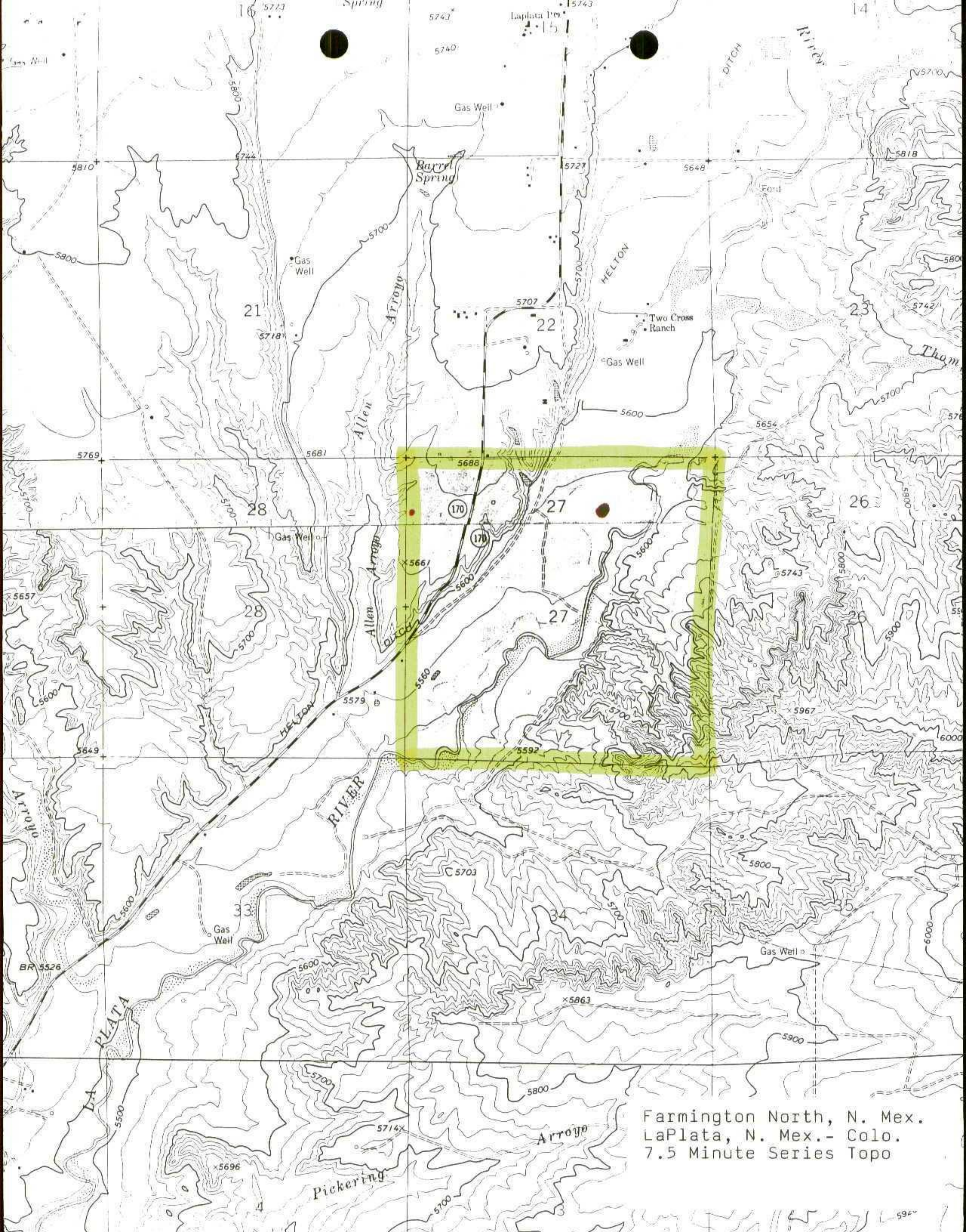
CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0004
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Bicarbonate (Unfilt.)	284	5	mg/L	403 (3)	06/14/94	KDS
Carbonate (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
Chloride (Unfilt.)	328	1	mg/L	325.2 (1)	06/21/94	DME
Hydroxide (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
pH (Unfilt.)	6.50	0.01	pH Units	150.1 (1)	06/14/94	KDS
Sulfate (Unfilt.)	2860	200	mg/L	375.2 (1)	06/20/94	DME

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780


Thomas Mine
Jones Mine
South Jones Canyon
Oak Spring Canyon
LaPlata
Cottonwood Canyon
Mesa
Jeep Trail
Conger
Corral
Ranch
Flats
Foxtail
Pinon Mesa
Spencerville
Flora Vista
Hood Mesa
The Badlands
Radio Tower
Radio Tower
Martin Mesa
Municipal Airport
Gaging Station
Landing Strip
Farmington
Farmington Topo Map
1:100,000 Scale
30 x 60 Min. Quad.



Farmington North, N. Mex.
LaPlata, N. Mex.- Colo.
7.5 Minute Series Topo

Contract Environmental Services, Inc.
Post Office Box 505
Kirtland, New Mexico 87417-0505
Phone (505) 325-1198

August 25, 1994

Energy Minerals & Natural Resources Dept.
Mr. William C. Olson
Oil Conservation Division
P.O. Box 2088
Santa Fe, New Mexico 87504

Dear Mr. Olson:

The following is a response to the conditions of your Temporary Discharge Authorization, dated May 23, 1994 concerning the Templeton #1E well location of Snyder Oil Corporation.

Question 1 — Enclosed please find the analytical laboratory analyses performed on the discharge water from the air stripper, note that as discussed, it includes the analysis for Naphthalene in substitute for Polynuclear Aromatic Hydrocarbons (PAH) as we discussed.

Question 2 — See enclosed package

Question 3 — The air stripper unit has been used on an occasional schedule and has not operated for a term equal to one month. We estimate 9 days of operation for a total of 72 hours with a treatment of 3240 gallons based on 45 gallons per minute.

Question 4 — Due to the gravity flow discharge line, an in-line flow meter will not be installed to measure the gallons of flow through the unit. This meter could cause back pressure on the discharge line forcing the unit to fill with water.

Question 5 — Snyder Oil Corporation will provide a monthly report showing the number of gallons treated and any analytical laboratory results. This letter will serve as the initial report with an additional report presented on or before the first day of the month, beginning in October.

Question 6 — Due to the extended length of time required for the groundwater remediation project, Snyder Oil Corporation plans to obtain a permanent discharge permit for the Templeton #1E wellsite.

If you have any questions please call me at (505) 325-1198.

Sincerely,

Shawn A. Adams
Contract Environmental Services, Inc.

№ 1/1

CHAIN OF CUSTODY RECORD

941372

JOB NO.	PROJECT NAME
SOC-006	REMEDIATION OF TEMPLETON #1E

SAMPLER (SIGNATURE): Laura Adams

	SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	SAMPLE METHOD: VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	WATER SAMPLE	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
1	SOC-700	5/31/94	1:51P		X	TEST PIT 4-6' DEEP	1 6oz		X					CONTAMINATED SOIL PRIOR TO REMEDIATION	
2	CS-702	5/31/94	2:15P		X	SOIL FARM CLEARANCE	1 6oz		X					COMPOSITED 3 LOCATIONS 6" DEEP	
3	CS-703	5/31/94	2:15P		X	" " "	1 6oz		X					COMPOSITED 3 LOCATIONS 6" DEEP	
4	SOC-704	5/31/94	2:28P		X	STRIPPER DISCHARGE	1 6oz						X	HCL PRESERVATIVE EXCAVATION #1 (EXTRA	
	SOC-704	6/1/94	12:15A		X	" "	500 ML						X	NO PRESERVATIVE	
	SOC-704	6/1/94	12:15A		X	" "	500 mL						X	HNO_3 PRESERVATIVE	
5	SOC-704	6/1/94	12:15A		X	" "	40 mL VOA								
	SOC-704	6/1/94	12:15A		X	" "	40 mL VOA								
	SOC-704	6/1/94	12:15A		X	" "	40 mL VOA								

6 month.

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
Laura Adams	6-1-94	8:30A					
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS	
						SEE ATTACHMENT FOR LAB ANALYSIS REQUIREMENTS !	
				SHIPPING TEMP. (°F) MIN.	MAX.		

White–Testing Laboratory; Yellow–Department Job File; Pink–Field Sampler

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0004
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Bicarbonate (Unfilt.)	284	5	mg/L	403 (3)	06/14/94	KDS
Carbonate (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
Chloride (Unfilt.)	328	1	mg/L	325.2 (1)	06/21/94	DME
Hydroxide (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
pH (Unfilt.)	6.50	0.01	pH Units	150.1 (1)	06/14/94	KDS
Sulfate (Unfilt.)	2860	200	mg/L	375.2 (1)	06/20/94	DME

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/28/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0005
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
Anion Sum	73.45	1	meq/l		06/27/94	RIF
Cation/Anion Balance	1.97				06/27/94	RIF
Cation Sum	74.91	1	meq/l		06/27/94	RIF
Arsenic, Total (As)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Barium, Total (Ba)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Cadmium, Total (Cd)	<0.005	0.005	mg/L	6010 (2)	06/07/94	GAG
Calcium, Total (Ca)	400	1	mg/L	6010 (2)	06/07/94	GAG
Chromium, Total (Cr)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Lead, Total (Pb)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Mercury, Total (Hg)	<0.0002	0.0002	mg/L	7470 (2)	06/17/94	LMT
Magnesium, Total (Mg)	292	1	mg/L	6010 (2)	06/07/94	GAG
Potassium, Total (K)	6.7	0.1	mg/L	6010 (2)	06/07/94	GAG
Selenium, Total (Se)	<0.1	0.1	mg/L	6010 (2)	06/07/94	GAG
Silver, Total (Ag)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Sodium, Total (Na)	707	10	mg/L	6010 (2)	06/07/94	GAG
8020 - AROMATIC VOLATILE ORGANICS		*1		8020 (2)	06/03/94	JHT
Benzene	1.1	0.5	ug/L			
Toluene	10	0.5	ug/L			
Ethyl benzene	1.5	0.5	ug/L			
Xylenes	28	0.5	ug/L			
4-Bromofluorobenzene (surrogate)	101	0	% Recovery	Limit (85-115)		
Time Analyzed	1602	0				
Naphthalene	ND	5	ug/l	8270 (2)		

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

IMPORTANT MES AGE

FOR Bill Olson

DATE 8-30-94 TIME _____ A.M. P.M.

M Shawn Adams

OF Contract Environmental Services, Inc.

PHONE (505) 325-1198
AREA CODE NUMBER EXTENSION

☐ FAX

☐ MOBILE _____
AREA CODE NUMBER TIME TO CALL

TELEPHONED		PLEASE CALL	
CAME TO SEE YOU		WILL CALL AGAIN	
WANTS TO SEE YOU		RUSH	
RETURNED YOUR CALL		SPECIAL ATTENTION	

MESSAGE

Water sample before running through air stripper after three days of exposure to sun/wind

SIGNED

TOPS FORM 3002S
LITHO IN U.S.A.

BUCHANON

CHAIN OF CUSTODY RECORD

№

JOB NO.: SOC-002
PROJECT NAME: Pit Investigation and Remediation
SAMPLER (SIGNATURE): S Adams

	SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
1	DUK-002	6/23/94	12:00A		X	center of Yo'mes' Pit	4oz		X				WATCH EXPIRATION DATE !!	
2	CHAY-001	6/28/94	9:00A		X	center of pit bottom	4oz		X					
	TEMP-050	6/28/94	11:45A		X	center of water pond	40mL					X	HCL PRESERVATIVE	
	TEMP-050	6/28/94	11:45A		X	center of water pond	40mL					X	" "	
	TEMP-050	6/28/94	11:45A		X	center of water pond	40mL					X	" "	
	TEMP-050	6/28/94	11:45A		X	center of water pond	40mL					X	" "	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
[signature]	6/28/94	9:09A	J. Feigitsch	6/28/94 10:45			
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME

SHIPPING TEMP. (°F): MIN. / MAX.

REMARKS: STANDARD TURNAROUND TIME
TPH analysis by EPA 418.1 on soil
WATER - BTEX analysis by EPA method 602/8020
FAX RESULTS

White—Testing Laboratory; Yellow—Department Job File; Pink—Field Sampler

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
07/13/94

JOB NUMBER: 941608 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: SOC-002
DATE SAMPLED.....: 06/28/94
TIME SAMPLED.....: 11:45
WORK DESCRIPTION...: TEMP-050

LABORATORY I.D...: 941608-0003
DATE RECEIVED....: 06/29/94
TIME RECEIVED....: 10:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECHN
8020 - AROMATIC VOLATILE ORGANICS		*10		8020 (2)	07/13/94	JHT
Benzene	10	5	ug/L			
Toluene	200	5	ug/L			
Ethyl benzene	ND	5	ug/L			
Xylenes	1100	5	ug/L			
4-Bromofluorobenzene (surrogate)	102	0	% Recovery	85-115% Limit		
Time Analyzed	0959	0				

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

BUCHANAN CONSULTANTS, Ltd. ©
ENVIRONMENTAL CONSULTING
Est. 1972

June 20, 1994

Mr. Bill Olsen
New Mexico Oil Conservation Division
Post Office Box 2088
Santa Fe, New Mexico 87504-2088

Dear Mr. Olsen:

As discussed in our telephone conversation of June 15, 1994 Snyder Oil Corporation would like to make formal notification to the New Mexico Oil Conservation Division (NMOCD) to transfer water from the excavation on the Templeton 1E Sec27 T31N R13W and take it to other earthen pits where bio products have been added. This water will provide necessary moisture for the microbial activity to continue. The water has been treated through the air stripper on location and returned to the excavation.

We anticipate treating several pits in the area with this water source to include: the Government Arnstein 1 Sec18 T31N R12W, the Jacques 1 Sec2 T31N R13W, the Duke 1M Sec13 T31N R13W. Our crews will begin delivering on Friday, June 17, 1994. Periodically, as the pits dry out, additional water may be added to maintain current moisture levels. I am also attaching current laboratory analyses of the discharged water from the air stripper for your review. If you have questions or comments, please don't hesitate to contact us at (505) 632-8056.

Sincerely,

Shawn Adams for Snyder Oil Corp.

Chester L. Deal
Superintendent
Snyder Oil Corporation

Verbally approved by Denny Foust OCD Aztec on 6/16/94

cc: Mr. Denny Foust, Aztec NMOCD Office

Mr. Don Ellsworth, BLM Farmington Office

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/21/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN M. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 05/31/94
TIME SAMPLED.....: 14:28
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0004
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/*DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
Bicarbonate (Unfilt.)	284	5	mg/L	403 (3)	06/14/94	KDS
Carbonate (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
Chloride (Unfilt.)	328	1	mg/L	325.2 (1)	06/21/94	DME
Hydroxide (Unfilt.)	<1	1	mg/L	403 (3)	06/14/94	KDS
pH (Unfilt.)	6.50	0.01	pH Units	150.1 (1)	06/14/94	KDS
Sulfate (Unfilt.)	2900	200	mg/L	375.2 (1)	06/20/94	DME

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

WESTERN ATLAS

Core Laboratories

LABORATORY TESTS RESULTS
06/21/94

JOB NUMBER: 941372 CUSTOMER: BUCHANAN CONSULTANTS, LTD. ATTN: SHAWN A. ADAMS

CLIENT I.D.....: REMEDIATION OF TEMPLETON #1E
DATE SAMPLED.....: 06/01/94
TIME SAMPLED.....: 12:15
WORK DESCRIPTION...: SOC-704

LABORATORY I.D...: 941372-0005
DATE RECEIVED....: 06/02/94
TIME RECEIVED....: 09:45
REMARKS.....:

TEST DESCRIPTION	FINAL RESULT	LIMITS/DILUTION	UNITS OF MEASURE	TEST METHOD	DATE	TECH
Arsenic, Total (As)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Barium, Total (Ba)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Cadmium, Total (Cd)	<0.005	0.005	mg/L	6010 (2)	06/07/94	GAG
Calcium, Total (Ca)	400	1	mg/L	6010 (2)	06/07/94	GAG
Chromium, Total (Cr)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Lead, Total (Pb)	<0.05	0.05	mg/L	6010 (2)	06/07/94	GAG
Mercury, Total (Hg)	<0.0002	0.0002	mg/L	7470 (2)	06/17/94	LNT
Magnesium, Total (Mg)	292	1	mg/L	6010 (2)	06/07/94	GAG
Potassium, Total (K)	6.7	0.1	mg/L	6010 (2)	06/07/94	GAG
Selenium, Total (Se)	<0.1	0.1	mg/L	6010 (2)	06/07/94	GAG
Silver, Total (Ag)	<0.01	0.01	mg/L	6010 (2)	06/07/94	GAG
Sodium, Total (Na)	707	10	mg/L	6010 (2)	06/07/94	GAG
8020 - AROMATIC VOLATILE ORGANICS		*1		8020 (2)	06/03/94	JHT
Benzene	1.1	0.5	ug/L			
Toluene	10	0.5	ug/L			
Ethyl benzene	1.5	0.5	ug/L			
Xylenes	28	0.5	ug/L			
4-Bromofluorobenzene (surrogate)	20.2	0	% Recovery	Limit (85-115)		
Time Analyzed	1602	0				
Naphthalene	ND	5	ug/L	8270 (2)		

10703 East Bethany Drive
Aurora, CO 80014
(303) 751-1780

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

May 23, 1994

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-114

Mr. Chester L. Deal
Superintendent
Snyder Oil Corporation
P.O. Box 2038
Farmington, New Mexico 87499

RE: TEMPORARY DISCHARGE AUTHORIZATION FOR GROUND WATER REMEDIATION
TEMPLETON #1E WELL SITE
SNYDER OIL CORPORATION

Dear Mr. Deal:

The New Mexico Oil Conservation Division (OCD) has completed a review of Snyder Oil Corporation's (SOC) May 20, 1994 request for authorization to temporarily discharge air stripper effluent into a trench system at SOC's Templeton #1E located in the NW 1/4, NE 1/4 of Section 27, T31N, R13W NMPM San Juan County, New Mexico. The air stripper effluent results from the treatment of contaminated ground water related to prior disposal practices at the Templeton #1E well site. SOC requests this temporary discharge authority for a period of 120 days. Ground water in the vicinity is at a depth of approximately 3 feet and has a total dissolved solids of approximately 2500 mg/l.

Pursuant to New Mexico Water Quality Control Commission (WQCC) Regulation 3-106.B. you are hearby authorized to discharge without an approved discharge plan until September 21, 1994 with the following conditions:

1. The initial air stripper effluent sampling will also include an analysis for concentrations of polynuclear aromatic hydrocarbons.

2. SOC will submit the results of the initial sampling of the air stripper effluent to OCD upon receipt from the laboratory.

3. After the initial water quality sampling event, SOC will analyze the air stripper effluent on a monthly basis for benzene, toluene, ethylbenzene and xylene.

4. SOC will meter the inlet line to the air stripper such that the volume of ground water treated can be monitored.

5. On first day of each month, SOC will provide OCD with a report containing the analytical results of the air stripper effluent quality monitoring and the volume treated.

6. If SOC plans to continue operation of the air stripper after September 21, 1994, SOC will submit a WQCC discharge plan application to the OCD for approval.

Please be advised that OCD authorization does not relieve you of liability should your operation result in actual pollution of surface waters, ground waters or the environment which may be actionable under other laws and/or regulations. In addition, this authorization does not relieve you of responsibility for compliance with any other federal, state or local laws and/or regulations.

If you have any questions please, contact William Olson of my staff at (505)827-5885.

Sincerely,

William J. LeMay
Director

xc: OCD Aztec Office
Shawn A. Adams, Buchanan Consultants, Ltd.

May 20, 1994

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

CORRECTED

Dear Mr. Foust,

Snyder Oil Corporation (SOCO) is pleased to present the following Soil And Groundwater Remediation Plan for the Templeton #1E, Sec 27, T31N, R13W, footages 890'FNL 1820' FEL. An investigation performed by Envirotech, Inc. last year indicated that soil Total Petroleum Hydrocarbons (TPH) level was found to be 160 PPM at three feet below ground surface and water Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) at this same depth indicated 35.5 PPB, 27.1 PPB, 36.8 PPB, and 135.5 PPB respectively. This data was collected from their T1 test pit located within the large earthen pit currently on location. The approximate location of the T1 test pit is indicated by the large black dot on the site plan.

A more recent investigation performed by Buchanan Consultants, Ltd. revealed the following information:

Photo-ionization Detector Data

Test Pit #1		Test Pit #2		Test Pit #3	
Depth	PPM	Depth	PPM	Depth	PPM
2'	499	2'	328	2'	411
4'	623	4'	437	4'	515
6'	482	6'	406	6'	448
8'	493	8'	481	8'	508

Water BTEX Data

Test Pit #1		Test Pit #1 (Repeat)	
Benzene	1530 PPB	Benzene	1100 PPB
Toluene	1920 PPB	Toluene	870 PPB
Ethylbenzene	3650 PPB	Ethylbenzene	1070 PPB
Total Xylenes	42600 PPB	Total Xylenes	11510 PPB

Test Pit #2		Test Pit #3	
Benzene	705 PPB	Benzene	48 PPB
Toluene	89 PPB	Toluene	1670 PPB
Ethylbenzene	887 PPB	Ethylbenzene	713 PPB
Total Xylenes	8630 PPB	Total Xylenes	6810 PPB

This investigation was performed in accordance with the site map attached and addressed a slightly different area of the location as compared to the previous survey.

Plan For Remediation

Snyder Oil Corporation plans to address the soil remediation issue and treat the contamination by soil farming on location. Trenches will be excavated approximately ten feet wide across the location with the removed soils being distributed evenly to an approximate thickness of 6" to 12". The soils will be periodically disced or tilled to accelerate the volatilization of hydrocarbons present. Definition of the soil contamination plume will be accomplished as the excavation progresses. Monitoring of the soils using a Photo-Ionization Detector (PID) will be performed periodically. Once the soil has remediated to the point of indicating less than 100 PPM on the meter, a composite soil sample will be taken from the soil farm to have a TPH analysis performed. Once laboratory analysis indicates acceptable contamination concentrations in accordance with NMOCD Guidelines, the soil will be backfilled into the trench.

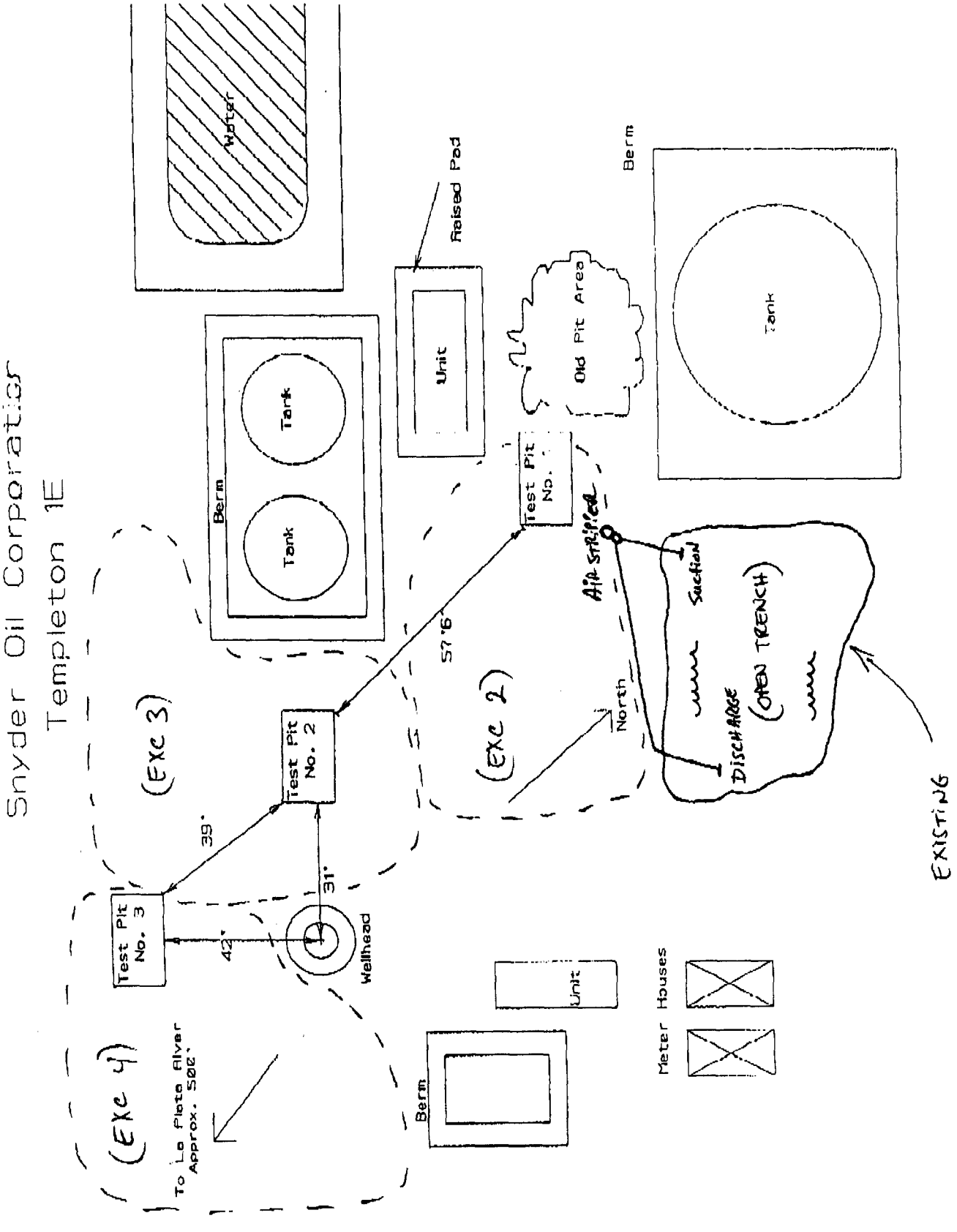
In areas where there is surface equipment present such as tanks, seperators, dehydrators, wellheads, meterhouses, etc... that prevents excavation at a reasonable cost, we plan to use a bio product to remediate the soils contaminated that underlye these equipment. This product (BC-109) will be mixed on location and then injected into the underlying soils using a water pressure washer.

Groundwater that fills the trenches will be circulated through an air stripper. We have attached literature from the air stripper and a Material Safety Data Sheet (MSDS) on a possible bioremediation product and common fertilizer. If products or equipment vary from those mentioned in this plan, similar information will be provided prior to their use in the field. If bioremediation and\or fertilizer is selected, a trash pump will be used to circulate the water within the trench to complete mixing and to add oxygen. As the excavation continues and other trenches are opened, the trench water will be treated in the same manner for each excavation.

At the completion of the soil remediation, monitoring wells will be installed to determine the remaining contamination present in the water. If necessary, the water will be extracted from the monitoring wells and continually processed through an air stripper to achieve remediation. All waters treated will be replaced into the subsurface to assist in the soil washing process. Extraction and replacement will be setup in a manner that flushes through the zone of contamination as determined by plume definition. Once the contamination levels are reduced to acceptable standards, the groundwater remediation will cease. Monitoring of the water will continue for a designated period following remediation.

Temporary fencing will be installed around each trench to keep livestock out and to prevent the danger of people falling into the trench itself. If the area excavated is too large to fence, the banks will be properly sloped in accordance with OSHA standards.

Proper documentation of all activities will be presented to the NMOCD for review as the project proceeds.


Snyder Oil Corporation
Templeton 1E
Water
Raised Pad
Unit
Old Pit Area
Berm
Tank
Tank
Berm
Test Pit No. 1
Test Pit No. 2
Test Pit No. 3
(Exc 3)
(Exc 2)
(Exc 4)
39'
31'
42'
57'6"
Wellhead
Air Stripped
Suction
Discharge
(Open Trench)
North
Existing
Unit
Berm
To La Plata River Approx. 500'
Meter Houses

May 20, 1994

New Mexico Oil Conservation Division
Mr. Bill Olsen
310 Old Santa Fe Trail
Room 215
Santa Fe, New Mexico 87501

Dear Mr. Olsen,

Snyder Oil Corporation would like to request that we be allowed to withdraw water from several excavation trenches , filter it through an air stripper and then discharge (without a permit) the cleaned water from the air stripper into the opposite sides of each trench. This would circulate and clean the water within the trench until it is sufficiently remediated. Each excavation will be open for a period of approximately 30-45 days while the soils are being remediated using landfarm techniques.

We understand that this temporary permit to discharge would be valid for a period of 120 days. We are expecting to operate the air stripper on 3-5 day schedules every other week. Each open trench will be treated with the same process as we move across the location throughout the remediation.

The water would be properly analyzed prior to and following the treatment through the air stripper. Initially, the water would be tested in accordance with Water Quality Control Commission regulations to include pH, BTEX, Metals, Major Cations, and Major Anions. Following this initial testing, the water would be analyzed for BTEX only.

We plan to initiate treatment of the water on Monday the 23rd or Tuesday the 24th of May. If you have questions or comments, please don't hesitate to contact us at (505) 632-8056 or stop by our offices at 5802 U.S. Highway 64, Farmington.

Sincerely,

Shawn Adams for Snyder Oil Corp.

Chester L. Deal
Superintendent
Snyder Oil Corporation

STATE OF NEW MEXICO

ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT

OIL CONSERVATION DIVISION

BRUCE KING
GOVERNOR

ANITA LOCKWOOD
CABINET SECRETARY

May 18, 1994

POST OFFICE BOX 2088
STATE LAND OFFICE BUILDING
SANTA FE, NEW MEXICO 87504
(505) 827-5800

CERTIFIED MAIL
RETURN RECEIPT NO. P-111-334-108

Mr. Chester L. Deal
Superintendent
Snyder Oil Corporation
P.O. Box 2038
Farmington, New Mexico 87499

RE: GROUND WATER CONTAMINATION REMEDIATION PLAN
TEMPLETON #1E WELL SITE
SNYDER OIL CORPORATION

Dear Mr. Deal:

The New Mexico Oil Conservation Division (OCD) is in the process of reviewing Snyder Oil Corporation's April 8, 1994 Templeton #1E well site ground water remediation plan which was received by the OCD Santa Fe Office on May 16, 1994. This document contains Snyder Oil's proposed work plan to remediate ground water contamination related to unlined production pit disposal practices at Snyder Oil's Templeton #1E well site.

The ground water remedial concepts presented in this document are acceptable. However, the OCD has the following comments, questions and requests for information regarding the above referenced document:

1. The work plan proposes to treat contaminated ground water in excavated trenches by one of three different methods. Please clarify exactly which method is to be used and how it will be implemented.

2. One of the proposed remedial actions includes the addition of fertilizers to ground water to promote bioremediation. If this option is to be used, please provide the OCD with the composition of the fertilizers.

3. Please provide the OCD with the construction specifics and locations of the monitor wells which are proposed to be installed upon completion of the soil remedial work.

4. Please provide the OCD with a plan for sampling and monitoring ground water quality from the proposed monitor wells.

5. Please be aware that New Mexico Water Quality Control Commission (WQCC) regulations require that any discharge directly or indirectly into ground water of an effluent or water contaminant which exceeds the WQCC ground water standards be permitted under the discharge plan provisions of Part 3 of the WQCC regulations. This includes ground water discharges related to remedial actions.

Submission of the above information will allow the OCD to complete a review of this ground water remediation plan. If you have any questions, please contact me at (505) 827-5885.

Sincerely,

William C. Olson
Hydrogeologist
Environmental Bureau

xc: OCD Aztec Office
Shawn A. Adams, Buchanan Consultants, Ltd.

April 8, 1994

New Mexico Oil Conservation Division
Mr. Denny Foust
1000 Rio Brazos Rd.
Aztec, New Mexico 87410

Dear Mr. Foust,

Snyder Oil Corporation (SOCO) is pleased to present the following Soil And Groundwater Remediation Plan for the Templeton #1E, Sec 27, T31N, R13W, footages 890'FNL 1820' FEL. An investigation performed by Envirotech, Inc. last year indicated that soil Total Petroleum Hydrocarbons (TPH) level was found to be 160 PPM at three feet below ground surface and water Benzene, Toluene, Ethylbenzene, and Total Xylenes (BTEX) at this same depth indicated 35.5 PPB, 27.1 PPB, 36.8 PPB, and 135.5 PPB respectively. This data was collected from their T1 test pit located within the large earthen pit currently on location. The approximate location of the T1 test pit is indicated by the large black dot on the site plan.

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Water BTEX Data

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Total Xylenes	42600 PPB	Total Xylenes	11510 PPB

Test Pit #2		**Test Pit #3**	
Benzene	705 PPB	Benzene	48 PPB
Toluene	89 PPB	Toluene	1670 PPB
Ethylbenzene	887 PPB	Ethylbenzene	713 PPB
Total Xylenes	8630 PPB	Total Xylenes	6810 PPB

This investigation was performed in accordance with the site map attached and addressed a slightly different area of the location as compared to the previous survey.

Plan For Remediation

Snyder Oil Corporation plans to address the soil remediation issue and treat the contamination by soil farming on location. Trenches will be excavated approximately ten feet wide across the location with the removed soils being distributed evenly to an approximate thickness of 6" to 12". The soils will be periodically disced or tilled to accelerate the volatilization of hydrocarbons present. Definition of the soil contamination plume will be accomplished as the excavation progresses. Monitoring of the soils using a Photo-Ionization Detector (PID) will be performed periodically. Once the soil has remediated to the point of indicating less than 100 PPM on the meter, a composite soil sample will be taken from the soil farm to have a TPH analysis performed. Once laboratory analysis indicates acceptable contamination concentrations in accordance with NMOCD Guidelines, the soil will be backfilled into the trench.

Groundwater that fills the trenches will be treated with either a bioremediation product and/or fertilizer or circulated through an air stripper. We have attached literature from the air stripper and a Material Safety Data Sheet (MSDS) on a possible bioremediation product and fertilizer. If products or equipment vary from those mentioned in this plan, similar information will be provided prior to their use in the field. If bioremediation and\or fertilizer is selected, a trash pump will be used to circulate the water within the trench to complete mixing and to add oxygen. As the excavation continues and other trenches are opened, the trench water will be treated in the same manner for each excavation.

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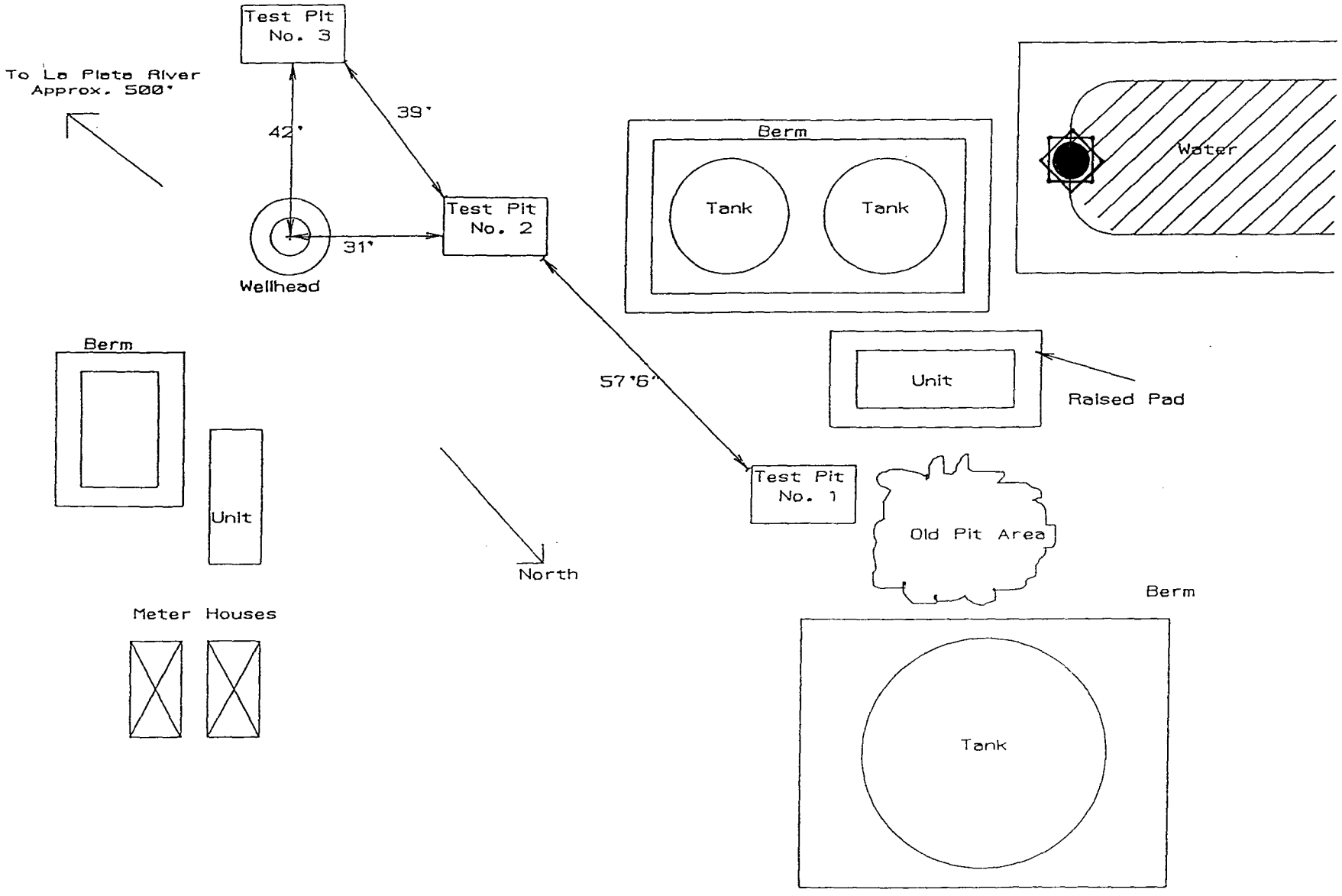
Temporary fencing will be installed around each trench to keep livestock out and to prevent the danger of people falling into the trench itself. If the area excavated is too large to fence, the banks will be properly sloped in accordance with OSHA standards.

Proper documentation of all activities will be presented to the NMOCD for review as the project proceeds.

Snyder Oil Corporation
Templeton 1E



Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-001 A	Date Sampled:	03/15/94
Lab ID:	4938	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,530	1.0
Toluene	1,920	1.0
Ethylbenzene	3,650	1.0
m,p-Xylenes	25,900	1.0
o-Xylene	16,700	1.0

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	116.0	88 -110%
Bromofluorobenzene	130.2	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments: *Surrogate recoveries outside of limits, concentrations estimated.

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-001 C	Date Sampled:	03/15/94
Lab ID:	4939	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	1,100	0.2
Toluene	870	0.2
Ethylbenzene	1,070	0.2
m,p-Xylenes	6,640	0.2
o-Xylene	4,870	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8*	117.2	88 -110%
Bromofluorobenzene	102.2	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments: *Toluene-d8 surrogate recovery high due to background interferences.

Analyst

Review

Inter-Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-002 A	Date Sampled:	03/15/94
Lab ID:	4940	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	705	0.2
Toluene	88.7	0.2
Ethylbenzene	887	0.2
m,p-Xylenes	6,640	0.2
o-Xylene	1,990	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	104.8	88 -110%
Bromofluorobenzene	101.7	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

Inter·Mountain Laboratories, Inc.

2506 W. Main Street
Farmington, New Mexico 87401

VOLATILE AROMATIC HYDROCARBONS

Snyder Oil Corporation

Project ID:	Water Investigation	Report Date:	03/28/94
Sample ID:	SOCO-003 A	Date Sampled:	03/15/94
Lab ID:	4941	Date Received:	03/16/94
Sample Matrix:	Water	Date Extracted:	NA
Condition:	Cool/Intact	Date Analyzed:	03/22/94

Target Analyte	Concentration (ppb)	Detection Limit (ppb)
Benzene	48.2	0.2
Toluene	1,670	0.2
Ethylbenzene	713	0.2
m,p-Xylenes	4,960	0.2
o-Xylene	1,850	0.2

ND - Analyte not detected at the stated detection limit.

Quality Control:

Surrogate	Percent Recovery	Acceptance Limits
Toluene-d8	105.0	88 -110%
Bromofluorobenzene	102.6	86 -115%

Reference: Method 5030, Purge and Trap; Method 8020, Aromatic Volatile Organics; Test Methods for Evaluating Solid Wastes, SW-846, United States Environmental Protection Agency, September 1986.

Comments:

Analyst

mh
Review

BUCHANAN CONSULTANTS, LTD. № 1/1

CHAIN OF CUSTODY RECORD

JOB NO. SOCO - 003

PROJECT NAME: Water Investigation

SAMPLER (SIGNATURE): [signature]

SAMPLE IDENTIFICATION	DATE	TIME	COMP.	GRAB	SAMPLE LOCATION	NUMBER OF CONTAINERS	VACSAM	SOIL SCOOP	SOIL AUGER	SPLIT-SPOON	BAILER	VOA VIAL	REMARKS (PHYSICAL APPEARANCE, etc.)	LABORATORY IDENTIFICATION
SOCO-001 A	3/15/94	10:30A		X	Templeton #1E	1					X	X	COMPOSITE A+B ONLY TP-1	
-001 B	3/15	10:30		X	" "	1					X	X	HCL PRES TP-1	
-001 C	3/15	10:30		X	" "	1					X	X	COMPOSITE C+D ONLY TP-1X	
-001 D	3/15	10:30		X	" "	1					X	X	HCL PRES TP-1X	
-002 A	3/15	10:53		X	" "	1					X	X	COMPOSITE A+B ONLY TP-2	
-002 B	3/15	10:53		X	" "	1					X	X	HCL PRES TP-2	
-003 A	3/15	11:45		X	" "	1					X	X	COMPOSITE A+B TP-3	
-003 B	3/15	11:45		X	" "	1					X	X	HCL PRES TP-3	
-004 A	3/15	2:20		X	LANDAUER #1	1					X	X	COMPOSITE A+B TP-1	
-004 B	3/15	2:20		X	" "	1					X	X	HCL PRES TP-1	
-005 A	3/15	2:32		X	" "	1					X	X	COMPOSITE A+B TP-2	
-005 B	3/15	2:32		X	" "	1					X	X	HCL PRES TP-2	

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)
[signature]	3/16/94	2:33P					
RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)	RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED BY (SIGNATURE)

RELINQUISHED BY (SIGNATURE)	DATE	TIME	RECEIVED FOR LABORATORY BY (SIGNATURE)	DATE	TIME	REMARKS
						BTEX water analysis on ALL SAMPLES, STANDARD TAT

SHIPPING TEMP. (°F) MIN. MAX.

4938 - 4943

May be used to comply with OSHA's Hazard Communication Standard 24 cfr 1910.1200.

In accordance with U.S. Department of Labor, OSHA form 174

SPILBUGS
MATERIAL SAFETY DATA SHEET

Grasso Environmental, Inc.

Product Code: BC-103 Detox

CAS NO: N/A

NFPA HAZARD RATING
- 4 - Extreme
- 3 - High
- 2 - Moderate
- 1 - Slight
- 0 - Insignificant

Flammability 0

Health 0

0 Reactivity

N/A Special

HAZARDOUS MATERIALS IDENTIFICATION SYSTEM

HMIS HAZARD INDEX
- 4 - Severe
- 3 - Serious
- 2 - Moderate
- 1 - Slight
- 0 - Minimal

HMIS RATINGS

Health 0
Flammability. 0
Reactivity. 0
Personal Protection. . . . . .E*
*See last page for Code Table

DIVISION AND LOCATION --- SECTION I

Division:	Grasso Environmental, Inc.
Location:	Houston, Texas
Emergency Telephone Number:	713/735-6900
Transportation Emergency:	1/800/394-4835

HAZARDOUS INGREDIENTS / IDENTITY INFORMATION --- SECTION II

Hazardous Components (Specific chemical identity; Common Names):	Biological Entity - Enzymes

PHYSICAL / CHEMICAL CHARACTERISTICS --- SECTION III

Boiling Point:	Not Applicable
Vapor Pressure (mm Hg):	Not Applicable
Vapor Density (air = 1):	Not Applicable
Solubility in Water (by weight %):	Dispersable
Appearance and Odor:	Tan free-floating powder with yeast-like odor
Specific Gravity (H_2O = 1):	0.6
Melting Point:	Not Applicable
Evaporation Rate (Butyl Acetate = 1):	Not Applicable

FIRE AND EXPLOSION DATA --- SECTION IV

Flash Point:	None
Flammable Limits:	Not Applicable
Extinguishing Media:	Foam, CO_2, Dry chemical, wat r
Special Fire Fighting Procedures:	None
Unusual Fire and Explosion Hazards:	None

REACTIVITY DATA --- SECTION V

Stability:	Stable
Incompatibility:	None apparent
Hazardous Decomposition, or Byproducts:	None known
Hazardous Polymerization:	Will not Occur

HEALTH HAZARDOUS DATA / IDENTITY INFORMATION --- SECTION VI

Routes of Entry:	Inhalation? yes Skin? no Ingestion? yes
Health Hazards (Acute and Chronic):	Not Applicable
Carcinogenicity:	None Known
Signs and Symptoms of Exposure:	Not Applicable
Medical Conditions Generally Aggravated by Exposure:	None, observe 24-48 huors for development of allergic symptoms.
Emergency and First Aid Procedures:	INHALATION: Move subject to fresh air. INGESTION: Drink large quantities of water Contact physician if intestinal upset persists. EYE CONTACT: Flush thoroughly with water for 15 minutes.

PRECAUTIONS FOR SAFE HANDLING AND USE --- SECTION VII

Steps to be taken in case material is released or spilled:	Sweep up spill, keeping dust to a minimum.
Waste Disposal Method:	May be added directly to waste treatment system or flushed down drain with water.

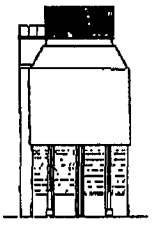
PRECAUTIONS FOR SAFE HANDLING AND USE --- SECTION VII

Precautions to be taken in handling and storage:	Store in dry place with adequate ventilation at ambient temperature. Maintain good housekeeping. Avoid creating dust. DO NOT INGEST!!
Other Precautions:	None Known

CONTROL MEASURES --- SECTION VIII

Respiratory Protection (specify type):	NIOSH approved particulate dust mask
Ventilation:	Local exhaust if dusty conditions prevail
Protective Gloves:	Cotton, canvas, or rubber
Eye Protection:	Safety glasses
Other Protective Clothing or Equipment:	Eye wash facility
Work/Hygienic practices:	Exposed employees should excercise reasonable personal cleanliness! This means cleaning exposed skin area several times daily with soap and water and laudering soiled clothing.

Prepared by:	GRASSO ENVIRONMENTAL, INC.
Date:	February 7, 1992



Delta Cooling Towers, Inc.
134 Clinton Road
P. O. Box 952
Fairfield, New Jersey 07004-2970
Telephone 201/227-0300
Fax 201/227-0458

Delta Cooling Towers

July 1992

TECHNICAL SPECIFICATIONS
DELTA VANGUARD AIR STRIPPERS (FORCED DRAFT TYPE)

Delta Air Strippers are designed to remove volatile organic chemicals and certain other substances from water.

A blower, ducted into the sump plenum provides air at a slight positive pressure and forces it to flow upward against the downward trickling water. This is a countercurrent forced draft design.

As the air passes over the water, spread over the packing surface as a thin film, the molecules of contaminant cross the air/water interface and enter the air stream. The air then exits the column either to atmosphere or to some means of vapor phase remediation process.

Delta **VANGUARD®** Air Strippers possess known, predetermined stripping performance and operational characteristics based upon field test data obtained from independent sources.

Stripper shell. The shell material is a hand lay-up FRP isophthalic polyester resin of sufficient thickness to withstand the specified operating conditions, as well as external loads imposed from earthquake Zone 4 and 120 mile/hour wind loading. Guy wiring is standard; free-standing design is available as an option. The shells are designed using the ASME/ANSI RTP-1-1989 Rev. 1991 Standards as a guide.

Treated water collection sump is integral with lower part of the shell, forming a one piece, seamless component. The sump is provided with outlet and other required connections, and incorporates a blower duct for air supply to the stripper. Access and inspection port is provided in the sump plenum.

Connections (outlet, inlet and others) are constructed of FRP and are fully gasketed with neoprene gaskets. 3" and larger connection sizes are flanged (150# flanges), smaller than 3" size connections are NPTF. All flanges up to and including 4"are gussetted.

Water distribution system is constructed of Type 1 PVC. Uniform water distribution is effected (on ΔS5 Series Air Strippers and smaller) by a single full cone, non-clog PVC spray nozzle which provides uniform water loading to the entire packing surface. The typical nozzle flow turn - down ratio is 2/1. For flows up to 350 GPM the nozzle is threaded into the inlet header with an NPTM thread and can be readily removed and replaced. Nozzles for flows greater than 350 GPM are 6" 150# flange connections.

Packing. **Delta-Pak®**, used in all standard stripper models, is a high performance structured packing constructed of Type 1 PVC material protected against UV degradation.

Applicable data below is for air - water atmospheric system:

Surface area:	90 sq. ft./cu.ft.
Void space:	Higher than 98%
Open cross-section:	Higher than 98%
Maximum air flow before flooding, at 20 gpm/sq.ft.:	750scfm/sq.ft. or higher
Static pressure loss at 20 gpm/sq.ft. and 500 scfm/ sq.ft. air flow:	0.10 in. W.C./ft. or lower
Orientation of corrugation:	Vertical ("see - through")
Nominal corrugation size:	Approx. 3/4 in.
"Channelling" characteristics:	No channeling occurs. Packing construction prevents any radial transfer of mass, due to its spirally wound configuration. Transfer in tangential direction is negligible. No redistribution devices are required.
"Clogging" and "fouling" characteristics:	The absence of any horizontally orientated surfaces reduces accumulation of precipitates and deposition of suspended solids. Most solids including precipitates pass freely through packing along vertical corrugations.

Standard packing layer heights: 12.6 in. and 6.3 in.

Mist eliminator is Delta AB mist eliminator, constructed of Type 1 PVC material, compounded with carbon black for UV resistance. The eliminator is designed to minimize drift loss to lower than 0.02% of the water flow.

Depth: 12 in.
Type: Crimped plate, impingement type

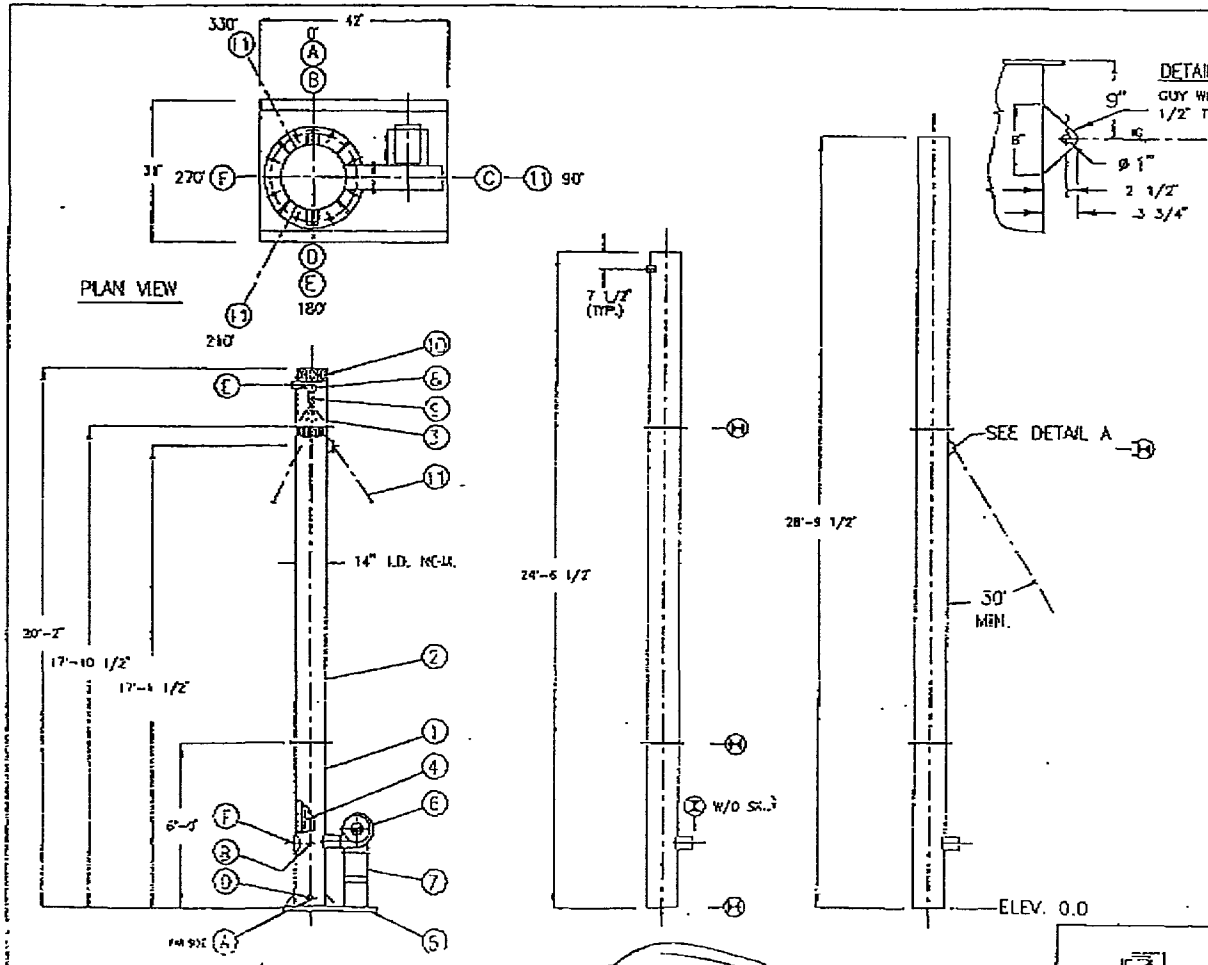
Blower ΔS1 and ΔS1.5 use a cast aluminium/bronze radial bladed wheel. The unit is arrangement 4 and is directly driven by a 3450 RPM motor. ΔS2 uses a backwardly inclined centrifugal blower wheel. The unit is arrangement 10 and is belt driven by a 3450 RPM TEFC motor. ΔS3 through ΔS5 uses an airfoil blade design for most efficient and quiet operation. The unit is arrangement 10 and is belt driven with an 1800 RPM TEFC motor.

Skid used with skid-mounted strippers (an option) is a welded steel frame with 10 ga. plate decking, coated with black air dried phenolic paint.

Fasteners and other hardware: Type 304 SS

Standard features:

- Motors are TEFC design with a minimum 1.15 SF.
- Provided with a motor/drive weather enclosure or guard (ΔS5)
- Belt drive units are provided with vibration isolation and blower to duct neoprene bellows.
- Designed based upon tests made in accordance with ASHRAE Standard 51 and AMCA Standard 210-74, and are licensed to carry the AMCA SEAL.
- Factory dynamically balanced and checked against the acceptable levels on the Rathbone Chart.
- Standard coating is an industrial baked enamel. Other coatings are available and provided based upon AMCA Recommended Practice NO. 2601-66



INFORMATION CONTAINED HEREIN IS SUBJECT TO CHANGE WITHOUT NOTICE IN THE INTEREST OF PRODUCT IMPROVEMENT.

DATE	SYM	REVISION	AUTH

NOZZLE SCHEDULE					
MARK	QTY	SIZE	ELEV.	SERVICE	REMARKS
A	1	1"	3"	DRAIN / LLC	NPTF. W/PLUG
B	1	1"	28"	SPARE / LLC	NPTF. W/PLUG
C	1	5 1/2 X 5 1/2	29"	BLOWER DUCT	
D	1	2"	4"	OUTLET	NPTF
E	1	2"	SEE DWG.	INLET	NPTF
F	1	5 1/2"	28"	INSPECTION PORT	

GUY WIRES REQUIRED FOR TOWERS WITH LADDER/CAGE ASSEMBLY.
⊗ DENOTES FIELD JOINT BY OTHERS.

ITEM	QTY	DESCRIPTION	MATERIAL	REMARKS
13				
12				
11	1 SET	GUY WIRE ASSY (3 WIRES)	GALV. OR S.S.	OPTIONAL
10	1	MIST ELIMINATOR	PVC	DELTA AB
9	1	SPRAY NOZZLE	PVC	FULL CONE
8	1	INLET ASSEMBLY	PVC	
7	1	BLOWER STAND	STEEL	
6	1	BLOWER / MOTOR ASSY	STEEL	DIRECT DRIVE
5	1	MOUNTING PLATFORM	STEEL	OPTIONAL
4	1 SET	DELTA-PAK	PVC	
3	1	UPPER SHELL	F.R.P.	
2	1	MIDDLE SHELL	F.R.P.	
1	1	LOWER SHELL	F.R.P.	

BILL OF MATERIALS

MODEL NO.	S1-145	S1-190	S1-235
NOMINAL HT. OF PACKING	14'-6"	19'-0"	23'-6"
BLOWER MOTOR H.P. (STD)	1 1/2 H.P.	1 1/2 H.P.	1 1/2 H.P.
TOTAL DRY WEIGHT	265 LBS.	295 LBS.	325 LBS.
OPERATING WEIGHT(APPROX)	400 LBS.	450 LBS.	510 LBS.
STANDARD WATER FLOW	2 GPM MINIMUM TO 30 GPM MAXIMUM		
HI FLOW OPTION	NOT AVAILABLE		

ADD 90 LBS. FOR MOUNTING PLATFORM

VANGUARD®

DELTA COOLING TOWERS, INC.
114 CLINTON RD. FAIRFIELD, NJ. 07004
PH (201) 227-0300 FAX-(201) 227-0458

TITLE VANGUARD® AIR STRIPPERS
ΔS1-SERIES

DWN BY W.A. Patterson
APPVD BY

SCALE NTS
DATE 1-30-92

DWG NO. DT-B-10-901

Air Emmission Calculations
For Air Stripper

Formula: Gallons Per Minute (Total BTEX) (5×10^{-7}) = lbs/hour

	GPM	BTEX	$5x10^{-7}$	Lbs/Hr	Lbs/Day
Test Pit 1	4	49,700	$5x10^{-7}$	0.0994	2.386
Test Pit 2	4	14,550	$5x10^{-7}$	0.0291	0.698
Test Pit 3	4	9,241	$5x10^{-7}$	0.0185	0.444
Test Pit 4	4	10,311	$5x10^{-7}$	0.0206	0.495
Test Pit A	4	129,980	$5x10^{-7}$	0.2599	6.239
Test Pit B	4	355	$5x10^{-7}$	0.00071	0.017
Test Pit C	4	25,460	$5x10^{-7}$	0.0509	1.222
				0.0684	1.643

** Note: These calculations are presented for operation of the air stripper based on continuous twenty-four hour operation. Snyder Oil Corporation plans to operate the air stripper on occasion and for less than twenty-four hours at a time.

** NOTE: CALCULATIONS FOR EMMISSIONS STATED ABOVE CLEARLY FALL WITHIN GUIDELINES OF 10 TONS/YEAR STATED IN TITLE III HAZARDOUS AIR POLLUTANTS ATTACHED.

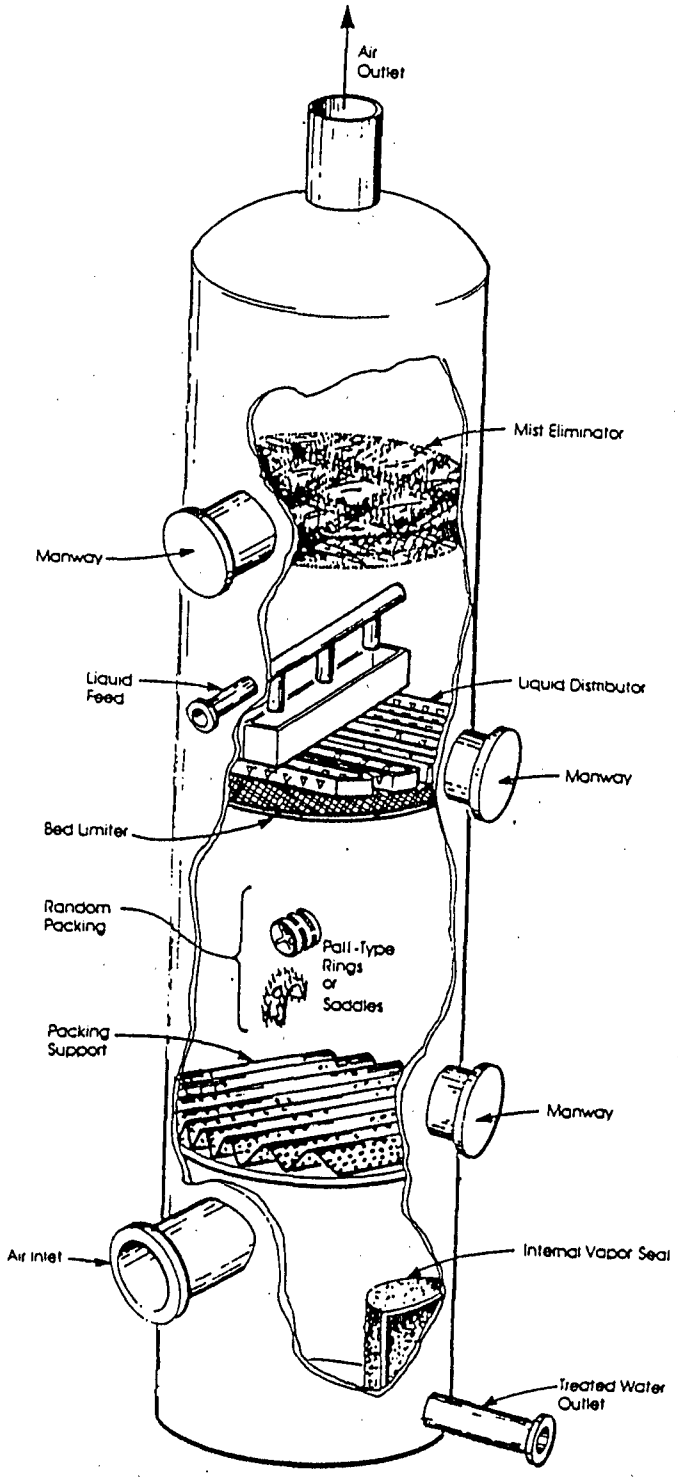


Figure 2
Packed Tower Internals

TITLE III-HAZARDOUS AIR POLLUTANTS

Section 112 of the Clean Air Act is amended to read as follows:

"SEC. 112. HAZARDOUS AIR POLLUTANTS.

"(a) DEFINITIONS.-For purposes of this section, except subsection (r)-

"(1) MAJOR SOURCE.-The term 'major source' means any stationary source or group of stationary sources located within a contiguous area and under common control that emits or has the potential to emit considering controls, in the aggregate, 10 tons per year or more of any hazardous air pollutant or 25 tons per year or more of any combination of hazardous air pollutants. The Administrator may establish a lesser quantity, or in the case of radionuclides different criteria, for a major source than that specified in the previous sentence, on the basis of the potency of the air pollutant, persistence, potential for bioaccumulation, other characteristics of the air pollutant, or other relevant factors.

"(2) AREA SOURCE.-The term 'area source' means any stationary source of hazardous air pollutants that is not a major source. For purposes of this section, the term 'area source' shall not include motor vehicles or nonroad vehicles subject to regulation under title II.

"(3) STATIONARY SOURCE.-The term 'stationary source' shall have the same meaning as such term has under section 111(a).

"(4) NEW SOURCE.-The term 'new source' means a stationary source the construction or reconstruction of which is commenced after the Administrator first proposes regulations under this section establishing an emission standard applicable to such source.

"(5) MODIFICATION.-The term 'modification' means any physical change in, or change in the method of operation of, a major source which increases the actual emissions of any hazardous air pollutant emitted by such source by more than a de minimis amount or which results in the emission of any hazardous air pollutant not previously emitted by more than a de minimis amount.

"(6) HAZARDOUS AIR POLLUTANT.-The term 'hazardous air pollutant' means any air pollutant listed pursuant to subsection (b).

"(7) ADVERSE ENVIRONMENTAL EFFECT.-The term 'adverse environmental effect' means any significant and widespread adverse effect, which may reasonably be anticipated, to wildlife, aquatic life, or other natural resources, including adverse impacts on populations of endangered or threatened species or significant degradation of environmental quality over broad areas.

"(8) ELECTRIC UTILITY STEAM GENERATING UNIT.-The term 'electric utility steam generating unit' means any fossil fuel fired combustion unit of more than 25 megawatts that serves a generator that produces electricity for sale. A unit that cogenerates steam and electricity and supplies more than one-third of its potential electric output capacity and more than 25 megawatts electrical output to any utility power distribution system for sale shall be considered an electric utility steam generating unit.

"(9) OWNER OR OPERATOR.-The term 'owner or operator' means any person who owns, leases, operates, controls, or supervises a stationary source.

"(10) EXISTING SOURCE.-The term 'existing source' means any stationary source other than a new source.

"(11) CARCINOGENIC EFFECT.-Unless revised, the term 'carcinogenic effect' shall have the meaning provided by the Administrator under Guidelines for Carcinogenic Risk Assessment as of the date of enactment. Any revisions in the existing Guidelines shall be subject to notice and opportunity for comment.

"(b) LIST OF POLLUTANTS.-

"(1) INITIAL LIST.-The Congress establishes for purposes of this section a list of hazardous air pollutants as follows:

CAS number	Chemical name
75070	Acetaldehyde
60355	Acetamide
75058	Acetonitrile
98862	Acetophenone
53963	2-Acetylaminofluorene
107028	Acrolein
79061	Acrylamide
79107	Acrylic acid
107131	Acrylonitrile
107051	Allyl chloride
92671	4-Aminobiphenyl
62533	Aniline
90040	o-Anisidine
1332214	Asbestos
71432	Benzene (including benzene from gasoline)
92875	Benzidine
98077	Benzotrichloride
100447	Benzyl chloride
92524	Biphenyl
117817	Bis(2-ethylhexyl)phthalate (DEHP)
542881	Bis(chloromethyl)ether
75252	Bromoform
106990	1,3-Butadiene
156627	Calcium cyanamide
105602	Caprolactam
133062	Captan
63252	Carbaryl
75150	Carbon disulfide
56235	Carbon tetrachloride
463581	Carbonyl sulfide
120809	Catechol
133904	Chloramben
57749	Chlordane
7782505	Chlorine

79118	Chloroacetic acid
532274	2-Chloroacetophenone
108907	Chlorobenzene
510156	Chlorobenzilate
67663	Chloroform
107302	Chloromethyl methyl ether
126998	Chloroprene
1319773	Cresols/Cresylic acid (isomers and mixture)
95487	o-Cresol
108394	m-Cresol
106445	p-Cresol
98828	Cumene
94757	2,4-D, salts and esters
3547044	DDE
334883	Diazomethane
132649	Dibenzofurans
96128	1,2-Dibromo-3-chloropropane
84742	Dibutylphthalate
106467	1,4-Dichlorobenzene(p)
91941	3,3-Dichlorobenzidene
111444	Dichloroethyl ether (Bis(2-chloroethyl)ether)
542756	1,3-Dichloropropene
62737	Dichlorvos
111422	Diethanolamine
121697	N,N-Diethyl aniline (N,N-Dimethylaniline)
64675	Diethyl sulfate
119904	3,3-Dimethoxybenzidine
60117	Dimethyl aminoazobenzene
119937	3,3-Dimethyl benzidine
79447	Dimethyl carbamoyl chloride
68122	Dimethyl formamide
57147	1,1-Dimethyl hydrazine
131113	Dimethyl phthalate
77781	Dimethyl sulfate
534521	4,6-Dinitro-o-cresol, and salts
51285	2,4-Dinitrophenol
121142	2,4-Dinitrotoluene
123911	1,4-Dioxane (1,4-Diethyleneoxide)
122667	1,2-Diphenylhydrazine
106898	Epichlorohydrin (1-Chloro-2,3-epoxypropane)
106887	1,2-Epoxybutane
140885	Ethyl acrylate
100414	Ethyl benzene
51796	Ethyl carbamate (Urethane)
75003	Ethyl chloride (Chloroethane)
106934	Ethylene dibromide (Dibromoethane)
107062	Ethylene dichloride (1,2-Dichloroethane)
107211	Ethylene glycol
151564	Ethylene imine (Aziridine)
75218	Ethylene oxide
96457	Ethylene thiourea
75343	Ethylidene dichloride (1,1-Dichloroethane)
50000	Formaldehyde
76448	Heptachlor
118741	Hexachlorobenzene
87683	Hexachlorobutadiene
77474	Hexachlorocyclopentadiene
67721	Hexachloroethane
822060	Hexamethylene-1,6-diisocyanate
680319	Hexamethylphosphoramide
110543	Hexane
302012	Hydrazine
7647010	Hydrochloric acid
7664393	Hydrogen fluoride (Hydrofluoric acid)
7783064	Hydrogen sulfide

123319	Hydroquinone
78591	Isophorone
58899	Lindane (all isomers)
108316	Maleic anhydride
67561	Methanol
72435	Methoxychlor
74839	Methyl bromide (Bromomethane)
74873	Methyl chloride (Chloromethane)
71556	Methyl chloroform (1,1,1-Trichloroethane)
78933	Methyl ethyl ketone (2-Butanone)
60344	Methyl hydrazine
74884	Methyl iodide (Iodomethane)
108101	Methyl isobutyl ketone (Hexone)
624839	Methyl isocyanate
80626	Methyl methacrylate
1634044	Methyl tert butyl ether
101144	4,4-Methylene bis(2-chloroaniline)
75092	Methylene chloride (Dichloromethane)
101688	Methylene diphenyl diisocyanate (MDI)
101779	4,4-Methylenedianiline
91203	Naphthalene
98953	Nitrobenzene
92933	4-Nitrobiphenyl
100027	4-Nitrophenol
79469	2-Nitropropane
684935	N-Nitroso-N-methylurea
62759	N-Nitrosodimethylamine
59892	N-Nitrosomorpholine
56382	Parathion
82688	Pentachloronitrobenzene (Quintobenzene)
87865	Pentachlorophenol
108952	Phenol
106503	p-Phenylenediamine
75445	Phosgene
7803512	Phosphine
7723140	Phosphorus
85449	Phthalic anhydride
1336363	Polychlorinated biphenyls (Aroclors)
1120714	1,3-Propane sultone
57578	beta-Propiolactone
123386	Propionaldehyde
114261	Propoxur (Baygon)
78875	Propylene dichloride (1,2-Dichloropropane)
75569	Propylene oxide
75558	1,2-Propylenimine (2-Methyl aziridine)
91225	Quinoline
106514	Quinone
100425	Styrene
96093	Styrene oxide
1746016	2,3,7,8-Tetrachlorodibenzo-p-dioxin
79345	1,1,2,2-Tetrachloroethane
127184	Tetrachloroethylene (Perchloroethylene)
7550450	Titanium tetrachloride
108883	Toluene
95807	2,4-Toluene diamine
584849	2,4-Toluene diisocyanate
95534	o-Toluidine
8001352	Toxaphene (chlorinated camphene)
120821	1,2,4-Trichlorobenzene
79005	1,1,2-Trichloroethane
79016	Trichloroethylene
95954	2,4,5-Trichlorophenol
88062	2,4,6-Trichlorophenol
121448	Triethylamine
1582098	Trifluralin

540841	2,2,4-Trimethylpentane
108054	Vinyl acetate
593602	Vinyl bromide
75014	Vinyl chloride
75354	Vinylidene chloride (1,1-Dichloroethylene)
1330207	Xylenes (isomers and mixture)
95476	o-Xylenes
108383	m-Xylenes
106423	p-Xylenes
0	Antimony Compounds
0	Arsenic Compounds (inorganic including arsine)
0	Beryllium Compounds
0	Cadmium Compounds
0	Chromium Compounds
0	Cobalt Compounds
0	Coke Oven Emissions
0	Cyanide Compounds *1
0	Glycol ethers *2
0	Lead Compounds
0	Manganese Compounds
0	Mercury Compounds
0	Fine mineral fibers *3
0	Nickel Compounds
0	Polycylic Organic Matter *4
0	Radionuclides (including radon) *5
0	Selenium Compounds

NOTE: For all listings above which contain the word "compounds" and for glycol ethers, the following applies: Unless otherwise specified, these listings are defined as including any unique chemical substance that contains the named chemical (i.e., antimony, arsenic, etc.) as part of that chemical's infrastructure.

*1 X'CN where X = H' or any other group where a formal dissociation may occur. For example KCN or Ca(CN)2

*2 Includes mono- and di- ethers of ethylene glycol, diethylene glycol, and triethylene glycol R-(OCH2CH2)n-OR' where

n = 1, 2, or 3

R = alkyl or aryl groups

R' = R, H, or groups which, when removed, yield glycol ethers with the structure: R-(OCH2CH)n-OH. Polymers are excluded from the glycol category.

*3 Includes mineral fiber emissions from facilities manufacturing or processing glass, rock, or slag fibers (or other mineral derived fibers) of average diameter 1 micrometer or less.

*4 Includes organic compounds with more than one benzene ring, and which have a boiling point greater than or equal to 100-C.

*5 A type of atom which spontaneously undergoes radioactive decay.