

District I
1625 N French Dr , Hobbs, NM 88240
District II
1301 W Grand Avenue, Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy Minerals and Natural Resources

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-144
June 1, 2004

For drilling and production facilities, submit to appropriate NMOCD District Office.
For downstream facilities, submit to Santa Fe office

Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

Type of action: Registration of a pit or below-grade tank ☐ Closure of a pit or below-grade tank ☒

Operator: McElvain Oil & Gas Properties, Inc. Telephone: 303-893-0933 e-mail address: DebbyP@McElvain.com

Address: 1050 17th Street Suite 1800 , Denver, CO 80265

Facility or well name: Badger 14 #1A API #: 30-039-29662 U/L or Qtr/Qtr L Sec 14 T 25N R 2W

County: Rio Arriba Latitude 36.39653 N Longitude -107 02562 W NAD: 1927 ☒ 1983 ☐

Surface Owner: Federal ☐ State ☐ Private ☒ Indian ☐

Pit

Type: Drilling ☒ Production ☐ Disposal ☐

Workover ☐ Emergency ☐

Lined ☒ Unlined ☐

Liner type: Synthetic ☒ Thickness 12 mil Clay ☐

Pit Volume 4400 bbls bbl

Below-grade tank

Volume: bbl Type of fluid:

Construction material:

Double-walled, with leak detection? Yes ☐ If not, explain why not.

Depth to ground water (vertical distance from bottom of pit to seasonal high water elevation of ground water.)

Less than 50 feet

(20 points)

50 feet or more, but less than 100 feet

(10 points)

100 feet or more

(0 points) 0

Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources)

Yes

(20 points)

No

(0 points) 0

Distance to surface water (horizontal distance to all wetlands, playas, irrigation canals, ditches, and perennial and ephemeral watercourses.)

Less than 200 feet

(20 points)

200 feet or more, but less than 1000 feet

(10 points)

1000 feet or more

(0 points) 0

Ranking Score (Total Points)

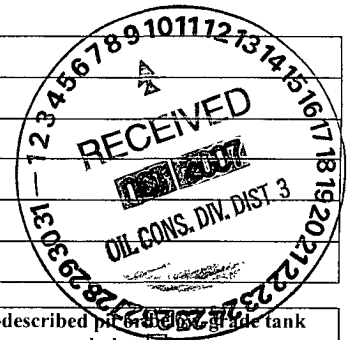
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If this is a pit closure: (1) Attach a diagram of the facility showing the pit's relationship to other equipment and tanks. (2) Indicate disposal location: (check the onsite box if your are burying in place) onsite ☒ offsite ☐ If offsite, name of facility. (3) Attach a general description of remedial action taken including remediation start date and end date (4) Groundwater encountered: No ☒ Yes ☐ If yes, show depth below ground surface ft. and attach sample results. (5) Attach soil sample results and a diagram of sample locations and excavations.

Additional Comments:

The soils tested clean and no soil remediation was required.

The Pit was closed on 9/3/07.



I hereby certify that the information above is true and complete to the best of my knowledge and belief. I further certify that the above-described pit or below-grade tank has been/will be constructed or closed according to NMOCD guidelines ☒, a general permit ☐, or an (attached) alternative OCD-approved plan ☐.

Date 10/04/2007

Printed Name/Title Deborah K Powell

Signature

Your certification and NMOCD approval of this application/closure does not relieve the operator of liability should the contents of the pit or tank contaminate ground water or otherwise endanger public health or the environment. Nor does it relieve the operator of its responsibility for compliance with any other federal, state, or local laws and/or regulations.

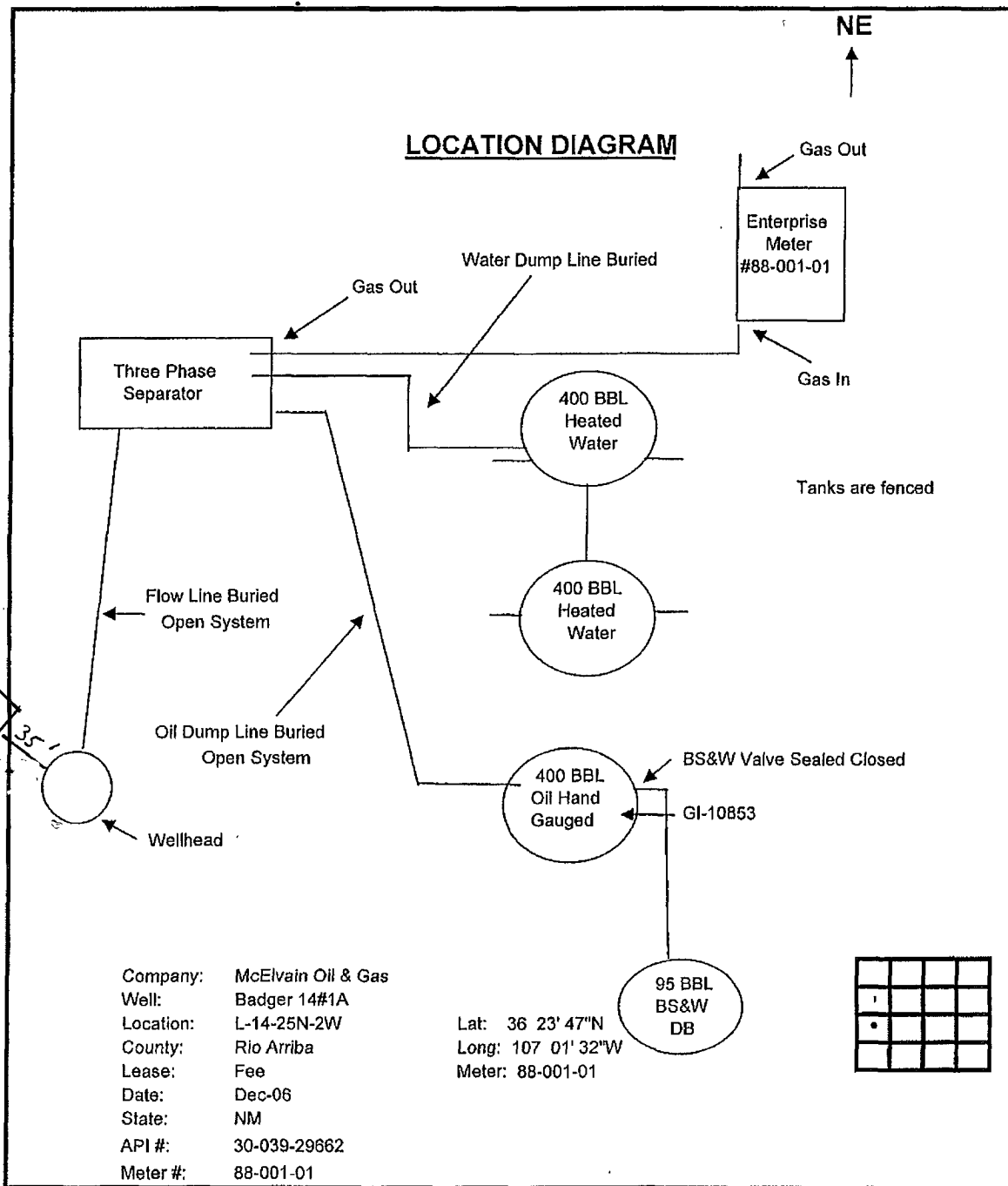
Approval. Deputy Oil & Gas Inspector,

Printed Name/Title District #3

Signature

Date

OCT 17 2007



LOG/CA Form No. 3

ENVIROTECH INC.

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

August 29, 2007

Project No. 06039-005

Mr. Art Merrick
McElvain Oil & Gas
P.O. Box 2596
Farmington, NM 87499

Phone (505) 325-5220
Fax (505) 325-6090

**RE: DRILL PIT SAMPLES TAKEN FROM THE BADGER 14 #1A AND HOWARD 43-15
#1A WELL SITES, RIO ARriba COUNTY, NEW MEXICO**

Dear Mr. Merrick,

Attached please find the results from the drill pit samples taken from the Badger 14 #1A and Howard 43-15 #1A well sites, Rio Arriba County, New Mexico. Samples were analyzed at Envirotech's Laboratory for TPH using USEPA Method 8015, Benzene, Toluene, Ethylbenzene, and Xylene (BTEX) using USEPA Method 8021, and Chlorides. The samples were taken on August 16, 2007.

BADGER 14 #1A

Badger 14 #1A well site was ranked as a 1000 ppm closure for total petroleum hydrocarbon (TPH) as per the NMOCD ranking guidelines. Two (2) composite samples were collected, one (1) from inside the liner of the drill pit and one (1) from the area that the liner had been comprised. In the area where the liner had been comprised the sample was below the regulatory limit for both TPH and BTEX; see *Appendix A, Analytical Results*.

HOWARD 43-15 #1A

Howard 43-15 #1A well site was ranked as a 100 ppm closure for TPH as per the NMOCD ranking guidelines. One (1) composite sample was collected in the area where the drill pit liner had been comprised. In the area where the liner had been comprised the sample was above the regulatory limit for TPH; see *Appendix A, Analytical Results*.

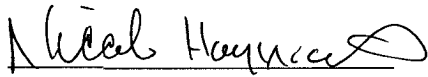
RECOMMENDATIONS

Sampling activities at the Badger 14 #1A and Howard 43-15 #1A well sites have been completed. Envirotech recommends that both drill pits have all liquids removed and the pits be closed in accordance with current NMOCD regulations. At the Howard 43-15 #1A Envirotech recommends that proper release notification (C-141) be made to the NMOCD and closure be completed in accordance with current NMOCD regulations.

We appreciate the opportunity to be of service. If you have any questions please do not hesitate to contact our office at (505) 632-0615.

Sincerely,

ENVIROTECH, INC.

A handwritten signature in black ink, appearing to read "Nicole Hayworth", with a stylized flourish at the end.

Nicole Hayworth

Environmental Scientist

nhayworth@envirotech-inc.com

cc: Client File 06039

Attachment: Appendix A, Analytical Results

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	08-21-BTEX QA/QC	Date Reported:	08-21-07
Laboratory Number:	42766	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	08-21-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff	Blank Conc	Detect Limit
		Accept Range 0 - 15%			
Benzene	1.0667E+008	1.0689E+008	0.2%	ND	0.1
Toluene	8.7915E+007	8.8091E+007	0.2%	ND	0.1
Ethylbenzene	6.6303E+007	6.6436E+007	0.2%	ND	0.1
p,m-Xylene	1.2576E+008	1.2601E+008	0.2%	ND	0.1
o-Xylene	6.0226E+007	6.0347E+007	0.2%	ND	0.1

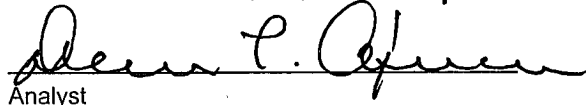
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	3.3	3.3	0.0%	0 - 30%	0.9
Toluene	10.9	10.8	0.9%	0 - 30%	1.0
Ethylbenzene	8.0	8.0	0.0%	0 - 30%	1.0
p,m-Xylene	46.6	46.5	0.2%	0 - 30%	1.2
o-Xylene	6.2	6.2	0.0%	0 - 30%	0.9

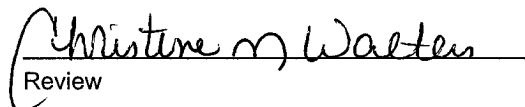
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	3.3	50.0	53.2	99.8%	39 - 150
Toluene	10.9	50.0	60.8	99.8%	46 - 148
Ethylbenzene	8.0	50.0	57.9	99.8%	32 - 160
p,m-Xylene	46.6	100	146	99.9%	46 - 148
o-Xylene	6.2	50.0	56.1	99.8%	46 - 148

ND - Parameter not detected at the stated detection limit.

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.
Method 8021B, Aromatic and Halogenated Volatiles by Gas Chromatography Using Photoionization and/or Electrolytic Conductivity Detectors, SW-846, USEPA December 1996.

Comments: QA/QC for Samples 42766 - 42768, 42770, 42772 - 42775, 42787 - 42788


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

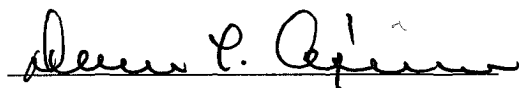
Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger 4 Corners	Date Reported:	08-21-07
Laboratory Number:	42766	Date Sampled:	08-16-07
Chain of Custody No:	3220	Date Received:	08-16-07
Sample Matrix:	Soil	Date Extracted:	08-20-07
Preservative:	Cool	Date Analyzed:	08-21-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

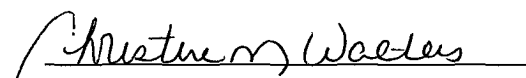
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	25.8	0.2
Diesel Range (C10 - C28)	1,190	0.1
Total Petroleum Hydrocarbons	1,220	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Badger 14 #1A & Howard 43-15 #1A**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger 4 Corners	Date Reported:	08-21-07
Laboratory Number:	42766	Date Sampled:	08-16-07
Chain of Custody:	3220	Date Received:	08-16-07
Sample Matrix:	Soil	Date Analyzed:	08-21-07
Preservative:	Cool	Date Extracted:	08-20-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	3.3	0.9
Toluene	10.9	1.0
Ethylbenzene	8.0	1.0
p,m-Xylene	46.6	1.2
o-Xylene	6.2	0.9
Total BTEX	75.0	

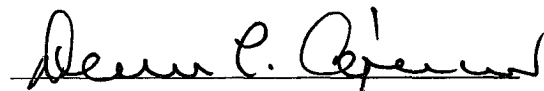
ND - Parameter not detected at the stated detection limit.

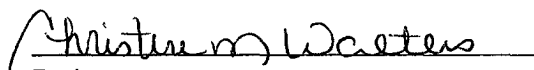
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Badger 14 #1A & Howard 43-15 #1A


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger 4 Corners	Date Reported:	08-21-07
Lab ID#:	42766	Date Sampled:	08-16-07
Sample Matrix:	Soil	Date Received:	08-16-07
Preservative:	Cool	Date Analyzed:	08-20-07
Condition:	Cool and Intact	Chain of Custody:	3220

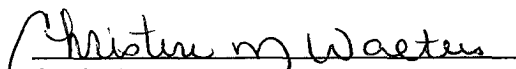
Parameter	Concentration (mg/Kg)
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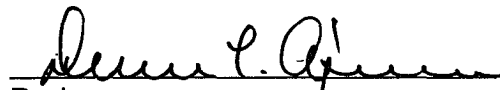
Total Chloride

1,030

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: **Badger 14 #1A & Howard 43-15 #1A**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

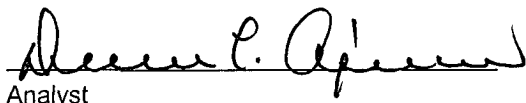
Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger Torn Liner	Date Reported:	08-21-07
Laboratory Number:	42767	Date Sampled:	08-16-07
Chain of Custody No:	3220	Date Received:	08-16-07
Sample Matrix:	Soil	Date Extracted:	08-20-07
Preservative:	Cool	Date Analyzed:	08-21-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

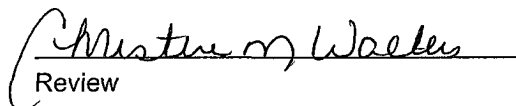
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	ND	0.2
Diesel Range (C10 - C28)	26.4	0.1
Total Petroleum Hydrocarbons	26.4	0.2

ND - Parameter not detected at the stated detection limit.

References: Method 8015B, Nonhalogenated Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: **Badger 14 #1A & Howard 43-15 #1A**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger Torn Liner	Date Reported:	08-21-07
Laboratory Number:	42767	Date Sampled:	08-16-07
Chain of Custody:	3220	Date Received:	08-16-07
Sample Matrix:	Soil	Date Analyzed:	08-21-07
Preservative:	Cool	Date Extracted:	08-20-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	ND	0.9
Toluene	3.9	1.0
Ethylbenzene	1.9	1.0
p,m-Xylene	7.6	1.2
o-Xylene	3.1	0.9
Total BTEX	16.5	


ND - Parameter not detected at the stated detection limit.


Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	99.0 %
	1,4-difluorobenzene	99.0 %
	Bromochlorobenzene	99.0 %

References: Method 5030B, Purge-and-Trap, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Method 8021B, Aromatic Volatile Organics, Test Methods for Evaluating Solid Waste, SW-846, USEPA, December 1996.

Comments: Badger 14 #1A & Howard 43-15 #1A


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

Chloride

Client:	McElvain Oil & Gas	Project #:	06039-005
Sample ID:	Badger Torn Liner	Date Reported:	08-21-07
Lab ID#:	42767	Date Sampled:	08-16-07
Sample Matrix:	Soil	Date Received:	08-16-07
Preservative:	Cool	Date Analyzed:	08-20-07
Condition:	Cool and Intact	Chain of Custody:	3220

Parameter

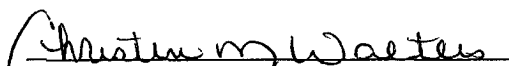
Concentration (mg/Kg)

Total Chloride

480

Reference: Standard Methods For The Examination of Water And Waste Water", 18th ed., 1992.

Comments: Badger 14 #1A & Howard 43-15 #1A


Analyst


Review