

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

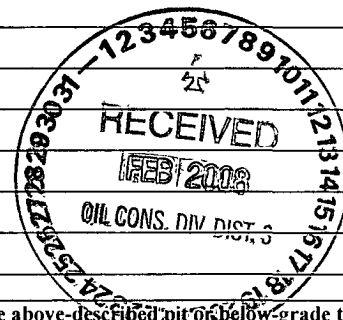
Is pit or below-grade tank covered by a "general plan"? Yes ☐ No ☒

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

Operator: <u>Dugan Production Corp</u> Telephone: <u>(505)325-1821</u> e-mail address: _____		
Address: <u>P.O. Box 420, Farmington, New Mexico 87401</u>		
Facility or well name: <u>Helsinki No. 52</u> API #: <u>30-045-27392</u> U/L or Qtr/Qtr <u>K</u> Sec <u>9</u> T <u>23N</u> R <u>10W</u>		
County: <u>San Juan</u> Latitude <u>36.24044</u> Longitude <u>107.90215</u> NAD: 1927 <input type="checkbox"/> 1983 <input type="checkbox"/> Surface Owner Federal <input checked="" type="checkbox"/> State <input type="checkbox"/> Private <input type="checkbox"/> Indian <input type="checkbox"/>		
Pit Type: Drilling <input type="checkbox"/> Production <input checked="" type="checkbox"/> Disposal <input type="checkbox"/> Workover <input type="checkbox"/> Emergency <input type="checkbox"/> Lined <input type="checkbox"/> Unlined <input checked="" type="checkbox"/> Liner type: Synthetic <input type="checkbox"/> Thickness _____ mil Clay <input type="checkbox"/> Pit Volume <u>103 ±</u> bbl	Below-grade tank Volume: _____ bbl Type of fluid: _____ Construction material: _____ Double-walled, with leak detection? Yes <input type="checkbox"/> 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 50 feet or more, but less than 100 feet 100 feet or more	(20 points) (10 points) 0 (0 points)
Wellhead protection area: (Less than 200 feet from a private domestic water source, or less than 1000 feet from all other water sources.)	Yes No	(20 points) (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 200 feet or more, but less than 1000 feet 1000 feet or more	(20 points) (10 points) 10 (0 points)
Ranking Score (Total Points)		10

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 you 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:
12' x 12' x 4'± deep unlined production pit, center located at approximately 87 Feet South 85° East of wellhead.
Use backhoe to collect 5-point composite sample at 6 foot depth for lab testing. Pit excavated in firm sandstone bedrock.



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 <input checked="" type="checkbox"/> , a general permit <input type="checkbox"/> , or an (attached) alternative OCD-approved plan <input type="checkbox"/> .		
Date: <u>January 14, 2008</u>		
Printed Name/Title <u>Jeffrey C Blagg, agent</u>	Signature <u>Jeffrey C. Blagg</u>	
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.		
Deputy Oil & Gas Inspector,		
District #3		
Approval:	Signature <u>[Signature]</u>	Date: <u>FEB 12 2008</u>
Printed Name/Title _____		

CLIENT: DUGAN

BLAGG ENGINEERING, INC.

P.O. BOX 87, BLOOMFIELD, NM 87413

(505) 632-1199

LOCATION NO: _____

COCR NO: 3694

FIELD REPORT: PIT CLOSURE VERIFICATION

PAGE No: 1 of 1

LOCATION: NAME: HELSINKI WELL #: S2 TYPE: SEP

QUAD/UNIT: K SEC: 9 TWP: 23N RNG: 10W PM: NM CNTY: 65 ST: NM

QTR/FOOTAGE: 2310 FSL x 2310 FWL CONTRACTOR: SIERRA

DATE STARTED 12/6/07

DATE FINISHED 12/6/07

ENVIRONMENTAL SPECIALIST JCB

EXCAVATION APPROX. _____ FT. x _____ FT. x _____ FT. DEEP. CUBIC YARDAGE: _____

DISPOSAL FACILITY: _____ REMEDIATION METHOD: CLOSE AS IS

LAND USE: RANGE- BLM LEASE: NM 36951 FORMATION: BISTI- GAL

FIELD NOTES & REMARKS: PIT LOCATED APPROXIMATELY 87 FT. S 85 E FROM WELLHEAD

DEPTH TO GROUNDWATER >100 NEAREST WATER SOURCE >1000 NEAREST SURFACE WATER >200

NMOCD RANKING SCORE: 10 NMOCD TPH CLOSURE STD: 1000 PPM

SOIL AND EXCAVATION DESCRIPTION:

OVM CALIB. READ. = 53.3 ppm

OVM CALIB. GAS = 100 ppm RF = 0.52

TIME: 0800 am/pm DATE: 12/6

SOIL TYPE: SAND / SILTY SAND / SILT / SILTY CLAY / CLAY / GRAVEL / OTHER BEDROCK SS @ 2'

SOIL COLOR: _____

COHESION (ALL OTHERS): NON COHESIVE / SLIGHTLY COHESIVE / COHESIVE / HIGHLY COHESIVE

CONSISTENCY (NON COHESIVE SOILS): LOOSE / FIRM / DENSE / VERY DENSE

PLASTICITY (CLAYS): NON PLASTIC / SLIGHTLY PLASTIC / COHESIVE / MEDIUM PLASTIC / HIGHLY PLASTIC

DENSITY (COHESIVE CLAYS & SILTS): SOFT / FIRM / STIFF / VERY STIFF / HARD

MOISTURE DRY / SLIGHTLY MOIST / MOIST / WET / SATURATED / SUPER SATURATED

DISCOLORATION/STAINING OBSERVED: YES / NO EXPLANATION: 4'-6' in Pit Center only

HC ODOR DETECTED: YES / NO EXPLANATION: MINOR

SAMPLE TYPE: GRAB / COMPOSITE # OF PTS. 5

ADDITIONAL COMMENTS: 12'x12'x4' Unlined Pit. USE BACKHUE TO DIG INTO PIT & SAMPLE.

SCALE

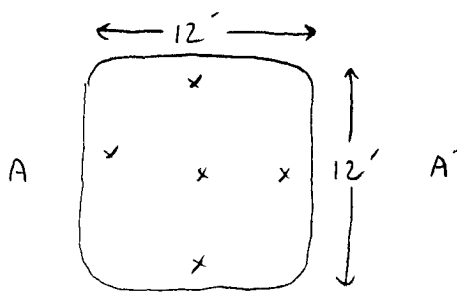
0

FT

FIELD 418.1 CALCULATIONS

SAMP. TIME	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON	DILUTION	READING	CALC. (ppm)

PIT PERIMETER



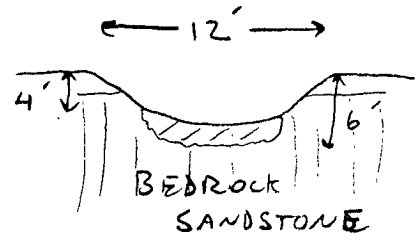
OVM READING

SAMPLE ID	FIELD HEADSPACE (ppm)
1 @	
2 @	
3 @	
4 @	
5 @	
5-pt @ 6'	71

LAB SAMPLES

SAMPLE ID	ANALYSIS	TIME
5-pt	T/GTEX	1405

PIT PROFILE



P.D. = PIT DEPRESSION; B.G. = BELOW GRADE; B = BELOW

T.H. = TEST HOLE; ~ = APPROX.; T.B. = TANK BOTTOM

TRAVEL NOTES: CALLOUT: _____ ONSITE: 12/6/07

EPA METHOD 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

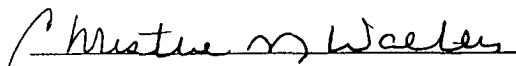
Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Helsinki #52 Sep	Date Reported:	12-12-07
Laboratory Number:	43828	Date Sampled:	12-06-07
Chain of Custody No:	3694	Date Received:	12-10-07
Sample Matrix:	Soil	Date Extracted:	12-11-07
Preservative:	Cool	Date Analyzed:	12-12-07
Condition:	Cool & Intact	Analysis Requested:	8015 TPH

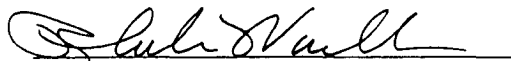
Parameter	Concentration (mg/Kg)	Det. Limit (mg/Kg)
Gasoline Range (C5 - C10)	102	0.2
Diesel Range (C10 - C28)	832	0.1
Total Petroleum Hydrocarbons	934	0.2

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: **Unlined Pit Closures.**


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Helsinki #52 Sep	Date Reported:	12-12-07
Laboratory Number:	43828	Date Sampled:	12-06-07
Chain of Custody:	3694	Date Received:	12-10-07
Sample Matrix:	Soil	Date Analyzed:	12-12-07
Preservative:	Cool	Date Extracted:	12-11-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)
Benzene	35.2	0.9
Toluene	181	1.0
Ethylbenzene	167	1.0
p,m-Xylene	822	1.2
o-Xylene	210	0.9
Total BTEX	1,420	

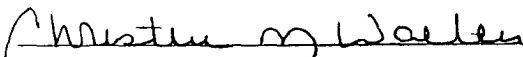
ND - Parameter not detected at the stated detection limit.

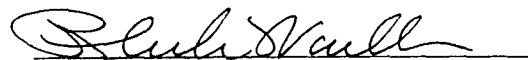
Surrogate Recoveries:	Parameter	Percent Recovery
	Fluorobenzene	98.0 %
	1,4-difluorobenzene	98.0 %
	Bromochlorobenzene	98.0 %

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: Unlined Pit Closures.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client	N/A	Project #:	N/A
Sample ID:	12-12-BTEX QA/QC	Date Reported:	12-12-07
Laboratory Number:	43824	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-12-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	I-Cal RF	C-Cal RF	%Diff Accept Range 0 - 15%	Blank Conc	Detect Limit
Benzene	7.9836E+007	7.9996E+007	0.2%	ND	0.1
Toluene	7.6005E+007	7.6157E+007	0.2%	ND	0.1
Ethylbenzene	6.2177E+007	6.2302E+007	0.2%	ND	0.1
p,m-Xylene	1.2027E+008	1.2052E+008	0.2%	ND	0.1
o-Xylene	5.7790E+007	5.7905E+007	0.2%	ND	0.1

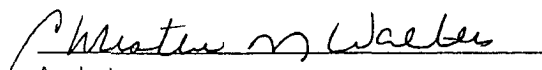
Duplicate Conc. (ug/Kg)	Sample	Duplicate	%Diff	Accept Range	Detect Limit
Benzene	217	216	0.2%	0 - 30%	0.9
Toluene	1,060	1,059	0.1%	0 - 30%	1.0
Ethylbenzene	874	872	0.2%	0 - 30%	1.0
p,m-Xylene	2,950	2,940	0.3%	0 - 30%	1.2
o-Xylene	1,070	1,066	0.4%	0 - 30%	0.9

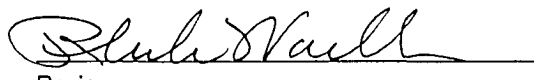
Spike Conc. (ug/Kg)	Sample	Amount Spiked	Spiked Sample	% Recovery	Accept Range
Benzene	217	50.0	266	99.8%	39 - 150
Toluene	1,060	50.0	1,090	98.2%	46 - 148
Ethylbenzene	874	50.0	922	99.8%	32 - 160
p,m-Xylene	2,950	100	3,040	99.6%	46 - 148
o-Xylene	1,070	50.0	1,110	99.1%	46 - 148

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 43824 - 43829.


Analyst


Review

ENVIROTECH LABS

PRACTICAL SOLUTIONS FOR A BETTER TOMORROW

EPA Method 8015 Modified
Nonhalogenated Volatile Organics
Total Petroleum Hydrocarbons

Quality Assurance Report

Client:	QA/QC	Project #:	N/A
Sample ID:	12-12-07 QA/QC	Date Reported:	12-12-07
Laboratory Number:	43824	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	12-12-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF	C-Cal RF	% Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	1.1927E+003	1.1932E+003	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	1.0506E+003	1.0510E+003	0.04%	0 - 15%

Blank Conc. (mg/L - mg/Kg)	Concentration	Detection Limit
Gasoline Range C5 - C10	ND	0.2
Diesel Range C10 - C28	ND	0.1
Total Petroleum Hydrocarbons	ND	0.2

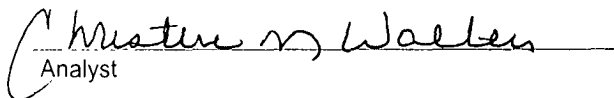
Duplicate Conc. (mg/Kg)	Sample	Duplicate	% Difference	Accept. Range
Gasoline Range C5 - C10	472	471	0.4%	0 - 30%
Diesel Range C10 - C28	3,510	3,490	0.6%	0 - 30%

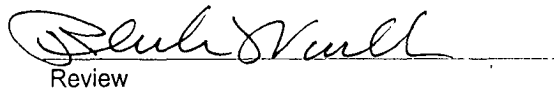
Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept. Range
Gasoline Range C5 - C10	472	250	712	98.6%	75 - 125%
Diesel Range C10 - C28	3,510	250	3,740	99.5%	75 - 125%

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: QA/QC for Samples 43824 - 43829.


Analyst


Review