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

Form C-144 June 1, 2004

## Pit or Below-Grade Tank Registration or Closure

Is pit or below-grade tank covered by a "general plan"? Yes \( \subseteq \) No \( \subseteq \)

Type of action: Registration of a pit or below-grade tank Closure of a pit or below-grade tank							
Operator Dugan Production Corp Telep							
Address: P.O. Box 420, Farmington, New Mexico 87401							
Facility or well name: Bonnie & Ed No. 1 API #: 30-045-		ON R 15W .					
County: San Juan Latitude 36.75464 Longitude 108.41839 NAD 1927 1983 Surface Owner Federal State Private Indian							
<u>Pit</u>	Below-grade tank						
Type: Drilling  Production  Disposal	Volume:bbl Type of fluid:						
Workover ☐ Emergency ☐	Construction material:						
Lined Unlined 🗷	Double-walled, with leak detection? Yes   If no	t, explain why not.					
Liner type: Synthetic Thicknessmil Clay _							
Pit Volume <u>90 ±</u> bbl							
Durth to consider the first state of the sta	Less than 50 feet	(20 points)					
Depth to ground water (vertical distance from bottom of pit to seasonal	50 feet or more, but less than 100 feet	(10 points) 20					
high water elevation of ground water.)	100 feet or more	( 0 points)					
	Yes	(20 points)					
Wellhead protection area: (Less than 200 feet from a private domestic	No	( 0 points) 0					
water source, or less than 1000 feet from all other water sources.)	110	( o points)					
Distance to surface water: (horizontal distance to all wetlands, playas,	Less than 200 feet	(20 points)					
irrigation canals, ditches, and perennial and ephemeral watercourses.)	200 feet or more, but less than 1000 feet	(10 points) 10					
,, , ,	1000 feet or more	( 0 points)					
	Ranking Score (Total Points)	30					
fabiging with all growns (1) attached it was a Calle Calliferation in the Call		A. A					
f this is a pit closure: (1) attach a diagram of the facility showing the pit's							
our are burying in place) onsite 🔲 offsite 🔀 If offsite, name of facility 🗓							
emediation start date and end date. (4) Groundwater encountered: No X		ft. and attach sample results. (5)					
ttach soil sample results and a diagram of sample locations and excavation	S						
Additional Comments:							
12' x 12' x 3.5'± deep unlined production pit, center located at approx	imately 78 Feet North 68° East of wellhead						
Use backhoe to remove impacted soils to 6 feet below ground surface and	I submit 5-point composite sidewall/base sample for I	ab testing. Due to chloride results (608 ppm)					
excavate an additional 2 feet (to 8' below grade) and resample for chlorid	des. Subsequent test results indicate chlorides < 500 j	ppm.					
		DOWN TIM 10107					
		OIL CONS. DIV.					
		nict a					
I hereby certify that the information above is true and complete to the bes has been/will be constructed or closed according to NMOCD guidelin Date:July 11, 2007	es 🔼 a general permit 🗔, or an (attached) altern	native OCD-approved plan .					
Printed Name/Title Jeffrey C Blagg, agent	Signature Jeffy C.	flegy					
Your certification and NMOCD approval of this application/closure does otherwise endanger public health or the environment. Nor does it relieve regulations.	not relieve the operator of liability should the content	ts of the pit or tank contaminate ground water or					
Approval: Deputy Oil & Gas Inspector, Printed Name/Title District #3 Signature B   Date: JUL 2 4 2007							

_ ≤0	-045	-25120	)		\				
CLIENT:	Due	AN_	P.O. BOX			•	3	ATION NO: .	2917
FIEL	FIELD REPORT: PIT CLOSURE VERIFICATION							E No: _Z	of _ <u>Z</u>
QUAD/U	INIT J S	sec: 4 T	WP 29N RNG	15W PM:	NM CNTY: S.		DATE		5-23-07 7-2-07
			× 1650 FEL						40±
			<u>14</u> FT. x					_	
			MINUTECH LI						
LAND US			<u> </u>						
			S: PIT LOCA						
			2 NEAREST WA				RFACE WAT	ER: <u>&gt;2</u>	00
NMOCD RA	NKING SCO	RE: 30	NMOCD TPH C	LOSURE STD:	100 PF	РМ			
SOIL A	ND EXC	OITAVAC	N DESCRIPTI	ON:		OVM CALIB. RE OVM CALIB. GA		ppm ppm DATE _	RF = 0 52
SOIL TYP	E. (SAND /	SILTY SAND	SILT / SILTY C	LAY / CLAY /	GRAVEL / OTHI			<i>P 0/</i> (12 _	
SOIL COLO	R		TAN						
			S): LOOSE (FIRM)			COHESIVE			
L			SLIGHTLY PLASTIC			HIGHLY PLASTIC			
			SOFT / FIRM / STIP						
			MOIST / WET / SATUED: YES (NO) EXPL						
			LANATION -			· · · · · · · · · · · · · · · · · · ·			
SAMPLE TY	PE GRAB	COMPOSITE	# OF PTS.		N 5 . C. 4	TON OF PIT	To 11	يد كا ا ما كا	g' Nue
ADDITIONA	L COMMENT	S	**************************************			s FROM 5,			
						R CHLORIB			
SCA			<b>,</b>	FIE	ELD 418.1 CALC	1		1	
SCA	.LE	SAMP. TIMI	SAMP. ID	LAB NO.	WEIGHT (g)	mL FREON [	DILUTION	READING	CALC. (ppm)
0	' FT						<del></del>		
T.							D.T. F	100511	
	PH PE	RIMETE	<u>-R</u>	_			PILE	PROFIL	<u>E</u>
1					VM ADING				
		- 14'		SAMPLE	FIELD HEADSPACE				
1		X X		1 @	(ppm)				
	1		)	2 @ 3 @		_		_	
				4 @			14		•
A	X	$\sim$	x 14 A	5@					
1		_	× 14′ ''			+ $($			, !
						8'			
ŀ		×	)			- <u>*</u>	ينتيون ستاستان بمرارت		
			<b>→</b> •	1.45.0	ALADI EC				
					AMPLES	_			
			4 - 6	OINT EB	NALYSIS TIME				
•		mpusi41		ces'	CL- 1135				
C: Ce		n.a. n=:-:::							
		BG = BELOW ( PROX, TB = T	GRADE; B = BELOW ANK BOTTOM						

ONSITE: 7/2/07

TRAVEL NOTES

CALLOUT: \_\_\_\_

ONSITE:

TRAVEL NOTES

CALLOUT: \_\_

## CHAIN OF CUSTODY RECORD

2917

	<u></u>			······································	<del></del>	<del></del>			
Client / Project Name	Project Location			AA	NALYSIS / PAR	AMETERS			
BLAGG/DUGAN	BONNE & ED # 1			, ,	V/\L1010 / 1 /\l1	7 (14) 2 1 2 1 1 3			
Sampler:	Client No.	ý					Remarks	6	
BLAGG/DUGAN Sampler: JEFF BLAGG	94034-010	No. of	1					1.0	
Sample No./ Sample Sample Identification Date Time	Lab Number Sample Matrix	No. of Containers	CL						
4-POINT @ 8' -1/2/07 1130	42232 SOIL		X			Frod	. Por		
4-POINT @ 8' 1/2/07 1130 C@ 8' 11 1135	42233 N	(	بح			4			
Relinquished by: (Signature)		Received by:	(Signature	),,,,,	00		Date		me
July Sugy	7/2/07 1570	Ale	ih	'8V u	M		7/2/07	151	0
Relinquished by: (Signature)	, , , , , , , , , , , , , , , , , , ,	Received by: (	(Signature	)					
Relinquished by: (Signature)	F	Received by: (	(Signature	)					
	EOVIROT	FCH	IOC			Samp	le Receipt	<u> </u>	
	LITTINOT		11 1	<b>,</b> .			Υ	N	N/A
			Highway 64			Received Intac	at 🗸		
	Farmington, Ne (505) 6	32-0615	0/401			Cool - Ice/Blue I	ce		



### Chloride

Client: Blagg / Dugan
Sample ID: C @ 8'
Lab ID#: 42233
Sample Matrix: Soil
Preservative: Cool

 Project #:
 94034-010

 Date Reported:
 07-03-07

 Date Sampled:
 07-02-07

 Date Received:
 07-02-07

Condition: Cool and Intact

Date Analyzed: 07-03-07 Chain of Custody: 2917

**Parameter** 

Concentration (mg/Kg)

**Total Chloride** 

299

Reference:

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

Comments:

Bonnie & Ed #1 Prod. Pit

Analyst Analyst

Review C. Collinson



#### Chloride

Blagg / Dugan Client: Sample ID: 4-Point @ 8' Lab ID#: 42232 Sample Matrix: Soil

Cool

Cool and Intact

Project #:

Date Reported: Date Sampled: Date Received:

Date Analyzed: Chain of Custody: 94034-010

07-03-07 07-02-07

07-02-07 07-03-07 2917

Parameter

Preservative:

Condition:

Concentration (mg/Kg)

**Total Chloride** 

328

Reference:

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

Comments:

Bonnie & Ed #1

Prod. Pit

30-045.	- 25120		36.	75464 ×	108.	41839			
client: Dug	4N F	P.O. BOX	87, BL		•		13	ATION NO:	2703
		(	505) 63	32-1199				R NO:	2103
FIELD RE	EPORT:	PIT CL	OSUR	E VER	IFI	CATIO			of _ <del>2</del>
LOCATION: NAM	IE: BONNIE	+ ED	WELL#:	1	TYPE:	PROD.	DATE	STARTED _	5-23-07
QUAD/UNIT. J SEC: 4 TWP: 29N RNG: 15W PM: NM CNTY: SJ ST: NM									5-23-07
QTR/FOOTAGE:	2090 FSL.	1650 FEL	CO	TRACTOR:	MJO	)		RONMENTAL IALIST	JCB
EXCAVATION	APPROX.	<u>/</u> FT. х	<u>14</u> F	T. x _ 6	_FT.	DEEP. CU	BIC YARD	DAGE:	25 ±
DISPOSAL FACIL	ity: Envi	RUTECH L	/ <del>-</del>	ŘEM	EDIAT	ION METHO	DD: _	EXCAVA	TE
LAND USE: RA				_				ION:	GAL
FIELD NOTES				<del></del>	78	FT.	N68E	FROM	WELLHEAD.
DEPTH TO GROUNDW									
NMOCD RANKING SC		<del></del>							
SOIL AND EX						OVM CALIB. F			
SOIL AND EX	CAVATION	DESCRIPT	ION.			OVM CALIB. C			
SOIL TYPE: SAND	/ SILTY SAND	SILT / SILTY O	LAY / CLA	Y / GRAVEL	OTHE	TIME: 12/5	amppn	DATE.	4 =
SOIL COLOR									
COHESION (ALL OTH CONSISTENCY (NON					IGHLY C	OHESIVE			
PLASTICITY (CLAYS).	NON PLASTIC /	SLIGHTLY PLASTI	C / COHESIV	E / MEDIUM PL	ASTIC / I	HIGHLY PLASTIC	C		
DENSITY (COHESIVE MOISTURE DRY (SL					ren				
DISCOLORATION/STA	INING OBSERVE	D: YES (NO)EXP	LANATION -						
HC ODOR DETECTED									
SAMPLE TYPE GRA		# OF PTS	<del></del>			2 UNL			
			BACK	HOE TO	) RA	MOVE	MPACT	th so	116
				FIELD 418.1	CALCU	LATIONS			
SCALE	SAMP. TIME	SAMP. ID	LAB NO				DILUTION	READING	CALC. (ppm)
								=	
O FT									
N PITP	ERIMETE	.R	1	0\/34		Γ	PIT	PROFIL	<u>.E</u>
1 '			R	OVM EADING					ı
	14		SAMPLE						
	×	)	1 @						
			3 @			A	- 17		A´
\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	×	114' 0'	4 @ 5 @					1	1
A  ^		×  ' A	5-POINT	3.3	3			1	6'
			<b></b>						J
									•
				0.41451.54		4			
K TO.	LAB SAMPLES  SAMPLE ANALYSIS TIME								
well	5-POIN T/B/CL 1200								
x = Sample Point									
P.D = PIT DEPRESSION						_			
T.H = TEST HOLE; ~ = /	<u>'</u>	ANK ROTTOM				- / /			
	CALLOUT:			ONSI	TE:	13/07			<del></del>
ببسنون بالمساخة والمساخة والم									

# CHAIN OF CUSTODY RECORD

2703

Client / Project Name	······································	-	Project Location				ANALYSIS / PARAMETERS										
BLAGG/DUG Sampler: JEFF BL	GAN)		BONNIE.	* EL #	1		-	<del>,</del>	r 1		1			<u> </u>			
Sampler:			Client No.				No. of Containers		\ \ \ _					Re	marks	•	
YZFF BL	A66		9403	Sample 5		of aine	Fr	BYEX 8021	<u>)</u>								
Sample No./ Identification	Sample Date	Sample Time	Lab Number		Sample Matrix	:	Cont	TPH	25 %	3							
Prop. Pit s	/23/51	1200	41636	Sc	211		1	×	×	ょ				5-Point	$-\alpha$	up.	
	,															•	
					, , , , , , , , , , , , , , , , , , , ,												
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			76							-							
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										_							
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Relinquished by: (Signatur	e) Les		5/	Date 24/07 [	Time	Receive	o by:	Signatu	re)	\\/		el	l	_	ate 4/07	Time	
Relinquished by: (Signatur	e)		7	- / - / -		Receive	ed by: (	(Signatu			,,,,,				,		
Relinquished by: (Signatur	e)					Receive	ed by: (	(Signatu	re)								
				ENVII	POT	FC	H	IO	<b>~</b>					Sample R	eceipt	<u> </u>	$\overline{}$
			i					11 1							Υ	N I	N/A
				579 Farming	96 U.S. aton. Ne				<del></del>				Rece	eived Intact	<b>~</b>		
					(505)						,		Cool -	Ice/Blue Ice	V		



# EPA METHOD 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Prod. Pit	Date Reported:	05-25-07
Laboratory Number:	41636	Date Sampled:	05-23-07
Chain of Custody No:	2703	Date Received:	05-24-07
Sample Matrix:	Soil	Date Extracted:	05-25-07
Preservative:	Cool	Date Analyzed:	05-25-07
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)	ND	0.1
Total Petroleum Hydrocarbons	ND	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:

Bonnie & Ed #1 5 - Point Comp.

Musture of Walley
Analyst

Review C. Open can



# EPA Method 8015 Modified Nonhalogenated Volatile Organics Total Petroleum Hydrocarbons

### **Quality Assurance Report**

Client:	QA/QC	Project #:	N/A
Sample ID:	05-25-07 QA/QC	Date Reported:	05-25-07
Laboratory Number:	41636	Date Sampled:	N/A
Sample Matrix:	Methylene Chloride	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-25-07
Condition:	N/A	Analysis Requested:	TPH

	I-Cal Date	I-Cal RF;	C-Cal RF: 9	6 Difference	Accept. Range
Gasoline Range C5 - C10	05-07-07	8.5277E+002	8.5311E+002	0.04%	0 - 15%
Diesel Range C10 - C28	05-07-07	8.4957E+002	8.4991E+002	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	ND	ND	0.0%	0 - 30%
Diesel Range C10 - C28	ND	ND	0.0%	0 - 30%

Spike Conc. (mg/Kg)	Sample	Spike Added	Spike Result	% Recovery	Accept Range
Gasoline Range C5 - C10	ND	250	250 ·	100.0%	75 - 125%
Diesel Range C10 - C28	ND	250	250	100.0%	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 41636 - 41640.

Musture of Walters Analyst



## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	Blagg / Dugan	Project #:	94034-010
Sample ID:	Prod. Pit .	Date Reported:	05-25-07
Laboratory Number:	41636	Date Sampled:	05-23-07
Chain of Custody:	2703	Date Received:	05-24-07
Sample Matrix:	Soil	Date Analyzed:	05-25-07
Preservative:	Cool	Date Extracted:	05-25-07
Condition:	Cool & Intact	Analysis Requested:	BTEX

Parameter	Concentration (ug/Kg)	Det. Limit (ug/Kg)	
		•	
Benzene	ND	1.8	
Toluene	5.0	1.7	
Ethylbenzene	ND	1.5	
p,m-Xylene	4.0	2.2	
o-Xylene	ND	1.0	
Total BTEX	9.0		

ND - Parameter not detected at the stated detection limit.

Surrogate Recoveries:	Parameter	Percent Recovery	
	Fluorobenzene	97.0 %	_
	1,4-difluorobenzene	97.0 %	
	Bromochlorobenzene	97.0 %	

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:

Bonnie & Ed #1 5 - Point Comp.

Analyst m Weller

Review P. Cole ...



## EPA METHOD 8021 AROMATIC VOLATILE ORGANICS

Client:	N/A	Project #:	N/A
Sample ID:	05-25-BTEX QA/QC	Date Reported:	05-25-07
Laboratory Number:	41636	Date Sampled:	N/A
Sample Matrix:	Soil	Date Received:	N/A
Preservative:	N/A	Date Analyzed:	05-25-07
Condition:	N/A	Analysis:	BTEX

Calibration and Detection Limits (ug/L)	i-Cal RF:	G-Cal RF: Accept, Rang	%Diff. je 0 - 15%	Blank Conc	Detect.
Benzene Toluene	2.5522E+007 2.5018E+007	2.5574E+007 2.5068E+007	0.2% 0.2%	ND ND	0.2 0.2
Ethylbenzene p,m-Xylene	2.1653E+007 4.6057E+007	2.1696E+007 4.6149E+007	0.2% 0.2% 0.2%	ND ND	0.2 0.2 0.2
o-Xylene	2.0485E+007	2.0526E+007	0.2%	ND	0.2

Duplicate Conc. (ug/Kg)	Sample - Du	plicate	%Diff:	Accept Range	Detect. Limit
Benzene	ND	ND	0.0%	0 - 30%	1.8
Toluene	5.0	4.9	2.0%	0 - 30%	1.7
Ethylbenzene	ND	ND	0.0%	0 - 30%	1.5
p,m-Xylene	4.0	3.8	5.0%	0 - 30%	2.2
o-Xylene	ND	ND	0.0%	0 - 30%	1.0

Spike Conc. (ug/Kg)	Sample Amo	unt Spiked Spik	ed Sample	% Recovery	Accept Range
Benzene	ND	50.0	49.9	99.8%	39 - 150
Toluene	5.0	50.0	54.8	99.6%	46 - 148
Ethylbenzene	ND	50.0	50.0	100.0%	32 - 160
p,m-Xylene	4.0	100	102	98.1%	46 - 148
o-Xylene	ND	50.0	49.5	99.0%	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 Sample 41636.

Analyst

Review



#### Chloride

Client:

Blagg / Dugan

Sample ID:

Prod. Pit

Lab ID#:

41636

Sample Matrix: Preservative:

Cool

Condition:

Soil

Cool and Intact

Project #:

Date Reported:

Date Sampled:

Date Received:

Date Analyzed:

Chain of Custody:

94034-010

05-25-07

05-23-07

05-24-07

05-25-07

2703

**Parameter** 

Concentration (mg/Kg)

**Total Chloride** 

608

Reference:

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

Comments:

Bonnie & Ed #1 5 - Point Comp.

- continued the first