District_I 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District III 1000 Rio Brazos Road, Aztec, NM 87410

Phone: (505) 334-6178 Fax: (505) 334-6170

Date: 8/19/2014

Phone: 713-660-5714

State of New Mexico

Form C-101 Revised July 18, 2013

EnergyMinerals and Natural Resources NM OIL CONSERVATION

ARTESIA DISTRICT

☐ AMENDED Report

Oil Conservation Division 1220 South St. Francis Dr.

AUG 2 1 2014

District IV 1220 S. St. Francis Phone: (505) 476-3				·		Sanţa	Fe, NM 8	37505	R	ECEI\	/ED	
AP	PLICA	TION F				L, RE	E-ENTE	R, DEEP	EN, PL		CK, OR	ADD A ZONE
	¹ Onerator Name and Address LRE Operating, LLC										28199	4
		1111 B	agby Street, Suite	4600 Ho					<u> </u>	10/	3 ADI Number	2602
1	roperty Code					Property Na Jeffers 3					⁶ We	#5
					⁷ Su	urface	e Locati	on				
UL - Lot	Section 36	Township 17S	Range 27E	L	ot ldn	Feet F	rom	N/S Line N	Feet Fro		E/W Line E	County
В	30	1/3	2/E	8 D.	Longad				2210	L	E	Eddy
UL - Lot	Section	Township	Range	Pr	ot Idn	BOTTO Feet F	om Hole	Location N/S Line	Feet Fro	m [E/W Line	County
В	36	17S	27E			330	0	N	2210		Е	Eddy
With a					9 Pc	ool In	formati	on				
Red Lake; Glo	orieta-Yeso	NE										96836
	•			A	ddition			mation				· • • • • • • • • • • • • • • • • • • •
L .	rk Tvne N		¹⁰ Well Type O			11 Cable/Ro R	otarv		12 Lease Type S		Ground Level Elevation	
1	lultiple		15 Proposed Depth			16 Formati	ion		17 Contractor			
Depth to Groun	N nd Water:	36	500' MD / 3600' T		nearest fresh	Yeso		Unit		d Drilling, Inc. After 10/1		
			5 Ft.			- Water w	ven.	0.5	Miles	ince non	i iicaiesi suriac	20 Miles
X We will	be using a	closed-loop	system in lieu of									
			19	Prop	osed Ca	sing	and Cer	nent Pro	gram			,
Туре	Hol	le Size	Casing Size	(Casing Weigl	ht/ft	Set	ting Depth	Sa	cks of Ce	ment	Estimated TOC
Conductor	r 2	20"	14"		68.7			40		40		Surface
Surface		11"	8-5/8"		24			425		250		Surface
Production	ո 7-	-7/8"	5-1/2"		17			3600		675		Surface
			Casi	ng/Ce	ment Pr	rogra	m: Add	itional C	omment	S		
		*	p	ronos	ed Blow	vout P	Preventi	n Progr	am			
	Туре				Pressure	vout 1	Prevention Program Test Pressure			Manufacturer		
l:	XLT 11"			50	000			2000			National Varco	
												
of my knowled	ge and belie	f.	en above is true an with 19.15.14.9 (A	•		d/or		OIL C	ONSER	VATI	ON DIVI	SION
19.15.14.9 (B)	•	-					Approved B	y:		,		
Signature:	Exor 1	mel	Volen/					1.	U.SI	(apo	24	
Printed Name	: Eric McC	Clusky	1				Title:	- W	'Geo	log	ist"	
Title: Produc	ction Engine	eer					Approved D	ate: & 2 /	-2014	Expir	ration Date:	8-21-2016
E-mail Addres	ss: EMcC	lusky@Lim	erockresources.co	m						•		

Conditions of Approval Attached

District 1 1625 N. French Dr., Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 District II 811 S. First St., Artesia, NM 88210

Phone: (575) 748-1283 Fax: (575) 748-9720 District.III 1000 Rio Brazos Road, Aztec. NM 37410 Phone: (505) 334-6178 Fax: (505) 334-6170 District.IV

1220 S. St. Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

12 Dedicated Acres

³ Joint or Infill

Consolidation Code

State of New Mexico

Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr.

Santa Fe, NM 87505

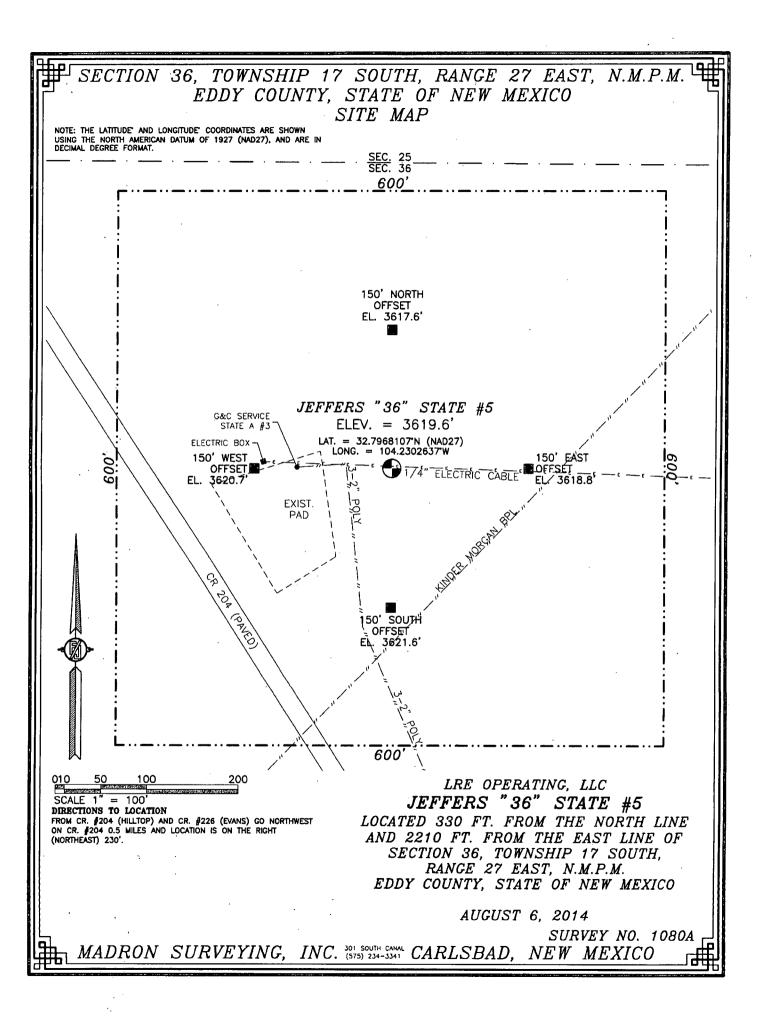
Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

☐ AMENDED REPORT

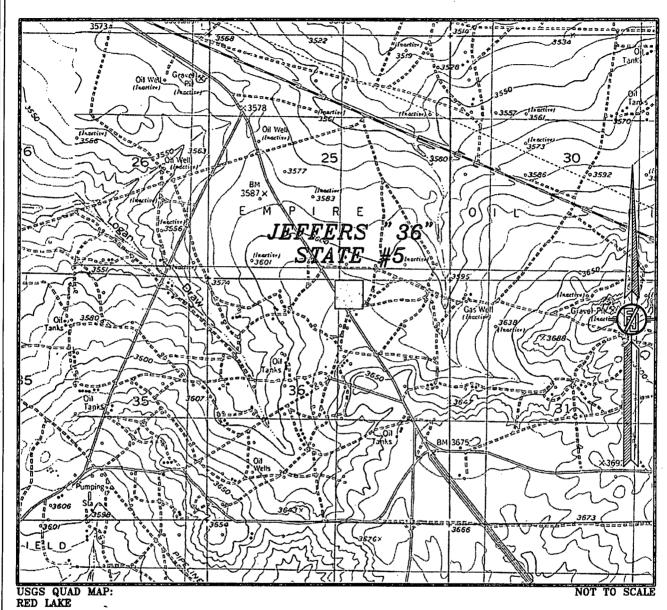
		W	ELL LO	JCA HO	N AND ACK	LEAGE DEDIC	LATION PLA	\ l			
30-0	API Numbe	4260	52-91	2 Pool Code (8 3 6		dlake: 6	3 Pool Na L - Yeso N	me / E			
Property	Code				5 Property		· ·		" W	ell Number	
30986	5	•	JEFFERS "36" STATE							5	
OGRID No.				8 Operator Name						⁹ Elevation	
28199	4	LRE OPERATING, LLC							3619.6		
					" Surface	Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Wes	t line	County	
В	36	17 S 27 E 330 NORTH 2210 EAST EDDY						EDDY			
			⊩ " Bċ	ttom Ho	le Location It	Different Fron	n Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/Wes	t line	County	

No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

	N89:34'18"W	2648.54 FT	N89'36'04"W	2648.01 FT		"OPERATOR CERTIFICATION
	NW CORNER SEC. 36 LAT. = 32.7977882'N LONG. = 104.2403104'W	N/4 CORNER SEC. 36 LAT. = 32.7977271'N LONG. = 104.2316937'Y SURE	33.0	22'10'		I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including
500.07		LOCA	TION	LAT. = 32.7976691'N LONG. = 104.2230786'W	N O	the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working
07.08			JEFFERS "36" STAT ELEV. = 3619.6' LAT. = 32.7968107'N	"	N00'21'09"w	interest, or to a voluntary pooling agreement or a compulsory pooling
8 E 2633.			LONG. = 104.2302637)9"W 2642	order hereufore emered by the division. Flin Mullusley 8/19/14
3.52 FT					42.59 FT	Synis nuclustry 8/19/14 Signature Date Fin C Mc(lusky Printed Name
						Emc(luskyo limerock resources.co
	W/4 CORNER SEC. 36 LAT. = 32.7905514'N LONG. = 104.2403002'W		NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH	E/4 CORNER SEC. 36 LAT. = 32.7904074'N LONG. = 104.2230347'W		INSURVEYOR CERTIFICATION I hereby certify that the well location shown on this
90.005			AMERICAN DATUM OF 1927 (NAD27), AND ARE IN DECIMAL DEGREE FORMAT.		.10N	plat was plotted from field notes of actual surveys made by me or under my supervision, and that the
)6'57 E					N01.02,02,0	same is true and correct to the best of my belief. AUGUST 53014 N ME
2634.60 FT					2637.91 FT	Date of Stirrley (12797)
	SW CORNER SEC. 36 LAT. = 32.7833115'N LONG. = 104.2402905'W		qLED	SE CORNER SEC. 36 LAT. = 32.78315941 LONG. = 104.22288881	١L	Signature and Scal of Protestional Surgeyor Certificate Number O Flance Plans State ARAMILLO. PLS 12797
	S89'27'47"E	2674.87 FT	S89'27'47"E	2674.87 FT		SURVEY NO. 1080A



SECTION 36, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO LOCATION VERIFICATION MAP



LRE OPERATING, LLC

JEFFERS "36" STATE #5

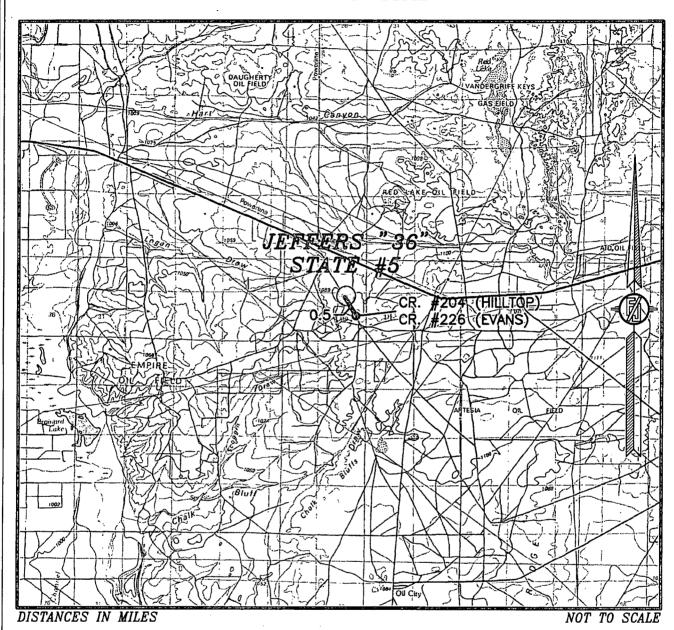
LOCATED 330 FT. FROM THE NORTH LINE
AND 2210 FT. FROM THE EAST LINE OF
SECTION 36, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

AUGUST 6, 2014

SURVEY NO. 1080A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 36, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO VICINITY MAP



DIRECTIONS TO LOCATION
FROM CR. #204 (HILLTOP) AND CR. #226 (EVANS) GO NORTHWEST
ON CR. #204 0.5 MILES AND LOCATION IS ON THE RIGHT
(NORTHEAST) 230'.

LRE OPERATING, LLC

JEFFERS "36" STATE #5

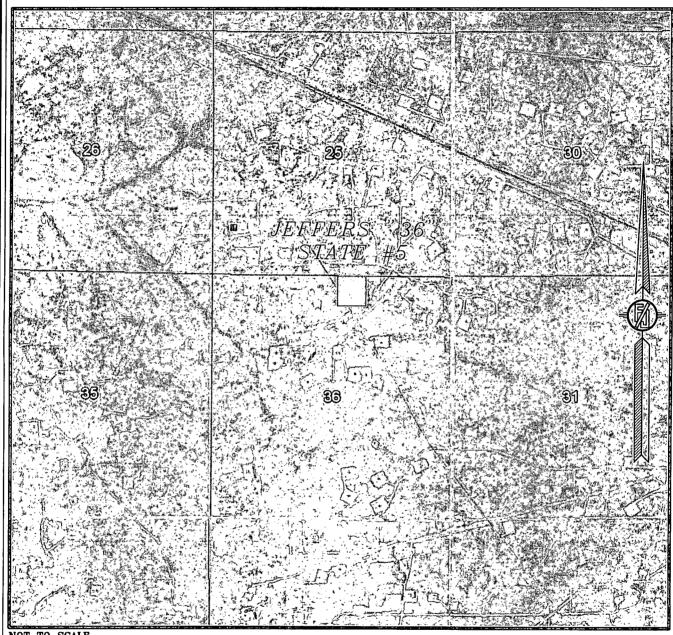
LOCATED 330 FT. FROM THE NORTH LINE
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SECTION 36, TOWNSHIP 17 SOUTH,
RANGE 27 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

AUGUST 6, 2014

SURVEY NO. 1080A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 36, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO AERIAL PHOTO



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH MAY 2014

LRE OPERATING, LLC

JEFFERS "36" STATE #5

LOCATED 330 FT. FROM THE NORTH LINE

AND 2210 FT. FROM THE EAST LINE OF

SECTION 36, TOWNSHIP 17 SOUTH,

RANGE 27 EAST, N.M.P.M.

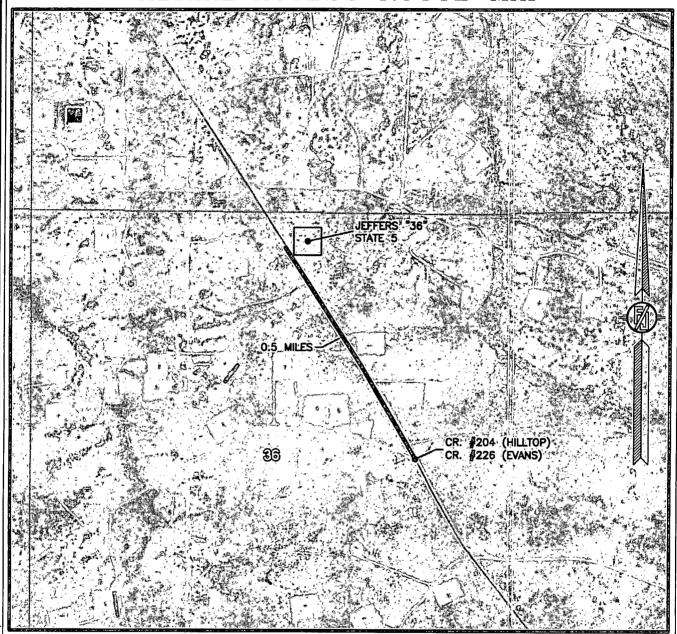
EDDY COUNTY, STATE OF NEW MEXICO

AUGUST 6, 2014

SURVEY NO. 1080A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

SECTION 36, TOWNSHIP 17 SOUTH, RANGE 27 EAST, N.M.P.M. EDDY COUNTY, STATE OF NEW MEXICO AERIAL ACCESS ROUTE MAP



NOT TO SCALE AERIAL PHOTO: GOOGLE EARTH MAY 2014

LRE OPERATING, LLC

JEFFERS "36" STATE #5

LOCATED 330 FT. FROM THE NORTH LINE

AND 2210 FT. FROM THE EAST LINE OF

SECTION 36, TOWNSHIP 17 SOUTH,

RANGE 27 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

AUGUST 6, 2014

SURVEY NO. 1080A

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO

LRE Operating, LLC Drilling Plan

Jeffers 36 State #5 330' FNL 2210' FEL (B) 36-17S-27E Eddy County, NM

- 1.
- 2. The geologic name of the surface formation is Quaternary Alluvium.
- 3. A rotary rig will be utilized to drill the well to 3600' and run casing. This equipment will be rigged down and the well will be completed with a workover rig.
- 4. Well will be drilled to a total proposed depth of 3600' MD.
- 5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates	NA	NA
7 Rivers	439	439
Queen	961	961
Grayburg	1369	1369
Premier	NA	NA
San Andres	1731	1731
Glorieta	3087	3087
Yeso	3182	3182
Tubb	NA	NA
TD	3600	3600

6. Estimated depths at which anticipated oil, gas, or other mineral bearing formations are expected to be encountered:

	MD	TVD
Yates	NA	NA ⁻
7 Rivers	439	439
Queen	961	961
Grayburg	, 1369	1369
Premier	NA	NA
San Andres	1731	1731
Glorieta	3087	3087
Yeso	3182	3182
Tubb	NA	NA
TD	3600	3600

7. Proposed Casing and Cement program is as follows:

Туре	Hole	Casing	Wit	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	20"	14"	68.7	В	Welded	40	40			Ready Mix
Surface	11"	8-5/8"	24	J-55	ST&C	425	250	14.8	1.35	CI C Cmt + 0.25 lbs/sk Cello Flake + 2% CaCl2
Intermediate										
Production	7-7/8"	5-1/2"	17	J-55	LT&C	3600	300	12.8	1.903	(35:65) Poz/CI C Cmt + 5% NaCl + 0.25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 +0.2% R-3 + 6% Gel
							375	14.8	1.33	Ci H w/ 0.6% R-3, 0.125% Cello Flake, 2% Gel

8. Proposed Mud Program is as follows

Depth	0-435	435-3450	3450-3600
Mud Type	Fresh Water Mud	Brine	Brine, Salt Gel, & Starch
Properties			
MW	8.4-9.2	9.8-10.1	9.9-10.1
рН	9.0-10.5	10.0-12.0	10.0-12.0
WL	NC	NC ·	20-30
Vis	. 28-34	28-29	32-34
МС	NC	NC	<2
Solids	NC	<2%	<3%
Pump Rate	300-500 gpm	375-425 gpm	400-425 gpm
Special		Use Poymers sticks and MF-55 Hi-Vis Sweeps as necessary	Hi Vis Sweeps, add acid and starch as req. Raise Vis to 35 for log.

9. Pressure Control Equipment: See Attached Description and diagram of Pressure Control Equipment.

10. Testing, Logging and Coring Program

Testing Program: No drill stem tests are anticipated

Electric Logging Program: SGR-DLL-CDL-CNL Quad Combo from 3600 to surf. Csg. SGR-CNL to Surf.

Coring Program: No full or sidewall cores are anticipated.

11. Potential Hazards:

No abnormal temperatures or pressures are expected. There is no known presence of H2S in this area. If H2S is encountered the operator will comply with the provisions of Onshore Oil and Gas Order No. 6. All personnel will be familiar with all aspects of safe operation of equipment being used to drill this well. Estimated BHP 1584 psi based on 0.44 x TD. The estimated BHT is 125 degrees F.

12. Duration of Operations:

Anticipated spud date will be soon after approval and as soon as a rig will be available. Move in operations and drilling is expected to take 10 days. An additional 14 days will be needed it complete the well and to construct surface facilities.

Hydrogen Sulfide Drilling Plan Summary

- A. All personnel shall receive proper H2S training in accordance with Onshore Order 6 III.C.3.a.
- B. Briefing Area: two perpendicular areas will be designated by signs and readily accessible.
- C. Required Emergency Equipment:
 - Well control equipment
 - a. Flare line 150' from wellhead to be ignited by flare gun.
 - b. Choke manifold with a remotely operated choke.
 - c. Mud/gas separator
 - Protective equipment for essential personnel.

Breathing apparatus:

- a. Rescue Packs (SCBA) 1 unit shall be placed at each breathing area, 2 shall be stored in the safety trailer.
- b. Work/Escape packs —4 packs shall be stored on the rig floor and contain sufficiently long air hoses as to not to restrict work activity.
- c. Emergency Escape Packs —4 packs shall be stored in the doghouse for emergency evacuation.

Auxiliary Rescue Equipment:

- a. Stretcher
- b. Two OSHA full body harness
- c. 100 ft 5/8 inch OSHA approved rope
- d. 1-20# class ABC fire extinguisher
- H2S detection and monitoring equipment:

The stationary detector with three sensors will be placed in the upper dog house if equipped, set to visually alarm @ 10 ppm and audible @ 14 ppm. Calibrate a minimum of every 30 days or as needed.

The sensors will be placed in the following places: Rig floor / Bell nipple / End of flow line or where well bore fluid is being discharged.

(Gas sample tubes will be stored in the safety trailer)

Visual warning systems:

- a. One color code condition sign will be placed at the entrance to the site reflecting the possible conditions at the site.
- b. A colored condition flag will be on display, reflecting the current condition at the site at the time.
- c. Two wind socks will be placed in strategic locations, visible from all angles.

Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. The operator will have the necessary mud products to minimize hazards while drilling in H2S bearing zones.

Metallurgy:

- a. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold and lines, and valves shall be suitable for H2S service.
- b. All elastomers used for packing and seals shall be H2S trim.

■ Communication:

Communication will be via two way radio in emergency and company vehicles. Cell phones and land lines where available.

H2S CONTINGENCY DRILLING PLAN EMERGENCY CONTACTS

Company Offices - Lime Rock Houston Office

Answering Service (After Hours)

Artesia, NM Office

Roswell, NM

713-292-9510

713-292-9555

575-748-9724

575-623-8424

KEY PERSONNEL

Name	Title	Location	Office #	Cell#	Home #
Mike Loudermilk	Operations Manager	Houston	713-292-9526	832-331-7367	Same as Cell
Spencer Cox	Production Engineer	Houston	713-292-9528	432-254-5140	Same as Cell
Eric McClusky	Production Engineer	Houston	713-360-5714	405-821-0534	832-491-3079
Jerry Smith	Assistant Production Supervisor	Artesia	575-748-9724	505-918-0556	575-746-2478
Michael Barrett	Production Supervisor	Roswell	575-623-8424	505-353-2644	575-623-4707
Dalw Kennard	Well Site Supervisor	Rotates on Site	NA	575-420-1651	NA
Gary McCelland	Well Site Supervisor	Rotates on Site	NA	903-503-8997	NA
Brad Tate	Well Site Supervisor	Rotates on Site	NA	575-441-1966	NA
Dave Williamson	Well Site Supervisor	Rotates on Site	NA	575-308-9980	NA

	Agency Call List						
City	Agency or Office	Telephone #					
Artesia	Ambulance	911					
Artesia	State Police	575-746-2703					
Artesia	Sherriff's Office	575-746-9888					
Artesia	City Police	575-746-2703					
Artesia	Fire Department	575-746-2701					
Artesia	Local Emergency Planning Committee	575-746-2122					
Artesia	New Mexico OCD District II	575-748-1283					
Carlsbad	Ambulance	911					
Carlsbad	State Police	575-885-3137					
Carlsbad	Sherriff's Office						
Carlsbad	City Police	575-885-2111					
Carlsbad	Fire Department	575-885-2111					
Carlsbad	Local Emergency Planning Committee	575-887-3798					
Carlsbad	US DOI Bureau of Land Management	575-887-6544					
State Wide	New Mexico Emergency Response Commisssion ("NMERC")	505-476-9600					
State Wide	NMERC 24 Hour Number	505-827-9126					
State Wide	New Mexico State Emergency Operations Center	505-476-9635					
National	National Emergency Response Center (Washington D.C.)	800-424-8802					

Name	Service	Location	Telephone Number	Alternate Number 281-931-8884	
Boots & Coots International Well Control	Well Control	Houston / Odessa	1-800-256-9688		
Cudd Pressure Control	Well Control/Pumping	Odessa	915-699-0139	915-563-3356	
Baker Hughes Inc.	Pumping Services	Artesia, Hobbs & Odessa	575-746-2757	Same	
Total Safety	Safety Equipment & Personnel	Artesia	575-746-2847	Same	
Cutter Oilfirld Services	Drilling Systems Equipment	Midland	432-488-6707	Same	
Safety Dog	Safety Equipment & Personnel	Artesia	575-748-5847	575-441-1370	
Fighting for Life	Emergency Helicopter Evacuation	Lubbock	806-743-9911	Same	
Aerocare	Emergency Helicopter Evacuation	Lubbock	806-747-8923	Same	
Med Flight Air Ambulance	Emergency Helicopter Evacuation	Alburquerque	505-842-4433	Same	
Artesia General Hospital	Emergency Medical Care	Artesia	575-748-3333	702 North 13th Street	

Pressure Control Equipment

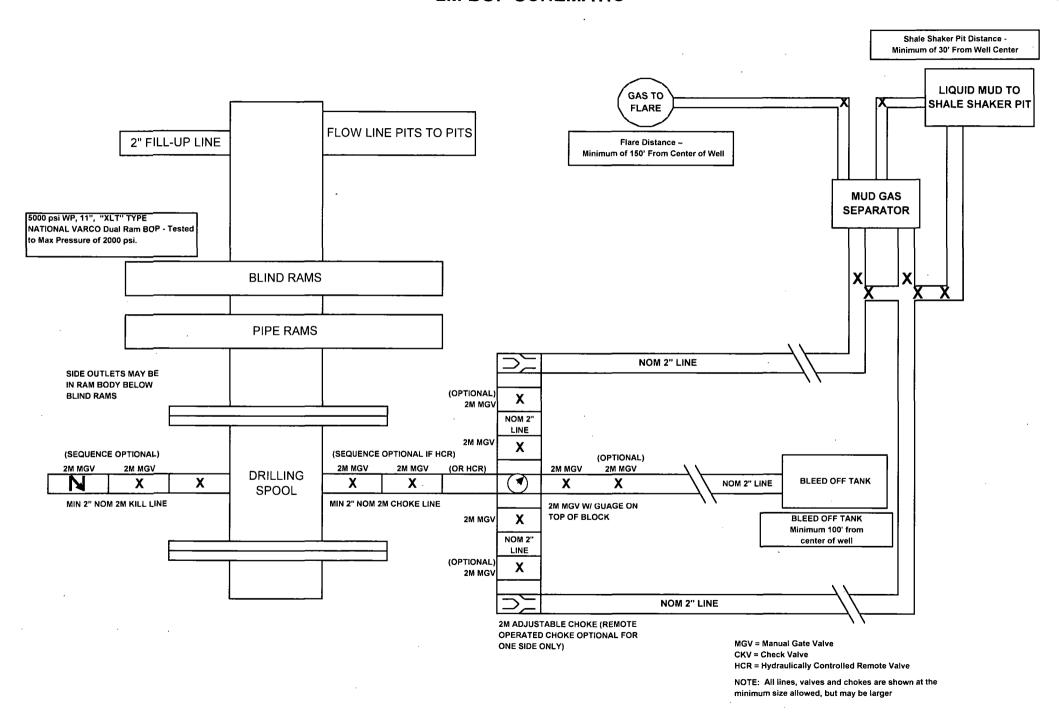
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 8 5/8" surface casing and utilized continuously until total depth is reached. All casing strings will be tested as per Onshore Order #2. This also includes a thirty day (30) test, should the rig still be operating on the same well in thirty days.

Pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These functional tests will be documented on the daily drilling logs.

The BOP equipment will consist of the following:

- Double ram with blind rams (top) and pipe rams (bottom),
- Drilling spool, or blowout preventer with 2 side outlets (choke side shall be a 2" minimum diameter, kill side will be at least 2 inch diameter),
- Kill line (2 inch minimum),
- A minimum of 2 choke line valves (2 inch minimum),
- 2 inch diameter choke line,
- 2 kill valves, one of which will be a check valve (2 inch minimum),
- 2 chokes, one of which will be capable of remote operation.
- Pressure gauge on choke manifold,
- Upper Kelly cock valve with handle available,
- Safety valve and subs to fit all drill string connections in use,
- All BOPE connections subjected to well pressure will be flanged, welded, or clamped.
- A Fill-up line above the uppermost preventer.

2M BOP SCHEMATIC



LRE Operating, LLC

Jeffers 36 State #5

Unit B, S36-T17S-R27E, Eddy County, NM

Design: Closed Loop System with roll-off steel bins (pits)

CRI/HOBBS will supply (2) bins (100 bbl) volume, rails and transportation relating to the Close Loop System. Specification of the Closed Loop System is attached.

Contacts: Gary Wallace (432) 638-4076 Cell

(575) 393-1079 Office

Scomi Oil Tool: Supervisor - Armando Soto (432) 553-7979 Hobbs, NM

Monitoring 24 Hour service

Equipment:

Centrifuges – Derrick Brand Rig Shakers – Brandt Brand

D-watering Unit

Air pumps on location for immediate remediation process

Layout of Close Loop System with bins, centrifuges and shakers attached.

Cuttings and associated liquids will be hauled to a State regulated third party disposal site (CRI or Controlled Recovery, Inc.). The disposal site permit is DFP = #R9166.

2- (250 bbl) tanks to hold fluid 2-CRI bins with track system

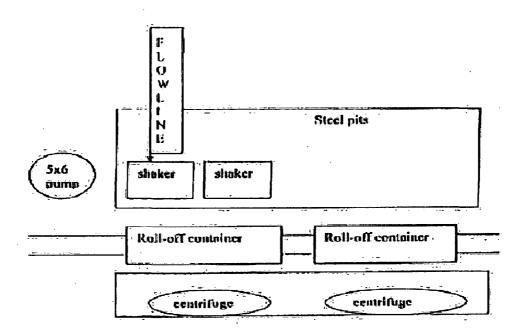
2-500 bbl frac tanks with fresh water 2-500 bbl frac tanks for brine water

Operations:

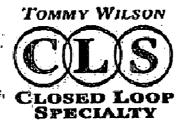
Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

Closure:

During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.



This will be maintained by 24 hour solids control personnel that stay on location.



Onter: 915,746,1689

CHU 579.748.6367