изаната. 1625 N French Dì , Hobbs, NM 88240 Phone: (575) 393-6161 Fax: (575) 393-0720 Distinct II. 811 S First St., Arresia, 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 District IV 1220 S St Francis Dr., Santa Fe, NM 87505

Date: 9/5/2018

Phone: 713-360-5714

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State of New Mexico EnergyMinerals and Natural Resources Form C-101 Revised July 18, 2013

AMENDED Report

**Oil Conservation Division** SEP 06 2018 1220 South St. Francis Dr.

Santa Fe, NM 87505 DISTRICT II-ARTESIA O.C.D.

APPI	LICATI	ON FOR		T TO DRILL, R	E-ENTER	R, DEEPE		CK, O		A ZONE
		Li	Operator Name	ources II-A, L P.				277	/558	
				600 Houston, Texas 7700	12			<sup>3</sup> API Numbe 30-	015- 45	5364
•	ty Code 4042 3	22754	1	Property Brai	Name inard 12				Well No #2H	
		<u>977 × /</u>		<sup>7</sup> Surfa	ce Locatio		E			
UL - Lot	Section	l'ownship	Kange	Loi Idn Fee	l From	N/S Line	Feet From	E/W Line	· · · ·	County
<u>, K</u>	12	18S	26E		850	S	1590	W	<u> </u>	Eddy
UL - Lot	Section	lownship	Range	Proposed Bot		Location	Feet From	E/W Line	· · · · · · · · · · · · · · · · · · ·	County
L	11	185	26E		140	S	100	W		Eddy
				9 Pool I	nformatio	n				
Red Lake; Glorie	ta-Yeso									51120
		······		Additional W						
Work T	rpe	[	Well Type	"Cable/	•	"L	ease Type P	Τ	<sup>13</sup> Ground Level Elevation 3295.5	
N "Multip	le	ч. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1. 1.	roposed Depth	1º Form		Contractor		3295.5 "Spud Date		
N Depth to Ground V	Union	9200' N	ID / 2705' TV	D Yes		Drilling, Inc.	After 10/1/2018 from nearest surface water: 0.63			
	Vauci.	80 Ft	Distain	C Honi nearca trean water	wen.	0.38 Mil	es	I lical col out	Idee water.	0 63 Mile
Type Conductor	Hole Si 26"		20"	Casing Weight/ft 91.5		Setting Depth 80 1230		ment	Estimated TOC Surface Surface	
Surface Production	12 25 8 3/4		9-5/8" 5-1/2"	36		1230 9200	<u>600</u> 2500			urface urface
Production	<u>- , , , , , , , , , , , , , , , , , , ,</u>		-1/2			9200				
	·		Casin	g/Cement Progr	am: Addit	tional Con	nments			
				Artesian Aquifer	Porosity 11	60'-1170'.				
			Pr	oposed Blowout	Preventio	n Program	<u>ا ا</u>			
	Турс			/orking Pressure		Test Pressure		Manufacturer		er
XLT 11" 5000					2000 National Varco				со	
hereby certify tha of my knowledge a further certify the 9.15.14.9 (B) NM	nd belief. hat I have co	omplied with 1		complete to the best			NSERVATI	ON DI	VISION	
Bignature:	<u>lla</u>	f. Oje	flu	y	Approved By	ymout	W. Por	lang		
Printed Name: E	Fric McClus	ky			Title:	neo lo	915t	V		
Title: Operation	s Engineer		-		Approved Dat	te: 18-18-	18 Expir	ration Date	10-18	-20
E-mail Address:	emcclusky	@limerockres	ources.com							

**Conditions of Approval Attached** 

District.3 1625 N French Dr., Hobba, NM 88240 Phone: (573) 393-6161 Fax: (575) 393-0720 District.11 811 S. First St. Artesia, NM 88210 Phone: (575) 748-1283 Fax: (575) 748-9720 District.111 1000 Rio Brazos Rosed, Aztoc, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District.1V 1220 S St. Francis Dr. Santa Fe, NM 87505 Phone: (505) 476-3460 Fax: (505) 476-3462

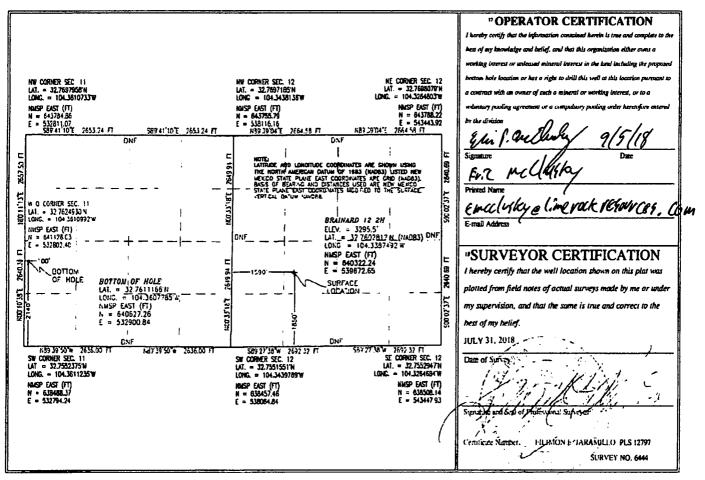
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State of New Mexico SEP 0 6 2018 Energy, Minerals & Natural Resources Department OIL CONSERVATION DISTRICT ARTESIA O.C.D. 1220 South St. Francis Dr. Santa Fe, NM 87505

				<u>ICATIO</u>		REAGE DEDI					
30-	API Numbe 0 (5 -	-4534	4.	'Poel Cod 5/120	le K	allako; G	lorieta - y	ef o			
Property	Code	0.0			* Property	Name			•	Well Number	
2469	72 3	2275	4		BRAINA	RD 12			2H		
OGRID					<sup>4</sup> Operator	Name				* Elevation	
27755	8			LIME	ROCK RESOU	JRCES II-A, L.I	P.			3295.5	
L					- Surface	Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	st line	County	
K	12	18 S	26 E		1850	SOUTH	1590	WE!	ST	EDDY	
		• • •	" <b>B</b>	ottom H	ole Location	If Different Fr	om Surface				
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/We	st line	County	
L	11	18 S	26 E		2140	SOUTH	100	WES	ST	EDDY	
" Dedicated Acre	Dedicated Acres U Joint or Infill 4 Consolidation Code 8 Order No.						•				
200											

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.



Rup 10-18-18

RECEIVED

### Lime Rock Resources II-A, L.P. Drilling Plan

Brainard 12 #2H 1850' FSL 1590' FWL (K) 12-18S-26E Eddy County, NM

- 1. The elevation of the unprepared ground is 3295.5 feet above sea level.
- 2. The geologic name of the surface formation is Quaternary Alluvium.
- 3. A rotary rig will be utilized to drill the well to 9200'MD/2705' TVD and run casing. This equipment will be down and the well will be completed with a workover rig.
- 4. Well will be drilled to a total proposed depth of 9200' MD/2705' TVD. The KOP for horizontal drilling will be at 1942'. See directional plan for details.
- 5. Estimated tops of geologic markers:

	MD	TVD
Quaternary – Alluvium	Surface	Surface
Yates	NA	NA
7 Rivers	NA	NA
Queen	400	400
Grayburg	637	637
Premier	906	906
San Andres	946	946
Glorieta	2320	2305
Yeso	2426	2395
Tubb	NA	NA
TD	9200	2705

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	NA	NA
Queen	400	400
Grayburg	637	637
Premier	906	906
San Andres	946	946
Glorieta	2320	2305
Yeso	2426	2395
Tubb	NA	NA
TD	9200	2705

7. Proposed Casing and Cement program is as follows:

Туре	Hole	Casing	Wi	Grade	Thread	Depth	Sx	Density	Yield	Components
Conductor	26"	20"	91.5	В	Welded	80	80			Ready Mix
Surface	12.25"	9-5/8"	36	J-55	ST&C	1230	600	14.8	1.35	Cł C Cmt + 0 25 lbs/sk Cello Fiake + 2% CaCl2
Intermediate										
Production	8 3/4"	5-1/2"	20	L-80	LT&C	9200	500	12.8	1.903	(35:55) Poz/CI C Cmi + 5% NaCi + 0 25 lbs/sk Cello Flake + 5 lbs/sk LCM-1 +0 2% R-3 + 6% Gel
							2000	14.8	1.3	Class C w/ 0 6% R-3 and 1/4 pps cello flake

### 8. Proposed Mud Program is as follows

Depth	0-1230	1230-9000	9000-9200
Mud Type	Fresh Water Mud	Brine, Salt Gei, & Starch	Brine, Salt Gel, & Starch
Properties			
MW	8.4-9.2	9.8-10.1	9.9-10.1
pН	9.0-10.5	10.0-12.0	10.0-12.0
WL	NC	NC	20-30
Vis	28-34	28-29	32-34
MC	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 9200 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 1190.2 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 15 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:

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- 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 #
Steve Hunter	Production Manager	Houston	713-292-9516	832-330-7313	Same as Cell
Spencer Cox	Operations Engineer	Houston	713-292-9528	432-254-5140	Same as Cell
Eric McClusky	Operations Engineer	Houston	713-360-5714	832-491-3079	405-821-0534
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
Gary McCelland	Well Site Supervisor	Rotates on Site	NA	903-503-8997	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	575-887-7551
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

Emergency Services							
Name	Service	Location	Telephone Number	Alternate Number			
Boots & Coots International Well Control	Well Control	Houston / Odessa	1-800-256-9688	281-931-8884			
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**

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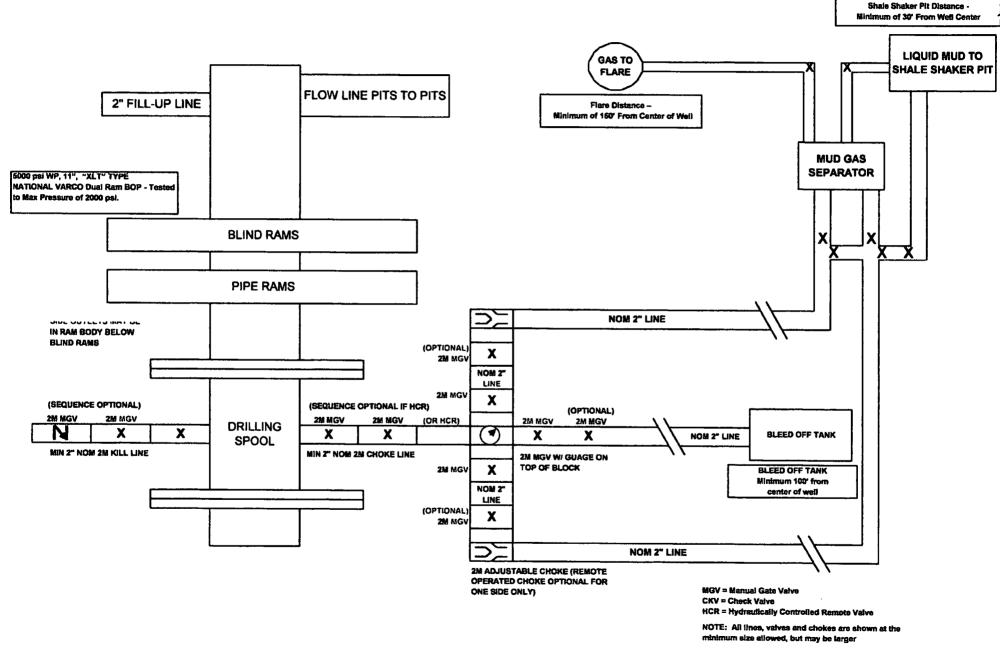
The blowout preventer equipment (BOP) will consist of a 5000 psi rated, "XLT" type, National VARCO double ram preventer that will be tested to a maximum pressure of 2000 psi. The unit will be hydraulically operated and the ram type preventer will be equipped with blind rams on top and drill pipe rams on bottom. The 2M BOP will be installed on the 9 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**





## Brainard 12 #2H

## Unit K, S12-T18S-R26E, 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:

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> 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.

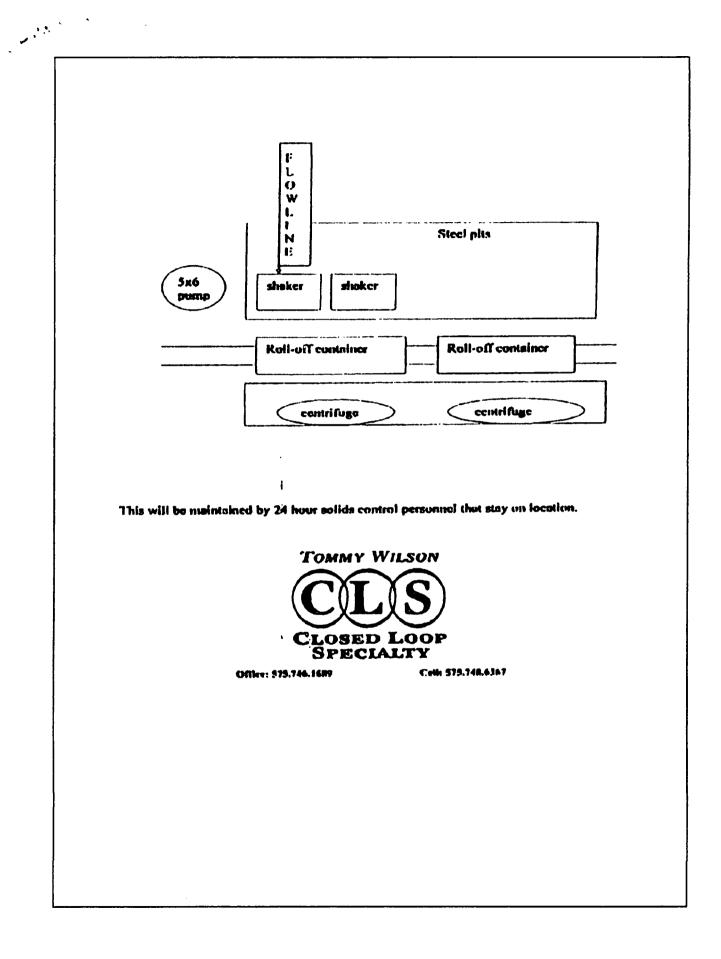
2- (250 bbl) tanks to hold fluid 2-CRI bins with track system 2-500 bbl frac tanks with fresh water 2-500 bbl frac tanks for brine water

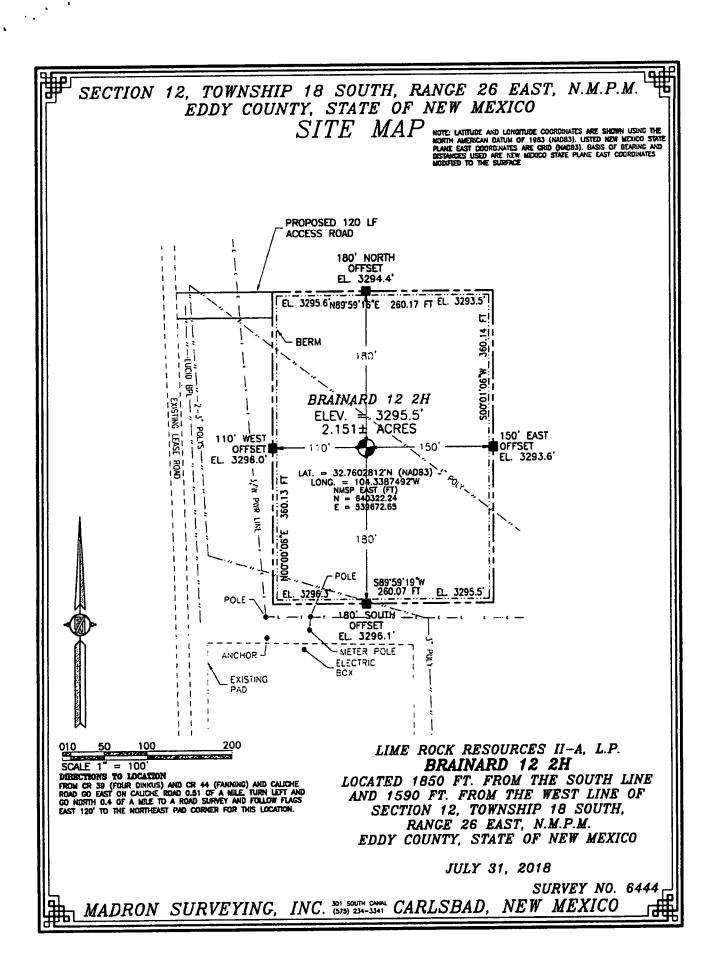
### **Operations:**

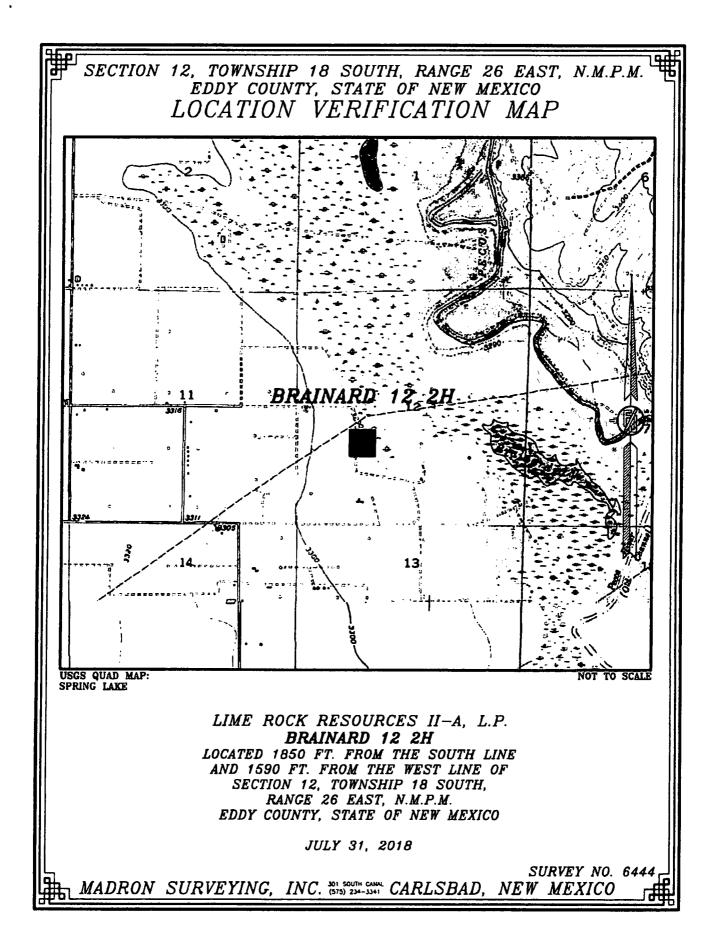
Closed Loop System equipment will be inspected daily by each tour and any necessary maintenance performed. leak in system will be repaired and/or contained immediately. OCD will be notified within 48 hours of any spill. Remediation process will start immediately.

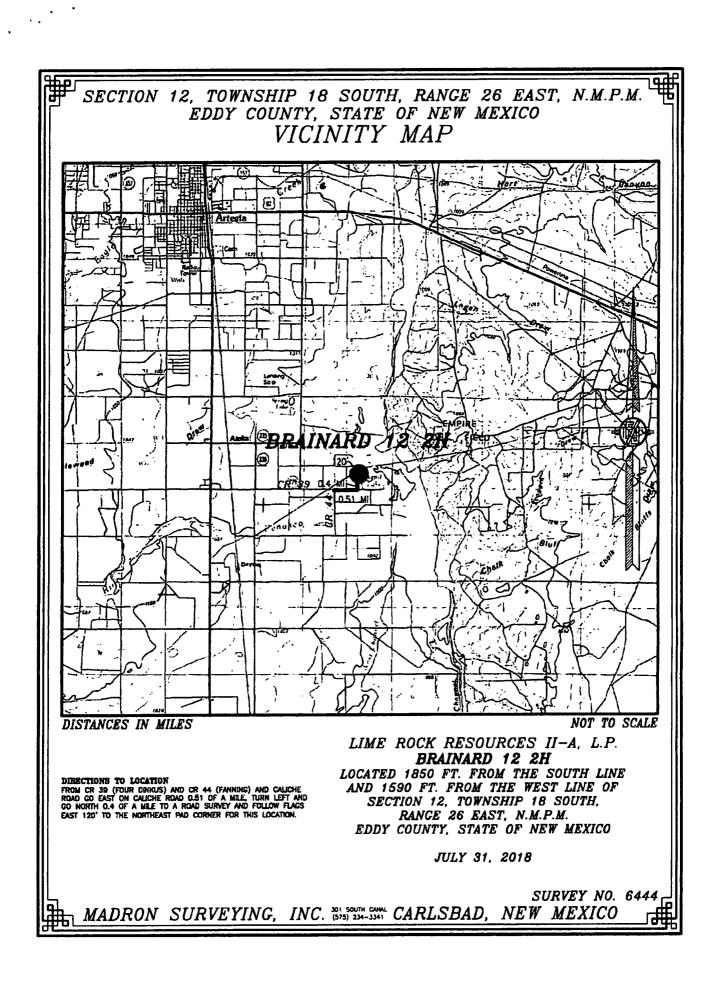
### Closure:

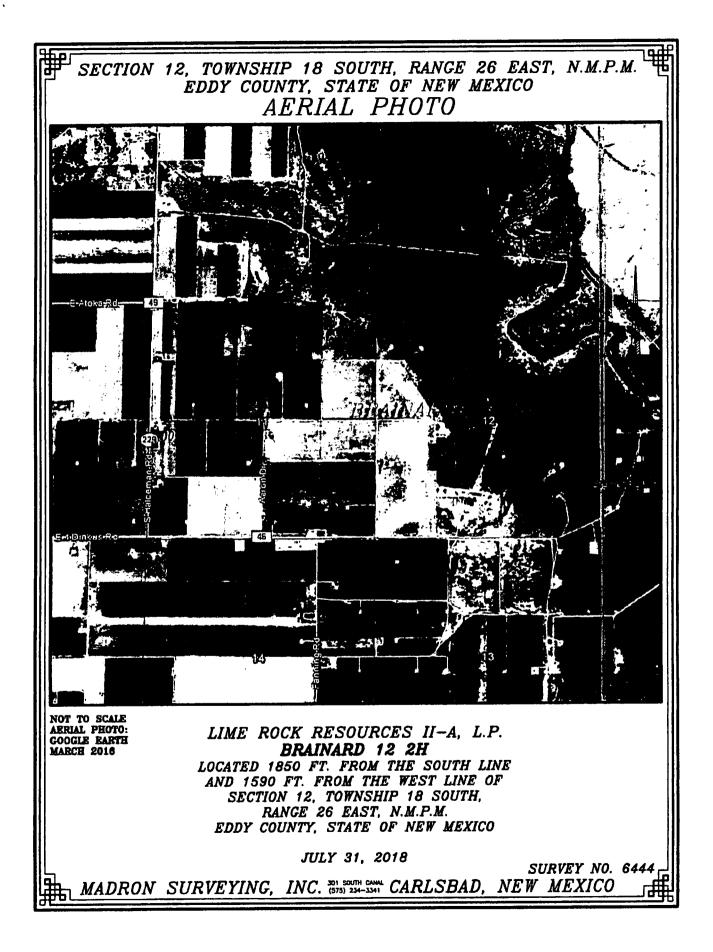
During drilling operations all liquids, drilling fluids and cuttings will be hauled off via CRI equipment to DFP #R9166.











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