OCD-ARTESIA

Form 3160-3 (April 2004) OCT 16 2007

OCD-ARTESIANITED STATES

DEPARTMENT OF THE INTERIOR



BUREAU OF LIME MAN	AGEMENT .	- INIIIO	224411			
APPLICATION FOR PERMIT TO	6. If Indian, Allote	e or Tribe Name				
1a. Type of work DRILL REENTE	1	7 If Unit or CA Agreement, Name and No. Ross Draw Unit #28				
lb. Type of Well Oil Well Gas Well Other	8. Lease Name and Ross Draw U	11000				
2. Name of Operator J.C. Williamson	11158	9 API Well No.	5-35865			
3a Address 214 W. Texas Suite 1250 Midland, Texas 79701	3b Phone No. (include area code) 432-682-1797	10. Field and Pool, o Ross Draw -				
4. Location of Well (Report location clearly and in accordance with any	State requirements.*)	11. Sec, T R. M or	Blk. and Survey or Area			
At surface 660' FSL At proposed prod zone 1980' FWL Carlshad (Controlled Water Basin	Section 26, T	7-26S, R-30E			
14. Distance in miles and direction from nearest town or post office* 34 miles SE of Carlsbad		12 County or Parish Eddy	13 State			
15. Distance from proposed* location to nearest property or lease line, ft	16 No of acres in lease	17 Spacing Unit dedicated to this				
(Also to nearest drig unit line, if any)	g unit line, if any)					
18 Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 1980' FWL	19 Proposed Depth 7,400'	20 BLM/BIA Bond No. on file NM2469				
21 Elevations (Show whether DF, KDB, RT, GL, etc.) 3,006 GL	22. Approximate date work will sta 10/20/2007	rt* 23 Estimated durate 30 Days				
	24. Attachments		-			
The following, completed in accordance with the requirements of Onshor	e Oil and Gas Order No.1, shall be a	ttached to this form				
 Well plat certified by a registered surveyor. A Drilling Plan 	4 Bond to cover to liem 20 above).	he operations unless covered by a	an existing bond on file (see			
3. A Surface Use Plan (if the location is on National Forest System SUPO shall be filed with the appropriate Forest Service Office)		specific information and/or plans	as may be required by the			
25. Signature Public Brice	Name (Printed/Typed) Bobbi Brice		Date 09/25/2007			
Title Regulatory Agent						
Approved by (Signature) /s/ James Stovall	Name (Printed Typed)		Dat 1 4 2007			
Title FIELD MANAGER	Office CARLS	BAD FIELD OFF	ICE			
Application approval does not warrant or certify that the applicant hold	legal or equitable title to those righ	ts in the subject lease which would	l entitle the applicant to			

conduct operations thereon.
Conditions of approval, if any, are attached.

APPROVAL FOR TWO YEARS

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction

*(Instructions on page 2)

APPROVAL SUBJECT TO **GENERAL REQUIREMENTS** AND SPECIAL STIPULATIONS **ATTACHED**

SEE ATTACHED FOR CONDITIONS OF APPROVAL

If earthen pits are used in association with the drilling of this well, an OCD pit permit must be obtained prior to pit construction.

State of New Mexico

DISTRICT 1 1666 N. FRENCE DR., BOBING To 03940

Snargy, Minerals and Natural Resources Department

Feb. # 7 -102

DISTRICT II 1801 W. GRAND AVENUE, AMTRICA, PM 80210

OIL CONSERVATION DIVISION

Revised October 12. 27.57 Submit to Appropriate District Oftion State Lease - 4 Copies Pee Lease - 3 Copies

DISTRICT III 1000 Rio Brunus Rd., Astec, NM 87410

1220 SOUTH ST. FRANCIS DR. Westa Fe, New Mexico 87505

DISTRICT IV WELL LOCATION AND ACREAGE DEDICATION PLAT ☐ AMENDED REPORT 1220 S. ST. PRANCES USL, HARTA PK, WAR STROS Pool Name Pool Code API Himsher 52799 E 451 Delaware Well Number Property Code Property Name ROSS DRAW UNIT 28 OGRID No. Operator Name Elevation J.C. WILLIAMSON 3006 Surface Location Ut. or lot No. Section qideawoT Lot Idn Peet from the North/South line Feet from the Rast/West line County Range Ν 26-S **EDDY** 26 SOUTH 1980 WEST 30-E 660 Bottom Hole Location If Different From Surface UL or lot No. Section Township Lot Ida Feet from the North/South line Post from the East/West line Dodicated Acres Joint or Infill Consolidation Code Order No. 40

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

OK A NOW-STANDARD OWN RAS DEED AFFROVED BI IN	
	OPERATOR CERTIFICATION
	I hereby revitly that the information hards is true and complete to the heat of my knowledge and belief, and that this organization oftheir owns a working interest or unlessed mineral liberart in the hand including 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 mineral or working interest, or to a robusticy pooling arrier burstoner or a computatory pooling arter harvishes entered by the division.
	Probbi Brice - Agent Printed Name
	SURVEYOR CERTIFICATION
GEODETIC COORDINATES NAD 27 NME Y=366883.0 N	I hereby certify that the well location shown on this plat was plotted from Reld notes at actual nurveys made by was or under my supervision, and that the same is tive and corract to the best of my belief.
X=648691.9 E LAT.=32.007768" N LONG.=103.653636" W	OCCUPAGE 2007
3005.0' 3007.0'	Date Surveyed Signature & Society Profositional Surveyor Company
1980 - 9	Manie 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1
3002.8 3002.7	Certificate No. GARY EIDSON 12841

005.0'	<u> </u>		600'			
		(D' NORTH DFFSET 3005.4'			
,000	150' WEST OFFSET 🗅 3005.9'	ELE LAT.=3	RAW UNIT #28 () V. 3006.0' 12.007768" N 03.853636" W	150° i □ OFFS 3007	SET C	,009
2 POUTY STREET IN	A Troposo	(□ D' SOUTH DFFSET 3002.4'			
002.8'			600'		· .	3002.7'
TATE LINE ROAD, GO 1.0 MILES. TURN RIC IGHT AND FOLLOW 1	TION TION OF CO. HWY. #C TO WEST ON STATE LING THE AND GO 441 FEE PROPOSED STAKED RO VEST CORNER OF THIS	E ROAD T. TURN D 74	¹⁰⁰ Вные J.C.	Scale:1"=	LIAN	200 Feet
P	POVIDING SURVEYING SERVICES SURCE 1945 VEST SURVEYING COMP 412 N. DAL PASO	ANY	AND 660 FE	ROSS DRAW UNED 1980 FEET FROM THE 50° 26 SOUTH, RAN EDDY COUNTY, 30/07	ROM THE WEST OUTH LINE OF A NGE 30 EAST, A NEW MEXICO.	SECTION 26.

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Ross Draw Unit #28 Eddy County, New Mexico Mud, Casing & Cement Program
Page 1 of 2

Mud, Casing & Cementing Program

J.C. Williamson Well: Ross Draw Unit #28 660' FSL, 1980' FWL, Sec. 26, T26-S, R30-E Eddy Co., NM Lease No. NM

* Attachment to Revised Drilling Operations Plan *

4. Proposed Mud, Casing and Cementing Program:

		Projected 1	Mud 1	Prop	erties	
INTERVAL: 0-725' 17.5" hole				13.375" casing		
DEPTH	MW - ppg	Vis	Fil	рН	Sol%	
0-725`	84-9.4	32-34	N/C	9.0	3-8	Fresh /water Gel - Spud Mud
INTERVAL: 725' - 3350'		12.25" ho	le			8.625" casing
DEPTH	MW - ppg	Vis	Fil	рН	CI-ppm	
725' - 3,350'	10	_28	N/C	10	186K	Brine Water
INTERVAL: 3350' - 7,200'		7.875" ho	ole			
DEPTH	MW - ppg	Vis	Fil	рH	CI-ppm	
3,350' - 7,200'	9.0 - 9 3	28	N/C	10	_55 - 75K	Cut Brine Water
INTERVAL: 7,200' - 7,400'		7.875" hole				5.5" casing
DEPTH	MW - ppg	Vis	Fil	pН	CI-ppm	
7,200' - 7,400'	9.0 - 9.5	30 - 34	15cc	10	80 - 140K	Salt Gel - Circulate through steel pits
						with H1-V1sc pills as necessary

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks in order to run DSTs, open hole logs, and casing, the viscosity and water loss may have been adjusted in order to meet these needs.

Hole Size	Depth	Casing OD	Weight	Thread	Collar	Grade
17-1/2"	0' - 725'	New 13-3/8"	48#	8rd	STC	H-40
12-1/4"	0' - 3350'	New 8-5/8"	24# & 32#	8rd	STC	J-55
7-7/8"	0' - 7400'	New 5-1/2"	17#	8rd	LTC	J-55

J.C. William uses the following minimum safety factors:

Burst:	Collapse:	Tension:
1.125	1.0	1.80

Ross Draw Unit #28
Eddy County, New Mexico
Mud, Casing & Cement Program
Page 2 of 2

A 17-1/2" hole for surface casing will be drilled to a depth below fresh water zone. 13-3/8" 48 #, H-40, ST & C, surface casing will be run to a depth of 725', below all fresh water zones and will be cemented to the surface with Lead Cement: 310 sks Class "C" 65/35/6 with 2% CaCI, ¼# Cello Flake mix - @ 12.4# gal,1.97 cu.ft/sk, 10.9 gal/sk. Tail cement: 185 sk Class "C" with 2% CaCI, ¼# Cello flake-mix @ 14.8# gal, 1.32 cu.ft/sk, 6.3/gal/sk to surface. Displace cement with fresh water to float collar. Top out with pea gravel and cement of 1" as necessary.

A 12-1/4" hole will be drilled and 8-5/8" 24# & 32#, J-55 ST & C, intermediate casing will be run to a depth of 3350' and will be cemented with Lead: 1045 sks Class "C" interfill cement @ 2.47 cu.ft/sk w/14.3 gal/sk. Tail: 100 sks Class "C" w/ 2% Calcium Chloride @ 1.35 cu.ft/sk w/ 6.39 gal/sk and displaced with fresh water to float collar.

A 7-7/8' hole will be drilled and 5-1/2" 17#, J-55, LT & C, production casing will be run to total depth and will be cemented at a total depth is significant shows are encountered in the Brushy Canyon formation. The second stage of the cement procedure should tie the 5-/2" casing back into the 8-5/8" surface casing, which is well above all productive zones. Cement operations for 5-1/2" production casing will be as follows: Pump 20 bbl fresh water, pump 500 gal super flush 102, vol. 11.90 bbl, pump 10 bbl fresh water, vol. 10 bbl, First Stage mix and pump with 350 sks 50/50 Poz premium plus cement (2% Gel), weight: 14.20 lbm/gal, 0.5% LAP-1 (Low fluid loss control), slurry yield: 1.29 ft³/sk, 0.4% CFR (Dispersant) total mixing fluid: 6.00 gal/sk, 0.25 lbm/sk D-AIR (Defoamer), top of fluid 5300 ft., 0.1% HR-7 (retarder), calculated fill: 1700 ft, volume 79.62 bbl, calculated sacks: 346.53 sks, proposed saks: 350 sks. Mulitple Stage Cementer @ 5,300'. fluid 1: precede cement with 20 bbl fresh water, fluid vol. 20 bbl. Fluid 2: Second Stage: lead with 410 sks, interfill with "C" cement, fluid weight: 11.90 lbm/gal, 0.125 lbm/sk Poly-E-Flake (lost circulation additive), slurry yield: 2.47 ft³/sk. total mixing fluid: 14.27 Gal/sk, top of fluid 0 ft, calculated fill 4,788', vol. 179.99 bbl, calculated sacks: 409.14, proposed sacks: 410 sks. Tail in with 100 sks premium plus cement, 94 lbm/sk premium plus cement, fluid weight: 14.80 lbm/gal, slurry yield: 1.33 total mixing fluid: 6.34 gal/sk, top of fluid: 4,788', calculated fill 512', vol. 23.69 bbl., calculated sacks: 100 sks.

Ross Draw Unit #28 Eddy Co., NM Drilling & Operations Plan Page 2 of 3

Sufficient mud materials will be kept on location at all times in order to combat lost circulation, or unexpected kicks in order to run DSTs, open hole logs, and casing, the viscosity and water loss may have been adjusted in order to meet these needs.

Hole Size 17-1/2"	Depth 0' - 725'	Casing OD New 13-3/8"	Weight 48#	Thread 8rd	Collar STC	H-40	29# 1800-2000/
12-1/4"	0' - 3350'	New 8-5/8"	24# & 32#	8rd 🗐	LTC	J-55 J-55	1800-20ml
7-7/8"	0' - 7400'	New 5-1/2"	17#	8rd	LTC	J-55	32# remainder
.C. William	uses the follo	owing minim	um safety f	actors:			per operation
Burst:		C	ollapse:			Tension:	10/10/07
1.125		,	1.0			1.80	per operation. 10/10/07

A 17/1/2" hole for surface casing will be drilled to a depth below fresh water zone. N3-3/8" 48 #, H-40, ST & C, surface casing will be run to a depth of 725', below all fresh water zones and will be cemented to the surface with Lead Cement: 3 % sks Class "C" 65/35/6 with 2% CaCI, 1/4# Cello Flake mix - @ 12.4# gal,1.97 cu.ft/sk, 10.9 gal/sk. Tail cement: 185 sk Class "C" with 2% CaCI, 1/4# Cello flake-mix @ 14.8# gal, 1.32 cu.ft/sk, 6.3/gal/sk to surface. Displace cement with fresh water to float collar. Top out with pea gravel and cement of 1" as necessary.

A 12-1/4" hole will be drilled and 8-5/8" 24# & 32#, J-55 LT & C, intermediate casing will be run to a depth of 3350' and will be cemented with Lead: 1045 sks Class "C" interfill cement @ 2.47 cu.ft/sk w/14.3 gal/sk. Tail: 100 sks Class "C" w/ 2% Calcium Chloride @ 1.35\cu.ft/sk w/ 6.39 gal/sk and displaced with fresh water to float collar.

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5. Pressure Control Equipment:

Install 8-5/8" x 5 1/2", 3000 psi. WP casinghead and adapter flange for BOPE (diagram Exhibit "E") and NU BOPE, a minimum compliance H2S Safety package should be in operation prior to drilling out the shoe. Pressure control equipment will consist of a 3000# hydraulically controlled blowout preventor and a 3000# choke manifold (as shown on Exhibit "F").

6. Circulating Medium:

The circulating medium will be fresh water down to 725' and brine water in the rest of the hole, once the water itself naturally with salt.

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Ross Draw Unit #28 Eddy Co., NM Drilling & Operations Plan Page 3 of 3

7. Auxilary Equipment:

Pickup 7-7/8" bit (HRS30C), National 6-1/2", 7-7/8 M/L 2.8 stage mud motor with stabilizer sleeve, stabilization (3 pt RR), shock sub and drill collars. Prior to drilling out cement, test casing, BOP and choke manifold to 1000 psi for 10 (ten) minutes with rig pumps (requires chart recorder).

8. Testing, Logging and Coring Program:

Formation testing will be made by a mud logger starting at 3000'. No drill stem test or coring are planned. It is planned that open hole logs will be run when total depth is reached.

- A. Mud logging program. 1 man unit from int. casing to TD.
- B. Electric logging program: CNL/LDT/CAL/GR,DLL/CAL/GR
- C. No DSTs or cores are planned at this time.

9. <u>Abnormal Pressures, Temperatures, Hydrogen Sulfide Gas or</u> Potential Hazards:

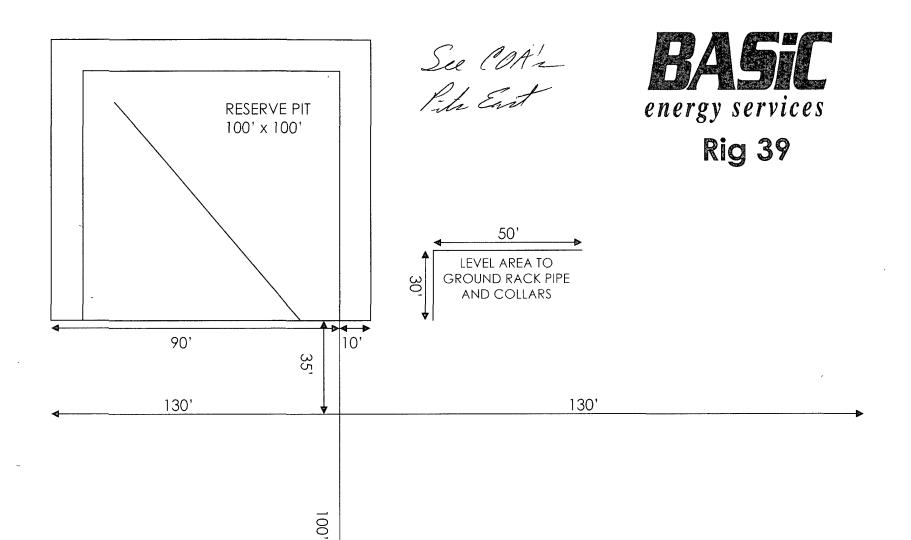
None are anticipated based on wells drilled in the area.

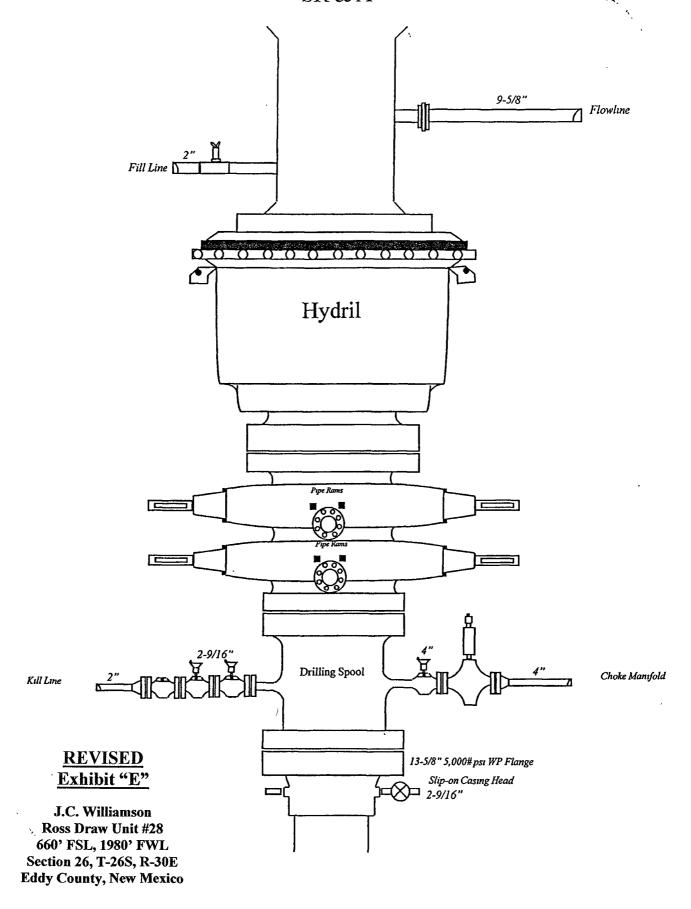
Estimated BHP: 3100#

Estimated BHT: 128°

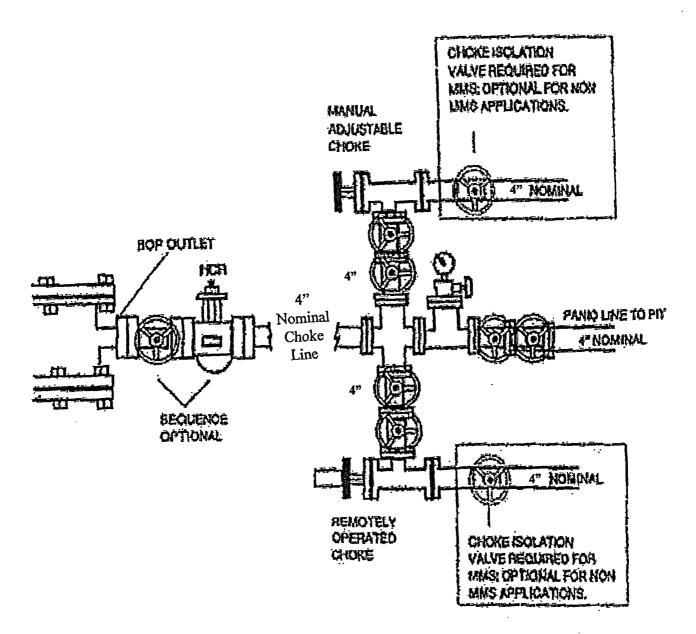
10. Anticipated Starting Date:

It has been planned that operations will commence on or about October 20, 2007.





DRILLING OPERATIONS CHOKE MANIPOLD 5M BERVICE



REVISED Exhibit "F"

J.C. Williamson Ross Draw Unit #28 660' FSL, 1980' FWL Section 26, T-26S, R-30E Eddy County, New Mexico

REVISEDSurface Use and Operations Plan

J.C. Williamson Well: Ross Draw Unit #28 660' FSL, 1980' FWL, Sec. 26, T26-S, R30-E Eddy Co., NM Lease No. NM

1. Existing Roads:

Exhibit "A" is a portion of a road map showing the location of the proposed well. Access to the location will be gained by using an existing road which comes out of the Jal-Orla cut of Highway (Hwy. 652).

2. Planned Access Road:

- A. <u>Surface Material</u>: Some surfacing material may be needed for the prepared location, if necessary, 4" caliche, watered and compacted will be used. Surfacing materials where needed will be removed from an approved caliche pit, located one mile to the southwest of location.
- B. Maximud Grade: Two percent.
- C. Turnouts: None required.
- D. Culverts: None required.
- E. <u>Cuts and Fills</u>: None necessary. Only clearing and minor leveling will be required.
- F. <u>Gates and Cattle Guards</u>: None required. No fences will need to be cut in conjunction with drilling operations.

3. Location of Existing Wells:

A. Existing wells in the area are shown on Exhibit "B".

4. Location of Existing and/or Proposed Facilities:

A. There are existing facilities owned and operated by J.C. Williamson that will be utilized by this lease, and these are the battery and treating facilities put on the lease in association with the Ross Draw #25.

B. If the proposed well is completed for production, the tank battery for this well will be the battery constructed for the Ross Draw #25 (Exhibit "G"), and this well will be connected to the existing battery by a surface flow line, crossing the lease, leading along existing roads to the Ross Draw #25 battery.

5. Location and Type of Water Supply:

Fresh water necessary for drilling will be purchased and hauled to the well site over existing and proposed roads. Produced brine water will be hauled to the location for make up water on the 7-7/8" portions of the hole or pumped to the location by surface flow line (3" fasline).

6. Source of Construction Materials:

The construction materials that may be needed can be obtained from an approved pit located in SW/4 SW/4 of Sc. 26, T-26S, R-30E, Eddy County, New Mexico.

7. Methods of Handling Waste Disposal:

- A. Drill cuttings will be disposed of in the drilling pit, using existing pits on site.
- B. Drilling fluid will be allowed to evaporate in the drilling pit until the pit is dry.
- C. All pits will be fenced with normal fencing materials to prevent livestock from entering the area.
- D. Water produced during testing of this well will be disposed of in the CRW SWD system.
- E. Oil produced during test will be stored in test tanks until sold.
- F. Current laws and regulations pertaining to the disposal of human waste will be complied with.
- G. Trash, waste paper, garbage and junk will be contained in trash bins to prevent scattering by the wind and will be removed for deposit in an approved sanitary land fill within 30 days after finishing drilling and/or completion operations.

8. Ancillary Facilities:

A. None required.

9. Well Site Layout:

- A. Exhibits "C" and "C-1" show the relative location and dimensions of the well pad, mud pit, trash pit and the location of the major rig components.
- B. Only minor leveling of well site will be required, no significant cut and fill will be necessary.

10. Plans for Restoration of the Surface:

- A. After completion of drilling and/or completion operations, all equipment and other material not needed for operations will be removed as soon as possible. Pits will be filled and the location cleaned of all trash and junk to leave the well site in as an aesthetically pleasing condition as possible.
- B. Any unguarded pits containing fluids will be fenced until they are filled.
- C. After abandonment, all equipment, trash and junk will be removed or buried and the location cleaned. Any special rehabilitation and/or special vegetation requirements of the surface management agency will be complied with and accomplished as expeditiously as possible.

11. Other Information:

- A. Topography: the land surface is relatively level. Regional slope is to the southwest.
- B. Soil: The top soil at the well is a gravely, loamy sand.
- C. Flora and Fauna: The vegetative cover is sparse and consists of mesquite, grease wood, yucca, weeds and range grasses. Wildlife in the area is that typical of semi-arid desert land and includes coyotes, rabbits, rodents, reptiles, dove and quail.
- D. Ponds and streams: The Pecos River is approximately six and one half miles west of the proposed well site. Red Bluff Reservoir is approximately four and one-half miles southwest of the well site.
- E. Residence and other structures: There are no occupied dwellings within two miles of the proposed well site. There is a small windmill approximately one mile to the north of the location.

- F. Archaeological, Historical and other Cultural Sites: (Exhibit "D") None observed in the area.
- G. Land use: Cattle grazing and hunting in season.
- H. Surface ownership: Federal.

12. Operator's Representative:

Representative responsible for assuring compliance with the approved Surface Use Plan is as follows:

Tom M. Ragsdale Siana Operating, LLC P.O. Box 10303 Midland, Texas 79702 Office Ph. 432.687.6600

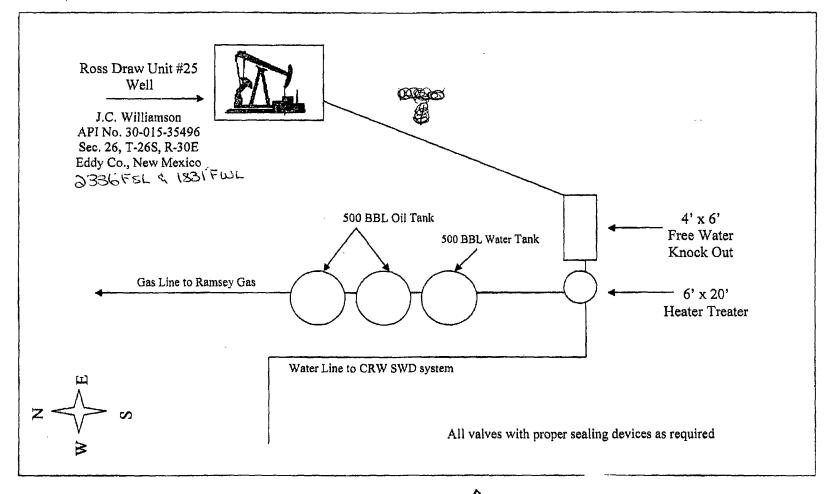
13. Certification:

I hereby certify that I, or persons under my direct supervision, have inspected the proposed drill site and access route; that I am familiar with the conditions which presently exist; that the statements made in the plan are, to the best of my knowledge, true and correct; and, that the work associated with the operations proposed herein will be performed by J.C. Williamson and its contractors and subcontractors in conformity with this plan and the term and conditions under which it is approved.

Date: October 9, 2007

J.C. Williamson Operator

By: Babbi Brice - Agent



Tank Battery Diagram



Exhibit "G"

J.C. Williamson Ross Draw Unit #28 660' FSL, 1980' FWL Section 26, T-26S, R-30E Eddy County, New Mexico

VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 2 hours in advance for a representative to witness:

- a. Spudding well
- b. Setting and/or Cementing of all casing strings
- c. BOPE tests

Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (505) 361-2822

- 1. Although no Hydrogen Sulfide has been reported in this township, it is always a potential hazard. If Hydrogen Sulfide is detected, please provide measurements to the BLM.
- 2. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
- 3. When floor controls are required, (3M or Greater) controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

B. CASING

- 1. The 13-3/8 inch surface casing shall be set a minimum of 25 feet into the Rustler Anhydrite at approximately 725 feet and cemented to the surface.
 - a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with a surface log readout will be used or a cement bond log shall be run to verify the top of the cement.
 - b. Wait on cement (WOC) time for a primary cement job will be a minimum 18 hours for a water basin, 24 hours in the potash area, or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement).

- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater. **Pea gravel is not approved.**
- d. If cement falls back, remedial action will be done prior to drilling out that string.

Possible lost circulation in the Redbeds and through the Castile Group. Possible lost circulation in the Delaware and Bone Spring formations. Medium cave/karst.

- 2. The minimum required fill of cement behind the 8-5/8 inch intermediate casing is:
 - Cement to surface. If cement does not circulate see B.1.a-d above.
- 3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - Cement should tie-back at least 200 feet into previous casing string. Operator shall provide method of verification. First stage to circulate.
- 4. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.

C. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements and testing as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 2000 (2M) psi.
- 3. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the 8-5/8 intermediate casing shoe shall be 3000 (3M) psi.
- 4. The appropriate BLM office shall be notified a minimum of 2 hours in advance for a representative to witness the tests.
 - a. The tests shall be done by an independent service company.
 - b. The results of the test shall be reported to the appropriate BLM office.

- c. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- d. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug.
- e. A variance to test the surface casing and BOP/BOPE to the reduced pressure of 1000 psi with the rig pumps is approved for 30 minutes. Full pressure test required prior to drilling out of 8-5/8" intermediate casing.

Engineer on call phone (after hours): Carlsbad: (505) 706-2779

WWI 101107