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NMOCD ARTESIA

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FORM APPROVED
OMB No 1004-0137
Expires July 31, 2010UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work. <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NM-14847
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator Clayton Williams Energy, Inc. (25706)		7. If Unit or CA Agreement, Name and No.
3a. Address Suite 3000, 6 Desta Drive Midland, Texas 79705	3b. Phone No. (include area code) (432) 682-6324	8. Lease Name and Well No. Phillips -19- Federal #30 (26582)
4. Location of Well (Report location clearly and in accordance with any State requirements *) At surface 1550' FNL, 445' FWL (Unit E Lot 2) At proposed prod. zone		9. API Well No. 30-015- 38162
14. Distance in miles and direction from nearest town or post office* 7 miles NW of Loco Hills, New Mexico		10. Field and Pool, or Exploratory Empire, Gloriaeta-Yeso (96210)
15. Distance from proposed* location to nearest property or lease line, ft (Also to nearest drig. unit line, if any) 445'		11. Sec., T R M. or Blk. and Survey or Area Section 19, T-17-S, R-29-E
16. No. of acres in lease 1054.42		12. County or Parish Eddy
17. Spacing Unit dedicated to this well 40 acres		13. State NM
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft 630'		
19. Proposed Depth 6,000		
20. BLM/BIA Bond No. on file NM 2787		
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3694' GL		
22. Approximate date work will start* 06/30/2010		23. Estimated duration 20 days

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No 1, must be attached to this form:

- | | |
|--|---|
| 1. Well plat certified by a registered surveyor. | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan. | 5. Operator certification |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be required by the BLM. |

25. Signature: <i>Matt Swierc</i>	Name (Printed/Typed) Matt Swierc	Date: 5/19/10
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Title
Production Superintendent

Approved by (Signature) /s/ Don Peterson	Name (Printed/Typed)	Date: AUG 24 2010
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Title FIELD MANAGER	Office CARLSBAD FIELD OFFICE
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Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would 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.

(Continued on page 2)

*(Instructions on page 2)

**Approval Subject to General Requirements
& Special Stipulations Attached**

Roswell Controlled Water Basin

*K2 09/17/10***SEE ATTACHED FOR
CONDITIONS OF APPROVAL**

EXHIBIT 1

DISTRICT I
1625 N. FRENCH DR., HOBBS, NM 88240

State of New Mexico
Energy, Minerals and Natural Resources Department

Form C-102

Revised October 12, 2005

Submit to Appropriate District Office

State Lease - 4 Copies

Fee Lease - 3 Copies

DISTRICT II
1301 W. GRAND AVENUE, ARTESIA, NM 88210

OIL CONSERVATION DIVISION

11885 SOUTH ST. FRANCIS DR.

Santa Fe, New Mexico 87505

DISTRICT III
1000 RIO BRAZOS RD., AZTEC, NM 87410

DISTRICT IV
11885 S. ST. FRANCIS DR., SANTA FE, NM 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

API Number 30-015-38162	Pool Code 96210	Pool Name Empire, Glorieta - Yeso
Property Code 26582	Property Name PHILLIPS 19 FEDERAL	Well Number 30
OGRID No. 25706	Operator Name CLAYTON WILLIAMS ENERGY, INC.	Elevation 3694'

Surface Location

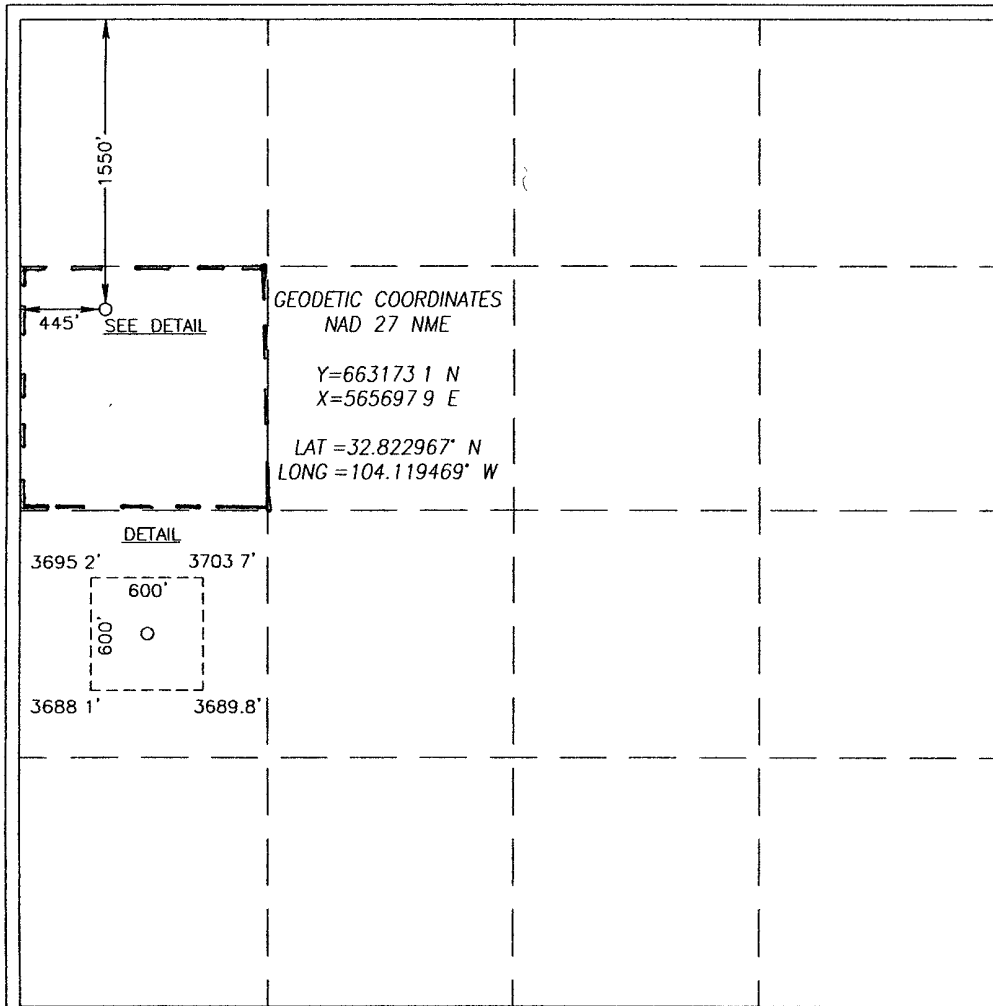
UL or lot No	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	19	17-S	29-E		1550	NORTH	445	WEST	EDDY

Bottom Hole Location If Different From Surface

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40	Y		

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



OPERATOR CERTIFICATION

I hereby certify that the information 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 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 voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

James C. Hunnicutt 5/19/2010
Signature Date
James C. Hunnicutt
Printed Name

SURVEYOR CERTIFICATION

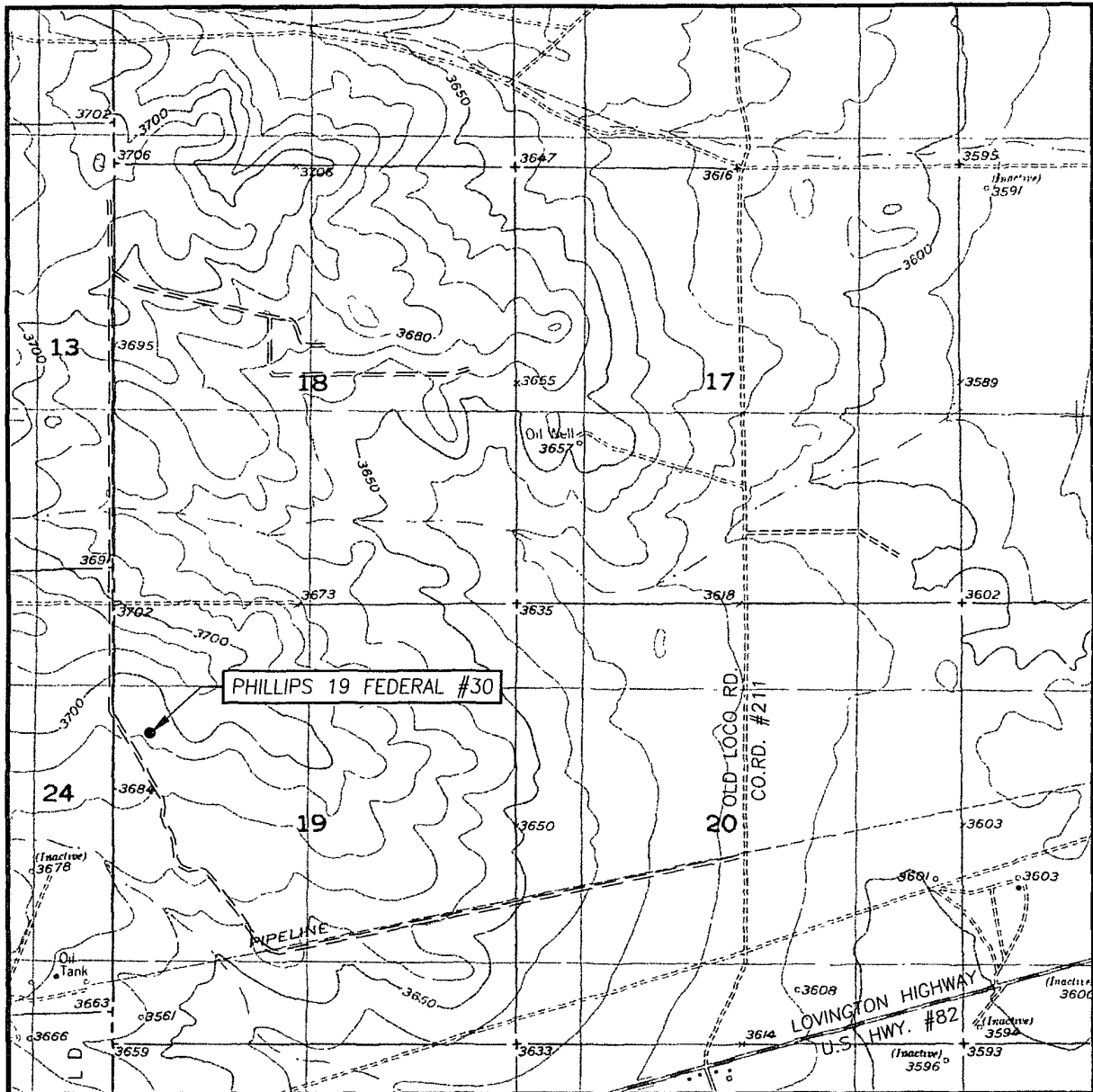
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

Ronald J. Eidson 5/21/2010
Date Surveyed
Signature & Seal of Professional Surveyor
RONALD J. EIDSON
JANUARY 15, 2010
LA

Certificate No. GARY G. EIDSON 12641
RONALD J. EIDSON 3239

EXHIBIT 2

LOCATION VERIFICATION MAP



SCALE: 1" = 2000'

CONTOUR INTERVAL:
RED LAKE SE, N.M. - 10'

SEC. 18 TWP. 17-S RGE. 29-E

SURVEY N.M.P.M

COUNTY EDDY STATE NEW MEXICO


DESCRIPTION 1550' FNL & 445' FWL

ELEVATION 3694'

OPERATOR CLAYTON WILLIAMS ENERGY, INC

LEASE PHILLIPS 18 FEDERAL

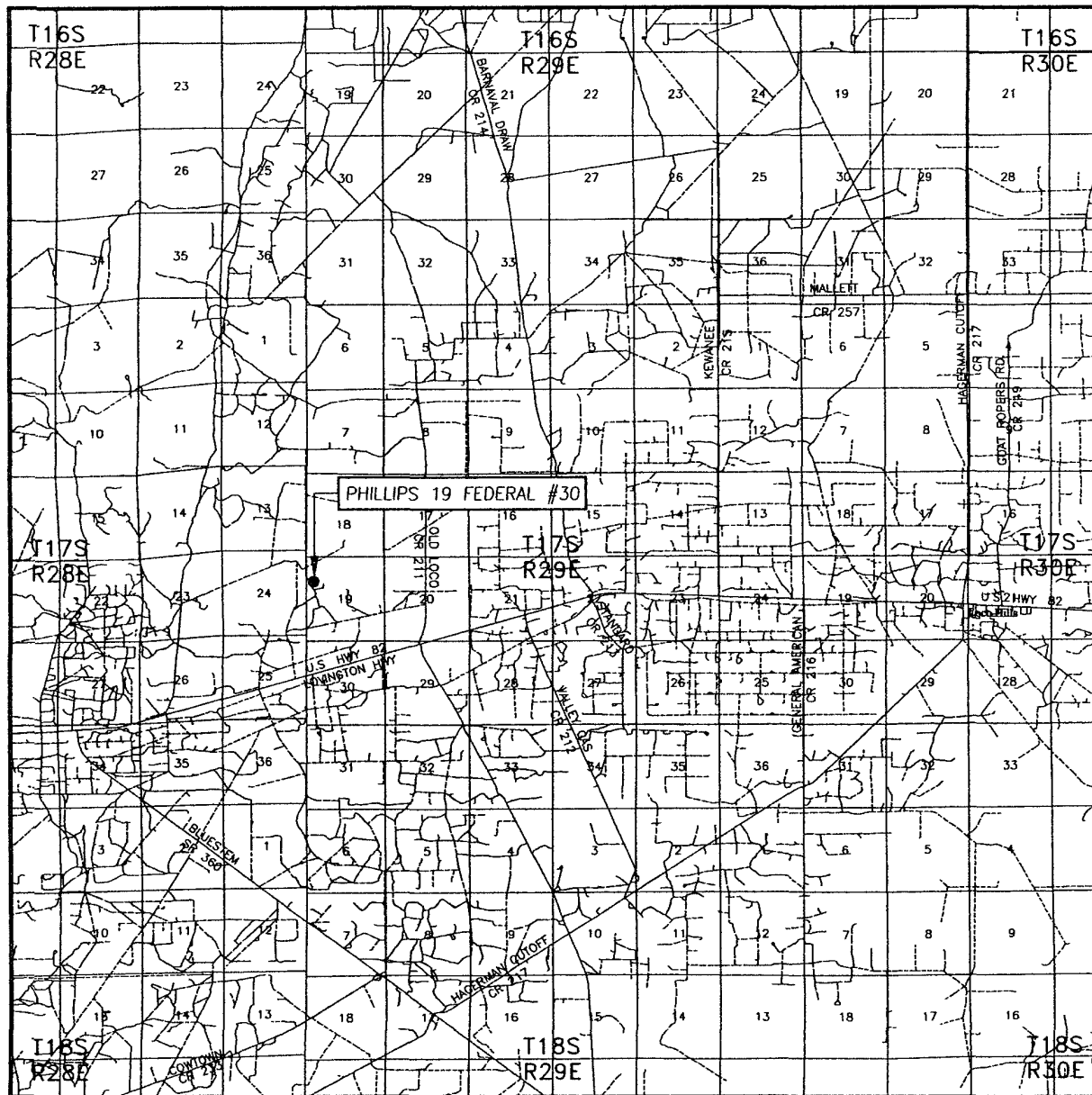
U.S.G.S. TOPOGRAPHIC MAP
RED LAKE SE, N.M.



PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N DAL PASO
HOBBS, N.M. 88240
(575) 393-3117


EXHIBIT 3

VICINITY MAP



SCALE: 1" = 2 MILES

SEC. 19 TWP. 17-S RGE. 29-E
 SURVEY N.M.P.M.
 COUNTY EDDY STATE NEW MEXICO
 DESCRIPTION 1550' FNL & 445' FWL
 ELEVATION 3694'
 OPERATOR CLAYTON WILLIAMS ENERGY, INC.
 LEASE PHILLIPS 19 FEDERAL



PROVIDING SURVEYING SERVICES
 SINCE 1946

JOHN WEST SURVEYING COMPANY

412 N. DAL PASO
 HOBBS, N.M. 88240
 (575) 393-3117

SECTION 18, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.
EDDY COUNTY NEW MEXICO

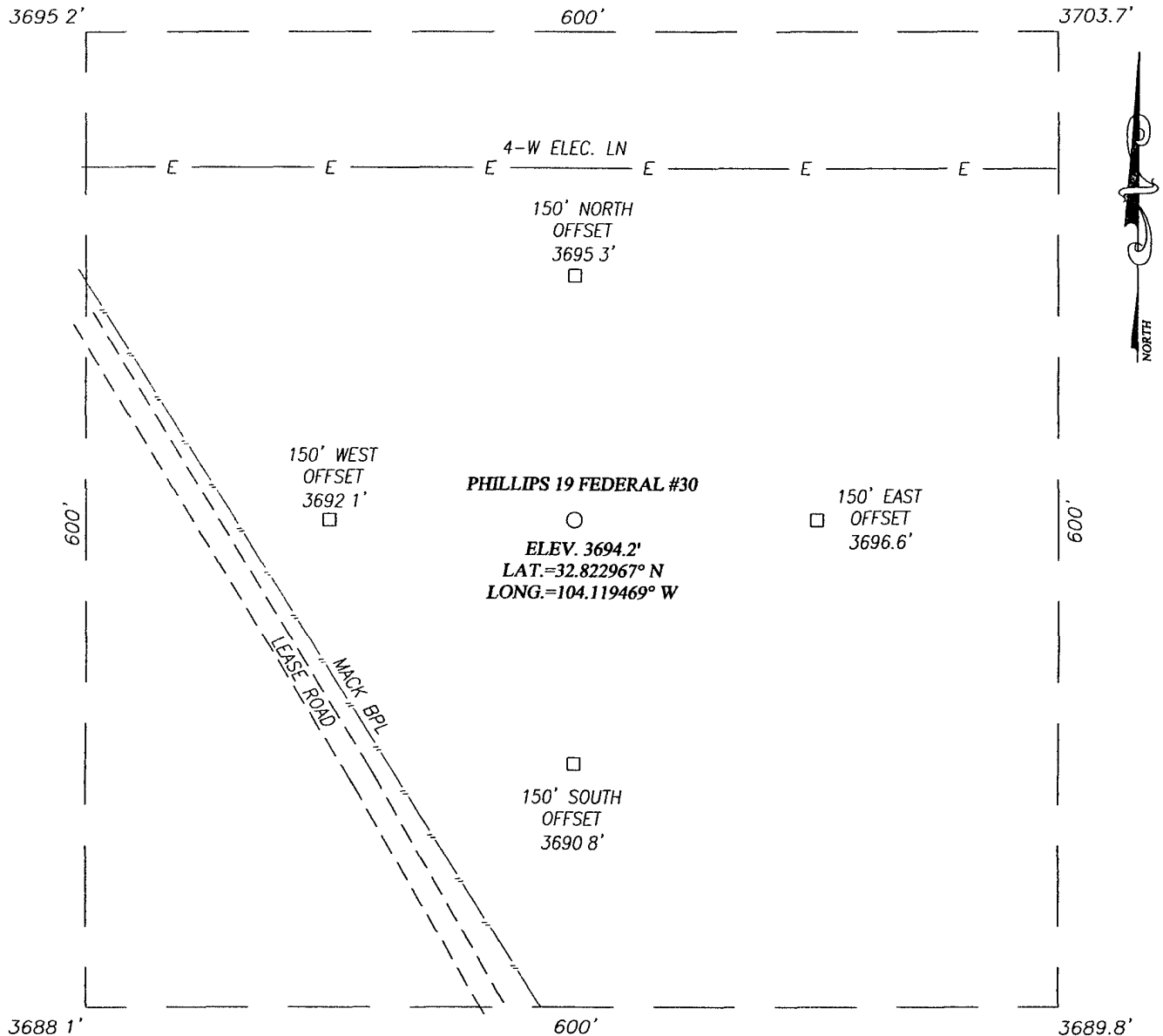
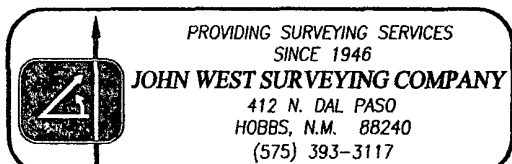
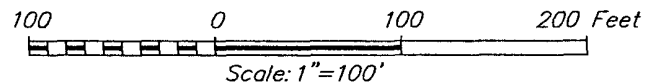


EXHIBIT 4

DIRECTIONS TO LOCATION

FROM THE INTERSECTION OF U.S. HWY. #82 AND CO. RD. #211
(OLD LOCO RD.), GO NORTH ON CO. RD. #211 APPROX. 0.5 MILES.
TURN LEFT AND GO WEST APPROX. 1.1 MILES. VEER RIGHT AND GO
NORTHWEST APPROX. 0.6 MILES. THIS LOCATION STAKE IS EAST OF
ROAD APPROX. 220 FEET.



CLAYTON WILLIAMS ENERGY, INC.

PHILLIPS 19 FEDERAL #30 WELL
LOCATED 1550 FEET FROM THE NORTH LINE
AND 445 FEET FROM THE WEST LINE OF SECTION 18,
TOWNSHIP 17 SOUTH, RANGE 29 EAST, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

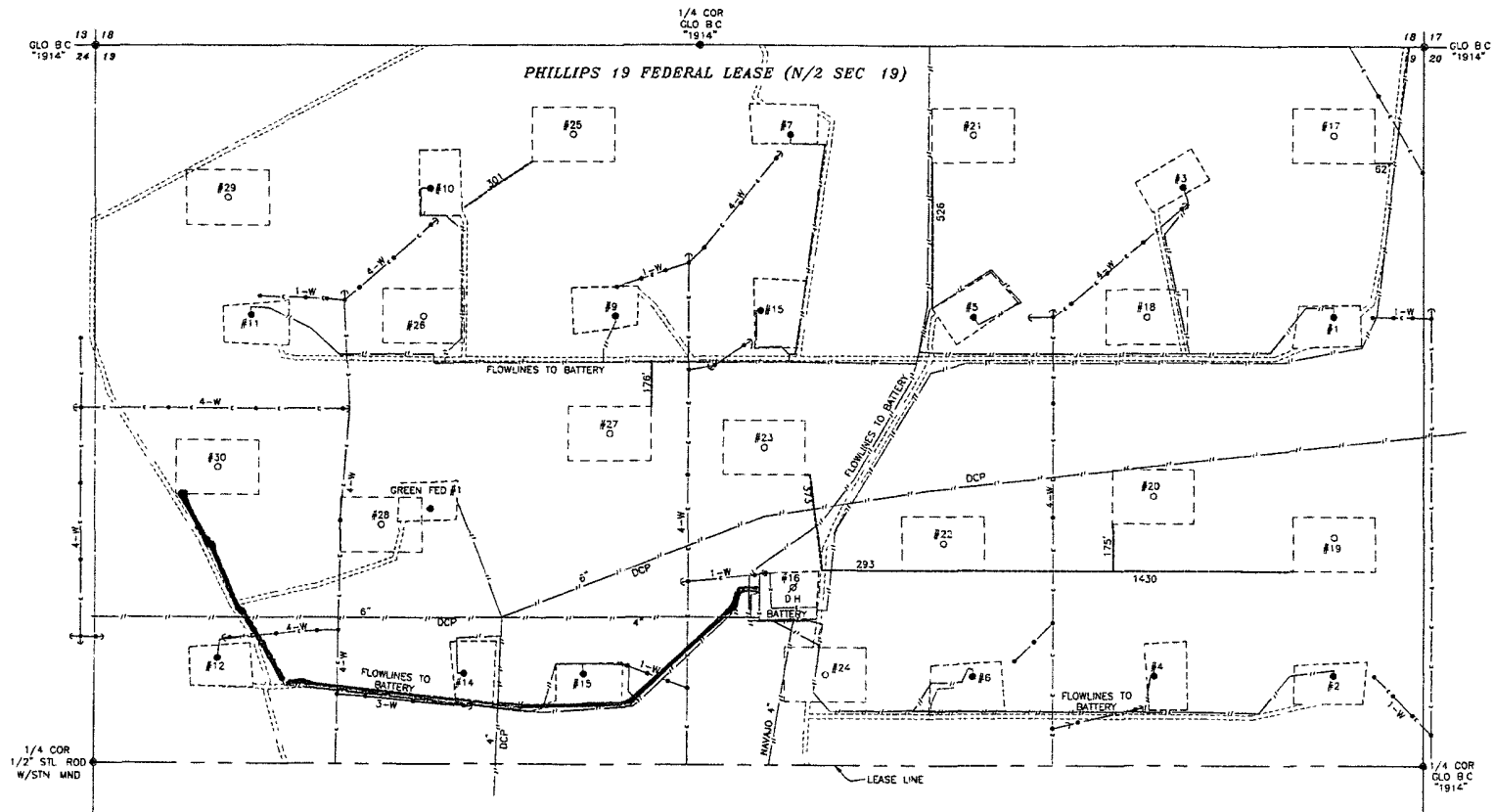
Survey Date: 1/18/10		Sheet 1 of 1 Sheets	
W.O. Number: 09.11.1141		Dr By: LA	Rev 1: N/A
Date: 01/20/10		09111141	Scale: 1"=100'

Phillips 19 Federal #30
1550' FNL, 445' FWL
Section 19, T-17-S, R-29-E
Eddy County, New Mexico

EXHIBIT 5

SECTION 19, TOWNSHIP 17 SOUTH, RANGE 29 EAST, N M P M.,
EDDY COUNTY, NEW MEXICO

EXHIBIT 6



300 0 300 600 FEET
Scale 1"=300'

- LEGEND**
- DENTOTES FENCE LINE
 - DENTOTES SURFACE/BURIED PIPELINE
 - DENTOTES LEASE ROAD
 - DENTOTES ELECTRIC LINE
 - DENTOTES UTILITY POLE & ANCHOR
 - DENTOTES EXISTING WELL LOCATION
 - DENTOTES FOUND MONUMENT AS NOTED
 - DENTOTES PROPOSED WELL
 - DENTOTES PROPOSED ROAD

NOTE THIS SURVEY DOES NOT SHOW ALL PIPELINES

CLAYTON WILLIAMS ENERGY, INC.

SURVEY OF EXISTING WELLS, ROADS AND PIPELINES IN
THE PHILLIPS 19 FEDERAL LEASE (N/2)
SECTION 19 TOWNSHIP 17 SOUTH, RANGE 29 EAST,
N M P M. EDDY COUNTY, NEW MEXICO

PROVIDING SURVEYING SERVICES
SINCE 1946
JOHN WEST SURVEYING COMPANY
412 N. DAL PASO
HOBBES, N.M. 80240
(575) 383-3117

Survey Date 2/12/10	Sheet 1 of 1 Sheets
W.O. Number 10110107	Drawn By LA D-1084
Date 2/22/10	10110107 REV 2/17/10

CLAYTON WILLIAMS ENERGY, INC.
DRILLING PROGRAM

Attached to BLM Form 3160-3

Lease Name: Phillips Federal 19
Well No: 30
Location: Sec. 19, T-17-S, R-29-E
Eddy Co., NM

1. Geological name of surface location: Triassic
2. Estimated tops of important geological markers.

<u>Name</u>	<u>Depth(MD)</u>	<u>Depth(SS)</u>	<u>Rock Type</u>
Rustler	300	3390	Red Bed Evaporites
Yates	820'	2870	Limestone
Seven Rivers	1080'	2610	Dolomite
Queen	1660'	2030	Dolomite/Sandstone
Grayburg	2055'	1635	Dolomite/Sandstone
San Andres	2350'	1340	Dolomite/Anhydrite
Glorieta	3790'	-100	Dolomite/Sandstone
Yeso	3860'	-170	Dolomite
Base of Yeso	6000'	-1970	

3. Estimated name of anticipated fresh water, oil and gas:

<u>Formation</u>	<u>Depth(MD)</u>	<u>Depth(SS)</u>	<u>Fresh Water/Oil/Gas</u>
Rustler	100	3390	Fresh Water
Yates	820'	2870	Oil
Seven Rivers	1146'	2610	Oil
Queen	1724'	2030	Oil
Grayburg	2105'	1635	Oil
San Andres	2414'	1340	Oil
Glorieta	3841'	-100	Oil
Yeso	3860'	-170	Oil

No other formations expected to produce fresh water or hydrocarbons. Surface casing set at 300' and circulating cement to surface will protect the surface fresh water sand. Production casing cemented back to surface will isolate intervals capable of producing oil and gas.

4. CASING PROGRAM

<u>Hole Size</u>	<u>Interval</u>	<u>OD Csg</u>	<u>Weight</u>	<u>Grade</u>	<u>Conn</u>	<u>BUR/COL/TENS</u>
11"	300'	8-5/8"	24#	J-55	STC/New	2.86/4.57/33.89
7-7/8"	6000'	5-1/2"	17#	J-55	LTC/New	2.65/1.30/2.56

5. CEMENT PROGRAM

24
COA

8-5/8" Surface Casing
125 SX Cl "C" + 2% CaCl₂ : 1.35ft³/sx yield – circulated to surface. 100% excess.

5-1/2" Production Casing:
Stage tool @ +/-2600'

1st Stage: Lead: 215 sx EconoCem C; 2.42 ft³/sx yield
Tail: 325 sx Class VersaCem "C" + 0.4% LAP1+0.4%CFR3+0.25lb/sx D-AIR3000; 1.22 ft³/sx yield– circulated to above DV Tool; 50% excess
2nd Stage: Lead: 230 sx EconoCem C; 2.42 ft³/sx yield
Tail: 100 sx HalCem C + 2% CaCl₂; 1.35 ft³/sx yield -circulated to surface; 50% excess

6. Minimum Specifications for Pressure Control:

The blowout preventer equipment (BOP) schematic attached will consist of a double ram-type (3000 psi WP) preventer and/or a bag-type (hydril) preventer (3000 psi WP). BOP will be hydraulically operated and the ram-type preventer will be equipped with blind rams and appropriate pipe rams. The BOP will be nipped up on the surface casing and used continuously until TD is reached. All BOP's and accessory equipment will be tested before drilling out of surface casing. Before drilling out of surface casing, the ram-type BOP and accessory equipment will be tested to 3000 psi and the hydril to 50% of rated working pressure (1500 psi). Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. A 2" kill line and 3" choke line will be attached to a drilling spool or BOP side outlets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold with 3000 psi WP rating.

7. Type & Characteristics of the Proposed Mud System:

The well will be drilled to TD with a combination of Fresh Water Gel/Brine System.

The applicable depths and properties of this system are as follows:

<u>Depth</u>	<u>Type</u>	<u>Weight (ppg)</u>	<u>Viscosity (sec)</u>	<u>Water Loss (cc)</u>
300'	FW Gel	8.6-9.0	34-45	N/C
6000'	Brine	9.8-10.1	28-30	12

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept at the well site at all times.

8. Auxiliary Well Control and Monitoring Equipment

- A. A Kelly cock will be kept in the drill string at all times.
- B. A full opening drill pipe stabbing valve (inside BOP) with proper drill pipe connections will be on the rig floor at all times.
- C. The drilling fluids system will be visually monitored at all times.
- D. A mudlogging unit will be continuously monitoring drilling penetration rate and hydrocarbon shows from surface to casing to TD.
- E. A fixed electronic H₂S monitoring system, including alarms with monitors at the shaker and the bell nipple, will be in operation from surface to TD.

9. Logging, Testing & Coring Program: *See COH*

- A. Drill stem tests: None anticipated.
- B. Electronic logging program: DSN, MSFL, DLL, FMI (optional) from TD to surface casing
- C. Coring: None

10. Abnormal Conditions, Pressures, Temperatures & Potential Hazards.

Possible sulfur water flows in the Queen/Grayburg intervals. Estimated bottom hole temp of 110 deg. F, and maximum bottom hole pressure of 2500 psi.

11. Anticipated Starting Date & Duration of Operations:

Road and location work will not begin until approval has been received from the BLM. The anticipated spud date is upon approval of APD. Once commenced, the drilling operations should be finished within approximately 10 days. If the well is productive, an additional 10 days will be required for completion and testing.

12. Safety

Tour Safety Meeting will be conducted with all crews and reported on IADC morning report. Topics and attendance will be recorded for each meeting and kept on file in company representatives office for inspection.

13. Miscellaneous Notes

H2S Contingency plan attached

Totco inclination surveys every 500' or bit trip.

Mud Disposal: closed loop system, haul off all cuttings and fluids.

BHA – Surface and Production hole; slick assembly, no stabilizers or reamers

Bit Program

Surface	11"	Tri-Cone	60-100 RPM	25-35K WOB
Production	7-7/8"	PDC/Tri-Cone	60-90 RPM	30-40K WOB

Type Vertical	RIG: TBD	DATE: May 13, 2010
Field Loco Hills	County: Eddy	Elevation: Varies
Gas/Oil: Oil	Mud Company: TBD	Cement: Halliburton

Comments:

Mud Logger	Surveys	WOB/GPM Bit Type	Formation Tops Hole Sizes		Mud Weight	Open Hole Logs	Cement	Wellhead	Remarks
		5K-15K 300GPM Rock Bit							
		Inclinations 200' and 400'	RED BEDS 11" Hole						
		No Mudlogger							
			8-5/8", 24#, J55 STC						
		Inclinations Every 500'	7-7/8" Hole						
		Mudlogger on at drill out surface							
		30K-40KWOB 300GPM Rock/PDC bits	Grayburg	2055					
			San Andres	2350					
				DV Tool 2600'					
			Glorieta	3790					
			Top Yeso	3860					
			Base of Yeso	6000'					

CLAYTON WILLIAMS ENERGY, INC.
RIG LAYOUT

DATE	2/4/10
BY	CL
REVISION	000000/000000
FILE	0000
NO. OF SHEETS	1

NOT TO SCALE

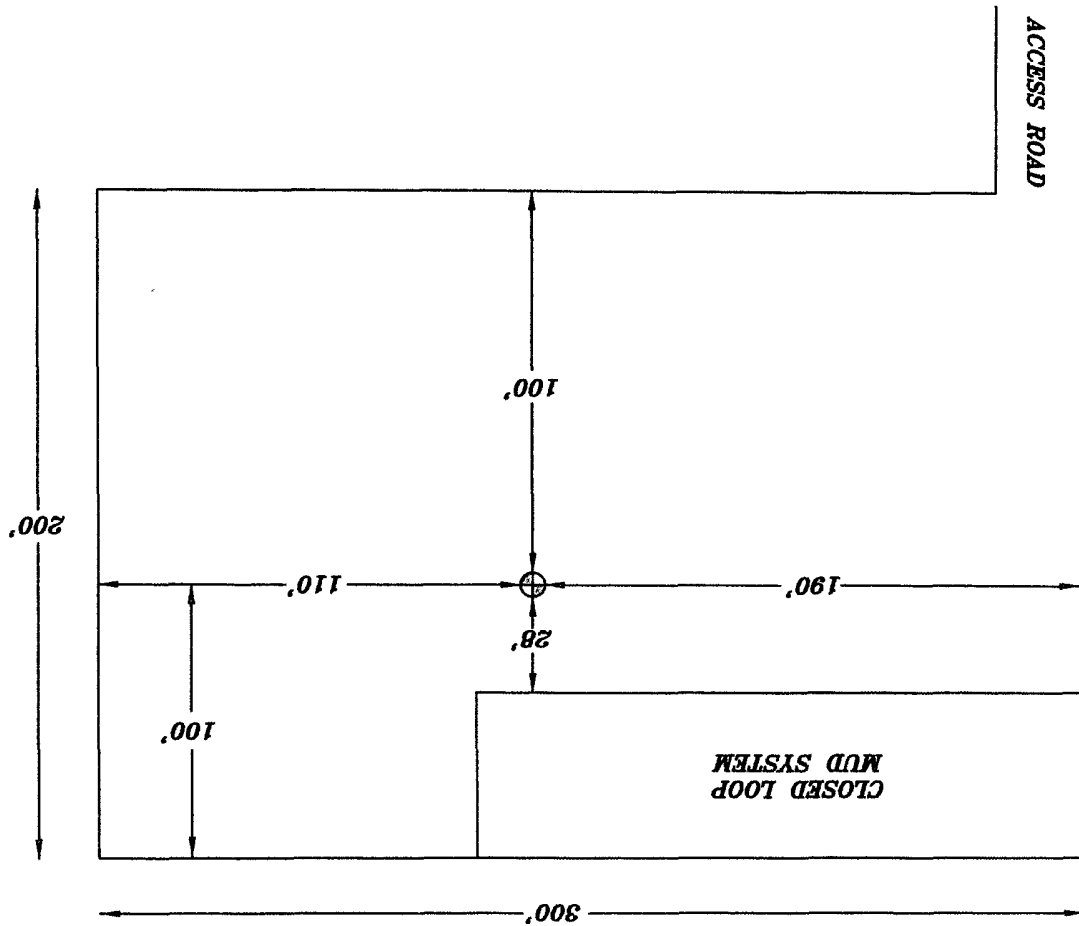


EXHIBIT 8

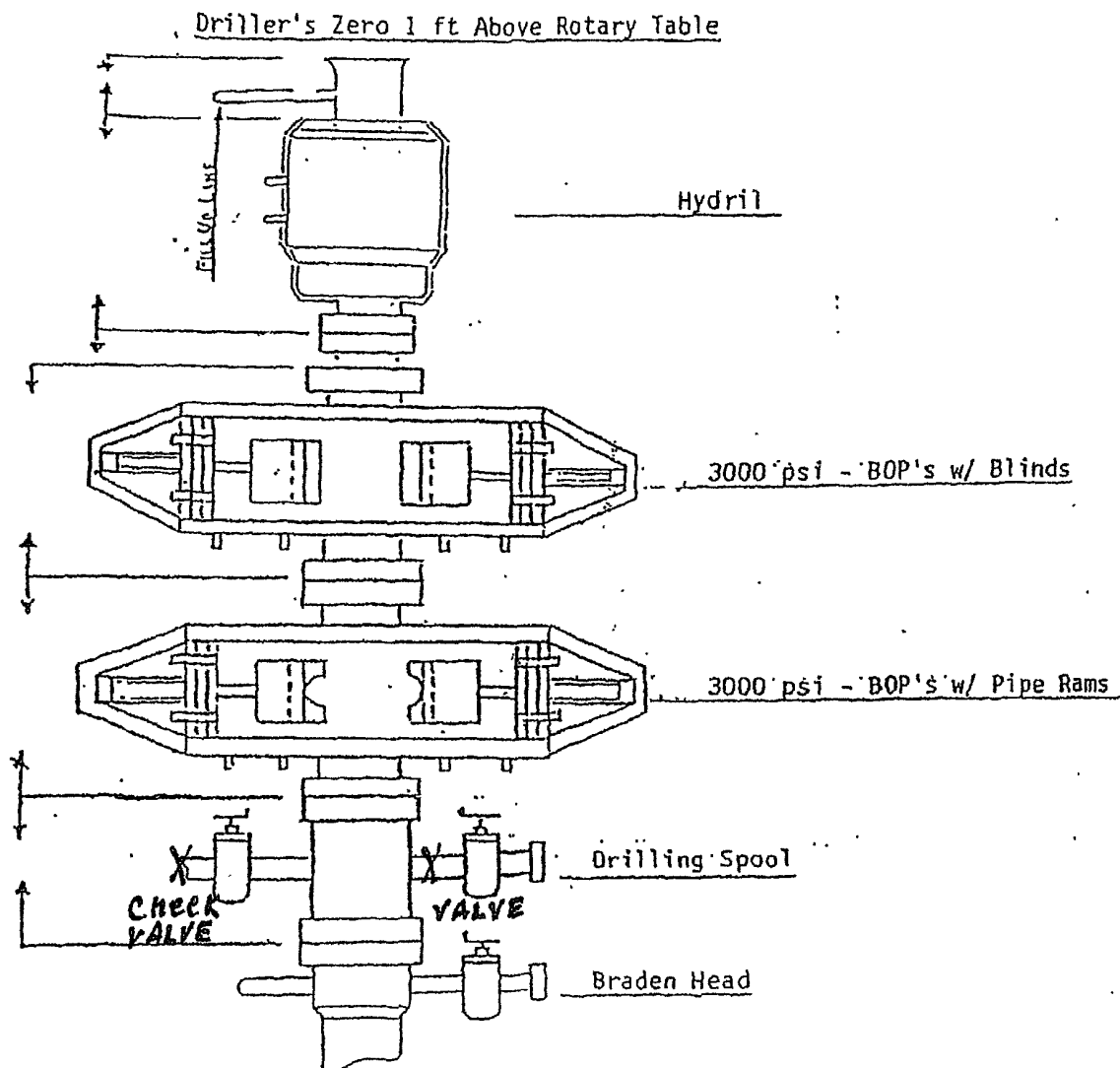
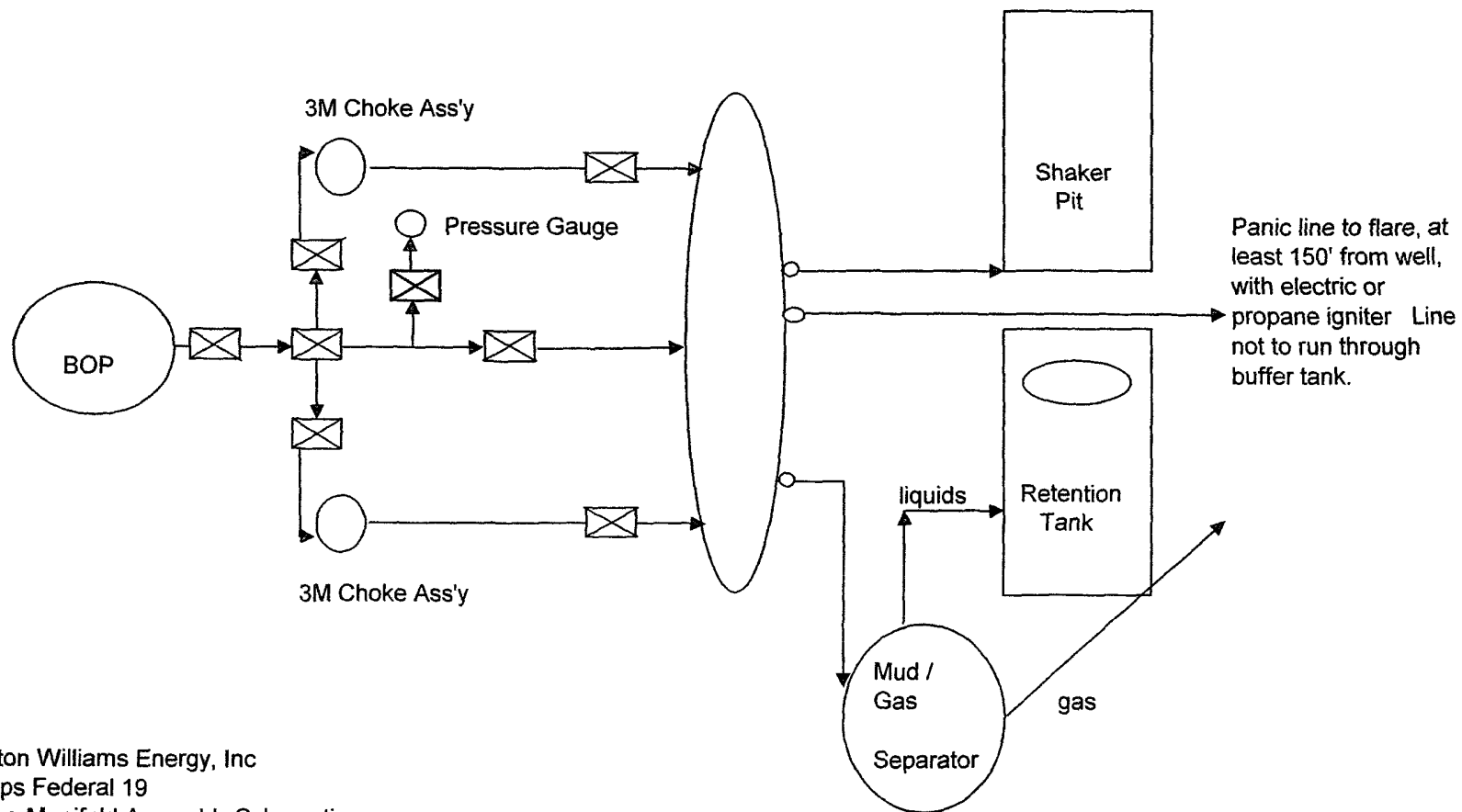


EXHIBIT 9



Clayton Williams Energy, Inc
 Phillips Federal 19
 Choke Manifold Assembly Schematic
 Connection to Closed Looping Mud System
 3M psi Rating

SURFACE USE PLAN OF OPERATIONS

Clayton Williams Energy, Inc.
Phillips 19 Federal Lease
Well # 30
Section 19
T-17-S, R-29-E, NMPM, Eddy County, New Mexico

1. Existing Access Roads

- A. The well site survey and elevation plat for the proposed well is shown in Exhibit 4. It was staked by John West Surveying Company, Hobbs, NM.
- B. All existing roads to the location are shown in the topographic map (Exhibit 2) and/or the plan of development (POD) plat (Exhibit 6). The existing lease roads are illustrated and are adequate for travel during drilling and production operations. Upgrading existing roads prior to drilling the well will be done where necessary.

- C. Directions to Location:

From the intersection of Highway 82 and County Road 211 (Old Loco Road), go north on CR 211 approximately 0.4 mile. Turn left and go west approximately 1.1 mile. Veer right and go northwest approximately 0.6 mile. Location is on the east side of the road.

- D. Routine grading and maintenance of existing roads will be conducted as necessary to maintain their condition as long as any operations continue on this lease.

2. Proposed Access Road:

The elevation plat (Exhibit 4) shows that no new road will be required for this location, to be constructed from a point on the existing lease road as indicated on Exhibits 2 and/or 6. Any new road that is required will be constructed as follows:

- A. The maximum width of the running surface will be 14 feet. The road will be crowned, ditched and constructed of 6" rolled and compacted caliche. Ditches will be at 3:1 slope and 4 feet wide. Water will be diverted where necessary to avoid ponding, prevent erosion, maintain good drainage, and be consistent with local drainage patterns.
- B. The average grade will be less than 1%.
- C. No turnouts are planned.
- D. No culverts, cattleguard, gates, low water crossings or fence cuts are necessary.
- E. Surfacing material will consist of native caliche. Caliche will be obtained from the nearest BLM approved caliche pit or from a private source.

EXHIBIT 12

3. Locations of Existing Wells:

Exhibit 5 shows all existing wells within a one-mile radius of this well.

4. Location of Existing and/or Proposed Facilities:

A. Clayton Williams Energy, Inc. ("CWEI") will use its existing production facility located on the surface of Section 19, as shown in Exhibit 6. If the well is productive, contemplated facilities will be as follows:

- 1) Production will be sent to the existing production facility described in "A" above.
- 2) Additions, if needed, to the existing tank battery and facilities including any piping will be installed according to API specifications.
- 3) Any additional caliche will be obtained from a BLM-approved caliche pit or from a private source. Any additional construction materials will be purchased from contractors.
- 4) 2702' of flow line will be constructed to this well from the existing tank battery and will be laid alongside the access road and/or existing flow lines. The flow line will be constructed of a 4" SDR11 poly line which will be laid on the surface. The proposed route is shown in red on Exhibit 6. Flow lines will be kept at least 3' apart.
- 5) Electric service will be provided from a power line owned by Central Valley Electric Cooperative, Inc., which will be responsible for ROW and construction. Power lines will be constructed alongside access roads existing at the time of construction. The existing and proposed access roads are included in Exhibit 6.
- 6) Location and Type of Water Supply:

The well will be drilled with a combination brine and fresh water mud system as outlined in the drilling program. The water will be obtained from commercial water stations in the area and hauled to location by transport truck over the existing and proposed access roads shown on the Plan of Development map. If a commercial fresh water source is nearby, temporary "fast line" may be laid alongside access roads existing at the time the line is laid and fresh water pumped to the well. No water well will be drilled on the location.

6. Source of Construction Materials:

All caliche required for construction of the drill pad and proposed new access road (approximately 1833 cubic yards) will be obtained from a BLM-approved caliche pit or from a private source.

7. Methods of Handling Waste:

- A. The well will be drilled utilizing a closed loop mud system. Drill cuttings will be held in rolloff style mud boxes and taken to an NMOCD-approved disposal site.
- B. Drilling fluids will be contained in steel mud pits.
- C. Water produced from the well during completion will be held temporarily in steel tanks and then taken to an NMOCD-approved commercial disposal facility.
- D. Garbage and trash produced during drilling or completion operations will be collected in a trash bin and hauled to an approved landfill. No toxic waste or hazardous chemicals will be produced by this operation.
- E. After the rig is moved out and the well is either completed or abandoned, all waste materials will be cleaned up within 30 days. In the event of a dry hole, only a dry hole marker will remain.

8. Ancillary Facilities:

No airstrip, campsite or other facilities will be built as a result of the operation on this well.

9. Well Site Layout:

- A. The drill pad layout, with elevations staked by John West Surveying Company, is shown in Exhibit 4. Dimensions of the pad, including the closed loop mud system, are shown on Exhibit 8. Topsoil, if available, will be stockpiled per BLM specifications. Because the pad is almost level, no major cuts will be required.
- B. Exhibit 8 also shows the proposed orientation of the closed loop mud system, and access road. No permanent living facilities are planned; however, a temporary foreman/toolpusher trailer and crew quarters trailers will be on location during the drilling operations.

10. Plans for Restoration of the Surface:

- A. If the well is found to be non-commercial upon completion of the drilling and/or completion operations, the caliche will be removed from the pad and transported to the original caliche pit or used for other drilling locations in the area. The road will be reclaimed as directed by the BLM. The original top soil will be returned to the pad and contoured, as close as possible to the original topography, and reseeded as per BLM specifications.
- B. Upon completion of drilling and completion operations, the well pad will be reduced to a size suitable for continued operations, including workovers and other well servicing activities. The pad will be scraped

such that the only portion of the pad remaining will be: (i) the area inside the anchors; and (ii) an area outside the anchors 50 feet in width. The caliche removed during the scraping operation will be stockpiled and either saved for use on future roads or pads, or returned to the pit from which it was originally removed.

11. Surface Ownership:

- A. The surface at this location is owned by the Federal government. The minerals are owned by the Federal government and are administered by the Bureau of Land Management. The surface has multiple uses, which are primarily grazing of livestock and the production of oil and gas.
- B. The surface tenant for this site is:

Bogle Ltd.
P.O. Box 460
Dexter, NM 88231-0460
- C. The proposed road routes and surface location will be restored as directed by the BLM.

12. Other Information:

- A. The area around the well site is grassland and the topsoil is sandy. The vegetation is moderately sparse with native prairie grasses, some mesquite and shinnery oak. No wildlife was observed but it is likely that mule deer, rabbits, coyotes and rodents traverse the area.
- B. There is no permanent or live water in the immediate area.
- C. There are no dwellings within two (2) miles of this location.
- D. This project is being administered by a MOA with the Carlsbad, New Mexico Bureau of Land Management office.

13. Bond Coverage:

Bond Coverage is Nationwide Bond # NM 2787.

14. Lessee's and Operator's Representative:

The CWEI representatives responsible for assuring compliance with the surface use plan are as follows:

John F. Kennedy
Drilling Manager
Suite 3000, 6 Desta Drive
Midland, Texas 79705
(432) 682-6324

Matt Swierc
Production Superintendent
Suite 3000, 6 Desta Drive
Midland, Texas 79705
(432) 682-6324

CERTIFICATION

I hereby certify that I, or persons under my direct supervision, have inspected the drill site and access road proposed herein; that I am familiar with the conditions that presently exist; that I have full knowledge of State and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or Clayton Williams Energy, Inc., am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

Executed this 19th day of May, 2010.

Signed: _____

Printed Name: Matt Swierc

Position: Production Superintendent

Address: Suite 3000, 6 Desta Drive, Midland, Texas 79705

Telephone: (432) 682-6324

Field Representative (if not above signatory): Mike Langford, Sierra Engineering

E-mail: MSwierc@claytonwilliams.com

EXHIBITS AND ATTACHMENTS

Exhibit 1	Plat Page (Form C-102)
Exhibit 2	Topographic Map
Exhibit 3	Vicinity Map and Area Roads
Exhibit 4	Elevation Plat
Exhibit 5	Ownership Map with Well Location and Wells in 1-mile Radius
Exhibit 6	Plan of Development (Roads, Flow Lines, Power Lines and Tank Battery)
Exhibit 7	Drilling Plan
Exhibit 8	Rig Layout
Exhibit 9	BOP, Choke Manifold and Closed Loop Schematics
Exhibit 10	C-144 CLEZ, Closed Loop System Permit Application
Exhibit 11	H2S Plan
Exhibit 12	Surface Use Plan of Operations and Operator Certification

PECOS DISTRICT CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Clayton Williams Energy, Inc.
LEASE NO.:	NM14847
WELL NAME & NO.:	Phillips 19 Federal # 30
SURFACE HOLE FOOTAGE:	1550' FNL & 445' FWL
BOTTOM HOLE FOOTAGE	Same
LOCATION:	Section 19, T. 17 S., R 29 E., NMPM
COUNTY:	Eddy County, New Mexico

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Standard Conditions of Approval (COA) apply to this APD. If any deviations to these standards exist or special COAs are required, the section with the deviation or requirement will be checked below.

- ☐ **General Provisions**
- ☐ **Permit Expiration**
- ☐ **Archaeology, Paleontology, and Historical Sites**
- ☐ **Noxious Weeds**
- ☐ **Special Requirements**
- ☒ **Construction**
 - Notification
 - V-Door Direction
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Drilling**
 - Logging Requirements
 - H2S Requirements-Onshore Order #6
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
- ☐ **Interim Reclamation**
- ☐ **Final Abandonment & Reclamation**

I. GENERAL PROVISIONS

The approval of the Application For Permit To Drill (APD) is in compliance with all applicable laws and regulations: 43 Code of Federal Regulations 3160, the lease terms, Onshore Oil and Gas Orders, Notices To Lessees, New Mexico Oil Conservation Division (NMOCD) Rules, National Historical Preservation Act As Amended, and instructions and orders of the Authorized Officer. Any request for a variance shall be submitted to the Authorized Officer on Form 3160-5, Sundry Notices and Report on Wells.

II. PERMIT EXPIRATION

If the permit terminates prior to drilling and drilling cannot be commenced within 60 days after expiration, an operator is required to submit Form 3160-5, Sundry Notices and Reports on Wells, requesting surface reclamation requirements for any surface disturbance. However, if the operator will be able to initiate drilling within 60 days after the expiration of the permit, the operator must have set the conductor pipe in order to allow for an extension of 60 days beyond the expiration date of the APD. (Filing of a Sundry Notice is required for this 60 day extension.)

III. ARCHAEOLOGICAL, PALEONTOLOGY & HISTORICAL SITES

Any cultural and/or paleontological resource discovered by the operator or by any person working on the operator's behalf shall immediately report such findings to the Authorized Officer. The operator is fully accountable for the actions of their contractors and subcontractors. The operator shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery shall be made by the Authorized Officer to determine the appropriate actions that shall be required to prevent the loss of significant cultural or scientific values of the discovery. The operator shall be held responsible for the cost of the proper mitigation measures that the Authorized Officer assesses after consultation with the operator on the evaluation and decisions of the discovery. Any unauthorized collection or disturbance of cultural or paleontological resources may result in a shutdown order by the Authorized Officer.

IV. NOXIOUS WEEDS

The operator shall be held responsible if noxious weeds become established within the areas of operations. Weed control shall be required on the disturbed land where noxious weeds exist, which includes the roads, pads, associated pipeline corridor, and adjacent land affected by the establishment of weeds due to this action. The operator shall consult with the Authorized Officer for acceptable weed control methods, which include following EPA and BLM requirements and policies.

V. SPECIAL REQUIREMENT(S)

VI. CONSTRUCTION

A. NOTIFICATION

The BLM shall administer compliance and monitor construction of the access road and well pad. Notify the Carlsbad Field Office at (575) 234-5972 at least 3 working days prior to commencing construction of the access road and/or well pad.

When construction operations are being conducted on this well, the operator shall have the approved APD and Conditions of Approval (COA) on the well site and they shall be made available upon request by the Authorized Officer.

B. V-DOOR DIRECTION: EAST

C. TOPSOIL

The operator shall stockpile the topsoil in a low profile manner in order to prevent wind/water erosion of the topsoil. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be used for interim and final reclamation.

D. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

The operator shall properly dispose of drilling contents at an authorized disposal site.

E. FEDERAL MINERAL MATERIALS PIT

Payment shall be made to the BLM prior to removal of any federal mineral materials. Call the Carlsbad Field Office at (575) 234-5972.

F. WELL PAD SURFACING

Surfacing of the well pad is not required.

If the operator elects to surface the well pad, the surfacing material may be required to be removed at the time of reclamation.

The well pad shall be constructed in a manner which creates the smallest possible surface disturbance, consistent with safety and operational needs.

G. ON LEASE ACCESS ROADS

Road Width

The access road shall have a driving surface that creates the smallest possible surface disturbance and does not exceed fourteen (14) feet in width. The maximum width of surface disturbance, when constructing the access road, shall not exceed thirty (30) feet.

Surfacing

Surfacing material is not required on the new access road driving surface. If the operator elects to surface the new access road or pad, the surfacing material may be required to be removed at the time of reclamation.

Where possible, no improvements should be made on the unsurfaced access road other than to remove vegetation as necessary, road irregularities, safety issues, or to fill low areas that may sustain standing water.

The Authorized Officer reserves the right to require surfacing of any portion of the access road at any time deemed necessary. Surfacing may be required in the event the road deteriorates, erodes, road traffic increases, or it is determined to be beneficial for future field development. The surfacing depth and type of material will be determined at the time of notification.

Crowning

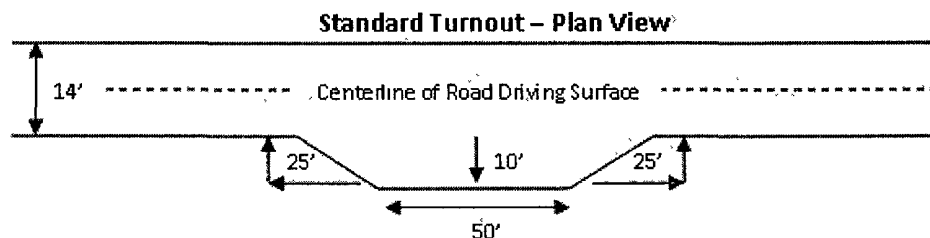
Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2% (i.e., a 1" crown on a 14' wide road). The road shall conform to Figure 1; cross section and plans for typical road construction.

Ditching

Ditching shall be required on both sides of the road.

Turnouts

Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall be constructed on all blind curves. Turnouts shall conform to the following diagram:

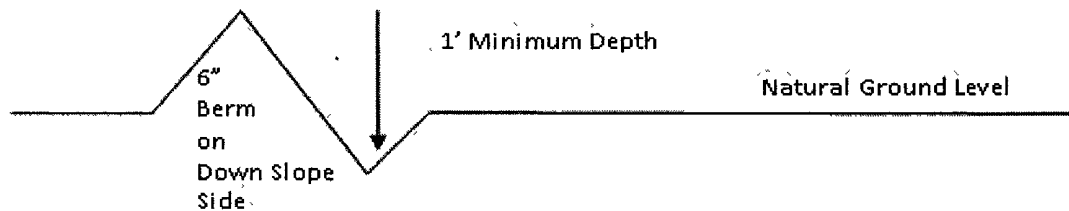


Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outsloping and insloping, lead-off ditches, culvert installation, and low water crossings).

A typical lead-off ditch has a minimum depth of 1 foot below and a berm of 6 inches above natural ground level. The berm shall be on the down-slope side of the lead-off ditch.

Cross Section of a Typical Lead-off Ditch



All lead-off ditches shall be graded to drain water with a 1 percent minimum to 3 percent maximum ditch slope. The spacing interval are variable for lead-off ditches and shall be determined according to the formula for spacing intervals of lead-off ditches, but may be amended depending upon existing soil types and centerline road slope (in %);

Formula for Spacing Interval of Lead-off Ditches

Example - On a 4% road slope that is 400 feet long, the water flow shall drain water into a lead-off ditch. Spacing interval shall be determined by the following formula:

$$400 \text{ foot road with } 4\% \text{ road slope: } \frac{400'}{4\%} + 100' = 200' \text{ lead-off ditch interval}$$

Culvert Installations

Appropriately sized culvert(s) shall be installed at the deep waterway channel flow crossing.

Cattleguards

An appropriately sized cattleguard(s) sufficient to carry out the project shall be installed and maintained at fence crossing(s).

Any existing cattleguard(s) on the access road shall be repaired or replaced if they are damaged or have deteriorated beyond practical use. The operator shall be responsible for the condition of the existing cattleguard(s) that are in place and are utilized during lease operations.

A gate shall be constructed and fastened securely to H-braces.

Fence Requirement

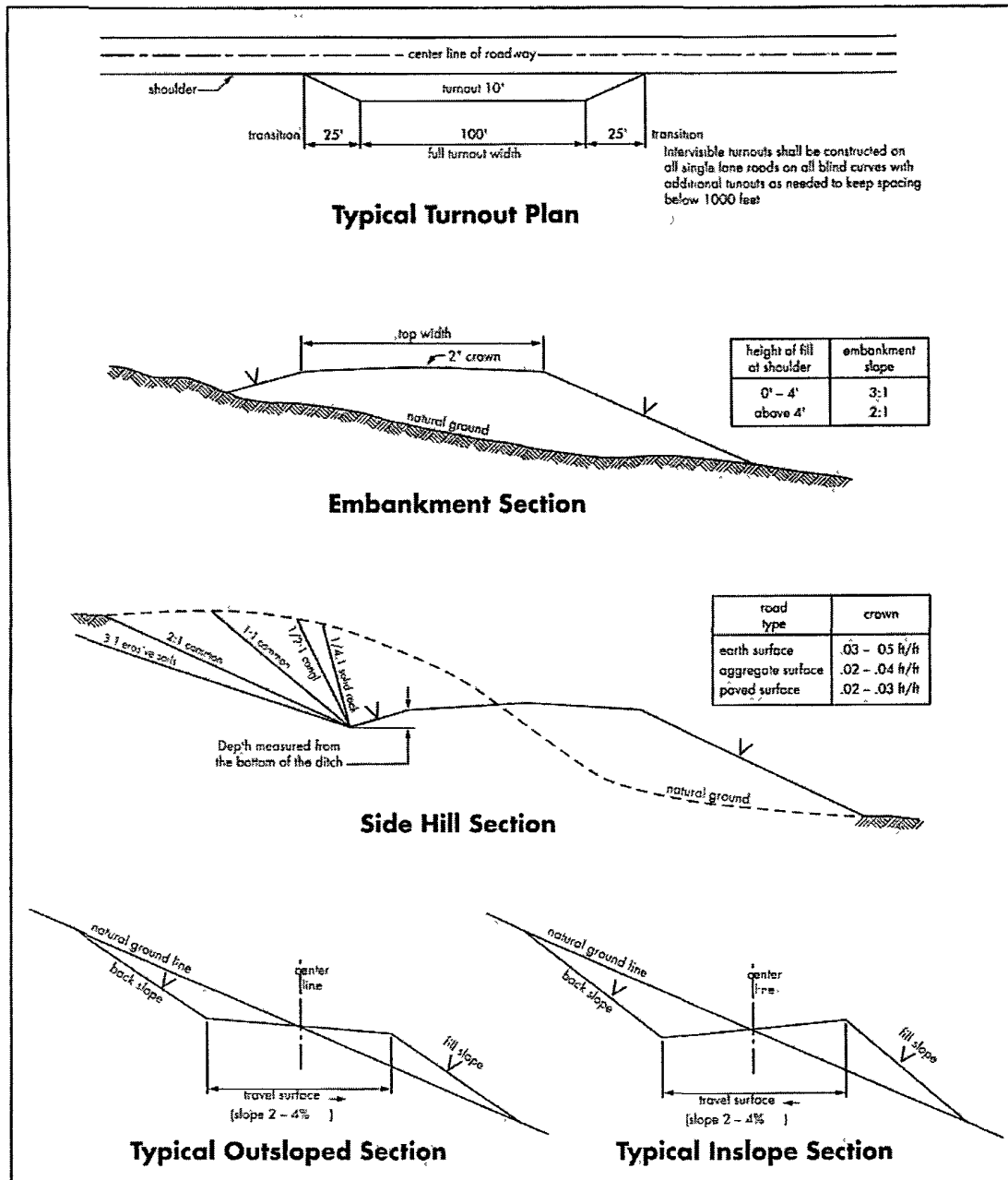
Where entry is required across a fence line, the fence shall be braced and tied off on both sides of the passageway prior to cutting.

The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

Public Access

Public access on this road shall not be restricted by the operator without specific written approval granted by the Authorized Officer.

Figure 1 – Cross Sections and Plans For Typical Road Sections



VII. DRILLING

A. DRILLING OPERATIONS REQUIREMENTS

The BLM is to be notified a minimum of 4 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,
(575) 361-2822

1. A Hydrogen Sulfide (H₂S) Drilling Plan should be activated 500 feet prior to drilling into the **Grayburg** formation. **As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations 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. **If the drilling rig is removed without approval – an Incident of Non-Compliance will be written and will be a “Major” violation.**
3. Floor controls are required for 3M or Greater systems. These 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.
4. **The record of the drilling rate along with the GR/N well log run from TD to surface will be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.**

B. CASING

Changes to the approved APD casing and cement program require submitting a sundry and receiving approval prior to work. Failure to obtain approval prior to work will result in an Incident of Non-Compliance being issued.

Centralizers required on surface casing per Onshore Order 2.III.B.1.f.

Wait on cement (WOC) time prior to drilling out 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 for all casing strings. DURING THIS WOC TIME, NO DRILL PIPE, ETC. SHALL BE RUN IN THE HOLE. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. See individual casing strings for details regarding lead cement slurry requirements.

No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

Possible water flows in the Salado and Artesia Groups.

Possible lost circulation in the Grayburg and San Andres Formations.

1. The 8-5/8 inch surface casing shall be set **at approximately 300 feet (a minimum of 25 feet into the Rustler Anhydrite and above the salt)** and cemented to the surface. **If salt is encountered set the casing 25 feet above the top of the salt. Additional cement may be required as the excess cement calculates to 17%.**
 - 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 surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
 - b. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry.**
 - 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.
 - d. If cement falls back, remedial cementing will be done prior to drilling out that string.
2. The minimum required fill of cement behind the 5-1/2 inch production casing is:
 - a. First stage to DV tool, cement shall:
 - ☒ Cement to circulate. If cement does not circulate, contact the appropriate BLM office before proceeding with second stage cement job. Operator should have plans as to how they will achieve circulation on the next stage.

b. Second stage above DV tool, cement shall:

☒ Cement to surface. If cement does not circulate, contact the appropriate BLM office.

3. 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 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 **3000 (3M)** psi.
3. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips or where the float does not hold, the minimum wait time before cut-off is eight hours after bumping the plug or when the cement reaches 500 psi compressive strength (including lead when specified), whichever is greater. BOP/BOPE testing can begin after the above conditions are satisfied.
 - b. The tests shall be done by an independent service company utilizing a test plug **not a cup or J-packer**. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (18 hours) or potash (24 hours) prior to initiating the test.
 - c. The results of the test shall be reported to the appropriate BLM office.
 - d. 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.**

- e. 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.

D. DRILL STEM TEST

If drill stem tests are performed, Onshore Order 2.III.D shall be followed.

CRW 072810

VIII. PRODUCTION (POST DRILLING)

A. WELL STRUCTURES & FACILITIES

Placement of Production Facilities

Production facilities should be placed on the well pad to allow for maximum interim recontouring and revegetation of the well location.

Containment Structures

The containment structure shall be constructed to hold the capacity of the entire contents of the largest tank, plus 24 hour production, unless more stringent protective requirements are deemed necessary by the Authorized Officer.

Painting Requirement

All above-ground structures including meter housing that are not subject to safety requirements shall be painted a flat non-reflective paint color
Shale Green, Munsell Soil Color Chart # 5Y 4/2

B. PIPELINES

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the APD and attachments, including stipulations, survey plat and/or map, will be on location during construction. BLM personnel may request to you a copy of your permit during construction to ensure compliance with all stipulations.

Holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer:

1. The holder shall indemnify the United States against any liability for damage to life or property arising from the occupancy or use of public lands under this grant.
2. The holder shall comply with all applicable Federal laws and regulations existing or hereafter enacted or promulgated. In any event, the holder shall comply with the Toxic Substances Control Act of 1976 as amended, 15 USC 2601 et seq. (1982) with regards to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized under this right-of-way grant. (See 40 CFR, Part 702-799 and especially, provisions on polychlorinated biphenyls, 40 CFR 761.1-761.193.) Additionally, any release of toxic substances (leaks, spills, etc.) in excess of the reportable quantity established by 40 CFR, Part 117 shall be reported as required by the Comprehensive Environmental Response, Compensation, and Liability Act, section 102b. A copy of any report required or requested by any Federal agency or State government as a result of a reportable release or spill of any toxic substances shall be furnished to the authorized officer concurrent with the filing of the reports to the involved Federal agency or State government.
3. The holder agrees to indemnify the United States against any liability arising from the

release of any hazardous substance or hazardous waste (as these terms are defined in the Comprehensive Environmental Response, Compensation and Liability Act of 1980, 42 U.S.C. 9601, et seq. or the Resource Conservation and Recovery Act, 42 U.S.C. 6901, et seq.) on the Right-of-Way (unless the release or threatened release is wholly unrelated to activity of the Right-of-Way holder's activity on the Right-of-Way), or resulting from the activity of the Right-of-Way holder on the Right-of-Way. This agreement applies without regard to whether a release is caused by the holder, its agent, or unrelated third parties.

4. The holder shall be liable for damage or injury to the United States to the extent provided by 43 CFR Sec. 2883.1-4. The holder shall be held to a standard of strict liability for damage or injury to the United States resulting from pipe rupture, fire, or spills caused or substantially aggravated by any of the following within the right-of-way or permit area:

- a. Activities of the holder including, but not limited to construction, operation, maintenance, and termination of the facility.
- b. Activities of other parties including, but not limited to:
 - (1) Land clearing.
 - (2) Earth-disturbing and earth-moving work.
 - (3) Blasting.
 - (4) Vandalism and sabotage.
- c. Acts of God.

The maximum limitation for such strict liability damages shall not exceed one million dollars (\$1,000,000) for any one event, and any liability in excess of such amount shall be determined by the ordinary rules of negligence of the jurisdiction in which the damage or injury occurred.

This section shall not impose strict liability for damage or injury resulting primarily from an act of war or from the negligent acts or omissions of the United States.

5. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil, salt water, or other pollutant should be discharged from the pipeline system, impacting Federal lands, the control and total removal, disposal, and cleaning up of such oil, salt water, or other pollutant, wherever found, shall be the responsibility of the holder, regardless of fault. Upon failure of the holder to control, dispose of, or clean up such discharge on or affecting Federal lands, or to repair all damages resulting therefrom, on the Federal lands, the Authorized Officer may take such measures as he deems necessary to control and clean up the discharge and restore the area, including, where appropriate, the aquatic environment and fish and wildlife habitats, at the full expense of the holder.

Such action by the Authorized Officer shall not relieve the holder of any responsibility as provided herein.

6. All construction and maintenance activity will be confined to the authorized right-of-way width of 25 feet.

7. No blading or clearing of any vegetation will be allowed unless approved in writing by the Authorized Officer.

8. The holder shall install the pipeline on the surface in such a manner that will minimize suspension of the pipeline across low areas in the terrain. In hummocky or dune areas, the pipeline will be "snaked" around hummocks and dunes rather than suspended across these features.

9. The pipeline shall be buried with a minimum of 24 inches under all roads, "two-tracks," and trails. Burial of the pipe will continue for 20 feet on each side of each crossing. The condition of the road, upon completion of construction, shall be returned to at least its former state with no bumps or dips remaining in the road surface.

10. The holder shall minimize disturbance to existing fences and other improvements on public lands. The holder is required to promptly repair improvements to at least their former state. Functional use of these improvements will be maintained at all times. The holder will contact the owner of any improvements prior to disturbing them. When necessary to pass through a fence line, the fence shall be braced on both sides of the passageway prior to cutting of the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

11. In those areas where erosion control structures are required to stabilize soil conditions, the holder will install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound resource management practices.

12. Excluding the pipe, all above-ground structures not subject to safety requirement shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be a color which simulates "Standard Environmental Colors" – **Shale Green**, Munsell Soil Color No. 5Y 4/2; designated by the Rocky Mountain Five State Interagency Committee.

13. The pipeline will be identified by signs at the point of origin and completion of the right-of-way and at all road crossings. At a minimum, signs will state the holder's name, BLM serial number, and the product being transported. Signs will be maintained in a legible condition for the life of the pipeline.

14. The holder shall not use the pipeline route as a road for purposes other than routine maintenance as determined necessary by the Authorized Officer in consultation with the holder. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway.

15. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on his behalf, on public or Federal land shall be immediately reported to the authorized officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the authorized officer. An evaluation of the discovery will be made by the authorized officer to determine appropriate cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the authorized officer after consulting with the holder.

IX. INTERIM RECLAMATION

During the life of the development, all disturbed areas not needed for active support of production operations should undergo interim reclamation in order to minimize the environmental impacts of development on other resources and uses.

Within six (6) months of well completion, operators should work with BLM surface management specialists (Jim Amos: 575-234-5909) to devise the best strategies to reduce the size of the location. Interim reclamation should allow for remedial well operations, as well as safe and efficient removal of oil and gas.

During reclamation, the removal of caliche is important to increasing the success of revegetating the site. Removed caliche that is free of contaminants may be used for road repairs, fire walls or for building other roads and locations. In order to operate the well or complete workover operations, it may be necessary to drive, park and operate on restored interim vegetation within the previously disturbed area. Disturbing revegetated areas for production or workover operations will be allowed. If there is significant disturbance and loss of vegetation, the area will need to be revegetated. Communicate with the appropriate BLM office for any exceptions/exemptions if needed.

All disturbed areas after they have been satisfactorily prepared need to be reseeded with the seed mixture provided below.

Upon completion of interim reclamation, the operator shall submit a Sundry Notices and Reports on Wells, Subsequent Report of Reclamation (Form 3160-5).

X. FINAL ABANDONMENT & RECLAMATION

At final abandonment, well locations, production facilities, and access roads must undergo "final" reclamation so that the character and productivity of the land are restored.

Earthwork for final reclamation must be completed within six (6) months of well plugging. All pads, pits, facility locations and roads must be reclaimed to a satisfactory revegetated, safe, and stable condition, unless an agreement is made with the landowner or BLM to keep the road and/or pad intact.

After all disturbed areas have been satisfactorily prepared; these areas need to be revegetated with the seed mixture provided below. Seeding should be accomplished by drilling on the contour whenever practical or by other approved methods. Seeding may need to be repeated until revegetation is successful, as determined by the BLM.

Operators shall contact a BLM surface protection specialist prior to surface abandonment operations for site specific objectives (Jim Amos: 575-234-5909).

Seed Mixture 2, for Sandy Sites

The holder shall seed all disturbed areas with the seed mixture listed below. The seed mixture shall be planted in the amounts specified in pounds of pure live seed (PLS)* per acre. There shall be no primary or secondary noxious weeds in the seed mixture. Seed will be tested and the viability testing of seed will be done in accordance with State law (s) and within nine (9) months prior to purchase. Commercial seed will be either certified or registered seed. The seed container will be tagged in accordance with State law(s) and available for inspection by the authorized officer.

Seed will be planted using a drill equipped with a depth regulator to ensure proper depth of planting where drilling is possible. The seed mixture will be evenly and uniformly planted over the disturbed area (smaller/heavier seeds have a tendency to drop the bottom of the drill and are planted first). The holder shall take appropriate measures to ensure this does not occur. Where drilling is not possible, seed will be broadcast and the area shall be raked or chained to cover the seed. When broadcasting the seed, the pounds per acre are to be doubled. The seeding will be repeated until a satisfactory stand is established as determined by the authorized officer. Evaluation of growth will not be made before completion of at least one full growing season after seeding.

Species to be planted in pounds of pure live seed* per acre:

<u>Species</u>	<u>lb/acre</u>
Sand dropseed (<i>Sporobolus cryptandrus</i>)	1.0
Sand love grass (<i>Eragrostis trichodes</i>)	1.0
Plains bristlegrass (<i>Setaria macrostachya</i>)	2.0

*Pounds of pure live seed:

Pounds of seed x percent purity x percent germination = pounds pure live seed