

NM OIL CONSERVATION
ARTESIA DISTRICT

Form 3160-3
(June 2015)

OCT 15 2019

FORM APPROVED
OMB No. 1004-0137
Expires: January 31, 2018

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED

APPLICATION FOR PERMIT TO DRILL OR REENTER

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM0404441
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No.
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP		8. Lease Name and Well No. BELLOQ 11-2 FED-STATE COM 516H 3224/87
3a. Address 333 West Sheridan Avenue Oklahoma City OK 73102	3b. Phone No. (include area code) (800)583-3866	9. API Well No. 30-015-46396
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SESE / 500 FSL / 940 FEL / LAT 32.3130831 / LONG -103.7430685 At proposed prod. zone LOT 2 / 20 FNL / 2160 FEL / LAT 32.3406743 / LONG -103.7470476		10. Field and Pool, or Exploratory LIVINGSTON RIDGE / BONESPRING
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 11 / T23S / R31E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 500 feet	16. No of acres in lease 1440	12. County or Parish EDDY
17. Spacing Unit dedicated to this well 640	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. 29 feet	13. State NM
19. Proposed Depth 8880 feet / 19116 feet	20. BLM/BIA Bond No. in file FED: CO1104	
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3488 feet	22. Approximate date work will start* 03/21/2019	23. Estimated duration 45 days

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

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 requested by the BLM.

25. Signature (Electronic Submission)	Name (Printed/Typed) Jenny Harms / Ph: (405)524-4902	Date 03/21/2019
Title Regulatory Compliance Professional		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Christopher Walls / Ph: (575)234-2234	Date 10/08/2019
Title Petroleum Engineer		
Office CARLSBAD		

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.

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.

APPROVED WITH CONDITIONS
Approval Date: 10/08/2019

RWP 10-18-19

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local, area, or regional procedures and practices, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the well, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionally drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: If the proposal will involve hydraulic fracturing operations, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

NOTICES

The Privacy Act of 1974 and regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service well or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record will be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM connects this information to an evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

BURDEN HOURS STATEMENT: Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Connection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Additional Operator Remarks

Location of Well

1. SHL: SESE / 500 FSL / 940 FEL / TWSP: 23S / RANGE: 31E / SECTION: 11 / LAT: 32.3130831 / LONG: -103.7430685 (TVD: 0 feet, MD: 0 feet)
PPP: SWSE / 100 FSL / 2160 FEL / TWSP: 23S / RANGE: 31E / SECTION: 11 / LAT: 32.311955 / LONG: -103.7470177 (TVD: 8307 feet, MD: 8458 feet)
BHL: LOT 2 / 20 FNL / 2160 FEL / TWSP: 23S / RANGE: 31E / SECTION: 2 / LAT: 32.3406743 / LONG: -103.7470476 (TVD: 8880 feet, MD: 19116 feet)

BLM Point of Contact

Name: Candy Vigil
Title: Admin Support Assistant
Phone: 5752345982
Email: cvigil@blm.gov

CONFIDENTIAL

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Geologic Conditions of Approval

:

Rustler Top of Salt Bottom of Salt Lamar Bell Canyon Cherry Canyon Brushy Canyon Bone Springs Lime 1st Bone Sand 2nd Bone Sand 3rd Bone Lime (if in potash) 3rd Bone Sand Wolfcamp Strawn Formation Top just below TVD, all formation tops with casing set depths

PECOS DISTRICT

DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	Devon Energy Production Company LP
LEASE NO.:	NMNM0404441
WELL NAME & NO.:	Belloq 11-2 Fed State Com 516H
SURFACE HOLE FOOTAGE:	500'/S & 940'/E
BOTTOM HOLE FOOTAGE:	20'/N & 2160'/E
LOCATION:	Section 11, T.23 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	<input type="radio"/> Yes	<input checked="" type="radio"/> No	
Potash	<input type="radio"/> None	<input type="radio"/> Secretary	<input checked="" type="radio"/> R-111-P
Cave/Karst Potential	<input checked="" type="radio"/> Low	<input type="radio"/> Medium	<input type="radio"/> High
Variance	<input type="radio"/> None	<input checked="" type="radio"/> Flex Hose	<input type="radio"/> Other
Wellhead	<input type="radio"/> Conventional	<input type="radio"/> Multibowl	<input checked="" type="radio"/> Both
Other	<input type="checkbox"/> 4 String Area	<input type="checkbox"/> Capitan Reef	<input type="checkbox"/> WIPP
Other	<input checked="" type="checkbox"/> Fluid Filled	<input checked="" type="checkbox"/> Cement Squeeze	<input type="checkbox"/> Pilot Hole
Special Requirements	<input type="checkbox"/> Water Disposal	<input checked="" type="checkbox"/> COM	<input type="checkbox"/> Unit

A. HYDROGEN SULFIDE

Hydrogen Sulfide (H2S) monitors shall be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the Hydrogen Sulfide area shall meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, provide measured values and formations to the BLM.

B. CASING

1. The 13-3/8 inch surface casing shall be set at approximately **725 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) 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 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 will be a minimum of **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.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.

Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

- 2. The minimum required fill of cement behind the 9-5/8 inch intermediate casing shall be set at approximately **4325 feet** is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate see B.1.a, c-d above.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Operator has proposed to pump down 13-3/8" X 9-5/8" annulus. Operator must run a CBL from TD of the 9-5/8" casing to surface. Submit results to BLM.

3. The minimum required fill of cement behind the 5-1/2 inch production casing is:
- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
Cement excess is less than 25%, more cement might be required. (10%)

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2.

Option 1:

- a. 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.
- b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate casing shoe shall be **3000 (3M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. 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.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

☒ Eddy County

Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220,
(575) 361-2822

☒ Lea County

Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)
393-3612

1. 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.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
2. 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.
3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall 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.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing integrity test can be done (prior to the cement setting up) immediately after bumping the plug.
4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
7. 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.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. 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. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
5. 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, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

- b. In potash areas, 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. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. 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 (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. 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.
- g. 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. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

**PECOS DISTRICT
SURFACE USE
CONDITIONS OF APPROVAL**

OPERATOR'S NAME:	Devon Energy Production Company LP
WELL NAME & NO.:	BelloQ 11-2 Fed State Com 516H
SURFACE HOLE FOOTAGE:	500'/S & 940'/E
BOTTOM HOLE FOOTAGE:	20'/N & 2160'/E
LOCATION:	Section 11, T.23 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

TABLE OF CONTENTS

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**
 - Lesser Prairie-Chicken Timing Stipulations
 - Ground-level Abandoned Well Marker
 - Range
 - Potash
- ☐ **Construction**
 - Notification
 - Topsoil
 - Closed Loop System
 - Federal Mineral Material Pits
 - Well Pads
 - Roads
- ☐ **Road Section Diagram**
- ☒ **Production (Post Drilling)**
 - Well Structures & Facilities
 - Pipelines
 - Electric Lines
 - Oil and Gas Related sites
- ☐ **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)

Timing Limitation Stipulation / Condition of Approval for lesser prairie-chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be allowed within up to 200 meters of leks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 feet from the source of the noise.

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well. For more installation details, contact the Carlsbad Field Office at 575-234-5972.

Lessees must comply with the 2012 Secretarial Potash Order. The Order is designed to manage the efficient development of oil, gas, and potash resources. Section 6 of the Order provides general provisions which must be followed to minimize conflict between the industries and ensure the safety of operations.

To minimize impacts to potash resources, the proposed well is confined within the boundaries of the established Uber North Drill Island (See Potash Memo and Map in attached file for Drill Island description).

Livestock Watering Requirement

Any damage to structures that provide water to livestock throughout the life of the well, caused by operations from the well site, must be immediately corrected by the operator. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

Fence Requirement

Where entry is granted across a fence line, the fence must be braced and tied off on both sides of the passageway with H-braces prior to cutting. Once the work is completed, the fence will be restored to its prior condition, or better. The operator shall notify the private surface landowner or the grazing allotment holder prior to crossing any fence(s).

The operator must contact the allotment holder prior to construction to identify the location of the pipeline. The operator must take measures to protect the pipeline from compression or other damages. If the pipeline is damaged or compromised in any way near the proposed project as a result of oil and gas activity, the operator is responsible for repairing the pipeline immediately. The operator must notify the BLM office (575-234-5972) and the private surface landowner or the grazing allotment holder if any damage occurs to structures that provide water to livestock.

During construction, the proponent shall minimize disturbance to existing fences, water lines, troughs, windmills, and other improvements on public lands. The proponent 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 grazing permittee/allottee prior to disturbing any range improvement projects. 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.

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) 234-5909 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. TOPSOIL

The operator shall strip the top portion of the soil (root zone) from the entire well pad area and stockpile the topsoil along the edge of the well pad as depicted in the APD. The root zone is typically six (6) inches in depth. All the stockpiled topsoil will be redistributed over the interim reclamation areas. Topsoil shall not be used for berming the pad or facilities. For final reclamation, the topsoil shall be spread over the entire pad area for seeding preparation.

Other subsoil (below six inches) stockpiles must be completely segregated from the topsoil stockpile. Large rocks or subsoil clods (not evident in the surrounding terrain) must be buried within the approved area for interim and final reclamation.

C. CLOSED LOOP SYSTEM

Tanks are required for drilling operations: No Pits.

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

D. 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.

E. 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.

F. EXCLOSURE FENCING (CELLARS & PITS)

Exclosure Fencing

The operator will install and maintain exclosure fencing for all open well cellars to prevent access to public, livestock, and large forms of wildlife before and after drilling operations until the pit is free of fluids and the operator initiates backfilling. (For examples of exclosure fencing design, refer to BLM's Oil and Gas Gold Book, Exclosure Fence Illustrations, Figure 1, Page 18.)

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 twenty-five (25) 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

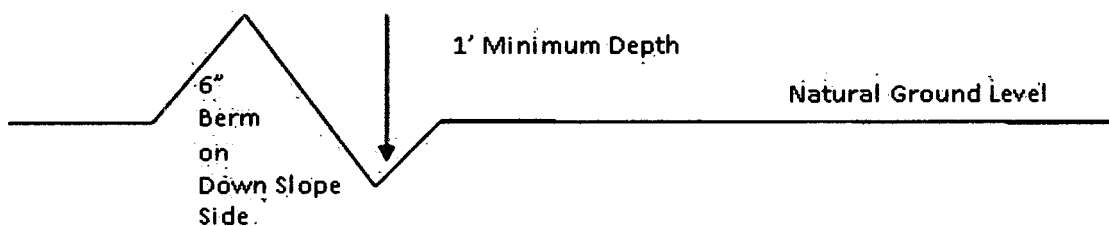
Vehicle turnouts shall be constructed on the road. Turnouts shall be intervisible with interval spacing distance less than 1000 feet. Turnouts shall conform to Figure 1; cross section and plans for typical road construction.

Drainage

Drainage control systems shall be constructed on the entire length of road (e.g. ditches, sidehill outslowing 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:

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

Cattle guards

An appropriately sized cattle guard sufficient to carry out the project shall be installed and maintained at fence/road crossings. Any existing cattle guards on the access road route 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 cattle guards that are in place and are utilized during lease operations.

Fence Requirement

Where entry is granted 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 fences.

Public Access

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

Construction Steps

1. Salvage topsoil
2. Construct road

3. Redistribute topsoil
4. Revegetate slopes

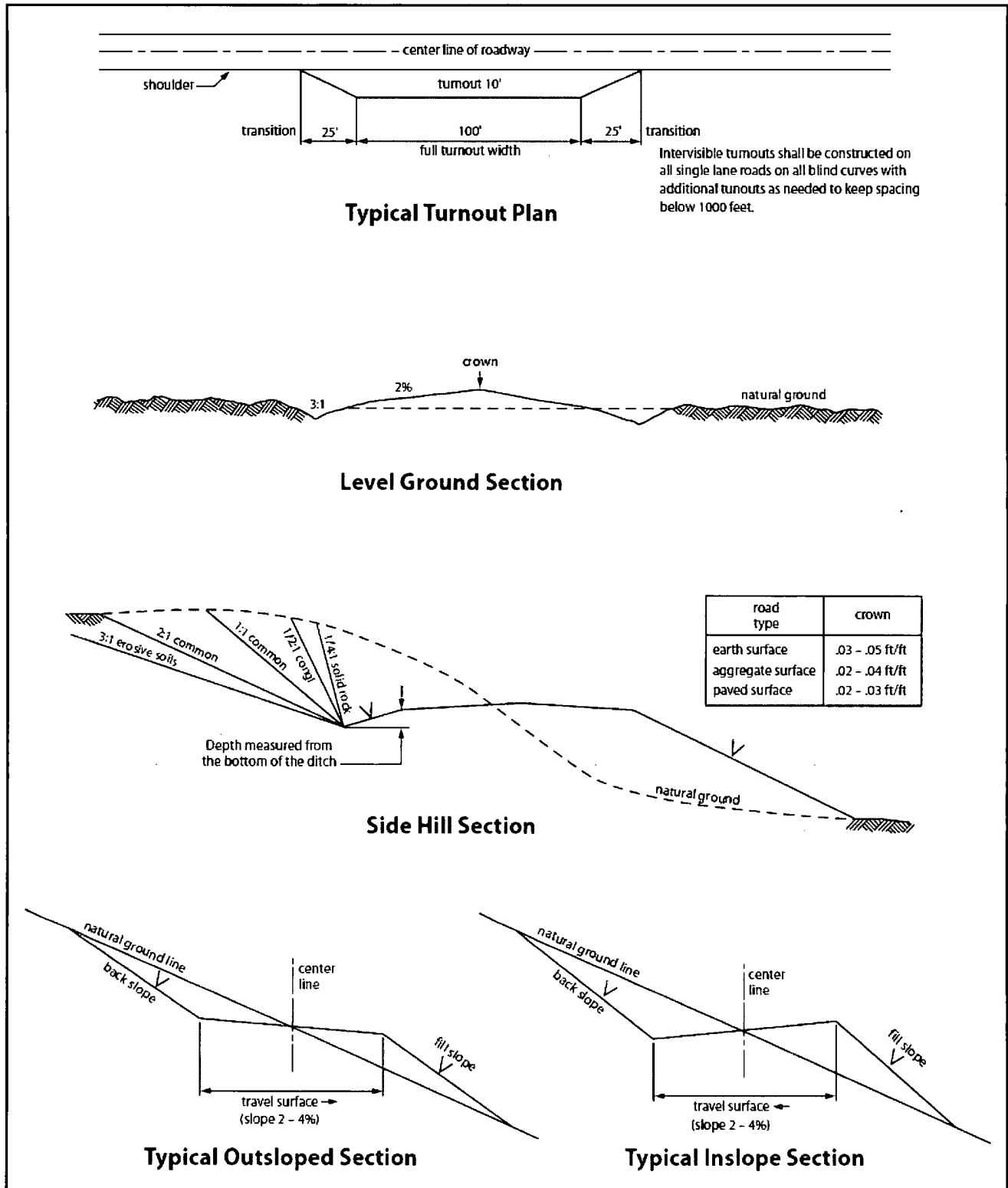


Figure 1. Cross-sections and plans for typical road sections representative of BLM resource or FS local and higher-class roads.

VII. 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.

Exclosure Netting (Open-top Tanks)

Immediately following active drilling or completion operations, the operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock, hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps.

Chemical and Fuel Secondary Containment and Exclosure Screening

The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S. Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock exclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

Open-Vent Exhaust Stack Exclosures

The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (*Recommended exclosure structures on open-vent exhaust stacks are in the shape of a cone.*) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

Containment Structures

Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

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** from the BLM Standard Environmental Color Chart (CC-001: June 2008).

B. PIPELINES

BURIED PIPELINE STIPULATIONS

A copy of the application (Grant, APD, or Sundry Notice) and attachments, including conditions of approval, 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 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. If, during any phase of the construction, operation, maintenance, or termination of the pipeline, any oil 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 or other pollutant, wherever found, shall be the responsibility of holder, regardless of fault. Upon failure of 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 holder of any responsibility as provided herein.

5. All construction and maintenance activity will be confined to the authorized right-of-way.
6. The pipeline will be buried with a minimum cover of 36 inches between the top of the pipe and ground level.
7. The maximum allowable disturbance for construction in this right-of-way will be 30 feet:
- Blading of vegetation within the right-of-way will be allowed: maximum width of blading operations will not exceed 20 feet. The trench is included in this area. (*Blading is defined as the complete removal of brush and ground vegetation.*)
 - Clearing of brush species within the right-of-way will be allowed: maximum width of clearing operations will not exceed 30 feet. The trench and bladed area are included in this area. (*Clearing is defined as the removal of brush while leaving ground vegetation (grasses, weeds, etc.) intact. Clearing is best accomplished by holding the blade 4 to 6 inches above the ground surface.*)
 - The remaining area of the right-of-way (if any) shall only be disturbed by compressing the vegetation. (*Compressing can be caused by vehicle tires, placement of equipment, etc.*)
8. The holder shall stockpile an adequate amount of topsoil where blading is allowed. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles from trench construction. The topsoil will be evenly distributed over the bladed area for the preparation of seeding.
9. 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.
10. Vegetation, soil, and rocks left as a result of construction or maintenance activity will be randomly scattered on this right-of-way and will not be left in rows, piles, or berms, unless otherwise approved by the Authorized Officer. The entire right-of-way shall be recontoured to match the surrounding landscape. The backfilled soil shall be compacted and a 6 inch berm will be left over the ditch line to allow for settling back to grade.
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. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

13. All above-ground structures not subject to safety requirements shall be painted by the holder to blend with the natural color of the landscape. The paint used shall be color which simulates “Standard Environmental Colors” – **Shale Green**, Munsell Soil Color No. 5Y 4/2.

14. 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. All signs and information thereon will be posted in a permanent, conspicuous manner, and will be maintained in a legible condition for the life of the pipeline.

15. 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 before maintenance begins. The holder will take whatever steps are necessary to ensure that the pipeline route is not used as a roadway. As determined necessary during the life of the pipeline, the Authorized Officer may ask the holder to construct temporary deterrence structures.

16. Any cultural and/or paleontological resources (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 actions to prevent the loss of significant 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.

17. 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 associated roads, 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.

18. Escape Ramps - The operator will construct and maintain pipeline/utility trenches that are not otherwise fenced, screened, or netted to prevent livestock, wildlife, and humans from becoming entrapped. At a minimum, the operator will construct and maintain escape ramps, ladders, or

other methods of avian and terrestrial wildlife escape in the trenches according to the following criteria:

- a. Any trench left open for eight (8) hours or less is not required to have escape ramps; however, before the trench is backfilled, the contractor/operator shall inspect the trench for wildlife, remove all trapped wildlife, and release them at least 100 yards from the trench.
- b. For trenches left open for eight (8) hours or more, earthen escape ramps (built at no more than a 30 degree slope and spaced no more than 500 feet apart) shall be placed in the trench.

19. Special Stipulations:

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

STANDARD STIPULATIONS FOR SURFACE INSTALLED PIPELINES

A copy of the application (Grant, Sundry Notice, 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 20 feet. If the pipeline route follows an existing road or buried pipeline right-of-way, the surface pipeline must be installed no farther than 10 feet from the edge of the road or buried pipeline right-of-way. If existing surface pipelines prevent this distance, the proposed surface pipeline must be installed immediately adjacent to the outer surface pipeline. All construction and maintenance activity will be confined to existing roads or right-of-ways.

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.

16. 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, powerline 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.

17. Surface pipelines must be less than or equal to 4 inches and a working pressure below 125 psi.

18. Special Stipulations:

- a. **Lesser Prairie-Chicken:** Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted.

C. ELECTRIC LINES

STANDARD STIPULATIONS FOR OVERHEAD ELECTRIC DISTRIBUTION LINES

A copy of the grant 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 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. There will be no clearing or blading of the right-of-way unless otherwise agreed to in writing by the Authorized Officer.
5. Power lines shall be constructed and designed in accordance to standards outlined in "Suggested Practices for Avian Protection on Power lines: The State of the Art in 2006" Edison Electric Institute, APLIC, and the California Energy Commission 2006 . The holder shall assume the burden and expense of proving that pole designs not shown in the above publication deter raptor perching, roosting, and nesting. Such proof shall be provided by a raptor expert approved by the Authorized Officer. The BLM reserves the right to require modification or additions to all powerline structures placed on this right-of-way, should they be necessary to ensure the safety of large perching birds. Such modifications and/or additions shall be made by the holder without liability or expense to the United States.

Raptor deterrence will consist of but not limited to the following: triangle perch discouragers shall be placed on each side of the cross arms and a nonconductive perching deterrence shall be placed on all vertical poles that extend past the cross arms.

6. 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 the fence. No permanent gates will be allowed unless approved by the Authorized Officer.

7. The BLM serial number assigned to this authorization shall be posted in a permanent, conspicuous manner where the power line crosses roads and at all serviced facilities. Numbers will be at least two inches high and will be affixed to the pole nearest the road crossing and at the facilities served.

8. Upon cancellation, relinquishment, or expiration of this grant, the holder shall comply with those abandonment procedures as prescribed by the Authorized Officer.

9. All surface structures (poles, lines, transformers, etc.) shall be removed within 180 days of abandonment, relinquishment, or termination of use of the serviced facility or facilities or within 180 days of abandonment, relinquishment, cancellation, or expiration of this grant, whichever comes first. This will not apply where the power line extends service to an active, adjoining facility or facilities.

10. 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 actions to prevent the loss of significant 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.

11. Special Stipulations:

- For reclamation remove poles, lines, transformer, etc. and dispose of properly.
- Fill in any holes from the poles removed.

Timing Limitation Stipulation/Condition of Approval for Lesser Prairie-Chicken:

Oil and gas activities including 3-D geophysical exploration, and drilling will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Additionally, no new drilling will be

allowed within up to 200 meters of leaks known at the time of permitting. Normal vehicle use on existing roads will not be restricted. Exhaust noise from pump jack engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

STANDARD STIPULATIONS FOR OIL AND GAS RELATED SITES

A copy of the application (Grant/Sundry Notice) and attachments, including stipulations and map, will be on location during construction. BLM personnel may request to view a copy of your permit during construction to ensure compliance with all stipulations.

The holder agrees to comply with the following stipulations to the satisfaction of the Authorized Officer, BLM.

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 and for all response costs, penalties, damages, claims, and other costs arising from the provisions of the Resource Conservation and Recovery Act (RCRA), 42 U.S.C. Chap. 82, Section 6901 et. seq., from the Comprehensive Environmental Response, Compensation and Liability Act (CERCLA), 42 U.S.C. Chap. 109, Section 9601 et. seq., and from other applicable environmental statutes.
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 U.S.C. 2601, et. seq.) with regard to any toxic substances that are used, generated by or stored on the right-of-way or on facilities authorized by this 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 the right-of-way holder's activity 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. If, during any phase of the construction, operation, maintenance, or termination of the site or related pipeline(s), any oil or other pollutant should be discharged from site

facilities, the pipeline(s) or from containers or vehicles impacting Federal lands, the control and total removal, disposal, and cleanup of such oil 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 to Federal lands resulting therefrom, the Authorized Officer may take such measures as deemed necessary to control and cleanup 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 liability or responsibility.

5. Sites shall be maintained in an orderly, sanitary condition at all times. Waste materials, both liquid and solid, shall be disposed of promptly at an appropriate, authorized waste disposal facility in accordance with all applicable State and Federal laws. "Waste" means all discarded matter including, but not limited to, human waste, trash, garbage, refuse, petroleum products, brines, chemicals, oil drums, ashes, and equipment.
6. The operator will notify the Bureau of Land Management (BLM) authorized officer and nearest Fish and Wildlife Service (FWS) Law Enforcement office within 24 hours, if the operator discovers a dead or injured federally protected species (i.e., migratory bird species, bald or golden eagle, or species listed by the FWS as threatened or endangered) in or adjacent to a pit, trench, tank, exhaust stack, or fence. (If the operator is unable to contact the FWS Law Enforcement office, the operator must contact the nearest FWS Ecological Services office.)
7. All above-ground structures not subject to safety requirements 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" designated by the Rocky Mountain Five-State Interagency Committee. The color selected for this project is **Shale Green**, Munsell Soil Color Chart Number 5Y 4/2.
8. Any cultural and/or paleontological resource (historic or prehistoric site or object) discovered by the holder, or any person working on the holder's behalf, on public or Federal land shall be immediately reported to the Authorized Officer. The 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 actions to prevent the loss of significant cultural or scientific values. The holder will be responsible for the cost of evaluation and any decision as to the proper mitigation measures will be made by the Authorized Officer after consulting with the holder.
9. A sales contract for removal of mineral material (caliche, sand, gravel, fill dirt) from an authorized pit, site, or on location must be obtained from the BLM prior to commencing construction. There are several options available for purchasing mineral material: contact the BLM office (575-234-5972).

10. 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.

11. Once the site is no longer in service or use, the site must undergo final abandonment. At final abandonment, the site 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 the abandonment of the site. All pads and 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. 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).

12. The holder shall stockpile an adequate amount of topsoil where blading occurs. The topsoil to be stripped is approximately 6 inches in depth. The topsoil will be segregated from other spoil piles. The topsoil will be used for final reclamation.

13. The holder will reseed all disturbed areas. Seeding will be done according to the attached seeding requirements, using the following seed mix.

- | | |
|--|--|
| <input type="checkbox"/> seed mixture 1 | <input type="checkbox"/> seed mixture 3 |
| <input type="checkbox"/> seed mixture 2 | <input type="checkbox"/> seed mixture 4 |
| <input checked="" type="checkbox"/> seed mixture 2/LPC | <input type="checkbox"/> Aplomado Falcon Mixture |

14. In those areas where erosion control structures are required to stabilize soil conditions, the holder shall install such structures as are suitable for the specific soil conditions being encountered and which are in accordance with sound management practices. Any earth work will require prior approval by the Authorized Officer.

15. Open-topped Tanks - The operator will take actions necessary to prevent wildlife and livestock access, including avian wildlife, to all open-topped tanks that contain or have the potential to contain salinity sufficient to cause harm to wildlife or livestock,

hydrocarbons, or Resource Conservation and Recovery Act of 1976-exempt hazardous substances. At a minimum, the operator will net, screen, or cover open-topped tanks to exclude wildlife and livestock and prevent mortality. If the operator uses netting, the operator will cover and secure the open portion of the tank to prevent wildlife entry. The operator will net, screen, or cover the tanks until the operator removes the tanks from the location or the tanks no longer contain substances that could be harmful to wildlife or livestock. Use a maximum netting mesh size of 1 ½ inches. The netting must not be in contact with fluids and must not have holes or gaps

16. The operator will prevent all hazardous, poisonous, flammable, and toxic substances from coming into contact with soil and water. At a minimum, the operator will install and maintain an

impervious secondary containment system for any tank or barrel containing hazardous, poisonous, flammable, or toxic substances sufficient to contain the contents of the tank or barrel and any drips, leaks, and anticipated precipitation. The operator will dispose of fluids within the containment system that do not meet applicable state or U. S.

Environmental Protection Agency livestock water standards in accordance with state law; the operator must not drain the fluids to the soil or ground. The operator will design, construct, and maintain all secondary containment systems to prevent wildlife and livestock exposure to harmful substances. At a minimum, the operator will install effective wildlife and livestock enclosure systems such as fencing, netting, expanded metal mesh, lids, and grate covers. Use a maximum netting mesh size of 1 ½ inches.

17. Open-Vent Exhaust Stack Enclosures – The operator will construct, modify, equip, and maintain all open-vent exhaust stacks on production equipment to prevent birds and bats from entering, and to discourage perching, roosting, and nesting. (Recommended enclosure structures on open-vent exhaust stacks are in the shape of a cone.) Production equipment includes, but may not be limited to, tanks, heater-treaters, separators, dehydrators, flare stacks, in-line units, and compressor mufflers.

18. Containment Structures - Proposed production facilities such as storage tanks and other vessels will have a secondary containment structure that is constructed to hold the capacity of 1.5 times the largest tank, plus freeboard to account for precipitation, unless more stringent protective requirements are deemed necessary.

19. Special Stipulations:

- The entire well pad will be bermed to prevent oil, salt, and other chemical contaminants from leaving the well pad. Topsoil shall not be used to construct the berm. No water flow from the uphill side(s) of the pad shall be allowed to enter the well pad. The berm shall be maintained through the life of the well and after interim reclamation has been completed.

- Any water erosion that may occur due to the construction of the well pad during the life of the well will be corrected within two weeks and proper measures will be taken to prevent future erosion.

Lesser Prairie-Chicken

Oil and gas activities will not be allowed in lesser prairie-chicken habitat during the period from March 1st through June 15th annually. During that period, other activities that produce noise or involve human activity, such as the maintenance of oil and gas facilities, geophysical exploration other than 3-D operations, and pipeline, road, and well pad construction, will be allowed except between 3:00 am and 9:00 am. The 3:00 am to 9:00 am restriction will not apply to normal, around-the-clock operations, such as venting, flaring, or pumping, which do not require a human presence during this period. Normal vehicle use on existing roads will not be restricted. Exhaust noise from permanent engines must be muffled or otherwise controlled so as not to exceed 75 db measured at 30 ft. from the source of the noise.

VIII. 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).

IX. 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).

Ground-level Abandoned Well Marker to avoid raptor perching: Upon the plugging and subsequent abandonment of the well, the well marker will be installed at ground level on a plate containing the pertinent information for the plugged well.

Seed Mixture for LPC Sand/Shinnery Sites

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 shall be done in accordance with State law(s) and within nine (9) months prior to purchase. Commercial seed shall be either certified or registered seed. The seed container shall 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). 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. Seeding shall be repeated until a satisfactory stand is established as determined by the Authorized Officer. Evaluation of growth may 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>
Plains Bristlegrass	5lbs/A
Sand Bluestem	5lbs/A
Little Bluestem	3lbs/A
Big Bluestem	6lbs/A
Plains Coreopsis	2lbs/A
Sand Dropseed	1lbs/A

*Pounds of pure live seed:

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



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Operator Certification Data Report

10/09/2019

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently 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 the company I represent, 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.

NAME: Jenny Harms

Signed on: 03/21/2019

Title: Regulatory Compliance Professional

Street Address: 333 W SHERDIAN AVE

City: OKLAHOMA CITY

State: OK

Zip: 73170

Phone: (405)524-4902

Email address: RAY.VAZ@DVN.COM

Field Representative

Representative Name: Ray Vaz

Street Address: 6488 Seven Rivers Hwy

City: Artesia

State: NM

Zip: 88210

Phone: (575)748-1871

Email address: ray.vaz@dvn.com



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Application Data Report

10/09/2019

APD ID: 10400040202

Submission Date: 03/21/2019

Highlighted data
reflects the most
recent changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

APD ID: 10400040202

Tie to previous NOS?

Submission Date: 03/21/2019

BLM Office: CARLSBAD

User: Jenny Harms

Title: Regulatory Compliance
Professional

Federal/Indian APD: FED

Is the first lease penetrated for production Federal or Indian? FED

Lease number: NMNM0404441

Lease Acres: 1440

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? YES

Permitting Agent? NO

APD Operator: DEVON ENERGY PRODUCTION COMPANY LP

Operator letter of designation:

Operator Info

Operator Organization Name: DEVON ENERGY PRODUCTION COMPANY LP

Operator Address: 333 West Sheridan Avenue

Zip: 73102

Operator PO Box:

Operator City: Oklahoma City

State: OK

Operator Phone: (800)583-3866

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: LIVINGSTON
RIDGE

Pool Name: BONESPRING

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Is the proposed well in an area containing other mineral resources? POTASH

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** YES **New surface disturbance?** Y

Type of Well Pad: MULTIPLE WELL

Multiple Well Pad Name:

Number: 4

Well Class: HORIZONTAL

BELLOQ 11 PAD

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town:

Distance to nearest well: 29 FT

Distance to lease line: 500 FT

Reservoir well spacing assigned acres Measurement: 640 Acres

Well plat: BELLOQ_11_2_FED_STATE_COM_516H_SIGNED_20190321204208.pdf

Well work start Date: 03/21/2019

Duration: 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

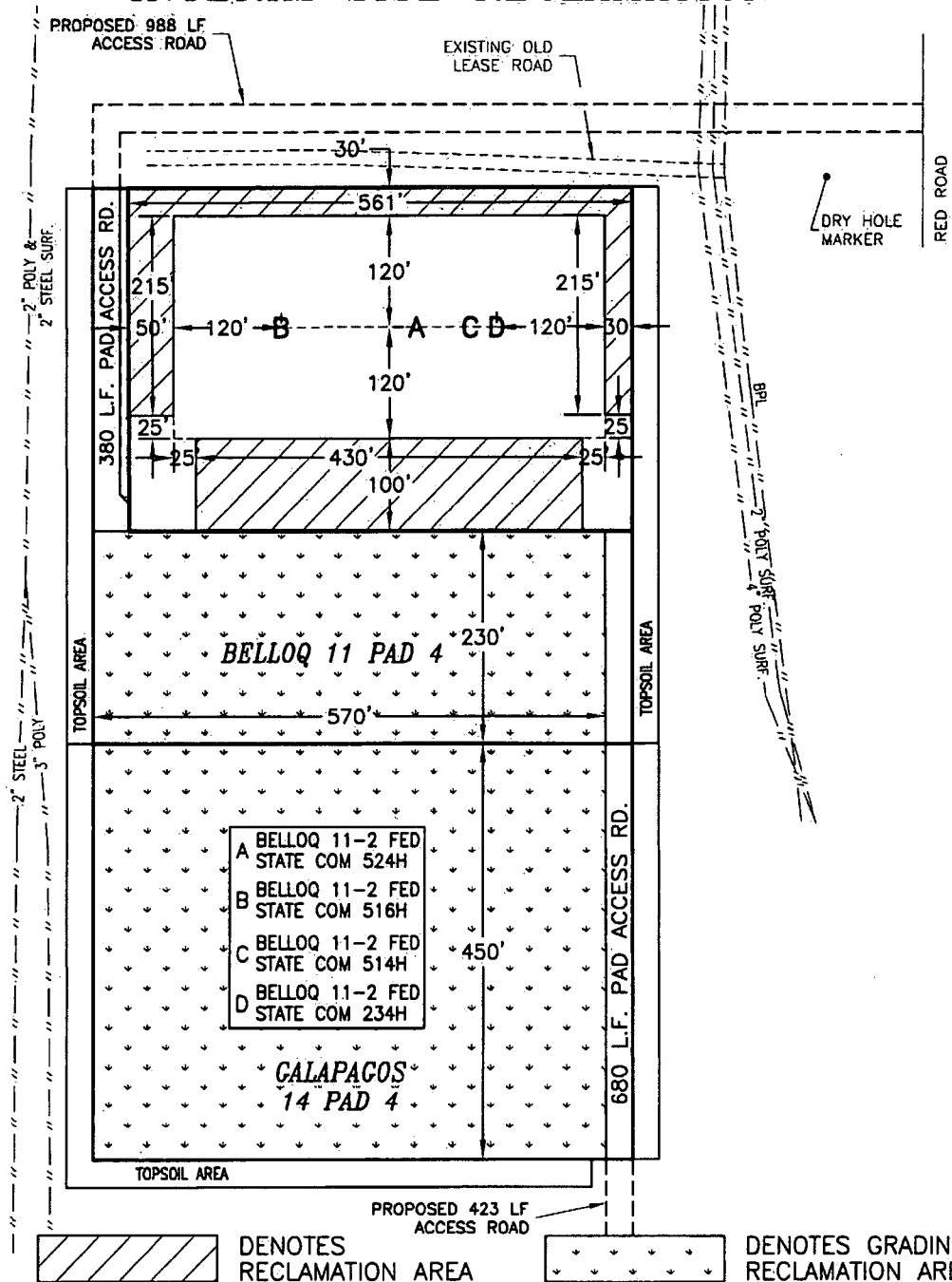
Vertical Datum: NAVD88

Survey number: 6187B

Reference Datum:

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
SHL Leg #1	500	FSL	940	FEL	23S	31E	11	Aliquot SESE	32.31308 31	- 103.7430 685	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 040444 1	348 8	0	0
KOP Leg #1	200	FSL	216 0	FEL	23S	31E	11	Aliquot SWSE	32.31227 7	- 103.7470 23	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 040444 1	- 481 9	845 8	830 7
PPP Leg #1	100	FSL	216 0	FEL	23S	31E	11	Aliquot SWSE	32.31195 5	- 103.7470 177	EDD Y	NEW MEXI CO	NEW MEXI CO	F	NMNM 040444 1	- 481 9	845 8	830 7

A diagram showing a 'BENCH MARKER' and a 'DRY HOLE MARKER'. The bench marker is represented by a solid black dot. The dry hole marker is represented by a solid black dot with a vertical line extending downwards from it. A bracket connects the two markers, indicating a relationship or comparison.



0 100 200 400

SCALE 1" = 200'

1.771± ACRES	INTERIM PAD RECLAMATION AREA
8.971± ACRES	GRADING SITE RECLAMATION AREA
3.723± ACRES	NON-RECLAIMED AREA
<hr/>	
14.465± ACRES	BELLOQ & GALAPAGOS WELL PAD

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

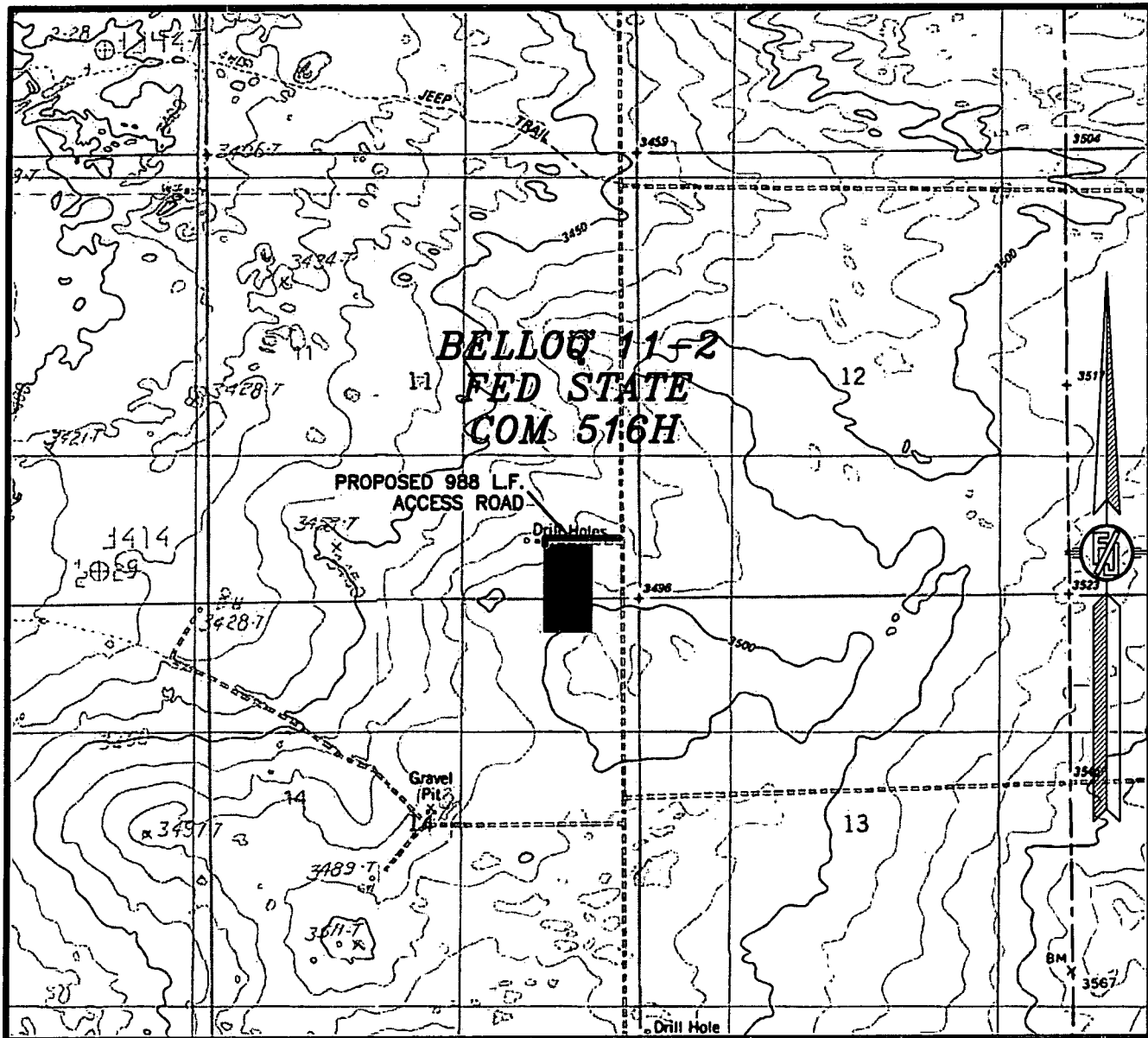
FEBRUARY 25, 2019

SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
LOCATION VERIFICATION MAP



USGS QUAD MAP:
LOS MEDANOS
BOOTLEG RIDGE

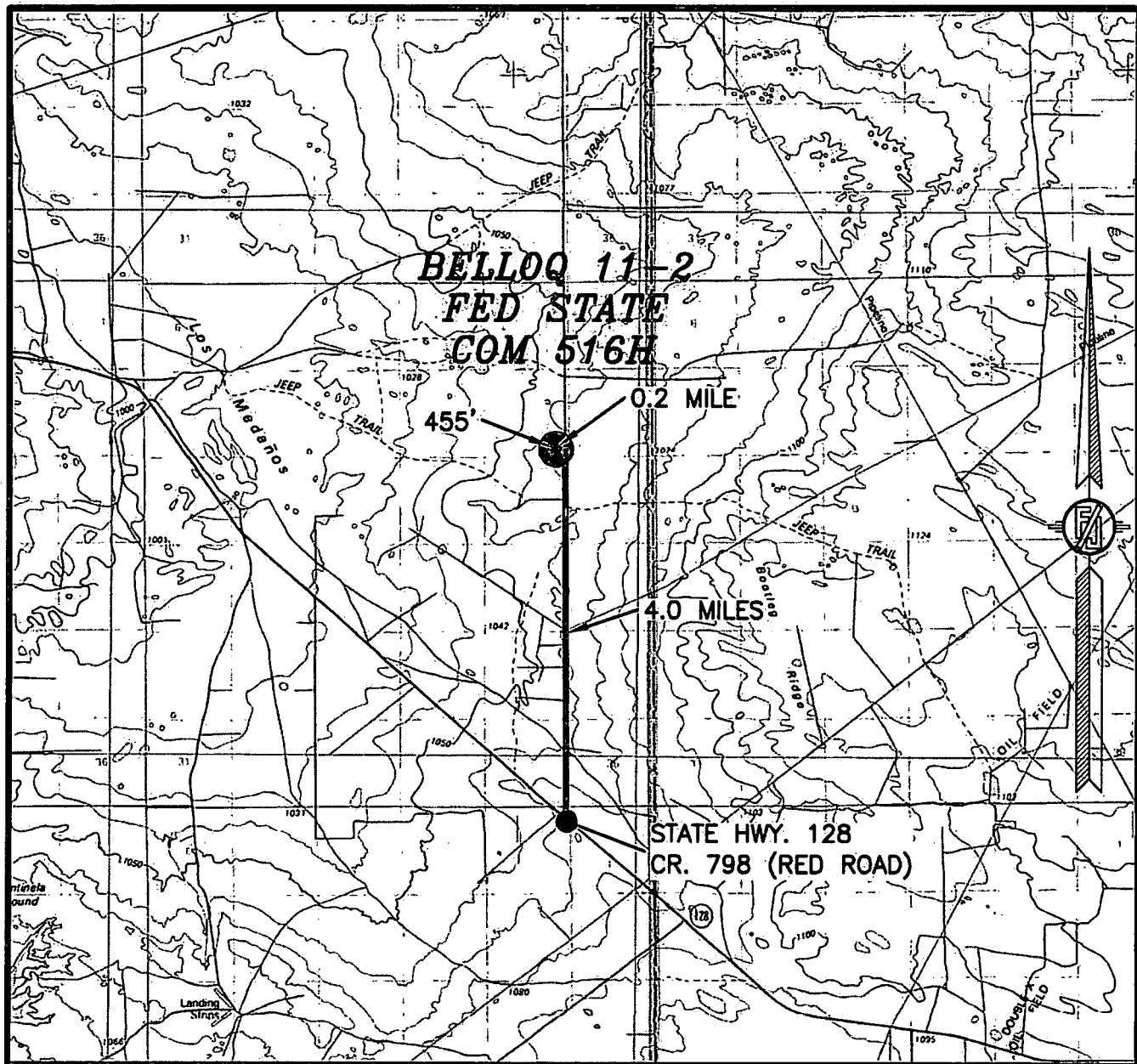
NOT TO SCALE

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO
SURVEY NO. 6187B

SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
VICINITY MAP



DISTANCES IN MILES

NOT TO SCALE

DIRECTIONS TO LOCATION

FROM STATE HIGHWAY 128 AND CR 798 (RED ROAD)
GO NORTH ON CR 798 APPROX. 4.0 MILES TO A ROAD
LATH WITH RED & WHITE FLAGGING ON LEFT SIDE
(WEST) OF CR 798, TURN WEST FOLLOW ROAD LATH
APPROX. 0.2 OF A MILE, TURN LEFT (SOUTH) GO 455'
TO THE SOUTHWEST PAD CORNER FOR THIS LOCATION.

DEVON ENERGY PRODUCTION COMPANY, L.P.

BELLOQ 11-2 FED STATE COM 516H

LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.

EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL PHOTO



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2017

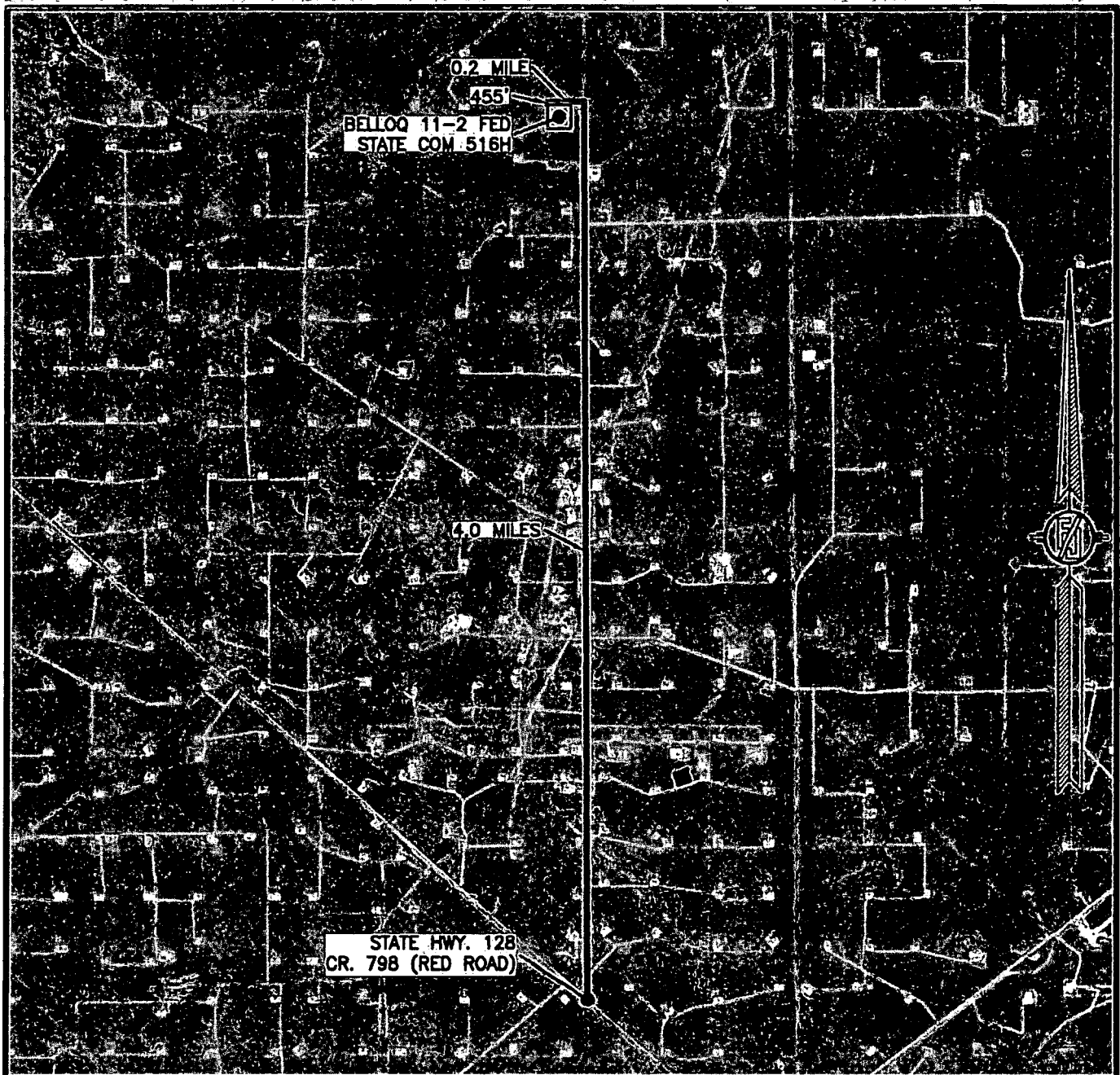
DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2017

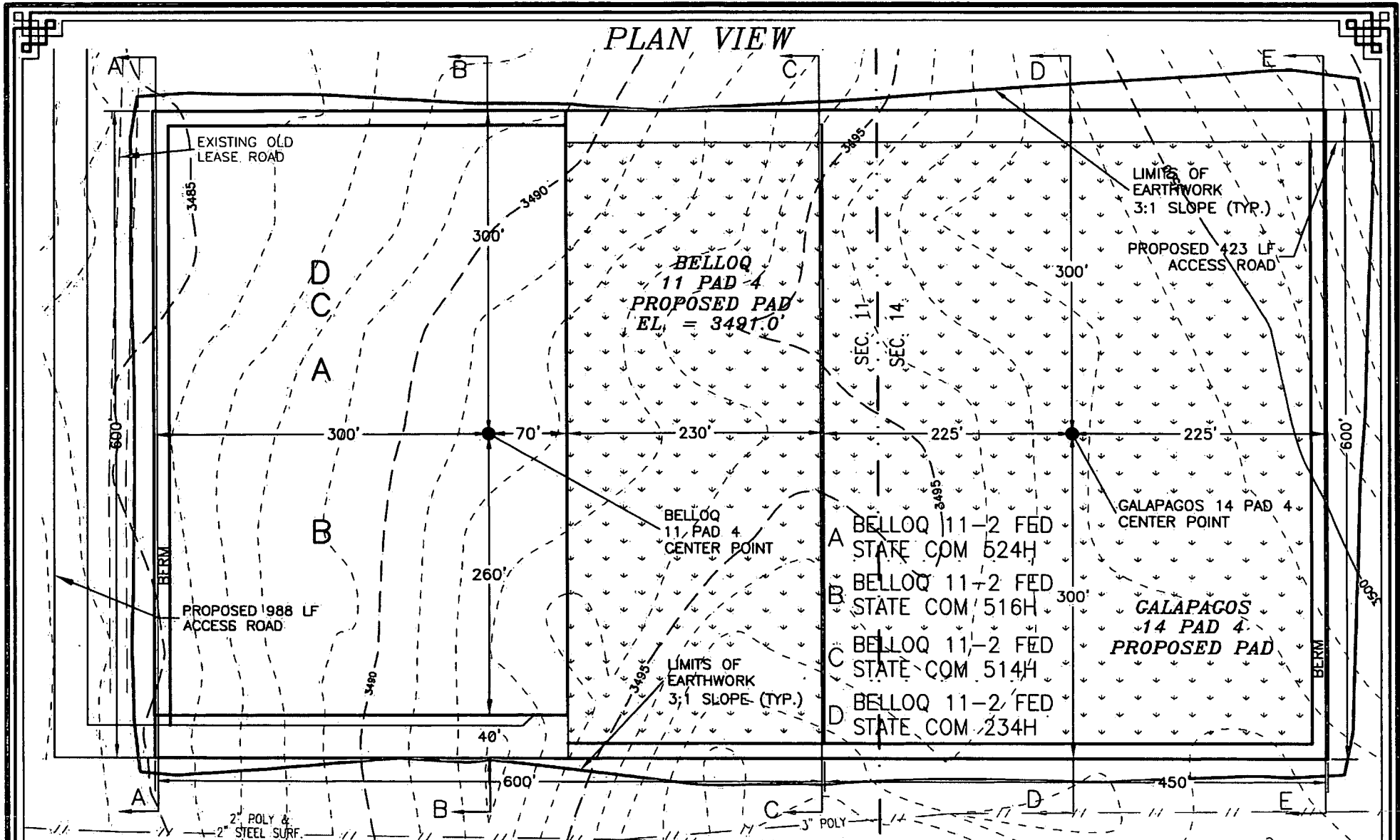
DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR BELLOQ 11-2 FED STATE COM 516H
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

0 12 60 120 240
SCALE 1" = 120'

EARTHWORK QUANTITIES

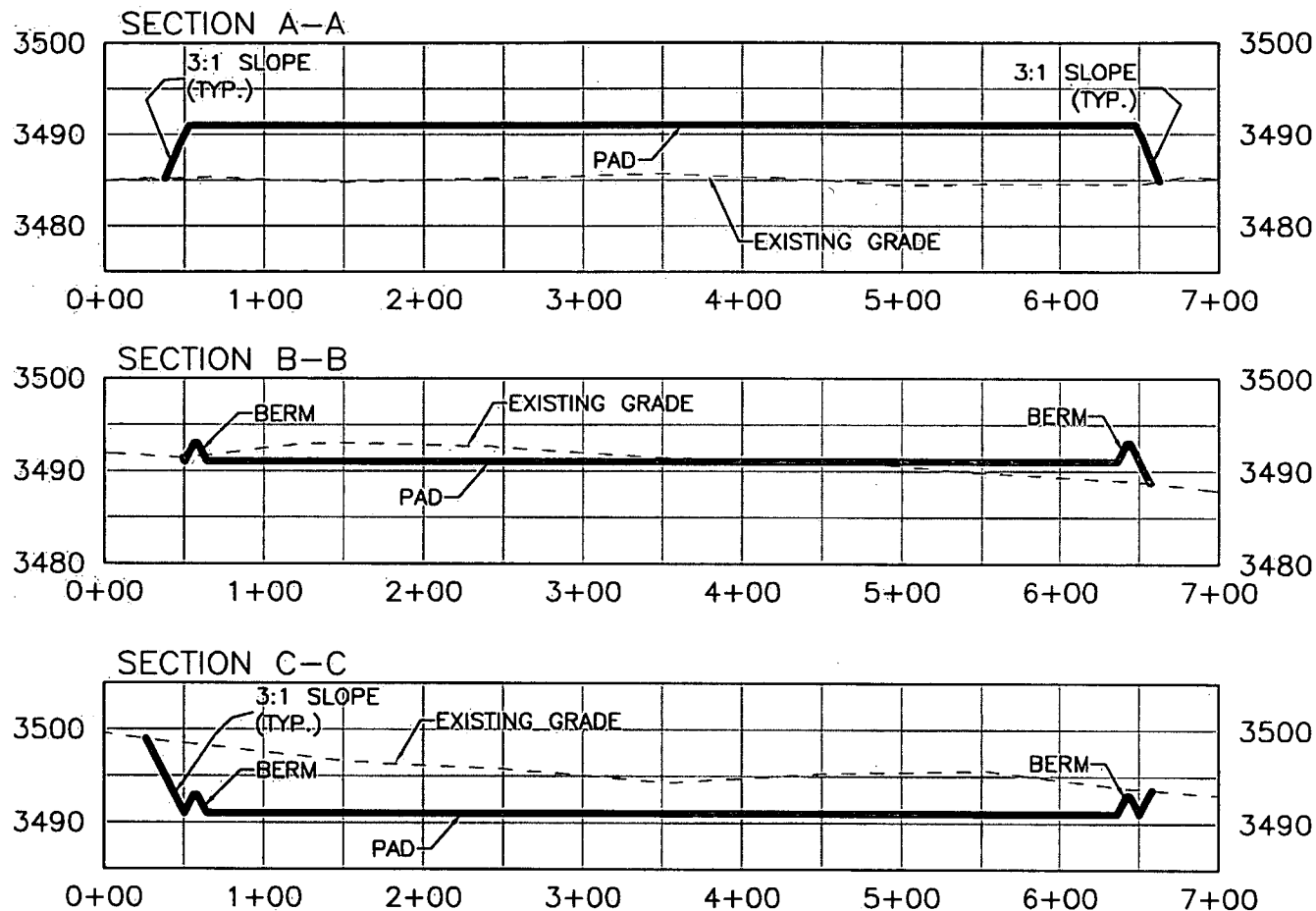
CUT	FILL	NET
91716 CU. YD	22659 CU. YD	69058 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SHEET 1-3
SURVEY NO. 6187B

CROSS SECTIONS



DEVON ENERGY PRODUCTION COMPANY, L.P.
PAD GRADING AND CROSS SECTIONS
FOR BELLOQ 11-2 FED STATE COM 516H
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

012 60 120 240
SCALE 1" = 120' - 1" = 20' VER

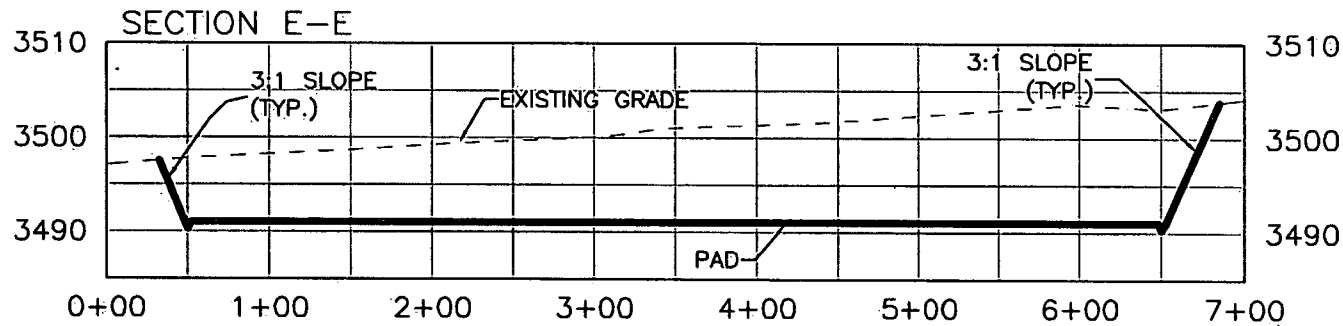
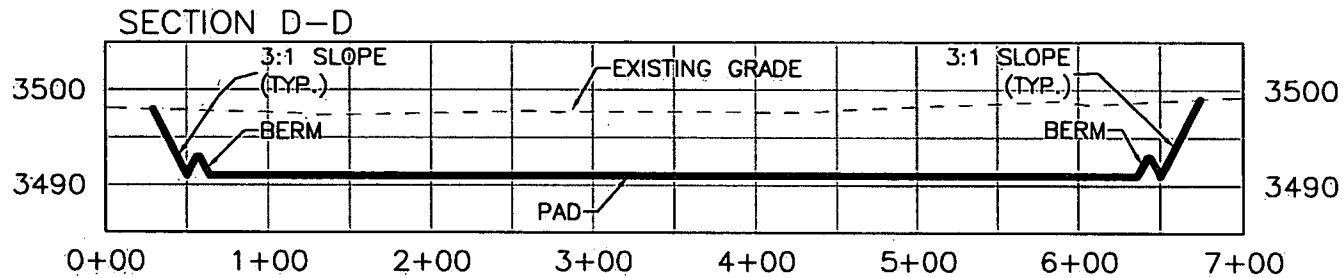
EARTHWORK QUANTITIES		
CUT	FILL	NET
91716 CU. YD	22659 CU. YD	69058 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SHEET 2-3
SURVEY NO. 6187B

CROSS SECTIONS



DEVON ENERGY PRODUCTION COMPANY, L.P.
 PAD GRADING AND CROSS SECTIONS
 FOR BELLOQ 11-2 FED STATE COM 516H
 SECTION 11, TOWNSHIP 23 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

012 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

EARTHWORK QUANTITIES		
CUT	FILL	NET
91716 CU. YD	22659 CU. YD	69058 CU. YD (CUT)

EARTHWORK QUANTITIES ARE ESTIMATED

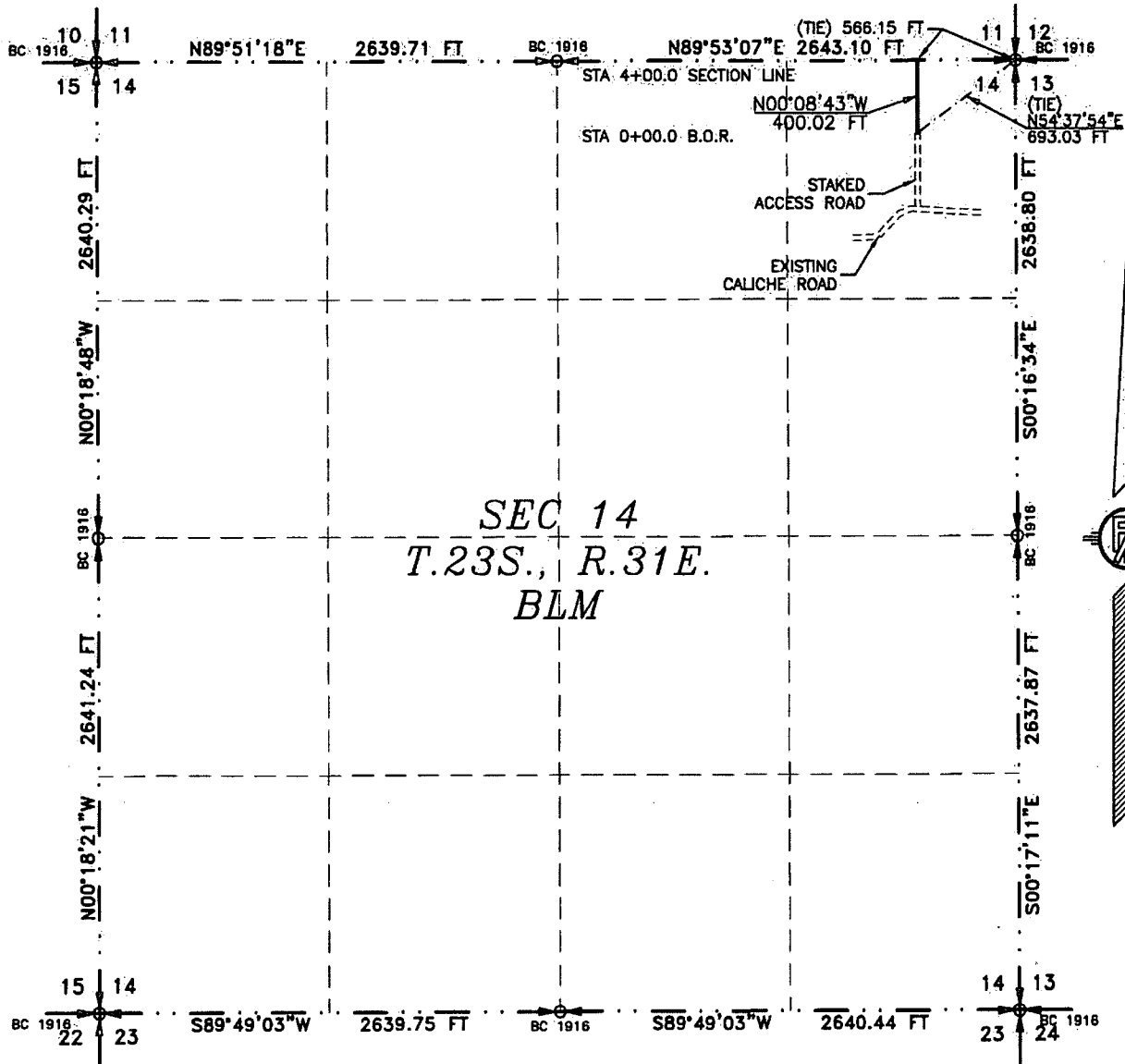
MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SHEET 3-3
 SURVEY NO. 6187B

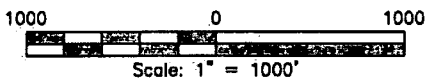
ACCESS ROAD PLAT

ACCESS ROAD FOR BELLOQ 11-2 FED STATE COM 524H, 516H, 514H, & 234H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
FEBRUARY 25, 2019



SEE NEXT SHEET (2-4) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-4

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

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 23RD DAY OF FEBRUARY 2019

FILMON F. JARAMILLO, PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6187B

ACCESS ROAD PLAT

ACCESS ROAD FOR BELLOQ 11-2 FED STATE COM 524H, 516H, 514H, & 234H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
FEBRUARY 25, 2019

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE NE/4 NE/4 OF SAID SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE NORTHEAST CORNER OF SAID SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N54°37'54"E, A DISTANCE OF 693.03 FEET;
THENCE N00°08'43"W A DISTANCE OF 400.02 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE NORTHEAST CORNER OF SAID SECTION 14, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N89°53'07"E, A DISTANCE OF 566.15 FEET;

SAID STRIP OF LAND BEING 400.02 FEET OR 24.24 RODS IN LENGTH, CONTAINING 0.275 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

NE/4 NE/4 400.02 L.F. 24.24 RODS 0.275 ACRES

GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-4

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 25 DAY OF FEBRUARY 2019

FILMON F. JARAMILLO, P.S. 12797

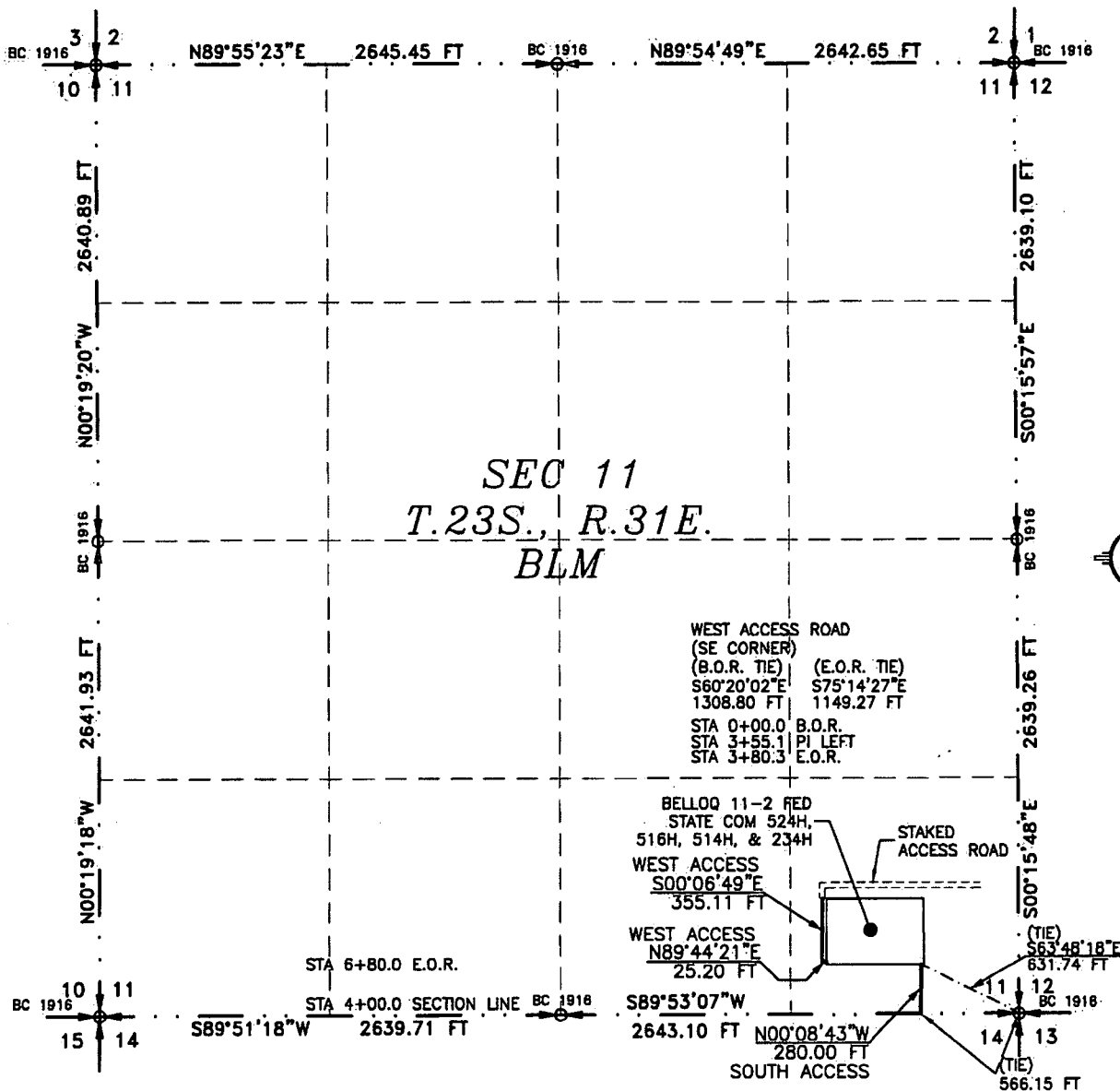
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6187B

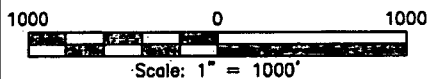
ACCESS ROAD PLAT

ACCESS ROAD FOR BELLOQ 11-2 FED STATE COM 524H, 516H, 514H, & 234H

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
FEBRUARY 25, 2019



SEE NEXT SHEET (4-4) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 3-4

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 25 DAY OF FEBRUARY 2019

FILMON F. JARAMILLO, P.S. 12797
301 SOUTH CANAL
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6187B

CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT

ACCESS ROAD FOR BELLOQ 11-2 FED STATE COM 524H, 516H, 514H, & 234H

**DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
FEBRUARY 25, 2019**

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

SOUTH ACCESS

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS N89°53'07"E, A DISTANCE OF 566.15 FEET;
THENCE N00°08'43"W A DISTANCE OF 280.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S63°48'18"E, A DISTANCE OF 631.74 FEET;

SAID STRIP OF LAND BEING 280.00 FEET OR 16.97 RODS IN LENGTH, CONTAINING 0.193 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4 280.00 L.F. 16.97 RODS 0.193 ACRES

WEST ACCESS

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S60°20'02"E, A DISTANCE OF 1308.80 FEET;
THENCE S00°06'49"E A DISTANCE OF 355.11 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°44'21"E A DISTANCE OF 25.20 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S75°14'27"E, A DISTANCE OF 1149.27 FEET;

SAID STRIP OF LAND BEING 380.31 FEET OR 23.05 RODS IN LENGTH, CONTAINING 0.262 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4 380.31 L.F. 23.05 RODS 0.262 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 4-4

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 27TH DAY OF FEBRUARY 2019

FILMON F. JARAMILLO / PLS. 12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6187B

301 SOUTH CANAL
(575) 234-3341 CARLSBAD, NEW MEXICO



APD ID: 10400040202

Submission Date: 03/21/2019

Highlighted data
reflects the most
recent changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	UNKNOWN	3488	0	0	ALLUVIUM	NONE	N
2	RUSTLER	2749	739	739	SALT	NONE	N
3	SALADO	2438	1050	1050	SALT	NONE	N
4	BASE OF SALT	-982	4470	4470	SALT	NONE	N
5	DELAWARE	-1019	4507	4507	SANDSTONE	NATURAL GAS,OIL	N
6	BONE SPRING 1ST	-5974	9462	9462	SANDSTONE	NATURAL GAS,OIL	N
7	BONE SPRING 2ND	-6379	9867	9867	SANDSTONE	NATURAL GAS,OIL	Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 4325

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below surface casing, a BOP/BOPE system with the minimum rating listed above will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

5M_BOPE_CK_20190130083214.pdf

BOP Diagram Attachment:

5M_BOPE_CK_20190130083227.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Pressure Rating (PSI): 5M

Rating Depth: 8880

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below surface casing, a BOP/BOPE system with the minimum rating listed above will be installed on the wellhead system. BOP/BOPE will be tested by an independent service company per Onshore Oil & Gas Order #2 requirements and MASP (Maximum Anticipated Surface Pressure) calculations. If the system is upgraded, all the components installed will be functional and tested.

Requesting Variance? YES

Variance request: A variance is requested for the use of a flexible choke line from the BOP stack to the choke manifold. See attached for specs for hydrostatic test chart.

Testing Procedure: A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Choke Diagram Attachment:

5M_BOPE__CK_20190130083236.pdf

BOP Diagram Attachment:

5M_BOPE__CK_20190130083243.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	725	0	725	-6961	-7725	725	H-40	48	OTHER - BTC	1.125	1	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	4325	0	4325	-6961	-11211	4325	J-55	40	OTHER - BTC	1.125	1	BUOY	1.6	BUOY	1.6
3	PRODUCTION	8.75	5.5	NEW	API	N	0	19116	0	8880	-6961	-16961	19116	P-110	17	OTHER - BTC	1.125	1	BUOY	1.6	BUOY	1.6

Casing Attachments

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Casing Attachments

Casing ID: 1 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Surf_Csg_Ass_20190130083450.pdf

Casing ID: 2 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Int_Csg_Ass_20190130083503.pdf

Casing ID: 3 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Prod_Csg_Ass_20190130083515.pdf

Section 4 - Cement

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	725	563.2	1.44	13.2	811	50	C	Class C + adds

INTERMEDIATE	Lead		0	3900	478.8	3.27	9	1565.7	30	C	Class C + adds
INTERMEDIATE	Tail		3900	4400	153.8	1.44	13.2	221.5	30	C	Class C + adds
PRODUCTION	Lead		0	8458	730.7	3.27	9	2389.5	10	TUNED	Class C + adds
PRODUCTION	Tail		8458	19116	2056	1.44	13.2	2961.4	10	H	Class H / C + additives

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times.

Describe the mud monitoring system utilized: PVT/Pason/Visual Monitoring

Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	8880	OTHER : FW GEL	8.5	9				2			
725	8880	OTHER : BRINE	10	10.5				2			
4325	8880	WATER-BASED MUD	8.5	9							

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will run GRMWD from TD to from KOP. Cement bond logs will be run in vertical to determine top of cement. Stated logs run will be in the completion report and submitted to the BLM.

List of open and cased hole logs run in the well:

CALIPER,CBL,DS,GR,MUDLOG

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 4156

Anticipated Surface Pressure: 2202.4

Anticipated Bottom Hole Temperature(F): 124

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geohazards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Belloq_11_2_Fed_State_Com_516H_H2S_20190321204235.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Devon_Belloq_11_2_Fed_State_Com_516H_Permit_Plan_1_20190321092103.pdf

Devon_Belloq_11_2_Fed_State_Com_516H_AC_Report_Permit_Plan_1_20190321092102.pdf

Devon_Belloq_11_2_Fed_State_Com_516H_Plot_Permit_Plan_1_20190321092145.pdf

Belloq_11_2_Fed_State_Com_516H_Permit_Plan_1_20190906093526.pdf

Other proposed operations facets description:

Multi-Bowl Verbiage

Multi-Bowl Wellhead

Closed-Loop Design Plan

Gas Capture Plan-BELLOQ 11 CTB 2

Drill Plan-

SPUDDER RIG

Other proposed operations facets attachment:

Clsd_Loop_20190130075305.pdf

Spudder_Rig_Info_20190130075304.pdf

MB_Wellhd_5M_20190130075306.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

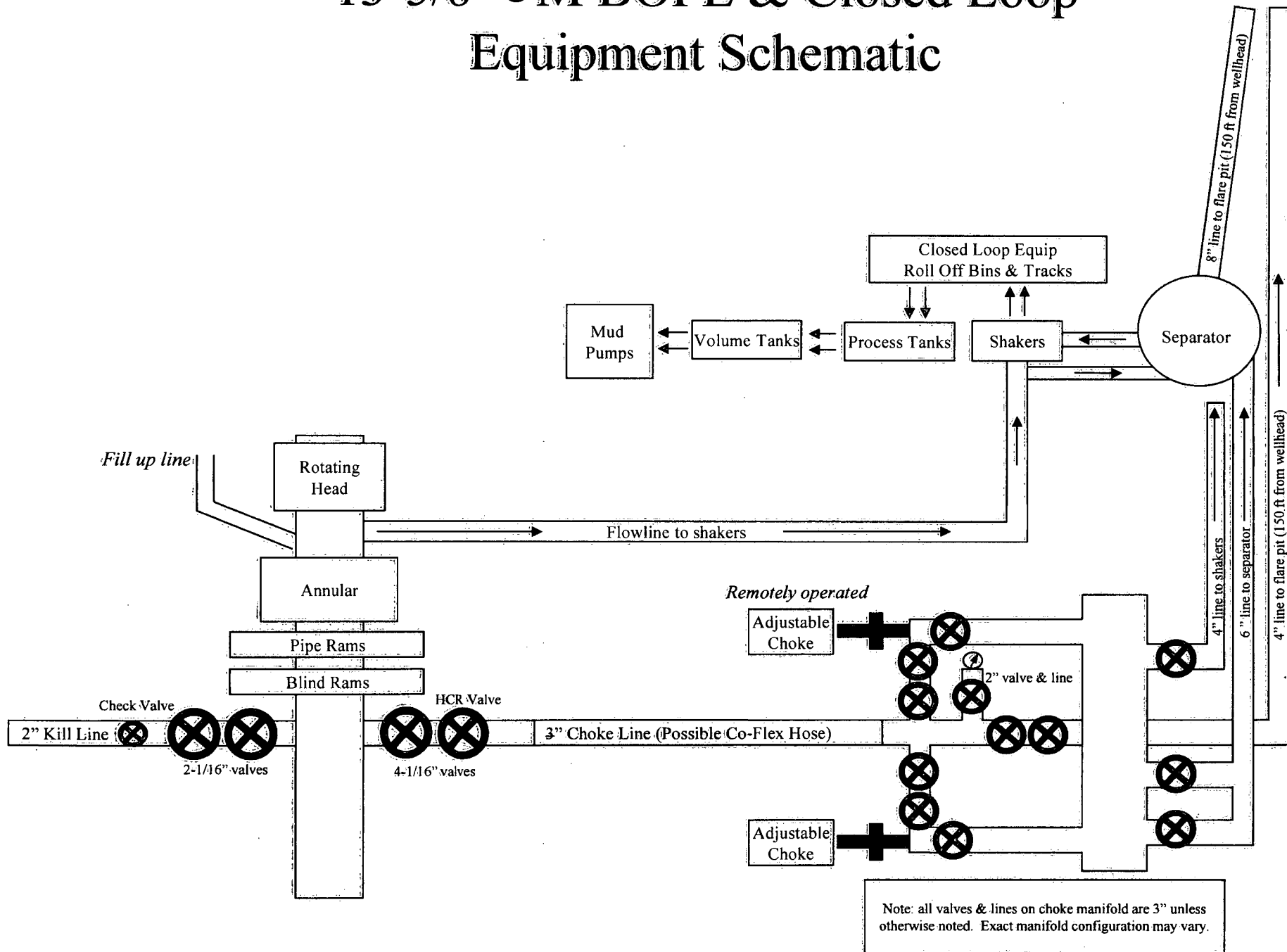
MB_Verb_5M_20190130075306.pdf

BELLOQ_11_CTB_2_GasCapturePlan_3_21_2019_20190321092030.pdf

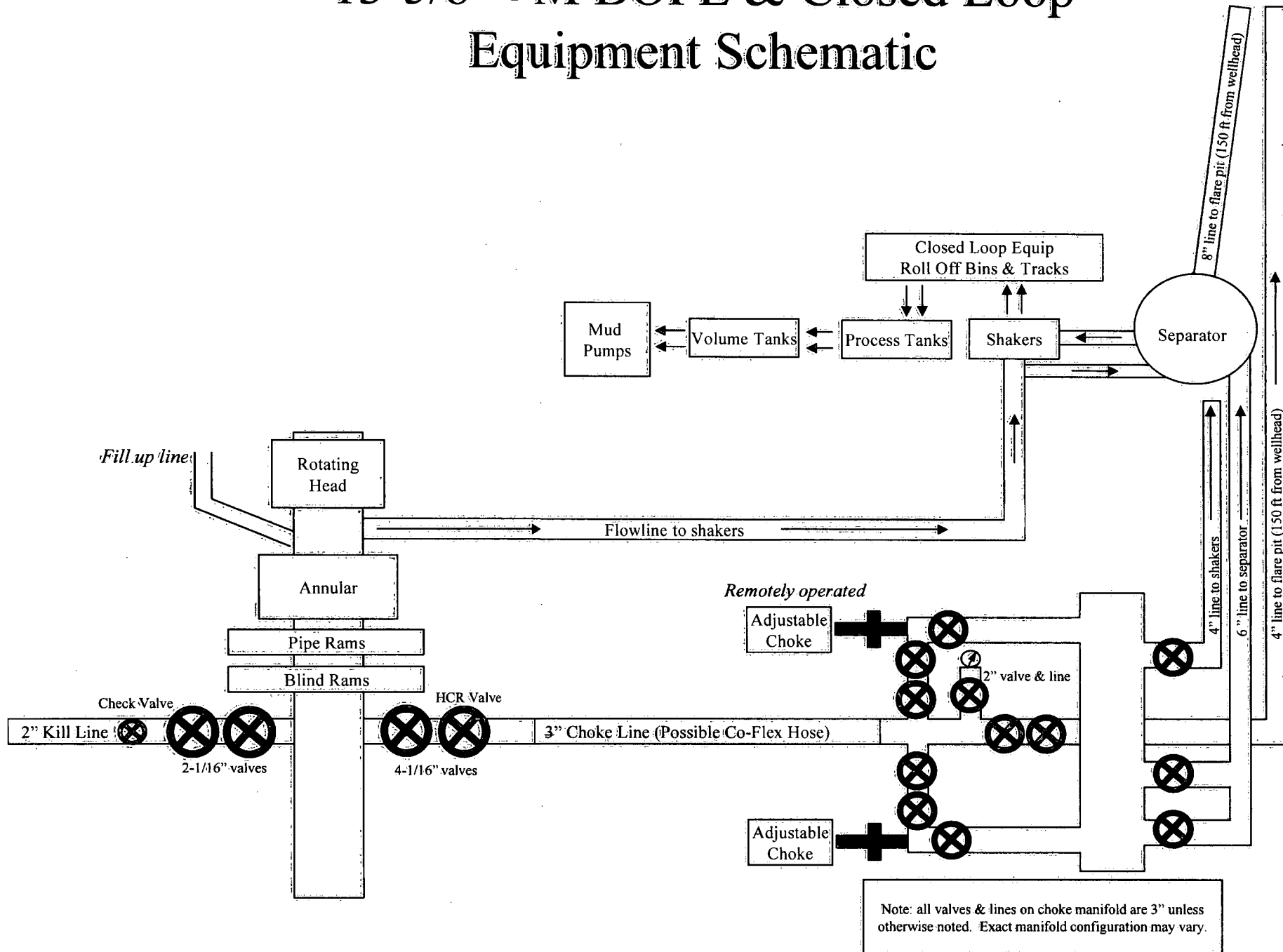
Other Variance attachment:

Co_flex_20190130084111.pdf

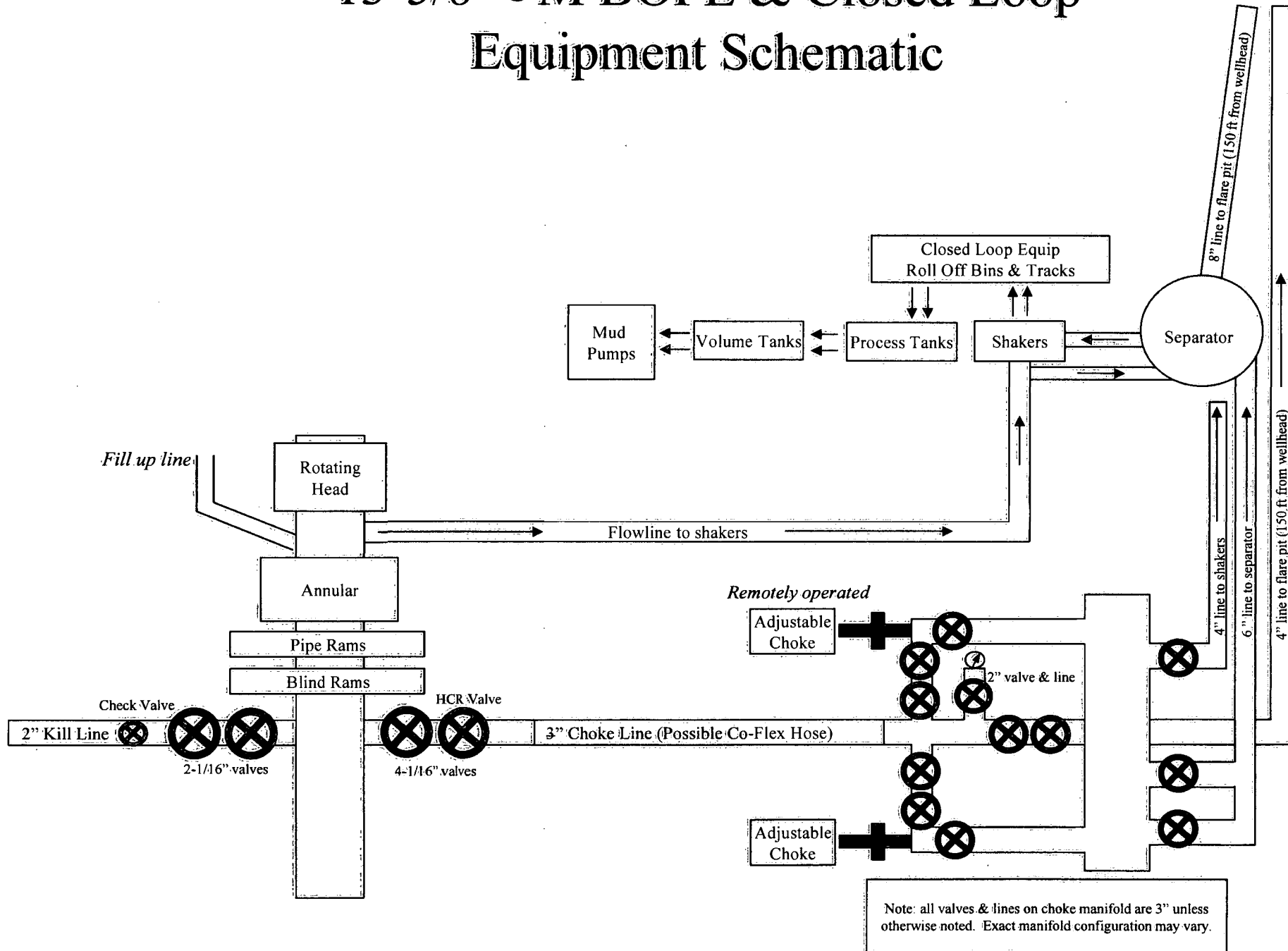
13-5/8" 5M BOPE & Closed Loop Equipment Schematic



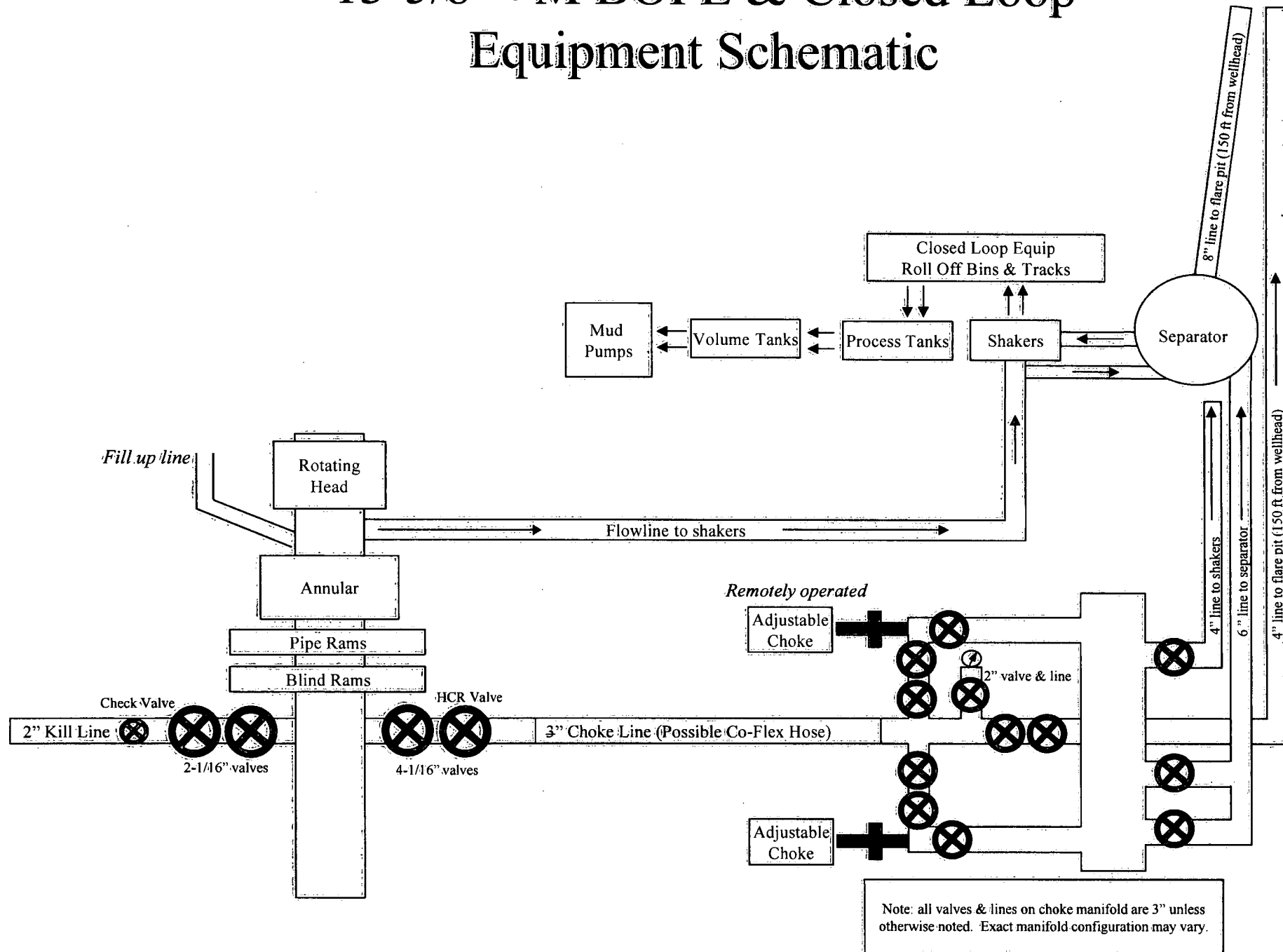
13-5/8" 5M BOPE & Closed Loop Equipment Schematic



13-5/8" 5 M BOPE & Closed Loop Equipment Schematic



Equipment Schematic



Casing Assumptions and Load Cases

Surface

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Surface Casing Burst Design		
Load Case	External Pressure	Internal Pressure
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Displace to Gas	Formation Pore Pressure	Dry gas from next casing point

Surface Casing Collapse Design		
Load Case	External Pressure	Internal Pressure
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Surface Casing Tension Design	
Load Case	Assumptions
Overpull	100kips
Runing in hole	3 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Intermediate

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Intermediate Casing Burst Design		
Load Case	External Pressure	Internal Pressure
Pressure Test	Formation Pore Pressure	Max mud weight of next hole-section plus Test psi
Drill Ahead	Formation Pore Pressure	Max mud weight of next hole section
Fracture @ Shoe	Formation Pore Pressure	Dry gas

Intermediate Casing Collapse Design		
Load Case	External Pressure	Internal Pressure
Full Evacuation	Water gradient in cement, mud above TOC	None
Cementing	Wet cement weight	Water (8.33ppg)

Intermediate Casing Tension Design	
Load Case	Assumptions
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A

Casing Assumptions and Load Cases

Production

All casing design assumptions were ran in Stress Check to determine safety factor which meet or exceed both Devon Energy and BLM minimum requirements. All casing strings will be filled while running in hole in order to not exceed collapse rating of the pipe.

Production Casing Burst Design		
Load Case	External Pressure	Internal Pressure
Pressure Test	Formation Pore Pressure	Fluid in hole (water or produced water) + test psi
Tubing Leak	Formation Pore Pressure	Packer @ KOP, leak below surface 8.6 ppg packer fluid
Stimulation	Formation Pore Pressure	Max frac pressure with heaviest frac fluid

Production Casing Collapse Design		
Load Case	External Pressure	Internal Pressure
Full Evacuation	Water gradient in cement, mud above TOC.	None
Cementing	Wet cement weight	Water (8.33ppg)

Production Casing Tension Design	
Load Case	Assumptions
Overpull	100kips
Runing in hole	2 ft/s
Service Loads	N/A



**Devon Energy Center
333 West Sheridan Avenue
Oklahoma City, Oklahoma 73102-5015**

Hydrogen Sulfide (H₂S) Contingency Plan

For

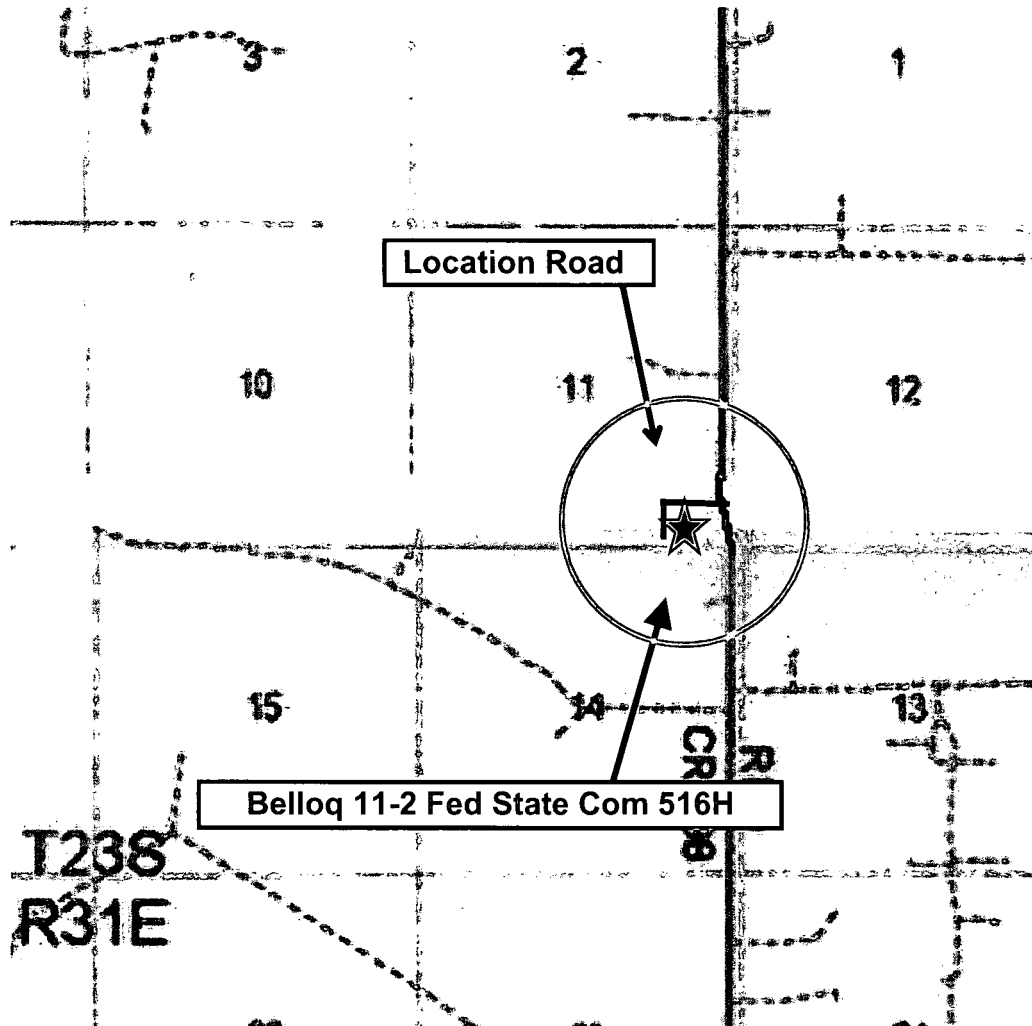
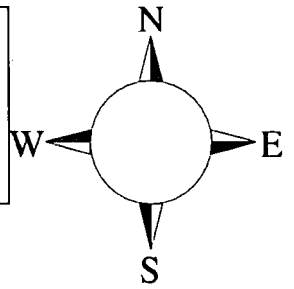
Belloq 11-2 Fed State Com 516H

**Sec-11 T-23S R-31E
500' FSL & 940' FEL
LAT. = 32.3130831' N (NAD83)
LONG = 103.7430685' W**

Eddy County NM

Belloq 11-2 Fed State Com 516H

This is an open drilling site. H₂S monitoring equipment and emergency response equipment will be used within 500' of zones known to contain H₂S, including warning signs, wind indicators and H₂S monitor.



Assumed 100 ppm ROE = 3000' (Radius of Exposure);
100 ppm H₂S concentration shall trigger activation of this plan.

Escape

Crews shall escape upwind of escaping gas in the event of an emergency release of gas. Escape can be facilitated from the location entrance road. Crews should then block the entrance to the location from the lease road so as not to allow anyone traversing into a hazardous area. The blockade should be at a safe distance outside of the ROE. There are no homes or buildings in or near the ROE.

Assumed 100 ppm ROE = 3000'

100 ppm H₂S concentration shall trigger activation of this plan.

Emergency Procedures

In the event of a release of gas containing H₂S, the first responder(s) must

- **Isolate the area and prevent entry by other persons into the 100 ppm ROE.**
- **Evacuate any public places encompassed by the 100 ppm ROE.**
- **Be equipped with H₂S monitors and air packs in order to control the release.**
- **Use the “buddy system” to ensure no injuries occur during the response**
- **Take precautions to avoid personal injury during this operation.**
- **Contact operator and/or local officials to aid in operation. See list of phone numbers attached.**
- **Have received training in the**
 - **Detection of H₂S, and**
 - **Measures for protection against the gas,**
 - **Equipment used for protection and emergency response.**

Ignition of Gas Source

Should control of the well be considered lost and ignition considered, take care to protect against exposure to Sulfur Dioxide (SO₂). Intentional ignition must be coordinated with the NMOCD and local officials. Additionally the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Characteristics of H₂S and SO₂

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H₂S	1.189 Air = 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	SO₂	2.21 Air = 1	2 ppm	N/A	1000 ppm

Contacting Authorities

Devon Energy Corp. personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Devon Energy Corp. Company response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER)

Hydrogen Sulfide Drilling Operation Plan

I. HYDROGEN SULFIDE (H₂S) TRAINING

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing drilling operations on this well:

1. The hazards and characteristics of hydrogen sulfide (H₂S)
2. The proper use and maintenance of personal protective equipment and life support systems.
3. The proper use of H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
4. The proper techniques for first aid and rescue procedures.

In addition, supervisory personnel will be trained in the following areas:

1. The effects of H₂S metal components. If high tensile tubulars are to be used, personnel will be trained in their special maintenance requirements.
2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
3. The contents and requirements of the H₂S Drilling Operations Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

II. HYDROGEN SULFIDE TRAINING

Note: All H₂S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonably expected to contain H₂S.

1. Well Control Equipment

- A. Flare line
- B. Choke manifold – Remotely Operated
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.
- E. Mud/Gas Separator

2. Protective equipment for essential personnel:

30-minute SCBA units located at briefing areas, as indicated on well site diagram, with escape units available in the top doghouse. As it may be difficult to communicate audibly while wearing these units; hand signals shall be utilized.

3. H₂S detection and monitoring equipment:

Portable H₂S monitors positioned on location for best coverage and response. These units have warning lights which activate when H₂S levels reach 10 ppm and audible sirens which activate at 15 ppm. Sensor locations:

- Bell nipple
- Possum Belly/Shale shaker
- Rig floor
- Choke manifold
- Cellar

Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations. Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

4. Mud program:

The mud program has been designed to minimize the volume of H₂S circulated to surface. Proper mud weight, safe drilling practices and the use of H₂S scavengers will minimize hazards when penetrating H₂S bearing zones.

5. Metallurgy:

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

6. Communication:

- A. Company personnel have/use cellular telephones in the field.
- B. Land line (telephone) communications at Office

7. Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H₂S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

<u>Devon Energy Corp. Company Call List</u>		
Drilling Supervisor – Basin – Mark Kramer		405-823-4796
EHS Professional – Laura Wright		405-439-8129
<u>Agency Call List</u>		
<u>Lea County (575)</u>	<u>Hobbs</u>	
	Lea County Communication Authority	393-3981
	State Police	392-5588
	City Police	397-9265
	Sheriff's Office	393-2515
	Ambulance	911
	Fire Department	397-9308
	LEPC (Local Emergency Planning Committee)	393-2870
	NMOCD	393-6161
	US Bureau of Land Management	393-3612
<u>Eddy County (575)</u>	<u>Carlsbad</u>	
	State Police	885-3137
	City Police	885-2111
	Sheriff's Office	887-7551
	Ambulance	911
	Fire Department	885-3125
	LEPC (Local Emergency Planning Committee)	887-3798
	US Bureau of Land Management	887-6544
	NM Emergency Response Commission (Santa Fe)	(505) 476-9600
	24 HR	(505) 827-9126
	National Emergency Response Center	(800) 424-8802
	National Pollution Control Center: Direct	(703) 872-6000
	For Oil Spills	(800) 280-7118
	Emergency Services	
	Wild Well Control	(281) 784-4700
	Cudd Pressure Control	(915) 699-0139 (915) 563-3356
	Halliburton	(575) 746-2757
	B. J. Services	(575) 746-3569
	Give GPS position:	
	Native Air – Emergency Helicopter – Hobbs (TX & NM)	(800) 642-7828
	Flight For Life - Lubbock, TX	(806) 743-9911
	Aerocare - Lubbock, TX	(806) 747-8923
	Med Flight Air Amb - Albuquerque, NM	(575) 842-4433
	Lifeguard Air Med Svc. Albuquerque, NM	(800) 222-1222
	Poison Control (24/7)	(575) 272-3115
	Oil & Gas Pipeline 24 Hour Service	(800) 364-4366
	NOAA – Website - www.nhc.noaa.gov	

Prepared in conjunction with
Dave Small



WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 11-T23S-R31E

Belloq 11-2 Fed State Com 516H

Wellbore #1

Plan: Permit Plan 1

Standard Planning Report - Geographic

12 March, 2019

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Company:	WCDSO Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Project:	Eddy County (NAD 83 NM Eastern)		
Map System:	US State Plane 1983	System Datum:	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		

Site:	Sec 11-T23S-R31E			
Site Position:		Northing:	488,170.26 usft	Latitude: 32.340736
From:	Map	Easting:	719,281.88 usft	Longitude: -103.757161
Position Uncertainty:	0.00 ft	Slot Radius:	13-3/16 "	Grid Convergence: 0.31 °

Well:	Belloq 11-2 Fed State Com 516H			
Well Position	+N/-S	0.00 ft	Northing:	478,134.09 usft
	+E/-W	0.00 ft	Easting:	723,689.48 usft
Position Uncertainty		0.50 ft	Wellhead Elevation:	Ground Level: 3,488.70 ft

Wellbore:	Wellbore #1				
Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF2015	3/12/2019	6.85	60.09	47,794.04952335

Design:	Permit Plan 1			
Audit Notes:				
Version:	Phase:	PROTOTYPE	Tie On Depth:	0.00
Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	352.70

Plan Survey Tool Program	Date:	3/12/2019		
Depth From (ft)	Depth To (ft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,115.75 Permit Plan 1 (Wellbore #1)	MWD+IFR1	OWSG MWD + IFR1

Plan Sections										
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,495.46	14.95	256.18	3,478.54	-46.34	-188.44	1.00	1.00	0.00	256.18	
7,110.68	14.95	256.18	6,971.31	-269.11	-1,094.37	0.00	0.00	0.00	0.00	
8,107.65	0.00	0.00	7,957.00	-300.00	-1,220.00	1.50	-1.50	0.00	180.00	
8,457.69	0.00	0.00	8,307.04	-300.00	-1,220.00	0.00	0.00	0.00	0.00	
9,357.69	90.00	359.64	8,880.00	272.95	-1,223.56	10.00	10.00	0.00	359.64	PBHL - Belloq 11-2 Fc
19,115.75	90.00	359.64	8,880.00	10,030.82	-1,284.24	0.00	0.00	0.00	0.00	PBHL - Belloq 11-2 Fc

Planning Report - Geographic

Database:	EDM r5000.141 Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Company:	WCDSO Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
0.00	0.00	0.00	0.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
100.00	0.00	0.00	100.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
200.00	0.00	0.00	200.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
300.00	0.00	0.00	300.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
400.00	0.00	0.00	400.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
500.00	0.00	0.00	500.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
600.00	0.00	0.00	600.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
700.00	0.00	0.00	700.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
800.00	0.00	0.00	800.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
900.00	0.00	0.00	900.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,000.00	0.00	0.00	1,000.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,100.00	0.00	0.00	1,100.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,200.00	0.00	0.00	1,200.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,300.00	0.00	0.00	1,300.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,400.00	0.00	0.00	1,400.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,500.00	0.00	0.00	1,500.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,600.00	0.00	0.00	1,600.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,700.00	0.00	0.00	1,700.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,800.00	0.00	0.00	1,800.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
1,900.00	0.00	0.00	1,900.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
2,000.00	0.00	0.00	2,000.00	0.00	0.00	478,134.09	723,689.48	32.313083	-103.743069
2,100.00	1.00	256.18	2,099.99	-0.21	-0.85	478,133.88	723,688.63	32.313083	-103.743071
2,200.00	2.00	256.18	2,199.96	-0.83	-3.39	478,133.26	723,686.09	32.313081	-103.743080
2,300.00	3.00	256.18	2,299.86	-1.88	-7.63	478,132.22	723,681.85	32.313078	-103.743093
2,400.00	4.00	256.18	2,399.68	-3.33	-13.55	478,130.76	723,675.92	32.313074	-103.743113
2,500.00	5.00	256.18	2,499.37	-5.21	-21.17	478,128.88	723,668.30	32.313069	-103.743137
2,600.00	6.00	256.18	2,598.90	-7.49	-30.48	478,126.60	723,659.00	32.313063	-103.743167
2,700.00	7.00	256.18	2,698.26	-10.20	-41.47	478,123.89	723,648.00	32.313056	-103.743203
2,800.00	8.00	256.18	2,797.40	-13.31	-54.15	478,120.78	723,635.33	32.313047	-103.743244
2,900.00	9.00	256.18	2,896.30	-16.84	-68.50	478,117.25	723,620.98	32.313038	-103.743291
3,000.00	10.00	256.18	2,994.93	-20.79	-84.53	478,113.31	723,604.95	32.313027	-103.743343
3,100.00	11.00	256.18	3,093.26	-25.14	-102.22	478,108.95	723,587.25	32.313016	-103.743400
3,200.00	12.00	256.18	3,191.25	-29.90	-121.58	478,104.19	723,567.89	32.313003	-103.743463
3,300.00	13.00	256.18	3,288.87	-35.07	-142.60	478,099.03	723,546.88	32.312989	-103.743531
3,400.00	14.00	256.18	3,386.11	-40.64	-165.27	478,093.45	723,524.21	32.312974	-103.743604
3,495.46	14.95	256.18	3,478.54	-46.34	-188.44	478,087.75	723,501.03	32.312959	-103.743679
3,500.00	14.95	256.18	3,482.92	-46.62	-189.58	478,087.47	723,499.90	32.312958	-103.743683
3,600.00	14.95	256.18	3,579.54	-52.78	-214.64	478,081.31	723,474.84	32.312941	-103.743764
3,700.00	14.95	256.18	3,676.15	-58.94	-239.70	478,075.15	723,449.78	32.312925	-103.743846
3,800.00	14.95	256.18	3,772.76	-65.10	-264.76	478,068.99	723,424.72	32.312908	-103.743927
3,900.00	14.95	256.18	3,869.38	-71.27	-289.82	478,062.82	723,399.66	32.312892	-103.744008
4,000.00	14.95	256.18	3,965.99	-77.43	-314.87	478,056.66	723,374.60	32.312875	-103.744089
4,100.00	14.95	256.18	4,062.60	-83.59	-339.93	478,050.50	723,349.54	32.312859	-103.744170
4,200.00	14.95	256.18	4,159.22	-89.75	-364.99	478,044.34	723,324.48	32.312842	-103.744252
4,300.00	14.95	256.18	4,255.83	-95.91	-390.05	478,038.18	723,299.43	32.312825	-103.744333
4,400.00	14.95	256.18	4,352.44	-102.08	-415.11	478,032.01	723,274.37	32.312809	-103.744414
4,500.00	14.95	256.18	4,449.06	-108.24	-440.17	478,025.85	723,249.31	32.312792	-103.744495
4,600.00	14.95	256.18	4,545.67	-114.40	-465.23	478,019.69	723,224.25	32.312776	-103.744577
4,700.00	14.95	256.18	4,642.28	-120.56	-490.29	478,013.53	723,199.19	32.312759	-103.744658
4,800.00	14.95	256.18	4,738.89	-126.72	-515.34	478,007.37	723,174.13	32.312743	-103.744739
4,900.00	14.95	256.18	4,835.51	-132.89	-540.40	478,001.20	723,149.07	32.312726	-103.744820
5,000.00	14.95	256.18	4,932.12	-139.05	-565.46	477,995.04	723,124.01	32.312710	-103.744901
5,100.00	14.95	256.18	5,028.73	-145.21	-590.52	477,988.88	723,098.96	32.312693	-103.744983
5,200.00	14.95	256.18	5,125.35	-151.37	-615.58	477,982.72	723,073.90	32.312676	-103.745064
5,300.00	14.95	256.18	5,221.96	-157.53	-640.64	477,976.56	723,048.84	32.312660	-103.745145

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
5,400.00	14.95	256.18	5,318.57	-163.70	-665.70	477,970.39	723,023.78	32.312643	-103.745226
5,500.00	14.95	256.18	5,415.19	-169.86	-690.76	477,964.23	722,998.72	32.312627	-103.745308
5,600.00	14.95	256.18	5,511.80	-176.02	-715.81	477,958.07	722,973.66	32.312610	-103.745389
5,700.00	14.95	256.18	5,608.41	-182.18	-740.87	477,951.91	722,948.60	32.312594	-103.745470
5,800.00	14.95	256.18	5,705.03	-188.34	-765.93	477,945.75	722,923.55	32.312577	-103.745551
5,900.00	14.95	256.18	5,801.64	-194.51	-790.99	477,939.59	722,898.49	32.312560	-103.745632
6,000.00	14.95	256.18	5,898.25	-200.67	-816.05	477,933.42	722,873.43	32.312544	-103.745714
6,100.00	14.95	256.18	5,994.86	-206.83	-841.11	477,927.26	722,848.37	32.312527	-103.745795
6,200.00	14.95	256.18	6,091.48	-212.99	-866.17	477,921.10	722,823.31	32.312511	-103.745876
6,300.00	14.95	256.18	6,188.09	-219.15	-891.23	477,914.94	722,798.25	32.312494	-103.745957
6,400.00	14.95	256.18	6,284.70	-225.32	-916.29	477,908.78	722,773.19	32.312478	-103.746039
6,500.00	14.95	256.18	6,381.32	-231.48	-941.34	477,902.61	722,748.13	32.312461	-103.746120
6,600.00	14.95	256.18	6,477.93	-237.64	-966.40	477,896.45	722,723.08	32.312445	-103.746201
6,700.00	14.95	256.18	6,574.54	-243.80	-991.46	477,890.29	722,698.02	32.312428	-103.746282
6,800.00	14.95	256.18	6,671.16	-249.96	-1,016.52	477,884.13	722,672.96	32.312411	-103.746363
6,900.00	14.95	256.18	6,767.77	-256.13	-1,041.58	477,877.97	722,647.90	32.312395	-103.746445
7,000.00	14.95	256.18	6,864.38	-262.29	-1,066.64	477,871.80	722,622.84	32.312378	-103.746526
7,100.00	14.95	256.18	6,961.00	-268.45	-1,091.70	477,865.64	722,597.78	32.312362	-103.746607
7,110.68	14.95	256.18	6,971.31	-269.11	-1,094.37	477,864.98	722,595.11	32.312360	-103.746616
7,200.00	13.61	256.18	7,057.87	-274.37	-1,115.77	477,859.72	722,573.71	32.312346	-103.746685
7,300.00	12.11	256.18	7,155.36	-279.69	-1,137.39	477,854.40	722,552.08	32.312332	-103.746755
7,400.00	10.61	256.18	7,253.39	-284.39	-1,156.53	477,849.70	722,532.95	32.312319	-103.746817
7,500.00	9.11	256.18	7,351.91	-288.48	-1,173.16	477,845.61	722,516.31	32.312308	-103.746871
7,600.00	7.61	256.18	7,450.85	-291.96	-1,187.29	477,842.13	722,502.19	32.312299	-103.746917
7,700.00	6.11	256.18	7,550.13	-294.81	-1,198.90	477,839.28	722,490.58	32.312291	-103.746955
7,800.00	4.61	256.18	7,649.69	-297.04	-1,207.98	477,837.05	722,481.50	32.312285	-103.746984
7,900.00	3.11	256.18	7,749.46	-298.65	-1,214.52	477,835.44	722,474.96	32.312281	-103.747005
8,000.00	1.61	256.18	7,849.37	-299.64	-1,218.53	477,834.45	722,470.95	32.312278	-103.747018
8,100.00	0.11	256.18	7,949.35	-300.00	-1,219.99	477,834.09	722,469.49	32.312277	-103.747023
8,107.65	0.00	0.00	7,957.00	-300.00	-1,220.00	477,834.09	722,469.48	32.312277	-103.747023
8,200.00	0.00	0.00	8,049.35	-300.00	-1,220.00	477,834.09	722,469.48	32.312277	-103.747023
8,300.00	0.00	0.00	8,149.35	-300.00	-1,220.00	477,834.09	722,469.48	32.312277	-103.747023
8,400.00	0.00	0.00	8,249.35	-300.00	-1,220.00	477,834.09	722,469.48	32.312277	-103.747023
8,457.69	0.00	0.00	8,307.04	-300.00	-1,220.00	477,834.09	722,469.48	32.312277	-103.747023
KOP & FTP @ 8458' MD, 200' FSL, 2160' FEL									
8,500.00	4.23	359.64	8,349.31	-298.44	-1,220.01	477,835.65	722,469.47	32.312281	-103.747023
8,600.00	14.23	359.64	8,447.89	-282.42	-1,220.11	477,851.67	722,469.37	32.312325	-103.747023
8,700.00	24.23	359.64	8,542.19	-249.52	-1,220.31	477,884.57	722,469.16	32.312416	-103.747023
8,800.00	34.23	359.64	8,629.35	-200.75	-1,220.62	477,933.34	722,468.86	32.312550	-103.747023
8,900.00	44.23	359.64	8,706.71	-137.59	-1,221.01	477,996.50	722,468.47	32.312723	-103.747023
9,000.00	54.23	359.64	8,771.93	-61.95	-1,221.48	478,072.14	722,468.00	32.312931	-103.747023
9,100.00	64.23	359.64	8,823.02	23.86	-1,222.01	478,157.95	722,467.46	32.313167	-103.747024
9,200.00	74.23	359.64	8,858.44	117.24	-1,222.59	478,251.34	722,466.88	32.313424	-103.747024
9,300.00	84.23	359.64	8,877.10	215.36	-1,223.20	478,349.45	722,466.27	32.313694	-103.747024
9,357.69	90.00	359.64	8,880.00	272.95	-1,223.56	478,407.04	722,465.92	32.313852	-103.747024
9,400.00	90.00	359.64	8,880.00	315.26	-1,223.83	478,449.35	722,465.65	32.313968	-103.747024
9,500.00	90.00	359.64	8,880.00	415.26	-1,224.45	478,549.35	722,465.03	32.314243	-103.747025
9,600.00	90.00	359.64	8,880.00	515.25	-1,225.07	478,649.34	722,464.41	32.314518	-103.747025
9,700.00	90.00	359.64	8,880.00	615.25	-1,225.69	478,749.34	722,463.79	32.314793	-103.747025
9,800.00	90.00	359.64	8,880.00	715.25	-1,226.31	478,849.34	722,463.17	32.315068	-103.747025
9,900.00	90.00	359.64	8,880.00	815.25	-1,226.94	478,949.34	722,462.54	32.315343	-103.747026
10,000.00	90.00	359.64	8,880.00	915.25	-1,227.56	479,049.34	722,461.92	32.315617	-103.747026
10,100.00	90.00	359.64	8,880.00	1,015.24	-1,228.18	479,149.33	722,461.30	32.315892	-103.747026
10,200.00	90.00	359.64	8,880.00	1,115.24	-1,228.80	479,249.33	722,460.68	32.316167	-103.747026

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H.
Company:	WCDC Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
10,300.00	90.00	359.64	8,880.00	1,215.24	-1,229.42	479,349.33	722,460.06	32.316442	-103.747027
10,400.00	90.00	359.64	8,880.00	1,315.24	-1,230.04	479,449.33	722,459.43	32.316717	-103.747027
10,500.00	90.00	359.64	8,880.00	1,415.24	-1,230.67	479,549.32	722,458.81	32.316992	-103.747027
10,600.00	90.00	359.64	8,880.00	1,515.23	-1,231.29	479,649.32	722,458.19	32.317267	-103.747027
10,700.00	90.00	359.64	8,880.00	1,615.23	-1,231.91	479,749.32	722,457.57	32.317542	-103.747028
10,800.00	90.00	359.64	8,880.00	1,715.23	-1,232.53	479,849.32	722,456.95	32.317816	-103.747028
10,900.00	90.00	359.64	8,880.00	1,815.23	-1,233.15	479,949.32	722,456.32	32.318091	-103.747028
11,000.00	90.00	359.64	8,880.00	1,915.23	-1,233.78	480,049.31	722,455.70	32.318366	-103.747028
11,100.00	90.00	359.64	8,880.00	2,015.23	-1,234.40	480,149.31	722,455.08	32.318641	-103.747029
11,200.00	90.00	359.64	8,880.00	2,115.22	-1,235.02	480,249.31	722,454.46	32.318916	-103.747029
11,300.00	90.00	359.64	8,880.00	2,215.22	-1,235.64	480,349.31	722,453.84	32.319191	-103.747029
11,400.00	90.00	359.64	8,880.00	2,315.22	-1,236.26	480,449.31	722,453.22	32.319466	-103.747029
11,500.00	90.00	359.64	8,880.00	2,415.22	-1,236.88	480,549.30	722,452.59	32.319741	-103.747029
11,600.00	90.00	359.64	8,880.00	2,515.22	-1,237.51	480,649.30	722,451.97	32.320015	-103.747030
11,700.00	90.00	359.64	8,880.00	2,615.21	-1,238.13	480,749.30	722,451.35	32.320290	-103.747030
11,800.00	90.00	359.64	8,880.00	2,715.21	-1,238.75	480,849.30	722,450.73	32.320565	-103.747030
11,900.00	90.00	359.64	8,880.00	2,815.21	-1,239.37	480,949.29	722,450.11	32.320840	-103.747030
12,000.00	90.00	359.64	8,880.00	2,915.21	-1,239.99	481,049.29	722,449.48	32.321115	-103.747031
12,100.00	90.00	359.64	8,880.00	3,015.21	-1,240.62	481,149.29	722,448.86	32.321390	-103.747031
12,200.00	90.00	359.64	8,880.00	3,115.20	-1,241.24	481,249.29	722,448.24	32.321665	-103.747031
12,300.00	90.00	359.64	8,880.00	3,215.20	-1,241.86	481,349.29	722,447.62	32.321940	-103.747031
12,400.00	90.00	359.64	8,880.00	3,315.20	-1,242.48	481,449.28	722,447.00	32.322214	-103.747032
12,500.00	90.00	359.64	8,880.00	3,415.20	-1,243.10	481,549.28	722,446.38	32.322489	-103.747032
12,600.00	90.00	359.64	8,880.00	3,515.20	-1,243.72	481,649.28	722,445.75	32.322764	-103.747032
12,700.00	90.00	359.64	8,880.00	3,615.19	-1,244.35	481,749.28	722,445.13	32.323039	-103.747032
12,800.00	90.00	359.64	8,880.00	3,715.19	-1,244.97	481,849.28	722,444.51	32.323314	-103.747033
12,900.00	90.00	359.64	8,880.00	3,815.19	-1,245.59	481,949.27	722,443.89	32.323589	-103.747033
13,000.00	90.00	359.64	8,880.00	3,915.19	-1,246.21	482,049.27	722,443.27	32.323864	-103.747033
13,100.00	90.00	359.64	8,880.00	4,015.19	-1,246.83	482,149.27	722,442.64	32.324139	-103.747033
13,200.00	90.00	359.64	8,880.00	4,115.18	-1,247.46	482,249.27	722,442.02	32.324413	-103.747034
13,300.00	90.00	359.64	8,880.00	4,215.18	-1,248.08	482,349.26	722,441.40	32.324688	-103.747034
13,400.00	90.00	359.64	8,880.00	4,315.18	-1,248.70	482,449.26	722,440.78	32.324963	-103.747034
13,500.00	90.00	359.64	8,880.00	4,415.18	-1,249.32	482,549.26	722,440.16	32.325238	-103.747034
13,600.00	90.00	359.64	8,880.00	4,515.18	-1,249.94	482,649.26	722,439.54	32.325513	-103.747035
13,700.00	90.00	359.64	8,880.00	4,615.17	-1,250.57	482,749.26	722,438.91	32.325788	-103.747035
13,800.00	90.00	359.64	8,880.00	4,715.17	-1,251.19	482,849.25	722,438.29	32.326063	-103.747035
13,865.00	90.00	359.64	8,880.00	4,780.17	-1,251.59	482,914.25	722,437.89	32.326241	-103.747035
Cross Section @ 13865' MD, 0' FSL, 2160' FEL									
13,900.00	90.00	359.64	8,880.00	4,815.17	-1,251.81	482,949.25	722,437.67	32.326338	-103.747035
14,000.00	90.00	359.64	8,880.00	4,915.17	-1,252.43	483,049.25	722,437.05	32.326612	-103.747036
14,100.00	90.00	359.64	8,880.00	5,015.17	-1,253.05	483,149.25	722,436.43	32.326887	-103.747036
14,200.00	90.00	359.64	8,880.00	5,115.17	-1,253.67	483,249.25	722,435.80	32.327162	-103.747036
14,300.00	90.00	359.64	8,880.00	5,215.16	-1,254.30	483,349.24	722,435.18	32.327437	-103.747036
14,400.00	90.00	359.64	8,880.00	5,315.16	-1,254.92	483,449.24	722,434.56	32.327712	-103.747037
14,500.00	90.00	359.64	8,880.00	5,415.16	-1,255.54	483,549.24	722,433.94	32.327987	-103.747037
14,600.00	90.00	359.64	8,880.00	5,515.16	-1,256.16	483,649.24	722,433.32	32.328262	-103.747037
14,700.00	90.00	359.64	8,880.00	5,615.16	-1,256.78	483,749.24	722,432.70	32.328537	-103.747037
14,800.00	90.00	359.64	8,880.00	5,715.15	-1,257.41	483,849.23	722,432.07	32.328811	-103.747037
14,900.00	90.00	359.64	8,880.00	5,815.15	-1,258.03	483,949.23	722,431.45	32.329086	-103.747038
15,000.00	90.00	359.64	8,880.00	5,915.15	-1,258.65	484,049.23	722,430.83	32.329361	-103.747038
15,100.00	90.00	359.64	8,880.00	6,015.15	-1,259.27	484,149.23	722,430.21	32.329636	-103.747038
15,200.00	90.00	359.64	8,880.00	6,115.15	-1,259.89	484,249.22	722,429.59	32.329911	-103.747038
15,300.00	90.00	359.64	8,880.00	6,215.14	-1,260.51	484,349.22	722,428.96	32.330186	-103.747039
15,400.00	90.00	359.64	8,880.00	6,315.14	-1,261.14	484,449.22	722,428.34	32.330461	-103.747039

Planning Report - Geographic

Database:	EDM r5000.141_Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Planned Survey									
Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Map Northing (usft)	Map Easting (usft)	Latitude	Longitude
15,500.00	90.00	359.64	8,880.00	6,415.14	-1,261.76	484,549.22	722,427.72	32.330736	-103.747039
15,600.00	90.00	359.64	8,880.00	6,515.14	-1,262.38	484,649.22	722,427.10	32.331010	-103.747039
15,700.00	90.00	359.64	8,880.00	6,615.14	-1,263.00	484,749.21	722,426.48	32.331285	-103.747040
15,800.00	90.00	359.64	8,880.00	6,715.13	-1,263.62	484,849.21	722,425.85	32.331560	-103.747040
15,900.00	90.00	359.64	8,880.00	6,815.13	-1,264.25	484,949.21	722,425.23	32.331835	-103.747040
16,000.00	90.00	359.64	8,880.00	6,915.13	-1,264.87	485,049.21	722,424.61	32.332110	-103.747040
16,100.00	90.00	359.64	8,880.00	7,015.13	-1,265.49	485,149.21	722,423.99	32.332385	-103.747041
16,200.00	90.00	359.64	8,880.00	7,115.13	-1,266.11	485,249.20	722,423.37	32.332660	-103.747041
16,300.00	90.00	359.64	8,880.00	7,215.12	-1,266.73	485,349.20	722,422.75	32.332935	-103.747041
16,400.00	90.00	359.64	8,880.00	7,315.12	-1,267.35	485,449.20	722,422.12	32.333209	-103.747041
16,500.00	90.00	359.64	8,880.00	7,415.12	-1,267.98	485,549.20	722,421.50	32.333484	-103.747042
16,600.00	90.00	359.64	8,880.00	7,515.12	-1,268.60	485,649.19	722,420.88	32.333759	-103.747042
16,700.00	90.00	359.64	8,880.00	7,615.12	-1,269.22	485,749.19	722,420.26	32.334034	-103.747042
16,800.00	90.00	359.64	8,880.00	7,715.12	-1,269.84	485,849.19	722,419.64	32.334309	-103.747042
16,900.00	90.00	359.64	8,880.00	7,815.11	-1,270.46	485,949.19	722,419.01	32.334584	-103.747043
17,000.00	90.00	359.64	8,880.00	7,915.11	-1,271.09	486,049.19	722,418.39	32.334859	-103.747043
17,100.00	90.00	359.64	8,880.00	8,015.11	-1,271.71	486,149.18	722,417.77	32.335134	-103.747043
17,200.00	90.00	359.64	8,880.00	8,115.11	-1,272.33	486,249.18	722,417.15	32.335408	-103.747043
17,300.00	90.00	359.64	8,880.00	8,215.11	-1,272.95	486,349.18	722,416.53	32.335683	-103.747044
17,400.00	90.00	359.64	8,880.00	8,315.10	-1,273.57	486,449.18	722,415.91	32.335958	-103.747044
17,500.00	90.00	359.64	8,880.00	8,415.10	-1,274.20	486,549.18	722,415.28	32.336233	-103.747044
17,600.00	90.00	359.64	8,880.00	8,515.10	-1,274.82	486,649.17	722,414.66	32.336508	-103.747044
17,700.00	90.00	359.64	8,880.00	8,615.10	-1,275.44	486,749.17	722,414.04	32.336783	-103.747044
17,800.00	90.00	359.64	8,880.00	8,715.10	-1,276.06	486,849.17	722,413.42	32.337058	-103.747045
17,900.00	90.00	359.64	8,880.00	8,815.09	-1,276.68	486,949.17	722,412.80	32.337333	-103.747045
18,000.00	90.00	359.64	8,880.00	8,915.09	-1,277.30	487,049.16	722,412.17	32.337607	-103.747045
18,100.00	90.00	359.64	8,880.00	9,015.09	-1,277.93	487,149.16	722,411.55	32.337882	-103.747045
18,200.00	90.00	359.64	8,880.00	9,115.09	-1,278.55	487,249.16	722,410.93	32.338157	-103.747046
18,300.00	90.00	359.64	8,880.00	9,215.09	-1,279.17	487,349.16	722,410.31	32.338432	-103.747046
18,400.00	90.00	359.64	8,880.00	9,315.08	-1,279.79	487,449.16	722,409.69	32.338707	-103.747046
18,500.00	90.00	359.64	8,880.00	9,415.08	-1,280.41	487,549.15	722,409.07	32.338982	-103.747046
18,600.00	90.00	359.64	8,880.00	9,515.08	-1,281.04	487,649.15	722,408.44	32.339257	-103.747047
18,700.00	90.00	359.64	8,880.00	9,615.08	-1,281.66	487,749.15	722,407.82	32.339532	-103.747047
18,800.00	90.00	359.64	8,880.00	9,715.08	-1,282.28	487,849.15	722,407.20	32.339806	-103.747047
18,900.00	90.00	359.64	8,880.00	9,815.07	-1,282.90	487,949.15	722,406.58	32.340081	-103.747047
19,000.00	90.00	359.64	8,880.00	9,915.07	-1,283.52	488,049.14	722,405.96	32.340356	-103.747048
19,035.75	90.00	359.64	8,880.00	9,950.82	-1,283.75	488,084.89	722,405.73	32.340454	-103.747048
LTP @ 19036' MD, 100' FNL, 2160' FEL									
19,100.00	90.00	359.64	8,880.00	10,015.07	-1,284.14	488,149.14	722,405.33	32.340631	-103.747048
19,115.74	90.00	359.64	8,880.00	10,030.81	-1,284.24	488,164.88	722,405.24	32.340674	-103.747048
PBHL; 20' FNL, 2160' FEL									
19,115.75	90.00	359.64	8,880.00	10,030.82	-1,284.24	488,164.89	722,405.24	32.340674	-103.747048

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL - Belloq 11-2 Fed	0.00	0.00	0.00	10,030.82	-1,284.24	488,164.89	722,405.24	32.340674	-103.747048
- plan misses target center by 8880.00ft at 19115.75ft MD (8880.00 TVD, 10030.82 N, -1284.24 E)									
- Point									

Planning Report - Geographic

Database:	EDM r5000:141_Prod US	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Company:	WCDSC Permian NM	TVD Reference:	RKB @ 3513.70ft
Project:	Eddy County (NAD 83 NM Eastern)	MD Reference:	RKB @ 3513.70ft
Site:	Sec 11-T23S-R31E	North Reference:	Grid
Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permit Plan 1		

Plan Annotations				
Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates		Comment
		+N/-S (ft)	+E/-W (ft)	
8,457.69	8,307.04	-300.00	-1,220.00	KOP & FTP @ 8458' MD, 200' FSL, 2160' FEL
13,865.00	8,880.00	4,780.17	-1,251.59	Cross Section @ 13865' MD, 0' FSL, 2160' FEL
19,035.75	8,880.00	9,950.82	-1,283.75	LTP @ 19036' MD, 100' FNL, 2160' FEL
19,115.74	8,880.00	10,030.81	-1,284.24	PBHL; 20' FNL, 2160' FEL

WCDSC Permian NM

Eddy County (NAD 83 NM Eastern)

Sec 11-T23S-R31E

Belloq 11-2 Fed State Com 516H

Wellbore #1

Permit Plan 1

Anticollision Report

12 March, 2019

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at:	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Reference	Permit Plan 1		
Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 50.00ft	Error Model:	ISCWSA
Depth Range:	Unlimited	Scan Method:	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 1,500.00 ft	Error Surface:	Pedal Curve
Warning Levels Evaluated at:	2.00 Sigma	Casing Method:	Not applied

Survey Tool Program		Date	3/12/2019		
From (ft)	To (ft)	Survey (Wellbore)	Tool Name	Description	
0.00	19,115.75	Permit Plan 1 (Wellbore #1)	MWD+IFR1	OWSG MWD + IFR1	

Summary						
Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 02-T23S-R31E						
Barclay State #001 (P&A) - Wellbore #1 - Wellbore #1	15,795.45	8,837.30	1,493.99	1,287.32	7.229	CC
Barclay State #001 (P&A) - Wellbore #1 - Wellbore #1	15,800.00	8,837.30	1,494.00	1,287.30	7.228	ES
Barclay State #001 (P&A) - Wellbore #1 - Wellbore #1	15,850.00	8,837.30	1,494.99	1,288.01	7.223	SF
Barclay State #002 (P&A) - Wellbore #1 - Wellbore #1	15,803.35	8,814.30	171.99	-34.32	0.834	Collision, CC, ES, SF
Barclay State #003 (Active) - Wellbore #1 - Wellbore #1						Out of range
Barclay State #004 SWD (Active) - Wellbore #1 - Wellbo	14,482.17	8,550.00	314.46	163.15	2.078	Minor Risk, CC, ES
Barclay State #004 SWD (Active) - Wellbore #1 - Wellbo	14,600.00	8,550.00	335.81	172.93	2.062	Minor Risk, SF
Barclay State #007 (P&A) - Wellbore #1 - Blind Projectio	14,475.65	8,832.30	1,495.45	1,300.22	7.660	CC, ES
Barclay State #007 (P&A) - Wellbore #1 - Blind Projectio	14,550.00	8,832.30	1,497.29	1,301.66	7.653	SF
Barclay State #008 (P&A) - Wellbore #1 - Wellbore #1						Out of range
Barclay State #009 (Active) - Wellbore #1 - Wellbore #1	18,433.21	8,818.31	169.21	-117.87	0.589	Collision, CC, ES, SF
Belloq 2 State 2H - Original Hole - Actuals	18,940.21	8,820.15	1,372.34	1,241.15	10.460	CC
Belloq 2 State 2H - Original Hole - Actuals	18,950.00	8,820.21	1,372.38	1,241.07	10.452	ES
Belloq 2 State 2H - Original Hole - Actuals	19,050.00	8,820.84	1,376.73	1,244.50	10.412	SF
Belloq 2 State 5H - Wellbore #1 - Wellbore #1	18,686.32	8,816.58	1,455.92	1,324.55	11.083	CC
Belloq 2 State 5H - Wellbore #1 - Wellbore #1	18,700.00	8,816.25	1,455.98	1,324.46	11.070	ES
Belloq 2 State 5H - Wellbore #1 - Wellbore #1	18,800.00	8,813.79	1,460.35	1,327.90	11.025	SF
Belloq 2 State 6H - Original Hole - Actual	19,034.92	8,807.22	1,241.12	1,108.94	9.390	CC
Belloq 2 State 6H - Original Hole - Actual	19,050.00	8,807.13	1,241.21	1,108.85	9.378	ES
Belloq 2 State 6H - Original Hole - Actual	19,115.75	8,806.76	1,243.75	1,110.77	9.353	SF
State 2 #001 (P&A) - Wellbore #1 - Wellbore #1	17,113.40	8,808.30	170.58	-47.28	0.783	Collision, CC, ES, SF
State 2 #002 (Temp Abandoned) - Wellbore #1 - Wellbor	18,437.01	8,813.30	1,150.37	920.39	5.002	CC
State 2 #002 (Temp Abandoned) - Wellbore #1 - Wellbor	18,450.00	8,813.30	1,150.44	920.31	4.999	Alert, ES
State 2 #002 (Temp Abandoned) - Wellbore #1 - Wellbor	18,500.00	8,813.30	1,152.09	921.46	4.995	Alert, SF
State 2 #003 (Temp Abandoned) - Wellbore #1 - Wellbor	17,115.83	8,799.30	1,149.02	931.27	5.277	CC, ES
State 2 #003 (Temp Abandoned) - Wellbore #1 - Wellbor	17,150.00	8,799.30	1,149.53	931.39	5.270	SF
State 2 #004 (P&A) - Wellbore #1 - Wellbore #1	15,809.89	8,792.30	1,147.69	941.65	5.570	CC, ES
State 2 #004 (P&A) - Wellbore #1 - Wellbore #1	15,850.00	8,792.30	1,148.39	941.91	5.562	SF
State 2 #005 (Temp Abandoned) - Wellbore #1 - Wellbor	14,490.12	8,794.30	1,146.37	951.59	5.886	CC
State 2 #005 (Temp Abandoned) - Wellbore #1 - Wellbor	14,500.00	8,794.30	1,146.42	951.53	5.882	ES
State 2 #005 (Temp Abandoned) - Wellbore #1 - Wellbor	14,550.00	8,794.30	1,147.94	952.55	5.875	SF
State 2 #007C - Wellbore #1 - Wellbore #1						Out of range
State 2 #009 (Temp Abandoned) - Wellbore #1 - Wellbor						Out of range
State AA-2 #001 SWD (Active) - Wellbore #1 - Wellbore						Out of range
Sweet Pea SWD #001 (Active) - Wellbore #1 - Wellbore						Out of range
Tomb Raider 1-12 Fed 62H - Original Hole - P1v4						Out of range

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Summary

Site Name	Reference Measured Depth (ft)	Offset Measured Depth (ft)	Distance Between Centres (ft)	Distance Between Ellipses (ft)	Separation Factor	Warning
Offset Well - Wellbore - Design						
Sec 11-T23S-R31E						
Barclay 11 G Federal #007 (P&A) - Wellbore #1 - Wellbo	11,842.57	8,832.30	173.75	-1.54	0.991	Collision, CC, ES, SF
Barclay 11 H Federal #001 SWD - Wellbore #1 - Wellbor	11,634.84	8,893.30	1,493.45	1,318.53	8.538	CC, ES
Barclay 11 H Federal #001 SWD - Wellbore #1 - Wellbor	11,700.00	8,893.30	1,494.87	1,319.64	8.531	SF
Barclay 11 K Federal #011 (Active) - Wellbore #1 - Wellb	10,484.93	8,580.00	1,168.71	948.36	5.304	CC, ES
Barclay 11 K Federal #011 (Active) - Wellbore #1 - Wellb	10,500.00	8,580.00	1,168.80	948.38	5.303	SF
Barclay 11 M Federal #013 (Shut in) - Wellbore #1 - Well						Out of range
Barclay 11 N Federal #014 - Wellbore #1 - Wellbore #1	9,050.00	8,595.00	1,166.16	941.23	5.184	SF
Barclay 11 N Federal #014 - Wellbore #1 - Wellbore #1	9,100.00	8,595.00	1,164.81	940.38	5.190	ES
Barclay 11 N Federal #014 - Wellbore #1 - Wellbore #1	9,124.85	8,595.00	1,164.64	940.45	5.195	CC
Belloq 11-2 Fed State Com 525H - Wellbore #1 - Permit	8,450.00	8,439.83	881.45	820.14	14.377	CC
Belloq 11-2 Fed State Com 525H - Wellbore #1 - Permit	19,115.75	19,287.32	901.72	693.77	4.336	Alert, ES, SF

Offset Design		Sec 02-T23S-R31E - Barclay State #001 (P&A) - Wellbore #1 - Wellbore #1										Offset Site Error:	5.00 ft
Survey Program: 15136-INC-ONLY												Offset Well Error:	10.00 ft
Reference Measured Depth (ft)	Vertical Depth (ft)	Offset Measured Depth (ft)	Vertical Depth (ft)	Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning
				Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)			
15,700.00	8,880.00	8,837.30	8,837.30	73.17	132.77	90.00	6,719.88	230.37	1,497.04	1,291.10	205.94	7.269	
15,750.00	8,880.00	8,837.30	8,837.30	73.60	132.77	90.00	6,719.88	230.37	1,494.68	1,288.33	206.35	7.243	
15,795.45	8,880.00	8,837.30	8,837.30	74.00	132.77	90.00	6,719.88	230.37	1,493.99	1,287.32	206.67	7.229	CC
15,800.00	8,880.00	8,837.30	8,837.30	74.04	132.77	90.00	6,719.88	230.37	1,494.00	1,287.30	206.70	7.228	ES
15,850.00	8,880.00	8,837.30	8,837.30	74.48	132.77	90.00	6,719.88	230.37	1,494.99	1,288.01	206.98	7.223	SF
15,900.00	8,880.00	8,837.30	8,837.30	74.92	132.77	90.00	6,719.88	230.37	1,497.65	1,290.44	207.20	7.228	

Anticollision Report

Company:	WCDCS Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 8570-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
14,350.00	8,880.00	8,814.30	8,814.30	61.68	132.35	90.00	6,719.56	-1,091.66	1,463.49	1,295.31	168.18	8.702		
14,400.00	8,880.00	8,814.30	8,814.30	62.09	132.35	90.00	6,719.56	-1,091.66	1,413.85	1,245.58	168.28	8.402		
14,450.00	8,880.00	8,814.30	8,814.30	62.51	132.35	90.00	6,719.56	-1,091.66	1,364.24	1,195.85	168.38	8.102		
14,500.00	8,880.00	8,814.30	8,814.30	62.93	132.35	90.00	6,719.56	-1,091.66	1,314.65	1,146.15	168.50	7.802		
14,550.00	8,880.00	8,814.30	8,814.30	63.34	132.35	90.00	6,719.56	-1,091.66	1,265.10	1,096.48	168.62	7.503		
14,600.00	8,880.00	8,814.30	8,814.30	63.76	132.35	90.00	6,719.56	-1,091.66	1,215.58	1,046.83	168.75	7.203		
14,650.00	8,880.00	8,814.30	8,814.30	64.18	132.35	90.00	6,719.56	-1,091.66	1,166.11	997.20	168.90	6.904		
14,700.00	8,880.00	8,814.30	8,814.30	64.60	132.35	90.00	6,719.56	-1,091.66	1,116.68	947.61	169.07	6.605		
14,750.00	8,880.00	8,814.30	8,814.30	65.02	132.35	90.00	6,719.56	-1,091.66	1,067.30	898.06	169.25	6.306		
14,800.00	8,880.00	8,814.30	8,814.30	65.44	132.35	90.00	6,719.56	-1,091.66	1,017.99	848.54	169.45	6.008		
14,850.00	8,880.00	8,814.30	8,814.30	65.86	132.35	90.00	6,719.56	-1,091.66	968.74	799.07	169.67	5.709		
14,900.00	8,880.00	8,814.30	8,814.30	66.29	132.35	90.00	6,719.56	-1,091.66	919.58	749.65	169.93	5.412		
14,950.00	8,880.00	8,814.30	8,814.30	66.71	132.35	90.00	6,719.56	-1,091.66	870.51	700.30	170.22	5.114		
15,000.00	8,880.00	8,814.30	8,814.30	67.14	132.35	90.00	6,719.56	-1,091.66	821.56	651.01	170.55	4.817 Alert		
15,050.00	8,880.00	8,814.30	8,814.30	67.56	132.35	90.00	6,719.56	-1,091.66	772.74	601.80	170.93	4.521 Alert		
15,100.00	8,880.00	8,814.30	8,814.30	67.99	132.35	90.00	6,719.56	-1,091.66	724.08	552.69	171.39	4.225 Alert		
15,150.00	8,880.00	8,814.30	8,814.30	68.42	132.35	90.00	6,719.56	-1,091.66	675.61	503.69	171.92	3.930 Alert		
15,200.00	8,880.00	8,814.30	8,814.30	68.85	132.35	90.00	6,719.56	-1,091.66	627.39	454.83	172.55	3.636 Alert		
15,250.00	8,880.00	8,814.30	8,814.30	69.28	132.35	90.00	6,719.56	-1,091.66	579.47	406.14	173.32	3.343 Alert		
15,300.00	8,880.00	8,814.30	8,814.30	69.70	132.35	90.00	6,719.56	-1,091.66	531.93	357.66	174.26	3.052 Alert		
15,350.00	8,880.00	8,814.30	8,814.30	70.14	132.35	90.00	6,719.56	-1,091.66	484.88	309.45	175.43	2.764 Alert		
15,400.00	8,880.00	8,814.30	8,814.30	70.57	132.35	90.00	6,719.56	-1,091.66	438.49	261.59	176.90	2.479 Minor Risk		
15,450.00	8,880.00	8,814.30	8,814.30	71.00	132.35	90.00	6,719.56	-1,091.66	392.99	214.21	178.78	2.198 Minor Risk		
15,500.00	8,880.00	8,814.30	8,814.30	71.43	132.35	90.00	6,719.56	-1,091.66	348.72	167.52	181.20	1.924 Minor Risk		
15,550.00	8,880.00	8,814.30	8,814.30	71.86	132.35	90.00	6,719.56	-1,091.66	306.22	121.87	184.35	1.661 Minor Risk		
15,600.00	8,880.00	8,814.30	8,814.30	72.30	132.35	90.00	6,719.56	-1,091.66	266.33	77.92	188.42	1.414 Major Risk		
15,650.00	8,880.00	8,814.30	8,814.30	72.73	132.35	90.00	6,719.56	-1,091.66	230.43	36.94	193.49	1.191 Major Risk		
15,700.00	8,880.00	8,814.30	8,814.30	73.17	132.35	90.00	6,719.56	-1,091.66	200.66	1.42	199.24	1.007 Major Risk		
15,750.00	8,880.00	8,814.30	8,814.30	73.60	132.35	90.00	6,719.56	-1,091.66	180.08	-24.25	204.32	0.881 Collision		
15,800.00	8,880.00	8,814.30	8,814.30	74.04	132.35	90.00	6,719.56	-1,091.66	172.03	-34.32	206.34	0.834 Collision		
15,803.35	8,880.00	8,814.30	8,814.30	74.07	132.35	90.00	6,719.56	-1,091.66	171.99	-34.32	206.31	0.834 Collision, CC, ES, SF		
15,850.00	8,880.00	8,814.30	8,814.30	74.48	132.35	90.00	6,719.56	-1,091.66	178.21	-25.63	203.83	0.874 Collision		
15,900.00	8,880.00	8,814.30	8,814.30	74.92	132.35	90.00	6,719.56	-1,091.66	197.29	-0.92	198.20	0.995 Collision		
15,950.00	8,880.00	8,814.30	8,814.30	75.35	132.35	90.00	6,719.56	-1,091.66	226.02	34.05	191.97	1.177 Major Risk		
16,000.00	8,880.00	8,814.30	8,814.30	75.79	132.35	90.00	6,719.56	-1,091.66	261.25	74.67	186.58	1.400 Major Risk		
16,050.00	8,880.00	8,814.30	8,814.30	76.23	132.35	90.00	6,719.56	-1,091.66	300.69	118.32	182.37	1.649 Minor Risk		
16,100.00	8,880.00	8,814.30	8,814.30	76.67	132.35	90.00	6,719.56	-1,091.66	342.90	163.69	179.21	1.913 Minor Risk		
16,150.00	8,880.00	8,814.30	8,814.30	77.11	132.35	90.00	6,719.56	-1,091.66	386.97	210.12	176.85	2.188 Minor Risk		
16,200.00	8,880.00	8,814.30	8,814.30	77.55	132.35	90.00	6,719.56	-1,091.66	432.33	257.25	175.08	2.469 Minor Risk		
16,250.00	8,880.00	8,814.30	8,814.30	78.00	132.35	90.00	6,719.56	-1,091.66	478.62	304.87	173.75	2.755 Alert		
16,300.00	8,880.00	8,814.30	8,814.30	78.44	132.35	90.00	6,719.56	-1,091.66	525.59	352.86	172.73	3.043 Alert		
16,350.00	8,880.00	8,814.30	8,814.30	78.88	132.35	90.00	6,719.56	-1,091.66	573.07	401.12	171.94	3.333 Alert		
16,400.00	8,880.00	8,814.30	8,814.30	79.32	132.35	90.00	6,719.56	-1,091.66	620.94	449.61	171.33	3.624 Alert		
16,450.00	8,880.00	8,814.30	8,814.30	79.77	132.35	90.00	6,719.56	-1,091.66	669.13	498.29	170.84	3.917 Alert		
16,500.00	8,880.00	8,814.30	8,814.30	80.21	132.35	90.00	6,719.56	-1,091.66	717.57	547.11	170.46	4.210 Alert		
16,550.00	8,880.00	8,814.30	8,814.30	80.66	132.35	90.00	6,719.56	-1,091.66	766.20	596.05	170.15	4.503 Alert		
16,600.00	8,880.00	8,814.30	8,814.30	81.10	132.35	90.00	6,719.56	-1,091.66	815.00	645.10	169.90	4.797 Alert		
16,650.00	8,880.00	8,814.30	8,814.30	81.55	132.35	90.00	6,719.56	-1,091.66	863.94	694.24	169.70	5.091		
16,700.00	8,880.00	8,814.30	8,814.30	81.99	132.35	90.00	6,719.56	-1,091.66	912.99	743.46	169.54	5.385		
16,750.00	8,880.00	8,814.30	8,814.30	82.44	132.35	90.00	6,719.56	-1,091.66	962.15	792.74	169.41	5.680		
16,800.00	8,880.00	8,814.30	8,814.30	82.89	132.35	90.00	6,719.56	-1,091.66	1,011.38	842.08	169.30	5.974		
16,850.00	8,880.00	8,814.30	8,814.30	83.33	132.35	90.00	6,719.56	-1,091.66	1,060.69	891.48	169.21	6.268		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design: Sec 02-T23S-R31E - Barclay State #002 (P&A) - Wellbore #1 - Wellbore #1													Offset Site Error: 5.00 ft
Survey Program: 8570-INC-ONLY													Offset Well Error: 10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	
16,900.00	8,880.00	8,814.30	8,814.30	83.78	132.35	90.00	6,719.56	-1,091.66	1,110.05	940.91	169.14	6.563	
16,950.00	8,880.00	8,814.30	8,814.30	84.23	132.35	90.00	6,719.56	-1,091.66	1,159.48	990.39	169.08	6.857	
17,000.00	8,880.00	8,814.30	8,814.30	84.68	132.35	90.00	6,719.56	-1,091.66	1,208.95	1,039.91	169.04	7.152	
17,050.00	8,880.00	8,814.30	8,814.30	85.13	132.35	90.00	6,719.56	-1,091.66	1,258.46	1,089.45	169.00	7.446	
17,100.00	8,880.00	8,814.30	8,814.30	85.58	132.35	90.00	6,719.56	-1,091.66	1,308.01	1,139.03	168.98	7.741	
17,150.00	8,880.00	8,814.30	8,814.30	86.03	132.35	90.00	6,719.56	-1,091.66	1,357.59	1,188.63	168.96	8.035	
17,200.00	8,880.00	8,814.30	8,814.30	86.48	132.35	90.00	6,719.56	-1,091.66	1,407.20	1,238.25	168.95	8.329	
17,250.00	8,880.00	8,814.30	8,814.30	86.93	132.35	90.00	6,719.56	-1,091.66	1,456.84	1,287.89	168.94	8.623	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		5.00 ft
Survey Program: 251-INC-ONLY													Offset Well Error:		10.00 ft
Reference		Offset		Semi Major Axis			Distance						Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor			
13,050.00	8,880.00	8,550.00	8,548.51	51.36	178.67	33.97	5,398.42	-1,079.72	1,466.28	1,256.15	210.13	6.978			
13,100.00	8,880.00	8,550.00	8,548.51	51.74	178.67	33.97	5,398.42	-1,079.72	1,417.49	1,207.50	209.98	6.750			
13,150.00	8,880.00	8,550.00	8,548.51	52.12	178.67	33.97	5,398.42	-1,079.72	1,368.78	1,158.96	209.82	6.524			
13,200.00	8,880.00	8,550.00	8,548.51	52.50	178.67	33.97	5,398.42	-1,079.72	1,320.16	1,110.53	209.64	6.297			
13,250.00	8,880.00	8,550.00	8,548.51	52.88	178.67	33.97	5,398.42	-1,079.72	1,271.66	1,062.23	209.43	6.072			
13,300.00	8,880.00	8,550.00	8,548.51	53.27	178.67	33.97	5,398.42	-1,079.72	1,223.28	1,014.08	209.20	5.847			
13,350.00	8,880.00	8,550.00	8,548.51	53.65	178.67	33.97	5,398.42	-1,079.72	1,175.03	966.09	208.94	5.624			
13,400.00	8,880.00	8,550.00	8,548.51	54.04	178.67	33.97	5,398.42	-1,079.72	1,126.93	918.29	208.64	5.401			
13,450.00	8,880.00	8,550.00	8,548.51	54.43	178.67	33.97	5,398.42	-1,079.72	1,079.01	870.70	208.31	5.180			
13,500.00	8,880.00	8,550.00	8,548.51	54.82	178.67	33.97	5,398.42	-1,079.72	1,031.28	823.36	207.92	4.960 Alert			
13,550.00	8,880.00	8,550.00	8,548.51	55.22	178.67	33.97	5,398.42	-1,079.72	983.78	776.30	207.48	4.742 Alert			
13,600.00	8,880.00	8,550.00	8,548.51	55.61	178.67	33.97	5,398.42	-1,079.72	936.54	729.57	206.97	4.525 Alert			
13,650.00	8,880.00	8,550.00	8,548.51	56.01	178.67	33.97	5,398.42	-1,079.72	889.60	683.22	206.38	4.311 Alert			
13,700.00	8,880.00	8,550.00	8,548.51	56.40	178.67	33.97	5,398.42	-1,079.72	843.01	637.32	205.69	4.099 Alert			
13,750.00	8,880.00	8,550.00	8,548.51	56.80	178.67	33.97	5,398.42	-1,079.72	796.84	591.96	204.87	3.889 Alert			
13,800.00	8,880.00	8,550.00	8,548.51	57.20	178.67	33.97	5,398.42	-1,079.72	751.16	547.25	203.91	3.684 Alert			
13,850.00	8,880.00	8,550.00	8,548.51	57.60	178.67	33.97	5,398.42	-1,079.72	706.06	503.30	202.76	3.482 Alert			
13,900.00	8,880.00	8,550.00	8,548.51	58.00	178.67	33.97	5,398.42	-1,079.72	661.67	460.30	201.37	3.286 Alert			
13,950.00	8,880.00	8,550.00	8,548.51	58.41	178.67	33.97	5,398.42	-1,079.72	618.13	418.45	199.68	3.096 Alert			
14,000.00	8,880.00	8,550.00	8,548.51	58.81	178.67	33.97	5,398.42	-1,079.72	575.65	378.02	197.62	2.913 Alert			
14,050.00	8,880.00	8,550.00	8,548.51	59.22	178.67	33.97	5,398.42	-1,079.72	534.46	339.39	195.08	2.740 Alert			
14,100.00	8,880.00	8,550.00	8,548.51	59.63	178.67	33.97	5,398.42	-1,079.72	494.91	302.98	191.92	2.579 Alert			
14,150.00	8,880.00	8,550.00	8,548.51	60.04	178.67	33.97	5,398.42	-1,079.72	457.40	269.39	188.01	2.433 Minor Risk			
14,200.00	8,880.00	8,550.00	8,548.51	60.44	178.67	33.97	5,398.42	-1,079.72	422.49	239.32	183.17	2.307 Minor Risk			
14,250.00	8,880.00	8,550.00	8,548.51	60.86	178.67	33.97	5,398.42	-1,079.72	390.88	213.58	177.30	2.205 Minor Risk			
14,300.00	8,880.00	8,550.00	8,548.51	61.27	178.67	33.97	5,398.42	-1,079.72	363.41	192.96	170.45	2.132 Minor Risk			
14,350.00	8,880.00	8,550.00	8,548.51	61.68	178.67	33.97	5,398.42	-1,079.72	341.10	178.02	163.08	2.092 Minor Risk			
14,400.00	8,880.00	8,550.00	8,548.51	62.09	178.67	33.97	5,398.42	-1,079.72	325.01	168.69	156.32	2.079 Minor Risk			
14,450.00	8,880.00	8,550.00	8,548.51	62.51	178.67	33.97	5,398.42	-1,079.72	316.10	164.12	151.98	2.080 Minor Risk			
14,482.17	8,880.00	8,550.00	8,548.51	62.78	178.67	33.97	5,398.42	-1,079.72	314.46	163.15	151.31	2.078 Minor Risk, CC, ES			
14,500.00	8,880.00	8,550.00	8,548.51	62.93	178.67	33.97	5,398.42	-1,079.72	314.96	163.20	151.76	2.075 Minor Risk			
14,550.00	8,880.00	8,550.00	8,548.51	63.34	178.67	33.97	5,398.42	-1,079.72	321.69	165.81	155.88	2.064 Minor Risk			
14,600.00	8,880.00	8,550.00	8,548.51	63.76	178.67	33.97	5,398.42	-1,079.72	335.81	172.93	162.87	2.062 Minor Risk, SF			
14,650.00	8,880.00	8,550.00	8,548.51	64.18	178.67	33.97	5,398.42	-1,079.72	356.44	185.66	170.78	2.087 Minor Risk			
14,700.00	8,880.00	8,550.00	8,548.51	64.60	178.67	33.97	5,398.42	-1,079.72	382.54	204.29	178.25	2.146 Minor Risk			
14,750.00	8,880.00	8,550.00	8,548.51	65.02	178.67	33.97	5,398.42	-1,079.72	413.06	228.37	184.68	2.237 Minor Risk			
14,800.00	8,880.00	8,550.00	8,548.51	65.44	178.67	33.97	5,398.42	-1,079.72	447.10	257.13	189.97	2.354 Minor Risk			
14,850.00	8,880.00	8,550.00	8,548.51	65.86	178.67	33.97	5,398.42	-1,079.72	483.92	289.71	194.21	2.492 Minor Risk			
14,900.00	8,880.00	8,550.00	8,548.51	66.29	178.67	33.97	5,398.42	-1,079.72	522.94	325.35	197.59	2.647 Alert			
14,950.00	8,880.00	8,550.00	8,548.51	66.71	178.67	33.97	5,398.42	-1,079.72	563.69	363.40	200.29	2.814 Alert			
15,000.00	8,880.00	8,550.00	8,548.51	67.14	178.67	33.97	5,398.42	-1,079.72	605.83	403.39	202.45	2.993 Alert			
15,050.00	8,880.00	8,550.00	8,548.51	67.56	178.67	33.97	5,398.42	-1,079.72	649.09	444.90	204.19	3.179 Alert			
15,100.00	8,880.00	8,550.00	8,548.51	67.99	178.67	33.97	5,398.42	-1,079.72	693.25	487.65	205.61	3.372 Alert			
15,150.00	8,880.00	8,550.00	8,548.51	68.42	178.67	33.97	5,398.42	-1,079.72	738.16	531.39	206.77	3.570 Alert			
15,200.00	8,880.00	8,550.00	8,548.51	68.85	178.67	33.97	5,398.42	-1,079.72	783.69	575.95	207.74	3.772 Alert			
15,250.00	8,880.00	8,550.00	8,548.51	69.28	178.67	33.97	5,398.42	-1,079.72	829.73	621.18	208.55	3.979 Alert			
15,300.00	8,880.00	8,550.00	8,548.51	69.70	178.67	33.97	5,398.42	-1,079.72	876.20	666.98	209.23	4.188 Alert			
15,350.00	8,880.00	8,550.00	8,548.51	70.14	178.67	33.97	5,398.42	-1,079.72	923.05	713.24	209.81	4.399 Alert			
15,400.00	8,880.00	8,550.00	8,548.51	70.57	178.67	33.97	5,398.42	-1,079.72	970.21	759.90	210.31	4.613 Alert			
15,450.00	8,880.00	8,550.00	8,548.51	71.00	178.67	33.97	5,398.42	-1,079.72	1,017.64	806.90	210.74	4.829 Alert			
15,500.00	8,880.00	8,550.00	8,548.51	71.43	178.67	33.97	5,398.42	-1,079.72	1,065.30	854.19	211.11	5.046			
15,550.00	8,880.00	8,550.00	8,548.51	71.86	178.67	33.97	5,398.42	-1,079.72	1,113.17	901.73	211.44	5.265			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod'US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 251-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
15,600.00	8,880.00	8,550.00	8,548.51	72.30	178.67	33.97	5,398.42	-1,079.72	1,161.22	949.49	211.73	5.484		
15,650.00	8,880.00	8,550.00	8,548.51	72.73	178.67	33.97	5,398.42	-1,079.72	1,209.43	997.44	211.99	5.705		
15,700.00	8,880.00	8,550.00	8,548.51	73.17	178.67	33.97	5,398.42	-1,079.72	1,257.78	1,045.56	212.22	5.927		
15,750.00	8,880.00	8,550.00	8,548.51	73.60	178.67	33.97	5,398.42	-1,079.72	1,306.25	1,093.82	212.43	6.149		
15,800.00	8,880.00	8,550.00	8,548.51	74.04	178.67	33.97	5,398.42	-1,079.72	1,354.83	1,142.22	212.61	6.372		
15,850.00	8,880.00	8,550.00	8,548.51	74.48	178.67	33.97	5,398.42	-1,079.72	1,403.51	1,190.73	212.78	6.596		
15,900.00	8,880.00	8,550.00	8,548.51	74.92	178.67	33.97	5,398.42	-1,079.72	1,452.28	1,239.35	212.94	6.820		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 8582-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
14,400.00	8,880.00	8,832.30	8,832.30	62.09	132.62	90.00	5,400.11	240.03	1,497.36	1,302.66	194.70	7.691		
14,450.00	8,880.00	8,832.30	8,832.30	62.51	132.62	90.00	5,400.11	240.03	1,495.67	1,300.61	195.06	7.668		
14,475.65	8,880.00	8,832.30	8,832.30	62.72	132.62	90.00	5,400.11	240.03	1,495.45	1,300.22	195.23	7.660 CC, ES		
14,500.00	8,880.00	8,832.30	8,832.30	62.93	132.62	90.00	5,400.11	240.03	1,495.64	1,300.27	195.37	7.655		
14,550.00	8,880.00	8,832.30	8,832.30	63.34	132.62	90.00	5,400.11	240.03	1,497.29	1,301.66	195.64	7.653 SF		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 5000-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Minimum Separation (ft)	Separation Factor	Warning			
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
16,950.00	8,880.00	8,818.31	8,817.30	84.23	189.48	90.00	9,349.34	-1,110.79	1,492.83	1,265.22	227.61	6.559		
17,000.00	8,880.00	8,818.31	8,817.30	84.68	189.48	90.00	9,349.34	-1,110.79	1,443.16	1,215.40	227.76	6.336		
17,050.00	8,880.00	8,818.31	8,817.30	85.13	189.48	90.00	9,349.34	-1,110.79	1,393.52	1,165.60	227.92	6.114		
17,100.00	8,880.00	8,818.31	8,817.30	85.58	189.48	90.00	9,349.34	-1,110.79	1,343.90	1,115.81	228.09	5.892		
17,150.00	8,880.00	8,818.31	8,817.30	86.03	189.48	90.00	9,349.34	-1,110.79	1,294.31	1,066.03	228.28	5.670		
17,200.00	8,880.00	8,818.31	8,817.30	86.48	189.48	90.00	9,349.34	-1,110.79	1,244.76	1,016.27	228.49	5.448		
17,250.00	8,880.00	8,818.31	8,817.30	86.93	189.48	90.00	9,349.34	-1,110.79	1,195.24	966.53	228.72	5.226		
17,300.00	8,880.00	8,818.31	8,817.30	87.38	189.48	90.00	9,349.34	-1,110.79	1,145.77	916.80	228.97	5.004		
17,350.00	8,880.00	8,818.31	8,817.30	87.83	189.48	90.00	9,349.34	-1,110.79	1,096.34	867.10	229.24	4.782	Alert	
17,400.00	8,880.00	8,818.31	8,817.30	88.28	189.48	90.00	9,349.34	-1,110.79	1,046.97	817.42	229.55	4.561	Alert	
17,450.00	8,880.00	8,818.31	8,817.30	88.74	189.48	90.00	9,349.34	-1,110.79	997.66	767.77	229.89	4.340	Alert	
17,500.00	8,880.00	8,818.31	8,817.30	89.19	189.48	90.00	9,349.34	-1,110.79	948.42	718.15	230.28	4.119	Alert	
17,550.00	8,880.00	8,818.31	8,817.30	89.64	189.48	90.00	9,349.34	-1,110.79	899.27	668.56	230.71	3.898	Alert	
17,600.00	8,880.00	8,818.31	8,817.30	90.09	189.48	90.00	9,349.34	-1,110.79	850.21	619.00	231.21	3.677	Alert	
17,650.00	8,880.00	8,818.31	8,817.30	90.55	189.48	90.00	9,349.34	-1,110.79	801.28	569.49	231.79	3.457	Alert	
17,700.00	8,880.00	8,818.31	8,817.30	91.00	189.48	90.00	9,349.34	-1,110.79	752.48	520.02	232.46	3.237	Alert	
17,750.00	8,880.00	8,818.31	8,817.30	91.46	189.48	90.00	9,349.34	-1,110.79	703.85	470.61	233.24	3.018	Alert	
17,800.00	8,880.00	8,818.31	8,817.30	91.91	189.48	90.00	9,349.34	-1,110.79	655.42	421.26	234.17	2.799	Alert	
17,850.00	8,880.00	8,818.31	8,817.30	92.36	189.48	90.00	9,349.34	-1,110.79	607.26	371.98	235.28	2.581	Alert	
17,900.00	8,880.00	8,818.31	8,817.30	92.82	189.48	90.00	9,349.34	-1,110.79	559.41	322.79	236.62	2.364	Minor Risk	
17,950.00	8,880.00	8,818.31	8,817.30	93.28	189.48	90.00	9,349.34	-1,110.79	511.98	273.71	238.26	2.149	Minor Risk	
18,000.00	8,880.00	8,818.31	8,817.30	93.73	189.48	90.00	9,349.34	-1,110.79	465.08	224.78	240.30	1.935	Minor Risk	
18,050.00	8,880.00	8,818.31	8,817.30	94.19	189.48	90.00	9,349.34	-1,110.79	418.90	176.03	242.87	1.725	Minor Risk	
18,100.00	8,880.00	8,818.31	8,817.30	94.64	189.48	90.00	9,349.34	-1,110.79	373.71	127.58	246.13	1.518	Minor Risk	
18,150.00	8,880.00	8,818.31	8,817.30	95.10	189.48	90.00	9,349.34	-1,110.79	329.91	79.59	250.32	1.318	Major Risk	
18,200.00	8,880.00	8,818.31	8,817.30	95.56	189.48	90.00	9,349.34	-1,110.79	288.13	32.42	255.71	1.127	Major Risk	
18,250.00	8,880.00	8,818.31	8,817.30	96.01	189.48	90.00	9,349.34	-1,110.79	249.39	-13.16	262.55	0.950	Collision	
18,300.00	8,880.00	8,818.31	8,817.30	96.47	189.48	90.00	9,349.34	-1,110.79	215.35	-55.47	270.82	0.795	Collision	
18,350.00	8,880.00	8,818.31	8,817.30	96.93	189.48	90.00	9,349.34	-1,110.79	188.56	-90.98	279.54	0.675	Collision	
18,400.00	8,880.00	8,818.31	8,817.30	97.39	189.48	90.00	9,349.34	-1,110.79	172.44	-113.51	285.95	0.603	Collision	
18,433.21	8,880.00	8,818.31	8,817.30	97.69	189.48	90.00	9,349.34	-1,110.79	169.21	-117.87	287.08	0.589	Collision, CC, ES, SF	
18,450.00	8,880.00	8,818.31	8,817.30	97.85	189.48	90.00	9,349.34	-1,110.79	170.04	-116.41	286.46	0.594	Collision	
18,500.00	8,880.00	8,818.31	8,817.30	98.30	189.48	90.00	9,349.34	-1,110.79	181.92	-98.56	280.48	0.649	Collision	
18,550.00	8,880.00	8,818.31	8,817.30	98.76	189.48	90.00	9,349.34	-1,110.79	205.61	-65.71	271.32	0.758	Collision	
18,600.00	8,880.00	8,818.31	8,817.30	99.22	189.48	90.00	9,349.34	-1,110.79	237.60	-24.68	262.28	0.906	Collision	
18,650.00	8,880.00	8,818.31	8,817.30	99.68	189.48	90.00	9,349.34	-1,110.79	275.01	20.25	254.76	1.079	Major Risk	
18,700.00	8,880.00	8,818.31	8,817.30	100.14	189.48	90.00	9,349.34	-1,110.79	315.93	67.02	248.91	1.269	Major Risk	
18,750.00	8,880.00	8,818.31	8,817.30	100.60	189.48	90.00	9,349.34	-1,110.79	359.15	114.70	244.46	1.469	Major Risk	
18,800.00	8,880.00	8,818.31	8,817.30	101.06	189.48	90.00	9,349.34	-1,110.79	403.95	162.87	241.08	1.676	Minor Risk	
18,850.00	8,880.00	8,818.31	8,817.30	101.52	189.48	90.00	9,349.34	-1,110.79	449.83	211.34	238.50	1.886	Minor Risk	
18,900.00	8,880.00	8,818.31	8,817.30	101.98	189.48	90.00	9,349.34	-1,110.79	496.52	260.01	236.51	2.099	Minor Risk	
18,950.00	8,880.00	8,818.31	8,817.30	102.44	189.48	90.00	9,349.34	-1,110.79	543.79	308.83	234.96	2.314	Minor Risk	
19,000.00	8,880.00	8,818.31	8,817.30	102.90	189.48	90.00	9,349.34	-1,110.79	591.51	357.78	233.74	2.531	Alert	
19,050.00	8,880.00	8,818.31	8,817.30	103.37	189.48	90.00	9,349.34	-1,110.79	639.59	406.82	232.77	2.748	Alert	
19,100.00	8,880.00	8,818.31	8,817.30	103.83	189.48	90.00	9,349.34	-1,110.79	687.93	455.94	231.99	2.965	Alert	
19,115.75	8,880.00	8,818.31	8,817.30	103.97	189.48	90.00	9,349.34	-1,110.79	703.21	471.43	231.78	3.034	Alert	

Anticollision Report

Company:	WCDC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore:	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Sec 02-T23S-R31E - Belloq 2 State 2H - Original Hole - Actuals													Offset Well Error:	0.00 ft
Survey Program: 225-MWD+IGRF 600-MWD+IGRF														
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
18,350.00	8,880.00	8,816.53	8,814.47	96.93	28.89	-89.71	9,846.72	-2,655.46	1,493.87	1,376.25	117.62	12.701		
18,400.00	8,880.00	8,816.83	8,814.76	97.39	28.90	-89.73	9,846.72	-2,655.46	1,474.83	1,355.72	119.11	12.382		
18,450.00	8,880.00	8,817.13	8,815.07	97.85	28.90	-89.74	9,846.73	-2,655.46	1,457.26	1,336.69	120.58	12.086		
18,500.00	8,880.00	8,817.44	8,815.37	98.30	28.90	-89.75	9,846.73	-2,655.46	1,441.21	1,319.22	121.99	11.814		
18,550.00	8,880.00	8,817.74	8,815.67	98.76	28.90	-89.77	9,846.73	-2,655.46	1,426.74	1,303.38	123.36	11.566		
18,600.00	8,880.00	8,818.04	8,815.97	99.22	28.90	-89.78	9,846.73	-2,655.46	1,413.88	1,289.22	124.66	11.342		
18,650.00	8,880.00	8,818.35	8,816.28	99.68	28.90	-89.79	9,846.73	-2,655.46	1,402.69	1,276.80	125.89	11.142		
18,700.00	8,880.00	8,818.66	8,816.59	100.14	28.90	-89.80	9,846.74	-2,655.46	1,393.21	1,266.16	127.04	10.967		
18,750.00	8,880.00	8,818.97	8,816.90	100.60	28.90	-89.82	9,846.74	-2,655.46	1,385.46	1,257.36	128.10	10.815		
18,800.00	8,880.00	8,819.28	8,817.21	101.06	28.90	-89.83	9,846.74	-2,655.46	1,379.49	1,250.42	129.07	10.688		
18,850.00	8,880.00	8,819.59	8,817.52	101.52	28.90	-89.84	9,846.74	-2,655.46	1,375.30	1,245.38	129.92	10.585		
18,900.00	8,880.00	8,819.90	8,817.83	101.98	28.91	-89.86	9,846.75	-2,655.46	1,372.93	1,242.26	130.67	10.507		
18,940.21	8,880.00	8,820.15	8,818.08	102.35	28.91	-89.87	9,846.75	-2,655.46	1,372.34	1,241.15	131.19	10.460 CC		
18,950.00	8,880.00	8,820.21	8,818.14	102.44	28.91	-89.87	9,846.75	-2,655.46	1,372.38	1,241.07	131.31	10.452 ES		
19,000.00	8,880.00	8,820.53	8,818.46	102.90	28.91	-89.88	9,846.75	-2,655.46	1,373.64	1,241.82	131.83	10.420		
19,050.00	8,880.00	8,820.84	8,818.78	103.37	28.91	-89.89	9,846.75	-2,655.47	1,376.73	1,244.50	132.22	10.412 SF		
19,100.00	8,880.00	8,821.16	8,819.09	103.83	28.91	-89.91	9,846.76	-2,655.47	1,381.61	1,249.11	132.50	10.427		
19,115.75	8,880.00	8,821.26	8,819.19	103.97	28.91	-89.91	9,846.76	-2,655.47	1,383.52	1,250.96	132.57	10.436		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 02-T23S-R31E - Belloq 2 State 5H - Wellbore #1 - Wellbore #1		Offset Site Error: 5.00 ft	
Survey Program: 115-MWD+HDGM, 9477-MWD+HDGM													Offset Well Error: 0.50 ft			
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre		Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)					
18,350.00	8,880.00	8,824.67	8,819.09	96.93	31.41	-89.91	9,592.15	-2,737.48	1,494.24	1,368.93	125.31	11.925				
18,400.00	8,880.00	8,823.48	8,817.91	97.39	31.41	-89.87	9,592.18	-2,737.48	1,483.79	1,357.35	126.44	11.735				
18,450.00	8,880.00	8,822.29	8,816.72	97.85	31.40	-89.82	9,592.21	-2,737.47	1,474.96	1,347.46	127.51	11.568				
18,500.00	8,880.00	8,821.10	8,815.52	98.30	31.40	-89.77	9,592.24	-2,737.46	1,467.79	1,339.30	128.49	11.423				
18,550.00	8,880.00	8,819.89	8,814.32	98.76	31.39	-89.73	9,592.27	-2,737.45	1,462.29	1,332.89	129.39	11.301				
18,600.00	8,880.00	8,818.68	8,813.11	99.22	31.39	-89.68	9,592.30	-2,737.44	1,458.48	1,328.28	130.20	11.202				
18,650.00	8,880.00	8,817.47	8,811.89	99.68	31.39	-89.63	9,592.33	-2,737.43	1,456.37	1,325.46	130.91	11.125				
18,686.32	8,880.00	8,816.58	8,811.01	100.02	31.38	-89.59	9,592.35	-2,737.43	1,455.92	1,324.55	131.37	11.083	CC			
18,700.00	8,880.00	8,816.25	8,810.67	100.14	31.38	-89.58	9,592.36	-2,737.43	1,455.98	1,324.46	131.53	11.070	ES			
18,750.00	8,880.00	8,815.02	8,809.45	100.60	31.38	-89.53	9,592.39	-2,737.42	1,457.31	1,325.27	132.04	11.037				
18,800.00	8,880.00	8,813.79	8,808.21	101.06	31.37	-89.49	9,592.42	-2,737.41	1,460.35	1,327.90	132.45	11.025	SF			
18,850.00	8,880.00	8,812.55	8,806.97	101.52	31.37	-89.44	9,592.45	-2,737.40	1,465.09	1,332.33	132.76	11.036				
18,900.00	8,880.00	8,811.30	8,805.73	101.98	31.36	-89.39	9,592.48	-2,737.39	1,471.51	1,338.54	132.97	11.067				
18,950.00	8,880.00	8,810.05	8,804.48	102.44	31.36	-89.34	9,592.51	-2,737.38	1,479.59	1,346.52	133.07	11.119				
19,000.00	8,880.00	8,808.79	8,803.22	102.90	31.35	-89.29	9,592.54	-2,737.37	1,489.31	1,356.23	133.08	11.191				

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 109-GYRO, 744-MWD+GRF													Offset Well Error:	0.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
18,200.00	8,880.00	8,811.89	8,805.30	95.56	28.98	-89.26	9,942.24	-2,524.74	1,495.81	1,386.94	108.87	13.740		
18,250.00	8,880.00	8,811.61	8,805.03	96.01	28.98	-89.25	9,942.24	-2,524.74	1,468.48	1,357.94	110.54	13.284		
18,300.00	8,880.00	8,811.33	8,804.75	96.47	28.97	-89.24	9,942.25	-2,524.73	1,442.38	1,330.15	112.23	12.852		
18,350.00	8,880.00	8,811.06	8,804.47	96.93	28.97	-89.22	9,942.25	-2,524.73	1,417.56	1,303.63	113.92	12.443		
18,400.00	8,880.00	8,810.78	8,804.19	97.39	28.97	-89.21	9,942.25	-2,524.72	1,394.09	1,278.47	115.62	12.058		
18,450.00	8,880.00	8,810.50	8,803.92	97.85	28.97	-89.20	9,942.25	-2,524.72	1,372.04	1,254.74	117.30	11.697		
18,500.00	8,880.00	8,810.22	8,803.64	98.30	28.97	-89.18	9,942.25	-2,524.71	1,351.48	1,232.52	118.96	11.361		
18,550.00	8,880.00	8,809.94	8,803.36	98.76	28.97	-89.17	9,942.25	-2,524.71	1,332.48	1,211.89	120.59	11.050		
18,600.00	8,880.00	8,809.66	8,803.08	99.22	28.97	-89.16	9,942.26	-2,524.70	1,315.11	1,192.94	122.17	10.764		
18,650.00	8,880.00	8,809.38	8,802.80	99.68	28.97	-89.15	9,942.26	-2,524.70	1,299.43	1,175.74	123.70	10.505		
18,700.00	8,880.00	8,809.10	8,802.52	100.14	28.97	-89.13	9,942.26	-2,524.69	1,285.51	1,160.36	125.15	10.272		
18,750.00	8,880.00	8,808.82	8,802.24	100.60	28.97	-89.12	9,942.26	-2,524.69	1,273.40	1,146.88	126.52	10.065		
18,800.00	8,880.00	8,808.54	8,801.96	101.06	28.96	-89.11	9,942.26	-2,524.68	1,263.15	1,135.36	127.80	9.884		
18,850.00	8,880.00	8,808.26	8,801.68	101.52	28.96	-89.09	9,942.26	-2,524.68	1,254.82	1,125.85	128.97	9.730		
18,900.00	8,880.00	8,807.98	8,801.39	101.98	28.96	-89.08	9,942.27	-2,524.67	1,248.43	1,118.42	130.01	9.602		
18,950.00	8,880.00	8,807.70	8,801.11	102.44	28.96	-89.07	9,942.27	-2,524.67	1,244.02	1,113.09	130.93	9.501		
19,000.00	8,880.00	8,807.41	8,800.83	102.90	28.96	-89.06	9,942.27	-2,524.67	1,241.61	1,109.89	131.72	9.426		
19,034.92	8,880.00	8,807.22	8,800.63	103.23	28.96	-89.05	9,942.27	-2,524.66	1,241.12	1,108.94	132.18	9.390 CC		
19,050.00	8,880.00	8,807.13	8,800.55	103.37	28.96	-89.04	9,942.27	-2,524.66	1,241.21	1,108.85	132.36	9.378 ES		
19,100.00	8,880.00	8,806.85	8,800.26	103.83	28.96	-89.03	9,942.27	-2,524.66	1,242.82	1,109.97	132.86	9.355		
19,115.75	8,880.00	8,806.76	8,800.18	103.97	28.96	-89.02	9,942.27	-2,524.65	1,243.75	1,110.77	132.98	9.353 SF		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Sec 02-T23S-R31E - State #001 (P&A) - Wellbore #1 - Wellbore #1		Offset Site Error: 5.00 ft	
Survey Program: 8455-INC-ONLY													Offset Well Error: 10.00 ft			
Reference		Offset		Semi Major Axis			Distance									
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning			
15,650.00	8,880.00	8,808.30	8,808.30	72.73	132.26	90.00	8,029.57	-1,101.21	1,473.31	1,304.14	169.18	8.709				
15,700.00	8,880.00	8,808.30	8,808.30	73.17	132.26	90.00	8,029.57	-1,101.21	1,423.66	1,254.36	169.30	8.409				
15,750.00	8,880.00	8,808.30	8,808.30	73.60	132.26	90.00	8,029.57	-1,101.21	1,374.03	1,204.60	169.44	8.109				
15,800.00	8,880.00	8,808.30	8,808.30	74.04	132.26	90.00	8,029.57	-1,101.21	1,324.43	1,154.85	169.58	7.810				
15,850.00	8,880.00	8,808.30	8,808.30	74.48	132.26	90.00	8,029.57	-1,101.21	1,274.87	1,105.13	169.74	7.511				
15,900.00	8,880.00	8,808.30	8,808.30	74.92	132.26	90.00	8,029.57	-1,101.21	1,225.34	1,055.42	169.91	7.212				
15,950.00	8,880.00	8,808.30	8,808.30	75.35	132.26	90.00	8,029.57	-1,101.21	1,175.84	1,005.74	170.10	6.913				
16,000.00	8,880.00	8,808.30	8,808.30	75.79	132.26	90.00	8,029.57	-1,101.21	1,126.40	956.09	170.31	6.614				
16,050.00	8,880.00	8,808.30	8,808.30	76.23	132.26	90.00	8,029.57	-1,101.21	1,077.00	906.46	170.54	6.315				
16,100.00	8,880.00	8,808.30	8,808.30	76.67	132.26	90.00	8,029.57	-1,101.21	1,027.66	856.86	170.80	6.017				
16,150.00	8,880.00	8,808.30	8,808.30	77.11	132.26	90.00	8,029.57	-1,101.21	978.39	807.30	171.09	5.719				
16,200.00	8,880.00	8,808.30	8,808.30	77.55	132.26	90.00	8,029.57	-1,101.21	929.20	757.79	171.41	5.421				
16,250.00	8,880.00	8,808.30	8,808.30	78.00	132.26	90.00	8,029.57	-1,101.21	880.09	708.31	171.78	5.123				
16,300.00	8,880.00	8,808.30	8,808.30	78.44	132.26	90.00	8,029.57	-1,101.21	831.10	658.89	172.20	4.826	Alert			
16,350.00	8,880.00	8,808.30	8,808.30	78.88	132.26	90.00	8,029.57	-1,101.21	782.23	609.54	172.69	4.530	Alert			
16,400.00	8,880.00	8,808.30	8,808.30	79.32	132.26	90.00	8,029.57	-1,101.21	733.51	560.25	173.26	4.234	Alert			
16,450.00	8,880.00	8,808.30	8,808.30	79.77	132.26	90.00	8,029.57	-1,101.21	684.98	511.05	173.94	3.938	Alert			
16,500.00	8,880.00	8,808.30	8,808.30	80.21	132.26	90.00	8,029.57	-1,101.21	636.68	461.95	174.74	3.644	Alert			
16,550.00	8,880.00	8,808.30	8,808.30	80.66	132.26	90.00	8,029.57	-1,101.21	588.66	412.96	175.70	3.350	Alert			
16,600.00	8,880.00	8,808.30	8,808.30	81.10	132.26	90.00	8,029.57	-1,101.21	541.00	364.13	176.87	3.059	Alert			
16,650.00	8,880.00	8,808.30	8,808.30	81.55	132.26	90.00	8,029.57	-1,101.21	493.80	315.48	178.32	2.769	Alert			
16,700.00	8,880.00	8,808.30	8,808.30	81.99	132.26	90.00	8,029.57	-1,101.21	447.21	267.08	180.13	2.483	Minor Risk			
16,750.00	8,880.00	8,808.30	8,808.30	82.44	132.26	90.00	8,029.57	-1,101.21	401.45	219.02	182.43	2.201	Minor Risk			
16,800.00	8,880.00	8,808.30	8,808.30	82.89	132.26	90.00	8,029.57	-1,101.21	356.82	171.44	185.38	1.925	Minor Risk			
16,850.00	8,880.00	8,808.30	8,808.30	83.33	132.26	90.00	8,029.57	-1,101.21	313.82	124.63	189.18	1.659	Minor Risk			
16,900.00	8,880.00	8,808.30	8,808.30	83.78	132.26	90.00	8,029.57	-1,101.21	273.20	79.12	194.09	1.408	Major Risk			
16,950.00	8,880.00	8,808.30	8,808.30	84.23	132.26	90.00	8,029.57	-1,101.21	236.22	35.98	200.24	1.180	Major Risk			
17,000.00	8,880.00	8,808.30	8,808.30	84.68	132.26	90.00	8,029.57	-1,101.21	204.84	-2.56	207.40	0.988	Collision			
17,050.00	8,880.00	8,808.30	8,808.30	85.13	132.26	90.00	8,029.57	-1,101.21	181.99	-32.21	214.19	0.850	Collision			
17,100.00	8,880.00	8,808.30	8,808.30	85.58	132.26	90.00	8,029.57	-1,101.21	171.11	-46.70	217.81	0.786	Collision			
17,113.40	8,880.00	8,808.30	8,808.30	85.70	132.26	90.00	8,029.57	-1,101.21	170.58	-47.28	217.86	0.783	Collision, CC, ES, SF			
17,150.00	8,880.00	8,808.30	8,808.30	86.03	132.26	90.00	8,029.57	-1,101.21	174.47	-41.40	215.86	0.808	Collision			
17,200.00	8,880.00	8,808.30	8,808.30	86.48	132.26	90.00	8,029.57	-1,101.21	191.31	-18.09	209.40	0.914	Collision			
17,250.00	8,880.00	8,808.30	8,808.30	86.93	132.26	90.00	8,029.57	-1,101.21	218.54	16.97	201.57	1.084	Major Risk			
17,300.00	8,880.00	8,808.30	8,808.30	87.38	132.26	90.00	8,029.57	-1,101.21	252.82	58.31	194.51	1.300	Major Risk			
17,350.00	8,880.00	8,808.30	8,808.30	87.83	132.26	90.00	8,029.57	-1,101.21	291.68	102.81	188.87	1.544	Minor Risk			
17,400.00	8,880.00	8,808.30	8,808.30	88.28	132.26	90.00	8,029.57	-1,101.21	333.52	148.96	184.56	1.807	Minor Risk			
17,450.00	8,880.00	8,808.30	8,808.30	88.74	132.26	90.00	8,029.57	-1,101.21	377.35	196.03	181.32	2.081	Minor Risk			
17,500.00	8,880.00	8,808.30	8,808.30	89.19	132.26	90.00	8,029.57	-1,101.21	422.56	243.68	178.87	2.362	Minor Risk			
17,550.00	8,880.00	8,808.30	8,808.30	89.64	132.26	90.00	8,029.57	-1,101.21	468.74	291.72	177.01	2.648	Alert			
17,600.00	8,880.00	8,808.30	8,808.30	90.09	132.26	90.00	8,029.57	-1,101.21	515.63	340.05	175.58	2.937	Alert			
17,650.00	8,880.00	8,808.30	8,808.30	90.55	132.26	90.00	8,029.57	-1,101.21	563.06	388.59	174.47	3.227	Alert			
17,700.00	8,880.00	8,808.30	8,808.30	91.00	132.26	90.00	8,029.57	-1,101.21	610.90	437.30	173.60	3.519	Alert			
17,750.00	8,880.00	8,808.30	8,808.30	91.46	132.26	90.00	8,029.57	-1,101.21	659.06	486.15	172.91	3.812	Alert			
17,800.00	8,880.00	8,808.30	8,808.30	91.91	132.26	90.00	8,029.57	-1,101.21	707.47	535.12	172.35	4.105	Alert			
17,850.00	8,880.00	8,808.30	8,808.30	92.36	132.26	90.00	8,029.57	-1,101.21	756.09	584.18	171.91	4.398	Alert			
17,900.00	8,880.00	8,808.30	8,808.30	92.82	132.26	90.00	8,029.57	-1,101.21	804.88	633.34	171.55	4.692	Alert			
17,950.00	8,880.00	8,808.30	8,808.30	93.28	132.26	90.00	8,029.57	-1,101.21	853.81	682.56	171.25	4.986	Alert			
18,000.00	8,880.00	8,808.30	8,808.30	93.73	132.26	90.00	8,029.57	-1,101.21	902.86	731.85	171.01	5.280				
18,050.00	8,880.00	8,808.30	8,808.30	94.19	132.26	90.00	8,029.57	-1,101.21	952.00	781.20	170.81	5.574				
18,100.00	8,880.00	8,808.30	8,808.30	94.64	132.26	90.00	8,029.57	-1,101.21	1,001.24	830.59	170.64	5.867				
18,150.00	8,880.00	8,808.30	8,808.30	95.10	132.26	90.00	8,029.57	-1,101.21	1,050.54	880.03	170.51	6.161				

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design Sec 02-T23S-R31E - State 2 #001 (P&A) - Wellbore #1 - Wellbore #1													Offset Site Error:	5.00 ft
Survey Program: 8455-INC-ONLY													Offset Well Error:	10.00 ft
Reference	Offset	Semi Major Axis		Distance										Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
18,200.00	8,880.00	8,808.30	8,808.30	95.56	132.26	90.00	8,029.57	-1,101.21	1,099.91	929.51	170.40	6.455		
18,250.00	8,880.00	8,808.30	8,808.30	96.01	132.26	90.00	8,029.57	-1,101.21	1,149.33	979.02	170.30	6.749		
18,300.00	8,880.00	8,808.30	8,808.30	96.47	132.26	90.00	8,029.57	-1,101.21	1,198.80	1,028.57	170.23	7.042		
18,350.00	8,880.00	8,808.30	8,808.30	96.93	132.26	90.00	8,029.57	-1,101.21	1,248.31	1,078.14	170.17	7.336		
18,400.00	8,880.00	8,808.30	8,808.30	97.39	132.26	90.00	8,029.57	-1,101.21	1,297.86	1,127.73	170.12	7.629		
18,450.00	8,880.00	8,808.30	8,808.30	97.85	132.26	90.00	8,029.57	-1,101.21	1,347.44	1,177.35	170.08	7.922		
18,500.00	8,880.00	8,808.30	8,808.30	98.30	132.26	90.00	8,029.57	-1,101.21	1,397.05	1,227.00	170.05	8.215		
18,550.00	8,880.00	8,808.30	8,808.30	98.76	132.26	90.00	8,029.57	-1,101.21	1,446.69	1,276.66	170.03	8.508		
18,600.00	8,880.00	8,808.30	8,808.30	99.22	132.26	90.00	8,029.57	-1,101.21	1,496.35	1,326.33	170.02	8.801		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design										Sec 02-T23S-R31E - State 2 #002 (Temp Abandoned) - Wellbore #1 - Wellbore #1		Offset Site Error: 5.00 ft	
Survey Program: 8515-INC-ONLY												Offset Well Error: 10.00 ft	
Reference		Offset		Semi Major Axis			Distance						
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre +N-S	+E/-W	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	(ft)	(ft)	(ft)	(ft)	(ft)		
17,500.00	8,880.00	8,813.30	8,813.30	89.19	132.33	-90.00	9,344.94	-2,430.37	1,483.69	1,280.75	202.94	7.311	
17,550.00	8,880.00	8,813.30	8,813.30	89.64	132.33	-90.00	9,344.94	-2,430.37	1,452.63	1,248.11	204.52	7.103	
17,600.00	8,880.00	8,813.30	8,813.30	90.09	132.33	-90.00	9,344.94	-2,430.37	1,422.65	1,216.52	206.13	6.902	
17,650.00	8,880.00	8,813.30	8,813.30	90.55	132.33	-90.00	9,344.94	-2,430.37	1,393.82	1,186.04	207.78	6.708	
17,700.00	8,880.00	8,813.30	8,813.30	91.00	132.33	-90.00	9,344.94	-2,430.37	1,366.21	1,156.76	209.45	6.523	
17,750.00	8,880.00	8,813.30	8,813.30	91.46	132.33	-90.00	9,344.94	-2,430.37	1,339.90	1,128.76	211.14	6.346	
17,800.00	8,880.00	8,813.30	8,813.30	91.91	132.33	-90.00	9,344.94	-2,430.37	1,314.96	1,102.12	212.84	6.178	
17,850.00	8,880.00	8,813.30	8,813.30	92.36	132.33	-90.00	9,344.94	-2,430.37	1,291.48	1,076.94	214.54	6.020	
17,900.00	8,880.00	8,813.30	8,813.30	92.82	132.33	-90.00	9,344.94	-2,430.37	1,269.54	1,053.30	216.23	5.871	
17,950.00	8,880.00	8,813.30	8,813.30	93.28	132.33	-90.00	9,344.94	-2,430.37	1,249.21	1,031.31	217.90	5.733	
18,000.00	8,880.00	8,813.30	8,813.30	93.73	132.33	-90.00	9,344.94	-2,430.37	1,230.58	1,011.05	219.53	5.605	
18,050.00	8,880.00	8,813.30	8,813.30	94.19	132.33	-90.00	9,344.94	-2,430.37	1,213.72	992.61	221.11	5.489	
18,100.00	8,880.00	8,813.30	8,813.30	94.64	132.33	-90.00	9,344.94	-2,430.37	1,198.72	976.10	222.62	5.385	
18,150.00	8,880.00	8,813.30	8,813.30	95.10	132.33	-90.00	9,344.94	-2,430.37	1,185.63	961.58	224.05	5.292	
18,200.00	8,880.00	8,813.30	8,813.30	95.56	132.33	-90.00	9,344.94	-2,430.37	1,174.53	949.15	225.38	5.211	
18,250.00	8,880.00	8,813.30	8,813.30	96.01	132.33	-90.00	9,344.94	-2,430.37	1,165.47	938.87	226.60	5.143	
18,300.00	8,880.00	8,813.30	8,813.30	96.47	132.33	-90.00	9,344.94	-2,430.37	1,158.50	930.80	227.70	5.088	
18,350.00	8,880.00	8,813.30	8,813.30	96.93	132.33	-90.00	9,344.94	-2,430.37	1,153.65	925.00	228.66	5.045	
18,400.00	8,880.00	8,813.30	8,813.30	97.39	132.33	-90.00	9,344.94	-2,430.37	1,150.96	921.49	229.47	5.016	
18,437.01	8,880.00	8,813.30	8,813.30	97.73	132.33	-90.00	9,344.94	-2,430.37	1,150.37	920.39	229.97	5.002 CC	
18,450.00	8,880.00	8,813.30	8,813.30	97.85	132.33	-90.00	9,344.94	-2,430.37	1,150.44	920.31	230.13	4.999 Alert, ES	
18,500.00	8,880.00	8,813.30	8,813.30	98.30	132.33	-90.00	9,344.94	-2,430.37	1,152.09	921.46	230.63	4.995 Alert, SF	
18,550.00	8,880.00	8,813.30	8,813.30	98.76	132.33	-90.00	9,344.94	-2,430.37	1,155.90	924.93	230.97	5.004	
18,600.00	8,880.00	8,813.30	8,813.30	99.22	132.33	-90.00	9,344.94	-2,430.37	1,161.86	930.70	231.16	5.026	
18,650.00	8,880.00	8,813.30	8,813.30	99.68	132.33	-90.00	9,344.94	-2,430.37	1,169.92	938.73	231.19	5.060	
18,700.00	8,880.00	8,813.30	8,813.30	100.14	132.33	-90.00	9,344.94	-2,430.37	1,180.05	948.98	231.07	5.107	
18,750.00	8,880.00	8,813.30	8,813.30	100.60	132.33	-90.00	9,344.94	-2,430.37	1,192.19	961.38	230.81	5.165	
18,800.00	8,880.00	8,813.30	8,813.30	101.06	132.33	-90.00	9,344.94	-2,430.37	1,206.28	975.86	230.42	5.235	
18,850.00	8,880.00	8,813.30	8,813.30	101.52	132.33	-90.00	9,344.94	-2,430.37	1,222.25	992.34	229.91	5.316	
18,900.00	8,880.00	8,813.30	8,813.30	101.98	132.33	-90.00	9,344.94	-2,430.37	1,240.04	1,010.74	229.30	5.408	
18,950.00	8,880.00	8,813.30	8,813.30	102.44	132.33	-90.00	9,344.94	-2,430.37	1,259.57	1,030.97	228.59	5.510	
19,000.00	8,880.00	8,813.30	8,813.30	102.90	132.33	-90.00	9,344.94	-2,430.37	1,280.74	1,052.94	227.80	5.622	
19,050.00	8,880.00	8,813.30	8,813.30	103.37	132.33	-90.00	9,344.94	-2,430.37	1,303.50	1,076.55	226.95	5.744	
19,100.00	8,880.00	8,813.30	8,813.30	103.83	132.33	-90.00	9,344.94	-2,430.37	1,327.74	1,101.71	226.03	5.874	
19,115.75	8,880.00	8,813.30	8,813.30	103.97	132.33	-90.00	9,344.94	-2,430.37	1,335.68	1,109.94	225.74	5.917	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well-Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 8500-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis			Distance							Warning
*Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
16,200.00	8,880.00	8,799.30	8,799.30	77.55	132.13	-90.00	8,023.79	-2,420.80	1,469.35	1,274.77	194.58	7.552		
16,250.00	8,880.00	8,799.30	8,799.30	78.00	132.13	-90.00	8,023.79	-2,420.80	1,438.71	1,242.79	195.93	7.343		
16,300.00	8,880.00	8,799.30	8,799.30	78.44	132.13	-90.00	8,023.79	-2,420.80	1,409.19	1,211.88	197.31	7.142		
16,350.00	8,880.00	8,799.30	8,799.30	78.88	132.13	-90.00	8,023.79	-2,420.80	1,380.84	1,182.12	198.73	6.948		
16,400.00	8,880.00	8,799.30	8,799.30	79.32	132.13	-90.00	8,023.79	-2,420.80	1,353.75	1,153.59	200.17	6.763		
16,450.00	8,880.00	8,799.30	8,799.30	79.77	132.13	-90.00	8,023.79	-2,420.80	1,327.99	1,126.37	201.63	6.586		
16,500.00	8,880.00	8,799.30	8,799.30	80.21	132.13	-90.00	8,023.79	-2,420.80	1,303.64	1,100.54	203.10	6.419		
16,550.00	8,880.00	8,799.30	8,799.30	80.66	132.13	-90.00	8,023.79	-2,420.80	1,280.78	1,076.21	204.57	6.261		
16,600.00	8,880.00	8,799.30	8,799.30	81.10	132.13	-90.00	8,023.79	-2,420.80	1,259.49	1,053.46	206.03	6.113		
16,650.00	8,880.00	8,799.30	8,799.30	81.55	132.13	-90.00	8,023.79	-2,420.80	1,239.85	1,032.37	207.48	5.976		
16,700.00	8,880.00	8,799.30	8,799.30	81.99	132.13	-90.00	8,023.79	-2,420.80	1,221.95	1,013.05	208.89	5.850		
16,750.00	8,880.00	8,799.30	8,799.30	82.44	132.13	-90.00	8,023.79	-2,420.80	1,205.85	995.59	210.26	5.735		
16,800.00	8,880.00	8,799.30	8,799.30	82.89	132.13	-90.00	8,023.79	-2,420.80	1,191.63	980.06	211.58	5.632		
16,850.00	8,880.00	8,799.30	8,799.30	83.33	132.13	-90.00	8,023.79	-2,420.80	1,179.37	966.55	212.82	5.542		
16,900.00	8,880.00	8,799.30	8,799.30	83.78	132.13	-90.00	8,023.79	-2,420.80	1,169.11	955.14	213.98	5.464		
16,950.00	8,880.00	8,799.30	8,799.30	84.23	132.13	-90.00	8,023.79	-2,420.80	1,160.92	945.88	215.04	5.399		
17,000.00	8,880.00	8,799.30	8,799.30	84.68	132.13	-90.00	8,023.79	-2,420.80	1,154.84	938.85	216.00	5.347		
17,050.00	8,880.00	8,799.30	8,799.30	85.13	132.13	-90.00	8,023.79	-2,420.80	1,150.90	934.07	216.84	5.308		
17,100.00	8,880.00	8,799.30	8,799.30	85.58	132.13	-90.00	8,023.79	-2,420.80	1,149.13	931.58	217.55	5.282		
17,115.83	8,880.00	8,799.30	8,799.30	85.72	132.13	-90.00	8,023.79	-2,420.80	1,149.02	931.27	217.75	5.277 CC, ES		
17,150.00	8,880.00	8,799.30	8,799.30	86.03	132.13	-90.00	8,023.79	-2,420.80	1,149.53	931.39	218.13	5.270 SF		
17,200.00	8,880.00	8,799.30	8,799.30	86.48	132.13	-90.00	8,023.79	-2,420.80	1,152.10	933.52	218.58	5.271		
17,250.00	8,880.00	8,799.30	8,799.30	86.93	132.13	-90.00	8,023.79	-2,420.80	1,156.83	937.93	218.90	5.285		
17,300.00	8,880.00	8,799.30	8,799.30	87.38	132.13	-90.00	8,023.79	-2,420.80	1,163.69	944.61	219.08	5.312		
17,350.00	8,880.00	8,799.30	8,799.30	87.83	132.13	-90.00	8,023.79	-2,420.80	1,172.64	953.51	219.13	5.351		
17,400.00	8,880.00	8,799.30	8,799.30	88.28	132.13	-90.00	8,023.79	-2,420.80	1,183.64	964.59	219.05	5.403		
17,450.00	8,880.00	8,799.30	8,799.30	88.74	132.13	-90.00	8,023.79	-2,420.80	1,196.63	977.77	218.86	5.468		
17,500.00	8,880.00	8,799.30	8,799.30	89.19	132.13	-90.00	8,023.79	-2,420.80	1,211.54	992.98	218.56	5.543		
17,550.00	8,880.00	8,799.30	8,799.30	89.64	132.13	-90.00	8,023.79	-2,420.80	1,228.31	1,010.15	218.16	5.630		
17,600.00	8,880.00	8,799.30	8,799.30	90.09	132.13	-90.00	8,023.79	-2,420.80	1,246.86	1,029.19	217.67	5.728		
17,650.00	8,880.00	8,799.30	8,799.30	90.55	132.13	-90.00	8,023.79	-2,420.80	1,267.12	1,050.01	217.11	5.836		
17,700.00	8,880.00	8,799.30	8,799.30	91.00	132.13	-90.00	8,023.79	-2,420.80	1,288.99	1,072.51	216.48	5.954		
17,750.00	8,880.00	8,799.30	8,799.30	91.46	132.13	-90.00	8,023.79	-2,420.80	1,312.41	1,096.62	215.79	6.082		
17,800.00	8,880.00	8,799.30	8,799.30	91.91	132.13	-90.00	8,023.79	-2,420.80	1,337.29	1,122.23	215.06	6.218		
17,850.00	8,880.00	8,799.30	8,799.30	92.36	132.13	-90.00	8,023.79	-2,420.80	1,363.55	1,149.26	214.29	6.363		
17,900.00	8,880.00	8,799.30	8,799.30	92.82	132.13	-90.00	8,023.79	-2,420.80	1,391.11	1,177.62	213.49	6.516		
17,950.00	8,880.00	8,799.30	8,799.30	93.28	132.13	-90.00	8,023.79	-2,420.80	1,419.89	1,207.23	212.67	6.677		
18,000.00	8,880.00	8,799.30	8,799.30	93.73	132.13	-90.00	8,023.79	-2,420.80	1,449.83	1,238.00	211.83	6.844		
18,050.00	8,880.00	8,799.30	8,799.30	94.19	132.13	-90.00	8,023.79	-2,420.80	1,480.85	1,269.87	210.99	7.019		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Sec 02-T23S-R31E - State 2 #004 (P&A) - Wellbore #1 - Wellbore #1													Offset Well Error:	10.00 ft
Survey Program: 8468-INC-ONLY														
Measured Depth (ft)	Vertical Depth (ft)	Offset		Semi Major Axis			Distance			Minimum Separation (ft)	Separation Factor	Warning		
		Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)				
14,850.00	8,880.00	8,792.30	8,792.30	65.86	132.02	-90.00	6,717.88	-2,411.35	1,496.19	1,310.89	185.29	8.075		
14,900.00	8,880.00	8,792.30	8,792.30	66.29	132.02	-90.00	6,717.88	-2,411.35	1,464.61	1,278.25	186.36	7.859		
14,950.00	8,880.00	8,792.30	8,792.30	66.71	132.02	-90.00	6,717.88	-2,411.35	1,434.08	1,246.62	187.46	7.650		
15,000.00	8,880.00	8,792.30	8,792.30	67.14	132.02	-90.00	6,717.88	-2,411.35	1,404.67	1,216.08	188.60	7.448		
15,050.00	8,880.00	8,792.30	8,792.30	67.56	132.02	-90.00	6,717.88	-2,411.35	1,376.45	1,186.69	189.77	7.253		
15,100.00	8,880.00	8,792.30	8,792.30	67.99	132.02	-90.00	6,717.88	-2,411.35	1,349.49	1,158.53	190.96	7.067		
15,150.00	8,880.00	8,792.30	8,792.30	68.42	132.02	-90.00	6,717.88	-2,411.35	1,323.87	1,131.70	192.17	6.889		
15,200.00	8,880.00	8,792.30	8,792.30	68.85	132.02	-90.00	6,717.88	-2,411.35	1,299.67	1,106.27	193.40	6.720		
15,250.00	8,880.00	8,792.30	8,792.30	69.28	132.02	-90.00	6,717.88	-2,411.35	1,276.97	1,082.34	194.64	6.561		
15,300.00	8,880.00	8,792.30	8,792.30	69.70	132.02	-90.00	6,717.88	-2,411.35	1,255.86	1,059.98	195.87	6.412		
15,350.00	8,880.00	8,792.30	8,792.30	70.14	132.02	-90.00	6,717.88	-2,411.35	1,236.40	1,039.30	197.10	6.273		
15,400.00	8,880.00	8,792.30	8,792.30	70.57	132.02	-90.00	6,717.88	-2,411.35	1,218.69	1,020.38	198.31	6.145		
15,450.00	8,880.00	8,792.30	8,792.30	71.00	132.02	-90.00	6,717.88	-2,411.35	1,202.79	1,003.31	199.48	6.030		
15,500.00	8,880.00	8,792.30	8,792.30	71.43	132.02	-90.00	6,717.88	-2,411.35	1,188.79	988.18	200.61	5.926		
15,550.00	8,880.00	8,792.30	8,792.30	71.86	132.02	-90.00	6,717.88	-2,411.35	1,176.75	975.05	201.69	5.834		
15,600.00	8,880.00	8,792.30	8,792.30	72.30	132.02	-90.00	6,717.88	-2,411.35	1,166.72	964.02	202.71	5.756		
15,650.00	8,880.00	8,792.30	8,792.30	72.73	132.02	-90.00	6,717.88	-2,411.35	1,158.77	955.13	203.65	5.690		
15,700.00	8,880.00	8,792.30	8,792.30	73.17	132.02	-90.00	6,717.88	-2,411.35	1,152.94	948.44	204.50	5.638		
15,750.00	8,880.00	8,792.30	8,792.30	73.60	132.02	-90.00	6,717.88	-2,411.35	1,149.25	943.99	205.26	5.599		
15,800.00	8,880.00	8,792.30	8,792.30	74.04	132.02	-90.00	6,717.88	-2,411.35	1,147.73	941.81	205.92	5.574		
15,809.89	8,880.00	8,792.30	8,792.30	74.13	132.02	-90.00	6,717.88	-2,411.35	1,147.69	941.65	206.04	5.570 CC, ES		
15,850.00	8,880.00	8,792.30	8,792.30	74.48	132.02	-90.00	6,717.88	-2,411.35	1,148.39	941.91	206.48	5.562 SF		
15,900.00	8,880.00	8,792.30	8,792.30	74.92	132.02	-90.00	6,717.88	-2,411.35	1,151.22	944.30	206.92	5.564		
15,950.00	8,880.00	8,792.30	8,792.30	75.35	132.02	-90.00	6,717.88	-2,411.35	1,156.21	948.96	207.26	5.579		
16,000.00	8,880.00	8,792.30	8,792.30	75.79	132.02	-90.00	6,717.88	-2,411.35	1,163.33	955.85	207.48	5.607		
16,050.00	8,880.00	8,792.30	8,792.30	76.23	132.02	-90.00	6,717.88	-2,411.35	1,172.54	964.94	207.59	5.648		
16,100.00	8,880.00	8,792.30	8,792.30	76.67	132.02	-90.00	6,717.88	-2,411.35	1,183.79	976.18	207.81	5.702		
16,150.00	8,880.00	8,792.30	8,792.30	77.11	132.02	-90.00	6,717.88	-2,411.35	1,197.03	989.50	207.52	5.768		
16,200.00	8,880.00	8,792.30	8,792.30	77.55	132.02	-90.00	6,717.88	-2,411.35	1,212.18	1,004.83	207.35	5.846		
16,250.00	8,880.00	8,792.30	8,792.30	78.00	132.02	-90.00	6,717.88	-2,411.35	1,229.18	1,022.09	207.09	5.935		
16,300.00	8,880.00	8,792.30	8,792.30	78.44	132.02	-90.00	6,717.88	-2,411.35	1,247.96	1,041.20	206.76	6.036		
16,350.00	8,880.00	8,792.30	8,792.30	78.88	132.02	-90.00	6,717.88	-2,411.35	1,268.43	1,062.07	206.36	6.147		
16,400.00	8,880.00	8,792.30	8,792.30	79.32	132.02	-90.00	6,717.88	-2,411.35	1,290.51	1,084.60	205.91	6.267		
16,450.00	8,880.00	8,792.30	8,792.30	79.77	132.02	-90.00	6,717.88	-2,411.35	1,314.13	1,108.72	205.41	6.398		
16,500.00	8,880.00	8,792.30	8,792.30	80.21	132.02	-90.00	6,717.88	-2,411.35	1,339.20	1,134.33	204.87	6.537		
16,550.00	8,880.00	8,792.30	8,792.30	80.66	132.02	-90.00	6,717.88	-2,411.35	1,365.64	1,161.34	204.29	6.685		
16,600.00	8,880.00	8,792.30	8,792.30	81.10	132.02	-90.00	6,717.88	-2,411.35	1,393.37	1,189.68	203.69	6.841		
16,650.00	8,880.00	8,792.30	8,792.30	81.55	132.02	-90.00	6,717.88	-2,411.35	1,422.32	1,219.24	203.07	7.004		
16,700.00	8,880.00	8,792.30	8,792.30	81.99	132.02	-90.00	6,717.88	-2,411.35	1,452.41	1,249.97	202.44	7.175		
16,750.00	8,880.00	8,792.30	8,792.30	82.44	132.02	-90.00	6,717.88	-2,411.35	1,483.58	1,281.78	201.80	7.352		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at:	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	5.00 ft
Survey Program: 8550-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi-Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
13,550.00	8,880.00	8,794.30	8,794.30	55.22	132.05	-90.00	5,398.15	-2,401.83	1,482.57	1,304.29	178.28	8.316		
13,600.00	8,880.00	8,794.30	8,794.30	55.61	132.05	-90.00	5,398.15	-2,401.83	1,451.37	1,272.29	179.09	8.104		
13,650.00	8,880.00	8,794.30	8,794.30	56.01	132.05	-90.00	5,398.15	-2,401.83	1,421.26	1,241.32	179.93	7.899		
13,700.00	8,880.00	8,794.30	8,794.30	56.40	132.05	-90.00	5,398.15	-2,401.83	1,392.29	1,211.48	180.81	7.700		
13,750.00	8,880.00	8,794.30	8,794.30	56.80	132.05	-90.00	5,398.15	-2,401.83	1,364.53	1,182.81	181.72	7.509		
13,800.00	8,880.00	8,794.30	8,794.30	57.20	132.05	-90.00	5,398.15	-2,401.83	1,338.07	1,155.42	182.65	7.326		
13,850.00	8,880.00	8,794.30	8,794.30	57.60	132.05	-90.00	5,398.15	-2,401.83	1,312.98	1,129.38	183.61	7.151		
13,900.00	8,880.00	8,794.30	8,794.30	58.00	132.05	-90.00	5,398.15	-2,401.83	1,289.35	1,104.77	184.58	6.985		
13,950.00	8,880.00	8,794.30	8,794.30	58.41	132.05	-90.00	5,398.15	-2,401.83	1,267.24	1,081.68	185.57	6.829		
14,000.00	8,880.00	8,794.30	8,794.30	58.81	132.05	-90.00	5,398.15	-2,401.83	1,246.75	1,060.20	186.55	6.683		
14,050.00	8,880.00	8,794.30	8,794.30	59.22	132.05	-90.00	5,398.15	-2,401.83	1,227.96	1,040.41	187.54	6.548		
14,100.00	8,880.00	8,794.30	8,794.30	59.63	132.05	-90.00	5,398.15	-2,401.83	1,210.94	1,022.42	188.52	6.423		
14,150.00	8,880.00	8,794.30	8,794.30	60.04	132.05	-90.00	5,398.15	-2,401.83	1,195.76	1,006.29	189.48	6.311		
14,200.00	8,880.00	8,794.30	8,794.30	60.44	132.05	-90.00	5,398.15	-2,401.83	1,182.51	992.11	190.41	6.211		
14,250.00	8,880.00	8,794.30	8,794.30	60.86	132.05	-90.00	5,398.15	-2,401.83	1,171.25	979.95	191.30	6.123		
14,300.00	8,880.00	8,794.30	8,794.30	61.27	132.05	-90.00	5,398.15	-2,401.83	1,162.03	969.89	192.14	6.048		
14,350.00	8,880.00	8,794.30	8,794.30	61.68	132.05	-90.00	5,398.15	-2,401.83	1,154.90	961.97	192.93	5.986		
14,400.00	8,880.00	8,794.30	8,794.30	62.09	132.05	-90.00	5,398.15	-2,401.83	1,149.91	956.25	193.66	5.938		
14,450.00	8,880.00	8,794.30	8,794.30	62.51	132.05	-90.00	5,398.15	-2,401.83	1,147.07	952.76	194.31	5.903		
14,490.12	8,880.00	8,794.30	8,794.30	62.84	132.05	-90.00	5,398.15	-2,401.83	1,146.37	951.59	194.78	5.886 CC		
14,500.00	8,880.00	8,794.30	8,794.30	62.93	132.05	-90.00	5,398.15	-2,401.83	1,146.42	951.53	194.89	5.882 ES		
14,550.00	8,880.00	8,794.30	8,794.30	63.34	132.05	-90.00	5,398.15	-2,401.83	1,147.94	952.55	195.38	5.875 SF		
14,600.00	8,880.00	8,794.30	8,794.30	63.76	132.05	-90.00	5,398.15	-2,401.83	1,151.63	955.83	195.79	5.882		
14,650.00	8,880.00	8,794.30	8,794.30	64.18	132.05	-90.00	5,398.15	-2,401.83	1,157.47	961.35	196.12	5.902		
14,700.00	8,880.00	8,794.30	8,794.30	64.60	132.05	-90.00	5,398.15	-2,401.83	1,165.43	969.07	196.36	5.935		
14,750.00	8,880.00	8,794.30	8,794.30	65.02	132.05	-90.00	5,398.15	-2,401.83	1,175.46	978.94	196.52	5.981		
14,800.00	8,880.00	8,794.30	8,794.30	65.44	132.05	-90.00	5,398.15	-2,401.83	1,187.52	990.92	196.59	6.040		
14,850.00	8,880.00	8,794.30	8,794.30	65.86	132.05	-90.00	5,398.15	-2,401.83	1,201.53	1,004.94	196.60	6.112		
14,900.00	8,880.00	8,794.30	8,794.30	66.29	132.05	-90.00	5,398.15	-2,401.83	1,217.44	1,020.92	196.53	6.195		
14,950.00	8,880.00	8,794.30	8,794.30	66.71	132.05	-90.00	5,398.15	-2,401.83	1,235.18	1,038.78	196.39	6.289		
15,000.00	8,880.00	8,794.30	8,794.30	67.14	132.05	-90.00	5,398.15	-2,401.83	1,254.65	1,058.45	196.20	6.395		
15,050.00	8,880.00	8,794.30	8,794.30	67.56	132.05	-90.00	5,398.15	-2,401.83	1,275.79	1,079.83	195.96	6.511		
15,100.00	8,880.00	8,794.30	8,794.30	67.99	132.05	-90.00	5,398.15	-2,401.83	1,298.51	1,102.84	195.67	6.636		
15,150.00	8,880.00	8,794.30	8,794.30	68.42	132.05	-90.00	5,398.15	-2,401.83	1,322.73	1,127.39	195.34	6.771		
15,200.00	8,880.00	8,794.30	8,794.30	68.85	132.05	-90.00	5,398.15	-2,401.83	1,348.37	1,153.39	194.98	6.915		
15,250.00	8,880.00	8,794.30	8,794.30	69.28	132.05	-90.00	5,398.15	-2,401.83	1,375.35	1,180.75	194.60	7.068		
15,300.00	8,880.00	8,794.30	8,794.30	69.70	132.05	-90.00	5,398.15	-2,401.83	1,403.59	1,209.40	194.19	7.228		
15,350.00	8,880.00	8,794.30	8,794.30	70.14	132.05	-90.00	5,398.15	-2,401.83	1,433.03	1,239.26	193.77	7.396		
15,400.00	8,880.00	8,794.30	8,794.30	70.57	132.05	-90.00	5,398.15	-2,401.83	1,463.57	1,270.24	193.33	7.570		
15,450.00	8,880.00	8,794.30	8,794.30	71.00	132.05	-90.00	5,398.15	-2,401.83	1,495.17	1,302.28	192.89	7.751		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 8500-INC-ONLY													Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)						
10,400.00	8,880.00	8,832.30	8,832.30	35.25	132.52	90.00	2,758.86	-1,065.27	1,453.00	1,286.92	166.07	8.749		
10,450.00	8,880.00	8,832.30	8,832.30	35.45	132.52	90.00	2,758.86	-1,065.27	1,403.37	1,237.27	166.10	8.449		
10,500.00	8,880.00	8,832.30	8,832.30	35.66	132.52	90.00	2,758.86	-1,065.27	1,353.77	1,187.65	166.12	8.149		
10,550.00	8,880.00	8,832.30	8,832.30	35.87	132.52	90.00	2,758.86	-1,065.27	1,304.20	1,138.05	166.15	7.850		
10,600.00	8,880.00	8,832.30	8,832.30	36.09	132.52	90.00	2,758.86	-1,065.27	1,254.66	1,088.49	166.17	7.550		
10,650.00	8,880.00	8,832.30	8,832.30	36.31	132.52	90.00	2,758.86	-1,065.27	1,205.16	1,038.96	166.20	7.251		
10,700.00	8,880.00	8,832.30	8,832.30	36.53	132.52	90.00	2,758.86	-1,065.27	1,155.71	989.47	166.24	6.952		
10,750.00	8,880.00	8,832.30	8,832.30	36.77	132.52	90.00	2,758.86	-1,065.27	1,106.30	940.03	166.27	6.654		
10,800.00	8,880.00	8,832.30	8,832.30	37.00	132.52	90.00	2,758.86	-1,065.27	1,056.95	890.64	166.31	6.355		
10,850.00	8,880.00	8,832.30	8,832.30	37.24	132.52	90.00	2,758.86	-1,065.27	1,007.67	841.31	166.36	6.057		
10,900.00	8,880.00	8,832.30	8,832.30	37.49	132.52	90.00	2,758.86	-1,065.27	958.45	792.04	166.41	5.760		
10,950.00	8,880.00	8,832.30	8,832.30	37.74	132.52	90.00	2,758.86	-1,065.27	909.33	742.86	166.47	5.463		
11,000.00	8,880.00	8,832.30	8,832.30	37.99	132.52	90.00	2,758.86	-1,065.27	860.30	693.77	166.53	5.166		
11,050.00	8,880.00	8,832.30	8,832.30	38.26	132.52	90.00	2,758.86	-1,065.27	811.39	644.79	166.60	4.870	Alert	
11,100.00	8,880.00	8,832.30	8,832.30	38.52	132.52	90.00	2,758.86	-1,065.27	762.63	595.94	166.69	4.575	Alert	
11,150.00	8,880.00	8,832.30	8,832.30	38.79	132.52	90.00	2,758.86	-1,065.27	714.04	547.25	166.79	4.281	Alert	
11,200.00	8,880.00	8,832.30	8,832.30	39.06	132.52	90.00	2,758.86	-1,065.27	665.65	498.75	166.90	3.988	Alert	
11,250.00	8,880.00	8,832.30	8,832.30	39.33	132.52	90.00	2,758.86	-1,065.27	617.52	450.48	167.05	3.697	Alert	
11,300.00	8,880.00	8,832.30	8,832.30	39.61	132.52	90.00	2,758.86	-1,065.27	569.71	402.50	167.22	3.407	Alert	
11,350.00	8,880.00	8,832.30	8,832.30	39.90	132.52	90.00	2,758.86	-1,065.27	522.32	354.89	167.43	3.120	Alert	
11,400.00	8,880.00	8,832.30	8,832.30	40.18	132.52	90.00	2,758.86	-1,065.27	475.46	307.76	167.70	2.835	Alert	
11,450.00	8,880.00	8,832.30	8,832.30	40.48	132.52	90.00	2,758.86	-1,065.27	429.31	261.27	168.04	2.555	Alert	
11,500.00	8,880.00	8,832.30	8,832.30	40.77	132.52	90.00	2,758.86	-1,065.27	384.12	215.64	168.48	2.280	Minor Risk	
11,550.00	8,880.00	8,832.30	8,832.30	41.07	132.52	90.00	2,758.86	-1,065.27	340.28	171.21	169.07	2.013	Minor Risk	
11,600.00	8,880.00	8,832.30	8,832.30	41.37	132.52	90.00	2,758.86	-1,065.27	298.38	128.52	169.86	1.757	Minor Risk	
11,650.00	8,880.00	8,832.30	8,832.30	41.68	132.52	90.00	2,758.86	-1,065.27	259.37	88.46	170.91	1.518	Minor Risk	
11,700.00	8,880.00	8,832.30	8,832.30	41.98	132.52	90.00	2,758.86	-1,065.27	224.76	52.51	172.25	1.305	Major Risk	
11,750.00	8,880.00	8,832.30	8,832.30	42.30	132.52	90.00	2,758.86	-1,065.27	196.87	23.10	173.77	1.133	Major Risk	
11,800.00	8,880.00	8,832.30	8,832.30	42.61	132.52	90.00	2,758.86	-1,065.27	178.89	3.88	175.01	1.022	Major Risk	
11,842.57	8,880.00	8,832.30	8,832.30	42.88	132.52	90.00	2,758.86	-1,065.27	173.75	-1.54	175.29	0.991	Collision, CC, ES, SF	
11,850.00	8,880.00	8,832.30	8,832.30	42.93	132.52	90.00	2,758.86	-1,065.27	173.91	-1.34	175.25	0.992	Collision	
11,900.00	8,880.00	8,832.30	8,832.30	43.25	132.52	90.00	2,758.86	-1,065.27	183.00	8.76	174.24	1.050	Major Risk	
11,950.00	8,880.00	8,832.30	8,832.30	43.58	132.52	90.00	2,758.86	-1,065.27	204.28	31.69	172.60	1.184	Major Risk	
12,000.00	8,880.00	8,832.30	8,832.30	43.90	132.52	90.00	2,758.86	-1,065.27	234.46	63.46	171.00	1.371	Major Risk	
12,050.00	8,880.00	8,832.30	8,832.30	44.24	132.52	90.00	2,758.86	-1,065.27	270.58	100.83	169.75	1.594	Minor Risk	
12,100.00	8,880.00	8,832.30	8,832.30	44.57	132.52	90.00	2,758.86	-1,065.27	310.58	141.74	168.84	1.839	Minor Risk	
12,150.00	8,880.00	8,832.30	8,832.30	44.90	132.52	90.00	2,758.86	-1,065.27	353.13	184.93	168.20	2.099	Minor Risk	
12,200.00	8,880.00	8,832.30	8,832.30	45.24	132.52	90.00	2,758.86	-1,065.27	397.42	229.68	167.74	2.369	Minor Risk	
12,250.00	8,880.00	8,832.30	8,832.30	45.58	132.52	90.00	2,758.86	-1,065.27	442.93	275.51	167.42	2.646	Alert	
12,300.00	8,880.00	8,832.30	8,832.30	45.93	132.52	90.00	2,758.86	-1,065.27	489.32	322.14	167.18	2.927	Alert	
12,350.00	8,880.00	8,832.30	8,832.30	46.27	132.52	90.00	2,758.86	-1,065.27	536.35	369.35	167.01	3.212	Alert	
12,400.00	8,880.00	8,832.30	8,832.30	46.62	132.52	90.00	2,758.86	-1,065.27	583.88	417.00	166.88	3.499	Alert	
12,450.00	8,880.00	8,832.30	8,832.30	46.97	132.52	90.00	2,758.86	-1,065.27	631.79	465.01	166.78	3.788	Alert	
12,500.00	8,880.00	8,832.30	8,832.30	47.33	132.52	90.00	2,758.86	-1,065.27	680.00	513.29	166.71	4.079	Alert	
12,550.00	8,880.00	8,832.30	8,832.30	47.68	132.52	90.00	2,758.86	-1,065.27	728.45	561.80	166.65	4.371	Alert	
12,600.00	8,880.00	8,832.30	8,832.30	48.04	132.52	90.00	2,758.86	-1,065.27	777.10	610.49	166.61	4.664	Alert	
12,650.00	8,880.00	8,832.30	8,832.30	48.40	132.52	90.00	2,758.86	-1,065.27	825.91	659.33	166.58	4.958	Alert	
12,700.00	8,880.00	8,832.30	8,832.30	48.76	132.52	90.00	2,758.86	-1,065.27	874.86	708.29	166.56	5.252		
12,750.00	8,880.00	8,832.30	8,832.30	49.13	132.52	90.00	2,758.86	-1,065.27	923.91	757.37	166.55	5.547		
12,800.00	8,880.00	8,832.30	8,832.30	49.49	132.52	90.00	2,758.86	-1,065.27	973.07	806.53	166.54	5.843		
12,850.00	8,880.00	8,832.30	8,832.30	49.86	132.52	90.00	2,758.86	-1,065.27	1,022.30	855.77	166.53	6.139		
12,900.00	8,880.00	8,832.30	8,832.30	50.23	132.52	90.00	2,758.86	-1,065.27	1,071.61	905.08	166.53	6.435		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 8500-INC-ONLY													Offset Well Error:	10.00 ft
Sec 11-T23S-R31E - Barclay 11 G Federal #007 (P&A) - Wellbore #1 - Wellbore #1														
Reference		Offset		Semi Major Axis		Distance								
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
12,950.00	8,880.00	8,832.30	8,832.30	50.61	132.52	90.00	2,758.86	-1,065.27	1,120.98	954.44	166.53	6.731		
13,000.00	8,880.00	8,832.30	8,832.30	50.98	132.52	90.00	2,758.86	-1,065.27	1,170.40	1,003.86	166.54	7.028		
13,050.00	8,880.00	8,832.30	8,832.30	51.36	132.52	90.00	2,758.86	-1,065.27	1,219.87	1,053.32	166.54	7.325		
13,100.00	8,880.00	8,832.30	8,832.30	51.74	132.52	90.00	2,758.86	-1,065.27	1,269.38	1,102.82	166.55	7.622		
13,150.00	8,880.00	8,832.30	8,832.30	52.12	132.52	90.00	2,758.86	-1,065.27	1,318.92	1,152.36	166.56	7.919		
13,200.00	8,880.00	8,832.30	8,832.30	52.50	132.52	90.00	2,758.86	-1,065.27	1,368.50	1,201.93	166.57	8.216		
13,250.00	8,880.00	8,832.30	8,832.30	52.88	132.52	90.00	2,758.86	-1,065.27	1,418.11	1,251.53	166.59	8.513		
13,300.00	8,880.00	8,832.30	8,832.30	53.27	132.52	90.00	2,758.86	-1,065.27	1,467.75	1,301.15	166.60	8.810		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.00 ft
Survey Program: 9204-INC-ONLY													Offset Well Error:		10.00 ft
Reference		Offset		Semi Major Axis		Distance							Warning		
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor				
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
11,500.00	8,880.00	8,893.30	8,893.30	40.77	133.45	90.00	2,559.34	255.70	1,499.53	1,325.32	174.21	8.608	8.538 CC, ES		
11,550.00	8,880.00	8,893.30	8,893.30	41.07	133.45	90.00	2,559.34	255.70	1,495.86	1,321.38	174.48	8.573			
11,600.00	8,880.00	8,893.30	8,893.30	41.37	133.45	90.00	2,559.34	255.70	1,493.86	1,319.11	174.75	8.549			
11,634.84	8,880.00	8,893.30	8,893.30	41.58	133.45	90.00	2,559.34	255.70	1,493.45	1,318.53	174.92	8.538 CC, ES			
11,650.00	8,880.00	8,893.30	8,893.30	41.68	133.45	90.00	2,559.34	255.70	1,493.53	1,318.53	175.00	8.535			
11,700.00	8,880.00	8,893.30	8,893.30	41.98	133.45	90.00	2,559.34	255.70	1,494.87	1,319.64	175.23	8.531 SF	8.537		
11,750.00	8,880.00	8,893.30	8,893.30	42.30	133.45	90.00	2,559.34	255.70	1,497.89	1,322.44	175.45	8.537			

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 230-INC-ONLY													Offset Well Error:	10.00 ft
Sec 11-T23S-R31E - Barclay 11 K Federal #011 (Active) - Wellbore #1 - Wellbore #1														
Reference		Offset		Semi Major Axis			Distance							
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning	
9,550.00	8,880.00	8,580.00	8,578.01	33.50	187.72	-78.39	1,393.05	-2,375.33	1,496.65	1,277.63	219.02	6.833		
9,600.00	8,880.00	8,580.00	8,578.01	33.49	187.72	-78.39	1,393.05	-2,375.33	1,465.94	1,246.98	218.96	6.695		
9,650.00	8,880.00	8,580.00	8,578.01	33.49	187.72	-78.39	1,393.05	-2,375.33	1,436.31	1,217.41	218.90	6.562		
9,700.00	8,880.00	8,580.00	8,578.01	33.48	187.72	-78.39	1,393.05	-2,375.33	1,407.83	1,188.98	218.85	6.433		
9,750.00	8,880.00	8,580.00	8,578.01	33.48	187.72	-78.39	1,393.05	-2,375.33	1,380.58	1,161.77	218.81	6.309		
9,800.00	8,880.00	8,580.00	8,578.01	33.49	187.72	-78.39	1,393.05	-2,375.33	1,354.62	1,135.84	218.78	6.192		
9,850.00	8,880.00	8,580.00	8,578.01	33.52	187.72	-78.39	1,393.05	-2,375.33	1,330.04	1,111.27	218.77	6.080		
9,900.00	8,880.00	8,580.00	8,578.01	33.59	187.72	-78.39	1,393.05	-2,375.33	1,306.91	1,088.13	218.78	5.974		
9,950.00	8,880.00	8,580.00	8,578.01	33.72	187.72	-78.39	1,393.05	-2,375.33	1,285.31	1,066.52	218.79	5.875		
10,000.00	8,880.00	8,580.00	8,578.01	33.85	187.72	-78.39	1,393.05	-2,375.33	1,265.32	1,046.48	218.84	5.782		
10,050.00	8,880.00	8,580.00	8,578.01	34.01	187.72	-78.39	1,393.05	-2,375.33	1,247.01	1,028.10	218.91	5.697		
10,100.00	8,880.00	8,580.00	8,578.01	34.16	187.72	-78.39	1,393.05	-2,375.33	1,230.47	1,011.48	218.98	5.619		
10,150.00	8,880.00	8,580.00	8,578.01	34.33	187.72	-78.39	1,393.05	-2,375.33	1,215.75	996.66	219.09	5.549		
10,200.00	8,880.00	8,580.00	8,578.01	34.50	187.72	-78.39	1,393.05	-2,375.33	1,202.94	983.72	219.22	5.487		
10,250.00	8,880.00	8,580.00	8,578.01	34.68	187.72	-78.39	1,393.05	-2,375.33	1,192.09	972.72	219.37	5.434		
10,300.00	8,880.00	8,580.00	8,578.01	34.86	187.72	-78.39	1,393.05	-2,375.33	1,183.25	963.71	219.54	5.390		
10,350.00	8,880.00	8,580.00	8,578.01	35.06	187.72	-78.39	1,393.05	-2,375.33	1,176.47	956.74	219.73	5.354		
10,400.00	8,880.00	8,580.00	8,578.01	35.25	187.72	-78.39	1,393.05	-2,375.33	1,171.79	951.84	219.95	5.328		
10,450.00	8,880.00	8,580.00	8,578.01	35.45	187.72	-78.39	1,393.05	-2,375.33	1,169.23	949.05	220.18	5.310		
10,484.93	8,880.00	8,580.00	8,578.01	35.60	187.72	-78.39	1,393.05	-2,375.33	1,168.71	948.36	220.35	5.304 CC, ES		
10,500.00	8,880.00	8,580.00	8,578.01	35.66	187.72	-78.39	1,393.05	-2,375.33	1,168.80	948.38	220.43	5.303 SF		
10,550.00	8,880.00	8,580.00	8,578.01	35.87	187.72	-78.39	1,393.05	-2,375.33	1,170.52	949.83	220.69	5.304		
10,600.00	8,880.00	8,580.00	8,578.01	36.09	187.72	-78.39	1,393.05	-2,375.33	1,174.36	953.40	220.96	5.315		
10,650.00	8,880.00	8,580.00	8,578.01	36.31	187.72	-78.39	1,393.05	-2,375.33	1,180.31	959.07	221.24	5.335		
10,700.00	8,880.00	8,580.00	8,578.01	36.53	187.72	-78.39	1,393.05	-2,375.33	1,188.33	966.81	221.52	5.364		
10,750.00	8,880.00	8,580.00	8,578.01	36.77	187.72	-78.39	1,393.05	-2,375.33	1,198.39	976.59	221.80	5.403		
10,800.00	8,880.00	8,580.00	8,578.01	37.00	187.72	-78.39	1,393.05	-2,375.33	1,210.43	988.35	222.08	5.450		
10,850.00	8,880.00	8,580.00	8,578.01	37.24	187.72	-78.39	1,393.05	-2,375.33	1,224.40	1,002.03	222.37	5.506		
10,900.00	8,880.00	8,580.00	8,578.01	37.49	187.72	-78.39	1,393.05	-2,375.33	1,240.23	1,017.59	222.64	5.571		
10,950.00	8,880.00	8,580.00	8,578.01	37.74	187.72	-78.39	1,393.05	-2,375.33	1,257.84	1,034.94	222.90	5.643		
11,000.00	8,880.00	8,580.00	8,578.01	37.99	187.72	-78.39	1,393.05	-2,375.33	1,277.18	1,054.02	223.16	5.723		
11,050.00	8,880.00	8,580.00	8,578.01	38.26	187.72	-78.39	1,393.05	-2,375.33	1,298.15	1,074.75	223.40	5.811		
11,100.00	8,880.00	8,580.00	8,578.01	38.52	187.72	-78.39	1,393.05	-2,375.33	1,320.68	1,097.05	223.63	5.906		
11,150.00	8,880.00	8,580.00	8,578.01	38.79	187.72	-78.39	1,393.05	-2,375.33	1,344.69	1,120.84	223.85	6.007		
11,200.00	8,880.00	8,580.00	8,578.01	39.06	187.72	-78.39	1,393.05	-2,375.33	1,370.11	1,146.05	224.06	6.115		
11,250.00	8,880.00	8,580.00	8,578.01	39.33	187.72	-78.39	1,393.05	-2,375.33	1,396.86	1,172.61	224.25	6.229		
11,300.00	8,880.00	8,580.00	8,578.01	39.61	187.72	-78.39	1,393.05	-2,375.33	1,424.86	1,200.43	224.43	6.349		
11,350.00	8,880.00	8,580.00	8,578.01	39.90	187.72	-78.39	1,393.05	-2,375.33	1,454.04	1,229.44	224.60	6.474		
11,400.00	8,880.00	8,580.00	8,578.01	40.18	187.72	-78.39	1,393.05	-2,375.33	1,484.33	1,259.57	224.76	6.604		

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
Survey Program: 141-INC-ONLY														Offset Well Error:	10.00 ft
Reference		Offset		Semi Major Axis		Highside Tooface (")	Distance		Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)							
6,400.00	6,284.70	6,238.50	6,238.99	24.17	139.60	28.09	122.19	-2,368.42	1,493.13	1,330.33	162.80	9.171			
6,450.00	6,333.01	6,366.16	6,284.31	24.39	142.01	28.31	121.87	-2,368.42	1,481.60	1,316.19	165.41	8.957			
6,500.00	6,381.32	6,335.74	6,334.23	24.60	141.37	28.55	121.83	-2,368.42	1,470.16	1,305.18	164.98	8.911			
6,550.00	6,429.62	6,382.45	6,380.92	24.81	142.34	28.78	121.87	-2,368.42	1,458.76	1,292.61	166.15	8.780			
6,600.00	6,477.93	6,430.76	6,429.23	25.03	143.32	29.03	121.87	-2,368.42	1,447.38	1,280.05	167.33	8.650			
6,650.00	6,526.24	6,479.07	6,477.54	25.24	144.29	29.27	121.87	-2,368.42	1,436.02	1,267.51	168.51	8.522			
6,700.00	6,574.54	6,527.37	6,525.84	25.45	145.27	29.53	121.87	-2,368.42	1,424.68	1,255.00	169.69	8.396			
6,750.00	6,622.85	6,576.05	6,574.52	25.67	146.25	29.81	122.57	-2,368.42	1,413.56	1,242.69	170.87	8.273			
6,800.00	6,671.16	6,624.91	6,623.38	25.88	147.24	30.07	122.48	-2,368.42	1,402.26	1,230.20	172.07	8.150			
6,850.00	6,719.46	6,673.79	6,672.25	26.09	148.23	30.33	122.32	-2,368.42	1,390.97	1,217.72	173.26	8.028			
6,900.00	6,767.77	6,721.93	6,719.07	26.31	150.81	30.57	121.87	-2,368.42	1,379.63	1,203.59	176.04	7.837			
6,950.00	6,816.08	6,771.57	6,770.02	26.52	150.21	30.86	121.79	-2,368.42	1,368.42	1,192.78	175.64	7.791			
7,000.00	6,864.38	6,817.26	6,815.68	26.74	151.19	31.12	121.87	-2,368.42	1,357.28	1,180.45	176.83	7.675			
7,050.00	6,912.69	6,865.57	6,863.99	26.95	152.21	31.40	121.87	-2,368.42	1,346.15	1,168.09	178.06	7.560			
7,100.00	6,961.00	6,913.88	6,912.30	27.16	153.23	31.69	121.87	-2,368.42	1,335.05	1,155.76	179.29	7.446			
7,150.00	7,009.35	6,962.23	6,960.65	27.38	154.26	31.91	121.87	-2,368.42	1,324.16	1,143.63	180.53	7.335			
7,200.00	7,057.87	7,011.22	7,009.63	27.59	155.30	32.14	122.82	-2,368.42	1,314.11	1,132.34	181.77	7.230			
7,250.00	7,106.54	7,060.68	7,059.09	27.79	156.35	32.33	122.71	-2,368.42	1,304.32	1,121.30	183.02	7.127			
7,300.00	7,155.36	7,110.30	7,108.71	28.00	157.40	32.50	122.51	-2,368.42	1,295.06	1,110.79	184.27	7.028			
7,350.00	7,204.31	7,160.08	7,158.48	28.20	158.45	32.66	122.21	-2,368.42	1,286.34	1,100.82	185.52	6.934			
7,400.00	7,253.39	7,209.99	7,208.39	28.40	159.51	32.81	121.81	-2,368.42	1,278.16	1,091.38	186.78	6.843			
7,450.00	7,302.60	7,255.55	7,253.90	28.60	160.53	32.95	121.87	-2,368.42	1,270.67	1,082.67	188.00	6.759			
7,500.00	7,351.91	7,304.86	7,303.21	28.79	161.62	33.10	121.87	-2,368.42	1,263.73	1,074.45	189.29	6.676			
7,550.00	7,401.33	7,354.28	7,352.63	28.98	162.71	33.23	121.87	-2,368.42	1,257.35	1,066.78	190.57	6.598			
7,600.00	7,450.85	7,403.79	7,402.15	29.17	163.81	33.36	121.87	-2,368.42	1,251.53	1,059.66	191.86	6.523			
7,650.00	7,500.45	7,453.96	7,452.30	29.36	164.92	33.51	122.80	-2,368.42	1,246.56	1,053.40	193.16	6.453			
7,700.00	7,550.13	7,504.50	7,502.84	29.54	166.04	33.61	122.68	-2,368.42	1,241.80	1,047.34	194.47	6.386			
7,750.00	7,599.88	7,553.11	7,551.45	29.72	167.16	33.70	122.46	-2,368.42	1,237.56	1,041.79	195.77	6.322			
7,800.00	7,649.69	7,603.28	7,601.62	29.90	168.31	33.75	121.87	-2,368.42	1,233.74	1,035.03	197.11	6.209			
7,850.00	7,699.55	7,653.53	7,651.86	30.07	169.41	33.82	121.70	-2,368.42	1,230.61	1,032.24	198.37	6.204			
7,900.00	7,749.46	7,702.49	7,700.76	30.25	170.67	33.88	121.87	-2,368.42	1,228.14	1,028.31	199.82	6.146			
7,950.00	7,799.40	7,752.43	7,750.70	30.42	171.97	33.92	121.87	-2,368.42	1,226.15	1,024.86	201.29	6.091			
8,000.00	7,849.37	7,802.40	7,800.67	30.58	173.27	33.96	121.87	-2,368.42	1,224.71	1,021.95	202.76	6.040			
8,050.00	7,899.36	7,852.39	7,850.66	30.75	174.56	33.98	121.87	-2,368.42	1,223.81	1,019.59	204.23	5.992			
8,072.86	7,922.21	7,875.24	7,873.51	30.82	175.16	33.98	121.87	-2,368.42	1,223.58	1,018.69	204.90	5.972			
8,100.00	7,949.35	7,902.93	7,901.18	30.91	175.88	34.04	123.15	-2,368.42	1,223.90	1,018.19	205.71	5.950			
8,150.00	7,999.35	7,953.93	7,952.18	31.07	177.20	-69.78	123.03	-2,368.42	1,223.85	1,016.66	207.19	5.907			
8,200.00	8,049.35	8,004.94	8,003.18	31.23	178.52	-69.79	122.78	-2,368.42	1,223.77	1,015.10	208.67	5.865			
8,250.00	8,099.35	8,055.95	8,054.19	31.39	179.85	-69.81	122.42	-2,368.42	1,223.65	1,013.50	210.15	5.823			
8,300.00	8,149.35	8,123.42	8,100.65	31.54	181.61	-69.83	121.87	-2,368.42	1,223.45	1,011.37	212.08	5.769			
8,350.00	8,199.35	8,157.98	8,156.20	31.70	182.50	-69.85	121.33	-2,368.42	1,223.28	1,010.17	213.11	5.740			
8,357.85	8,207.20	8,165.98	8,164.20	31.73	182.71	-69.86	121.23	-2,368.42	1,223.24	1,009.90	213.35	5.734			
8,400.00	8,249.35	8,202.58	8,200.65	31.86	183.75	-69.83	121.87	-2,368.42	1,223.45	1,008.91	214.54	5.703			
8,450.00	8,299.35	8,252.58	8,250.65	32.02	185.10	-69.83	121.87	-2,368.42	1,223.45	1,007.40	216.05	5.663			
8,500.00	8,349.31	8,302.54	8,300.61	32.18	186.45	-69.59	121.87	-2,368.42	1,222.91	1,005.35	217.56	5.621			
8,550.00	8,398.95	8,354.12	8,352.15	32.34	187.84	-69.99	123.42	-2,368.42	1,221.40	1,002.30	219.10	5.575			
8,600.00	8,447.89	8,404.94	8,402.96	32.49	189.21	-70.80	123.07	-2,368.42	1,217.80	997.19	220.61	5.520			
8,650.00	8,495.76	8,454.50	8,452.51	32.64	190.55	-71.94	122.50	-2,368.42	1,212.83	990.75	222.08	5.461			
8,700.00	8,542.19	8,502.36	8,500.35	32.78	191.84	-73.37	121.74	-2,368.42	1,206.66	983.17	223.49	5.399			
8,750.00	8,586.84	8,540.24	8,538.14	32.91	192.77	-74.83	121.87	-2,368.42	1,199.82	975.25	224.56	5.343			
8,800.00	8,629.35	8,582.76	8,580.65	33.04	193.84	-76.62	121.87	-2,368.42	1,192.28	966.55	225.73	5.282			
8,850.00	8,669.41	8,595.00	8,592.86	33.15	194.15	-77.70	121.87	-2,368.42	1,184.69	958.54	226.15	5.239			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design												Offset Site Error:	0.00 ft
Survey Program: 141-INC-ONLY												Offset Well Error:	10.00 ft
Sec 11-T23S-R31E - Barclay 11 N Federal #014 - Wellbore #1 - Wellbore #1													
Reference		Offset		Semi Major Axis			Distance						
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor	Warning
8,900.00	8,706.71	8,595.00	8,592.86	33.24	194.15	-78.34	121.87	-2,368.42	1,178.18	952.11	226.07	5.211	
8,950.00	8,740.97	8,595.00	8,592.86	33.33	194.15	-78.86	121.87	-2,368.42	1,172.89	947.08	225.81	5.194	
9,000.00	8,771.93	8,595.00	8,592.86	33.40	194.15	-79.26	121.87	-2,368.42	1,168.87	943.45	225.41	5.185	
9,050.00	8,799.35	8,595.00	8,592.86	33.45	194.15	-79.52	121.87	-2,368.42	1,166.16	941.23	224.93	5.184 SF	
9,100.00	8,823.02	8,595.00	8,592.86	33.50	194.15	-79.66	121.87	-2,368.42	1,164.81	940.38	224.43	5.190 ES	
9,124.85	8,833.34	8,595.00	8,592.86	33.51	194.15	-79.67	121.87	-2,368.42	1,164.64	940.45	224.18	5.195 CC	
9,150.00	8,842.77	8,595.00	8,592.86	33.53	194.15	-79.66	121.87	-2,368.42	1,164.81	940.86	223.95	5.201	
9,200.00	8,858.44	8,595.00	8,592.86	33.55	194.15	-79.52	121.87	-2,368.42	1,166.18	942.63	223.55	5.217	
9,250.00	8,869.91	8,595.00	8,592.86	33.55	194.15	-79.25	121.87	-2,368.42	1,168.89	945.64	223.25	5.236	
9,300.00	8,877.10	8,595.00	8,592.86	33.55	194.15	-78.86	121.87	-2,368.42	1,172.91	949.82	223.10	5.257	
9,350.00	8,879.95	8,595.00	8,592.86	33.54	194.15	-78.34	121.87	-2,368.42	1,178.21	955.12	223.09	5.281	
9,400.00	8,880.00	8,595.00	8,592.86	33.53	194.15	-78.24	121.87	-2,368.42	1,185.05	961.85	223.20	5.309	
9,450.00	8,880.00	8,595.00	8,592.86	33.52	194.15	-78.24	121.87	-2,368.42	1,193.93	970.59	223.34	5.346	
9,500.00	8,880.00	8,595.00	8,592.86	33.51	194.15	-78.24	121.87	-2,368.42	1,204.82	981.32	223.50	5.391	
9,550.00	8,880.00	8,595.00	8,592.86	33.50	194.15	-78.24	121.87	-2,368.42	1,217.67	993.99	223.68	5.444	
9,600.00	8,880.00	8,595.00	8,592.86	33.49	194.15	-78.24	121.87	-2,368.42	1,232.41	1,008.54	223.87	5.505	
9,650.00	8,880.00	8,595.00	8,592.86	33.49	194.15	-78.24	121.87	-2,368.42	1,248.99	1,024.91	224.08	5.574	
9,700.00	8,880.00	8,595.00	8,592.86	33.48	194.15	-78.24	121.87	-2,368.42	1,267.32	1,043.02	224.30	5.650	
9,750.00	8,880.00	8,595.00	8,592.86	33.48	194.15	-78.24	121.87	-2,368.42	1,287.33	1,062.81	224.53	5.734	
9,800.00	8,880.00	8,595.00	8,592.86	33.49	194.15	-78.24	121.87	-2,368.42	1,308.95	1,084.20	224.76	5.824	
9,850.00	8,880.00	8,595.00	8,592.86	33.52	194.15	-78.24	121.87	-2,368.42	1,332.10	1,107.10	224.99	5.921	
9,900.00	8,880.00	8,595.00	8,592.86	33.59	194.15	-78.24	121.87	-2,368.42	1,356.69	1,131.47	225.22	6.024	
9,950.00	8,880.00	8,595.00	8,592.86	33.72	194.15	-78.24	121.87	-2,368.42	1,382.65	1,157.18	225.47	6.132	
10,000.00	8,880.00	8,595.00	8,592.86	33.85	194.15	-78.24	121.87	-2,368.42	1,409.91	1,184.23	225.69	6.247	
10,050.00	8,880.00	8,595.00	8,592.86	34.01	194.15	-78.24	121.87	-2,368.42	1,438.40	1,212.49	225.91	6.367	
10,100.00	8,880.00	8,595.00	8,592.86	34.16	194.15	-78.24	121.87	-2,368.42	1,468.03	1,241.90	226.13	6.492	
10,150.00	8,880.00	8,595.00	8,592.86	34.33	194.15	-78.24	121.87	-2,368.42	1,498.75	1,272.40	226.34	6.622	

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1														Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis		Highside Toolface (°)	Offset Wellbore Centre		Distance		Minimum Separation (ft)	Separation Factor	Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)		+N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)					
6,450.00	6,333.01	6,858.27	6,888.53	24.39	27.19	12.60	-292.03	-2,347.51	1,478.88	1,431.88	47.00	31.463			
6,500.00	6,381.32	6,901.18	6,727.72	24.60	27.38	12.65	-292.82	-2,335.49	1,453.25	1,405.89	47.35	30.690			
6,550.00	6,429.62	6,944.10	6,768.91	24.81	27.57	12.71	-293.61	-2,323.47	1,427.61	1,379.91	47.70	29.927			
6,600.00	6,477.93	6,987.01	6,810.09	25.03	27.77	12.77	-294.40	-2,311.46	1,401.98	1,353.93	48.05	29.175			
6,650.00	6,526.24	7,029.92	6,851.28	25.24	27.96	12.83	-295.19	-2,299.44	1,376.35	1,327.95	48.40	28.435			
6,700.00	6,574.54	7,072.83	6,892.47	25.45	28.15	12.89	-295.98	-2,287.42	1,350.73	1,301.97	48.75	27.704			
6,750.00	6,622.85	7,115.75	6,933.66	25.67	28.34	12.96	-296.77	-2,275.40	1,325.10	1,275.99	49.11	26.985			
6,800.00	6,671.16	7,158.66	6,974.85	25.88	28.53	13.03	-297.56	-2,263.39	1,299.47	1,250.02	49.46	26.275			
6,850.00	6,719.46	7,198.70	7,013.28	26.09	28.71	13.09	-298.30	-2,252.18	1,273.86	1,224.04	49.82	25.569			
6,900.00	6,767.77	7,231.13	7,044.46	26.31	28.88	13.15	-298.89	-2,243.30	1,248.52	1,198.30	50.21	24.864			
6,950.00	6,816.08	7,263.87	7,076.02	26.52	29.00	13.21	-299.46	-2,234.61	1,223.54	1,172.93	50.61	24.176			
7,000.00	6,864.38	7,300.00	7,110.94	26.74	29.16	13.28	-300.07	-2,225.32	1,198.94	1,147.95	50.99	23.512			
7,050.00	6,912.69	7,330.32	7,140.30	26.95	29.29	13.34	-300.56	-2,217.79	1,174.72	1,123.32	51.40	22.855			
7,100.00	6,961.00	7,364.02	7,173.01	27.16	29.43	13.41	-301.10	-2,209.69	1,150.88	1,099.09	51.79	22.221			
7,150.00	7,009.35	7,400.00	7,208.00	27.38	29.58	13.42	-301.65	-2,201.35	1,127.61	1,075.43	52.18	21.610			
7,200.00	7,057.87	7,432.75	7,239.93	27.59	29.72	13.40	-302.13	-2,194.06	1,105.29	1,052.71	52.58	21.021			
7,250.00	7,106.54	7,467.91	7,274.26	27.79	29.86	13.39	-302.62	-2,186.53	1,083.96	1,030.99	52.97	20.463			
7,300.00	7,155.36	7,503.57	7,309.17	28.00	30.01	13.38	-303.10	-2,179.21	1,063.63	1,010.26	53.37	19.931			
7,350.00	7,204.31	7,539.73	7,344.62	28.20	30.15	13.38	-303.57	-2,172.12	1,044.31	990.55	53.76	19.427			
7,400.00	7,253.39	7,576.36	7,380.60	28.40	30.30	13.37	-304.02	-2,165.29	1,026.03	971.88	54.15	18.949			
7,450.00	7,302.60	7,613.43	7,417.09	28.60	30.44	13.37	-304.45	-2,158.72	1,008.79	954.25	54.53	18.499			
7,500.00	7,351.91	7,650.94	7,454.06	28.79	30.59	13.37	-304.86	-2,152.44	992.61	937.69	54.92	18.074			
7,550.00	7,401.33	7,688.84	7,491.49	28.98	30.73	13.36	-305.26	-2,146.45	977.50	922.20	55.30	17.676			
7,600.00	7,450.85	7,727.13	7,529.35	29.17	30.87	13.36	-305.63	-2,140.79	963.48	907.81	55.68	17.305			
7,650.00	7,500.45	7,765.77	7,567.62	29.36	31.02	13.36	-305.98	-2,135.45	950.56	894.51	56.05	16.959			
7,700.00	7,550.13	7,804.74	7,606.27	29.54	31.16	13.36	-306.31	-2,130.46	938.75	882.33	56.42	16.638			
7,750.00	7,599.88	7,844.01	7,645.26	29.72	31.30	13.35	-306.61	-2,125.83	928.05	871.27	56.79	16.343			
7,800.00	7,649.69	7,883.55	7,684.57	29.90	31.44	13.35	-306.89	-2,121.58	918.48	861.34	57.15	16.073			
7,850.00	7,699.55	7,923.34	7,724.17	30.07	31.58	13.34	-307.15	-2,117.70	910.05	852.56	57.50	15.828			
7,900.00	7,749.46	7,963.34	7,764.02	30.25	31.72	13.34	-307.38	-2,114.22	902.76	844.92	57.84	15.607			
7,950.00	7,799.40	8,003.52	7,804.08	30.42	31.86	13.33	-307.58	-2,111.15	896.63	838.44	58.18	15.410			
8,000.00	7,849.37	8,043.86	7,844.33	30.58	31.99	13.32	-307.75	-2,108.48	891.64	833.12	58.52	15.237			
8,050.00	7,899.36	8,084.31	7,884.72	30.75	32.13	13.31	-307.90	-2,106.24	887.82	828.98	58.84	15.089			
8,100.00	7,949.35	8,124.86	7,925.23	30.91	32.26	13.30	-308.02	-2,104.42	885.16	826.00	59.16	14.963			
8,150.00	7,999.35	8,165.46	7,965.80	31.07	32.39	-90.53	-308.11	-2,103.02	883.43	823.97	59.46	14.857			
8,200.00	8,049.35	8,206.08	8,006.41	31.23	32.52	-90.53	-308.18	-2,102.06	882.25	822.49	59.76	14.763			
8,250.00	8,099.35	8,246.72	8,047.05	31.39	32.65	-90.53	-308.21	-2,101.52	881.59	821.54	60.05	14.681			
8,300.00	8,149.35	8,289.83	8,090.15	31.54	32.78	-90.53	-308.22	-2,101.41	881.45	821.10	60.34	14.607			
8,350.00	8,199.35	8,339.83	8,140.15	31.70	32.94	-90.53	-308.22	-2,101.41	881.45	820.78	60.66	14.530			
8,400.00	8,249.35	8,389.83	8,190.15	31.86	33.09	-90.53	-308.22	-2,101.41	881.45	820.46	60.99	14.453			
8,450.00	8,299.35	8,439.83	8,240.15	32.02	33.24	-90.53	-308.22	-2,101.41	881.45	820.14	61.31	14.377 CC			
8,500.00	8,349.31	8,489.79	8,290.11	32.18	33.40	-90.28	-308.22	-2,101.41	881.45	819.82	61.63	14.303			
8,550.00	8,398.95	8,539.43	8,339.75	32.34	33.55	-90.65	-308.22	-2,101.41	881.50	819.55	61.94	14.230			
8,600.00	8,447.89	8,588.37	8,388.69	32.49	33.70	-91.28	-308.22	-2,101.41	881.68	819.42	62.26	14.162			
8,650.00	8,495.76	8,636.84	8,437.17	32.64	33.85	-92.14	-308.13	-2,101.41	882.12	819.56	62.56	14.100			
8,700.00	8,542.19	8,688.14	8,488.35	32.78	34.01	-93.10	-304.93	-2,101.43	882.87	820.00	62.88	14.041			
8,750.00	8,586.84	8,741.04	8,540.61	32.91	34.17	-94.05	-296.85	-2,101.48	883.88	820.70	63.19	13.988			
8,800.00	8,629.35	8,795.67	8,593.56	33.04	34.34	-95.00	-283.49	-2,101.57	885.14	821.64	63.49	13.941			
8,850.00	8,669.41	8,852.14	8,646.70	33.15	34.50	-95.92	-264.44	-2,101.69	886.59	822.81	63.78	13.900			
8,900.00	8,706.71	8,910.57	8,699.43	33.24	34.66	-96.81	-239.33	-2,101.85	888.22	824.17	64.05	13.868			
8,950.00	8,740.97	8,971.02	8,750.99	33.33	34.81	-97.66	-207.85	-2,102.05	889.95	825.66	64.29	13.844			
9,000.00	8,771.93	9,033.53	8,800.53	33.40	34.95	-98.46	-169.76	-2,102.30	891.73	827.24	64.49	13.828			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (")	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
9,050.00	8,799.35	9,098.10	8,847.02	33.45	35.07	-99.19	-125.01	-2,102.59	893.48	828.82	64.66	13.819		
9,100.00	8,823.02	9,164.85	8,889.36	33.50	35.18	-99.85	-73.71	-2,102.92	895.14	830.35	64.79	13.816		
9,150.00	8,842.77	9,233.04	8,926.37	33.53	35.26	-100.42	-16.25	-2,103.29	896.62	831.72	64.91	13.814		
9,200.00	8,858.44	9,303.04	8,956.89	33.55	35.33	-100.88	46.69	-2,103.69	897.87	832.86	65.01	13.811		
9,250.00	8,869.91	9,374.34	8,979.86	33.55	35.36	-101.22	114.14	-2,104.13	898.81	833.69	65.12	13.802		
9,300.00	8,877.10	9,446.55	8,994.40	33.55	35.38	-101.42	184.82	-2,104.58	899.40	834.15	65.25	13.784		
9,350.00	8,879.95	9,519.23	8,999.95	33.54	35.38	-101.49	257.24	-2,105.05	899.60	834.19	65.41	13.754		
9,400.00	8,880.00	9,571.57	9,000.00	33.53	35.37	-101.49	309.58	-2,105.39	899.61	834.06	65.55	13.725		
9,450.00	8,880.00	9,621.57	9,000.00	33.52	35.36	-101.49	359.58	-2,105.71	899.62	833.92	65.70	13.692		
9,500.00	8,880.00	9,671.57	9,000.00	33.51	35.36	-101.49	409.58	-2,106.03	899.63	833.76	65.86	13.659		
9,550.00	8,880.00	9,721.57	9,000.00	33.50	35.35	-101.49	459.58	-2,106.35	899.64	833.59	66.05	13.621		
9,600.00	8,880.00	9,771.57	9,000.00	33.49	35.35	-101.49	509.58	-2,106.67	899.65	833.42	66.23	13.583		
9,650.00	8,880.00	9,821.57	9,000.00	33.49	35.35	-101.49	559.58	-2,107.00	899.66	833.22	66.44	13.540		
9,700.00	8,880.00	9,871.57	9,000.00	33.48	35.34	-101.49	609.57	-2,107.32	899.67	833.01	66.66	13.496		
9,750.00	8,880.00	9,921.57	9,000.00	33.48	35.34	-101.49	659.57	-2,107.64	899.68	832.79	66.90	13.449		
9,800.00	8,880.00	9,971.57	9,000.00	33.49	35.34	-101.49	709.57	-2,107.96	899.69	832.56	67.14	13.401		
9,850.00	8,880.00	10,021.57	9,000.00	33.52	35.34	-101.49	759.57	-2,108.28	899.70	832.31	67.40	13.349		
9,900.00	8,880.00	10,071.57	9,000.00	33.59	35.34	-101.49	809.57	-2,108.61	899.72	832.05	67.67	13.296		
9,950.00	8,880.00	10,121.57	9,000.00	33.72	35.34	-101.49	859.57	-2,108.93	899.73	831.77	67.95	13.240		
10,000.00	8,880.00	10,171.57	9,000.00	33.85	35.35	-101.49	909.57	-2,109.25	899.74	831.49	68.25	13.183		
10,050.00	8,880.00	10,221.57	9,000.00	34.01	35.38	-101.49	959.57	-2,109.57	899.75	831.19	68.56	13.124		
10,100.00	8,880.00	10,271.57	9,000.00	34.16	35.47	-101.49	1,009.57	-2,109.89	899.76	830.88	68.88	13.063		
10,150.00	8,880.00	10,321.57	9,000.00	34.33	35.62	-101.49	1,059.57	-2,110.22	899.77	830.56	69.21	13.000		
10,200.00	8,880.00	10,371.57	9,000.00	34.50	35.80	-101.49	1,109.56	-2,110.54	899.78	830.23	69.56	12.936		
10,250.00	8,880.00	10,421.57	9,000.00	34.68	35.98	-101.49	1,159.56	-2,110.86	899.79	829.88	69.91	12.870		
10,300.00	8,880.00	10,471.57	9,000.00	34.86	36.16	-101.49	1,209.56	-2,111.18	899.80	829.52	70.28	12.803		
10,350.00	8,880.00	10,521.57	9,000.00	35.06	36.36	-101.49	1,259.56	-2,111.50	899.81	829.15	70.66	12.734		
10,400.00	8,880.00	10,571.57	9,000.00	35.25	36.56	-101.49	1,309.56	-2,111.83	899.82	828.77	71.05	12.665		
10,450.00	8,880.00	10,621.57	9,000.00	35.45	36.76	-101.49	1,359.56	-2,112.15	899.83	828.38	71.45	12.593		
10,500.00	8,880.00	10,671.57	9,000.00	35.66	36.97	-101.49	1,409.56	-2,112.47	899.85	827.98	71.86	12.522		
10,550.00	8,880.00	10,721.57	9,000.00	35.87	37.19	-101.49	1,459.56	-2,112.79	899.86	827.57	72.29	12.448		
10,600.00	8,880.00	10,771.57	9,000.00	36.09	37.41	-101.49	1,509.56	-2,113.11	899.87	827.15	72.72	12.374		
10,650.00	8,880.00	10,821.57	9,000.00	36.31	37.63	-101.49	1,559.55	-2,113.44	899.88	826.71	73.17	12.299		
10,700.00	8,880.00	10,871.57	9,000.00	36.53	37.86	-101.49	1,609.55	-2,113.76	899.89	826.27	73.62	12.224		
10,750.00	8,880.00	10,921.57	9,000.00	36.77	38.10	-101.49	1,659.55	-2,114.08	899.90	825.82	74.08	12.147		
10,800.00	8,880.00	10,971.57	9,000.00	37.00	38.34	-101.49	1,709.55	-2,114.40	899.91	825.36	74.55	12.071		
10,850.00	8,880.00	11,021.57	9,000.00	37.24	38.58	-101.49	1,759.55	-2,114.72	899.92	824.88	75.04	11.993		
10,900.00	8,880.00	11,071.57	9,000.00	37.49	38.83	-101.49	1,809.55	-2,115.05	899.93	824.40	75.53	11.915		
10,950.00	8,880.00	11,121.57	9,000.00	37.74	39.08	-101.49	1,859.55	-2,115.37	899.94	823.91	76.03	11.837		
11,000.00	8,880.00	11,171.57	9,000.00	37.99	39.34	-101.49	1,909.55	-2,115.69	899.95	823.42	76.54	11.758		
11,050.00	8,880.00	11,221.57	9,000.00	38.26	39.60	-101.49	1,959.55	-2,116.01	899.97	822.91	77.06	11.679		
11,100.00	8,880.00	11,271.57	9,000.00	38.52	39.87	-101.49	2,009.55	-2,116.33	899.98	822.39	77.59	11.600		
11,150.00	8,880.00	11,321.57	9,000.00	38.79	40.13	-101.49	2,059.54	-2,116.66	899.99	821.86	78.12	11.520		
11,200.00	8,880.00	11,371.57	9,000.00	39.06	40.41	-101.49	2,109.54	-2,116.98	900.00	821.33	78.66	11.441		
11,250.00	8,880.00	11,421.57	9,000.00	39.33	40.69	-101.48	2,159.54	-2,117.30	900.01	820.79	79.22	11.361		
11,300.00	8,880.00	11,471.57	9,000.00	39.61	40.97	-101.48	2,209.54	-2,117.62	900.02	820.24	79.78	11.282		
11,350.00	8,880.00	11,521.57	9,000.00	39.90	41.25	-101.48	2,259.54	-2,117.94	900.03	819.68	80.35	11.202		
11,400.00	8,880.00	11,571.57	9,000.00	40.18	41.54	-101.48	2,309.54	-2,118.27	900.04	819.12	80.92	11.123		
11,450.00	8,880.00	11,621.57	9,000.00	40.48	41.83	-101.48	2,359.54	-2,118.59	900.05	818.55	81.50	11.043		
11,500.00	8,880.00	11,671.57	9,000.00	40.77	42.13	-101.48	2,409.54	-2,118.91	900.06	817.97	82.09	10.964		
11,550.00	8,880.00	11,721.57	9,000.00	41.07	42.43	-101.48	2,459.54	-2,119.23	900.07	817.38	82.69	10.885		
11,600.00	8,880.00	11,771.57	9,000.00	41.37	42.73	-101.48	2,509.54	-2,119.55	900.08	816.79	83.29	10.806		

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:		0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:		0.50 ft
Reference		Offset		Semi Major Axis			Distance								
Measured Depth	Vertical Depth	Measured Depth	Vertical Depth	Reference	Offset	Highside Toolface	Offset Wellbore Centre	Between Centres	Between Ellipses	Minimum Separation	Separation Factor	Warning			
(ft)	(ft)	(ft)	(ft)	(ft)	(ft)	(°)	+N/-S (ft)	+E/-W (ft)	(ft)	(ft)	(ft)				
11,650.00	8,880.00	11,821.57	9,000.00	41.68	43.04	-101.48	2,559.53	-2,119.88	900.10	816.19	83.91	10.727			
11,700.00	8,880.00	11,871.57	9,000.00	41.98	43.35	-101.48	2,609.53	-2,120.20	900.11	815.58	84.52	10.649			
11,750.00	8,880.00	11,921.57	9,000.00	42.30	43.66	-101.48	2,659.53	-2,120.52	900.12	814.97	85.15	10.571			
11,800.00	8,880.00	11,971.57	9,000.00	42.61	43.98	-101.48	2,709.53	-2,120.84	900.13	814.35	85.78	10.494			
11,850.00	8,880.00	12,021.57	9,000.00	42.93	44.29	-101.48	2,759.53	-2,121.16	900.14	813.72	86.41	10.417			
11,900.00	8,880.00	12,071.57	9,000.00	43.25	44.62	-101.48	2,809.53	-2,121.49	900.15	813.09	87.06	10.340			
11,950.00	8,880.00	12,121.57	9,000.00	43.58	44.94	-101.48	2,859.53	-2,121.81	900.16	812.46	87.71	10.263			
12,000.00	8,880.00	12,171.57	9,000.00	43.90	45.27	-101.48	2,909.53	-2,122.13	900.17	811.81	88.36	10.188			
12,050.00	8,880.00	12,221.57	9,000.00	44.24	45.60	-101.48	2,959.53	-2,122.45	900.18	811.16	89.02	10.112			
12,100.00	8,880.00	12,271.57	9,000.00	44.57	45.93	-101.48	3,009.52	-2,122.77	900.19	810.51	89.68	10.037			
12,150.00	8,880.00	12,321.57	9,000.00	44.90	46.27	-101.48	3,059.52	-2,123.10	900.20	809.85	90.36	9.963			
12,200.00	8,880.00	12,371.57	9,000.00	45.24	46.60	-101.48	3,109.52	-2,123.42	900.21	809.18	91.03	9.889			
12,250.00	8,880.00	12,421.57	9,000.00	45.58	46.95	-101.48	3,159.52	-2,123.74	900.23	808.51	91.71	9.816			
12,300.00	8,880.00	12,471.57	9,000.00	45.93	47.29	-101.48	3,209.52	-2,124.06	900.24	807.84	92.40	9.743			
12,350.00	8,880.00	12,521.57	9,000.00	46.27	47.63	-101.48	3,259.52	-2,124.38	900.25	807.15	93.09	9.670			
12,400.00	8,880.00	12,571.57	9,000.00	46.62	47.98	-101.48	3,309.52	-2,124.71	900.26	806.47	93.79	9.599			
12,450.00	8,880.00	12,621.57	9,000.00	46.97	48.33	-101.48	3,359.52	-2,125.03	900.27	805.78	94.49	9.528			
12,500.00	8,880.00	12,671.57	9,000.00	47.33	48.69	-101.48	3,409.52	-2,125.35	900.28	805.08	95.20	9.457			
12,550.00	8,880.00	12,721.57	9,000.00	47.68	49.04	-101.48	3,459.52	-2,125.67	900.29	804.38	95.91	9.387			
12,600.00	8,880.00	12,771.57	9,000.00	48.04	49.40	-101.48	3,509.51	-2,125.99	900.30	803.68	96.62	9.318			
12,650.00	8,880.00	12,821.57	9,000.00	48.40	49.76	-101.48	3,559.51	-2,126.32	900.31	802.97	97.34	9.249			
12,700.00	8,880.00	12,871.57	9,000.00	48.76	50.12	-101.48	3,609.51	-2,126.64	900.32	802.26	98.06	9.181			
12,750.00	8,880.00	12,921.57	9,000.00	49.13	50.48	-101.48	3,659.51	-2,126.96	900.33	801.54	98.79	9.113			
12,800.00	8,880.00	12,971.57	9,000.00	49.49	50.85	-101.48	3,709.51	-2,127.28	900.34	800.82	99.52	9.047			
12,850.00	8,880.00	13,021.57	9,000.00	49.86	51.22	-101.48	3,759.51	-2,127.60	900.36	800.10	100.26	8.980			
12,900.00	8,880.00	13,071.57	9,000.00	50.23	51.59	-101.48	3,809.51	-2,127.93	900.37	799.37	101.00	8.915			
12,950.00	8,880.00	13,121.57	9,000.00	50.61	51.96	-101.48	3,859.51	-2,128.25	900.38	798.63	101.74	8.850			
13,000.00	8,880.00	13,171.57	9,000.00	50.98	52.33	-101.48	3,909.51	-2,128.57	900.39	797.90	102.49	8.785			
13,050.00	8,880.00	13,221.57	9,000.00	51.36	52.71	-101.48	3,959.50	-2,128.89	900.40	797.16	103.24	8.721			
13,100.00	8,880.00	13,271.57	9,000.00	51.74	53.08	-101.48	4,009.50	-2,129.21	900.41	796.42	103.99	8.658			
13,150.00	8,880.00	13,321.57	9,000.00	52.12	53.46	-101.48	4,059.50	-2,129.54	900.42	795.67	104.75	8.596			
13,200.00	8,880.00	13,371.57	9,000.00	52.50	53.84	-101.48	4,109.50	-2,129.86	900.43	794.92	105.51	8.534			
13,250.00	8,880.00	13,421.57	9,000.00	52.88	54.23	-101.48	4,159.50	-2,130.18	900.44	794.16	106.28	8.472			
13,300.00	8,880.00	13,471.57	9,000.00	53.27	54.61	-101.48	4,209.50	-2,130.50	900.45	793.41	107.05	8.412			
13,350.00	8,880.00	13,521.57	9,000.00	53.65	55.00	-101.48	4,259.50	-2,130.82	900.46	792.65	107.82	8.352			
13,400.00	8,880.00	13,571.57	9,000.00	54.04	55.38	-101.48	4,309.50	-2,131.15	900.48	791.88	108.59	8.292			
13,450.00	8,880.00	13,621.57	9,000.00	54.43	55.77	-101.48	4,359.50	-2,131.47	900.49	791.12	109.37	8.233			
13,500.00	8,880.00	13,671.57	9,000.00	54.82	56.16	-101.48	4,409.50	-2,131.79	900.50	790.35	110.15	8.175			
13,550.00	8,880.00	13,721.57	9,000.00	55.22	56.55	-101.48	4,459.49	-2,132.11	900.51	789.58	110.93	8.118			
13,600.00	8,880.00	13,771.57	9,000.00	55.61	56.95	-101.48	4,509.49	-2,132.43	900.52	788.80	111.72	8.061			
13,650.00	8,880.00	13,821.57	9,000.00	56.01	57.34	-101.48	4,559.49	-2,132.76	900.53	788.02	112.51	8.004			
13,700.00	8,880.00	13,871.57	9,000.00	56.40	57.74	-101.48	4,609.49	-2,133.08	900.54	787.24	113.30	7.948			
13,750.00	8,880.00	13,921.57	9,000.00	56.80	58.13	-101.48	4,659.49	-2,133.40	900.55	786.46	114.09	7.893			
13,800.00	8,880.00	13,971.57	9,000.00	57.20	58.53	-101.48	4,709.49	-2,133.72	900.56	785.67	114.89	7.839			
13,850.00	8,880.00	14,021.57	9,000.00	57.60	58.93	-101.48	4,759.49	-2,134.04	900.57	784.88	115.69	7.784			
13,900.00	8,880.00	14,071.57	9,000.00	58.00	59.33	-101.48	4,809.49	-2,134.37	900.58	784.09	116.49	7.731			
13,950.00	8,880.00	14,121.57	9,000.00	58.41	59.73	-101.48	4,859.49	-2,134.69	900.59	783.30	117.30	7.678			
14,000.00	8,880.00	14,171.57	9,000.00	58.81	60.14	-101.48	4,909.49	-2,135.01	900.61	782.50	118.10	7.626			
14,050.00	8,880.00	14,221.57	9,000.00	59.22	60.54	-101.48	4,959.48	-2,135.33	900.62	781.70	118.91	7.574			
14,100.00	8,880.00	14,271.57	9,000.00	59.63	60.95	-101.48	5,009.48	-2,135.65	900.63	780.90	119.72	7.523			
14,150.00	8,880.00	14,321.57	9,000.00	60.04	61.36	-101.48	5,059.48	-2,135.98	900.64	780.10	120.54	7.472			
14,200.00	8,880.00	14,371.57	9,000.00	60.44	61.76	-101.48	5,109.48	-2,136.30	900.65	779.30	121.35	7.422			

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design													Offset Site Error:	0.00 ft
Survey Program: 0-MWD+IFR1													Offset Well Error:	0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Tooface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor		
14,250.00	8,880.00	14,421.57	9,000.00	60.86	62.17	-101.48	5,159.48	-2,136.62	900.66	778.49	122.17	7.372		
14,300.00	8,880.00	14,471.57	9,000.00	61.27	62.58	-101.48	5,209.48	-2,136.94	900.67	777.68	122.99	7.323		
14,350.00	8,880.00	14,521.57	9,000.00	61.68	63.00	-101.48	5,259.48	-2,137.26	900.68	776.87	123.81	7.274		
14,400.00	8,880.00	14,571.57	9,000.00	62.09	63.41	-101.48	5,309.48	-2,137.59	900.69	776.05	124.64	7.226		
14,450.00	8,880.00	14,621.57	9,000.00	62.51	63.82	-101.48	5,359.48	-2,137.91	900.70	775.24	125.47	7.179		
14,500.00	8,880.00	14,671.57	9,000.00	62.93	64.24	-101.48	5,409.47	-2,138.23	900.71	774.42	126.29	7.132		
14,550.00	8,880.00	14,721.57	9,000.00	63.34	64.65	-101.48	5,459.47	-2,138.55	900.72	773.60	127.12	7.085		
14,600.00	8,880.00	14,771.57	9,000.00	63.76	65.07	-101.48	5,509.47	-2,138.87	900.74	772.78	127.96	7.039		
14,650.00	8,880.00	14,821.57	9,000.00	64.18	65.49	-101.48	5,559.47	-2,139.20	900.75	771.96	128.79	6.994		
14,700.00	8,880.00	14,871.57	9,000.00	64.60	65.90	-101.48	5,609.47	-2,139.52	900.76	771.13	129.63	6.949		
14,750.00	8,880.00	14,921.57	9,000.00	65.02	66.32	-101.48	5,659.47	-2,139.84	900.77	770.30	130.46	6.904		
14,800.00	8,880.00	14,971.57	9,000.00	65.44	66.74	-101.47	5,709.47	-2,140.16	900.78	769.48	131.30	6.860		
14,850.00	8,880.00	15,021.57	9,000.00	65.86	67.17	-101.47	5,759.47	-2,140.48	900.79	768.64	132.15	6.817		
14,900.00	8,880.00	15,071.57	9,000.00	66.29	67.59	-101.47	5,809.47	-2,140.81	900.80	767.81	132.99	6.774		
14,950.00	8,880.00	15,121.57	9,000.00	66.71	68.01	-101.47	5,859.47	-2,141.13	900.81	766.98	133.83	6.731		
15,000.00	8,880.00	15,171.57	9,000.00	67.14	68.43	-101.47	5,909.46	-2,141.45	900.82	766.14	134.68	6.689		
15,050.00	8,880.00	15,221.57	9,000.00	67.56	68.86	-101.47	5,959.46	-2,141.77	900.83	765.31	135.53	6.647		
15,100.00	8,880.00	15,271.57	9,000.00	67.99	69.28	-101.47	6,009.46	-2,142.09	900.84	764.47	136.38	6.606		
15,150.00	8,880.00	15,321.57	9,000.00	68.42	69.71	-101.47	6,059.46	-2,142.42	900.86	763.63	137.23	6.565		
15,200.00	8,880.00	15,371.57	9,000.00	68.85	70.14	-101.47	6,109.46	-2,142.74	900.87	762.79	138.08	6.524		
15,250.00	8,880.00	15,421.57	9,000.00	69.28	70.56	-101.47	6,159.46	-2,143.06	900.88	761.94	138.94	6.484		
15,300.00	8,880.00	15,471.57	9,000.00	69.70	70.99	-101.47	6,209.46	-2,143.38	900.89	761.10	139.79	6.445		
15,350.00	8,880.00	15,521.57	9,000.00	70.14	71.42	-101.47	6,259.46	-2,143.70	900.90	760.25	140.65	6.405		
15,400.00	8,880.00	15,571.57	9,000.00	70.57	71.85	-101.47	6,309.46	-2,144.03	900.91	759.40	141.51	6.367		
15,450.00	8,880.00	15,621.57	9,000.00	71.00	72.28	-101.47	6,359.46	-2,144.35	900.92	758.55	142.37	6.328		
15,500.00	8,880.00	15,671.57	9,000.00	71.43	72.71	-101.47	6,409.45	-2,144.67	900.93	757.70	143.23	6.290		
15,550.00	8,880.00	15,721.57	9,000.00	71.86	73.15	-101.47	6,459.45	-2,144.99	900.94	756.85	144.09	6.253		
15,600.00	8,880.00	15,771.57	9,000.00	72.30	73.58	-101.47	6,509.45	-2,145.31	900.95	756.00	144.95	6.216		
15,650.00	8,880.00	15,821.57	9,000.00	72.73	74.01	-101.47	6,559.45	-2,145.64	900.96	755.15	145.82	6.179		
15,700.00	8,880.00	15,871.57	9,000.00	73.17	74.45	-101.47	6,609.45	-2,145.96	900.97	754.29	146.68	6.142		
15,750.00	8,880.00	15,921.57	9,000.00	73.60	74.88	-101.47	6,659.45	-2,146.28	900.99	753.43	147.55	6.106		
15,800.00	8,880.00	15,971.57	9,000.00	74.04	75.32	-101.47	6,709.45	-2,146.60	901.00	752.58	148.42	6.071		
15,850.00	8,880.00	16,021.57	9,000.00	74.48	75.75	-101.47	6,759.45	-2,146.92	901.01	751.72	149.29	6.035		
15,900.00	8,880.00	16,071.57	9,000.00	74.92	76.19	-101.47	6,809.45	-2,147.25	901.02	750.86	150.16	6.000		
15,950.00	8,880.00	16,121.57	9,000.00	75.35	76.63	-101.47	6,859.44	-2,147.57	901.03	750.00	151.03	5.966		
16,000.00	8,880.00	16,171.57	9,000.00	75.79	77.06	-101.47	6,909.44	-2,147.89	901.04	749.13	151.91	5.932		
16,050.00	8,880.00	16,221.57	9,000.00	76.23	77.50	-101.47	6,959.44	-2,148.21	901.05	748.27	152.78	5.898		
16,100.00	8,880.00	16,271.57	9,000.00	76.67	77.94	-101.47	7,009.44	-2,148.53	901.06	747.40	153.66	5.864		
16,150.00	8,880.00	16,321.57	9,000.00	77.11	78.38	-101.47	7,059.44	-2,148.86	901.07	746.54	154.53	5.831		
16,200.00	8,880.00	16,371.57	9,000.00	77.55	78.82	-101.47	7,109.44	-2,149.18	901.08	745.67	155.41	5.798		
16,250.00	8,880.00	16,421.57	9,000.00	78.00	79.26	-101.47	7,159.44	-2,149.50	901.09	744.80	156.29	5.766		
16,300.00	8,880.00	16,471.57	9,000.00	78.44	79.70	-101.47	7,209.44	-2,149.82	901.10	743.94	157.17	5.733		
16,350.00	8,880.00	16,521.57	9,000.00	78.88	80.14	-101.47	7,259.44	-2,150.14	901.12	743.07	158.05	5.701		
16,400.00	8,880.00	16,571.57	9,000.00	79.32	80.58	-101.47	7,309.44	-2,150.47	901.13	742.19	158.93	5.670		
16,450.00	8,880.00	16,621.57	9,000.00	79.77	81.03	-101.47	7,359.43	-2,150.79	901.14	741.32	159.81	5.639		
16,500.00	8,880.00	16,671.57	9,000.00	80.21	81.47	-101.47	7,409.43	-2,151.11	901.15	740.45	160.70	5.608		
16,550.00	8,880.00	16,721.57	9,000.00	80.66	81.91	-101.47	7,459.43	-2,151.43	901.16	739.58	161.58	5.577		
16,600.00	8,880.00	16,771.57	9,000.00	81.10	82.36	-101.47	7,509.43	-2,151.75	901.17	738.70	162.47	5.547		
16,650.00	8,880.00	16,821.57	9,000.00	81.55	82.80	-101.47	7,559.43	-2,152.08	901.18	737.83	163.36	5.517		
16,700.00	8,880.00	16,871.57	9,000.00	81.99	83.25	-101.47	7,609.43	-2,152.40	901.19	736.95	164.24	5.487		
16,750.00	8,880.00	16,921.57	9,000.00	82.44	83.69	-101.47	7,659.43	-2,152.72	901.20	736.07	165.13	5.458		
16,800.00	8,880.00	16,971.57	9,000.00	82.89	84.14	-101.47	7,709.43	-2,153.04	901.21	735.19	166.02	5.428		

CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Offset Design														Offset Site Error:		0.00 ft
Survey Program: 0-MWD+IFR1														Offset Well Error:		0.50 ft
Reference		Offset		Semi Major Axis			Distance							Warning		
Measured Depth (ft)	Vertical Depth (ft)	Measured Depth (ft)	Vertical Depth (ft)	Reference (ft)	Offset (ft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (ft)	+E/-W (ft)	Between Centres (ft)	Between Ellipses (ft)	Minimum Separation (ft)	Separation Factor				
16,850.00	8,880.00	17,021.57	9,000.00	83.33	84.58	-101.47	7,759.43	-2,153.36	901.22	734.31	166.91	5.399				
16,900.00	8,880.00	17,071.57	9,000.00	83.78	85.03	-101.47	7,809.43	-2,153.69	901.23	733.43	167.80	5.371				
16,950.00	8,880.00	17,121.57	9,000.00	84.23	85.48	-101.47	7,859.42	-2,154.01	901.25	732.55	168.69	5.343				
17,000.00	8,880.00	17,171.57	9,000.00	84.68	85.92	-101.47	7,909.42	-2,154.33	901.26	731.67	169.58	5.315				
17,050.00	8,880.00	17,221.57	9,000.00	85.13	86.37	-101.47	7,959.42	-2,154.65	901.27	730.79	170.48	5.287				
17,100.00	8,880.00	17,271.57	9,000.00	85.58	86.82	-101.47	8,009.42	-2,154.97	901.28	729.91	171.37	5.259				
17,150.00	8,880.00	17,321.57	9,000.00	86.03	87.27	-101.47	8,059.42	-2,155.30	901.29	729.02	172.27	5.232				
17,200.00	8,880.00	17,371.57	9,000.00	86.48	87.72	-101.47	8,109.42	-2,155.62	901.30	728.14	173.16	5.205				
17,250.00	8,880.00	17,421.57	9,000.00	86.93	88.17	-101.47	8,159.42	-2,155.94	901.31	727.25	174.06	5.178				
17,300.00	8,880.00	17,471.57	9,000.00	87.38	88.62	-101.47	8,209.42	-2,156.26	901.32	726.37	174.96	5.152				
17,350.00	8,880.00	17,521.57	9,000.00	87.83	89.07	-101.47	8,259.42	-2,156.58	901.33	725.48	175.85	5.125				
17,400.00	8,880.00	17,571.57	9,000.00	88.28	89.52	-101.47	8,309.41	-2,156.91	901.34	724.59	176.75	5.099				
17,450.00	8,880.00	17,621.57	9,000.00	88.74	89.97	-101.47	8,359.41	-2,157.23	901.35	723.70	177.65	5.074				
17,500.00	8,880.00	17,671.57	9,000.00	89.19	90.42	-101.47	8,409.41	-2,157.55	901.37	722.81	178.55	5.048				
17,550.00	8,880.00	17,721.57	9,000.00	89.64	90.87	-101.47	8,459.41	-2,157.87	901.38	721.92	179.45	5.023				
17,600.00	8,880.00	17,771.57	9,000.00	90.09	91.33	-101.47	8,509.41	-2,158.19	901.39	721.03	180.35	4.998	Alert			
17,650.00	8,880.00	17,821.57	9,000.00	90.55	91.78	-101.47	8,559.41	-2,158.52	901.40	720.14	181.25	4.973	Alert			
17,700.00	8,880.00	17,871.57	9,000.00	91.00	92.23	-101.47	8,609.41	-2,158.84	901.41	719.25	182.16	4.949	Alert			
17,750.00	8,880.00	17,921.57	9,000.00	91.46	92.68	-101.47	8,659.41	-2,159.16	901.42	718.36	183.06	4.924	Alert			
17,800.00	8,880.00	17,971.57	9,000.00	91.91	93.14	-101.47	8,709.41	-2,159.48	901.43	717.47	183.96	4.900	Alert			
17,850.00	8,880.00	18,021.57	9,000.00	92.36	93.59	-101.47	8,759.41	-2,159.80	901.44	716.57	184.87	4.876	Alert			
17,900.00	8,880.00	18,071.57	9,000.00	92.82	94.05	-101.47	8,809.40	-2,160.13	901.45	715.68	185.77	4.852	Alert			
17,950.00	8,880.00	18,121.57	9,000.00	93.28	94.50	-101.47	8,859.40	-2,160.45	901.46	714.78	186.68	4.829	Alert			
18,000.00	8,880.00	18,171.57	9,000.00	93.73	94.95	-101.47	8,909.40	-2,160.77	901.47	713.89	187.59	4.806	Alert			
18,050.00	8,880.00	18,221.57	9,000.00	94.19	95.41	-101.47	8,959.40	-2,161.09	901.48	712.99	188.49	4.783	Alert			
18,100.00	8,880.00	18,271.57	9,000.00	94.64	95.86	-101.47	9,009.40	-2,161.41	901.50	712.10	189.40	4.760	Alert			
18,150.00	8,880.00	18,321.57	9,000.00	95.10	96.32	-101.47	9,059.40	-2,161.74	901.51	711.20	190.31	4.737	Alert			
18,200.00	8,880.00	18,371.57	9,000.00	95.56	96.78	-101.47	9,109.40	-2,162.06	901.52	710.30	191.22	4.715	Alert			
18,250.00	8,880.00	18,421.57	9,000.00	96.01	97.23	-101.47	9,159.40	-2,162.38	901.53	709.40	192.13	4.692	Alert			
18,300.00	8,880.00	18,471.57	9,000.00	96.47	97.69	-101.47	9,209.40	-2,162.70	901.54	708.50	193.04	4.670	Alert			
18,350.00	8,880.00	18,521.57	9,000.00	96.93	98.15	-101.46	9,259.40	-2,163.02	901.55	707.60	193.95	4.648	Alert			
18,400.00	8,880.00	18,571.57	9,000.00	97.39	98.60	-101.46	9,309.39	-2,163.35	901.56	706.70	194.86	4.627	Alert			
18,450.00	8,880.00	18,621.57	9,000.00	97.85	99.06	-101.46	9,359.39	-2,163.67	901.57	705.80	195.77	4.605	Alert			
18,500.00	8,880.00	18,671.57	9,000.00	98.30	99.52	-101.46	9,409.39	-2,163.99	901.58	704.90	196.68	4.584	Alert			
18,550.00	8,880.00	18,721.57	9,000.00	98.76	99.98	-101.46	9,459.39	-2,164.31	901.59	704.00	197.59	4.563	Alert			
18,600.00	8,880.00	18,771.57	9,000.00	99.22	100.43	-101.46	9,509.39	-2,164.63	901.60	703.10	198.51	4.542	Alert			
18,650.00	8,880.00	18,821.57	9,000.00	99.68	100.89	-101.46	9,559.39	-2,164.96	901.61	702.20	199.42	4.521	Alert			
18,700.00	8,880.00	18,871.57	9,000.00	100.14	101.35	-101.46	9,609.39	-2,165.28	901.63	701.29	200.33	4.501	Alert			
18,750.00	8,880.00	18,921.57	9,000.00	100.60	101.81	-101.46	9,659.39	-2,165.60	901.64	700.39	201.25	4.480	Alert			
18,800.00	8,880.00	18,971.57	9,000.00	101.06	102.27	-101.46	9,709.39	-2,165.92	901.65	699.49	202.16	4.460	Alert			
18,850.00	8,880.00	19,021.57	9,000.00	101.52	102.73	-101.46	9,759.38	-2,166.24	901.66	698.58	203.08	4.440	Alert			
18,900.00	8,880.00	19,071.57	9,000.00	101.98	103.19	-101.46	9,809.38	-2,166.56	901.67	697.68	203.99	4.420	Alert			
18,950.00	8,880.00	19,121.57	9,000.00	102.44	103.65	-101.46	9,859.38	-2,166.89	901.68	696.77	204.91	4.400	Alert			
19,000.00	8,880.00	19,171.57	9,000.00	102.90	104.11	-101.46	9,909.38	-2,167.21	901.69	695.87	205.83	4.381	Alert			
19,050.00	8,880.00	19,221.57	9,000.00	103.37	104.57	-101.46	9,959.38	-2,167.53	901.70	694.96	206.74	4.361	Alert			
19,100.00	8,880.00	19,271.57	9,000.00	103.83	105.03	-101.46	10,009.38	-2,167.85	901.71	694.05	207.66	4.342	Alert			
19,115.75	8,880.00	19,287.32	9,000.00	103.97	105.17	-101.46	10,025.13	-2,167.95	901.72	693.77	207.95	4.336	Alert, ES, SF			

Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 3513.70ft

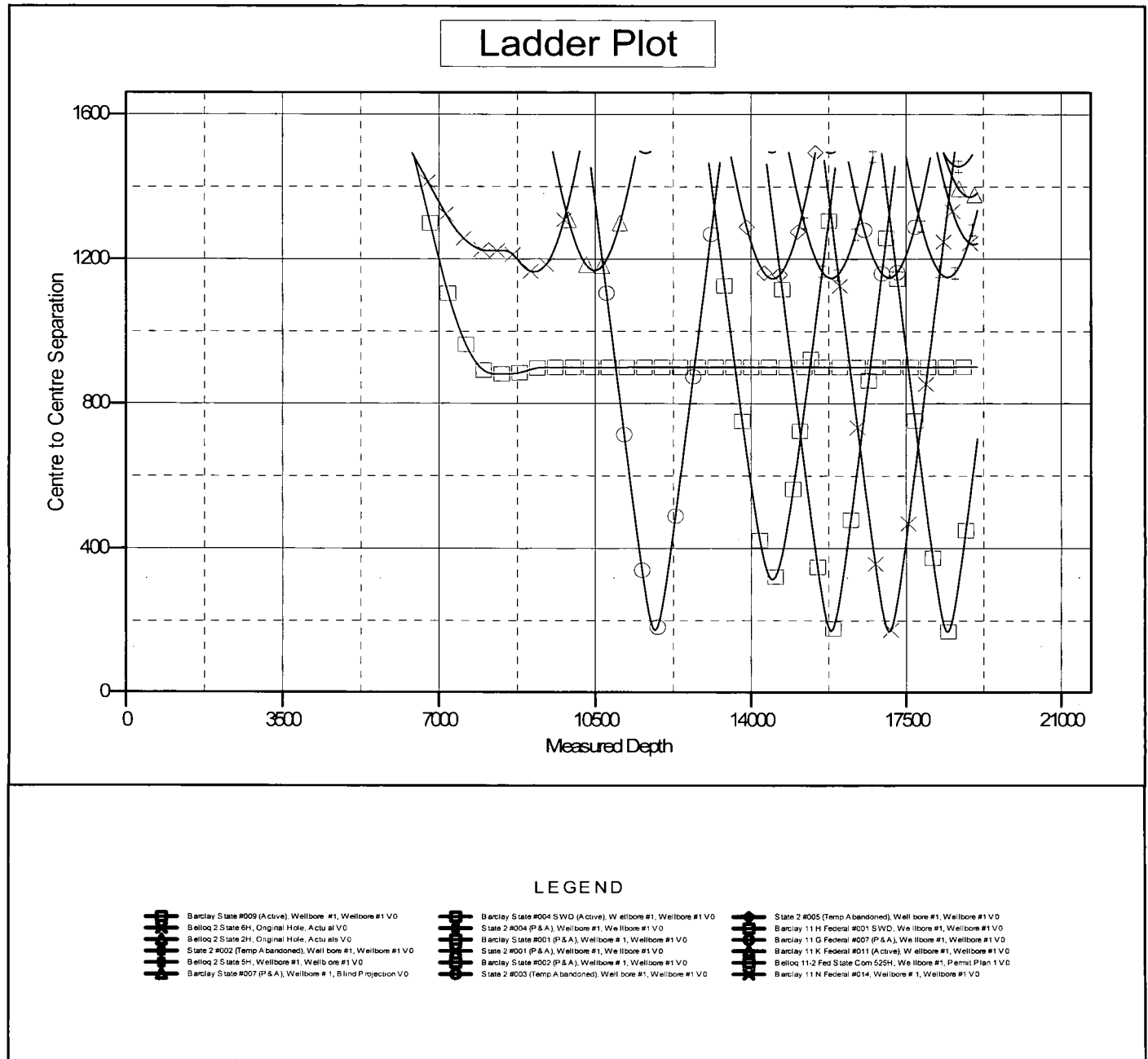
Offset Depths are relative to Offset Datum

Central Meridian is -104.333334

Coordinates are relative to: Belloq 11-2 Fed State Com 516H

Coordinate System is US State Plane 1983, New Mexico Eastern Zone

Grid Convergence at Surface is: 0.32°



CC - Min centre to center distance or convergent point, SF - min separation factor, ES - min ellipse separation

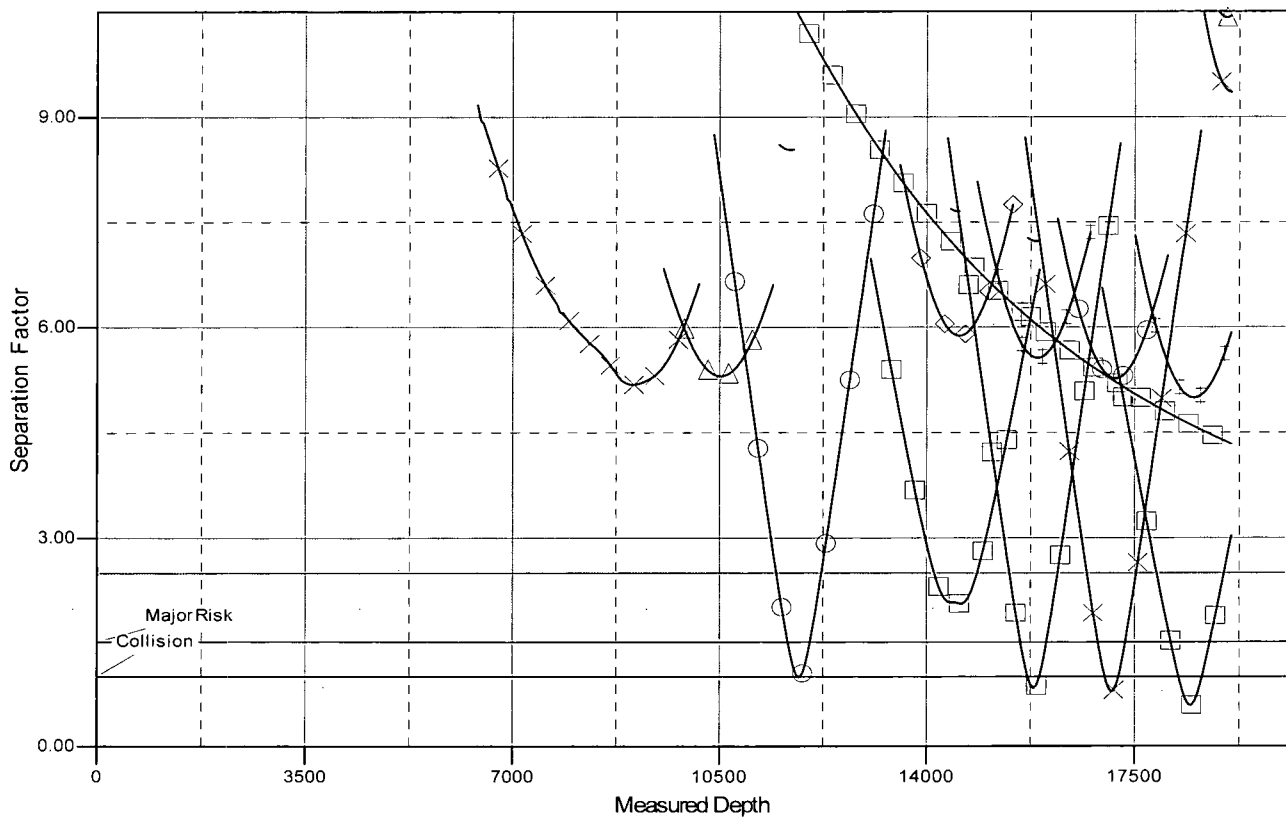
Anticollision Report

Company:	WCDSC Permian NM	Local Co-ordinate Reference:	Well Belloq 11-2 Fed State Com 516H
Project:	Eddy County (NAD 83 NM Eastern)	TVD Reference:	RKB @ 3513.70ft
Reference Site:	Sec 11-T23S-R31E	MD Reference:	RKB @ 3513.70ft
Site Error:	0.00 ft	North Reference:	Grid
Reference Well:	Belloq 11-2 Fed State Com 516H	Survey Calculation Method:	Minimum Curvature
Well Error:	0.50 ft	Output errors are at	2.00 sigma
Reference Wellbore	Wellbore #1	Database:	EDM r5000.141_Prod US
Reference Design:	Permit Plan 1	Offset TVD Reference:	Offset Datum

Reference Depths are relative to RKB @ 3513.70ft
Offset Depths are relative to Offset Datum
Central Meridian is -104.333334

Coordinates are relative to: Belloq 11-2 Fed State Com 516H
Coordinate System is US State Plane 1983, New Mexico Eastern Zone
Grid Convergence at Surface is: 0.32°

Separation Factor Plot



LEGEND

<ul style="list-style-type: none"> Barclay State #008 (Active), Wellbore #1, Wellbore #1 V0 Belloq 2 State 6H, Original Hole, Actual V0 Belloq 2 State 2H, Original Hole, Actual V0 State 2 #002 (Temp Abandoned), Wellbore #1, Wellbore #1 V0 Belloq 2 State 5H, Wellbore #1, Wellbore #1 V0 Barclay State #007 (P & A), Wellbore #1, Blind Projection V0 	<ul style="list-style-type: none"> Barclay State #004 SWD (Active), Wellbore #1, Wellbore #1 V0 State 2 #004 (P & A), Wellbore #1, Wellbore #1 V0 Barclay State #001 (P & A), Wellbore #1, Wellbore #1 V0 State 2 #001 (P & A), Wellbore #1, Wellbore #1 V0 Barclay State #002 (P & A), Wellbore #1, Wellbore #1 V0 State 2 #003 (Temp Abandoned), Wellbore #1, Wellbore #1 V0 	<ul style="list-style-type: none"> State 2 #005 (Temp Abandoned), Wellbore #1, Wellbore #1 V0 Barclay 11 H Federal #001 SWD, Wellbore #1, Wellbore #1 V0 Barclay 11 G Federal #007 (P & A), Wellbore #1, Wellbore #1 V0 Barclay 11 K Federal #011 (Active), Wellbore #1, Wellbore #1 V0 Belloq 11-2 Fed State Com 525H, Wellbore #1, Permit Plan 1 V0 Barclay 11 N Federal #014, Wellbore #1, Wellbore #1 V0
--	--	--

WELL DETAILS: Bellog 11-2 Fed State Com 516H

RKB @ 3513.70ft

3488.70

Northing
478134.09

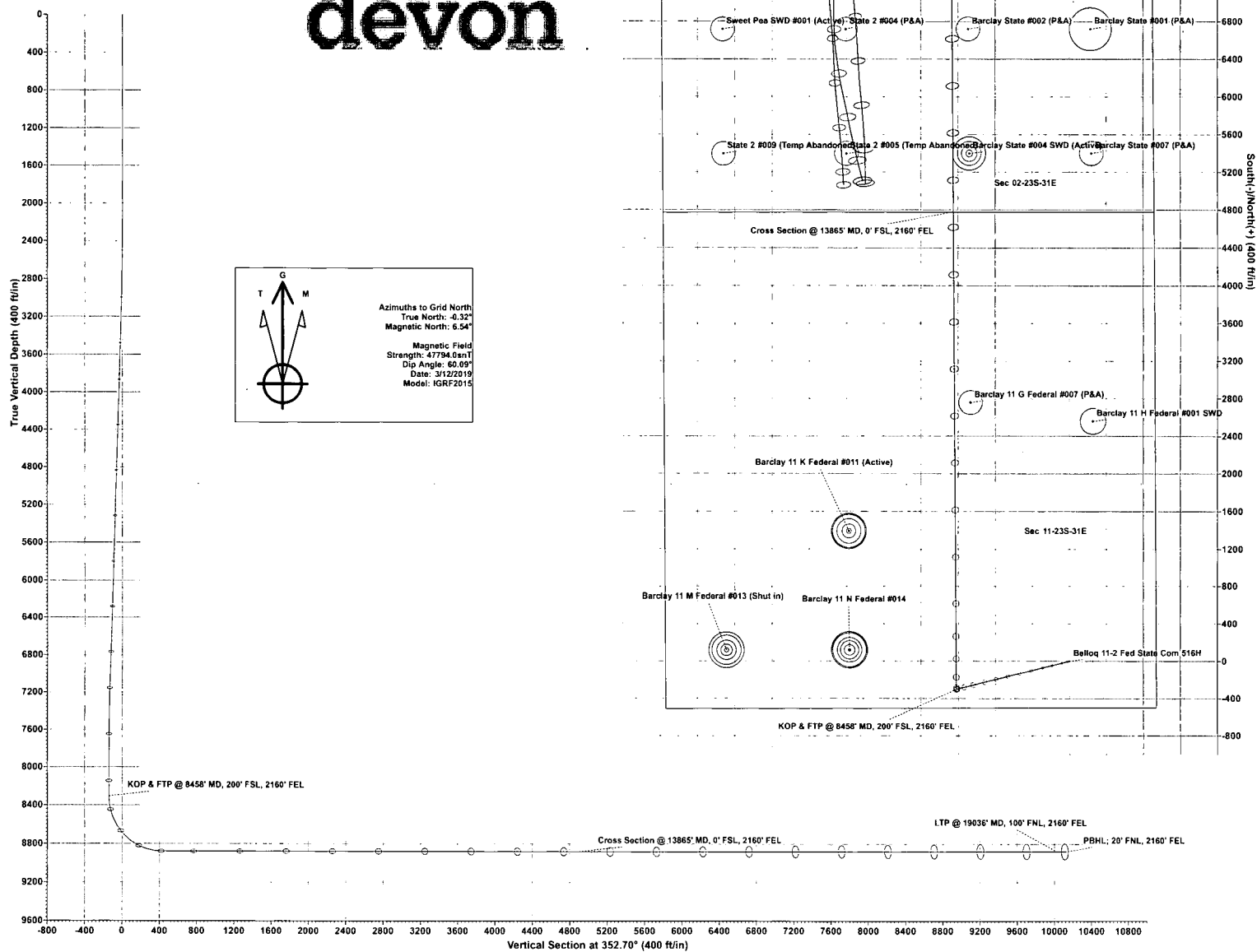
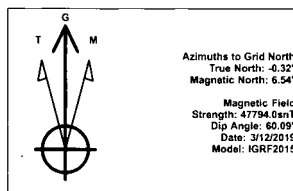
Easting
723689.48

Latitude
32.313083

Longitude
-103.743068

SECTION DETAILS Permit Plan 1

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	Vsect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	
3495.46	14.95	256.18	3478.54	-46.34	-188.44	1.00	-22.03	
7110.68	14.95	256.18	6971.31	-269.11	-1024.30	0.00	-127.95	
8107.65			7957.00	-300.00	-1090.00	1.50	-142.64	
8107.69	0.00		8307.00	-300.00	-1090.00	0.00	-144.54	KOP & FTP @ 8458' MD.
9357.69	90.00	359.64	8880.00	272.95	-1223.56	10.00	426.12	
9115.75	90.00	359.64	8880.00	10030.82	-1283.24	0.00	10112.70	PBHL; 20" FNL, 2160" FEL



1. Geologic Formations

TVD of target	8880	Pilot hole depth	N/A
MD at TD:	19116	Deepest expected fresh water	

Basin

[illegible]

*H₂S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

Hole Size	Casing Interval		Csg. Size	Wt (PPF)	Grade	Conn	Min SF Collapse	Min SF Burst	Min SF Tension
	From	To							
17 1/2	0	725 TVD	13 3/8	48.0	H40	BTC	1.125	1.25	1.6
12 1/4	0	4400 TVD	9 5/8	40.0	J-55	BTC	1.125	1.25	1.6
8 3/4	0	TD	5 1/2	17.0	P110	BTC	1.125	1.25	1.6
BLM Minimum Safety Factor							1.125	1	1.6 Dry 1.8 Wet

- All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for contingency casing.
- Rustler top will be validated via drilling parameters (i.e. reduction in ROP) and surface casing setting depth revised accordingly if needed.
- A variance is requested for collapse rating on intermediate casing. Operator will keep pipe full while running casing.
- Int casing shoe will be selected based on drilling data, gamma, and flows experienced while drilling. Setting depth will be revised accordingly if needed.
- A variance is requested to wave the centralizer requirement for the Intermediate casing and production casing.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program (3-String Primary Design)

Casing	# Skis	TOC	Wt. (lb/gal)	Yld (ft ³ /sack)	Slurry Description
Surface	563	Surf	13.2	1.4	Lead: Class C Cement + additives
Int	479	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Int 1 Two Stage w/ DV @ TVD of Delaware	467	Surf	9.0	3.3	1st stage Lead: Class C Cement + additives
	136	500' above shoe	13.2	1.4	1st stage Tail: Class H / C + additives
	467	Surf	9.0	3.3	2nd stage Lead: Class C Cement + additives
	136	500' above DV	13.2	1.4	2nd stage Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	9.0	3.3	Squeeze Lead: Class C Cement + additives
	479	Surf	9.0	3.3	Lead: Class C Cement + additives
	154	500' above shoe	13.2	1.4	Tail: Class H / C + additives
Production	731	0	9.0	3.3	Lead: Class H / C + additives
	2057	KOP	13.2	1.4	Tail: Class H / C + additives

If a DV tool is ran the depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. Slurry weights will be adjusted based on estimated fracture gradient of the formation. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. If cement is not returned to surface during the primary cement job on the surface casing string, a planned top job will be conducted immediately after completion of the primary job.

Casing String	% Excess
Surface	50%
Intermediate	30%
Production	10%

4. Pressure Control Equipment (Three String Design)

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
Int 1	13-58"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
Production	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram		
			Double Ram	X	
			Other*		
			Annular (5M)		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other*		

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	Brine	10-10.5
Production	WBM	8.5-9

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

What will be used to monitor the loss or gain of fluid?	PVT/Pason/Visual Monitoring
---	-----------------------------

6. Logging and Testing Procedures

Logging, Coring and Testing	
X	Will run GR/CNL from TD to surface (horizontal well - vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
	No logs are planned based on well control or offset log information.
	Drill stem test? If yes, explain.
	Coring? If yes, explain.

Additional logs planned	Interval
Resistivity	
Density	
X CBL	Production casing
X Mud log	KOP to TD
PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH pressure at deepest TVD	4156
Abnormal temperature	No

Mitigation measure for abnormal conditions. Describe. Lost circulation material/sweeps/mud scavengers.

Hydrogen Sulfide (H₂S) monitors will be installed prior to drilling out the surface shoe. If H₂S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered measured values and formations will be provided to the BLM.

N	H ₂ S is present
Y	H ₂ S plan attached.

8. Other facets of operation

Is this a walking operation? Potentially

- 1 If operator elects, drilling rig will batch drill the surface holes and run/cement surface casing; walking the rig to next wells on the pad.
- 2 The drilling rig will then batch drill the intermediate sections and run/cement intermediate casing; the wellbore will be isolated with a blind flange and pressure gauge installed for monitoring the well before walking to the next well.
- 3 The drilling rig will then batch drill the production hole sections on the wells with OBM, run/cement production casing, and install TA caps or tubing heads for completions.

NOTE: During batch operations the drilling rig will be moved from well to well however, it will not be removed from the pad until all wells have production casing run/cemented.

Will be pre-setting casing? Potentially

- 1 Spudder rig will move in and batch drill surface hole.
 - a. Rig will utilize fresh water based mud to drill surface hole to TD. Solids control will be handled entirely on a closed loop basis.
- 2 After drilling the surface hole section, the spudder rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
- 3 The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
- 4 A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with a pressure gauge installed on the wellhead.
- 5 Spudder rig operations is expected to take 4-5 days per well on a multi-well pad.
- 6 The NMOCD will be contacted and notified 24 hours prior to commencing spudder rig operations.
- 7 Drilling operations will be performed with drilling rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

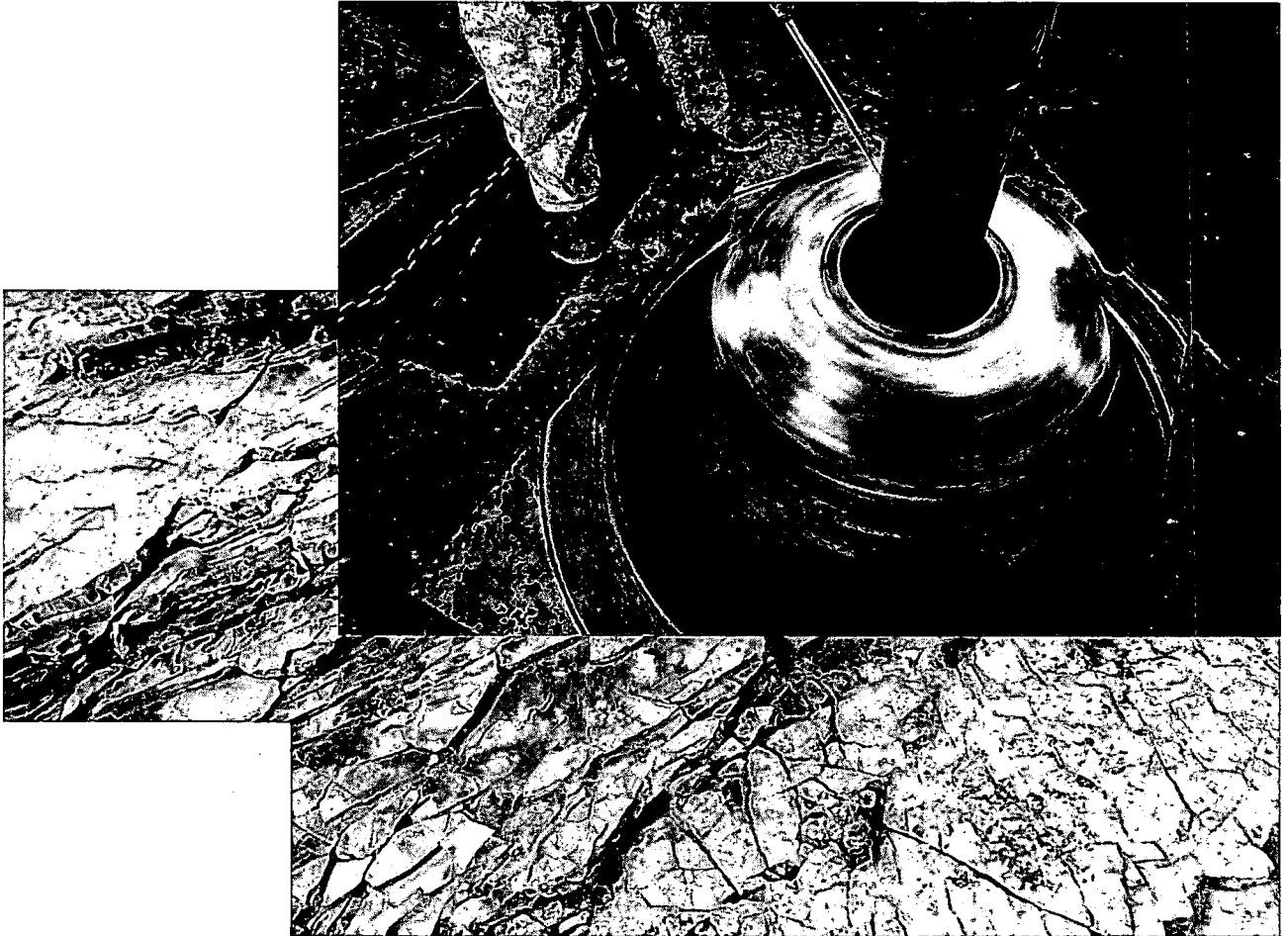
Attachments

X Directional Plan

 Other, describe



Commitment Runs Deep



Design Plan
Operation and Maintenance Plan
Closure Plan

SENM - Closed Loop Systems
June 2010

I. Design Plan

Devon uses MI SWACO closed loop system (CLS). The MI SWACO CLS is designed to maintain drill solids at or below 5%. The equipment is arranged to progressively remove solids from the largest to the smallest size. Drilling fluids can thus be reused and savings is realized on mud and disposal costs. Dewatering may be required with the centrifuges to insure removal of ultra fine solids.

The drilling location is constructed to allow storm water to flow to a central sump normally the cellar. This insures no contamination leaves the drilling pad in the event of a spill. Storm water is reused in the mud system or stored in a reserve fluid tank farm until it can be reused. All lubricants, oils, or chemicals are removed immediately from the ground to prevent the contamination of storm water. An oil trap is normally installed on the sump if an oil spill occurs during a storm.

A tank farm is utilized to store drilling fluids including fresh water and brine fluids. The tank farm is constructed on a 20 ml plastic lined, bermed pad to prevent the contamination of the drilling site during a spill. Fluids from other sites may be stored in these tanks for processing by the solids control equipment and reused in the mud system. At the end of the well the fluids are transported from the tank farm to an adjoining well or to the next well for the rig.

Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

Signs will be posted on the fence surrounding the closed-loop system unless the closed-loop system is located on a site where there is an existing well, that is operated by Devon.

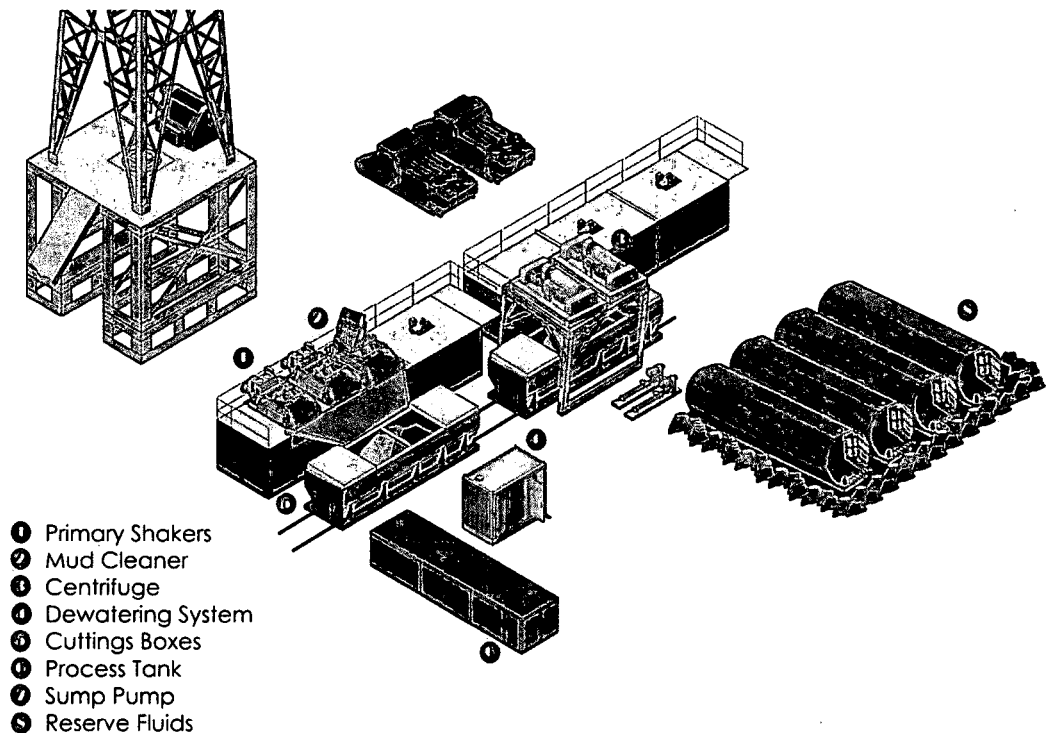
II. Operations and Maintenance Plan

Primary Shakers: The primary shakers make the first removal of drill solids from the drilling mud as it leaves the well bore. The shakers are sized to handle maximum drilling rate at optimal screen size. The shakers normally remove solids down to 74 microns.

Mud Cleaner: The Mud Cleaner cleans the fluid after it leaves the shakers. A set of hydrocyclones are sized to handle 1.25 to 1.5 times the maximum circulating rate. This ensures all the fluid is being processed to an average cut point of 25 microns. The wet discharged is dewatered on a shaker equipped with ultra fine mesh screens and generally cut at 40 microns.



Closed Loop Schematic



Centrifuges: The centrifuges can be one or two in number depending on the well geometry or depth of well. The centrifuges are sized to maintain low gravity solids at 5% or below. They may or may not need a dewatering system to enhance the removal rates. The centrifuges can make a cut point of 8-10 microns depending on bowl speed, feed rate, solids loading and other factors.

The centrifuge system is designed to work on the active system and be flexible to process incoming fluids from other locations. This set-up is also dependant on well factors.

Dewatering System: The dewatering system is a chemical mixing and dosing system designed to enhance the solids removal of the centrifuge. Not commonly used in shallow wells. It may contain pH adjustment, coagulant mixing and dosing, and polymer mixing and dosing. Chemical flocculation binds ultra fine solids into a mass that is within the centrifuge operating design. The

dewatering system improves the centrifuge cut point to infinity or allows for the return of clear water or brine fluid. This ability allows for the ultimate control of low gravity solids.

Cuttings Boxes: Cuttings boxes are utilized to capture drill solids that are discarded from the solids control equipment. These boxes are set upon a rail system that allows for the removal and replacement of a full box of cuttings with an empty one. They are equipped with a cover that insures no product is spilled into the environment during the transportation phase.

Process Tank: (Optional) The process tank allows for the holding and process of fluids that are being transferred into the mud system. Additionally, during times of lost circulation the process tank may hold active fluids that are removed for additional treatment. It can further be used as a mixing tank during well control conditions.

Sump and Sump Pump: The sump is used to collect storm water and the pump is used to transfer this fluid to the active system or to the tank for to hold in reserve. It can also be used to collect fluids that may escape during spills. The location contains drainage ditches that allow the location fluids to drain to the sump.

Reserve Fluids (Tank Farm): A series of frac tanks are used to replace the reserve pit. These are steel tanks that are equipped with a manifold system and a transfer pump. These tanks can contain any number of fluids used during the drilling process. These can include fresh water, cut brine, and saturated salt fluid. The fluid can be from the active well or reclaimed fluid from other locations. A 20 ml liner and berm system is employed to ensure the fluids do not migrate to the environment during a spill.

If a leak develops, the appropriate division district office will be notified within 48 hours of the discovery and the leak will be addressed. Spill prevention is accomplished by maintaining pump packing, hoses, and pipe fittings to insure no leaks are occurring. During an upset condition the source of the spill is isolated and repaired as soon as it is discovered. Free liquid is removed by a diaphragm pump and returned to the mud system. Loose topsoil may be used to stabilize the spill and the contaminated soil is excavated and placed in the cuttings boxes. After the well is finished and the rig has moved, the entire location is scrapped and testing will be performed to determine if a release has occurred.

All trash is kept in a wire mesh enclosure and removed to an approved landfill when full. All spent motor oils are kept in separate containers and they are removed and sent to an approved recycling center. Any spilled lubricants, pipe

dope, or regulated chemicals are removed from soil and sent to landfills approved for these products.

These operations are monitored by Mi Swaco service technicians. Daily logs are maintained to ensure optimal equipment operation and maintenance. Screen and chemical use is logged to maintain inventory control. Fluid properties are monitored and recorded and drilling mud volumes are accounted for in the mud storage farm. This data is kept for end of well review to insure performance goals are met. Lessons learned are logged and used to help with continuous improvement.

A MI SWACO field supervisor manages from 3-5 wells. They are responsible for training personnel, supervising installations, and inspecting sites for compliance of MI SWACO safety and operational policy.

III. Closure Plan

A maximum 340' X 340' caliche pad is built per well. All of the trucks and steel tanks fit on this pad. All fluid cuttings go to the steel tanks to be hauled by various trucking companies to an agency approved disposal.

Devon Energy

APD VARIANCE DATA

OPERATOR NAME: Devon Energy

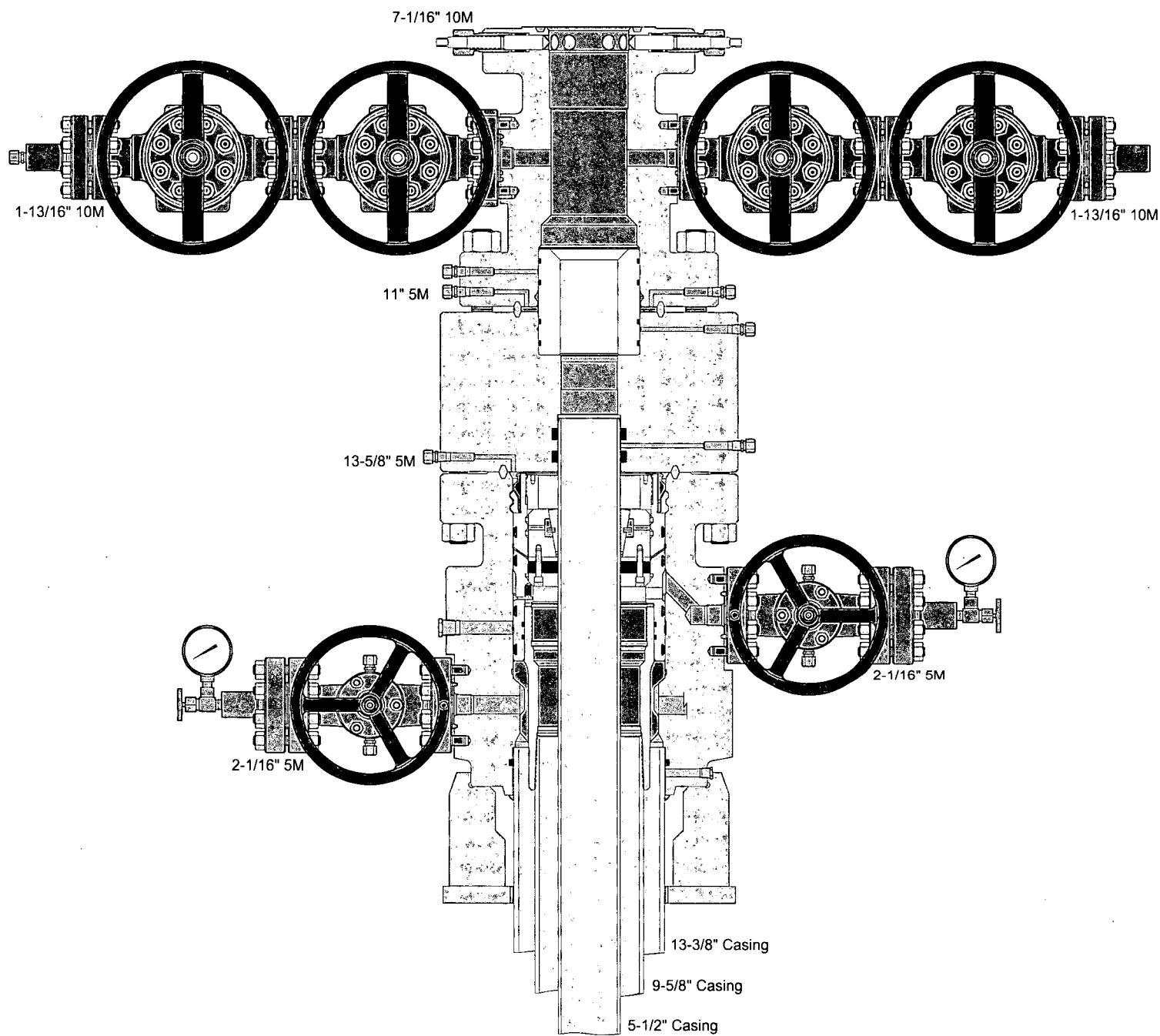
1. SUMMARY OF Variance:

Devon Energy respectfully requests approval for the following additions to the drilling plan:

1. Potential utilization of a spudder rig to pre-set surface casing.

2. Description of Operations

1. A spudder rig contractor may move in their rig to drill the surface hole section and pre-set surface casing on this well.
 - a. After drilling the surface hole section, the rig will run casing and cement following all of the applicable rules and regulations (OnShore Order 2, all COAs and NMOCD regulations).
 - b. Rig will utilize fresh water based mud to drill surface hole to TD.
2. The wellhead will be installed and tested once the surface casing is cut off and the WOC time has been reached.
3. A blind flange with the same pressure rating as the wellhead will be installed to seal the wellbore. Pressure will be monitored with needle valves installed on two wingvalves.
 - a. A means for intervention will be maintained while the drilling rig is not over the well.
4. The BLM will be contacted and notified 24 hours prior to commencing spudder rig operations.
5. Drilling operation will be performed with the big rig. At that time an approved BOP stack will be nipped up and tested on the wellhead before drilling operations commences on each well.
 - a. The BLM will be contacted / notified 24 hours before the big rig moves back on to the pad with the pre-set surface casing.
6. Devon Energy will have supervision on the rig to ensure compliance with all BLM and NMOCD regulations and to oversee operations.
7. Once the rig is removed, Devon Energy will secure the wellhead area by placing a guard rail around the cellar area.



A multibowl wellhead may be used. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested.

Devon proposes using a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be 5000 (5M) psi.

- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial BOP test.
- Wellhead company will install a solid steel body pack-off to completely isolate the lower head after cementing intermediate casing. After installation of the pack-off, the pack-off and the lower flange will be tested to 5M, as shown on the attached schematic. Everything above the pack-off will not have been altered whatsoever from the initial nipple up. Therefore the BOP components will not be retested at that time.
- If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head will be cut and top out operations will be conducted.
- Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.
- Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.

After running the 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 30 days, as per Onshore Order #2. If the well is not complete within 30 days of this BOP test, another full BOP test will be conducted, as per Onshore Order #2.

After running the 9-5/8' intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 5M will already be installed on the wellhead.

The pipe rams will be operated and checked each 24 hour period and each time the drill pipe is out of the hole. These tests will be logged in the daily driller's log. A 2" kill line and 3" choke line will be incorporated into the drilling spool below the ram BOP. In addition to the rams and annular preventer, additional BOP accessories include a kelly cock, floor safety valve, choke lines, and choke manifold rated at 5,000 psi WP.

Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.



Fluid Technology

ContiTech Beattie Corp.
Website: www.contitechbeattie.com

Monday, June 14, 2010

RE: Drilling & Production Hoses
Lifting & Safety Equipment

To Helmerich & Payne,

A Continental ContiTech hose assembly can perform as intended and suitable for the application regardless of whether the hose is secured or unsecured in its configuration. As a manufacturer of High Pressure Hose Assemblies for use in Drilling & Production, we do offer the corresponding lifting and safety equipment, this has the added benefit of easing the lifting and handling of each hose assembly whilst affording hose longevity by ensuring correct handling methods and procedures as well as securing the hose in the unlikely event of a failure; but in no way does the lifting and safety equipment affect the performance of the hoses providing the hoses have been handled and installed correctly. It is good practice to use lifting & safety equipment but not mandatory.

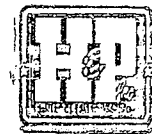
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

ContiTech Beattie is part of the Continental AG Corporation and can offer the full support resources associated with a global organization.

Best regards,

Robin Hodgson
Sales Manager
ContiTech Beattie Corp

ContiTech Beattie Corp,
11535 Brittmoore Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



RIG 212



QUALITY DOCUMENT

**PHOENIX RUBBER
INDUSTRIAL LTD.**

 6728 Szeged, Budapesti út 10. Hungary • H-6701 Szeged, P. O. Box 152
 Phone: (3662) 566-737 • Fax: (3662) 566-738

 SALES & MARKETING: H-1092 Budapest, Ráday u. 42-44. Hungary • H-1440 Budapest, P. O. Box 26
 Phone: (361) 456-4200 • Fax: (361) 217-2972, 456-4273 • www.taurusermerge.hu

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552	
PURCHASER: Phoenix Beattie Co.			P.O. N°: 1519FA-871		
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID Choke and Kill Hose			
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH: 11,43 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
Pressure test with water at ambient temperature <div style="text-align: center;">See attachment. (1 page)</div>					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	720	719	AISI 4130	C7626	
			AISI 4130	47357	
API Spec 16 C Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date:	Inspector		Quality Control		
29. April. 2002.			PHOENIX RUBBER Industrial Ltd. Hose Inspection and Verification Dept. PHOENIX RUBBER & C.		

14094-65

40920-0-00015 N600C

8	GNL +0.000 PC	14:00			
	RDL +0.000 PC	14:00			
	SL +1044.1 3a	14:00			
7	GNL +0.000 PC	13:40	40	60	80
	RDL +0.000 PC	13:40			
	SL +1047.1 3a	13:40			
6	GNL +0.000 PC	13:20			
	RDL +0.000 PC	13:20			
	SL +1050.1 3a	13:20			
5	GNL +0.000 PC	13:00			
	RDL +0.000 PC	13:00			
	SL +1055.1 3a	13:00			
4					
3					
2					

[Signature]
PHOENIX RUBBER
 Industrial Ltd.
 Hose Inspection and
 Certification Dept.

VERIFIED TRUE CO.
 PHOENIX RUBBER CO.



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

SUPO Data Report

10/09/2019

APD ID: 10400040202

Submission Date: 03/21/2019

Highlighted data
reflects the most
recent changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

EX_RD_20190321092209.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? YES

Existing Road Improvement Description: Improve road to accommodate Drilling and Completion operations.

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? NO

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

BELLOQ_11_2_FED_STATE_COM_516H_OneMileBuffer_WA017267306_20190321092228.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: Wells will go to Belloq 11 CTB 2 . Please refer to CTB plat.

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: OTHER

Describe type: null

Water source use type: STIMULATION

Source latitude:

Source longitude:

Source datum:

Water source permit type: OTHER

Water source transport method: PIPELINE

Source land ownership: FEDERAL

Source transportation land ownership: STATE

Water source volume (barrels): 230000

Source volume (acre-feet): 29.645412

Source volume (gal): 9660000

Water source and transportation map:

BELLOQ_11_PAD_2_water_x_map_3_21_2019_20190321092519.pdf

Water source comments: The attached Water Transfer Map is a proposal only and the final route and documentation will be provided by a Devon contractor prior to installation. When available Devon will always follow existing disturbance.

New water well? NO

New Water Well Info

Well latitude:

Well Longitude:

Well datum:

Well target aquifer:

Est. depth to top of aquifer(ft):

Est thickness of aquifer:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Aquifer comments:

Aquifer documentation:

Well depth (ft.):

Well casing type:

Well casing outside diameter (in.):

Well casing inside diameter (in.):

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Dirt fill and caliche will be used to construct well pad. Map attached.

Construction Materials source location attachment:

BELLOQ_11__Caliche_Map_20190130084332.pdf

Section 7 - Methods for Handling Waste

Waste type: PRODUCED WATER

Waste content description: Average produced BWPD over the first year of production

Amount of waste: 1000 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** PRIVATE

Disposal type description:

Disposal location description: Multiple methods for handling waste will be utilized. Via trucking, Dvn owned disposal system and or third party pipeline take away.

Waste type: COMPLETIONS/STIMULATION

Waste content description: Flow back water during completion operations.

Amount of waste: 3000 barrels

Waste disposal frequency : One Time Only

Safe containment description: N/A

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Various disposal locations in Lea and Eddy counties.

Waste type: FLOWBACK

Waste content description: Average produced BWPD over the flowback period (first 30 days of production).

Amount of waste: 2000 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: OFF-LEASE INJECTION **Disposal location ownership:** STATE

Disposal type description:

Disposal location description: Produced water during flowback will be disposed of at various disposals in Lea and Eddy County.

Waste type: DRILLING

Waste content description: Water Based Cuttings

Amount of waste: 1841 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: All cuttings will disposed of at R360, Sundance, or equivalent.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit?

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Cuttings area length (ft.)

Cuttings area width (ft.)

Cuttings area depth (ft.)

Cuttings area volume (cu. yd.)

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

RIG_LAY_OUT_20190321204252.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: BELLOQ 11 PAD

Multiple Well Pad Number: 4

Recontouring attachment:

RECLAMATION_20190321092628.pdf

Drainage/Erosion control construction: All areas disturbed shall be reclaimed as early and as nearly as practicable to their original condition or their final land use and shall be maintained to control dust and minimize erosion to the extent practicable.

Drainage/Erosion control reclamation: Topsoils and subsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns. The disturbed area then shall be reseeded in the first favorable growing season.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Well pad proposed disturbance (acres): 4.76	Well pad interim reclamation (acres): 1.995	Well pad long term disturbance (acres): 2.765
Road proposed disturbance (acres): 0.978	Road interim reclamation (acres): 0	Road long term disturbance (acres): 0
Powerline proposed disturbance (acres): 0	Powerline interim reclamation (acres): 0	Powerline long term disturbance (acres): 0
Pipeline proposed disturbance (acres): 1.136	Pipeline interim reclamation (acres): 0	Pipeline long term disturbance (acres): 1.136
Other proposed disturbance (acres): 5.741	Other interim reclamation (acres): 0	Other long term disturbance (acres): 5.741
Total proposed disturbance: 12.615	Total interim reclamation: 1.995	Total long term disturbance: 9.642

Disturbance Comments:

Reconstruction method: Operator will use Best Management Practices"BMP" to mechanically recontour to obtain the desired outcome.

Topsoil redistribution: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

Soil treatment: Topsoils shall be replaced to their original relative positions and contoured so as to achieve erosion control, long-term stability and preservation of surface water flow patterns.

Existing Vegetation at the well pad: Shinnery, yucca, grasses and mesquite.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Shinnery, yucca, grasses and mesquite.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? NO

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? NO

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? NO

Seed harvest description:

Seed harvest description attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Seed Management

Seed Table

Seed type:

Seed source:

Seed name:

Source name:

Source address:

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: JACOB

Last Name: OCHOA

Phone: (575)748-9934

Email: JACOB.OCHOA@DVN.COM

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Maintain weeds on an as need basis.

Weed treatment plan attachment:

Monitoring plan description: Monitor as needed.

Monitoring plan attachment:

Success standards: N/A

Pit closure description: N/A

Pit closure attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Section 11 - Surface Ownership

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Disturbance type: WELL PAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Section 12 - Other Information

Right of Way needed? NO

Use APD as ROW?

ROW Type(s):

ROW Applications

SUPO Additional Information:

Use a previously conducted onsite? YES

Previous Onsite information: 5-2017; Belloq 11 Fed State Com 223H

Other SUPO Attachment

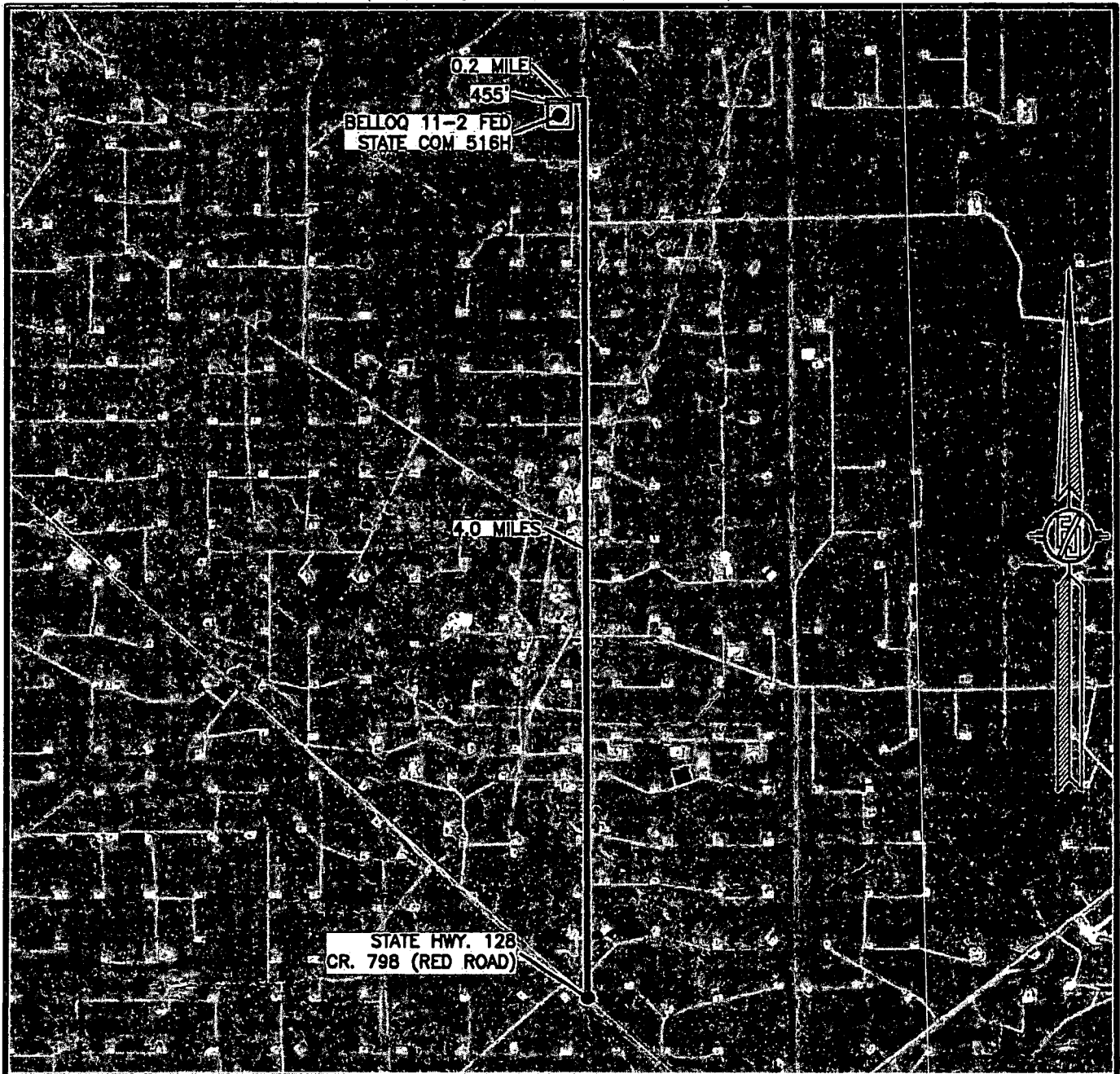
AA000145292_BELLOQ_11_CTB_2_PAD_P_20190130084933.pdf

EL8031_BELLOQ_11_WELL_PAD_4_ELECTRIC_LINE_P_R1_20190130084936.pdf

7660157F_BELLOQ_11_PAD_4_CTB_2_FL_P_20190130084929.pdf

Pay.gov____Receipt_516H_525H_20190321131758.pdf

SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
AERIAL ACCESS ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOV. 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

PLAT
One Mile Radius Map



This map is for illustrative purposes only and is neither a legally recorded map nor a survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

USA Contiguous Equidistant Conic
Datum: North American 1983
Created by: FME Server
Map is current as of 3/21/2019



0 0.3 Miles
1 inch = 0.43 miles

BELLOQ 11-2 FED STATE COM 516H
WA017267306

BELLOQ 11-2 FED STATE COM 223H

Nearest wellbore to SHL:

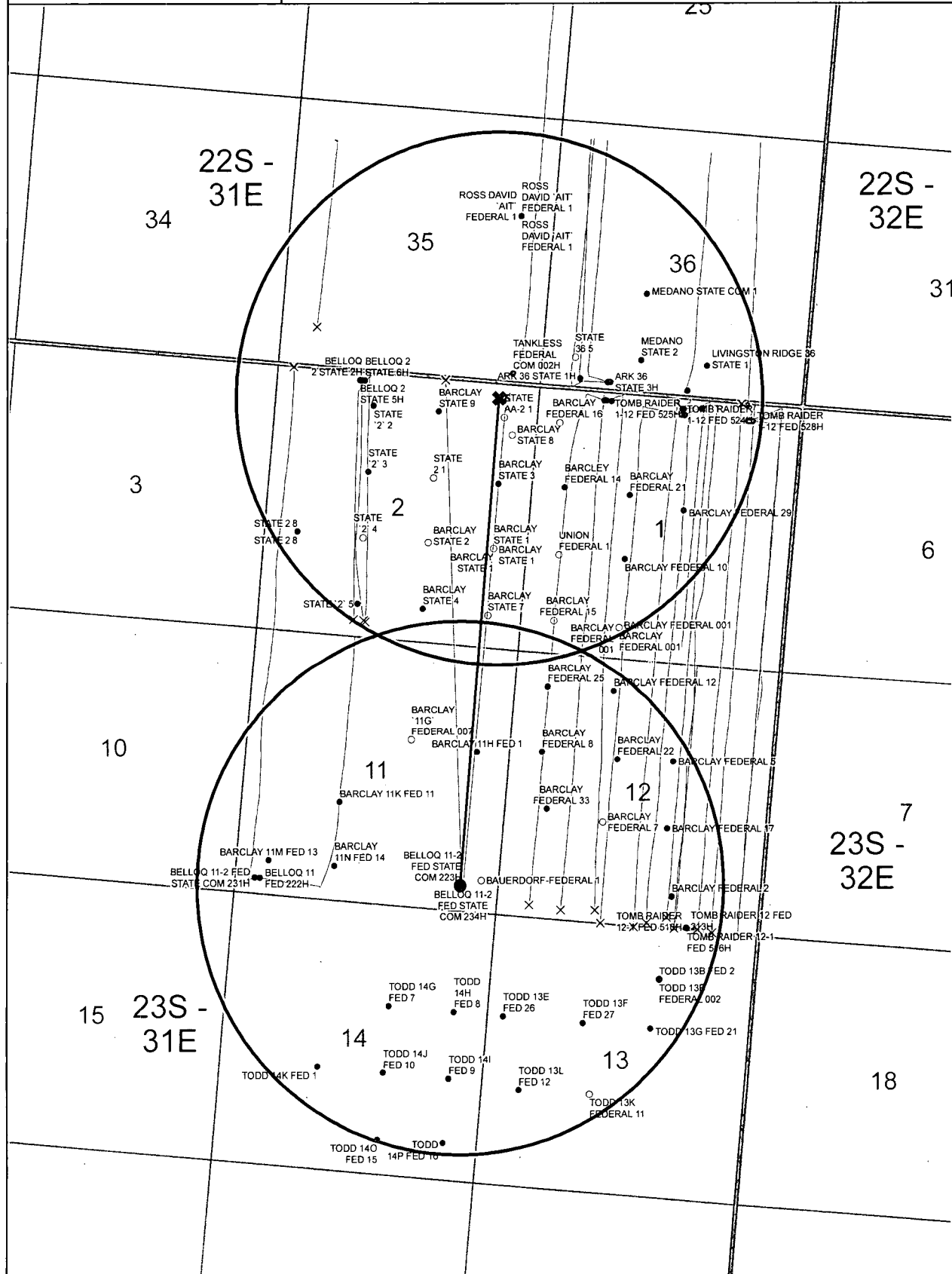
29 ft.

BELLOQ 11-2 FED STATE COM 234H

Nearest wellbore to BHL:

138 ft.

- Unknown SHL
- Active SHL
- Inactive SHL
- × BHL



BELLOQ 11 PAD 2



This map is for illustrative purposes only and is neither a legally recorded map nor survey and is not intended to be used as one. Devon makes no warranty, representation, or guarantee of any kind regarding this map.

WGS_1984_Web_Mercator_Auxiliary_Sphere

Prepared by: _User

Map is current as of: 17-May-2018



Miles

0 0.14 0.28 0.56 1:28,457

GROFT FW POND

DEVON 30 DAY, INSTALL DAYS PRIOR TO COMPLETION
DEVON WILL CONTACT BLM IF ADDITIONAL TIME IS NEEDED
DISTURBANCE: EXISTING
CONTENTS: TREATED WATER & FRESH WATER
TYPE OF TYPE: LAYFLAT
SIZE OF PIPE: 10" OR 12"
LENGTH OF PIPE: TW 6,816' & FW 15,971'

TODD 2-TW POND

BELLOQ 11 PAD 2

23S - 30E - 3

23S - 31E - 2

23S - 31E - 1

23S - 32E - 6

23310114

1615

Caliche Pit 23S 31E Section 1

Total 12,911.57 ft

6,332.82 ft

23S - 30E - 10

23S - 31E - 11

23S - 31E - 12

23S - 32E - 7

Belloq 11

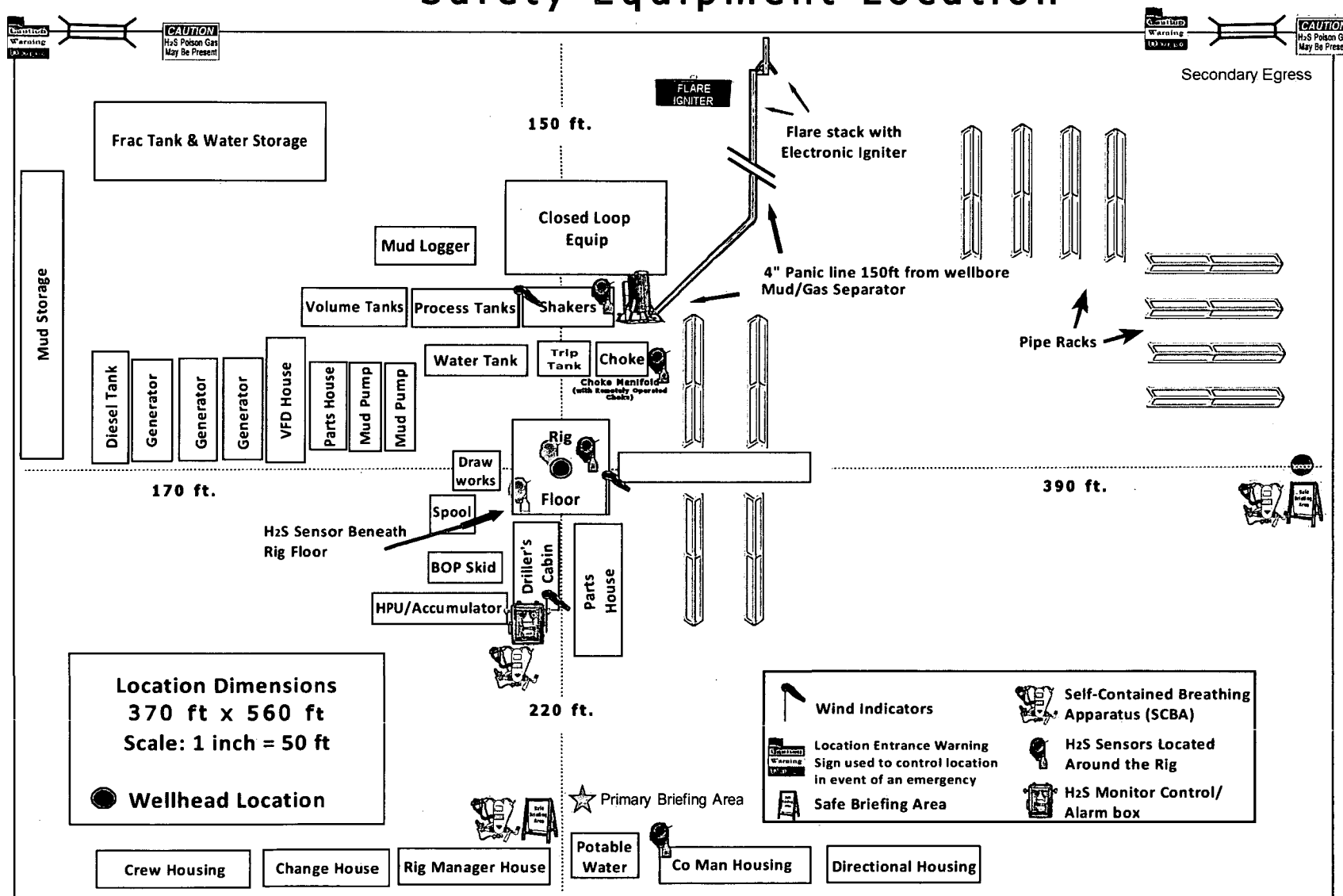
23S - 30E - 15

23S - 31E - 14

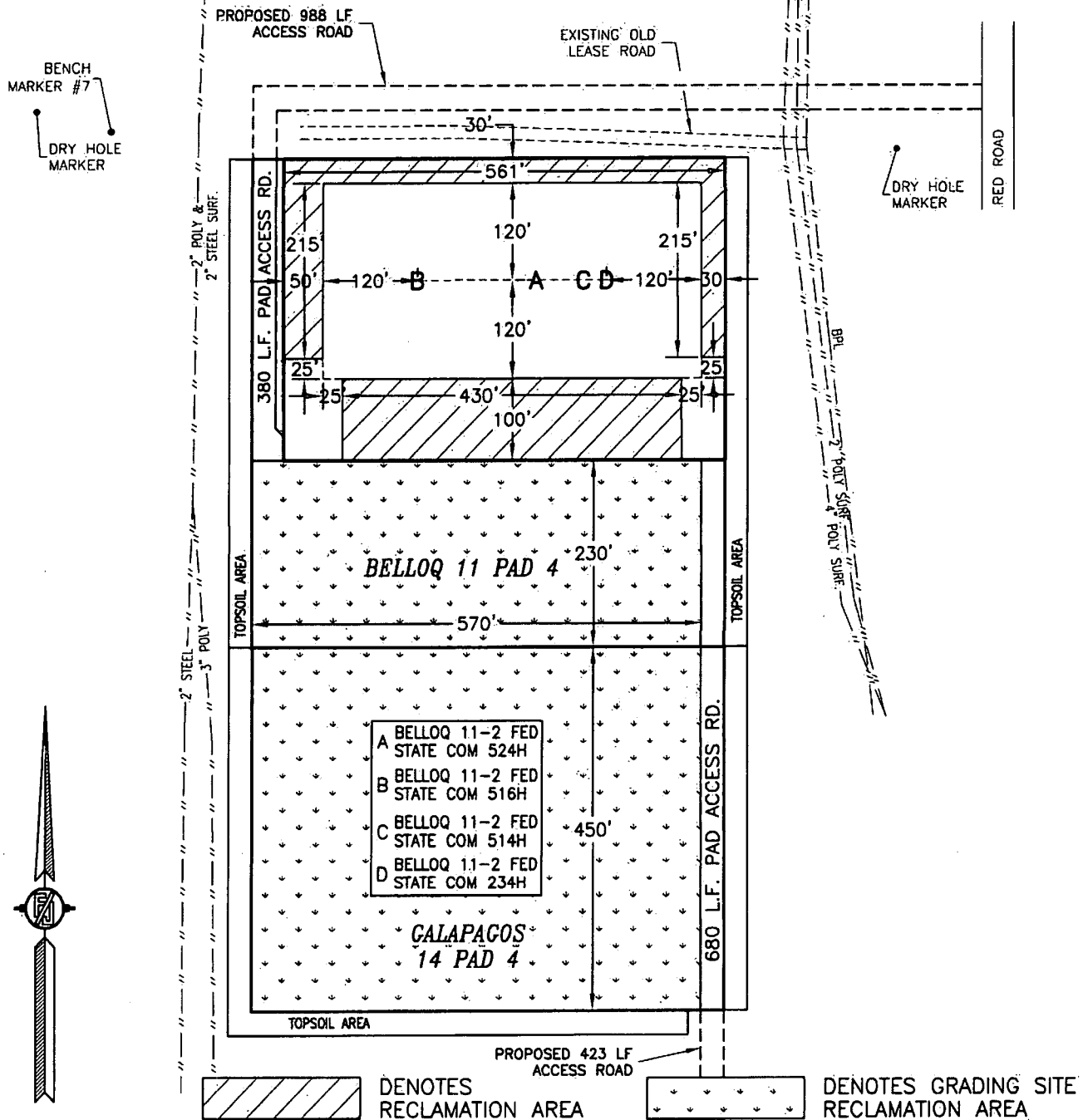
23S - 31E - 13

23S - 32E - 10

Devon Energy - Well Pad Rig Location Layout Safety Equipment Location



SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
INTERIM SITE RECLAMATION



020 100 200 400
SCALE 1" = 200'

1.771± ACRES INTERIM PAD RECLAMATION AREA
8.971± ACRES GRADING SITE RECLAMATION AREA
3.723± ACRES NON-RECLAIMED AREA
14.465± ACRES BELLOQ & GALAPAGOS WELL PAD

DEVON ENERGY PRODUCTION COMPANY, L.P.
BELLOQ 11-2 FED STATE COM 516H
LOCATED 500 FT. FROM THE SOUTH LINE
AND 940 FT. FROM THE EAST LINE OF
SECTION 11, TOWNSHIP 23 SOUTH,
RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

FEBRUARY 25, 2019

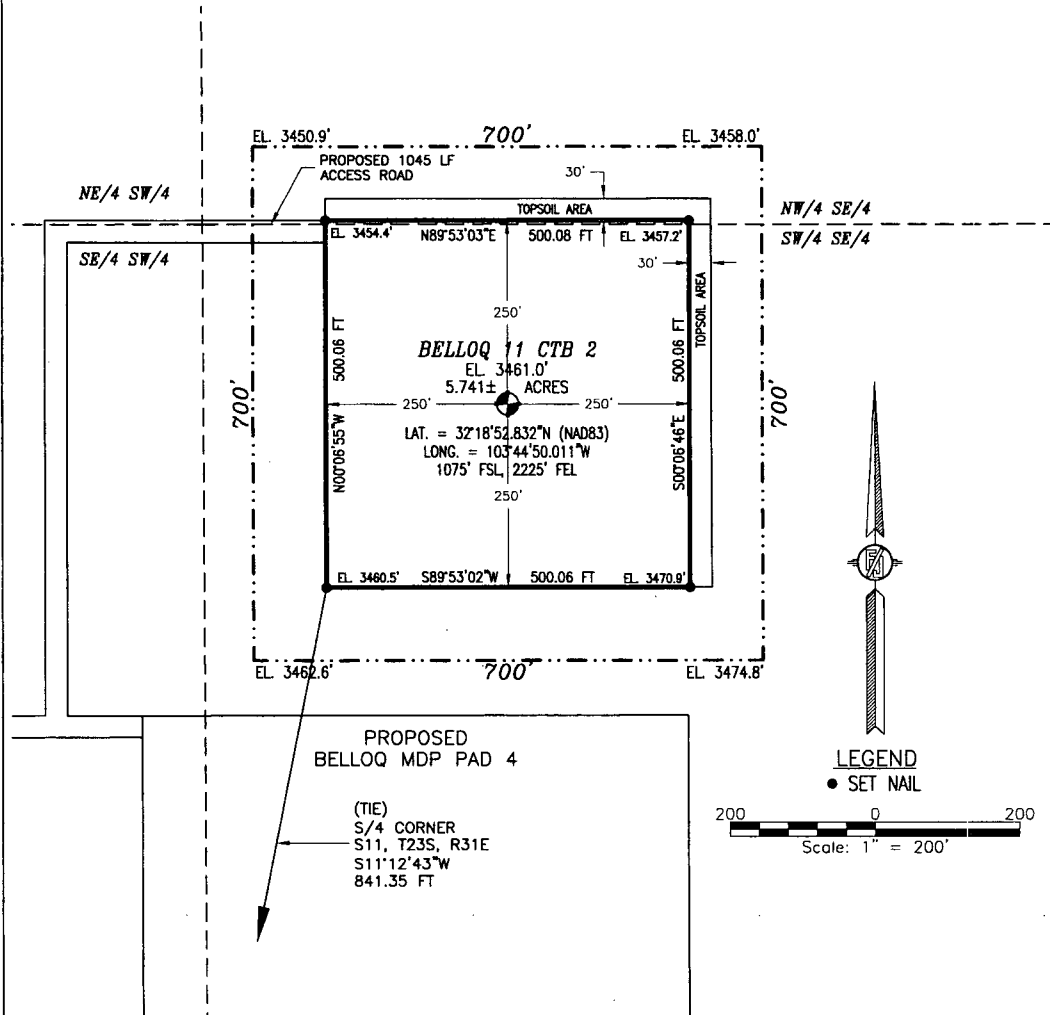
SURVEY NO. 6187B

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE SW/4 SE/4 & NW/4 SE/4 OF
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 15, 2017



DESCRIPTION

A CERTAIN PIECE OR PARCEL OF LAND AND REAL ESTATE LYING IN THE SW/4 SE/4 & NW/4 SE/4 OF SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST N.M.P.M., EDDY COUNTY, NEW MEXICO.

BEGINNING AT THE SOUTHWEST CORNER OF THE PARCEL, WHENCE THE SOUTH QUARTER CORNER OF SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S11°12'43"W, A DISTANCE OF 841.35 FEET; THENCE N00°06'55"W A DISTANCE OF 500.06 FEET TO THE NORTHWEST CORNER OF THE PARCEL; THENCE N89°53'03"E A DISTANCE OF 500.08 FEET TO THE NORTHEAST CORNER OF THE PARCEL; THENCE S00°06'46"E A DISTANCE OF 500.06 FEET TO THE SOUTHEAST CORNER OF THE PARCEL; THENCE S89°53'02"W A DISTANCE OF 500.06 FEET TO THE SOUTHWEST CORNER OF THE PARCEL, TO THE POINT OF BEGINNING; CONTAINING 5.682 ACRES IN THE SW/4 SE/4 & 0.059 ACRES IN THE NW/4 SE/4 FOR A TOTAL OF 5.741 ACRES MORE OR LESS.

GENERAL NOTES

- 1.) THE INTENT OF THIS SURVEY IS TO ACQUIRE A BUSINESS LEASE FOR THE PURPOSE OF BUILDING A CENTRAL TANK BATTERY
- 2.) BASIS OF BEARING IS NEW MEXICO STATE PLANE EAST ZONE MODIFIED TO THE SURFACE (NAD83)

DRIVING DIRECTIONS: FROM STATE HIGHWAY 128 AND CR 798 (RED ROAD) GO NORTH ON CR 798 4.7 MILES, TURN LEFT (WEST) AT LEASE ROAD GO WEST 0.15 OF A MILE, ROAD BENDS RIGHT GO NORTHWEST 0.2 OF A MILE, TURN LEFT (SOUTHWEST) GO 0.4 OF A MILE, TURN LEFT (SOUTH) GO APPROX. 0.25 OF A MILE TO EXISTING PAD (BARCLAY 11N FED 14, AT EAST EDGE OF PAD IS ROAD LATH RED & WHITE FLAGGING, GO EAST APPROX. 328', TURN LEFT GO NORTH 675', TURN RIGHT GO EAST 370' TO THE NORTHWEST PAD CORNER.

SHEET: 1-3

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO (575) 234-3341

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 15 DAY OF MAY 2017

FILIMON F. JARAMILLO, SURVEYOR NO. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

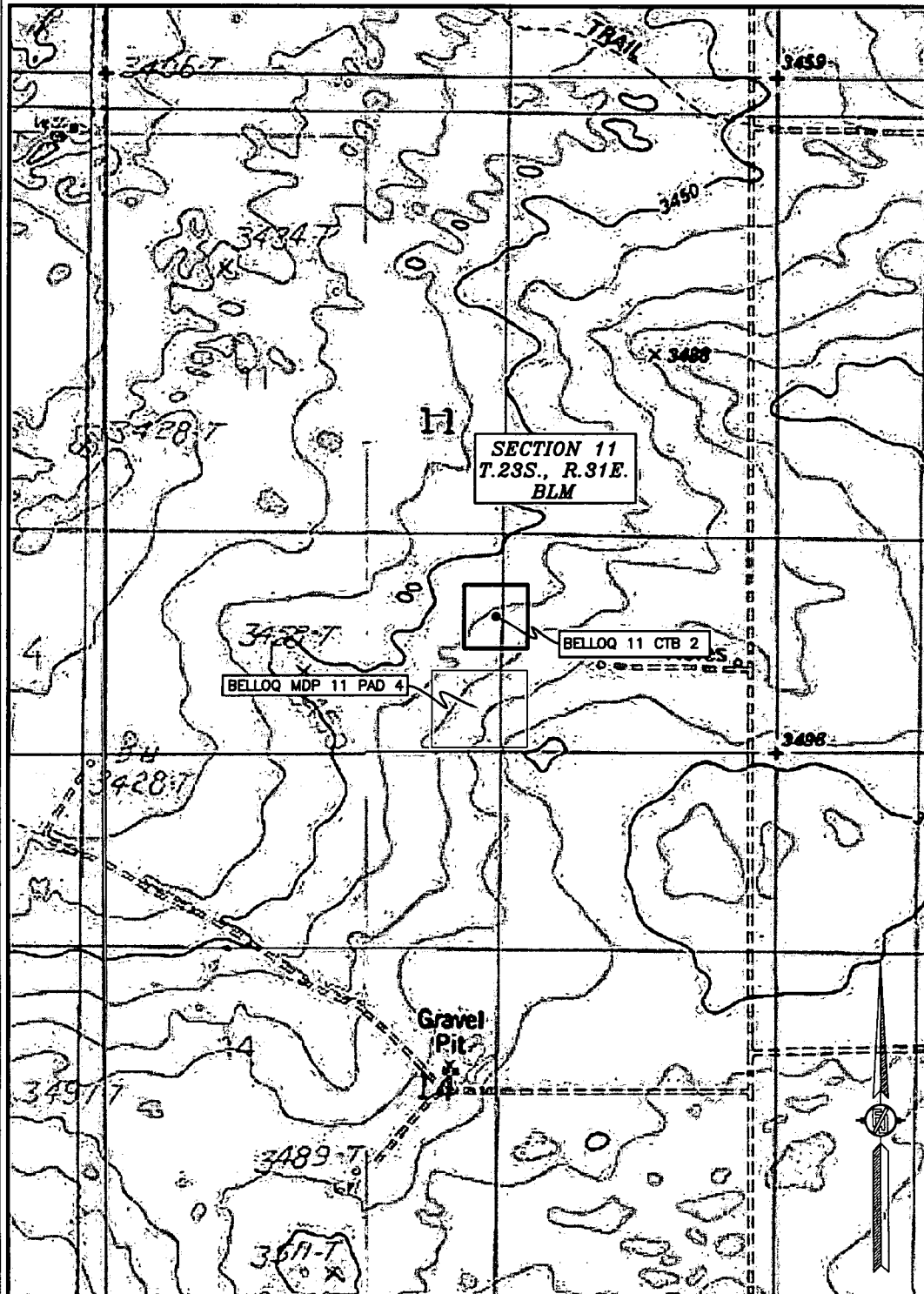
SURVEY NO. 5241

BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE SW/4 SE/4 & NW/4 SE/4 OF
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 15, 2017

QUAD MAP



SHEET: 2-3

MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

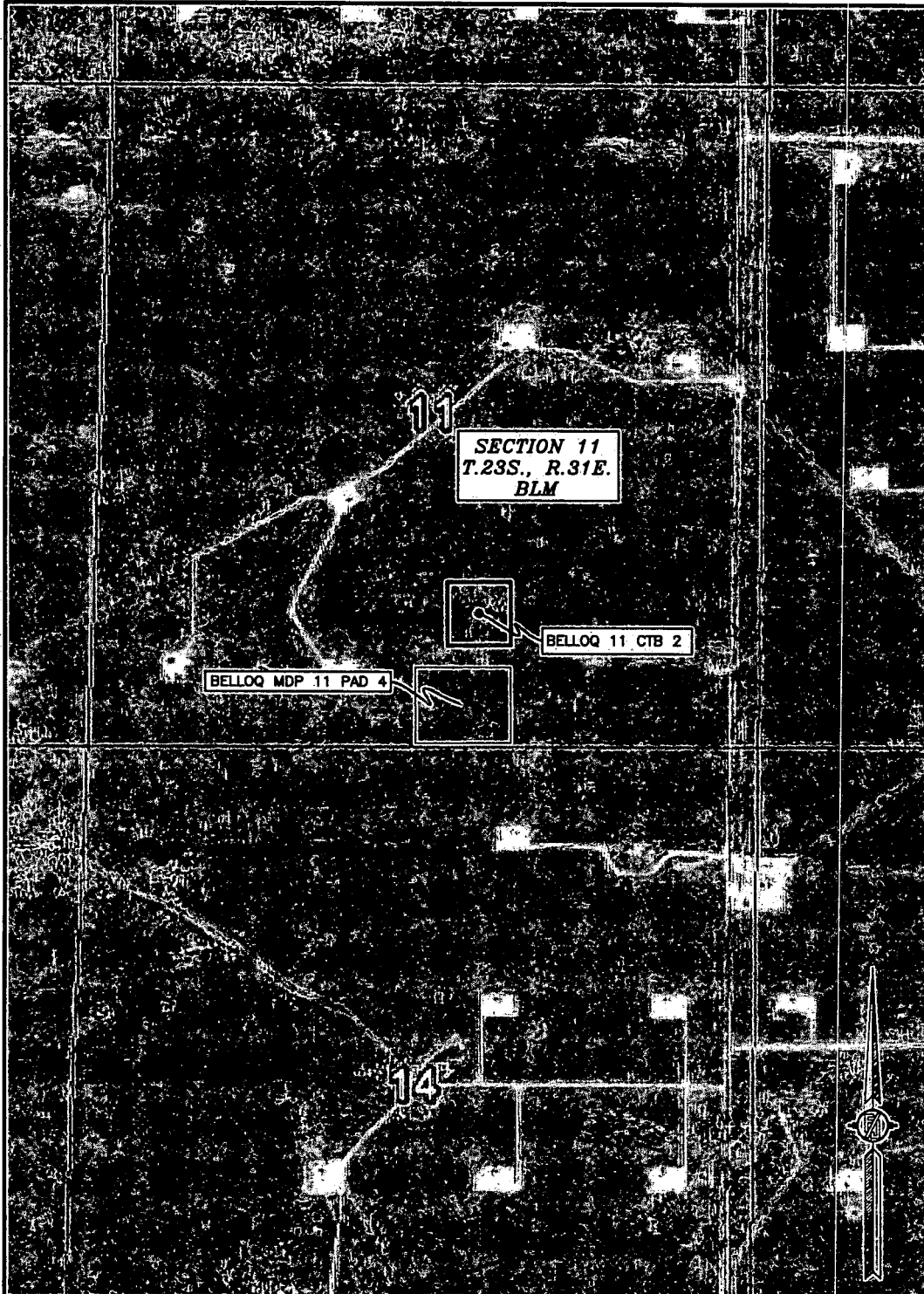
SURVEY NO. 5241

BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
IN THE SW/4 SE/4 & NW/4 SE/4 OF
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO

MAY 15, 2017

AERIAL PHOTO

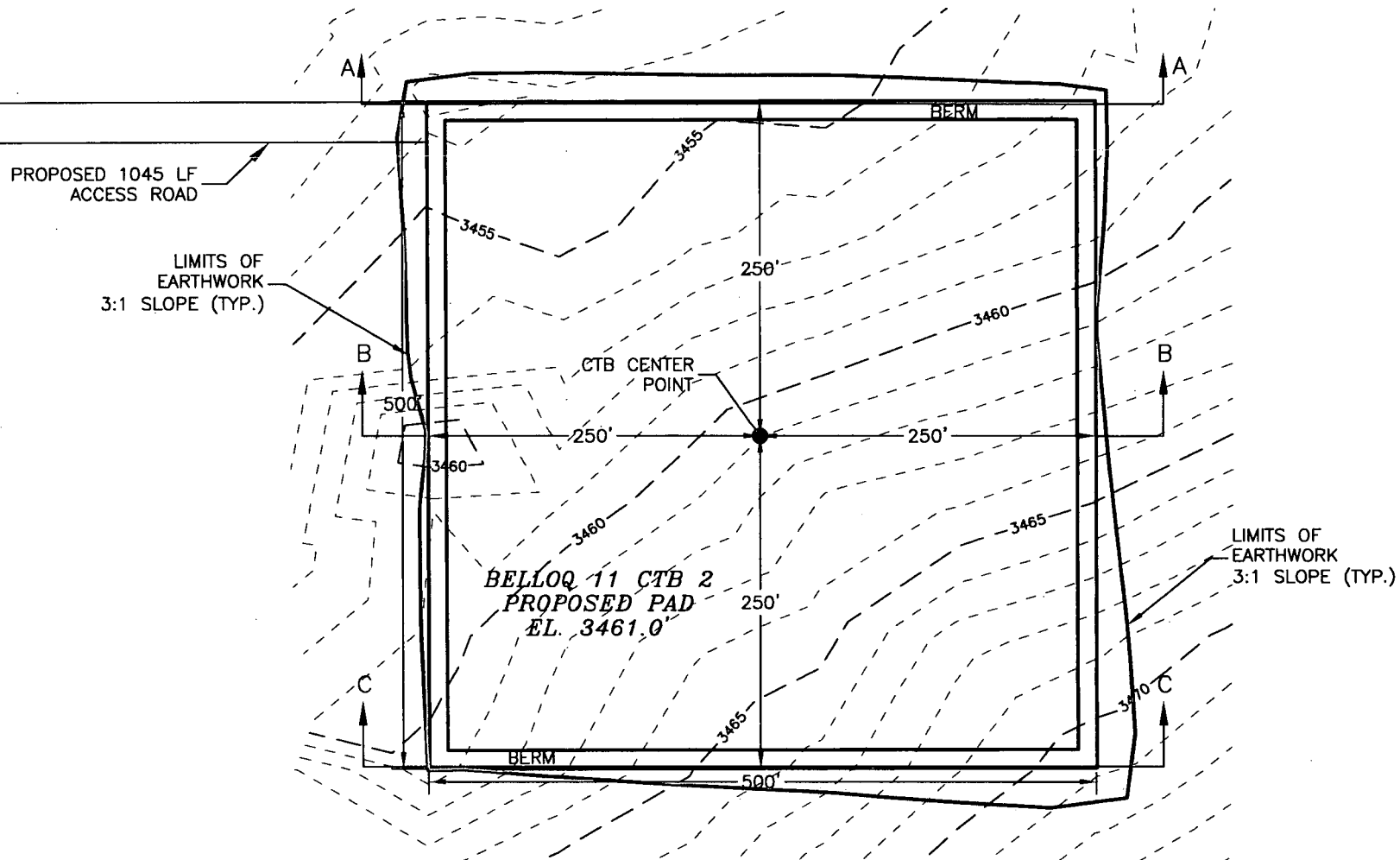


SHEET: 3-3

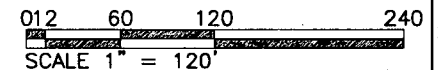
MADRON SURVEYING, INC. 301 SOUTH CANAL (575) 234-3341 CARLSBAD, NEW MEXICO

SURVEY NO. 5241

PLAN VIEW



DEVON ENERGY PRODUCTION COMPANY, L.P.
 GRADING PLAN AND CROSS SECTIONS
FOR BELLOQ 11 CTB 2
 SECTION 11, TOWNSHIP 23 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO



CUT	FILL	NET
14524 CU. YD	20841 CU. YD	6317 CU. YD (FILL)

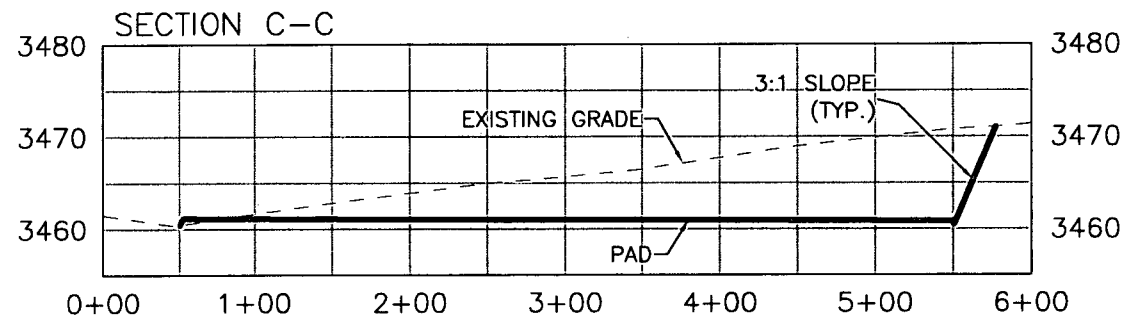
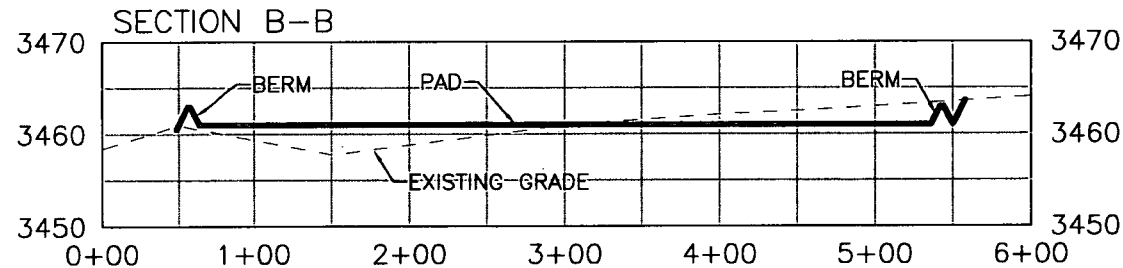
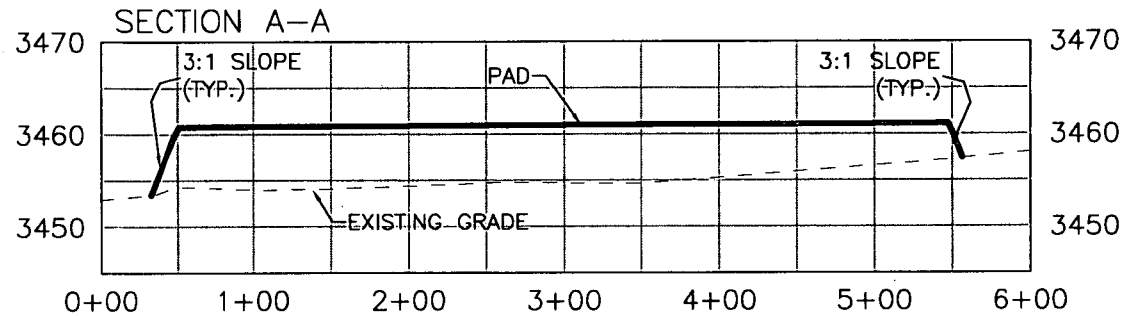
EARTHWORK QUANTITIES ARE ESTIMATED

MAY 15, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

SHEET 1-2
 SURVEY NO. 5241

CROSS SECTIONS



DEVON ENERGY PRODUCTION COMPANY, L.P.
 GRADING PLAN AND CROSS SECTIONS
FOR BELLOQ 11 CTB 2
 SECTION 11, TOWNSHIP 23 SOUTH,
 RANGE 31 EAST, N.M.P.M.
 EDDY COUNTY, STATE OF NEW MEXICO

012 60 120 240
 SCALE 1" = 120' - 1" = 20' VER

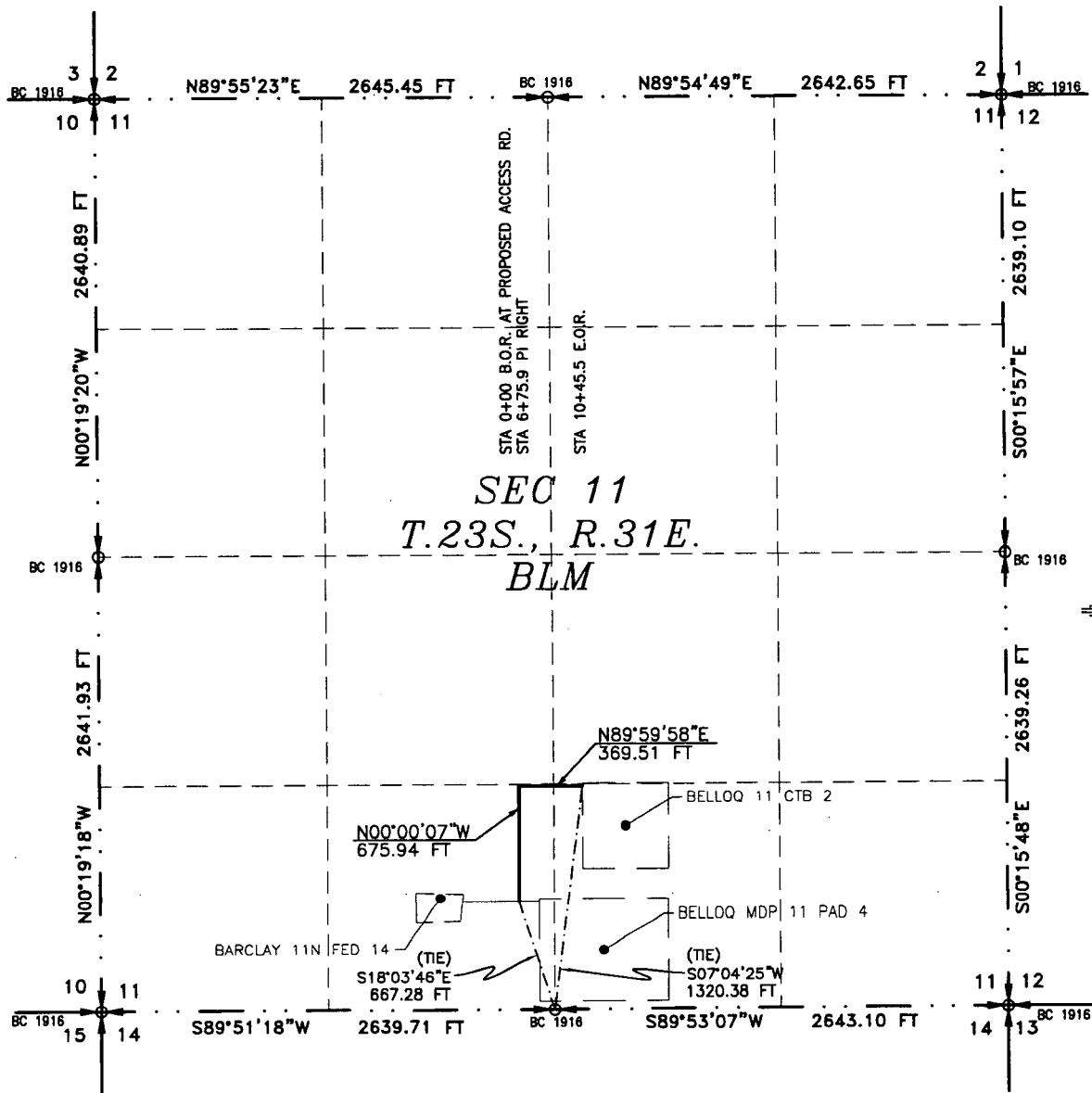
MAY 15, 2017

MADRON SURVEYING, INC. 301 SOUTH CANAL CARLSBAD, NEW MEXICO
 (575) 234-3341

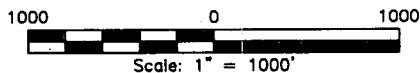
SHEET 2-2
 SURVEY NO. 5241

ACCESS ROAD PLAT
ACCESS ROAD TO THE BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 15, 2017



SEE NEXT SHEET (2-2) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-2

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 23 DAY OF MAY 2017

[Signature]
FILMON F. JARAMILLO, PLS. No. 12797
MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 5241

CARLSBAD, NEW MEXICO

ACCESS ROAD PLAT
ACCESS ROAD TO THE BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
MAY 15, 2017

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SW/4 OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S18°03'46"E, A DISTANCE OF 667.28 FEET;

THENCE N00°00'07"W A DISTANCE OF 675.94 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;

THENCE N89°59'58"E A DISTANCE OF 369.51 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S07°04'25"W, A DISTANCE OF 1320.38 FEET;

SAID STRIP OF LAND BEING 1045.45 FEET OR 63.36 RODS IN LENGTH, CONTAINING 0.720 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SW/4 876.91 L.F. 53.15 RODS 0.604 ACRES
SW/4 SE/4 168.54 L.F. 10.21 RODS 0.116 ACRES

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 23 DAY OF MAY 2017.

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-2

MADRON SURVEYING, INC.

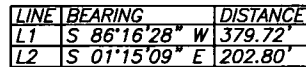
301 SOUTH CANAL
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 5241


NEW MEXICO

§



1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24	25	26	27	28	29	30	31	32	33	34	35	36	37	38	39	40	41	42	43	44	45	46	47	48	49	50	51	52	53	54	55	56	57	58	59	60	61	62	63	64	65	66	67	68	69	70	71	72	73	74	75	76	77	78	79	80	81	82	83	84	85	86	87	88	89	90	91	92	93	94	95	96	97	98	99	100
---	---	---	---	---	---	---	---	---	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	----	-----

Mexico, PLS No. 22404, hereby
 reflect an actual survey
 under my supervision at the
 minimum standards for
 this.



The seal is circular with the text "NEW MEXICO" at the top and "PROFESSIONAL SURVEYOR" at the bottom. In the center, the number "22404" is displayed. A signature is written across the bottom of the seal.

SHEET:
1 OF 4

SECTION 11, T23S-R31E, N.M.P.M.,
EDDY COUNTY, NEW MEXICO

ELECTRIC LINE PLAT

LEGAL DESCRIPTION

FOR

DEVON ENERGY PRODUCTION COMPANY, L.P.

BUREAU OF LAND MANAGEMENT

30' EASEMENT DESCRIPTION:

BEING an easement thirty (30) feet in width lying fifteen (15) feet on the right side and fifteen (15) feet on the left side of the survey centerline described below, being out of Section 11, Township 23 South, Range 31 East, N.M.P.M., Eddy County, New Mexico, and being out of a parcel of land owned by the Bureau of Land Management. Said centerline of easement being more particularly described as follows:

Commencing from a 2" iron pipe w/ BC found for the southeast corner of Section 11, T23S-R31E, N.M.P.M., Eddy County, New Mexico;

Thence N 15°21'41" W, a distance of 908.75' to the **Point of Beginning** of this easement, having coordinates of Northing=478512.37 feet, Easting=724390.63 feet, and continuing the following courses;

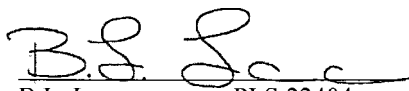
Thence S 86°16'28" W, a distance of 379.72' to an angle point;

Thence S 01°15'09" E, a distance of 202.80' to the **Point of Ending**, having coordinates of Northing=478284.95 feet, Easting=724016.15 feet, from said point a 1" iron pipe w/ BC found for the south quarter corner of Section 11, T23S-R31E, N.M.P.M., Eddy County, New Mexico bears S 72°07'07" W a distance of 2129.90', covering a total of **582.52' or 35.30 rods** and having an area of **0.401 acres**.

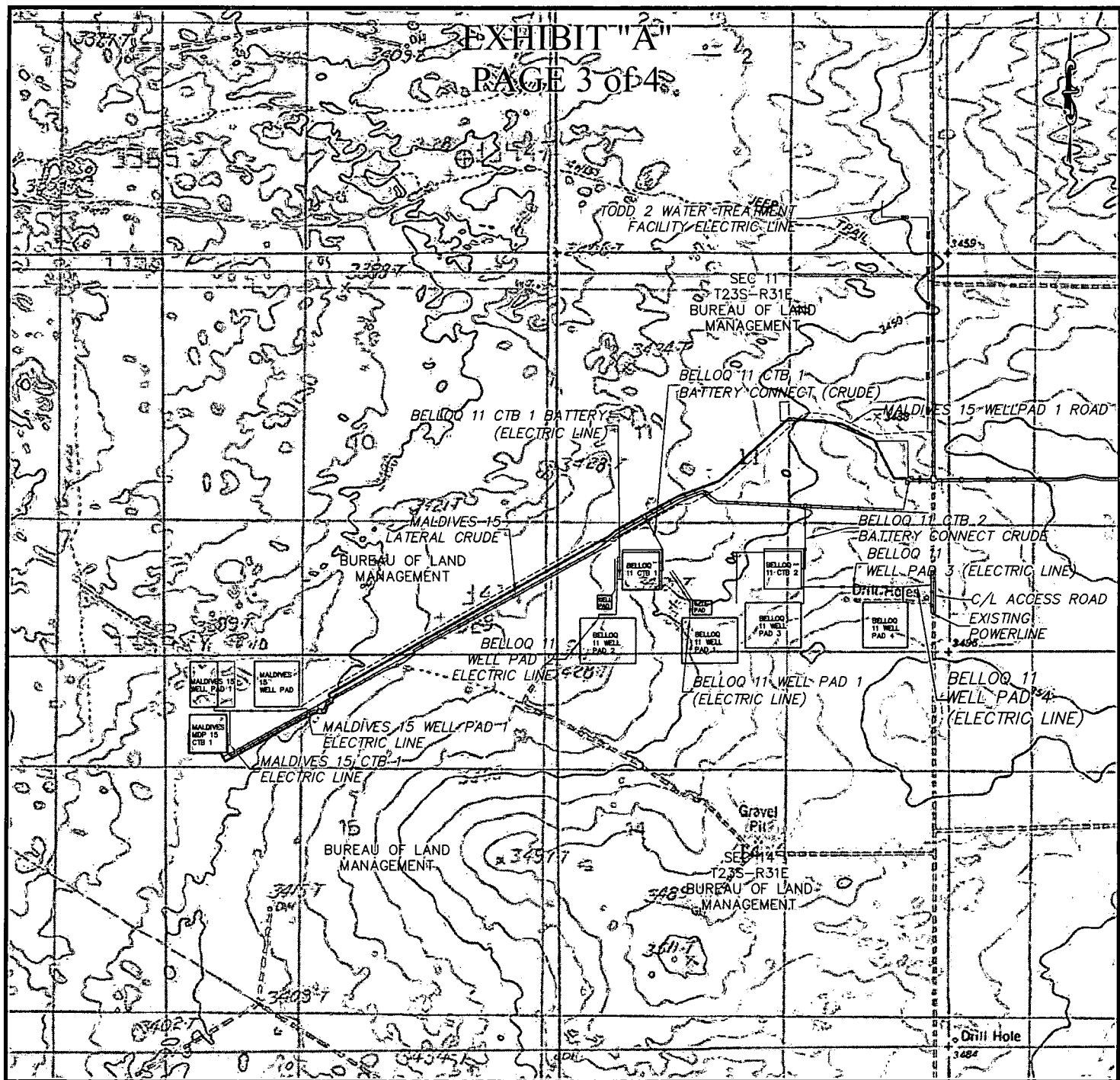
NOTES:

Bearings, distances and coordinates shown herein are based on New Mexico State Plane Coordinate System, NAD 83, East Zone 3001, US Survey Feet, all distances are grid.

I, B.L. Laman, New Mexico PLS No. 22404, hereby certify this survey to reflect an actual survey made on the ground under my supervision. This survey meets the minimum standards for surveying in New Mexico.


B.L. Laman PLS 22404
Date Signed: 03/22/2018
Horizon Row, LLC
P.O. Box 548, Dry Creek, LA
(903) 388-3045 70637
Employee of Horizon Row, LLC





QUAD MAP

SECTION 11, T23S-R31E, N.M.P.M.;
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC	
DEVON ENERGY PRODUCTION CO., L.P.	
PROPOSED 30' EASEMENT	
Drawn by: JEANNIE PERRY	Date: 03/12/2018

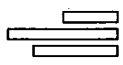
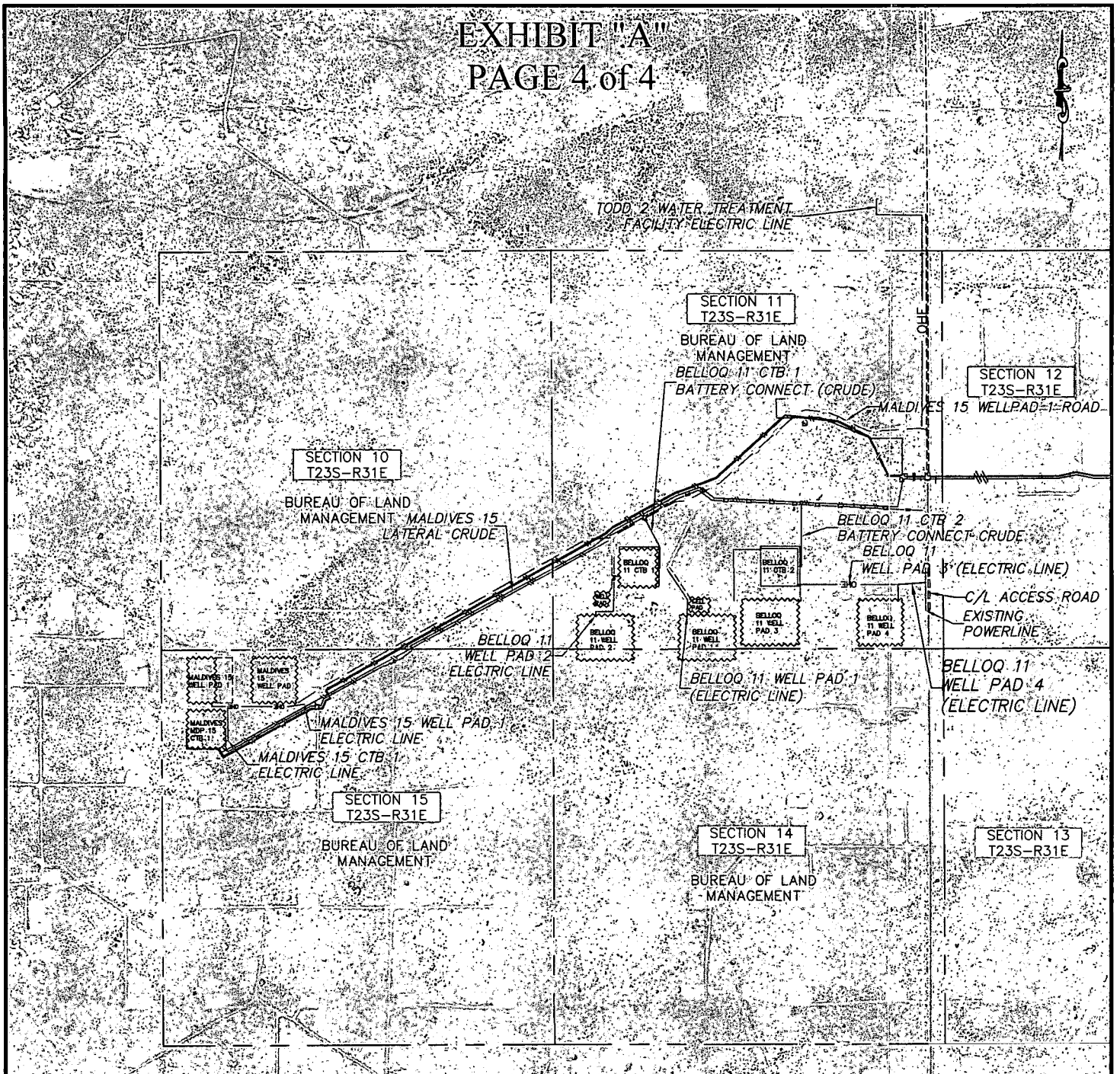
Drawn for:  devon	LINE NUMBER: EL8031
	WBS NUMBER: CC-127671.01.FAC
	SCALE: 1" = 2000'
	REVISIONS:
	SHEET: 3 OF 4

EXHIBIT "A"

PAGE 4 of 4



AERIAL MAP

SECTION 11, T23S-R31E, N.M.P.M.;
EDDY COUNTY, NEW MEXICO

HORIZON ROW LLC

DEVON ENERGY PRODUCTION CO., L.P.

PROPOSED 30' EASEMENT

Drawn by:
JEANNIE PERRY

Date: 03/12/2018

Drawn for:

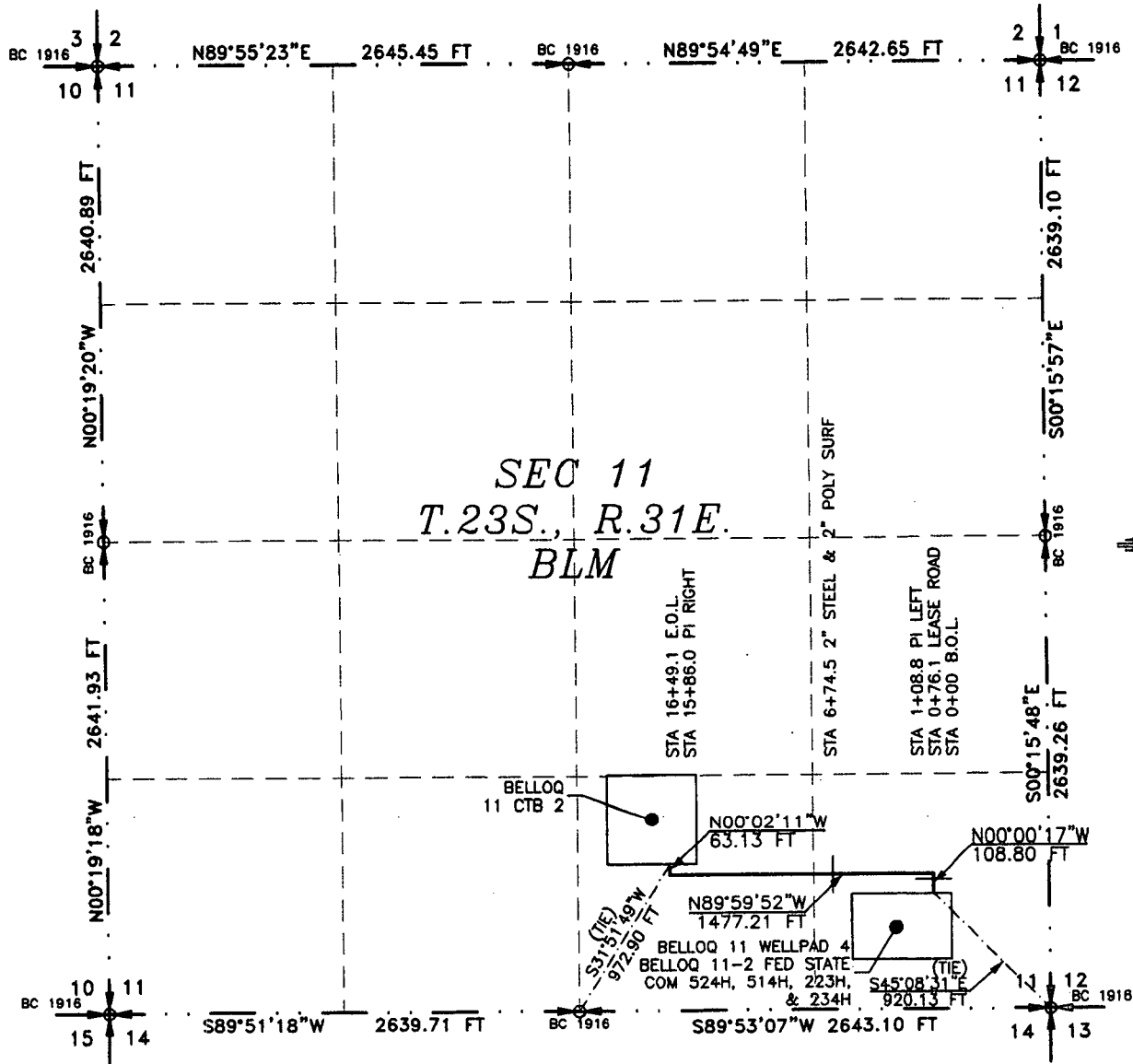


LINE NUMBER:
EL8031
WBS NUMBER:
CC-127671.01.FAC
SCALE:
1" = 2000'
REVISIONS:
SHEET:
4 OF 4

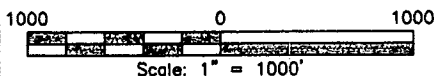
FLOWLINE PLAT

FOUR-8" FLOWLINES & ONE-8" GAS LIFT LINE BURIED IN THE SAME DITCH FROM BELLOQ 11 WELLPAD 4 (BELLOQ 11-2 FED STATE COM 524H, 514H, 223H, & 234H) TO BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 9, 2019



SEE NEXT SHEET (2-4) FOR DESCRIPTION



GENERAL NOTES

- 1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.
- 2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 1-4

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 10 DAY OF JANUARY, 2019

FILMON F. JARAMILLO, PLS. 12797
(575) 234-3341

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6834

CARLSBAD, NEW MEXICO

FLOWLINE PLAT

FOUR-8" FLOWLINES & ONE-8" GAS LIFT LINE BURIED IN THE SAME DITCH FROM
BELLOQ 11 WELLPAD 4 (BELLOQ 11-2 FED STATE COM 524H, 514H, 223H, & 234H) TO BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 9, 2019

DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., EDDY COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SE/4 SE/4 OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M., WHENCE THE SOUTHEAST CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S45°08'31"E, A DISTANCE OF 920.13 FEET;
THENCE N00°00'17"W A DISTANCE OF 108.80 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N89°59'52"W A DISTANCE OF 1477.21 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;
THENCE N00°02'11"W A DISTANCE OF 63.13 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE SOUTH QUARTER CORNER OF SAID SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M. BEARS S31°51'49"W, A DISTANCE OF 972.90 FEET;

SAID STRIP OF LAND BEING 1649.14 FEET OR 99.95 RODS IN LENGTH, CONTAINING 1.136 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SE/4 SE/4	781.57 L.F.	47.37 RODS	0.538 ACRES
SW/4 SE/4	867.57 L.F.	52.58 RODS	0.597 ACRES

GENERAL NOTES

1.) THE INTENT OF THIS ROUTE SURVEY IS TO ACQUIRE AN EASEMENT.

2.) BASIS OF BEARING AND DISTANCE IS NMSP EAST (NAD83) MODIFIED TO SURFACE COORDINATES. NAD 83 (FEET) AND NAVD 88 (FEET) COORDINATE SYSTEMS USED IN THE SURVEY.

SHEET: 2-4

MADRON SURVEYING, INC.

SURVEYOR CERTIFICATE

I, FILIMON F. JARAMILLO, A NEW MEXICO PROFESSIONAL SURVEYOR NO. 12797, HEREBY CERTIFY THAT I HAVE CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR LAND SURVEYING IN THE STATE OF NEW MEXICO.

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD,

NEW MEXICO THIS 12 DAY OF JANUARY 2019

FILIMON F. JARAMILLO, PLS. #12797

MADRON SURVEYING, INC.
301 SOUTH CANAL
CARLSBAD, NEW MEXICO 88220
Phone (575) 234-3341

SURVEY NO. 6834

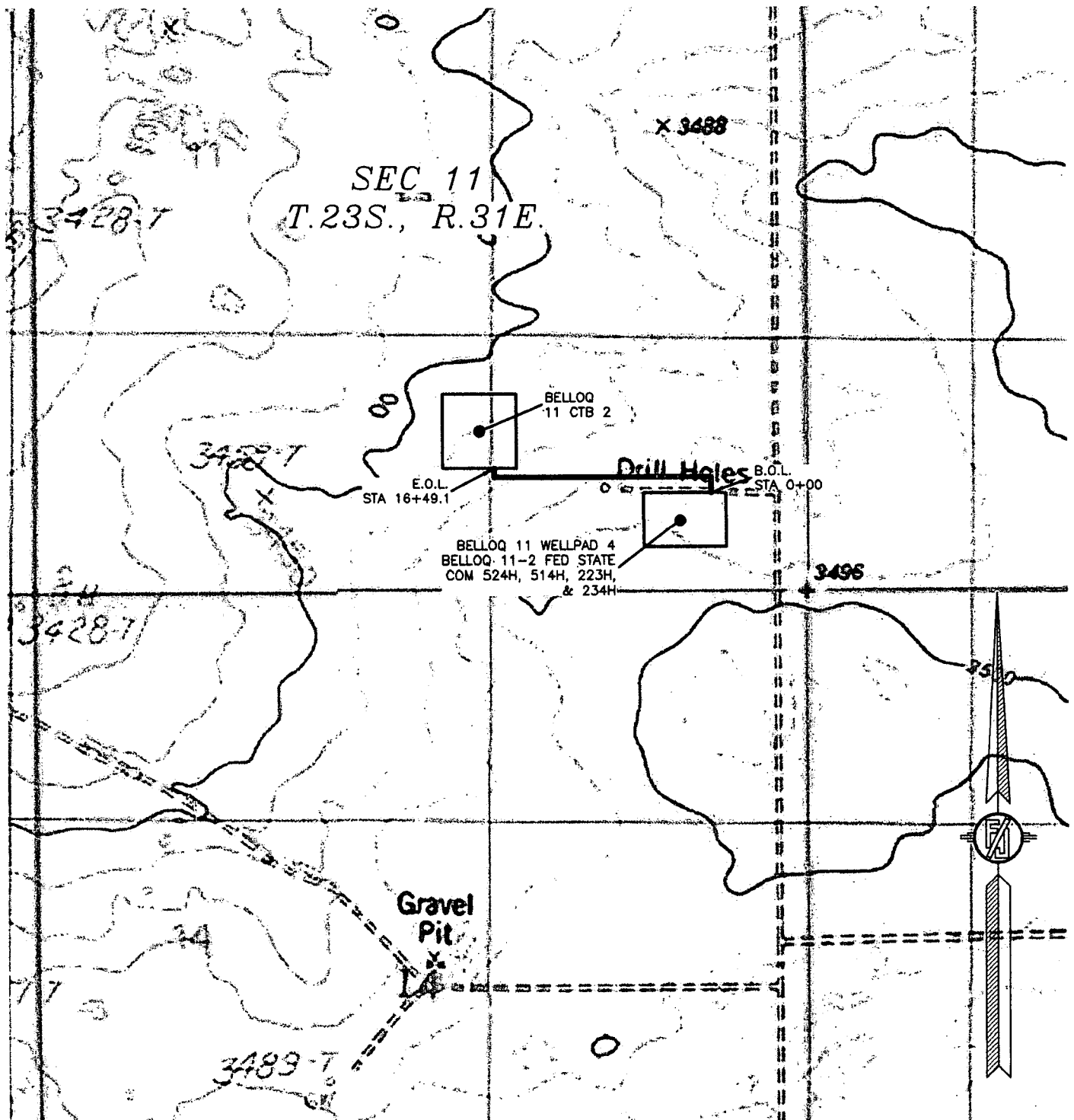
301 SOUTH CANAL
(575) 234-3341

CARLSBAD, NEW MEXICO

FLOWLINE PLAT

FOUR-8" FLOWLINES & ONE-8" GAS LIFT LINE BURIED IN THE SAME DITCH FROM
BELLOQ 11 WELLPAD 4 (BELLOQ 11-2 FED STATE COM 524H, 514H, 223H, & 234H) TO BELLOQ 11 CTB 2

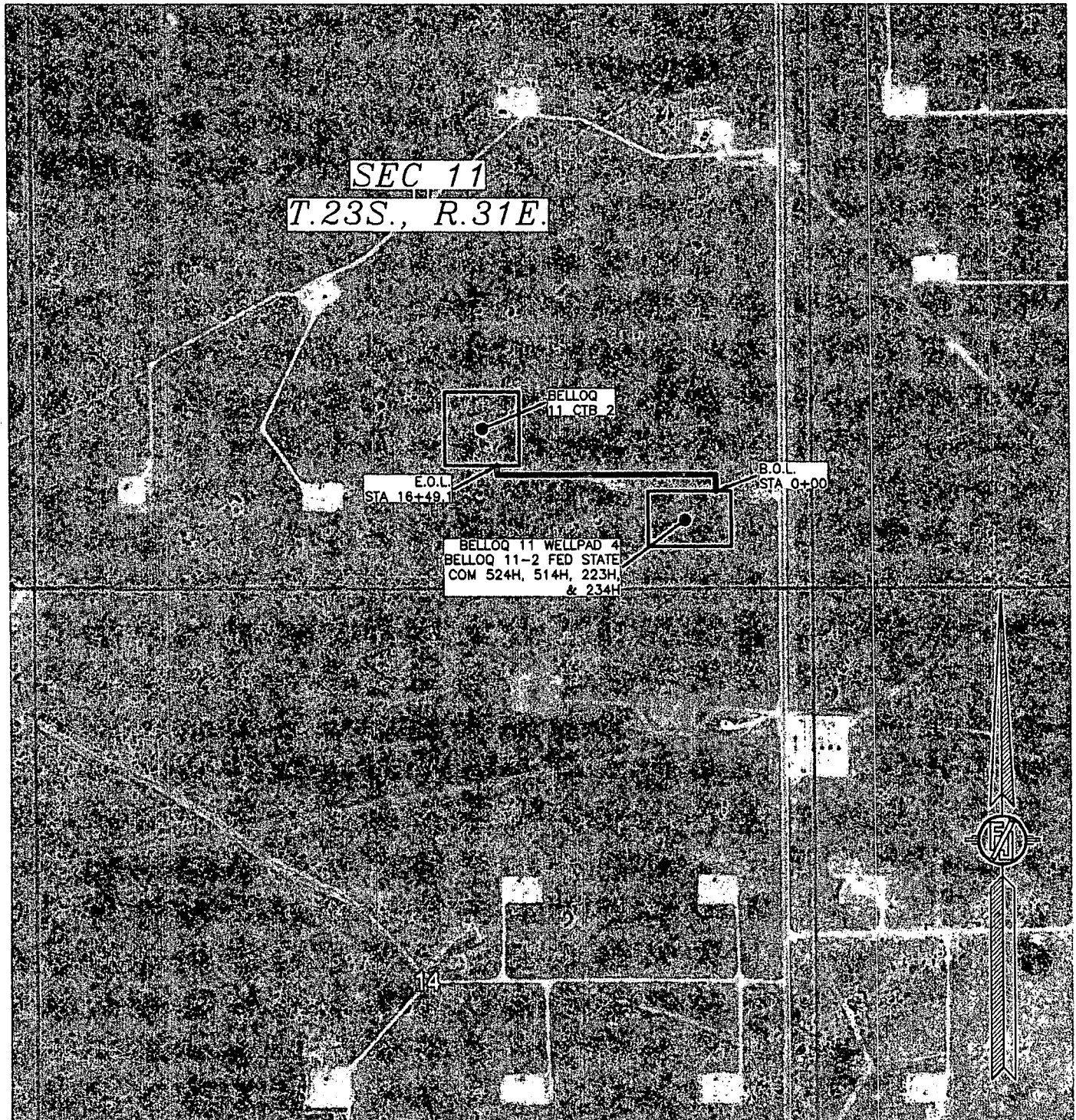
DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 9, 2019



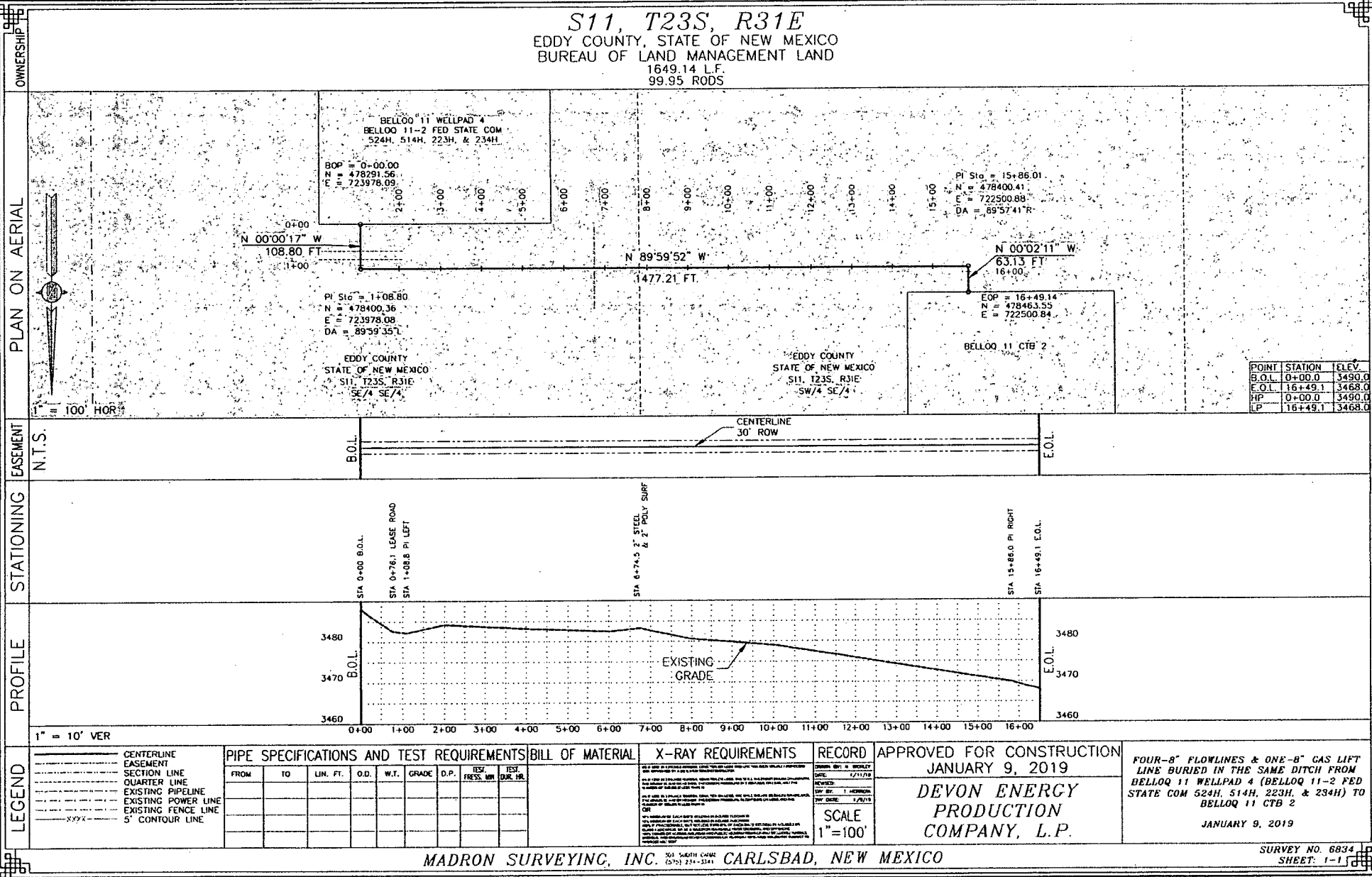
FLOWLINE PLAT

FOUR-8" FLOWLINES & ONE-8" GAS LIFT LINE BURIED IN THE SAME DITCH FROM
BELLOQ 11 WELLPAD 4 (BELLOQ 11-2 FED STATE COM 524H, 514H, 223H, & 234H) TO BELLOQ 11 CTB 2

DEVON ENERGY PRODUCTION COMPANY, L.P.
CENTERLINE SURVEY OF A PIPELINE CROSSING
SECTION 11, TOWNSHIP 23 SOUTH, RANGE 31 EAST, N.M.P.M.
EDDY COUNTY, STATE OF NEW MEXICO
JANUARY 9, 2019



S11, T23S, R31E
 EDDY COUNTY, STATE OF NEW MEXICO
 BUREAU OF LAND MANAGEMENT LAND
 1649.14 L.F.
 99.95 RODS





Receipt

Tracking Information

Pay.gov Tracking ID: 26G8K54C

Agency Tracking ID: 75707921188

Form Name: Bureau of Land Management (BLM) Application for Permit to Drill (APD) Fee

Application Name: BLM Oil and Gas Online Payment

Payment Information

Payment Type: Bank account (ACH)

Payment Amount: \$20,100.00

Transaction Date: 03/21/2019 03:06:02 PM EDT

Payment Date: 03/22/2019

Company: Devon Energy Production Company, L.P.

APD IDs: 10400040202, 10400040210

Lease Numbers: NMNM0404441, NMNM0404441

Well Numbers: 516H, 525H

Note: You will need your Pay.gov Tracking ID to complete your APD transaction in AFMSS II. Please ensure you write this number down upon completion of payment.

Account Information

Account Holder Name: Devon Energy Production Company, L.P.

Routing Number: 061000052

Account Number: *****9892



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

PWD Data Report

10/09/2019

APD ID: 10400040202

Submission Date: 03/21/2019

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Well Type: OIL WELL

Well Work Type: Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD disturbance (acres):

PWD surface owner:

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number:

Injection well name:

Assigned injection well API number?

Injection well API number:

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Other PWD discharge volume (bbl/day):

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:



U.S. Department of the Interior
BUREAU OF LAND MANAGEMENT

Bond Info Data Report

10/09/2019

APD ID: 10400040202

Submission Date: 03/21/2019

Highlighted data
reflects the most
recent changes

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: BELLOQ 11-2 FED STATE COM

Well Number: 516H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

Bond Information

Federal/Indian APD: FED

BLM Bond number: CO1104

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment: