Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

1b. Type of Well: ☐ Oil Well ☐ Gas Well ☐ Other

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

7. If Unit or CA Agreement, Name and No.

8. Lease Name and Well No.

[325998]

2. Name of Operator

[6137]

9. API Well No. **30-025-48722**

3a. Address	3b. Phone No. *(include area code)*	10. Field and Pool, or Exploratory **[98270]**

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*	12. County or Parish	13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well

18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file

21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date

Title

Approved by *(Signature)*	Name *(Printed/Typed)*	Date

Title	Office

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.

GCP Rec 04/15/2021

KZ
04/27/2021

SL

APPROVED WITH CONDITIONS

Approval Date: 03/23/2021

(Continued on page 2)

*(Instructions on page 2)

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 wen, 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 directionany 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 wen 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 win 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 conects this information to anow 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 03/23/2021

Additional Operator Remarks

Location of Well

1. SHL: NENE / 325 FNL / 715 FEL / TWSP: 25S / RANGE: 32E / SECTION: 28 / LAT: 32.1078028 / LONG: -103.6738051 (TVD: 0 feet, MD: 0 feet)
   PPP: SESE / 100 FSL / 1000 FEL / TWSP: 25S / RANGE: 32E / SECTION: 21 / LAT: 32.108976 / LONG: -103.674723 (TVD: 11760 feet, MD: 11925 feet)
   BHL: NENE / 20 FNL / 1000 FEL / TWSP: 25S / RANGE: 32E / SECTION: 16 / LAT: 32.1376524 / LONG: -103.6746639 (TVD: 11795 feet, MD: 22362 feet)

BLM Point of Contact

Name: Candy Vigil
Title: LIE
Phone: 5752345982
Email: cvigil@blm.gov

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.

District I
1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-48722	98270	WC-025 G-07 S253216D;UPPER WOLFCAMP

[4] Property Code	[5] Property Name	[6] Well Number
325998	MARWARI 21-16 STATE FED COM	624H

[7] OGRID No.	[8] Operator Name	[9] Elevation
6137	DEVON ENERGY PRODUCTION COMPANY, L.P.	3383.7

[10] Surface Location

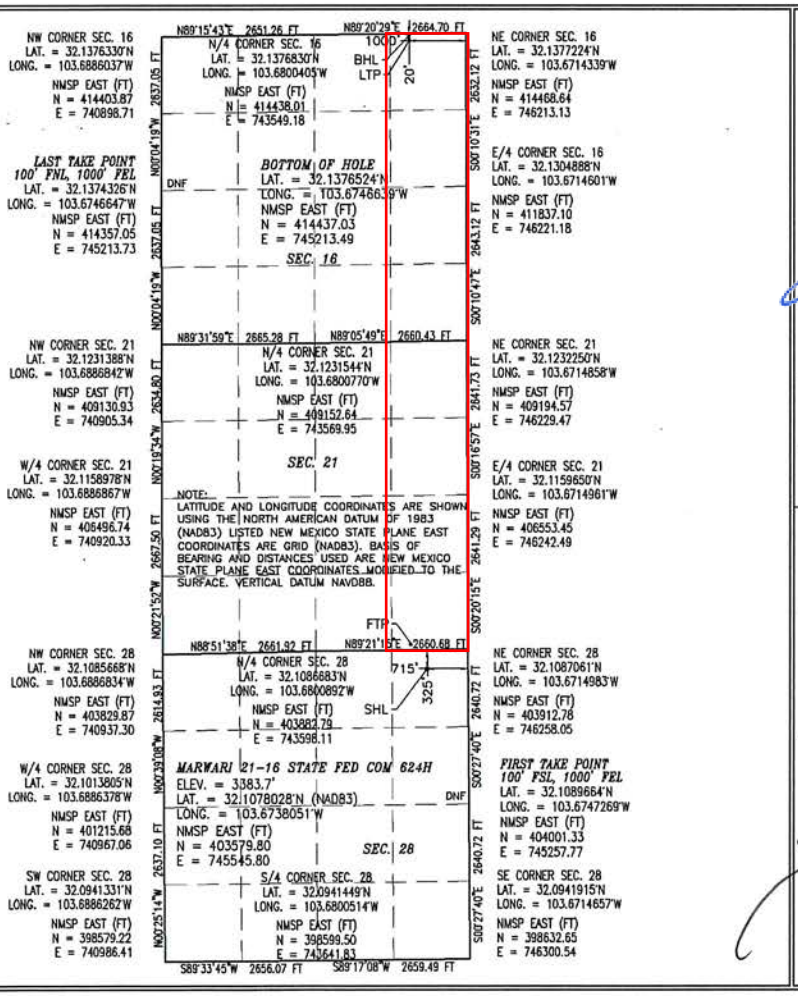
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	28	25 S	32 E		325	NORTH	715	EAST	LEA

[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	16	25 S	32 E		20	NORTH	1000	EAST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320			

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



[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Linda Good 2/19/2019
Signature Date

Linda Good
Printed Name

linda.good@dvn.com
E-mail Address

[18] SURVEYOR CERTIFICATION

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

FEBRUARY 12, 2019
Date of Survey

Signature and Seal of Professional Surveyor:

Certificate Number: FILIMON F. JARAMILLO, PLS 12797

SURVEY NO. 5888A

Intent [X] As Drilled [ ]

API # 30-025-48722		
Operator Name: DEVON ENERGY PRODUCTION CO., L.P.	Property Name: MARWARI 21-16 STATE FED COM	Well Number 624H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	28	25S	32E		275	NORTH	1000	EAST	LEA

Latitude	Longitude	NAD
32.107945	-103.674725	83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
P	21	25S	32E		100	SOUTH	1000	EAST	LEA

Latitude	Longitude	NAD
32.1089664	103.6747269	83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
A	16	25S	32E		100	NORTH	1000	EAST	LEA

Latitude	Longitude	NAD
32.1374326	103.6746647	83

Is this well the defining well for the Horizontal Spacing Unit? [ ]

Is this well an infill well? [YES]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #		
Operator Name: Devon Energy Production Co., LP	Property Name: Marwari 21-16 State Fed Com	Well Number 718H

KZ 06/29/2018

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: 2/19/2019

☒ Original Operator & OGRID No.: Devon Energy Prod Co., LP (6137)

☐ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Devon to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
Marwari 21-16 State Fed Com 624H	30-025-48722	UNIT A, SEC 28-T25S-R32E	325 FNL 715 FEL			MARWARI 28 CTB 3

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if DCP system is in place. The gas produced from production facility is dedicated to DCP and will be connected to DCP low/high pressure gathering system located in Lea County, New Mexico. It will require 650' of pipeline to connect the facility to low/high pressure gathering system. Devon provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Devon and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP Processing Plant located in Sec. 19, Twn. 19S, Rng. 32E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP system at that time. Based on current information, it is Devon's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

Marwari 21-16 State Fed Com 624H

1. Geologic Formations

TVD of target	11903	Pilot hole depth	N/A
MD at TD:	22204	Deepest expected fresh water	

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/Target Zone?	Hazards*
Rustler	995		
Salt	1380		
Base of Salt	4625		
Lamar	4625		
Delaware	4625		
Cherry Canyon	5580		
Brushy Canyon	7170		
1st Bone Spring Lime	8680		
Bone Spring 1st	9665		
Bone Spring 2nd	10310		
3rd Bone Spring Lime	10805		
Bone Spring 3rd	11415		
Wolfcamp	11910		

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

Marwari 21-16 State Fed Com 624H

2. Casing Program (Primary Design)

Hole Size	Csg. Size	Wt (PPF)	Grade	Conn	Casing Interval		Casing Interval	
					From (MD)	To (MD)	From (TVD)	To (TVD)
17 1/2	13 3/8	48	H40	STC	0	1020	0	1020
9 7/8	8 5/8	32	P110	TLW	0	11415	0	11415
7 7/8	5 1/2	17	P110	BTC	0	22204	0	11903

• All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 IILB.1.h Must have table for continengcy casing.

3. Cementing Program (Primary Design)

Casing	# Sks	TOC	Wt. ppg	Yld (ft3/sack)	Slurry Description
Surface	777	Surf	13.2	1.44	Lead: Class C Cement + additives
Int 1	469	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Int 1 Intermediate Squeeze	As Needed	Surf	13.2	1.44	Squeeze Lead: Class C Cement + additives
	469	Surf	9	3.27	Lead: Class C Cement + additives
	465	4000' above	13.2	1.44	Tail: Class H / C + additives
Production	117	9385	9	3.27	Lead: Class H /C + additives
	1432	11385	13.2	1.44	Tail: Class H / C + additives

Casing String	% Excess
Surface	50%
Intermediate 1	30%
Intermediate 1 (Two Stage)	25%
Prod	10%

Marwari 21-16 State Fed Com 624H

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 (5M)	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*		

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.
Y	A variance is requested to run a 5 M annular on a 10M system

5. Mud Program (Three String Design)

Section	Type	Weight (ppg)
Surface	FW Gel	8.5-9
Intermediate	DBE / Cut Brine	10-10.5
Production	OBM	10-10.5

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 Rpeort and sbumitted 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	Int. shoe to KOP
	Density	Int. shoe to KOP
X	CBL	Production casing
X	Mud log	Intermediate shoe to TD
	PEX	

7. Drilling Conditions

Condition	Specfiy what type and where?
BH pressure at deepest TVD	6499
Abnormal temperature	No

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

Hydrogren 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	H2S is present
Y	H2S 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 pa.
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. A that time an approved BOP stack will be nippled 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

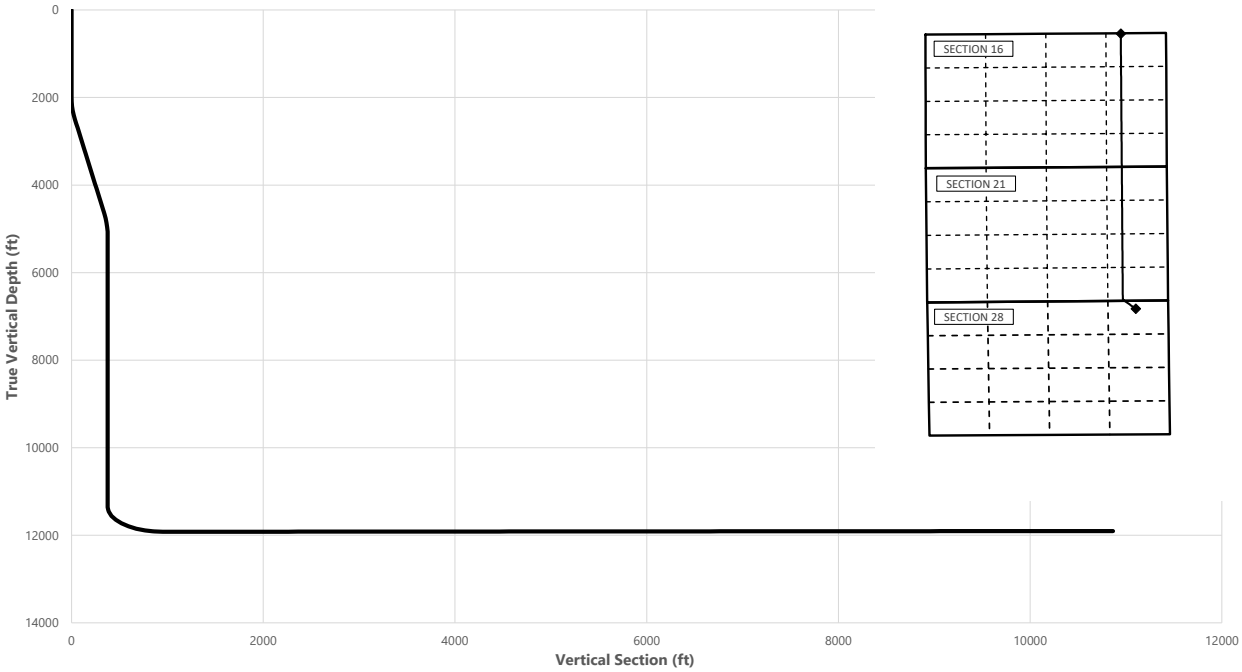
X Directional Plan

_____ Other, describe

Well: Marwari 21-16 State Fed Com 624H
County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
2000.00	0.00	322.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2500.00	10.00	322.00	2497.47	34.30	-26.80	35.10	1.00	Hold Tangent
4688.17	10.00	322.00	4652.39	333.72	-260.73	341.54	0.00	Drop to Vertical
5188.17	0.00	322.00	5149.85	368.01	-287.52	376.64	2.00	Hold Vertical
11385.36	0.00	359.76	11347.04	368.01	-287.52	376.64	0.00	KOP
12286.34	90.10	359.76	11920.00	941.95	-289.98	950.38	10.00	Landing Point
22204.04	90.10	359.76	11903.00	10859.55	-332.39	10864.64	0.00	BHL



Key Depths	MD (ft)	TVD (ft)
Rustler	0.00	0.00
Salt	1380.00	1380.00
Base of Salt	4660.36	4625.00
Lamar	4660.36	4625.00
Delaware	4660.36	4625.00
Cherry Canyon	5618.31	5580.00
Brushy Canyon	7208.31	7170.00
1st Bone Spring Lime	8718.31	8680.00
Bone Spring 1st	9703.31	9665.00
Bone Spring 2nd	10348.31	10310.00
3rd Bone Spring Lime	10843.31	10805.00
Bone Spring 3rd	11453.47	11415.00
Wolfcamp / Point of Penetration	12178.15	11910.00
EXIT	22124.04	11903.15

	MD (ft)	TVD (ft)	Lat (°)	Long (°)	Section Footages
SHL	0.00	0.00	32.1077	-103.6739	325' FNL, 715' FEL of Sec 28 in T25S, R32E
KOP	11385.36	11347.04	32.1087	-103.6748	51' FSL, 1000' FEL of Sec 21 in T25S, R32E
Point of Penetration	12178.15	11910.00	32.1089	-103.6747	100' FSL, 1000' FEL of Sec 21 in T25S, R32E
Exit	22124.04	11903.15	32.1374	-103.6747	100' FNL, 1000' FEL of Sec 16 in T25S, R32E
BHL	22204.04	11903.00	32.1375	-103.6747	20' FNL, 1000' FEL of Sec 16 in T25S, R32E

devon

Well: Marwari 21-16 State Fed Com 624H
County: Lea
Wellbore: Permit Plan
Design: Permit Plan #1

Geodetic System: US State Plane 1983
Datum: North American Datum 1927
Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	SHL
100.00	0.00	322.00	100.00	0.00	0.00	0.00	0.00	
200.00	0.00	322.00	200.00	0.00	0.00	0.00	0.00	
300.00	0.00	322.00	300.00	0.00	0.00	0.00	0.00	
400.00	0.00	322.00	400.00	0.00	0.00	0.00	0.00	
500.00	0.00	322.00	500.00	0.00	0.00	0.00	0.00	
600.00	0.00	322.00	600.00	0.00	0.00	0.00	0.00	
700.00	0.00	322.00	700.00	0.00	0.00	0.00	0.00	
800.00	0.00	322.00	800.00	0.00	0.00	0.00	0.00	
900.00	0.00	322.00	900.00	0.00	0.00	0.00	0.00	
995.00	0.00	322.00	995.00	0.00	0.00	0.00	0.00	Rustler
1000.00	0.00	322.00	1000.00	0.00	0.00	0.00	0.00	
1100.00	0.00	322.00	1100.00	0.00	0.00	0.00	0.00	
1200.00	0.00	322.00	1200.00	0.00	0.00	0.00	0.00	
1300.00	0.00	322.00	1300.00	0.00	0.00	0.00	0.00	
1380.00	0.00	322.00	1380.00	0.00	0.00	0.00	0.00	Salt
1400.00	0.00	322.00	1400.00	0.00	0.00	0.00	0.00	
1500.00	0.00	322.00	1500.00	0.00	0.00	0.00	0.00	
1600.00	0.00	322.00	1600.00	0.00	0.00	0.00	0.00	
1700.00	0.00	322.00	1700.00	0.00	0.00	0.00	0.00	
1800.00	0.00	322.00	1800.00	0.00	0.00	0.00	0.00	
1900.00	0.00	322.00	1900.00	0.00	0.00	0.00	0.00	
2000.00	0.00	322.00	2000.00	0.00	0.00	0.00	0.00	Start Tangent
2100.00	2.00	322.00	2099.98	1.38	-1.07	1.41	2.00	
2200.00	4.00	322.00	2199.84	5.50	-4.30	5.63	2.00	
2300.00	6.00	322.00	2299.45	12.37	-9.66	12.66	2.00	
2400.00	8.00	322.00	2398.70	21.97	-17.16	22.48	2.00	
2500.00	10.00	322.00	2497.47	34.30	-26.80	35.10	1.00	Hold Tangent
2600.00	10.00	322.00	2595.95	47.98	-37.49	49.10	0.00	
2700.00	10.00	322.00	2694.43	61.66	-48.18	63.11	0.00	
2800.00	10.00	322.00	2792.91	75.35	-58.87	77.11	0.00	
2900.00	10.00	322.00	2891.39	89.03	-69.56	91.12	0.00	
3000.00	10.00	322.00	2989.87	102.71	-80.25	105.12	0.00	
3100.00	10.00	322.00	3088.35	116.40	-90.94	119.13	0.00	
3200.00	10.00	322.00	3186.83	130.08	-101.63	133.13	0.00	
3300.00	10.00	322.00	3285.31	143.77	-112.32	147.13	0.00	
3400.00	10.00	322.00	3383.79	157.45	-123.01	161.14	0.00	
3500.00	10.00	322.00	3482.27	171.13	-133.70	175.14	0.00	
3600.00	10.00	322.00	3580.75	184.82	-144.40	189.15	0.00	
3700.00	10.00	322.00	3679.23	198.50	-155.09	203.15	0.00	
3800.00	10.00	322.00	3777.72	212.18	-165.78	217.16	0.00	
3900.00	10.00	322.00	3876.20	225.87	-176.47	231.16	0.00	
4000.00	10.00	322.00	3974.68	239.55	-187.16	245.16	0.00	
4100.00	10.00	322.00	4073.16	253.23	-197.85	259.17	0.00	
4200.00	10.00	322.00	4171.64	266.92	-208.54	273.17	0.00	
4300.00	10.00	322.00	4270.12	280.60	-219.23	287.18	0.00	
4400.00	10.00	322.00	4368.60	294.28	-229.92	301.18	0.00	
4500.00	10.00	322.00	4467.08	307.97	-240.61	315.19	0.00	
4600.00	10.00	322.00	4565.56	321.65	-251.30	329.19	0.00	
4660.36	10.00	322.00	4625.00	329.91	-257.76	337.64	0.00	Base of Salt, Lamar, Delaware
4688.17	10.00	322.00	4652.39	333.72	-260.73	341.54	0.00	Drop to Vertical
4700.00	9.76	322.00	4664.05	335.32	-261.98	343.18	2.00	
4800.00	7.76	322.00	4762.87	347.32	-271.36	355.46	2.00	
4900.00	5.76	322.00	4862.17	356.60	-278.61	364.96	2.00	
5000.00	3.76	322.00	4961.82	363.15	-283.72	371.66	2.00	
5100.00	1.76	322.00	5061.70	366.94	-286.69	375.54	2.00	
5188.17	0.00	322.00	5149.85	368.01	-287.52	376.64	2.00	Hold Vertical
5200.00	0.00	359.76	5161.69	368.01	-287.52	376.64	0.00	
5300.00	0.00	359.76	5261.69	368.01	-287.52	376.64	0.00	
5400.00	0.00	359.76	5361.69	368.01	-287.52	376.64	0.00	
5500.00	0.00	359.76	5461.69	368.01	-287.52	376.64	0.00	
5600.00	0.00	359.76	5561.69	368.01	-287.52	376.64	0.00	
5618.31	0.00	359.76	5580.00	368.01	-287.52	376.64	0.00	Cherry Canyon
5700.00	0.00	359.76	5661.69	368.01	-287.52	376.64	0.00	
5800.00	0.00	359.76	5761.69	368.01	-287.52	376.64	0.00	
5900.00	0.00	359.76	5861.69	368.01	-287.52	376.64	0.00	
6000.00	0.00	359.76	5961.69	368.01	-287.52	376.64	0.00	
6100.00	0.00	359.76	6061.69	368.01	-287.52	376.64	0.00	
6200.00	0.00	359.76	6161.69	368.01	-287.52	376.64	0.00	
6300.00	0.00	359.76	6261.69	368.01	-287.52	376.64	0.00	

devon

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Geodetic System: US State Plane 1983
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Ellipsoid: Clarke 1866
Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
6400.00	0.00	359.76	6361.69	368.01	-287.52	376.64	0.00	
6500.00	0.00	359.76	6461.69	368.01	-287.52	376.64	0.00	
6600.00	0.00	359.76	6561.69	368.01	-287.52	376.64	0.00	
6700.00	0.00	359.76	6661.69	368.01	-287.52	376.64	0.00	
6800.00	0.00	359.76	6761.69	368.01	-287.52	376.64	0.00	
6900.00	0.00	359.76	6861.69	368.01	-287.52	376.64	0.00	
7000.00	0.00	359.76	6961.69	368.01	-287.52	376.64	0.00	
7100.00	0.00	359.76	7061.69	368.01	-287.52	376.64	0.00	
7200.00	0.00	359.76	7161.69	368.01	-287.52	376.64	0.00	
7208.31	0.00	359.76	7170.00	368.01	-287.52	376.64	0.00	Brushy Canyon
7300.00	0.00	359.76	7261.69	368.01	-287.52	376.64	0.00	
7400.00	0.00	359.76	7361.69	368.01	-287.52	376.64	0.00	
7500.00	0.00	359.76	7461.69	368.01	-287.52	376.64	0.00	
7600.00	0.00	359.76	7561.69	368.01	-287.52	376.64	0.00	
7700.00	0.00	359.76	7661.69	368.01	-287.52	376.64	0.00	
7800.00	0.00	359.76	7761.69	368.01	-287.52	376.64	0.00	
7900.00	0.00	359.76	7861.69	368.01	-287.52	376.64	0.00	
8000.00	0.00	359.76	7961.69	368.01	-287.52	376.64	0.00	
8100.00	0.00	359.76	8061.69	368.01	-287.52	376.64	0.00	
8200.00	0.00	359.76	8161.69	368.01	-287.52	376.64	0.00	
8300.00	0.00	359.76	8261.69	368.01	-287.52	376.64	0.00	
8400.00	0.00	359.76	8361.69	368.01	-287.52	376.64	0.00	
8500.00	0.00	359.76	8461.69	368.01	-287.52	376.64	0.00	
8600.00	0.00	359.76	8561.69	368.01	-287.52	376.64	0.00	
8700.00	0.00	359.76	8661.69	368.01	-287.52	376.64	0.00	
8718.31	0.00	359.76	8680.00	368.01	-287.52	376.64	0.00	1st Bone Spring Lime
8800.00	0.00	359.76	8761.69	368.01	-287.52	376.64	0.00	
8900.00	0.00	359.76	8861.69	368.01	-287.52	376.64	0.00	
9000.00	0.00	359.76	8961.69	368.01	-287.52	376.64	0.00	
9100.00	0.00	359.76	9061.69	368.01	-287.52	376.64	0.00	
9200.00	0.00	359.76	9161.69	368.01	-287.52	376.64	0.00	
9300.00	0.00	359.76	9261.69	368.01	-287.52	376.64	0.00	
9400.00	0.00	359.76	9361.69	368.01	-287.52	376.64	0.00	
9500.00	0.00	359.76	9461.69	368.01	-287.52	376.64	0.00	
9600.00	0.00	359.76	9561.69	368.01	-287.52	376.64	0.00	
9700.00	0.00	359.76	9661.69	368.01	-287.52	376.64	0.00	
9703.31	0.00	359.76	9665.00	368.01	-287.52	376.64	0.00	Bone Spring 1st
9800.00	0.00	359.76	9761.69	368.01	-287.52	376.64	0.00	
9900.00	0.00	359.76	9861.69	368.01	-287.52	376.64	0.00	
10000.00	0.00	359.76	9961.69	368.01	-287.52	376.64	0.00	
10100.00	0.00	359.76	10061.69	368.01	-287.52	376.64	0.00	
10200.00	0.00	359.76	10161.69	368.01	-287.52	376.64	0.00	
10300.00	0.00	359.76	10261.69	368.01	-287.52	376.64	0.00	
10348.31	0.00	359.76	10310.00	368.01	-287.52	376.64	0.00	Bone Spring 2nd
10400.00	0.00	359.76	10361.69	368.01	-287.52	376.64	0.00	
10500.00	0.00	359.76	10461.69	368.01	-287.52	376.64	0.00	
10600.00	0.00	359.76	10561.69	368.01	-287.52	376.64	0.00	
10700.00	0.00	359.76	10661.69	368.01	-287.52	376.64	0.00	
10800.00	0.00	359.76	10761.69	368.01	-287.52	376.64	0.00	
10843.31	0.00	359.76	10805.00	368.01	-287.52	376.64	0.00	3rd Bone Spring Lime
10900.00	0.00	359.76	10861.69	368.01	-287.52	376.64	0.00	
11000.00	0.00	359.76	10961.69	368.01	-287.52	376.64	0.00	
11100.00	0.00	359.76	11061.69	368.01	-287.52	376.64	0.00	
11200.00	0.00	359.76	11161.69	368.01	-287.52	376.64	0.00	
11300.00	0.00	359.76	11261.69	368.01	-287.52	376.64	0.00	
11385.36	0.00	359.76	11347.04	368.01	-287.52	376.64	0.00	KOP
11400.00	1.46	359.76	11361.69	368.20	-287.52	376.83	10.00	
11453.47	6.81	359.76	11415.00	372.06	-287.54	380.68	10.00	Bone Spring 3rd
11500.00	11.46	359.76	11460.92	379.45	-287.57	388.07	10.00	
11600.00	21.46	359.76	11556.70	407.75	-287.69	416.36	10.00	
11700.00	31.46	359.76	11646.11	452.26	-287.88	460.85	10.00	
11800.00	41.46	359.76	11726.43	511.61	-288.14	520.19	10.00	
11900.00	51.46	359.76	11795.22	584.02	-288.45	592.57	10.00	
12000.00	61.46	359.76	11850.40	667.26	-288.80	675.79	10.00	
12100.00	71.46	359.76	11890.28	758.83	-289.20	767.32	10.00	
12178.15	79.28	359.76	11910.00	834.38	-289.52	842.85	10.00	Wolfcamp / Point of Penetration
12200.00	81.46	359.76	11913.66	855.93	-289.61	864.39	10.00	
12286.34	90.10	359.76	11920.00	941.95	-289.98	950.38	10.00	Landing Point
12300.00	90.10	359.76	11919.98	955.61	-290.04	964.04	0.00	
12400.00	90.10	359.76	11919.81	1055.61	-290.46	1064.00	0.00	

devon

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Zone: 3001 - NM East (NAD83)

MD (ft)	INC (°)	AZI (°)	TVD (ft)	NS (ft)	EW (ft)	VS (ft)	DLS (°/100ft)	Comment
12500.00	90.10	359.76	11919.63	1155.61	-290.89	1163.97	0.00	
12600.00	90.10	359.76	11919.46	1255.61	-291.32	1263.93	0.00	
12700.00	90.10	359.76	11919.29	1355.61	-291.75	1363.90	0.00	
12800.00	90.10	359.76	11919.12	1455.61	-292.18	1463.86	0.00	
12900.00	90.10	359.76	11918.95	1555.60	-292.61	1563.83	0.00	
13000.00	90.10	359.76	11918.78	1655.60	-293.03	1663.79	0.00	
13100.00	90.10	359.76	11918.61	1755.60	-293.46	1763.76	0.00	
13200.00	90.10	359.76	11918.44	1855.60	-293.89	1863.72	0.00	
13300.00	90.10	359.76	11918.26	1955.60	-294.32	1963.69	0.00	
13400.00	90.10	359.76	11918.09	2055.60	-294.75	2063.65	0.00	
13500.00	90.10	359.76	11917.92	2155.60	-295.17	2163.62	0.00	
13600.00	90.10	359.76	11917.75	2255.60	-295.60	2263.59	0.00	
13700.00	90.10	359.76	11917.58	2355.60	-296.03	2363.55	0.00	
13800.00	90.10	359.76	11917.41	2455.60	-296.46	2463.52	0.00	
13900.00	90.10	359.76	11917.24	2555.59	-296.89	2563.48	0.00	
14000.00	90.10	359.76	11917.06	2655.59	-297.31	2663.45	0.00	
14100.00	90.10	359.76	11916.89	2755.59	-297.74	2763.41	0.00	
14200.00	90.10	359.76	11916.72	2855.59	-298.17	2863.38	0.00	
14300.00	90.10	359.76	11916.55	2955.59	-298.60	2963.34	0.00	
14400.00	90.10	359.76	11916.38	3055.59	-299.03	3063.31	0.00	
14500.00	90.10	359.76	11916.21	3155.59	-299.46	3163.27	0.00	
14600.00	90.10	359.76	11916.04	3255.59	-299.88	3263.24	0.00	
14700.00	90.10	359.76	11915.87	3355.59	-300.31	3363.20	0.00	
14800.00	90.10	359.76	11915.69	3455.58	-300.74	3463.17	0.00	
14900.00	90.10	359.76	11915.52	3555.58	-301.17	3563.13	0.00	
15000.00	90.10	359.76	11915.35	3655.58	-301.60	3663.10	0.00	
15100.00	90.10	359.76	11915.18	3755.58	-302.02	3763.06	0.00	
15200.00	90.10	359.76	11915.01	3855.58	-302.45	3863.03	0.00	
15300.00	90.10	359.76	11914.84	3955.58	-302.88	3962.99	0.00	
15400.00	90.10	359.76	11914.67	4055.58	-303.31	4062.96	0.00	
15500.00	90.10	359.76	11914.50	4155.58	-303.74	4162.92	0.00	
15600.00	90.10	359.76	11914.32	4255.58	-304.16	4262.89	0.00	
15700.00	90.10	359.76	11914.15	4355.57	-304.59	4362.85	0.00	
15800.00	90.10	359.76	11913.98	4455.57	-305.02	4462.82	0.00	
15900.00	90.10	359.76	11913.81	4555.57	-305.45	4562.79	0.00	
16000.00	90.10	359.76	11913.64	4655.57	-305.88	4662.75	0.00	
16100.00	90.10	359.76	11913.47	4755.57	-306.31	4762.72	0.00	
16200.00	90.10	359.76	11913.30	4855.57	-306.73	4862.68	0.00	
16300.00	90.10	359.76	11913.13	4955.57	-307.16	4962.65	0.00	
16400.00	90.10	359.76	11912.95	5055.57	-307.59	5062.61	0.00	
16500.00	90.10	359.76	11912.78	5155.57	-308.02	5162.58	0.00	
16600.00	90.10	359.76	11912.61	5255.57	-308.45	5262.54	0.00	
16700.00	90.10	359.76	11912.44	5355.56	-308.87	5362.51	0.00	
16800.00	90.10	359.76	11912.27	5455.56	-309.30	5462.47	0.00	
16900.00	90.10	359.76	11912.10	5555.56	-309.73	5562.44	0.00	
17000.00	90.10	359.76	11911.93	5655.56	-310.16	5662.40	0.00	
17100.00	90.10	359.76	11911.76	5755.56	-310.59	5762.37	0.00	
17200.00	90.10	359.76	11911.58	5855.56	-311.02	5862.33	0.00	
17300.00	90.10	359.76	11911.41	5955.56	-311.44	5962.30	0.00	
17400.00	90.10	359.76	11911.24	6055.56	-311.87	6062.26	0.00	
17500.00	90.10	359.76	11911.07	6155.56	-312.30	6162.23	0.00	
17600.00	90.10	359.76	11910.90	6255.55	-312.73	6262.19	0.00	
17700.00	90.10	359.76	11910.73	6355.55	-313.16	6362.16	0.00	
17800.00	90.10	359.76	11910.56	6455.55	-313.58	6462.12	0.00	
17900.00	90.10	359.76	11910.38	6555.55	-314.01	6562.09	0.00	
18000.00	90.10	359.76	11910.21	6655.55	-314.44	6662.06	0.00	
18100.00	90.10	359.76	11910.04	6755.55	-314.87	6762.02	0.00	
18200.00	90.10	359.76	11909.87	6855.55	-315.30	6861.99	0.00	
18300.00	90.10	359.76	11909.70	6955.55	-315.72	6961.95	0.00	
18400.00	90.10	359.76	11909.53	7055.55	-316.15	7061.92	0.00	
18500.00	90.10	359.76	11909.36	7155.55	-316.58	7161.88	0.00	
18600.00	90.10	359.76	11909.19	7255.54	-317.01	7261.85	0.00	
18700.00	90.10	359.76	11909.01	7355.54	-317.44	7361.81	0.00	
18800.00	90.10	359.76	11908.84	7455.54	-317.87	7461.78	0.00	
18900.00	90.10	359.76	11908.67	7555.54	-318.29	7561.74	0.00	
19000.00	90.10	359.76	11908.50	7655.54	-318.72	7661.71	0.00	
19100.00	90.10	359.76	11908.33	7755.54	-319.15	7761.67	0.00	
19200.00	90.10	359.76	11908.16	7855.54	-319.58	7861.64	0.00	
19300.00	90.10	359.76	11907.99	7955.54	-320.01	7961.60	0.00	
19400.00	90.10	359.76	11907.82	8055.54	-320.43	8061.57	0.00	

devon

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19500.00	90.10	359.76	11907.64	8155.53	-320.86	8161.53	0.00	
19600.00	90.10	359.76	11907.47	8255.53	-321.29	8261.50	0.00	
19700.00	90.10	359.76	11907.30	8355.53	-321.72	8361.46	0.00	
19800.00	90.10	359.76	11907.13	8455.53	-322.15	8461.43	0.00	
19900.00	90.10	359.76	11906.96	8555.53	-322.57	8561.39	0.00	
20000.00	90.10	359.76	11906.79	8655.53	-323.00	8661.36	0.00	
20100.00	90.10	359.76	11906.62	8755.53	-323.43	8761.32	0.00	
20200.00	90.10	359.76	11906.45	8855.53	-323.86	8861.29	0.00	
20300.00	90.10	359.76	11906.27	8955.53	-324.29	8961.26	0.00	
20400.00	90.10	359.76	11906.10	9055.52	-324.72	9061.22	0.00	
20500.00	90.10	359.76	11905.93	9155.52	-325.14	9161.19	0.00	
20600.00	90.10	359.76	11905.76	9255.52	-325.57	9261.15	0.00	
20700.00	90.10	359.76	11905.59	9355.52	-326.00	9361.12	0.00	
20800.00	90.10	359.76	11905.42	9455.52	-326.43	9461.08	0.00	
20900.00	90.10	359.76	11905.25	9555.52	-326.86	9561.05	0.00	
21000.00	90.10	359.76	11905.08	9655.52	-327.28	9661.01	0.00	
21100.00	90.10	359.76	11904.90	9755.52	-327.71	9760.98	0.00	
21200.00	90.10	359.76	11904.73	9855.52	-328.14	9860.94	0.00	
21300.00	90.10	359.76	11904.56	9955.52	-328.57	9960.91	0.00	
21400.00	90.10	359.76	11904.39	10055.51	-329.00	10060.87	0.00	
21500.00	90.10	359.76	11904.22	10155.51	-329.42	10160.84	0.00	
21600.00	90.10	359.76	11904.05	10255.51	-329.85	10260.80	0.00	
21700.00	90.10	359.76	11903.88	10355.51	-330.28	10360.77	0.00	
21800.00	90.10	359.76	11903.71	10455.51	-330.71	10460.73	0.00	
21900.00	90.10	359.76	11903.53	10555.51	-331.14	10560.70	0.00	
22000.00	90.10	359.76	11903.36	10655.51	-331.57	10660.66	0.00	
22100.00	90.10	359.76	11903.19	10755.51	-331.99	10760.63	0.00	
22124.04	90.10	359.76	11903.15	10779.55	-332.10	10784.67	0.00	EXIT
22200.00	90.10	359.76	11903.02	10855.51	-332.42	10860.59	0.00	
22204.04	90.10	359.76	11903.00	10859.55	-332.39	10864.64	0.00	BHL

devon

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.

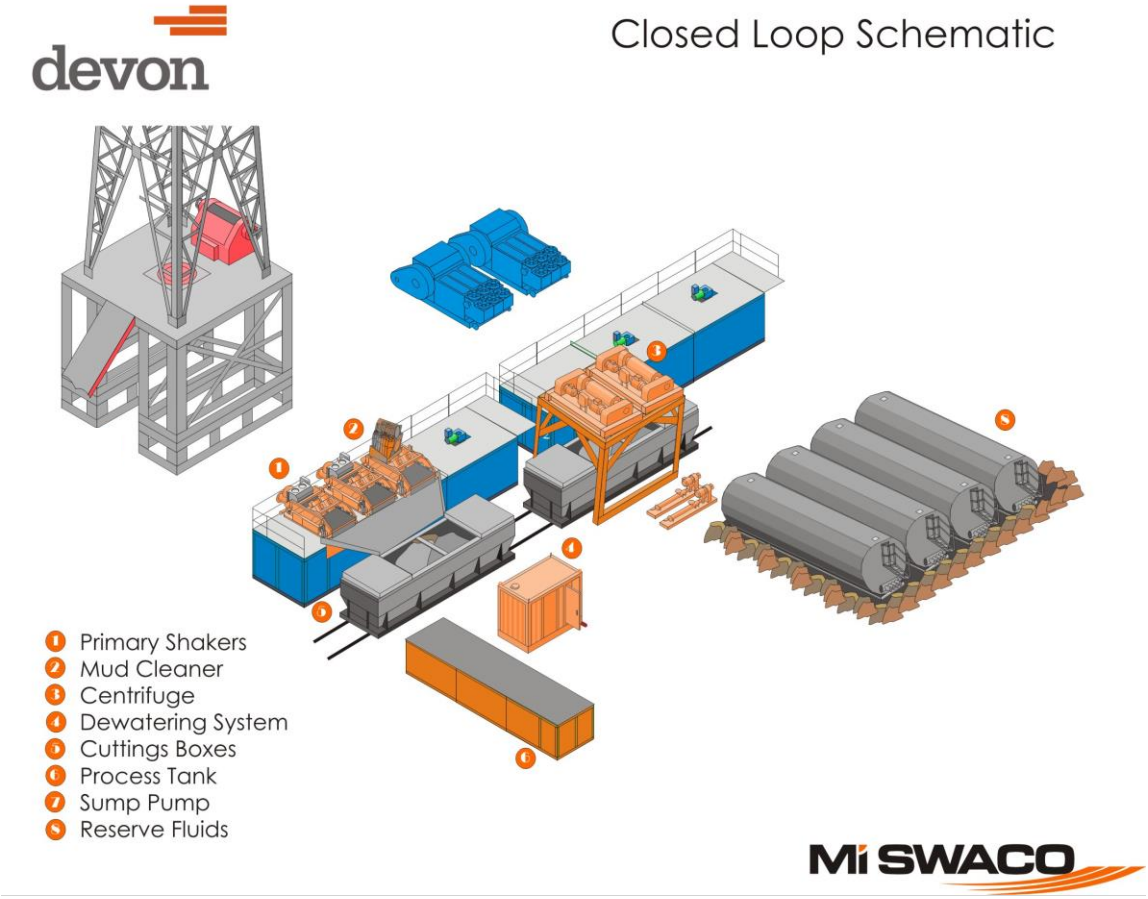
Prior to installing a closed-loop system on site, the topsoil, if present, will be stripped and stockpiled for use as the final cover or fill at the time of closure.

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.



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 nippled 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.

Continental CONTITECH

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

PHOENIX

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.taurusemerge.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

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 25 MPa

COUPLINGS

Type	Serial N°	Quality	Heat N°
3" coupling with	720 719	AISI 4130	C7626
4 1/16" Flange end		AISI 4130	47357

API Spec 16 C
Temperature rate:"B"

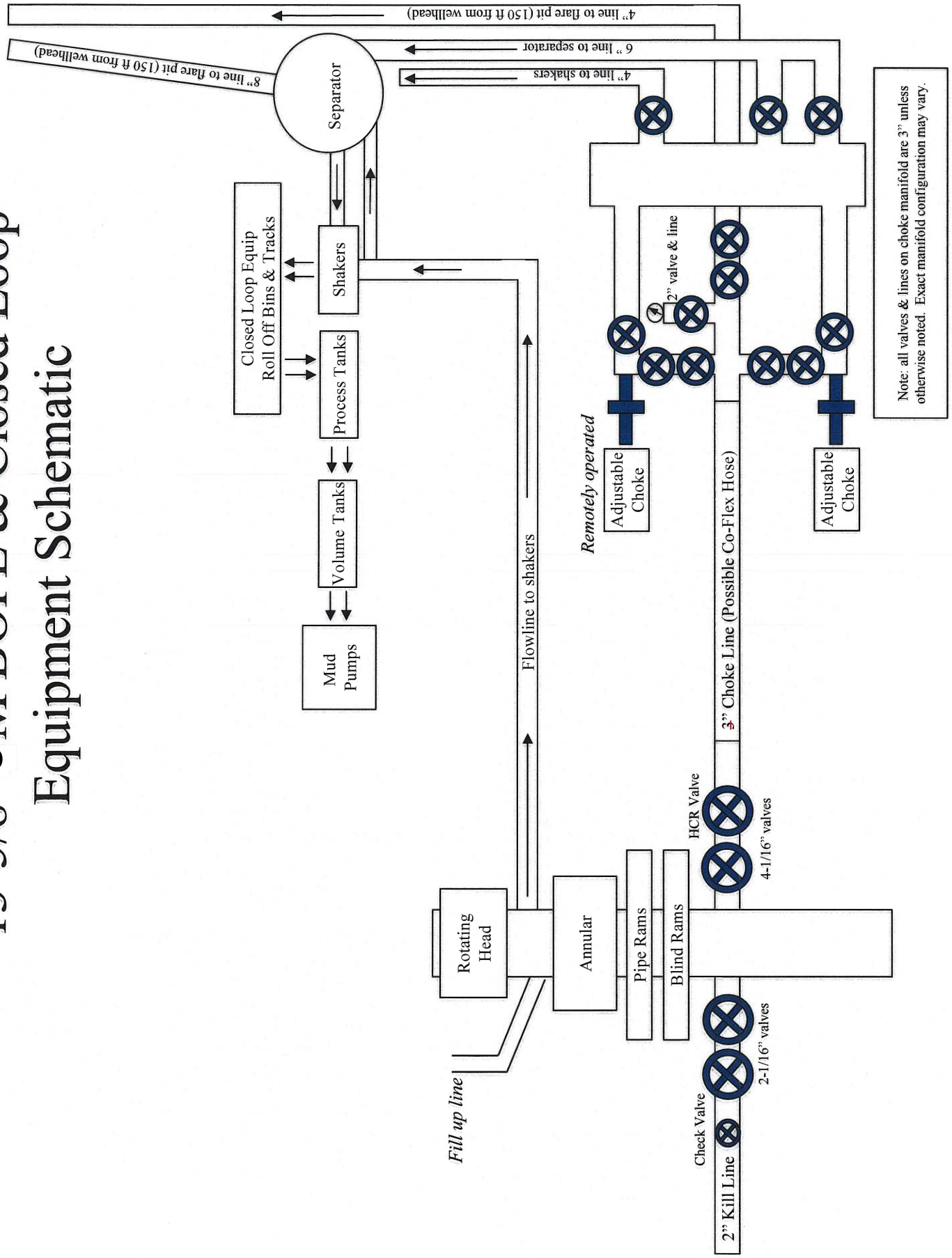
All metal parts are flawless

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.

VERIFIED TRUE COPY
PHOENIX RUBBER Q.C.

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



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.

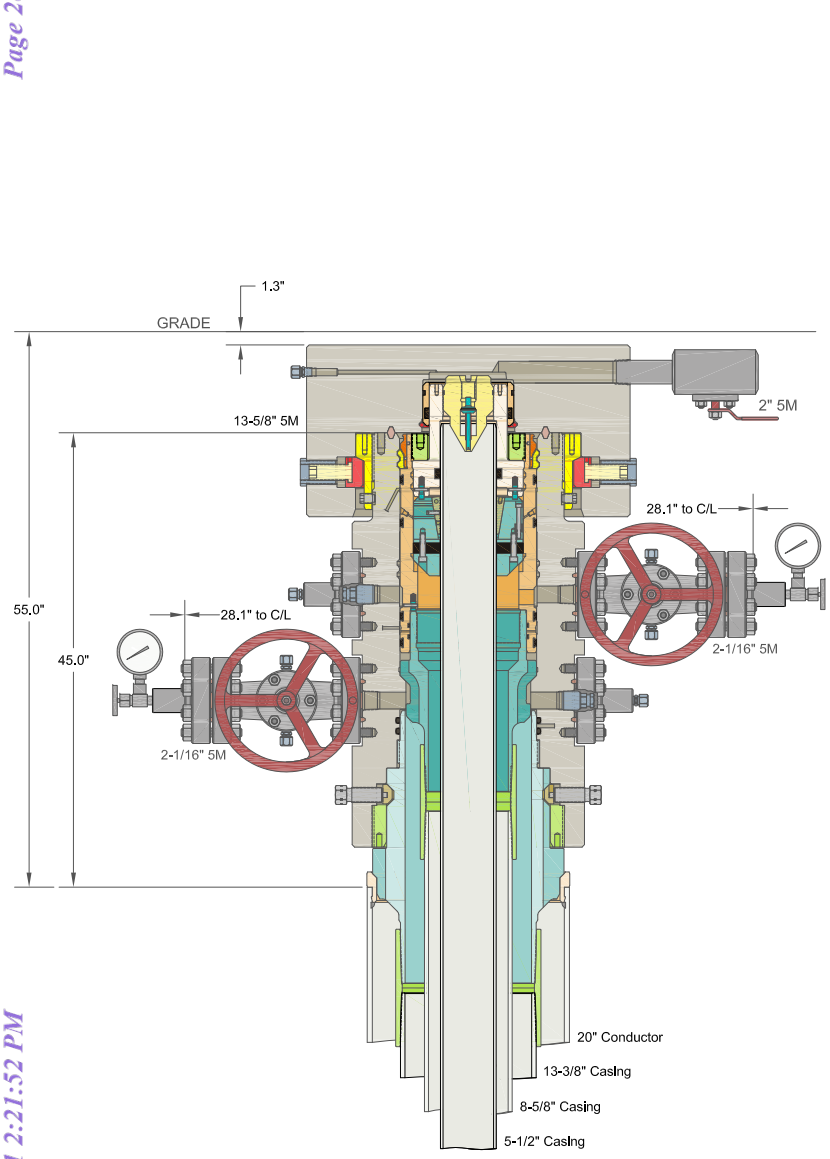
- Wellhead will be installed by wellhead representatives.
- If the welding is performed by a third party, the wellhead representative will monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
- Wellhead representative will install the test plug for the initial 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.

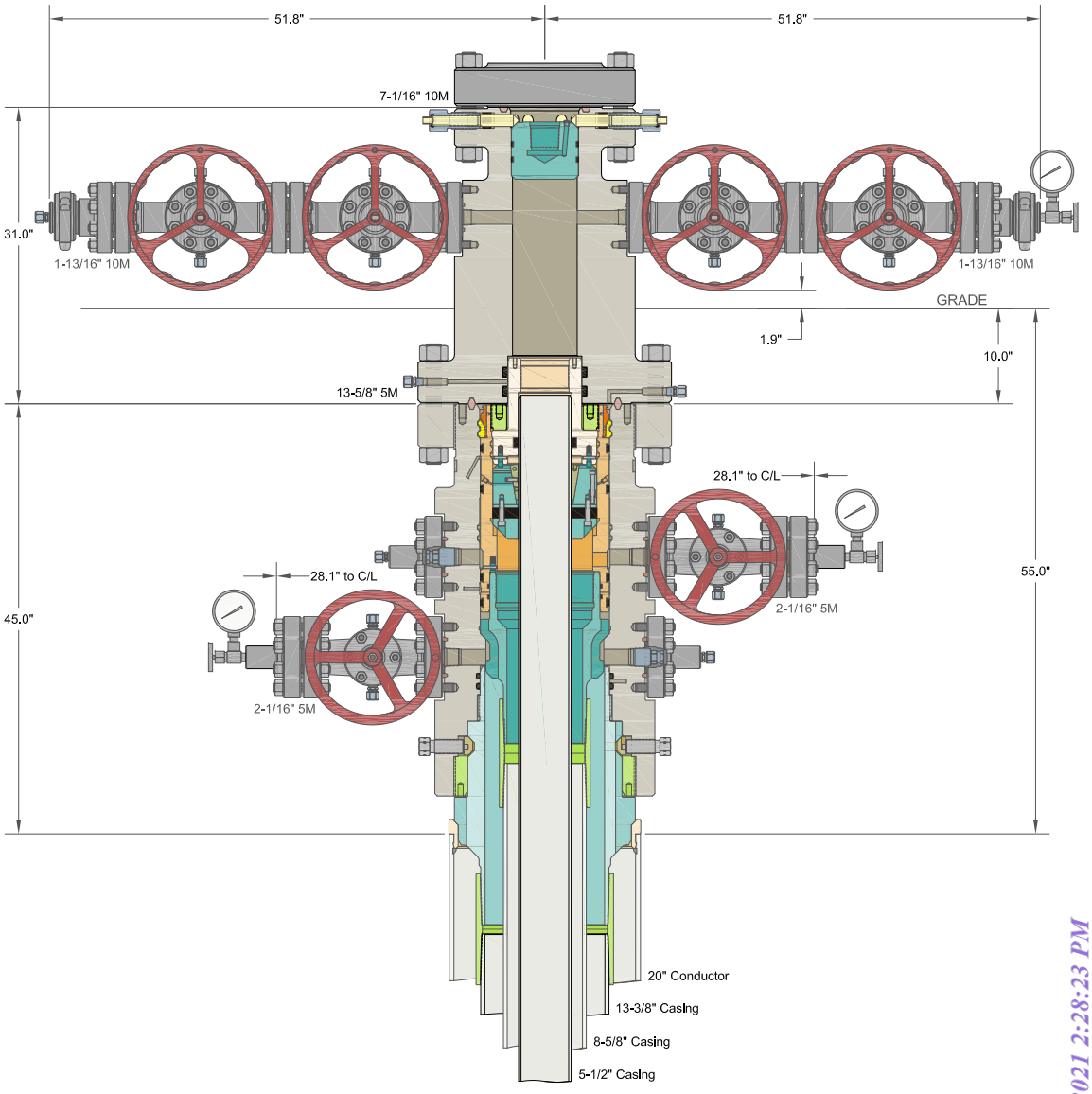
After running the surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum of 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 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.





ALL DIMENSIONS APPROXIMATE

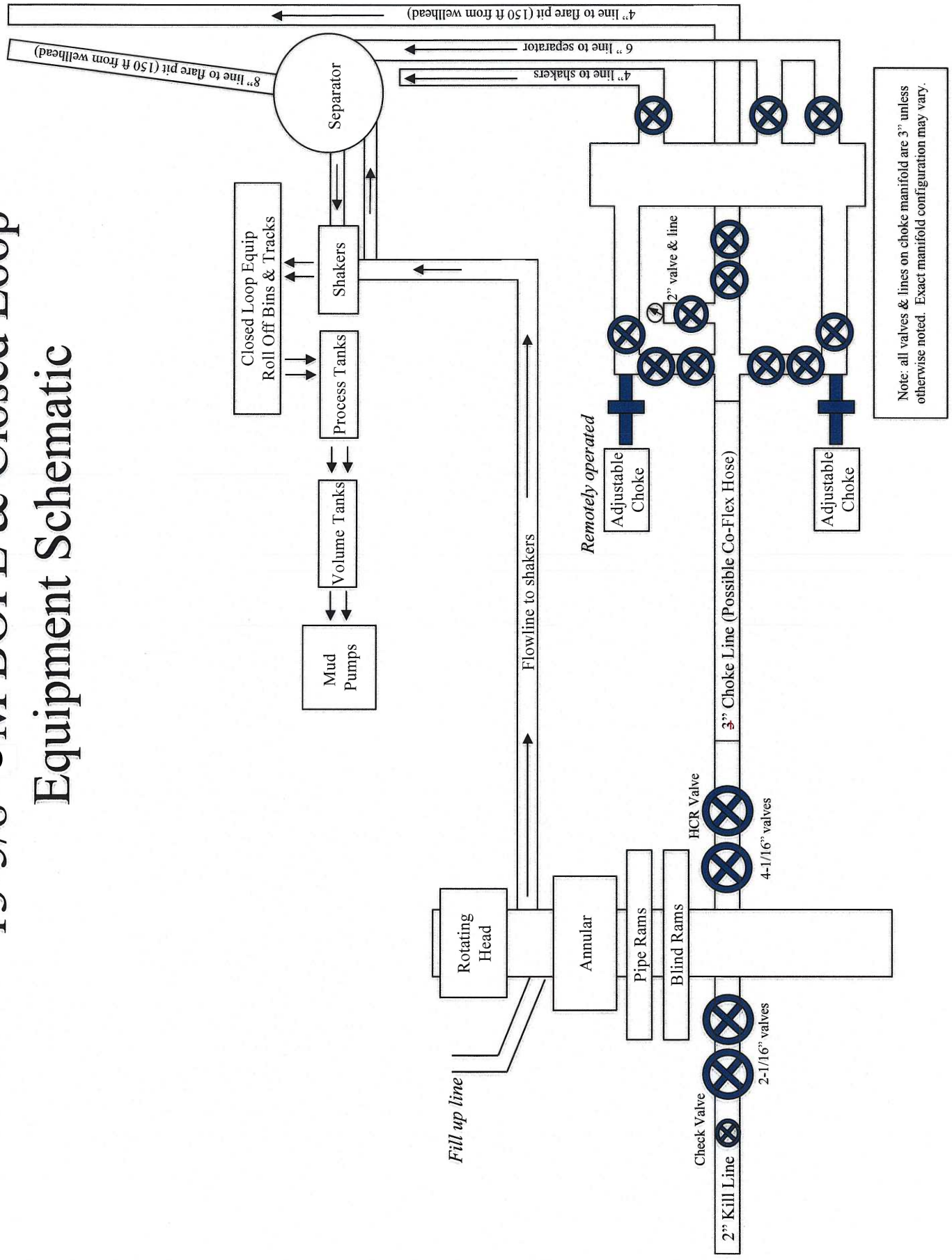
CACTUS WELLHEAD LLC

DEVON ENERGY CORPORATION
DELAWARE BASIN

20" x 13-3/8" x 8-5/8" x 5-1/2" MBU-3T-CFL-R-DBLO Wellhead Sys.
With Quick Connect Top TA Cap, 5-1/2" Emergency Slip Hanger
And 13-5/8" 5M x 7-1/16" 10M CTH-DBLHPS Tubing Head

DRAWN	DLE	25FEB19
APPRV		
DRAWING NO.	SDT-1929	

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

District I
1625 N. French Dr., Hobbs, NM 88240
Phone:(575) 393-6161 Fax:(575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone:(575) 748-1283 Fax:(575) 748-9720
District III
1000 Rio Brazos Rd., Aztec, NM 87410
Phone:(505) 334-6178 Fax:(505) 334-6170
District IV
1220 S. St Francis Dr., Santa Fe, NM 87505
Phone:(505) 476-3470 Fax:(505) 476-3462

State of New Mexico
Energy, Minerals and Natural Resources
Oil Conservation Division
1220 S. St Francis Dr.
Santa Fe, NM 87505

CONDITIONS

Action 24215

CONDITIONS OF APPROVAL

Operator:			OGRID:	Action Number:	Action Type:
DEVON ENERGY PRODUCTION COMPAN	333 West Sheridan Ave.	Oklahoma City, OK73102	6137	24215	FORM 3160-3

OCD Reviewer	Condition
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string