Form 3160-3
(June 2015)

Carlsbad Field Office
OCD Hobbs
HOBBS OCD
SEP 05 2018
RECEIVED

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

MIN F
SURF P

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.
NMNM114990

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.
JAYHAWK 6-7 FED FEE COM
3H (322324)

2. Name of Operator
DEVON ENERGY PRODUCTION COMPANY LP (6137)

9. API Well No.
30-025-45178

3a. Address
333 West Sheridan Avenue Oklahoma City OK 73102

3b. Phone No. *(include area code)*
(405)552-6571

10. Field and Pool, or Exploratory (98094)
BOBCAT DRAW / UPPER WOLFCAMP

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

At surface NENE / 365 FNL / 290 FEL / LAT 32.0787267 / LONG -103.501405

At proposed prod. zone SESE / 330 FSL / 1020 FEL / LAT 32.0516058 / LONG -103.5037371

11. Sec., T. R. M. or Blk. and Survey or Area
SEC 6 / T26S / R34E / NMP

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
290 feet	1241.6	320
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**
597 feet	12730 feet / 22570 feet	FED: CO1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	**22. Approximate date work will start***	**23. Estimated duration**
3331 feet	04/05/2019	45 days

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
(Electronic Submission)	Rebecca Deal / Ph: (405)228-8429	04/12/2018
Title		
Regulatory Compliance Professional		
Approved by *(Signature)*	**Name *(Printed/Typed)***	**Date**
(Electronic Submission)	Cody Layton / Ph: (575)234-5959	08/23/2018
Title	**Office**	
Assistant Field Manager Lands & Minerals	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.

GCP Rec 09/05/18

APPROVED WITH CONDITIONS

KZ 09/07/18

Approval Date: 08/23/2018

Regulatory NSL

(Continued on page 2)

*(Instructions on page 2)

NSL

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.

(Continued on page 3)

Additional Operator Remarks

Location of Well

1. SHL: NENE / 365 FNL / 290 FEL / TWSP: 26S / RANGE: 34E / SECTION: 6 / LAT: 32.0787267 / LONG: -103.501405 (TVD: 0 feet, MD: 0 feet)
   PPP: NENE / 1320 FNL / 1020 FEL / TWSP: 26S / RANGE: 34E / SECTION: 6 / LAT: 32.076261 / LONG: -103.50376 (TVD: 12730 feet, MD: 13600 feet)
   PPP: NENE / 330 FNL / 1020 FEL / TWSP: 26S / RANGE: 34E / SECTION: 6 / LAT: 32.078646 / LONG: -103.503762 (TVD: 12588 feet, MD: 12698 feet)
   BHL: SESE / 330 FSL / 1020 FEL / TWSP: 26S / RANGE: 34E / SECTION: 7 / LAT: 32.0516058 / LONG: -103.5037371 (TVD: 12730 feet, MD: 22570 feet)

BLM Point of Contact

Name: Priscilla Perez
Title: Legal Instruments Examiner
Phone: 5752345934
Email: pperez@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.

AFMSS

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

Application Data Report

08/23/2018

APD ID: 10400029093 **Submission Date:** 04/12/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400029093 **Tie to previous NOS?** **Submission Date:** 04/12/2018

BLM Office: CARLSBAD **User:** Rebecca Deal **Title:** Regulatory Compliance Professional

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM114990 **Lease Acres:** 1241.6

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: (405)552-6571

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? EXISTING **Mater Development Plan name:** Rattlesnake 3 MDP

Well in Master SUPO? NO **Master SUPO name:**

Well in Master Drilling Plan? NO **Master Drilling Plan name:**

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** BOBCAT DRAW **Pool Name:** UPPER WOLFCAMP

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

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

Describe other minerals:

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** NO **New surface disturbance?**

Type of Well Pad: MULTIPLE WELL **Multiple Well Pad Name:** JAYHAWK 6 PAD **Number:** 3

Well Class: HORIZONTAL **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:** 597 FT **Distance to lease line:** 290 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Jayhawk_6_7_Fed_Fee_Com_3H_C_102_Signed_20180412153038.pdf

Well work start Date: 04/05/2019 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number:

	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	365	FNL	290	FEL	26S	34E	6	Aliquot NENE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	FEE	3331	0	0
KOP Leg #1	205	FNL	1021	FEL	26S	34E	6	Aliquot NENE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-8725	12110	12056
PPP Leg #1	330	FNL	1020	FEL	26S	34E	6	Aliquot NENE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	FEE	-9257	12698	12588

AFMSS

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

Drilling Plan Data Report

08/23/2018

APD ID: 10400029093 **Submission Date:** 04/12/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3333	0	0	OTHER : Surface	NONE	No
2	RUSTLER	2458	875	875	SANDSTONE	NONE	No
3	TOP SALT	2106	1227	1227	SALT	NONE	No
4	BASE OF SALT	-1610	4943	4943	LIMESTONE	NONE	No
5	BELL CANYON	-1854	5187	5187	SANDSTONE	NATURAL GAS,OIL	No
6	CHERRY CANYON	-2943	6276	6276	SANDSTONE	NATURAL GAS,OIL	No
7	BRUSHY CANYON	-4575	7908	7908	SANDSTONE	NATURAL GAS,OIL	No
8	BONE SPRING	-6097	9430	9430	SHALE	NATURAL GAS,OIL	No
9	BONE SPRING 1ST	-7027	10360	10360	SANDSTONE	NATURAL GAS,OIL	No
10	BONE SPRING 2ND	-7672	11005	11005	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 3RD	-8562	11895	11895	SANDSTONE	NATURAL GAS,OIL	No
12	WOLFCAMP	-9137	12470	12470	SHALE	NATURAL GAS,OIL	Yes
13	STRAWN	-11237	14570	14570	LIMESTONE	NATURAL GAS,OIL	No

Section 2 - Blowout Prevention

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Pressure Rating (PSI): 10M **Rating Depth:** 12730

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 10M 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:

Jayhawk_6_7_Fed_Fee_Com_3H_10M_BOPE_CHK_20180404081523.pdf

BOP Diagram Attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_10M_BOPE_CHK_20180404081529.pdf

Pressure Rating (PSI): 5M **Rating Depth:** 12480

Equipment: BOP/BOPE will be installed per Onshore Oil & Gas Order #2 requirements prior to drilling below 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M 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:

Jayhawk_6_7_Fed_Fee_Com_3H_5M_BOPE__CK_20180404081548.pdf

BOP Diagram Attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_5M_BOPE__CK_20180404081606.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

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	14.75	10.75	NEW	API	N	0	905	0	905			905	J-55	40.5	STC	1.125	1.25	BUOY	1.6	BUOY	1.6
2	INTERMEDIATE	9.875	7.625	NEW	API	N	0	10360	0	10360			10360	P-110	29.7	OTHER - BTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	INTERMEDIATE	8.75	7.625	NEW	API	N	10360	12555	10360	12480			2195	P-110	29.7	OTHER - FLUSHMAX	1.125	1.25	BUOY	1.6	BUOY	1.6
4	PRODUCTION	6.75	5.5	NEW	API	N	0	22570	0	12730			22570	P-110	20	OTHER - VAM SG	1.125	1.25	BUOY	1.6	BUOY	1.6

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jayhawk_6_7_Fed_Fee_Com_3H_Surf_Csg_Ass_20180404081626.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jayhawk_6_7_Fed_Fee_Com_3H_Int_Csg_Ass_20180404081647.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jayhawk_6_7_Fed_Fee_Com_3H_Int_Csg_Ass_20180404081718.pdf

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Jayhawk_6_7_Fed_Fee_Com_3H_Prod_Csg_Ass_20180404081740.pdf

Section 4 - Cement

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0		See Tail	n/a
PRODUCTION	Tail		12355	22570	831.26	1.33	14.8	1081.63	25	CLASS C	0.125 lbs/sack Poly-E-Flake
INTERMEDIATE	Lead		0	0	0	0	0	0		SEE DRLG PLAN	N/A
SURFACE	Lead		0	905	615.12	1.34	14.8	824.27	50	CLASS C	1% Calcium Chloride
INTERMEDIATE	Lead		0	11055	919.68	3.27	9	3007.34	30	TUNED	Tuned Light
INTERMEDIATE	Tail		11055	12555	186.76	1.2	14.5	224.12	30	CLASS H	Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

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	905	SPUD MUD	8.33	9.1				2			
905	12520	SALT SATURATED	8.6	10				2			
905	12520	SALT SATURATED	8.6	10				2			
12555	22570	OIL-BASED MUD	11	13				12			

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: 8605 **Anticipated Surface Pressure:** 5804.4

Anticipated Bottom Hole Temperature(F): 165

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

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

Jayhawk_6_7_Fed_Fee_Com_3H_H2S_Plan_20180404082735.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Jayhawk_6_7_Fed_Fee_Com_3H_Dir_Svy_20180404082756.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_Plot_Plan_20180404082756.pdf

Other proposed operations facets description:

MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD
10M ANNULAR VARIANCE DOC & SCHEMATIC
CLOSED LOOP DESIGN PLAN
DRILLING PLAN
AC REPORT
CO-FLEX HOSE
SPUDDER RIG REQUEST

Other proposed operations facets attachment:

Jayhawk_6_7_FED_FEE_COM_3H_AC_Report_20180404082911.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_Annular_Preventer_Sundry_20180404082926.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_MB_Wellhd_10M_20180404082927.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_MB_Verb_10M_20180404082926.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_10M_BOPE_DR_CLS_Exc_Sch_20180404082957.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_Clsd_Loop_20180404083009.pdf

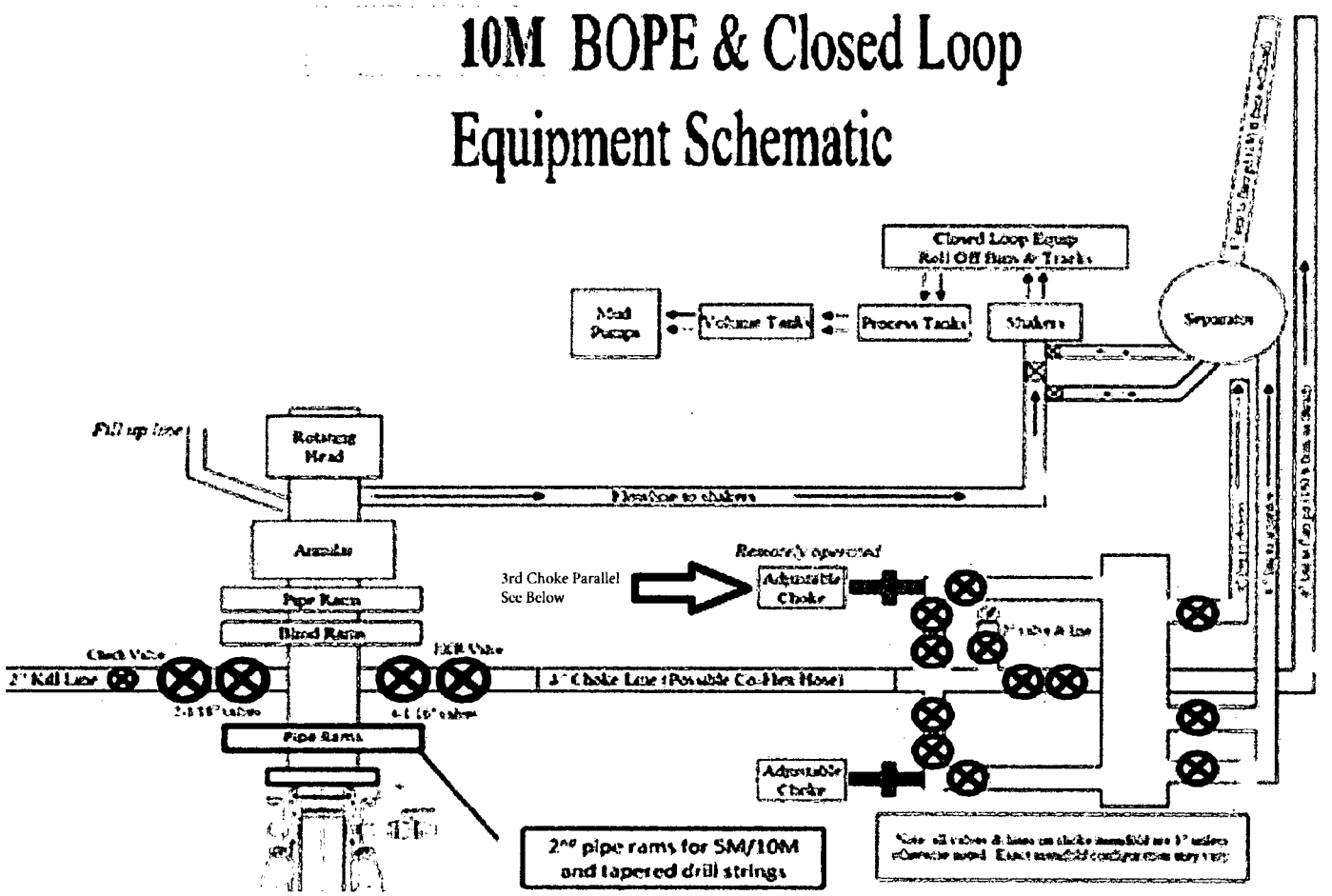
Jayhawk_6_7_Fed_Fee_Com_3H_Spudder_Rig_Info_20180404083010.pdf

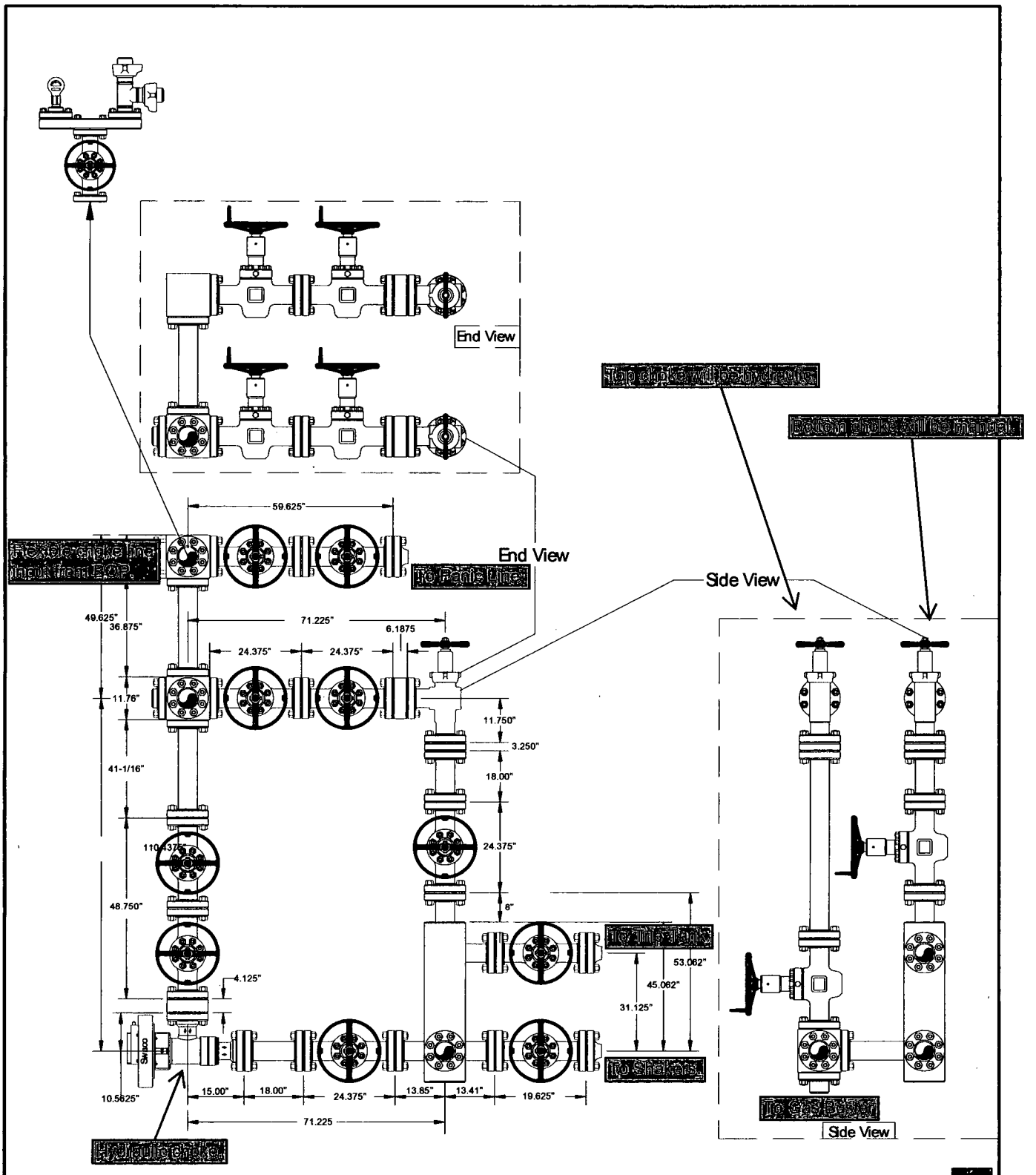
Jayhawk_6_7_Fed_FEE_Com_3H_Drilling_Document_20180404083032.pdf

Other Variance attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_Co_flex_20180404083056.pdf

10M BOPE & Closed Loop Equipment Schematic





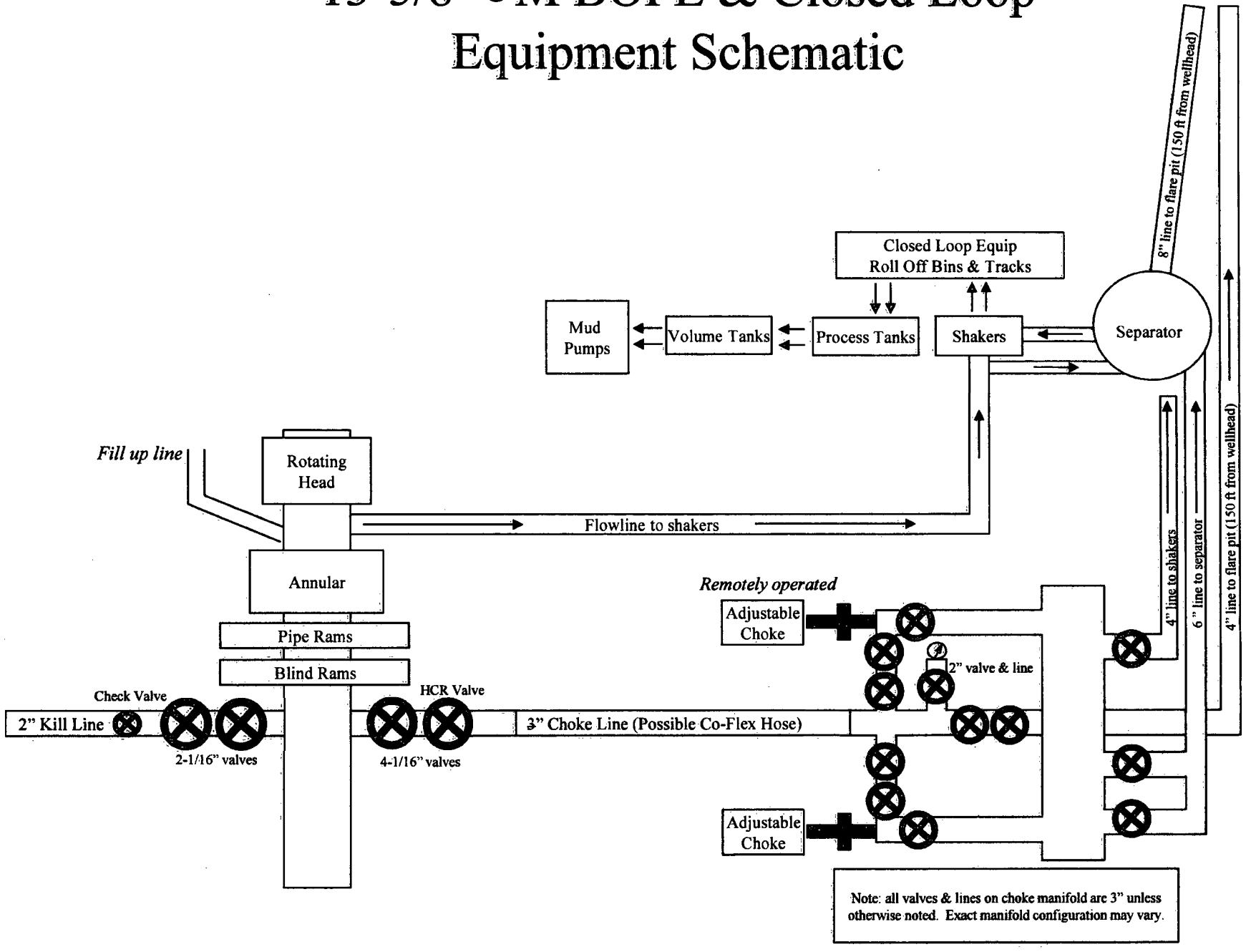
Helmerich & Payne

Flex 3 Rig w/ 3 Choke

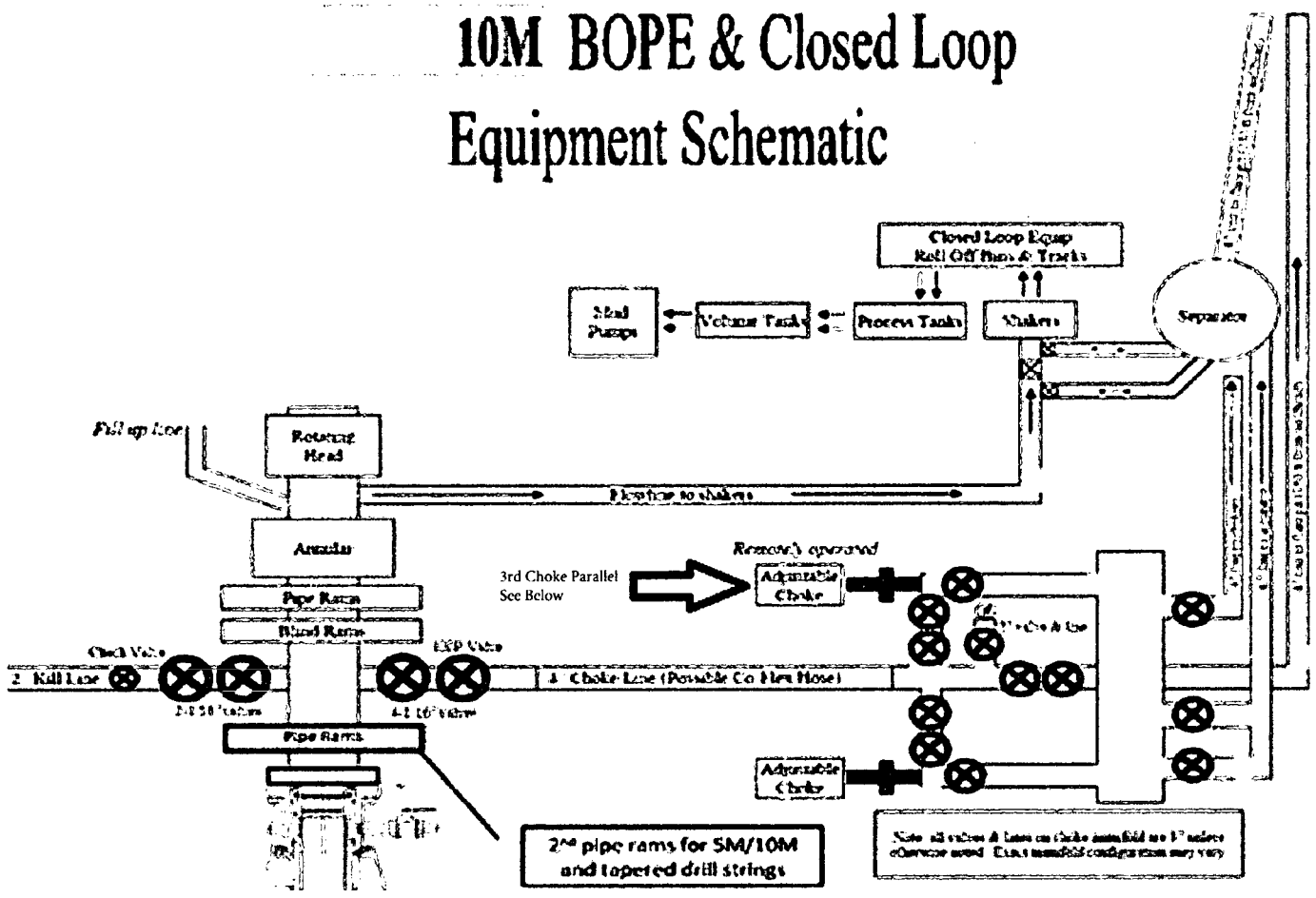
devon

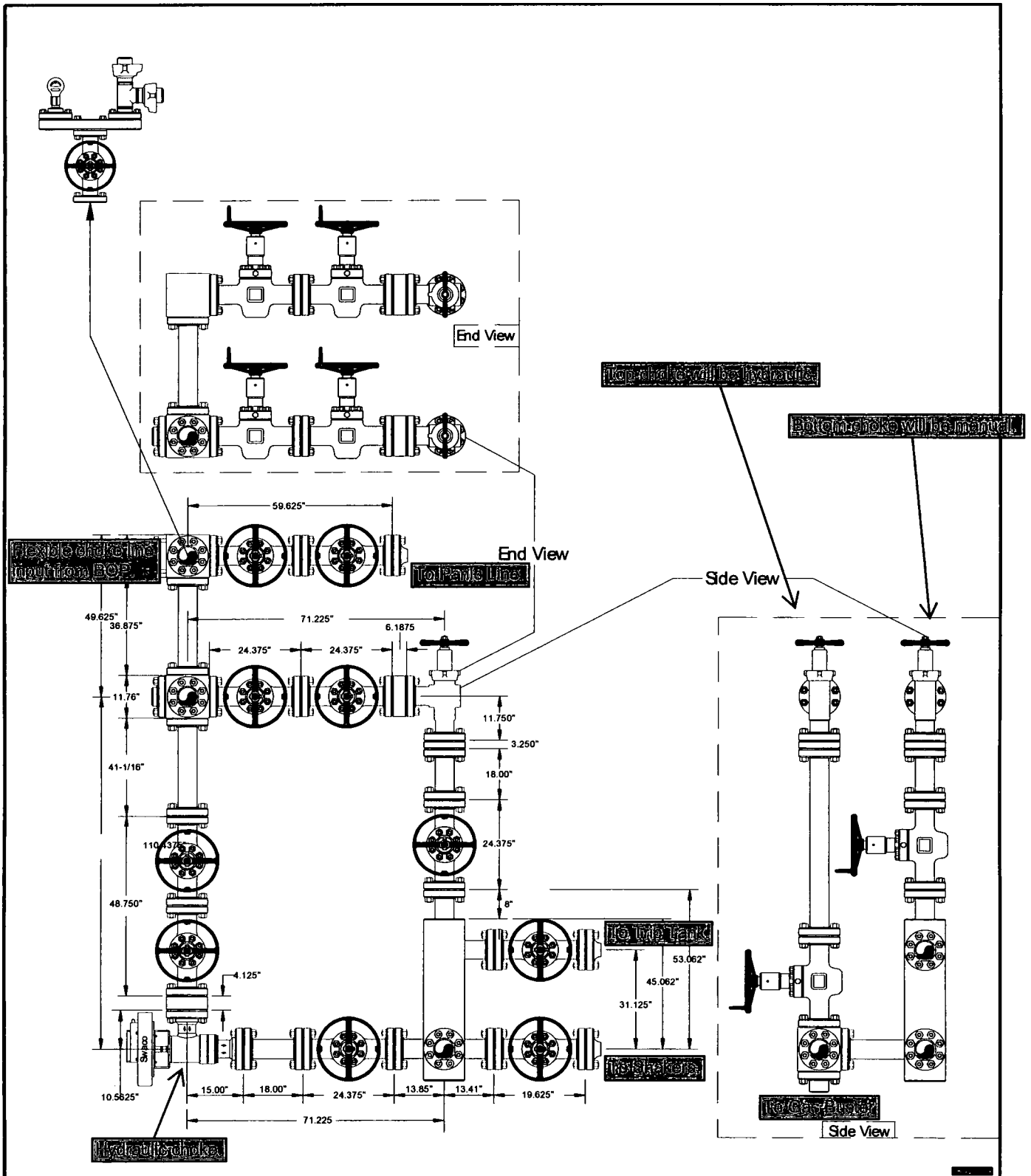
Name: Mike Potts	Date: 6-23-2010	Working Pressure: 10M	J-5132-E

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



10M BOPE & Closed Loop Equipment Schematic





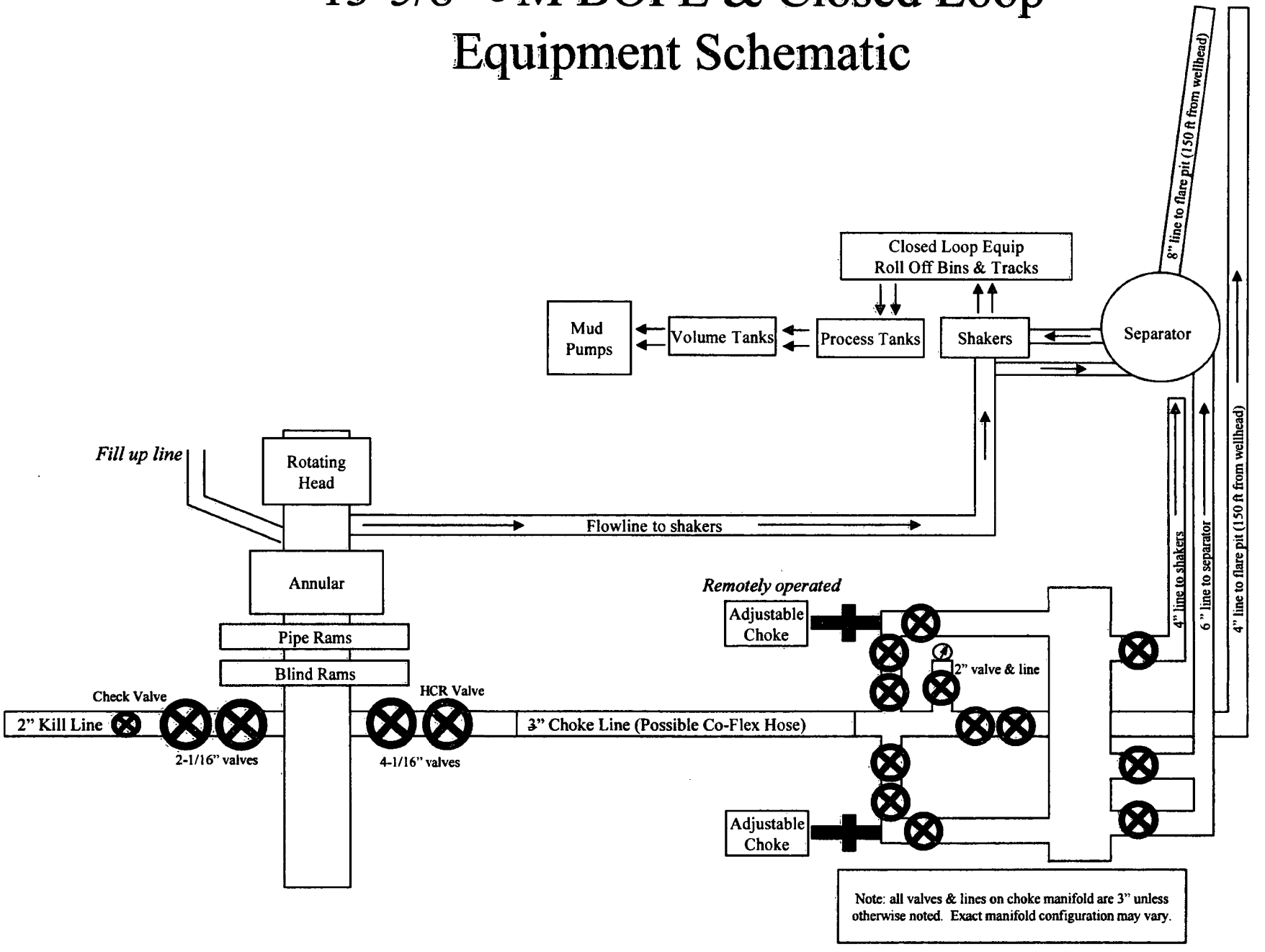
Helmerich & Payne

Flex 3 Rig w/ 3 Chokes

devon

Name: Mike Potts	Date: 6-23-2010	Working Pressure: 10M	J-5132-E

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



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

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

Devon Energy Annular Preventer Summary

1. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the 10M MASP portion of the well, outlines the tubulars and the compatible preventers in use. This table, combined with the mud program, documents that two barriers to flow can be maintained at all times, independent of the rating of the annular preventer.

6-3/4" Production hole section, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
HWDP	4.5"	Fixed lower 4.5" Upper 4.5-7" VBR	10M
Drill collars and MWD tools	4.75"	Upper 4.5-7" VBR	10M
Mud Motor	4.75"	Upper 4.5-7" VBR	10M
Production casing	5.5"	Upper 4.5-7" VBR	10M
ALL	0-13-5/8"	Annular	5M
Open-hole	-	Blind Rams	10M

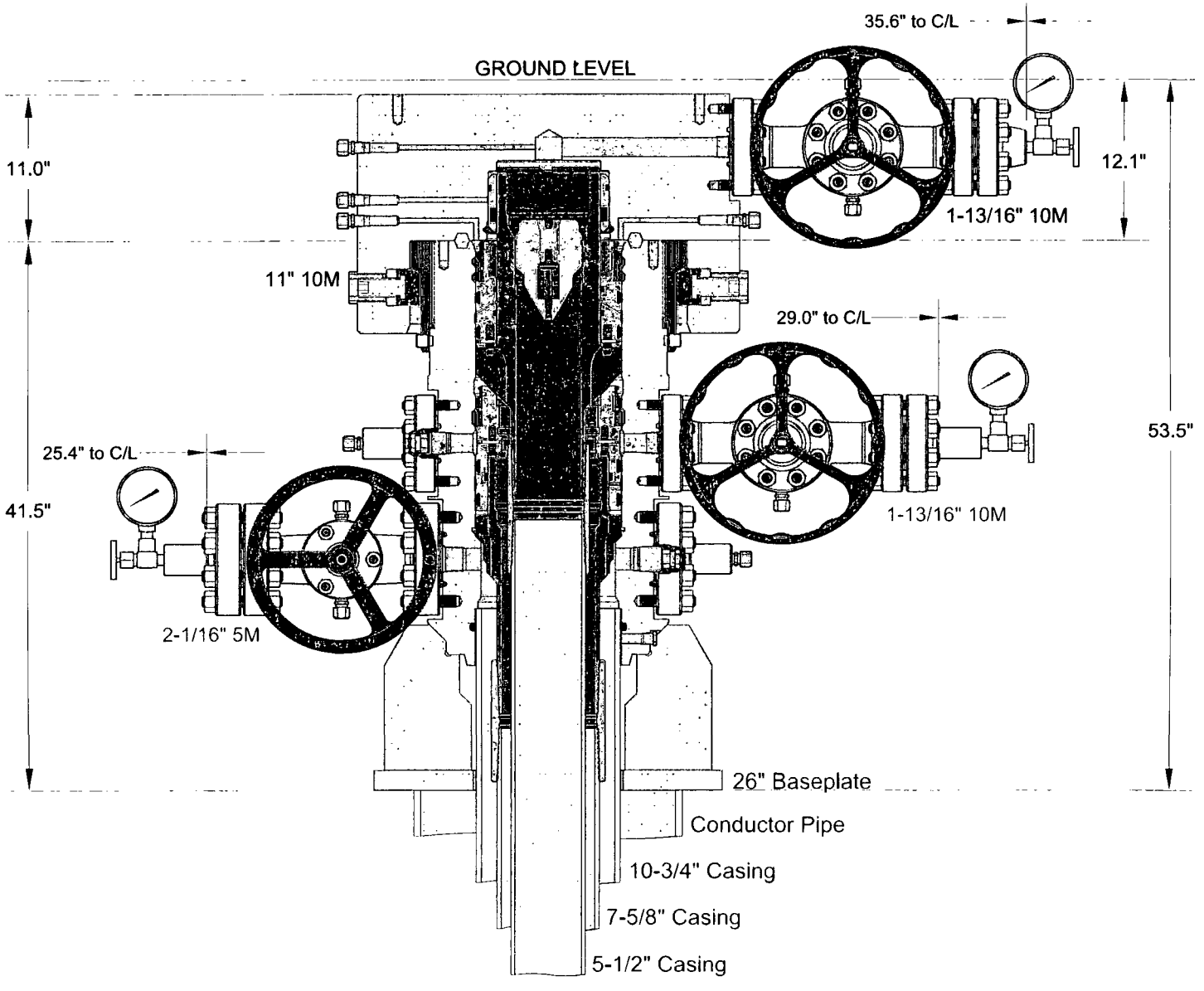
VBR = Variable Bore Ram. Compatible range listed in chart.

2. Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the BHA through the BOPs. The pressure at which control is swapped from the annular to another compatible ram is variable, but the operator will document in the submission their operating pressure limit. The operator may chose an operating pressure less than or equal to RWP, but in no case will it exceed the RWP of the annular preventer.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. HCR and choke will already be in the closed position.)
5. Confirm shut-in
6. Notify toolpusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram.



CACTUS WELLHEAD LLC

16" x 11-7/8" x 7-5/8" MBU-T Wellhead Assembly
With 7-5/8" & 5-1/2" Pin Bottom Mandrel Casing Hangers
And 11" 10M MBU-T-HPS-F TA Cap

DEVON ENERGY CORPORATION

DRAWN	DLE	29NOV17
APPRV		

DRAWING NO. OKE0001764

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. 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.

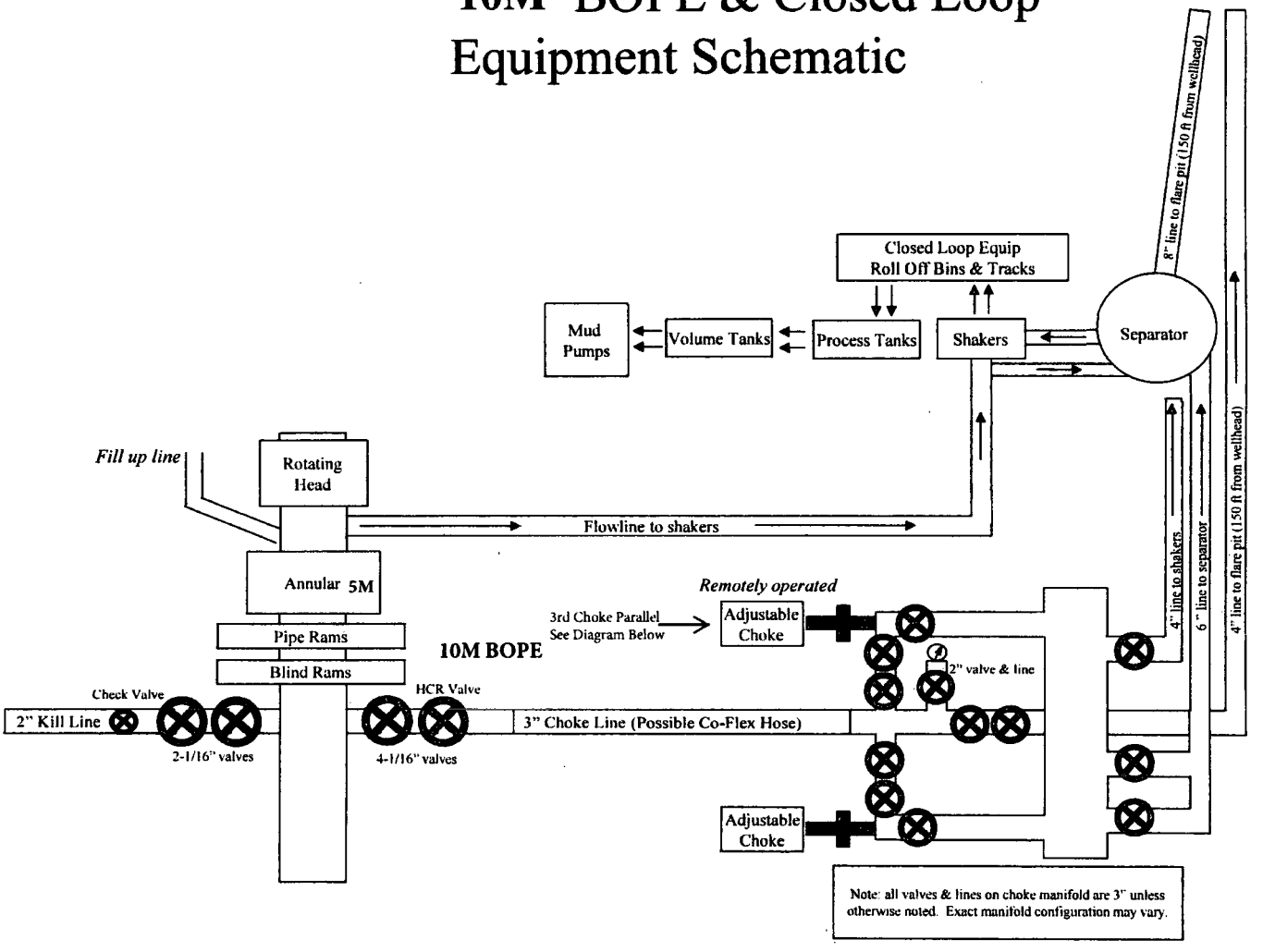
After running the 10-3/4" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 5M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 5,000 psi high pressure test. The 5,000 psi high and 250 psi low test will cover testing requirements a maximum 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 7-5/8" intermediate casing with a mandrel hanger, the 13-5/8" BOP/BOPE system with a minimum rating of 10M will 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 10,000 psi WP.

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

10M BOPE & Closed Loop Equipment Schematic



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.

Devon Energy, Jayhawk 6-7 Fed Fee Com 3H

1. Geologic Formations

TVD of target	12,730'	Pilot hole depth	N/A
MD at TD:	22,570'	Deepest expected fresh water:	1100'

Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
RUSTLER	875		
TOP SALT	1227		
BASE OF SALT	4943		
BELL CANYON	5187		
CHERRY CANYON	6276		
BRUSHY CANYON	7908		
BONE SPRING	9430		
BONE SPRING 1ST	10360		
BONE SPRING 2ND	11005		
BONE SPRING 3RD	11895		
WOLFCAMP	12470		

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

2. Casing Program

Hole Size	Casing Interval From	Casing Interval To	Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
14.75"	0	905'	10.75"	40.5	J-55	STC	1.125	1.25	1.6
9.875"	0	10,360'	7.625"	29.7	P110	BTC	1.125	1.25	1.6
8.75"	10,360'	12,555'	7.625"	29.7	P110	Flushmax III	1.125	1.25	1.6
6.75"	0'	22,570'	5.5"	20	P110	Vam SG	1.125	1.25	1.6

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

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 to wave the centralizer requirement for the 7-5/8" flush casing in the 8-3/4" hole and the 5-1/2" SF/Flush casing in the 6-3/4" hole.

	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 3rd 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 2nd 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

Casing	# Sks	Wt. lb/ gal	H_2O gal/sk	Yld ft3/ sack	Slurry Description
10-3/4" Surface	615	14.8	6.34	1.34	Tail: Class C Cement + 1% Calcium Chloride
7-5/8" Int	920	9	13.5	3.27	Lead: Tuned Light® Cement
	187	13.2	5.31	1.2	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
7-5/8" Intermediate Squeeze	1046	14.8	6.34	1.34	Class C Cement + 0.125 lbs/sack Poly-E-Flake
	179	9	13.5	3.27	Tuned Light® Cement
	187	13.2	5.31	1.2	Tail: (50:50) Class H Cement: Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
5-1/2" Producti on	813	14.8	6.32	1.33	Class H Cement + 0.125 lbs/sack Poly-E-Flake

If a DV tool is used, depth(s) will be adjusted based on hole conditions and cement volumes will be adjusted proportionally. DV tool will be set a minimum of 50 feet below previous casing and a minimum of 200 feet above current shoe. Lab reports with the 500 psi compressive strength time for the cement will be onsite for review.

Casing String	TOC	% Excess
10-3/4" Surface	0'	50%
7-5/8" Intermediate	0'	30%
5-1/2" Production Casing	12,355'	25%

4. Pressure Control Equipment

N	A variance is requested for the use of a diverter on the surface casing. See attached for schematic.

Devon Energy, Jayhawk 6-7 Fed Fee Com 3H

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
9-7/8" & 8-3/4"	13-5/8"	5M	Annular	X	50% of rated working pressure
			Blind Ram	X	5M
			Pipe Ram	X	
			Double Ram	X	
			Other*		
6-3/4"	13-5/8"	10M	Annular (5M)	X	50% of rated working pressure
			Blind Ram	X	10M
			Pipe Ram	X	
			Double Ram	X	
			Other *		
			Annular		
			Blind Ram		
			Pipe Ram		
			Double Ram		
			Other *		

*Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Y	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or 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. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
Y	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y	Are anchors required by manufacturer?

Y	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 3M, 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 10-3/4" 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. 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. Devon requests a variance to use a flexible line with flanged ends between the BOP and the choke manifold (choke line). The line will be kept as straight as possible with minimal turns.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	905'	Spud	8.33-9.1	28-34	N/C
905'	12,555'	OBM/Cut Brine	8.6-10	34-65	N/C - 6
12,555'	22,570'	Oil Based Mud	11-13	45-65	N/C - 6

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 fromTD 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	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	Specify what type and where?
BH Pressure at deepest TVD	8605 psi
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	H2S is present
Y	H2S Plan attached

8. Other facets of operation

Is this a walking operation? Yes

1. In the event the spudder rig is unable to drill the surface holes the 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 with either OBM or cut brine 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? Yes

1. Spudder rig will move in and drill surface hole.
    a. Rig will utilize fresh water based mud to drill 14 ¾" 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 10-3/4" 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 the drilling 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 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

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

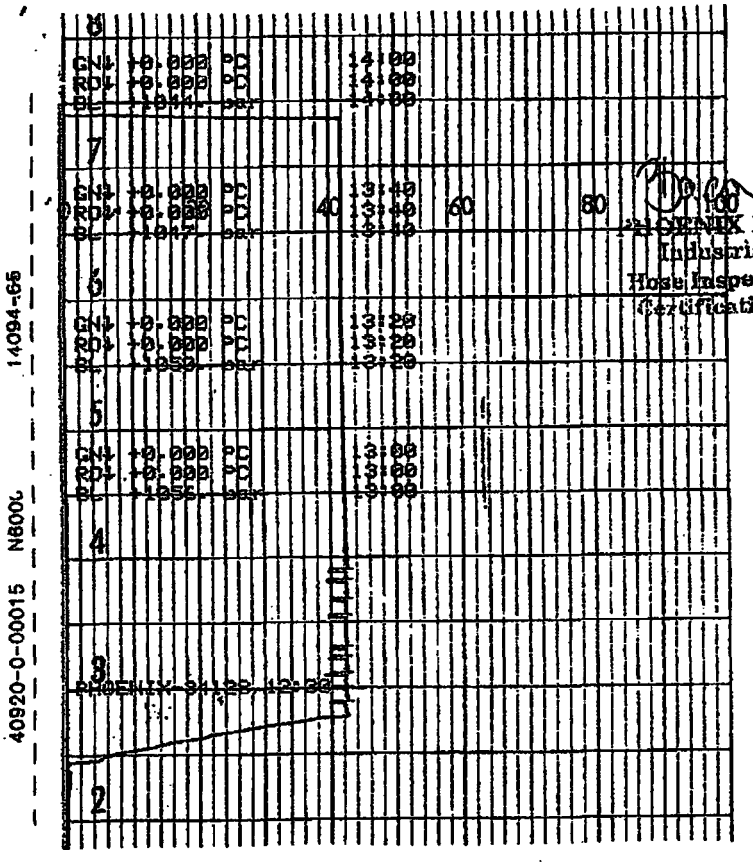
API Spec 16 C
Temperature rate:"B"

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 Certification Dept. PHOENIX RUBBER Q.C.

CERTIFIED TRUE COPY



VERIFIED TRUE COPY
PHOENIX RUBBER Q.C.

APD ID: 10400029093 **Submission Date:** 04/12/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

Jayhawk_6_7_Fed_Fee_Com_3H_Access_Rd_20180404083430.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? YES

New Road Map:

Jayhawk_6_7_Fed_Fee_Com_3H_New_Access_Rd_20180404083441.pdf

New road type: LOCAL

Length: 50.04 Feet **Width (ft.):** 30

Max slope (%): 6 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

New road access erosion control: Water Drainage Ditch

New road access plan or profile prepared? YES

New road access plan attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_New_Access_Rd_20180404083545.pdf

Access road engineering design? YES

Access road engineering design attachment:
Jayhawk_6_7_Fed_Fee_Com_3H_New_Access_Rd_20180404083553.pdf

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: caliche

Access onsite topsoil source depth: 6

Offsite topsoil source description:

Onsite topsoil removal process: See attached Interim reclamation diagram.

Access other construction information:

Access miscellaneous information:

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Water Drainage Ditch

Road Drainage Control Structures (DCS) description: N/A

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

Jayhawk_6_7_Fed_Fee_Com_3H_OneMileBuffer_20180404083606.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: 9 ATTACHMENTS - JAYHAWK 6 WELLPAD 3 & CTB 3 - 3 BATT CONN PLATS, CTB ELECTRIC PLAT, PAD TO CTB FLOWLINE, LATERAL PLAT, WELLPAD PLAT, WELLPAD ELECTRIC, CTB PLAT
Production Facilities map:

Jayhawk_6_7_Fed_Fee_Com_3H_CTB_3_BattConn_Crude_20180404083740.pdf
Jayhawk_6_7_Fed_Fee_Com_3H_CTB_3_BattConn_Gas_20180404083743.pdf
Jayhawk_6_7_Fed_Fee_Com_3H_CTB_3_BattConn_Water_20180404083745.pdf

Jayhawk_6_7_Fed_Fee_Com_3H_CTB_PLAT_20180404083800.pdf
Jayhawk_6_7_Fed_Fee_Com_3H_CTB_3_Ele_20180404083803.PDF
Jayhawk_6_7_Fed_Fee_Com_3H_FL_PAD_TO_CTB_20180404083805.pdf
Jayhawk_6_7_Fed_Fee_Com_3H_Jyhwk_6_Pad_3_Plat_20180404083811.pdf
Jayhawk_6_7_Fed_Fee_Com_3H_LAT_CRUDE_20180404083812.PDF
Jayhawk_6_7_Fed_Fee_Com_3H_WP_3_ELE_20180404083813.PDF

Section 5 - Location and Types of Water Supply

Water Source Table

Water source use type: STIMULATION
Water source type: RECYCLED
Describe type:
Source latitude:
Source longitude:
Source datum:
Water source permit type: OTHER
Source land ownership: FEDERAL
Water source transport method: PIPELINE
Source transportation land ownership: FEDERAL
Water source volume (barrels): 350000
Source volume (acre-feet): 45.112583
Source volume (gal): 14700000

Water source and transportation map:

JAYHAWK_6_7_FED_FEE_COM_3H_Water_Map_20180404083833.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:
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

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

Construction Materials source location attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_Caliche_Map_20180404083843.pdf

Section 7 - Methods for Handling Waste

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

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: PRODUCED WATER

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

Amount of waste: 1200 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Produced water will be primarily disposed of at our Rattlesnake 16 SWD. At certain times during the year, some of the water will be recycled and used for drilling/completion operations. This recycle facility is at the same location as the SWD (state).

Waste type: FLOWBACK

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

Amount of waste: 4000 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

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

Disposal type description:

Disposal location description: Produced water during flowback will be disposed of at our Rattlesnake 16 SWD.

Waste type: DRILLING

Waste content description: Water Based and Oil Based Cuttings

Amount of waste: 1740 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

Cuttings Area

Cuttings Area being used? NO

Are you storing cuttings on location? NO

Description of cuttings location

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

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:

Jayhawk_6_7_Fed_Fee_Com_3H_Well_Layout_20180404083921.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: JAYHAWK 6 PAD

Multiple Well Pad Number: 3

Recontouring attachment:

Jayhawk_6_7_Fed_Fee_Com_3H_Interim_Recl_20180404083935.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.

Well pad proposed disturbance (acres): 8.264

Well pad interim reclamation (acres): 2.832

Well pad long term disturbance (acres): 5.432

Road proposed disturbance (acres): 0.034

Road interim reclamation (acres): 0

Road long term disturbance (acres): 0.034

Powerline proposed disturbance (acres): 0.354

Powerline interim reclamation (acres): 0

Powerline long term disturbance (acres): 0.354

Pipeline proposed disturbance (acres): 0.069

Pipeline interim reclamation (acres): 0

Pipeline long term disturbance (acres): 0.069

Other proposed disturbance (acres): 0

Other interim reclamation (acres): 0

Other long term disturbance (acres): 0

Total interim reclamation: 2.832

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Total proposed disturbance: 8.721 **Total long term disturbance:** 5.889

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:

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: Travis **Last Name:** Phibbs

Phone: (575)748-9929 **Email:** travis.phibbs@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:

Section 11 - Surface Ownership

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

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: EXISTING ACCESS ROAD

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

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:**

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

Disturbance type: PIPELINE

Describe:

Surface Owner: BUREAU OF LAND MANAGEMENT,PRIVATE OWNERSHIP

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,PRIVATE OWNERSHIP

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:**

Section 12 - Other Information

Right of Way needed? YES **Use APD as ROW?** YES

ROW Type(s): 281001 ROW - ROADS,288100 ROW – O&G Pipeline,FLPMA (Powerline),Other

ROW Applications

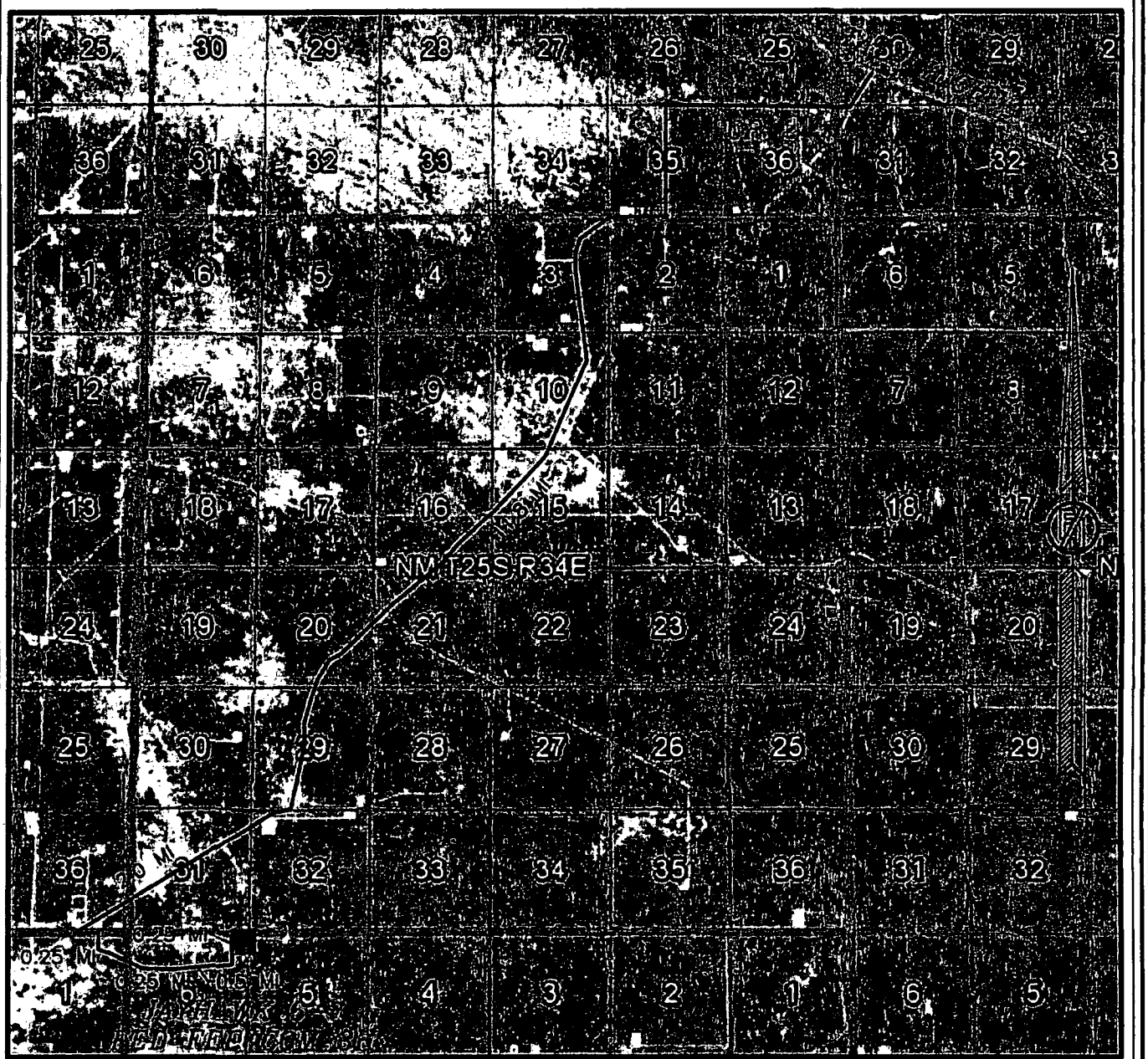
SUPO Additional Information: Part of Rattlesnake 3 MDP. See Section 4 for 9 Facility & Infrastructure Plats. See C-102 for grading plats.
Use a previously conducted onsite? YES

Previous Onsite information: 8/31/2017

Other SUPO Attachment

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO

ACCESS AERIAL ROUTE MAP



NOT TO SCALE
AERIAL PHOTO:
GOOGLE EARTH
NOVEMBER 2017

DEVON ENERGY PRODUCTION COMPANY, L.P.

JAYHAWK 6-7 FED FEE COM 3H

LOCATED 365 FT. FROM THE NORTH LINE
AND 290 FT. FROM THE EAST LINE OF
SECTION 6, TOWNSHIP 26 SOUTH,
RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
LAND STATUS: FEE

MARCH 6, 2018

SURVEY NO. 6075

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

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe 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?

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):

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

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:

Decribe 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:

Lined pit Monitor description:

Lined pit Monitor attachment:

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

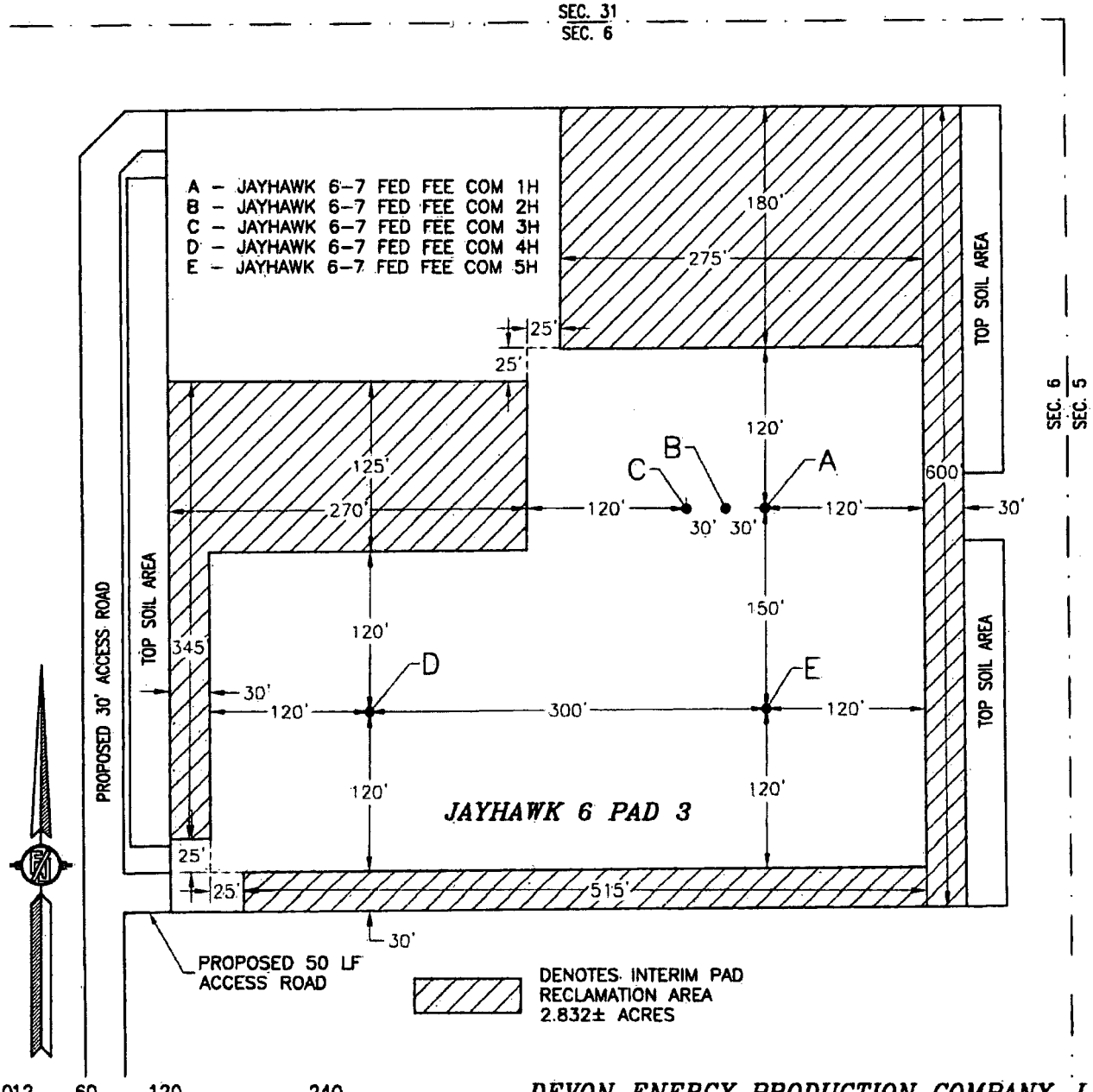
Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

SECTION 6, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M.
LEA COUNTY, STATE OF NEW MEXICO
INTERIM SITE BUILD PLAN



DEVON ENERGY PRODUCTION COMPANY, L.P.

JAYHAWK 6-7 FED FEE COM 4H

LOCATED 515 FT. FROM THE NORTH LINE AND 530 FT. FROM THE EAST LINE OF SECTION 6, TOWNSHIP 26 SOUTH, RANGE 34 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO

LAND STATUS: FEE

MARCH 6, 2018

SURVEY NO. 6076

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

AFMSS

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

Bond Info Data Report

08/23/2018

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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: JAYHAWK 6-7 FED FEE COM **Well Number:** 3H

	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
PPP Leg #1	1320	FNL	1020	FEL	26S	34E	6	Aliquot NENE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 114990	-9399	13600	12730
EXIT Leg #1	330	FSL	1020	FEL	26S	34E	7	Aliquot SESE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 114990	-9399	22570	12730
BHL Leg #1	330	FSL	1020	FEL	26S	34E	7	Aliquot SESE	[redacted]	[redacted]	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 114990	-9399	22570	12730