

# Carlsbad Field Office OCD Hobbs

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**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. <b>NMNM097151</b>
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other		6. If Indian, Allottee or Tribe Name
1c. Type of Completion: <input type="checkbox"/> Hydraulic Fracturing <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		7. If Unit or CA Agreement, Name and No
2. Name of Operator <b>DEVON ENERGY PRODUCTION COMPANY LP (6177)</b>		8. Lease Name and Well No. <b>FLAGLER 8 FED COM (322150)</b> 10H
3a. Address <b>333 West Sheridan Avenue Oklahoma City OK 73102</b>	3b. Phone No. (include area code) <b>(405)552-6571</b>	9. API Well No. <b>30-025-45218 (96392)</b>
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface <b>SWSW / 180 FSL / 380 FWL / LAT 32.1383519 / LONG -103.6016108</b> At proposed prod. zone <b>NWNW / 330 FNL / 980 FWL / LAT 32.1514624 / LONG -103.5996719</b>		10. Field and Pool, or Exploratory <b>DRAPER MILL / BONE SPRING</b>
11. Sec., T, R, M or Blk. and Survey or Area <b>SEC 8 / T25S / R33E / NMP</b>		12. County or Parish <b>LEA</b>
13. State <b>NM</b>		
14. Distance in miles and direction from nearest town or post office*	15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) <b>180 feet</b>	16. No. of acres in lease <b>520</b>
17. Spacing Unit dedicated to this well <b>160</b>	18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft. <b>553 feet</b>	19. Proposed Depth <b>12300 feet / 16989 feet</b>
20. BLM/BIA Bond No. in file <b>FED: CO1104</b>	21. Elevations (Show whether DF, KDB, RT, GL, etc.) <b>3467 feet</b>	22. Approximate date work will start* <b>12/05/2018</b>
23. Estimated duration <b>45 days</b>	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.   | 4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above). |
| 2. A Drilling Plan.  | 5. Operator certification.  |
| 3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office). | 6. Such other site specific information and/or plans as may be requested by the BLM.            |

25. Signature (Electronic Submission)	Name (Printed/Typed) <b>Rebecca Deal / Ph: (405)228-8429</b>	Date <b>03/28/2018</b>
Title <b>Regulatory Compliance Professional</b>		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) <b>Cody Layton / Ph: (575)234-5959</b>	Date <b>09/10/2018</b>
Title <b>Assistant Field Manager Lands &amp; Minerals</b>		

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.

Reg GCP 09/20/18  
GCP Rec 09/20/18



K 09/20/18

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

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

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

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

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

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

## NOTICES

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

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

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

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

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

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

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

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

## **Additional Operator Remarks**

### **Location of Well**

1. SHL: SWSW / 180 FSL / 380 FWL / TWSP: 25S / RANGE: 33E / SECTION: 8 / LAT: 32.1383519 / LONG: -103.6016108 ( TVD: 0 feet, MD: 0 feet )

PPP: SWSW / 330 FSL / 980 FWL / TWSP: 25S / RANGE: 33E / SECTION: 8 / LAT: 32.138754 / LONG: -103.599774 ( TVD: 12113 feet, MD: 12157 feet )

BHL: NWNW / 330 FNL / 980 FWL / TWSP: 25S / RANGE: 33E / SECTION: 8 / LAT: 32.1514624 / LONG: -103.5996719 ( TVD: 12300 feet, MD: 16989 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.



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

## Operator Certification Data Report

09/11/2018

### Operator Certification

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

**NAME:** Rebecca Deal

**Signed on:** 03/28/2018

**Title:** Regulatory Compliance Professional

**Street Address:** 333 West Sheridan Avenue

**City:** Oklahoma City

**State:** OK

**Zip:** 73102

**Phone:** (405)228-8429

**Email address:** Rebecca.Deal@dvn.com

### Field Representative

**Representative Name:** Travis Phibbs

**Street Address:** 6488 Seven Rivers Hwy

**City:** Artesia

**State:** NM

**Zip:** 88210

**Phone:** (575)748-9929

**Email address:** travis.phibbs@dvn.com



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

## Application Data Report

09/11/2018

APD ID: 10400028898

Submission Date: 03/28/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: FLAGLER 8 FED COM

Well Number: 10H

Well Type: OIL WELL

Well Work Type: Drill

Highlighted data  
reflects the most  
recent changes

[Show Final Text](#)

### Section 1 - General

APD ID: 10400028898

Tie to previous NOS?

Submission Date: 03/28/2018

BLM Office: CARLSBAD

User: Rebecca Deal

Title: Regulatory Compliance

Federal/Indian APD: FED

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

Lease number: NMNM097151

Lease Acres: 520

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? NO

Master Development Plan name:

Well in Master SUPO? NO

Master SUPO name:

Well in Master Drilling Plan? NO

Master Drilling Plan name:

Well Name: FLAGLER 8 FED COM

Well Number: 10H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: DRAPER MILL

Pool Name: BONE SPRING

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

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**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:**

**Number:** 1

FLAGLER 8

**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:** 553 FT

**Distance to lease line:** 180 FT

**Reservoir well spacing assigned acres Measurement:** 160 Acres

**Well plat:** Flagler\_8\_Fed\_Com\_10H\_C\_102\_Signed\_20180327144729.pdf

**Well work start Date:** 12/05/2018

**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	180	FSL	380	FWL	25S	33E	8	Aliquot SWS W	32.13835 19	- 103.6016 108	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 097151	346 7	0	0
KOP Leg #1	50	FSL	980	FWL	25S	33E	8	Aliquot SWS W	32.13799 4	- 103.5997 9	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 097151	- 829 6	117 63	117 63
PPP Leg #1	330	FSL	980	FWL	25S	33E	8	Aliquot SWS W	32.13875 4	- 103.5997 74	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 097151	- 864 6	121 57	121 13

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

	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
EXIT Leg #1	330	FNL	980	FWL	25S	33E	8	Aliquot NWN W	32.15146 24	- 103.5996 719	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 097904	- 883 3	169 89	123 00
BHL Leg #1	330	FNL	980	FWL	25S	33E	8	Aliquot NWN W	32.15146 24	- 103.5996 719	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 097904	- 883 3	169 89	123 00





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

## Drilling Plan Data Report

09/11/2018

APD ID: 10400028898

Submission Date: 03/28/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: FLAGLER 8 FED COM

Well Number: 10H

Well Type: OIL WELL

Well Work Type: Drill



Show Final Text

### Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	---	3467	0	0	OTHER : Surface	NONE	No
2	RUSTLER	2322	1145	1145	SANDSTONE	NONE	No
3	TOP SALT	1959	1508	1508	SALT	NONE	No
4	BASE OF SALT	-1533	5000	5000	LIMESTONE	NONE	No
5	BELL CANYON	-1533	5000	5000	SANDSTONE	NATURAL GAS,OIL	No
6	CHERRY CANYON	-2573	6040	6040	SANDSTONE	NATURAL GAS,OIL	No
7	BRUSHY CANYON	-4223	7690	7690	SANDSTONE	NATURAL GAS,OIL	No
8	BONE SPRING	-5643	9110	9110	SHALE	NATURAL GAS,OIL	No
9	BONE SPRING 1ST	-6549	10016	10016	SANDSTONE	NATURAL GAS,OIL	No
10	BONE SPRING 2ND	-7143	10610	10610	SANDSTONE	NATURAL GAS,OIL	No
11	BONE SPRING 3RD	-8306	11773	11773	SANDSTONE	NATURAL GAS,OIL	Yes
12	WOLFCAMP	-8814	12281	12281	SHALE	NATURAL GAS,OIL	No

### Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 12300

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

# ACCESS ROAD PLAT

ACCESS ROAD FOR FLAGLER 8 WELLPAD 1  
(FLAGLER 8 FED COM 18H, 23H, 14H, 36H, 30H, 6H, 2H, 10H)

## DEVON ENERGY PRODUCTION COMPANY, L.P. CENTERLINE SURVEY OF AN ACCESS ROAD CROSSING SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M. LEA COUNTY, STATE OF NEW MEXICO JANUARY 29, 2018

### DESCRIPTION

A STRIP OF LAND 30 FEET WIDE CROSSING BUREAU OF LAND MANAGEMENT LAND IN SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., LEA COUNTY, STATE OF NEW MEXICO AND BEING 15 FEET EACH SIDE OF THE FOLLOWING DESCRIBED CENTERLINE SURVEY:

BEGINNING AT A POINT WITHIN THE SW/4 SW/4 OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M., WHENCE THE SOUTHWEST CORNER OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS S15°59'15"W, A DISTANCE OF 656.56 FEET;  
THENCE N00°22'47"W A DISTANCE OF 625.00 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N44°37'31"E A DISTANCE OF 35.36 FEET TO AN ANGLE POINT OF THE LINE HEREIN DESCRIBED;  
THENCE N89°37'55"E A DISTANCE OF 310.00 FEET THE TERMINUS OF THIS CENTERLINE SURVEY, WHENCE THE WEST QUARTER CORNER OF SAID SECTION 8, TOWNSHIP 25 SOUTH, RANGE 33 EAST, N.M.P.M. BEARS N21°17'25"W, A DISTANCE OF 1456.97 FEET;

SAID STRIP OF LAND BEING 970.36 FEET OR 58.81 RODS IN LENGTH, CONTAINING 0.668 ACRES MORE OR LESS AND BEING ALLOCATED BY FORTIES AS FOLLOWS:

SW/4 SW/4 970.36 L.F. 58.81 RODS 0.668 ACRES

### GENERAL NOTES

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

### SURVEYOR CERTIFICATE

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

IN WITNESS WHEREOF, THIS CERTIFICATE IS EXECUTED AT CARLSBAD, NEW MEXICO, THIS 29<sup>th</sup> DAY OF JANUARY, 2018

FILMON F. JARAMILLO PLS. 12797

MADRON SURVEYING, INC  
301 SOUTH CANA  
CARLSBAD, N.M. 88220  
Phone (575) 234-3341

SURVEY NO. 5817A

MADRON SURVEYING, INC. CARLSBAD, NEW MEXICO

SHEET: 2-2

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**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:**

Flagler\_8\_Fed\_Com\_10H\_5M\_BOPE\_\_CK\_20180327145336.pdf

**BOP Diagram Attachment:**

Flagler\_8\_Fed\_Com\_10H\_5M\_BOPE\_\_CK\_20180327145658.pdf

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

**Rating Depth:** 10610

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

Flagler\_8\_Fed\_Com\_10H\_5M\_BOPE\_\_CK\_20180327145944.pdf

**BOP Diagram Attachment:**

Flagler\_8\_Fed\_Com\_10H\_5M\_BOPE\_\_CK\_20180327150029.pdf

### Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	14.75	10.75	NEW	API	N	0	1150	0	1150			1150	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	10610	0	10610			10610	P-110	29.7	OTHER - BTC	1.125	1.25	BUOY	1.6	BUOY	1.6
3	PRODUCTION	6.75	5.5	NEW	API	N	0	16989	0	12300			16989	P-110	20	OTHER - VAM SG	1.125	1.25	BUOY	1.6	BUOY	1.6

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

#### Casing Attachments

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Flagler\_8\_Fed\_Com\_10H\_Surf\_Csg\_Ass\_20180327150304.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Flagler\_8\_Fed\_Com\_10H\_Int\_Csg\_Ass\_20180327150431.pdf

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

**Casing Design Assumptions and Worksheet(s):**

Flagler\_8\_Fed\_Com\_10H\_Prod\_Csg\_Ass\_20180327150515.pdf

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## Section 4 - Cement

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1100	715	1.34	14.8	960	50	CLASS C	1% Calcium Chloride

INTERMEDIATE	Lead		0	9610	811	3.27	9	2652	30	TUNED	TUNED LIGHT
INTERMEDIATE	Tail		9610	10610	153	1.6	13.2	215	30	CLASS H	Poz (Fly Ash) + 0.5% bwoc HALAD-344 + 0.4% bwoc CFR-3 + 0.2% BWOC HR-601 + 2% bwoc Bentonite
PRODUCTION	Lead		10410	16989	372	1.33	14.8	495	25	CLASS H	0.125 lbs/sack Poly-E-Flake

## Section 5 - Circulating Medium

**Mud System Type:** Closed

**Will an air or gas system be Used?** NO

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

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

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

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

## Circulating Medium Table

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	1150	SPUD MUD	8.33	9				2			

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

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
1150	1061 0	WATER-BASED MUD	9	10				2			
1061 0	1698 9	OIL-BASED MUD	10	11				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:** 7035

**Anticipated Surface Pressure:** 4329

**Anticipated Bottom Hole Temperature(F):** 160

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

**Describe:**

**Contingency Plans geohazards description:**

**Contingency Plans geohazards attachment:**

**Hydrogen Sulfide drilling operations plan required?** YES

**Hydrogen sulfide drilling operations plan:**

Flagler\_8\_Fed\_Com\_10H\_H2S\_Plan\_20180327152313.pdf

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

## **Section 8 - Other Information**

### **Proposed horizontal/directional/multi-lateral plan submission:**

Flagler\_8\_Fed\_Com\_10H\_Dir\_Svy\_20180328063029.pdf

Flagler\_8\_Fed\_Com\_10H\_Plot\_Plan\_20180328063039.pdf

### **Other proposed operations facets description:**

MULTI-BOWL VERBIAGE

MULTI-BOWL WELLHEAD

CLOSED LOOP DESIGN PLAN

DRILLING PLAN

AC REPORT

CO-FLEX HOSE

SPUDDER RIG REQUEST

### **Other proposed operations facets attachment:**

Flagler\_8\_Fed\_Com\_10H\_AC\_Report\_20180328064153.pdf

Flagler\_8\_Fed\_Com\_10H\_Clsd\_Loop\_20180328064154.pdf

Flagler\_8\_Fed\_Com\_10H\_Drilling\_Doc\_20180328064155.pdf

Flagler\_8\_Fed\_Com\_10H\_MB\_Wellhd\_5M\_WC\_20180328064155.pdf

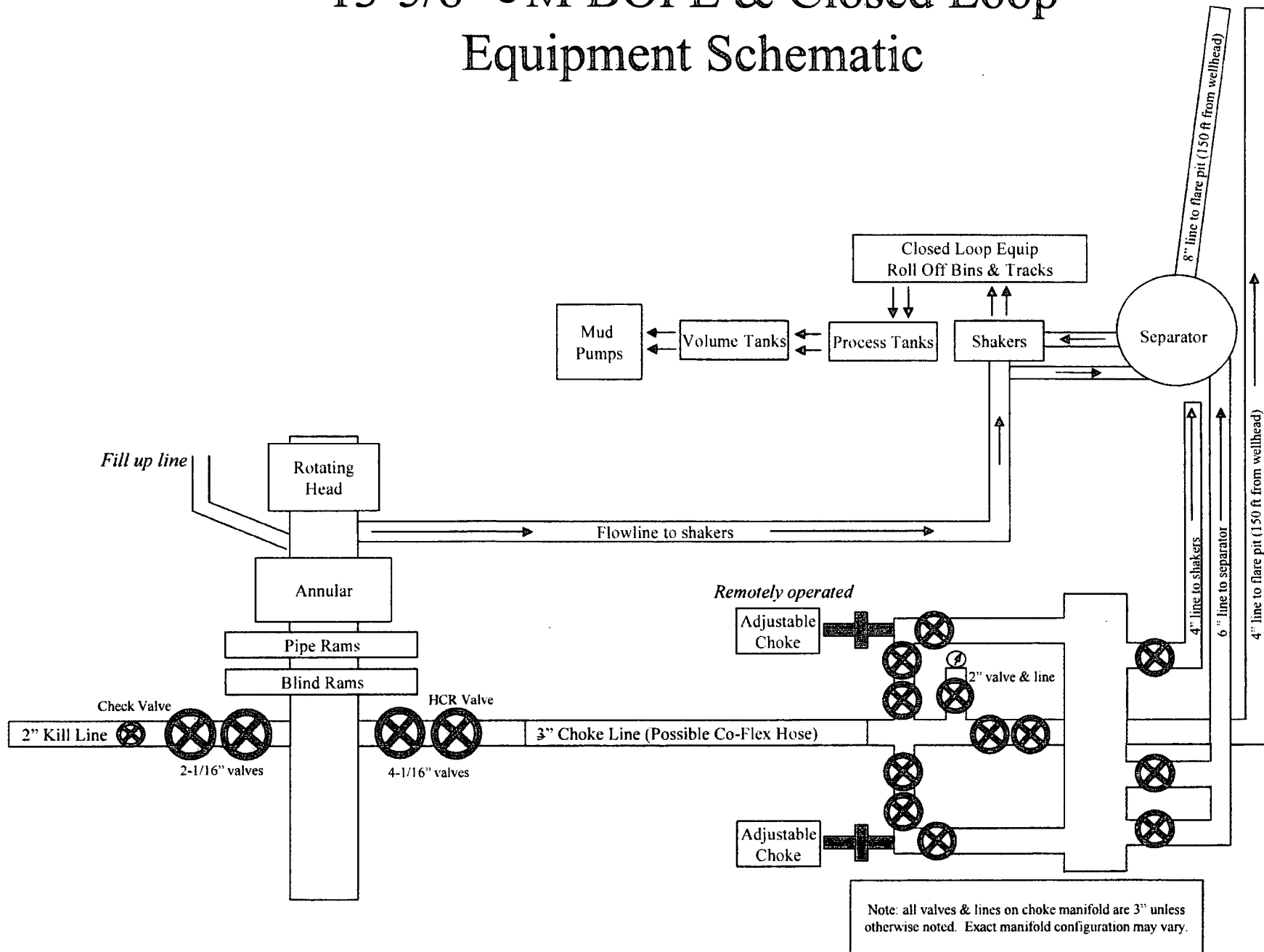
Flagler\_8\_Fed\_Com\_10H\_Spudder\_Rig\_Info\_20180328064156.pdf

Flagler\_8\_Fed\_Com\_10H\_MB\_Verb\_5M\_20180328064334.pdf

### **Other Variance attachment:**

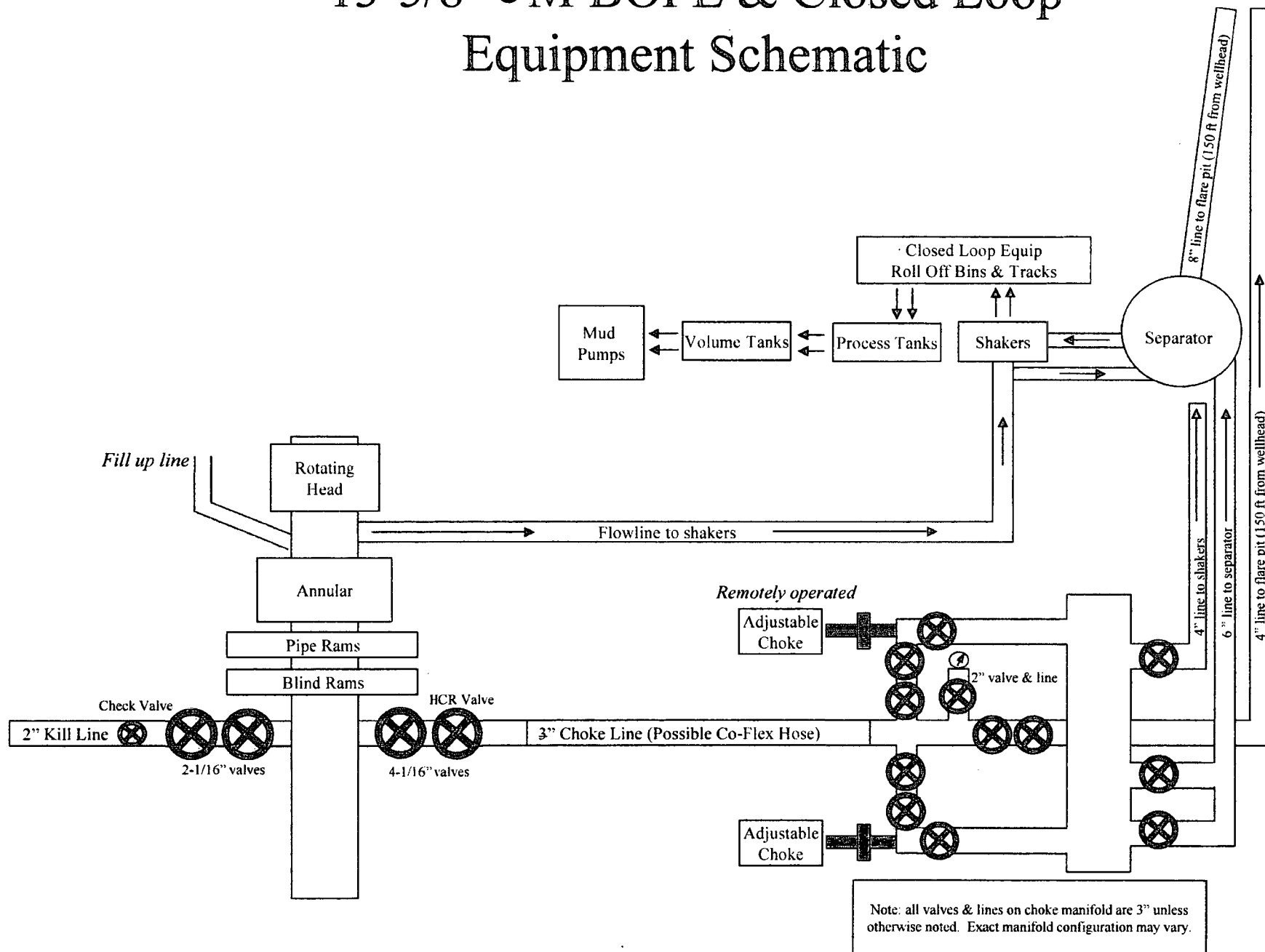
Flagler\_8\_Fed\_Com\_10H\_Co\_flex\_20180328064404.pdf

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

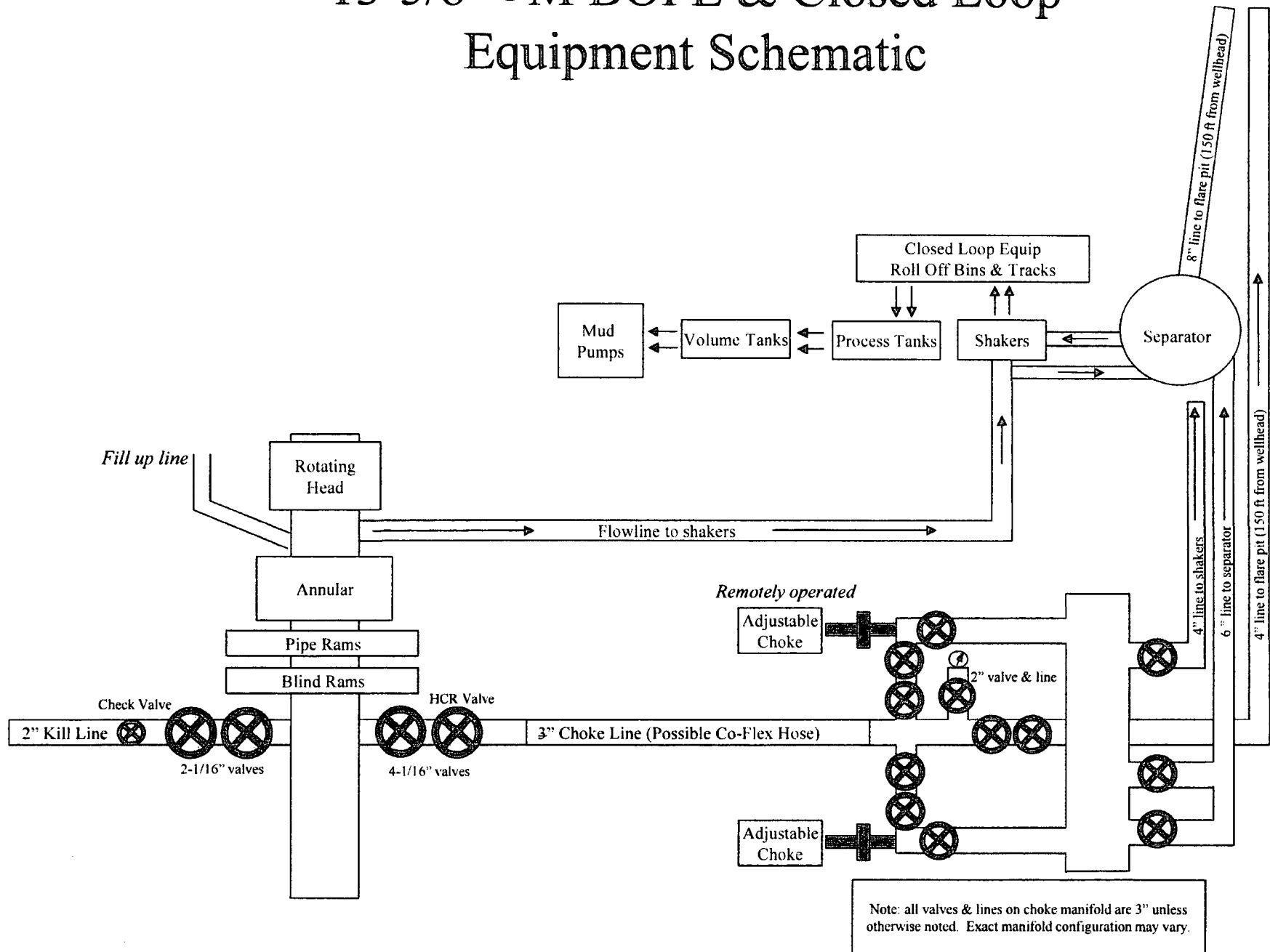




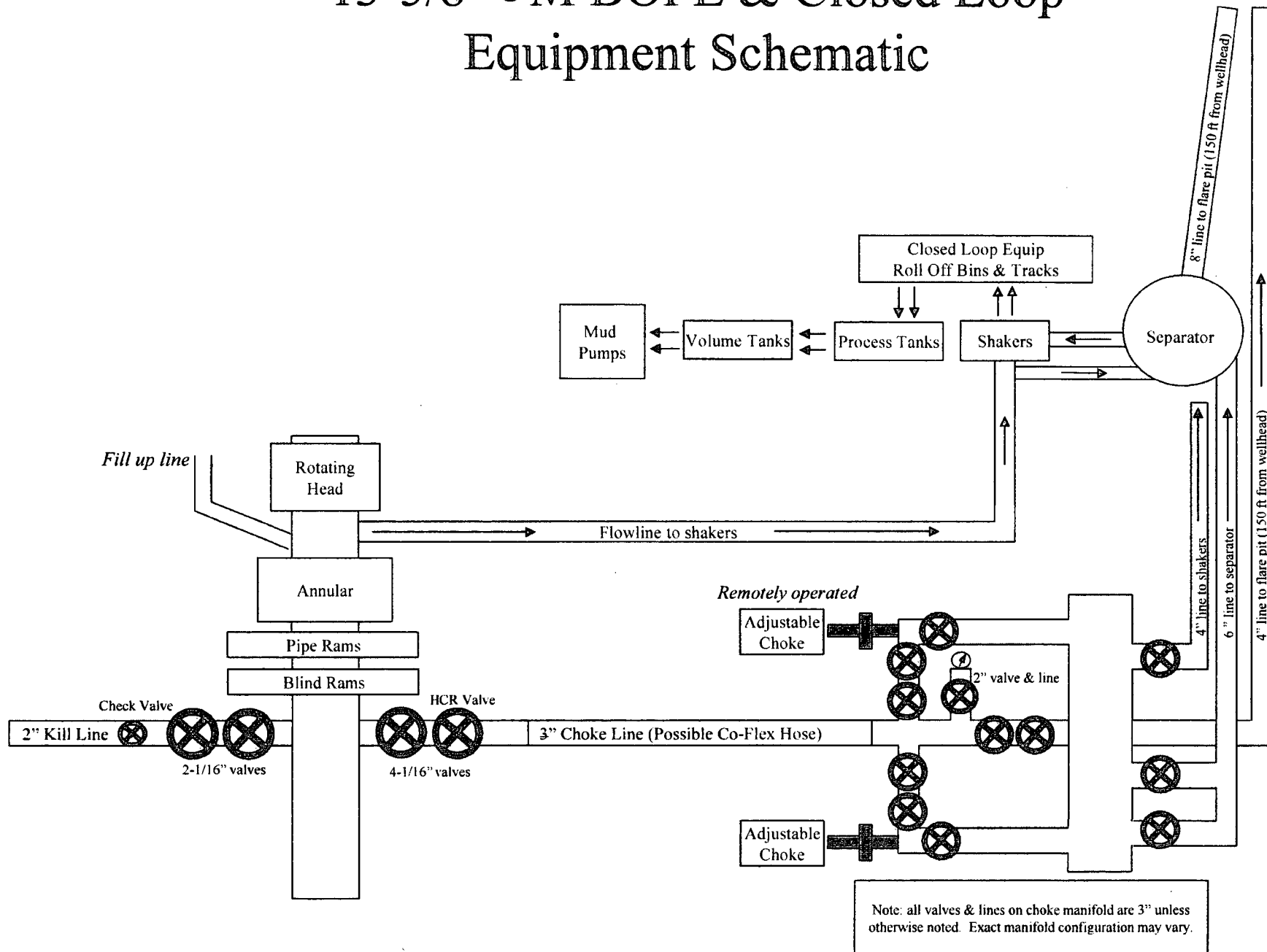
# 13-5/8" 5M BOPE & Closed Loop Equipment Schematic



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



# 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

### 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

## Devon Energy, Flagler 8 Fed Com 10H

### 1. Geologic Formations

TVD of target	12,300'	Pilot hole depth	N/A
MD at TD:	16,989'	Deepest expected fresh water:	1145'

### Basin

Formation	Depth (TVD) from KB	Water/Mineral Bearing/ Target Zone?	Hazards*
RUSTLER	1145		
TOP SALT	1508		
BASE OF SALT	5000		
BELL CANYON	5000		
CHERRY CANYON	6040		
BRUSHY CANYON	7690		
BONE SPRING	9110		
BONE SPRING 1ST	10016		
BONE SPRING 2ND	10610		
BONE SPRING 3RD	11773		

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

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, Flagler 8 Fed Com 10H**

**2. Casing Program (Primary Design)**

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
14.75"	0	1,150'	10.75"	40.5	J-55	STC	1.125	1.25	1.6
9.875"	0	10,610'	7.625"	29.7	P110	BTC	1.125	1.25	1.6
6.75"	0	10,110'	5.5"	20	P110	VamTop HT	1.125	1.25	1.6
6.75"	10,110'	16,989'	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.

**Casing Program (Alternate Design)**

Hole Size	Casing Interval		Csg. Size	Weight (lbs)	Grade	Conn.	SF Collapse	SF Burst	SF Tension
	From	To							
17.5"	0	1,150'	13.375"	48	H40	STC	1.125	1	1.6
12.25"	0	5,000'	9.625"	40	J55	LTC	1.125	1	1.6
8.75"	0	16,989'	5.5"	17	P110	BTC	1.125	1	1.6

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

	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

### Devon Energy, Flagler 8 Fed Com 10H

If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> 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 (Primary Casing Design)

Casing	# Sks	Wt. lb/ gal	H <sub>2</sub> O gal/sk	Yld ft <sup>3</sup> / sack	Slurry Description
10-3/4" Surface	715	14.8	6.34	1.34	Tail: Class C Cement + 1% Calcium Chloride
7-5/8" Int	811	9	13.5	3.27	Lead: Tuned Light® Cement
	153	13.2	5.31	1.6	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	1048	14.8	6.32	1.33	Class C Cement + 0.125 lbs/sack Poly-E-Flake
	417	9	13.5	3.27	Tuned Light® Cement
	153	13.2	5.31	1.6	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" Production	372	13.2	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	10,410'	25%

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### Cementing Program (Alternate Casing Design)

Casing	# Sks	Wt. lb/ gal	H <sub>2</sub> O gal/sk	Yld ft <sup>3</sup> / sack	Slurry Description
17.5" Surf.	901	14.8	1.33	6.3 2	Lead: Class C Cement + 0.125 lbs/sack Poly-F-Flake
12.25" Inter.	511	10.3	3.65	22. 06	Lead: (50:50) Poz (Silica) 3 lbm/sk Kol-Seal, .125 lbm/sk Poly-E-Flake
	306	14.8	1.33	6.3 2	Tail: Class C Cement + 0.125 lbs/sack Poly-F-Flake
8.75" Prod.	457	9	3.27	13. 5	Lead: Tuned Light Cement

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
13-3/8" Surface	0'	50%
9-5/8" Intermediate	0'	30%
5-1/2" Production Casing	4800'	25%

#### 4. Pressure Control Equipment (Primary Casing Design)

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

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

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6-3/4"	13-5/8"	5M	Annular		X	50% of rated working pressure
			Blind Ram		X	5M
			Pipe Ram		X	
			Double Ram		X	
			Other *			
			Annular			
			Blind Ram			
			Pipe Ram			
			Double Ram			
			Other *			

\*Specify if additional ram is utilized.

**Pressure Control Equipment (Alternate Casing Design)**

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

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

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

## Devon Energy, Flagler 8 Fed Com 10H

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	<p>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.</p> <p>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.</p> <ul style="list-style-type: none"> <li>Wellhead will be installed by wellhead representatives.</li> <li>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.</li> <li>Wellhead representative will install the test plug for the initial BOP test.</li> <li>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.</li> <li>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.</li> <li>Devon will pressure test all seals above and below the mandrel (but still above the casing) to full working pressure rating.</li> <li>Devon will test the casing to 0.22 psi/ft or 1500 psi, whichever is greater, as per Onshore Order #2.</li> </ul> <p>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</p>

## Devon Energy, Flagler 8 Fed Com 10H

<p>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.</p> <p>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.</p> <p>Devon's proposed wellhead manufactures will be FMC Technologies, Cactus Wellhead, or Cameron.</p> <p>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.</p>
---

### 5. Mud Program (Primary Casing Design)

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1150'	FW Gel	8.6-8.8	28-34	N/C
1150'	10,610'	OBM/Cut Brine	9-10	34-65	N/C - 6
10,610'	16,989'	Oil Based Mud	9-11	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.

### Mud Program (Alternate Casing Design)

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From	To				
0	1150'	FW Gel	8.6-8.8	28-34	N/C
1150'	5,000'	Brine	9-10	28-34	N/C
5,000'	16,989'	Cut Brine	8.5-10	28-34	N/C

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

## Devon Energy, Flagler 8 Fed Com 10H

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

<b>Additional logs planned</b>	<b>Interval</b>
	Resistivity
	Density
X	CBL
X	Mud log
	PEX

### 7. Drilling Conditions

<b>Condition</b>	<b>Specify what type and where?</b>
BH Pressure at deepest TVD	7121 psi
Abnormal Temperature	No

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

Hydrogen Sulfide (H <sub>2</sub> S) monitors will be installed prior to drilling out the surface shoe. If H <sub>2</sub> S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H <sub>2</sub> S is present
Y	H <sub>2</sub> S 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.

## **Devon Energy, Flagler 8 Fed Com 10H**

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

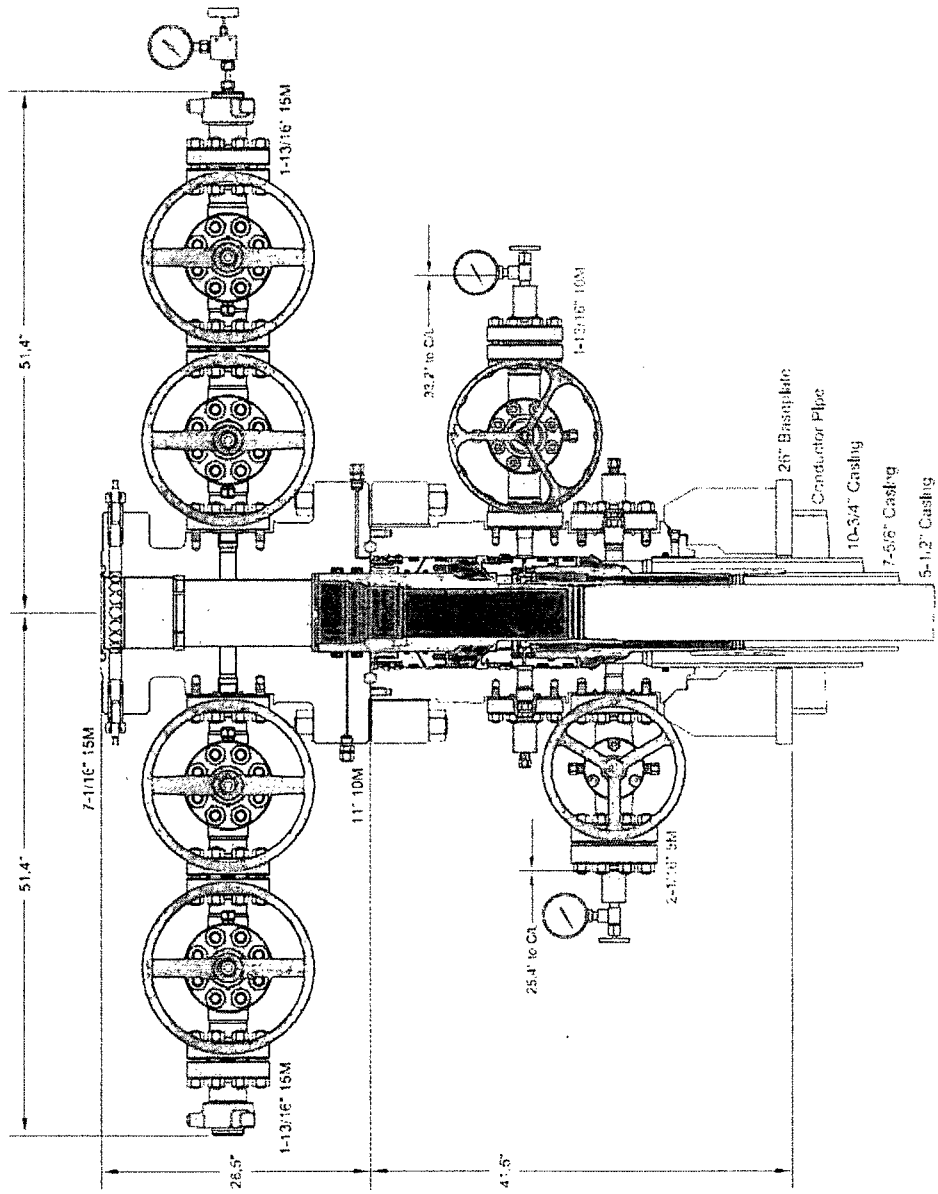
1. Spudder rig will move in and drill surface hole.
  - a. Rig will utilize fresh water based mud to drill 14 3/4" surface hole to TD. Solids control will be handled entirely on a closed loop basis.
2. After drilling the surface hole section, the spudder rig will run casing and cement following all of 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 nipped up and tested on the wellhead before drilling operations commences on each well.
  - a. The NMOCD will be contacted / notified 24 hours before the drilling rig moves back on to the pad with the pre-set surface casing.

Attachments

☒ Directional Plan

☐ Other, describe





**Devon Energy**  
**APD VARIANCE DATA**

**OPERATOR NAME:** Devon Energy

**1. SUMMARY OF Variance:**

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

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

**2. Description of Operations**

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

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

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

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

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

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

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

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



Fluid Technology

ContiTech Beattie Corp.  
Website: [www.contitechbeattie.com](http://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.

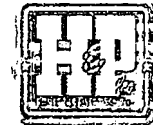
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

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

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[www.contitechbeattie.com](http://www.contitechbeattie.com)



RIG 212



## QUALITY DOCUMENT

PHOENIX RUBBER

INDUSTRIAL LTD.

6728 Szeged, Budapest 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.tauruserge.hu

<b>QUALITY CONTROL INSPECTION AND TEST CERTIFICATE</b>				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  <p style="text-align: center;">See attachment. (1 page)</p>					
↑ 10 mm = 10 Min. → 10 mm = 25 MPa					
COUPLINGS					
Type	Serial N°		Quality	Heat N°	
3" coupling with 4 1/16" Flange end	720 719		AISI 4130	C7626	
			AISI 4130	47357	
API Spec 16 C Temperature rate: "B"					
All metal parts are flawless					
WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.					
Date:	Inspector		Quality Control		
29. April. 2002.			PHOENIX RUBBER Industrial Ltd. Hose Inspection and Pressure Testing PHOENIX RUBBER Q.C.		

14094-65

40920-0-00015 N800C

8	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
7	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
6	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
5	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
4	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
3	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00
2	GNL	+0.000	0	14.00
	RDL	+0.000	0	14.00
	BL	+0.000	0	14.00

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

VERIFIED TRUE CO.  
 PHOENIX RUBBER CO.



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

## SUPO Data Report

09/11/2018

APD ID: 10400028898

Submission Date: 03/28/2018

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: FLAGLER 8 FED COM

Well Number: 10H

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:

Flagler\_8\_Fed\_Com\_10H\_Access\_Rd\_20180328064440.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:

Flagler\_8\_Fed\_Com\_10H\_New\_Access\_Rd\_20180328064451.pdf

New road type: LOCAL

Length: 970.4

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:

Flagler\_8\_Fed\_Com\_10H\_New\_Access\_Rd\_20180328064515.pdf

Access road engineering design? YES

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**Access road engineering design attachment:**

Flagler\_8\_Fed\_Com\_10H\_New\_Access\_Rd\_20180328064523.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:**

Flagler\_8\_Fed\_Com\_10H\_OneMiMap\_20180328064533.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:** 14 ATTACHMENTS - FLAGLER WELLPAD 1 & CTB 1 - 3 BATT CONN PLATS, CTB PAD AND ELECTRIC PLAT, 4 LATERAL PLATS, WELLPAD PLAT, 2 WELLPAD CTB TO FLOWLINE PLATS, WELLPAD ELECTRIC PLAT AND MULTI USE EASEMENT PLAT.

**Production Facilities map:**

Flagler\_8\_Fed\_Com\_10H\_BATCON\_CRUDE\_20180328064715.PDF

Flagler\_8\_Fed\_Com\_10H\_BATCON\_GAS\_20180328064716.PDF

Flagler\_8\_Fed\_Com\_10H\_CTB\_1\_ELE\_20180328064718.PDF



**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

Flagler\_8\_Fed\_Com\_10H\_BATCON\_H2O\_20180328064717.PDF  
Flagler\_8\_Fed\_Com\_10H\_CTB\_1\_PAD\_20180328064723.pdf  
Flagler\_8\_Fed\_Com\_10H\_LATERAL\_20180328064725.PDF  
Flagler\_8\_Fed\_Com\_10H\_LATERAL\_ELE\_20180328064724.PDF  
Flagler\_8\_Fed\_Com\_10H\_LATERAL\_CRUDE\_20180328064726.PDF  
Flagler\_8\_Fed\_Com\_10H\_LATERAL\_ELE\_SNM\_20180328064727.PDF  
Flagler\_8\_Fed\_Com\_10H\_MULTI\_USE\_EASE\_20180328064729.pdf  
Flagler\_8\_Fed\_Com\_10H\_WELLPAD\_1\_20180328064733.pdf  
Flagler\_8\_Fed\_Com\_10H\_WP\_1\_ELE\_20180328064735.PDF  
Flagler\_8\_Fed\_Com\_10H\_WP\_1\_CTB\_1\_FL\_20180328064734.PDF  
Flagler\_8\_Fed\_Com\_10H\_WP\_2\_TO\_CTB\_1\_FL\_20180328064736.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):** 135000

**Source volume (acre-feet):** 17.400568

**Source volume (gal):** 5670000

**Water source and transportation map:**

Flagler\_8\_Fed\_Com\_10H\_Water\_Map\_20180328064755.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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**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:**

Flagler\_8\_Fed\_Com\_10H\_WP\_1\_Caliche\_Map\_20180328064859.pdf

## **Section 7 - Methods for Handling Waste**

**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.

**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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

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

**Waste type:** PRODUCED WATER

**Waste content description:** Produced formation water

**Amount of waste:** 2000 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** N/A

**Safe containmant attachment:**

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

**Disposal type description:**

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

**Waste type:** FLOWBACK

**Waste content description:** Produced formation water

**Amount of waste:** 3000 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:** Various disposal locations in Lea and Eddy counties.

## 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

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**Are you storing cuttings on location?** NO

**Description of cuttings location**

**Cuttings area length (ft.)**

**Cuttings area width (ft.)**

**Cuttings area depth (ft.)**

**Cuttings area volume (cu. yd.)**

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

**WCuttings area liner**

**Cuttings area liner specifications and installation description**

## Section 8 - Ancillary Facilities

**Are you requesting any Ancillary Facilities?:** NO

**Ancillary Facilities attachment:**

**Comments:**

## Section 9 - Well Site Layout

**Well Site Layout Diagram:**

Flagler\_8\_Fed\_Com\_10H\_Well\_Layout\_20180328064922.pdf

**Comments:**

## Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** FLAGLER 8

**Multiple Well Pad Number:** 1

**Recontouring attachment:**

Flagler\_8\_Fed\_Com\_10H\_Interim\_Recl\_20180328064931.pdf

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

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

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

<b>Well pad proposed disturbance (acres):</b> 8.265	<b>Well pad interim reclamation (acres):</b> 3.712	<b>Well pad long term disturbance (acres):</b> 4.553
<b>Road proposed disturbance (acres):</b> 0.668	<b>Road interim reclamation (acres):</b> 0	<b>Road long term disturbance (acres):</b> 0.668
<b>Powerline proposed disturbance (acres):</b> 0.231	<b>Powerline interim reclamation (acres):</b> 0	<b>Powerline long term disturbance (acres):</b> 0.231
<b>Pipeline proposed disturbance (acres):</b> 0.069	<b>Pipeline interim reclamation (acres):</b> 0	<b>Pipeline long term disturbance (acres):</b> 0.069
<b>Other proposed disturbance (acres):</b> 0	<b>Other interim reclamation (acres):</b> 0	<b>Other long term disturbance (acres):</b> 0
<b>Total proposed disturbance:</b> 9.233	<b>Total interim reclamation:</b> 3.712	<b>Total long term disturbance:</b> 5.521

**Disturbance Comments:**

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

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

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

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

**Existing Vegetation at the well pad attachment:**

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

**Existing Vegetation Community at the road attachment:**

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

**Existing Vegetation Community at the pipeline attachment:**

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

**Existing Vegetation Community at other disturbances attachment:**

**Non native seed used?** NO

**Non native seed description:**

**Seedling transplant description:**

**Will seedlings be transplanted for this project?** NO

**Seedling transplant description attachment:**

**Will seed be harvested for use in site reclamation?** NO

**Seed harvest description:**

**Seed harvest description attachment:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

## 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

**Total pounds/Acre:**

Seed Type	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:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

## **Section 11 - Surface Ownership**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** EXISTING ACCESS ROAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** PIPELINE

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** BUREAU OF LAND MANAGEMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:**

**Military Local Office:**



**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP

**Well Name:** FLAGLER 8 FED COM

**Well Number:** 10H

**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,289001 ROW- O&G Well Pad,FLPMA (Powerline),Other

### **ROW Applications**

**SUPO Additional Information:** PERMITTING EIGHT WELLS ON PAD. PLEASE SEE C-102 FOR GRADING PLAN PLATS.

**Use a previously conducted onsite?** YES

**Previous Onsite information:** Onsite 11/9/2017

### **Other SUPO Attachment**



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

**PWD Data Report**

09/11/2018

## Section 1 - General

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

## Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? NO

Produced Water Disposal (PWD) Location:

PWD surface owner:

PWD disturbance (acres):

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Describe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

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:

[illegible]

3.712± ACRES PAD RECLAMATION AREA  
4.553± ACRES NON-RECLAIMED AREA  
8.265± ACRES FLAGLER 8 WELLPAD 1

**DEVON ENERGY PRODUCTION COMPANY, L.P.**  
**FLAGLER 8 FED COM 10H**  
LOCATED 180 FT. FROM THE SOUTH LINE  
AND 380 FT. FROM THE WEST LINE OF  
SECTION 8, TOWNSHIP 25 SOUTH,  
RANGE 33 EAST, N.M.P.M.  
LEA COUNTY, STATE OF NEW MEXICO

JANUARY 29, 2018

**SURVEY NO. 5817A**

**MADRON SURVEYING, INC.** 301 SOUTH CAROL  
(719) 234-354 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:**

**Describe precipitated solids disposal:**

**Precipitated solids disposal permit:**

**Unlined pit precipitated solids disposal schedule:**

**Unlined pit precipitated solids disposal schedule attachment:**

**Unlined pit reclamation description:**

**Unlined pit reclamation attachment:**

**Unlined pit Monitor description:**

**Unlined pit Monitor attachment:**

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

**Beneficial use user confirmation:**

**Estimated depth of the shallowest aquifer (feet):**

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

**TDS lab results:**

**Geologic and hydrologic evidence:**

**State authorization:**

**Unlined Produced Water Pit Estimated percolation:**

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

**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:**



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

## Bond Info Data Report

09/11/2018

### 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: