

HOBBS OCD

APR 26 2017

RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires October 31, 2014

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. NMNM114988
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input type="checkbox"/> Single Zone <input checked="" type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator DEVON ENERGY PRODUCTION COMPANY LP (6197)		7. If Unit or CA Agreement, Name and No.
3a. Address 333 West Sheridan Avenue Oklahoma City OK		8. Lease Name and Well No. (317671) SEAWOLF 1-12 FED 82H
3b. Phone No. (include area code) (405)552-6571		9. API Well No. 30-025-47763
4. Location of Well (Report location clearly and in accordance with any State requirements.)* At surface NWNW / 200 FNL / 390 FWL / LAT 32.0791864 / LONG -103.5333332 At proposed prod. zone SWSW / 330 FSL / 1284 FWL / LAT 32.0516121 / LONG -103.5304487		10. Field and Pool, or Exploratory (98094) WC-025 G-09 S253336D / UPPER WOL
14. Distance in miles and direction from nearest town or post office*		11. Sec., T. R. M. or Blk. and Survey or Area SEC 1 / T26S / R33E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 200 feet	16. No. of acres in lease 1280	12. County or Parish LEA
17. Spacing Unit dedicated to this well 320	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, 450 feet applied for, on this lease, ft.	19. Proposed Depth 12574 feet / 22434 feet	20. BLM/BIA Bond No. on file FED: CO1104
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3319 feet	22. Approximate date work will start* 07/25/2017	23. Estimated duration 45 days

24. Attachments

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

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

25. Signature (Electronic Submission)	Name (Printed/Typed) Rebecca Deal / Ph: (405)228-8429	Date 10/12/2016
Title Regulatory Compliance Professional		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 04/17/2017
Title Supervisor Multiple Resources Office HOBBS		

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.

(Continued on page 2)

*(Instructions on page 2)

APPROVED WITH CONDITIONS

KZ
07/26/17

REQUIRES NSL

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:

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

04/19/2017

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:

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

see COA

String Type: SURFACE

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9280

Bottom setting depth MD: 1000

Bottom setting depth TVD: 1000

Bottom setting depth MSL: -10280

Calculated casing length MD: 1000

Casing Size: 13.75

Other Size

Grade: ~~H-40~~ J-55

Other Grade:

Weight: 48 54.5

Joint Type: ~~STG~~ BTC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.59

Burst Design Safety Factor: 3.46

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 2.11

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 2.11

Casing Design Assumptions and Worksheet(s):

Seawolf 1-12 Fed 82_Surf Csg Ass_10-12-2016.docx

APD ID: 10400005875**Submission Date:** 10/12/2016**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP**Well Name:** SEAWOLF 1-12 FED**Well Number:** 82H**Well Type:** OIL WELL**Well Work Type:** Drill

Section 1 - Existing Roads

Will existing roads be used? YES**Existing Road Map:**

Seawolf 1-12 Fed 82H_Access Rd_01-24-2017.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:**

Seawolf 1-12 Fed 82H_New Access Rd_01-30-2017.pdf

New road type: COLLECTOR,RESOURCE**Length:** 929

Feet

Width (ft.): 20**Max slope (%):** 6**Max grade (%):** 4**Army Corp of Engineers (ACOE) permit required?** NO**ACOE Permit Number(s):****New road travel width:** 20**New road access erosion control:** Water drainage ditch.**New road access plan or profile prepared?** YES**New road access plan attachment:**

Seawolf 1-12 Fed 82H_New Access Rd_01-30-2017.pdf

Access road engineering design? YES

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Access road engineering design attachment:

Seawolf 1-12 Fed 82H_New Access Rd_01-30-2017.pdf

Access surfacing type: GRAVEL

Access topsoil source: ONSITE

Access surfacing type description:

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: N/A

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:

Seawolf 1-12 Fed 82H_one mile map_10-12-2016.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? SUBMIT

Estimated Production Facilities description:

Production Facilities description: Seawolf 1-12 BS CTB 1 Plat, Battery Connect, Battery Connect Electric, Pad Connect Electric, Flowline (buried).

Production Facilities map:

Seawolf 1-12 Fed 82H_CTB_1_BAT_CON_01-30-2017.pdf

SEAWOLF 1-12 FED 82H_Flowline_01-30-2017.pdf

Seawolf 1-12 Fed 82H_PAD_CONNECT_01-30-2017.PDF

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Seawolf 1-12 Fed 82H_SW_1-12_BS_CTB_1 Batt Conn_01-30-2017.PDF

Seawolf 1-12 Fed 82H_SW_1-12_BS_CTB_1_Plat_01-30-2017.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:

Seawolf 1-12 Fed 82H_Water Map_01-24-2017.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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Construction Materials description: Dirt Fill And Caliche will be used to construct well pad. Caliche from the Federal Pit on Section 7-26S-34E; SWNE & SENE

Construction Materials source location attachment:

SEAWOLF 1-12 FED 82H_CALICHE MAP_01-30-2017.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Water and oil based cuttings

Amount of waste: 1600 barrels

Waste disposal frequency : Daily

Safe containment description: N/A

Safe containmant attachment:

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

Disposal type description:

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

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:** STATE

Disposal type description:

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

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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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

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: 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 **Disposal location ownership:** COMMERCIAL FACILITY

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

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

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: NO

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

Seawolf 1-12 Fed 82H_Rig Layout_01-24-2017.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: NEW

Recontouring attachment:

SEAWOLF 1-12 FED 82H_Interim Reclamation_01-24-2017.pdf

Drainage/Erosion control construction: N/A

Drainage/Erosion control reclamation: N/A

Wellpad long term disturbance (acres): 2.438

Wellpad short term disturbance (acres): 4.7015

Access road long term disturbance (acres): 0.4265

Access road short term disturbance (acres): 0.4265

Pipeline long term disturbance (acres): 2.5981405

Pipeline short term disturbance (acres): 2.5981405

Other long term disturbance (acres): 0

Other short term disturbance (acres): 0

Total long term disturbance: 5.4626403

Total short term disturbance: 7.7261405

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.

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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

Total pounds/Acre:

Seed Type

Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: Cole

Last Name: Metcalf

Phone: (575)748-1872

Email: cole.metcalf@dvn.com

Seedbed prep:

Seed BMP:

Seed method:

Existing invasive species? NO

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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

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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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: 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:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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:

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,Other

ROW Applications

SUPO Additional Information: Seawolf 1-12 BS CTB 1 Plat, Battery Connect, Battery Connect Electric, Pad Connect Electric, Flowline (buried).

Use a previously conducted onsite? YES

Previous Onsite information: On site conducted 5/26/2015

Other SUPO Attachment

SEAWOLF 1-12 FED 82H_Flowline_01-30-2017.pdf

Seawolf 1-12 Fed 82H_CTB_1_BAT_CON_01-30-2017.pdf

Seawolf 1-12 Fed 82H_PAD_CONNECT_01-30-2017.PDF

Seawolf 1-12 Fed 82H_SW_1-12_BS_CTB_1 Batt Conn_01-30-2017.PDF

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Seawolf 1-12 Fed 82H_SW_1-12_BS_CTB_1_Plat_01-30-2017.PDF

See
COA

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9280

Bottom setting depth MD: 11300

Bottom setting depth TVD: 11300

Bottom setting depth MSL: -20580

Calculated casing length MD: 11300

Casing Size: 9.625

Other Size

Grade: P-110 EC

Other Grade:

Weight: 40

Joint Type: OTHER

Other Joint Type: BTC

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.25

Burst Design Safety Factor: 1.59

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 2.58

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 2.58

Casing Design Assumptions and Worksheet(s):

Seawolf 1-12 Fed 82_Int Csg Ass_10-12-2016.docx



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

Operator Certification Data Report

04/19/2017

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: 10/12/2016

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: RICHARD WEDMAN

Street Address: 6488 SEVEN RIVERS HWY

City: ARTESIA

State: NM

Zip: 88210

Phone: (575)748-1819

Email address: RICHARD.WEDMAN@DVN.COM

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

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:
SEAWOLF 1-12 FED

Number: 81H, 82H, 91H, 92H,
102H

Well Class: HORIZONTAL

Number of Legs:

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: 450 FT

Distance to lease line: 200 FT

Reservoir well spacing assigned acres Measurement: 320 Acres

Well plat: Seawolf 1-12 Fed 82H_C-102 Rev Signed_02-14-2017.pdf

Well work start Date: 07/25/2017

Duration: 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 3919F

STATE: NEW MEXICO

Meridian: NEW MEXICO PRINCIPAL County: LEA

Latitude: 32.0791864

Longitude: -103.5333332

SHL

Elevation: 3319

MD: 0

TVD: 0

Leg #: 1

Lease Type: FEDERAL

Lease #: NMNM114988

NS-Foot: 200

NS Indicator: FNL

EW-Foot: 390

EW Indicator: FWL

Twsp: 26S

Range: 33E

Section: 1

Aliquot: NWNW

Lot:

Tract:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.0791866	Longitude: -103.532808	
KOP	Elevation: -8707	MD: 12083	TVD: 12026
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM114988	
	NS-Foot: 207	NS Indicator: FNL	
	EW-Foot: 1357	EW Indicator: FWL	
	Twsp: 26S	Range: 33E	Section: 1
	Aliquot: NENW	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.0791864	Longitude: -103.5333332	
PPP	Elevation: -9280	MD: 12984	TVD: 12599
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM114988	
	NS-Foot: 330	NS Indicator: FNL	
	EW-Foot: 1356	EW Indicator: FWL	
	Twsp: 26S	Range: 33E	Section: 1
	Aliquot: NENW	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.0516121	Longitude: -103.5304487	
EXIT	Elevation: -9255	MD: 22434	TVD: 12574
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM114988	
	NS-Foot: 330	NS Indicator: FSL	
	EW-Foot: 1284	EW Indicator: FWL	
	Twsp: 26S	Range: 33E	Section: 12
	Aliquot: SWSW	Lot:	Tract:
	STATE: NEW MEXICO	Meridian: NEW MEXICO PRINCIPAL	County: LEA
	Latitude: 32.0516121	Longitude: -103.5304487	
BHL	Elevation: -9255	MD: 22434	TVD: 12574
Leg #: 1	Lease Type: FEDERAL	Lease #: NMNM114988	
	NS-Foot: 330	NS Indicator: FSL	
	EW-Foot: 1284	EW Indicator: FWL	

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Twsp: 26S

Range: 33E

Section: 12

Aliquot: SWSW

Lot:

Tract:

APD ID: 10400005875**Submission Date:** 10/12/2016**Operator Name:** DEVON ENERGY PRODUCTION COMPANY LP**Well Name:** SEAWOLF 1-12 FED**Well Number:** 82H**Well Type:** OIL WELL**Well Work Type:** Drill

Section 1 - Geologic Formations

ID: Surface formation**Name:** UNKNOWN**Lithology(ies):**

OTHER - SURFACE

Elevation: 3319**True Vertical Depth:** 0**Measured Depth:** 0**Mineral Resource(s):**

NONE

Is this a producing formation? N**ID:** Formation 1**Name:** RUSTLER**Lithology(ies):**

ANHYDRITE

Elevation: 2356**True Vertical Depth:** 963**Measured Depth:** 963**Mineral Resource(s):**

NONE

Is this a producing formation? N**ID:** Formation 2**Name:** TOP OF SALT**Lithology(ies):**

SALT

Elevation: 1987**True Vertical Depth:** 1332**Measured Depth:** 1332**Mineral Resource(s):**

NONE

Is this a producing formation? N

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

ID: Formation 3

Name: BASE OF SALT

Lithology(ies):

SALT

Elevation: -1560

True Vertical Depth: 4879

Measured Depth: 4879

Mineral Resource(s):

NONE

Is this a producing formation? N

ID: Formation 4

Name: DELAWARE

Lithology(ies):

SANDSTONE

Elevation: -1802

True Vertical Depth: 5121

Measured Depth: 5121

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 5

Name: BRUSHY CANYON LOWER

Lithology(ies):

SANDSTONE

Elevation: -5802

True Vertical Depth: 9121

Measured Depth: 9121

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 6

Name: BONE SPRING LIME

Lithology(ies):

LIMESTONE

Elevation: -5973

True Vertical Depth: 9292

Measured Depth: 9292

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 7

Name: BONE SPRING

Lithology(ies):

SANDSTONE

Elevation: -6928

True Vertical Depth: 10247

Measured Depth: 10247

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 8

Name: BONE SPRING LIME

Lithology(ies):

LIMESTONE

Elevation: -7192

True Vertical Depth: 10511

Measured Depth: 10511

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 9

Name: BONE SPRING 2ND

Lithology(ies):

SANDSTONE

Elevation: -7494

True Vertical Depth: 10813

Measured Depth: 10813

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

ID: Formation 10

Name: BONE SPRING 3RD

Lithology(ies):

LIMESTONE

Elevation: -7864

True Vertical Depth: 11183

Measured Depth: 11183

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 11

Name: BONE SPRING 3RD

Lithology(ies):

SANDSTONE

Elevation: -8599

True Vertical Depth: 11918

Measured Depth: 11918

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? N

ID: Formation 12

Name: WOLFCAMP

Lithology(ies):

SHALE

Elevation: -9034

True Vertical Depth: 12353

Measured Depth: 12353

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

ID: Formation 13

Name: WOLFCAMP

Lithology(ies):

SHALE

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Elevation: -9284

True Vertical Depth: 12603

Measured Depth: 12603

Mineral Resource(s):

NATURAL GAS

OIL

Is this a producing formation? Y

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M

Rating Depth: 12574

Equipment: 5M rotating head, mud-gas separator, panic line, and flare will be rigged up prior to drilling out surface casing.

Requesting Variance? YES

Variance request: 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.

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. 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 3000 (3M) 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 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 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 3M 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 3,000 psi WP.

Choke Diagram Attachment:

Seawolf 1-12 Fed 82H_5M BOPE_CK_10-12-2016.pdf

BOP Diagram Attachment:

Seawolf 1-12 Fed 82H_5M BOPE_CK_10-12-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Pressure Rating (PSI): 5M

Rating Depth: 12574

Equipment: 5M rotating head, mud-gas separator, panic line, and flare will be rigged up prior to drilling out surface casing.

Requesting Variance? YES

Variance request: 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.

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Choke Diagram Attachment:

Seawolf 1-12 Fed 82H_5M BOPE_CK_10-12-2016.pdf

BOP Diagram Attachment:

Seawolf 1-12 Fed 82H_5M BOPE_CK_10-12-2016.pdf

Section 3 - Casing

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

String Type: SURFACE

Other String Type:

Hole Size: 17.5

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9280

Bottom setting depth MD: 1000

Bottom setting depth TVD: 1000

Bottom setting depth MSL: -10280

Calculated casing length MD: 1000

Casing Size: 13.75

Other Size

Grade: H-40

Other Grade:

Weight: 48

Joint Type: STC

Other Joint Type:

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.59

Burst Design Safety Factor: 3.46

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 2.11

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 2.11

Casing Design Assumptions and Worksheet(s):

Seawolf 1-12 Fed 82_Surf Csg Ass_10-12-2016.docx

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

String Type: INTERMEDIATE

Other String Type:

Hole Size: 12.25

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9280

Bottom setting depth MD: 11300

Bottom setting depth TVD: 11300

Bottom setting depth MSL: -20580

Calculated casing length MD: 11300

Casing Size: 9.625

Other Size

Grade: P-110

Other Grade:

Weight: 40

Joint Type: OTHER

Other Joint Type: BTC

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.25

Burst Design Safety Factor: 1.59

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 2.58

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 2.58

Casing Design Assumptions and Worksheet(s):

Seawolf 1-12 Fed 82_Int Csg Ass_10-12-2016.docx

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

String Type: PRODUCTION

Other String Type:

Hole Size: 8.75

Top setting depth MD: 0

Top setting depth TVD: 0

Top setting depth MSL: -9280

Bottom setting depth MD: 22434

Bottom setting depth TVD: 12574

Bottom setting depth MSL: -21854

Calculated casing length MD: 22434

Casing Size: 5.5

Other Size

Grade: P-110

Other Grade:

Weight: 20

Joint Type: OTHER

Other Joint Type: BTC

Condition: NEW

Inspection Document:

Standard: API

Spec Document:

Tapered String?: N

Tapered String Spec:

Safety Factors

Collapse Design Safety Factor: 1.27

Burst Design Safety Factor: 1.26

Joint Tensile Design Safety Factor type: BUOYANT

Joint Tensile Design Safety Factor: 1.83

Body Tensile Design Safety Factor type: BUOYANT

Body Tensile Design Safety Factor: 1.83

Casing Design Assumptions and Worksheet(s):

Seawolf 1-12 Fed 82_Prod Csg Ass_10-12-2016.docx

Section 4 - Cement

Casing String Type: SURFACE

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 1000

Cement Type: C

Additives: 1% Calcium Chloride

Quantity (sks): 778

Yield (cu.ff./sk): 1.34

Density: 14.8

Volume (cu.ft.): 1042

Percent Excess: 50

Casing String Type: INTERMEDIATE

Stage Tool Depth:

Lead

Top MD of Segment: 0

Bottom MD Segment: 9300

Cement Type: C

Additives: Poz (Fly Ash): 6% BWOC
Bentonite + 5% BWOW Sodium
Chloride + 0.125 lbs/sks Poly-E-Flake

Quantity (sks): 1580

Yield (cu.ff./sk): 2.31

~~Fail~~ Density: 11.9

Volume (cu.ft.): 3640

Percent Excess: 30

Top MD of Segment: 9400

Bottom MD Segment: 11300

Cement Type: C

Quantity (sks): 590

Yield (cu.ff./sk): 1.33

Additives: 0.125 lbs/sks Poly-R-Flake

Volume (cu.ft.): 783

Percent Excess: 30

Density: 14.8

Casing String Type: PRODUCTION

Stage Tool Depth:

Lead

Top MD of Segment: 11100

Bottom MD Segment: 12300

Cement Type: C

Additives: Enhancer 923 + 10% BWOC
Bentonite + 0.05% BWOC SA-1015 +
0.3% BWOC HR-800 + 0.2% BWOC
~~Fail~~ FE-2 + 0.125 lb/sk Pol-E-Flake + 0.5
lb/sk D-Air 5000

Quantity (sks): 144

Yield (cu.ff./sk): 2.31

Volume (cu.ft.): 333

Percent Excess: 25

Density: 11.9

Bottom MD Segment: 22434

Cement Type: H

Quantity (sks): 2347

Yield (cu.ff./sk): 1.2

Top MD of Segment: 12300

Volume (cu.ft.): 2816

Percent Excess: 25

Additives: Poz (Fly Ash) + 0.5% bwoc
HALAD-344 + 0.4% bwoc CFR-3 +
0.2% BWOC HR-601 + 2% bwoc
Bentonite

Density: 14.5

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

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: 0

Bottom Depth: 1000

Mud Type: WATER-BASED MUD

Min Weight (lbs./gal.): 8.4

Max Weight (lbs./gal.): 8.5

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP): 2

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Top Depth: 1000

Bottom Depth: 11300

Mud Type: OIL-BASED MUD

Min Weight (lbs./gal.): 8.4

Max Weight (lbs./gal.): 9

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP): 2

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Top Depth: 11300

Bottom Depth: 12434

Mud Type: OIL-BASED MUD

Min Weight (lbs./gal.): 10.5

Max Weight (lbs./gal.): 11

Density (lbs/cu.ft.):

Gel Strength (lbs/100 sq.ft.):

PH:

Viscosity (CP): 12

Filtration (cc):

Salinity (ppm):

Additional Characteristics:

Section 6 - Test, Logging, Coring

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

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.

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

GR

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 7200

Anticipated Surface Pressure: 4428.21

Anticipated Bottom Hole Temperature(F): 165

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:

Seawolf 1-12 Fed 82H_H2S Plan_10-12-2016.pdf

Operator Name: DEVON ENERGY PRODUCTION COMPANY LP

Well Name: SEAWOLF 1-12 FED

Well Number: 82H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

Seawolf 1-12 Fed 82H_Directional Plan_01-24-2017.pdf

Other proposed operations facets description:

MULTI-BOWL VERBIAGE
MULTI-BOWL WELLHEAD
CLOSED-LOOP DESIGN PLAN
ANTICOLLISION PLAN

Other proposed operations facets attachment:

Seawolf 1-12 Fed 82H_AC Report_10-12-2016.pdf
Seawolf 1-12 Fed 82_Multi-Bowl Verbiage_3M_10-12-2016.pdf
Seawolf 1-12 Fed 82_Multi-Bowl Wellhead_10-12-2016.pdf
Seawolf 1-12 Fed 82_Clsd Loop Design Plan_10-12-2016.pdf

Other Variance attachment:

Seawolf 1-12 Fed 82_Co-flex hose_10-12-2016.pdf



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.

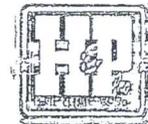
Should you have any questions or require any additional information/clarifications then please do not hesitate to contact us.

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 Brittmoores Park Drive,
Houston, TX 77041
Phone: +1 (832) 327-0141
Fax: +1 (832) 327-0148
www.contitechbeattie.com



RIG 212



QUALITY DOCUMENT

PHOENIX RUBBER INDUSTRIAL LTD.

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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

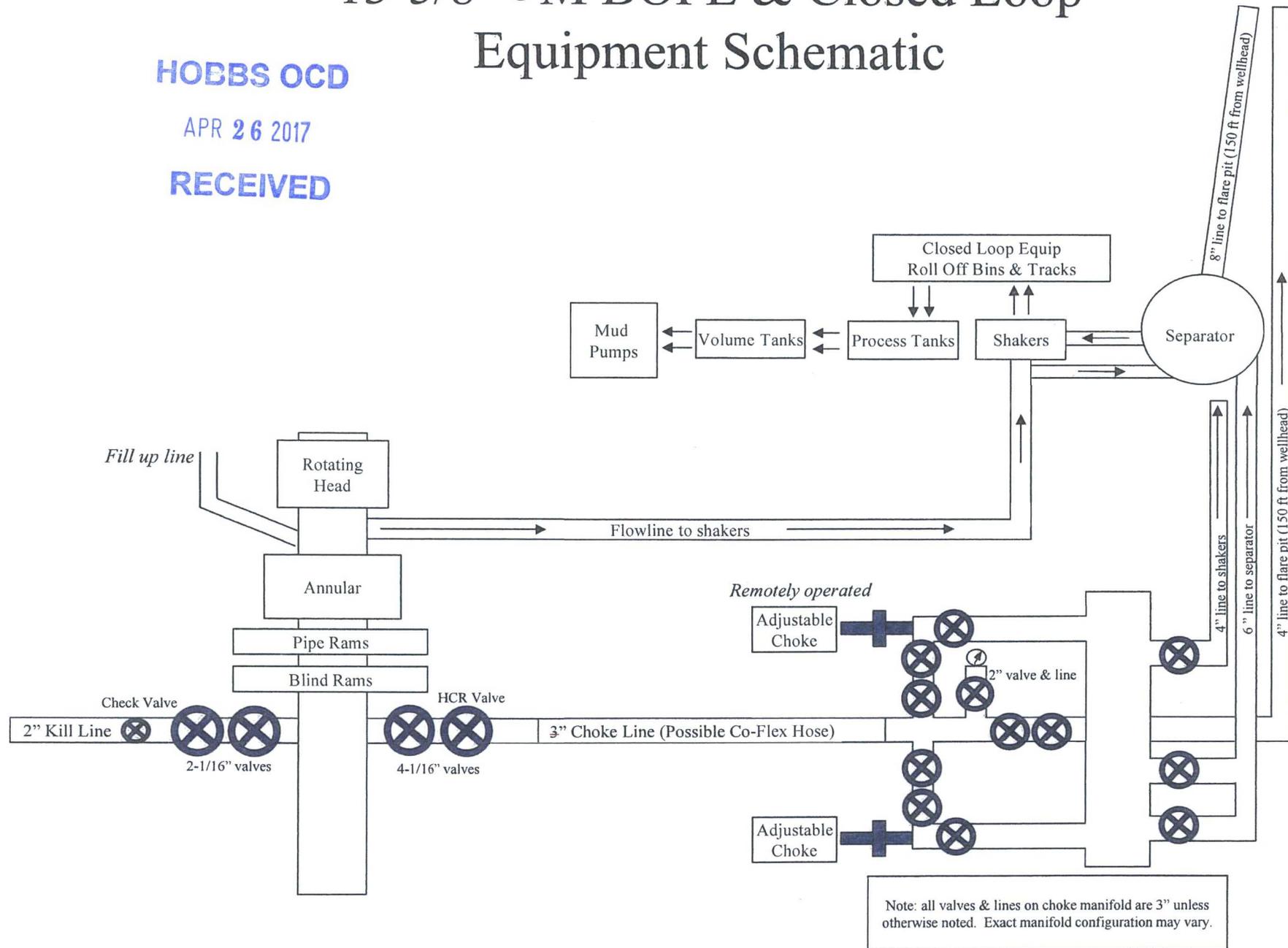
QUALITY CONTROL INSPECTION AND TEST CERTIFICATE				CERT. N°: 552	
PURCHASER: Phoenix Beattie Co.			P.O. N°: 1519FA-871		
PHOENIX RUBBER order N°: 170466		HOSE TYPE: 3" ID		Choke and Kill Hose	
HOSE SERIAL N°: 34128		NOMINAL / ACTUAL LENGTH: 11,43 m			
W.P. 68,96 MPa 10000 psi		T.P. 103,4 MPa 15000 psi		Duration: 60 min.	
<p>Pressure test with water at ambient temperature</p> <p style="text-align: center;">See attachment. (1 page)</p> <p>↑ 10 mm = 10 Min. → 10 mm = 25 MPa</p>					
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 WAREHOUSE DEPT. PHOENIX RUBBER Q.C.		

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

HOBBS OCD

APR 26 2017

RECEIVED



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 3000 (3M) 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 13-3/8" surface casing, a 13-5/8" BOP/BOPE system with a minimum rating of 3M will be installed on the wellhead system and will undergo a 250 psi low pressure test followed by a 3,000 psi high pressure test. The 3,000 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 3M 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 3,000 psi WP.

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