

MIN F  
SURF R

Form 3160-3  
(March 2012)

**HOBBS OCD**

**Carlsbad Field Office  
OCD Hobbs**

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

**AUG 16 2018** UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

**RECEIVED**

**APPLICATION FOR PERMIT TO DRILL OR REENTER**

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM113422
1b. Type of Well: <input checked="" type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input type="checkbox"/> Other <input checked="" type="checkbox"/> Single Zone <input type="checkbox"/> Multiple Zone		6. If Indian, Allottee or Tribe Name
2. Name of Operator MATADOR PRODUCTION COMPANY (228937)		7. If Unit or CA Agreement, Name and No.
3a. Address 5400 LBJ Freeway, Suite 1500 Dallas TX 7524	3b. Phone No. (include area code) (972)371-5200	8. Lease Name and Well No. (322263) DR-IRELAND FEDERAL 131H
4. Location of Well (Report location clearly and in accordance with any State requirements.) At surface LOT 4 / 518 FSL / 251 FWL / LAT 32.2842575 / LONG -103.4143892 At proposed prod. zone LOT 1 / 240 FNL / 330 FWL / LAT 32.2966914 / LONG -103.414137		9. API Well No. 30-025-45124
14. Distance in miles and direction from nearest town or post office*		10. Field and Pool, or Exploratory (2200) BONE SPRING
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any) 281 feet	16. No. of acres in lease 557.44	11. Sec., T. R. M. or Blk. and Survey or Area SEC 19 / T23S / R35E / NMP
17. Spacing Unit dedicated to this well 157.34	18. Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft. 11400 feet / 16173 feet	12. County or Parish LEA
19. Proposed Depth 11400 feet / 16173 feet	20. BLM/BIA Bond No. on file FED: NMB001079	13. State NM
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3384 feet	22. Approximate date work will start* 12/01/2018	23. Estimated duration 25 days

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

- |  |   |
|--|---|
| 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 required by the BLM.             |

25. Signature (Electronic Submission)	Name (Printed/Typed) Jonathan Paklaian / Ph: (505)245-1115	Date 02/26/2018
Title Project Assistant		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 07/06/2018
Title Assistant Field Manager Lands & Minerals		
Office CARLSBAD		

Application approval does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon. Conditions of approval, if any, are attached.

Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Continued on page 2)

\*(Instructions on page 2)

*oep Rec 08/16/18*

*Ka  
08/17/18*

**APPROVED WITH CONDITIONS**  
Approval Date: 07/06/2018

*Double Sided*

## 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.

## 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 collects this information to allow 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 Collection 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: LOT 4 / 518 FSL / 251 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2842575 / LONG: -103.4143892 ( TVD: 0 feet, MD: 0 feet )  
PPP: LOT 4 / 330 FSL / 330 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2837424 / LONG: -103.4141345 ( TVD: 11400 feet, MD: 11782 feet )  
BHL: LOT 1 / 240 FNL / 330 FWL / TWSP: 23S / RANGE: 35E / SECTION: 19 / LAT: 32.2966914 / LONG: -103.414137 ( TVD: 11400 feet, MD: 16173 feet )

### BLM Point of Contact

Name: Judith Yeager

Title: Legal Instruments Examiner

Phone: 5752345936

Email: [jyeager@blm.gov](mailto:jyeager@blm.gov)

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## **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.

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

# Operator Certification Data Report

07/19/2018

## 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:** Jonathan Paklaian

**Signed on:** 04/03/2018

**Title:** Project Assistant

**Street Address:** 5647 Jefferson St NE

**City:** Albuquerque

**State:** NM

**Zip:** 87109

**Phone:** (505)245-1115

**Email address:** Jonathan.Paklaian@swca.com

## Field Representative

**Representative Name:**

**Street Address:**

**City:**

**State:**

**Zip:**

**Phone:**

**Email address:**



APD ID: 10400027309

Submission Date: 02/26/2018



Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 131H

[Show Final Text](#)

Well Type: OIL WELL

Well Work Type: Drill

**Section 1 - General**

APD ID: 10400027309

Tie to previous NOS?

Submission Date: 02/26/2018

BLM Office: CARLSBAD

User: Jonathan Paklaian

Title: Project Assistant

Federal/Indian APD: FED

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

Lease number: NMNM113422

Lease Acres: 557.44

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? YES

APD Operator: MATADOR PRODUCTION COMPANY

Operator letter of designation:

**Operator Info**

Operator Organization Name: MATADOR PRODUCTION COMPANY

Operator Address: 5400 LBJ Freeway, Suite 1500.

Zip: 75240

Operator PO Box:

Operator City: Dallas

State: TX

Operator Phone: (972)371-5200

Operator Internet Address: amonroe@matadorresources.com

**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: DR IRELAND FEDERAL

Well Number: 131H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BONE SPRING

Pool Name:

Is the proposed well in an area containing other mineral resources? NATURAL GAS,CO2,OIL

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**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:** DR IRELAND

**Number:** 4

**Well Class:** HORIZONTAL

**Number of Legs:** 1

**Well Work Type:** Drill

**Well Type:** OIL WELL

**Describe Well Type:**

**Well sub-Type:** APPRAISAL

**Describe sub-type:**

**Distance to town:**

**Distance to nearest well:** 30 FT

**Distance to lease line:** 281 FT

**Reservoir well spacing assigned acres Measurement:** 157.34 Acres

**Well plat:** BO\_DR\_IRELAND\_FED\_COM\_SLOT\_1\_SURFACE\_PAD\_SITE\_S\_20180215141434.pdf

CD\_DR\_IRELAND\_FED\_COM\_SLOT\_1\_SURFACE\_PAD\_PRO\_S\_20180215141435.pdf

1Mile\_Radius\_Map\_20180215141751.docx

DrlrelandFederal131H\_signed\_20180509100415.pdf

**Well work start Date:** 12/01/2018

**Duration:** 25 DAYS

### Section 3 - Well Location Table

**Survey Type:** RECTANGULAR

**Describe Survey Type:**

**Datum:** NAD83

**Vertical Datum:** NGVD29

**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	518	FSL	251	FWL	23S	35E	19	Lot 4	32.28425 75	- 103.4143 892	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	338 4	0	0
KOP Leg #1	518	FSL	251	FWL	23S	35E	19	Lot 4	32.28425 75	- 103.4143 892	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	243 4	950	950

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 131H

	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD
PPP Leg #1	330	FSL	330	FWL	23S	35E	19	Lot 4	32.28374 24	- 103.4141 345	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	- 801 6	117 82	114 00
EXIT Leg #1	330	FNL	330	FWL	23S	35E	19	Lot 1	32.29644 44	- 103.4141 369	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	- 801 6	160 83	114 00
BHL Leg #1	240	FNL	330	FWL	23S	35E	19	Lot 1	32.29669 14	- 103.4141 37	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 113422	- 801 6	161 73	114 00



APD ID: 10400027309

Submission Date: 02/26/2018

Highlighted data  
reflects the most  
recent changes

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 131H

Show Final Text

Well Type: OIL WELL

Well Work Type: Drill

**Section 1 - Geologic Formations**

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1	RUSTLER	3384	1117	1117		USEABLE WATER	No
2	SALADO	1931	1453	1453		NONE	No
3	BASE OF SALT	-543	3927	3927		NONE	No
4	BELL CANYON	-2021	5405	5405		NATURAL GAS,OIL	No
5	BRUSHY CANYON	-4039	7423	7423		NATURAL GAS,OIL	No
6	BONE SPRING 1ST	-5361	8745	8745		NATURAL GAS,OIL	No
7	BONE SPRING 2ND	-6650	10034	10034		NATURAL GAS,OIL	No
8	BONE SPRING 3RD	-7323	10707	10707		NATURAL GAS,OIL	No
9	WOLFCAMP	-8237	11621	11621		NATURAL GAS,OIL	Yes

**Section 2 - Blowout Prevention**

Pressure Rating (PSI): 2M

Rating Depth: 15000

**Equipment:** Pressure Control Equipment: See Exhibit E-1. A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs.

**Requesting Variance?** YES

**Variance request:** The operator requests a variance to have the option of running a speed head for setting the intermediate strings. In the case of running a speed head with landing mandrel for 9-5/8" casing, a minimum of a 5M BOPE system will be installed after surface casing is set. Matador Resources requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (see Exhibit E-2). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

**Testing Procedure:** BOP test pressures will be 250 psi low and 5000 psi high with the annular being tested to 250 psi low and 5000 psi high before drilling below surface shoe. A diagram of the speed head is attached.

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**Choke Diagram Attachment:**

Choke\_Manifold\_20180215145906.pdf

**BOP Diagram Attachment:**

BOP\_297\_001\_20180215145916.pdf

**Section 3 - Casing**

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	SURFACE	17.5	13.375	NEW	API	N	0	850	0	850			850	J-55	54.5	OTHER - BTC	1.125	1.125	BUOY	1.8	BUOY	1.8
2	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5400	0	5384			5400	J-55	40	OTHER - BTC	1.125	1.125	BUOY	1.8	BUOY	1.8
3	PRODUCTION	8.75	5.5	NEW	NON API	N	4400	16173	4388	11400			11773	P-110	20	OTHER - BTC/TXP	1.125	1.125	BUOY	1.8	BUOY	1.8

**Casing Attachments**

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

**Inspection Document:**

**Spec Document:**

**Tapered String Spec:**

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

BLM\_Casing\_Design\_Assumptions\_3\_string\_20180215150607.pdf

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 131H

**Casing Attachments**

Casing ID: 2 String Type: INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLM\_Casing\_Design\_Assumptions\_3\_string\_20180212161505.pdf

Casing ID: 3 String Type: PRODUCTION

Inspection Document:

Spec Document:

TenarisHydril\_TenarisXP\_BTC\_5.500\_20\_20180124154945.pdf

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

BLM\_Casing\_Design\_Assumptions\_3\_string\_20180215152110.pdf

**Section 4 - Cement**

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	850	210	1.82	12.8	382.2	100	Class C	Bentonite + 2% CaCL2 + 3% NaCl + LCM
SURFACE	Tail		0	850	720	1.38	12.8	993.6	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		0	5400	1170	2.13	12.6	2492.1	100	Class C	Bentonite + 1% CaCL2 + 8% NaCl + LCM
INTERMEDIATE	Tail		0	5400	620	1.38	14.8	855.6	100	Class C	5% NaCl + LCM
PRODUCTION	Lead		4600	1464 2	580	2.35	11.5	1363	35	TXI	Fluid Loss + Dispersant + Retarder + LCM

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Tail		4600	1617 3	1500	1.39	13.2	2085	35	TXI	Fluid Loss + Dispersant + Retarder + LCM

### 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:** All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

**Describe the mud monitoring system utilized:** The Mud Monitoring System is an electronic Pason system satisfying requirements of Onshore Order 1. Mud Logging Program: 2 man unit from 5400 – TD.

### 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
4388	1140 0	OTHER : FW/Cut Brine	9	9							
0	5384	SALT SATURATED	10	10							
0	850	SPUD MUD	8.3	8.3							

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

### **Section 6 - Test, Logging, Coring**

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

See page 3 of Drilling Plan attached in Other Facets, Section 8.

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

CBL,GR,MUDLOG

**Coring operation description for the well:**

No DSTs or cores are planned at this time

### **Section 7 - Pressure**

**Anticipated Bottom Hole Pressure:** 5500

**Anticipated Surface Pressure:** 2992

**Anticipated Bottom Hole Temperature(F):** 175

**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:**

Matador\_Hydrogen\_Sulfide\_Drilling\_20180215152425.docx

### **Section 8 - Other Information**

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

Dr\_Ireland\_Fed\_Com\_\_131H\_\_Well\_Plan\_v1\_20180215152521.pdf

**Other proposed operations facets description:**

**Other proposed operations facets attachment:**

Close\_Loop\_System\_20180111134936.docx

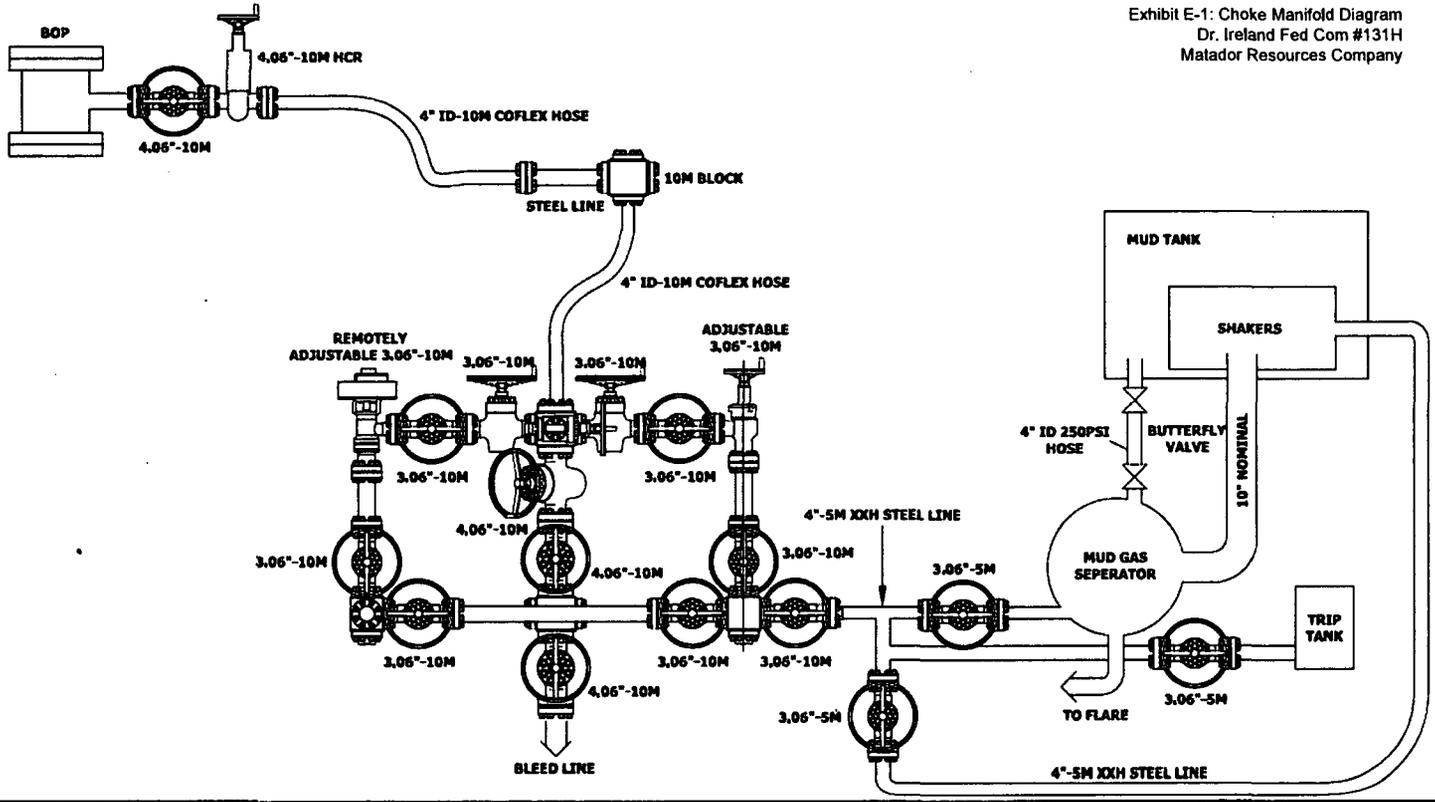
297Co\_Flex\_Certs\_\_Dr\_Ireland\_Fed\_Com\_\_131H\_20180215152454.pdf

Dr\_Ireland\_Fed\_Com\_\_131H\_MTDR\_Drill\_Plan\_20180215152509.docx

3\_string\_Speed\_Head\_20180215152612.pdf

**Other Variance attachment:**

Exhibit E-1: Choke Manifold Diagram  
 Dr. Ireland Fed Com #131H  
 Matador Resources Company



WELDING NOTE & TOLERANCES UNLESS OTHERWISE SPECIFIED.

GENERAL WELDING NOTES:  
 ALL WELDS SHALL BE FULL PENETRATION BUTT JOINTS WELDED TO THE DESIGN SPECIFICATION.  
 ALL WELDS SHALL BE WELDED TO THE DESIGN SPECIFICATION.  
 ALL WELDS SHALL BE WELDED TO THE DESIGN SPECIFICATION.  
 ALL WELDS SHALL BE WELDED TO THE DESIGN SPECIFICATION.

MACHINING TOLERANCES:  
 1 PLACE OF DIMENSION  
 2 PLACE OF DIMENSION  
 3 PLACE OF DIMENSION  
 4 PLACE OF DIMENSION  
 5 PLACE OF DIMENSION  
 6 PLACE OF DIMENSION  
 7 PLACE OF DIMENSION  
 8 PLACE OF DIMENSION  
 9 PLACE OF DIMENSION  
 10 PLACE OF DIMENSION

REV	DATE	DESCRIPTION	BY	CHKD	APP'D	ENG.
01	05-18	ISSUED FOR INFORMATION	CP	CSL		
02	05-18	ISSUED FOR INFORMATION	CSL			
03	05-18	ISSUED FOR INFORMATION	CPA	CSL		

COMPRESSOR 3014  
 PATTERSON-UTI  
 DRILLING COMPANY LLC  
 CONFIDENTIAL AND PROPRIETARY  
 NOT TO BE DISTRIBUTED

**PATTERSON-UTI**  
 DRILLING COMPANY LLC

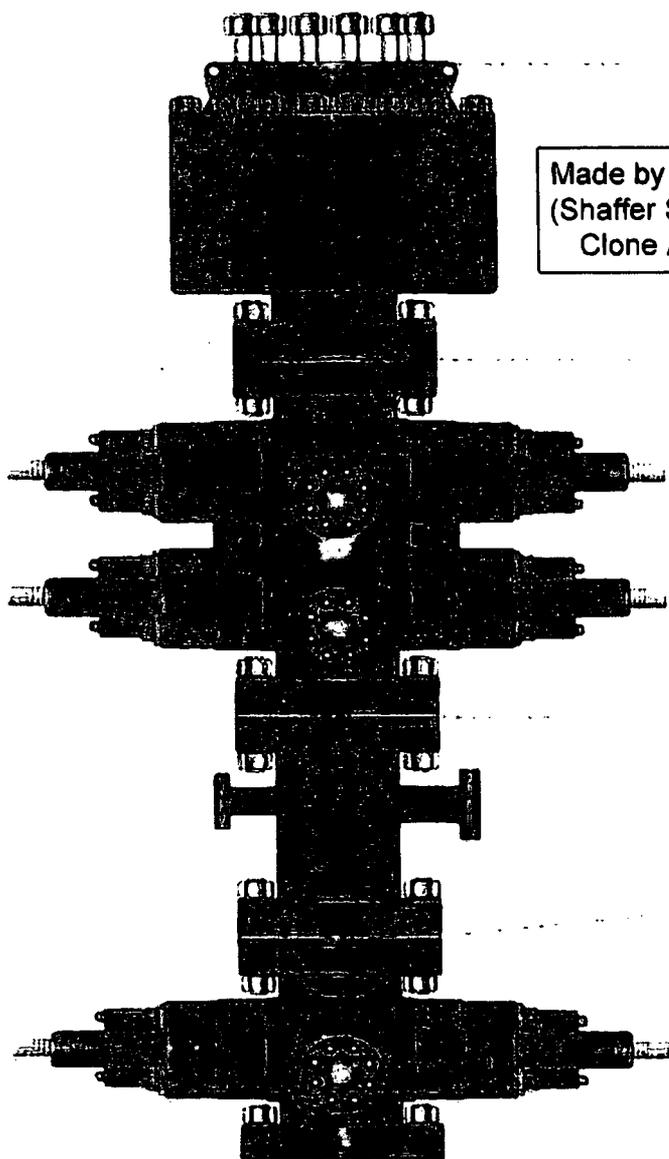
**CHOKES MANIFOLD**  
 10M CHOKES ARRANGEMENT  
 RIG 237

REV: R0207-0.001.LAY.09



**PATTERSON-UTI**

*Well Control*



Made by Cameron  
(Shaffer Spherical)  
Clone Annular

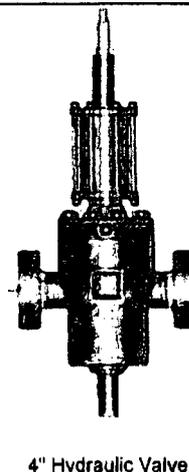
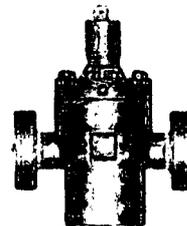
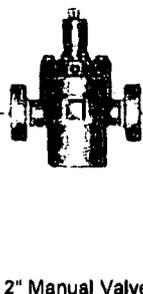
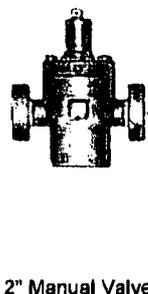
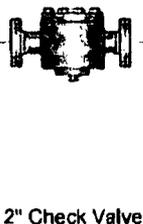
PATTERSON-UTI # PS2-628  
STYLE: New Shaffer Spherical  
BORE 13 5/8" PRESSURE 5,000  
HEIGHT: 48 1/2" WEIGHT: 13,800 lbs

PATTERSON-UTI # PC2-128  
STYLE: New Cameron Type U  
BORE 13 5/8" PRESSURE 10,000  
RAMS: TOP 5" Pipe BTM Blinds  
HEIGHT: 66 5/8" WEIGHT: 24,000 lbs

Length 40" Outlets 4" 10M  
DSA 4" 10M x 2" 10M

PATTERSON-UTI # PC2-228  
STYLE: New Cameron Type U  
BORE 13 5/8" PRESSURE 10,000  
RAMS: 5" Pipe  
HEIGHT: 41 5/8" WEIGHT: 13,000 lbs

**WING VALVES**



2" Check Valve

2" Manual Valve

2" Manual Valve

4" Manual Valve

4" Hydraulic Valve

For the latest performance data, always visit our website: [www.tenaris.com](http://www.tenaris.com)

February 02 2017



**Connection:** TenarisXP® BTC  
**Casing/Tubing:** CAS  
**Coupling Option:** REGULAR

**Size:** 5.500 in.  
**Wall:** 0.361 in.  
**Weight:** 20.00 lbs/ft  
**Grade:** P110-IC  
**Min. Wall Thickness:** 87.5 %

PIPE BODY DATA			
GEOMETRY			
Nominal OD	5.500 in.	Nominal Weight	20.00 lbs/ft
Nominal ID	4.778 in.	Wall Thickness	0.361 in.
Plain End Weight	19.83 lbs/ft	Standard Drift Diameter	4.653 in.
		Special Drift Diameter	N/A
PERFORMANCE			
Body Yield Strength	641 x 1000 lbs	Internal Yield	12630 psi
Collapse	12100 psi	SMYS	110000 psi
TENARISXP® BTC CONNECTION DATA			
GEOMETRY			
Connection OD	6.100 in.	Coupling Length	9.450 in.
Critical Section Area	5.828 sq. in.	Threads per in.	5.00
		Connection ID	4.766 in.
		Make-Up Loss	4.204 in.
PERFORMANCE			
Tension Efficiency	100 %	Joint Yield Strength	641 x 1000 lbs
Structural Compression Efficiency	100 %	Structural Compression Strength	641 x 1000 lbs
External Pressure Capacity	12100 psi	Internal Pressure Capacity <sup>(1)</sup>	12630 psi
		Structural Bending <sup>(2)</sup>	92 °/100 ft
ESTIMATED MAKE-UP TORQUES <sup>(3)</sup>			
Minimum	11270 ft-lbs	Optimum	12520 ft-lbs
		Maximum	13770 ft-lbs
OPERATIONAL LIMIT TORQUES			
Operating Torque	21500 ft-lbs	Yield Torque	23900 ft-lbs
BLANKING DIMENSIONS			
Blanking Dimensions			

(1) Internal Pressure Capacity related to structural resistance only. Internal pressure leak resistance as per

section 10.3 API 5C3 / ISO 10400 - 2007.

**(2)** Structural rating, pure bending to yield (i.e no other loads applied)

**(3)** Torque values calculated for API Modified thread compounds with Friction Factor=1. For other thread compounds please contact us at [licensees@oilfield.tenaris.com](mailto:licensees@oilfield.tenaris.com). Torque values may be further reviewed.

For additional information, please contact us at [contact-tenarishydril@tenaris.com](mailto:contact-tenarishydril@tenaris.com)

## **Casing Design Criteria and Load Case Assumptions**

### **Surface Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

### **Intermediate #2 Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

### **Production Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

## **Casing Design Criteria and Load Case Assumptions**

### **Surface Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

### **Intermediate #2 Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

### **Production Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

## **Casing Design Criteria and Load Case Assumptions**

### **Surface Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

### **Intermediate #2 Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

### **Production Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

## **Casing Design Criteria and Load Case Assumptions**

### **Surface Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.43 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.52 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.43 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (8.3 ppg).

### **Intermediate #2 Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.52 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: Casing test per Onshore Oil and Gas Order No. 2 with an external force equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Gas Kick Profile: Internal burst force at the shoe will be Fracture Pressure at that depth. Surface burst pressure will be fracture gradient at setting depth less a gas gradient to equivalent height of 50 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.47 psi/ft). External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft), which is a more conservative backup force than pore pressure.
- Fracture at Shoe with 1/3 BHP at Surface: Internal burst force at the shoe will be Fracture Pressure at setting depth. Internal burst force at surface will be 1/3 of pore pressure at setting depth. External force will be equal to the mud gradient in which the casing will be run (0.52 psi/ft) which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (10.0 ppg).

### **Production Casing**

Collapse:  $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.47 psi/ft). The effects of axial load on collapse will be considered.
- Cementing: Collapse force equal to the gradient of planned cement slurries to planned depths and mud gradient in which the casing will be run above that (0.47 psi/ft) and an internal force equal to mud gradient of displacement fluid (0.43 psi/ft).

Burst:  $DF_b=1.125$

- Pressure Test: 8000 psi casing test with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.
- Injection Down Casing: 9500 psi surface injection pressure plus an internal pressure gradient of 0.65 psi/ft with an external force equal to the mud gradient in which the casing will be run (0.47 psi/ft), which is a more conservative backup force than pore pressure.

Tensile:  $DF_t=1.8$

- Overpull: A downward force of 100,000 lbs is applied at the shoe along with the weight of the casing string utilizing the effects of buoyancy (9.0 ppg).

# **Closed-Loop System**

## **Operating and Maintenance Plan:**

During drilling operations, third party service companies will utilize solids control equipment to remove cuttings from the drilling fluids and collect it in haul-off bins. Equipment will be closely monitored at all times while drilling by the derrick man and the service company employees.

## **Closure Plan:**

During drilling operations, third party service companies will haul off drill solids and fluids to an approved disposal facility. At the end of the well, all closed loop equipment will be removed from the location.

Exhibit E-2: Co-Flex Certifications  
Dr. Ireland Fed Com #131H  
Matador Resources Company

December 8, 2014



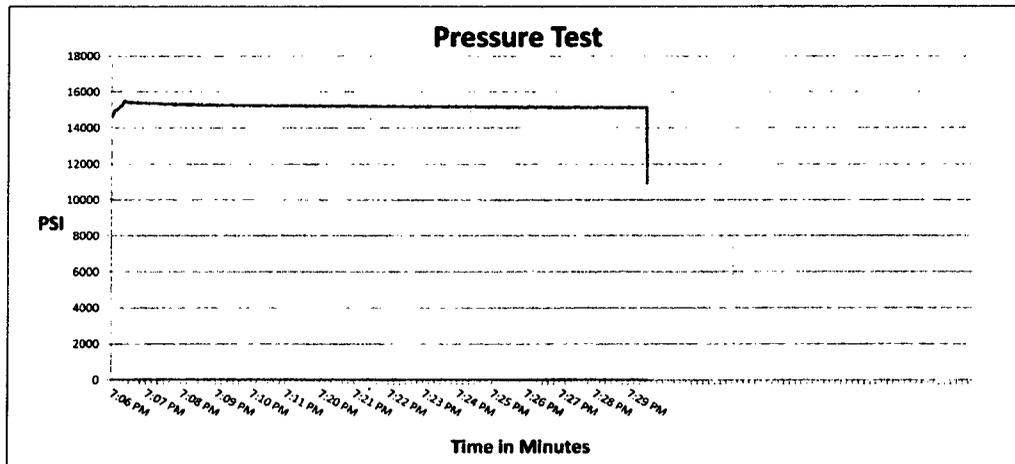
Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Graph

Customer: Patterson

Pick Ticket #: 284918

Hose Specifications		Verification	
<b>Hose Type</b> Ck	<b>Length</b> 10'	<b>Type of Fitting</b> 4-1/16 10K	<b>Coupling Method</b> Swage
<b>I.D.</b> 3"	<b>O.D.</b> 4.79"	<b>Die Size</b> 5.37"	<b>Final O.D.</b> 5.37"
<b>Working Pressure</b> 10000 PSI	<b>Burst Pressure</b> Standard Safety Multiplier Applies	<b>Hose Serial #</b> 10490	<b>Hose Assembly Serial #</b> 284918-2



**Test Pressure**  
15000 PSI

**Time Held at Test Pressure**  
15 2/4 Minutes

**Actual Burst Pressure**

**Peak Pressure**  
15732 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

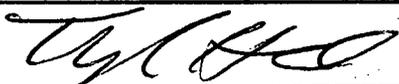
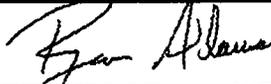
**Tested By:** Tyler Hill

**Approved By:** Ryan Adams



Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-2	Hose O.D. (Inches)	5.30"
Hose Assembly Length	10'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	91996	Stem (Heat #)	91996
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested		Tested By	
12/8/2014			
		Approved By	
			



Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

<b>Customer:</b> PATTERSON B&E	<b>Customer P.O.#</b> 260471
<b>Sales Order #</b> 236404	<b>Date Assembled:</b> 12/8/2014

### Specifications

<b>Hose Assembly Type:</b> Choke & Kill	
<b>Assembly Serial #</b> 287918-2	<b>Hose Lot # and Date Code</b> 10490-01/13
<b>Hose Working Pressure (psi)</b> 10000	<b>Test Pressure (psi)</b> 15000

We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.

Supplier:  
Midwest Hose & Specialty, Inc.  
3312 S I-35 Service Rd  
Oklahoma City, OK 73129

Comments:

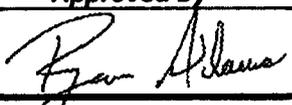
<b>Approved By</b> 	<b>Date</b> 12/9/2014
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Exhibit E-2: Co-Flex Certifications  
Dr. Ireland Fed, Com #131H  
Matador Resources Company

December 9, 2014



Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Graph

Customer: Patterson

Pick Ticket #: 284918

#### Hose Specifications

<b>Hose Type</b>	<b>Length</b>
Ck	20'
<b>I.D.</b>	<b>O.D.</b>
3"	4.77"

#### Verification

<b>Type of Fitting</b>	<b>Coupling Method</b>
4-1/16 10K	Swage
<b>Die Size</b>	<b>Final O.D.</b>
5.37"	5.40"

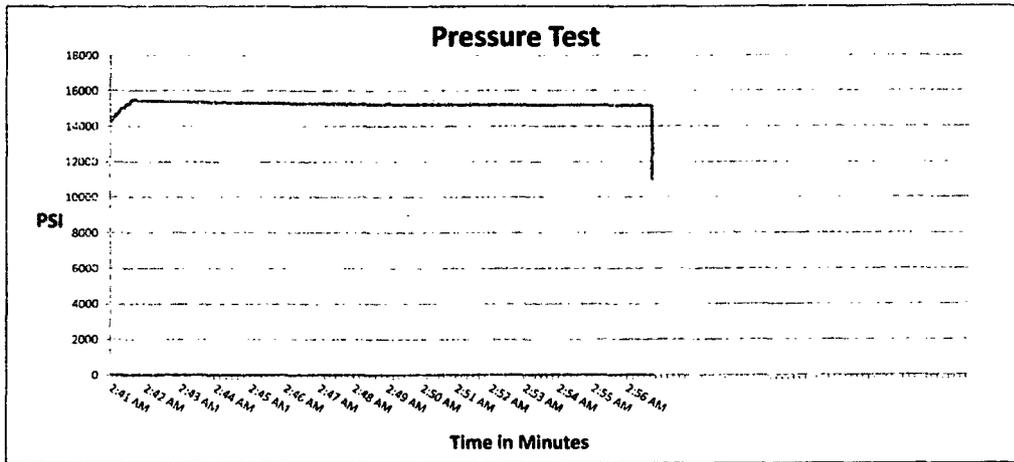
**Working Pressure**  
10000 PSI

**Burst Pressure**  
Standard Safety Multiplier Applies

**Hose Serial #**  
10490

**Hose Assembly Serial #**  
284918-1

R297



**Test Pressure**  
15000 PSI

**Time Held at Test Pressure**  
15 2/4 Minutes

**Actual Burst Pressure**

**Peak Pressure**  
15893 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

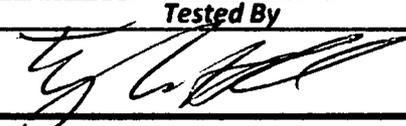
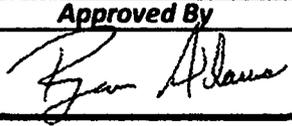
Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose  
& Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-1	Hose O.D. (Inches)	5.30"
Hose Assembly Length	20'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)	V3579	Connection (Heat #)	V3579
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	15 1/2		
Date Tested		Tested By	
12/9/2014			
		Approved By	
			



Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

<i>Customer:</i> <b>PATTERSON B&amp;E</b>	<i>Customer P.O.#</i> <b>260471</b>
<i>Sales Order #</i> <b>236404</b>	<i>Date Assembled:</i> <b>12/8/2014</b>

### Specifications

<i>Hose Assembly Type:</i> <b>Choke &amp; Kill</b>	
<i>Assembly Serial #</i> <b>287918-1</b>	<i>Hose Lot # and Date Code</i> <b>10490-01/13</b>
<i>Hose Working Pressure (psi)</i> <b>10000</b>	<i>Test Pressure (psi)</i> <b>15000</b>

*We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.*

*Supplier:*  
**Midwest Hose & Specialty, Inc.**  
**3312 S I-35 Service Rd**  
**Oklahoma City, OK 73129**

*Comments:*

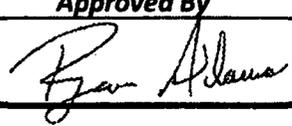
<i>Approved By</i> 	<i>Date</i> <b>12/9/2014</b>
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Exhibit E-2: Co-Flex Certifications  
Dr. Ireland Fed Com #131H  
Matador Resources Company



### Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

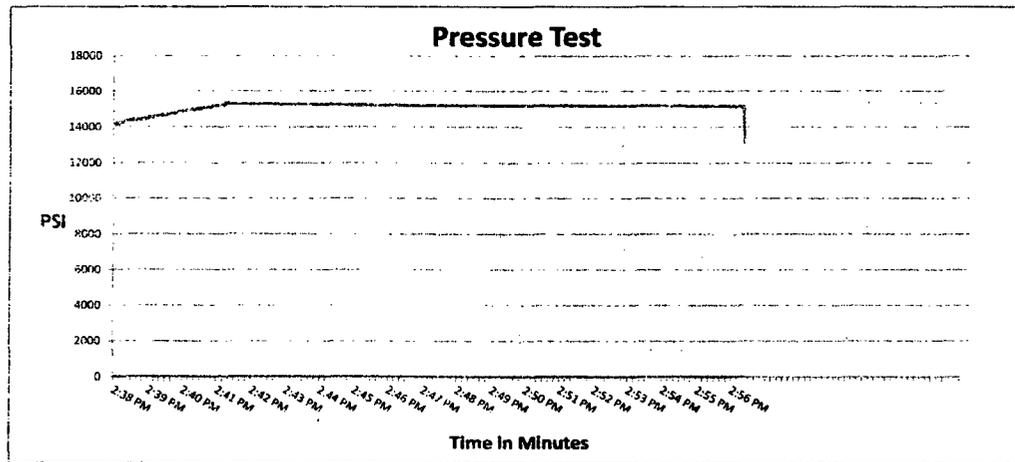
Pick Ticket #: 284918

#### Hose Specifications

Hose Type	Length
Mud	70'
I.D.	O.D.
3"	4.79"
<b>Working Pressure</b>	<b>Burst Pressure</b>
10000 PSI	Standard Safety Multiplier Applies

#### Verification

Type of Fitting	Coupling Method
4 1/16 10K	Swage
Die Size	Final O.D.
5.37"	5.37"
<b>Hose Serial #</b>	<b>Hose Assembly Serial #</b>
10490	284918-3



**Test Pressure**  
15000 PSI

**Time Held at Test Pressure**  
16 3/4 Minutes

**Actual Burst Pressure**

**Peak Pressure**  
15410 PSI

**Comments:** Hose assembly pressure tested with water at ambient temperature.

**Tested By:** Tyler Hill

**Approved By:** Ryan Adams



Midwest Hose  
 & Specialty, Inc.

### Internal Hydrostatic Test Certificate

General Information		Hose Specifications	
Customer	PATTERSON B&E	Hose Assembly Type	Choke & Kill
MWH Sales Representative	AMY WHITE	Certification	API 7K
Date Assembled	12/8/2014	Hose Grade	MUD
Location Assembled	OKC	Hose Working Pressure	10000
Sales Order #	236404	Hose Lot # and Date Code	10490-01/13
Customer Purchase Order #	260471	Hose I.D. (Inches)	3"
Assembly Serial # (Pick Ticket #)	287918-3	Hose O.D. (Inches)	5.23"
Hose Assembly Length	70'	Armor (yes/no)	YES
Fittings			
End A		End B	
Stem (Part and Revision #)	R3.0X64WB	Stem (Part and Revision #)	R3.0X64WB
Stem (Heat #)	A141420	Stem (Heat #)	A141420
Ferrule (Part and Revision #)	RF3.0	Ferrule (Part and Revision #)	RF3.0
Ferrule (Heat #)	37DA5631	Ferrule (Heat #)	37DA5631
Connection (Part #)	4 1/16 10K	Connection (Part #)	4 1/16 10K
Connection (Heat #)		Connection (Heat #)	
Dies Used	5.37	Dies Used	5.37
Hydrostatic Test Requirements			
Test Pressure (psi)	15,000	Hose assembly was tested with ambient water temperature.	
Test Pressure Hold Time (minutes)	16 3/4		
Date Tested		Tested By	
12/9/2014			
		Approved By	



Midwest Hose  
& Specialty, Inc.

### Certificate of Conformity

Customer: **PATTERSON B&E**

Customer P.O.# **260471**

Sales Order # **236404**

Date Assembled: **12/8/2014**

### Specifications

Hose Assembly Type: **Choke & Kill**

Assembly Serial # **287918-3**

Hose Lot # and Date Code **10490-01/13**

Hose Working Pressure (psi) **10000**

Test Pressure (psi) **15000**

*We hereby certify that the above material supplied for the referenced purchase order to be true according to the requirements of the purchase order and current industry standards.*

Supplier:

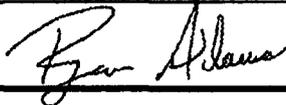
**Midwest Hose & Specialty, Inc.**

**3312 S I-35 Service Rd**

**Oklahoma City, OK 73129**

Comments:

Approved By



Date

**12/9/2014**

Drilling Operations Plan  
 Dr. Ireland Fed Com #131H  
 Matador Resources Company  
 Sec. 19, 23S, 35E  
 Lea County, NM

Surface Location: 518' FSL & 251' FWL, Sec. 3  
 Bottom Hole Location: 240' FNL & 330' FWL, Sec. 3  
 Elevation Above Sea Level: 3384'

Geologic Name of Surface Formation: 3<sup>rd</sup> Bone Spring

Type of Well: Horizontal well, No Pilot Hole, Drilled with conventional rotary tools

Proposed Drilling Depth: 16,173' MD / 11,400' TVD

Estimated Tops of Geological Markers w/ Mineral Bearing Formation:

Formation Name	Est Top	Bearing
Rustler	1117	Water
Salado	1453	Barren
Base of Salt	3927	Barren
Bell Canyon	5405	Hydrocarbon
Brushy Canyon	7423	Hydrocarbon
Bone Spring Lime	8745	Hydrocarbon
First Bone Spring Carb	9477	Hydrocarbon
First Bone Spring Sand	9848	Hydrocarbon
Second Bone Spring Carb	10034	Hydrocarbon
Second Bone Spring Sand	10365	Hydrocarbon
Third Bone Spring Carb	10707	Hydrocarbon
Third Bone Spring Sand	11200	Hydrocarbon
Wolfcamp A	11621	Hydrocarbon

OSE Ground Water Estimated Depth: 280'

Casing Program

Name	Hole Size	Casing Size	Wt/Grade	Thread Collar	Setting Depth	Top Cement
Surface	17-1/2"	13-3/8" (new)	54.5# J-55	BTC	850	Surface
Intermediate	12-1/4"	9-5/8" (new)	40# J-55	BTC	5400	Surface

Drilling Operations Plan  
 Dr. Ireland Fed Com #131H  
 Matador Resources Company  
 Sec. 19, 23S, 35E  
 Lea County, NM

Production	8-3/4"	5-1/2" (new)	20# P- 110	BTC/TXP	16173	4400
------------	--------	-----------------	---------------	---------	-------	------

Minimum Safety Factors:    Burst: 1.125        Collapse: 1.125        Tension 1.8

Cementing Program

Name	Type	Sacks	Yield	Weight	Blend
Surface	Lead	210	1.82	12.8	Class C + Bentonite + 2% CaCL2 + 3% NaCl + LCM
	Tail	720	1.38	14.8	Class C + 5% NaCl + LCM
TOC = 0'		100% Excess			Centralizers per Onshore Order 2.III.B.1f
Intermediate	Lead	1170	2.13	12.6	Class C + Bentonite + 1% CaCL2 + 8% NaCl + LCM
	Tail	620	1.38	14.8	Class C + 5% NaCl + LCM
TOC = 0'		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface
Production	Lead	760	2.35	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	1500	1.39	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 4600'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)

Pressure Control Equipment:

See Exhibit E-1. A BOP consisting of 3 rams with 2 pipe rams, 1 blind ram and one annular preventer. The BOP will be utilized below surface casing to TD. See attachments for BOP and choke manifold diagrams. Also present will be an accumulator that meets the requirements of Onshore Order #2 for the pressure rating of the BOP stack. A rotating head will also be installed as needed. BOP will be inspected and operated as recommended in Onshore Order #2. A Kelly cock and sub equipped with a full opening valve sized to fit the drill pipe and collars will be available on the rig floor in the open position. A third party company will test the BOPs.

After setting surface casing and before drilling below the surface casing shoe, a minimum of a 2M BOPE system will be installed and tested to 250 psi low and 2000 psi high with the annular being tested to 250 psi low and 1000 psi high. After setting intermediate casing, a minimum of a 5M system will be installed and tested to 250 psi low and 5000 psi high with the annular being tested to 250 psi low and 2500 psi high.

The operator requests a variance to have the option of running a speed head for setting the intermediate strings. In the case of running a speed head with landing mandrel for 9-5/8" casing, a minimum of a 5M BOPE system will be installed after surface casing is set. BOP test pressures will be 250 psi low and 5000 psi high with the annular being tested to 250 psi low and 2500 psi high before drilling below surface shoe. A diagram of the speed head is attached.

Drilling Operations Plan  
Dr. Ireland Fed Com #131H  
Matador Resources Company  
Sec. 19, 23S, 35E  
Lea County, NM

Matador Resources requests a variance to drill this well using a co-flex line between the BOP and choke manifold. Certification for proposed co-flex hose is attached (see Exhibit E-2). The hose is not required by the manufacturer to be anchored. In the event the specific hose is not available, one of equal or higher rating will be used.

Proposed Mud System:

Name	Hole Size	Mud Weight	Visc	Fluid Loss	Type Mud
Surface	17-1/2"	8.30	28	NC	FW Spud Mud
Intermediate	12-1/4"	10.00	30-32	NC	Brine Water
Production	8-3/4"	9.00	30-32	NC	FW/Cut Brine

All necessary mud products for weight addition and fluid loss control will be on location at all times. Mud program subject to change due to hole conditions.

The Mud Monitoring System is an electronic Pason system satisfying requirements of Onshore Order 1.

Testing, Logging & Coring Program:

- Mud Logging Program: 2 man unit from 5400 – TD
- Electric Logging Program: No electric logs are planned at this time. GR will be collected through the MWD tools from Inter. Csg to TD
- No DSTs or cores are planned at this time
- CBL w/ CCL from as far as gravity will let it fall to TOC

Potential Hazards:

No abnormal pressures or temperatures are expected. In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H<sub>2</sub>S from the surface to the Bone Spring formations to meet the BLM's minimum requirements for the submission of an "H<sub>2</sub>S Drilling Operation Plan" or "Public Protection Plan" for the drilling and completion of this well. Since we have an H<sub>2</sub>S safety package on all wells, attached is an "H<sub>2</sub>S Drilling Operations Plan". Adequate flare lines will be installed off the mud/gas separator where gas may be flared safely. All personnel will be familiar with all aspects of safe operation of equipment being used

Estimated BHP: 5500

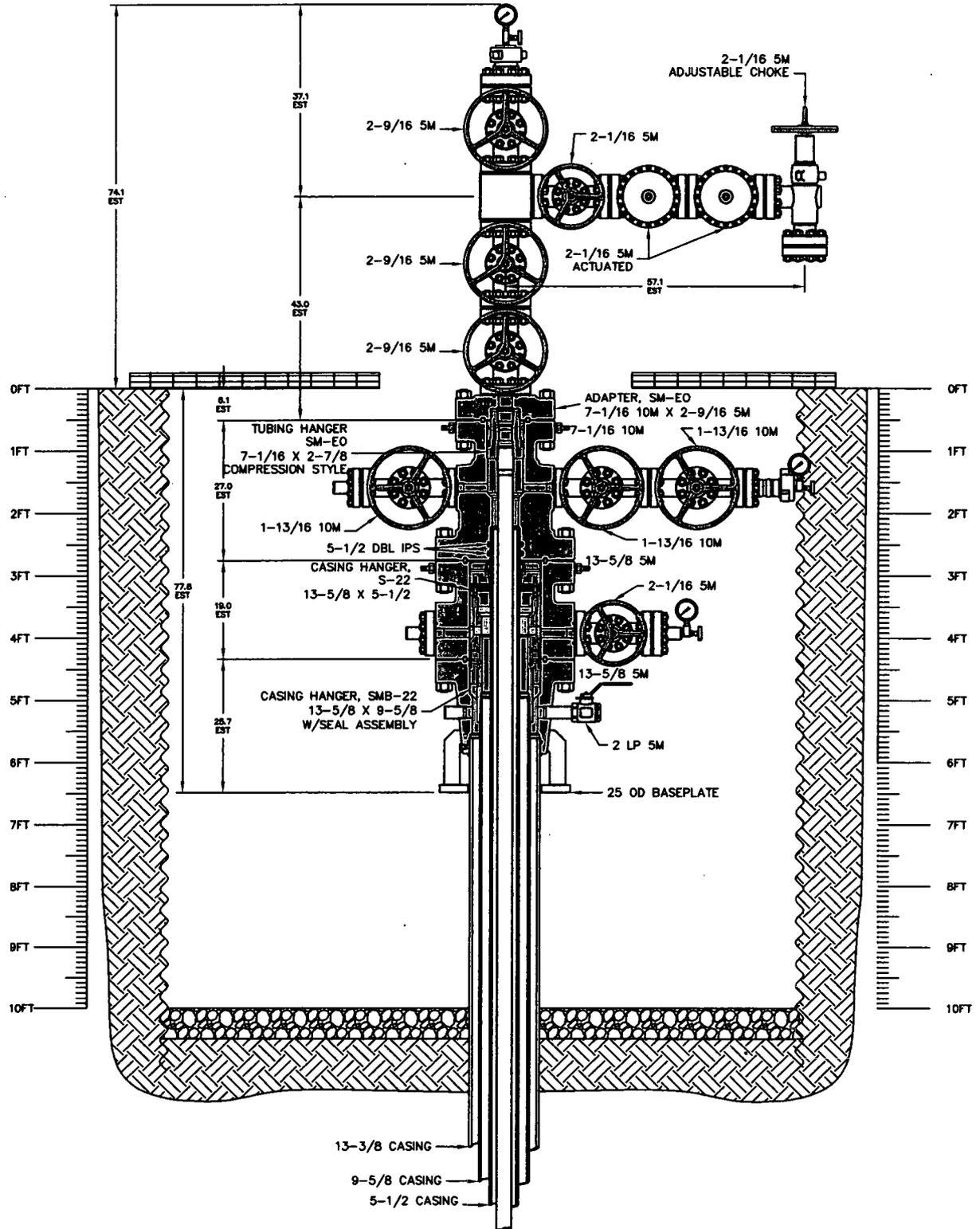
Estimated BHT: 175°

Construction and Drilling:

Road and location construction will begin after BLM approval of APD. Anticipated spud date as soon as approved. Drilling expected to take 25 days. If production casing is run an additional 30 days will be required to complete and construct surface facilities

Exhibit E-7: Wellhead  
 Dr. Ireland Fed Com #131H  
 Matador Resources Company

MATADOR  
 MQ-436



NOTE:  
 DIMENSIONS SHOWN ON THIS DRAWING ARE ESTIMATES ONLY AND CAN VARY SIGNIFICANTLY DEPENDING ON RAW MATERIAL LENGTHS. NO GUARANTEE OF STACKUP HEIGHT IS IMPLIED. DIMENSIONS SHOWN SHOULD BE CONSIDERED FOR REFERENCE PURPOSES ONLY.

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**WEIR**

5,000 PSI WELLHEAD & TREE ASSEMBLY  
 13-3/8 X 9-5/8 X 5-1/2 X 2-7/8

DESIGNED BY: RPL	SCALE: 1:10	DATE: 23SEP16	REV
CHECKED BY:	DRAWING NO. P-21629		
APPROVED BY:			



APD ID: 10400027309

Submission Date: 02/26/2018

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: DR IRELAND FEDERAL

Well Number: 131H

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:

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_24\_S\_20180215153539.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_19\_S\_20180215153538.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_33\_S\_20180215153541.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_25\_S\_20180215153540.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_34\_S\_20180215153541.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_35\_S\_20180215153542.PDF

EP\_DR\_IRELAND\_FED\_COM\_ROAD\_EASEMENT\_36\_S\_20180215153543.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: Caliche cap

Existing Road Improvement Attachment:

### Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

Project\_Area\_APD\_Layout\_20180226\_20180403152202.jpg

New road type: LOCAL

Length: 458

Feet

Width (ft.): 30

Max slope (%): 0

Max grade (%): 1

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**New road access erosion control:** crowned and ditched

**New road access plan or profile prepared?** NO

**New road access plan attachment:**

**Access road engineering design?** NO

**Access road engineering design attachment:**

**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:** grader

**Access other construction information:**

**Access miscellaneous information:**

**Number of access turnouts:**

**Access turnout map:**

### Drainage Control

**New road drainage crossing:** OTHER

**Drainage Control comments:** No drainages present

**Road Drainage Control Structures (DCS) description:** ditches on either side of road

**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:**

map\_of\_existing\_wells\_section\_19\_20180215153852.JPG

**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:**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**Production Facilities map:**

44924p01\_Facility\_Layout\_S1\_20180226\_20180226172015.jpg

Location\_Layout\_20180226172048.pdf

**Section 5 - Location and Types of Water Supply**

**Water Source Table**

**Water source use type:** DUST CONTROL,  
INTERMEDIATE/PRODUCTION CASING, STIMULATION, SURFACE  
CASING

**Water source type:** GW WELL

**Describe type:**

**Source longitude:**

**Source latitude:**

**Source datum:**

**Water source permit type:** PRIVATE CONTRACT

**Source land ownership:** PRIVATE

**Water source transport method:** TRUCKING

**Source transportation land ownership:** PRIVATE

**Water source volume (barrels):** 180000

**Source volume (acre-feet):** 23.200758

**Source volume (gal):** 7560000

**Water source and transportation map:**

Dr.\_Ireland\_Water\_Information\_20180213160448.jpg

**Water source comments:**

**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.):**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**Well Production type:**

**Completion Method:**

**Water well additional information:**

**State appropriation permit:**

**Additional information attachment:**

**Section 6 - Construction Materials**

**Construction Materials description:** Caliche from BLM approved source.

**Construction Materials source location attachment:**

**Section 7 - Methods for Handling Waste**

**Waste type:** DRILLING

**Waste content description:** Drill cuttings, mud, salts, and other chemicals

**Amount of waste:** 2000 barrels

**Waste disposal frequency :** Daily

**Safe containment description:** Steel Tanks

**Safe containmant attachment:**

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

**Disposal type description:**

**Disposal location description:** Halfway, NM

**Reserve Pit**

**Reserve Pit being used?** NO

**Temporary disposal of produced water into reserve pit?**

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

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

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

**Reserve pit liner**

**Reserve pit liner specifications and installation description**

**Cuttings Area**

**Cuttings Area being used?** NO

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

**Description of cuttings location**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**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:**

Location\_Layout\_20180215160333.pdf

**Comments:**

### Section 10 - Plans for Surface Reclamation

**Type of disturbance:** New Surface Disturbance

**Multiple Well Pad Name:** DR IRELAND

**Multiple Well Pad Number:** 4

**Recontouring attachment:**

**Drainage/Erosion control construction:** Crowned and ditched

**Drainage/Erosion control reclamation:** Harrowed on the contour

**Well pad proposed disturbance (acres):** 0

**Well pad interim reclamation (acres):** 0

**Well pad long term disturbance (acres):** 0

**Road proposed disturbance (acres):** 0

**Road interim reclamation (acres):** 0

**Road long term disturbance (acres):** 0

**Powerline proposed disturbance (acres):** 0

**Powerline interim reclamation (acres):** 0

**Powerline long term disturbance (acres):** 0

**Pipeline proposed disturbance (acres):** 0

**Pipeline interim reclamation (acres):** 0

**Pipeline long term disturbance (acres):** 0

**Other proposed disturbance (acres):** 0

**Other interim reclamation (acres):** 0

**Other long term disturbance (acres):** 0

**Total proposed disturbance:** 0

**Total interim reclamation:** 0

**Total long term disturbance:** 0

**Disturbance Comments:**

**Reconstruction method:** Interim reclamation will be completed within 6 months of completing the last well on the pad. Disturbed areas will be contoured to match pre-construction grades. Once the last well is plugged, then the rest of the pad

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

will be similarly reclaimed within 6 months of plugging.

**Topsoil redistribution:** Soil and brush will be evenly spread over disturbed areas and harrowed on the contour. Disturbed areas will be seeded in accordance with the surface owner's requirements.

**Soil treatment:** None planned

**Existing Vegetation at the well pad:**

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

**Existing Vegetation Community at the road:**

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

**Existing Vegetation Community at the pipeline:**

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

**Existing Vegetation Community at other disturbances:**

**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?**

**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:**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**PLS pounds per acre:**

**Proposed seeding season:**

<b>Seed Summary</b>	
<b>Seed Type</b>	<b>Pounds/Acre</b>

**Total pounds/Acre:**

**Seed reclamation attachment:**

**Operator Contact/Responsible Official Contact Info**

**First Name:**

**Last Name:**

**Phone:**

**Email:**

**Seedbed prep:**

**Seed BMP:**

**Seed method:**

**Existing invasive species?** NO

**Existing invasive species treatment description:**

**Existing invasive species treatment attachment:**

**Weed treatment plan description:** To BLM standards

**Weed treatment plan attachment:**

**Monitoring plan description:** To BLM standards

**Monitoring plan attachment:**

**Success standards:** To BLM standards

**Pit closure description:** No pit

**Pit closure attachment:**

**Section 11 - Surface Ownership**

**Disturbance type:** WELL PAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**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:** PRIVATE OWNERSHIP, STATE GOVERNMENT

**Other surface owner description:**

**BIA Local Office:**

**BOR Local Office:**

**COE Local Office:**

**DOD Local Office:**

**NPS Local Office:**

**State Local Office:** CARLSBAD, NM

**Military Local Office:**

**USFWS Local Office:**

**Other Local Office:**

**USFS Region:**

**USFS Forest/Grassland:**

**USFS Ranger District:**

**Disturbance type:** NEW ACCESS ROAD

**Describe:**

**Surface Owner:** PRIVATE OWNERSHIP

**Other surface owner description:**

**BIA Local Office:**

**Operator Name:** MATADOR PRODUCTION COMPANY

**Well Name:** DR IRELAND FEDERAL

**Well Number:** 131H

**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?** NO

**Use APD as ROW?**

**ROW Type(s):**

### **ROW Applications**

**SUPO Additional Information:**

**Use a previously conducted onsite?** YES

**Previous Onsite information:** On site conducted for four slots and water tank with Vance Wolf on 10/5/2017.

### **Other SUPO Attachment**

wells that are scheduled to be drilled in the foreseeable future to Energy Transfer Partners. If changes occur that will affect the drilling and completion schedule, Matador Production Company will notify Energy Transfer Partners. Additionally, the gas produced from the well will be processed at a processing plant further downstream and, although unanticipated, any issues with downstream facilities could cause flaring at the wellhead. The actual flow of the gas will be based on compression operating parameters and gathering system pressures measured when the well starts producing.

### **Flowback Strategy**

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

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

### **Alternatives to Reduce Flaring**

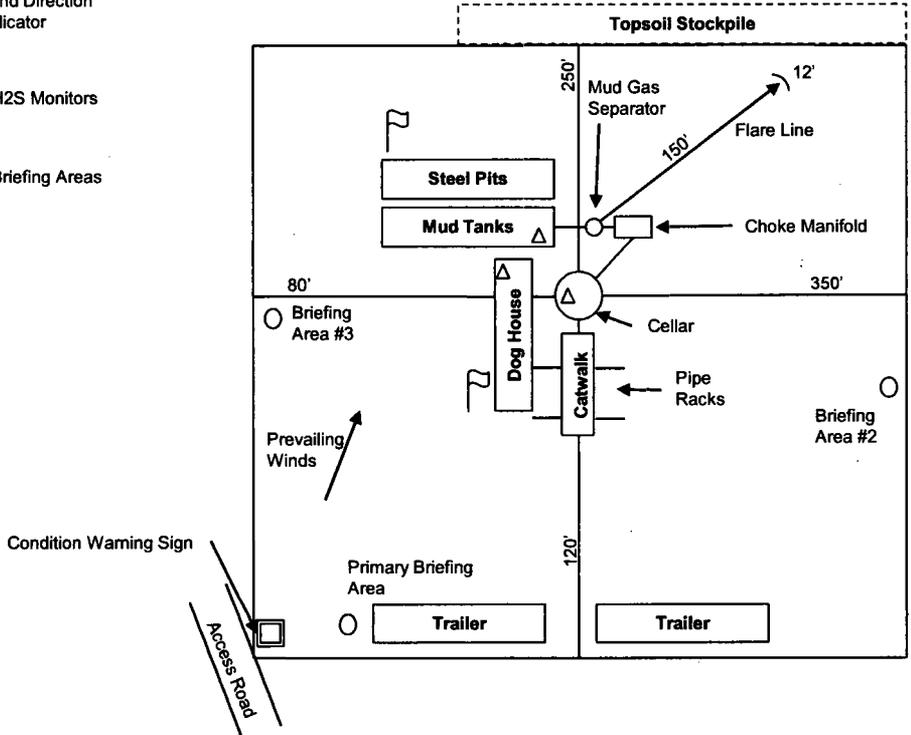
Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Operating a generator will only utilize a portion of the produced gas and the remainder of gas would still need to be flared.
  - Power Company has to be willing to purchase gas back and if they are willing they require a 5 year commitment to supply the agreed upon amount of power back to them. With gas decline rates and unpredictability of markets it is impossible to agree to such long term demands. If the demands are not met then operator is burdened with penalty for not delivering.
- Compressed Natural Gas – On lease
  - Compressed Natural Gas is likely to be uneconomic to operate when the gas volume declines.
- NGL Removal – On lease
  - NGL Removal requires a plant and is expensive on such a small scale rendering it uneconomic and still requires residue gas to be flared.

# Rig Diagram

Exhibit E-3: Rig Diagram  
 Dr. Ireland Fed Com #131H  
 Matador Resources Company  
 19-23S-35E  
 SHL 518' FSL & 251' FWL  
 BHL 240' FNL & 330' FWL  
 Lea County, NM

-  Wind Direction Indicator
-  H2S Monitors
-  Briefing Areas



**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:**

**Assigned injection well API number?**

**Injection well new surface disturbance (acres):**

**Minerals protection information:**

**Mineral protection attachment:**

**Underground Injection Control (UIC) Permit?**

**UIC Permit attachment:**

**Injection well name:**

**Injection well API number:**

### **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 Information**

**Federal/Indian APD: FED**

**BLM Bond number: NMB001079**

**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:**