

Form 3400-5
(March 2012)

OCD Hobbs

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

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

MIN F
SURF P

HOBBS OCD
JUN 20 2018
RECEIVED

1a. Type of work: <input checked="" type="checkbox"/> DRILL <input type="checkbox"/> REENTER		5. Lease Serial No. NMNM135247
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		8. Lease Name and Well No. (320841) NINA CORTELL FED 204H
3b. Phone No. (include area code) (972)371-5200		9. API Well No. 70-025-449128
4. Location of Well (Report location clearly and in accordance with any State requirements. *) At surface SWSE / 150 FSL / 1446 FEL / LAT 32.4139158 / LONG -103.6586985 At proposed prod. zone LOT 1 / 240 FNL / 330 FEL / LAT 32.4273551 / LONG -103.6551294		10. Field and Pool, or Exploratory BILBREY BASIN / BONE SPRING
14. Distance in miles and direction from nearest town or post office* 27 miles		11. Sec., T, R, M. or Blk. and Survey or Area SEC 3 / T22S / R32E / NMP
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drg. unit line, if any) 150 feet	16. No. of acres in lease 439.68	12. County or Parish LEA
17. Spacing Unit dedicated to this well 319.84	13. State NM	
18. Distance from proposed location* to nearest well, drilling, completed, 30 feet applied for, on this lease, ft. 30 feet	19. Proposed Depth 12099 feet / 16949 feet	20. BLM/BIA Bond No. on file FED: NMB001079
21. Elevations (Show whether DF, KDB, RT, GL, etc.) 3790 feet	22. Approximate date work will start* 02/01/2018	23. Estimated duration 90 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:

- | | |
|--|---|
| 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) Brian Wood / Ph: (505)466-8120	Date 12/19/2017
Title President		
Approved by (Signature) (Electronic Submission)	Name (Printed/Typed) Cody Layton / Ph: (575)234-5959	Date 06/06/2018
Title Supervisor Multiple Resources		
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)

GCP Rec 06/20/18

*(Instructions on page 2)

APPROVED WITH CONDITIONS
Approval Date: 06/06/2018

KZ
06/20/18

Double
fidel

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: SWSE / 150 FSL / 1446 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4139158 / LONG: -103.6586985 (TVD: 0 feet, MD: 0 feet)
PPP: NENE / 1320 FNL / 326 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.427355 / LONG: -103.65513 (TVD: 12099 feet, MD: 15879 feet)
PPP: SENE / 2640 FSL / 326 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.420782 / LONG: -103.655106 (TVD: 12099 feet, MD: 14559 feet)
PPP: SWSE / 150 FSL / 1446 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4139158 / LONG: -103.6586985 (TVD: 0 feet, MD: 0 feet)
BHL: LOT 1 / 240 FNL / 330 FEL / TWSP: 22S / RANGE: 32E / SECTION: 3 / LAT: 32.4273551 / LONG: -103.6551294 (TVD: 12099 feet, MD: 16949 feet)

BLM Point of Contact

Name: Katrina Ponder
Title: Geologist
Phone: 5752345969
Email: kponder@blm.gov

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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: SLOT Number: 4

Well Class: HORIZONTAL

Number of Legs: 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 27 Miles

Distance to nearest well: 30 FT

Distance to lease line: 150 FT

Reservoir well spacing assigned acres Measurement: 319.84 Acres

Well plat: NC_204H_Plat_20171219094011.pdf

Well work start Date: 02/01/2018

Duration: 90 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83

Vertical Datum: NAVD88

Survey number: 18329

	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	150	FSL	144 6	FEL	22S	32E	3	Aliquot SWSE	32.41391 58	- 103.6586 985	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	379 0	0	0
KOP Leg #1	150	FSL	144 6	FEL	22S	32E	3	Aliquot SWSE	32.41391 58	- 103.6586 985	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	- 772 5	116 35	115 15
PPP Leg #1	150	FSL	144 6	FEL	22S	32E	3	Aliquot SWSE	32.41391 58	- 103.6586 985	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	379 0	0	0



APD ID: 10400025682

Submission Date: 12/19/2017

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Well Type: OIL WELL

Well Work Type: Drill



Show Final Text

Section 1 - General

APD ID: 10400025682

Tie to previous NOS?

Submission Date: 12/19/2017

BLM Office: CARLSBAD

User: Brian Wood

Title: President

Federal/Indian APD: FED

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

Lease number: NMNM135247

Lease Acres: 439.68

Surface access agreement in place?

Allotted?

Reservation:

Agreement in place? NO

Federal or Indian agreement:

Agreement number:

Agreement name:

Keep application confidential? NO

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: NINA CORTELL FED

Well Number: 204H

Well API Number:

Field/Pool or Exploratory? Field and Pool

Field Name: BILBREY BASIN

Pool Name: BONE SPRING

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



APD ID: 10400025682

Submission Date: 12/19/2017

Operator Name: MATADOR PRODUCTION COMPANY

Highlighted data
reflects the most
recent changes

Well Name: NINA CORTELL FED

Well Number: 204H

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	---	3789	0	0	OTHER : Quaternary	USEABLE WATER	No
2	DEWEY LAKE	3381	408	408	SANDSTONE	USEABLE WATER	No
3	RUSTLER ANHYDRITE	2771	1018	1018		NONE	No
4	SALADO	2404	1385	1385	SALT	NONE	No
5	CASTILE	296	3493	3500	ANHYDRITE	NONE	No
6	BASE OF SALT	-1082	4871	4885		NONE	No
7	BELL CANYON	-1151	4940	4952	SANDSTONE	NATURAL GAS,CO2,OIL	No
8	CHERRY CANYON	-2125	5914	5938	SANDSTONE	NATURAL GAS,CO2,OIL	No
9	BRUSHY CANYON	-3089	6878	6943	SANDSTONE	NATURAL GAS,CO2,OIL	No
10	BONE SPRING	-5087	8876	8995	LIMESTONE	NATURAL GAS,CO2,OIL	No
11	BONE SPRING 1ST	-5807	9596	9718	OTHER : Carbonate	NATURAL GAS,CO2,OIL	No
12	BONE SPRING 1ST	-6182	9971	10090	SANDSTONE	NATURAL GAS,CO2,OIL	No
13	BONE SPRING 2ND	-6445	10234	10353	OTHER : Carbonate	NATURAL GAS,CO2,OIL	No
14	BONE SPRING 2ND	-6711	10500	10619	SANDSTONE	NATURAL GAS,CO2,OIL	No
15	BONE SPRING 3RD	-7252	11041	11160	OTHER : Carbonate	NATURAL GAS,CO2,OIL	No
16	BONE SPRING 3RD	-7803	11592	11771	SANDSTONE	NATURAL GAS,CO2,OIL	No
17	WOLFCAMP	-8212	12001	12214	OTHER : A Carbonate	NATURAL GAS,CO2,OIL	Yes

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Section 2 - Blowout Prevention

Pressure Rating (PSI): 10M

Rating Depth: 12000

Equipment A 12,000-10,000 psi BOP stack consisting of 2 Rams with 7" pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attached BOP, choke manifold, control lines, and speed head diagrams. An annular for complying with Onshore Order's requirements for the BOP stack, pressure rating will be present. Retaining head will be installed as detailed.

Requesting Variance? YES

Matador Production Company requests a variance to drill this well using a tool joint between the BOP and choke manifold. The specific hose is not available, therefore, a hose of equal or higher rating will be used. Operator requests a variance to use a speed head for setting the Intermediate (9-5/8") casing. In the case of running a speed head with landing mandrel for 9-5/8" casing, BOP test pressures after setting and operating will be 250 psi low and 1000 psi high. Annular will be tested to 250 psi low and 1000 psi high before setting below the surface area. The BOPs will not be tested again until after setting 7-1/8" x 7" casing unless any changes are requested. A diagram of the speed head is attached.

Matador Production Company Pressure tests will be conducted before drilling to permit under all casing strings. BOP will be inspected and operated as required by Onshore Order's Kellycote and sub equipped with a full opening valve sized to fit the drill pipe and collar 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, BOPs will be tested to 250 psi low and 1000 psi high. Annular will be tested to 250 psi low and 1000 psi high. After setting 9-5/8" casing, pressure tests will be made to 250 psi low and 1000 psi high. Annular will be tested to 250 psi low and 1000 psi high. After setting 7-1/8" x 7" casing, pressure tests will be made to 250 psi low and 10,000 psi high. Annular will be tested to 250 psi low and 10,000 psi high.

Choke Diagram Attachment:

NC_204H_Choke_20180514162012.pdf

BOP Diagram Attachment:

NC_204_BOP_20171219095442.pdf

Section 3 - Casing

Table with 23 columns: 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. It contains 4 rows of casing data.

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Casing Attachments

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

NC_204H_Casing_Design_Assumptions_20171219095527.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

NC_204H_Casing_Design_Assumptions_20171219095554.pdf

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

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

NC_204H_Casing_Design_Assumptions_20171219095817.pdf

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Casing Attachments

Casing ID: 4 String Type: PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

NC_204H_Casing_Design_Assumptions_20171219095706.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	1200	240	1.82	12.8	436	100	Class C	Bentonite + 2% CaCl2 + 3% NaCl + LCM
SURFACE	Tail		0	1200	839	1.38	14.8	1157	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		0	5000	909	2.13	12.6	1936	100	Class C	Bentonite + 1% CaCl2 + 8% NaCl + LCM
INTERMEDIATE	Tail		0	5000	482	1.38	14.8	665	100	Class C	5% NaCl + LCM
INTERMEDIATE	Lead		0	1243 5	570	2.36	11.5	1345	35	TXI	Fluid Loss + Dispersant + Retarder + LCM
INTERMEDIATE	Tail		0	1243 5	331	1.38	13.2	456	35	TXI	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Lead		0	1694 9	601	1.17	15.8	703	25	TXI	Fluid Loss + Dispersant + Retarder + LCM
PRODUCTION	Tail		0	1694 9	601	1.17	15.8	703	25	TXI	Fluid Loss + Dispersant + Retarder + LCM

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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: An electronic Pason mud monitoring system complying with Onshore Order 1 will be used.

Describe the mud monitoring system utilized: All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions.

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
1243 5	1694 9	OIL-BASED MUD	12.5	12.5							
0	1200	OTHER : Fresh water spud	8.3	8.3							
1200	5000	OTHER : Brine water	10	10							
5000	1243 5	OTHER : Fresh water & cut brine	9	9							

Section 6 - Test, Logging, Coring

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

A 2-person mud logging program will be used from 5000' to TD.

No electric logs are planned at this time. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to TOC.

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

CBL,GR

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Coring operation description for the well:

No core or drill stem test is planned.

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 8000

Anticipated Surface Pressure: 5338.21

Anticipated Bottom Hole Temperature(F): 170

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:

NC_204H_H2S_Plan_20171219100318.pdf

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

NC_204H_Horizontal_Drill_Plan_rdc_20171219133530.pdf

Other proposed operations facets description:

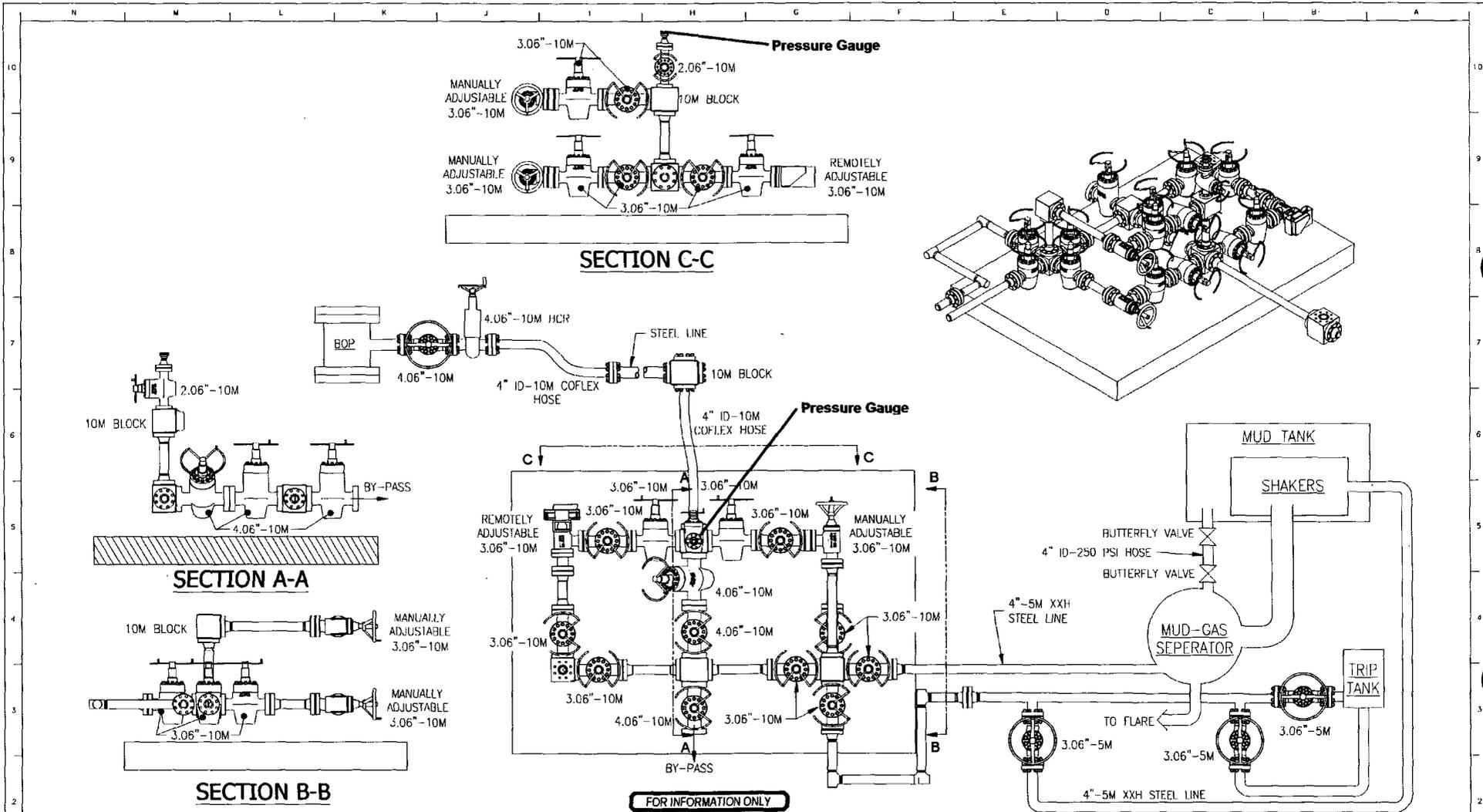
Other proposed operations facets attachment:

NC_204H_Speedhead_Specs_20171219100345.pdf

NC_204H_10M_Well_Control_Plan_20180514160909.pdf

NC_204H_General_Drill_Plan_20180514162139.pdf

Other Variance attachment:



WELDING NOTE & TOLERANCES UNLESS OTHERWISE SPECIFIED.

GENERAL WELDING NOTE:
 ALL ACCESSIBLE CONTACT SURFACES SHALL BE JOINED WITH CONTINUOUS 45 DEGREE FILLET WELDS. WELD SIZE TO BE 1/16 INCH SMALLER THAN THINNER MEMBER JOINED UP TO 5/16 INCH THICKNESS AND 1/8 INCH SMALLER THAN THINNER MEMBER JOINED UP TO 3/8 INCH THICKNESS. WELDMENT TOLERANCES = ±.1/16

MACHINING TOLERANCES
 1 PLACE DECIMAL = ±.1
 2 PLACE DECIMAL = ±.03
 3 PLACE DECIMAL = ±.015
 FRACTIONAL TOLERANCES = 1/64
 INSIDE MACHINED CORNER RADI = ±.031
 CHAMFER OUTSIDE CORNERS .03 X 45 DEG
 ANGLE TOLERANCES = ±1 DEGREE
 MACHINED SURFACE FINISH 125 RMS
 ALL UNSPECIFIED DIMENSIONS ARE IN INCHES

REV	DATE	DESCRIPTION	DRW	CHK	APR'D
1	04/13/2016	ADDED 3RD CHOKE & MULTIPLE VIEWS	RA	JN	JD
0	12/04/2017	ISSUE FOR INFORMATION	JN		

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PATTERSON-UTI
 DRILLING COMPANY LLC

APEX-XK 1500 WALKING

RIG 282
 CHOKE ARRANGEMENT

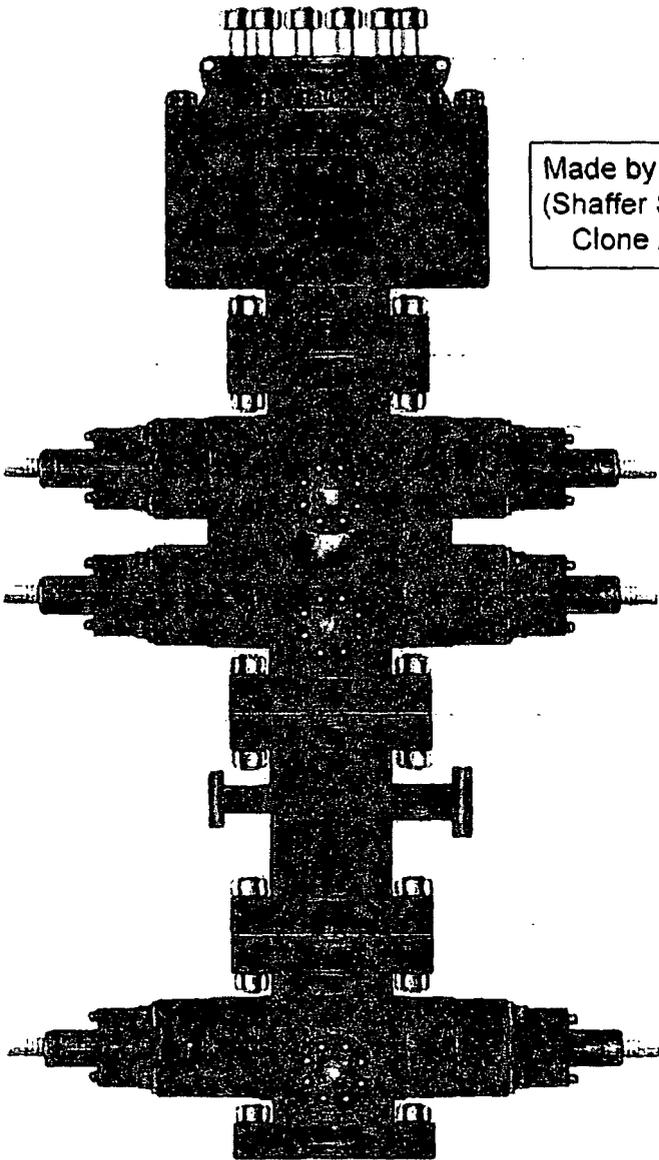
DWG NO: **R282-PIP.001**

REV 1 OF 1



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 STM 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

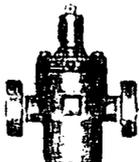
RAMS: 5" Pipe

HEIGHT: 41 5/8" WEIGHT: 13,000 lbs

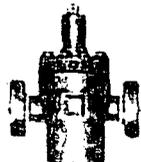
WING VALVES



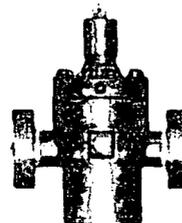
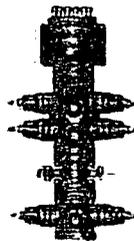
2" Check Valve



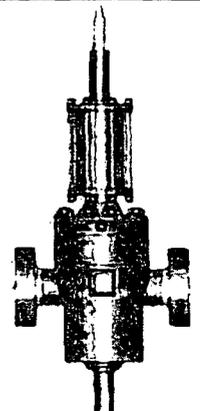
2" Manual Valve



2" Manual Valve



4" Manual Valve



4" Hydraulic Valve



Midwest Hose
& Specialty, Inc.

Internal Hydrostatic Test Graph

December 8, 2014

Customer: Patterson

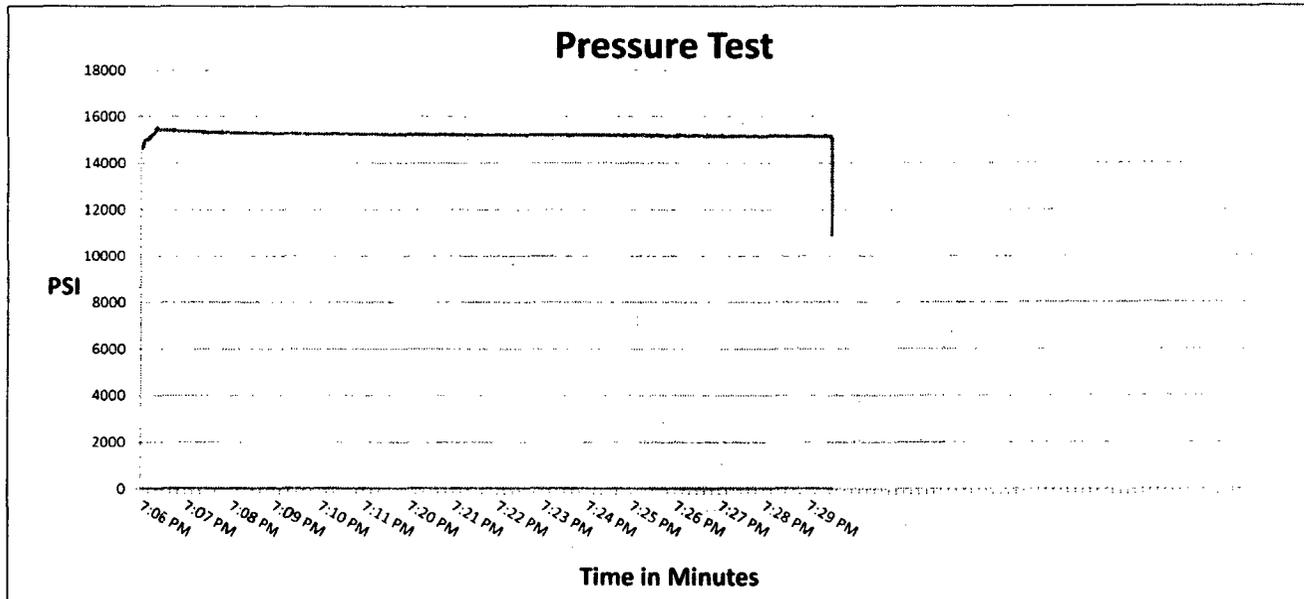
Pick Ticket #: 284918

Hose Specifications

Hose Type	Length
Ck	10'
I.D.	O.D.
3"	4.79"
Working Pressure	Burst Pressure
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"
Hose Serial #	Hose Assembly Serial #
10490	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.

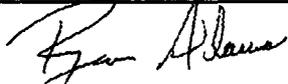
Tested By: Tyler Hill

Approved By: Ryan Adams



Midwest Hose
& Specialty, Inc.

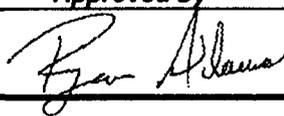
Internal Hydrostatic Test Certificate

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

<i>Customer:</i> PATTERSON B&E	<i>Customer P.O.#</i> 260471
<i>Sales Order #</i> 236404	<i>Date Assembled:</i> 12/8/2014
Specifications	
<i>Hose Assembly Type:</i> Choke & Kill	
<i>Assembly Serial #</i> 287918-2	<i>Hose Lot # and Date Code</i> 10490-01/13
<i>Hose Working Pressure (psi)</i> 10000	<i>Test Pressure (psi)</i> 15000
<p><i>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.</i></p> <p><i>Supplier:</i> Midwest Hose & Specialty, Inc. 3312 S I-35 Service Rd Oklahoma City, OK 73129</p> <p><i>Comments:</i></p>	
Approved By	Date
	12/9/2014



Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

Pick Ticket #: 284918

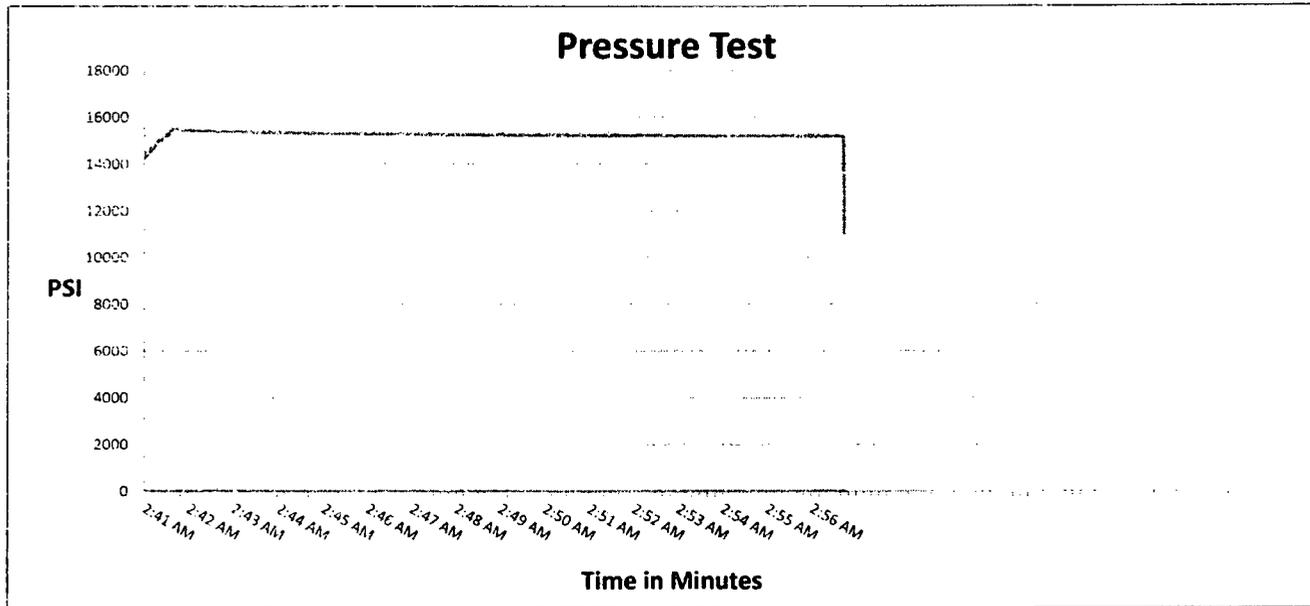
Hose Specifications

Hose Type	Length
Ck	20'
I.D.	O.D.
3"	4.77"
Working Pressure	Burst Pressure
10000 PSI	Standard Safety Multiplier Applies

Verification

Type of Fitting	Coupling Method
4-1/16 10K	Swage
Die Size	Final O.D.
5.37"	5.40"
Hose Serial #	Hose Assembly Serial #
10490	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

[Signature]

Approved By: Ryan Adams

[Signature]



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	12/9/2014	Tested By	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 # **287918-1**

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



Midwest Hose & Specialty, Inc.

Internal Hydrostatic Test Graph

December 9, 2014

Customer: Patterson

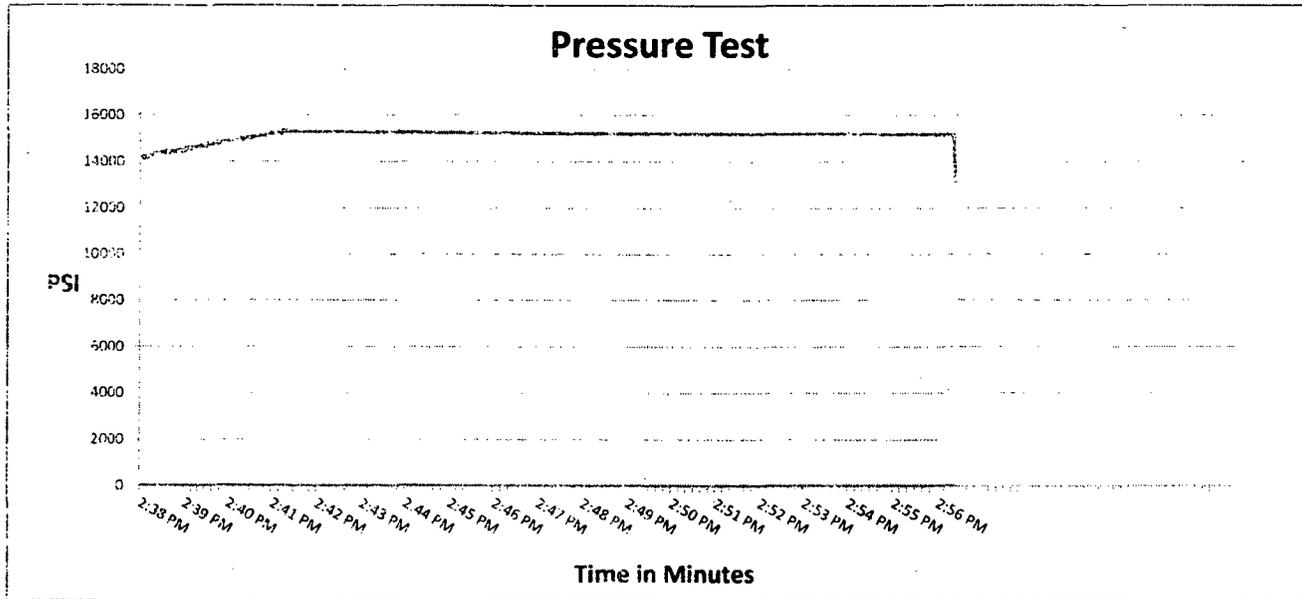
Pick Ticket #: 284918

Hose Specifications

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

Verification

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

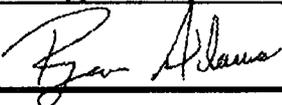
Internal Hydrostatic Test Certificate

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	Approved By	
12/9/2014			



Midwest Hose
& Specialty, Inc.

Certificate of Conformity

<i>Customer:</i> PATTERSON B&E	<i>Customer P.O.#</i> 260471
<i>Sales Order #</i> 236404	<i>Date Assembled:</i> 12/8/2014
Specifications	
<i>Hose Assembly Type:</i> Choke & Kill	
<i>Assembly Serial #</i> 287918-3	<i>Hose Lot # and Date Code</i> 10490-01/13
<i>Hose Working Pressure (psi)</i> 10000	<i>Test Pressure (psi)</i> 15000
<p><i>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.</i></p> <p><i>Supplier:</i> Midwest Hose & Specialty, Inc. 3312 S I-35 Service Rd Oklahoma City, OK 73129</p> <p><i>Comments:</i></p>	
<i>Approved By</i> 	<i>Date</i> 12/9/2014

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 #1 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).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial 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. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- 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: 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 (0.47 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 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be 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.
- 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 (0.47 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).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 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 (0.65 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 (0.65 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 (0.65 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 (12.5 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 #1 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).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial 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. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- 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: 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 (0.47 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 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be 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.
- 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 (0.47 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).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 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 (0.65 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 (0.65 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 (0.65 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 (12.5 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 #1 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).

Intermediate #2 Casing

Collapse: $DF_c=1.125$

- Partial 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. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

- 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: 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 (0.47 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 100 bbl kick with Drill Pipe inside casing and mud gradient with which the next hole section will be run above that (0.65 psi/ft). External force will be 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.
- 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 (0.47 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).

Production Casing

Collapse: $DF_c=1.125$

- Full Internal Evacuation: Collapse force equal to the mud gradient in which the casing will be run (0.65 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 (0.65 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 (0.65 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 (0.65 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 (12.5 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 #1 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).

Intermediate #2 Casing

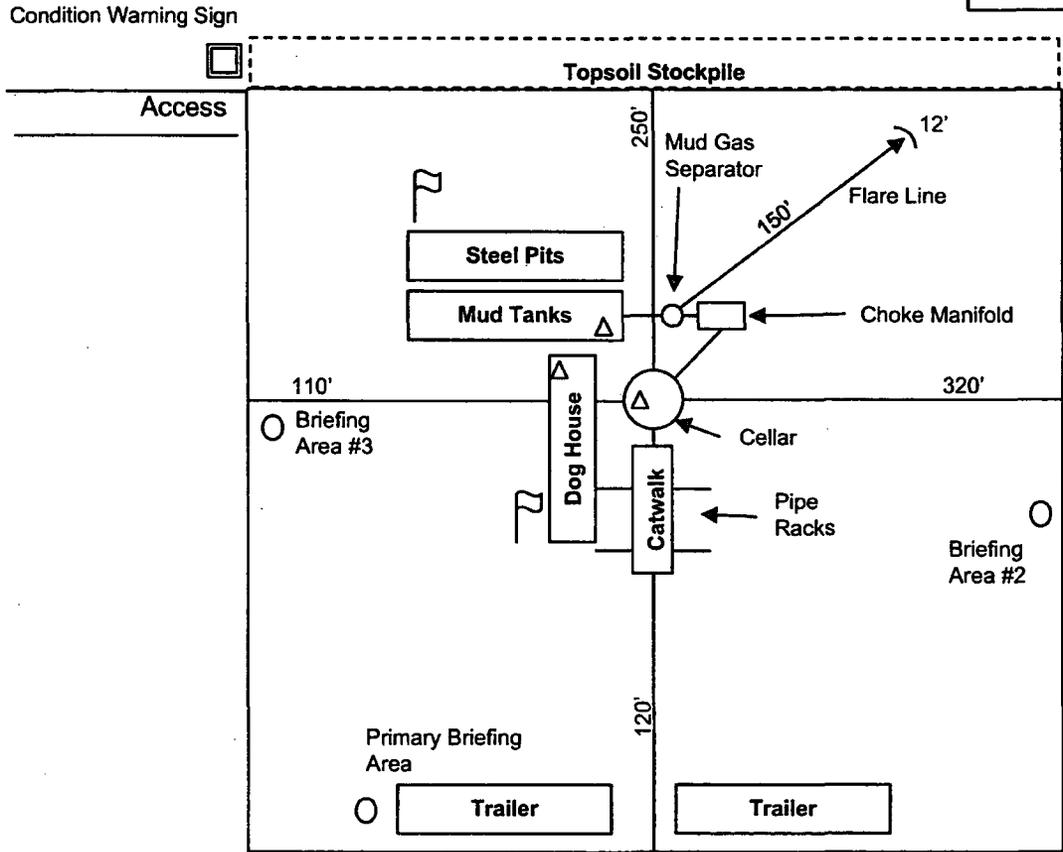
Collapse: $DF_c=1.125$

- Partial 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. Internal force equal to gas gradient over half of setting depth and mud gradient with which the next hole section will be run below that (0.65 psi/ft).

H2S Rig Diagram

Nina Cortell Fed Com 204H
 SHL 150' FSL & 1416' FEL
 3-22S-32E Lea County, NM
 (not to scale)

-  Wind Direction Indicator
-  H2S Monitors
-  Briefing Areas



North
 ↑
 Prevailing Winds Out Of South

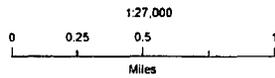


Matador Production Company

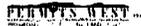
Nina Cortell Fed Com #204H
H₂S Contingency Plan:
2 Mile Radius Map

Section 3, Township 22S, Range 32E
Lea County, New Mexico

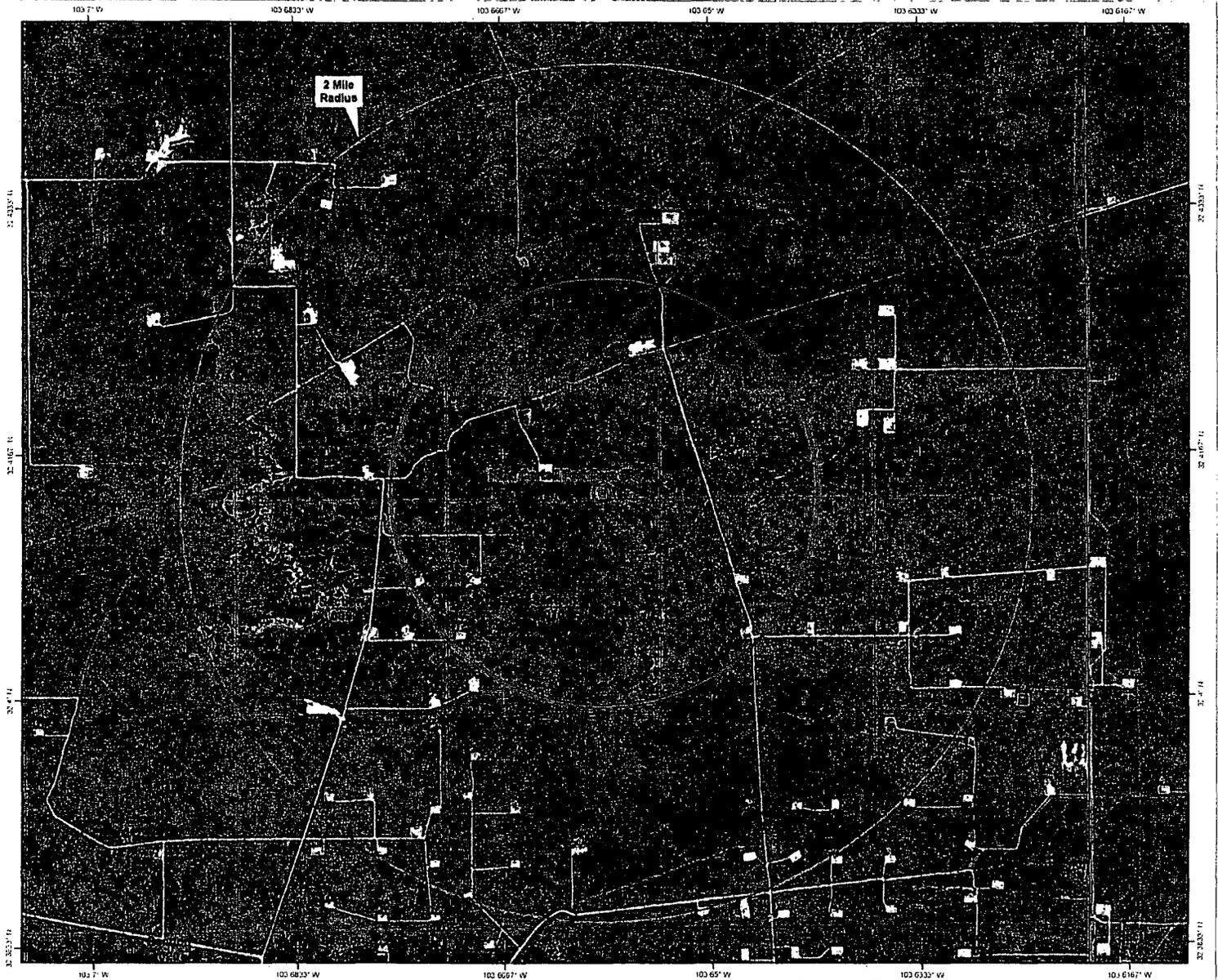
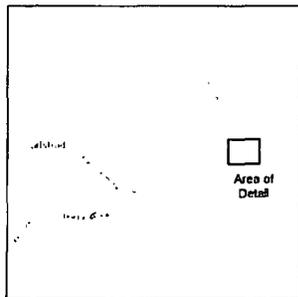
 Surface Hole Location



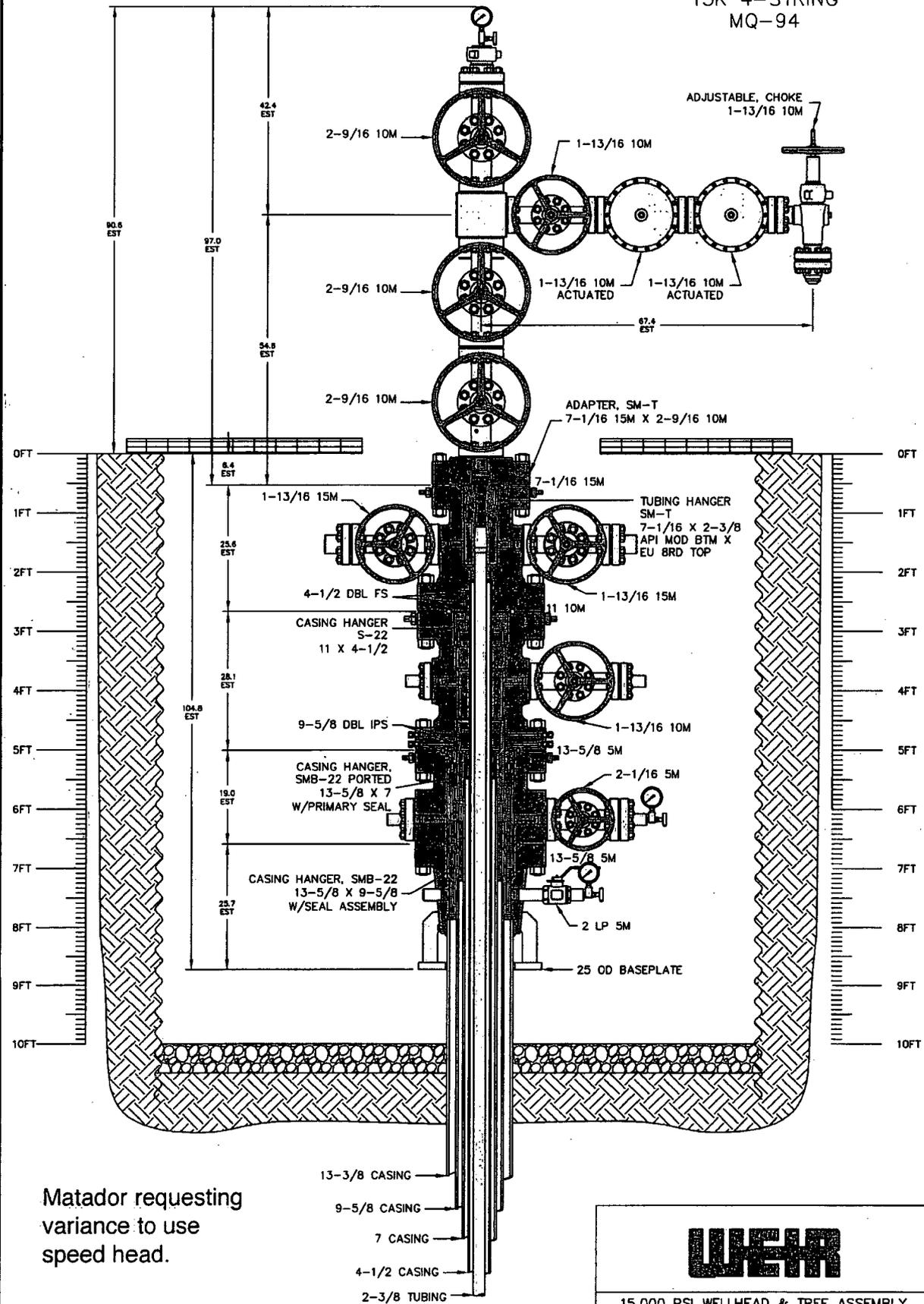
NAD 1983 New Mexico State Plane East
FIPS 3001 Feet



Prepared by Permits West, Inc., November 15, 2017
for Matador Production Company



MATADOR
15K 4-STRING
MQ-94



Matador requesting
variance to use
speed head.

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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15,000 PSI WELLHEAD & TREE ASSEMBLY
13-3/8 X 9-5/8 X 7 X 4-1/2 X 2-3/8

DESIGN BY: RPL	SCALE: 1:10	DATE: 18JAN16	REV:
CHECKED BY:	DRAWING NO. P-20986		
APPROVED BY:			

For the latest performance data, always visit our website: www.tenaris.com

December 31 2015



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

Size: 4.500 in.
 Wall: 0.290 in.
 Weight: 13.50 lbs/ft
 Grade: P110-ICY
 Min. Wall Thickness: 87.5 %

Nominal OD	4.500 in.	Nominal Weight	13.50 lbs/ft	Standard Drift Diameter	3.795 in.
Nominal ID	3.920 in.	Wall Thickness	0.290 in.	Special Drift Diameter	N/A
Plain End Weight	13.05 lbs/ft				
Body Yield Strength	479 x 1000 lbs	Internal Yield	14100 psi	SMYS	125000 psi
Collapse	11620 psi				
Connection OD	5.000 in.	Coupling Length	9.075 in.	Connection ID	3.908 in.
Critical Section Area	3.836 sq. in.	Threads per in.	5.00	Make-Up Loss	4.016 in.
Tension Efficiency	100 %	Joint Yield Strength	479 x 1000 lbs	Internal Pressure Capacity ⁽¹⁾	14100 psi
Structural Compression Efficiency	100 %	Structural Compression Strength	479 x 1000 lbs	Structural Bending ⁽²⁾	127' /100 ft
External Pressure Capacity	11620 psi				
Minimum	6950 ft-lbs	Optimum	7720 ft-lbs	Maximum	8490 ft-lbs
Operating Torque	10500 ft-lbs	Yield Torque	12200 ft-lbs		
<u>Blanking Dimensions</u>					



Well Control Plan For 10M MASP Section of Wellbore

Component and Preventer Compatibility Table:

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

Component	OD	Preventer	RWP
Drill pipe	4"	Lower 3.5-5.5" VBR Upper 3.5-5.5" VBR	10M
HWDP	4"		
Jars/Agitator	4.75-5"		
Drill collars and MWD tools	4.75-5.25"		
Mud Motor	4.75-5.25"		
Production casing	4.5-5.5"		
ALL	0-13.625"	Annular	5M
Open-hole	-	Blind Rams	10M

VBR = Variable Bore Ram with compatible range listed in chart

HWDP = Heavy Weight Drill Pipe

MWD = Measurement While Drilling

Well Control Procedures

Well control procedures are specific to the rig equipment and the operation at the time the kick occurs. Below are the minimal high-level tasks prescribed to assure a proper shut-in while drilling, tripping, running casing, pipe out of the hole (open hole), and moving the Bottom Hole Assembly (BHA) through the Blowout Preventers (BOP). The maximum pressure at which well control is transferred from the annular to another compatible ram is 3,000 psi.

General Procedure While Drilling

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps and stop rotary
4. Shut-in well with the annular preventer (The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close



Well Control Plan For 10M MASP Section of Wellbore

3. Space out drill string
4. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab crossover and full opening safety valve and close
3. Space out string
4. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher and company representative
7. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
8. Regroup and identify forward plan
9. If pressure has increased or is anticipated to increase above 3,000 psi, confirm spacing and close the upper pipe rams

General Procedure with No Pipe In Hole

1. At any point when the BOP stack is clear of pipe or BHA, the well will be shut in with blind rams, the HCR valve will be open, and choke will be closed. If pressure increase is observed:
2. Sound alarm (alert crew)
3. Confirm shut-in
4. Notify tool pusher and company representative
5. Read and record the following:
 - SICP
 - Time of shut in
6. Regroup and identify forward plan

General Procedure While Pulling BHA through Stack

1. Prior to pulling last joint/stand of drill pipe through the stack, perform flow check. If flowing:
 - a. Sound alarm (alert crew)
 - b. Stab full opening safety valve and close
 - c. Space out drill string
 - d. Shut-in well with annular preventer (The HCR valve and choke will already be in the closed position)
 - e. Confirm shut-in



Well Control Plan For 10M MASP Section of Wellbore

- f. Notify tool pusher and company representative
 - g. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
 - h. Regroup and identify forward plan
2. With BHA in the stack and compatible ram preventer and pipe combo immediately available:
- a. Sound alarm (alert crew)
 - b. Stab crossover and full opening safety valve and close
 - c. Space out drill string with the upset just beneath the compatible pipe ram
 - d. Shut-in well using compatible pipe rams (The HCR valve and choke will already be in the closed position)
 - e. Confirm shut-in
 - f. Notify tool pusher and company representative
 - g. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
 - h. Regroup and identify forward plan
3. With BHA in the stack and no compatible ram preventer and pipe combo immediately available:
- a. Sound alarm (alert crew)
 - b. If possible to pick up high enough, pull BHA clear of the stack
 - i. Follow "No Pipe in Hole" procedure above
 - c. If impossible to pick up high enough to pull string clear of the stack:
 - i. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
 - ii. Space out drill string with the upset just beneath the compatible pipe ram
 - iii. Shut-in well using compatible pipe rams (The HCR valve and choke will already be in the closed position)
 - iv. Confirm shut-in
 - v. Notify tool pusher and company representative
 - vi. Read and record the following:
 - SIDPP and SICP
 - Pit gain
 - Time of shut in
 - vii. Regroup and identify forward plan

Well Control Drills

Well control drills are specific to the rig equipment, personnel, and operations. Each crew will execute one drill weekly relevant to ongoing operations, but will make a reasonable attempt to vary the type of drills. The drills will be recorded in the daily drilling log.

Drilling Program

1. ESTIMATED TOPS

Formation Name	TVD	MD	Bearing
Quaternary	000'	000'	water
Dewey Lake sandstone	408'	408'	water
Rustler anhydrite	1018'	1018'	N/A
Salado salt	1385'	1385'	N/A
Castile anhydrite	3493'	3500'	N/A
Base salt	4871'	4885'	N/A
Bell Canyon sandstone	4940'	4952'	hydrocarbons
Cherry Canyon sandstone	5914'	5938'	hydrocarbons
Brushy Canyon sandstone	6878'	6943'	hydrocarbons
Bone Spring limestone	8876'	8995'	hydrocarbons
1 st Bone Spring carbonate	9596'	9718'	hydrocarbons
1 st Bone Spring sandstone	9971'	10090'	hydrocarbons
2 nd Bone Spring carbonate	10234'	10353'	hydrocarbons
2nd Bone Spring sandstone	10500'	10619'	hydrocarbons
3 rd Bone Spring carbonate	11041'	11160'	hydrocarbon
(KOP	11531'	11650'	hydrocarbons)
3 rd Bone Spring sandstone	11592'	11771'	hydrocarbon
Wolfcamp A carbonate	12001'	12214'	Hydrocarbons & goal
TD	12099'	16949'	hydrocarbons

2. NOTABLE ZONES

Wolfcamp is the goal. Hole will extend north of the last perforation point to allow for pump installation. All perforations will be $\geq 330'$ from the dedication perimeter. Closest water well (C 03717) is 7094' west. Water bearing strata were found at 620' - 630' in the 650' deep well.

3. PRESSURE CONTROL

A 12,000' 10,000-psi BOP stack consisting of 3 rams with 2 pipe rams, 1 blind ram, and 1 annular preventer will be used below surface casing to TD. See attached BOP, choke manifold, co-flex hose, and speed head diagrams.

**Matador Production Company
Nina Cortell Fed Com 204H
SHL 150' FSL & 1446' FEL
BHL 240' FNL & 330' FEL
Sec. 3, T. 22 S., R. 32 E., Lea County, NM**

DRILL PLAN PAGE 2

An accumulator complying with Onshore Order 2 requirements for the BOP stack pressure rating will be present. Rotating head will be installed as needed.

Testing Procedure

Pressure tests will be conducted before drilling out from under all casing strings. BOP will be inspected and operated as required in Onshore Order 2. 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, BOPE will be tested to 250 psi low and 2000 psi high. Annular will be tested to 250 psi low and 1000 psi high. After setting 9-5/8" casing, pressure tests will be made to 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high. After setting 7-5/8" x 7" Casing, pressure tests will be made to 250 psi low and 10,000 psi high. Annular will tested to 250 psi low and 5000 psi high.

Variance Request

Matador 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. Manufacturer does not require the hose to be anchored. If the specific hose is not available, then one of equal or higher rating will be used.

Operator requests a variance to use a 5M Annular and test to 250 psi low and 5000 psi high. Matador is requesting a variance to use a speed head for setting the intermediate (9-5/8") casing. In the case of running a speed head with landing mandrel for 9-5/8" casing, BOP test pressures after setting surface casing will be 250 psi low and 5000 psi high. Annular will be tested to 250 psi low and 2500 psi high before drilling below the surface shoe. The BOPs will not be tested again until after setting 7-5/8" x 7" casing unless any flanges are separated. A diagram of the speed head is attached.

4. CASING & CEMENT

All casing will be API and new. See attached casing assumption worksheet.

Hole O. D.	Set MD	Set TVD	Casing O. D.	Weight (lb/ft)	Grade	Joint	Collapse	Burst	Tension
17.5"	0' - 1200'	0' - 1200'	13.375" surface	54.5	J-55	BTC	1.125	1.125	1.8
12.25"	0' - 5000'	0' - 4988'	9.625" inter. 1	40	J-55	BTC	1.125	1.125	1.8
8.75"	0' - 12435'	0' - 12080'	7.0" inter. 2	29	P-110	BTC	1.125	1.125	1.8
6.125"	0' - 16949'	0' - 12099'	4.5" product.	13.5	P-110	BTC/TXP	1.125	1.125	1.8

Name	Type	Sacks	Yield	Cu. Ft.	Weight	Blend
Surface	Lead	240	1.82	436	12.8	Class C + Bentonite + 2% CaCl ₂ + 3% NaCl + LCM
	Tail	839	1.38	1157	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			Centralizers per Onshore Order 2.III.B.1f	
Intermediate 1	Lead	909	2.13	1936	12.6	Class C + Bentonite + 1% CaCl ₂ + 8% NaCl + LCM
	Tail	482	1.38	665	14.8	Class C + 5% NaCl + LCM
TOC = GL		100% Excess			2 on btm jt, 1 on 2nd jt, 1 every 4th jt to surface	
Intermediate 2	Lead	570	2.36	1345	11.5	TXI + Fluid Loss + Dispersant + Retarder + LCM
	Tail	331	1.38	456	13.2	TXI + Fluid Loss + Dispersant + Retarder + LCM
TOC = 4000'		35% Excess			2 on btm jt, 1 on 2nd jt, 1 every other jt to top of tail cement (500' above TOC)	
Production	Tail	601	1.17	703	15.8	Class H + Fluid Loss + Dispersant + Retarder + LCM
TOC = 11900'		25% Excess			2 on btm jt, 1 on 2nd jt, 1 every third jt to top of curve	

5. MUD PROGRAM

An electronic Pason mud monitoring system complying with Onshore Order 1 will be used. All necessary mud products (barite, bentonite, LCM) for weight addition and fluid loss control will be on location at all times. Mud program is subject to change due to hole conditions. A closed loop system will be used.

Type	Interval (MD)	lb/gal	Viscosity	Fluid Loss
fresh water spud	0' - 1200'	8.3	28	NC
brine water	1200' - 5000'	10.0	30-32	NC
fresh water & cut brine	5000' - 12435'	9.0	30-31	NC
OBM	12435' - 16949'	12.5	50-60	<10

6. CORES, TESTS, & LOGS

No core or drill stem test is planned. A 2-person mud logging program will be used from ≈5000' to TD. No electric logs are planned at this time. GR will be collected through the MWD tools from intermediate casing to TD. CBL with CCL will be run as far as gravity will let it fall to TOC.

7. DOWN HOLE CONDITIONS

No abnormal pressure or temperature is expected. Maximum expected bottom hole pressure is ≈8000 psi. Expected bottom hole temperature is ≈170° F.

In accordance with Onshore Order 6, Matador does not anticipate that there will be enough H₂S from the surface to the Bone Spring to meet the BLM's minimum requirements for the submission of an "H₂S Drilling Operation Plan" or "Public Protection Plan" for drilling and completing this well. Since Matador has an H₂S safety package on all wells, an "H₂S Drilling Operations Plan" is attached. 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.

8. OTHER INFORMATION

**Matador Production Company
Nina Cortell Fed Cqm 204H
SHL 150' FSL & 1446' FEL
BHL 240' FNL & 330' FEL
Sec. 3, T. 22 S., R. 32 E., Lea County, NM**

DRILL PLAN PAGE 5

Anticipated spud date is upon approval. It is expected it will take ≈3 months to drill and complete the well.



APD ID: 10400025682

Submission Date: 12/19/2017

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Well Type: OIL WELL

Well Work Type: Drill



Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

NC_204H_Road_Map_20171219101419.pdf

Existing Road Purpose: ACCESS

Row(s) Exist? NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

NC_204H_New_Road_Map_20171219101457.pdf

New road type: RESOURCE

Length: 1450.21 Feet

Width (ft.): 30

Max slope (%): 0

Max grade (%): 5

Army Corp of Engineers (ACOE) permit required? NO

ACOE Permit Number(s):

New road travel width: 14

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:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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: Upgrading will consist of draining and/or patching ten potholes with caliche. The potholes are located (from east to west and in NAD 83) at: 32.41494, -103.67654 32.41504, -103.67879 32.41512, -103.68060 32.41702, -103.68328 32.41873, -103.68333 32.42312, -103.68326 32.42402, -103.68326 32.42804, -103.68354 32.43641, -103.68974 32.43644, -103.69497

Access miscellaneous information:

Number of access turnouts:

Access turnout map:

Drainage Control

New road drainage crossing: OTHER

Drainage Control comments: Crowned and ditched

Road Drainage Control Structures (DCS) description: None

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:

NC_204H_Well_Map_20171219101526.pdf

Existing Wells description:

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

Submit or defer a Proposed Production Facilities plan? DEFER

Estimated Production Facilities description: No pipeline or power line plans have been finalized at this time. Production equipment will be located on the south side of the pad.

Section 5 - Location and Types of Water Supply

Water Source Table

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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: PIPELINE

Source transportation land ownership: STATE

Water source volume (barrels): 20000

Source volume (acre-feet): 2.577862

Source volume (gal): 840000

Water source and transportation map:

NC_204H_Water_Source_Map_20171219101610.pdf

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.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Section 6 - Construction Materials

Construction Materials description: NM One Call (811) will be notified before construction starts. A straw wattle will be installed south of the pad before moving earth to protect an arroyo. A stock water pipeline crossing the NE corner of the pad will be rerouted to the surface owner's satisfaction. A jeep trail that parallels the pipeline will be posted and gated where it crosses the pad to discourage oilfield traffic. Top 6" of soil and brush will be stockpiled north of the pad. V-door will face south. Closed loop drilling system will be used. Caliche will be hauled from an existing caliche pit on private (Mills) land in E2NE4 3-22s-32e.

Construction Materials source location attachment:

NC_204H_Construction_Methods_20171219101624.pdf

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: R360's state approved (NM-01-0006) disposal site at 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? YES

Description of cuttings location Steel tanks on pad

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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:

NC_204H_Well_Site_Layout_20171219101642.pdf

Comments:

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance

Multiple Well Pad Name: SLOT

Multiple Well Pad Number: 4

Recontouring attachment:

NC_204H_Recontour_Plant_20171219101716.pdf

NC_204H_Interim_Reclamation_Diagram_20171219101744.pdf

Drainage/Erosion control construction: Crowned and ditched

Drainage/Erosion control reclamation: Harrowed on the contour

Well pad proposed disturbance (acres): 3.65

Well pad interim reclamation (acres): 0.73

Well pad long term disturbance (acres): 2.92

Road proposed disturbance (acres): 1

Road interim reclamation (acres): 0

Road long term disturbance (acres): 1

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: 4.65

Total interim reclamation: 0.73

Total long term disturbance: 3.92

Disturbance Comments:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Reconstruction method: Interim reclamation will be completed within 6 months of completing the well. Interim reclamation will consist of shrinking the pad 20% (0.73 acre) by removing caliche and reclaiming a 100' x 320' area on the northeast corner of the pad. This will leave 2.92 acres for production equipment (e. g., tank battery, heater-treaters, separators, flare/CBU, pump jacks), and tractor-trailer turn around. Disturbed areas will be contoured to match pre-construction grades. 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 owners' requirements.

Topsoil redistribution: Enough stockpiled topsoil will be retained to cover the remainder of the pad when the well is plugged. Once the last well is plugged, then the rest of the pad and 1450.21' of new road will be similarly reclaimed within 6 months of plugging. Noxious weeds will be controlled.

Soil treatment: None

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?

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project?

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:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

Source phone:

Seed cultivar:

Seed use location:

PLS pounds per acre:

Proposed seeding season:

Seed Summary	
Seed Type	Pounds/Acre

Total pounds/Acre:

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name:

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 State Land Office/BLM standards

Weed treatment plan attachment:

Monitoring plan description: To State Land Office/BLM standards

Monitoring plan attachment:

Success standards: To State Land Office/BLM satisfaction

Pit closure description: No Pit

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: EXISTING ACCESS ROAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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:

Fee Owner: Jimmy Mills Trust

Fee Owner Address: 1602 Ave. J Abernathy TX 79311

Phone: (806)298-2752

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: See attachment

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

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:

NPS Local Office:

State Local Office:

Military Local Office:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Fee Owner: Jimmy Mills Trust

Fee Owner Address: 1602 Ave J, Abernathy TX 79311

Phone: (806)298-2752

Email:

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: Agreement

Surface Access Agreement Need description: See attachment

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Disturbance type: NEW ACCESS ROAD

Describe:

Surface Owner: STATE GOVERNMENT

Other surface owner description:

BIA Local Office:

BOR Local Office:

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office: NM STATE LAND OFFICE, PO BOX 1148, SANTA FE NM 87504

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland:

USFS Ranger District:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

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 inspection was held with Vance Wolf (BLM) on June 2, 2017. Lone Mountain will inspect and file an archaeology report.

Other SUPO Attachment

NC_204H_General_SUPO_20171219101835.pdf

NC_204H_Surface_Use_Agreement_20171219101919.pdf

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:

Operator Name: MATADOR PRODUCTION COMPANY

Well Name: NINA CORTELL FED

Well Number: 204H

	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	264 0	FSL	326	FEL	22S	32E	3	Aliquot SENE 2	32.42078 2	- 103.6551 06	LEA	NEW MEXI CO	NEW MEXI CO	F	FEE	- 830 9	145 59	120 99
PPP Leg #1	132 0	FNL	326	FEL	22S	32E	3	Aliquot NENE 5	32.42735 5	- 103.6551 3	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	- 830 9	158 79	120 99
EXIT Leg #1	240	FNL	330	FEL	22S	32E	3	Lot 1	32.42735 51	- 103.6551 294	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	- 830 9	169 49	120 99
BHL Leg #1	240	FNL	330	FEL	22S	32E	3	Lot 1	32.42735 51	- 103.6551 294	LEA	NEW MEXI CO	NEW MEXI CO	F	NMNM 135247	- 830 9	169 49	120 99