

District I
1625 N. French Dr. Hobbs NM 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
District II
811 S. First St., Artesia, NM 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
District III
1000 Rio Brazos Road, Aztec, NM 87410
Phone: (505) 334-6174 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico

Form C-101
Revised July 18, 2013

NM OIL CONSERVATION
ARTESIA DISTRICT

FEB 20 2015

RECEIVED

Energy Minerals and Natural Resources

Oil Conservation Division

1220 South St. Francis Dr.

Santa Fe, NM 87505

☐ AMENDED REPORT

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZONE

Operator Name and Address Mack Energy Corporation P.O. Box 960, Artesia, NM 88211-0960		OGRID Number 013837
Property Code 314327	Property Name Den SWD	Well No. 1

Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	25	23S	27E		330	South	1320	East	Eddy

Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

Pool Information

Pool Name SWD; Bell Canyon, Cherry Canyon	Pool Code 96802
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Additional Well Information

Work Type New	Well Type SWD	Cable/Rotary	Lease Type Fee	Ground Level Elevation 3115'
Multiple NO	Proposed Depth 4600'	Formation Bell Canyon and Cherry Canyon	Contractor	Spud Date 3/1/2015
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☒ We will be using a closed-loop system in lieu of lined pits

Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
J-55	12 1/4	8 5/8"	32	1575'	800sx	0
L-80	7 7/8	5 1/2"	17	4,600	750sx	0

Casing/Cement Program: Additional Comments

Drill a 12 1/4" hole to 1,575', run 8 5/8" casing and cement. Drill a 7 7/8" hole to 4,600', run 5 1/2" casing and cement. Put well on injection
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Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Double Ram	3000	3000	

I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify that I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☐ , if applicable. Signature: <i>Deana Weaver</i>	OIL CONSERVATION DIVISION	
	Approved By: <i>ADado</i>	
Printed name Deana Weaver	Title <i>Dist R Supervisor</i>	
Title Production Clerk	Approved Date: <i>3/18/2015</i>	Expiration Date: <i>3/18/2017</i>
E-mail Address dweaver@mec.com		
Date <i>2.18.15</i>	Phone 575-748-1288	Conditions of Approval Attached

District I
1625 S. French Dr., Hobbs, NM 88241
Phone: (505) 393-1061 Fax: (505) 393-7720
District II
3115 S. First St., Artesia, NM 88210
Phone: (505) 745-4253 Fax: (505) 745-7720
District III
1050 Rio Hachas Blvd., Artesia, NM 88210
Phone: (505) 334-6175 Fax: (505) 334-6470
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-4100 Fax: (505) 476-3402

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

¹ API Number 30-015-42990		² Pool Code 96802	³ Pool Name SWD; Bell Canyon - Cherry Canyon
⁴ Property Code 314327	⁵ Property Name DEN SWD		⁶ Well Number 1
⁷ OGRID No. 13837	⁸ Operator Name MACK ENERGY CORPORATION		⁹ Elevation 3115.0

" Surface Location

UT. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
P	25	23 S	27 E		330	SOUTH	1320	EAST	EDDY

" Bottom Hole Location If Different From Surface

UT. or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

¹⁰ Dedicated Acres 40	¹¹ Joint or Infill	¹² Consolidation Code	¹³ Order No.
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No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

N89°52'29"E 2653.07 FT SW CORNER SEC. 25 LAT. = 32.2634089°N LONG. = 104.1352377°W NMSP EAST (FT) N = 466884.08 E = 597239.35 NOTE: LATITUDE AND LONGITUDE COORDINATES ARE SHOWN USING THE NORTH AMERICAN DATUM OF 1983 (NAD83). LISTED NEW MEXICO STATE-PLANE EAST COORDINATES ARE SPIC (NAD83) BASIS OF BEARING AND DISTANCES USED ARE NEW MEXICO STATE PLANE EAST COORDINATES MODIFIED TO THE SURFACE. DEN SWD 1 ELEV. = 3115.0' LAT. = 32.269125°N (NAD83) LONG. = 104.1396047°W NMSP EAST (FT) N = 461594.35 E = 597239.35 SURFACE LOCATION SW CORNER SEC. 27 LAT. = 32.268731°N LONG. = 104.132492°W NMSP EAST (FT) N = 461594.35 E = 597239.35 NE CORNER SEC. 25 LAT. = 32.2934150°N LONG. = 104.1352715°W NMSP EAST (FT) N = 466895.68 E = 600544.76 NE CORNER SEC. 26 LAT. = 32.2765336°N LONG. = 104.135397°W NMSP EAST (FT) N = 464228.58 E = 600538.56		" OPERATOR CERTIFICATION I hereby certify that the information contained herein is true and correct to the best of my knowledge and belief, and that the organization either owns a working interest or undivided mineral interest in the land underlying the proposed bottom hole location or has a right to drill there, well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order has been entered by the division. <i>Deana Weaver</i> 2.6.15 Signature Date Deana Weaver Printed Name dweaver@mec.com E-mail Address "SURVEYOR CERTIFICATION I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief. DECEMBER 1, 2014 Date of Survey <i>Frank J. Pennington</i> Signature and Seal of Professional Surveyor Certificate Number 017005 SURVEYED TO PLS 1.279 SURVEY NO. 3815
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Mack Energy Corporation

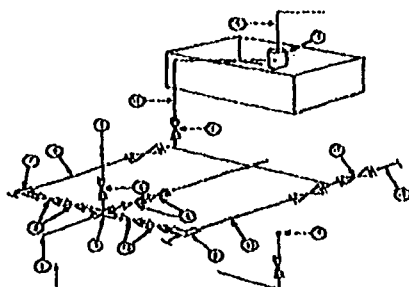
Exhibit #2

MINIMUM CHOKER MANIFOLD

3,000, 5,000, and 10,000 PSI Working Pressure

3M will be used

3 MWP - 5 MWP - 10 MWP



Mud Pit

Reserve Pit

* Location of separator optional

Below Substructure

Minimum requirements

No.		3,000 MWP			5,000 MWP			10,000 MWP		
		I.D.	Nominal	Rating	I.D.	Nominal	Rating	I.D.	Nominal	Rating
1	Line from drilling Spool		3"	3,000		3"	5,000		3"	10,000
2	Cross 3" x 3" x 3" x 2"			3,000			5,000			
2	Cross 3" x 3" x 3" x 2"									10,000
3	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
4	Valve Gate Plug	1 13/16		3,000	1 13/16		5,000	1 13/16		10,000
4a	Valves (1)	2 1/16		3,000	2 1/16		5,000	2 1/16		10,000
5	Pressure Gauge			3,000			5,000			10,000
6	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
7	Adjustable Choke (3)	2"		3,000	2"		5,000	2"		10,000
8	Adjustable Choke	1"		3,000	1"		5,000	2"		10,000
9	Line		3"	3,000		3"	5,000		3"	10,000
10	Line		2"	3,000		2"	5,000		2"	10,000
11	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000
12	Line		3"	1,000		3"	1,000		3"	2,000
13	Line		3"	1,000		3"	1,000		3"	2,000
14	Remote reading compound Standpipe pressure gauge			3,000			5,000			10,000
15	Gas Separator		2' x 5'			2' x 5'			2' x 5'	
16	Line		4"	1,000		4"	1,000		4"	2,000
17	Valve Gate Plug	3 1/8		3,000	3 1/8		5,000	3 1/8		10,000

(1) Only one required in Class 3M

(2) Gate valves only shall be used for Class 10 M

(3) Remote operated hydraulic choke required on 5,000 psi and 10,000 psi for drilling.

EQUIPMENT SPECIFICATIONS AND INSTALLATION INSTRUCTION

- All connections in choke manifold shall be welded, studded, flanged or Cameron clamp of comparable rating.
- All flanges shall be API 6B or 6BX and ring gaskets shall be API RX or BX. Use only BX for 10 MWP.
- All lines shall be securely anchored.
- Chokes shall be equipped with tungsten carbide seats and needles, and replacements shall be available.
- Alternate with automatic chokes, a choke manifold pressure gauge shall be located on the rig floor in conjunction with the standpipe pressure gauge.
- Line from drilling spool to choke manifold should be as straight as possible. Lines downstream from chokes shall make turns by large bends or 90 degree bends using bull plugged tees.

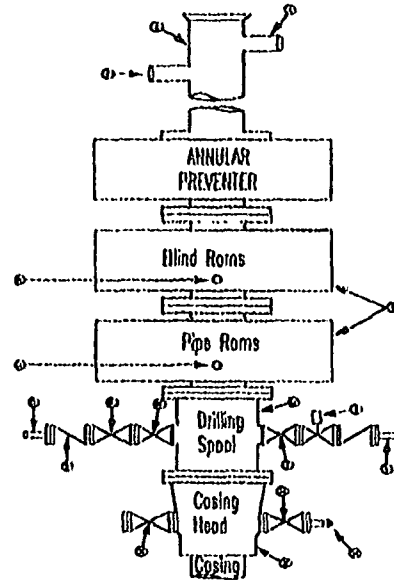
Mack Energy Corporation
Minimum Blowout Preventer Requirements
 3000 psi Working Pressure
 13 3/8 inch - 3 MWP
 11 inch - 3 MWP
EXHIBIT #1

Stack Requirements

NO.	Items	Min. I.D.	Min. Nominal
1	Flowline		2"
2	Fill up line		2"
3	Drilling nipple		
4	Annular preventer		
5	Two single or one dual hydraulically operated rams		
6a	Drilling spool with 2" min. kill line and 3" min. choke line outlets		2" Choke
6b	2" min. kill line and 3" min. choke line outlets in ram. (Alternate to 6a above)		
7	Valve Gate Plug	3 1/8	
8	Gate valve-power operated	3 1/8	
9	Line to choke manifold		3"
10	Valve Gate Plug	2 1/16	
11	Check valve	2 1/16	
12	Casing head		
13	Valve Gate Plug	1 13/16	
14	Pressure gauge with needle valve		
15	Kill line to rig mud pump manifold		2"

OPTIONAL

16	Flanged Valve	1 13/16	
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CONTRACTOR'S OPTION TO FURNISH:

1. All equipment and connections above blindhead or casinghead. Working pressure of preventers to be 2000 psi minimum.
2. Automatic accumulator (80 gallons, minimum) capable of closing BOP in 30 seconds or less and, holding them closed against full rated working pressure.
3. BOP controls, to be located near drillers' position.
4. Kelly equipped with Kelly cock.
5. Inside blowout preventer or its equivalent on derrick floor at all times with proper threads to fit pipe being used.
6. Kelly saver-sub equipped with rubber casing protector at all times.
7. Plug type blowout preventer tester.
8. Extra set pipe rams to fit drill pipe in use on location at all times.
9. Type RX ring gaskets in place of Type R.

MEC TO FURNISH:

1. Blindhead or casing head and side valves.
2. Wear bushing, if required.

GENERAL NOTES:

1. Deviations from this drawing may be made only with the express permission of MEC's Drilling Manager.
2. All connections, valves, fittings, piping, etc., subject to well or pump pressure must be flanged (suitable clamp connections acceptable) and have minimum working pressure equal to rated working pressure of preventers up through choke valves must be full opening and suitable for high pressure mud service.
3. Controls to be of standard design and each marked, showing opening and closing position.
4. Chokes will be positioned so as not to hamper or delay changing of choke beams.

Replaceable parts for adjustable choke, or beam sizes, retainers, and choke wrenches to be conveniently located for immediate use.

5. All valves to be equipped with hand-wheels or handles ready for immediate use.
6. Choke lines must be suitably anchored.
7. Handwheels and extensions to be connected and ready for use.
8. Valves adjacent to drilling spool to be kept open. Use outside valves except for emergency.
9. All seamless steel control piping (2000 psi working pressure) to have flexible joints to avoid stress. Hoses will be permitted.
10. Casinghead connections shall not be used except in case of emergency.
11. Does not use kill line for routine fill up operations.

Permit Conditions of Approval

API: 30-015-42990

OCD Reviewer	Condition
<i>AD</i>	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string

Non-well POD for reporting sale of skim oil
for this well is 4026833