AT5-11-874

Form 3160-3
(August 2007)

OCD-HOBBS
HOBBS OCD
DEC 0 5 2011
RECEIVED

FORM APPROVED
OMB No. 1004-0137
Expires July 31, 2010

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.: NMLC060329
6. If Indian, Allotee or Tribe Name:
7. If Unit or CA Agreement, Name and No.:
8. Lease Name and Well No.: Emerald Federal 12 (38747)
9. API Well No.: 30-025- 40358
10. Field and Pool, or Exploratory: Maljamar;Yeso, West (44500)
11. Sec., T. R. M. or Blk. and Survey or Area: Sec. 17, T17S, R32E

1a. Type of work: [X] DRILL [ ] REENTER
1b. Type of Well: [X] Oil Well [ ] Gas Well [ ] Other [ ] Single Zone [ ] Multiple Zone
2. Name of Operator: ConocoPhillips Company (217817)
3a. Address: 3300 N "A" St, Bldg 6 Midland, TX 79705
3b. Phone No. (include area code): (432)688-6913
4. Location of Well (Report location clearly and in accordance with any State requirements.*)
At surface: 2381' FSL 919' FEL UL I, Sec 17, T17S, R32E Unit I
At proposed prod. zone:
12. County or Parish: Lea
13. State: NM
14. Distance in miles and direction from nearest town or post office*: 2.5 miles south of Maljamar, NM
15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any): 401' FWL
16. No. of acres in lease: 323.76
17. Spacing Unit dedicated to this well: 40
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.: 518' from Emerald #4
19. Proposed Depth: 7002
20. BLM/BIA Bond No. on file: ES0085
21. Elevations (Show whether DF, KDB, RT, GL, etc.): 4020' GL
22. Approximate date work will start*: 02/10/2011
23. Estimated duration: 10 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.
2. A Drilling Plan.
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).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification
6. Such other site specific information and/or plans as may be required by the BLM.

25. Signature: Brian D Maiorino — Name (Printed/Typed): Brian D Maiorino — Date: 10/10/2011

Title: Regulatory Specialist

Approved by (Signature): — Name (Printed/Typed): — Date: DEC - 1 2011

Title: FIELD MANAGER — Office: CARLSBAD FIELD OFFICE

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. APPROVAL FOR TWO YEARS

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)
Roswell Controlled Water Basin

OCD CONDITION OF APPROVAL of Drilling
Intent to drill ONLY --- CANNOT produce until the Non-Standard Location has been approved by OCD Santa Fe office

KZ 12/8/11

APPROVAL SUBJECT TO GENERAL REQUIREMENTS AND SPECIAL STIPULATIONS ATTACHED

SEE ATTACHED FOR CONDITIONS OF APPROVAL

DISTRICT I
1625 N. French Dr., Hobbs, NM 88240

DISTRICT II
1301 W. Grand Avenue, Artesia, NM 88210

DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Frances Dr.
Santa Fe, NM 87505

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DEC 05 2011
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Form C-102
Revised October 12, 2005
Submit to Appropriate District Office
State Lease - 4 Copies
Fee Lease - 3 Copies

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

API Number	Pool Code	Pool Name
30-025-40358	44500	Maljamar; Yeso, West

Property Code	Property Name	Well Number
39742	EMERALD FEDERAL	12

OGRID No.	Operator Name	Elevation
217817	ConocoPhillips	4020'

Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
I	17	17 S	32 E		2381	SOUTH	919	EAST	LEA

Bottom Hole Location If Different From Surface

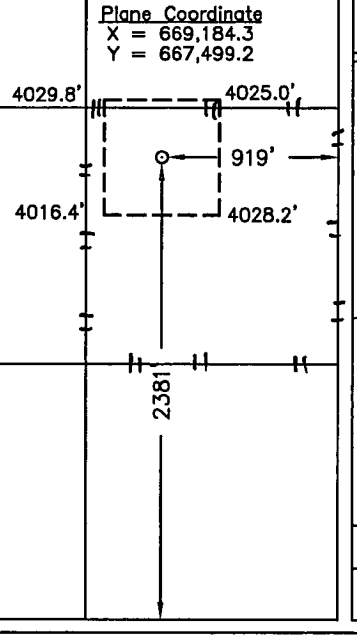
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
40			

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

NOTE:

1) Plane Coordinates shown hereon are Transverse Mercator Grid and Conform to the "New Mexico Coordinate System", New Mexico East Zone, North American Datum of 1927. Distances shown hereon are mean horizontal surface values.



OPERATOR CERTIFICATION

I hereby certify the the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interestin the land including the proposed bottom hole location or has a right to drill this 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 heretofore entered by the division.

Signature 9/23/11
Date

Brian Maiorino
Printed Name

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 supervison and that the same is true and correct to the best of my belief.

August 17, 2011
Date of Survey

JCC
Signature & Seal of Professional Surveyor

MACON McDONALD
NEW MEXICO
12185
REGISTERED PROFESSIONAL SURVEYOR

W.O. Num. 2011-1398

Certificate No. MACON McDONALD 12185

Drilling Plan
ConocoPhillips Company
Maljamar; Yeso, west

Emerald Federal #12

Lea County, New Mexico

1. Estimated tops of geological markers and estimated depths to water, oil, or gas formations:

The ranges of depths for the formation tops, thicknesses, and planned Total Depths for all the wells to be drilled under this Master Drilling Plan are presented in the table below.

The datum for these depths is RKB (which is 14' above Ground Level).

Formations	Top Depths FT MD	Contents
Quaternary	Surface	Fresh Water
Rustler	774	Anhydrite
Salado (top of salt)	948	Salt
Tansill (base of salt)	1955	Gas, Oil and Water
Yates	2140	Gas, Oil and Water
Seven Rivers	2438	Gas, Oil and Water
Queen	3086	Gas, Oil and Water
Grayburg	3491	Gas, Oil and Water
San Andres	3889	Gas, Oil and Water
Glorieta	5370	Gas, Oil and Water
Paddock	5446	Gas, Oil and Water
Blinebry	5765	Gas, Oil and Water
Tubb	6812	Gas, Oil and Water
Deepest estimated perforation	6802	Deepest estimated perforation is ~ 10' above Top of Tubb
Total Depth (maximum)	7002	200' below deepest estimated perforation

All of the water bearing formations identified above will be protected by setting of the 8-5/8" surface casing 25' – 70' into the Rustler formation and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19

The targeted oil and gas bearing formations identified above protected by setting of the 5-1/2" production casing 10' off bottom of TD and circulating of cement from casing shoe to surface in accordance with the provisions of Onshore Oil and Gas Order No. 2 and New Mexico Oil Conservation Division Title 19.

2. Proposed casing program:

Type	Hole Size	Interval MD RKB (ft)		OD	Wt	Gr	Conn	Condition	Safety Factors Calculated per BLM Load Formulas		
	(in)	From	To	(inches)	(lb/ft)				Burst	Collapse	Tension Dry/Buoyant
Cond	20"	0	40' – 85' (30' – 75' BGL)	16"	0.5" wall	B	Line Pipe	New	NA	NA	NA
Alt. Cond	20"	0	40' – 85' (30' – 75' BGL)	13-3/8"	48#	H-40	PE	New	NA	NA	NA
Surf	12-1/4"	0	799'-844'	8-5/8"	24#	J-55	STC	New	7.98	3.63	11.9 / 13.6
Prod	7-7/8"	0	6947'-6992'	5-1/2"	17#	L-80	LTC	New	2.46	1.71	2.81 / 3.32

The casing will be suitable for H_2S Service.

The surface and production casing will be set approximately 10' off bottom and we will drill the hole with a 45' range uncertainty for casing set depth to fit the casing string so that the cementing head is positioned at the floor for the cement job.

The production casing will be set 155' to 200' below the deepest estimated perforation to provide rathole for the pumping completion and for the logs to get deep enough to log the interval of interest.

3. **Proposed cementing program:**

16" or 13-3/8" Conductor:
Cement to surface with rathole mix, ready mix or Class C Neat cement.
(Note: The gravel used in the cement is not to exceed 3/8" dia)
TOC at surface.

8-5/8" Surface Casing:
The intention for the cementing program for the Surface Casing is to:
- Place the Tail Slurry from the casing shoe to 300' above the casing shoe,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Excess %	Sx	Vol Cuft	Additives	Yield ft^3/sx
Lead	Class C	Surface	478' – 523'	170	350	598	4%Bentonite 2%CaCl2 .125%Polyflake .2% antifoam Excess =130%	1.68
Tail	Class C	478' – 523'	778'-823'	100	200	264	1% CaCl2 Excess = 100%	1.34

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

Note: In accordance with the Pecos District Conditions of Approval, we will Wait on Cement (WOC) for a period of not less than 18 hrs after placement or until at least 500 psi compressive strength has been reached in both the Lead Slurry and Tail Slurry cements on the Surface Casing, whichever is greater.

5-1/2" Production Casing Cementing Program:

The intention for the cementing program for the Production Casing is to:
- Place the Tail Slurry from the casing shoe to a point approximately 200' above the top of the Paddock,
- Bring the Lead Slurry to surface.

Spacer: 20 bbls Fresh Water

Slurry		Intervals Ft MD		Excess %	Sx	Vol Cuft	Additives	Yield ft^3/sx
Lead	50:50 Poz/C	Surface	5169' – 5299'	15	1000	464 2640	10% Bentonite 8 lbs/sx Salt 0.4% Fluid loss additive 0.125% LCM if needed Excess=10% or more if needed	2.64
Tail	Class H	5169' – 5299'	6829'-6874'	10	480	91 513	0.2% Fluid loss additive 0.3% Dispersant 0.15% Retarder 0.2% Antifoam Excess=10% or more if needed	1.07

Displacement: Fresh Water with approximately 250 ppm gluteraldehyde biocide.

Proposal for Option to Adjust Production Casing Cement Volumes:

The production casing cement volumes presented above are estimates based on data from previous wells. We will adjust these volumes based on the caliper log data for each well and our trends for amount of cement returns to surface. Also, if no caliper log is available for any particular well, we would propose an option to possibly increase the production casing cement volumes to account for any uncertainty in regard to the hole volume.

4. Pressure Control Equipment:

A 11" 3M system will be installed, used, maintained, and tested accordingly as described in Onshore Oil and Gas Order No. 2.

Our BOP equipment will be:
- Rotating Head
- Annular BOP, 11" 3M
- Blind Ram, 11" 3M
- Pipe Ram, 11" 3M

See COA

After nippling up, and every 30 days thereafter, preventors will be pressure tested. BOP will be inspected and operated at least daily to insure good working order. All pressure and operating tests will be recorded on the daily drilling reports. Ram Type preventors will be tested to rated working pressure or 70% of the minimum internal yield of the casing. Annular type preventer(s) shall be tested to 50% of approved BOP stack working pressure. Pressure shall be maintained at least 10 minutes or until provisions of test are met, whichever is longer. BOP will comply with all provisions of Onshore Oil and Gas Order No. 2 as specified. **See Attached BOPE Schematic.**

5. Proposed Mud System

The mud systems that are proposed for use are as follows:

DEPTH	TYPE	Density ppg	FV sec/qt	API Fluid Loss cc/30 min	pH
0 – Surface Casing Point	Fresh Water or Fresh Water Native Mud	8.5 – 9.0	28 – 40	N.C.	N.C.
Surface Casing Point to TD	Brine (Saturated $NaCl_2$)	10	29	N.C.	10 - 11
Conversion to Mud at TD	Brine Based Mud ($NaCl_2$)	10	34 – 45	5 – 10	10 - 11

Drilling mud containing H2S shall be degassed in accordance with API RP-49, item 5.14. The gases shall be piped into the flare system. Gas detection equipment and pit level flow monitoring equipment will be on location. ConocoPhillips Company will maintain sufficient mud and weighted material on location at all times.

6. Logging, Coring, and Testing Program:

a. No drill stem tests will be done
b. No mud logging is planned, but might possibly be done if it is determined that this data is needed;
c. No whole cores are planned
d. The open hole electrical logging program is planned to be as follows:
   - Total Depth to 2500': Resistivity, Density, and Gamma Ray.
   - Total Depth to surface Casing Shoe: Caliper
   - Total Depth to surface, Gamma Ray and Neutron
   - Formation pressure data (XPT) on electric line if needed (optional)
   - Rotary Sidewall Cores on electric line if needed (optional)
   - BHC or Dipole Sonic if needed (optional)
   - Spectral Gamma Ray if needed (optional)

7. Abnormal Pressures and Temperatures:

- No abnormal pressures are expected to be encountered.
- Loss of circulation is a possibility in the horizons below the Top of Grayburg. We expect that normal Loss of Circulation Material will be successful in healing any such loss of circulation events.
  - The bottom hole pressure is expected to be 8.55 ppg gradient.
- The estimated H_2S concentrations and ROE calculations for the gas in the zones to be penetrated are presented in the table below for the various producing horizons in this area:

FORMATION / ZONE	H2S (PPM)	Gas Rate (MCFD)	ROE 100 PPM	ROE 500 PPM
Grayburg / San Andres (from MCA)	14000	38	59	27
Yeso Group	400	433	34	15

ConocoPhillips will comply with the provisions of Oil and Gas Order # 6

8. **Anticipated starting date and duration of operations:**

Well pad and road constructions will begin as soon as all agency approvals are obtained. Anticipated date to drill these wells begin from early 2012 through the end after receiving approval of the APD.

Attachments:

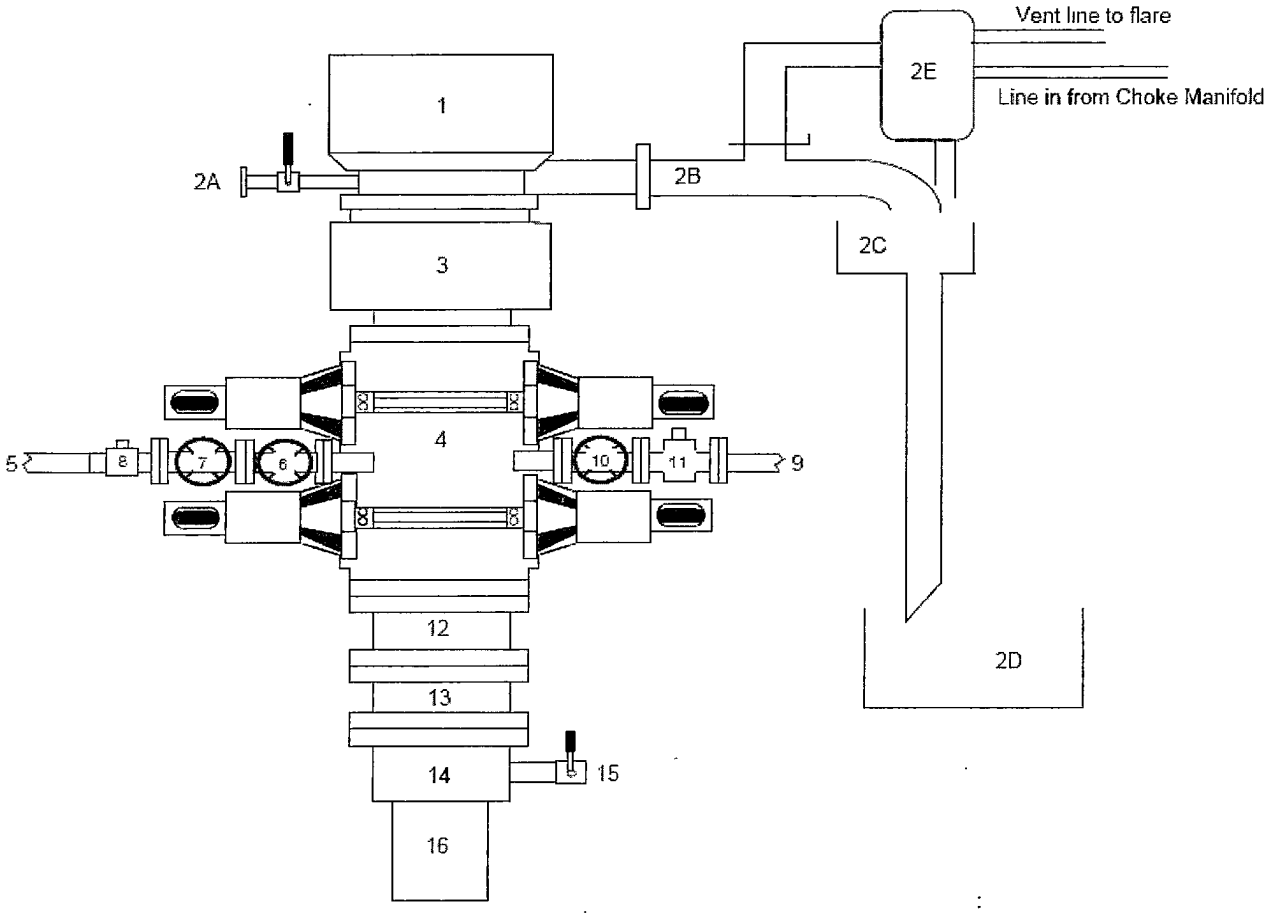
- Attachment # 1 ..... BOP and Choke Manifold Schematic – 3M System
- Attachment # 2 ..... Diagram of Choke Manifold Equipment

Contact Information:

Program prepared by:
James Chen
Drilling Engineer, ConocoPhillips Company
Phone (832) 486-2184
Cell (832) 768-1647
Date: October 7, 2011

Attachment # 1

BLOWOUT PREVENTER ARRANGEMENT

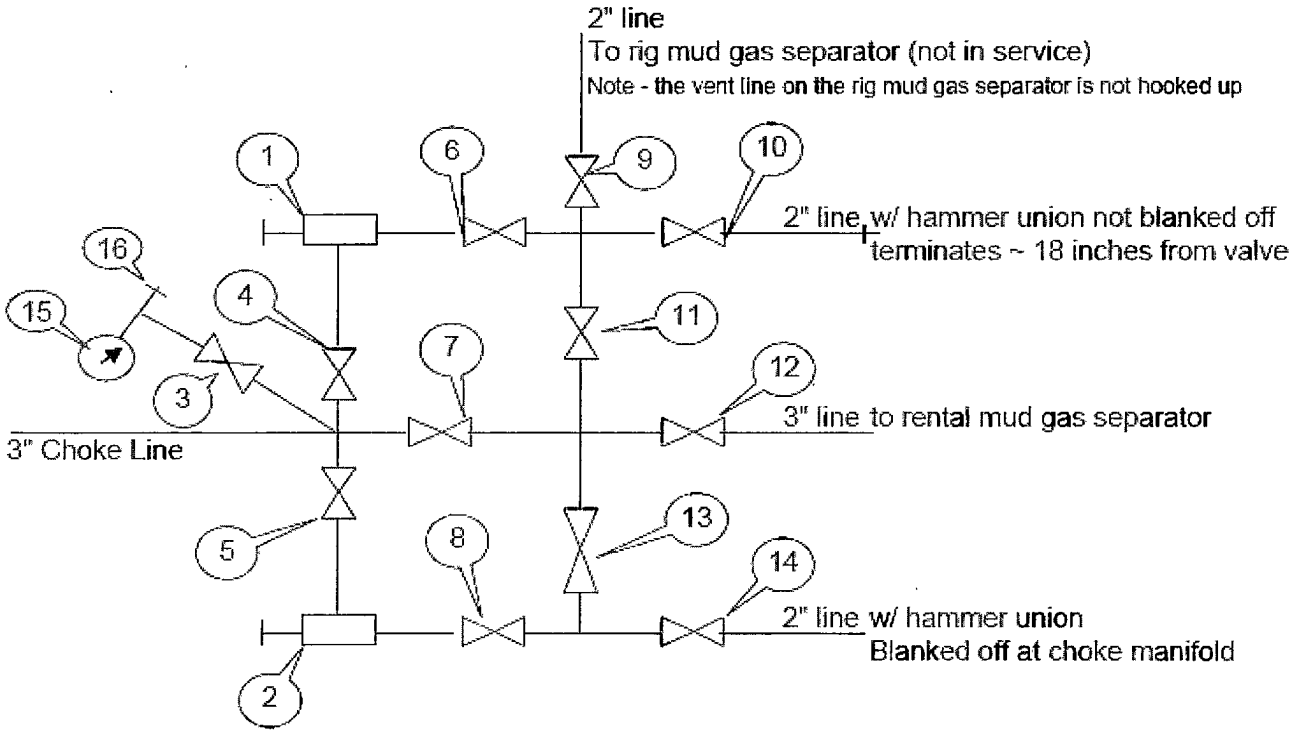


Item	Description
1	Rotating Head (11")
2A	Fill up Line and Valve
2B	Flow Line (8")
2C	Shale Shakers and Solids Settling Tank
2D	Cuttings Bins for Zero Discharge
2E	Rental Mud Gas Separator with vent line to flare and return line to mud system
3	Annular BOP (11", 3000 psi)
4	Double Ram BOP (11", 3000 psi, with Blind Rams in Upper Set and Pipe Rams in Lower Set)
5	Kill Line (2" Flexible Hose. 3000 psi WP)
6	Kill Line Valve, Inner (2-1/6" 3000 / 5000 psi WP)
7	Kill Line Valve, Outer (2-1/16", 3000 / 5000 psi WP)
8	Kill Line Check Valve (2-1/16", 3000 / 5000 psi WP
9	Choke Line (3" Steel Line, 3000 psi WP)
10	Choke Line Valve, Inner (3-1/8", 3000 psi WP)
11	Choke Line Valve, Outer, (Hydraulically operated, 3-1/8", 3000 psi WP
12	Spacer Spool (11" 3M x 3M)
13	Spacer Spool (11 3M x 5M)
14	Casing Head (11" 5M)
15	Ball Valve and Threaded Nipple on Casing Head Outlet. 2" 5M
16	Surface Casing

Drawn by: Steven O. Moore, Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company, 03-Nov-2011

Attachment # 2

CHOKE MANIFOLD ARRANGEMENT



Item	Description
1	Manual Adjustable Choke, 2-1/16", 3M
2	Manual Adjustable Choke, 2-1/16", 3M
3	Gate Valve, 2-1/16" 5M
4	Gate Valve, 2-1/16" 5M
5	Gate Valve, 2-1/16" 5M
6	Gate Valve, 2-1/16" 5M
7	Gate Valve, 3-1/8" 3M
8	Gate Valve, 2-1/16" 5M
9	Gate Valve, 2-1/16" 5M
10	Gate Valve, 2-1/16" 5M
11	Gate Valve, 2-1/16" 5M
12	Gate Valve, 3-1/8" 3M
13	Gate Valve, 2-1/16" 5M
14	Gate Valve, 2-1/16" 5M
15	Pressure Gauge
16	2" hammer union tie-in point for BOP Tester

Drawn by:
Steven O. Moore
Chief Drilling Engineer, Mid-Continent Business Unit, ConocoPhillips Company
Date: 03-Nov-2011

ConocoPhillips Company
Closed Loop System Design, Operating and Maintenance, and Closure Plan

Well: Emerald Federal #12

Date: October 10, 2011

ConocoPhillips proposes the following plan for design, operating and maintenance, and closure of our proposed closed loop system for the above named well:

1. We propose to use a closed loop system with steel pits, haul-off bins, and frac tanks for containing all cuttings, solids, mud, water, brine, and liquids. We will not dig a pit, nor will we use a drying pad, nor will we build an earth pit above ground level, nor will we dispose of or bury any waste on location.

   All drilling waste and all drilling fluids (fresh water, brine, mud, cuttings, drill solids, cement returns, and any other liquid or solid that may be involved) will be contained on location in the rig's steel pits or in haul-off bins or in frac tanks as needed. The intent is as follows:
   - We propose to use the rigs's steel pits for containing and maintaining the drilling fluids.
   - We propose to remove cuttings and drilled solids from the mud by using solids control equipment and to contain such cuttings and drilled solids on location in haul-off bins.
   - We propose that any excess water that may need to be stored on location will be stored in frac tanks.

   The closed loop system components will be inspected daily by each tour and any needed repairs will be made immediately. Any leak in the system will be repaired immediately, and any spilled liquids and / or solids will be cleaned immediately, and the area where any such spill occurred will be remediated immediately.

2. Cuttings and solids will be removed from location in haul-off bins by an authorized contractor and disposed of at an authorized facility. For this well, we propose the following disposal facility:

   Controlled Recovery Inc,
   4507 West Carlsbad Hwy, Hobbs, NM 88240,
   P.O. Box 388 Hobbs, New Mexico 88241
   Toll Free Phone: 877.505.4274, Local Phone Number: 432-638-4076

   The physical address for the plant where the disposal facility is located is Highway 62/180 at mile marker 66 (33 miles East of Hobbs, NM and 32 miles West of Carlsbad, NM).

   The Permit Number for CRI is R9166

   A photograph showing the type of haul-off bins that will be used is attached.

3. Mud will be transported by vacuum truck and disposed of at Controlled Recovery Inc at the facility described above.

4. Fresh Water and Brine will be hauled off by vacuum truck and disposed of at an authorized salt water disposal well. We propose the following for disposal of fresh water and brine as needed:

   - Nabors Well Services Company, 3221 NW County Rd, Hobbs, NM 88240, PO 5208 Hobbs, NM, 88241, Permit SWD 092. (Well Location: Section 3, T19S R37E)

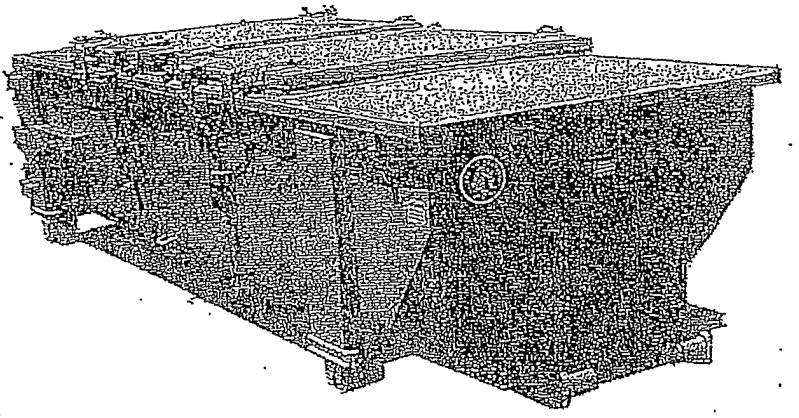
   - Basic Energy Services, PO Box 1869 Eunice, NM 88231 Phone Number 575 394 2545, Facility located at Hwy 18, Mile Marker 19, Eunice, NM.

James Chen, Staff Drilling Engineer
ConocoPhillips Company, 600 North Dairy Ashford, Room #2WL-13018, Houston, TX 77079-1175
Office: 832-486-2184
Cell: 832-768-1647

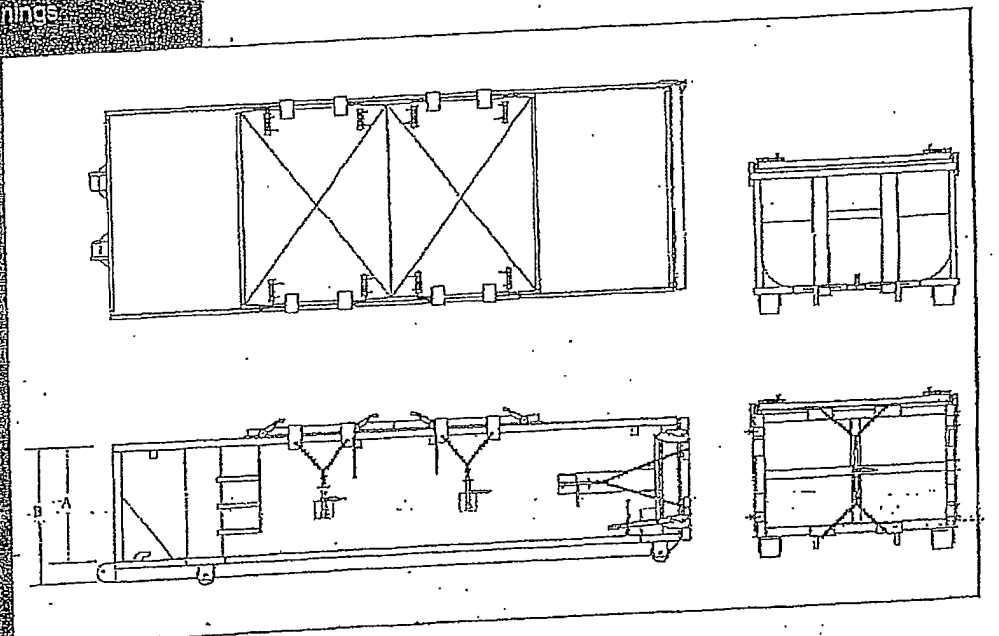
Heavy Duty Split Metal Rolling Lid

SPECIFICATIONS

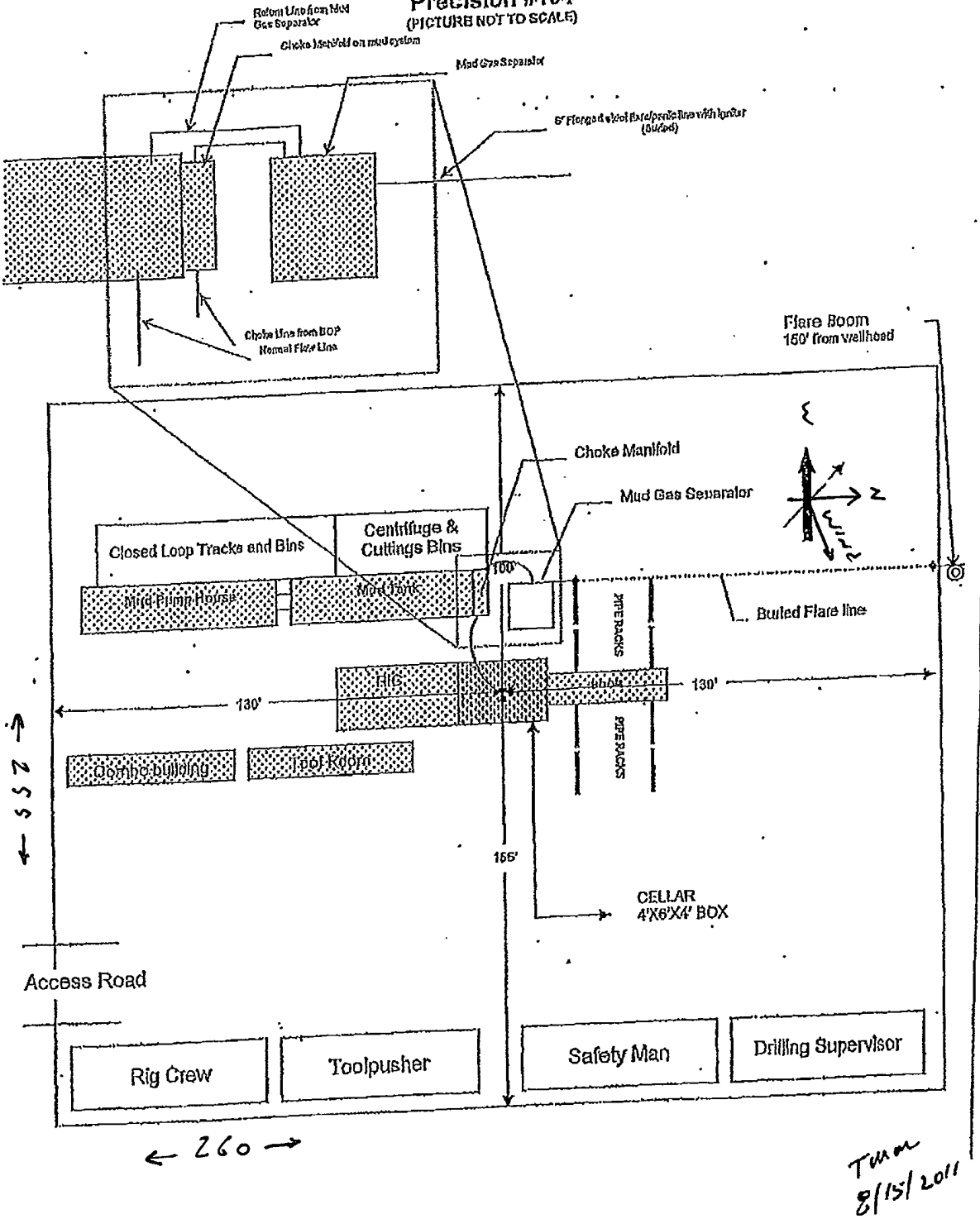
FLOOR: 3/16" PL one piece
CROSS MEMBER: 8"x4.1 channel 16" on center
WALLS: 3/16" PL solid welded with tubing top inside liner hooks
DOOR: 3/16" PL with tubing frame
FRONT: 3/16" PL slant formed
PICK U.P.: Standard cable with 2"x6"x1/4" rails, gusset at each crossmember
WHEELS: 10" DIA x 9" long with rease fittings
DOOR LATCH: 3 independent ratchet binders with chains, vertical second latch
GASKETS: Extruded rubber seal with metal retainers
WELDS: All welds continuous except sub-structure crossmembers
FINISH: Coated inside and out with direct-to-metal rust inhibiting acrylic enamel color coat
HYDROTESTING: Full capacity static test
DIMENSIONS: 22'-11" long (21'-8" inside); see drawing for width (88" inside); see drawing for height
OPTIONS: Steel grit blast and special paint; Amplroll; Heil and Dino pickup
ROOF: 3/16" PL roof panels with tubing and channel support frame
LIDS: (2) 68"x90" metal rolling lids spring loaded self raising
ROLLERS: 4 V-groove rollers with delrin bearings and grease fittings
OPENING: (2) 60"x82" openings with 6" divider centered on container
LATCH: (2) independent ratchet binders with chains per lid
GASKETS: Extruded rubber seal with metal retainers



CONT.	A	B
20 YD	41	53
25 YD	53	65
30 YD	65	77



ConocoPhillips
Location Schematic and Rig Layout
for Closed Loop System
Precision #194
(PICTURE NOT TO SCALE)



Tmm
8/15/2011