Form 3160-5
(June 2015)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: January 31, 2018

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use form 3160-3 (APD) for such proposals.

SUBMIT IN TRIPLICATE - Other instructions on page 2

5. Lease Serial No.
NMNM43744

6. If Indian, Allottee or Tribe Name

7. If Unit or CA/Agreement, Name and/or No.

1. Type of Well
☒ Oil Well ☐ Gas Well ☐ Other

8. Well Name and No.
PLATINUM MDP1 34-3 FEDERAL COM 177

2. Name of Operator
OXY USA INCORPORATED
Contact: SARAH E CHAPMAN
E-Mail: SARAH_CHAPMAN@OXY.COM

9. API Well No.
30-015-46046-00-X1

3a. Address
5 GREENWAY PLAZA SUITE 110
HOUSTON, TX 77046-0521

3b. Phone No. (include area code)
Ph: 713-350-4997

10. Field and Pool or Exploratory Area
PURPLE SAGE-WOLFCAMP (GAS)

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 34 T23S R31E NENW 220FNL 2557FWL
32.267582 N Lat, 103.765938 W Lon

11. County or Parish, State
EDDY COUNTY, NM

12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
☒ Notice of Intent	☐ Acidize	☐ Deepen	☐ Production (Start/Resume)	☐ Water Shut-Off
☐ Subsequent Report	☐ Alter Casing	☐ Hydraulic Fracturing	☐ Reclamation	☐ Well Integrity
☐ Final Abandonment Notice	☐ Casing Repair	☐ New Construction	☐ Recomplete	☒ Other Change to Original APD
	☐ Change Plans	☐ Plug and Abandon	☐ Temporarily Abandon	
	☐ Convert to Injection	☐ Plug Back	☐ Water Disposal	

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recomplete horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompletion in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.

OXY USA Inc. respectfully requests to amend the approved APD because of the following changes:
1. BHL is moving 560' west, to be 1640' FWL
2. Landing zone change
3. Cement Design (3-string to 4-string)
4. Casing Design
5. Well Control Update

Please find updated documentation for your use.
Thank you.

Carlsbad Field Office
Operator Copy RECEIVED

JUL 01 2019

14. I hereby certify that the foregoing is true and correct.

Electronic Submission #467998 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 06/06/2019 (19PP2331SE) DISTRICT II-ARTESIA O.C.D.

Name *(Printed/Typed)* SARAH E CHAPMAN — Title REGULATORY SPECIALIST

Signature (Electronic Submission) — Date 06/06/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By LONG VO — Title PETROLEUM ENGINEER — Date 06/17/2019

Conditions of approval, if any, are attached. Approval of this notice 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.

Office Carlsbad

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.

(Instructions on page 2)

**** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ** BLM REVISED ****

KMP 7-16-19.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**OXY USA Incorporated**
LEASE NO.:	**NMNM043744**
WELL NAME & NO.:	Platinum MDP1 33-4 Federal Com 177H
SURFACE HOLE FOOTAGE:	220'/N & 2557'/W
BOTTOM HOLE FOOTAGE	20'/S & 2200'/W
LOCATION:	Section 34, T.23 S., R.31 E., NMPM
COUNTY:	Eddy County, New Mexico

COA

H2S	○ Yes	◉ No	
Potash	○ None	○ Secretary	◉ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	○ Multibowl	◉ Both
Other	☐ 4 String Area	☐ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☑ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

All Previous COAs Still Apply

A. CASING

Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **633 feet** (a minimum of **70 feet (Eddy County)** into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

    b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)

    c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength,

whichever is greater.

d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch **intermediate casing 1** shall be set at approximately **4325 feet** is:

   - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash. Cement excess is less than 25%, more cement might be required.**

   Intermediate casing must be kept fluid filled to meet BLM minimum collapse requirement.

3. The minimum required fill of cement behind the **7-5/8** inch **intermediate casing 2** is:

   - Cement to surface. If cement does not circulate see B.1.a, c-d above. **Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.**

Operator has proposed to pump down 9-5/8" X 7-5/8" annulus. Operator must run a CBL from TD of the 7-5/8" casing to surface. Submit results to BLM.

4. The minimum required fill of cement behind the **5-1/2** inch production casing is:

   - Cement should tie-back **500 feet** into the previous casing. Operator shall provide method of verification. **Cement excess is less than 25%, more cement might be required.**

B. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'

2.

Option 1:

a. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **3000 (3M)** psi.

b. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **intermediate casing 1** shoe shall be **5000 (5M)** psi.

c. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the **intermediate casing 2** shoe shall be **5000 (5M)** psi.

Option 2:

1. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

C. SPECIAL REQUIREMENT (S)

Break Testing

- Break testing variance is approved to be conducted only from 0-10000 feet or the top of the 3rd Bone Spring which ever is shallower.
- Pressure above 500 psi and/or flow above 500 mcf or 100 bbl over the anticipated conditions while drilling require notification to the Authorized Officer before any pressure test can begin.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Chaves and Roosevelt Counties
Call the Roswell Field Office, 2909 West Second St., Roswell NM 88201.
During office hours call (575) 627-0272.
After office hours call (575)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as

well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

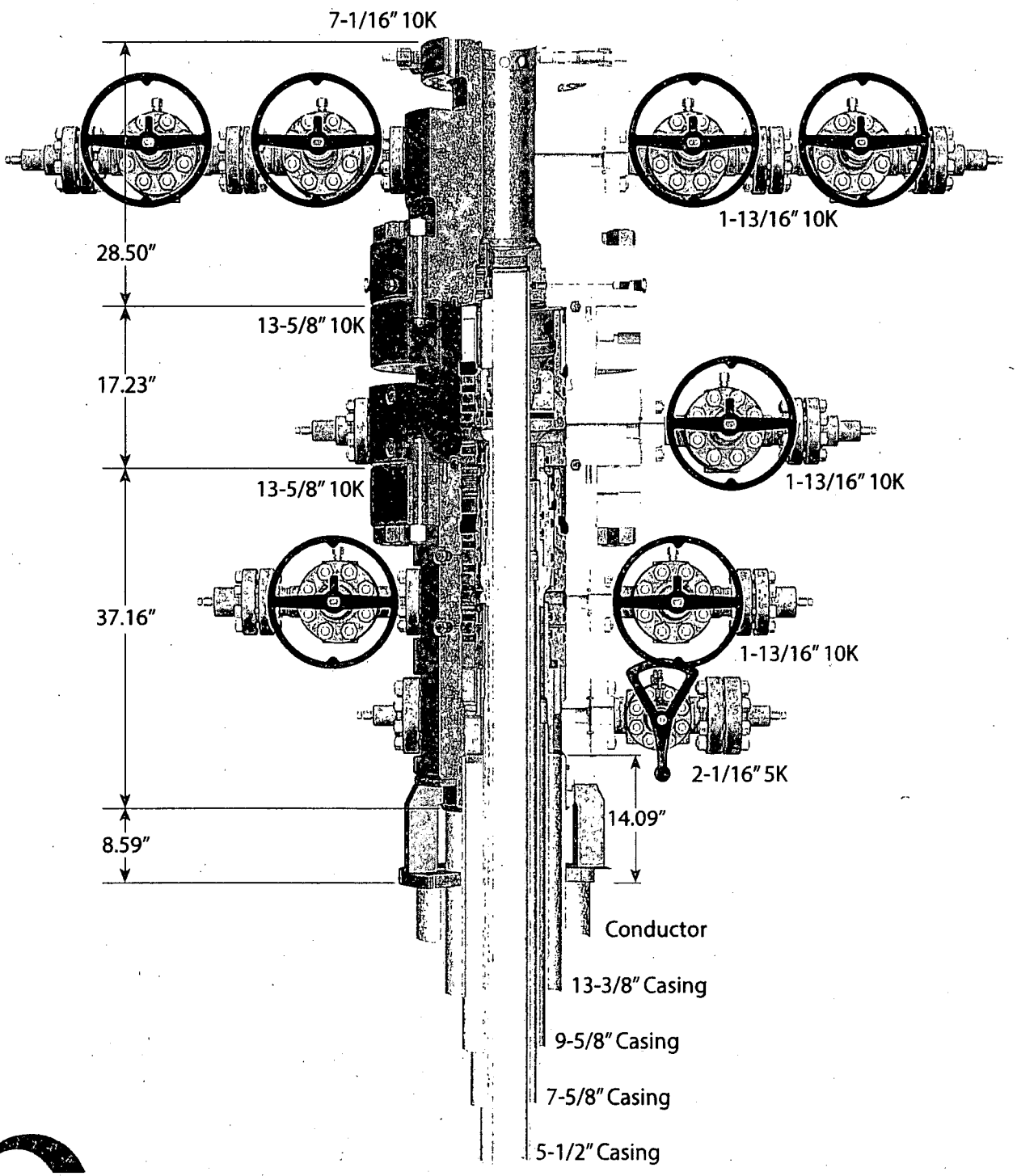
7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

CAMERON
A Schlumberger Company

13-5/8" 10K MN-DS Wellhead
Four String



OXY

1615045

NOTE: All dimensions on this drawing are estimated measurements and should be evaluated by engineering.

PERFORMANCE DATA

TMK UP TORQ™ DQW **5.500 in** **20.00 lbs/ft** **P110 CY**

Technical Data Sheet

Tubular Parameters

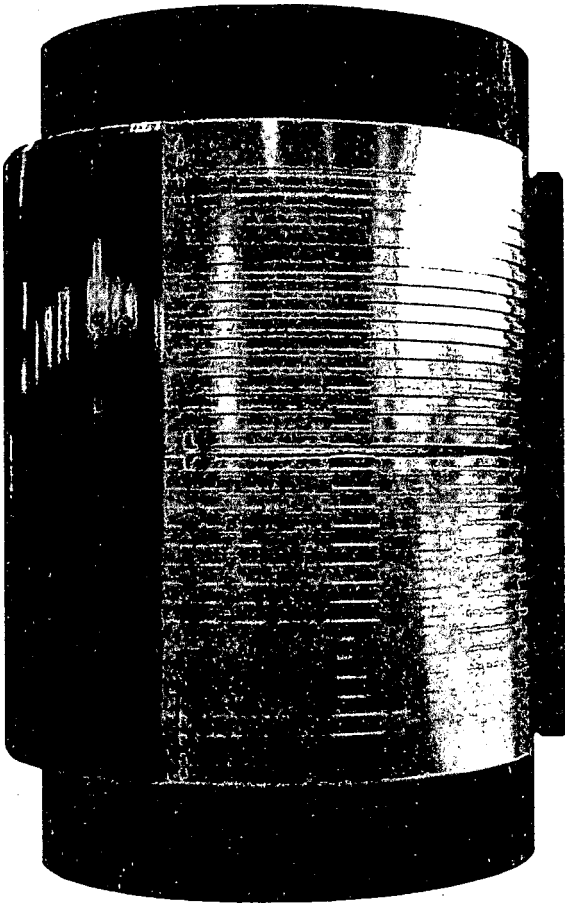
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P110 CY		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,640	psi
Nominal ID	4.778	in	Collapse Pressure	11,110	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.324	in
Critical Section Area	5.828	in²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,640	psi
Collapse Pressure	11,110	psi
Uniaxial Bending	92	°/ 100 ft

Make-Up Torques

Min. Make-Up Torque	14,000	ft-lbs
Opt. Make-Up Torque	16,000	ft-lbs
Max. Make-Up Torque	18,000	ft-lbs
Operating Torque	36,800	ft-lbs
Yield Torque	46,000	ft-lbs



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TMK IPSCO

PERFORMANCE DATA

TMK UP DQX **5.500 in** **20.00 lbs/ft** **P-110**
Technical Data Sheet

Tubular Parameters

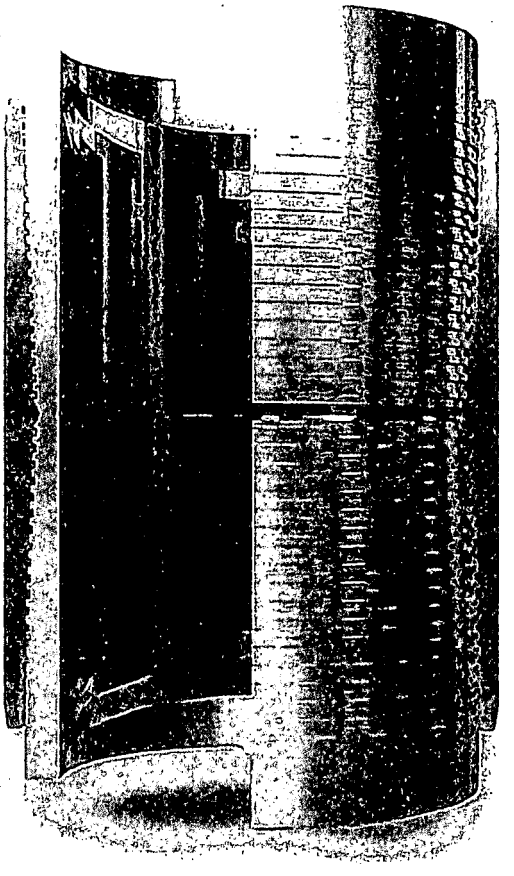
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	6.050	in
Connection ID	4.778	in
Make-Up Loss	4.122	in
Critical Section Area	5.828	in²
Tension Efficiency	100.0	%
Compression Efficiency	100.0	%
Yield Load In Tension	641,000	lbs
Min. Internal Yield Pressure	12,600	psi
Collapse Pressure	11,100	psi

Make-Up Torques

Min. Make-Up Torque	11,600	ft-lbs
Opt. Make-Up Torque	12,900	ft-lbs
Max. Make-Up Torque	14,100	ft-lbs
Yield Torque	20,600	ft-lbs



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TMK IPSCO

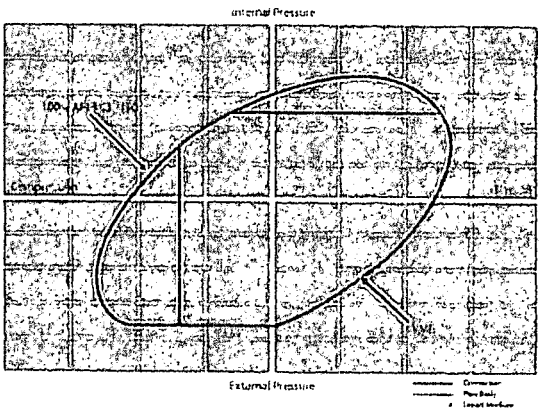
TECHNICAL DATA SHEET TMK UP DQX 5.5 X 20 P110

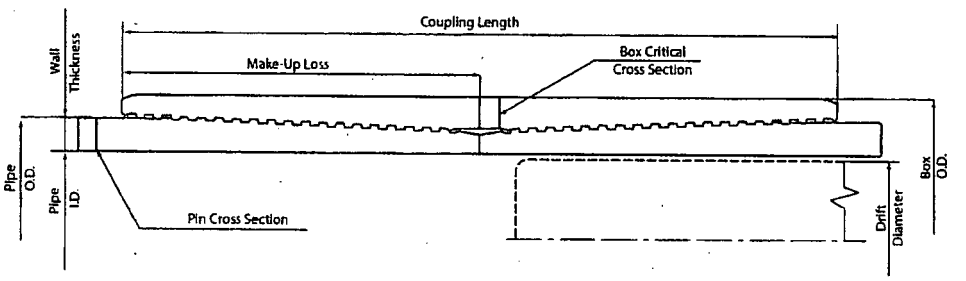
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.361
Pipe Grade	P110
Coupling	Regular
Coupling Grade	P110
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	6.05
Connection ID, (inch)	4.778
Make-Up Loss, (inch)	4.122
Connection Critical Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Yeld Strength in Compression, (klbs)	641
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	11 110
Uniaxial Bending (deg/100ft)	91.7

MAKE-UP TORQUES	
Yield Torque, (ft-lb)	20 600
Minimum Make-Up Torque, (ft-lb)	11 600
Optimum Make-Up Torque, (ft-lb)	12 900
Maximum Make-Up Torque, (ft-lb)	14 100

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	19.81
Nominal Weight, (lbs/ft)	20.00
Nominal ID, (inch)	4.778
Drift Diameter, (inch)	4 653
Nominal Pipe Body Area, (sq inch)	5.828
Yield Strength in Tension, (klbs)	641
Min. Internal Yield Pressure, (psi)	12 640
Collapse Pressure, (psi)	11 110





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PERFORMANCE DATA

TMK UP SF TORQ™ **5.500 in** **20.00 lbs/ft** **P110 HC**

Technical Data Sheet

Tubular Parameters

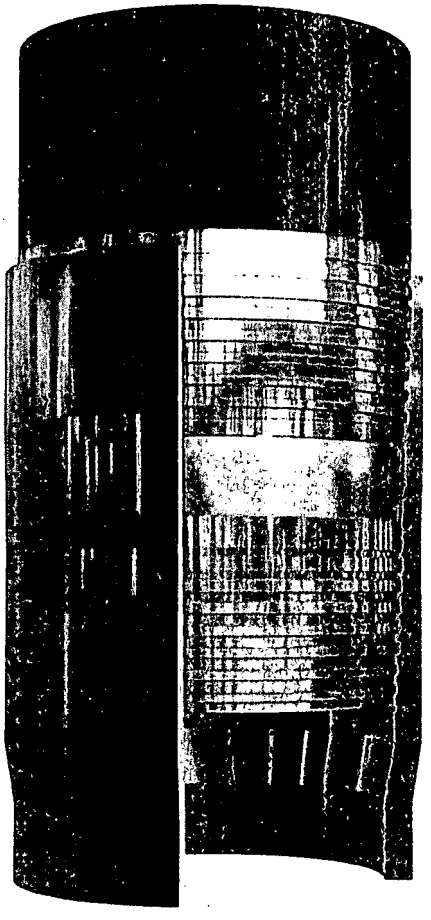
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P110 HC		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	728,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,640	psi
Nominal ID	4.778	in	Collapse Pressure	12,780	psi
Drift Diameter	4.653	in			
Nom. Pipe Body Area	5.828	in²			

Connection Parameters

Connection OD	5.777	in
Connection ID	4.734	in
Make-Up Loss	5.823	in
Critical Section Area	5.875	in²
Tension Efficiency	90.0	%
Compression Efficiency	90.0	%
Yield Load In Tension	576,000	lbs
Min. Internal Yield Pressure	12,640	psi
Collapse Pressure	12,780	psi
Uniaxial Bending	83	°/ 100 ft

Make-Up Torques

Min. Make-Up Torque	15,700	ft-lbs
Opt. Make-Up Torque	19,600	ft-lbs
Max. Make-Up Torque	21,600	ft-lbs
Operating Torque	29,000	ft-lbs
Yield Torque	36,000	ft-lbs



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TMK IPSCO

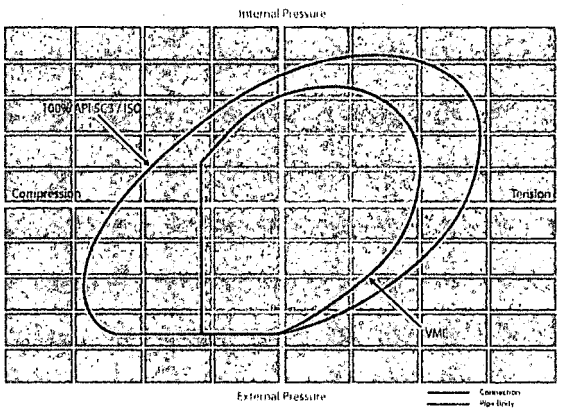
TECHNICAL DATA SHEET TMK UP FJ 7.625 X 26.4 L80 HC

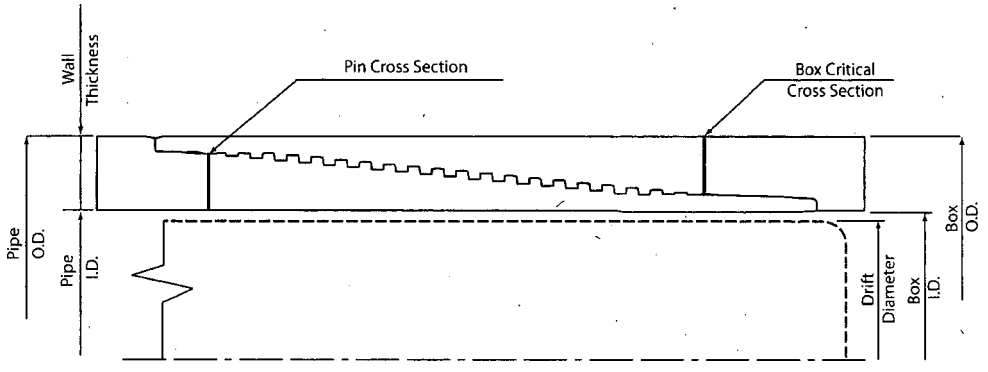
TUBULAR PARAMETERS	
Nominal OD, (inch)	7.625
Wall Thickness, (inch)	0.328
Pipe Grade	L80 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	7.63
Connection ID, (inch)	6.975
Make-Up Loss, (inch)	4.165
Connection Critical Area, (sq inch)	2.520
Yield Strength in Tension, (klbs)	347
Yeld Strength in Compression, (klbs)	347
Tension Efficiency	58%
Compression Efficiency	58%
Min. Internal Yield Pressure, (psi)	6 020
Collapse Pressure, (psi)	3 910
Uniaxial Bending (deg/100ft)	28.0

MAKE-UP TORQUES	
Yield Torque, (ft-lb)	22 200
Minimum Make-Up Torque, (ft-lb)	12 500
Optimum Make-Up Torque, (ft-lb)	13 900
Maximum Make-Up Torque, (ft-lb)	15 300

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	25.56
Nominal Weight, (lbs/ft)	26.40
Nominal ID, (inch)	6.969
Drift Diameter, (inch)	6.844
Nominal Pipe Body Area, (sq inch)	7.519
Yield Strength in Tension, (klbs)	601
Min. Internal Yield Pressure, (psi)	6 020
Collapse Pressure, (psi)	3 910





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Print date: 07/10/2018 20:11

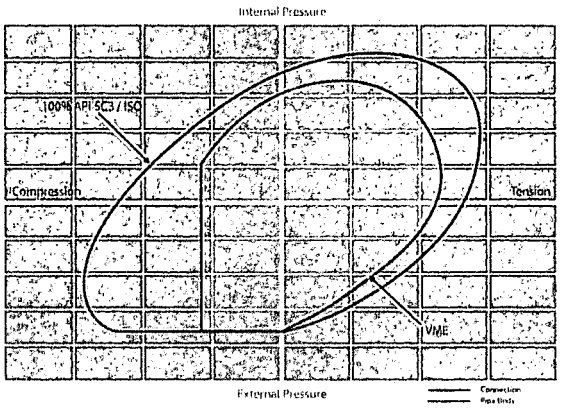
TECHNICAL DATA SHEET TMK UP SF 7.625 X 26.4 L80 HC

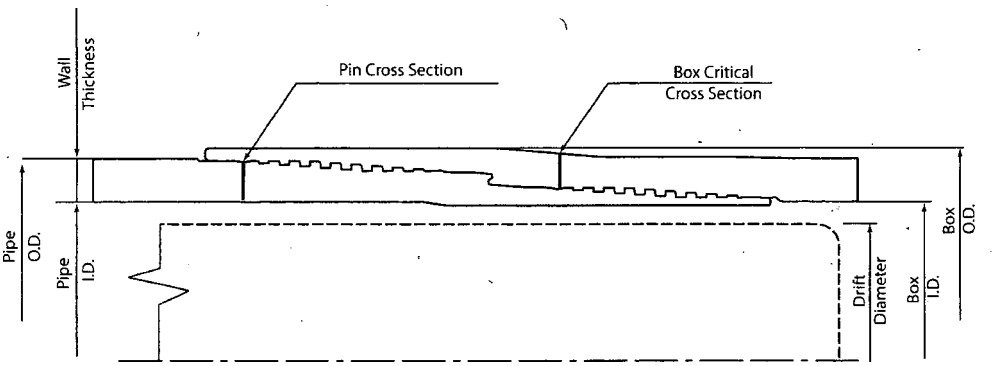
TUBULAR PARAMETERS	
Nominal OD, (inch)	7.625
Wall Thickness, (inch)	0.328
Pipe Grade	L80 HC
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	7.79
Connection ID, (inch)	6.938
Make-Up Loss, (inch)	6.029
Connection Critical Area, (sq inch)	5.948
Yield Strength in Tension, (klbs)	533
Yeld Strength in Compression, (klbs)	533
Tension Efficiency	89%
Compression Efficiency	89%
Min. Internal Yield Pressure, (psi)	6 020
Collapse Pressure, (psi)	3 910
Uniaxial Bending (deg/100ft)	42.7

MAKE-UP TORQUES	
Yield Torque, (ft-lb)	22 600
Minimum Make-Up Torque, (ft-lb)	15 000
Optimum Make-Up Torque, (ft-lb)	16 500
Maximum Make-Up Torque, (ft-lb)	18 200

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	25.56
Nominal Weight, (lbs/ft)	26.40
Nominal ID, (inch)	6.969
Drift Diameter, (inch)	6.844
Nominal Pipe Body Area, (sq inch)	7.519
Yield Strength in Tension, (klbs)	601
Min. Internal Yield Pressure, (psi)	6 020
Collapse Pressure, (psi)	3 910





NOTE: The content of this Technical Data Sheet is for general information only and does not guarantee performance or impl f tness for a particular purpose which only a competent drilling profes sional can determine considering the specific installation and operation parameters. This information supersede all prior versions for this connection. Informat on that is printed or downloaded is no longer controlled by TMK and might not be the latest information. Anyone using the information herein does so at their own risk. To verify that you have the latest technical information please contact: PAO "TMK" Technical Sales in Russia (Tel. +7 (495) 775-76-00 Email: techsales@tmk-group.com) and TMK IPSCO in North America (Tel. +1 (281)949-1044, Email: techsales@tmk-ipsco.com)

Print date: 07/10/2018 20:00

OXY

PRD NM DIRECTIONAL PLANS (NAD 1983)
PLATINUM MDP1 34-3 FED COM
PLATINUM MDP1 34-3 FED COM 177H

Wellbore #1

Plan: Permitting Plan

Standard Planning Report

20 May, 2019

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	**North Reference:**	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Project PRD NM DIRECTIONAL PLANS (NAD 1983)

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Eastern Zone		Using geodetic scale factor

Site PLATINUM MDP1 34-3 FED COM

Site Position:		**Northing:**	461,352.44 usft	**Latitude:**	32° 16' 1.502765 N
From:	Map	**Easting:**	714,923.95 usft	**Longitude:**	103° 46' 18.211063 W
Position Uncertainty:	50.00 ft	**Slot Radius:**	13.200 in	**Grid Convergence:**	0.30 °

Well PLATINUM MDP1 34-3 FED COM 177H

Well Position	**+N/-S**	190.25 ft	**Northing:**	461,542.68 usft	**Latitude:**	32° 16' 3.292168 N
	+E/-W	1,789.10 ft	**Easting:**	716,712.95 usft	**Longitude:**	103° 45' 57.363455 W
Position Uncertainty		2.00 ft	**Wellhead Elevation:**	0.00 ft	**Ground Level:**	3,426.90 ft

Wellbore Wellbore #1

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM	5/20/2019	6.77	59.97	47,954

Design Permitting Plan

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.00

Vertical Section:	Depth From (TVD) (ft)	+N/-S (ft)	+E/-W (ft)	Direction (°)
	0.00	0.00	0.00	184.81

Plan Sections

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)	TFO (°)	Target
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3,720.00	0.00	0.00	3,720.00	0.00	0.00	0.00	0.00	0.00	0.00	
4,220.14	10.00	309.45	4,217.61	27.67	-33.63	2.00	2.00	0.00	309.45	
10,377.81	10.00	309.45	10,281.67	707.31	-859.50	0.00	0.00	0.00	0.00	
11,282.35	10.00	179.74	11,179.94	678.46	-920.31	2.00	0.00	-14.34	-154.52	
12,081.80	89.95	179.74	11,653.40	114.76	-917.73	10.00	10.00	0.00	0.00	FTP (Platinum
22,530.34	89.95	179.74	11,663.40	-10,333.68	-869.94	0.00	0.00	0.00	0.00	PBHL (Platinum

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	**North Reference:**	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.00	400.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	0.00	0.00	500.00	0.00	0.00	0.00	0.00	0.00	0.00
600.00	0.00	0.00	600.00	0.00	0.00	0.00	0.00	0.00	0.00
700.00	0.00	0.00	700.00	0.00	0.00	0.00	0.00	0.00	0.00
800.00	0.00	0.00	800.00	0.00	0.00	0.00	0.00	0.00	0.00
900.00	0.00	0.00	900.00	0.00	0.00	0.00	0.00	0.00	0.00
1,000.00	0.00	0.00	1,000.00	0.00	0.00	0.00	0.00	0.00	0.00
1,100.00	0.00	0.00	1,100.00	0.00	0.00	0.00	0.00	0.00	0.00
1,200.00	0.00	0.00	1,200.00	0.00	0.00	0.00	0.00	0.00	0.00
1,300.00	0.00	0.00	1,300.00	0.00	0.00	0.00	0.00	0.00	0.00
1,400.00	0.00	0.00	1,400.00	0.00	0.00	0.00	0.00	0.00	0.00
1,500.00	0.00	0.00	1,500.00	0.00	0.00	0.00	0.00	0.00	0.00
1,600.00	0.00	0.00	1,600.00	0.00	0.00	0.00	0.00	0.00	0.00
1,700.00	0.00	0.00	1,700.00	0.00	0.00	0.00	0.00	0.00	0.00
1,800.00	0.00	0.00	1,800.00	0.00	0.00	0.00	0.00	0.00	0.00
1,900.00	0.00	0.00	1,900.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
2,100.00	0.00	0.00	2,100.00	0.00	0.00	0.00	0.00	0.00	0.00
2,200.00	0.00	0.00	2,200.00	0.00	0.00	0.00	0.00	0.00	0.00
2,300.00	0.00	0.00	2,300.00	0.00	0.00	0.00	0.00	0.00	0.00
2,400.00	0.00	0.00	2,400.00	0.00	0.00	0.00	0.00	0.00	0.00
2,500.00	0.00	0.00	2,500.00	0.00	0.00	0.00	0.00	0.00	0.00
2,600.00	0.00	0.00	2,600.00	0.00	0.00	0.00	0.00	0.00	0.00
2,700.00	0.00	0.00	2,700.00	0.00	0.00	0.00	0.00	0.00	0.00
2,800.00	0.00	0.00	2,800.00	0.00	0.00	0.00	0.00	0.00	0.00
2,900.00	0.00	0.00	2,900.00	0.00	0.00	0.00	0.00	0.00	0.00
3,000.00	0.00	0.00	3,000.00	0.00	0.00	0.00	0.00	0.00	0.00
3,100.00	0.00	0.00	3,100.00	0.00	0.00	0.00	0.00	0.00	0.00
3,200.00	0.00	0.00	3,200.00	0.00	0.00	0.00	0.00	0.00	0.00
3,300.00	0.00	0.00	3,300.00	0.00	0.00	0.00	0.00	0.00	0.00
3,400.00	0.00	0.00	3,400.00	0.00	0.00	0.00	0.00	0.00	0.00
3,500.00	0.00	0.00	3,500.00	0.00	0.00	0.00	0.00	0.00	0.00
3,600.00	0.00	0.00	3,600.00	0.00	0.00	0.00	0.00	0.00	0.00
3,700.00	0.00	0.00	3,700.00	0.00	0.00	0.00	0.00	0.00	0.00
3,720.00	0.00	0.00	3,720.00	0.00	0.00	0.00	0.00	0.00	0.00
3,800.00	1.60	309.45	3,799.99	0.71	-0.86	-0.63	2.00	2.00	0.00
3,900.00	3.60	309.45	3,899.88	3.59	-4.37	-3.21	2.00	2.00	0.00
4,000.00	5.60	309.45	3,999.55	8.69	-10.56	-7.77	2.00	2.00	0.00
4,100.00	7.60	309.45	4,098.89	15.99	-19.43	-14.30	2.00	2.00	0.00
4,200.00	9.60	309.45	4,197.76	25.49	-30.98	-22.80	2.00	2.00	0.00
4,220.14	10.00	309.45	4,217.61	27.67	-33.63	-24.75	2.00	2.00	0.00
4,300.00	10.00	309.45	4,296.25	36.49	-44.34	-32.64	0.00	0.00	0.00
4,400.00	10.00	309.45	4,394.73	47.52	-57.75	-42.51	0.00	0.00	0.00
4,500.00	10.00	309.45	4,493.21	58.56	-71.16	-52.38	0.00	0.00	0.00
4,600.00	10.00	309.45	4,591.69	69.60	-84.57	-62.26	0.00	0.00	0.00
4,700.00	10.00	309.45	4,690.17	80.63	-97.98	-72.13	0.00	0.00	0.00
4,800.00	10.00	309.45	4,788.65	91.67	-111.40	-82.00	0.00	0.00	0.00
4,900.00	10.00	309.45	4,887.13	102.71	-124.81	-91.88	0.00	0.00	0.00
5,000.00	10.00	309.45	4,985.61	113.75	-138.22	-101.75	0.00	0.00	0.00
5,100.00	10.00	309.45	5,084.09	124.78	-151.63	-111.62	0.00	0.00	0.00

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	**North Reference:**	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
5,200.00	10.00	309.45	5,182.57	135.82	-165.05	-121.50	0.00	0.00	0.00
5,300.00	10.00	309.45	5,281.05	146.86	-178.46	-131.37	0.00	0.00	0.00
5,400.00	10.00	309.45	5,379.53	157.90	-191.87	-141.24	0.00	0.00	0.00
5,500.00	10.00	309.45	5,478.01	168.93	-205.28	-151.12	0.00	0.00	0.00
5,600.00	10.00	309.45	5,576.49	179.97	-218.69	-160.99	0.00	0.00	0.00
5,700.00	10.00	309.45	5,674.97	191.01	-232.11	-170.86	0.00	0.00	0.00
5,800.00	10.00	309.45	5,773.45	202.05	-245.52	-180.74	0.00	0.00	0.00
5,900.00	10.00	309.45	5,871.93	213.08	-258.93	-190.61	0.00	0.00	0.00
6,000.00	10.00	309.45	5,970.41	224.12	-272.34	-200.48	0.00	0.00	0.00
6,100.00	10.00	309.45	6,068.89	235.16	-285.75	-210.36	0.00	0.00	0.00
6,200.00	10.00	309.45	6,167.37	246.19	-299.17	-220.23	0.00	0.00	0.00
6,300.00	10.00	309.45	6,265.85	257.23	-312.58	-230.10	0.00	0.00	0.00
6,400.00	10.00	309.45	6,364.33	268.27	-325.99	-239.98	0.00	0.00	0.00
6,500.00	10.00	309.45	6,462.81	279.31	-339.40	-249.85	0.00	0.00	0.00
6,600.00	10.00	309.45	6,561.29	290.34	-352.81	-259.72	0.00	0.00	0.00
6,700.00	10.00	309.45	6,659.77	301.38	-366.23	-269.60	0.00	0.00	0.00
6,800.00	10.00	309.45	6,758.25	312.42	-379.64	-279.47	0.00	0.00	0.00
6,900.00	10.00	309.45	6,856.73	323.46	-393.05	-289.34	0.00	0.00	0.00
7,000.00	10.00	309.45	6,955.21	334.49	-406.46	-299.22	0.00	0.00	0.00
7,100.00	10.00	309.45	7,053.69	345.53	-419.88	-309.09	0.00	0.00	0.00
7,200.00	10.00	309.45	7,152.17	356.57	-433.29	-318.96	0.00	0.00	0.00
7,300.00	10.00	309.45	7,250.65	367.60	-446.70	-328.84	0.00	0.00	0.00
7,400.00	10.00	309.45	7,349.13	378.64	-460.11	-338.71	0.00	0.00	0.00
7,500.00	10.00	309.45	7,447.61	389.68	-473.52	-348.58	0.00	0.00	0.00
7,600.00	10.00	309.45	7,546.09	400.72	-486.94	-358.46	0.00	0.00	0.00
7,700.00	10.00	309.45	7,644.57	411.75	-500.35	-368.33	0.00	0.00	0.00
7,800.00	10.00	309.45	7,743.05	422.79	-513.76	-378.20	0.00	0.00	0.00
7,900.00	10.00	309.45	7,841.53	433.83	-527.17	-388.08	0.00	0.00	0.00
8,000.00	10.00	309.45	7,940.01	444.87	-540.58	-397.95	0.00	0.00	0.00
8,100.00	10.00	309.45	8,038.49	455.90	-554.00	-407.82	0.00	0.00	0.00
8,200.00	10.00	309.45	8,136.97	466.94	-567.41	-417.70	0.00	0.00	0.00
8,300.00	10.00	309.45	8,235.45	477.98	-580.82	-427.57	0.00	0.00	0.00
8,400.00	10.00	309.45	8,333.93	489.02	-594.23	-437.44	0.00	0.00	0.00
8,500.00	10.00	309.45	8,432.41	500.05	-607.65	-447.32	0.00	0.00	0.00
8,600.00	10.00	309.45	8,530.89	511.09	-621.06	-457.19	0.00	0.00	0.00
8,700.00	10.00	309.45	8,629.37	522.13	-634.47	-467.06	0.00	0.00	0.00
8,800.00	10.00	309.45	8,727.85	533.16	-647.88	-476.94	0.00	0.00	0.00
8,900.00	10.00	309.45	8,826.33	544.20	-661.29	-486.81	0.00	0.00	0.00
9,000.00	10.00	309.45	8,924.81	555.24	-674.71	-496.68	0.00	0.00	0.00
9,100.00	10.00	309.45	9,023.29	566.28	-688.12	-506.56	0.00	0.00	0.00
9,200.00	10.00	309.45	9,121.77	577.31	-701.53	-516.43	0.00	0.00	0.00
9,300.00	10.00	309.45	9,220.24	588.35	-714.94	-526.30	0.00	0.00	0.00
9,400.00	10.00	309.45	9,318.72	599.39	-728.35	-536.18	0.00	0.00	0.00
9,500.00	10.00	309.45	9,417.20	610.43	-741.77	-546.05	0.00	0.00	0.00
9,600.00	10.00	309.45	9,515.68	621.46	-755.18	-555.92	0.00	0.00	0.00
9,700.00	10.00	309.45	9,614.16	632.50	-768.59	-565.80	0.00	0.00	0.00
9,800.00	10.00	309.45	9,712.64	643.54	-782.00	-575.67	0.00	0.00	0.00
9,900.00	10.00	309.45	9,811.12	654.57	-795.42	-585.54	0.00	0.00	0.00
10,000.00	10.00	309.45	9,909.60	665.61	-808.83	-595.42	0.00	0.00	0.00
10,100.00	10.00	309.45	10,008.08	676.65	-822.24	-605.29	0.00	0.00	0.00
10,200.00	10.00	309.45	10,106.56	687.69	-835.65	-615.16	0.00	0.00	0.00
10,300.00	10.00	309.45	10,205.04	698.72	-849.06	-625.04	0.00	0.00	0.00
10,377.81	10.00	309.45	10,281.67	707.31	-859.50	-632.72	0.00	0.00	0.00
10,400.00	9.60	308.31	10,303.54	709.68	-862.44	-634.84	2.00	-1.80	-5.16

Database:	HOPSPP	**Local Co-ordinate Reference:**	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	**TVD Reference:**	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	**MD Reference:**	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	**North Reference:**	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
10,500.00	7.87	301.75	10,402.38	718.46	-874.81	-642.54	2.00	-1.74	-6.56
10,600.00	6.29	291.73	10,501.61	724.09	-885.71	-647.24	2.00	-1.58	-10.02
10,700.00	5.01	275.91	10,601.13	726.56	-895.14	-648.91	2.00	-1.27	-15.82
10,800.00	4.33	252.61	10,700.81	725.88	-903.09	-647.57	2.00	-0.69	-23.30
10,900.00	4.51	226.52	10,800.52	722.05	-909.54	-643.21	2.00	0.18	-26.09
11,000.00	5.47	206.13	10,900.15	715.07	-914.49	-635.84	2.00	0.96	-20.39
11,100.00	6.89	192.93	10,999.57	704.95	-917.93	-625.47	2.00	1.42	-13.20
11,200.00	8.54	184.52	11,098.67	691.70	-919.86	-612.10	2.00	1.66	-8.42
11,282.35	10.00	179.74	11,179.94	678.46	-920.31	-598.86	2.00	1.77	-5.80
11,300.00	11.77	179.74	11,197.27	675.12	-920.29	-595.54	10.00	10.00	0.00
11,400.00	21.77	179.74	11,292.90	646.31	-920.16	-566.85	10.00	10.00	0.00
11,500.00	31.77	179.74	11,382.07	601.34	-919.96	-522.05	10.00	10.00	0.00
11,600.00	41.77	179.74	11,462.08	541.56	-919.69	-462.50	10.00	10.00	0.00
11,700.00	51.77	179.74	11,530.49	468.80	-919.36	-390.03	10.00	10.00	0.00
11,800.00	61.77	179.74	11,585.23	385.26	-918.98	-306.82	10.00	10.00	0.00
11,900.00	71.77	179.74	11,624.63	293.49	-918.56	-215.40	10.00	10.00	0.00
12,000.00	81.77	179.74	11,647.49	196.27	-918.12	-118.56	10.00	10.00	0.00
12,081.80	89.95	179.74	11,653.40	114.76	-917.73	-37.37	10.00	10.00	0.00
12,100.00	89.95	179.74	11,653.42	96.55	-917.65	-19.24	0.00	0.00	0.00
12,200.00	89.95	179.74	11,653.51	-3.45	-917.19	80.37	0.00	0.00	0.00
12,300.00	89.95	179.74	11,653.61	-103.44	-916.73	179.98	0.00	0.00	0.00
12,400.00	89.95	179.74	11,653.70	-203.44	-916.28	279.59	0.00	0.00	0.00
12,500.00	89.95	179.74	11,653.80	-303.44	-915.82	379.20	0.00	0.00	0.00
12,600.00	89.95	179.74	11,653.90	-403.44	-915.36	478.80	0.00	0.00	0.00
12,700.00	89.95	179.74	11,653.99	-503.44	-914.91	578.41	0.00	0.00	0.00
12,800.00	89.95	179.74	11,654.09	-603.44	-914.45	678.02	0.00	0.00	0.00
12,900.00	89.95	179.74	11,654.18	-703.44	-913.99	777.63	0.00	0.00	0.00
13,000.00	89.95	179.74	11,654.28	-803.44	-913.53	877.24	0.00	0.00	0.00
13,100.00	89.95	179.74	11,654.37	-903.44	-913.08	976.84	0.00	0.00	0.00
13,200.00	89.95	179.74	11,654.47	-1,003.43	-912.62	1,076.45	0.00	0.00	0.00
13,300.00	89.95	179.74	11,654.57	-1,103.43	-912.16	1,176.06	0.00	0.00	0.00
13,400.00	89.95	179.74	11,654.66	-1,203.43	-911.70	1,275.67	0.00	0.00	0.00
13,500.00	89.95	179.74	11,654.76	-1,303.43	-911.25	1,375.28	0.00	0.00	0.00
13,600.00	89.95	179.74	11,654.85	-1,403.43	-910.79	1,474.88	0.00	0.00	0.00
13,700.00	89.95	179.74	11,654.95	-1,503.43	-910.33	1,574.49	0.00	0.00	0.00
13,800.00	89.95	179.74	11,655.04	-1,603.43	-909.87	1,674.10	0.00	0.00	0.00
13,900.00	89.95	179.74	11,655.14	-1,703.43	-909.42	1,773.71	0.00	0.00	0.00
14,000.00	89.95	179.74	11,655.24	-1,803.43	-908.96	1,873.32	0.00	0.00	0.00
14,100.00	89.95	179.74	11,655.33	-1,903.42	-908.50	1,972.92	0.00	0.00	0.00
14,200.00	89.95	179.74	11,655.43	-2,003.42	-908.04	2,072.53	0.00	0.00	0.00
14,300.00	89.95	179.74	11,655.52	-2,103.42	-907.59	2,172.14	0.00	0.00	0.00
14,400.00	89.95	179.74	11,655.62	-2,203.42	-907.13	2,271.75	0.00	0.00	0.00
14,500.00	89.95	179.74	11,655.71	-2,303.42	-906.67	2,371.36	0.00	0.00	0.00
14,600.00	89.95	179.74	11,655.81	-2,403.42	-906.21	2,470.97	0.00	0.00	0.00
14,700.00	89.95	179.74	11,655.91	-2,503.42	-905.76	2,570.57	0.00	0.00	0.00
14,800.00	89.95	179.74	11,656.00	-2,603.42	-905.30	2,670.18	0.00	0.00	0.00
14,900.00	89.95	179.74	11,656.10	-2,703.42	-904.84	2,769.79	0.00	0.00	0.00
15,000.00	89.95	179.74	11,656.19	-2,803.41	-904.38	2,869.40	0.00	0.00	0.00
15,100.00	89.95	179.74	11,656.29	-2,903.41	-903.93	2,969.01	0.00	0.00	0.00
15,200.00	89.95	179.74	11,656.38	-3,003.41	-903.47	3,068.61	0.00	0.00	0.00
15,300.00	89.95	179.74	11,656.48	-3,103.41	-903.01	3,168.22	0.00	0.00	0.00
15,400.00	89.95	179.74	11,656.58	-3,203.41	-902.56	3,267.83	0.00	0.00	0.00
15,500.00	89.95	179.74	11,656.67	-3,303.41	-902.10	3,367.44	0.00	0.00	0.00
15,600.00	89.95	179.74	11,656.77	-3,403.41	-901.64	3,467.05	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	North Reference:	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
15,700.00	89.95	179.74	11,656.86	-3,503.41	-901.18	3,566.65	0.00	0.00	0.00
15,800.00	89.95	179.74	11,656.96	-3,603.41	-900.73	3,666.26	0.00	0.00	0.00
15,900.00	89.95	179.74	11,657.05	-3,703.40	-900.27	3,765.87	0.00	0.00	0.00
16,000.00	89.95	179.74	11,657.15	-3,803.40	-899.81	3,865.48	0.00	0.00	0.00
16,100.00	89.95	179.74	11,657.25	-3,903.40	-899.35	3,965.09	0.00	0.00	0.00
16,200.00	89.95	179.74	11,657.34	-4,003.40	-898.90	4,064.69	0.00	0.00	0.00
16,300.00	89.95	179.74	11,657.44	-4,103.40	-898.44	4,164.30	0.00	0.00	0.00
16,400.00	89.95	179.74	11,657.53	-4,203.40	-897.98	4,263.91	0.00	0.00	0.00
16,500.00	89.95	179.74	11,657.63	-4,303.40	-897.52	4,363.52	0.00	0.00	0.00
16,600.00	89.95	179.74	11,657.72	-4,403.40	-897.07	4,463.13	0.00	0.00	0.00
16,700.00	89.95	179.74	11,657.82	-4,503.40	-896.61	4,562.74	0.00	0.00	0.00
16,800.00	89.95	179.74	11,657.92	-4,603.39	-896.15	4,662.34	0.00	0.00	0.00
16,900.00	89.95	179.74	11,658.01	-4,703.39	-895.69	4,761.95	0.00	0.00	0.00
17,000.00	89.95	179.74	11,658.11	-4,803.39	-895.24	4,861.56	0.00	0.00	0.00
17,100.00	89.95	179.74	11,658.20	-4,903.39	-894.78	4,961.17	0.00	0.00	0.00
17,200.00	89.95	179.74	11,658.30	-5,003.39	-894.32	5,060.78	0.00	0.00	0.00
17,300.00	89.95	179.74	11,658.39	-5,103.39	-893.86	5,160.38	0.00	0.00	0.00
17,400.00	89.95	179.74	11,658.49	-5,203.39	-893.41	5,259.99	0.00	0.00	0.00
17,500.00	89.95	179.74	11,658.59	-5,303.39	-892.95	5,359.60	0.00	0.00	0.00
17,600.00	89.95	179.74	11,658.68	-5,403.39	-892.49	5,459.21	0.00	0.00	0.00
17,700.00	89.95	179.74	11,658.78	-5,503.39	-892.03	5,558.82	0.00	0.00	0.00
17,800.00	89.95	179.74	11,658.87	-5,603.38	-891.58	5,658.42	0.00	0.00	0.00
17,900.00	89.95	179.74	11,658.97	-5,703.38	-891.12	5,758.03	0.00	0.00	0.00
18,000.00	89.95	179.74	11,659.06	-5,803.38	-890.66	5,857.64	0.00	0.00	0.00
18,100.00	89.95	179.74	11,659.16	-5,903.38	-890.21	5,957.25	0.00	0.00	0.00
18,200.00	89.95	179.74	11,659.26	-6,003.38	-889.75	6,056.86	0.00	0.00	0.00
18,300.00	89.95	179.74	11,659.35	-6,103.38	-889.29	6,156.46	0.00	0.00	0.00
18,400.00	89.95	179.74	11,659.45	-6,203.38	-888.83	6,256.07	0.00	0.00	0.00
18,500.00	89.95	179.74	11,659.54	-6,303.38	-888.38	6,355.68	0.00	0.00	0.00
18,600.00	89.95	179.74	11,659.64	-6,403.38	-887.92	6,455.29	0.00	0.00	0.00
18,700.00	89.95	179.74	11,659.73	-6,503.37	-887.46	6,554.90	0.00	0.00	0.00
18,800.00	89.95	179.74	11,659.83	-6,603.37	-887.00	6,654.51	0.00	0.00	0.00
18,900.00	89.95	179.74	11,659.93	-6,703.37	-886.55	6,754.11	0.00	0.00	0.00
19,000.00	89.95	179.74	11,660.02	-6,803.37	-886.09	6,853.72	0.00	0.00	0.00
19,100.00	89.95	179.74	11,660.12	-6,903.37	-885.63	6,953.33	0.00	0.00	0.00
19,200.00	89.95	179.74	11,660.21	-7,003.37	-885.17	7,052.94	0.00	0.00	0.00
19,300.00	89.95	179.74	11,660.31	-7,103.37	-884.72	7,152.55	0.00	0.00	0.00
19,400.00	89.95	179.74	11,660.40	-7,203.37	-884.26	7,252.15	0.00	0.00	0.00
19,500.00	89.95	179.74	11,660.50	-7,303.37	-883.80	7,351.76	0.00	0.00	0.00
19,600.00	89.95	179.74	11,660.60	-7,403.36	-883.34	7,451.37	0.00	0.00	0.00
19,700.00	89.95	179.74	11,660.69	-7,503.36	-882.89	7,550.98	0.00	0.00	0.00
19,800.00	89.95	179.74	11,660.79	-7,603.36	-882.43	7,650.59	0.00	0.00	0.00
19,900.00	89.95	179.74	11,660.88	-7,703.36	-881.97	7,750.19	0.00	0.00	0.00
20,000.00	89.95	179.74	11,660.98	-7,803.36	-881.51	7,849.80	0.00	0.00	0.00
20,100.00	89.95	179.74	11,661.07	-7,903.36	-881.06	7,949.41	0.00	0.00	0.00
20,200.00	89.95	179.74	11,661.17	-8,003.36	-880.60	8,049.02	0.00	0.00	0.00
20,300.00	89.95	179.74	11,661.27	-8,103.36	-880.14	8,148.63	0.00	0.00	0.00
20,400.00	89.95	179.74	11,661.36	-8,203.36	-879.68	8,248.23	0.00	0.00	0.00
20,500.00	89.95	179.74	11,661.46	-8,303.35	-879.23	8,347.84	0.00	0.00	0.00
20,600.00	89.95	179.74	11,661.55	-8,403.35	-878.77	8,447.45	0.00	0.00	0.00
20,700.00	89.95	179.74	11,661.65	-8,503.35	-878.31	8,547.06	0.00	0.00	0.00
20,800.00	89.95	179.74	11,661.74	-8,603.35	-877.85	8,646.67	0.00	0.00	0.00
20,900.00	89.95	179.74	11,661.84	-8,703.35	-877.40	8,746.28	0.00	0.00	0.00
21,000.00	89.95	179.74	11,661.94	-8,803.35	-876.94	8,845.88	0.00	0.00	0.00

Database:	HOPSPP	Local Co-ordinate Reference:	Well PLATINUM MDP1 34-3 FED COM 177H
Company:	ENGINEERING DESIGNS	TVD Reference:	RKB=26.5' @ 3453.40ft
Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)	MD Reference:	RKB=26.5' @ 3453.40ft
Site:	PLATINUM MDP1 34-3 FED COM	North Reference:	Grid
Well:	PLATINUM MDP1 34-3 FED COM 177H	Survey Calculation Method:	Minimum Curvature
Wellbore:	Wellbore #1		
Design:	Permitting Plan		

Planned Survey

Measured Depth (ft)	Inclination (°)	Azimuth (°)	Vertical Depth (ft)	+N/-S (ft)	+E/-W (ft)	Vertical Section (ft)	Dogleg Rate (°/100ft)	Build Rate (°/100ft)	Turn Rate (°/100ft)
21,100.00	89.95	179.74	11,662.03	-8,903.35	-876.48	8,945.49	0.00	0.00	0.00
21,200.00	89.95	179.74	11,662.13	-9,003.35	-876.03	9,045.10	0.00	0.00	0.00
21,300.00	89.95	179.74	11,662.22	-9,103.35	-875.57	9,144.71	0.00	0.00	0.00
21,400.00	89.95	179.74	11,662.32	-9,203.34	-875.11	9,244.32	0.00	0.00	0.00
21,500.00	89.95	179.74	11,662.41	-9,303.34	-874.65	9,343.92	0.00	0.00	0.00
21,600.00	89.95	179.74	11,662.51	-9,403.34	-874.20	9,443.53	0.00	0.00	0.00
21,700.00	89.95	179.74	11,662.61	-9,503.34	-873.74	9,543.14	0.00	0.00	0.00
21,800.00	89.95	179.74	11,662.70	-9,603.34	-873.28	9,642.75	0.00	0.00	0.00
21,900.00	89.95	179.74	11,662.80	-9,703.34	-872.82	9,742.36	0.00	0.00	0.00
22,000.00	89.95	179.74	11,662.89	-9,803.34	-872.37	9,841.96	0.00	0.00	0.00
22,100.00	89.95	179.74	11,662.99	-9,903.34	-871.91	9,941.57	0.00	0.00	0.00
22,200.00	89.95	179.74	11,663.08	-10,003.34	-871.45	10,041.18	0.00	0.00	0.00
22,300.00	89.95	179.74	11,663.18	-10,103.34	-870.99	10,140.79	0.00	0.00	0.00
22,400.00	89.95	179.74	11,663.28	-10,203.33	-870.54	10,240.40	0.00	0.00	0.00
22,500.00	89.95	179.74	11,663.37	-10,303.33	-870.08	10,340.00	0.00	0.00	0.00
22,530.34	89.95	179.74	11,663.40	-10,333.68	-869.94	10,370.23	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir (°)	TVD (ft)	+N/-S (ft)	+E/-W (ft)	Northing (usft)	Easting (usft)	Latitude	Longitude
FTP (Platinum MDP1 - plan hits target center - Point	0.00	0.00	11,653.40	114.76	-917.73	461,657.43	715,795.27	32° 16' 4.475565 N	103° 46' 8.044400
PBHL (Platinum MDP1 - plan hits target center - Point	0.00	0.01	11,663.40	-10,333.68	-869.94	451,209.60	715,843.06	32° 14' 21.086190 N	103° 46' 8.127517

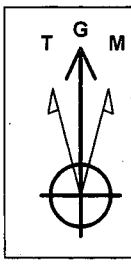
Plan Annotations

Measured Depth (ft)	Vertical Depth (ft)	Local Coordinates +N/-S (ft)	Local Coordinates +E/-W (ft)	Comment
3,720.00	3,720.00	0.00	0.00	Build 2.00°/100'
4,220.14	4,217.61	27.67	-33.63	Hold 10.00° Tangent
10,377.81	10,281.67	707.31	-859.50	Turn 2.00°/100'
11,282.35	11,179.94	678.46	-920.31	KOP, Build 10.00°/100'
12,081.80	11,653.40	114.76	-917.73	Landing Point
22,530.34	11,663.40	-10,333.68	-869.94	TD at 22530.34' MD

Project:	PRD NM DIRECTIONAL PLANS (NAD 1983)
Site:	PLATINUM MDP1 34-3 FED COM
Well:	PLATINUM MDP1 34-3 FED COM 177H
Wellbore:	Wellbore #1
Design:	Permitting Plan

PROJECT DETAILS: NM DIRECTIONAL PLANS (NAD 1983)

Geodetic System:	US State Plane 1983
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	New Mexico Eastern Zone
System Datum:	Mean Sea Level



Azimuths to Grid North
True North: -0.30°
Magnetic North: 6.46°

Magnetic Field
Strength: 47954.1snT
Dip Angle: 59.97°
Date: 5/20/2019
Model: HDGM

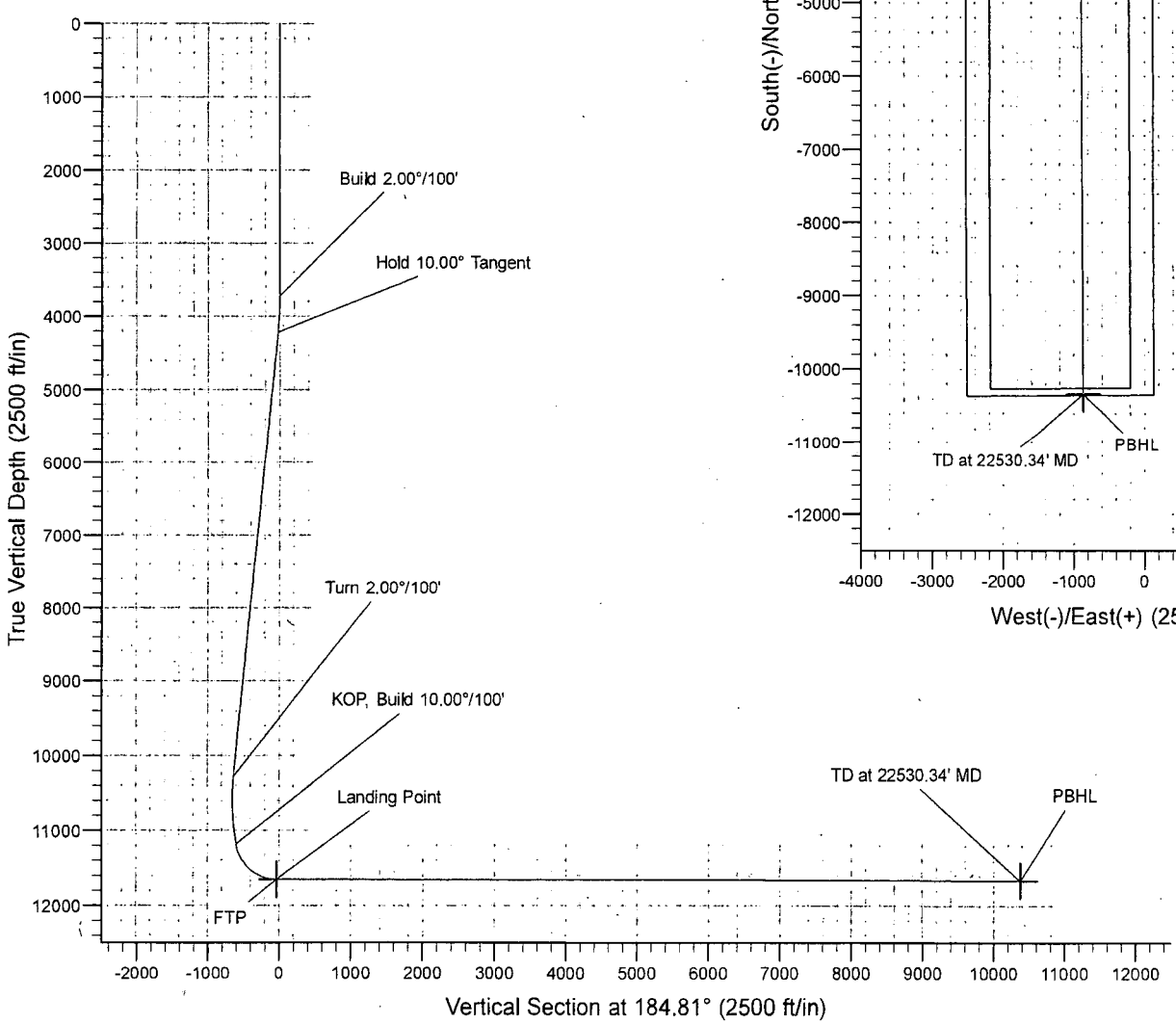
WELL DETAILS: PLATINUM MDP1 34-3 FED COM 177H

Ground Level: 3426.90

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
0.00	0.00	461542.68	716712.95	32° 16' 3.292168 N	103° 45' 57.363455 W

SECTION DETAILS

MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Annotation
0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
3720.00	0.00	0.00	3720.00	0.00	0.00	0.00	0.00	0.00	Build 2.00°/100'
4220.14	10.00	309.45	4217.61	27.67	-33.63	2.00	309.45	-24.75	Hold 10.00° Tangent
10377.81	10.00	309.45	10281.67	707.31	-859.50	0.00	0.00	-632.72	Turn 2.00°/100'
11282.35	10.00	179.74	11179.94	678.46	-920.31	2.00	-154.52	-598.86	KOP, Build 10.00°/100'
12081.80	89.95	179.74	11653.40	114.76	-917.73	10.00	0.00	-37.37	Landing Point
22530.34	89.95	179.74	11663.40	-10333.68	-869.94	0.00	0.00	10370.23	TD at 22530.34' MD



Oxy USA Inc. - Platinum MDP1 34-3 Federal Com 177H

1. Geologic Formations

TVD of target	11678'	Pilot Hole Depth	N/A
MD at TD:	22514'	Deepest Expected fresh water:	647'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	570	
Salado	898	Brine
Castile	2,855	Brine
Lamar/Delaware	4,320	Brine
Bell Canyon	4,347	Oil/Gas
Cherry Canyon	5,232	Oil/Gas
Brushy Canyon	6,496	Losses
Bone Spring	8,158	Oil/Gas
1st Bone Spring	9,218	Oil/Gas
2nd Bone Spring	9,811	Oil/Gas
3rd Bone Spring	11,037	Oil/Gas
Wolfcamp	**11,491**	**Oil/Gas**

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program see COA

Hole Size (in)	Casing Interval From (ft)	Casing Interval To (ft)	Csg. Size (in)	Weight (lbs)	Grade	Conn	SF Collapse	SF Burst	Buoyant Body SF Tension	Buoyant Joint SF Tension
17.5	0	620 633	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	4370 4385	9.625	43.5	L-80	BTC	1.125	1.2	1.4	1.4
8.5	0	11182	7.625	26.4	L-80 HC	SF (0 ft to 4000 ft) FJ (4000 ft to 11182 ft)	1.125	1.2	1.4	1.4
6.75	0	22530	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
							SF Values will meet or Exceed			

ok

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

*Oxy requests the option to set casing shallower yet still below the salts if losses or hole conditions require this. Cement volumes may be adjusted if casing is set shallower and a DV tool may be run in case hole conditions merit pumping a second stage cement job to comply with permitted top of cement. If cement circulated to surface during first stage, we will drop a cancelation cone and not pump the second stage.

*Oxy requests the option to run production casing with DQX, SF TORQ, and/or DQW TORQ connections to accommodate hole conditions or drilling operations.

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Annular Clearance Variance Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow deviation from the 0.422" annular clearance requirement from Onshore Order #2 under the following conditions:

1. Annular clearance to meet or exceed 0.422" between intermediate casing ID and production casing coupling only on the first 500' overlap between both casings.
2. Annular clearance less than 0.422" is acceptable for the curve and lateral portions of the production open hole section.

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	Y
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3rd string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	Y
If yes, are the first three strings cemented to surface?	Y
Is 2nd string set 100' to 600' below the base of salt?	Y
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

3. Cementing Program RMP - see COA

Casing String	# Sks	Wt. (lb/gal)	Yld (ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Surface (Tail)	659	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	932	12.9	1.88	10.130	14:22	Pozzolan Cement, Retarder
Intermediate (Tail)	155	14.8	1.33	6.370	12:45	Class C Cement, Accelerator
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	218	13.2	1.65	8.640	11:54	Class H Cement, Retarder, Dispersant, Salt
Intermediate II 2nd Stage (Tail Slurry) to be pumped as Bradenhead Squeeze from surface, down the Intermediate annulus						
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	355	12.9	1.92	10.410	23:10	Class C Cement, Accelerator
Production (Lead)	N/A	N/A	N/A	N/A	N/A	N/A
Production (Tail)	868	13.2	1.38	6.686	3:49	Class H Cement, Retarder, Dispersant, Salt

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface (Lead)	N/A	N/A	N/A
Surface (Tail)	0	620	100%
Intermediate (Lead)	0	3870	50%
Intermediate (Tail)	3870	4370	20%
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	6746	11182	5%
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	0	6746	25%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	10682	22530	20%

ok

Offline Cementing ok

Oxy requests a variance to cement the 9.625" and/or 7.625" intermediate casing strings offline in accordance to the approved variance, EC Tran 461365.

The summarized operational sequence will be as follows:

1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
2. Land casing.
3. Fill pipe with kill weight fluid, and confirm well is static.
    a. If well is not static notify BLM and kill well.
    b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
4. Set and pressure test annular packoff.
5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.

6. Skid rig to next well on pad.
7. Confirm well is static before removing cap flange.
8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
9. Install offline cement tool.
10. Rig up cement equipment.
    a. Notify BLM prior to cement job.
11. Perform cement job.
12. Confirm well is static and floats are holding after cement job.
13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

4. Pressure Control Equipment

ok

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Type	✓	Tested to:
12.25" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
8.5" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		5M	Blind Ram	✓	250 psi / 5000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
6.75" Hole	13-5/8"	5M	Annular	✓	70% of working pressure
		10M	Blind Ram	✓	250 psi / 10000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

Per BLM's Memorandum No. NM-2017-008: *Decision and Rationale for a Variance Allowing the Use of a 5M Annular Preventer with a 10M BOP Stack*, Oxy requests to employ a 5M annular with a 10M BOPE stack in the pilot and lateral sections of the well and will ensure that two barriers to flow are maintained at all times. Please see attached Well Control Plan.

Oxy will utilize a 5M annular with a 10M BOPE stack. The BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24 hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

	Formation integrity test will be performed per Onshore Order #2. On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.	
	A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. See attached for specs and hydrostatic test chart.	
	Y	Are anchors required by manufacturer?
	A multibowl or a unionized multibowl wellhead system will be employed. The wellhead and connection to the BOPE will meet all API 6A requirements. The BOP will be tested per Onshore Order #2 after installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015. See attached schematics.	

BOP Break Testing Request

As per the agreement reached in the Oxy/BLM face-to-face meeting on Feb 22, 2018, Oxy requests permission to allow BOP Break Testing under the following conditions:

- After a full BOP test is conducted on the first well on the pad. - see COA
- When skidding to drill an intermediate section that does not penetrate into ~~the Wolfcamp.~~
- Full BOP test will be required prior to drilling any production hole.

- Break testing is allowed only for the 13.375" casing and 9.625" casing.

5. Mud Program ok

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	620	Water-Based Mud	8.6-8.8	40-60	N/C
620	4370	Saturated Brine-Based Mud	9.8-10.0	35-45	N/C
4370	11182	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C
11182	22530	Water-Based or Oil-Based Mud	9.5-12.0	38-50	N/C

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Oxy will use a closed mud system.

What will be used to monitor the loss or gain of fluid?	PVT/MD Totco/Visual Monitoring

6. Logging and Testing Procedures

Logging, Coring and Testing.	
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs run will be in the Completion Report and submitted to the BLM.
No	Logs are planned based on well control or offset log information.
No	Drill stem test? If yes, explain
No	Coring? If yes, explain

Additional logs planned		Interval
No	Resistivity	
No	Density	
No	CBL	
Yes	Mud log	ICP - TD
No	PEX	

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	7288 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	174°F

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hydrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S is detected in concentrations greater than 100 ppm, the operator will comply with the provisions of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and formations will be provided to the BLM.	
N	H2S is present
Y	H2S Plan attached

8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe. • We plan to drill the three well pad in batch by section: all surface sections, intermediate sections and production sections. The wellhead will be secured with a night cap whenever the rig is not over the well.	Yes
Will more than one drilling rig be used for drilling operations? If yes, describe. • Oxy requests the option to contract a Surface Rig to drill, set surface casing, and cement for this well. If the timing between rigs is such that Oxy would not be able to preset surface, the Primary Rig will MIRU and drill the well in its entirety per the APD. Please see the attached document for information on the spudder rig.	Yes

Total estimated cuttings volume: 1724.7 bbls.

Attachments
_x__ Directional Plan
_x__ H2S Contingency Plan
_x__ Flex III Attachments
_x__ Spudder Rig Attachment
_x__ Premium Connection Specs

9. Company Personnel

Name	Title	Office Phone	Mobile Phone
Lucas Garibaldi	Drilling Engineer	713-366-5763	281-795-9270
Margaret Giltner	Drilling Engineer Supervisor	713-366-5026	210-683-8480
Simon Benavides	Drilling Superintendent	713-522-8652	281-684-6897
Diego Tellez	Drilling Manager	713-350-4602	713-303-4932

Oxy Well Control Plan

A. Component and Preventer Compatibility Table

The table below, which covers the drilling and casing of the >5M MASP portion of the well, 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.

Pilot hole and Lateral sections, 10M requirement

Component	OD	Preventer	RWP
Drillpipe	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
HWDP	4-1/2"-5"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Drill collars and MWD tools	4-3/4" – 5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Mud Motor	4-3/4"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
Production casing	5-1/2"	Lower 3-1/2 - 5-1/2" VBR Upper 3-1/2 - 5-1/2" VBR	10M
ALL	0" - 13-5/8"	Annular	5M
Open-hole	6-3/4"	Blind Rams	10M

VBR = Variable Bore Ram. Compatible range listed in chart.
HWDP = Heavy Weight Drill Pipe
MWD = Measurement While Drilling

B. 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 pressure at which control is swapped from the annular to another compatible ram will occur when the anticipated pressure is approaching or envisioned to exceed 70% of the 5M annular Rated Working Pressure (RWP) or 3500 PSI.

<u>General Procedure While Drilling</u>

1. Sound alarm (alert crew)
2. Space out drill string
3. Shut down pumps (stop pumps and rotary)
4. Shut-in Well (uppermost applicable BOP, typically annular preventer first. The Hydraulic Control Remote (HCR) valve and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative

7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
8. Regroup and identify forward plan
9. If pressure has built or expected to reach 70% of the annular RWP during kill operations, crew will reconfirm spacing and swap to the upper pipe ram

General Procedure While Tripping

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out drill string
4. Shut-in (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position)
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to the upper pipe ram

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 (uppermost applicable BOP, typically annular preventer first. The HCR and choke will already be in the closed position).
5. Confirm shut-in
6. Notify tool pusher/company representative
7. Read and record the following:
    a. SIDPP and SICP
    b. Pit gain
    c. Time
    d. Regroup and identify forward plan.
    e. If pressure has built or is anticipated during the kill to reach the RWP of the annular preventer, confirm spacing and swap to compatible pipe ram.

General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Shut-in with blind rams or BSR. (The HCR and choke will already be in the closed position)
3. Confirm shut-in
4. Notify tool pusher/company representative

5. Read and record the following:
    a. SICP
    b. Pit gain
    c. Time
6. Regroup and identify forward plan

General Procedures While Pulling BHA thru Stack

1. PRIOR to pulling last joint of drill pipe thru the stack.
    a. Perform flow check, if flowing:
    b. Sound alarm (alert crew)
    c. Stab full opening safety valve and close
    d. Space out drill string with tool joint just beneath the upper pipe ram
    e. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
    f. Confirm shut-in
    g. Notify tool pusher/company representative
    h. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. 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 upset just beneath the compatible pipe ram
    d. Shut-in using compatible pipe ram. (The HCR and choke will already be in the closed position.)
    e. Confirm shut-in
    f. Notify tool pusher/company representative
    g. Read and record the following:
        i. SIDPP and SICP
        ii. Pit gain
        iii. Time
        iv. 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 string clear of the stack and follow "Open Hole" scenario
    c. If impossible to pick up high enough to pull the string clear of the stack
    d. Stab crossover, make up one joint/stand of drill pipe, and full opening safety valve and close
    e. Space out drill string with tool joint just beneath the upper pipe ram

f. Shut-in using upper pipe ram. (The HCR and choke will already be in the closed position)
g. Confirm shut-in
h. Notify tool pusher/company representative
i. Read and record the following:
    i. SIDPP and SICP
    ii. Pit gain
    iii. Time

j. Regroup and identify forward plan