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.
NMNM45236

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.
IRIDIUM MDP1 28-21 FEDERAL COM 172H

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

9. API Well No.
30-015-45248-00-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
WILDCAT

4. Location of Well *(Footage, Sec., T., R., M., or Survey Description)*
Sec 33 T23S R31E NWNW 270FNL 869FWL
32.267437 N Lat, 103.788475 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 A PD
	☐ 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 the below changes for the approved APD:

1. Well changing pools from Wildcat Wolfcamp to Ingle Wells Bone Spring
2. BHL is moving 50' to the west to now be 1310' FWL
3. Casing/cement design changes
4. Intentions to cement the intermediate casing strings offline

Please find updated c-102, Drill Plan, Directional Plan, Plot and casing specs.

Thanks,

Carlsbad Field Office
Operator Copy

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 03 2019

SEE ATTACHED FOR CONDITIONS OF APPROVAL

14. I hereby certify that the foregoing is true and correct.
Electronic Submission #479351 verified by the BLM Well Information System
For OXY USA INCORPORATED, sent to the Carlsbad
Committed to AFMSS for processing by PRISCILLA PEREZ on 08/22/2019 (19PP3027SE)

RECEIVED

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

Signature (Electronic Submission) — Date 08/20/2019

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved By NDUNGU KAMAU — Title PETROLEUM ENGINEER — Date 09/23/2019

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 ****

Duplicate? Accept. RW 10-9

Revisions to Operator-Submitted EC Data for Sundry Notice #479351

	Operator Submitted	BLM Revised (AFMSS)
Sundry Type:	DRG NOI	APDCH NOI
Lease:	NMNM45236	NMNM45236
Agreement:		
Operator:	OXY USA INC. P.O. BOX 4294 HOUSTON, TX 77210 Ph: 713-350-4997	OXY USA INCORPORATED 5 GREENWAY PLAZA SUITE 110 HOUSTON, TX 77046-0521 Ph: 713.350.4816
Admin Contact:	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997
Tech Contact:	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997	SARAH CHAPMAN REGULATORY SPECIALIST E-Mail: SARAH_CHAPMAN@OXY.COM Cell: 281-642-5503 Ph: 713-350-4997
Location: State: County:	 NM EDDY COUNTY	 NM EDDY
Field/Pool:	WILDCAT WOLFCAMP	WILDCAT
Well/Facility:	IRIDIUM MDP1 28-21 FEDERAL COM 172H Sec 33 T23S R31E NWNW 270FNL 869FWL 32.267438 N Lat, 103.788478 W Lon	IRIDIUM MDP1 28-21 FEDERAL COM 172H Sec 33 T23S R31E NWNW 270FNL 869FWL 32.267437 N Lat, 103.788475 W Lon

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	OXY USA INC.
LEASE NO.:	NMNM 045236
WELL NAME & NO.:	Iridium MDP1 28-21 Fed Com 172H
SURFACE HOLE FOOTAGE:	270'/N & 869'/W
BOTTOM HOLE FOOTAGE	20'/N & 1310'/W
LOCATION:	SECTION 33, T23S, R31E, NMPM
COUNTY:	EDDY

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

Primary Casing Design:

1. The **13-3/8** inch surface casing shall be set at approximately **495** 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 is:

Option 1 (Single Stage):

- 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.**

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.
  Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

2nd 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 2nd intermediate casing is:

Option 1 (Single Stage):

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

Option 2:

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.

b. Second stage above DV tool:

- Cement to surface. If cement does not circulate, contact the appropriate BLM office.

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. Excess calculates to 10% - additional cement might be required.

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. **Excess calculates to 19% - additional 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.

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 **3000 (3M)** 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)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

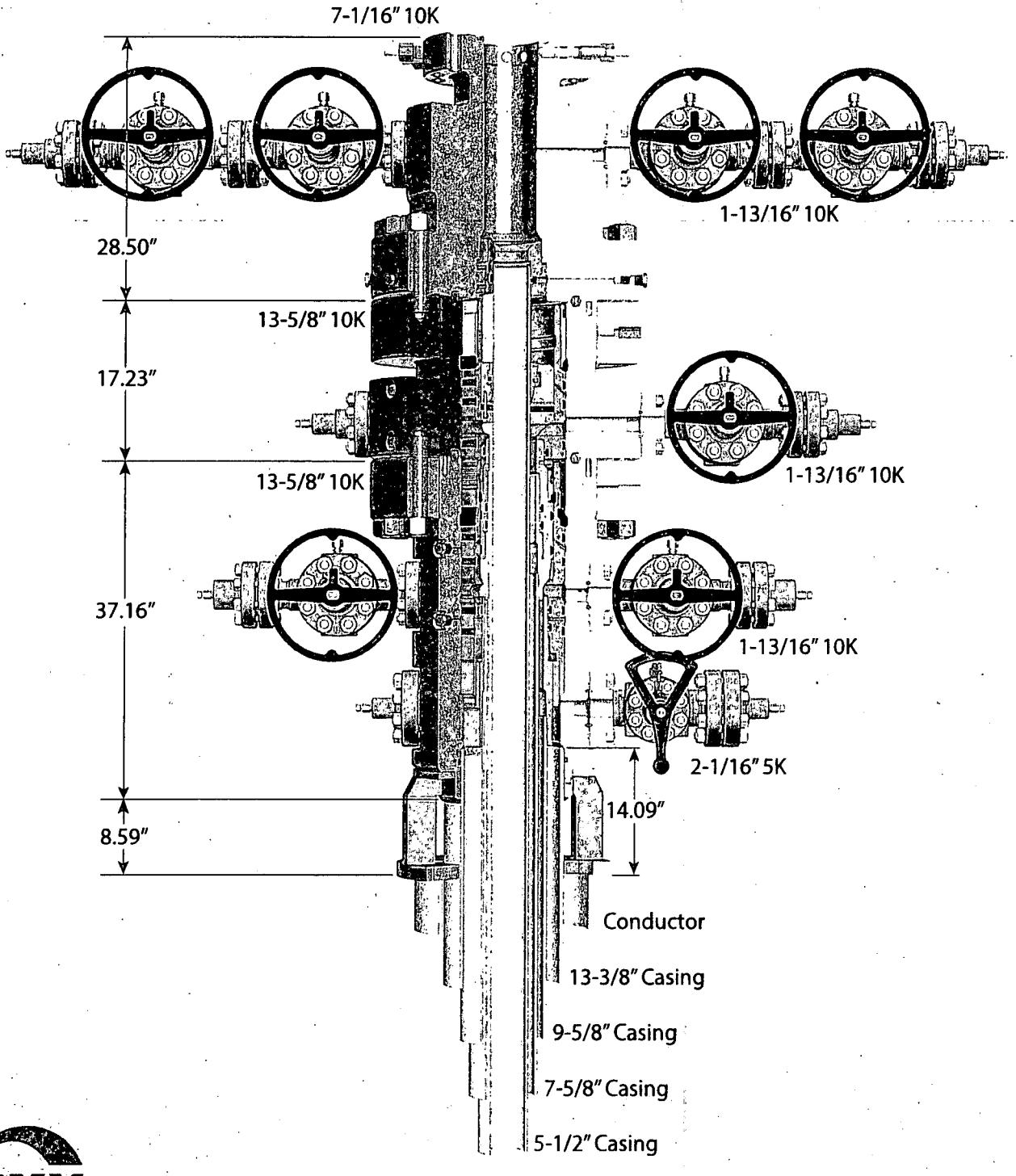
Offline Cementing

- Contact the BLM prior to the commencement of any offline cementing procedure.

NMK9232019

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

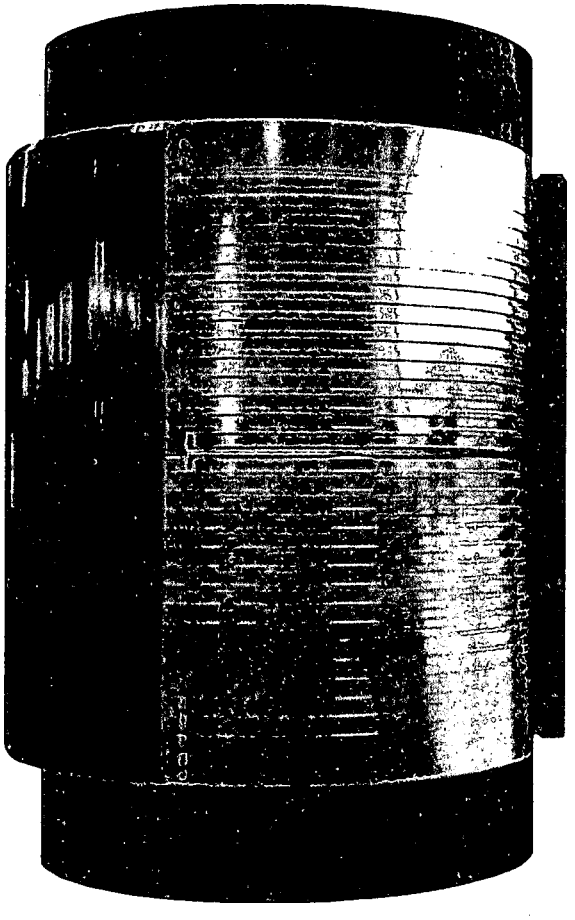
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P110 CY		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,640	psi
Nominal ID	4.778	in	Collapse Pressure	11,110	psi
Drift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



Printed on: March-05-2019

TMK IPSCO

PERFORMANCE DATA

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

Tubular Parameters

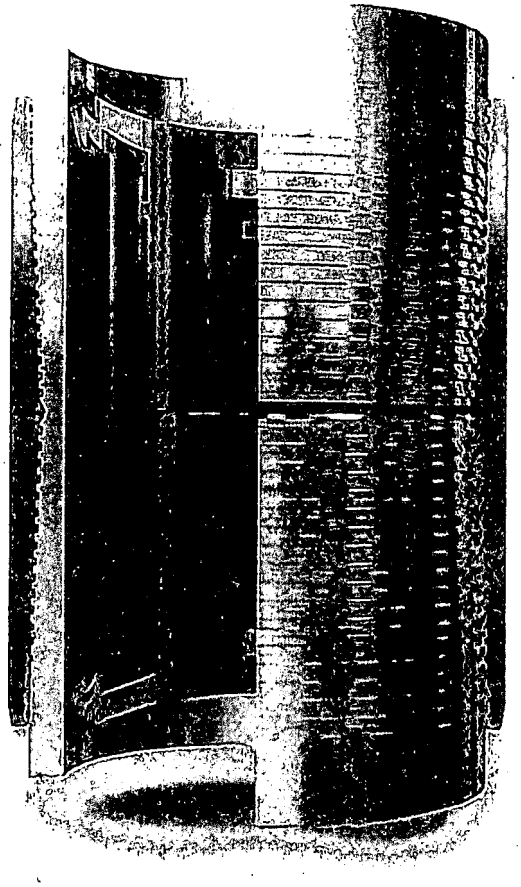
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P-110		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	729,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,600	psi
Nominal ID	4.778	in	Collapse Pressure	11,100	psi
Drift Diameter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

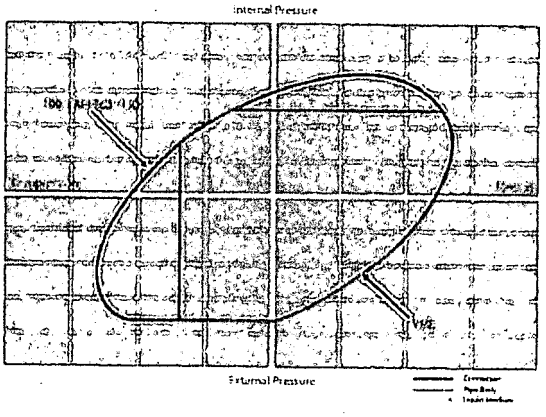
TECHNICAL DATA SHEET TMK UP DQX 5.5 X 20 P110

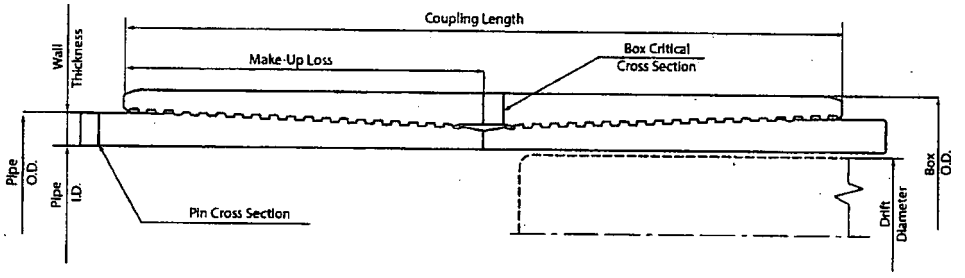
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.361
Pipe Grade	P110
Coupling	Regular
Coupling Grade	P110
Drift	Standard

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

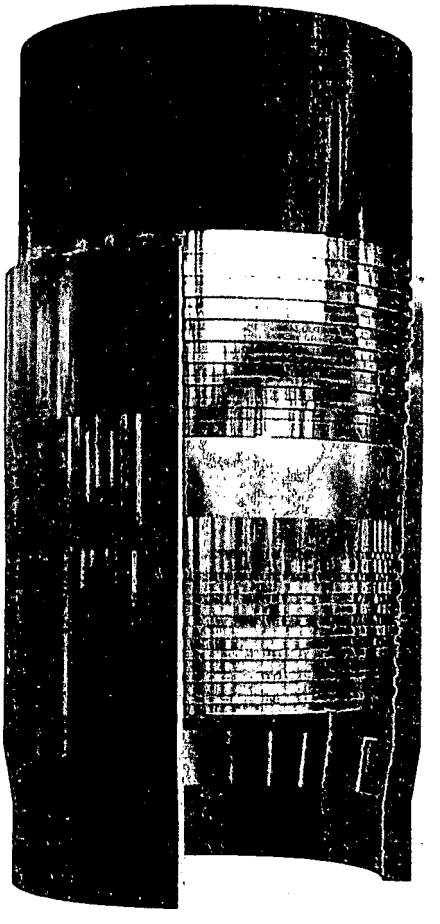
Size	5.500	in	Minimum Yield	110,000	psi
Nominal Weight	20.00	lbs/ft	Minimum Tensile	125,000	psi
Grade	P110 HC		Yield Load	641,000	lbs
PE Weight	19.81	lbs/ft	Tensile Load	728,000	lbs
Wall Thickness	0.361	in	Min. Internal Yield Pressure	12,640	psi
Nominal ID	4.778	in	Collapse Pressure	12,780	psi
Drift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



Printed on: February-22-2018

TMK IPSCO

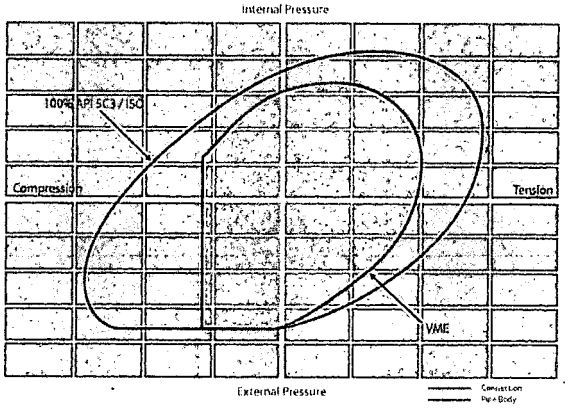
TECHNICAL DATA SHEET TMK UP FJ 7.625 X 26.4 L80 HC

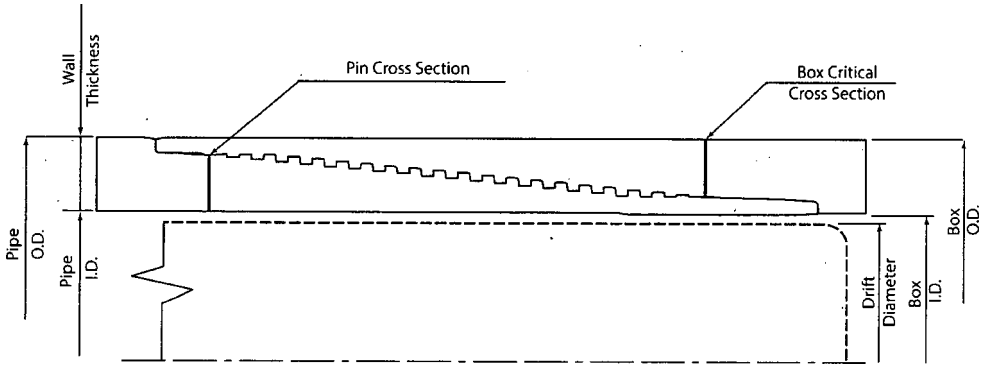
TUBULAR PARAMETERS	
Nominal OD, (inch)	7.625
Wall Thickness, (inch)	0.328
Pipe Grade	L80 HC
Drift	Standard

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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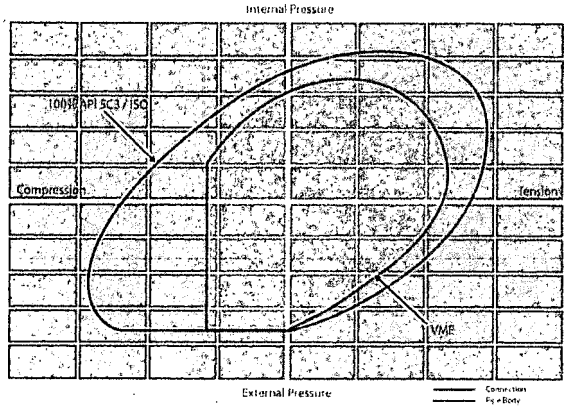
TECHNICAL DATA SHEET TMK UP SF 7.625 X 26.4 L80 HC

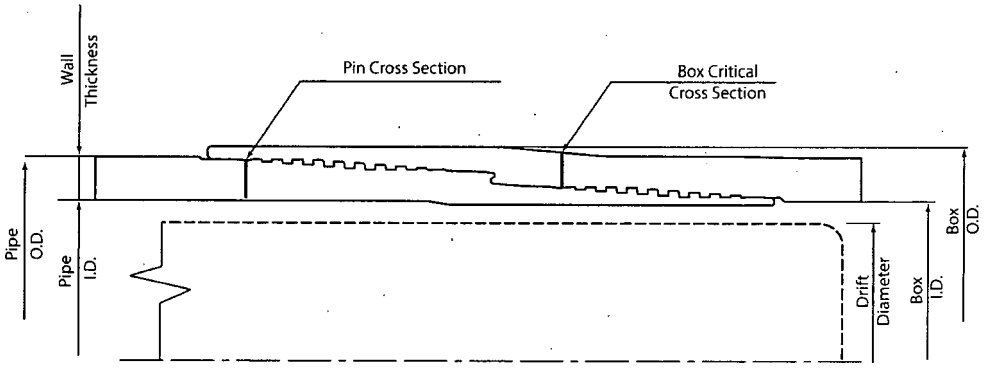
TUBULAR PARAMETERS	
Nominal OD, (inch)	7.625
Wall Thickness, (inch)	0.328
Pipe Grade	L80 HC
Drift	Standard

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





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Schlumberger

Oxy Iridium MDP1 28-21 Federal Com 172H Rev1 mcs 12Jul19 Proposal
Geodetic Report
(Def Plan)

Report Date:	July 12, 2019 - 01:36 PM	**Survey / DLS Computation:**	Minimum Curvature / Lubinski
Client:		**Vertical Section Azimuth:**	1.719 ° (Grid North)
Field:	NM Eddy County (NAD 83)	**Vertical Section Origin:**	0.000 ft, 0.000 ft
Structure / Slot:	Oxy Iridium MDP1 28-21 Federal Com 172H / Iridium MDP1 "28-21" Federal Com 172H	**TVD Reference Datum:**	RKB= 26.5'
Well:	Oxy Iridium MDP1 28-21 Federal Com 172H	**TVD Reference Elevation:**	3376.100 ft above MSL
Borehole:	Original Borehole	**Seabed / Ground Elevation:**	0.000 ft above MSL
UWI / API#:	Unknown / Unknown	**Magnetic Declination:**	6.857 °
Survey Name:	Oxy Iridium MDP1 28-21 Federal Com 172H Rev1 mcs 12Jul19	**Total Gravity Field Strength:**	998.4518mgn (9.80665 Based)
Survey Date:	January 28, 2019	**Gravity Model:**	GARM
Tort / AHD / DDI / ERD Ratio:	111.402 ° / 11213.350 ft / 6.449 / 1.317	**Total Magnetic Field Strength:**	47968.170 nT
Coordinate Reference System:	NAD83 New Mexico State Plane, Eastern Zone, US Feet	**Magnetic Dip Angle:**	59.993 °
Location Lat / Long:	N 32° 16' 2.77688", W 103° 47' 18.52096"	**Declination Date:**	January 28, 2019
Location Grid N/E Y/X:	N 461454.500 ftUS, E 709745.150 ftUS	**Magnetic Declination Model:**	HDGM 2018
CRS Grid Convergence Angle:	0.2909 °	**North Reference:**	Grid North
Grid Scale Factor:	0.99994157	**Grid Convergence Used:**	0.2909 °
Version / Patch:	2.10.760.0	**Total Corr Mag North->Grid North:**	6.5659 °
		Local Coord Referenced To:	Structure Reference Point

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
SHL	0.00	0.00	1.71	0.00	0.00	0.00	0.00	N/A	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	100.00	0.00	131.41	100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	200.00	0.00	131.41	200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	300.00	0.00	131.41	300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	400.00	0.00	131.41	400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	500.00	0.00	131.41	500.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	600.00	0.00	131.41	600.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	700.00	0.00	131.41	700.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	800.00	0.00	131.41	800.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	900.00	0.00	131.41	900.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1000.00	0.00	131.41	1000.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1100.00	0.00	131.41	1100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1200.00	0.00	131.41	1200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1300.00	0.00	131.41	1300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1400.00	0.00	131.41	1400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1500.00	0.00	131.41	1500.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1600.00	0.00	131.41	1600.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1700.00	0.00	131.41	1700.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1800.00	0.00	131.41	1800.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	1900.00	0.00	131.41	1900.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2000.00	0.00	131.41	2000.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2100.00	0.00	131.41	2100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2200.00	0.00	131.41	2200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2300.00	0.00	131.41	2300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2400.00	0.00	131.41	2400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2500.00	0.00	131.41	2500.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2600.00	0.00	131.41	2600.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2700.00	0.00	131.41	2700.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2800.00	0.00	131.41	2800.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	2900.00	0.00	131.41	2900.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3000.00	0.00	131.41	3000.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3100.00	0.00	131.41	3100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3200.00	0.00	131.41	3200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3300.00	0.00	131.41	3300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3400.00	0.00	131.41	3400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3500.00	0.00	131.41	3500.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3600.00	0.00	131.41	3600.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3700.00	0.00	131.41	3700.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3800.00	0.00	131.41	3800.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	3900.00	0.00	131.41	3900.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4000.00	0.00	131.41	4000.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4100.00	0.00	131.41	4100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4200.00	0.00	131.41	4200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4300.00	0.00	131.41	4300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4400.00	0.00	131.41	4400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4500.00	0.00	131.41	4500.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4600.00	0.00	131.41	4600.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4700.00	0.00	131.41	4700.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4800.00	0.00	131.41	4800.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	4900.00	0.00	131.41	4900.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5000.00	0.00	131.41	5000.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5100.00	0.00	131.41	5100.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5200.00	0.00	131.41	5200.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5300.00	0.00	131.41	5300.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5400.00	0.00	131.41	5400.00	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
KOP, Build 1°/100' DLS	5482.22	0.00	131.41	5482.22	0.00	0.00	0.00	0.00	461454.50	709745.15	N 32 16 2.78	W 103 47 18.52
	5500.00	0.18	131.41	5500.00	-0.02	-0.02	0.02	1.00	461454.48	709745.17	N 32 16 2.78	W 103 47 18.52
	5600.00	1.18	131.41	5599.99	-0.77	-0.80	0.91	1.00	461453.70	709746.06	N 32 16 2.77	W 103 47 18.51
	5700.00	2.18	131.41	5699.95	-2.64	-2.74	3.10	1.00	461451.76	709748.25	N 32 16 2.75	W 103 47 18.48
	5800.00	3.18	131.41	5799.84	-5.63	-5.83	6.61	1.00	461448.67	709751.76	N 32 16 2.72	W 103 47 18.44
	5900.00	4.18	131.41	5899.63	-9.72	-10.07	11.42	1.00	461444.43	709756.57	N 32 16 2.68	W 103 47 18.39
	6000.00	5.18	131.41	5999.30	-14.93	-15.46	17.54	1.00	461439.04	709762.68	N 32 16 2.62	W 103 47 18.32
	6100.00	6.18	131.41	6098.80	-21.25	-22.01	24.96	1.00	461432.49	709770.10	N 32 16 2.56	W 103 47 18.23
	6200.00	7.18	131.41	6198.12	-28.67	-29.70	33.68	1.00	461424.80	709778.83	N 32 16 2.48	W 103 47 18.13
	6300.00	8.18	131.41	6297.23	-37.21	-38.54	43.70	1.00	461415.97	709788.84	N 32 16 2.39	W 103 47 18.01
	6400.00	9.18	131.41	6396.08	-46.84	-48.51	55.01	1.00	461405.99	709800.16	N 32 16 2.29	W 103 47 17.88
Hold	6482.41	10.00	131.41	6477.34	-55.61	-57.60	65.31	1.00	461396.91	709810.46	N 32 16 2.20	W 103 47 17.76
	6500.00	10.00	131.41	6494.66	-57.56	-59.62	67.60	0.00	461394.89	709812.75	N 32 16 2.18	W 103 47 17.74
	6600.00	10.00	131.41	6593.14	-68.65	-71.10	80.63	0.00	461383.40	709825.77	N 32 16 2.07	W 103 47 17.59
Turn 1°/100' DLS	6650.90	10.00	131.41	6643.27	-74.30	-76.95	87.26	0.00	461377.55	709832.40	N 32 16 2.01	W 103 47 17.51
	6700.00	9.67	129.28	6691.65	-79.53	-82.38	93.65	1.00	461372.12	709838.79	N 32 16 1.96	W 103 47 17.44
	6800.00	9.04	124.49	6790.32	-88.91	-92.15	106.63	1.00	461362.35	709851.77	N 32 16 1.86	W 103 47 17.28
	6900.00	8.49	119.03	6889.15	-96.55	-100.18	119.56	1.00	461354.32	709864.71	N 32 16 1.78	W 103 47 17.13
	7000.00	8.02	112.88	6988.11	-102.45	-106.48	132.44	1.00	461348.03	709877.58	N 32 16 1.72	W 103 47 16.98
	7100.00	7.65	106.05	7087.18	-106.62	-111.03	145.27	1.00	461343.48	709890.41	N 32 16 1.67	W 103 47 16.84
	7200.00	7.40	98.65	7186.32	-109.04	-113.84	158.03	1.00	461340.67	709903.17	N 32 16 1.64	W 103 47 16.69

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	7300.00	7.28	90.87	7285.51	-109.73	-114.90	170.72	1.00	461339.61	709915.86	N 32 16 1.63	W 103 47 16.54
	7400.00	7.29	82.98	7384.70	-108.67	-114.22	183.35	1.00	461340.29	709928.49	N 32 16 1.64	W 103 47 16.39
	7500.00	7.44	75.26	7483.88	-105.87	-111.80	195.91	1.00	461342.71	709941.05	N 32 16 1.66	W 103 47 16.25
	7600.00	7.71	67.96	7583.01	-101.33	-107.63	208.39	1.00	461346.87	709953.53	N 32 16 1.70	W 103 47 16.10
	7700.00	8.10	61.26	7682.06	-95.06	-101.73	220.79	1.00	461352.78	709965.93	N 32 16 1.76	W 103 47 15.96
	7800.00	8.59	55.24	7781.00	-87.04	-94.08	233.11	1.00	461360.43	709978.24	N 32 16 1.83	W 103 47 15.81
	7900.00	9.16	49.92	7879.81	-77.30	-84.69	245.33	1.00	461369.81	709990.47	N 32 16 1.93	W 103 47 15.67
	8000.00	9.80	45.25	7978.44	-65.82	-73.58	257.47	1.00	461380.93	710002.61	N 32 16 2.04	W 103 47 15.53
Build/Turn 10°/100' DLS	8029.21	10.00	44.00	8007.22	-62.14	-70.00	261.00	1.00	461384.50	710006.13	N 32 16 2.07	W 103 47 15.49
	8100.00	16.04	27.10	8076.18	-48.74	-56.86	269.74	10.00	461397.65	710014.87	N 32 16 2.20	W 103 47 15.38
Build/Turn 10°/100' DLS	8142.60	20.00	22.00	8116.68	-36.58	-44.86	275.15	10.00	461409.64	710020.28	N 32 16 2.32	W 103 47 15.32
	8200.00	25.52	17.90	8169.60	-15.48	-23.97	282.63	10.00	461430.53	710027.77	N 32 16 2.53	W 103 47 15.23
	8300.00	35.30	13.69	8255.75	33.59	24.72	296.13	10.00	461479.22	710041.26	N 32 16 3.01	W 103 47 15.07
	8400.00	45.16	11.13	8332.01	96.99	87.74	309.85	10.00	461542.23	710054.98	N 32 16 3.63	W 103 47 14.91
	8500.00	55.07	9.33	8396.06	172.79	163.16	323.37	10.00	461617.65	710068.50	N 32 16 4.38	W 103 47 14.75
	8600.00	64.99	7.92	8445.95	258.68	248.71	336.30	10.00	461703.19	710081.43	N 32 16 5.22	W 103 47 14.59
	8700.00	74.93	6.73	8480.18	352.06	341.77	348.23	10.00	461796.25	710093.36	N 32 16 6.14	W 103 47 14.45
	8800.00	84.87	5.64	8497.70	450.09	439.52	358.80	10.00	461894.00	710103.93	N 32 16 7.11	W 103 47 14.32
Landing Point	8850.78	89.92	5.10	8500.00	500.70	490.02	363.54	10.00	461944.49	710108.67	N 32 16 7.61	W 103 47 14.26
	8900.00	89.92	4.61	8500.07	549.85	539.06	367.71	1.00	461993.52	710112.84	N 32 16 8.09	W 103 47 14.21
	9000.00	89.92	3.61	8500.21	649.76	638.80	374.87	1.00	462093.26	710120.00	N 32 16 9.08	W 103 47 14.12
	9100.00	89.92	2.61	8500.35	749.73	738.65	380.29	1.00	462193.11	710125.42	N 32 16 10.07	W 103 47 14.05
	9200.00	89.92	1.61	8500.48	849.72	838.58	383.97	1.00	462293.03	710129.10	N 32 16 11.06	W 103 47 14.00
	9300.00	89.92	0.61	8500.62	949.72	938.56	385.90	1.00	462393.00	710131.03	N 32 16 12.04	W 103 47 13.97
Hold to TD	9396.77	89.92	359.64	8500.74	1046.45	1035.33	386.11	1.00	462489.76	710131.24	N 32 16 13.00	W 103 47 13.96
	9400.00	89.92	359.64	8500.75	1049.68	1038.56	386.09	0.00	462493.00	710131.22	N 32 16 13.03	W 103 47 13.96
	9500.00	89.92	359.64	8500.88	1149.61	1138.56	385.47	0.00	462592.99	710130.59	N 32 16 14.02	W 103 47 13.96
	9600.00	89.92	359.64	8501.01	1249.54	1238.56	384.84	0.00	462692.98	710129.96	N 32 16 15.01	W 103 47 13.97
	9700.00	89.92	359.64	8501.14	1349.48	1338.55	384.21	0.00	462792.97	710129.34	N 32 16 16.00	W 103 47 13.97
	9800.00	89.92	359.64	8501.27	1449.41	1438.55	383.58	0.00	462892.96	710128.71	N 32 16 16.99	W 103 47 13.97
	9900.00	89.92	359.64	8501.40	1549.35	1538.55	382.95	0.00	462992.96	710128.08	N 32 16 17.98	W 103 47 13.97
	10000.00	89.92	359.64	8501.53	1649.28	1638.55	382.32	0.00	463092.95	710127.45	N 32 16 18.97	W 103 47 13.97
	10100.00	89.92	359.64	8501.66	1749.21	1738.54	381.70	0.00	463192.94	710126.82	N 32 16 19.96	W 103 47 13.97
	10200.00	89.92	359.64	8501.80	1849.15	1838.54	381.07	0.00	463292.93	710126.20	N 32 16 20.95	W 103 47 13.97
	10300.00	89.92	359.64	8501.93	1949.08	1938.54	380.44	0.00	463392.92	710125.57	N 32 16 21.94	W 103 47 13.98
	10400.00	89.92	359.64	8502.06	2049.02	2038.54	379.81	0.00	463492.92	710124.94	N 32 16 22.93	W 103 47 13.98
	10500.00	89.92	359.64	8502.19	2148.95	2138.54	379.18	0.00	463592.91	710124.31	N 32 16 23.92	W 103 47 13.98
	10600.00	89.92	359.64	8502.32	2248.88	2238.53	378.56	0.00	463692.90	710123.68	N 32 16 24.91	W 103 47 13.98
	10700.00	89.92	359.64	8502.45	2348.82	2338.53	377.93	0.00	463792.89	710123.06	N 32 16 25.90	W 103 47 13.98
	10800.00	89.92	359.64	8502.58	2448.75	2438.53	377.30	0.00	463892.88	710122.43	N 32 16 26.89	W 103 47 13.98
	10900.00	89.92	359.64	8502.71	2548.69	2538.53	376.67	0.00	463992.88	710121.80	N 32 16 27.88	W 103 47 13.98
	11000.00	89.92	359.64	8502.84	2648.62	2638.53	376.04	0.00	464092.87	710121.17	N 32 16 28.87	W 103 47 13.99
	11100.00	89.92	359.64	8502.97	2748.56	2738.52	375.42	0.00	464192.86	710120.54	N 32 16 29.86	W 103 47 13.99
	11200.00	89.92	359.64	8503.10	2848.49	2838.52	374.79	0.00	464292.85	710119.92	N 32 16 30.85	W 103 47 13.99
	11300.00	89.92	359.64	8503.24	2948.42	2938.52	374.16	0.00	464392.84	710119.29	N 32 16 31.83	W 103 47 13.99
	11400.00	89.92	359.64	8503.37	3048.36	3038.52	373.53	0.00	464492.83	710118.66	N 32 16 32.82	W 103 47 13.99
	11500.00	89.92	359.64	8503.50	3148.29	3138.52	372.90	0.00	464592.83	710118.03	N 32 16 33.81	W 103 47 13.99
	11600.00	89.92	359.64	8503.63	3248.23	3238.51	372.28	0.00	464692.82	710117.40	N 32 16 34.80	W 103 47 13.99
	11700.00	89.92	359.64	8503.76	3348.16	3338.51	371.65	0.00	464792.81	710116.78	N 32 16 35.79	W 103 47 13.99
	11800.00	89.92	359.64	8503.89	3448.09	3438.51	371.02	0.00	464892.80	710116.15	N 32 16 36.78	W 103 47 14.00
	11900.00	89.92	359.64	8504.02	3548.03	3538.51	370.39	0.00	464992.79	710115.52	N 32 16 37.77	W 103 47 14.00
	12000.00	89.92	359.64	8504.15	3647.96	3638.51	369.76	0.00	465092.79	710114.89	N 32 16 38.76	W 103 47 14.00
	12100.00	89.92	359.64	8504.28	3747.90	3738.50	369.14	0.00	465192.78	710114.26	N 32 16 39.75	W 103 47 14.00
	12200.00	89.92	359.64	8504.41	3847.83	3838.50	368.51	0.00	465292.77	710113.63	N 32 16 40.74	W 103 47 14.00
	12300.00	89.92	359.64	8504.55	3947.76	3938.50	367.88	0.00	465392.76	710113.01	N 32 16 41.73	W 103 47 14.00
	12400.00	89.92	359.64	8504.68	4047.70	4038.50	367.25	0.00	465492.75	710112.38	N 32 16 42.72	W 103 47 14.00
	12500.00	89.92	359.64	8504.81	4147.63	4138.50	366.62	0.00	465592.75	710111.75	N 32 16 43.71	W 103 47 14.01
	12600.00	89.92	359.64	8504.94	4247.57	4238.49	365.99	0.00	465692.74	710111.12	N 32 16 44.70	W 103 47 14.01
	12700.00	89.92	359.64	8505.07	4347.50	4338.49	365.37	0.00	465792.73	710110.49	N 32 16 45.69	W 103 47 14.01
	12800.00	89.92	359.64	8505.20	4447.43	4438.49	364.74	0.00	465892.72	710109.87	N 32 16 46.68	W 103 47 14.01
	12900.00	89.92	359.64	8505.33	4547.37	4538.49	364.11	0.00	465992.71	710109.24	N 32 16 47.67	W 103 47 14.01
	13000.00	89.92	359.64	8505.46	4647.30	4638.49	363.48	0.00	466092.71	710108.61	N 32 16 48.66	W 103 47 14.01
	13100.00	89.92	359.64	8505.59	4747.24	4738.48	362.85	0.00	466192.70	710107.98	N 32 16 49.65	W 103 47 14.01
	13200.00	89.92	359.64	8505.72	4847.17	4838.48	362.23	0.00	466292.69	710107.35	N 32 16 50.64	W 103 47 14.02
	13300.00	89.92	359.64	8505.85	4947.11	4938.48	361.60	0.00	466392.68	710106.73	N 32 16 51.62	W 103 47 14.02
	13400.00	89.92	359.64	8505.99	5047.04	5038.48	360.97	0.00	466492.67	710106.10	N 32 16 52.61	W 103 47 14.02
	13500.00	89.92	359.64	8506.12	5146.97	5138.48	360.34	0.00	466592.66	710105.47	N 32 16 53.60	W 103 47 14.02
	13600.00	89.92	359.64	8506.25	5246.91	5238.47	359.71	0.00	466692.66	710104.84	N 32 16 54.59	W 103 47 14.02
	13700.00	89.92	359.64	8506.38	5346.84	5338.47	359.09	0.00	466792.65	710104.21	N 32 16 55.58	W 103 47 14.02
	13800.00	89.92	359.64	8506.51	5446.78	5438.47	358.46	0.00	466892.64	710103.59	N 32 16 56.57	W 103 47 14.02
	13900.00	89.92	359.64	8506.64	5546.71	5538.47	357.83	0.00	466992.63	710102.96	N 32 16 57.56	W 103 47 14.03
	14000.00	89.92	359.64	8506.77	5646.64	5638.46	357.20	0.00	467092.62	710102.33	N 32 16 58.55	W 103 47 14.03
	14100.00	89.92	359.64	8506.90	5746.58	5738.46	356.57	0.00	467192.62	710101.70	N 32 16 59.54	W 103 47 14.03
	14200.00	89.92	359.64	8507.03	5846.51	5838.46	355.95	0.00	467292.61	710101.07	N 32 17 0.53	W 103 47 14.03
	14300.00	89.92	359.64	8507.16	5946.45	5938.46	355.32	0.00	467392.60	710100.45	N 32 17 1.52	W 103 47 14.03
	14400.00	89.92	359.64	8507.29	6046.38	6038.46	354.69	0.00	467492.59	710099.82	N 32 17 2.51	W 103 47 14.03
	14500.00	89.92	359.64	8507.43	6146.31	6138.45	354.06	0.00	467592.58	710099.19	N 32 17 3.50	W 103 47 14.03
	14600.00	89.92	359.64	8507.56	6246.25	6238.45	353.43	0.00	467692.58	710098.56	N 32 17 4.49	W 103 47 14.04
	14700.00	89.92	359.64	8507.69	6346.18	6338.45	352.81	0.00	467792.57	710097.93	N 32 17 5.48	W 103 47 14.04
	14800.00	89.92	359.64	8507.82	6446.12	6438.45	352.18	0.00	467892.56	710097.31	N 32 17 6.47	W 103 47 14.04
	14900.00	89.92	359.64	8507.95	6546.05	6538.45	351.55	0.00	467992.55	710096.68	N 32 17 7.46	W 103 47 14.04
	15000.00	89.92	359.64	8508.08	6645.98	6638.44	350.92	0.00	468092.54	710096.05	N 32 17 8.45	W 103 47 14.04
	15100.00	89.92	359.64	8508.21	6745.92	6738.44	350.29	0.00	468192.53	710095.42	N 32 17 9.44	W 103 47 14.04
	15200.00	89.92	359.64	8508.34	6845.85	6838.44	349.67	0.00	468292.53	710094.79	N 32 17 10.43	W 103 47 14.04
	15300.00	89.92	359.64	8508.47	6945.79	6938.44	349.04	0.00	468392.52	710094.17	N 32 17 11.41	W 103 47 14.04
	15400.00	89.92	359.64	8508.60	7045.72	7038.44	348.41	0.00	468492.51	710093.54	N 32 17 12.40	W 103 47 14.05
	15500.00	89.92	359.64	8508.73	7145.65	7138.43	347.78	0.00	468592.50	710092.91	N 32 17 13.39	W 103 47 14.05
	15600.00	89.92	359.64	8508.87	7245.59	7238.43	347.15	0.00	468692.49	710092.28	N 32 17 14.38	W 103 47 14.05
	15700.00	89.92	359.64	8509.00	7345.52	7338.43	346.52	0.00	468792.49	710091.65	N 32 17 15.37	W 103 47 14.05
	15800.00	89.92	359.64	8509.13	7445.46	7438.43	345.90	0.00	468892.48	710091.03	N 32 17 16.36	W 103 47 14.05
	15900.00	89.92	359.64	8509.26	7545.39	7538.43	345.27	0.00	468992.47	710090.40	N 32 17 17.35	W 103 47 14.05
	16000.00	89.92	359.64	8509.39	7645.33	7638.42	344.64	0.00	469092.46	710089.77	N 32 17 18.34	W 103 47 14.05
	16100.00	89.92	359.64	8509.52	7745.26	7738.42	344.01	0.00	469192.45	710089.14	N 32 17 19.33	W 103 47 14.06
	16200.00	89.92	359.64	8509.65	7845.19	7838.42	343.38	0.00	469292.45	710088.51	N 32 17 20.32	W 103 47 14.06
	16300.00	89.92	359.64	8509.78	7945.13	7938.42	342.76	0.00	469392.44	710087.89	N 32 17 21.31	W 103 47 14.06
	16400.00	89.92	359.64	8509.91	8045.06	8038.42	342.13	0.00	469492.43	710087.26	N 32 17 22.30	W 103 47 14.06
	16500.00	89.92	359.64	8510.04	8145.00	8138.41	341.50	0.00	469592.42	710086.63	N 32 17 23.29	W 103 47 14.06
	16600.00	89.92	359.64	8510.17	8244.93	8238.41	340.87	0.00	469692.41	710086.00	N 32 17 24.28	W 103 47 14.06
	16700.00	89.92	359.64	8510.31	8344.86	8338.41	340.24	0.00	469792.41	710085.37	N 32 17 25.27	W 103 47 14.06
	16800.00	89.92	359.64	8510.44	8444.80	8438.41	339.62	0.00	469892.40	710084.75	N 32 17 26.26	W 103 47 14.07
	16900.00	89.92	359.64	8510.57	8544.73	8538.41	338.99	0.00	469992.39	710084.12	N 32 17 27.25	W 103 47 14.07
	17000.00	89.92	359.64	8510.70	8644.67	8638.40	338.36	0.00	470092.38	710083.49	N 32 17 28.24	W 103 47 14.07
	17100.00	89.92	359.64	8510.83	8744.60	8738.40	337.73	0.00	470192.37	710082.86	N 32 17 29.23	W 103 47 14.07
	17200.00	89.92	359.64	8510.96	8844.53	8838.40	337.10	0.00	470292.36	710082.23	N 32 17 30.22	W 103 47 14.07
	17300.00	89.92	359.64	8511.09	8944.47	8938.40	336.48	0.00	470392.36	710081.61	N 32 17 31.20	W 103 47 14.07
	17400.00	89.92	359.64	8511.22	9044.40	9038.39	335.85	0.00	470492.35	710080.98	N 32 17 32.19	W 103 47 14.07
	17500.00	89.92	359.64	8511.35	9144.34	9138.39	335.22	0.00	470592.34	710080.35	N 32 17 33.18	W 103 47 14.08

Comments	MD (ft)	Incl (°)	Azim Grid (°)	TVD (ft)	VSEC (ft)	NS (ft)	EW (ft)	DLS (°/100ft)	Northing (ftUS)	Easting (ftUS)	Latitude (N/S ° ' ")	Longitude (E/W ° ' ")
	17600.00	89.92	359.64	8511.48	9244.27	9238.39	334.59	0.00	470692.33	710079.72	N 32 17 34.17	W 103 47 14.08
	17700.00	89.92	359.64	8511.61	9344.20	9338.39	333.96	0.00	470792.32	710079.09	N 32 17 35.16	W 103 47 14.08
	17800.00	89.92	359.64	8511.75	9444.14	9438.39	333.34	0.00	470892.32	710078.47	N 32 17 36.15	W 103 47 14.08
	17900.00	89.92	359.64	8511.88	9544.07	9538.38	332.71	0.00	470992.31	710077.84	N 32 17 37.14	W 103 47 14.08
	18000.00	89.92	359.64	8512.01	9644.01	9638.38	332.08	0.00	471092.30	710077.21	N 32 17 38.13	W 103 47 14.08
	18100.00	89.92	359.64	8512.14	9743.94	9738.38	331.45	0.00	471192.29	710076.58	N 32 17 39.12	W 103 47 14.08
	18200.00	89.92	359.64	8512.27	9843.87	9838.38	330.82	0.00	471292.28	710075.95	N 32 17 40.11	W 103 47 14.08
	18300.00	89.92	359.64	8512.40	9943.81	9938.38	330.19	0.00	471392.28	710075.32	N 32 17 41.10	W 103 47 14.09
	18400.00	89.92	359.64	8512.53	10043.74	10038.37	329.57	0.00	471492.27	710074.70	N 32 17 42.09	W 103 47 14.09
	18500.00	89.92	359.64	8512.66	10143.68	10138.37	328.94	0.00	471592.26	710074.07	N 32 17 43.08	W 103 47 14.09
	18600.00	89.92	359.64	8512.79	10243.61	10238.37	328.31	0.00	471692.25	710073.44	N 32 17 44.07	W 103 47 14.09
	18700.00	89.92	359.64	8512.92	10343.55	10338.37	327.68	0.00	471792.24	710072.81	N 32 17 45.06	W 103 47 14.09
	18800.00	89.92	359.64	8513.05	10443.48	10438.37	327.05	0.00	471892.24	710072.18	N 32 17 46.05	W 103 47 14.09
	18900.00	89.92	359.64	8513.19	10543.41	10538.36	326.43	0.00	471992.23	710071.56	N 32 17 47.04	W 103 47 14.09
	19000.00	89.92	359.64	8513.32	10643.35	10638.36	325.80	0.00	472092.22	710070.93	N 32 17 48.03	W 103 47 14.10
	19100.00	89.92	359.64	8513.45	10743.28	10738.36	325.17	0.00	472192.21	710070.30	N 32 17 49.02	W 103 47 14.10
Oxy Iridium MDP1 28-21 Federal Com 172H - PBHL	19178.13	89.92	359.64	8513.55	10821.36	10816.48	324.68	0.00	472270.33	710069.81	N 32 17 49.79	W 103 47 14.10

Survey Type: Def Plan

Survey Error Model: ISCWSA Rev 0 *** 3-D 95.000% Confidence 2.7955 sigma
Survey Program:

Description	Part	MD From (ft)	MD To (ft)	EOU Freq (ft)	Hole Size (in)	Casing Diameter (in)	Expected Max Inclination (deg)	Survey Tool Type	Borehole / Survey
	1	0.000	3376.100	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG-Depth Only	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 172H Rev1 mcs 12Jul19
	1	3376.100	19178.125	1/100.000	30.000	30.000		NAL_MWD_PLUS_0.5_DEG	Original Borehole / Oxy Iridium MDP1 28-21 Federal Com 172H

Schlumberger

OXY

Borehole:	Well:	Field:	Structure:
Original Borehole	Oxy Iridium MDP1 28-21 Federal Com 172H	NM Eddy County (NAD 83)	Oxy Iridium MDP1 28-21 Federal Com 172H

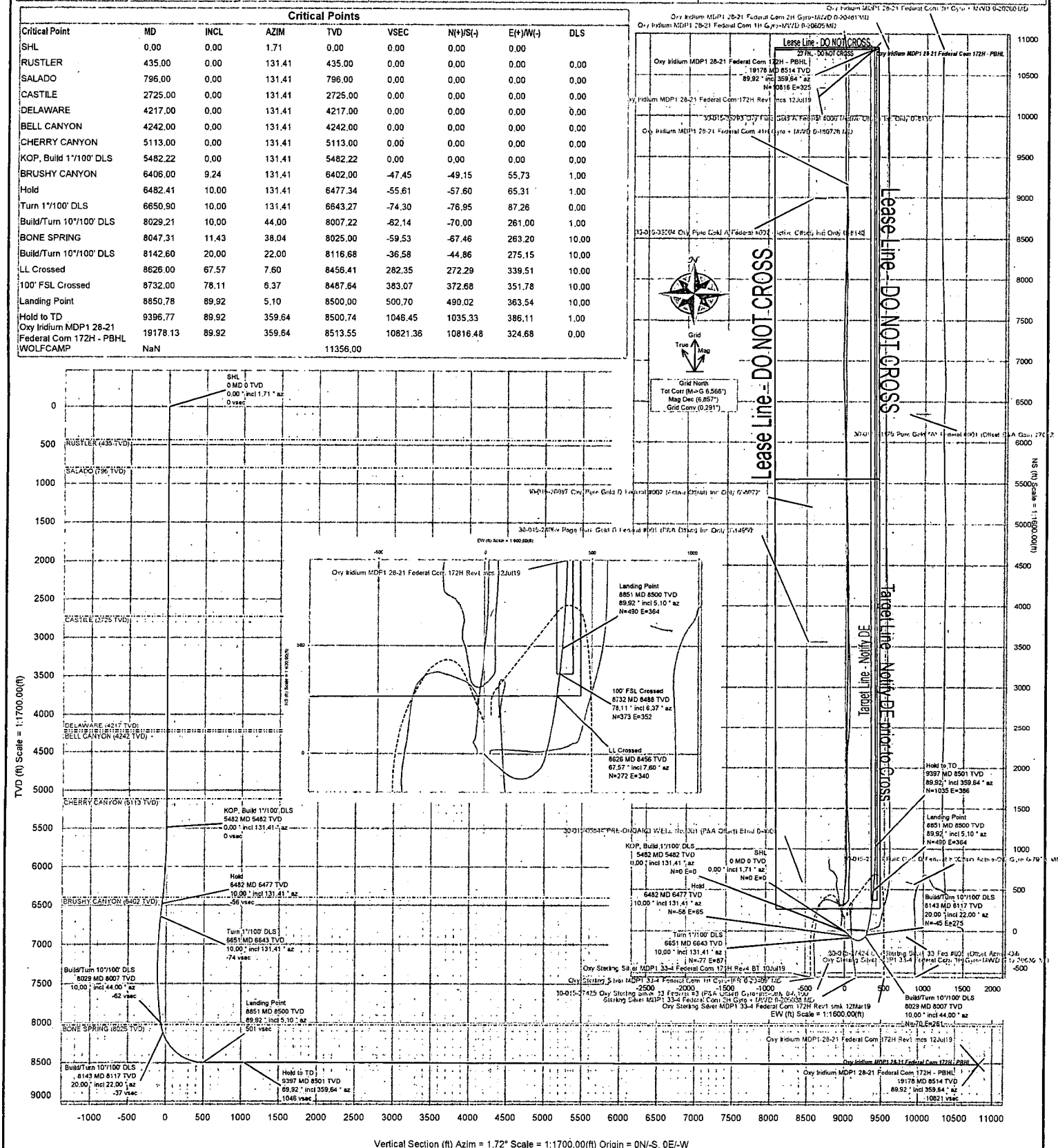
Gravity & Magnetic Parameters
Model: HDGM 2018 Dip: 59.893° Date: 28-Jan-2019
MagDec: 6.857° FS: 47968.17nT Gravity FS: 998.452mgn (9.80665 Based)

Surface Location NAD83 New Mexico State Plane, Eastern Zone, US Feet
Lat: N 32 16 2.76 Northing: 461454.5ftUS Grid Conv: 0.2809°
Lon: W 103 47 18.52 Easting: 709745.15ftUS Scale Fact: 0.99994157

Miscellaneous
Slot: Iridium MDP1 "28-21" Federal Com 172H TVD Ref: RKB= 26.5'(3376.1ft above MSL)
Plan: Oxy Iridium MDP1 28-21 Federal Com 172H Rev1 mcs 12Jul19

Critical Points

Critical Point	MD	INCL	AZIM	TVD	VSEC	N(+)/S(-)	E(+)/W(-)	DLS
SHL	0.00	0.00	1.71	0.00	0.00	0.00	0.00	
RUSTLER	435.00	0.00	131.41	435.00	0.00	0.00	0.00	0.00
SALADO	796.00	0.00	131.41	796.00	0.00	0.00	0.00	0.00
CASTILE	2725.00	0.00	131.41	2725.00	0.00	0.00	0.00	0.00
DELAWARE	4217.00	0.00	131.41	4217.00	0.00	0.00	0.00	0.00
BELL CANYON	4242.00	0.00	131.41	4242.00	0.00	0.00	0.00	0.00
CHERRY CANYON	5113.00	0.00	131.41	5113.00	0.00	0.00	0.00	0.00
KOP, Build 1°/100' DLS	5482.22	0.00	131.41	5482.22	0.00	0.00	0.00	0.00
BRUSHY CANYON	6406.00	9.24	131.41	6402.00	-47.45	-49.15	55.73	1.00
Hold	6482.41	10.00	131.41	6477.34	-55.61	-57.60	65.31	1.00
Turn 1°/100' DLS	6650.90	10.00	131.41	6643.27	-74.30	-76.95	87.26	0.00
Build/Turn 10°/100' DLS	8029.21	10.00	44.00	8007.22	-62.14	-70.00	261.00	1.00
BONE SPRING	8047.31	11.43	38.04	8025.00	-59.53	-67.46	263.20	10.00
Build/Turn 10°/100' DLS	8142.60	20.00	22.00	8116.68	-36.58	-44.86	275.15	10.00
LL Crossed	8626.00	67.57	7.60	8456.41	282.35	272.29	339.51	10.00
100' FSL Crossed	8732.00	78.11	6.37	8487.64	383.07	372.68	351.78	10.00
Landing Point	8851.78	89.92	5.10	8500.00	500.70	490.02	363.54	10.00
Hold to TD	9396.77	89.92	359.64	8500.74	1046.45	1035.33	386.11	1.00
Oxy Iridium MDP1 28-21 Federal Com 172H - PBHL	19178.13	89.92	359.64	8513.55	10821.36	10816.48	324.68	0.00
WOLFCAMP	NaN			11356.00				



Oxy USA Inc. - Iridium MDP1 28-21 Federal Com 172H

1. Geologic Formations

TVD of target	8514'	Pilot Hole Depth	N/A
MD at TD:	19178'	Deepest Expected fresh water:	436'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
Rustler	436	
Salado	797	Salt
Castile	2,726	Salt
Lamar/Delaware	4,218	Oil/Gas/Brine
Bell Canyon	4,243	Oil/Gas/Brine
Cherry Canyon	5,114	Oil/Gas/Brine
Brushy Canyon	6,402	Losses
Bone Spring	8,026	Oil/Gas

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

2. Casing Program

Hole Size (in)	Casing Interval		Csg. Size	Weight	Grade	Conn.	SF		Buoyant	Buoyant
	From (ft)	To (ft)	(in)	(lbs)			Collapse	SF Burst	Body SF Tension	Joint SF Tension
17.5	0	486	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
12.25	0	4268	9.625	40	L-80	BTC	1.125	1.2	1.4	1.4
8.75	0	7929	7.625	26.4	L-80 HC	SF (0 ft to 4000 ft) FJ (4000 ft to 7929 ft)	1.125	1.2	1.4	1.4
6.75	0	19178	5.5	20	P-110	DQX	1.125	1.2	1.4	1.4
							SF Values will meet or Exceed			

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.

3. Cementing Program

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)	519	14.8	1.33	6.365	5:26	Class C Cement, Accelerator
Intermediate (Lead)	914	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)	82	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)	404	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)	861	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	486	100%
Intermediate (Lead)	0	3768	50%
Intermediate (Tail)	3768	4268	20%
Intermediate II 1st Stage (Lead)	N/A	N/A	N/A
Intermediate II 1st Stage (Tail)	6652	7929	5%
Intermediate II 2nd Stage (Lead)	N/A	N/A	N/A
Intermediate II 2nd Stage (Tail)	0	6652	25%
Production (Lead)	N/A	N/A	N/A
Production (Tail)	7429	19178	20%

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.

Oxy USA Inc. - Iridium MDP1 28-21 Federal Com 172H

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?	

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 pressuregauge for monitoring.

4. Pressure Control Equipment

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*		
8.75" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		
6.75" Hole	13-5/8"	3M	Annular	✓	70% of working pressure
		3M	Blind Ram	✓	250 psi / 3000 psi
			Pipe Ram		
			Double Ram	✓	
			Other*		

*Specify if additional ram is utilized.

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.
- When skidding to drill an intermediate section that the casing point is either shallower than the 3rd Bone Spring or 10,000 TVD.
- Full BOP test will be required prior to drilling any production hole.

5. Mud Program

Depth		Type	Weight (ppg)	Viscosity	Water Loss
From (ft)	To (ft)				
0	486	Water-Based Mud	8.6-8.8	40-60	N/C
486	4268	Saturated Brine-Based Mud	9.8-10.0	35-45	N/C
4268	7929	Water-Based or Oil-Based Mud	8.0-9.6	38-50	N/C
7929	19178	Water-Based or Oil-Based Mud	8.0-9.6	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	4251 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	149°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.	Yes

• 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.	

Total estimated cuttings volume: 1466.1 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
Linsay Earle	Drilling Engineer	713-350-4921	832-596-5507
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

NM OIL CONSERVATION
ARTESIA DISTRICT

OCT 03 2019

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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) 334-6178 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
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

API Number	Pool Code	Pool Name
30-015-45248	33740	Ingle Wells Bone Spring

Property Code	Property Name	Well Number
321632	IRIDIUM MDP1 "28--21" FEDERAL COM	172H

OGRID No.	Operator Name	Elevation
16696	OXY USA INC.	3376.1'

Surface Location

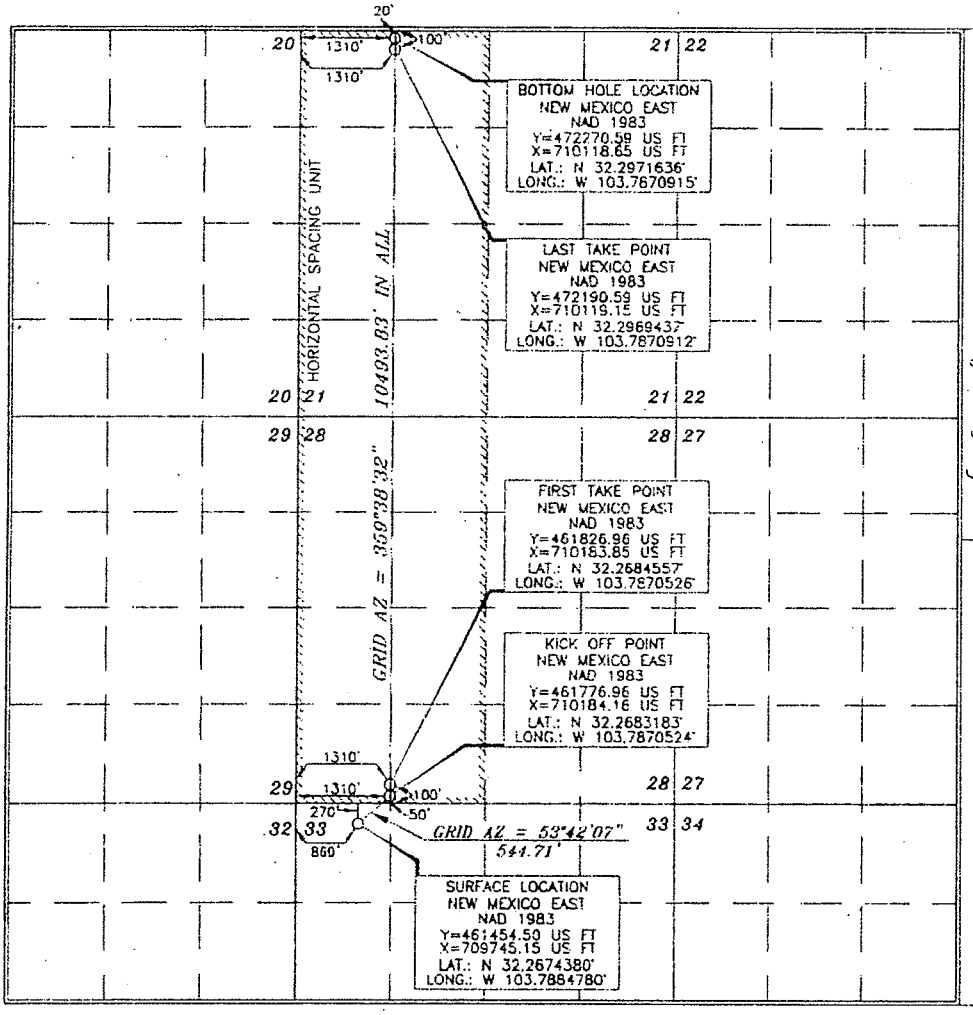
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	33	23 SOUTH	31 EAST, N.M.P.M.		270'	NORTH	869'	WEST	EDDY

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
D	21	23 SOUTH	31 EAST, N.M.P.M.		20'	NORTH	1310'	WEST	EDDY

Dedicated Acres	Joint or Infill	Consolidation Code	Order No.
640			

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.



OPERATOR CERTIFICATION

I hereby certify that 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 interest in 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.

Sarah Chapman 8/20/19
Signature Date

Sarah Chapman
Printed Name

Sarah_Chapman@oxy.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.

JANUARY 31, 2018
Date of Survey

Signature and Seal of Professional Surveyor

TERRY J. ASEL
NEW MEXICO
15079
REGISTERED PROFESSIONAL LAND SURVEYOR

Terry J. Asel 7/23/2019
Certificate Number 15079

WO# 180131WL-b (Rev. B) (KA)

RVS 10-9-19

NM OIL CONSERVATION
ARTESIA DISTRICT
OCT 03 2019
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Intent [X] As Drilled [ ]

API #
30-015-45248

Operator Name:	Property Name:	Well Number
OXY USA Inc.	Iridium MDP1 28-21 Federal Com	172H

Kick Off Point (KOP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	28	23S	31E		50	South	1310	West	EDDY

Latitude	Longitude	NAD
32.2683183	-103.7871524	NAD 83

First Take Point (FTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
M	28	23S	31E		100	South	1310	West	EDDY

Latitude	Longitude	NAD
32.2684557	-103.7870526	NAD 83

Last Take Point (LTP)

UL	Section	Township	Range	Lot	Feet	From N/S	Feet	From E/W	County
D	21	23S	31E		100	North	1310	West	EDDY

Latitude	Longitude	NAD
32.2969437	-103.7870912	NAD 83

Is this well the defining well for the Horizontal Spacing Unit? [ ]

Is this well an infill well? [ ]

If infill is yes please provide API if available, Operator Name and well number for Defining well for Horizontal Spacing Unit.

API #

Operator Name:	Property Name:	Well Number

KZ 06/29/2018