

# U.S. Department of the Interior BUREAU OF LAND MANAGEMENT

Well Name	Well Number	US Well Number	Lease Number	Case Number	Operator
GOLD LOG 4-9	22H	3002553818	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	16H	3002553811	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4_9	2H	3002553807	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	25H	3002553813	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	23H	3002553812	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	ЗН	3002553808	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4_9	1H	3002553815	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4_9	12H	3002553809	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	4H	3002553816	NMNM104687	NMNM104687	OXY USA
GOLD LOG 4-9	13H	3002553817	NMNM86710	NMNM86710	OXY USA
GOLD LOG 4-9	26H	3002553814	NMNM86710	NMNM86710	OXY USA

## **Notice of Intent**

**Sundry ID: 2820581** 

Type of Submission: Notice of Intent

Date Sundry Submitted: 11/04/2024

Date proposed operation will begin: 11/07/2024

Type of Action: APD Change

Time Sundry Submitted: 11:48

**Procedure Description:** OXY USA Inc. respectfully requests approval to amend the subject wells AAPD to change the casing design to our Blanket A design. See the attached verbal email approval and the Blanket A design document.

## **NOI Attachments**

## **Procedure Description**

Blanket\_Design\_A\_\_\_OXY\_\_\_3S\_Slim\_v7.1\_20241104113836.pdf

GoldLogEmailApproval11\_4\_2024\_20241104113752.pdf

## **Operator**

I certify that the foregoing is true and correct. 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. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: LESLIE REEVES Signed on: NOV 04, 2024 11:39 AM

Name: OXY USA INCORPORATED

Title: Advisor Regulatory

Street Address: 5 GREENWAY PLAZA, SUITE 110

City: HOUSTON State: TX

Phone: (713) 497-2492

Email address: LESLIE\_REEVES@OXY.COM

**Field** 

**Representative Name:** 

**Street Address:** 

City: State: Zip

Phone:

**Email address:** 

## **BLM Point of Contact**

**BLM POC Name:** KEITH P IMMATTY **BLM POC Title:** ENGINEER

BLM POC Phone: 5759884722 BLM POC Email Address: KIMMATTY@BLM.GOV

**Disposition:** Approved **Disposition Date:** 01/21/2025

Signature: KEITH IMMATTY

Form 3160-5 (June 2019)

# UNITED STATES DEPARTMENT OF THE INTERIOR

FORM APPROVED
OMB No. 1004-0137
Expires: October 31, 202

BURI	EAU OF LAND MANAGEMENT	5. Lease Serial No.		
Do not use this f	OTICES AND REPORTS ON Worm for proposals to drill or to Use Form 3160-3 (APD) for suc	6. If Indian, Allottee or Tribe	Name	
SUBMIT IN 1	TRIPLICATE - Other instructions on pag	7. If Unit of CA/Agreement, N	Name and/or No.	
1. Type of Well Oil Well Gas W	/ell Other		8. Well Name and No.	
2. Name of Operator			9. API Well No.	
3a. Address	3b. Phone No.	(include area code)	10. Field and Pool or Explorat	tory Area
4. Location of Well (Footage, Sec., T.,R	.,M., or Survey Description)		11. Country or Parish, State	
12. CHE	CK THE APPROPRIATE BOX(ES) TO IN	DICATE NATURE (	OF NOTICE, REPORT OR OTH	HER DATA
TYPE OF SUBMISSION		TYPI	E OF ACTION	
Notice of Intent	Acidize Deep Alter Casing Hyde	nen raulic Fracturing	Production (Start/Resume) Reclamation	Water Shut-Off Well Integrity
Subsequent Report		Construction	Recomplete	Other
Final Abandonment Notice	= ' = '	and Abandon Back	Temporarily Abandon Water Disposal	
is ready for final inspection.)	tices must be filed only after all requirement	is, menumg recidina	non, have been completed and t	the operator has determined that the Site
14. I hereby certify that the foregoing is	true and correct. Name (Printed/Typed)			
		Title		
Signature		Date		
	THE SPACE FOR FED	ERAL OR STA	TE OFICE USE	
Approved by				
		Title	]	Date
	ned. Approval of this notice does not warrar equitable title to those rights in the subject led duct operations thereon.			
	B U.S.C Section 1212, make it a crime for a ents or representations as to any matter with		and willfully to make to any de	epartment or agency of the United States

(Instructions on page 2)

#### **GENERAL INSTRUCTIONS**

This form is designed for submitting proposals to perform certain well operations and reports of such operations when completed as indicated on Federal and Indian lands pursuant to applicable Federal law and regulations. Any necessary special instructions concerning the use of this form and the number of copies to be submitted, particularly with regard to local area or regional procedures and practices, are either shown below, will be issued by or may be obtained from the local Federal office.

### SPECIFIC INSTRUCTIONS

*Item 4* - Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult the local Federal office for specific instructions.

Item 13: Proposals to abandon a well and subsequent reports of abandonment should include such special information as is required by the local Federal office. In addition, such proposals and reports should include reasons for the abandonment; data on any former or present productive zones or other zones with present significant fluid contents not sealed off by cement or otherwise; depths (top and bottom) and method of placement of cement plugs; mud or other material placed below, between and above plugs; amount, size, method of parting of any casing, liner or tubing pulled and the depth to the top of any tubing left in the hole; method of closing top of well and date well site conditioned for final inspection looking for approval of the abandonment. If the proposal will involve **hydraulic fracturing operations**, you must comply with 43 CFR 3162.3-3, including providing information about the protection of usable water. Operators should provide the best available information about all formations containing water and their depths. This information could include data and interpretation of resistivity logs run on nearby wells. Information may also be obtained from state or tribal regulatory agencies and from local BLM offices.

## **NOTICES**

The privacy Act of 1974 and the regulation in 43 CFR 2.48(d) provide that you be furnished the following information in connection with information required by this application.

AUTHORITY: 30 U.S.C. 181 et seq., 351 et seq., 25 U.S.C. 396; 43 CFR 3160.

PRINCIPAL PURPOSE: The information is used to: (1) Evaluate, when appropriate, approve applications, and report completion of subsequent well operations, on a Federal or Indian lease; and (2) document for administrative use, information for the management, disposal and use of National Resource lands and resources, such as: (a) evaluating the equipment and procedures to be used during a proposed subsequent well operation and reviewing the completed well operations for compliance with the approved plan; (b) requesting and granting approval to perform those actions covered by 43 CFR 3162.3-2, 3162.3-3, and 3162.3-4; (c) reporting the beginning or resumption of production, as required by 43 CFR 3162.4-1(c)and (d) analyzing future applications to drill or modify operations in light of data obtained and methods used.

ROUTINE USES: Information from the record and/or the record will be transferred to appropriate Federal, State, local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecutions in connection with congressional inquiries or to consumer reporting agencies to facilitate collection of debts owed the Government.

EFFECT OF NOT PROVIDING THE INFORMATION: Filing of this notice and report and disclosure of the information is mandatory for those subsequent well operations specified in 43 CFR 3162.3-2, 3162.3-3, 3162.3-4.

The Paperwork Reduction Act of 1995 requires us to inform you that:

The BLM collects this information to evaluate proposed and/or completed subsequent well operations on Federal or Indian oil and gas leases.

Response to this request is mandatory.

The BLM would like you to know that you do not have to respond to this or any other Federal agency-sponsored information collection unless it displays a currently valid OMB control number.

**BURDEN HOURS STATEMENT:** Public reporting burden for this form is estimated to average 8 hours per response, including the time for reviewing instructions, gathering and maintaining data, and completing and reviewing the form. Direct comments regarding the burden estimate or any other aspect of this form to U.S. Department of the Interior, Bureau of Land Management (1004-0137), Bureau Information Collection Clearance Officer (WO-630), 1849 C St., N.W., Mail Stop 401 LS, Washington, D.C. 20240

(Form 3160-5, page 2)

## **Additional Information**

### **Batch Well Data**

GOLD LOG 4\_9 FEDERAL COM 1H, US Well Number: 3002553815, Case Number: NMNM86710, Lease Number: NMNM86710, Operator:OXY USA INCORPORATED

GOLD LOG 4\_9 FEDERAL COM 2H, US Well Number: 3002553807, Case Number: NMNM86710, Lease Number: NMNM86710, Operator:OXY USA INCORPORATED

GOLD LOG 4\_9 FEDERAL COM 12H, US Well Number: 3002553809, Case Number: NMNM86710, Lease Number: NMNM86710, Operator:OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 13H, US Well Number: 3002553817, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 22H, US Well Number: 3002553818, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 23H, US Well Number: 3002553812, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 16H, US Well Number: 3002553811, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 25H, US Well Number: 3002553813, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 26H, US Well Number: 3002553814, Case Number: NMNM86710, Lease Number: NMNM86710, Operator: OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 3H, US Well Number: 3002553808, Case Number: NMNM86710, Lease Number: NMNM86710, Operator:OXY USA INCORPORATED

GOLD LOG 4-9 FEDERAL COM 4H, US Well Number: 3002553816, Case Number: NMNM104687, Lease Number: NMNM104687, Operator: OXY USA INCORPORATED





## 1. Casing Program

The designs and associated details listed in this document are the "worst case scenario" boundaries for design safety factors.

Location and lithology have NOT been accounted for in these designs; however, the designs are NOT valid for wells within KPLA Boundaries or Capitan Reef areas. The specific well details will be based on the APD/Sundry package and the information listed in the COA.

The mud program listed below will remain the same between each design variation.

Hole will be full during casing run for well control and tensile SF.

Casing will be kept at least half full during run for these designs to meet BLM collapse SF requirement.

## Design Variation "A1"

			MD	D TVD					
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	14.75	0	1200	0	1200	10.75	45.5	J-55	втс
Intermediate	9.875	0	13111*	0	12775*	7.625	26.4	L-80 HC	BTC Axis HT
Production	6.75	0	23361	0	12775	5.5	20	P-110	Wedge 461 Sprint SF DWC/C-HT-IS

<sup>\*</sup>Curve could be in intermediate or production section

# Design Variation "A2" - Option to Pivot to Design "B" for Contingency 4S

			MD	-	TVD				
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	17.5	0	1200	0	1200	13.375	54.5	J-55	ВТС
Intermediate	12.25†	0	13111*	0	12775*	7.625	26.4	L-80 HC	BTC Axis HT
Production	6.75	0	23361	0	12775	5.5	20	P-110	Wedge 461 Sprint SF DWC/C-HT-IS

<sup>\*</sup>Curve could be in intermediate or production section

All casing strings will be tested in accordance with 43 CFR part 3170 Subpart 3172

All Casing SF Values will meet or							
exceed those below							
SF	SF	Body SF	Joint SF				
	~ -						
Collapse	Burst	Tension					

<sup>†</sup>If 4S Contingency is not required, Oxy requests permission to transition from 12.25" to 9.875" Intermediate at some point during the hole section. Cement volumes will be updated on C103 submission.





## §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. Please see Annular Clearance Variance attachment for further details.

§Annular Clearance Variance Request may not apply to all connections used or presented.

# 2. Trajectory / Boundary Conditions

	ME	)	TV	D		
Section	Deepest KOP (ft)	End Build (ft)	Deepest KOP (ft)	End Build (ft)	Max. Angle	Max. Planned DLS
Surface	0	1200	0	1200	5°	1°/100 ft
Intermediate	5000 (inside Cherry Canyon)	6500	4980	6390	20°	2°/100 ft
	12211	13111	12202	12775	92°‡	12°/100 ft ‡
Production	12211 (~100' MD past ICP)	13111	12202	12775	92°‡	12°/100 ft ‡

<sup>‡</sup> Applies only when intermediate casing depth is deepened to landing point to match TVD of production in some areas where required to accommodate higher MWs in depleted areas.

Oxy has reviewed casing burst, collapse, and axial loadcases in Landmark StressCheck with the boundary conditions in the table above which satisfies Oxy and BLM minimum design criteria. Triaxial plots for each casing string is shown in Section 7 and intermediate load case inputs are shown in Section 8.





## 3. Cementing Program

NOTE: Blanket design is for technical review only. The cement volumes will be adjusted to ensure cement tops meet BLM requirements.

## Design Variation "A1"

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	819	1.33	14.8	100%	1	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	658	1.68	13.2	5%	7,206	Circulate	Class C+Ret., Disper.
Int.	2	Intermediate 2S - Tail BH	1111	1.71	13.3	25%	•	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	665	1.84	13.3	25%	11,611	Circulate	Class C+Ret.
							500' inside	·	
Prod.	2*	Production - Tail BH*	TBD	1.84	13.3	50%	prev csg	Circulate	Class C+Ret.

<sup>\*</sup>Only applies in scenario where planned single stage job TOC is not 500' above previous shoe as designed/programmed requiring bradenhead 2nd stage to meet requirements

## Design Variation "A2"

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (lb/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	1023	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	658	1.68	13.2	5%	7,206	Circulate	Class C+Ret., Disper.
Int.	2	Intermediate 2S - Tail BH	1293	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	665	1.84	13.3	25%	11,611	Circulate	Class C+Ret.
Prod.	2*	Production - Tail BH*	TBD	1.84	13.3	50%	500' inside prev csg	Circulate	Class C+Ret.

<sup>\*</sup>Only applies in scenario where planned single stage job TOC is not 500' above previous shoe as designed/programmed requiring bradenhead 2nd stage to meet requirements

## **Offline Cementing Request**

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. Please see Offline Cementing Variance attachment for further details.

## **Bradenhead CBL Request**

Oxy requests permission to adjust the CBL requirement after bradenhead cement jobs, on 7-5/8" intermediate casings, as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see Bradenhead CBL Variance attachment for further details.





## 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	1	Tested to:	Deepest TVD Depth (ft) per Section:
		5M		Annular	✓	70% of working pressure	
				Blind Ram	✓		
9.875" Hole	13-5/8"	5M	Pipe Ram			250 psi / 5000 psi	12775**
			Double Ram		<b>√</b>	230 psi / 3000 psi	
			Other*				
		5M		Annular	✓	100% of working pressure	
	13-5/8"	, 10M		Blind Ram			
6.75" Hole				Pipe Ram		250 psi / 10000 psi	12775
				Double Ram		200 psi / 10000 psi	
			Other*				

<sup>\*</sup>Specify if additional ram is utilized

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per 43 CFR part 3170 Subpart 3172 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.

## **5M Annular BOP Request**

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

<sup>\*\*</sup>Curve could be in intermediate or production section





Formation integrity test will be performed per 43 CFR part 3170 Subpart 3172.

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 43 CFR part 3170 Subpart 3172.

A variance is requested for the use of a flexible choke line from the BOP to Choke Manifold. Coflex hoses are in compliance with API 16C and meets inspection and testing requirements. See attached for specs and hydrostatic test chart.

Υ

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 43 CFR part 3170 Subpart 3172 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**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019. Please see BOP Break Testing Variance attachment for further details.

## **Hammer Union Variance**

Oxy requests permission for hammer unions behind the choke to be routed to the gas buster. The hammer unions will not be subject to wellbore pressure in compliance with API STD 53.

Oxy will use Cameron ADAPT wellhead system that uses an OEC top flange connection. This connection has been fully vetted and verified by API to Spec 6A and carries an API monogram.





## 5. Mud Program & Drilling Conditions

C 4	Depth	- MD	Depth	- TVD		Weight	¥7.	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	1200	0	1200	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	1200	13111*	1200	12775*	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	13111	23361	12775	12775	Water-Based or Oil- Based Mud	9.5 - 13.5	38-50	N/C

<sup>\*</sup>Curve could be in intermediate or production section\*

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.

## **Drilling Blind Request**

In the event total losses are encountered in the intermediate section, Oxy requests permission to drill blind due to depleted formations where risk of hydrocarbon kicks are unlikely.

- Oxy will first attempt to cure losses before proceeding with drilling blind
- Drilling blind will only be allowed in the Castille and formations below
- While drilling blind, will monitor backside by filling-up on connections and utilize gas monitors
- Depths at which losses occurred and attempt to cure losses with relevant details (LCM sweep info, etc.) will be documented in the drillers log and Subsequent Reports to the BLM.
- If a well control event (hydrocarbon kick) occurs while drilling blind, the BLM will be notified after the well is secured and returned to static.

What will be used to monitor the	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	F V 1/1VID TOLCO/ VISUAL IVIOLITIONING

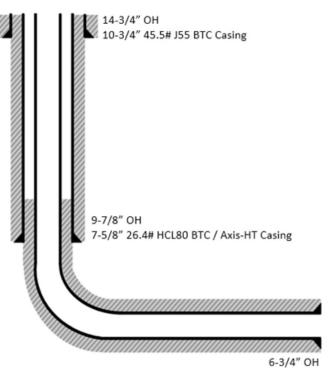
Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential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





# 6. Wellbore Diagram(s)

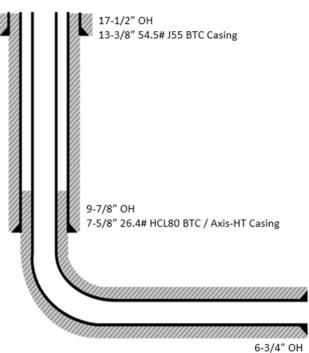
## Design Variation "A1"



5-1/2" 20# P110 Wedge 461 / Sprint SF / DWC/C-HT-IS Casing

TOC @ 500' Above Prev. CSG

# Design Variation "A2"



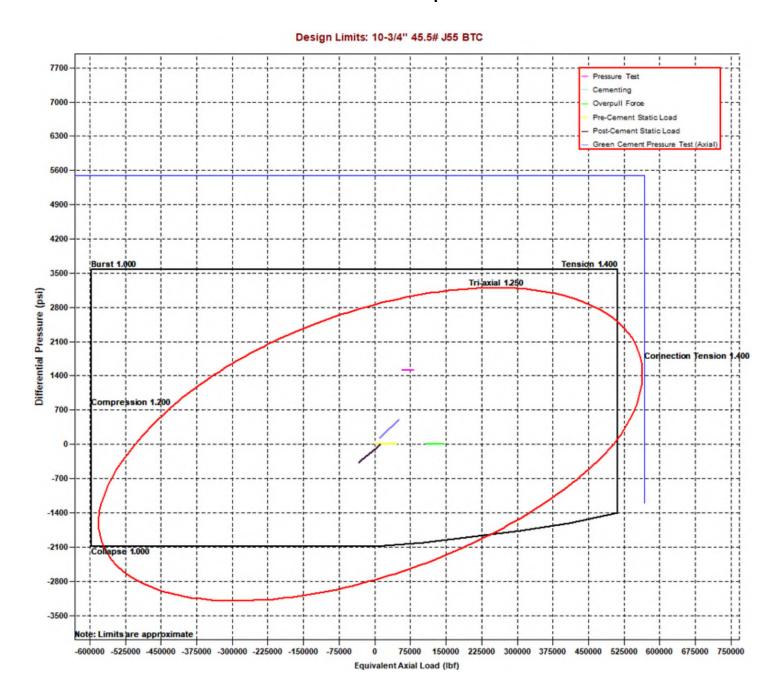
5-1/2" 20# P110 Wedge 461 / Sprint SF / DWC/C-HT-IS Casing

TOC @ 500' Above Prev. CSG



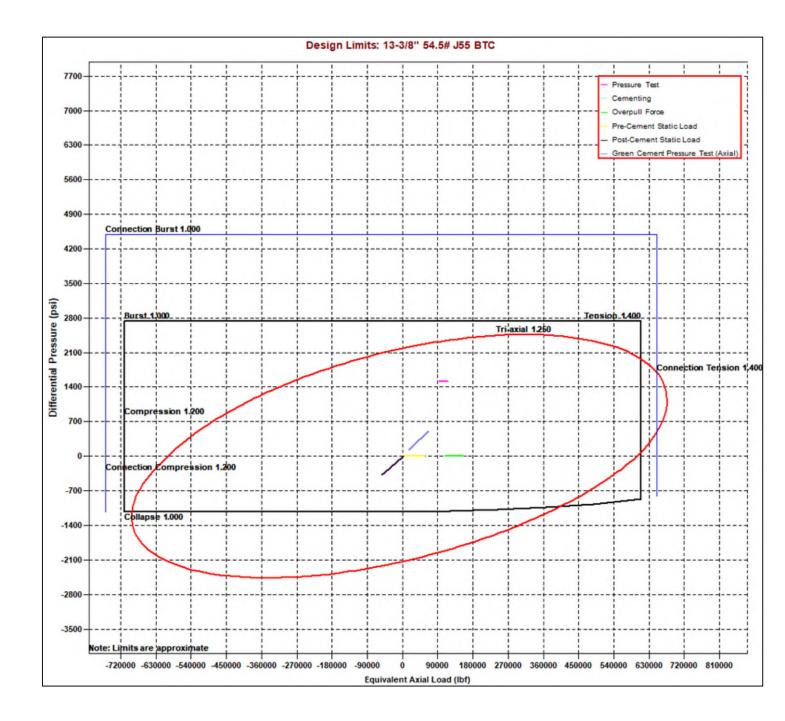


# 7. Landmark StressCheck Screenshots - Triaxial Output



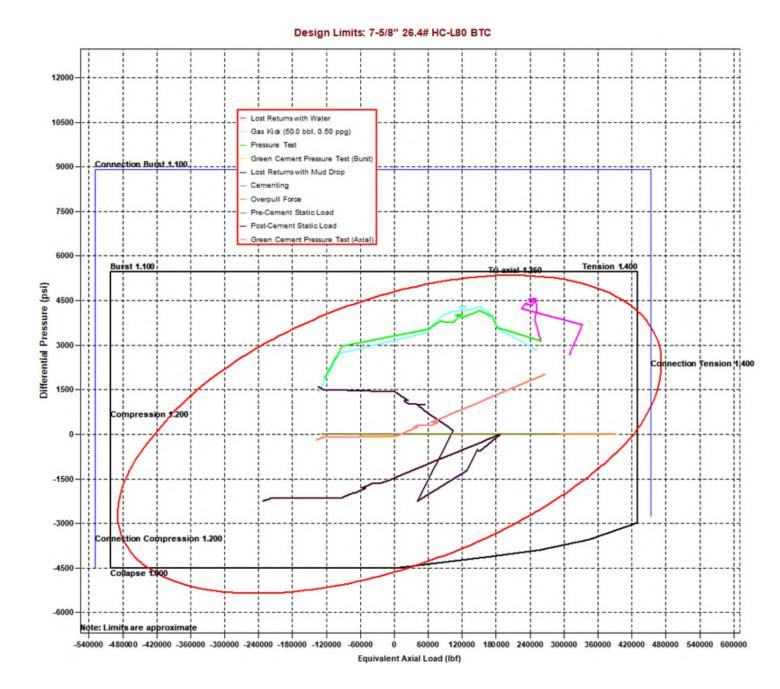








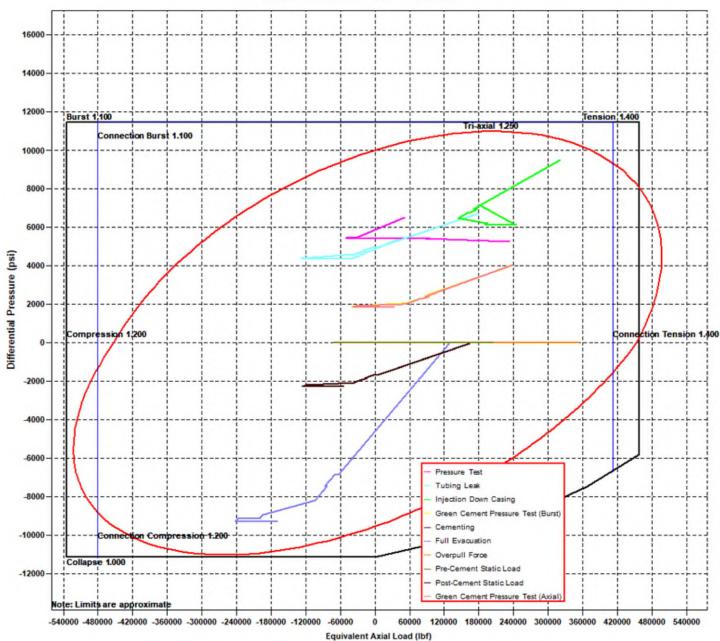










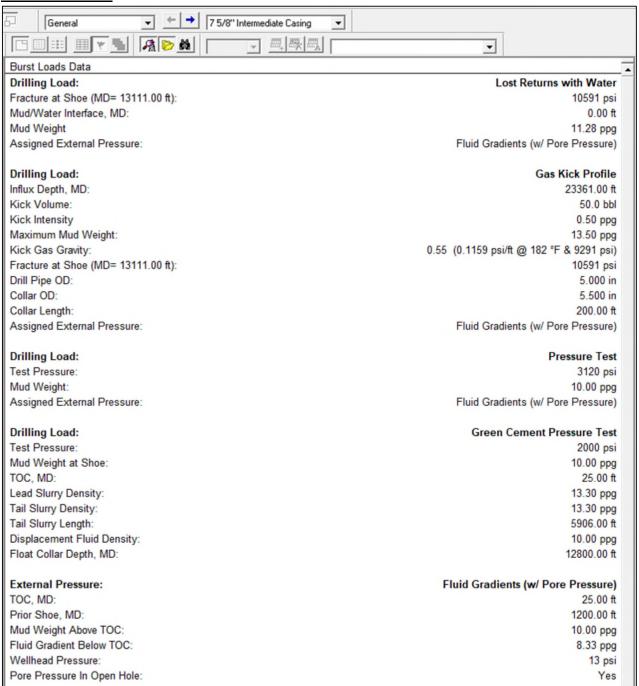






## 8. Landmark StressCheck Screenshots – Inputs for Intermediate CSG Load Cases

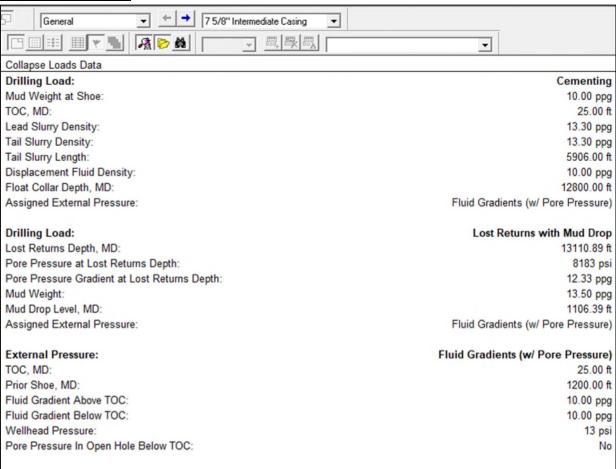
## **Burst Load Cases**



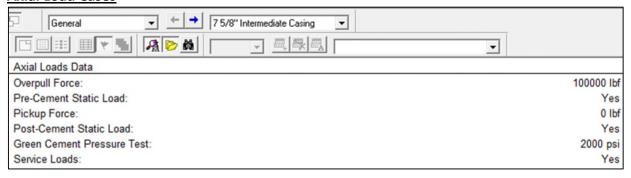




## **Collapse Load Cases**



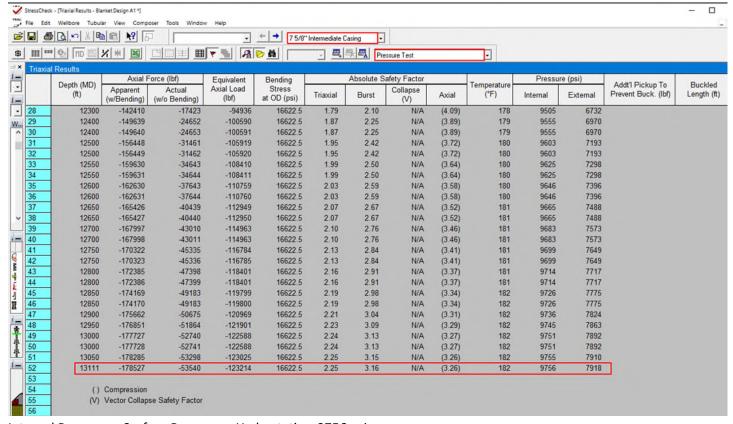
## **Axial Load Cases**







## 9. Landmark StressCheck Screenshot – Int. Casing Triaxial Results Table (Pressure Test)



Internal Pressure = Surface Pressure + Hydrostatic = 9756 psi External Pressure = Fluid Gradient w/ Pore Pressure = 7918 psi Burst SF = 3.16

NOTE: Specific load case inputs for the pressure test can be seen in **Section 8** above. The test pressure does not exceed 70% of the minimum internal yield.





## 10. Intermediate Non-API Casing Spec Sheet



# **Technical Data Sheet**

7 5/8" 26.40 lbs/ft. L80HC - Axis HT

Meci	hanical	Properties				
Minimum Yield Strength psi. 80,000						
Maximum Yield Strength						
Minimum Tensile Strength	psi.	95,000				
	Dime	nsions				
		Pipe	AXIS HT			
Outside Diameter	in.	7.625	8.500			
Wall Thickness	in.	0.328	-			
Inside Diameter	in.	6.969	-			
Standard Drift	in.	6.844	6.844			
Alternate Drift	in.	-	-			
Plain End Weight	lbs/ft.	-	-			
Nominal Linear Weight	lbs/ft.	26.40	-			
Performance Performance						
		Pipe	AXIS HT			
Minimum Collapse Pressure	psi.	4,320	-			
Minimum Internal Yield Pressure	psi.	6,020	6,020			
Minimum Pipe Body Yield Strength	lbs.	602 x 1,000	-			
Joint Strength	lbs.	-	635 x 1,000			
Make-Up Torques						
		Pipe	AXIS HT			
Optimum Make-Up Torque	ft/lbs.	-	8,000			
Maximum Operational Torque	ft/lbs.	-	25,000			

Disclaimer: The content of this Technical Data Sheet is for general information only and does not guarantee performance and/or accuracy, which can only be determined by a professional expert with the specific installation and operation parameters. Information printed or downloaded may not be current and no longer in control by Axis Pipe and Tube. Anyone using the information herein does so at his or her own risk. To verify that you have the latest technical information, please contact Axis Pipe and Tube Technical Sales +1 (979) 599-7600, www.axisoipeandtube.com





## 11. Production Non-API Casing Spec Sheets





	Printed on: 11/0
Coupling	Pipe Body
Grade: P1104CY	Grade: P110-ICY
Body: White	1st Band: White
1st Band: Pale Green	2nd Band: Pale Green
2nd Band: -	3rd Band: Pale Green
3rd Band: -	4th Band: -
	5th Band: -
	6th Band: -

Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-ICY
Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Туре	Casing
Connection OD Option	MS				

#### Pipe Body Data

Geometry			
Nominal OD	5.500 in.	Wall Thickness	0.361 in.
Nominal Weight	20 lb/ft	Plain End Weight	19.83 lb/ft
Drift	4.653 in.	OD Tolerance	API
Nominal ID	4.778 in.		

Performance	
Body Yield Strength	729 x1000 lb
Min. Internal Yield Pressure	14,360 psi
SMYS	125,000 psi
Collapse Pressure	12,300 psi

#### **Connection Data**

Geometry	
Connection OD	6.050 in.
Coupling Length	7.714 in.
Connection ID	4.778 in.
Make-up Loss	3.775 in.
Threads per inch	3.40
Connection OD Option	Ms

Performance	
Tension Efficiency	100 %
Joint Yield Strength	729 x1000 lb
Internal Pressure Capacity	14,360 psi
Compression Efficiency	100 %
Compression Strength	729 x1000 lb
Max. Allowable Bending	104 °/100 ft
External Pressure Capacity	12,300 psi
Coupling Face Load	273,000 lb

Make-Up Torques	
Minimum	17,000 ft-lb
Optimum	18,000 ft-lb
Maximum	21,600 ft-lb
Operation Limit Torques	
Operating Torque	43,000 ft-lb
Yield Torque	51,000 ft-lb
Buck-On	
Minimum	21,600 ft-lb
Maximum	23,100 ft-lb

#### Notes

This connection is fully interchangeable with:
Wedge 441% - 5.5 in. - 0.304 / 0.361 in.
Wedge 461% - 5.5 in. - 0.304 / 0.415 / 0.476 in.
Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version
In October 2019, TenarisHydril Wedge XP® 2.0 was renamed TenarisHydril Wedge 461™. Product dimensions and properties remain identical and both connections are fully interchangeable.

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

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Generated on May 21, 2024

12,640

11,100 psi



### CONNECTION DATA SHEET





PIPE BODY PROPERTIES ———		
Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Wall Thickness	0.361	in.
Minimum Wall Thickness	87.5	%
Nominal Weight (API)	20.00	lb/ft
Plain End Weight	19.83	lb/ft
Drift	4.653	in.
Grade Type	API 5CT	
Minimum Yield Strength	110	ksi
Maximum Yield Strength	140	ksi
Minimum Ultimate Tensile Strength	125	ksi
Pipe Body Yield Strength	641	klb

#### **CONNECTION PROPERTIES** •

Internal Yield Pressure

Collapse Pressure

Connection Type	Semi-Pre	mium Integral
Nominal Connection OD	5.783	in.
Nominal Connection ID	4.718	in.
Make-up Loss	5.965	in.
Tension Efficiency	90	% Pipe Body
Compression Efficiency	90	% Pipe Body
Internal Pressure Efficiency	100	% Pipe Body
External Pressure Efficiency	100	% Pipe Body

## JOINT PERFORMANCES

Tension Strength	577	klb
Compression Strength	577	klb
Internal Pressure Resistance	12,640	psi
External Pressure Resistance	11,100	psi
Maximum Bending, Structural	78	°/100 ft
Maximum Bending, with Sealability(1)	30	°/100 ft

(1) Sealability rating demonstrated as per API RP 5C5 / ISO 13679





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## **Connection Data Sheet**

OD (in.)	WEIGHT (lbs./ft.)	WALL (in.)	GRADE	API DRIFT (in.)	RBW%	CONNECTION
5.500	Nominal: 20.00 Plain End: 19.83	0.361	‡VST P110MY	4.653	87.5	DWC/C-HT-IS

PIPE PROPERTIES		
Nominal OD	5.500	in.
Nominal ID	4.778	in.
Nominal Area	5.828	sq.in.
Grade Type		API 5CT
Min. Yield Strength	125	ksi
Max. Yield Strength	140	ksi
Min. Tensile Strength	135	ksi
Yield Strength	729	klb
Ultimate Strength	787	klb
Min. Internal Yield Pressure	14,360	psi
Collapse Pressure	12,090	psi

CONNECTION PROPERTIES		
Connection Type	Semi-Pren	nium T&C
Connection OD (nom)	6.050	in.
Connection ID (nom)	4.778	in.
Make-Up Loss	4.125	in.
Coupling Length	9.250	in.
Critical Cross Section	5.828	sq.in.
Tension Efficiency	89.1%	of pipe
Compression Efficiency	88.0%	of pipe
Internal Pressure Efficiency	86.1%	of pipe
External Pressure Efficiency	100.0%	of pipe

CONNECTION PERFORMANCES		
Yield Strength	649	klb
Parting Load	729	klb
Compression Rating	641	klb
Min. Internal Yield Pressure	12,360	psi
External Pressure Resistance	12,090	psi
Maximum Uniaxial Bend Rating	91.7	°/100 ft
Reference String Length w 1.4 Design Factor	22,890	ft.

FIELD TORQUE VALUES		
Min. Make-up torque	16,600	ft.lb
Opti. Make-up torque	17,950	ft.lb
Max. Make-up torque	19,300	ft.lb
Min. Shoulder Torque	1,660	ft.lb
Max. Shoulder Torque	13,280	ft.lb
Max. Delta Turn	0.200	Turns
†Maximum Operational Torque	23,800	ft.lb
†Maximum Torsional Value (MTV)	26,180	ft.lb

† Maximum Operational Torque and Maximum Torsional Value only valid with Vallourec P110MY Material.

‡ P110MY - Coupling Min Yield Strength is 110ksi and Coupling Max Yield is 125ksi.

"VST = Vallourec Star as the mill source for the pipe, "P110EC" is the grade name"

Need Help? Contact: tech.support@vam-usa.com

For detailed information on performance properties, refer to DWC Connection Data Notes on following page(s).

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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03/04/2024 08:36:50 PM







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#### **DWC Connection Data Sheet Notes:**

- 1. DWC connections are available with a seal ring (SR) option.
- 2. All standard DWC/C connections are interchangeable for a given pipe OD. DWC connections are interchangeable with DWC/C-SR connections of the same OD and wall.
- 3. Connection performance properties are based on nominal pipe body and connection dimensions
- 4. DWC connection internal and external pressure resistance is calculated using the API rating for buttress connections. API Internal pressure resistance is calculated from formulas 31, 32, and 35 in the API Bulletin 5C3.
- 5. DWC joint strength is the minimum pipe body yield strength multiplied by the connection critical area.
- 6. API joint strength is for reference only. It is calculated from formulas 42 and 43 in the API Bulletin 5C3.
- 7. Bending efficiency is equal to the compression efficiency.
- 8. The torque values listed are recommended. The actual torque required may be affected by field conditions such as temperature, thread compound, speed of make-up, weather conditions, etc.
- 9. Connection yield torque is not to be exceeded.
- 10. Reference string length is calculated by dividing the joint strength by both the nominal weight in air and a design factor (DF) of 1.4. These values are offered for reference only and do not include load factors such as bending, buoyancy, temperature, load dynamics, etc.
- 11. DWC connections will accommodate API standard drift diameters.
- 12. DWC/C family of connections are compatible with API Buttress BTC connections. Please contact tech.support@vam-usa.com for details on connection ratings and make-up.

Connection specifications within the control of VAM USA were correct as of the date printed. Specifications are subject to change without notice. Certain connection specifications are dependent on the mechanical properties of the pipe. Mechanical properties of mill proprietary pipe grades were obtained from mill publications and are subject to change. Properties of mill proprietary grades should be confirmed with the mill. Users are advised to obtain current connection specifications and verify pipe mechanical properties for each application.

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03/04/2024 08:36:50 PM







# RE: [EXTERNAL] Blanket Design A2 - Bulk Surface Casing Sundry - Gold Log

From Immatty, Keith P <kimmatty@blm.gov>

Date Mon 11/4/2024 11:44 AM

To Swafford, Kurt D < Kurt\_Swafford@oxy.com>

Cc Pelton, Ben R <Ben\_Pelton@oxy.com>; Keith, Kyle <Kyle\_Keith@oxy.com>; Reeves, Leslie T <Leslie\_Reeves@oxy.com>; Mathew, Roni <Roni\_Mathew@oxy.com>

Reviewed and OK as proposed for the listed wells.

Leslie, can we batch sundry these with a priority assignment for 11/13?

Regards,

Keith Immatty

From: Swafford, Kurt D < Kurt Swafford@oxy.com>

**Sent:** Monday, November 4, 2024 6:17 AM **To:** Immatty, Keith P <kimmatty@blm.gov>

Cc: Pelton, Ben R <Ben\_Pelton@oxy.com>; Keith, Kyle <Kyle\_Keith@oxy.com>; Reeves, Leslie T <Leslie\_Reeves@oxy.com>; Mathew, Roni

<Roni\_Mathew@oxy.com>

Subject: [EXTERNAL] Blanket Design A2 - Bulk Surface Casing Sundry - Gold Log

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Hi Keith,

We submitted all the Gold Log APDs just before rolling out our blanket design(s) — we just found that all the original permits approved have 10.75in Surf Csg, however we will need to do 13-3/8in Surf Csg (Blanket Design A2) to give us the contingency option of pivoting to 4S Design (Blanket Design "B").

As such, we are requesting a blanket sundry of surf casing for all wells to 13-3/8in Surf Casing per Blanket Design A2. I have our full upcoming well list below, highlighting surf csg depths (not changing from orig permits/COAS) and showing these are within the approved "Casing Design A" envelope. We will adjust cement volumes as required to meet all requirements with the larger 17.5in hole x 13-3/8in annulus as established w/ Blanket Design.

We are trying to spud these wells with the spudder rig by end of this week — with your email/verbal approval we will route this request w/ blanket sundry ASAP to get this in the system and officially papered up.

Let me know if you have any questions or need anything else to review this---thanks!

#### Blanket Design A2 - Sundry Well List:

Mall Name	Dod Nove	ADIH	ADD #	Surface Casing Depths		
Well Name	Pad Name	API#	APD#	MD	TVD	
GOLD LOG 4_9 FED COM 3H	LSTTNK-0402	30-025-53808	10400094440	1037	1037	
GOLD LOG 4_9 FED COM 4H	LSTTNK-0402	30-025-53816	10400094456	1043	1043	
GOLD LOG 4_9 FED COM 16H	LSTTNK-0402	30-025-53811	10400094120	1040	1040	
GOLD LOG 4_9 FED COM 25H	LSTTNK-0402	30-025-53813	10400094213	1038	1038	
GOLD LOG 4_9 FED COM 26H	LSTTNK-0402	30-025-53814	10400094276	1042	1042	
GOLD LOG 4_9 FED COM 22H	LSTTNK-0401	30-025-53818	10400093859	1029	1029	
GOLD LOG 4_9 FED COM 23H	LSTTNK-0401	30-025-53812	10400094091	1034	1034	
GOLD LOG 4_9 FED COM 1H	LSTTNK-0401	30-025-53815	10400093363	1031	1031	
GOLD LOG 4_9 FED COM 2H	LSTTNK-0401	30-025-53807	10400093478	1031	1031	
GOLD LOG 4_9 FED COM 12H	LSTTNK-0401	30-025-53809	10400093568	1030	1030	
GOLD LOG 4_9 FED COM 13H	LSTTNK-0401	30-025-53817	10400093836	1032	1032	

## **Original Permitted Plan:**

2		N	1D	π	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	14.75	0	1043	0	1043	10.75	45.5	J-55	BTC
Intermediate	9.875	0	9404	0	9238	7.625	26.4	L-80 HC	BTC
Production	6.75	0	20938	0	9998	5.5	20	P-110	Sprint-SF

## Revised Plan - Update Surf Csg to Blanket Design A2 (highlighted in Yellow):

	.00	IV	1D	T\	/D				
Section	Hole Size (in)	From (ft)	To (ft)	From (ft)	To (ft)	Csg. OD (in)	Csg Wt. (ppf)	Grade	Conn.
Surface	17.5	0	1043	0	1043	13.375	54.5	J-55	BTC
Intermediate	9.875	0	9404	0	9238	7.625	26.4	L-80 HC	BTC
Production	6.75	0	20938	0	9998	5.5	20	P-110	Sprint-SF

## **Kurt Swafford**

Mobile: 281.685.8405 | Houston Greenway 5 - 25.065

Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Action 423247

#### **CONDITIONS**

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	423247
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

#### CONDITIONS

Created By		Condition Date
pkautz	If cement is not circulated to surface during cementing operations, a Cement Bond Log (CBL) is required.	1/27/2025
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing.	1/27/2025