# Received by 000: 0/5/2023 6:50:18 AM

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

Well Name	Well Number	US Well Number	Lease Number	Case Number	Operator
KESTREL 1_12	33H	3002548972	NMNM077090	NMNM077090	OXY USA
SAKER 6-7	35H	3002548936	NMNM14164	NMNM14164	OXY USA
KESTREL 1_12	31H	3002548970	NMNM077090	NMNM077090	OXY USA
SAKER 6-7	31H	3002548932	NMNM14164	NMNM14164	OXY USA
KESTREL 1_12	32H	3002548971	NMNM077090	NMNM077090	OXY USA
SAKER 6-7	36H	3002548937	NMNM14164	NMNM14164	OXY USA

# **Notice of Intent**

Sundry ID: 2730630

Type of Submission: Notice of Intent

Date Sundry Submitted: 05/12/2023

Date proposed operation will begin: 06/01/2023

Type of Action: APD Change Time Sundry Submitted: 07:54

Sundry Print Repor

06/05/2023

**Procedure Description:** OXY USA INC. respectfully requests approval from our approved APD to change the following casing designs. There will be no change to our surface hole locations. Deepen the TD of the surface hole from the Top of the Rustler, to now the Base of the Rustler. Update the surface casing size from 10 <sup>3</sup>/<sub>4</sub>" to 13 <sup>3</sup>/<sub>8</sub>" Update the intermediate hole size to have flexibility between 12 <sup>1</sup>/<sub>4</sub>" hole and 8 <sup>3</sup>/<sub>4</sub>" hole to accommodate hole conditions or drilling operations. We also request pre-approval for a 4 string contingency plan dependent on hole conditions or drilling operations. Drill plans for both 3 string and 4 string casing strings attached.

# **NOI Attachments**

#### **Procedure Description**

Saker6\_7FedCom36H\_DrillPlan\_4SCont\_20230512075400.pdf Saker6\_7FedCom36H\_DrillPlan\_3S\_20230512075355.pdf Saker\_6\_7\_Fed\_Com\_Casing\_Specs\_3\_String\_Design\_20230512075351.pdf Saker6\_7FedCom35H\_DrillPlan\_3S\_20230512075351.pdf Saker6\_7FedCom31H\_DrillPlan\_4SCont\_20230512075350.pdf Saker\_6\_7\_Fed\_Com\_Casing\_Specs\_4\_String\_Contingency\_20230512075351.pdf Saker6\_7FedCom35H\_DrillPlan\_4SCont\_20230512075350.pdf Saker6\_7FedCom35H\_DrillPlan\_4SCont\_20230512075350.pdf Saker6\_7FedCom31H\_DrillPlan\_3S\_20230512075349.pdf Kestrel1\_12FedCom32H\_DrillPlan\_3S\_20230512075337.pdf

#### Received by OCD: 6/5/2023 6:50:18 AM

Kestrel1\_12FedCom31H\_DrillPlan\_4SCont\_20230512075338.pdf

Kestrel1\_12FedCom33H\_DrillPlan\_3S\_20230512075337.pdf

Kestrel1\_12FedCom33H\_DrillPlan\_4SCont\_20230512075336.pdf

Kestrel1\_12FedCom32H\_DrillPlan\_4SCont\_20230512075337.pdf

Kestrel1\_12FedCom31H\_DrillPlan\_3S\_20230512075337.pdf

### **Conditions of Approval**

### Additional

SAKER\_AND\_KESTREL\_\_\_BATCH\_\_\_2730630\_\_\_COA\_20230602104703.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:** SARAH MCKINNEY

Signed on: MAY 12, 2023 07:54 AM

Name: OXY USA INCORPORATED

Title: Regulatory Analyst Sr

Street Address: 5 GREENWAY PLAZA SUITE 110

City: HOUSTON State: TX

Phone: (713) 215-7295

Email address: SARAH\_MCKINNEY@OXY.COM

State:

### Field

Representative Name: Street Address: City: Phone: Email address:

Zip:

### **BLM Point of Contact**

BLM POC Name: KEITH P IMMATTY

BLM POC Phone: 5759884722

**Disposition:** Approved

Signature: Keith Immatty

**BLM POC Title: ENGINEER** 

BLM POC Email Address: KIMMATTY@BLM.GOV

Disposition Date: 06/02/2023

Nominal OD

Min Wall Thickness

Pipe Body Data

Geometry

Nominal OD

Nominal Weight

Standard Drift Diameter

# Tenaris Hydril

# 7.827" 39.30 lb/ft P110-S TenarisHydril Wedge 463®

7.827 in.

87.5%

7.827 in.

39.30 lbs/ft

6.702 in.

Wall Thickness

Туре

Nominal ID

Wall Thickness

**Plain End Weight** 

**OD Tolerance** 



Grade

0.500 in.

API

**Collapse Pressure** 

#### Preliminary Special Data Sheet TH DS-22.6519.00 21 December 2022

P110-S

10490 psi

 CASING
 Connection OD Option
 REGULAR

 Performance
 6.827 in.
 Body Yield Strength
 1266 x 1000 lbs

 0.500 in.
 Internal Yield
 12300 psi

 39.16 lbs/ft
 SMYS
 110000 psi

Connection Data

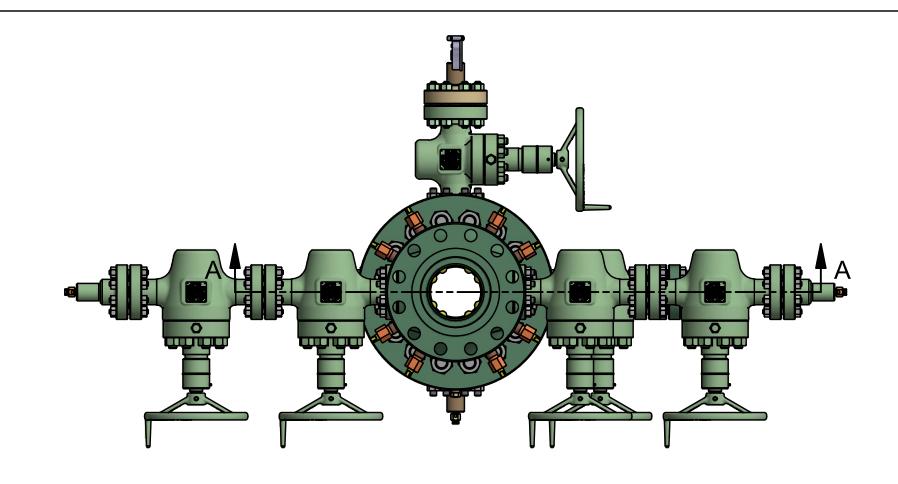
Connection Data					
Geometry		Performance		Make-up Torques	
Connection OD	8.650 in.	Tension Efficiency	100%	Minimum	21000 ft-lbs
Connection ID	6.827 in.	Joint Yield Strength	1266 x 1000 lbs	Optimum	22000 ft-lbs
Make-up Loss	4.480 in.	Internal Yield	12300 psi	Maximum	26400 ft-lbs
Threads per in.	3.25	Compression Efficiency	100%	Operational Limit Torques	
Connection OD Option	REGULAR	Compression Strength	1266 x 1000 lbs	Operating Torque	61600 ft-lbs
Coupling Length	10.950 in.	Bending	64 °/100 ft	Yield Torque	72500 ft-lbs
		Collapse	10490 psi	Buck-On Torques	
				Minimum	26400 ft-lbs
				Maximum	27900 ft-lbs

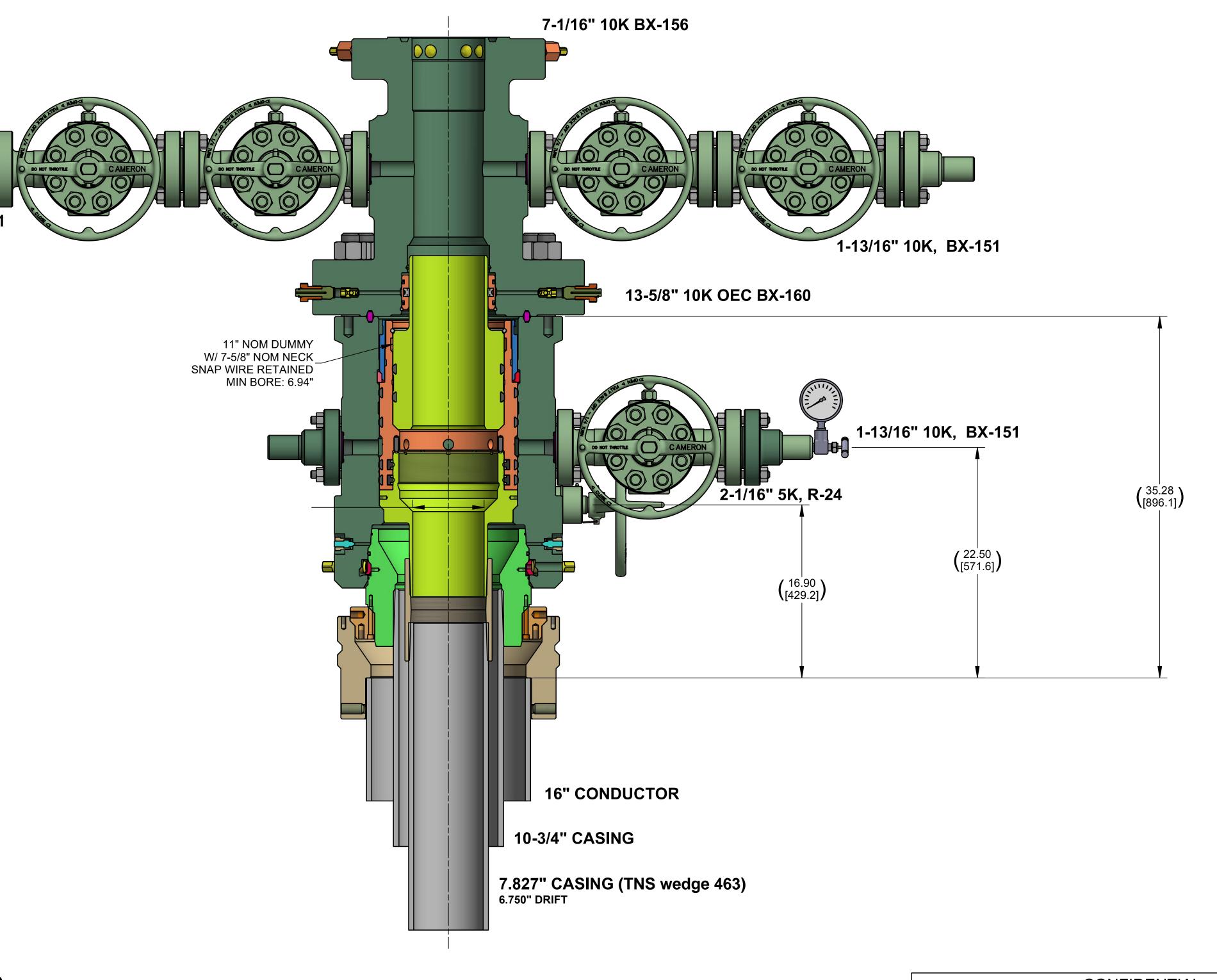
#### Notes

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

1.

Important Note: In October 2019, TenarisHydril Wedge XP® 2.0 GT® was renamed TenarisHydril Wedge 463®. Product dimensions and properties remain identical and both connections are fully interchangeable.





1-13/16" 10K, BX-151

Notes:

1. THIS IS A PROPOSAL DRAWING AND DIMENSIONS SHOWN ARE SUBJECT TO CHANGE DURING THE FINAL DESIGN PROCESS.

2. DIGITALLY ENABLED SOLUTIONS, CHOKES AND ESD'S AVAILABLE ON REQUEST

CONFIDENTIAL						
SURFACE TREATMENT	DO NOT SC	ALE		CAMERON	SURFACE	
	DRAWN BY:	DATE			SYSTEMS	
	JC GONZALEZ	27 Jan 22		A Schlumberger Company		
MATERIAL & HEAT TREAT	CHECKED BY:	DATE				
	JC GONZALEZ	27 Jan 22		OXY 13-5/8" 10K AD	APT	
	APPROVED BY:	DATE	16" X 10-3/4" X 7.788" X DUMMY			
	Z WALTERS	27 Jan 22				
ESTIMATED 6 WEIGHT:	302.5 LBS INITIAL USE B/M: 2858.8 KG EWR 6505316	68	SHEET 1 OF 1	SD-053847-52-	-02 REV: 01	
-					INVENTOR - D	

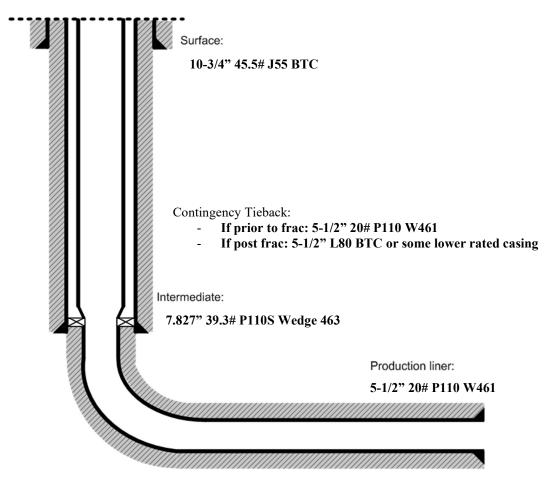
# OXY USA WTP LP

### Falcon SL1 Contingnecy Tieback Details

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 14-3/4" hole x 10-3/4" casing for surface section. Cement to surface.
- Drill 9-7/8" hole x 7.827" casing for intermediate section. Cement to surface.
- Drill 6-3/4" hole x 5-1/2" liner for production section. Cement to top of liner, 100' inside 7.827" shoe.
- Release drilling rig from location.
- If contingency tieback required pre-frac:
  - Move in workover rig and run a 5-1/2" 20# P110 Wedge 461 tie-back frac string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
  - Pump hydraulic fracture job.
  - Flowback and produce well.
- If contingency tieback required post-frac:
  - Move in workover rig and run a 5-1/2" L80 BTC or lesser rated tie-back string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
  - Return well to production.

General well schematic:



#### Received by OCD: 6/5/2023 6:50:18 AM

Tenaris

# Tenar 425<sup>®</sup>



	TenarisHyd 425 <sup>®</sup>	ril Wedg	e	Body 1st B 2nd B	e: P110-CY : White and: Grey Band: - and: -	Grade: P110-CY 1st Band: White 2nd Band: Grey 3rd Band: - 4th Band: - 5th Band: - 6th Band: -	
Min. Wall Thickness     87.50 %     Pipe Body Drift     API Standard     Type     Ca	Outside Diameter	5.500 in.	Wall Thickness	0.361 in.	Grade		P110-CY
	Min. Wall Thickness	87.50 %	Pipe Body Drift	API Standard	Туре		Casing

Coupling

**Connection OD Option** 

#### **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.		

REGULAR

#### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

Pipe Body

#### **Connection Data**

Geometry	
Connection OD	5.777 in.
Connection ID	4.734 in.
Make-up Loss	5.823 in.
Threads per inch	3.77
Connection OD Option	Regular

Performance	
Tension Efficiency	90 %
Joint Yield Strength	577 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	90 %
Compression Strength	577 x1000 lb
Max. Allowable Bending	82 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,700 ft-lb
Optimum	19,600 ft-lb
Maximum	21,600 ft-lb
Operation Limit Torques	
Operating Torque	29,000 ft-Ib
Yield Torque	36,000 ft-Ib

#### Notes

This connection is fully interchangeable with: TORQ® SFW $^{-}$  5.5 in. - 0.361 in. Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

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

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#### Received by OCD: 6/5/2023 6:50:18 AM

Tenaris

# **Tenaris**H 441<sup>®</sup>



	5.500 in.	Wall Thickness	0.361 in.	Grade		P110-CY
			2nd Ba 3rd Ba		2nd Band: Grey 3rd Band: - 4th Band: - 5th Band: - 6th Band: -	
lydril W	ledg	e 📕	Body:		Grade: P110-CY 1st Band: White	

Counling

**Pipe Body Data** 

**Outside Diameter** 

Min. Wall Thickness

**Connection OD Option** 

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.		

Device

REGULAR

#### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

Pine Rody

#### **Connection Data**

Geometry	
Connection OD	5.852 in.
Coupling Length	8.714 in.
Connection ID	4.778 in.
Make-up Loss	3.780 in.
Threads per inch	3.40
Connection OD Option	Regular

Performance	
Tension Efficiency	81.50 %
Joint Yield Strength	522 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	81.50 %
Compression Strength	522 x1000 lb
Max. Allowable Bending	71 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,000 ft-Ib
Optimum	16,000 ft-Ib
Maximum	19,200 ft-Ib
Operation Limit Torques	
Operating Torque	32,000 ft-Ib
Yield Torque	
	38,000 ft-lb
Buck-On	38,000 ft-lb
	38,000 ft-lb 19,200 ft-lb
Buck-On	

#### Notes

This connection is fully interchangeable with: Wedge 441 $\odot$  - 5.5 in. - 0.304 in. Connections with Dopeless $\odot$  Technology are fully compatible with the same connection in its Standard version

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

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# TenarisHydril

# 5.500" 20.00 lb/ft P110-CY TenarisHydril Wedge 461™ Matched Strength

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# **Special Data Sheet** TH DS-20.0359 12 August 2020 Rev 00

Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min Wall Thickness	87.5%	Туре	CASING	Connection OD Option	MATCHED STRENGTH
Pipe Body Data					
Geometry				Performance	
Nominal OD	5.500 in.	Nominal ID	4.778 in.	Body Yield Strength	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	Wall Thickness	0.361 in.	Internal Yield	12640 psi
Standard Drift Diameter	4.653 in.	Plain End Weight	19.83 lbs/ft	SMYS	110000 psi
Special Drift Diameter	N/A	OD Tolerance	API	Collapse Pressure	11110 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	Tension Efficiency	100%	Minimum	17000 ft-lbs
Make-up Loss	3.775 in.	Joint Yield Strength	641 x 1000 lbs	Optimum	18000 ft-lbs
Threads per in.	3.40	Internal Yield	12640 psi	Maximum	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	Compression Efficiency	100%	Operational Limit Torques	5
Coupling Length	7.714 in.	Compression Strength	641 x 1000 lbs	Operating Torque	32000 ft-lbs
		Bending	92 °/100 ft	Yield Torque	38000 ft-lbs
		Collapse	11110 psi	Buck-On Torques	
				Minimum	21600 ft-lbs
				Maximum	23100 ft-lbs
Notes					

#### Notes

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

# TenarisHydril

7.827" 39.30 lb/ft P110-S TenarisHydril Wedge 461®



Preliminary Special Data Sheet TH DS-22.5154.01 04 May 2022

# **Customer: OXY**

Nominal OD	7.827 in.	Wall Thickness	0.500 in.	Grade	P110-S
Min Wall Thickness	87.5%	Туре	CASING	Connection OD Option	REGULAR
Pipe Body Data					
Geometry				Performance	
Nominal OD	7.827 in.	Nominal ID	6.827 in.	Body Yield Strength	1266 x 1000 lbs
Nominal Weight	39.30 lbs/ft	Wall Thickness	0.500 in.	Internal Yield	12300 psi
Special Drift Diameter	6.750 in.	Plain End Weight	39.16 lbs/ft	SMYS	110000 psi
		OD Tolerance	API	Collapse Pressure	10490 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Connection OD	8.500 in.	Tension Efficiency	100%	Minimum	22000 ft-lbs
Connection ID	6.827 in.	Joint Yield Strength	1266 x 1000 lbs	Optimum	23000 ft-lbs
Make-up Loss	4.380 in.	Internal Yield	12300 psi	Maximum	27000 ft-lbs
Threads per in.	3.40	Compression Efficiency	100%	Operational Limit Torques	
Connection OD Option	REGULAR	Compression Strength	1266 x 1000 lbs	Operating Torque	48000 ft-lbs
Coupling Length	8.872 in.	Bending	64 °/100 ft	Yield Torque	57000 ft-lbs
		Collapse	10490 psi	Buck-On Torques	
		Coupling Face Load	528000 lbs	Minimum	26000 ft-lbs
				Maximum	27000 ft-lbs
Notos					

#### Notes

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

1.

Important Note: 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.

# Tenaris Hydril

# 7.625" 29.70 lb/ft L80-IC TenarisHydril Wedge 425™

### Special Data Sheet

TH DS-21.3633.00 18 October 2021

Nominal OD	7.625 in.	Wall Thickness	0.375 in.	Grade	L80-IC
Min Wall Thickness	90%	Туре	CASING	Connection OD Option	REGULAR
Pipe Body Data					
Geometry				Performance	
Nominal OD	7.625 in.	Nominal ID	6.875 in.	Body Yield Strength	683 x 1000 lbs
Nominal Weight	29.70 lbs/ft	Wall Thickness	0.375 in.	Internal Yield <sup>1</sup>	6890 psi
Standard Drift Diameter	6.750 in.	Plain End Weight	29.06 lbs/ft	SMYS	80000 psi
Special Drift Diameter	NA	OD Tolerance	API	Collapse Pressure	5900 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Connection OD	7.888 in.	Tension Efficiency	90%	Minimum	22500 ft-lbs
Connection ID	6.831 in.	Joint Yield Strength	615 x 1000 lbs	Optimum	25000 ft-lbs
Make-up Loss	5.646 in.	Internal Yield <sup>1</sup>	7080 psi	Maximum	27500 ft-lbs
Threads per in.	3.51	Compression Efficiency	90%	Operational Limit Torques	
Connection OD Option	REGULAR	Compression Strength	615 x 1000 lbs	Operating Torque	49000 ft-lbs
Critical Section Area	7.994 sq in.	Bending	43 °/100 ft	Yield Torque	61000 ft-lbs
		Collapse	5900 psi		

#### Notes

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

1. Internal Yield Rating is based on 90% RBW

2. Important Note: In October 2019, TenarisHydril Wedge 625® RF™ was renamed TenarisHydril Wedge 425™. Product dimensions and properties remain identical and both connections are fully interchangeable.

#### Received by OCD: 6/5/2023 6:50:18 AM

Tenaris

# TenarisHy 441<sup>®</sup>



		1st Bar 2nd Ba 3rd Bar		2nd Band: <b>Grey</b> 3rd Band: - 4th Band: - 5th Band: -	
				6th Band: -	
5.500 in.	Wall Thickness	0.361 in.	Grade		P110-CY
87.50 %	Drift	API Standard	Туре		Casing

Coupling

#### **Pipe Body Data**

**Outside Diameter** 

Min. Wall Thickness

**Connection OD Option** 

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.		

Device

REGULAR

#### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

Pipe Body

#### **Connection Data**

Geometry	
Connection OD	5.852 in.
Coupling Length	8.714 in.
Connection ID	4.778 in.
Make-up Loss	3.780 in.
Threads per inch	3.40
Connection OD Option	Regular

Performance	
Tension Efficiency	81.50 %
Joint Yield Strength	522 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	81.50 %
Compression Strength	522 x1000 lb
Max. Allowable Bending	71 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,000 ft-lb
Optimum	16,000 ft-Ib
Maximum	19,200 ft-Ib
Operation Limit Torques	
Operating Torque	32,000 ft-Ib
Yield Torque	38,000 ft-Ib
Buck-On	
Minimum	19,200 ft-Ib
Maximum	20,700 ft-lb

#### Notes

This connection is fully interchangeable with: Wedge 441 $\odot$  - 5.5 in. - 0.304 in. Connections with Dopeless $\odot$  Technology are fully compatible with the same connection in its Standard version

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

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# Tenaris Hydril

# 5.500" 20.00 lb/ft P110-CY TenarisHydril Wedge 461™ Matched Strength

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Maximum

# **Special Data Sheet** TH DS-20.0359 12 August 2020 Rev 00

23100 ft-lbs

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Nominal OD	5.500 in.	Wall Thickness	0.361 in.	Grade	P110-CY
Min Wall Thickness	87.5%	Туре	CASING	Connection OD Option	MATCHED STRENGTH
Pipe Body Data					
Geometry				Performance	
Nominal OD	5.500 in.	Nominal ID	4.778 in.	Body Yield Strength	641 x 1000 lbs
Nominal Weight	20.00 lbs/ft	Wall Thickness	0.361 in.	Internal Yield	12640 psi
Standard Drift Diameter	4.653 in.	Plain End Weight	19.83 lbs/ft	SMYS	110000 psi
Special Drift Diameter	N/A	OD Tolerance	API	Collapse Pressure	11110 psi
Connection Data					
Geometry		Performance		Make-up Torques	
Matched Strength OD	6.050 in.	Tension Efficiency	100%	Minimum	17000 ft-lbs
Make-up Loss	3.775 in.	Joint Yield Strength	641 x 1000 lbs	Optimum	18000 ft-lbs
Threads per in.	3.40	Internal Yield	12640 psi	Maximum	21600 ft-lbs
Connection OD Option	MATCHED STRENGTH	Compression Efficiency	100%	Operational Limit Torques	;
Coupling Length	7.714 in.	Compression Strength	641 x 1000 lbs	Operating Torque	32000 ft-lbs
		Bending	92 °/100 ft	Yield Torque	38000 ft-lbs
		Collapse	11110 psi	Buck-On Torques	
				Minimum	21600 ft-lbs

#### Notes

\*If you need to use torque values that are higher than the maximum indicated, please contact a local Tenaris technical sales representative

# U. S. Steel Tubular Products Product Information

7 5/8 29.70 lb (0.375) L80 HC BTC

8.125 Special Clearance Coupling

5/20/2019

	8.125 Special Clearance Couplin	ig		5/20/2019	
Mechanical Properties	Coupling Pipe Body				
	Yield Strength				
	Minimum	80	80	ksi	
	Maximum	95	95	ksi	
	Tensile Strength				
	Minimum	95	95 I	ksi	
Dimensions, Nominal	Outside Diameter		7.625	in.	
	Wall		0.375	in.	
	Inside Diameter Drift		6.875	in.	
	API		6.750	in.	
	Nominal Linear Weight,	T&C	29.70	lbs/ft	
	Weight, Plain End	29.06	lbs/ft		
	Pipe Cross Sectional Are Coupling Diameter	ea	8.541	sq. in.	
	BTC		8.125	in.	
Performance Ratings, Minimum	Collapse				
	Plain End		5,780	psi	
	BTC		5,780	psi	
	Internal Yield Pressure				
	Plain End		6,880	psi	
	BTC		6,550	psi	
	Yield Strength, Pipe Bod Joint Strength	У	683	1,000 lbs	
	BTC		721	1,000 lbs	

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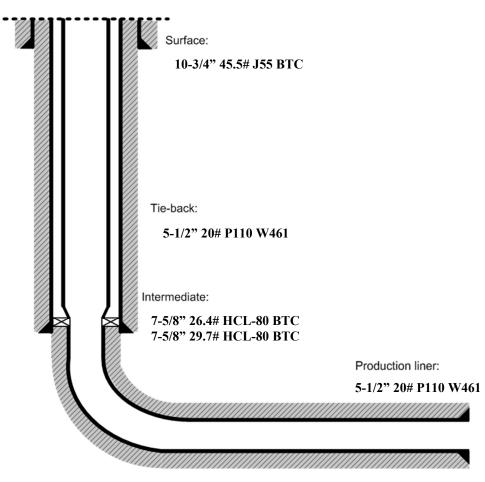
U. S. Steel Tubular Products, Inc. - 460 Wildwood Forest Dr., Suite 300S, Spring, TX 77380 www.uss.com Page 13 of 34

### **OXY USA WTP LP** Standard SL1 Tieback Details

Below is a summary that describes the general operational steps to drill and complete the well.

- Drill 14-3/4" hole x 10-3/4" casing for surface section. Cement to surface.
- Drill 9-7/8" hole x 7-5/8" casing for intermediate section. Cement to surface.
- Drill 6-3/4" hole x 5-1/2" liner for production section. Cement to top of liner, 100' inside 7-5/8" shoe.
- Release drilling rig from location.
- Move in workover rig and run a 5-1/2" 20# P110 Wedge 461 tie-back frac string and seal assembly. Tie into liner hanger Polished Bore Receptacle (PBR) with seal assembly.
- Pump hydraulic fracture job.
- Flowback and produce well.

General well schematic:



#### **TECHNICAL DATA SHEET TMK UP FJ 7.625 X 26.4 L80 HC** Received by OCD: 6/5/2023 6:50:18 AM

TUBULAR PARAMETERS		PIPE BODY PROPERTIES	
Nominal OD, (inch)	7.625	PE Weight, (lbs/ft)	25.56
Wall Thickness, (inch)	0.328	Nominal Weight, (lbs/ft)	26.40
Pipe Grade	L80 HC	Nominal ID, (inch)	6.969
Drift	Standard	Drift Diameter, (inch)	6.844
		Nominal Pipe Body Area, (sq inch)	7.519
CONNECTION PARAMETERS		Yield Strength in Tension, (klbs)	601
Connection OD (inch)	7.63	Min. Internal Yield Pressure, (psi)	6 0 2 0
Connection ID, (inch)	6.975	Collapse Pressure, (psi)	3 910
Make-Up Loss, (inch)	4.165		
Connection Critical Area, (sq inch)	2.520	Internal Pressure	
Yield Strength in Tension, (klbs)	347		
Yeld Strength in Compression, (klbs)	347		
Tension Efficiency	58%	100% API 5C3 / ISO	
Compression Efficiency	58%		
Min. Internal Yield Pressure, (psi)	6 020	Y (	

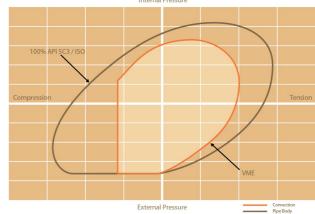
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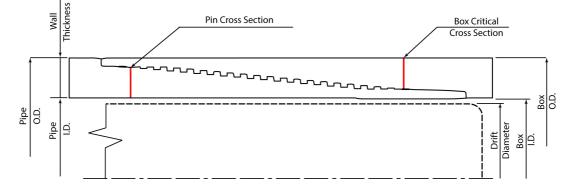
28.0

#### MAKE-UP TORQUES

Collapse Pressure, (psi) Uniaxial Bending (deg/100ft)

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





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Print date: 07/10/2018 20:11

#### **TECHNICAL DATA SHEET TMK UP SF 7.625 X 26.4 L80 HC** Received by OCD: 6/5/2023 6:50:18 AM

TUBULAR PARAMETERS		PIPE BODY PROPERTIES	
Nominal OD, (inch)	7.625	PE Weight, (lbs/ft)	25.56
Wall Thickness, (inch)	0.328	Nominal Weight, (lbs/ft)	26.40
Pipe Grade	L80 HC	Nominal ID, (inch)	6.969
Drift	Standard	Drift Diameter, (inch)	6.844
		Nominal Pipe Body Area, (sq inch)	7.519
CONNECTION PARAMETERS		Yield Strength in Tension, (klbs)	601
Connection OD (inch)	7.79	Min. Internal Yield Pressure, (psi)	6 020
Connection ID, (inch)	6.938	Collapse Pressure, (psi)	3 910
Make-Up Loss, (inch)	6.029		
Connection Critical Area, (sq inch)	5.948	Internal Pressure	
Yield Strength in Tension, (klbs)	533		
Yeld Strength in Compression, (klbs)	533		
Tension Efficiency	89%	100% API 5C3 / ISO	
Compression Efficiency	89%		

6 0 2 0

3 9 1 0

42.7

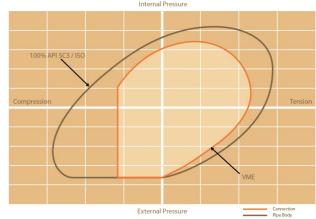
#### MAKE-UP TORQUES

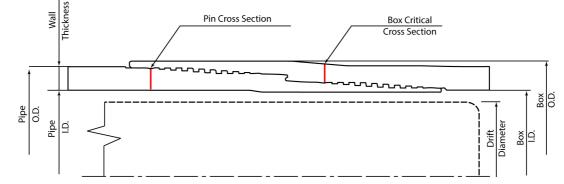
Collapse Pressure, (psi)

Min. Internal Yield Pressure, (psi)

Uniaxial Bending (deg/100ft)

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





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Print date: 07/10/2018 20:00

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Tenaris

# Tenar 425<sup>®</sup>



risHydril \	Wedg	<b>e</b>	Body 1st B	bling le: P110-CY /: White Band: Grey Band: -	Pipe Body Grade: P110-CY 1st Band: White 2nd Band: Grey 3rd Band: -	
			3rd E	Band: -	4th Band: - 5th Band: - 6th Band: -	
r	5.500 in.	Wall Thickness	0.361 in.	Grade		P110-CY
ess	87.50 %	Pipe Body Drift	API Standard	Туре		Casing

**Connection OD Option** 

#### **Pipe Body Data**

**Outside Diameter** Min. Wall Thicknes

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.		

REGULAR

### Performance

Body Yield Strength	641 x1000 lb
Min. Internal Yield Pressure	12,640 psi
SMYS	110,000 psi
Collapse Pressure	11,100 psi

#### **Connection Data**

Geometry	
Connection OD	5.777 in.
Connection ID	4.734 in.
Make-up Loss	5.823 in.
Threads per inch	3.77
Connection OD Option	Regular

Performance	
Tension Efficiency	90 %
Joint Yield Strength	577 x1000 lb
Internal Pressure Capacity	12,640 psi
Compression Efficiency	90 %
Compression Strength	577 x1000 lb
Max. Allowable Bending	82 °/100 ft
External Pressure Capacity	11,100 psi

Make-Up Torques	
Minimum	15,700 ft-lb
Optimum	19,600 ft-Ib
Maximum	21,600 ft-lb
Operation Limit Torques	
Operating Torque	29,000 ft-Ib
Yield Torque	36,000 ft-lb

#### Notes

This connection is fully interchangeable with: TORQ® SFW $^{-}$  5.5 in. - 0.361 in. Connections with Dopeless® Technology are fully compatible with the same connection in its Standard version

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

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# Oxy USA Inc. - Saker 6\_7 Fed Com 36H Drill Plan

# **1. Geologic Formations**

TVD of Target (ft):	12336	Pilot Hole Depth (ft):	
Total Measured Depth (ft):	22200	Deepest Expected Fresh Water (ft):	840

### **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	<b>Expected Fluids</b>
Rustler	840	840	
Salado	1394	1394	Salt
Castile	3377	3377	Salt
Delaware	5231	5231	Oil/Gas/Brine
Bell Canyon	5281	5281	Oil/Gas/Brine
Cherry Canyon	6167	6167	Oil/Gas/Brine
Brushy Canyon	7530	7530	Losses
Bone Spring	8727	8727	Oil/Gas
Bone Spring 1st	9829	9829	Oil/Gas
Bone Spring 2nd	10280	10280	Oil/Gas
Bone Spring 3rd	11301	11291	Oil/Gas
Wolfcamp	11561	11547	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

# 2. Casing Program

		MD		TVD		TVD					
	Hole	From	То	From	То	Csg.	Csg Wt.				
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.		
Surface	17.5	0	1334	0	1334	13.375	54.5	J-55	BTC		
Intermediate	12.25	0	11177	0	11167	7.827	39.3	P110S	Wedge 463		
Production	6.75	10977	22200	10967	12336	5.5	20	P-110	Wedge 461		

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

\*Oxy requests the option to run production casing with DQX, TORQ DQW, Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

\*Oxy requests the option to run the 9.625" Intermediate I as a contingency string to be run only if severe hole conditions dictate an additional casing string necessary. This would make the planned 7.625" Casing the Intermediate II.

\*Oxy requests the option to pivot from 12.25" Intermediate I to 9.875" Intermediate I once we've gained for Drilling experience to remove the need for a 4 String Contingency

All Casing SF Values will meet or						
exceed those below						
SE	SF SF Body SF					
•••		Douyor	Joint St			
Collapse		Tension				

# **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?	Y
If not provide justification (loading assumptions, casing design criteria).	I
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	I
Is well located within Capitan Reef?	Ν
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?	Ν
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
	•
Is well located in R-111-P and SOPA?	Ν
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
	-
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# 3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (Ib/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	1393	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.	1	Intermediate 1S - Tail	1047	1.65	13.2	5%	7,780	Circulate	Class H+Accel., Disper., Salt
Int.	2	Intermediate 2S - Tail BH	2699	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	847	1.38	13.2	25%	10,977	Circulate	Class H+Ret., Disper., Salt

#### **Cement Top and Liner Overlap**

• Oxy is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 200 ft into previous casing string

The reason for this is so that we can come back and develop shallower benches from the same 7.625"/7.827" mainbore in the future

• Cement will be brought to the top of this liner hanger

# **Offline Cementing**

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:

Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).

Land casing.

Fill pipe with kill weight fluid, and confirm well is static.

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

The summarized operational sequence will be as follows:

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
- 2. Land casing.
- 3. Fill pipe with kill weight fluid, and confirm well is static.
  - a. If well is not static notify BLM and kill well.
  - b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
- 4. Set and pressure test annular packoff.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange.
- 8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
- 9. Install offline cement tool.
- 10. Rig up cement equipment.

a. Notify BLM prior to cement job.

- 11. Perform cement job.
- 12. Confirm well is static and floats are holding after cement job.
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

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.

### Three string wells:

- CBL will be required on one well per pad
- If the pumped volume of cement is less than permitted in the APD, BLM will be notified and a CBL may be run
- Echometer will be used after bradenhead cement job to determine TOC before pumping top-out cement

# 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	~	Tested to:	Deepest TVD Depth (ft) per Section:				
		5M		Annular	<b>\</b>	70% of working pressure					
				Blind Ram	<b>\</b>						
12.25" Hole 13-5/8"	13-5/8"	5M		Pipe Ram		250 poi / 5000 poi	11167				
		DIVI	Double Ram 🗸 250 psi / 5000 p		250 psi / 5000 psi						
			Other*								
		5M		Annular	<b>\</b>	100% of working pressure					
							Blind Ram		<b>\</b>		1
6.75" Hole 13-5/8	13-5/8"	1014		Pipe Ram		250 poi / 10000 poi	12336				
		10M		Double Ram	✓	250 psi / 10000 psi					
			Other*								

#### \*Specify if additional ram is utilized

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

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.

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.

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**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.

If the kill line is broken prior to skid, two tests will be performed.

- 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
- 2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1)Wellhead flange, co-flex hose, check valve, upper pipe rams

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.

Section	Depth - MD		Depth - TVD		Trme	Weight	Viscosity	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	viscosity	Loss
Surface	0	1334	0	1334	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate	1334	11177	1334	11167	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Production	11177	22200	11167	12336	Water-Based or Oil- Based Mud	9.5 - 12.5	38-50	N/C

# 5. Mud Program

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	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	

# 6. Logging and Testing Procedures

Loggi	ng, Coring and Testing.
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).
res	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

Addi	tional logs planned	Interval
No	Resistivity	
No	Density	
Yes	CBL	Production string
Yes	Mud log	Bone Spring – TD
No	PEX	

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8019 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	179°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

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.

Ν	H2S is present
Y	H2S Plan attached

# 8. Other facets of operation

	Yes/No
<ul><li>Will the well be drilled with a walking/skidding operation? If yes, describe.</li><li>We plan to drill the 3 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.</li></ul>	Yes
<ul><li>Will more than one drilling rig be used for drilling operations? If yes, describe.</li><li>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.</li></ul>	Yes

# Total Estimated Cuttings Volume: 2320 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	<u>Title</u>	<b>Office Phone</b>	<b>Mobile Phone</b>
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Derek Adam	Drilling Engineer Supervisor	713-366-5170	916-802-8873
Casey Martin	Drilling Superintendent	713-497-2530	337-764-4278
Kevin Threadgill	Drilling Manager	713-366-5958	361-815-0788

# Oxy USA Inc. - Saker 6\_7 Fed Com 36H Drill Plan

# **1. Geologic Formations**

	TVD of Target (ft):	12336	Pilot Hole Depth (ft):	
Total I	Measured Depth (ft):	22200	Deepest Expected Fresh Water (ft):	840

### **Delaware Basin**

Formation	MD-RKB (ft)	TVD-RKB (ft)	<b>Expected Fluids</b>
Rustler	840	840	
Salado	1394	1394	Salt
Castile	3377	3377	Salt
Delaware	5231	5231	Oil/Gas/Brine
Bell Canyon	5281	5281	Oil/Gas/Brine
Cherry Canyon	6167	6167	Oil/Gas/Brine
Brushy Canyon	7530	7530	Losses
Bone Spring	8727	8727	Oil/Gas
Bone Spring 1st	9829	9829	Oil/Gas
Bone Spring 2nd	10280	10280	Oil/Gas
Bone Spring 3rd	11301	11291	Oil/Gas
Wolfcamp	11561	11547	Oil/Gas
Penn			Oil/Gas
Strawn			Oil/Gas

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

# 2. Casing Program

		N	ID	Τ\	/D				
	Hole	From	То	From	То	Csg.	Csg Wt.		
Section	Size (in)	(ft)	(ft)	(ft)	(ft)	OD (in)	(ppf)	Grade	Conn.
Surface	17.5	0	1334	0	1334	13.375	54.5	J-55	BTC
Salt	12.25	0	5331	0	5331	9.625	40	L-80 HC	BTC
Intermediate	8.75	0	6677	0	6667	7.625	26.4	L-80 HC	Wedge 425
Intermediate	8.75	6677	11177	6667	11167	7.625	29.7	L-80 HC	BTC-SC
Production	6.75	10977	22200	10967	12336	5.5	20	P-110	Wedge 461

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

\*Oxy requests the option to run production casing with DQX, TORQ DQW, Wedge 425, Wedge 461, and/or Wedge 441 connections to accommodate hole conditions or drilling operations.

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

# **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?	Y
If not provide justification (loading assumptions, casing design criteria).	I
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching	Y
the collapse pressure rating of the casing?	I
Is well located within Capitan Reef?	Ν
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?	Ν
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back	
500' into previous casing?	
Is well located in R-111-P and SOPA?	Ν
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
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?	
	1
Is well located in critical Cave/Karst?	N
If yes, are there three strings cemented to surface?	

# 3. Cementing Program

Section	Stage	Slurry:	Sacks	Yield (ft^3/ft)	Density (Ib/gal)	Excess:	тос	Placement	Description
Surface	1	Surface - Tail	1393	1.33	14.8	100%	-	Circulate	Class C+Accel.
Int.1	1	Intermediate - Tail	141	1.33	14.8	20%	4,831	Circulate	Class C+Accel.
Int.1	1	Intermediate - Lead	1229	1.73	12.9	50%	-	Circulate	Class Pozz+Ret.
Int. 2	1	Intermediate 1S - Tail	217	1.65	13.2	5%	7,780	Circulate	Class H+Accel., Disper., Salt
Int. 2	2	Intermediate 2S - Tail BH	519	1.71	13.3	25%	-	Bradenhead	Class C+Accel.
Prod.	1	Production - Tail	847	1.38	13.2	25%	10,977	Circulate	Class H+Ret., Disper., Salt

#### **Cement Top and Liner Overlap**

• Oxy is requesting permission to have minimum fill of cement behind the 5-1/2" production liner to be 200 ft into previous casing string

The reason for this is so that we can come back and develop shallower benches from the same 7.625"/7.827" mainbore in the future

• Cement will be brought to the top of this liner hanger

# **Offline Cementing**

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:

Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).

Land casing.

Fill pipe with kill weight fluid, and confirm well is static.

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

The summarized operational sequence will be as follows:

- 1. Run casing as per normal operations. While running casing, conduct negative pressure test and confirm integrity of the float equipment (float collar and shoe).
- 2. Land casing.
- 3. Fill pipe with kill weight fluid, and confirm well is static.
  - a. If well is not static notify BLM and kill well.
  - b. Once well is static notify BLM with intent to proceed with nipple down and offline cementing.
- 4. Set and pressure test annular packoff.
- 5. After confirmation of both annular barriers and internal barriers, nipple down BOP and install cap flange. If any barrier fails to test, the BOP stack will not be nippled down until after the cement job is completed.
- 6. Skid rig to next well on pad.
- 7. Confirm well is static before removing cap flange.
- 8. If well is not static notify BLM and kill well prior to cementing or nippling up for further remediation.
- 9. Install offline cement tool.
- 10. Rig up cement equipment.

a. Notify BLM prior to cement job.

- 11. Perform cement job.
- 12. Confirm well is static and floats are holding after cement job.
- 13. Remove cement equipment, offline cement tools and install night cap with pressure gauge for monitoring.

# 4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min. Required WP		Туре	~	Tested to:	TVD Depth (ft) per Section:	
		5M		Annular	✓	70% of working pressure		
				Blind Ram	✓			
12.25" Hole	13-5/8"	5M		Pipe Ram		250 psi / 5000 psi	5331	
		SIVI		Double Ram	✓	200 psi / 5000 psi		
			Other*					
	13-5/8"	5M		Annular	<b>√</b>	70% of working pressure	11167	
		5M		Blind Ram	✓			
8.75" Hole				Pipe Ram		250 pci / 5000 pci		
				Double Ram	<	250 psi / 5000 psi		
			Other*					
		5M	Annular		<b>&gt;</b>	100% of working pressure		
				Blind Ram	<b>&gt;</b>		12336	
6.75" Hole	13-5/8"	10M		Pipe Ram		250 psi / 10000 psi		
				Double Ram	<b>\</b>	250 psi / 10000 psi		
			Other*				1	

### \*Specify if additional ram is utilized

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

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.

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.

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**

Oxy requests permission to adjust the BOP break testing requirements as per the agreement reached in the OXY/BLM meeting on September 5, 2019.

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill an intermediate section where ICP is set into the third Bone Spring or shallower.

If the kill line is broken prior to skid, two tests will be performed.

- 1) Wellhead flange, co-flex hose, kill line connections and upper pipe rams
- 2) Wellhead flange, HCR valve, check valve, upper pipe rams

If the kill line is not broken prior to skid, only one test will be performed.

1)Wellhead flange, co-flex hose, check valve, upper pipe rams

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.

Section	Depth		Depth - TVD		Trimo	Weight	Vicesita	Water
Section	From (ft)	To (ft)	From (ft)	To (ft)	Туре	(ppg)	Viscosity	Loss
Surface	0	1334	0	1334	Water-Based Mud	8.6 - 8.8	40-60	N/C
Intermediate 1	1334	5331	1334	5331	Saturated Brine-Based or Oil-Based Mud	8.0 - 10.0	35-45	N/C
Intermediate 2	5331	11177	5331	11167	Water-Based or Oil- Based Mud	8.0 - 10.0	38-50	N/C
Production	11177	22200	11167	12336	Water-Based or Oil- Based Mud	9.5 - 12.5	38-50	N/C

# 5. Mud Program

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	PVT/MD Totco/Visual Monitoring
loss or gain of fluid?	

# 6. Logging and Testing Procedures

Loggi	ng, Coring and Testing.
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole).
res	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

Addi	tional logs planned	Interval
No	Resistivity	
No	Density	
Yes	CBL	Production string
Yes	Mud log	Bone Spring – TD
No	PEX	

# 7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	8019 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	179°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

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.

Ν	H2S is present
Y	H2S Plan attached

# 8. Other facets of operation

	Yes/No
<ul><li>Will the well be drilled with a walking/skidding operation? If yes, describe.</li><li>We plan to drill the 3 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.</li></ul>	Yes
<ul><li>Will more than one drilling rig be used for drilling operations? If yes, describe.</li><li>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.</li></ul>	Yes

# Total Estimated Cuttings Volume: 1903 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	<u>Title</u>	<b>Office Phone</b>	<b>Mobile Phone</b>
Garrett Granier	Drilling Engineer	713-513-6633	832-265-0581
Derek Adam	Drilling Engineer Supervisor	713-366-5170	916-802-8873
Casey Martin	Drilling Superintendent	713-497-2530	337-764-4278
Kevin Threadgill	Drilling Manager	713-366-5958	361-815-0788

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 Rd., Aztec, NM 87410 Phone:(505) 334-6178 Fax:(505) 334-6170

District IV 1220 S. St Francis Dr., Santa Fe, NM 87505 Phone: (505) 476-3470 Fax: (505) 476-3462

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

CONDITIONS

Operator:	OGRID:
OXY USA INC	16696
P.O. Box 4294	Action Number:
Houston, TX 772104294	223607
	Action Type:
	[C-103] NOI Change of Plans (C-103A)
	-

#### CONDITIONS

Created By		Condition Date
pkautz	None	6/5/2023

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Action 223607