

Well Name: NORTHEAST BLANCO UNIT 605 COM	Well Location: T31N / R7W / SEC 11 / SESE / 36.9081662 / -107.5343025	County or Parish/State: SAN JUAN / NM
Well Number: 003H	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMNM03358	Unit or CA Name: NEBU--ST	Unit or CA Number: NMNM78402X
US Well Number:	Operator: SIMCOE LLC	

Notice of Intent

Sundry ID: 2882569

Type of Submission: Notice of Intent

Date Sundry Submitted: 11/13/2025

Date proposed operation will begin: 11/13/2025

Type of Action: APD Change

Time Sundry Submitted: 09:32

Procedure Description: SIMCOE would like to run the surface casing deeper to a Measured Depth of 3756'. Please see revised Drilling Program for details.

NOI Attachments

Procedure Description

NEBU_605__3H_Drilling_Prog_revised_10_31_25_20251113093130.pdf

Received by OCD: 11/13/2025 3:38:17 PM

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US Well Number:	Operator: SIMCOE LLC	

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: CALE REDPATH	Signed on: NOV 13, 2025 09:32 AM
Name: SIMCOE LLC	
Title: NOT RECORDED	
Street Address: 1199 MAIN AVE SUITE 101	
City: DURANGO	State: CO
Phone: (970) 759-8799	
Email address: CALE.REDPATH@IKAVENERGY.COM	

Field

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

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK	BLM POC Title: Petroleum Engineer
BLM POC Phone: 5055647742	BLM POC Email Address: krennick@blm.gov
Disposition: Approved	Disposition Date: 11/13/2025
Signature: Kenneth Rennick	

Form 3160-5
(October 2024)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

SUNDRY NOTICES AND REPORTS ON WELLS
Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

FORM APPROVED
OMB No. 1004-0220
Expires: October 31, 2027

5. Lease Serial No.

6. If Indian, Allottee or Tribe Name

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

8. Well Name and No.

9. API Well No.

10. Field and Pool or Exploratory Area

11. Country or Parish, State

SUBMIT IN TRIPLICATE - Other instructions on page 2

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

2. Name of Operator

3a. Address

3b. Phone No. (include area code)

4. Location of Well (Footage, Sec., T.,R.,M., or Survey Description)

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

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

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

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Title

Signature

Date

THE SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

Title 18 U.S.C Section 1001 and Title 43 U.S.C Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction.

(Instructions on page 2)

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

Additional Information

Location of Well

0. SHL: SESE / 504 FSL / 874 FEL / TWSP: 31N / RANGE: 7W / SECTION: 11 / LAT: 36.9081662 / LONG: -107.5343025 (TVD: 0 feet, MD: 0 feet)

PPP: NESE / 1974 FSL / 5261 FWL / TWSP: 31N / RANGE: 7W / SECTION: 9 / LAT: 36.9122048 / LONG: -107.5674006 (TVD: 7036 feet, MD: 15819 feet)

PPP: NESE / 1978 FSL / 0 FEL / TWSP: 31N / RANGE: 7W / SECTION: 10 / LAT: 36.912297 / LONG: -107.549371 (TVD: 7040 feet, MD: 10547 feet)

PPP: NWSE / 1980 FSL / 2369 FEL / TWSP: 31N / RANGE: 7W / SECTION: 11 / LAT: 36.9122126 / LONG: -107.539409 (TVD: 7043 feet, MD: 7636 feet)

PPP: NESW / 1981 FSL / 2640 FEL / TWSP: 31N / RANGE: 7W / SECTION: 11 / LAT: 36.9122125 / LONG: -107.5403348 (TVD: 7043 feet, MD: 7907 feet)

BHL: NWSW / 1973 FSL / 290 FWL / TWSP: 31N / RANGE: 7W / SECTION: 9 / LAT: 36.9121968 / LONG: -107.5844039 (TVD: 7031 feet, MD: 20790 feet)

CONFIDENTIAL



NEBU 605-3H

**Attachment to Application for Permit to Drill
Drilling Program**

Simcoe LLC / Mach Natural Resources

1199 Main Avenue
Suite 101
Durango, CO 81301

**Northeast Blanco Unit 605 3H
Mancos Shale - Horizontal Development Well**

Surface Location: 504' FSL & 874' FEL

Section 11, T31N, R07W

GL Elevation = 6471'

Lat. = 36.9081662°N Long. = 107.5343025°W

NAD83

San Juan County, New Mexico

Proposed Bottom Hole Location Lateral: 1973' FSL – 290' FWL

Section 09, T31N, R07W

San Juan County, New Mexico

Drilling program written in compliance with onshore Oil and Gas Order No. 1 (III.D.3, effective May 2007) and Onshore Order No. 2 Dated November 18, 1988

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Section 1: Geotechnical Information

MARKER	TVD	MD	COMMENTS	BHP (PSI/FT)
Animas	15	15	Wet/aquifer	0.43
Ojo Alamo SS	2,331	2,387	Wet/aquifer	0.43
Kirtland (Top/Cretaceous)	2,446	2,506	Gas & water-bearing	0.43
Fruitland Coal	2,947	3,026	Gas & water-bearing	0.07
Pictured Cliffs SS	3,301	3,394	Wet	0.12
Lewis Shale	3,525	3,626	Gas & water-bearing	0.35
Cliffhouse SS	5,381	5,553	Gas & water-bearing	0.35
Menefee	5,419	5,592	Gas & water-bearing	0.30
Point Lookout SS	5,660	5,842	Gas & water-bearing	0.30
Mancos Shale	6,136	6,337	Gas-bearing	0.43
LP (Mancos Lateral)	7,043	7,636	Gas-bearing	0.61
TD (Mancos Lateral)	7,031	20,790	Gas-bearing	0.61

DIRECTIONAL PLAN 1 – see attached plan.

Possible Aquifers: San Jose and Ojo Alamo

Oil Shale: None Expected

Oil & Gas: Primary objective is the Mancos formation from 7043' TVD (landing point) to 7031' TVD (toe)

Protection of oil, gas, water, or other mineral-bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer(s) and cementing casing to surface.

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SECTION 2: BOPE

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

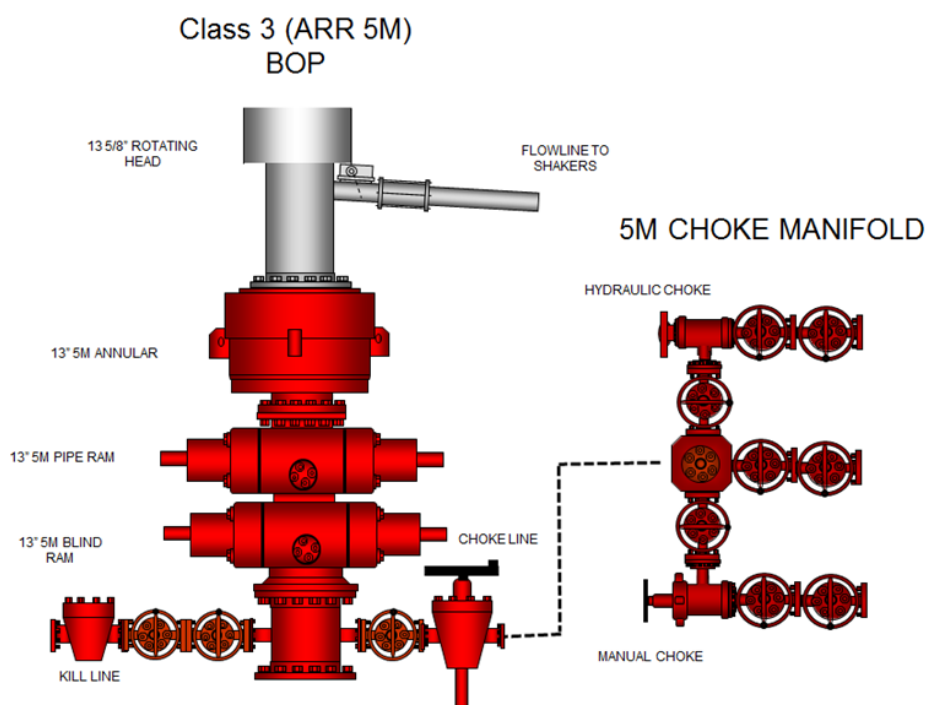
A 13-5/8" 5M BOPE will be utilized to drill this well. Maximum anticipated surface pressure for 13-5/8" 5M BOPE is 2747 psi. The 13-5/8" BOPE will be tested 250 psi (Low) for 5 minutes and 5000 psi (High) for 10 minutes if isolated by test plug or 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure test conductor, surface, and intermediate casing(s) to 1500 psi for 30 minutes. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe rams will be activated daily, and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE.

BOPE	TVD (ft)	BHP Grad (psi/ft)	BHP (psi)	MASP (psi)
13-5/8" 5M BOPE	7043	0.61	4296	2747

The working pressure of all BOPE shall exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft.

Bottom Hole pressure = 7043'TVD x 0.61 psi/ft. = 4296 psi (based on estimated bottom hole pressures).

Maximum Surface Pressure = 4271 psi - (7043'TVD x .22 psi/ft.) = 4296 psi - 1550 psi = 2747 psi and is less than 5,000 psi working pressure.



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Section 3: Casing**BIT & CASING PROGRAM (all new casing strings)**

TYPE	HOLE SIZE (IN)	CASING (IN)	WEIGHT (LBS/FT)	GRADE	COUPLING	SETTING DEPTH (MD FT)	COMMENTS
Conductor	26	20	94.00	J55		0 - 150	New casing. May be pre-set. Cement circulated to surface.
Surface	17-1/2	13-3/8	54.50	J55	BT&C	0 - 3756	New casing. May be pre-set. Cement circulated to surface.
Intermediate	12-1/4	9-5/8	40.00	P110HC	BT&C	0 - 6587	New casing. Two-stage cement job, circulated to surface.
Production	8-3/4	5-1/2	20.00	P110HC	TCBC-HT	0 - 20790	New casing. Single-stage cement job to overlap previous casing shoe.

Conductor Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

				Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors				1.125		1.100	1.400
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)
Conductor	20	94	J55	520	2,110	1,480,000	1,402,000
80% of Burst =					1,688		
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor		
Collapse	150	0	8.33	0	65	8.00	
Burst	150	8.33	0	1500	0	1.35	1500 psi casing test
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)			
Tension (Pipe Body)	150	9.00	14,100	12,163	112,163	13.20	100K lbs overpull
Tension (Connection)	150	9.00	14,100	12,163	112,163	12.50	

NOTE: BF = 1 - ((MW)/65.5)

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Surface Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

				Collapse (psi)	Burst (psi)	Tension (lbs)		
Minimum Safety Factors				1.125		1.100	1.400	
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)	
Surface	13.375	54.50	J55	BTC	1,130	2,730	850,000	909,000
80% of Burst =					2,184			
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	3645	9.00	9.00	853	1706	1.32	50% Casing volume with 9.0 ppg mud system	
Burst	3645	9.00	9.00	3206	1706	1.82	1500 psi casing test	
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	3645	9.00	198,649	171,353	271,353	3.13	100K lbs overpull	
Tension (Connection)	3645	9.00	198,649	171,353	271,353	3.35		
NOTE: BF = 1 - ((MW)/65.5)								

NOTE: BF = 1 - ((MW)/(65.5))

Intermediate Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

					Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors					1.125		1.100	1.400
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)	
Intermediate	9.625	40.00	P110HC	BTC	4,230	7,910	1,260,000	1,265,000
					80% of Burst =	6,328		
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	6272	0	10.00	0	3262	1.30	Full evacuation with 10.0 ppg mud in annulus	
Burst	6272	10.00	0	1500	0	1.66	1500 psi casing test	
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	6272	10.00	250,899	212,594	312,594	4.03	100K lbs overpull	
Tension (Connection)	6272	10.00	250,899	212,594	312,594	4.05		

NOTE: BF = 1 - ((MW)/(65.5))

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Production Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

				Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors				1.125	1.100	1.400	
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)
Production	5.5	20.00	P110HC	TCBC-HT	12,150	12,640	641,000
				80% of Burst =		10,112	
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor		
Collapse	7031	0	13.30	0	4863	2.50	Full evacuation with 13.3 ppg mud in annulus
Burst	7031	13.30	0	1500	0	1.99	1500 psi casing test
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)			
Tension (Pipe Body)	7031	13.30	140,620	112,067	212,067	3.02	100K lbs overpull
Tension (Connection)	7031	13.30	140,620	112,067	212,067	3.02	

NOTE: $BF = 1 - ((MW)/65.5)$

All casing strings (including conductor) will be tested to 0.22 psi/ft of string length or 1500 psi (whichever is greater), but not to exceed 70% of minimum internal yield.

Minimum casing design safety factors:

Collapse – 1.125

Burst – 1.100

Tension – 1.400

Casing centralization: Run centralizers to meet requirements of 43 CFR 3160 Onshore order 2, Drilling Operations. 13-3/8 Surface Casing – Centralizers to be placed on bottom 3 joints of casing (1 per joints).

**NOTE: Use of the DV tools and ACP's will be based on the magnitude of drilling fluid losses encountered while drilling the Intermediate section and concerns about cement possibly not being circulated to surface. Should heavy losses not be encountered, the DV tool and ACP will not be used.*

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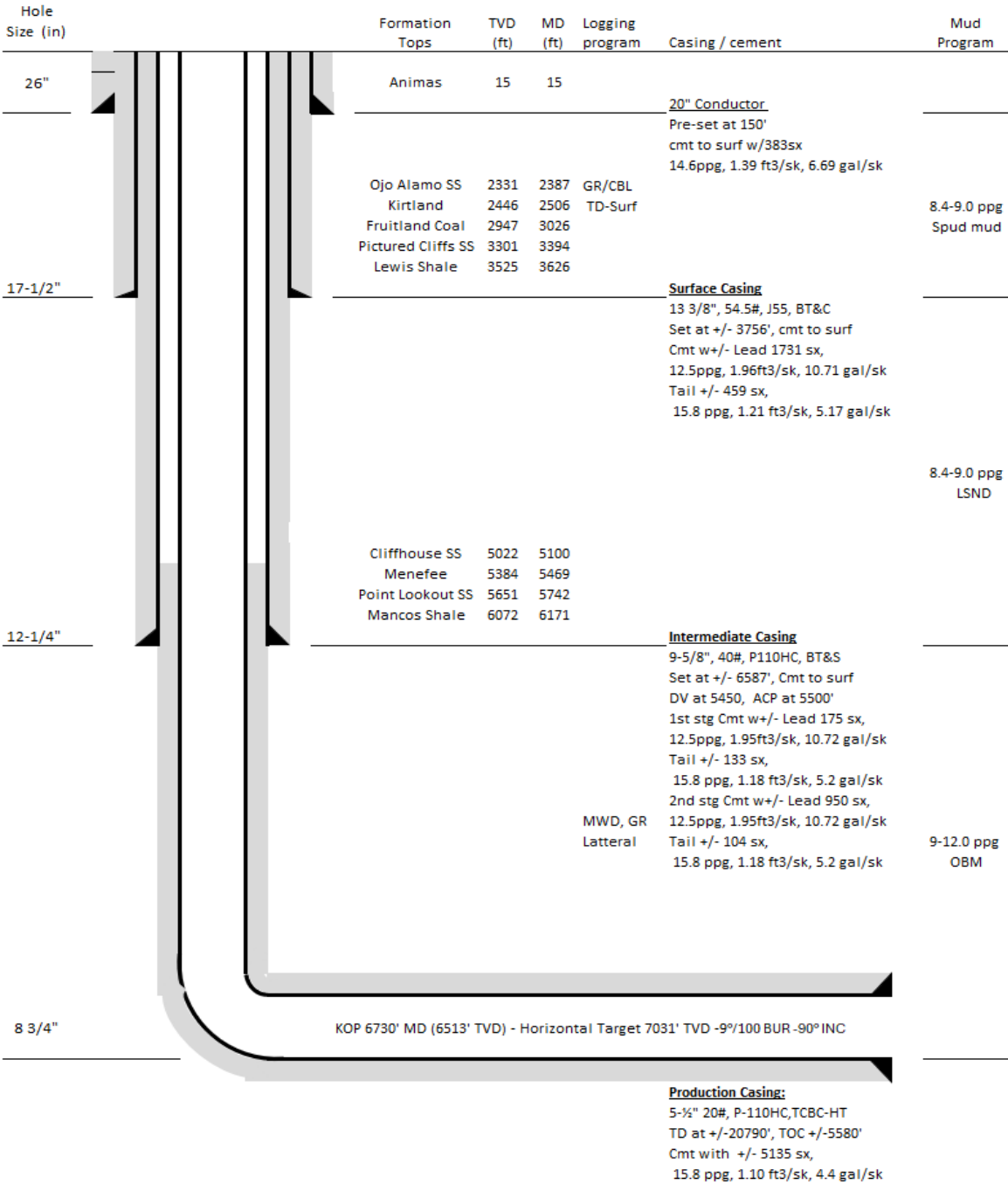


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Wellbore Schematic



Well: Northwest Blanco Unit 605 3H
Prospect: San Juan - Mancos Shale (S2/Black)
Category: Horizontal Well
County, State: San Juan, New Mexico
API:
Revised 10-31-25



* For illustration purpose only
Not to scale



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SECTION 4: CEMENT

The proposed cementing program has been designed to protect and/or isolate all usable water zones, potential productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium utilized (other than cement) shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat in a competent formation which will contain the maximum pressure to which it will be exposed during the drilling process. All indications of usable water shall be reported.

- Pea gravel or other material shall not be used to fill around the conductor or surface casing in the event cement is not circulated to surface or if cement fallback occurs.
- The conductor and surface casing strings shall be cemented back to surface. If cement is not circulated for the surface casing, or if the cement column falls back after circulation, remedial cementing will be performed to cement the casing to surface using 1" tubing. No more than 100' will be remediated without prior approval. Although cement circulation to surface of the intermediate casing string is desired, it is not required. If the top of cement (TOC) is found to be within the surface casing, no remedial work will be performed.
- Top plugs will be used to reduce possible contamination of the cement slurry by the displacement fluid. A bottom plug (or other acceptable techniques such as a pre-flush fluid, inner string, etc.) will be used to isolate the cement slurry from the drilling fluid being displaced ahead of the cement.
- All cement volumes will be based on actual hole conditions.

Conductor Casing: Single Stage (0' - 150' MD) – 26" Hole x 20" Casing, 100% XS

- Cement to be circulated to surface with approximately 383 sx Class G + 2% CaCl₂ + 0.25 #/sk Poly-Flake mixed at 14.6 ppg using 6.69 gal/sk fresh water with yield of 1.39 ft³/sk. The approximate volume of the conductor slurry is +/- 532 ft³.

Surface Casing: Single Stage (0' - 3756' MD) – 17-1/2" Hole x 13-3/8" Casing, 50% XS

- Cement to be circulated to surface. Lead Slurry will consist of approximately 1731 sx 65/35 Class G/Poz + adds mixed at 12.5 ppg using 10.71 gal/sk fresh water with yield of 1.96 ft³/sk. Tail Slurry will consist of approximately 459 sx Class G + adds mixed at 15.8 ppg using 5.17 gal/sk fresh water with yield of 1.21 ft³/sk. Total approximate volume of Surface slurries is +/- 3950 ft³.

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Intermediate Casing: Two Stages (0' - 6587' MD) – 12-1/4" Hole x 9-5/8" Casing, DV tool at ±5450' MD ACP at ±5500' MD, 30% XS

Cement to be circulated to surface.

Stage 1: Lead Slurry will consist of approximately 175 sx 65/35 Class G/Poz + adds at 12.5 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 1: Tail Slurry will consist of approximately 133 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 308 ft³.

Stage 2: Lead Slurry will consist of approximately 905 sx 65/35 Class G/Poz mixed at 10.72 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 2: Tail Slurry will consist of approximately 104 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 1243 ft³.

Total approximate volume of all Intermediate slurries is +/- 1607 ft³.

Production Casing: Single Stage (0' - 20790' MD) – 8-3/4" Hole x 5-1/2" Casing, 50% XS

Lead Slurry to be preceded by 10 bbls fresh water, 80 bbls D-Mud Breaker and 10 bbls fresh water. Lead slurry will consist of approximately 5135 sx 80/20 Class G + adds mixed at 15.8 ppg using 4.40 gal/sk fresh water with yield of 1.10 ft³/sk. Top of cement approximately 1000 ft into Intermediate casing at 5587 ft.

Total approximate volume of the production slurry is 5650 ft³.

All cement slurries will meet or exceed minimum BLM and NMOCD requirements. Slurries used will be the slurries listed above or equivalent slurries, depending on service provider selected. Cement yields may change based on actual slurries selected.

All "waiting on cement" (WOC) times shall be either a minimum of 8 hours or the time required to achieve a minimum of 500 psi compressive strength at the casing shoe.

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CASING/CEMENT SUMMARY

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	STRING			
	CONDUCTOR	SURFACE	INTERMEDIATE	PRODUCTION
SIZE (in)	20	13.375	9.625	5.5
WEIGHT (#/ft)	94.00	54.50	40.00	20.00
SET DEPTH (ft)	150	3756	6587	20,790
DV DEPTH (ft)			5453	
STG 1 - LEAD VOL (sx)	383	1731	175	5135
DESC	Class G + 2.0% CaCl ₂ + 0.25 lbs/sk Cello Flake	65/35 Class G/Poz + adds	65/35 Class G/Poz + adds	80/20 Class G/Poz + adds
STG 1 - TAIL VOL (sx)		459	133	
DESC		Class G + adds	Class G + adds	
STG 2 - LEAD VOL (sx)			950	
DESC			65/35 Class G/Poz + adds	
STG 2 - TAIL VOL (sx)			104	
DESC			Class G + adds	
TOTAL WATER REQ'D (BBLs)*	111	1079	1300	1099

* Includes spacers & displacement

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SECTION 5: CIRCULATING MEDIUM (MUD PROGRAM)**CLOSED-LOOP SYSTEM DESIGN PLAN**

The closed-loop system will consist of a series of temporary, above-ground storage tanks and/or haul-off bins suitable for holding the cuttings and fluid from drilling operations. The closed-loop system will not utilize temporary earthen pits, below-grade storage tanks, below-grade sumps, or drying pads.

Design considerations include:

- The closed-loop system will be signed in accordance with 19.15.17.11 NMAC.
- The storage tanks of the closed-loop system will be of adequate volume to ensure confinement of all fluids and provide sufficient freeboard to prevent uncontrolled releases.
- Topsoil will be salvaged and stored for use in reclamation activities.

CLOSED-LOOP SYSTEM OPERATING & MAINTENANCE PLAN

The closed-loop system will be operated and maintained to contain liquids and solids, minimize the amount of drilling fluids and cuttings requiring disposal, maximize the amount of drilling fluid recycled and reused in the drilling process, isolate drilling wastes from the environment, prevent contamination of fresh water, and protect public health and the environment.

Operation and maintenance considerations include:

- Fluid levels will be maintained to provide sufficient freeboard to prevent over-topping.
- Visual inspections will be conducted daily to identify any potential leaks and to ensure that the closed-loop system storage tanks have sufficient freeboard to prevent over-topping.
- Only drilling fluids or cuttings intrinsic to, used by, or generated from, drilling operations will be stored in the closed-loop system storage tanks. Hazardous waste, miscellaneous solid waste, and/or debris will not be stored in the storage tanks.
- The OCD District Office will be notified within 48 hours of discovery of a leak in the closed-loop drilling system. If a leak is discovered, all liquid will be removed within 48 hours and the damage repaired.

CLOSED-LOOP SYSTEM CLOSURE PLAN

- The closed-loop system will be closed in accordance with 19.15.17.13 NMAC.

Closure considerations include:

- Drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical.
- Residual fluids will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at Industrial Envirotech, Inc. waste disposal facilities.
- Remaining cuttings or sludges will be vacuumed from the storage tanks and disposed of at an EPA-approved waste disposal facility.
- Storage tanks will be removed from the well location during the rig move.
- Well pad will be reclaimed and seeded in accordance with subsections G, Hand I of 19.15.17.13 NMAC.

MUD PROGRAM

Interval (MD)	Hole Section	Hole Size	Type	Mud Wt (ppg)	FL	PV	YP	Ph	Remarks
0' - 150	Conductor	26"	FW/Gel	8.4-9.0	NC	8	12	9.0	Spud Mud
0' - 3756	Surface	17-1/2"	LSND	8.4-9.0	<8	4-6	12-15	10.0	Fresh Water
0' - 6587	Intermediate	12-1/4"	LSND	8.6-9.0	<8	4-6	12-15	10.0	Fresh Water
0' - 20,790	Production	8-3/4"	OBM	9.0-12.0	<8	14-20	8-14	11.0	OBM

NOTES: Sufficient weighting material will be on hand to weight mud up to 1 ppg over design, if required.
 A Pason Pit Volume Totalizer (PVT) or equivalent equipment will be installed on each pit to monitor pit levels.
 A trip tank equipped with a Pason PVT will be used to monitor trip volumes.

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SECTION 6: TESTING, LOGGING, & CORING

Testing: None planned

Open-hole Logging: Azimuthal & Radial GR – Drilling curve and lateral

Mud Logging: Geologist and manned mud-logging unit on location from surface casing to TD. Gas-detecting equipment will be installed in the mud return system and hydrocarbon gas shall be monitored for pore pressure changes from base of surface casing to TD.

Coring: None

Cased-hole Logging: A Cement Bond Log (CBL) will be run if cement returns are not observed on surface during surface casing and intermediate casing cementing operations. The CBL will confirm both the quality and actual top of the cement column behind pipe.

SECTION 7: ANTICIPATED RESERVOIR CONDITIONS

- Normal to subnormal pressure gradient expected to TD.
- Maximum anticipated surface pressure and casing design parameters determined using 0.61 psi/ft.
- Maximum anticipated BHP @ 7043' TVD: 4296 psi. TD
- Maximum anticipated BHT @ 7043' TVD: 203°F.
- Possible lost circulation in the Fruitland Coal through the Mesa Verde formations (2,945' 6,011' to '). Lost circulation has been successfully mitigated with lost circulation materials in concentrations of up to 30% by volume. Intermediate casing will be set through this interval to ±6,361' (250' into Mancos).
- No hydrogen sulfide gas is anticipated. If H₂S is encountered the guidelines in Onshore Order No. 6 will be followed.

SECTION 8: OTHER

- **Directional Plans:** Horizontal well, directional drilling plan attached. Lateral KOP subject to mud log evaluation.
- **Completion:**
 - **Pressure test**
 - Pressure test production casing to allowable frac pressure or as per BLM requirements.
 - **Stimulation**
 - Plan is for well to be stimulated with a water frac and proppant frac design TBD
 - Number of stages and the amount of proppant will be adjusted based on the petrophysical properties of the target zone.
 - Stages will be isolated with composite bridge plugs.
 - Plugs will be drilled out using coiled tubing.
 - Flow back well according to flowback procedure.
 - **Turn well to production.**
 - It is intended to produce the well up the casing (without installing tubing) for at least 60 days or until tubing is needed to unload the well.
 - **Timing**
 - Drilling is scheduled to begin 2026.
 - Expected drilling time is roughly 35 days for the well and 105 days for the 3-well pad.
 - If possible, completion operations will commence immediately upon drilling of all wells on the pad and moving the drilling rig off location, dependent on service company availability. Otherwise completion operations will take place in 2026.

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**Attachment to Application for Permit to Drill
Drilling Program**

Simcoe LLC / Mach Natural Resources

1199 Main Avenue
Suite 101
Durango, CO 81301

**Northeast Blanco Unit 605 3H
Mancos Shale - Horizontal Development Well**

Surface Location: 504' FSL & 874' FEL

Section 11, T31N, R07W

GL Elevation = 6471'

Lat. = 36.9081662°N Long. = 107.5343025°W

NAD83

San Juan County, New Mexico

Proposed Bottom Hole Location Lateral: 1973' FSL – 290' FWL

Section 09, T31N, R07W

San Juan County, New Mexico

Drilling program written in compliance with onshore Oil and Gas Order No. 1 (III.D.3, effective May 2007)
and Onshore Order No. 2 Dated November 18, 1988

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Section 1: Geotechnical Information

MARKER	TVD	MD	COMMENTS	BHP (PSI/FT)
Animas	15	15	Wet/aquifer	0.43
Ojo Alamo SS	2,331	2,387	Wet/aquifer	0.43
Kirtland (Top/Cretaceous)	2,446	2,506	Gas & water-bearing	0.43
Fruitland Coal	2,947	3,026	Gas & water-bearing	0.07
Pictured Cliffs SS	3,301	3,394	Wet	0.12
Lewis Shale	3,525	3,626	Gas & water-bearing	0.35
Cliffhouse SS	5,381	5,553	Gas & water-bearing	0.35
Menefee	5,419	5,592	Gas & water-bearing	0.30
Point Lookout SS	5,660	5,842	Gas & water-bearing	0.30
Mancos Shale	6,136	6,337	Gas-bearing	0.43
LP (Mancos Lateral)	7,043	7,636	Gas-bearing	0.61
TD (Mancos Lateral)	7,031	20,790	Gas-bearing	0.61

DIRECTIONAL PLAN 1 – see attached plan.

Possible Aquifers: San Jose and Ojo Alamo

Oil Shale: None Expected

Oil & Gas: Primary objective is the Mancos formation from 7043' TVD (landing point) to 7031' TVD (toe)

Protection of oil, gas, water, or other mineral-bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer(s) and cementing casing to surface.

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SECTION 2: BOPE

BOP equipment and accessories will meet or exceed BLM requirements outlined in 43 CFR Part 3160.

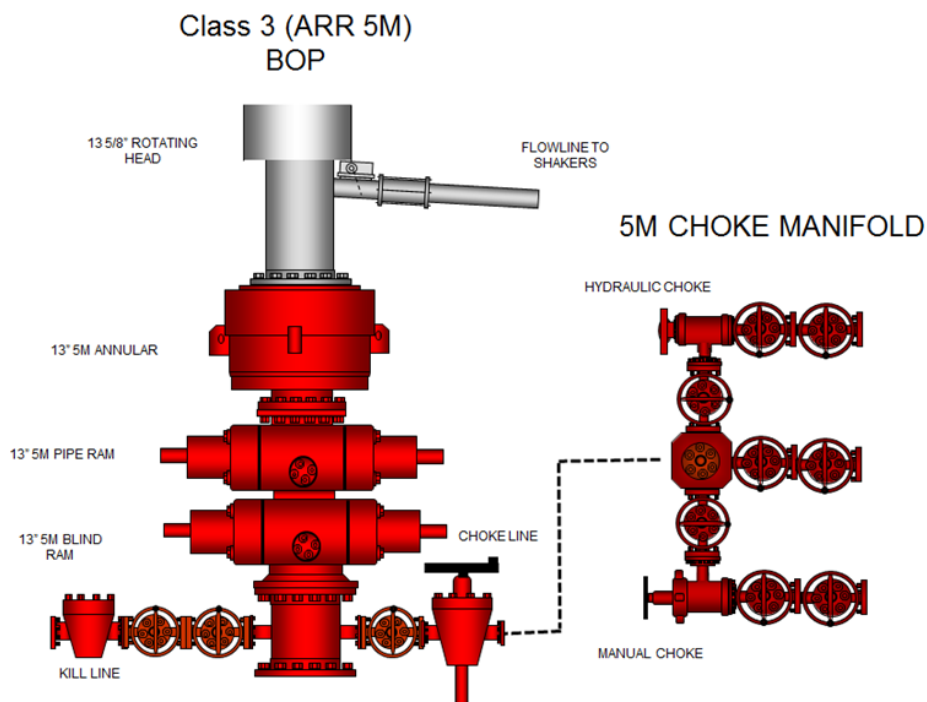
A 13-5/8" 5M BOPE will be utilized to drill this well. Maximum anticipated surface pressure for 13-5/8" 5M BOPE is 2747 psi. The 13-5/8" BOPE will be tested 250 psi (Low) for 5 minutes and 5000 psi (High) for 10 minutes if isolated by test plug or 70 percent of internal yield pressure of casing if BOP stack is not isolated from casing. Pressure test conductor, surface, and intermediate casing(s) to 1500 psi for 30 minutes. All preventers and surface casing will be tested before drilling out of surface casing. BOP equipment will be tested every 30 days, after any repairs are made to the BOP equipment, and after the BOP equipment is subjected to pressure. Annular preventers will be functionally operated at least once per week. Pipe rams will be activated daily, and blind rams shall be activated each trip or at least weekly. The New Mexico Oil & Gas Conservation Commission and the BLM will be notified 24 hours in advance of testing of BOPE.

BOPE	TVD (ft)	BHP Grad (psi/ft)	BHP (psi)	MASP (psi)
13-5/8" 5M BOPE	7043	0.61	4296	2747

The working pressure of all BOPE shall exceed the anticipated surface pressure to which it may be subjected, assuming a partially evacuated hole with a pressure gradient of 0.22 psi/ft.

Bottom Hole pressure = 7043'TVD x 0.61 psi/ft. = 4296 psi (based on estimated bottom hole pressures).

Maximum Surface Pressure = 4271 psi - (7043'TVD x .22 psi/ft.) = 4296 psi - 1550 psi = 2747 psi and is less than 5,000 psi working pressure.



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Section 3: Casing**BIT & CASING PROGRAM (all new casing strings)**

TYPE	HOLE SIZE (IN)	CASING (IN)	WEIGHT (LBS/FT)	GRADE	COUPLING	SETTING DEPTH (MD FT)	COMMENTS
Conductor	26	20	94.00	J55		0 - 150	New casing. May be pre-set. Cement circulated to surface.
Surface	17-1/2	13-3/8	54.50	J55	BT&C	0 - 3756	New casing. May be pre-set. Cement circulated to surface.
Intermediate	12-1/4	9-5/8	40.00	P110HC	BT&C	0 - 6587	New casing. Two-stage cement job, circulated to surface.
Production	8-3/4	5-1/2	20.00	P110HC	TCBC-HT	0 - 20790	New casing. Single-stage cement job to overlap previous casing shoe.

Conductor Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

				Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors				1.125		1.100	1.400
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)
Conductor	20	94	J55	520	2,110	1,480,000	1,402,000
80% of Burst =					1,688		
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor		
Collapse	150	0	8.33	0	65	8.00	
Burst	150	8.33	0	1500	0	1.35	1500 psi casing test
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)			
Tension (Pipe Body)	150	9.00	14,100	12,163	112,163	13.20	100K lbs overpull
Tension (Connection)	150	9.00	14,100	12,163	112,163	12.50	

NOTE: BF = 1 - ((MW)/65.5)

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Surface Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

					Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors					1.125		1.100	1.400
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)	
Surface	13.375	54.50	J55	BTC	1,130	2,730	850,000	909,000
					80% of Burst =	2,184		
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	3645	9.00	9.00	853	1706	1.32	50% Casing volume with 9.0 ppg mud system	
Burst	3645	9.00	9.00	3206	1706	1.82	1500 psi casing test	
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	3645	9.00	198,649	171,353	271,353	3.13		
Tension (Connection)	3645	9.00	198,649	171,353	271,353	3.35	100K lbs overpull	
NOTE: BF = 1 - ((MW)/65.5)								

NOTE: BF = 1 - ((MW)/(65.5))

Intermediate Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

					Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors					1.125		1.100	1.400
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)	
Intermediate	9.625	40.00	P110HC	BTC	4,230	7,910	1,260,000	1,265,000
					80% of Burst =		6,328	
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor			
Collapse	6272	0	10.00	0	3262	1.30	Full evacuation with 10.0 ppg mud in annulus	
Burst	6272	10.00	0	1500	0	1.66	1500 psi casing test	
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)				
Tension (Pipe Body)	6272	10.00	250,899	212,594	312,594	4.03	100K lbs overpull	
Tension (Connection)	6272	10.00	250,899	212,594	312,594	4.05		

NOTE: BF = 1 - ((MW)/(65.5))

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Production Casing Design - Evacuation/Casing Test (collapse & burst), 100K overpull (tension)

				Collapse (psi)	Burst (psi)	Tension (lbs)	
Minimum Safety Factors				1.125	1.100	1.400	
Size (in.)	Weight (lb/ft)	Grade	Connection	Collapse (psi)	Burst (psi)	Yield - Body (lbs)	Yield - Connection (lbs)
Production	5.5	20.00	P110HC	TCBC-HT	12,150	12,640	641,000
				80% of Burst =		10,112	
Casing Depth, TVD (ft)	Mud Wt In (ppg)	Mud Wt Out (ppg)	Pressure Inside (psi)	Pressure Outside (psi)	Safety Factor		
Collapse	7031	0	13.30	0	4863	2.50	Full evacuation with 13.3 ppg mud in annulus
Burst	7031	13.30	0	1500	0	1.99	1500 psi casing test
Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)	Safety Factor		
Tension (Pipe Body)	7031	13.30	140,620	112,067	212,067	3.02	100K lbs overpull
Tension (Connection)	7031	13.30	140,620	112,067	212,067	3.02	

NOTE: $BF = 1 - ((MW)/65.5)$

All casing strings (including conductor) will be tested to 0.22 psi/ft of string length or 1500 psi (whichever is greater), but not to exceed 70% of minimum internal yield.

Minimum casing design safety factors:

Collapse – 1.125

Burst – 1.100

Tension – 1.400

Casing centralization: Run centralizers to meet requirements of 43 CFR 3160 Onshore order 2, Drilling Operations. 13-3/8 Surface Casing – Centralizers to be placed on bottom 3 joints of casing (1 per joints).

**NOTE: Use of the DV tools and ACP's will be based on the magnitude of drilling fluid losses encountered while drilling the Intermediate section and concerns about cement possibly not being circulated to surface. Should heavy losses not be encountered, the DV tool and ACP will not be used.*

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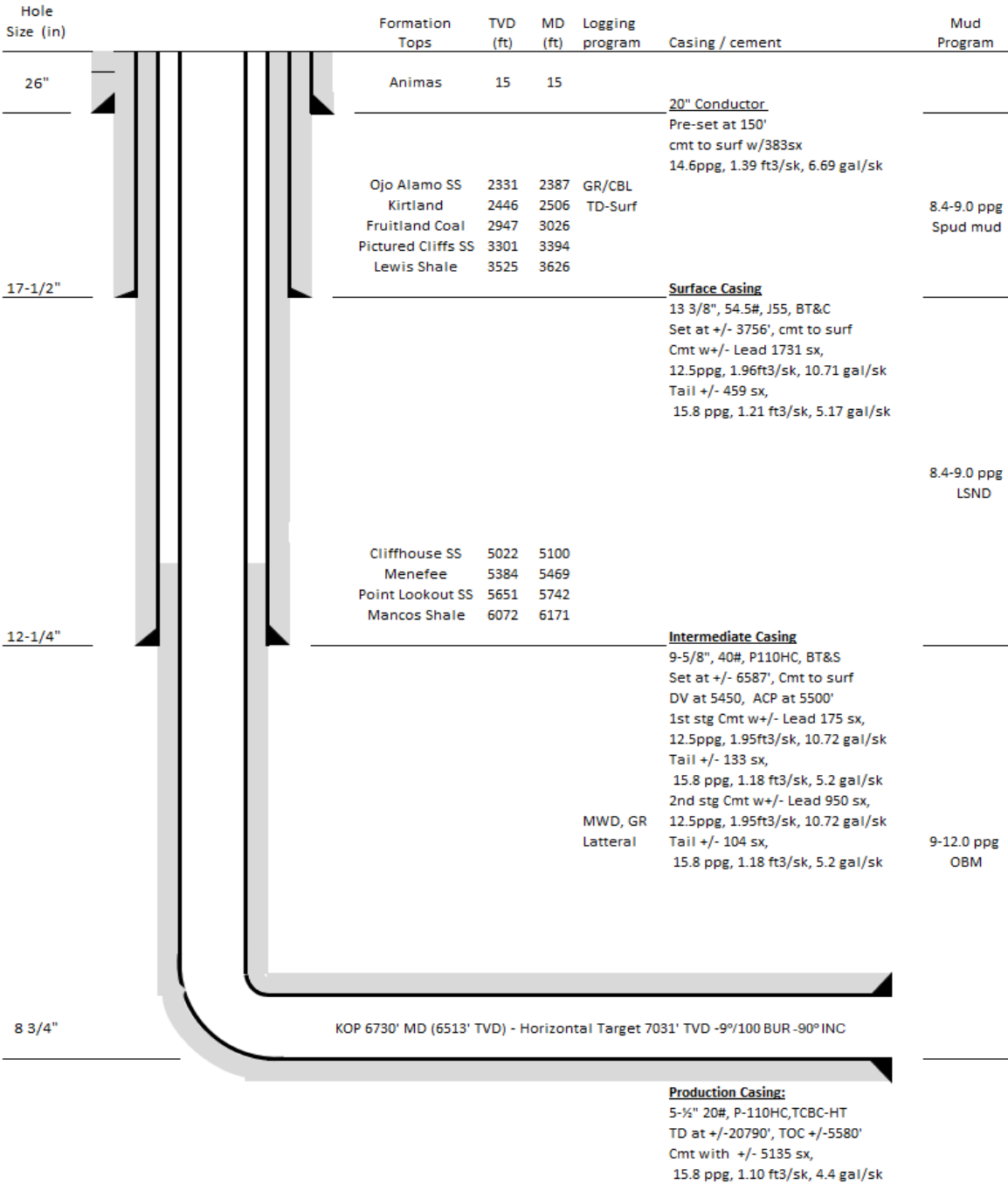


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Wellbore Schematic



Well: Northwest Blanco Unit 605 3H
Prospect: San Juan - Mancos Shale (S2/Black)
Category: Horizontal Well
County, State: San Juan, New Mexico
API:
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* For illustration purpose only
Not to scale

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SECTION 4: CEMENT

The proposed cementing program has been designed to protect and/or isolate all usable water zones, potential productive zones, lost circulation zones, abnormally pressured zones, and any prospectively valuable deposits of minerals. Any isolating medium utilized (other than cement) shall receive approval prior to use. The casing setting depth shall be calculated to position the casing seat in a competent formation which will contain the maximum pressure to which it will be exposed during the drilling process. All indications of usable water shall be reported.

- Pea gravel or other material shall not be used to fill around the conductor or surface casing in the event cement is not circulated to surface or if cement fallback occurs.
- The conductor and surface casing strings shall be cemented back to surface. If cement is not circulated for the surface casing, or if the cement column falls back after circulation, remedial cementing will be performed to cement the casing to surface using 1" tubing. No more than 100' will be remediated without prior approval. Although cement circulation to surface of the intermediate casing string is desired, it is not required. If the top of cement (TOC) is found to be within the surface casing, no remedial work will be performed.
- Top plugs will be used to reduce possible contamination of the cement slurry by the displacement fluid. A bottom plug (or other acceptable techniques such as a pre-flush fluid, inner string, etc.) will be used to isolate the cement slurry from the drilling fluid being displaced ahead of the cement.
- All cement volumes will be based on actual hole conditions.

Conductor Casing: Single Stage (0' - 150' MD) – 26" Hole x 20" Casing, 100% XS

- Cement to be circulated to surface with approximately 383 sx Class G + 2% CaCl₂ + 0.25 #/sk Poly-Flake mixed at 14.6 ppg using 6.69 gal/sk fresh water with yield of 1.39 ft³/sk. The approximate volume of the conductor slurry is +/- 532 ft³.

Surface Casing: Single Stage (0' - 3756' MD) – 17-1/2" Hole x 13-3/8" Casing, 50% XS

- Cement to be circulated to surface. Lead Slurry will consist of approximately 1731 sx 65/35 Class G/Poz + adds mixed at 12.5 ppg using 10.71 gal/sk fresh water with yield of 1.96 ft³/sk. Tail Slurry will consist of approximately 459 sx Class G + adds mixed at 15.8 ppg using 5.17 gal/sk fresh water with yield of 1.21 ft³/sk. Total approximate volume of Surface slurries is +/- 3950 ft³.

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Intermediate Casing: Two Stages (0' - 6587' MD) – 12-1/4" Hole x 9-5/8" Casing, DV tool at ±5450' MD ACP at ±5500' MD, 30% XS

Cement to be circulated to surface.

Stage 1: Lead Slurry will consist of approximately 175 sx 65/35 Class G/Poz + adds at 12.5 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 1: Tail Slurry will consist of approximately 133 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 308 ft³.

Stage 2: Lead Slurry will consist of approximately 905 sx 65/35 Class G/Poz mixed at 10.72 ppg using 10.72 gal/sk fresh water with yield of 1.95 ft³/sk. Stage 2: Tail Slurry will consist of approximately 104 sx Class G + adds mixed at 15.6 ppg using 5.20 gal/sk fresh water with yield of 1.18 ft³/sk. Total approximate volume of both slurries 1243 ft³.

Total approximate volume of all Intermediate slurries is +/- 1607 ft³.

Production Casing: Single Stage (0' - 20790' MD) – 8-3/4" Hole x 5-1/2" Casing, 50% XS

Lead Slurry to be preceded by 10 bbls fresh water, 80 bbls D-Mud Breaker and 10 bbls fresh water. Lead slurry will consist of approximately 5135 sx 80/20 Class G + adds mixed at 15.8 ppg using 4.40 gal/sk fresh water with yield of 1.10 ft³/sk. Top of cement approximately 1000 ft into Intermediate casing at 5587 ft.

Total approximate volume of the production slurry is 5650 ft³.

All cement slurries will meet or exceed minimum BLM and NMOCD requirements. Slurries used will be the slurries listed above or equivalent slurries, depending on service provider selected. Cement yields may change based on actual slurries selected.

All "waiting on cement" (WOC) times shall be either a minimum of 8 hours or the time required to achieve a minimum of 500 psi compressive strength at the casing shoe.

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CASING/CEMENT SUMMARY

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	STRING			
	CONDUCTOR	SURFACE	INTERMEDIATE	PRODUCTION
SIZE (in)	20	13.375	9.625	5.5
WEIGHT (#/ft)	94.00	54.50	40.00	20.00
SET DEPTH (ft)	150	3756	6587	20,790
DV DEPTH (ft)			5453	
STG 1 - LEAD VOL (sx)	383	1731	175	5135
DESC	Class G + 2.0% CaCl ₂ + 0.25 lbs/sk Cello Flake	65/35 Class G/Poz + adds	65/35 Class G/Poz + adds	80/20 Class G/Poz + adds
STG 1 - TAIL VOL (sx)		459	133	
DESC		Class G + adds	Class G + adds	
STG 2 - LEAD VOL (sx)			950	
DESC			65/35 Class G/Poz + adds	
STG 2 - TAIL VOL (sx)			104	
DESC			Class G + adds	
TOTAL WATER REQ'D (BBLs)*	111	1079	1300	1099

* Includes spacers & displacement

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SECTION 5: CIRCULATING MEDIUM (MUD PROGRAM)**CLOSED-LOOP SYSTEM DESIGN PLAN**

The closed-loop system will consist of a series of temporary, above-ground storage tanks and/or haul-off bins suitable for holding the cuttings and fluid from drilling operations. The closed-loop system will not utilize temporary earthen pits, below-grade storage tanks, below-grade sumps, or drying pads.

Design considerations include:

- The closed-loop system will be signed in accordance with 19.15.17.11 NMAC.
- The storage tanks of the closed-loop system will be of adequate volume to ensure confinement of all fluids and provide sufficient freeboard to prevent uncontrolled releases.
- Topsoil will be salvaged and stored for use in reclamation activities.

CLOSED-LOOP SYSTEM OPERATING & MAINTENANCE PLAN

The closed-loop system will be operated and maintained to contain liquids and solids, minimize the amount of drilling fluids and cuttings requiring disposal, maximize the amount of drilling fluid recycled and reused in the drilling process, isolate drilling wastes from the environment, prevent contamination of fresh water, and protect public health and the environment.

Operation and maintenance considerations include:

- Fluid levels will be maintained to provide sufficient freeboard to prevent over-topping.
- Visual inspections will be conducted daily to identify any potential leaks and to ensure that the closed-loop system storage tanks have sufficient freeboard to prevent over-topping.
- Only drilling fluids or cuttings intrinsic to, used by, or generated from, drilling operations will be stored in the closed-loop system storage tanks. Hazardous waste, miscellaneous solid waste, and/or debris will not be stored in the storage tanks.
- The OCD District Office will be notified within 48 hours of discovery of a leak in the closed-loop drilling system. If a leak is discovered, all liquid will be removed within 48 hours and the damage repaired.

CLOSED-LOOP SYSTEM CLOSURE PLAN

- The closed-loop system will be closed in accordance with 19.15.17.13 NMAC.

Closure considerations include:

- Drilling fluids will be recycled and transferred to other permitted closed-loop systems or returned to the vendor for reuse, as practical.
- Residual fluids will be pulled from the storage tanks, mixed with saw dust or similar absorbent material, and disposed of at Industrial Envirotech, Inc. waste disposal facilities.
- Remaining cuttings or sludges will be vacuumed from the storage tanks and disposed of at an EPA-approved waste disposal facility.
- Storage tanks will be removed from the well location during the rig move.
- Well pad will be reclaimed and seeded in accordance with subsections G, Hand I of 19.15.17.13 NMAC.

MUD PROGRAM

Interval (MD)	Hole Section	Hole Size	Type	Mud Wt (ppg)	FL	PV	YP	Ph	Remarks
0' - 150	Conductor	26"	FW/Gel	8.4-9.0	NC	8	12	9.0	Spud Mud
0' - 3756	Surface	17-1/2"	LSND	8.4-9.0	<8	4-6	12-15	10.0	Fresh Water
0' - 6587	Intermediate	12-1/4"	LSND	8.6-9.0	<8	4-6	12-15	10.0	Fresh Water
0' - 20,790	Production	8-3/4"	OBM	9.0-12.0	<8	14-20	8-14	11.0	OBM

NOTES: Sufficient weighting material will be on hand to weight mud up to 1 ppg over design, if required.
 A Pason Pit Volume Totalizer (PVT) or equivalent equipment will be installed on each pit to monitor pit levels.
 A trip tank equipped with a Pason PVT will be used to monitor trip volumes.

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SECTION 6: TESTING, LOGGING, & CORING

Testing: None planned

Open-hole Logging: Azimuthal & Radial GR – Drilling curve and lateral

Mud Logging: Geologist and manned mud-logging unit on location from surface casing to TD. Gas-detecting equipment will be installed in the mud return system and hydrocarbon gas shall be monitored for pore pressure changes from base of surface casing to TD.

Coring: None

Cased-hole Logging: A Cement Bond Log (CBL) will be run if cement returns are not observed on surface during surface casing and intermediate casing cementing operations. The CBL will confirm both the quality and actual top of the cement column behind pipe.

SECTION 7: ANTICIPATED RESERVOIR CONDITIONS

- Normal to subnormal pressure gradient expected to TD.
- Maximum anticipated surface pressure and casing design parameters determined using 0.61 psi/ft.
- Maximum anticipated BHP @ 7043' TVD: 4296 psi. TD
- Maximum anticipated BHT @ 7043' TVD: 203°F.
- Possible lost circulation in the Fruitland Coal through the Mesa Verde formations (2,945' 6,011' to '). Lost circulation has been successfully mitigated with lost circulation materials in concentrations of up to 30% by volume. Intermediate casing will be set through this interval to ±6,361' (250' into Mancos).
- No hydrogen sulfide gas is anticipated. If H₂S is encountered the guidelines in Onshore Order No. 6 will be followed.

SECTION 8: OTHER

- **Directional Plans:** Horizontal well, directional drilling plan attached. Lateral KOP subject to mud log evaluation.
- **Completion:**
 - **Pressure test**
 - Pressure test production casing to allowable frac pressure or as per BLM requirements.
 - **Stimulation**
 - Plan is for well to be stimulated with a water frac and proppant frac design TBD
 - Number of stages and the amount of proppant will be adjusted based on the petrophysical properties of the target zone.
 - Stages will be isolated with composite bridge plugs.
 - Plugs will be drilled out using coiled tubing.
 - Flow back well according to flowback procedure.
 - **Turn well to production.**
 - It is intended to produce the well up the casing (without installing tubing) for at least 60 days or until tubing is needed to unload the well.
 - **Timing**
 - Drilling is scheduled to begin 2026.
 - Expected drilling time is roughly 35 days for the well and 105 days for the 3-well pad.
 - If possible, completion operations will commence immediately upon drilling of all wells on the pad and moving the drilling rig off location, dependent on service company availability. Otherwise completion operations will take place in 2026.

Revised 10/31/2025

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

CONDITIONS

Action 526454

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 526454
	Action Type: [C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	No additives containing PFAS chemicals will be added to the drilling fluids or completion fluids used during drilling, completions, or recompletions operations.	11/18/2025
ward.rikala	Any previous COA's not addressed within the updated COA's still apply.	11/18/2025