Form 3160-3
(June 2015)

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

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

APPLICATION FOR PERMIT TO DRILL OR REENTER

5. Lease Serial No.

6. If Indian, Allotee or Tribe Name

1a. Type of work: ☐ DRILL ☐ REENTER

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

1c. Type of Completion: ☐ Hydraulic Fracturing ☐ Single Zone ☐ Multiple Zone

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

8. Lease Name and Well No.

2. Name of Operator

9. API Well No. 30-045-38317

3a. Address

3b. Phone No. *(include area code)*

10. Field and Pool, or Exploratory

4. Location of Well *(Report location clearly and in accordance with any State requirements.*)*

At surface

At proposed prod. zone

11. Sec., T. R. M. or Blk. and Survey or Area

14. Distance in miles and direction from nearest town or post office*

12. County or Parish

13. State

15. Distance from proposed* location to nearest property or lease line, ft. (Also to nearest drig. unit line, if any)	16. No of acres in lease	17. Spacing Unit dedicated to this well
18. Distance from proposed location* to nearest well, drilling, completed, applied for, on this lease, ft.	19. Proposed Depth	20. BLM/BIA Bond No. in file
21. Elevations (Show whether DF, KDB, RT, GL, etc.)	22. Approximate date work will start*	23. Estimated duration

24. Attachments

The following, completed in accordance with the requirements of Onshore Oil and Gas Order No. 1, and the Hydraulic Fracturing rule per 43 CFR 3162.3-3 (as applicable)

1. Well plat certified by a registered surveyor.
2. A Drilling Plan.
3. A Surface Use Plan (if the location is on National Forest System Lands, the SUPO must be filed with the appropriate Forest Service Office).
4. Bond to cover the operations unless covered by an existing bond on file (see Item 20 above).
5. Operator certification.
6. Such other site specific information and/or plans as may be requested by the BLM.

25. Signature	Name *(Printed/Typed)*	Date
Title		
Approved by *(Signature)*	Name *(Printed/Typed)*	Date
Title	Office	

Application approval 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.
Conditions of approval, if any, are attached.

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.

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 09/01/2023

INSTRUCTIONS

GENERAL: This form is designed for submitting proposals to perform certain well operations, as indicated on Federal and Indian lands and leases for action by appropriate Federal agencies, pursuant to applicable Federal laws 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, either are shown below or will be issued by, or may be obtained from local Federal offices.

ITEM I: If the proposal is to redrill to the same reservoir at a different subsurface location or to a new reservoir, use this form with appropriate notations. Consult applicable Federal regulations concerning subsequent work proposals or reports on the well.

ITEM 4: Locations on Federal or Indian land should be described in accordance with Federal requirements. Consult local Federal offices for specific instructions.

ITEM 14: Needed only when location of well cannot readily be found by road from the land or lease description. A plat, or plats, separate or on the reverse side, showing the roads to, and the surveyed location of, the wen, and any other required information, should be furnished when required by Federal agency offices.

ITEMS 15 AND 18: If well is to be, or has been directionany drilled, give distances for subsurface location of hole in any present or objective productive zone.

ITEM 22: Consult applicable Federal regulations, or appropriate officials, concerning approval of the proposal before operations are started.

ITEM 24: 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 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., 25 U.S.C. 396; 43 CFR 3160

PRINCIPAL PURPOSES: The information will be used to: (1) process and evaluate your application for a permit to drill a new oil, gas, or service wen or to reenter a plugged and abandoned well; and (2) document, for administrative use, information for the management, disposal and use of National Resource Lands and resources including (a) analyzing your proposal to discover and extract the Federal or Indian resources encountered; (b) reviewing procedures and equipment and the projected impact on the land involved; and (c) evaluating the effects of the proposed operation on the surface and subsurface water and other environmental impacts.

ROUTINE USE: Information from the record and/or the record win be transferred to appropriate Federal, State, and local or foreign agencies, when relevant to civil, criminal or regulatory investigations or prosecution, in connection with congressional inquiries and for regulatory responsibilities.

EFFECT OF NOT PROVIDING INFORMATION: Filing of this application and disclosure of the information is mandatory only if you elect to initiate a drilling or reentry operation on an oil and gas lease.

The Paperwork Reduction Act of 1995 requires us to inform you that:
The BLM conects this information to anow evaluation of the technical, safety, and environmental factors involved with drilling for oil and/or gas on Federal and Indian oil and gas leases. This information will be used to analyze and approve applications. Response to this request is mandatory only if the operator elects to initiate drilling or reentry operations on an oil and gas lease. 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 Conection Clearance Officer (WO-630), 1849 C Street, N.W., Mail Stop 401 LS, Washington, D.C. 20240.

Approval Date: 09/01/2023

Additional Operator Remarks

Location of Well

0. SHL: NWNW / 705 FNL / 785 FWL / TWSP: 31N / RANGE: 7W / SECTION: 12 / LAT: 36.9193419 / LONG: -107.5286085 (TVD: 0 feet, MD: 0 feet)

PPP: SENE / 2002 FNL / 0 FEL / TWSP: 31N / RANGE: 7W / SECTION: 11 / LAT: 36.915784 / LONG: -107.53134 (TVD: 7101 feet, MD: 7780 feet)

PPP: SWNW / 2001 FNL / 222 FWL / TWSP: 31N / RANGE: 7W / SECTION: 12 / LAT: 36.9157843 / LONG: -107.5305401 (TVD: 7102 feet, MD: 7558 feet)

BHL: SWNW / 2034 FNL / 274 FWL / TWSP: 31N / RANGE: 7W / SECTION: 11 / LAT: 36.9156774 / LONG: -107.5484123 (TVD: 7087 feet, MD: 12783 feet)

BLM Point of Contact

Name: JEFFREY J TAFOYA
Title: Rangland Management Specialist
Phone: (505) 564-7672
Email: JTAFOYA@BLM.GOV

Review and Appeal Rights

A person contesting a decision shall request a State Director review. This request must be filed within 20 working days of receipt of the Notice with the appropriate State Director (see 43 CFR 3165.3). The State Director review decision may be appealed to the Interior Board of Land Appeals, 801 North Quincy Street, Suite 300, Arlington, VA 22203 (see 43 CFR 3165.4). Contact the above listed Bureau of Land Management office for further information.

DISTRICT I
1625 N. French Dr., Hobbs, N.M. 88240
Phone: (575) 393-6161 Fax: (575) 393-0720
DISTRICT II
811 S. First St., Artesia, N.M. 88210
Phone: (575) 748-1283 Fax: (575) 748-9720
DISTRICT III
1000 Rio Brazos Rd., Aztec, N.M. 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
DISTRICT IV
1220 S. St. Francis Dr., Santa Fe, N.M. 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, N.M. 87505

Form C-102
Revised August 1, 2011
Submit one copy to appropriate District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-045-38317	97232	BASIN MANCOS

[4] Property Code	[5] Property Name	[6] Well Number
327850	NORTHEAST BLANCO UNIT 602 COM	7H

[7] OGRID No.	[8] Operator Name	[9] Elevation
329736	SIMCOE LLC	6522

[10] Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
D	12	31 N	7 W		705	NORTH	785	WEST	SAN JUAN

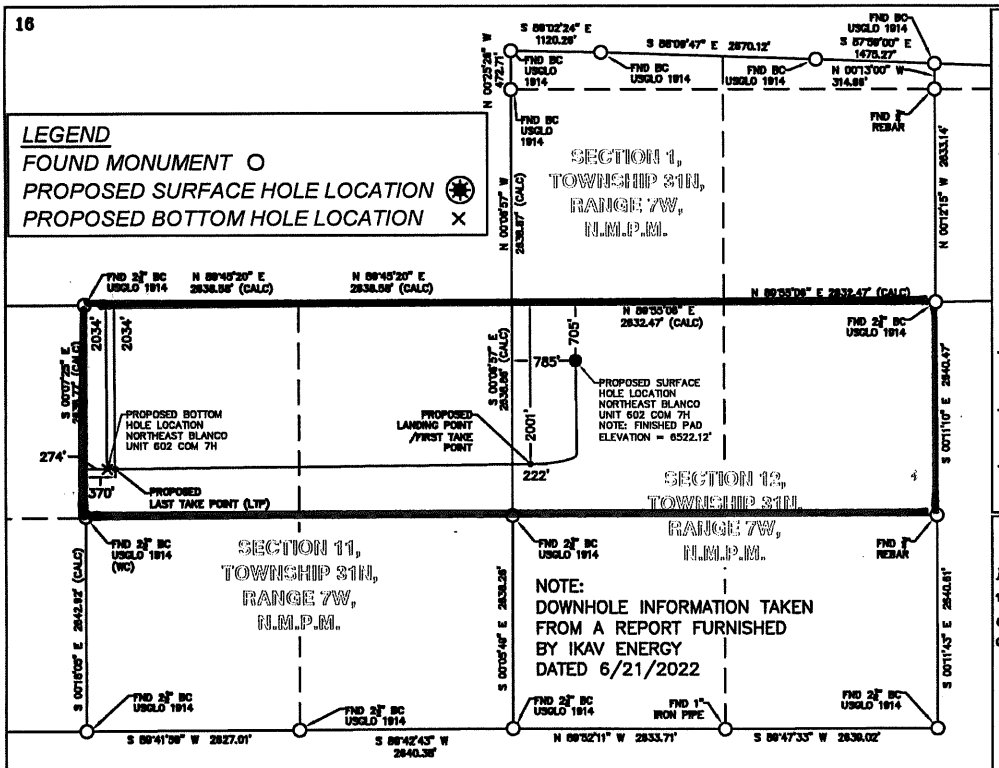
[11] Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
E	11	31 N	7 W		2034	NORTH	274	WEST	SAN JUAN

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
640 - N2 Sec 11, N2 Sec 12, T31N, R7W			R-107

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION

16



NORTHEAST BLANCO UNIT 602 COM 7H	NMWZ NAD'83	NAD'83	TIES
PROPOSED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,154,110.22' E (X) = 2,812,167.81'	LAT. = 36.9193419°N LON.= 107.5286085°W	FNL = 705' FWL = 785'
PROPOSED LANDING POINT /FIRST TAKE POINT	N (Y) = 2,152,813.26' E (X) = 2,811,607.28'	LAT. = 36.9157843°N LON.= 107.5305401°W	FNL = 2001' FWL = 222'
PROPOSED LAST TAKE POINT (LTP)	N (Y) = 2,152,759.27' E (X) = 2,806,478.80'	LAT. = 36.9156794°N LON.= 107.5480839°W	FNL = 2034' FWL = 370'
PROPOSED BOTTOM HOLE LOCATION (BHL)	N (Y) = 2,152,758.26' E (X) = 2,806,382.81'	LAT. = 36.9156774°N LON.= 107.5484123°W	FNL = 2034' FWL = 274'

[17] OPERATOR CERTIFICATION

I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract with an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.

Signature Date

Printed Name

E-mail Address

[18] SURVEYOR CERTIFICATION

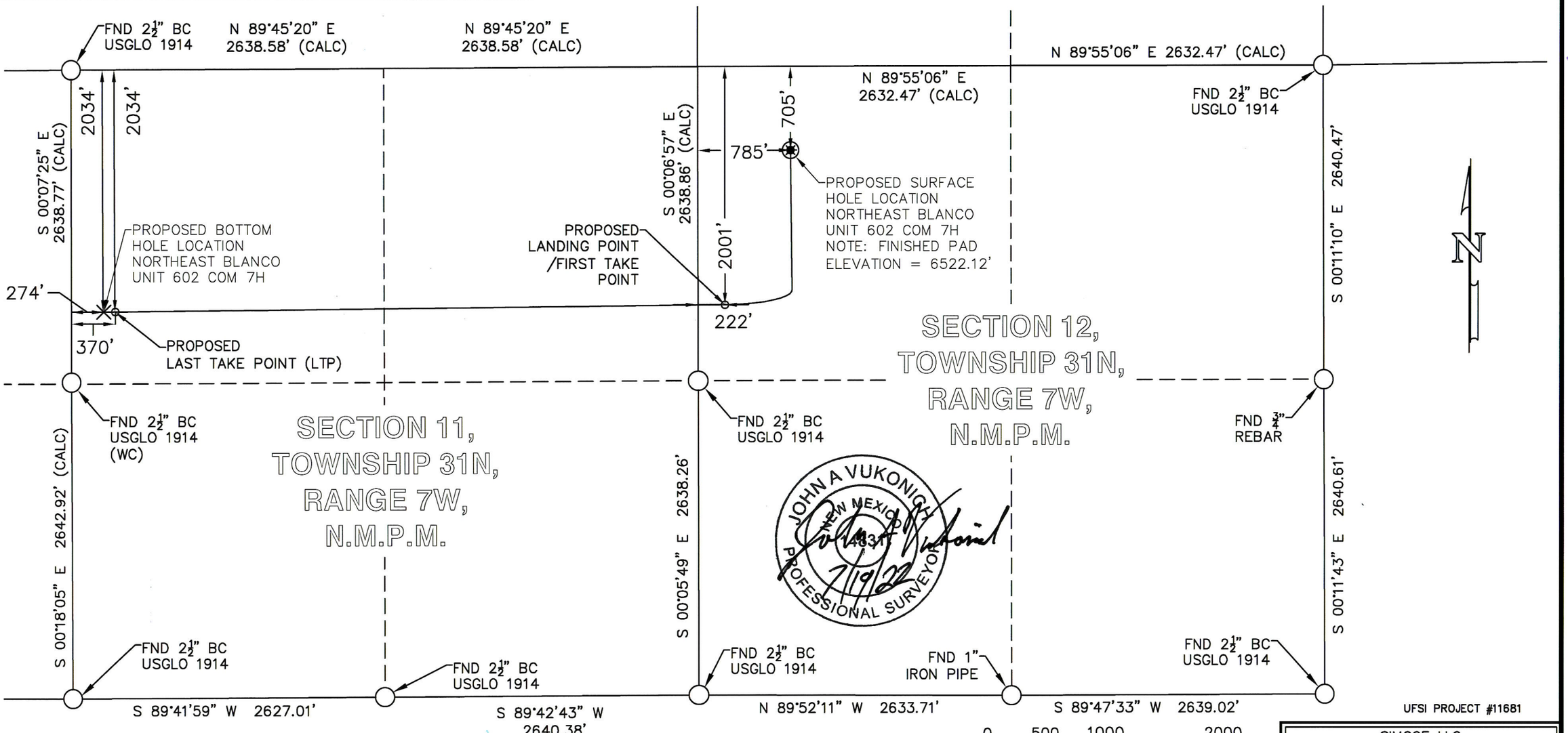
I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervision, and that the same is true and correct to the best of my belief.

6/13/22
Date of Survey
Plat Revised: 7/18/22
Signature and Seal of Professional Surveyor:

JOHN A. VUKONICH
NEW MEXICO
14831
PROFESSIONAL SURVEYOR

7/18/22

Certificate Number 14831



UFSI PROJECT #11681

NORTHEAST BLANCO UNIT 602 COM 7H	NMWZ NAD'83	NAD'83	TIES
PROPOSED SURFACE HOLE LOCATION (SHL)	N (Y) = 2,154,110.22' E (X) = 2,812,167.81'	LAT. = 36.9193419°N LON.= 107.5286085°W	FNL = 705' FWL = 785'
PROPOSED LANDING POINT /FIRST TAKE POINT	N (Y) = 2,152,813.26' E (X) = 2,811,607.28'	LAT. = 36.9157843°N LON.= 107.5305401°W	FNL = 2001' FWL = 222'
PROPOSED LAST TAKE POINT (LTP)	N (Y) = 2,152,759.27' E (X) = 2,806,478.80'	LAT. = 36.9156794°N LON.= 107.5480839°W	FNL = 2034' FWL = 370'
PROPOSED BOTTOM HOLE LOCATION (BHL)	N (Y) = 2,152,758.26' E (X) = 2,806,382.81'	LAT. = 36.9156774°N LON.= 107.5484123°W	FNL = 2034' FWL = 274'

SURVEYOR'S CERTIFICATE

I, JOHN A. VUKONICH, A PROFESSIONAL LAND SURVEYOR IN THE STATE OF NEW MEXICO, DO HEREBY CERTIFY THAT THE WELL LOCATION SHOWN ON THIS PLAT WAS PLOTTED FROM FIELD NOTES OF ACTUAL SURVEYS MADE BY ME OR UNDER MY SUPERVISION AND THAT THE SAME IS TRUE AND CORRECT TO THE BEST OF MY BELIEF.

0 500 1000 2000

GRAPHIC SCALE IN FEET

LEGEND
FOUND MONUMENT ○
PROPOSED SURFACE HOLE LOCATION ⊛
PROPOSED BOTTOM HOLE LOCATION ×

DRAWN BY	CHECKED BY	SCALE	DATE	SHEET	REVISION
AAD	JAV	1"=1000'	7/18/2022	1 OF 1	1

SIMCOE LLC

UNITED
FIELD SERVICES INC.
P.O. BOX 3651
FARMINGTON, NM 87499
OFFICE: (505) 334-0408

NORTHEAST BLANCO UNIT 602 COM 7H
SECTION 12, TOWNSHIP 31N, RANGE 7W (SHL)
SEC. 11, TOWNSHIP 31N, RANGE 7W (BHL)
N.M.P.M., SAN JUAN COUNTY, NEW MEXICO

State of New Mexico
Energy, Minerals and Natural Resources Department

Submit Electronically
Via E-permitting

Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description
Effective May 25, 2021

I. Operator: SIMCOE, LLC **OGRID:** 329739 **Date:** 08 / 02 / 2022

II. Type: ☒ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.

If Other, please describe: _____

III. Well(s): Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticipated Gas MCF/D	Anticipated Produced Water BBL/D
NEBU 602 Com Pad	TBA	D-12-31N-07W	642 FNL			
(2H, 3H, 4H, 5H, 6H, 7H)			& 732 FWL			

IV. Central Delivery Point Name: Harvest [See 19.15.27.9(D)(1) NMAC]

V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or proposed to be recompleted from a single well pad or connected to a central delivery point.

Well Name	API	Spud Date	TD Reached Date	Completion Commencement Date	Initial Flow Back Date	First Production Date
NEBU 602 Com Pad	TBA					
(2H, 3H, 4H, 5H, 6H, 7H)						

VI. Separation Equipment: ☒ Attach a complete description of how Operator will size separation equipment to optimize gas capture.

VII. Operational Practices: ☒ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.

VIII. Best Management Practices: ☒ Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

Section 2 – Enhanced Plan
EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

☒ Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. ☐ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system ☐ will ☐ will not have capacity to gather 100% of the anticipated natural gas production volume from the well prior to the date of first production.

XIII. Line Pressure. Operator ☐ does ☐ does not anticipate that its existing well(s) connected to the same segment, or portion, of the natural gas gathering system(s) described above will continue to meet anticipated increases in line pressure caused by the new well(s).

☐ Attach Operator's plan to manage production in response to the increased line pressure.

XIV. Confidentiality: ☐ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information provided in Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific information for which confidentiality is asserted and the basis for such assertion.

Section 3 - Certifications

Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☒ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

☐ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. ***If Operator checks this box, Operator will select one of the following:***

Well Shut-In. ☐ Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan. ☐ Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- **(a)** power generation on lease;
- **(b)** power generation for grid;
- **(c)** compression on lease;
- **(d)** liquids removal on lease;
- **(e)** reinjection for underground storage;
- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- **(h)** fuel cell production; and
- **(i)** other alternative beneficial uses approved by the division.

Section 4 - Notices

1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:

(a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or

(b) Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.

2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil and Gas Act.

Signature:	Julie Best
Printed Name:	Julie Best
Title:	HSE Manager Operations
E-mail Address:	julie.best@ikavenergy.com
Date:	8/2/2022
Phone:	970-822-8924

OIL CONSERVATION DIVISION **(Only applicable when submitted as a standalone form)**
Approved By:
Title:
Approval Date:
Conditions of Approval:

IV. Separation Equipment: A complete description of how Operator will size separation equipment to optimize gas capture.

- SIMCOE production locations include separation equipment designed to separate gas from liquid phases. Equipment sizing is based on estimated volumes and pressures, as well as historical basin knowledge. Flowback separation equipment and production separation equipment will be utilized. Both of which are built and maintained to industry standards. Following the recompletion, gas will be sent to sales, depending on the gas composition. Since SIMCOE is performing work at an existing well location, which includes separation equipment, the well is already tied into an existing gas line therefore once the well is shown to meet pipeline spec it will go to sales.

VII. Operational Practices

1. **Subsection (A) Venting and Flaring of Natural Gas**

- SIMCOE understands the requirements of NMAC 19.15.27.8 which outlines that the venting or flaring of natural gas during drilling, completion, or production operations that constitutes waste as defined in 19.15.2 NMAC is prohibited. SIMCOE does not plan to flare.

2. **Subsection (B) Venting and flaring during drilling operations**
   - If technically feasible SIMCOE will capture or combust natural gas using best industry practices and control technologies.
   - A properly-sized flare stack shall be located at a minimum of 100 feet from the nearest surface hole location unless otherwise approved by the division.
   - Should an emergency or malfunction occur, natural gas may be vented to avoid a risk of an immediate and substantial adverse impact on safety, public health, or the environment. The appropriate reporting will be made to the division pursuant to Paragraph (1) of Subsection G of 19.15.27.8 NMAC.
3. **Subsection (C) Venting and flaring during completion or recompletion operations.**
   - During initial flowback, SIMCOE will route flowback fluids into a completion or storage tank and, if technically feasible under the applicable well conditions, flare rather than vent and commence operation of a separator as soon as it is technically feasible for a separator to function.
   - During separation flowback, SIMCOE will capture and route natural gas from the separation equipment to a gas flowline or collection system or use on-site as a fuel source or other purpose that a purchased fuel or raw material would serve.
   - Should natural gas not meet gathering pipeline quality specifications, rule 19.15.27.8.C.3 will be met.
4. **Subsection (D) Venting and flaring during production operations.**
   - For liquids unloading by manual purging, an operator will remain present on-site or remain within 30 minutes' drive time of location. Will take reasonable action to not vent after the well achieves a stabilized rate and pressure.
   - Plunger lift system will be optimized to minimize the venting of natural gas.
   - During downhole well maintenance, venting of natural gas will be minimized.
5. **Subsection (E) Performance Standards**

- Completion and production separation equipment and storage tanks will be designed appropriately for anticipated throughput and pressure to minimize waste.
- No flare stacks will be installed or operating at a production location.
- AVO inspections will be conducted in accordance with 19.15.27.8.E.5

6. Subsection (F) Measurement or estimation of vented and flared natural gas

- The estimation of vented natural gas will be completed in accordance with 19.15.27.8.F.5-6

VII. Best Management Practices

1. During drilling operations, a Managed Pressure Drilling system will be utilized to control the surface pressure while drilling which minimizes the amount of vented natural gas.
2. For recomplete activities, production facilities are already in place and the gathering system is already tied in so once the gas is sellable it will be sent down the line.
3. Low-bleed pneumatic devices will be installed at the production location.
4. The well will be shut in in the event of an emergency situation, or other operations where venting or flaring may occur due to equipment failures.

Attachment to Application for Permit to Drill

Drilling Program

SIMCOE LLC.
1199 Main Avenue
Suite 101
Durango, CO 81301

NEBU 602 Com #7H
Mancos Horizontal Development Well
Surface Location: 705' FNL & 785' FWL
Section 12, T31N, R07W
GL Elevation = 6522'
Lat. = 36.9193419°N Long. = 107.5286085°W
NAD83
San Juan County, New Mexico

Proposed Bottom Hole Location Lateral: 2034' FNL – 274' FWL
Section 11, 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

SECTION 1: GEOLOGIC FORMATIONS AND CONTENTS

MARKER	TVD	MD	COMMENTS	BHP (PSI/FT)
Animas	15	15	Wet/aquifer	0.43
Ojo Alamo SS	2,391	2,423	Wet/aquifer	0.43
Kirtland (Top/Cretaceous)	2,496	2,530	Gas & water-bearing	0.43
Fruitland Coal	3,036	3,081	Gas & water-bearing	0.07
Pictured Cliffs SS	3,210	3,258	Wet	0.12
Lewis Shale	3,576	3,632	Gas & water-bearing	0.35
Chacra SS	4,696	4,775	Gas & water-bearing	0.35
Cliffhouse SS	5,200	5,289	Gas & water-bearing	0.35
Menefee	5,545	5,641	Gas & water-bearing	0.30
Point Lookout SS	5,768	5,868	Gas & water-bearing	0.30
Mancos Shale	6,208	6,317	Gas-bearing	0.43
LP (Mancos Lateral)	7,102	7,558	Gas-bearing	0.43
TD (Mancos Lateral)	7,087	12,783	Gas-bearing	0.43

Possible Aquifers: San Jose and Ojo Alamo

Oil Shale: None Expected

Oil & Gas: Primary objective is the Manco formation from 7,102’ TVD (landing point) to 7,087’ TVD (toe)

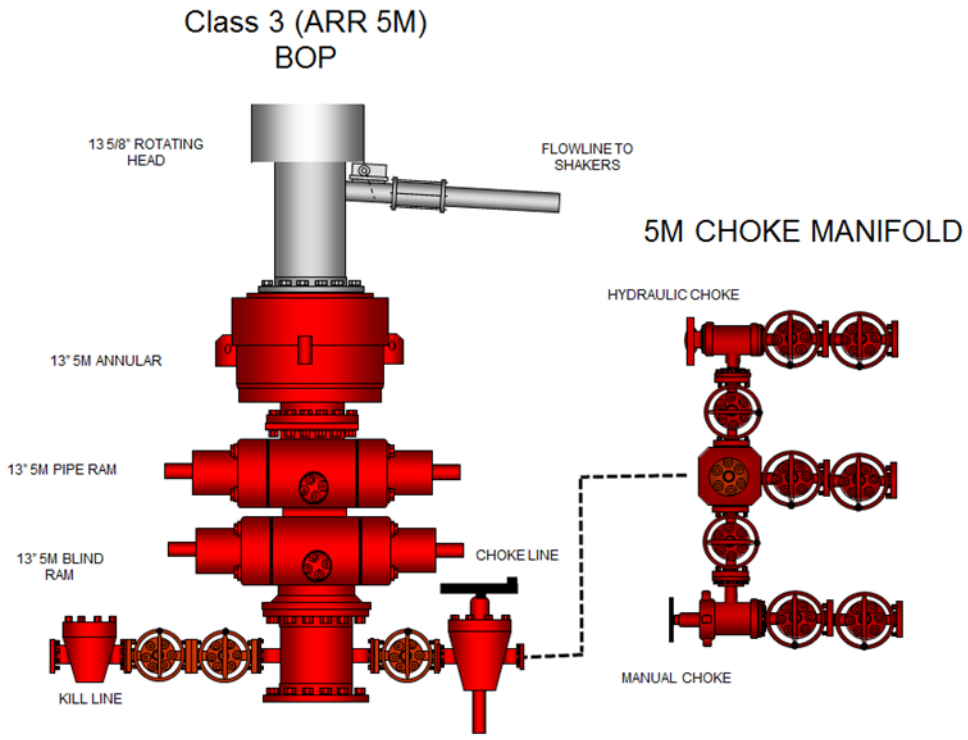
Protection of oil, gas, water, or other mineral-bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer(s) and cementing casing to surface

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 1,500 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.

		BHP	MASP
13-5/8" 5M BOPE	7,108' TVD	3,078	1,500



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	BT&C	0-150	New casing. May be pre-set. Cement circulated to surface.
Surface	17-1/2	13-3/8	54.50	J55	BT&C	0-1100	New casing. May be pre-set. Cement circulated to surface.
Intermediate	12-1/4	9-5/8	40.00	P110HC	BT&C	0-6460	New casing. Three-stage cement job, circulated to surface.
Production	8-3/4	5-1/2	20.00	P110HC	GBCD	0-12,783	New casing. Single-stage cement job to overlap previous casing shoe.

Design Factor Tables

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	BTC	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)

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	1100	0	9.00	0	515	2.20	Full evacuation with 9.0 ppg mud in annulus
Burst	1100	9.00	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)	1100	9.00	59,950	51,713	151,713	5.60	100K lbs overpull
Tension (Connection)	1100	9.00	59,950	51,713	151,713	5.99	

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)
Surface	9.625	40.00	P110HC	BTC	4,230	7,910	1,260,000	1,266,000
					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	6348	0	10.00	0	3301	1.28	Full evacuation with 10.0 ppg mud in annulus
Burst	6348	10.00	0	1500	0	1.65	1500 psi casing test

	Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)		
Tension (Pipe Body)	6348	10.00	253,920	215,154	315,154	4.00	100K lbs overpull
Tension (Connection)	6348	10.00	253,920	215,154	315,154	4.02	

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

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)
Surface	5.5	20.00	P110HC	GBCD	13,300	12,640	641,000	891,000
					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	7105	0	13.30	0	4914	2.71	Full evacuation with 13.3 ppg mud in annulus
Burst	7105	13.30	0	1500	0	1.97	1500 psi casing test

	Casing Depth, TVD (ft)	Mud Wt (ppg)	Air Wt (lbs)	Bouyant Wt (lbs)	Bouyant Wt + 100K (lbs)		
Tension (Pipe Body)	7105	13.30	142,100	113,246	213,246	3.01	100K lbs overpull
Tension (Connection)	7105	13.30	142,100	113,246	213,246	4.18	

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:

Surface Casing – Centralizers to be placed on bottom 4 joints of casing (1 per joint) and 1 every 3rd joint thereafter to surface.

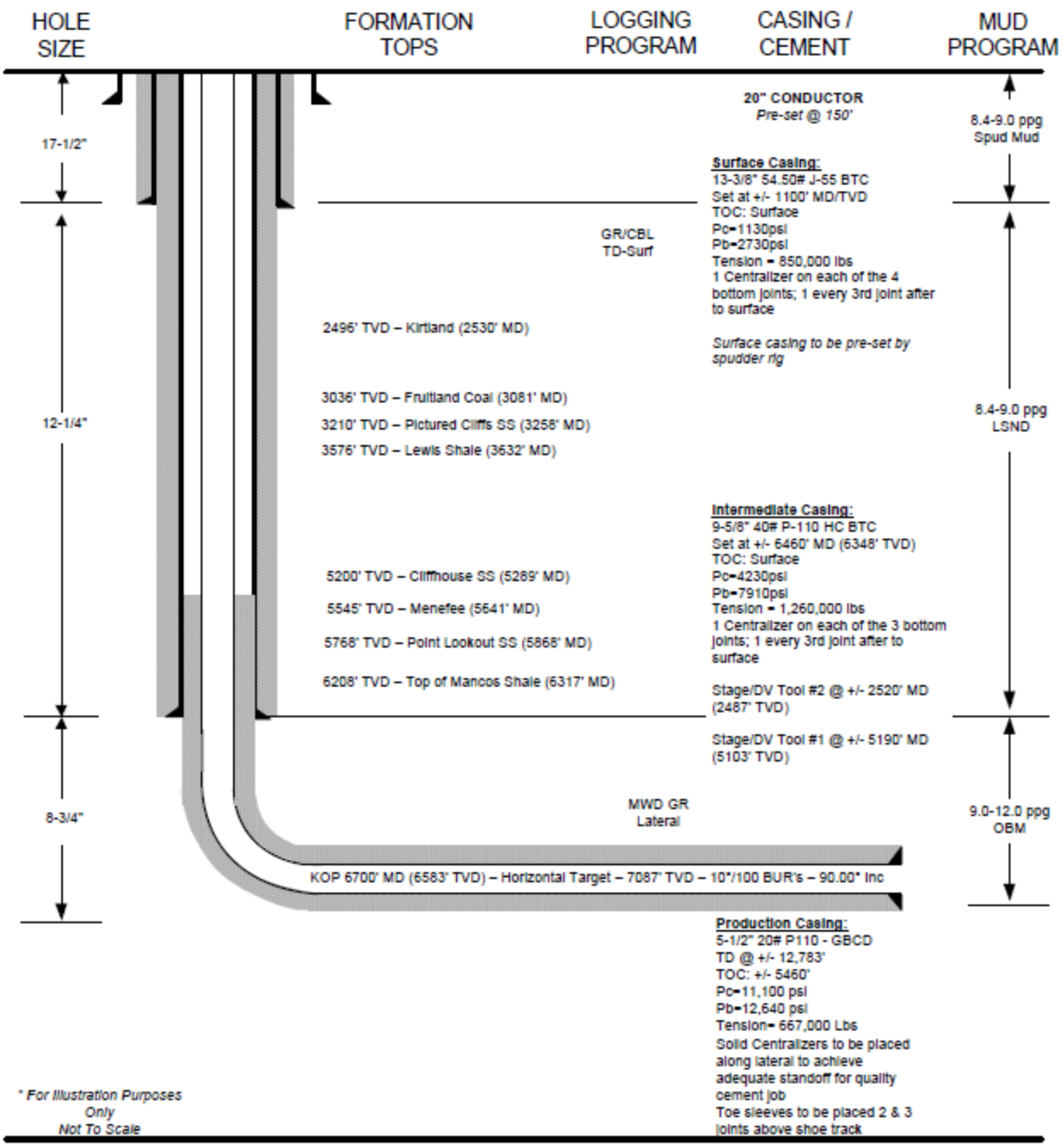
Intermediate Casing – Centralizers to be placed on bottom 3 joints of casing (1 per joint) and 1 every 3rd joint thereafter to surface. A DV tool and external casing packer (ECP) may be placed at roughly 2520' & 5190' MD, if necessary. *

Production Casing – Centralizers to be placed along lateral to achieve adequate standoff for quality cement job. Toe sleeves (2) will be placed 2 and 3 joints above the shoe track.

**NOTE: Use of the DV tool and ECP 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 ECP will not be used.*

Wellbore Schematic

WELL: Northeast Blanco Unit 602 COM 7H
PROSPECT: San Juan Basin – Mancos Shale (S2/Black)
CATEGORY: Horizontal Well
COUNTY: San Juan County STATE: New Mexico
API #: TBD



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 useable 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 fall-back occurs.

- The conductor casing and surface casing shall be cemented back to surface. If cement is not circulated, 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.

- Top plugs will be used to reduce possible contamination of the cement slurry by the displacement fluid. A bottom plug (or other acceptable technique 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 385 sx Class G cement (94 lb/sk) with 2% CaCl and 0.125 lb/sk poly flake mixed at 15.8 ppg using 5.13 gal/sk fresh water with yield of 1.174 ft3/sk and approximate volume of 450 ft3.

Surface Casing: Single Stage (0'-1100' MD) – 17-1/2" Hole x 13-3/8" Casing, 50% XS

Cement to be circulated to surface with approximately 980 sx Class G cement (94 lb/sk) with 2% CaCl and 0.125 lb/sk poly flake mixed at 15.8 ppg using 5.13 gal/sk fresh water with yield of 1.174 ft3/sk and approximate volume of 1150 ft3.

Intermediate Casing: Three Stages (0'-6460' MD) – 12-1/4" Hole x 9-5/8" Casing, DV tools at ±2520' & ±5190', 50% XS

Cement to be circulated to surface. Stage 1 Lead Slurry - approximately 260 sx Poz (61.10 lb/sk) with 0.125 lb/sk poly flake mixed at 12.3 ppg using 10.42 gal/sk fresh water with yield of 1.958 ft3/sk. Stage 1 Tail Slurry - approximately 80 sx Class G cement (94 lb/sk) with 0.10% Halad and 0.125 lb/sk poly flake mixed at 15.8 ppg using 4.96 gal/sk fresh water with yield of 1.147 ft3/sk. Total approximate volume of both slurries 600 ft3.

Stage 2 Lead Slurry - approximately 535 sx Poz (61.10 lb/sk) with 2% CaCl and 0.125 lb/sk poly flake mixed at 12.3 ppg using 10.74 gal/sk fresh water with yield of 2.005 ft3/sk. Stage 2 Tail Slurry - approximately 165 sx Class G cement (94 lb/sk) mixed at 15.8 ppg using 4.99 gal/sk fresh water with yield of 1.147 ft3/sk. Total approximate volume of both slurries 1255 ft3.

Stage 3 Lead Slurry - approximately 505 sx Poz (61.10 lb/sk) with 2% CaCl and 0.125 lb/sk poly flake mixed at 12.3 ppg using 10.74 gal/sk fresh water with yield of 2.005 ft3/sk. Stage 2 Tail Slurry - approximately 155 sx Class G cement (94 lb/sk) mixed at 15.8 ppg using 4.99 gal/sk fresh water with yield of 1.147 ft3/sk. Total approximate volume of both slurries 1185 ft3. Total approximate volume of all slurries 3040 ft3.

Production Casing: Single Stage (0'-12,783' MD) – 8-3/4" Hole x 5-1/2" Casing, 25% XS

Cement to be circulated into Intermediate Casing (estimated TOC at 5460') with approximately 1990 sx Class G cement (94 lb/sk) with 2% CaCl and 0.125 lb/sk poly flake mixed at 15.8 ppg using 5.13 gal/sk fresh water with yield of 1.174 ft3/sk. Approximate volume of 2330 ft3.

All cement slurries will meet or exceed minimum BLM and NMOCD requirements. Slurries used will 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.

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.
- The 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'-1100'	Surface	17-1/2"	FW/Gel	8.4-9.0	NC	8	12	9.0	Spud Mud
0'-6460'	Intermediate	12-1/4"	LSND	8.6-9.0	<8	4-6	12-15	10.0	Fresh Water
0'-12,783'	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, 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 volimes.

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 ±1100' (base of 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 to TD
- Maximum anticipated surface pressure and casing design parameters determined using 0.433 psi/ft
- Maximum anticipated BHP @ 7102' TVD (Landing Point): 3075 psi
- Maximum anticipated BHT @ 7102' TVD (Landing Point): 204° F
- Possible lost circulation in the Fruitland Coal to Cliffhouse (3,081' to 5,641'). 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 ±6,460'
- No hydrogen sulfide gas is anticipated, however, 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 based on mud log evaluation
- **Completion:**
    - **Pressure test**
        - Pressure test production casing to allowable frac pressure or as per BLM requirements
    - **Stimulation**
        - Well will be stimulated with approximately 13,100,000 pounds of proppant in 370,000 bbls of water
        - 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 proprietary IKAV 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 scheduled to begin April 2023
        - Expected drilling time is roughly 30 days for the well and 140 days for the 6-well pad
        - 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

IKAV

Company: IKAV Energy
Project: San Juan County, NM NAD83
Site: NEBU 602 Pad
Well: NEBU 602 7H
Wellbore: OH
Design: Plan #2

PROJECT DETAILS: San Juan County, NM NAD83

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

Scientific Drilling

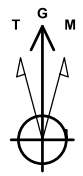
WELL DETAILS: NEBU 602 7H

GL 6521' & RKB 26' @ 6547.00usft

+N/-S	+E/-W	Northing	Easting	Latitude	Longitude	
0.00	0.00	2154110.22	2812167.81	36.9193418	-107.5286085	3

Plan: Plan #2 (NEBU 602 7H/OH)

Created By: Janie Collins Date: 16:01, June 21 2022



Azimuths to Grid North
True North: -0.[illegible]°
Magnetic North: 8.[illegible]°

Magnetic Field
Strength: 49567.[illegible]
Dip Angle: 63.[illegible]°
Date: 6/6/2[illegible]
Model: HDGM2022

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
NEBU 602 7H LP Rev	7102.00	-1296.97	-560.53	2152813.26	2811607.28	36.9157843	-107.5305401
NEBU 602 7H BHL Rev	7087.00	-1351.97	-5785.00	2152758.26	2806382.81	36.9156774	-107.5484123

SECTION DETAILS

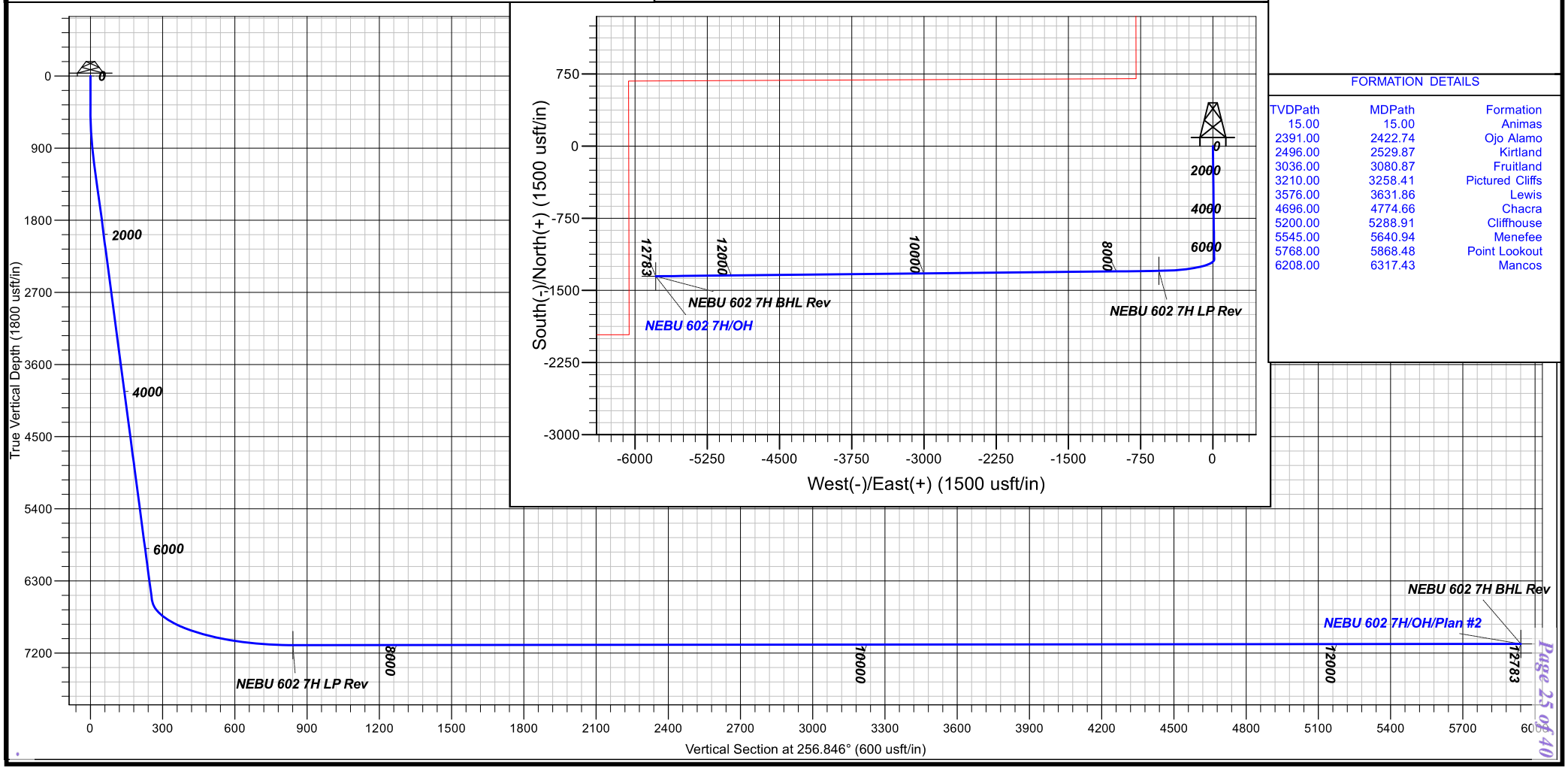
MD	Inc	Azi	TVD	+N/-S	+E/-W	DLeg	TFace	VSect
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00
1023.18	11.46	179.377	1019.37	-57.15	0.62	2.00	179.38	12.40
6656.70	11.46	179.377	6540.50	-1176.72	12.80	0.00	0.00	255.32
7558.35	90.16	269.397	7102.00	-1296.97	-560.53	10.00	89.99	840.98
12783.13	90.16	269.397	7087.00	-1351.97	-5785.00	0.00	0.00	5940.88

CASING DETAILS

No casing data is available

FORMATION DETAILS

TVDPath	MDPath	Formation
15.00	15.00	Animas
2391.00	2422.74	Ojo Alamo
2496.00	2529.87	Kirtland
3036.00	3080.87	Fruitland
3210.00	3258.41	Pictured Cliffs
3576.00	3631.86	Lewis
4696.00	4774.66	Chacra
5200.00	5288.91	Cliffhouse
5545.00	5640.94	Menefee
5768.00	5868.48	Point Lookout
6208.00	6317.43	Mancos



IKAV Energy

San Juan County, NM NAD83
NEBU 602 Pad
NEBU 602 7H - Slot 3

OH

Plan: Plan #2

Standard Planning Report

21 June, 2022

Scientific Drilling

www.scientificdrilling.com

IKAV

Scientific Drilling

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well NEBU 602 7H - Slot 3
Company:	IKAV Energy	**TVD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Site:	NEBU 602 Pad	**North Reference:**	Grid
Well:	NEBU 602 7H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Project San Juan County, NM NAD83

Map System:	US State Plane 1983	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	New Mexico Western Zone		

Site NEBU 602 Pad

Site Position:		**Northing:**	2,154,140.58 usft	**Latitude:**	36.9194248
From:	Map	**Easting:**	2,812,207.47 usft	**Longitude:**	-107.5284725
Position Uncertainty:	0.00 usft	**Slot Radius:**	13.20 in	**Grid Convergence:**	0.18 °

Well NEBU 602 7H - Slot 3

Well Position	**+N/-S**	-30.36 usft	**Northing:**	2,154,110.22 usft	**Latitude:**	36.9193418
	+E/-W	-39.66 usft	**Easting:**	2,812,167.82 usft	**Longitude:**	-107.5286085
Position Uncertainty		0.00 usft	**Wellhead Elevation:**		**Ground Level:**	6,521.00 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	HDGM2022	6/6/2022	8.72	63.35	49,567.20000000

Design Plan #2

Audit Notes:

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

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.00	0.00	0.00	256.846

Plan Sections

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00	
1,023.18	11.46	179.377	1,019.37	-57.15	0.62	2.00	2.00	0.00	179.38	
6,656.70	11.46	179.377	6,540.50	-1,176.72	12.80	0.00	0.00	0.00	0.00	
7,558.35	90.16	269.397	7,102.00	-1,296.97	-560.53	10.00	8.73	9.98	89.99	NEBU 602 7H LP Rev
12,783.13	90.16	269.397	7,087.00	-1,351.97	-5,785.00	0.00	0.00	0.00	0.00	NEBU 602 7H BHL Re

IKAV

Scientific Drilling

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well NEBU 602 7H - Slot 3
Company:	IKAV Energy	**TVD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Site:	NEBU 602 Pad	**North Reference:**	Grid
Well:	NEBU 602 7H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
0.00	0.00	0.000	0.00	0.00	0.00	0.00	0.00	0.00	0.00
100.00	0.00	0.000	100.00	0.00	0.00	0.00	0.00	0.00	0.00
200.00	0.00	0.000	200.00	0.00	0.00	0.00	0.00	0.00	0.00
300.00	0.00	0.000	300.00	0.00	0.00	0.00	0.00	0.00	0.00
400.00	0.00	0.000	400.00	0.00	0.00	0.00	0.00	0.00	0.00
450.00	0.00	0.000	450.00	0.00	0.00	0.00	0.00	0.00	0.00
500.00	1.00	179.377	500.00	-0.44	0.00	0.09	2.00	2.00	0.00
600.00	3.00	179.377	599.93	-3.93	0.04	0.85	2.00	2.00	0.00
700.00	5.00	179.377	699.68	-10.90	0.12	2.37	2.00	2.00	0.00
800.00	7.00	179.377	799.13	-21.35	0.23	4.63	2.00	2.00	0.00
900.00	9.00	179.377	898.15	-35.27	0.38	7.65	2.00	2.00	0.00
1,000.00	11.00	179.377	996.63	-52.63	0.57	11.42	2.00	2.00	0.00
1,023.18	11.46	179.377	1,019.37	-57.15	0.62	12.40	2.00	2.00	0.00
1,100.00	11.46	179.377	1,094.65	-72.41	0.79	15.71	0.00	0.00	0.00
1,200.00	11.46	179.377	1,192.65	-92.29	1.00	20.02	0.00	0.00	0.00
1,300.00	11.46	179.377	1,290.66	-112.16	1.22	24.34	0.00	0.00	0.00
1,400.00	11.46	179.377	1,388.66	-132.03	1.44	28.65	0.00	0.00	0.00
1,500.00	11.46	179.377	1,486.67	-151.91	1.65	32.96	0.00	0.00	0.00
1,600.00	11.46	179.377	1,584.67	-171.78	1.87	37.27	0.00	0.00	0.00
1,700.00	11.46	179.377	1,682.68	-191.65	2.09	41.58	0.00	0.00	0.00
1,800.00	11.46	179.377	1,780.68	-211.53	2.30	45.90	0.00	0.00	0.00
1,900.00	11.46	179.377	1,878.69	-231.40	2.52	50.21	0.00	0.00	0.00
2,000.00	11.46	179.377	1,976.69	-251.27	2.73	54.52	0.00	0.00	0.00
2,100.00	11.46	179.377	2,074.70	-271.15	2.95	58.83	0.00	0.00	0.00
2,200.00	11.46	179.377	2,172.70	-291.02	3.17	63.14	0.00	0.00	0.00
2,300.00	11.46	179.377	2,270.71	-310.89	3.38	67.46	0.00	0.00	0.00
2,400.00	11.46	179.377	2,368.71	-330.77	3.60	71.77	0.00	0.00	0.00
2,500.00	11.46	179.377	2,466.72	-350.64	3.81	76.08	0.00	0.00	0.00
2,599.99	11.46	179.377	2,564.72	-370.51	4.03	80.39	0.00	0.00	0.00
2,699.99	11.46	179.377	2,662.73	-390.39	4.25	84.70	0.00	0.00	0.00
2,799.99	11.46	179.377	2,760.73	-410.26	4.46	89.02	0.00	0.00	0.00
2,899.99	11.46	179.377	2,858.74	-430.13	4.68	93.33	0.00	0.00	0.00
2,999.99	11.46	179.377	2,956.74	-450.01	4.90	97.64	0.00	0.00	0.00
3,099.99	11.46	179.377	3,054.75	-469.88	5.11	101.95	0.00	0.00	0.00
3,199.99	11.46	179.377	3,152.75	-489.75	5.33	106.26	0.00	0.00	0.00
3,299.99	11.46	179.377	3,250.76	-509.63	5.54	110.58	0.00	0.00	0.00
3,399.99	11.46	179.377	3,348.76	-529.50	5.76	114.89	0.00	0.00	0.00
3,499.99	11.46	179.377	3,446.77	-549.38	5.98	119.20	0.00	0.00	0.00
3,599.99	11.46	179.377	3,544.77	-569.25	6.19	123.51	0.00	0.00	0.00
3,699.99	11.46	179.377	3,642.78	-589.12	6.41	127.83	0.00	0.00	0.00
3,799.99	11.46	179.377	3,740.78	-609.00	6.63	132.14	0.00	0.00	0.00
3,899.99	11.46	179.377	3,838.79	-628.87	6.84	136.45	0.00	0.00	0.00
3,999.99	11.46	179.377	3,936.79	-648.74	7.06	140.76	0.00	0.00	0.00
4,099.99	11.46	179.377	4,034.80	-668.62	7.27	145.07	0.00	0.00	0.00
4,199.99	11.46	179.377	4,132.80	-688.49	7.49	149.39	0.00	0.00	0.00
4,299.99	11.46	179.377	4,230.81	-708.36	7.71	153.70	0.00	0.00	0.00
4,399.99	11.46	179.377	4,328.81	-728.24	7.92	158.01	0.00	0.00	0.00
4,499.99	11.46	179.377	4,426.82	-748.11	8.14	162.32	0.00	0.00	0.00
4,599.99	11.46	179.377	4,524.82	-767.98	8.36	166.63	0.00	0.00	0.00
4,699.99	11.46	179.377	4,622.83	-787.86	8.57	170.95	0.00	0.00	0.00
4,799.99	11.46	179.377	4,720.83	-807.73	8.79	175.26	0.00	0.00	0.00
4,899.99	11.46	179.377	4,818.83	-827.60	9.00	179.57	0.00	0.00	0.00
4,999.99	11.46	179.377	4,916.84	-847.48	9.22	183.88	0.00	0.00	0.00
5,099.99	11.46	179.377	5,014.84	-867.35	9.44	188.19	0.00	0.00	0.00

IKAV

Scientific Drilling

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well NEBU 602 7H - Slot 3
Company:	IKAV Energy	**TVD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Site:	NEBU 602 Pad	**North Reference:**	Grid
Well:	NEBU 602 7H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
5,199.99	11.46	179.377	5,112.85	-887.22	9.65	192.51	0.00	0.00	0.00
5,299.99	11.46	179.377	5,210.85	-907.10	9.87	196.82	0.00	0.00	0.00
5,399.99	11.46	179.377	5,308.86	-926.97	10.09	201.13	0.00	0.00	0.00
5,499.99	11.46	179.377	5,406.86	-946.84	10.30	205.44	0.00	0.00	0.00
5,599.99	11.46	179.377	5,504.87	-966.72	10.52	209.75	0.00	0.00	0.00
5,699.99	11.46	179.377	5,602.87	-986.59	10.73	214.07	0.00	0.00	0.00
5,799.99	11.46	179.377	5,700.88	-1,006.46	10.95	218.38	0.00	0.00	0.00
5,899.99	11.46	179.377	5,798.88	-1,026.34	11.17	222.69	0.00	0.00	0.00
5,999.99	11.46	179.377	5,896.89	-1,046.21	11.38	227.00	0.00	0.00	0.00
6,099.99	11.46	179.377	5,994.89	-1,066.08	11.60	231.31	0.00	0.00	0.00
6,199.99	11.46	179.377	6,092.90	-1,085.96	11.81	235.63	0.00	0.00	0.00
6,299.99	11.46	179.377	6,190.90	-1,105.83	12.03	239.94	0.00	0.00	0.00
6,399.99	11.46	179.377	6,288.91	-1,125.71	12.25	244.25	0.00	0.00	0.00
6,499.99	11.46	179.377	6,386.91	-1,145.58	12.46	248.56	0.00	0.00	0.00
6,599.99	11.46	179.377	6,484.92	-1,165.45	12.68	252.88	0.00	0.00	0.00
6,656.70	11.46	179.377	6,540.50	-1,176.72	12.80	255.32	0.00	0.00	0.00
6,699.99	12.24	200.224	6,582.88	-1,185.34	11.26	258.78	10.00	1.80	48.16
6,799.99	18.28	231.483	6,679.47	-1,205.10	-4.71	278.83	10.00	6.03	31.26
6,899.99	26.75	245.636	6,771.83	-1,224.20	-37.56	315.17	10.00	8.47	14.15
6,999.99	35.97	253.138	6,857.16	-1,242.04	-86.29	366.68	10.00	9.22	7.50
7,099.99	45.49	257.864	6,932.87	-1,258.10	-149.42	431.80	10.00	9.52	4.73
7,199.99	55.15	261.245	6,996.66	-1,271.88	-225.02	508.56	10.00	9.66	3.38
7,299.99	64.88	263.907	7,046.59	-1,282.95	-310.81	594.61	10.00	9.73	2.66
7,399.99	74.65	266.173	7,081.14	-1,291.00	-404.17	687.36	10.00	9.77	2.27
7,499.99	84.44	268.233	7,099.26	-1,295.76	-502.27	783.97	10.00	9.79	2.06
7,558.35	90.16	269.397	7,102.00	-1,296.97	-560.53	840.98	10.00	9.80	1.99
7,599.98	90.16	269.397	7,101.88	-1,297.41	-602.16	881.61	0.00	0.00	0.00
7,699.98	90.16	269.397	7,101.59	-1,298.46	-702.16	979.22	0.00	0.00	0.00
7,799.98	90.16	269.397	7,101.31	-1,299.51	-802.15	1,076.83	0.00	0.00	0.00
7,899.98	90.16	269.397	7,101.02	-1,300.56	-902.14	1,174.44	0.00	0.00	0.00
7,999.98	90.16	269.397	7,100.73	-1,301.62	-1,002.14	1,272.05	0.00	0.00	0.00
8,099.98	90.16	269.397	7,100.45	-1,302.67	-1,102.13	1,369.66	0.00	0.00	0.00
8,199.98	90.16	269.397	7,100.16	-1,303.72	-1,202.13	1,467.27	0.00	0.00	0.00
8,299.98	90.16	269.397	7,099.87	-1,304.77	-1,302.12	1,564.88	0.00	0.00	0.00
8,399.98	90.16	269.397	7,099.58	-1,305.83	-1,402.11	1,662.49	0.00	0.00	0.00
8,499.98	90.16	269.397	7,099.30	-1,306.88	-1,502.11	1,760.10	0.00	0.00	0.00
8,599.98	90.16	269.397	7,099.01	-1,307.93	-1,602.10	1,857.71	0.00	0.00	0.00
8,699.98	90.16	269.397	7,098.72	-1,308.99	-1,702.10	1,955.32	0.00	0.00	0.00
8,799.98	90.16	269.397	7,098.44	-1,310.04	-1,802.09	2,052.93	0.00	0.00	0.00
8,899.98	90.16	269.397	7,098.15	-1,311.09	-1,902.08	2,150.54	0.00	0.00	0.00
8,999.98	90.16	269.397	7,097.86	-1,312.14	-2,002.08	2,248.15	0.00	0.00	0.00
9,099.98	90.16	269.397	7,097.57	-1,313.20	-2,102.07	2,345.76	0.00	0.00	0.00
9,199.98	90.16	269.397	7,097.29	-1,314.25	-2,202.06	2,443.37	0.00	0.00	0.00
9,299.98	90.16	269.397	7,097.00	-1,315.30	-2,302.06	2,540.98	0.00	0.00	0.00
9,399.98	90.16	269.397	7,096.71	-1,316.35	-2,402.05	2,638.59	0.00	0.00	0.00
9,499.98	90.16	269.397	7,096.43	-1,317.41	-2,502.05	2,736.20	0.00	0.00	0.00
9,599.98	90.16	269.397	7,096.14	-1,318.46	-2,602.04	2,833.81	0.00	0.00	0.00
9,699.98	90.16	269.397	7,095.85	-1,319.51	-2,702.03	2,931.42	0.00	0.00	0.00
9,799.98	90.16	269.397	7,095.56	-1,320.56	-2,802.03	3,029.03	0.00	0.00	0.00
9,899.98	90.16	269.397	7,095.28	-1,321.62	-2,902.02	3,126.64	0.00	0.00	0.00
9,999.98	90.16	269.397	7,094.99	-1,322.67	-3,002.02	3,224.25	0.00	0.00	0.00
10,099.98	90.16	269.397	7,094.70	-1,323.72	-3,102.01	3,321.86	0.00	0.00	0.00
10,199.98	90.16	269.397	7,094.42	-1,324.78	-3,202.00	3,419.47	0.00	0.00	0.00
10,299.98	90.16	269.397	7,094.13	-1,325.83	-3,302.00	3,517.08	0.00	0.00	0.00

IKAV

Scientific Drilling

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well NEBU 602 7H - Slot 3
Company:	IKAV Energy	**TVD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Site:	NEBU 602 Pad	**North Reference:**	Grid
Well:	NEBU 602 7H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Planned Survey

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
10,399.98	90.16	269.397	7,093.84	-1,326.88	-3,401.99	3,614.69	0.00	0.00	0.00
10,499.98	90.16	269.397	7,093.55	-1,327.93	-3,501.98	3,712.30	0.00	0.00	0.00
10,599.98	90.16	269.397	7,093.27	-1,328.99	-3,601.98	3,809.91	0.00	0.00	0.00
10,699.98	90.16	269.397	7,092.98	-1,330.04	-3,701.97	3,907.52	0.00	0.00	0.00
10,799.98	90.16	269.397	7,092.69	-1,331.09	-3,801.97	4,005.13	0.00	0.00	0.00
10,899.98	90.16	269.397	7,092.41	-1,332.14	-3,901.96	4,102.74	0.00	0.00	0.00
10,999.98	90.16	269.397	7,092.12	-1,333.20	-4,001.95	4,200.34	0.00	0.00	0.00
11,099.98	90.16	269.397	7,091.83	-1,334.25	-4,101.95	4,297.95	0.00	0.00	0.00
11,199.98	90.16	269.397	7,091.55	-1,335.30	-4,201.94	4,395.56	0.00	0.00	0.00
11,299.98	90.16	269.397	7,091.26	-1,336.35	-4,301.94	4,493.17	0.00	0.00	0.00
11,399.98	90.16	269.397	7,090.97	-1,337.41	-4,401.93	4,590.78	0.00	0.00	0.00
11,499.98	90.16	269.397	7,090.68	-1,338.46	-4,501.92	4,688.39	0.00	0.00	0.00
11,599.98	90.16	269.397	7,090.40	-1,339.51	-4,601.92	4,786.00	0.00	0.00	0.00
11,699.98	90.16	269.397	7,090.11	-1,340.57	-4,701.91	4,883.61	0.00	0.00	0.00
11,799.98	90.16	269.397	7,089.82	-1,341.62	-4,801.90	4,981.22	0.00	0.00	0.00
11,899.98	90.16	269.397	7,089.54	-1,342.67	-4,901.90	5,078.83	0.00	0.00	0.00
11,999.98	90.16	269.397	7,089.25	-1,343.72	-5,001.89	5,176.44	0.00	0.00	0.00
12,099.98	90.16	269.397	7,088.96	-1,344.78	-5,101.89	5,274.05	0.00	0.00	0.00
12,199.98	90.16	269.397	7,088.67	-1,345.83	-5,201.88	5,371.66	0.00	0.00	0.00
12,299.98	90.16	269.397	7,088.39	-1,346.88	-5,301.87	5,469.27	0.00	0.00	0.00
12,399.98	90.16	269.397	7,088.10	-1,347.93	-5,401.87	5,566.88	0.00	0.00	0.00
12,499.98	90.16	269.397	7,087.81	-1,348.99	-5,501.86	5,664.49	0.00	0.00	0.00
12,599.98	90.16	269.397	7,087.53	-1,350.04	-5,601.86	5,762.10	0.00	0.00	0.00
12,699.97	90.16	269.397	7,087.24	-1,351.09	-5,701.85	5,859.71	0.00	0.00	0.00
12,783.13	90.16	269.397	7,087.00	-1,351.97	-5,785.00	5,940.88	0.00	0.00	0.00

Design Targets

Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
NEBU 602 7H BHL Rev - plan hits target center - Point	0.00	0.000	7,087.00	-1,351.97	-5,785.00	2,152,758.26	2,806,382.82	36.9156774	-107.5484123
NEBU 602 7H LP Rev - plan hits target center - Point	0.00	0.000	7,102.00	-1,296.97	-560.53	2,152,813.26	2,811,607.28	36.9157842	-107.5305402

IKAV

Scientific Drilling

Planning Report

Scientific Drilling

Database:	Grand Junction	**Local Co-ordinate Reference:**	Well NEBU 602 7H - Slot 3
Company:	IKAV Energy	**TVD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Project:	San Juan County, NM NAD83	**MD Reference:**	GL 6521' & RKB 26' @ 6547.00usft
Site:	NEBU 602 Pad	**North Reference:**	Grid
Well:	NEBU 602 7H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan #2		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
15.00	15.00	Animas		0.00	0.000
2,422.74	2,391.00	Ojo Alamo		0.00	0.000
2,529.87	2,496.00	Kirtland		0.00	0.000
3,080.87	3,036.00	Fruitland		0.00	0.000
3,258.41	3,210.00	Pictured Cliffs		0.00	0.000
3,631.86	3,576.00	Lewis		0.00	0.000
4,774.66	4,696.00	Chacra		0.00	0.000
5,288.91	5,200.00	Cliffhouse		0.00	0.000
5,640.94	5,545.00	Menefee		0.00	0.000
5,868.48	5,768.00	Point Lookout		0.00	0.000
6,317.43	6,208.00	Mancos		0.00	0.000

CONDITIONS OF APPROVAL

Operator: Simcoe, LLC
Well Name: Northeast Blanco Unit 602 Com 2H, 3H, 4H, 5H, 6H, & 7H Natural Gas Project
EA Number: DOI-BLM-NM-F010-2023-0034-EA
Lease Number: NMNM03358, & NMSF078988

The following conditions of approval will apply to the Northeast Blanco Unit 602 Com 2H, 3H, 4H, 5H, 6H, & 7H (NEBU 602 Com) Natural Gas Well Project well pad, access road and pipeline and other associated facilities, unless a particular Surface Managing Agency or private surface owner has supplied to Bureau of Land Management and the operator a contradictory environmental stipulation. The failure of the operator to comply with these requirements may result in the assessment of liquidated damages or penalties pursuant to 43 CFR 3163.1 or 3163.2.

Special Stipulations

Copy of COA's: A copy of these stipulations, including exhibits and the Plan(s) of Operation (if required), shall be on the project area and available to person directing equipment.

Construction & Reclamation Notification: The operator or their contractor will contact the Bureau of Land Management, Farmington Field Office Environmental Protection Staff at (505) 564-7600 or by email, at least 48 hours prior to any construction or reclamation on this project. The operator or their contractor will contact the grazing permittee to give notice at least 10 days prior to start of construction operations.

Production Facilities: Design and layout of facilities will be deferred until an onsite with the BLM-FFO surface protection staff is conducted to determine the best location. Simcoe or their contractor will contact the Bureau of Land Management Farmington Field Office, Surface, and Environmental Protection Staff to schedule a facility layout onsite.

Weather: No construction or routine maintenance activities shall be performed during periods when the soil is too wet to adequately support construction equipment. If such equipment creates ruts in excess of 6 inches deep, the soil shall be deemed too wet.

Grazing Permittee Notification and Concerns: The operator will notify the grazing lease operator(s) at least ten business days prior to beginning any construction activity to ensure there will be no conflicts between construction activities and livestock grazing operations. The operator is not obligated to cease or delay construction unless directed by the Authorized Officer (AO). Any range improvement (fences, pipelines, ponds, etc.) disturbed by construction activities will be repaired immediately following construction and will be repaired to the condition the improvement was in prior to disturbance. Cattle guards will be installed to replace any livestock fencing or gates removed for road construction.

Visual Resources: All above ground infrastructure will be painted BLM Environmental Color Juniper Green.

Paleontology: Any paleontological resource discovered by the Operator, or any person working on his behalf, on public or Federal land shall be immediately reported to the Authorized Officer. Holder shall suspend all operations in the immediate area of such discovery until written authorization to proceed is issued by the Authorized Officer. An evaluation of the discovery will be made by the AO to determine appropriate actions to prevent the loss of significant scientific values. The Holder will be responsible for the cost of evaluation and any decision as to proper mitigation measures will be made by the AO after consulting with the Holder.

Wildlife: The proposed project is not anticipated to have significant impacts on small or big game species. However, F-4 Timing Limitation Stipulation-Important Seasonal Wildlife Habitat applies. No surface use is allowed during the following time period, December 1 - March 31

Migratory Bird Nest Survey: For any construction activities that exceed 4.0 acres of ground disturbance from 5/15 to 7/31 within the same lease, a migratory bird nest survey is required prior to any new ground disturbance.

Storage Tanks: All open top permanent production or storage tanks regardless of diameter made of fiberglass, steel, or other material used for the containment of oil, condensate, produced water and or other production waste shall be screened, netted, or otherwise covered to protect migratory birds and other wildlife from access.

Cultural Resources:
Site Protection and Employee Education:
All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed that cultural sites are to be avoided by all personnel, personal vehicles and company equipment. They will also be notified that it is illegal to collect, damage, or disturb cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the Archaeological Resources Protection Act (16 U.S.C. 470aa-mm) when on federal land and the New Mexico Cultural Properties Act NMSA 1978 when on state land.

Cultural Resources Stipulations:

1. **For the construction of the NEBU 602 Com, well pad, pipeline, access road, and TUA. See BLM Report: 2023(III)010F:**

ARCHAEOLOGICAL MONITORING IS REQUIRED:
A copy of these stipulations will be supplied to the archeological monitor at least two working days prior to the start of construction activities. No construction activities, including vegetation removal, may begin before the arrival of the archaeological monitor.

The monitor will:

- Ensure that site protection barriers are located as indicated on the attached map in the vicinity of LA4790, LA4791, LA148751, LA185525, LA187836, LA187841, & LA189395.
- Observe all surface disturbing activities within 100'of LA4790, LA4791, LA148751, LA185525, LA187625, LA187836, LA187841, & LA189395.
- Submit a report of the monitoring activities within 30 days of completion of monitoring unless other arrangements are made with the BLM. These stipulations must be attached to the report.

SITE PROTECTION BARRIER:

- The temporary site protection barrier will be erected prior to construction. The barrier will consist of upright wooden survey lath spaced no more than 10 feet apart and marked with blue flagging or blue paint. The barrier will remain in place through reclamation and reseeding and shall be promptly removed after reclamation.
- The barrier will be placed as indicated on the attached map.
- There will be no surface-disturbing activities or vehicle traffic past the barrier.

Note: If there are questions about these stipulations, contact Kim Adams (BLM) at 505.564.7683 or kadams@blm.gov.

ADDITIONAL:
CULTURAL RESOURCE STIPULATIONS

1. Discovery of Cultural Resources in the Absence of Monitoring: If, in its operations, operator/holder discovers any previously unidentified historic or prehistoric cultural resources, then work in the vicinity of the discovery will be suspended and the discovery promptly reported to BLM Field Manager. BLM will then specify what action is to be taken. If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property**, or in accordance with an approved program alternative**. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive **archaeological or alternative mitigation**, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any miti**gations determined appropriate through the agency's Section 106 consultation are completed**. Failure to notify the BLM about a discovery may result in civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, **the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws**.

2. Discovery of Cultural Resources during Monitoring: If monitoring confirms the presence of previously unidentified **historic or prehistoric** cultural resources, then work in the vicinity of the discovery will be suspended and the monitor will promptly report the discovery to the BLM Field Manager. BLM will then specify what action is to be taken. **If there is an approved "discovery plan" in place for the project, then the plan will be executed. In the absence of an approved plan, the BLM will evaluate the significance of the discovery in accordance with 36 CFR Section 800.13, in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property, or in accordance with an approved program alternative. Minor recordation, stabilization, or data recovery may be performed by BLM or a third party acting on its behalf, such as a permitted cultural resources consultant. If warranted, more extensive archaeological or alternative mitigation, likely implemented by a permitted cultural resources consultant, may be required of the operator/holder prior to allowing the project to proceed. Further damage to significant cultural resources will not be allowed until any mitigations determined appropriate through the agency's Section 106 consultation are completed.**

3. Damage to Sites: If, in its operations, operator/holder damages, or is found to have damaged any previously documented or undocumented historic or prehistoric cultural resources, excluding "discoveries" as noted above, the operator/holder agrees at his/her expense to have a permitted cultural resources consultant prepare a BLM approved damage assessment and/or data recovery plan. The operator/holder agrees at his/her expense to implement a **mitigation** that the agency finds appropriate given the significance of the site, which the agency determines in consultation with the appropriate State or Tribal Historic Preservation Officer(s) and Indian tribe(s) that might attach religious and cultural significance to the affected property. **This mitigation may** entail execution of the data recovery plan by a permitted cultural resources consultant and/or alternative **mitigations**. Damage to cultural resources may result in **civil or criminal penalties in accordance with the Archeological Resources Protection Act (ARPA) of 1979, as amended, the Native American Graves Protection and Repatriation Act (NAGRPA) of 1990, as amended, and other applicable laws**.

4. EMPLOYEE EDUCATION: All employees of the project, including the Project Sponsor and its contractors and sub-contractors will be informed **and educated** that cultural sites are to be

avoided by all personnel, personal vehicles and company equipment. This includes personnel associated with construction, use, maintenance and abandonment of the well pad, well facilities, access and pipeline. They will also be notified that it is illegal to collect, damage, or disturb **historic or prehistoric** cultural resources, and that such activities are punishable by criminal and or administrative penalties under the provisions of the **ARPA (16 U.S.C. 470aa-mm), NAGPRA (25 U.S.C. 3001-3013), and other laws, as applicable (for example, NM Stat. § 18-6-9 through § 18-6-11.2, as amended, and NM Stat. § 30-12-12, as amended).**

The holder or its contractors will notify the BLM of any fires and comply with all rules and regulations administered by the BLM concerning the use, prevention and suppression of fires on federal lands, including any fire prevention orders that may be in effect at the time of the permitted activity. The holder or its contractors may be held liable for the cost of fire suppression, stabilization and rehabilitation. In the event of a fire, personal safety will be the first priority of the holder or its contractors.

The holder or its contractors shall:

1. Operate all internal and external combustion engines (including off-highway vehicles, chainsaws, generators, heavy equipment, etc.) with a qualified spark arrester. Qualified spark arresters are maintained and not modified, and meet the Society of Automotive Engineers (SAE) Recommended Practices J335 or J350. Refer to 43 CFR §8343.1.
    a. *Refueling of any combustible engine equipment must be minimum of 3 meters away from any ignition source (open flame, smoking, etc.).*
2. Maintain and clean all equipment regularly to remove flammable debris buildup and prevent fluid leaks that can lead to ignitions.
3. Carry at least one shovel or wildland fire hand tool (combi, Pulaski, McLeod) per person working, minimum 5 gallons of water, and a fire extinguisher rated at a minimum as ABC - 10 pound on each piece of equipment and each vehicle.
4. When conducting "hotwork" such as, but not limited to welding, grinding, cutting, spark-producing work with metal, work that creates hot material or slag; choose an area large enough to contain all hot material that is naturally free of all flammable vegetation or remove the flammable vegetation in a manner compliant with the permitted activity. If adequate clearance cannot be made, wet an area large enough to contain all hot material prior to the activity and periodically throughout the activity to reduce the risk of wildfire ignition. Regardless of clearance, maintain readiness to respond to an ignition at all times. In addition, keep one hand tool per person and at least one fire extinguisher ready, minimum, as specified earlier (#3) during this activity.
5. Keep apprised of current and forecasted weather at https://www.weather.gov/abq/forecasts-fireweather-links and fire conditions at www.wfas.net and take additional fire precautions when fire danger is rated High or greater. Red Flag Warnings are issued by the National Weather Service when fire conditions are most dangerous, and ignitions escape control quickly. Extra precautions are required during these warnings such as additional water, designate a fire watch/patrol and tools. If work is being conducted in an area that is not clear of vegetation within 50 feet of work area; then, when fire danger is rated High or greater and 1. There is a predicted Red Flag warning for your area or 2. If winds are predicted to be greater than 10 mph, stop all hotwork activities for the day at 10 am.
6. In the event of an ignition, initiate fire suppression actions in the work area to prevent fire spread to or on federally administered lands. If a fire spreads beyond the capability of workers with the stipulated tools, all will cease fire suppression action and leave the area immediately via pre-identified escape routes.
7. Call **911** or the **Taos Interagency Fire Dispatch Center (575-758-6208)** immediately of the location and status of any fire.

    AND

    Notify the respective BLM field office for which the permit or contract was issued immediately of the incident.
    Farmington Field Office at 505-564-7600
    Taos Field Office at 575-758-8851

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.
- The well pad will be reclaimed and seeded in accordance with subsections G, Hand I of 19.15.17.13 NMAC.

SECTION 1: GEOLOGIC FORMATIONS AND CONTENTS

MARKER	TVD	MD	COMMENTS	BHP (PSI/FT)
Animas	15	15	Wet/aquifer	0.43
Ojo Alamo SS	2,391	2,423	Wet/aquifer	0.43
Kirtland (Top/Cretaceous)	2,496	2,530	Gas & water-bearing	0.43
Fruitland Coal	3,036	3,081	Gas & water-bearing	0.07
Pictured Cliffs SS	3,210	3,258	Wet	0.12
Lewis Shale	3,576	3,632	Gas & water-bearing	0.35
Chacra SS	4,696	4,775	Gas & water-bearing	0.35
Cliffhouse SS	5,200	5,289	Gas & water-bearing	0.35
Menefee	5,545	5,641	Gas & water-bearing	0.30
Point Lookout SS	5,768	5,868	Gas & water-bearing	0.30
Mancos Shale	6,208	6,317	Gas-bearing	0.43
LP (Mancos Lateral)	7,102	7,558	Gas-bearing	0.43
TD (Mancos Lateral)	7,087	12,783	Gas-bearing	0.43

Possible Aquifers: San Jose and Ojo Alamo

Oil Shale: None Expected

Oil & Gas: Primary objective is the Manco formation from 7,102' TVD (landing point) to 7,087' TVD (toe)

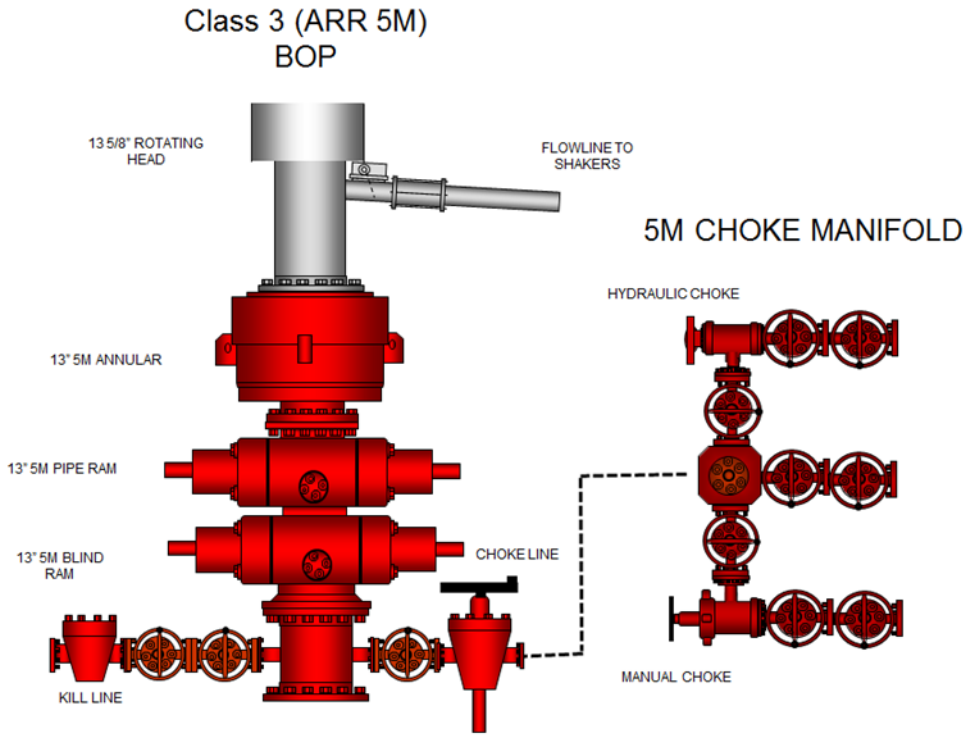
Protection of oil, gas, water, or other mineral-bearing formations: Protection shall be accomplished by setting surface casing below base of possible aquifer(s) and cementing casing to surface

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 1,500 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.

		BHP	MASP
13-5/8" 5M BOPE	7,108' TVD	3,078	1,500



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

Action 237985

CONDITIONS

Operator: SIMCOE LLC 1199 Main Ave., Suite 101 Durango, CO 81301	OGRID: 329736
	Action Number: 237985
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
ward.rikala	Notify OCD 24 hours prior to casing & cement	9/13/2023
ward.rikala	Will require a File As Drilled C-102 and a Directional Survey with the C-104	9/13/2023
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string	9/13/2023
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing	9/13/2023
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system	9/13/2023
ward.rikala	SIMCOE is currently out of compliance with NM OCD Rule 5.9. This well can not be produced until operator is in compliance.	9/13/2023