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.
[329782]

2. Name of Operator
[372165]

9. API Well No. **30-025-50328**

3a. Address

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

10. Field and Pool, or Exploratory **[96585]**

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
19423

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.

NGMP Rec 06/23/2022

07/11/2022 KZ

SL

APPROVED WITH CONDITIONS

(Continued on page 2)

*(Instructions on page 2)

Approval Date: 07/20/2021

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: 07/20/2021

Additional Operator Remarks

Location of Well

0. SHL: SWSW / 200 FSL / 330 FWL / TWSP: 20S / RANGE: 35E / SECTION: 12 / LAT: 32.581045 / LONG: -103.418275 (TVD: 0 feet, MD: 0 feet)

PPP: SWSW / 100 FSL / 330 FWL / TWSP: 20S / RANGE: 35E / SECTION: 12 / LAT: 32.580771 / LONG: -103.418274 (TVD: 9654 feet, MD: 9655 feet)

BHL: NWNW / 100 FNL / 330 FWL / TWSP: 20S / RANGE: 35E / SECTION: 1 / LAT: 32.609243 / LONG: -103.418303 (TVD: 10227 feet, MD: 20341 feet)

BLM Point of Contact

Name: Deborah Ham

Title: Legal Landlaw Examiner

Phone: (575) 234-5965

Email: dham@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.

PECOS DISTRICT
DRILLING CONDITIONS OF APPROVAL

OPERATOR'S NAME:	**Centennial Resources**
LEASE NO.:	**NMNM025369**
LOCATION:	Section 12, T.20 S., R.35 E., NMPM
COUNTY:	Lea County, New Mexico

WELL NAME & NO.:	**King Eider 12 Fed Com 501H**
SURFACE HOLE FOOTAGE:	200'/S & 330'/W
BOTTOM HOLE FOOTAGE	100'/N & 330'/W

COA

H2S	◉ Yes	○ No	
Potash	◉ None	○ Secretary	○ R-111-P
Cave/Karst Potential	◉ Low	○ Medium	○ High
Cave/Karst Potential	○ Critical		
Variance	○ None	◉ Flex Hose	○ Other
Wellhead	○ Conventional	◉ Multibowl	○ Both
Other	☐ 4 String Area	☑ Capitan Reef	☐ WIPP
Other	☑ Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	☐ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Yates -Seven Rivers** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Surface and Intermediate casings must be kept 1/3rd fluid filled to meet BLM minimum collapse requirement.

1. The **13-3/8** inch surface casing shall be set at approximately **2100** feet (a minimum of 25 feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

    a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature

survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.

b. Wait on cement (WOC) time for a primary cement job will be a minimum of **8 hours** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
d. If cement falls back, remedial cementing will be done prior to drilling out that string.

2. The minimum required fill of cement behind the **9-5/8** inch intermediate casing is:
   - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

❖ In Capitan Reef Areas if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.

❖ **Special Capitan Reef requirements.** If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
(Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based mud used across the capitan interval)

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.

- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The minimum required fill of cement behind the **5-1/2** inch production casing is:
   - Cement should tie-back at least **50 feet(5024 ft)** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst, potash or capitan reef.

C. PRESSURE CONTROL

1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).

2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **5000 (5M)** psi.

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
    e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Santa Fe Office, 301 Dinosaur Trail Santa Fe, New Mexico 87508, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

a. Spudding well (minimum of 24 hours)
b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
c. BOPE tests (minimum of 4 hours)

☒ Eddy County
Call the Carlsbad Field Office, 620 East Greene St., Carlsbad, NM 88220, (575) 361-2822

☒ Lea County
Call the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575) 393-3612

1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.

   a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
   b. When the operator proposes to set surface casing with Spudder Rig
      - Notify the BLM when moving in and removing the Spudder Rig.
      - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
      - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.

2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.

3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well – vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

 Approval Date: 07/20/2021

A. CASING

1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.

2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.

4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.

5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.

6. On that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.

7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.

2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.

3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.

4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:

    a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
    b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
    c. Manufacturer representative shall install the test plug for the initial BOP test.
    d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
    e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.

5. The appropriate BLM office shall be notified a minimum of 4 hours in advance for a representative to witness the tests.

    a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).

b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).

c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).

d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.

e. The results of the test shall be reported to the appropriate BLM office.

f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.

g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.

h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.
ZS041421

AFMSS

U.S. Department of the Interior
Bureau of Land Management

Application for Permit to Drill

APD Package Report

Date Printed:

APD ID:	Well Status:
APD Received Date:	Well Name:
Operator:	Well Number:

APD Package Report Contents

- Form 3160-3 : Error Generating Form

- Operator Certification Report

- Application Report
- Application Attachments
  -- Well Plat: 2 file(s)

- Drilling Plan Report
- Drilling Plan Attachments
  -- Blowout Prevention Choke Diagram Attachment: 1 file(s)
  -- Blowout Prevention BOP Diagram Attachment: 2 file(s)
  -- Casing Design Assumptions and Worksheet(s): 7 file(s)
  -- Hydrogen sulfide drilling operations plan: 1 file(s)
  -- Proposed horizontal/directional/multi-lateral plan submission: 1 file(s)
  -- Other Facets: 5 file(s)
  -- Other Variances: 1 file(s)

- SUPO Report
- SUPO Attachments
  -- Existing Road Map: 1 file(s)
  -- New Road Map: 1 file(s)
  -- Additional Attachment: 1 file(s)
  -- Attach Well map: 1 file(s)
  -- Production Facilities map: 2 file(s)
  -- Water source and transportation map: 1 file(s)
  -- Construction Materials source location attachment: 1 file(s)
  -- Well Site Layout Diagram: 2 file(s)
  -- Recontouring attachment: 1 file(s)
  -- Surface use plan certification document: 1 file(s)
  -- Other SUPO Attachment: 1 file(s)

- PWD Report

- PWD Attachments
  -- None

- Bond Report
- Bond Attachments
  -- None

AFMSS

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

Operator Certification Data Report

07/26/2021

Operator Certification

I hereby certify that I, or someone under my direct supervision, have inspected the drill site and access route proposed herein; that I am familiar with the conditions which currently exist; that I have full knowledge of state and Federal laws applicable to this operation; that the statements made in this APD package are, to the best of my knowledge, true and correct; and that the work associated with the operations proposed herein will be performed in conformity with this APD package and the terms and conditions under which it is approved. I also certify that I, or the company I represent, am responsible for the operations conducted under this application. These statements are subject to the provisions of 18 U.S.C. 1001 for the filing of false statements.

NAME: SARAH FERREYROS **Signed on:** 11/10/2020

Title: Sr. Regulatory Analyst

Street Address: 1001 17th Street, Suite 1800

City: Denver **State:** CO **Zip:** 80202

Phone: (720)499-1454

Email address: Sarah.Ferreyros@cdevinc.com

Field Representative

Representative Name:

Street Address:

City: **State:** **Zip:**

Phone:

Email address:

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

Application Data Report
07/26/2021

APD ID: 10400064893 **Submission Date:** 11/10/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - General

APD ID: 10400064893 **Tie to previous NOS?** N **Submission Date:** 11/10/2020

BLM Office: Carlsbad **User:** SARAH FERREYROS **Title:** Sr. Regulatory Analyst

Federal/Indian APD: FED **Is the first lease penetrated for production Federal or Indian?** FED

Lease number: NMNM025369 **Lease Acres:**

Surface access agreement in place? **Allotted?** **Reservation:**

Agreement in place? NO **Federal or Indian agreement:**

Agreement number:

Agreement name:

Keep application confidential? Y

Permitting Agent? NO **APD Operator:** CENTENNIAL RESOURCE PRODUCTION LLC

Operator letter of designation:

Operator Info

Operator Organization Name: CENTENNIAL RESOURCE PRODUCTION LLC

Operator Address: 1001 17th Street, Suite 1800

Zip: 80202

Operator PO Box:

Operator City: Denver **State:** CO

Operator Phone: (720)499-1400

Operator Internet Address:

Section 2 - Well Information

Well in Master Development Plan? EXISTING **Master Development Plan name:** King Eider 12 SWSW 1 Pad

Well in Master SUPO? **Master SUPO name:**

Well in Master Drilling Plan? **Master Drilling Plan name:**

Well Name: KING EIDER 12 FED COM **Well Number:** 501H **Well API Number:**

Field/Pool or Exploratory? Field and Pool **Field Name:** FIRST BONE SPRING **Pool Name:** WC-025 G-06 S203511G, BONE SPRING

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Is the proposed well in an area containing other mineral resources? NATURAL GAS,OIL

Is the proposed well in a Helium production area? N **Use Existing Well Pad?** N **New surface disturbance?**

Type of Well Pad: SINGLE WELL **Multiple Well Pad Name:** **Number:**

Well Class: HORIZONTAL **Number of Legs:** 1

Well Work Type: Drill

Well Type: OIL WELL

Describe Well Type:

Well sub-Type: INFILL

Describe sub-type:

Distance to town: 25 Miles **Distance to nearest well:** 0 FT **Distance to lease line:** 100 FT

Reservoir well spacing assigned acres Measurement: 321 Acres

Well plat: King_Eider_Lease_Breakout_C102_20201104153300.pdf

King_Eider_12_Fed_Com_501H_C102_20201108203003.pdf

Well work start Date: 06/01/2021 **Duration:** 45 DAYS

Section 3 - Well Location Table

Survey Type: RECTANGULAR

Describe Survey Type:

Datum: NAD83 **Vertical Datum:** NAVD88

Survey number: 23782 **Reference Datum:** GROUND LEVEL

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
SHL Leg #1	200	FSL	330	FWL	20S	35E	12	Aliquot SWSW	32.581045	-103.418275	LEA	NEW MEXICO	NEW MEXICO	S	STATE	3655	0	0	Y
KOP Leg #1	100	FSL	330	FWL	20S	35E	12	Aliquot SWSW	32.580771	-103.418274	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-5999	9655	9654	Y

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Wellbore	NS-Foot	NS Indicator	EW-Foot	EW Indicator	Twsp	Range	Section	Aliquot/Lot/Tract	Latitude	Longitude	County	State	Meridian	Lease Type	Lease Number	Elevation	MD	TVD	Will this well produce from this lease?
PPP Leg #1-1	100	FSL	330	FWL	20S	35E	12	Aliquot SWSW	32.580771	-103.418274	LEA	NEW MEXICO	NEW MEXICO	S	STATE	-5999	9655	9654	Y
EXIT Leg #1	100	FNL	330	FWL	20S	35E	1	Aliquot NWNW	32.609243	-103.418303	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 025369	-6572	20341	10227	Y
BHL Leg #1	100	FNL	330	FWL	20S	35E	1	Aliquot NWNW	32.609243	-103.418303	LEA	NEW MEXICO	NEW MEXICO	F	NMNM 025369	-6572	20341	10227	Y

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name

[4] Property Code	[5] Property Name	[6] Well Number
	KING EIDER 12 FED COM	501H
[7] OGRID No.	[8] Operator Name	[9] Elevation
	CENTENNIAL RESOURCE PRODUCTION, LLC	3655.3'

[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
M	12	20S	35E		200	SOUTH	330	WEST	LEA

[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
D	1	20S	35E	4	100	NORTH	330	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.56			

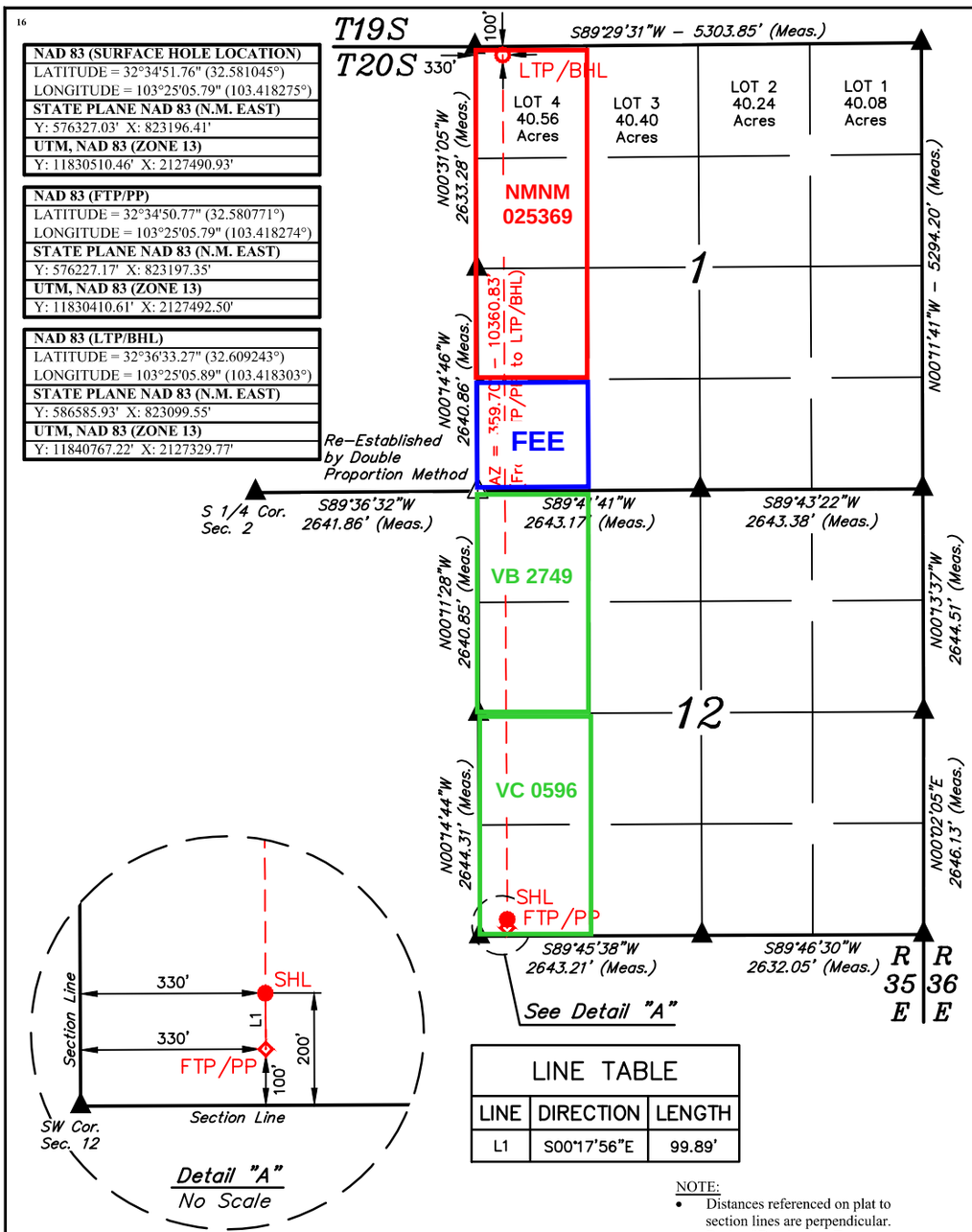
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°34'51.76" (32.581045°)
LONGITUDE = 103°25'05.79" (103.418275°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576327.03' X: 823196.41'
UTM, NAD 83 (ZONE 13)
Y: 11830510.46' X: 2127490.93'

NAD 83 (FTP/PP)
LATITUDE = 32°34'50.77" (32.580771°)
LONGITUDE = 103°25'05.79" (103.418274°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576227.17' X: 823197.35'
UTM, NAD 83 (ZONE 13)
Y: 11830410.61' X: 2127492.50'

NAD 83 (LTP/BHL)
LATITUDE = 32°36'33.27" (32.609243°)
LONGITUDE = 103°25'05.89" (103.418303°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 586585.93' X: 823099.55'
UTM, NAD 83 (ZONE 13)
Y: 11840767.22' X: 2127329.77'



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°17'56"E	99.89'

● = SURFACE HOLE LOCATION
◇ = FIRST TAKE POINT/ PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000' 1000' 0' 2000'

SCALE
DRAWN BY: D.P. 07-15-20
REV: 1 S.K. 09-16-20

[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.

JULY 07, 2020

Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

Certificate Number:

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
	96585	WC-025 G-06 S203511G; Bone Spring
[4] Property Code	[5] Property Name	[6] Well Number
	KING EIDER 12 FED COM	501H
[7] OGRID No.	[8] Operator Name	[9] Elevation
372165	CENTENNIAL RESOURCE PRODUCTION, LLC	3655.3'

[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
M	12	20S	35E		200	SOUTH	330	WEST	LEA

[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
D	1	20S	35E	4	100	NORTH	330	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.56			

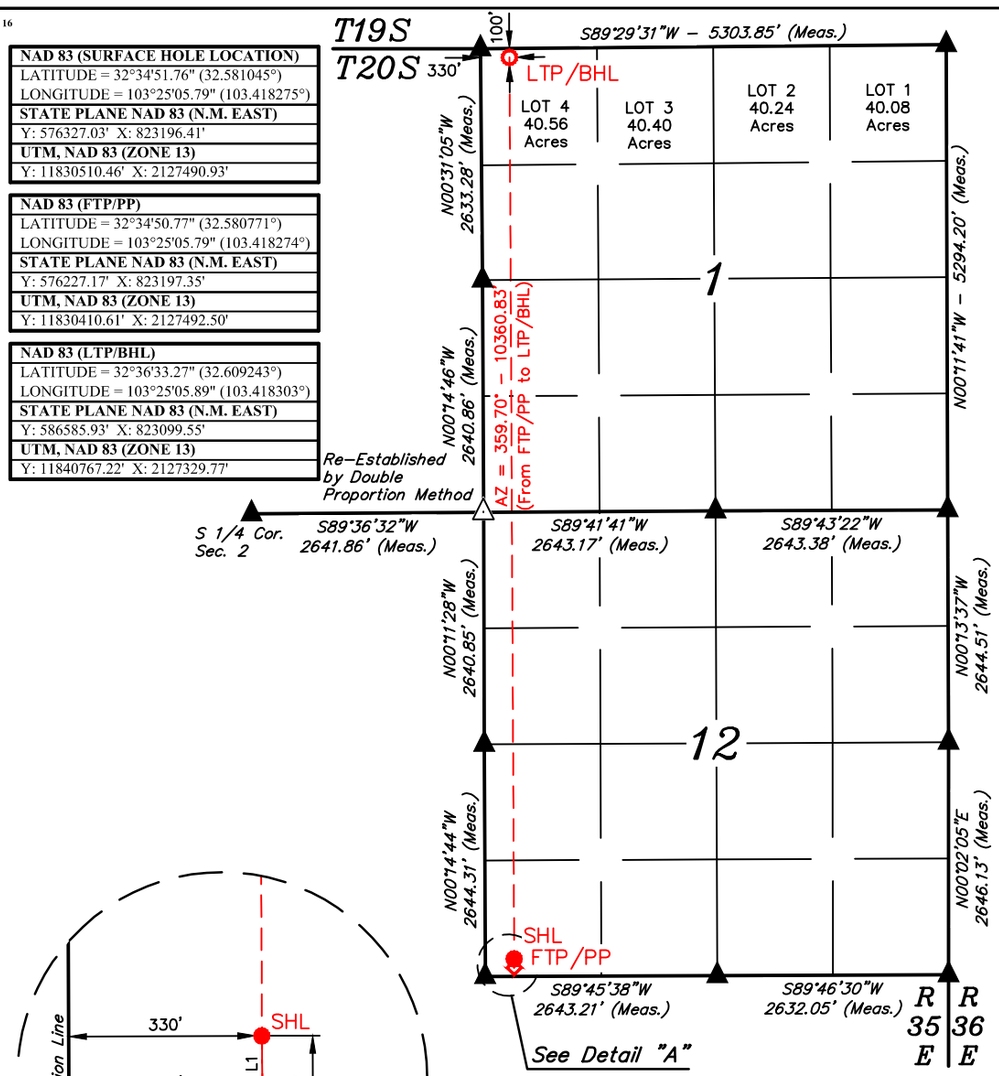
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

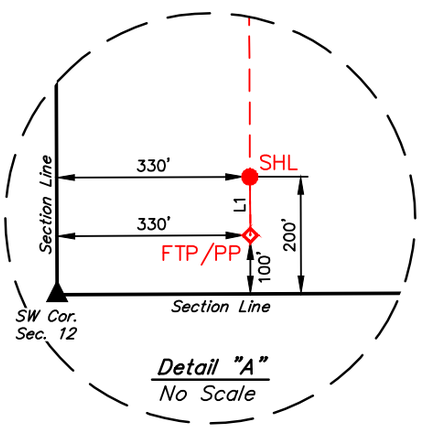
[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°34'51.76" (32.581045°)
LONGITUDE = 103°25'05.79" (103.418275°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576327.03' X: 823196.41'
UTM, NAD 83 (ZONE 13)
Y: 11830510.46' X: 2127490.93'

NAD 83 (FTP/PP)
LATITUDE = 32°34'50.77" (32.580771°)
LONGITUDE = 103°25'05.79" (103.418274°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576227.17' X: 823197.35'
UTM, NAD 83 (ZONE 13)
Y: 11830410.61' X: 2127492.50'

NAD 83 (LTP/BHL)
LATITUDE = 32°36'33.27" (32.609243°)
LONGITUDE = 103°25'05.89" (103.418303°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 586585.93' X: 823099.55'
UTM, NAD 83 (ZONE 13)
Y: 11840767.22' X: 2127329.77'





LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°17'56"E	99.89'

● = SURFACE HOLE LOCATION
◇ = FIRST TAKE POINT/ PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000' 1000' 0' 2000'

SCALE
DRAWN BY: D.P. 07-15-20
REV: 1 S.K. 09-16-20

[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

Sarah Ferreyros
Printed Name

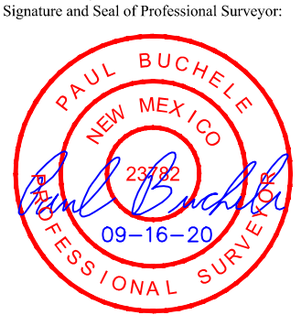
sarah.ferreyros@cdevinc.com
E-mail Address

[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.

JULY 07, 2020
Date of Survey

Signature and Seal of Professional Surveyor:



Certificate Number:

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

Drilling Plan Data Report
07/26/2021

APD ID: 10400064893 **Submission Date:** 11/10/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Geologic Formations

Formation ID	Formation Name	Elevation	True Vertical Depth	Measured Depth	Lithologies	Mineral Resources	Producing Formation
1133598	RUSTLER	344	2025	2025	SANDSTONE	NONE	N
1133599	SALADO	-2025	2369	2369	ANHYDRITE, SALT	USEABLE WATER	N
1133601	YATES	-3364	3708	3708	SANDSTONE	NATURAL GAS, OIL	N
1133600	SEVEN RIVERS	-3375	3719	3719	SHALE	USEABLE WATER	N
2918722	CAPITAN REEF	-4728	5072	5072	OTHER : Carbonate	USEABLE WATER	N
1133602	CHERRY CANYON	-5274	5618	5618	SANDSTONE	NATURAL GAS, OIL	N
1133603	BRUSHY CANYON	-6331	6675	6675	SANDSTONE	NATURAL GAS, OIL	N
1133604	BONE SPRING LIME	-7690	8034	8034	OTHER : Carbonate	NATURAL GAS, OIL	N
1133605	AVALON SAND	-7895	8239	8239	SHALE	CO2, NATURAL GAS, OIL	N
1133606	FIRST BONE SPRING SAND	-8922	9266	9266	SANDSTONE	NATURAL GAS, OIL	Y
2918723	BONE SPRING 2ND	-9197	9541	9541	OTHER, SHALE : Carbonate	NATURAL GAS, OIL	N

Section 2 - Blowout Prevention

Pressure Rating (PSI): 5M **Rating Depth:** 9306

Equipment: The BOP and related equipment will meet or exceed the requirements of a 5M-psi system as set forth in On Shore Order No. 2. See attached BOP Schematic. A. Casinghead: 13 5/8 5,000 psi SOW x 13 5,000 psi WP Intermediate Spool: 13 5,000 psi WP x 11 5,000 psi WP Tubinghead: 11 5,000 psi WP x 7 1/16" 15,000 psi WP B. Minimum Specified Pressure Control Equipment Annular preventer One Pipe ram, One blind ram Drilling spool, or blowout preventer with 2 side outlets. Choke side will be a 3-inch minimum diameter, kill line shall be at least 2-inch diameter 3 inch diameter choke line 2 3 inch choke line valves 2 inch kill line 2 chokes with 1 remotely controlled from rig floor (see Figure 2) 2 2 inch kill line valves and a check valve Upper kelly cock valve with handle available When the expected pressures approach working pressure of the system, 1 remote kill line tested to stack pressure (which shall run to the outer edge of the substructure and be unobstructed) Lower kelly cock valve with handle available Safety valve(s) and subs to fit all drill string connections in use Inside BOP or float sub available Pressure gauge on choke manifold All BOPE connections subjected to well pressure shall be flanged, welded, or clamped Fill-up line above the uppermost preventer. C. Auxiliary Equipment Audio and visual mud

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

monitoring equipment shall be placed to detect volume changes indicating loss or gain of circulating fluid volume. (OOS 1, III.C.2) Gas Buster will be used below intermediate casing setting depth. Upper and lower kelly cocks with handles, safety valve and subs to fit all drill string connections and a pressure gauge installed on choke manifold.

Requesting Variance? NO

Variance request:

Testing Procedure: The BOP test shall be performed before drilling out of the surface casing shoe and will occur at a minimum: a. when initially installed b. whenever any seal subject to test pressure is broken c. following related repairs d. at 30 day intervals e. checked daily as to mechanical operating conditions. The ram type preventer(s) will be tested using a test plug to 250 psi (low) and 5,000 psi (high) (casinghead WP) with a test plug upon its installation onto the 13 surface casing. If a test plug is not used, the ram type preventer(s) shall be tested to 70% of the minimum internal yield pressure of the casing. The annular type preventer(s) shall be tested to 3500 psi. Pressure will be maintained for at least 10 minutes or until provisions of the test are met, whichever is longer. A Sundry Notice (Form 3160 5), along with a copy of the BOP test report, shall be submitted to the local BLM office within 5 working days following the test. If the bleed line is connected into the buffer tank (header), all BOP equipment including the buffer tank and associated valves will be rated at the required BOP pressure. The BLM office will be provided with a minimum of four (4) hours notice of BOP testing to allow witnessing. The BOP Configuration, choke manifold layout, and accumulator system, will be in compliance with Onshore Order 2 for a 5,000 psi system. A remote accumulator will be used. Pressures, capacities, and specific placement and use of the manual and/or hydraulic controls, accumulator controls, bleed lines, etc., will be identified at the time of the BLM 'witnessed BOP test. Any remote controls will be capable of both opening and closing all preventers and shall be readily accessible.

Choke Diagram Attachment:

HP_10M_Choke_Manifold_20201108204731.pdf

BOP Diagram Attachment:

CDEV_Well_Control_Plan_Bonesprings_20201108204801.pdf

HP_BOP_Schematic_CoFlex_Choke_10K_20201108204858.pdf

Section 3 - Casing

Casing ID	String Type	Hole Size	Csg Size	Condition	Standard	Tapered String	Top Set MD	Bottom Set MD	Top Set TVD	Bottom Set TVD	Top Set MSL	Bottom Set MSL	Calculated casing length MD	Grade	Weight	Joint Type	Collapse SF	Burst SF	Joint SF Type	Joint SF	Body SF Type	Body SF
1	CONDUCTOR	26	20.0	NEW	API	N	0	120	0	120	3655	3535	120	H-40	94	OTHER - weld						
2	SURFACE	17.5	13.375	NEW	API	N	0	2100	0	2100	3655	1555	2100	J-55	54.5	OTHER - BTC	1.09	14.97	DRY	7.45	DRY	7.45
3	INTERMEDIATE	12.25	9.625	NEW	API	N	0	5500	0	5496	3468	-1841	5500	J-55	40	LT&C	1.27	8.28	DRY	2.37	DRY	2.87
4	PRODUCTION	8.75	5.5	NEW	API	N	0	9637	0	9306	3468	-5651	9637	OTHER	23	OTHER - DQX	2.67	15.52	DRY	2.62	DRY	2.94
5	PRODUCTION	8.5	5.5	NEW	API	N	9637	19423	9306	9306	-5651	-5651	9786	OTHER	23	OTHER - DQX	2.67	15.52	DRY	2.62	DRY	2.94

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Casing Attachments

Casing ID: 1 **String Type:** CONDUCTOR

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

Casing ID: 2 **String Type:** SURFACE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20201108205333.pdf

Casing ID: 3 **String Type:** INTERMEDIATE

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20201101222024.pdf

Technical_Data_Sheet_5.5in_x_20_P110RY_20201108210245.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Casing Attachments

Casing ID: 4 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20201101221404.pdf

Technical_Data_Sheet_TMK_UP_DQX_5.5_x_23_T95_20210325101520.pdf

Casing ID: 5 **String Type:** PRODUCTION

Inspection Document:

Spec Document:

Tapered String Spec:

Casing Design Assumptions and Worksheet(s):

CASING_ASSUMPTIONS_WORKSHEET_20201101221651.pdf

Technical_Data_Sheet_TMK_UP_DQX_5.5_x_23_T95_20210325101656.pdf

Section 4 - Cement

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
PRODUCTION	Lead		0	0	0	0	0	0	0	0	0
CONDUCTOR	Lead		0	120	121	1.49	12.9	181	0	Grout	Bentonite 4% BWOC, Cellophane #/sx, CaCl2 2% BWOC.

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

String Type	Lead/Tail	Stage Tool Depth	Top MD	Bottom MD	Quantity(sx)	Yield	Density	Cu Ft	Excess%	Cement type	Additives
SURFACE	Lead		0	1600	1277	1.74	13.5	2223	100	Class C Premium	Premium Gel Bentonite 4%, C-45 Econolite 0.25%, Phenoseal 0.25#/sk, CaCl 1%, Defoamer C-41P 0.75%
SURFACE	Tail		1600	2100	518	1.34	14.8	695	100	Class C Premium	C-45 Econolite 0.10%, CaCl 1.0%
INTERMEDIATE	Lead		0	5000	1214	3.44	10.7	4175	150	TX Lightweight	Salt 1.77/sk, C-45 Econolite 2.25%, STE 6.00%, Citric Acid 0.18%, C-19 0.10%, CSA-1000 0.20%, C-530P 0.30%, CTB-15 LCM 7#/sk, Gyp Seal 8#/sk
INTERMEDIATE	Tail		5000	5500	141	1.33	14.8	188	20	Class C Premium	C-45 Econolite 0.10%, Citric acid 0.05%, C503P 0.25%
PRODUCTION	Lead		0	8737	858	3.41	10.6	2927	30	TXI Lightweight	Salt 8.98#/sk, STE 6.00%, Citric acid 0.20%, CSA-1000 0.23%, C47B 0.10%, C-503P 0.30%
PRODUCTION	Tail		8737	19423	2489	1.24	14.2	3086	25	50:25:25 Class H: Poz: CPO18	Citric acid 0.03%, CSA-1000 0.05%, C47B 0.25%, C-503P 0.30%

Section 5 - Circulating Medium

Mud System Type: Closed

Will an air or gas system be Used? NO

Description of the equipment for the circulating system in accordance with Onshore Order #2:

Diagram of the equipment for the circulating system in accordance with Onshore Order #2:

Describe what will be on location to control well or mitigate other conditions: Sufficient quantities of mud materials will be on the well site at all times for the purpose of assuring well control and maintaining wellbore integrity. Surface interval will employ fresh water mud. The intermediate hole will utilize a diesel emulsified brine fluid to inhibit salt washout and prevent severe fluid losses. The production hole will employ oil base fluid to inhibit formation reactivity and of the appropriate density to maintain well control.

Describe the mud monitoring system utilized: Centrifuge separation system. Open tank monitoring with EDR will be used for drilling fluids and return volumes. Open tank monitoring will be used for cement and cuttings return volumes. Mud properties will be monitored at least every 24 hours using industry accepted mud check practices.

Circulating Medium Table

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Top Depth	Bottom Depth	Mud Type	Min Weight (lbs/gal)	Max Weight (lbs/gal)	Density (lbs/cu ft)	Gel Strength (lbs/100 sqft)	PH	Viscosity (CP)	Salinity (ppm)	Filtration (cc)	Additional Characteristics
0	2100	OTHER : FW	8.6	9.5							
2100	5500	OTHER : Brine	9	10							
5500	19423	OTHER : Brine/OBM	8.8	10							

Section 6 - Test, Logging, Coring

List of production tests including testing procedures, equipment and safety measures:

Will utilize MWD (Gamma Ray logging) from intermediate hole to TD of the well.

List of open and cased hole logs run in the well:

DIRECTIONAL SURVEY,GAMMA RAY LOG,

Coring operation description for the well:

N/A

Section 7 - Pressure

Anticipated Bottom Hole Pressure: 5318 **Anticipated Surface Pressure:** 3068

Anticipated Bottom Hole Temperature(F): 170

Anticipated abnormal pressures, temperatures, or potential geologic hazards? NO

Describe:

Contingency Plans geoharzards description:

Contingency Plans geohazards attachment:

Hydrogen Sulfide drilling operations plan required? YES

Hydrogen sulfide drilling operations plan:

H2S_Plan_King_Eider_12_Fed_Com_501H_20201108211637.pdf

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Section 8 - Other Information

Proposed horizontal/directional/multi-lateral plan submission:

KING_EIDER_12_FED_COM_501H_DIRECTIONAL_PLAN_20201108211832.pdf

Other proposed operations facets description:

Gas Capture, WBD, Geo prog attached.

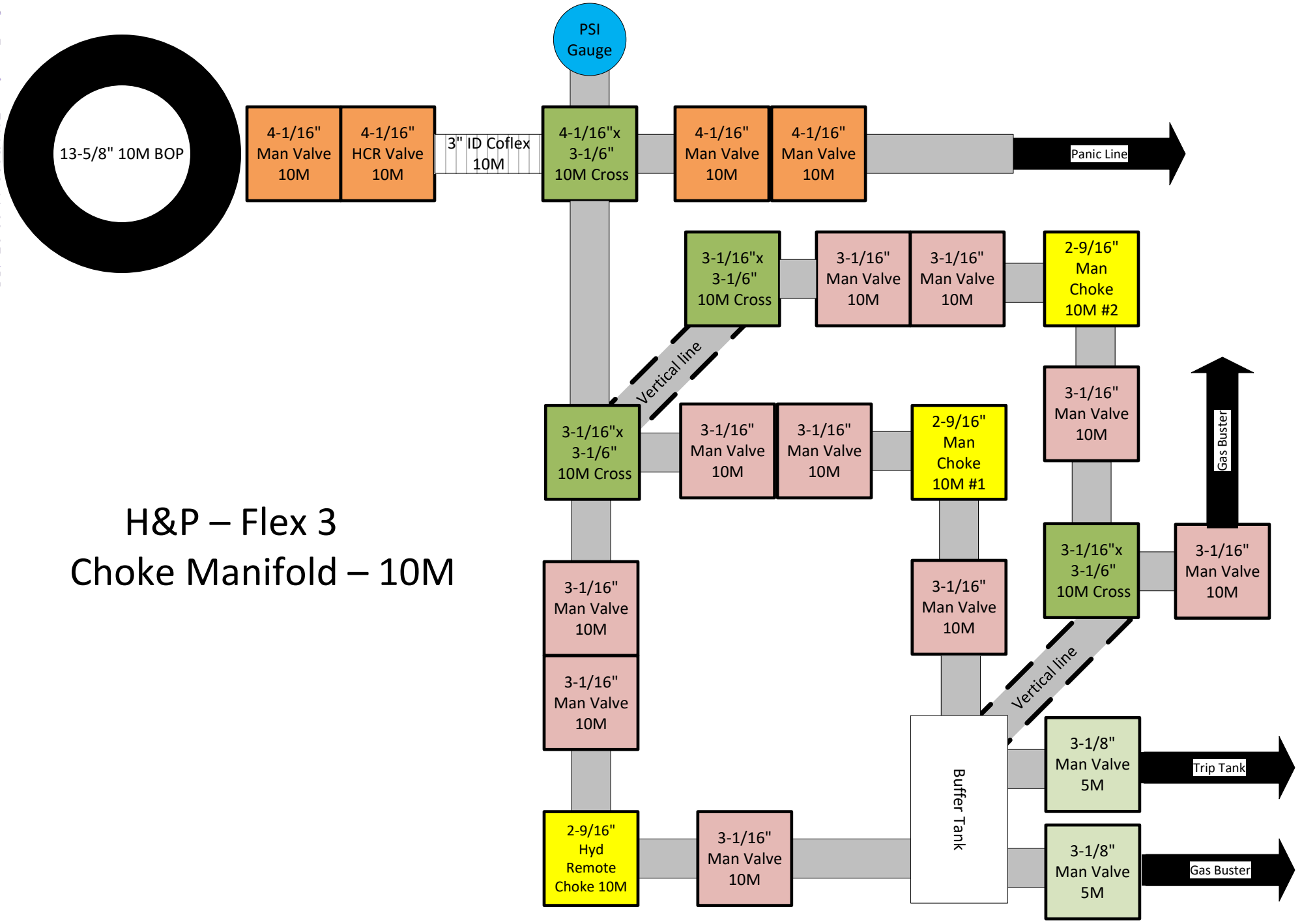
Other proposed operations facets attachment:

King_Eider_501H_Gas_Capture_Plan_20201110113340.pdf
GEOPROG_King_Eider_12_Fed_Com_501H_PRELIM_20210325103022.pdf
King_Eider_12_Fed_Com_501H___Plan_1_03_04_21_AC_Report_20210325103022.pdf
King_Eider_12_Fed_Com_501H___Plan_1_03_04_21_20210325103022.pdf
King_Eider_12_Fed_Com_501H_WBD__Proposed__20210325103030.pdf

Other Variance attachment:

HP_Flex_Hose_Specs_Continental_Hose_SN_67255_20201108213557.pdf

H&P – Flex 3
Choke Manifold – 10M



Centennial Resource Development - Well Control Plan

A. Component and Preventer Compatibility Table

Component	OD (inches)	Preventer	RWP
Drillpipe	5	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Heavyweight Drillpipe	5	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
Drill collars and MWD tools	6 ¾	Annular	5M
Mud Motor	6 ¾	Annular	5M
Production Casing	5-1/2	Upper VBR: 3.5 – 5.5 Lower VBR: 3.5 – 5.5	10M
All	0 – 13 5/8	Annular	5M
Open-hole	-	Blind rams	10M

VBR = Variable Bore Rams

RWP = Rated Working Pressure

MWD = Measurement While Drilling (directional tools)

B. Well Control Procedures

I. General Procedures While Drilling:

1. Sound alarm (alert crew).
2. Space out drill-string.
3. Shut down pumps and stop rotary.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record
    - I. Shut-in drillpipe pressure (SIDPP) and shut-in casing pressure (SCIP).
    - II. Pit gain
    - III. Time
11. Regroup, identify forward plan

II. General Procedure While Tripping

1. Sound alarm (alert crew).
2. Stab full opening safety valve and close
3. Space out drillstring.
4. Open HCR
5. Shut-in well – utilizing upper VBRs
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
11. Regroup and identify forward plan.

III. General Procedure While Running Casing

1. Sound alarm (alert crew)
2. Stab full opening safety valve and close
3. Space out string.
4. Open HCR
5. Shut-in well – utilizing upper VBRs.
6. Close choke
7. Confirm shut-in.
8. Notify rig manager and Centennial company representative.
9. Call Centennial drilling engineer
10. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
11. Regroup and identify forward plan.

IV. General Procedure With No Pipe In Hole (Open Hole)

1. Sound alarm (alert crew)
2. Open HCR
3. Shut-in with blind rams
4. Close choke
5. Confirm shut-in
6. Notify rig manager and Centennial company representative.
7. Call Centennial drilling engineer
8. Read and record:
    I. SIDPP AND SICP
    II. Pit gain
    III. Time
9. Regroup and identify forward plan.

V. General Procedures While Pulling BHA Thru BOP Stack

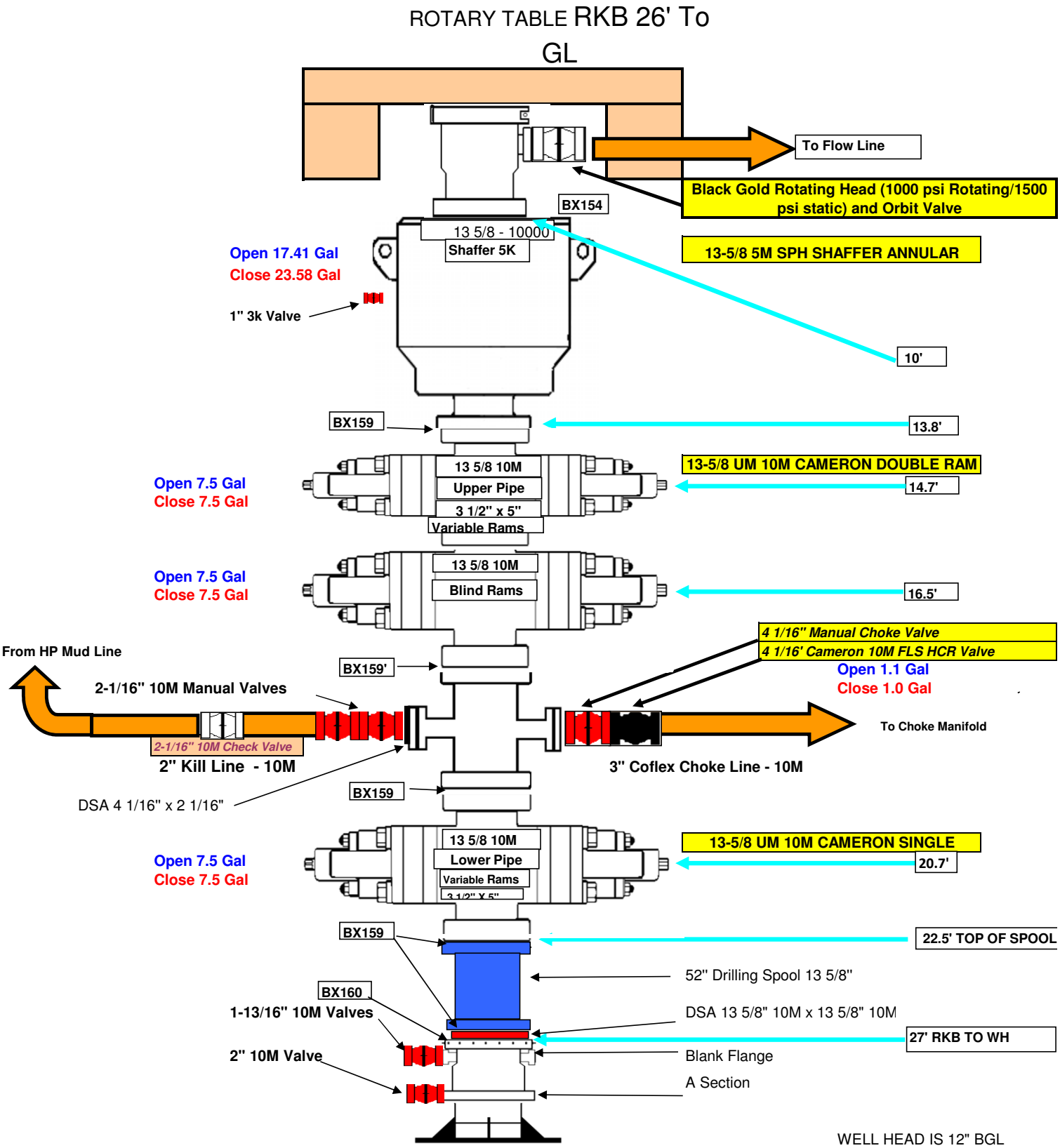
1. **Prior to pulling last joint of drillpipe thru stack**:
   - I. Perform flow check, if flowing
     - a. Sound alarm, alert crew
     - b. Stab full opening safety valve and close
     - c. Space out drillstring with tool joint just beneath the upper pipe ram.
     - d. Open HCR
     - e. Shut-in utilizing upper VBRs
     - f. Close choke
     - g. Confirm shut-in
     - h. Notify rig manager and Centennial company representative.
     - i. Call Centennial drilling engineer
     - j. Read and record:
       - i. SIDPP and SICP
       - ii. Pit gain
       - iii. Time
   - II. Regroup and identify forward plan

2. **With BHA in the BOP stack and compatible ram preventer and pipe combo immediately available**:
   - a. Sound alarm, alert crew
   - b. Stab full opening safety valve and close
   - c. Space out drillstring with tool joint just beneath the upper pipe ram.
   - d. Open HCR
   - e. Shut-in utilizing upper VBRs
   - f. Close choke
   - g. Confirm shut-in
   - h. Notify rig manager and Centennial company representative.
   - i. Call Centennial drilling engineer
   - j. Read and record:
     - i. SIDPP and SICP
     - ii. Pit gain
     - iii. Time
   - II. Regroup and identify forward plan

3. **With BHA in the BOP stack and no compatible ram preventer and pipe combo immediately availiable**:
    I. Sound alarm, alert crew.
    II. If possible to pick up high enough, pull string clear of the stack and follow Open Hole (III) scenario.
    III. If impossible to pick up high enough to pull the string clear of the stack:
        a. Stab crossover, make up one joint/stand of drill pipe and full opening safety valve and close.
        b. Space out drillstring with tool joint just beneath the upper pipe ram.
        c. Open HCR
        d. Shut-in utilizing upper VBRs.
        e. Close choke
        f. Confirm shut-in
        g. Notify rig manager and Centennial company representative.
        h. Call Centennial drilling engineer
        i. Read and record:
            i. SIDPP and SICP
            ii. Pit gain
            iii. Time
    IV. Regroup and identify forward plan.

** **If annular is used to shut-in well and pressure builds to OR is expected to get to 50% of RWP, confirm space-out and swap to upper VBRs for shut-in.**

H&P-Flex3


ROTARY TABLE RKB 26' To GL
To Flow Line
Black Gold Rotating Head (1000 psi Rotating/1500 psi static) and Orbit Valve
BX154
13 5/8 - 10000
Shaffer 5K
13-5/8 5M SPH SHAFFER ANNULAR
Open 17.41 Gal
Close 23.58 Gal
1" 3k Valve
10'
BX159
13.8'
13 5/8 10M
Upper Pipe
3 1/2" x 5"
Variable Rams
13-5/8 UM 10M CAMERON DOUBLE RAM
14.7'
Open 7.5 Gal
Close 7.5 Gal
13 5/8 10M
Blind Rams
16.5'
Open 7.5 Gal
Close 7.5 Gal
4 1/16" Manual Choke Valve
4 1/16' Cameron 10M FLS HCR Valve
Open 1.1 Gal
Close 1.0 Gal
From HP Mud Line
BX159'
2-1/16" 10M Manual Valves
To Choke Manifold
2-1/16" 10M Check Valve
2" Kill Line - 10M
3" Coflex Choke Line - 10M
DSA 4 1/16" x 2 1/16"
BX159
13 5/8 10M
Lower Pipe
Variable Rams
3 1/2" X 5"
13-5/8 UM 10M CAMERON SINGLE
20.7'
Open 7.5 Gal
Close 7.5 Gal
BX159
22.5' TOP OF SPOOL
52" Drilling Spool 13 5/8"
BX160
1-13/16" 10M Valves
DSA 13 5/8" 10M x 13 5/8" 10M
27' RKB TO WH
2" 10M Valve
Blank Flange
A Section
WELL HEAD IS 12" BGL

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

  No freshly hard banded pipe will be rotated in the surface casing

  - CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

No freshly hard banded pipe will be rotated in the surface casing

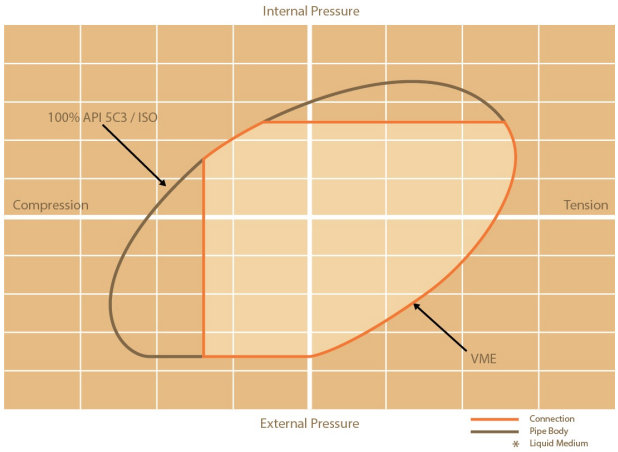
- CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

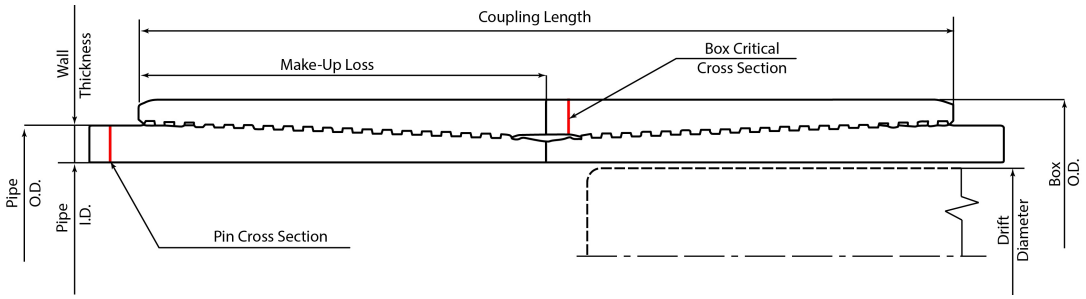
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.415
Pipe Grade	T95
Coupling	Regular
Coupling Grade	T95
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	6.050
Connection ID, (inch)	4.670
Make-Up Loss, (inch)	4.122
Connection Critical Area, (sq inch)	8.722
Yield Strength in Tension, (klbs)	630
Yeld Strength in Compression, (klbs)	630
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	12 540
Collapse Pressure, (psi)	12 930
Uniaxial Bending (deg/100ft)	79.0

MAKE-UP TORQUES	
Minimum Make-Up Torque, (ft-lb)	12 200
Optimum Make-Up Torque, (ft-lb)	13 600
Maximum Make-Up Torque, (ft-lb)	14 900
Operating Torque, (ft-lb)	18 500
Yield Torque, (ft-lb)	21 800

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	22.54
Nominal Weight, (lbs/ft)	23.00
Nominal ID, (inch)	4.670
Drift Diameter, (inch)	4.545
Nominal Pipe Body Area, (sq inch)	6.630
Yield Strength in Tension, (klbs)	630
Min. Internal Yield Pressure, (psi)	12 540
Collapse Pressure, (psi)	12 930
Minimum Yield Strength, (psi)	95 000
Minimum Tensile Strength, (psi)	105 000





Print date: 03/28/2019 18:35

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

  No freshly hard banded pipe will be rotated in the surface casing

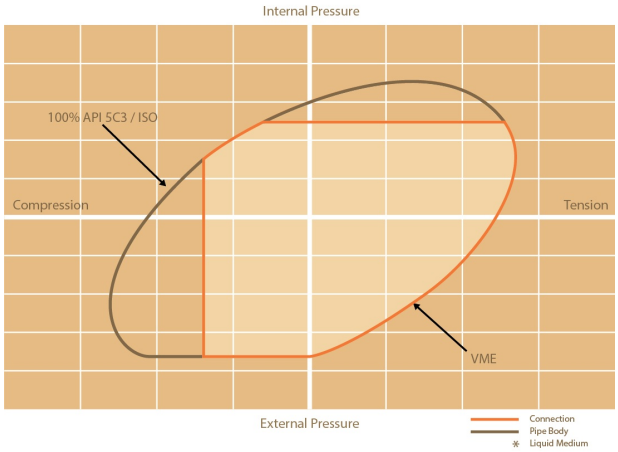
  - CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

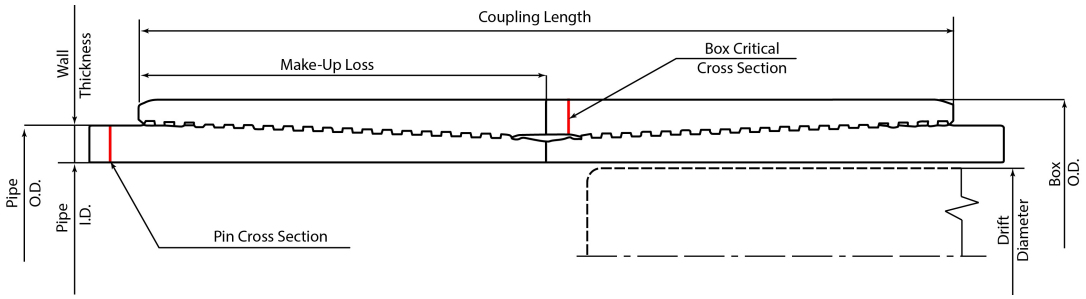
TUBULAR PARAMETERS	
Nominal OD, (inch)	5.500
Wall Thickness, (inch)	0.415
Pipe Grade	T95
Coupling	Regular
Coupling Grade	T95
Drift	Standard

CONNECTION PARAMETERS	
Connection OD (inch)	6.050
Connection ID, (inch)	4.670
Make-Up Loss, (inch)	4.122
Connection Critical Area, (sq inch)	8.722
Yield Strength in Tension, (klbs)	630
Yeld Strength in Compression, (klbs)	630
Tension Efficiency	100%
Compression Efficiency	100%
Min. Internal Yield Pressure, (psi)	12 540
Collapse Pressure, (psi)	12 930
Uniaxial Bending (deg/100ft)	79.0

MAKE-UP TORQUES	
Minimum Make-Up Torque, (ft-lb)	12 200
Optimum Make-Up Torque, (ft-lb)	13 600
Maximum Make-Up Torque, (ft-lb)	14 900
Operating Torque, (ft-lb)	18 500
Yield Torque, (ft-lb)	21 800

PIPE BODY PROPERTIES	
PE Weight, (lbs/ft)	22.54
Nominal Weight, (lbs/ft)	23.00
Nominal ID, (inch)	4.670
Drift Diameter, (inch)	4.545
Nominal Pipe Body Area, (sq inch)	6.630
Yield Strength in Tension, (klbs)	630
Min. Internal Yield Pressure, (psi)	12 540
Collapse Pressure, (psi)	12 930
Minimum Yield Strength, (psi)	95 000
Minimum Tensile Strength, (psi)	105 000





Print date: 03/28/2019 18:35

CASING ASSUMPTIONS WORKSHEET:

Centralizer Program:

Surface: - 3 welded bow spring centralizers, one on each of the bottom 3 joints, plus one on the shoe joint (4 minimum)
- No Cement baskets will be run

Production: - 1 welded bow spring centralizer on a stop ring 6' above float shoe
- 1 centralizer every other joint to the top of the tail cement
- 1 centralizer every 4 joints to 500' below the top of the lead cement
- The actual number and placement of centralizers will be determined from hole deviation and potential production zones. Centralizers will be run for maximum practical standoff and through all potential productive zones.

- All casing strings below the conductor shall be tested, prior to drilling out the casing shoe, to 0.22 psi/ft of casing string length or 1500 psi, whichever is greater, but not to exceed 70% of the internal yield pressure of the casing. If pressure declines more than 10 percent in 30 minutes, corrective action will be taken.

  No freshly hard banded pipe will be rotated in the surface casing

  - CENTENNIAL RESOURCE DEVELOPOMENT will not employ an air-drill rig for the surface casing. The casing shoe will be tested by drilling 5'-10' out from under the shoe and pressure testing to the maximum expected mud weight equivalent as shown in the mud program listed in the drilling plan.

HOUSTON INTERNATIONAL SPECIALTY, INC
PREMIUM CONNECTIONS

Size	5.5
Grade	P110 RY
Weight	20

TCBC-HT

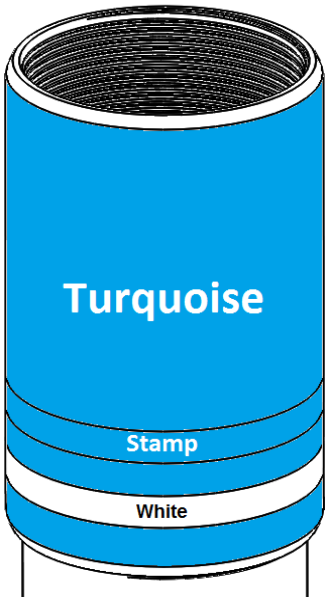
SeAH Steel

	Coupling and Pipe Dimensions (in)					
	Outer Diameter	Inner Diameter	Coupling Length	Make-up Loss	Wall Thickness	Drift Diameter
Coupling	6.300	5.383	8.250	4.125	0.361	4.653
Pipe		4.778				
Pin		4.778				

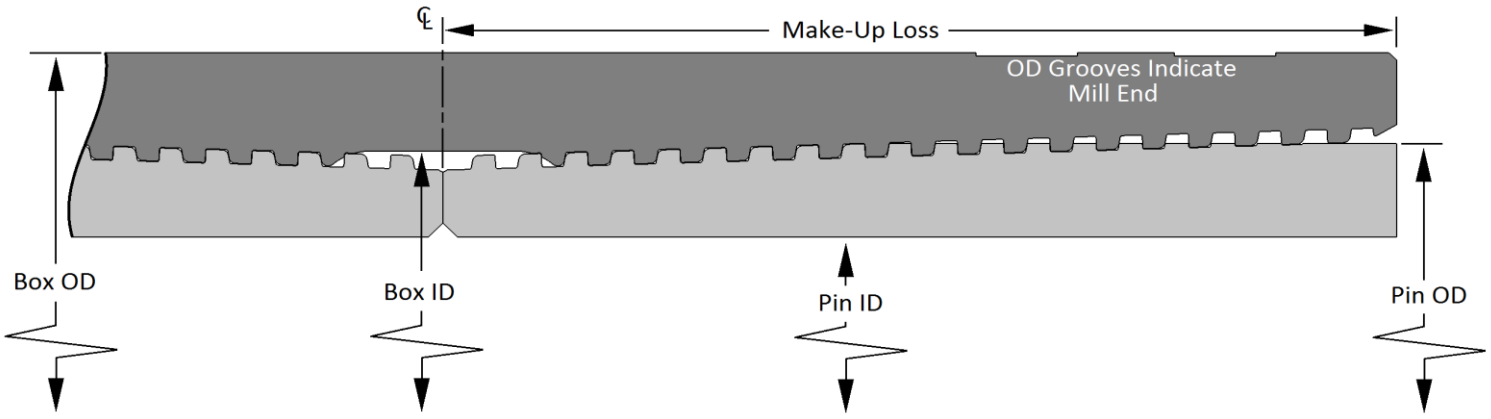
Torque Values (ft-lbs)				
Field End Make-Up			Max. Working Torque [1.]	Yield Torque
Minimum	Optimum [2.]	Maximum		
10,000	13,500	18,500	22,250	25,200

Yield Stress (x1000 lbs.)	
Tensile	Compressive
100%	100%

Maximum Pressure (psi)	
Internal	External
100%	100%



[1.] Max. Working Torque value is not to be exceeded during operation.
[2.] If Optimum Torque does not meet the Base of Triangle Stamp, M/U to the Base of Triangle.



*Data are for information purposes only. Though HIS has made efforts to ensure accuracy, HIS makes no warranty for loss or damage due to its use.

Rev 0

19996 Hickory Twig Way Spring, TX 77388
Phone: (281) 602-7550
Fax: (281) 602-7557

SeAH

5.5" 20# .361" P-110 Restricted Yield (RY)

Dimensions (Nominal)

Outside Diameter	5.500	in.
Wall	0.361	in.
Inside Diameter	4.778	in.
Drift	4.653	in.
Weight, T&C	20.000	lbs/ft
Weight, PE	19.830	lbs/ft

Performance Properties (Minimum)

Minimum Yield Strength	110000	psi
Maximum Yield Strength	125000	psi
Collapse, PE	11100	psi
Internal Yield Pressure		
PE	12630	psi
LTC	12360	psi
BTC	12360	psi
Yield Strength, Pipe Body	641	1000 lbs
Joint Strength		
LTC	548	1000 lbs
BTC	667	1000 lbs

HYDROGEN SULFIDE CONTINGENCY PLAN

King Eider 12 Federal Com 501H

Section 12

T 20S R 35E

Lea County, NM

Initial Date: 3/4/18

Revision Date:

Table of Contents

INTRODUCTION

This plan specifies precautionary measures, safety equipment, emergency procedures, responsibilities, duties, and the compliance status pertaining to the production operations of Hydrogen Sulfide producing wells on:

Centennial Resource Development, Inc.

This plan will be in full effect prior to and continuing with all drilling operations for all wells producing potential Hydrogen Sulfide on the

King Eider 12 Federal Com 501H

This plan was developed in response to the potential hazards involved when producing formations that may contain Hydrogen Sulfide (H_2S) It has been written in compliance with current New Mexico Oil Conservation Division Rule 118 and Bureau of Land Management 43 CFR 3160 Onshore Order No. 6.

All personnel shall receive proper H2S training in accordance with Onshore Order III.C.3.a

This plan shall require the full cooperation and efforts of all individuals participating in the production of potential H_2S wells.

Each individual is required to know their assigned responsibilities and duties in regard to normal production operations and emergency procedures.

Each person should thoroughly understand and be able to use all safety related equipment on the production facility.

Each person should become familiar with the location of all safety equipment and become involved in ensuring that all equipment is properly stored, easily accessible, and routinely maintained.

An ongoing training program will remain in effect with regular training, equipment inspections, and annual certifications for all personnel.

Centennial Resource Development, Inc. shall make every reasonable effort to provide all possible safeguards to protect all personnel, both on this location and in the immediate vicinity, from the harmful effects of H_2S exposure, if a release to the atmosphere should occur.

DIRECTIONS TO LOCATION

King Eider Federal Com 501H

Section 12

T 20S R 35E

Lea County, NM

BEGINNING AT THE JUNCTION OF MAIN ST. & NM-176 IN EUNICE, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY, THEN NORTHWESTERLY, DIRECTION ALONG NM-176 APPROXIMATELY 16.6 MILES TO THE JUNCTION OF THIS ROAD AND AN
EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 2.1 MILES TO THE JUNCTION OF
THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN WESTERLY, THEN
NORTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION
OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT
AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2
MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE
NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY THEN EASTERLY
THEN NORTHERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT
AND PROCEED APPROXIMATELY 0.2 MILES TO AN EXISTING WELL PAD AND
THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW
ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 67' TO THE
PROPOSED LOCATION.

TOTAL DISTANCE FROM EUNICE, NEW MEXICO TO THE PROPOSED WELL
LOCATION IS APPROXIMATELY 24.9 MILES.

SAFE BRIEFING AREAS

Two areas will be designated as “SAFE BRIEFING AREAS”.

The Primary Safe Briefing Area

If the Primary Safe Briefing Area cannot be used due to wind conditions; the designated secondary safe briefing area will be used.

These two areas are so designated for accessibility reasons related to self-contained safe breathing air device locations, evacuation muster point utility, and for ease of overall communication, organizational support, as well as the all-important prevailing wind directions. Drawings of the facility denoting these locations are included on Page 15.

If H_2S is detected in concentrations equal to or in excess of 15 PPM, all personnel not assigned emergency duties are to assemble in the appropriate “SAFE BRIEFING AREA” for instructions.

Wind Direction Indicators: A windsock, shall be positioned, allowing the wind direction to be observed from anywhere on the charted facility location.

Warning-DANGER SIGNS for Approaching Traffic: All signs shall also be illuminated under conditions of poor visibility.

DANGER
POISONOUS GAS
HYDROGEN SULFIDE
DO NOT APPROACH IF AMBER LIGHTS ARE FLASHING

An amber strobe light system will be activated for H_2S concentrations of 10 PPM or greater and an audible alarm will sound when H_2S exceeds 15 ppm, and. This condition will exist until the all clear is given.

DRILL SITE LOCATION:

1. The drilling rig should be situated on location such that the prevailing winds blow across the rig toward the reserve pit or at right angles to a line from the rig to the reserve pit.
2. The entrance to the location should be designated so that it can be barricaded if Hydrogen Sulfide emergency conditions arise. An auxiliary exit (or entrance) should be available in case of a catastrophe; a shift in wind direction would not preclude escape from the location. Appropriate warning signs and flags should be placed at all location entrances.
3. Once H2S safety procedures are established on location, no beards or facial hair, which will interfere with face seal or mask, will be allowed on location.
4. A minimum of two BRIEFING AREAS will be established, no less than 250 feet from the wellhead and in such location that at least one area will be up-wind from the well at all times. Upon recognition of an emergency situation, all personnel should assemble at the designated briefing areas for instructions.
5. A safety equipment trailer will be station at one of the briefing areas.
6. Windsocks will be installed and wind streamers (6 to 8 feet above ground level) placed at the location entrance. Windsocks shall be illuminated for nighttime operations. Personnel should develop wind direction consciousness.
7. The mud-logging trailer will be located so as to minimize the danger from the gas that breaks out of the drilling fluid.
8. Shale shaker mud tanks will be located so as to minimize the danger from gas that breaks out of the drilling fluid.
9. Electric power plant(s) will be located as far from the well bore as practical so that it may be used under conditions where it otherwise would have to be shut down.
10. When approaching depth where Hydrogen Sulfide may be encountered, appropriate warning signs will be posted on all access roads to the location and at the foot of all stairways to the derrick floor.
11. Appropriate smoking areas will be designated, and smoking will be prohibited elsewhere.

The table below lists various poisonous gases and the concentrations at which they become dangerous.

TOXICITY OF VARIOUS GASES

TOXICITY OF GASES (Taken from API RP-49 September 1974 – Re-issued August 1978)					
Common Name	**Chemical Formula**	**Gravity (Air = 1)**	**Threshold 1 Limit**	**Hazardous 2 Limit**	**Lethal 3 Limit**
Hydrogen Sulfide	H_2S	1.18	10 ppm	250 ppm/1hr	600 ppm
Sulfur Dioxide	SO_2	2.21	20 ppm	---	1000 ppm
Carbon Monoxide	CO	0.97	50 ppm	400 ppm/1hr	1000 ppm
Carbon Dioxide	CO_2	1.52	5000 ppm	5%	10%
Methane	CH_4	0.55	90000 ppm	Combustible Above 5% in Air	

1. Threshold concentration at which it is believed that all workers may repeatedly be exposed day after day, without adverse effect	2. Hazardous concentration that may cause death	3. Lethal concentration that will cause death with short-term exposure

Properties of Gases

The produced gas will probably be a mixture of Carbon Dioxide, Hydrogen Sulfide, and Methane.

Carbon Dioxide
Carbon Dioxide (CO_2) is usually considered inert and is commonly used to extinguish fires.

It is heavier than air (1.52 times) and it will concentrate in low areas of still air.

Humans cannot breathe air containing more than 10% CO_2 without losing consciousness. Air containing 5% CO_2 will cause disorientation in a few minutes.

Continued exposures to CO_2 after being affected will cause convulsions, coma, and respiratory failure.

The threshold limit of CO_2 is 5000 ppm.

Short-term exposure to 50,000 PPM (5%) is reasonable. This gas is colorless and odorless and can be tolerated in relatively high concentrations.

Hydrogen Sulfide

Hydrogen Sulfide (H_2S) itself is a colorless, transparent gas and is flammable. It is heavier than air and, hence, may accumulate in low places.

Although the slightest presence of H_2S in the air is normally detectable by its characteristic "rotten egg" odor, it is dangerous to rely on the odor as a means of detecting excessive concentrations because the sense of smell is rapidly lost, allowing lethal concentrations to be accumulated without warning. The following table indicates the poisonous nature of Hydrogen Sulfide.

HYDROGEN SULFIDE TOXICITY			
Concentration			Effects
$\%H_2S$	PPM	GR/100 SCF 1	
0.001	10	0.65	Safe for 8 hours without respirator. Obvious and unpleasant odor.
0.002	20	1.30	Burning in eyes and irritation of respiratory tract after on hour.
0.01	100	6.48	Kills smell in 3 to 15 minutes; may sting eyes and throat.
0.02	200	12.96	Kills smell shortly; stings eyes and throat.
0.05	500	32.96	Dizziness; breathing ceases in a few minutes; need prompt artificial respiration.
0.07	700	45.92	Unconscious quickly; death will result if not rescued promptly
0.10	1000	64.80	DEATH!
Note: 1 grain per 100 cubic feet			

Sulfur Dioxide

Sulfur Dioxide is a colorless, transparent gas and is non-flammable.

Sulfur Dioxide (SO_2) is produced during the burning of H_2S. Although SO_2 is heavier than air, it will be picked up by a breeze and carried downwind at elevated temperatures. Since Sulfur Dioxide is extremely irritating to the eyes and mucous membranes of the upper respiratory tract, it has exceptionally good warning powers in this respect. The following table indicates the toxic nature of the gas.

SULFUR DIOXIDE TOXICITY		
Concentration		Effects
$\%SO_2$	PPM	
0.0005	3 to 5	Pungent odor-normally a person can detect SO_2 in this range.
0.0012	12	Throat irritation, coughing, and constriction of the chest tearing and smarting of eyes.
0.15	150	So irritating that it can only be endured for a few minutes.
0.05	500	Causes a sense of suffocation, even with first breath.

H_2S REQUIRED EQUIPMENT LIST

RESPIRATORY SAFETY SYSTEMS

- Working cascade system available on rig floor and pit system & 750' of air line hose
- Four (4) breathing air manifolds
- Four (4) 30-minute rescue packs
- Five (5) work/Escape units
- Five (5) escape units
- One (1) filler hose for the work/escape/rescue units

DETECTION AND ALARM SYSTEM

- 4 channel H2S monitor
- 4 wireless H2S monitors
- H2S alarm system (Audible/Red strobe)
- Personal gas monitor for each person on location
- Gas sample tubes

WELL CONTROL EQUIPMENT

- Flare line with remote ignitor and backup flare gun, placed 150' from wellhead
- Choke manifold with remotely operated choke
- Mud gas separator

VISUAL WARNING SYSTEMS

- One color code condition sign will be placed at each entrance reflecting possible conditions at the site
- A colored condition flag will be on display, reflecting current condition at the site at the time
- At least 4 wind socks placed on location, visible at all angles and locations

MUD PROGRAM

- Mud will contain sufficient weight and additives to control and minimize H2S

METALLURGY

- All drill strings, casing, tubing, wellhead, BOP, spools, kill lines, choke manifold and lines, and valves shall be suitable for anticipated H2S volume and pressure

COMMUNICATION

- Cell phones, intercoms, and satellite phones will be available on location

ADDITIONAL SAFETY RELATED ITEMS

- Stretcher
- 2 OSHA full body harness
- 20# class ABC fire extinguisher

DETERMINATION OF RADIUS OF EXPOSURE

Potentially hazardous volume means a volume of gas of such H2S concentration and flow rate that it may result in radius of exposure-calculated ambient concentrations of 100 ppm H2S at any occupied residence, school, church, park, school bus stop, place of business or other area where the public could reasonably be expected to frequent, or 500 ppm H2S at any Federal, State, County or municipal road or highway.

Currently there are no residence located within the ROE

Radius of exposure means the calculation resulting from using the Pasquill -Gifford derived equation, or by such other method(s) that may be approved by the authorized officer.
Advanced Fire and Safety has provided the Pasquill-Gifford formula in excel format for simple calculations.

NEW MEXICO OIL & GAS CONSERVATION DIVISION 118

King Eider 12 Federal Com 501H

H2S Concentration- 100 PPM

Maximum Escape Volume- 5000 MCF/Day

100 PPM Radius of Exposure - 65
(Formula= 1.589 x (100/1000000) x (5000 x 1000) ^ .6258

500 PPM Radius of Exposure - 30
Formula= .4546 x (100/1000000) x (5000 x 1000) ^ .6258

EMERGENCY CONTACT LIST

911 is available in the area			
NAME	**POSITION**	**COMPANY**	**NUMBER**
Centennial Contacts			
Ronny Hise	Drilling Engineer	CDEV	432-770-4786
Jason Fitzgerald	Superintendent	CDEV	318-347-3916
TBD	Field Superintendent	CDEV	432-287-3003
Brett Thompson	Drilling Manager	CDEV	720-656-7027
Derrick Melton	HSE Manager	CDEV	432-296-8720
Drilling Office	Drilling Supervisor	CDEV	432-538-3343
Local Emergency Response			
Fire Department			575-395-2511
Jal Community Hospital			505-395-2511
State Police			505-827-9000
Lea County Sheriff			575-396-3611
Safety Contractor			
Advanced Safety	Office	Advanced Safety	833-296-3913
Joe Gadway	Permian Supervisor	Advanced Safety	318-446-3716
Clint Hudson	Operations Manager	Advanced Safety	337-552-8330
Well Control Company			
Wild Well Control			866-404-9564
Contractors			
Tommy E Lee	Pump Trucks		432-813-7140
Paul Smith	Drilling Fluids	Momentum	307-258-6254
Compass Coordinators	Cement	Compass	432-561-5970

CENTENNIAL
RESOURCE DEVELOPMENT, INC

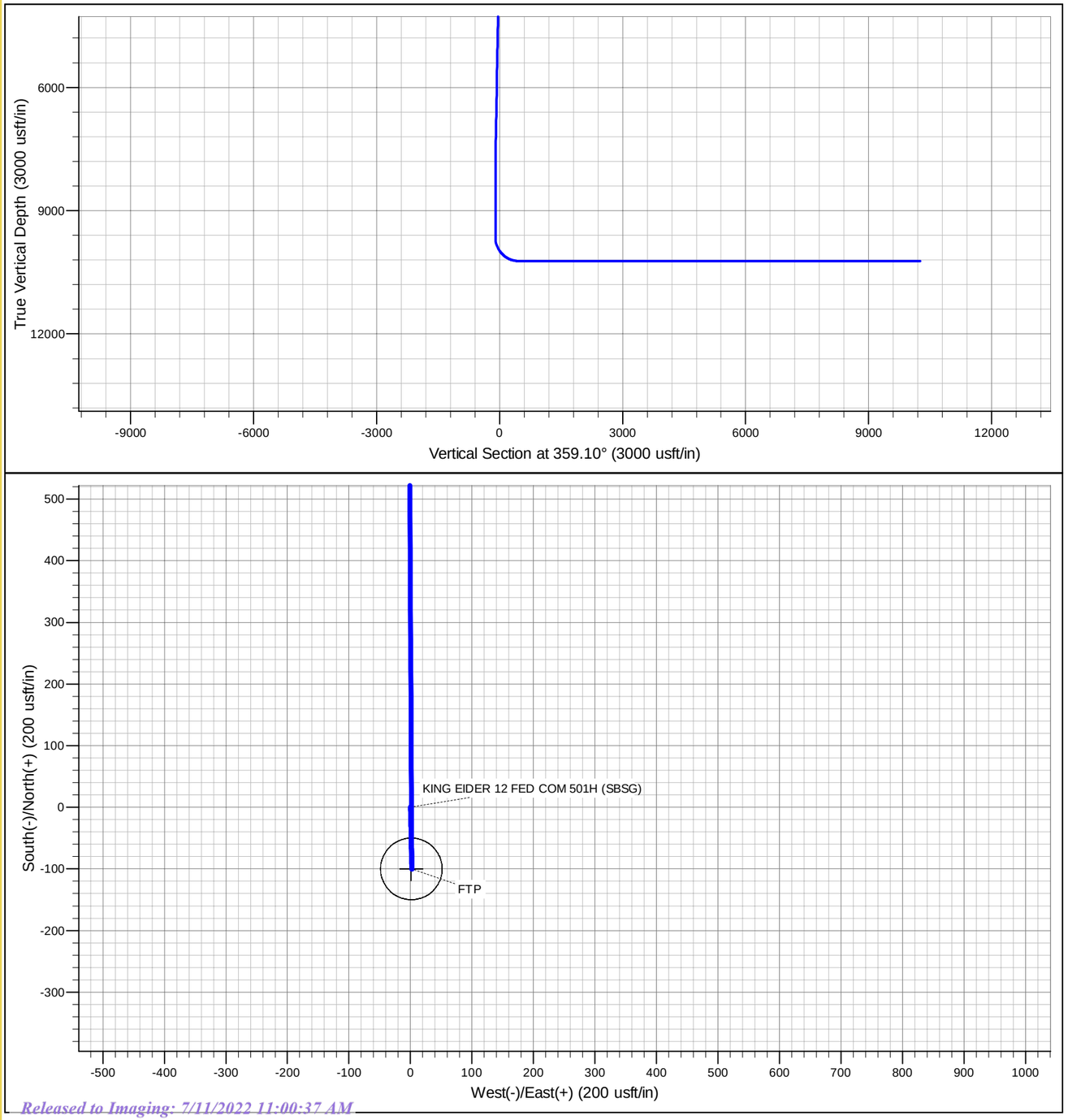
KING EIDER 12 FED COM 501H (SBSG)

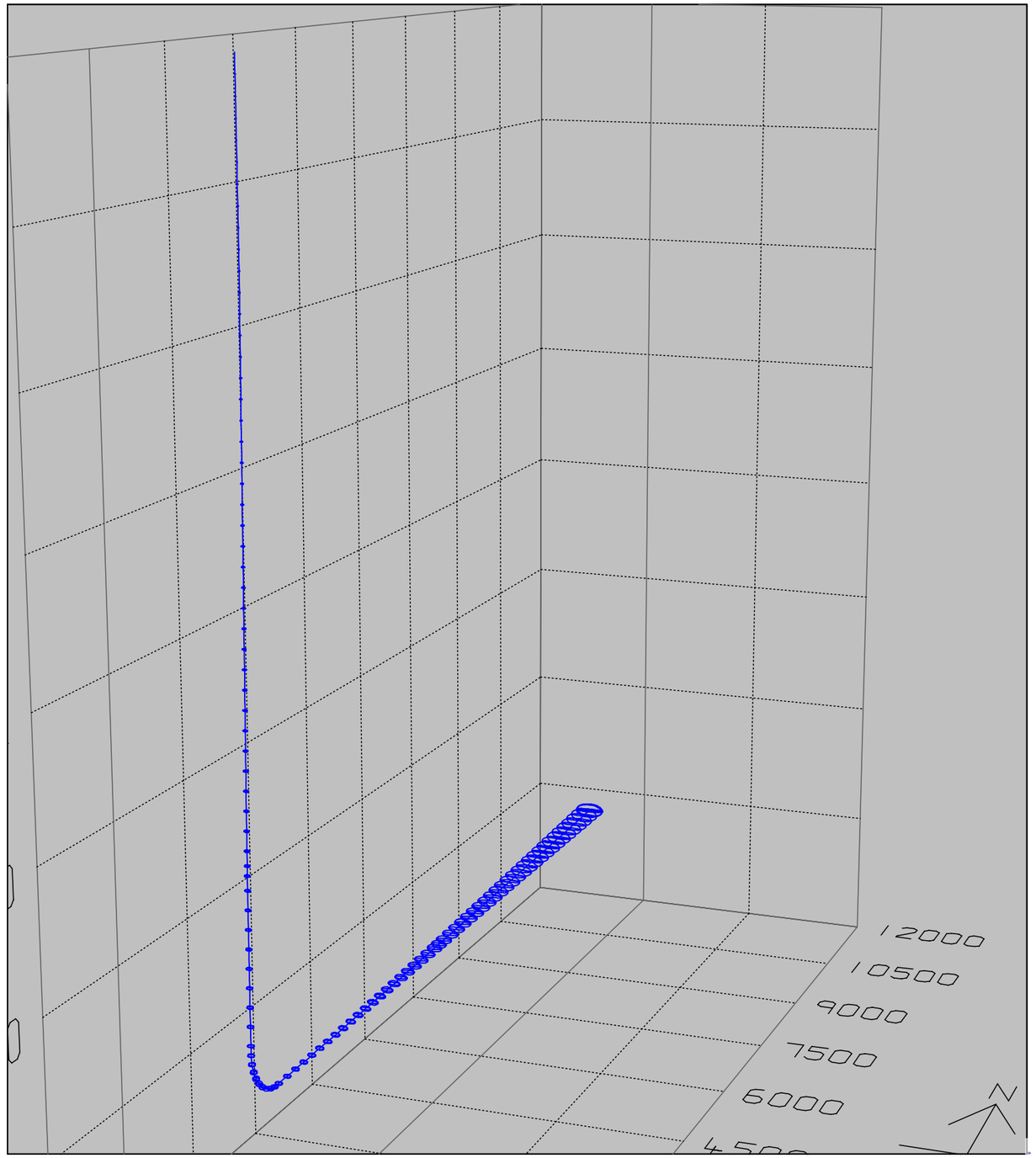
PROJECT DETAILS: LEA COUNTY	
Geodetic System:	Universal Transverse Mercator (US Survey Feet)
Datum:	North American Datum 1983
Ellipsoid:	GRS 1980
Zone:	Zone 13N (108 W to 102 W)
System Datum:	Mean Sea Level

G
T M

Azimuths to Grid North
True North: -0.85°
Magnetic North: 6.85°

Magnetic Field
Strength: 49023.5nT
Dip Angle: 60.60°
Date: 11/6/2018
Model: IGRF200510





NEW MEXICO

LEA
KING EIDER
KING EIDER 12 FED COM 501H

KING EIDER 12 FED COM 501H (SBSG)

Plan: PWP0 (SBSG)

Standard Survey Report

27 October, 2020

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

Project LEA

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site KING EIDER

Site Position:		**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.763 N
From:	Map	**Easting:**	2,127,490.93 usft	**Longitude:**	103° 25' 5.789 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.85 °

Well KING EIDER 12 FED COM 501H

Well Position	**+N/-S**	0.0 usft	**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.763 N
	+E/-W	0.0 usft	**Easting:**	2,127,490.85 usft	**Longitude:**	103° 25' 5.790 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,655.3 usft

Wellbore KING EIDER 12 FED COM 501H (SBSG)

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.70	60.60	49,023.54091245

Design PWP0 (SBSG)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.10

Survey Tool Program **Date** 10/27/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,340.5	PWP0 (SBSG) (KING EIDER 12 FED COM	MWD+IFR1+MS	OWSG_Rev2_ MWD + IFR1 + Multi-Station Correction

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	1.00	178.70	2,100.0	-0.9	0.0	-0.9	1.00	1.00	0.00
7,750.0	1.00	178.70	7,749.1	-99.5	2.3	-99.5	0.00	0.00	0.00
7,850.0	0.00	0.00	7,849.1	-100.3	2.3	-100.3	1.00	-1.00	0.00
9,655.0	0.00	0.00	9,654.1	-100.3	2.3	-100.3	0.00	0.00	0.00
10,554.9	90.00	357.67	10,227.0	472.1	-21.0	472.3	10.00	10.00	0.00
15,610.8	90.00	359.71	10,227.0	5,526.5	-136.8	5,527.9	0.04	0.00	0.04
20,340.7	90.00	359.71	10,227.0	10,256.3	-161.1	10,257.5	0.00	0.00	0.00

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

Project LEA

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		

Site KING EIDER

Site Position:		**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.763 N
From:	Map	**Easting:**	2,127,490.93 usft	**Longitude:**	103° 25' 5.789 W
Position Uncertainty:	0.0 usft	**Slot Radius:**	13-3/16 "	**Grid Convergence:**	0.85 °

Well KING EIDER 12 FED COM 501H

Well Position	**+N/-S**	0.0 usft	**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.763 N
	+E/-W	0.0 usft	**Easting:**	2,127,490.85 usft	**Longitude:**	103° 25' 5.790 W
Position Uncertainty		0.0 usft	**Wellhead Elevation:**	usft	**Ground Level:**	3,655.3 usft

Wellbore KING EIDER 12 FED COM 501H (SBSG)

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	IGRF200510	12/31/2009	7.70	60.60	49,023.54091245

Design PWP0 (SBSG)

Audit Notes:

Version:		**Phase:**	PROTOTYPE	**Tie On Depth:**	0.0

Vertical Section:	Depth From (TVD) (usft)	+N/-S (usft)	+E/-W (usft)	Direction (°)
	0.0	0.0	0.0	359.10

Survey Tool Program **Date** 10/27/2020

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.0	20,340.5	PWP0 (SBSG) (KING EIDER 12 FED COM	MWD+IFR1+MS	OWSG_Rev2_ MWD + IFR1 + Multi-Station Correction

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)
0.0	0.00	0.00	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	0.00	0.00	400.0	0.0	0.0	0.0	0.00	0.00	0.00
500.0	0.00	0.00	500.0	0.0	0.0	0.0	0.00	0.00	0.00
600.0	0.00	0.00	600.0	0.0	0.0	0.0	0.00	0.00	0.00
700.0	0.00	0.00	700.0	0.0	0.0	0.0	0.00	0.00	0.00
800.0	0.00	0.00	800.0	0.0	0.0	0.0	0.00	0.00	0.00
900.0	0.00	0.00	900.0	0.0	0.0	0.0	0.00	0.00	0.00

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

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)
1,000.0	0.00	0.00	1,000.0	0.0	0.0	0.0	0.00	0.00	0.00
1,100.0	0.00	0.00	1,100.0	0.0	0.0	0.0	0.00	0.00	0.00
1,200.0	0.00	0.00	1,200.0	0.0	0.0	0.0	0.00	0.00	0.00
1,300.0	0.00	0.00	1,300.0	0.0	0.0	0.0	0.00	0.00	0.00
1,400.0	0.00	0.00	1,400.0	0.0	0.0	0.0	0.00	0.00	0.00
1,500.0	0.00	0.00	1,500.0	0.0	0.0	0.0	0.00	0.00	0.00
1,600.0	0.00	0.00	1,600.0	0.0	0.0	0.0	0.00	0.00	0.00
1,700.0	0.00	0.00	1,700.0	0.0	0.0	0.0	0.00	0.00	0.00
1,800.0	0.00	0.00	1,800.0	0.0	0.0	0.0	0.00	0.00	0.00
1,900.0	0.00	0.00	1,900.0	0.0	0.0	0.0	0.00	0.00	0.00
2,000.0	0.00	0.00	2,000.0	0.0	0.0	0.0	0.00	0.00	0.00
2,100.0	1.00	178.70	2,100.0	-0.9	0.0	-0.9	1.00	1.00	0.00
2,200.0	1.00	178.70	2,200.0	-2.6	0.1	-2.6	0.00	0.00	0.00
2,300.0	1.00	178.70	2,300.0	-4.4	0.1	-4.4	0.00	0.00	0.00
2,400.0	1.00	178.70	2,399.9	-6.1	0.1	-6.1	0.00	0.00	0.00
2,500.0	1.00	178.70	2,499.9	-7.9	0.2	-7.9	0.00	0.00	0.00
2,600.0	1.00	178.70	2,599.9	-9.6	0.2	-9.6	0.00	0.00	0.00
2,700.0	1.00	178.70	2,699.9	-11.3	0.3	-11.3	0.00	0.00	0.00
2,800.0	1.00	178.70	2,799.9	-13.1	0.3	-13.1	0.00	0.00	0.00
2,900.0	1.00	178.70	2,899.9	-14.8	0.3	-14.8	0.00	0.00	0.00
3,000.0	1.00	178.70	2,999.9	-16.6	0.4	-16.6	0.00	0.00	0.00
3,100.0	1.00	178.70	3,099.8	-18.3	0.4	-18.3	0.00	0.00	0.00
3,200.0	1.00	178.70	3,199.8	-20.1	0.5	-20.1	0.00	0.00	0.00
3,300.0	1.00	178.70	3,299.8	-21.8	0.5	-21.8	0.00	0.00	0.00
3,400.0	1.00	178.70	3,399.8	-23.6	0.5	-23.6	0.00	0.00	0.00
3,500.0	1.00	178.70	3,499.8	-25.3	0.6	-25.3	0.00	0.00	0.00
3,600.0	1.00	178.70	3,599.8	-27.0	0.6	-27.1	0.00	0.00	0.00
3,700.0	1.00	178.70	3,699.8	-28.8	0.7	-28.8	0.00	0.00	0.00
3,800.0	1.00	178.70	3,799.7	-30.5	0.7	-30.5	0.00	0.00	0.00
3,900.0	1.00	178.70	3,899.7	-32.3	0.7	-32.3	0.00	0.00	0.00
4,000.0	1.00	178.70	3,999.7	-34.0	0.8	-34.0	0.00	0.00	0.00
4,100.0	1.00	178.70	4,099.7	-35.8	0.8	-35.8	0.00	0.00	0.00
4,200.0	1.00	178.70	4,199.7	-37.5	0.9	-37.5	0.00	0.00	0.00
4,300.0	1.00	178.70	4,299.7	-39.3	0.9	-39.3	0.00	0.00	0.00
4,400.0	1.00	178.70	4,399.6	-41.0	0.9	-41.0	0.00	0.00	0.00
4,500.0	1.00	178.70	4,499.6	-42.7	1.0	-42.8	0.00	0.00	0.00
4,600.0	1.00	178.70	4,599.6	-44.5	1.0	-44.5	0.00	0.00	0.00
4,700.0	1.00	178.70	4,699.6	-46.2	1.0	-46.2	0.00	0.00	0.00
4,800.0	1.00	178.70	4,799.6	-48.0	1.1	-48.0	0.00	0.00	0.00
4,900.0	1.00	178.70	4,899.6	-49.7	1.1	-49.7	0.00	0.00	0.00
5,000.0	1.00	178.70	4,999.6	-51.5	1.2	-51.5	0.00	0.00	0.00
5,100.0	1.00	178.70	5,099.5	-53.2	1.2	-53.2	0.00	0.00	0.00
5,200.0	1.00	178.70	5,199.5	-55.0	1.2	-55.0	0.00	0.00	0.00
5,300.0	1.00	178.70	5,299.5	-56.7	1.3	-56.7	0.00	0.00	0.00

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

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)
5,400.0	1.00	178.70	5,399.5	-58.5	1.3	-58.5	0.00	0.00	0.00
5,500.0	1.00	178.70	5,499.5	-60.2	1.4	-60.2	0.00	0.00	0.00
5,600.0	1.00	178.70	5,599.5	-61.9	1.4	-62.0	0.00	0.00	0.00
5,700.0	1.00	178.70	5,699.4	-63.7	1.4	-63.7	0.00	0.00	0.00
5,800.0	1.00	178.70	5,799.4	-65.4	1.5	-65.4	0.00	0.00	0.00
5,900.0	1.00	178.70	5,899.4	-67.2	1.5	-67.2	0.00	0.00	0.00
6,000.0	1.00	178.70	5,999.4	-68.9	1.6	-68.9	0.00	0.00	0.00
6,100.0	1.00	178.70	6,099.4	-70.7	1.6	-70.7	0.00	0.00	0.00
6,200.0	1.00	178.70	6,199.4	-72.4	1.6	-72.4	0.00	0.00	0.00
6,300.0	1.00	178.70	6,299.4	-74.2	1.7	-74.2	0.00	0.00	0.00
6,400.0	1.00	178.70	6,399.3	-75.9	1.7	-75.9	0.00	0.00	0.00
6,500.0	1.00	178.70	6,499.3	-77.6	1.8	-77.7	0.00	0.00	0.00
6,600.0	1.00	178.70	6,599.3	-79.4	1.8	-79.4	0.00	0.00	0.00
6,700.0	1.00	178.70	6,699.3	-81.1	1.8	-81.2	0.00	0.00	0.00
6,800.0	1.00	178.70	6,799.3	-82.9	1.9	-82.9	0.00	0.00	0.00
6,900.0	1.00	178.70	6,899.3	-84.6	1.9	-84.6	0.00	0.00	0.00
7,000.0	1.00	178.70	6,999.2	-86.4	2.0	-86.4	0.00	0.00	0.00
7,100.0	1.00	178.70	7,099.2	-88.1	2.0	-88.1	0.00	0.00	0.00
7,200.0	1.00	178.70	7,199.2	-89.9	2.0	-89.9	0.00	0.00	0.00
7,300.0	1.00	178.70	7,299.2	-91.6	2.1	-91.6	0.00	0.00	0.00
7,400.0	1.00	178.70	7,399.2	-93.3	2.1	-93.4	0.00	0.00	0.00
7,500.0	1.00	178.70	7,499.2	-95.1	2.2	-95.1	0.00	0.00	0.00
7,600.0	1.00	178.70	7,599.2	-96.8	2.2	-96.9	0.00	0.00	0.00
7,700.0	1.00	178.70	7,699.1	-98.6	2.2	-98.6	0.00	0.00	0.00
7,750.0	1.00	178.70	7,749.1	-99.5	2.3	-99.5	0.00	0.00	0.00
7,800.0	0.50	178.70	7,799.1	-100.1	2.3	-100.1	1.00	-1.00	0.00
7,850.0	0.00	0.00	7,849.1	-100.3	2.3	-100.3	1.00	-1.00	0.00
7,900.0	0.00	0.00	7,899.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,000.0	0.00	0.00	7,999.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,100.0	0.00	0.00	8,099.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,200.0	0.00	0.00	8,199.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,300.0	0.00	0.00	8,299.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,400.0	0.00	0.00	8,399.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,500.0	0.00	0.00	8,499.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,600.0	0.00	0.00	8,599.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,700.0	0.00	0.00	8,699.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,800.0	0.00	0.00	8,799.1	-100.3	2.3	-100.3	0.00	0.00	0.00
8,900.0	0.00	0.00	8,899.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,000.0	0.00	0.00	8,999.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,100.0	0.00	0.00	9,099.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,200.0	0.00	0.00	9,199.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,300.0	0.00	0.00	9,299.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,400.0	0.00	0.00	9,399.1	-100.3	2.3	-100.3	0.00	0.00	0.00

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

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)
9,500.0	0.00	0.00	9,499.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,600.0	0.00	0.00	9,599.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,655.0	0.00	0.00	9,654.1	-100.3	2.3	-100.3	0.00	0.00	0.00
9,700.0	4.50	357.67	9,699.1	-98.6	2.2	-98.6	10.00	10.00	0.00
9,800.0	14.50	357.67	9,797.6	-82.1	1.5	-82.1	10.00	10.00	0.00
9,900.0	24.50	357.67	9,891.7	-48.8	0.2	-48.8	10.00	10.00	0.00
10,000.0	34.51	357.67	9,978.6	0.4	-1.8	0.4	10.00	10.00	0.00
10,100.0	44.51	357.67	10,055.7	63.9	-4.4	63.9	10.00	10.00	0.00
10,200.0	54.51	357.67	10,120.6	139.7	-7.5	139.8	10.00	10.00	0.00
10,300.0	64.51	357.67	10,171.2	225.7	-11.0	225.9	10.00	10.00	0.00
10,400.0	74.51	357.67	10,206.2	319.2	-14.8	319.4	10.00	10.00	0.00
10,500.0	84.51	357.67	10,224.4	417.3	-18.8	417.6	10.00	10.00	0.00
10,554.9	90.00	357.67	10,227.0	472.1	-21.0	472.3	10.00	10.00	0.00
10,600.0	90.00	357.69	10,227.0	517.2	-22.8	517.5	0.04	0.00	0.04
10,700.0	90.00	357.73	10,227.0	617.1	-26.8	617.4	0.04	0.00	0.04
10,800.0	90.00	357.77	10,227.0	717.0	-30.8	717.4	0.04	0.00	0.04
10,900.0	90.00	357.81	10,227.0	816.9	-34.6	817.4	0.04	0.00	0.04
11,000.0	90.00	357.85	10,227.0	916.9	-38.4	917.4	0.04	0.00	0.04
11,100.0	90.00	357.89	10,227.0	1,016.8	-42.1	1,017.3	0.04	0.00	0.04
11,200.0	90.00	357.93	10,227.0	1,116.7	-45.8	1,117.3	0.04	0.00	0.04
11,300.0	90.00	357.97	10,227.0	1,216.7	-49.4	1,217.3	0.04	0.00	0.04
11,400.0	90.00	358.01	10,227.0	1,316.6	-52.9	1,317.3	0.04	0.00	0.04
11,500.0	90.00	358.05	10,227.0	1,416.5	-56.3	1,417.3	0.04	0.00	0.04
11,600.0	90.00	358.09	10,227.0	1,516.5	-59.7	1,517.2	0.04	0.00	0.04
11,700.0	90.00	358.13	10,227.0	1,616.4	-63.0	1,617.2	0.04	0.00	0.04
11,800.0	90.00	358.17	10,227.0	1,716.4	-66.2	1,717.2	0.04	0.00	0.04
11,900.0	90.00	358.21	10,227.0	1,816.3	-69.3	1,817.2	0.04	0.00	0.04
12,000.0	90.00	358.25	10,227.0	1,916.3	-72.4	1,917.2	0.04	0.00	0.04
12,100.0	90.00	358.29	10,227.0	2,016.2	-75.4	2,017.2	0.04	0.00	0.04
12,200.0	90.00	358.33	10,227.0	2,116.2	-78.4	2,117.2	0.04	0.00	0.04
12,300.0	90.00	358.37	10,227.0	2,216.2	-81.3	2,217.2	0.04	0.00	0.04
12,400.0	90.00	358.41	10,227.0	2,316.1	-84.1	2,317.2	0.04	0.00	0.04
12,500.0	90.00	358.45	10,227.0	2,416.1	-86.8	2,417.1	0.04	0.00	0.04
12,600.0	90.00	358.49	10,227.0	2,516.0	-89.5	2,517.1	0.04	0.00	0.04
12,700.0	90.00	358.53	10,227.0	2,616.0	-92.1	2,617.1	0.04	0.00	0.04
12,800.0	90.00	358.57	10,227.0	2,716.0	-94.6	2,717.1	0.04	0.00	0.04
12,900.0	90.00	358.61	10,227.0	2,815.9	-97.0	2,817.1	0.04	0.00	0.04
13,000.0	90.00	358.65	10,227.0	2,915.9	-99.4	2,917.1	0.04	0.00	0.04
13,100.0	90.00	358.69	10,227.0	3,015.9	-101.7	3,017.1	0.04	0.00	0.04
13,200.0	90.00	358.73	10,227.0	3,115.9	-104.0	3,117.1	0.04	0.00	0.04
13,300.0	90.00	358.78	10,227.0	3,215.8	-106.2	3,217.1	0.04	0.00	0.04
13,400.0	90.00	358.82	10,227.0	3,315.8	-108.3	3,317.1	0.04	0.00	0.04
13,500.0	90.00	358.86	10,227.0	3,415.8	-110.3	3,417.1	0.04	0.00	0.04

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

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)
13,600.0	90.00	358.90	10,227.0	3,515.8	-112.3	3,517.1	0.04	0.00	0.04
13,700.0	90.00	358.94	10,227.0	3,615.8	-114.1	3,617.1	0.04	0.00	0.04
13,800.0	90.00	358.98	10,227.0	3,715.7	-116.0	3,717.1	0.04	0.00	0.04
13,900.0	90.00	359.02	10,227.0	3,815.7	-117.7	3,817.1	0.04	0.00	0.04
14,000.0	90.00	359.06	10,227.0	3,915.7	-119.4	3,917.1	0.04	0.00	0.04
14,100.0	90.00	359.10	10,227.0	4,015.7	-121.0	4,017.1	0.04	0.00	0.04
14,200.0	90.00	359.14	10,227.0	4,115.7	-122.6	4,117.1	0.04	0.00	0.04
14,300.0	90.00	359.18	10,227.0	4,215.7	-124.0	4,217.1	0.04	0.00	0.04
14,400.0	90.00	359.22	10,227.0	4,315.7	-125.4	4,317.1	0.04	0.00	0.04
14,500.0	90.00	359.26	10,227.0	4,415.7	-126.8	4,417.1	0.04	0.00	0.04
14,600.0	90.00	359.30	10,227.0	4,515.7	-128.0	4,517.1	0.04	0.00	0.04
14,700.0	90.00	359.34	10,227.0	4,615.6	-129.2	4,617.1	0.04	0.00	0.04
14,800.0	90.00	359.38	10,227.0	4,715.6	-130.3	4,717.1	0.04	0.00	0.04
14,900.0	90.00	359.42	10,227.0	4,815.6	-131.4	4,817.1	0.04	0.00	0.04
15,000.0	90.00	359.46	10,227.0	4,915.6	-132.3	4,917.1	0.04	0.00	0.04
15,100.0	90.00	359.50	10,227.0	5,015.6	-133.3	5,017.1	0.04	0.00	0.04
15,200.0	90.00	359.54	10,227.0	5,115.6	-134.1	5,117.1	0.04	0.00	0.04
15,300.0	90.00	359.58	10,227.0	5,215.6	-134.9	5,217.1	0.04	0.00	0.04
15,400.0	90.00	359.62	10,227.0	5,315.6	-135.6	5,317.1	0.04	0.00	0.04
15,500.0	90.00	359.66	10,227.0	5,415.6	-136.2	5,417.1	0.04	0.00	0.04
15,600.0	90.00	359.70	10,227.0	5,515.6	-136.7	5,517.1	0.04	0.00	0.04
15,610.8	90.00	359.71	10,227.0	5,526.5	-136.8	5,527.9	0.04	0.00	0.04
15,700.0	90.00	359.71	10,227.0	5,615.6	-137.3	5,617.1	0.00	0.00	0.00
15,800.0	90.00	359.71	10,227.0	5,715.6	-137.8	5,717.1	0.00	0.00	0.00
15,900.0	90.00	359.71	10,227.0	5,815.6	-138.3	5,817.1	0.00	0.00	0.00
16,000.0	90.00	359.71	10,227.0	5,915.6	-138.8	5,917.1	0.00	0.00	0.00
16,100.0	90.00	359.71	10,227.0	6,015.6	-139.3	6,017.1	0.00	0.00	0.00
16,200.0	90.00	359.71	10,227.0	6,115.6	-139.8	6,117.1	0.00	0.00	0.00
16,300.0	90.00	359.71	10,227.0	6,215.6	-140.3	6,217.0	0.00	0.00	0.00
16,400.0	90.00	359.71	10,227.0	6,315.6	-140.9	6,317.0	0.00	0.00	0.00
16,500.0	90.00	359.71	10,227.0	6,415.6	-141.4	6,417.0	0.00	0.00	0.00
16,600.0	90.00	359.71	10,227.0	6,515.6	-141.9	6,517.0	0.00	0.00	0.00
16,700.0	90.00	359.71	10,227.0	6,615.6	-142.4	6,617.0	0.00	0.00	0.00
16,800.0	90.00	359.71	10,227.0	6,715.6	-142.9	6,717.0	0.00	0.00	0.00
16,900.0	90.00	359.71	10,227.0	6,815.6	-143.4	6,817.0	0.00	0.00	0.00
17,000.0	90.00	359.71	10,227.0	6,915.6	-143.9	6,917.0	0.00	0.00	0.00
17,100.0	90.00	359.71	10,227.0	7,015.6	-144.5	7,017.0	0.00	0.00	0.00
17,200.0	90.00	359.71	10,227.0	7,115.6	-145.0	7,117.0	0.00	0.00	0.00
17,300.0	90.00	359.71	10,227.0	7,215.6	-145.5	7,217.0	0.00	0.00	0.00
17,400.0	90.00	359.71	10,227.0	7,315.6	-146.0	7,317.0	0.00	0.00	0.00
17,500.0	90.00	359.71	10,227.0	7,415.6	-146.5	7,417.0	0.00	0.00	0.00
17,600.0	90.00	359.71	10,227.0	7,515.6	-147.0	7,517.0	0.00	0.00	0.00
17,700.0	90.00	359.71	10,227.0	7,615.6	-147.5	7,617.0	0.00	0.00	0.00
17,800.0	90.00	359.71	10,227.0	7,715.6	-148.1	7,717.0	0.00	0.00	0.00

Centennial Resource Development

Survey Report

Company:	NEW MEXICO	**Local Co-ordinate Reference:**	Well KING EIDER 12 FED COM 501H
Project:	LEA	**TVD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Site:	KING EIDER	**MD Reference:**	RKB=3655.3+26 @ 3681.3usft (HP 489)
Well:	KING EIDER 12 FED COM 501H	**North Reference:**	Grid
Wellbore:	KING EIDER 12 FED COM 501H (SBSG)	**Survey Calculation Method:**	Minimum Curvature
Design:	PWP0 (SBSG)	**Database:**	Compass

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)
17,900.0	90.00	359.71	10,227.0	7,815.6	-148.6	7,817.0	0.00	0.00	0.00
18,000.0	90.00	359.71	10,227.0	7,915.6	-149.1	7,916.9	0.00	0.00	0.00
18,100.0	90.00	359.71	10,227.0	8,015.6	-149.6	8,016.9	0.00	0.00	0.00
18,200.0	90.00	359.71	10,227.0	8,115.6	-150.1	8,116.9	0.00	0.00	0.00
18,300.0	90.00	359.71	10,227.0	8,215.6	-150.6	8,216.9	0.00	0.00	0.00
18,400.0	90.00	359.71	10,227.0	8,315.6	-151.1	8,316.9	0.00	0.00	0.00
18,500.0	90.00	359.71	10,227.0	8,415.6	-151.7	8,416.9	0.00	0.00	0.00
18,600.0	90.00	359.71	10,227.0	8,515.6	-152.2	8,516.9	0.00	0.00	0.00
18,700.0	90.00	359.71	10,227.0	8,615.6	-152.7	8,616.9	0.00	0.00	0.00
18,800.0	90.00	359.71	10,227.0	8,715.6	-153.2	8,716.9	0.00	0.00	0.00
18,900.0	90.00	359.71	10,227.0	8,815.6	-153.7	8,816.9	0.00	0.00	0.00
19,000.0	90.00	359.71	10,227.0	8,915.6	-154.2	8,916.9	0.00	0.00	0.00
19,100.0	90.00	359.71	10,227.0	9,015.6	-154.7	9,016.9	0.00	0.00	0.00
19,200.0	90.00	359.71	10,227.0	9,115.6	-155.3	9,116.9	0.00	0.00	0.00
19,300.0	90.00	359.71	10,227.0	9,215.6	-155.8	9,216.9	0.00	0.00	0.00
19,400.0	90.00	359.71	10,227.0	9,315.6	-156.3	9,316.9	0.00	0.00	0.00
19,500.0	90.00	359.71	10,227.0	9,415.6	-156.8	9,416.9	0.00	0.00	0.00
19,600.0	90.00	359.71	10,227.0	9,515.6	-157.3	9,516.9	0.00	0.00	0.00
19,700.0	90.00	359.71	10,227.0	9,615.6	-157.8	9,616.9	0.00	0.00	0.00
19,800.0	90.00	359.71	10,227.0	9,715.6	-158.3	9,716.8	0.00	0.00	0.00
19,900.0	90.00	359.71	10,227.0	9,815.6	-158.9	9,816.8	0.00	0.00	0.00
20,000.0	90.00	359.71	10,227.0	9,915.6	-159.4	9,916.8	0.00	0.00	0.00
20,100.0	90.00	359.71	10,227.0	10,015.6	-159.9	10,016.8	0.00	0.00	0.00
20,200.0	90.00	359.71	10,227.0	10,115.6	-160.4	10,116.8	0.00	0.00	0.00
20,300.0	90.00	359.71	10,227.0	10,215.6	-160.9	10,216.8	0.00	0.00	0.00
20,340.7	90.00	359.71	10,227.0	10,256.3	-161.1	10,257.5	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
FTP - KING EIDER 12 F	0.00	0.00	10,227.0	-100.3	1.5	11,830,410.14	2,127,492.35	32° 34' 50.770 N	103° 25' 5.790 W
- plan misses target center by 237.3usft at 10100.0usft MD (10055.7 TVD, 63.9 N, -4.4 E)									
- Circle (radius 50.0)									
LTP/BHL - KING EIDER	0.00	0.01	10,227.0	10,256.3	-161.1	11,840,766.74	2,127,329.74	32° 36' 33.270 N	103° 25' 5.890 W
- plan hits target center									
- Circle (radius 50.0)									

Checked By: _____ Approved By: _____ Date: _____

District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Road, Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

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

Submit Original to Appropriate District Office

GAS CAPTURE PLAN

Date: 11/10/2020

☒ Original Operator & OGRID No.: Centennial Resource Production, LLC 372165
☐ Amended - Reason for Amendment: _____

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
King Eider 12 Fed Com 501H	Pending	M-12-20S-35E	200 FSL & 330 FWL	1200 MCF/D	Neither	New Well

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated Versado Gas Processors, LLC low/high pressure gathering system located in Lea County, New Mexico. It will require 0' of pipeline to connect the facility to low/high pressure gathering system. Centennial Resource Production, LLC provides (periodically) to Versado Gas Processors, LLC a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Centennial Resource Production, LLC and Versado Gas Processors, LLC have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at Eunice Plant located in Sec. 03, Twn. 22S, Rng. 37E, Lea County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on Lucid Energy Group system at that time. Based on current information, it is Centennial Resource Production, LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation – On lease
  - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas – On lease
  - Gas flared would be minimal, but might be uneconomical to operate when gas volume declines
- NGL Removal – On lease
  - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines

GEOLOGIC PROG

CENTENNIAL RESOURCE DEVELOPMENT, LLC

WELL NAME	King Eider 12 Fed Com 501H		10/3/2020		
AREA	The Pond	API			
HZ TARGET	FBSG Sand	WI %			
LAT LENGTH	9,500	AFE#			
TRRC PERMIT		COUNTY	Lea		

	TWNP	RNG	SECTION	FOOTAGE	COMMENT
SHL	20S	35E	12	200 FSL 330 FWL	On lease drill S to N
FTP/PP	20S	35E	12	100 FSL 330 FWL	
LTP	20S	35E	1	100 FNL 330 FWL	
BHL	20S	35E	1	100 FNL 330 FWL	

GROUND LEVEL	3,655'	RIG KB	26'	KB ELEV	3,681'		
GEOLOGIST	Isabel Harper	isabel.harper@cdevinc.com	(303) 589-8841				

LOGGING	No open hole logging. MWD GR from drill out of surface casing to TD.
MUDLOGGING	None

FORMATION	TVD	SSTVD	THICKNESS	FINAL MD	FINAL TVD	DELTA
Rustler	2,025'	1,656'	344'			
Salado	2,369'	1,312'	1,339'			
BX BLM (Fletcher Anhydrite)	3,155'	526'	564'			
Yates	3,708'	-27'	343'			
Seven Rivers	3,719'	-38'	332'			
Queen	4,051'	-370'	1,021'			
Capitan	5,072'	-1,391'	546'			
Cherry Canyon	5,618'	-1,937'	270'			
Manzanita Lime	5,888'	-2,207'	787'			
Brushy Canyon	6,675'	-2,994'	1,359'			
Bone Spring Lime	8,034'	-4,353'	205'			
Avalon	8,239'	-4,558'	1,027'			
First Bone Spring Sand	9,266'	-5,585'	275'			
Second Bone Spring Shale	9,541'	-5,860'	421'			
Second Bone Spring Sand	9,962'	-6,281'	501'			
Third Bone Carbonate	10,463'	-6,782'	524'			
Third Bone Spring Sand	10,987'	-7,306'	172'			
Wolfcamp	11,159'	-7,478'				
HZ TARGET AT 0' VS	9,306'	-5,625'				

TARGET: KBTVD = 9306' at 0' VS, INC = 90.0 deg
Target Window +10/-10'

COMMENT:

GEOLOGIC PROG

OFFSET TYPE WELLS

CENTENNIAL RESOURCE DEVELOPMENT, LLC

	DRILLING WELL	King Eider 12 Fed Com 501H			10/3/2020	
	HZ TARGET	FBSG Sand		AREA	The Pond	
	PRIMARY TYPE LOG			SECONDARY TYPE LOG		
	Sims State: 1			State LL 1		
	30-025-31883			30-025-27494		
LOCATION	20S 35E Sec 12/ 660 FSL 330 FWL			20S 35E Sec12/ 1980 FSL 1980 FWL		
DISTANCE	560' North of planned FTP			2460' NE of planned FTP		
DIRECTION SURVEY	No			No		
KB ELEV	3,677'			3,673'		
FORMATION	TVD	SSTVD	DELTA	TVD	SSTVD	DELTA
Rustler	2,021'	1,656'	344'	1,969'	1,704'	343'
Salado	2,365'	1,312'	786'	2,312'	1,361'	779'
BX BLM (Fletcher Anhydrite)	3,151'	526'	553'	3,091'	582'	532'
Yates	3,704'	-27'	11'	3,623'	50'	10'
Seven Rivers	3,715'	-38'	332'	3,633'	40'	311'
Queen	4,047'	-370'	1,021'	3,944'	-271'	1,079'
Capitan	5,068'	-1,391'	546'	5,023'	-1,350'	567'
Cherry Canyon	5,614'	-1,937'	270'	5,590'	-1,917'	298'
Manzanita Lime	5,884'	-2,207'	787'	5,888'	-2,215'	673'
Brushy Canyon	6,671'	-2,994'	1,359'	6,561'	-2,888'	1,386'
Bone Spring Lime	8,030'	-4,353'	205'	7,947'	-4,274'	185'
Avalon	8,235'	-4,558'	1,027'	8,132'	-4,459'	1,048'
First Bone Spring Sand	9,262'	-5,585'	275'	9,180'	-5,507'	272'
Second Bone Spring Shale	9,537'	-5,860'	922'	9,452'	-5,779'	892'
Second Bone Spring Sand	9,958'	-6,281'	1,025'	9,839'	-6,166'	974'
Third Bone Carbonate	10,459'	-6,782'	524'	10,344'	-6,671'	469'
Third Bone Spring Sand	10,983'	-7,306'	172'	10,813'	-7,140'	145'
Wolfcamp	11,155'	-7,478'		10,958'	-7,285'	
TGT Top	9,266'	-5,589'	65'	9,183'	-5,510'	68'
TGT Base	9,331'	-5,654'		9,251'	-5,578'	

Comments

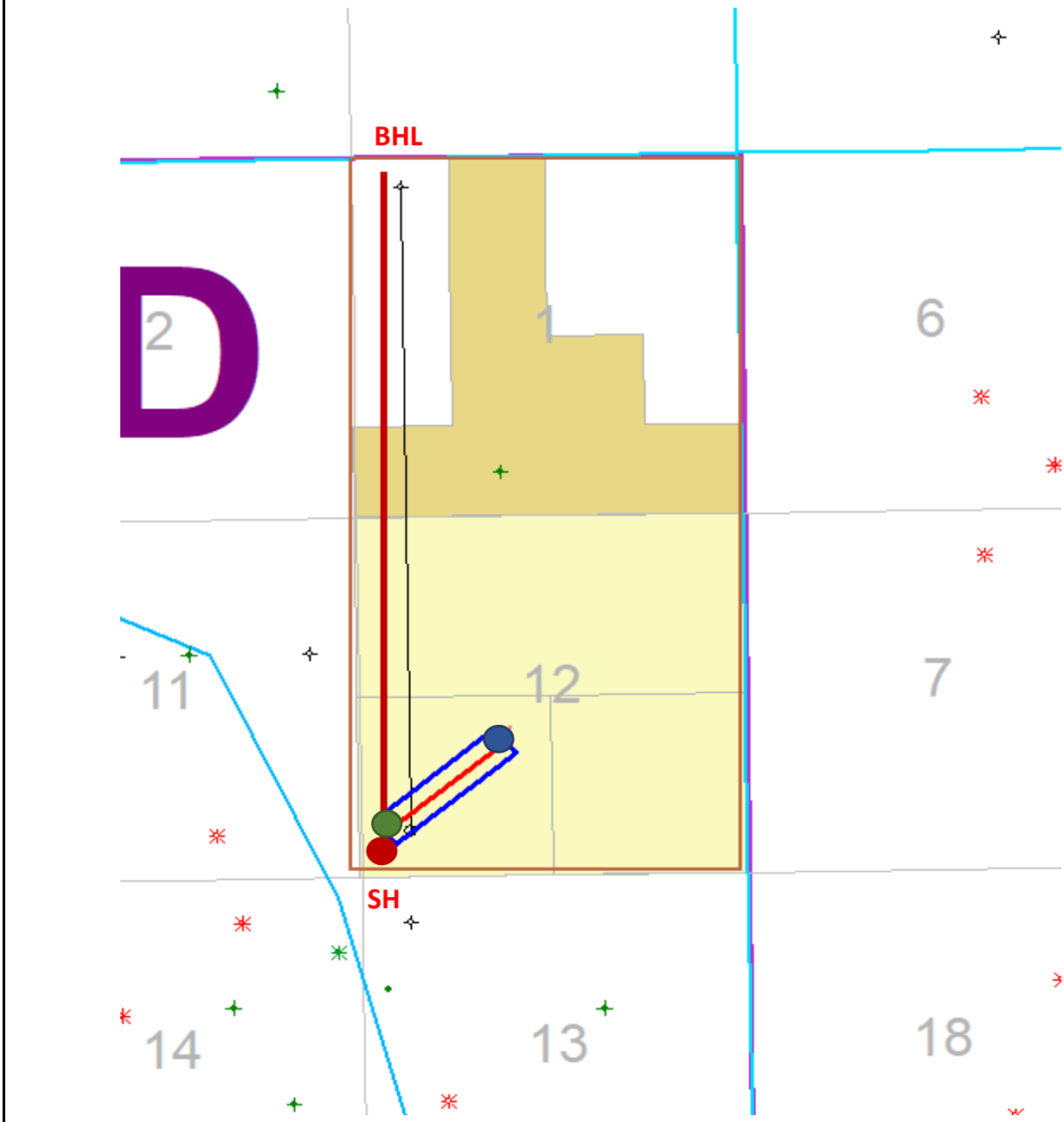
GEOLOGIC PROG

ET TYPE WELLS

CENTENNIAL RESOURCE DEVELOPMENT, LLC

DRILLING WELL	King Eider 12 Fed Com 501H			10/3/2020
HZ TARGET	FBSG Sand		AREA	The Pond
	PRIMARY TYPE LOG			SECONDARY TYPE LOG
	Sims State: 1			State LL 1
	30-025-31883			30-025-27494
LOCATION	20S 35E Sec 12/ 660 FSL 330 FW			20S 35E Sec12/ 1980 FSL 1980 FV
DISTANCE	560' North of planned FTP			2460' NE of planned FTP
DIRECTION SURVEY	No			No
KB ELEV	3,677'			3,673'

LOCATION & STRUCTURE MAP



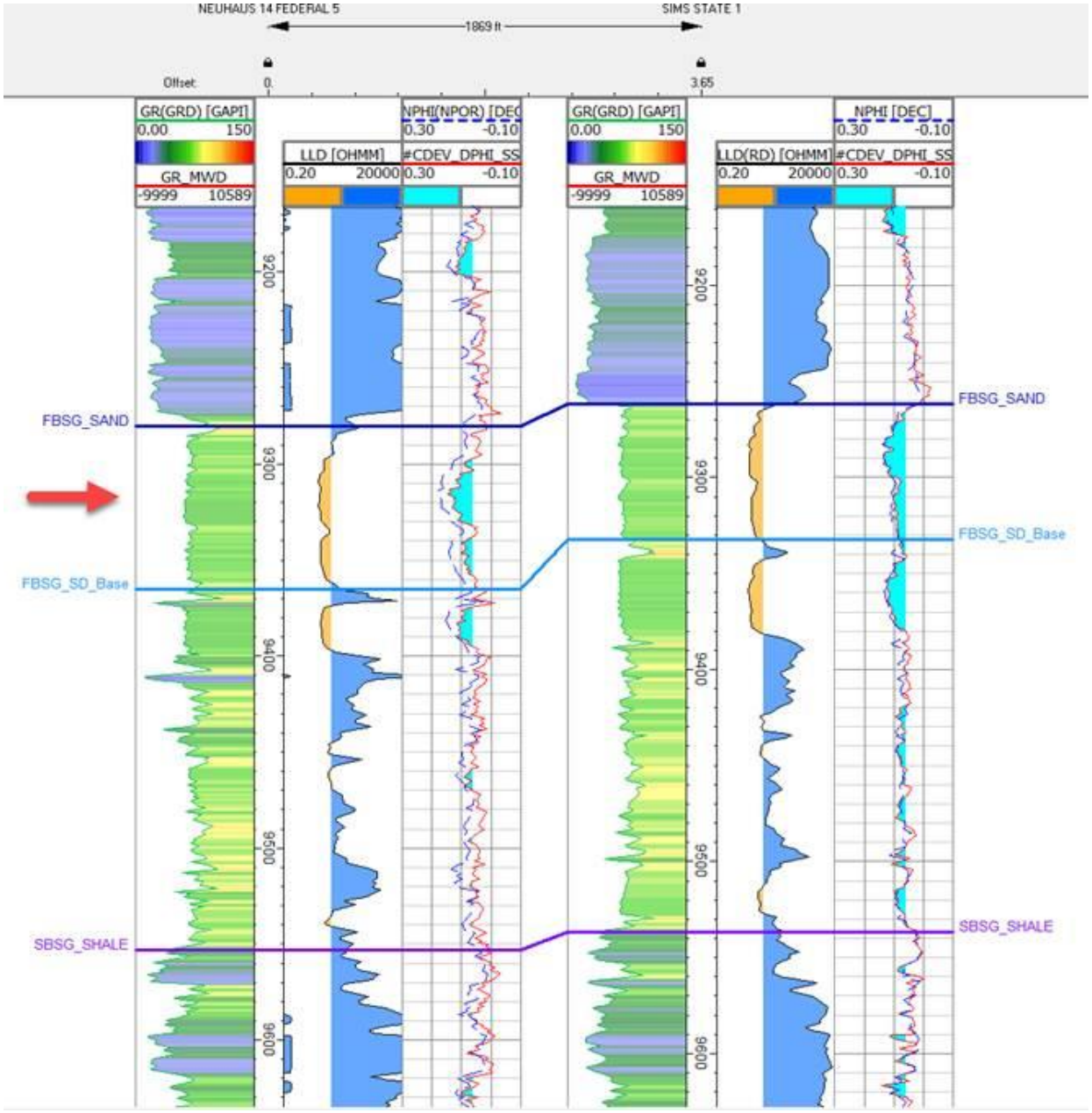
GEOLOGIC PROG

OFFSET TYPE SECTION

CENTENNIAL RESOURCE DEVELOPMENT, LLC

	DRILLING WELL	King Eider 12 Fed Com 501		10/3/2020
	HZ TARGET	FBSG Sand	AREA	FBSG Sand
	PRIMARY TYPE LOG			SECONDARY TYPE LOG
	Sims State: 1			State LL 1
	30-025-31883			30-025-27494
LOCATION	20S 35E Sec 12/ 660 FSL 330 FWL			20S 35E Sec12/ 1980 FSL 1980 FWL
DISTANCE	560' North of planned FTP			2460' NE of planned FTP
DIRECTION SURVEY	No			No
KB ELEV	3,677'			3,673'

Type Log and Target Zone



GEOLOGIC PROG

GEOPHYSICAL DATA

POTENTIAL GEOHAZARDS

SEISMIC DISPLAYS

GEOLOGIC PROG

MUD LOG DISTRIBUTION DETAILS

CENTENNIAL RESOURCE DEVELOPMENT, LLC

WELL NAME	King Eider 12 Fed Com 501H			10/3/2020
AREA	The Pond		API	
HZ TARGET	FBSG Sand		WI %	
LAT LENGTH	9500		AFE#	
TRRC PERMIT			COUNTY	Lea
GEOLOGIST	Isabel Harper	isabel.harper@cdevinc.com		(303) 589-8841

Mud Logging Company		
None		
Contact 1	email	phone
Contact 2	email	phone
Contact 3	email	phone

Daily distribution data requirements and protocol

Daily email distribution list

geodata@cdevinc.com; joe.woodske@cdevinc.com; Andrew.Welshhans@cdevinc.com; Nick.Daniele@cdevinc.com; Dawn.Billesbach@cdevinc.com; Isabel.Harper@cdevinc.com; Ronny.Hise@cdevinc.com; Liam.Kaltenback@cdevinc.com

Final distribution list

Contact Information	Reports	Hard Copies	Digital data	Cuttings
Centennial Resource Development, c/o Joe Woodske, 1001 17th street, Suite 1800,	email final set	Digital Copies Only	email final set	
SCAL, Inc., 2613 South County Road 1257, Midland, TX 79706				**No Dried Samples to be Collected**
MWD Only: Centennial Resource Development, c/o Sarah Ferreyros, 1001 17th street, Suite 1800, Denver, CO, 80202	email final set	2 copies of the 5" MD vertical logs 2 copies of the 5" horizontal logs	email final set	

Project Geologist:	Isabel Harper	**Production:**	Brandon Morin
Operations Geologist:	Joe Woodske	**Surface Land:**	Bailey Joplin
Drilling:	Ronny Hise	**Mineral Land:**	Taylor Thoreson

PHOENIX
TECHNOLOGY SERVICES

Centennial Resources Development, Inc.

Lea County, NM (NAD83 - UTM Zone 13)
King Eider 12 Fed Com
501H

OH
Plan 1 03-04-21

Anticollision Report

04 March, 2021

CENTENNIAL
RESOURCE DEVELOPMENT, INC

PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Reference Plan 1 03-04-21

Filter type:	NO GLOBAL FILTER: Using user defined selection & filtering criteria		
Interpolation Method:	MD Interval 100.00usft	**Error Model:**	ISCWSA
Depth Range:	Unlimited	**Scan Method:**	Closest Approach 3D
Results Limited by:	Maximum center-center distance of 50,000.00 u	**Error Surface:**	Pedal Curve
Warning Levels Evaluated at:	2.00 **Sigma**	**Casing Method:**	Not applied

Survey Tool Program **Date** 3/4/2021

From (usft)	To (usft)	Survey (Wellbore)	Tool Name	Description
0.00	19,423.44	Plan 1 03-04-21 (OH)	MWD+IFR1+MS	OWSG MWD + IFR1 + Multi-Station Correction

Summary

Site Name / Offset Well - Wellbore - Design	Reference Measured Depth (usft)	Offset Measured Depth (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Separation Factor	Warning
King Eider 12 State Com						
502H - OH - Plan 1 12-23-20	8,700.00	8,720.92	1,379.79	1,317.69	22.221	CC
502H - OH - Plan 1 12-23-20	8,900.00	8,918.74	1,380.00	1,316.54	21.746	ES
502H - OH - Plan 1 12-23-20	19,423.44	20,342.08	1,623.37	1,452.26	9.487	SF

Offset Design King Eider 12 State Com - 502H - OH - Plan 1 12-23-20 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Offset Well Error:** 1.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
0.00	0.00	0.00	3.80	1.00	1.00	90.01	-0.26	1,754.82	1,754.82				
100.00	100.00	96.20	100.00	1.04	1.03	90.01	-0.26	1,754.82	1,754.82	1,752.77	2.04	859.125	
200.00	200.00	196.20	200.00	1.36	1.34	90.01	-0.26	1,754.82	1,754.82	1,752.34	2.47	709.978	
300.00	300.00	296.20	300.00	1.75	1.73	90.01	-0.26	1,754.82	1,754.82	1,751.74	3.08	570.645	
400.00	400.00	396.20	400.00	2.12	2.11	90.01	-0.26	1,754.82	1,754.82	1,751.10	3.72	471.779	
500.00	500.00	496.20	500.00	2.49	2.48	90.01	-0.26	1,754.82	1,754.82	1,750.43	4.39	400.060	
600.00	600.00	596.20	600.00	2.86	2.85	90.01	-0.26	1,754.82	1,754.82	1,749.75	5.07	346.332	
700.00	700.00	696.20	700.00	3.23	3.22	90.01	-0.26	1,754.82	1,754.82	1,749.06	5.76	304.858	
800.00	800.00	796.20	800.00	3.59	3.58	90.01	-0.26	1,754.82	1,754.82	1,748.36	6.45	272.001	
900.00	900.00	896.20	900.00	3.96	3.94	90.01	-0.26	1,754.82	1,754.82	1,747.66	7.15	245.391	
1,000.00	1,000.00	996.20	1,000.00	4.32	4.31	90.01	-0.26	1,754.82	1,754.82	1,746.96	7.85	223.434	
1,100.00	1,100.00	1,096.20	1,100.00	4.68	4.67	90.01	-0.26	1,754.82	1,754.82	1,746.26	8.56	205.028	
1,200.00	1,200.00	1,196.20	1,200.00	5.04	5.03	90.01	-0.26	1,754.82	1,754.82	1,745.55	9.27	189.386	
1,300.00	1,300.00	1,296.20	1,300.00	5.41	5.39	90.01	-0.26	1,754.82	1,754.82	1,744.84	9.97	175.936	
1,400.00	1,400.00	1,396.20	1,400.00	5.77	5.75	90.01	-0.26	1,754.82	1,754.82	1,744.13	10.68	164.252	
1,500.00	1,500.00	1,496.20	1,500.00	6.13	6.11	90.01	-0.26	1,754.82	1,754.82	1,743.42	11.39	154.011	
1,600.00	1,600.00	1,596.20	1,600.00	6.49	6.47	90.01	-0.26	1,754.82	1,754.82	1,742.71	12.11	144.963	
1,700.00	1,700.00	1,696.20	1,700.00	6.85	6.83	90.01	-0.26	1,754.82	1,754.82	1,742.00	12.82	136.912	
1,800.00	1,800.00	1,796.20	1,800.00	7.21	7.19	90.01	-0.26	1,754.82	1,754.82	1,741.29	13.53	129.703	
1,900.00	1,900.00	1,896.20	1,900.00	7.57	7.55	90.01	-0.26	1,754.82	1,754.82	1,740.57	14.24	123.212	
2,000.00	2,000.00	1,996.20	2,000.00	7.93	7.91	90.01	-0.26	1,754.82	1,754.82	1,739.86	14.96	117.336	
2,100.00	2,099.99	2,096.19	2,099.99	8.23	8.27	-89.97	-0.26	1,754.82	1,754.81	1,739.18	15.63	112.275	
2,141.83	2,141.82	2,138.02	2,141.82	8.36	8.42	-90.00	-0.26	1,754.82	1,754.81	1,738.90	15.92	110.255	
2,200.00	2,199.96	2,196.16	2,199.96	8.56	8.63	-90.06	-0.26	1,754.82	1,754.82	1,738.50	16.31	107.561	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Offset Design King Eider 12 State Com - 502H - OH - Plan 1 12-23-20 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Offset Well Error:** 1.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
2,300.00	2,299.86	2,296.06	2,299.86	8.89	8.99	-90.20	-0.26	1,754.82	1,754.82	1,737.82	17.00	103.204	
2,400.00	2,399.68	2,395.88	2,399.68	9.22	9.35	-90.40	-0.26	1,754.82	1,754.86	1,737.16	17.70	99.165	
2,500.00	2,499.37	2,535.90	2,539.69	9.56	9.79	-90.75	-0.67	1,753.26	1,753.83	1,735.33	18.50	94.813	
2,600.08	2,598.98	2,677.56	2,681.25	9.90	10.23	-91.19	-1.99	1,748.32	1,750.47	1,731.16	19.32	90.615	
2,700.00	2,698.36	2,818.74	2,822.16	10.24	10.67	-91.61	-4.20	1,740.04	1,744.81	1,724.68	20.13	86.684	
2,800.00	2,797.81	2,959.70	2,962.61	10.58	11.12	-92.01	-7.29	1,728.42	1,736.80	1,715.87	20.93	82.981	
2,900.00	2,897.26	3,100.18	3,102.24	10.92	11.57	-92.38	-11.26	1,713.53	1,726.46	1,704.74	21.72	79.483	
3,000.00	2,996.73	3,240.02	3,240.81	11.24	12.03	-92.66	-16.08	1,695.42	1,713.78	1,691.30	22.49	76.213	
3,100.00	3,096.34	3,379.14	3,378.18	11.57	12.48	-92.76	-21.74	1,674.17	1,698.72	1,675.47	23.24	73.079	
3,200.00	3,196.09	3,483.75	3,481.21	11.92	12.83	-92.72	-26.41	1,656.65	1,682.09	1,658.14	23.95	70.241	
3,300.00	3,295.95	3,582.33	3,578.29	12.26	13.15	-92.60	-30.82	1,640.11	1,665.36	1,640.72	24.64	67.586	
3,400.00	3,395.88	3,680.90	3,675.36	12.61	13.48	-92.42	-35.22	1,623.56	1,648.55	1,623.22	25.33	65.072	
3,500.00	3,495.86	3,779.45	3,772.41	12.96	13.81	-92.18	-39.63	1,607.03	1,631.67	1,605.64	26.03	62.689	
3,600.00	3,595.86	3,877.94	3,869.41	13.29	14.14	87.99	-44.03	1,590.50	1,614.73	1,588.02	26.71	60.454	
3,700.00	3,695.86	3,976.42	3,966.39	13.63	14.48	88.13	-48.43	1,573.97	1,597.80	1,570.39	27.40	58.309	
3,800.00	3,795.86	4,074.90	4,063.37	13.98	14.82	88.27	-52.84	1,557.45	1,580.87	1,552.77	28.10	56.253	
3,900.00	3,895.86	4,173.38	4,160.36	14.34	15.16	88.41	-57.24	1,540.92	1,563.95	1,535.15	28.80	54.295	
4,000.00	3,995.86	4,271.86	4,257.34	14.69	15.50	88.56	-61.64	1,524.40	1,547.05	1,517.54	29.51	52.428	
4,100.00	4,095.86	4,370.34	4,354.33	15.05	15.84	88.71	-66.04	1,507.87	1,530.15	1,499.94	30.21	50.646	
4,200.00	4,195.86	4,468.82	4,451.31	15.40	16.19	88.87	-70.44	1,491.34	1,513.26	1,482.35	30.92	48.945	
4,300.00	4,295.86	4,567.30	4,548.29	15.76	16.54	89.03	-74.85	1,474.82	1,496.39	1,464.76	31.62	47.318	
4,400.00	4,395.86	4,658.96	4,638.58	16.11	16.86	89.18	-78.93	1,459.50	1,479.60	1,447.29	32.32	45.785	
4,500.00	4,495.86	4,737.95	4,716.52	16.47	17.14	89.30	-82.23	1,447.12	1,463.86	1,430.87	32.99	44.370	
4,600.00	4,595.86	4,817.28	4,794.97	16.82	17.42	89.42	-85.26	1,435.73	1,449.46	1,415.79	33.67	43.048	
4,700.00	4,695.86	4,900.00	4,876.93	17.18	17.72	89.53	-88.12	1,424.98	1,436.40	1,402.04	34.35	41.811	
4,800.00	4,795.86	4,976.87	4,953.24	17.53	18.00	89.62	-90.51	1,416.01	1,424.67	1,389.65	35.02	40.678	
4,900.00	4,895.86	5,057.06	5,032.96	17.89	18.29	89.71	-92.72	1,407.71	1,414.30	1,378.61	35.69	39.624	
5,000.00	4,995.86	5,137.48	5,113.03	18.25	18.59	89.79	-94.65	1,400.47	1,405.29	1,368.93	36.36	38.650	
5,100.00	5,095.86	5,218.09	5,193.39	18.60	18.88	89.85	-96.29	1,394.30	1,397.63	1,360.61	37.02	37.754	
5,200.00	5,195.86	5,300.00	5,275.13	18.96	19.18	89.91	-97.67	1,389.16	1,391.33	1,353.65	37.68	36.927	
5,300.00	5,295.86	5,379.78	5,354.80	19.31	19.47	89.95	-98.71	1,385.23	1,386.40	1,348.07	38.32	36.176	
5,400.00	5,395.86	5,460.79	5,435.76	19.67	19.76	89.98	-99.48	1,382.34	1,382.83	1,343.86	38.97	35.487	
5,500.00	5,495.86	5,541.87	5,516.82	20.03	20.05	90.00	-99.96	1,380.55	1,380.63	1,341.02	39.60	34.861	
5,600.00	5,595.86	5,622.98	5,597.93	20.38	20.34	90.01	-100.14	1,379.88	1,379.79	1,339.56	40.23	34.298	
5,637.43	5,633.29	5,658.35	5,633.29	20.52	20.46	90.01	-100.14	1,379.87	1,379.79	1,339.31	40.48	34.085	
5,700.00	5,695.86	5,720.92	5,695.86	20.74	20.67	90.01	-100.14	1,379.87	1,379.79	1,338.87	40.92	33.723	
5,800.00	5,795.86	5,820.92	5,795.86	21.10	21.01	90.01	-100.14	1,379.87	1,379.79	1,338.17	41.61	33.157	
5,900.00	5,895.86	5,920.92	5,895.86	21.45	21.35	90.01	-100.14	1,379.87	1,379.79	1,337.47	42.31	32.608	
6,000.00	5,995.86	6,020.92	5,995.86	21.81	21.69	90.01	-100.14	1,379.87	1,379.79	1,336.77	43.02	32.076	
6,100.00	6,095.86	6,120.92	6,095.86	22.17	22.03	90.01	-100.14	1,379.87	1,379.79	1,336.07	43.72	31.560	
6,200.00	6,195.86	6,220.92	6,195.86	22.52	22.37	90.01	-100.14	1,379.87	1,379.79	1,335.36	44.42	31.061	
6,300.00	6,295.86	6,320.92	6,295.86	22.88	22.72	90.01	-100.14	1,379.87	1,379.79	1,334.66	45.12	30.577	
6,400.00	6,395.86	6,420.92	6,395.86	23.24	23.06	90.01	-100.14	1,379.87	1,379.79	1,333.96	45.83	30.108	
6,500.00	6,495.86	6,520.92	6,495.86	23.60	23.41	90.01	-100.14	1,379.87	1,379.79	1,333.25	46.53	29.652	
6,600.00	6,595.86	6,620.92	6,595.86	23.95	23.75	90.01	-100.14	1,379.87	1,379.79	1,332.55	47.24	29.210	
6,700.00	6,695.86	6,720.92	6,695.86	24.31	24.10	90.01	-100.14	1,379.87	1,379.79	1,331.84	47.94	28.781	
6,800.00	6,795.86	6,820.92	6,795.86	24.67	24.45	90.01	-100.14	1,379.87	1,379.79	1,331.14	48.65	28.364	
6,900.00	6,895.86	6,920.92	6,895.86	25.02	24.81	90.01	-100.14	1,379.87	1,379.79	1,330.43	49.35	27.958	
7,000.00	6,995.86	7,020.92	6,995.86	25.38	25.16	90.01	-100.14	1,379.87	1,379.79	1,329.73	50.06	27.564	
7,100.00	7,095.86	7,120.92	7,095.86	25.74	25.51	90.01	-100.14	1,379.87	1,379.79	1,329.02	50.76	27.181	
7,200.00	7,195.86	7,220.92	7,195.86	26.10	25.87	90.01	-100.14	1,379.87	1,379.79	1,328.32	51.47	26.808	
7,300.00	7,295.86	7,320.92	7,295.86	26.45	26.22	90.01	-100.14	1,379.87	1,379.79	1,327.61	52.18	26.445	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Offset Design King Eider 12 State Com - 502H - OH - Plan 1 12-23-20 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Offset Well Error:** 1.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
7,400.00	7,395.86	7,420.92	7,395.86	26.81	26.58	90.01	-100.14	1,379.87	1,379.79	1,326.90	52.88	26.091	
7,500.00	7,495.86	7,520.92	7,495.86	27.17	26.94	90.01	-100.14	1,379.87	1,379.79	1,326.20	53.59	25.747	
7,600.00	7,595.86	7,620.92	7,595.86	27.52	27.29	90.01	-100.14	1,379.87	1,379.79	1,325.49	54.30	25.411	
7,700.00	7,695.86	7,720.92	7,695.86	27.88	27.65	90.01	-100.14	1,379.87	1,379.79	1,324.78	55.01	25.084	
7,800.00	7,795.86	7,820.92	7,795.86	28.24	28.01	90.01	-100.14	1,379.87	1,379.79	1,324.07	55.71	24.766	
7,900.00	7,895.86	7,920.92	7,895.86	28.60	28.36	90.01	-100.14	1,379.87	1,379.79	1,323.36	56.42	24.455	
8,000.00	7,995.86	8,020.92	7,995.86	28.95	28.72	90.01	-100.14	1,379.87	1,379.79	1,322.66	57.13	24.152	
8,100.00	8,095.86	8,120.92	8,095.86	29.31	29.08	90.01	-100.14	1,379.87	1,379.79	1,321.95	57.84	23.856	
8,200.00	8,195.86	8,220.92	8,195.86	29.67	29.44	90.01	-100.14	1,379.87	1,379.79	1,321.24	58.55	23.567	
8,300.00	8,295.86	8,320.92	8,295.86	30.03	29.80	90.01	-100.14	1,379.87	1,379.79	1,320.53	59.26	23.285	
8,400.00	8,395.86	8,420.92	8,395.86	30.38	30.15	90.01	-100.14	1,379.87	1,379.79	1,319.82	59.97	23.010	
8,500.00	8,495.86	8,520.92	8,495.86	30.74	30.51	90.01	-100.14	1,379.87	1,379.79	1,319.11	60.68	22.741	
8,600.00	8,595.86	8,620.92	8,595.86	31.10	30.87	90.01	-100.14	1,379.87	1,379.79	1,318.40	61.38	22.478	
8,700.00	8,695.86	8,720.92	8,695.86	31.46	31.23	90.01	-100.14	1,379.87	1,379.79	1,317.69	62.09	22.221	CC
8,700.28	8,696.14	8,721.20	8,696.14	31.46	31.23	90.06	-100.14	1,379.87	1,379.79	1,317.69	62.10	22.220	
8,800.00	8,795.74	8,820.79	8,795.74	31.83	31.58	90.20	-100.14	1,379.87	1,379.79	1,317.00	62.79	21.973	
8,900.00	8,893.68	8,918.74	8,893.68	32.33	31.94	90.97	-100.14	1,379.87	1,380.00	1,316.54	63.46	21.746	ES
9,000.00	8,986.74	9,011.80	8,986.74	32.81	32.27	92.26	-100.14	1,379.87	1,381.12	1,317.04	64.08	21.554	
9,100.00	9,072.10	9,097.15	9,072.10	33.23	32.57	93.76	-100.14	1,379.87	1,384.37	1,319.74	64.63	21.422	
9,200.00	9,147.15	9,172.20	9,147.15	33.57	32.84	95.11	-100.14	1,379.87	1,391.27	1,326.17	65.10	21.372	
9,300.00	9,209.62	9,234.67	9,209.62	33.82	33.07	95.89	-100.14	1,379.87	1,403.39	1,337.91	65.49	21.430	
9,400.00	9,257.61	9,282.66	9,257.61	33.99	33.24	95.73	-100.14	1,379.87	1,422.00	1,356.21	65.79	21.615	
9,500.00	9,289.65	9,314.71	9,289.65	34.09	33.35	94.31	-100.14	1,379.87	1,447.79	1,381.79	66.00	21.937	
9,600.00	9,304.79	9,329.85	9,304.79	34.14	33.41	91.45	-100.14	1,379.87	1,480.68	1,414.57	66.11	22.397	
9,700.00	9,306.00	9,331.05	9,306.00	34.17	33.41	90.00	-100.14	1,379.87	1,519.82	1,453.66	66.15	22.974	
9,800.00	9,306.00	9,331.05	9,306.00	34.20	33.41	90.00	-100.14	1,379.87	1,564.38	1,498.17	66.21	23.627	
9,900.00	9,306.00	9,331.05	9,306.00	34.24	33.41	90.00	-100.14	1,379.87	1,613.92	1,547.63	66.28	24.349	
10,000.00	9,306.00	10,918.64	10,161.30	34.29	36.80	121.79	837.07	1,379.08	1,623.38	1,559.19	64.19	25.291	
10,100.00	9,306.00	11,018.64	10,161.30	34.35	36.93	121.79	937.07	1,379.00	1,623.38	1,558.84	64.53	25.156	
10,200.00	9,306.00	11,118.64	10,161.30	34.44	37.08	121.79	1,037.07	1,378.91	1,623.38	1,558.47	64.91	25.009	
10,300.00	9,306.00	11,218.64	10,161.30	34.54	37.24	121.79	1,137.07	1,378.83	1,623.38	1,558.05	65.32	24.851	
10,400.00	9,306.00	11,318.64	10,161.30	34.67	37.42	121.79	1,237.07	1,378.74	1,623.38	1,557.61	65.77	24.682	
10,500.00	9,306.00	11,418.64	10,161.30	34.83	37.61	121.79	1,337.07	1,378.66	1,623.38	1,557.13	66.25	24.503	
10,600.00	9,306.00	11,518.64	10,161.30	35.01	37.81	121.79	1,437.07	1,378.58	1,623.38	1,556.61	66.76	24.315	
10,700.00	9,306.00	11,618.64	10,161.30	35.22	38.04	121.79	1,537.07	1,378.49	1,623.38	1,556.07	67.31	24.118	
10,800.00	9,306.00	11,718.64	10,161.30	35.44	38.27	121.79	1,637.07	1,378.41	1,623.38	1,555.49	67.88	23.914	
10,900.00	9,306.00	11,818.64	10,161.30	35.69	38.52	121.79	1,737.07	1,378.32	1,623.38	1,554.89	68.49	23.703	
11,000.00	9,306.00	11,918.64	10,161.30	35.96	38.79	121.79	1,837.07	1,378.24	1,623.38	1,554.25	69.12	23.485	
11,100.00	9,306.00	12,018.64	10,161.30	36.25	39.07	121.79	1,937.07	1,378.16	1,623.38	1,553.59	69.79	23.262	
11,200.00	9,306.00	12,118.64	10,161.30	36.55	39.36	121.79	2,037.07	1,378.07	1,623.38	1,552.90	70.48	23.034	
11,300.00	9,306.00	12,218.64	10,161.30	36.87	39.66	121.79	2,137.07	1,377.99	1,623.38	1,552.18	71.20	22.802	
11,400.00	9,306.00	12,318.64	10,161.30	37.21	39.98	121.79	2,237.07	1,377.90	1,623.38	1,551.44	71.94	22.566	
11,500.00	9,306.00	12,418.64	10,161.30	37.56	40.31	121.79	2,337.07	1,377.82	1,623.38	1,550.67	72.71	22.327	
11,600.00	9,306.00	12,518.64	10,161.30	37.92	40.65	121.79	2,437.07	1,377.73	1,623.38	1,549.87	73.50	22.086	
11,700.00	9,306.00	12,618.64	10,161.30	38.29	41.00	121.79	2,537.07	1,377.65	1,623.38	1,549.06	74.32	21.843	
11,800.00	9,306.00	12,718.64	10,161.30	38.68	41.36	121.79	2,637.07	1,377.57	1,623.38	1,548.22	75.16	21.599	
11,900.00	9,306.00	12,818.64	10,161.30	39.08	41.74	121.79	2,737.07	1,377.48	1,623.38	1,547.35	76.02	21.354	
12,000.00	9,306.00	12,918.64	10,161.30	39.49	42.12	121.79	2,837.07	1,377.40	1,623.38	1,546.47	76.90	21.109	
12,100.00	9,306.00	13,018.64	10,161.30	39.91	42.52	121.79	2,937.07	1,377.31	1,623.38	1,545.57	77.81	20.864	
12,200.00	9,306.00	13,118.64	10,161.30	40.34	42.92	121.79	3,037.07	1,377.23	1,623.38	1,544.64	78.73	20.619	
12,300.00	9,306.00	13,218.64	10,161.30	40.78	43.34	121.79	3,137.07	1,377.14	1,623.38	1,543.70	79.68	20.374	
12,400.00	9,306.00	13,318.64	10,161.30	41.24	43.77	121.79	3,237.07	1,377.06	1,623.38	1,542.74	80.64	20.131	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Offset Design King Eider 12 State Com - 502H - OH - Plan 1 12-23-20 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Offset Well Error:** 1.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
12,500.00	9,306.00	13,418.64	10,161.30	41.70	44.20	121.79	3,337.07	1,376.98	1,623.38	1,541.76	81.62	19.890	
12,600.00	9,306.00	13,518.64	10,161.30	42.17	44.65	121.79	3,437.07	1,376.89	1,623.38	1,540.76	82.62	19.649	
12,700.00	9,306.00	13,618.64	10,161.30	42.65	45.10	121.79	3,537.07	1,376.81	1,623.38	1,539.74	83.63	19.411	
12,800.00	9,306.00	13,718.64	10,161.30	43.14	45.56	121.79	3,637.07	1,376.72	1,623.37	1,538.71	84.66	19.175	
12,900.00	9,306.00	13,818.64	10,161.30	43.63	46.03	121.79	3,737.07	1,376.64	1,623.37	1,537.67	85.71	18.941	
13,000.00	9,306.00	13,918.64	10,161.30	44.14	46.51	121.79	3,837.07	1,376.55	1,623.37	1,536.61	86.77	18.710	
13,100.00	9,306.00	14,018.64	10,161.30	44.65	46.99	121.79	3,937.07	1,376.47	1,623.37	1,535.53	87.84	18.481	
13,200.00	9,306.00	14,118.64	10,161.30	45.17	47.48	121.79	4,037.07	1,376.39	1,623.37	1,534.44	88.93	18.254	
13,300.00	9,306.00	14,218.64	10,161.30	45.69	47.98	121.79	4,137.07	1,376.30	1,623.37	1,533.34	90.03	18.031	
13,400.00	9,306.00	14,318.64	10,161.30	46.23	48.49	121.79	4,237.07	1,376.22	1,623.37	1,532.23	91.15	17.810	
13,500.00	9,306.00	14,418.64	10,161.30	46.76	49.00	121.79	4,337.07	1,376.13	1,623.37	1,531.10	92.28	17.593	
13,600.00	9,306.00	14,518.64	10,161.30	47.31	49.52	121.79	4,437.07	1,376.05	1,623.37	1,529.96	93.41	17.378	
13,700.00	9,306.00	14,618.64	10,161.30	47.86	50.05	121.79	4,537.07	1,375.96	1,623.37	1,528.81	94.57	17.167	
13,800.00	9,306.00	14,718.64	10,161.30	48.42	50.58	121.79	4,637.07	1,375.88	1,623.37	1,527.65	95.73	16.958	
13,900.00	9,306.00	14,818.64	10,161.30	48.98	51.12	121.79	4,737.07	1,375.80	1,623.37	1,526.47	96.90	16.753	
14,000.00	9,306.00	14,918.64	10,161.30	49.55	51.67	121.79	4,837.07	1,375.71	1,623.37	1,525.29	98.08	16.551	
14,100.00	9,306.00	15,018.64	10,161.30	50.13	52.22	121.79	4,937.07	1,375.63	1,623.37	1,524.10	99.28	16.352	
14,200.00	9,306.00	15,118.64	10,161.30	50.71	52.78	121.79	5,037.07	1,375.54	1,623.37	1,522.90	100.48	16.156	
14,300.00	9,306.00	15,218.64	10,161.30	51.29	53.34	121.79	5,137.07	1,375.46	1,623.37	1,521.68	101.69	15.964	
14,400.00	9,306.00	15,318.64	10,161.30	51.88	53.90	121.79	5,237.07	1,375.37	1,623.37	1,520.46	102.91	15.775	
14,500.00	9,306.00	15,418.64	10,161.30	52.48	54.47	121.79	5,337.07	1,375.29	1,623.37	1,519.23	104.14	15.588	
14,600.00	9,306.00	15,518.64	10,161.30	53.08	55.05	121.79	5,437.07	1,375.21	1,623.37	1,518.00	105.38	15.405	
14,700.00	9,306.00	15,618.64	10,161.30	53.68	55.63	121.79	5,537.07	1,375.12	1,623.37	1,516.75	106.62	15.225	
14,800.00	9,306.00	15,718.64	10,161.30	54.29	56.22	121.79	5,637.07	1,375.04	1,623.37	1,515.50	107.88	15.048	
14,900.00	9,306.00	15,818.64	10,161.30	54.90	56.81	121.79	5,737.07	1,374.95	1,623.37	1,514.24	109.14	14.875	
15,000.00	9,306.00	15,918.64	10,161.30	55.51	57.40	121.79	5,837.07	1,374.87	1,623.37	1,512.97	110.41	14.704	
15,100.00	9,306.00	16,018.64	10,161.30	56.13	58.00	121.79	5,937.07	1,374.79	1,623.37	1,511.69	111.68	14.536	
15,200.00	9,306.00	16,118.64	10,161.30	56.76	58.60	121.79	6,037.07	1,374.70	1,623.37	1,510.41	112.96	14.371	
15,300.00	9,306.00	16,218.64	10,161.30	57.38	59.21	121.79	6,137.07	1,374.62	1,623.37	1,509.12	114.25	14.209	
15,400.00	9,306.00	16,318.64	10,161.30	58.01	59.82	121.79	6,237.07	1,374.53	1,623.37	1,507.83	115.55	14.050	
15,500.00	9,306.00	16,418.64	10,161.30	58.65	60.43	121.79	6,337.07	1,374.45	1,623.37	1,506.53	116.85	13.893	
15,600.00	9,306.00	16,518.64	10,161.30	59.28	61.05	121.79	6,437.07	1,374.36	1,623.37	1,505.22	118.15	13.740	
15,700.00	9,306.00	16,618.64	10,161.30	59.92	61.67	121.79	6,537.07	1,374.28	1,623.37	1,503.91	119.46	13.589	
15,800.00	9,306.00	16,718.64	10,161.30	60.56	62.29	121.79	6,637.07	1,374.20	1,623.37	1,502.59	120.78	13.440	
15,900.00	9,306.00	16,818.64	10,161.30	61.21	62.92	121.79	6,737.07	1,374.11	1,623.37	1,501.27	122.11	13.295	
16,000.00	9,306.00	16,918.64	10,161.30	61.86	63.55	121.79	6,837.07	1,374.03	1,623.37	1,499.94	123.43	13.152	
16,100.00	9,306.00	17,018.64	10,161.30	62.51	64.18	121.79	6,937.07	1,373.94	1,623.37	1,498.60	124.77	13.011	
16,200.00	9,306.00	17,118.64	10,161.30	63.16	64.82	121.79	7,037.07	1,373.86	1,623.37	1,497.27	126.10	12.873	
16,300.00	9,306.00	17,218.64	10,161.30	63.82	65.45	121.79	7,137.07	1,373.77	1,623.37	1,495.92	127.45	12.738	
16,400.00	9,306.00	17,318.64	10,161.30	64.48	66.10	121.79	7,237.07	1,373.69	1,623.37	1,494.58	128.79	12.604	
16,500.00	9,306.00	17,418.64	10,161.30	65.14	66.74	121.79	7,337.07	1,373.61	1,623.37	1,493.22	130.15	12.473	
16,600.00	9,306.00	17,518.64	10,161.30	65.80	67.39	121.79	7,437.07	1,373.52	1,623.37	1,491.87	131.50	12.345	
16,700.00	9,306.00	17,618.64	10,161.30	66.47	68.04	121.79	7,537.07	1,373.44	1,623.37	1,490.51	132.86	12.218	
16,800.00	9,306.00	17,718.64	10,161.30	67.14	68.69	121.79	7,637.07	1,373.35	1,623.37	1,489.14	134.23	12.094	
16,900.00	9,306.00	17,818.64	10,161.30	67.81	69.34	121.79	7,737.07	1,373.27	1,623.37	1,487.78	135.59	11.972	
17,000.00	9,306.00	17,918.64	10,161.30	68.48	70.00	121.79	7,837.07	1,373.18	1,623.37	1,486.40	136.97	11.852	
17,100.00	9,306.00	18,018.64	10,161.30	69.15	70.66	121.79	7,937.07	1,373.10	1,623.37	1,485.03	138.34	11.735	
17,200.00	9,306.00	18,118.64	10,161.30	69.83	71.32	121.79	8,037.07	1,373.02	1,623.37	1,483.65	139.72	11.619	
17,300.00	9,306.00	18,218.64	10,161.30	70.51	71.98	121.79	8,137.07	1,372.93	1,623.37	1,482.27	141.10	11.505	
17,400.00	9,306.00	18,318.64	10,161.30	71.19	72.65	121.79	8,237.07	1,372.85	1,623.37	1,480.88	142.49	11.393	
17,500.00	9,306.00	18,418.64	10,161.30	71.87	73.31	121.79	8,337.07	1,372.76	1,623.37	1,479.49	143.88	11.283	
17,600.00	9,306.00	18,518.64	10,161.30	72.55	73.98	121.79	8,437.07	1,372.68	1,623.37	1,478.10	145.27	11.175	

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Offset Design King Eider 12 State Com - 502H - OH - Plan 1 12-23-20 — **Offset Site Error:** 0.00 usft

Survey Program: 0-MWD+IFR1+MS — **Offset Well Error:** 1.00 usft

Reference Measured Depth (usft)	Reference Vertical Depth (usft)	Offset Measured Depth (usft)	Offset Vertical Depth (usft)	Semi Major Axis Reference (usft)	Semi Major Axis Offset (usft)	Highside Toolface (°)	Offset Wellbore Centre +N/-S (usft)	Offset Wellbore Centre +E/-W (usft)	Distance Between Centres (usft)	Distance Between Ellipses (usft)	Minimum Separation (usft)	Separation Factor	Warning
17,700.00	9,306.00	18,618.64	10,161.30	73.24	74.66	121.79	8,537.07	1,372.59	1,623.37	1,476.71	146.66	11.069	
17,800.00	9,306.00	18,718.64	10,161.30	73.92	75.33	121.79	8,637.07	1,372.51	1,623.37	1,475.31	148.06	10.964	
17,900.00	9,306.00	18,818.64	10,161.30	74.61	76.00	121.79	8,737.07	1,372.43	1,623.37	1,473.91	149.46	10.861	
18,000.00	9,306.00	18,918.64	10,161.30	75.30	76.68	121.79	8,837.07	1,372.34	1,623.37	1,472.50	150.87	10.760	
18,100.00	9,306.00	19,018.64	10,161.30	75.99	77.36	121.79	8,937.07	1,372.26	1,623.37	1,471.10	152.27	10.661	
18,200.00	9,306.00	19,118.64	10,161.30	76.69	78.04	121.79	9,037.07	1,372.17	1,623.37	1,469.69	153.68	10.563	
18,300.00	9,306.00	19,218.64	10,161.30	77.38	78.72	121.79	9,137.07	1,372.09	1,623.37	1,468.28	155.09	10.467	
18,400.00	9,306.00	19,318.64	10,161.30	78.08	79.40	121.79	9,237.07	1,372.00	1,623.37	1,466.86	156.51	10.372	
18,500.00	9,306.00	19,418.64	10,161.30	78.77	80.09	121.79	9,337.07	1,371.92	1,623.37	1,465.44	157.93	10.279	
18,600.00	9,306.00	19,518.64	10,161.30	79.47	80.77	121.79	9,437.07	1,371.84	1,623.37	1,464.02	159.34	10.188	
18,700.00	9,306.00	19,618.64	10,161.30	80.17	81.46	121.79	9,537.07	1,371.75	1,623.37	1,462.60	160.77	10.098	
18,800.00	9,306.00	19,718.64	10,161.30	80.87	82.15	121.79	9,637.07	1,371.67	1,623.37	1,461.18	162.19	10.009	
18,900.00	9,306.00	19,818.64	10,161.30	81.57	82.84	121.79	9,737.07	1,371.58	1,623.37	1,459.75	163.62	9.922	
19,000.00	9,306.00	19,918.64	10,161.30	82.28	83.53	121.79	9,837.07	1,371.50	1,623.37	1,458.33	165.04	9.836	
19,100.00	9,306.00	20,018.64	10,161.30	82.98	84.23	121.79	9,937.07	1,371.42	1,623.37	1,456.90	166.47	9.752	
19,200.00	9,306.00	20,118.64	10,161.30	83.69	84.92	121.79	10,037.07	1,371.33	1,623.37	1,455.46	167.91	9.668	
19,300.00	9,306.00	20,218.64	10,161.30	84.40	85.62	121.79	10,137.07	1,371.25	1,623.37	1,454.03	169.34	9.586	
19,400.00	9,306.00	20,318.64	10,161.30	85.10	86.31	121.79	10,237.07	1,371.16	1,623.37	1,452.59	170.78	9.506	
19,423.44	9,306.00	20,342.08	10,161.30	85.27	86.48	121.79	10,260.50	1,371.14	1,623.37	1,452.26	171.11	9.487	SF

PHOENIX TECHNOLOGY SERVICES

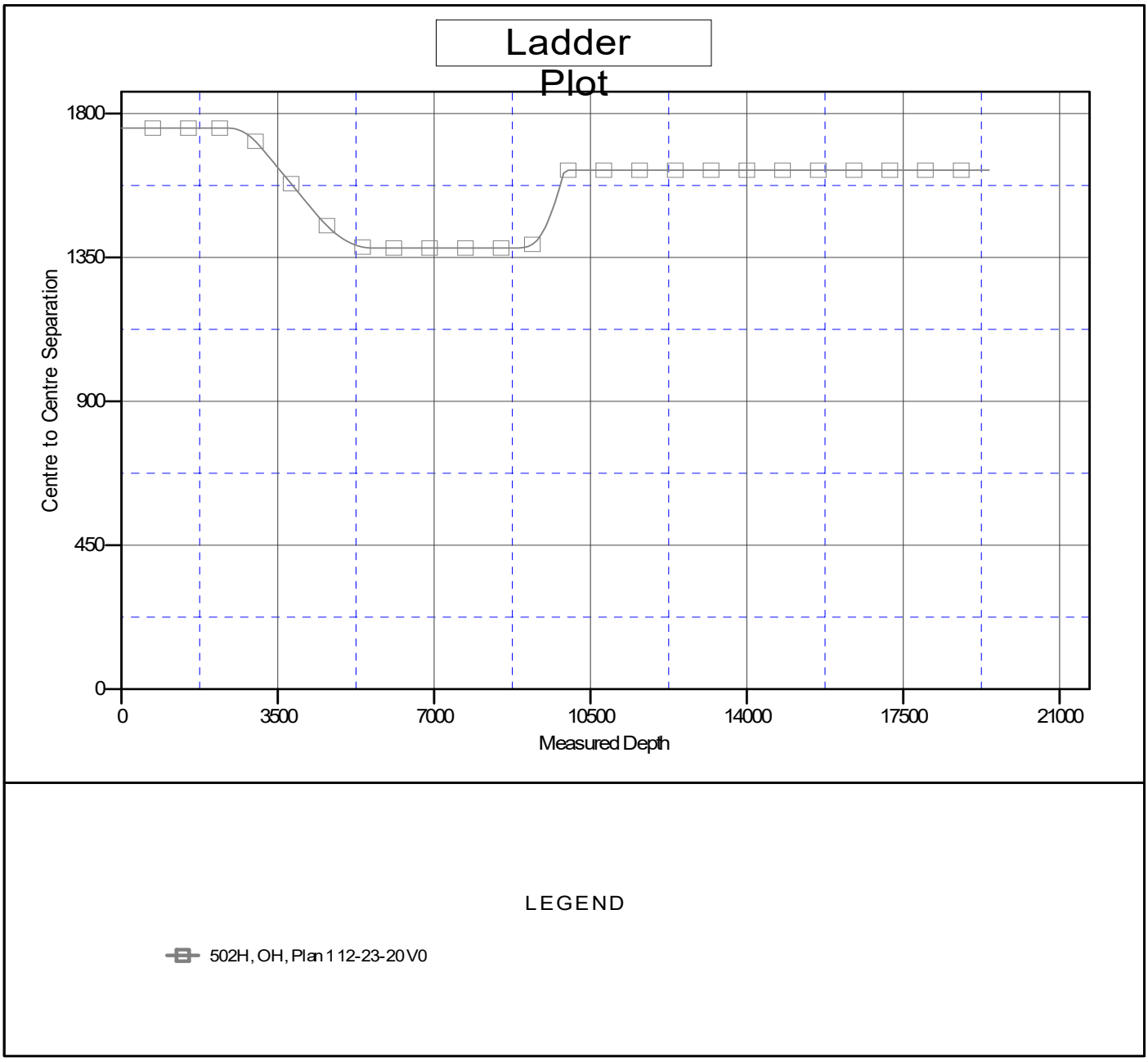
Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB @ 3681.30usft (TBD)
Offset Depths are relative to Offset Datum
Central Meridian is 105° 0' 0.000000 W

Coordinates are relative to: 501H
Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N
Grid Convergence at Surface is: 0.85°



CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

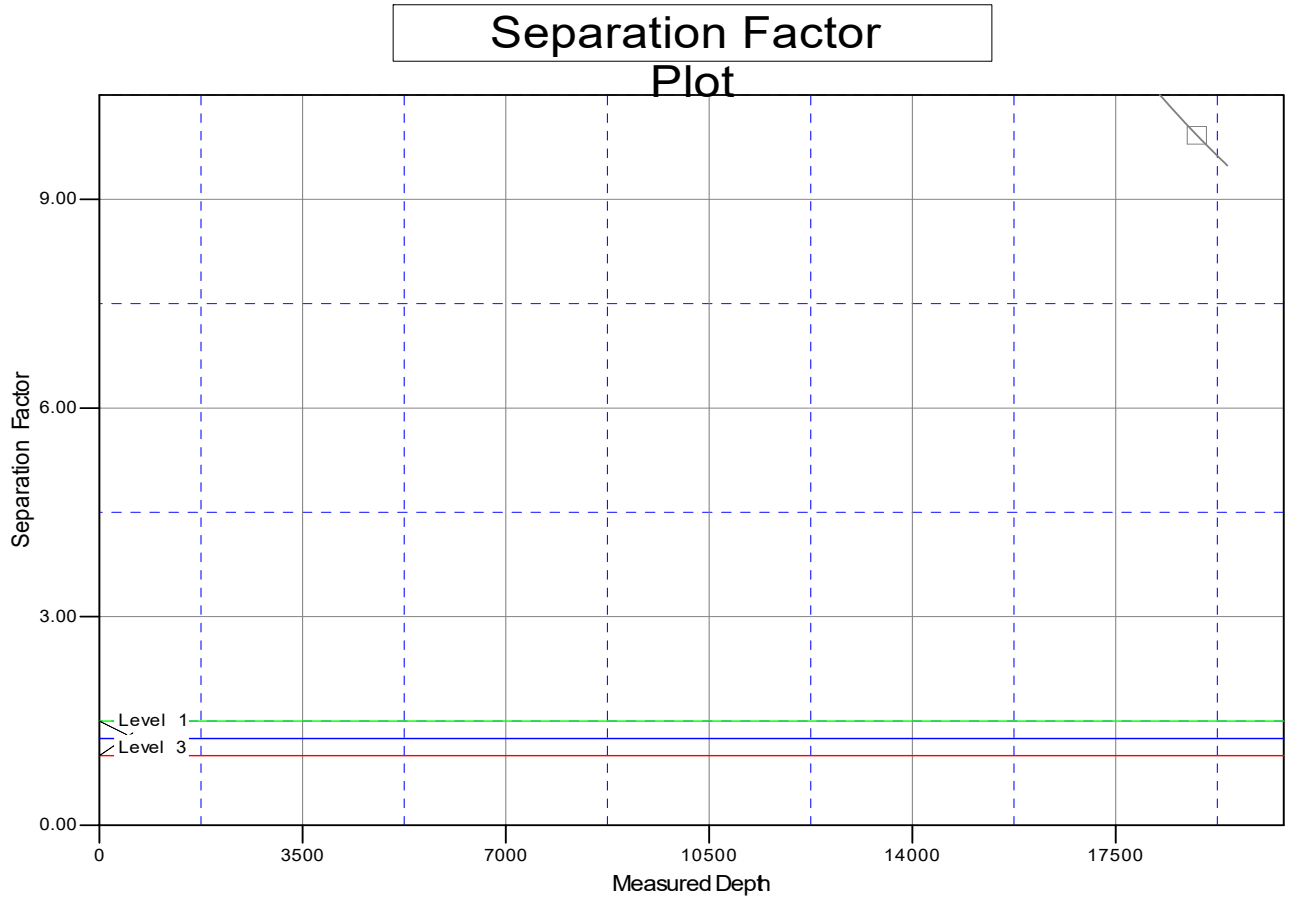
PHOENIX TECHNOLOGY SERVICES

Anticollision Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Company:	Centennial Resources Development, Inc.	**Local Co-ordinate Reference:**	Well 501H
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Reference Site:	King Eider 12 Fed Com	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site Error:	0.00 usft	**North Reference:**	True
Reference Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Well Error:	1.00 usft	**Output errors are at**	2.00 sigma
Reference Wellbore	OH	**Database:**	USA Compass
Reference Design:	Plan 1 03-04-21	**Offset TVD Reference:**	Reference Datum

Reference Depths are relative to RKB @ 3681.30usft (TBD)	Coordinates are relative to: 501H
Offset Depths are relative to Offset Datum	Coordinate System is Universal Transverse Mercator (US Survey Feet), Zone 13N
Central Meridian is 105° 0' 0.000000 W	Grid Convergence at Surface is: 0.85°



LEGEND

502H, OH, Plan 1 12-23-20 V0

CC - Min centre to center distance or covergent point, SF - min separation factor, ES - min ellipse separation

CENTENNIAL
RESOURCE DEVELOPMENT, INC

Project: Lea County, NM (NAD83 - UTM Zone 13)
Site: King Eider 12 Fed Com
Well: 501H
Wellbore: OH
Design: Plan 1 03-04-21
Rig: TBD

PHOENIX TECHNOLOGY SERVICES

Azimuths to True North
Magnetic North: 6.41°

Magnetic Field
Strength: 47872.9snT
Dip Angle: 60.48°
Date: 5/3/2021
Model: MVHD

RKB @ 3681.30usft (TBD)
Ground Level: 3655.30

WELL DETAILS

Ground Level: 3655.30

+N/-S	+E/-W	Northing	Easting	Latittude	Longitude
0.00	0.00	11830510.46	2127490.93	32° 34' 51.762909 N	103° 25' 5.789145 W

SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSect	Target	Annotation
1	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00		
2	2000.00	0.00	0.00	2000.00	0.00	0.00	0.00	0.00	0.00		KOP, Begin 1.00°/100' Build
3	2600.08	6.00	179.95	2598.98	-31.40	0.03	1.00	179.95	-31.40		Hold 6.00° Inc at 179.95° Azm
4	2954.81	6.00	179.95	2951.77	-68.48	0.06	0.00	0.00	-68.48		Begin 1.00°/100' Drop
5	3554.89	0.00	0.00	3550.75	-99.88	0.09	1.00	180.00	-99.88		Begin Vertical Hold
6	8737.18	0.00	0.00	8733.04	-99.88	0.09	0.00	0.00	-99.88		KOP2, Begin 10.00°/100' Build
7	9637.18	90.00	359.95	9306.00	473.08	-0.40	10.00	359.95	473.08		LP, Hold 90.00° Inc at 359.95° Azm
8	19423.44	90.00	359.95	9306.00	10259.34	-8.63	0.00	0.00	10259.34	BHL - King Eider 12 Fed Com 501H	TD at 19423.44

DESIGN TARGET DETAILS

Name	TVD	+N/-S	+E/-W	Northing	Easting	Latitude	Longitude
BHL - King Eider 12 Fed Com 501H	9306.00	10259.34	-8.63	11840767.22	2127329.77	32° 36' 33.274777 N	103° 25' 5.889536 W
FTP - King Eider 12 Fed Com 501H	9306.00	-99.88	0.09	11830410.61	2127492.50	32° 34' 50.774684 N	103° 25' 5.788149 W

FORMATION TOP DETAILS

TVDPath	MDPath	Formation
2025.30	2025.30	Rustler
2369.30	2369.56	Salado
3155.30	3159.12	BX BLM (Fletcher)
3708.30	3712.44	Yates
3719.30	3723.44	Seven Rivers
4051.30	4055.44	Queen
5072.30	5076.44	Capitan
5618.30	5622.44	Cherry Canyon
5888.30	5892.44	Manzanita Lime
6675.30	6679.44	Brushy Canyon
8034.30	8038.44	Bone Spring Lime
8239.30	8243.44	Avalon
9266.30	9422.64	First Bone Spring Sand

LEGEND

502H, OH, Plan 1 12-23-20 V0
Plan 1 03-04-21

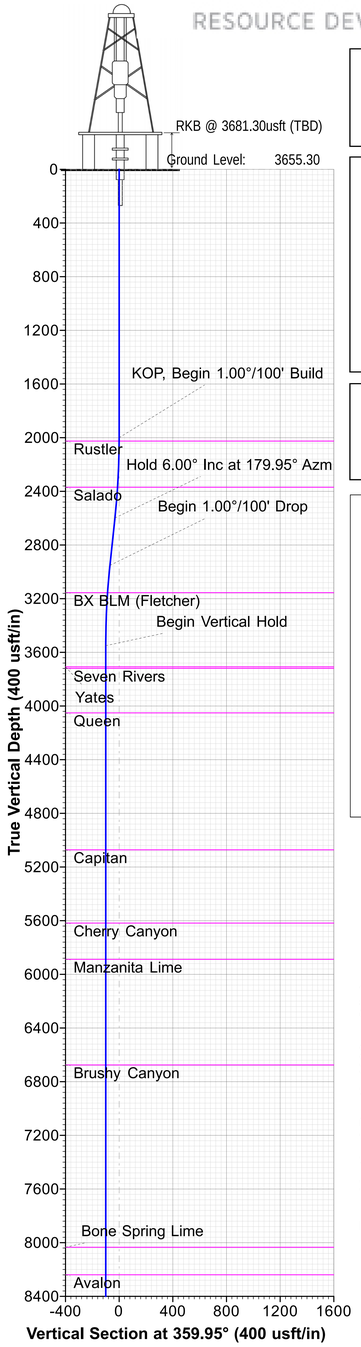
Map System:
Datum: North American Datum 1983
Ellipsoid: GRS 1980
Zone Name: Zone 13N (108 W to 102 W)
Local Origin: Universal Transverse Mercator (US Survey Feet) Well 501H, True North

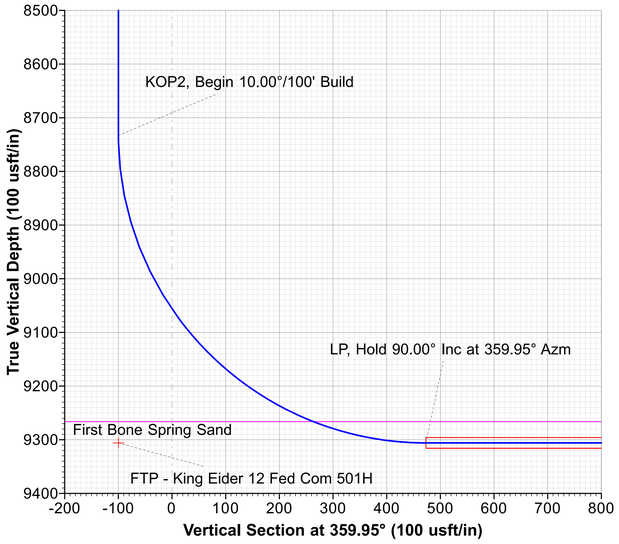
Latitude: 32° 34' 51.762909 N
Longitude: 103° 25' 5.789145 W

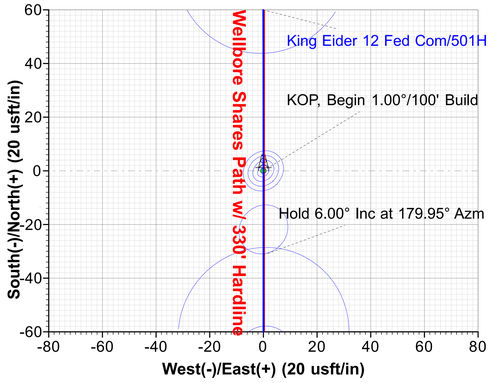
Grid East: 2127490.93
Grid North: 11830510.46
Scale Factor: 1.000

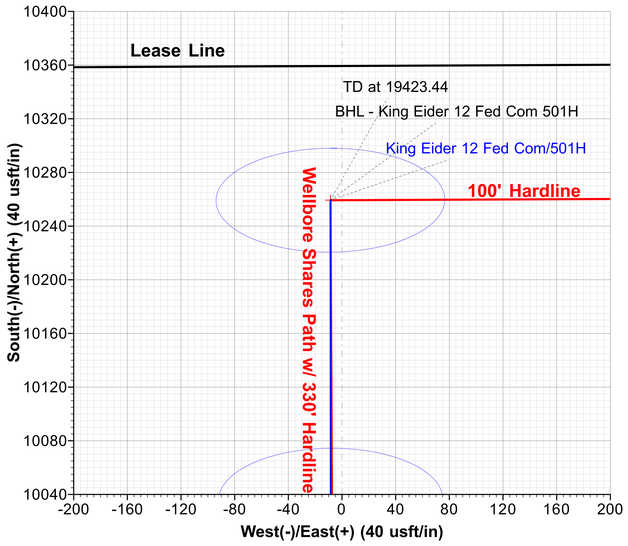
Geomagnetic Model: MVHD
Sample Date: 03-May-21
Magnetic Declination: 6.41°
Dip Angle from Horizontal: 60.48°
Magnetic Field Strength: 47872.87437819nT

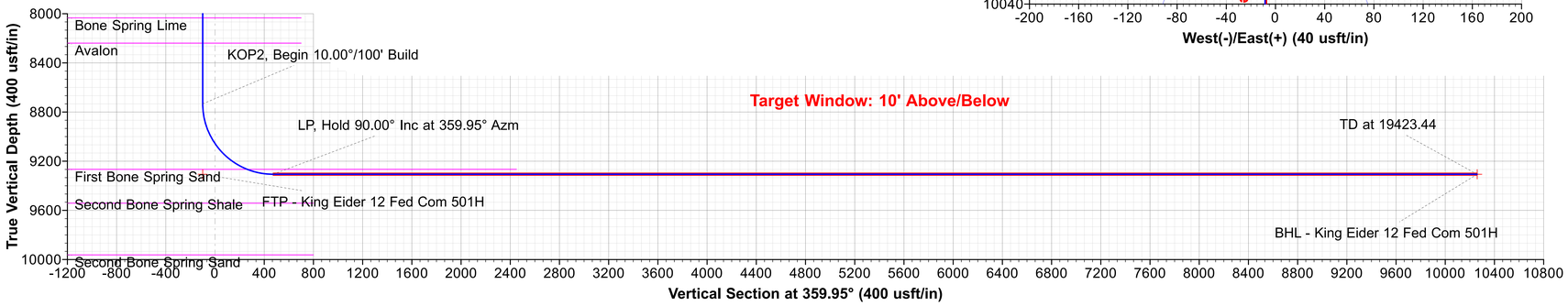
To convert a Magnetic Direction to a Grid Direction, Add 5.56°
To convert a Magnetic Direction to a True Direction, Add 6.41° East
To convert a True Direction to a Grid Direction, Subtract 0.85°

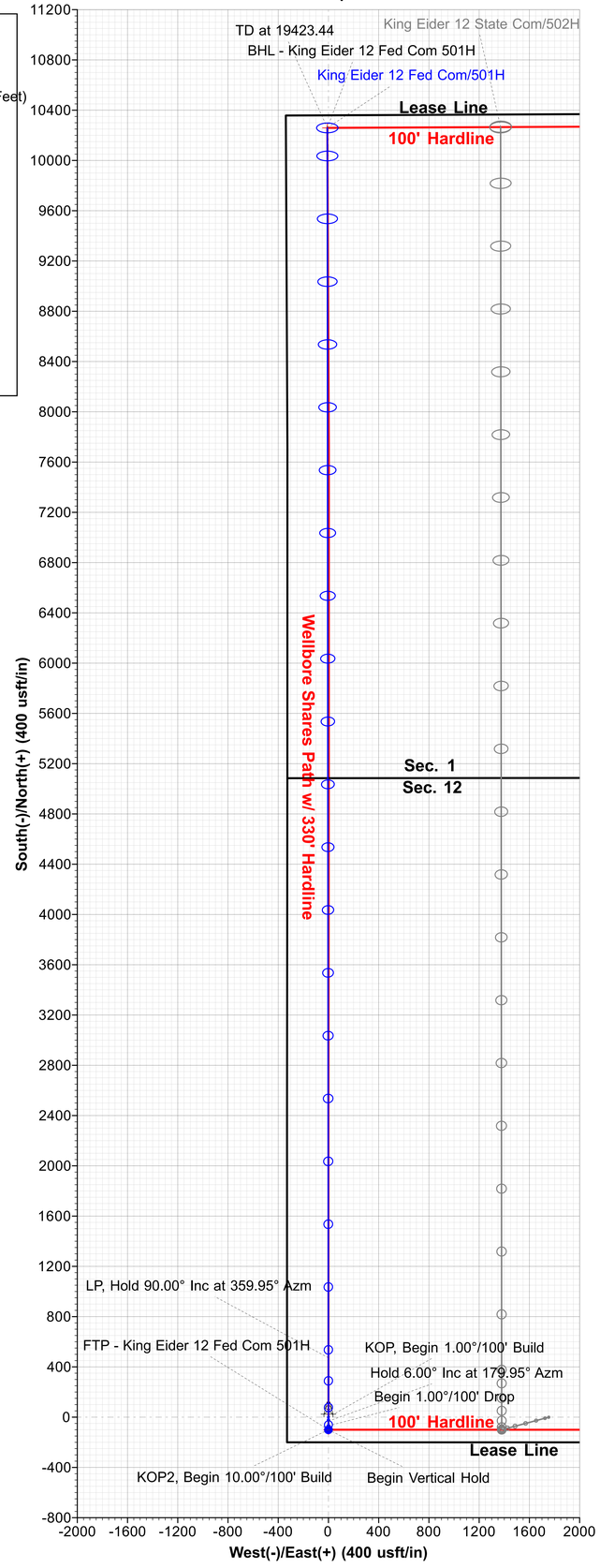












Date: 14:15, March 04 2021

PHOENIX
TECHNOLOGY SERVICES

Centennial Resources Development, Inc.

Lea County, NM (NAD83 - UTM Zone 13)
King Eider 12 Fed Com
501H

OH

Plan: Plan 1 03-04-21

Standard Planning Report

04 March, 2021

CENTENNIAL
RESOURCE DEVELOPMENT, INC

PHOENIX TECHNOLOGY SERVICES

Planning Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Database:	USA Compass	**Local Co-ordinate Reference:**	Well 501H
Company:	Centennial Resources Development, Inc.	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site:	King Eider 12 Fed Com	**North Reference:**	True
Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-04-21		

Project Lea County, NM (NAD83 - UTM Zone 13)

Map System:	Universal Transverse Mercator (US Survey Feet)	**System Datum:**	Mean Sea Level
Geo Datum:	North American Datum 1983		
Map Zone:	Zone 13N (108 W to 102 W)		Using geodetic scale factor

Site King Eider 12 Fed Com

Site Position:		**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.762909 N
From:	Map	**Easting:**	2,127,490.93 usft	**Longitude:**	103° 25' 5.789145 W
Position Uncertainty:	0.00 usft	**Slot Radius:**	13-3/16 "		

Well 501H

Well Position	**+N/-S**	0.00 usft	**Northing:**	11,830,510.46 usft	**Latitude:**	32° 34' 51.762909 N
	+E/-W	0.00 usft	**Easting:**	2,127,490.93 usft	**Longitude:**	103° 25' 5.789145 W
Position Uncertainty		1.00 usft	**Wellhead Elevation:**		**Ground Level:**	3,655.30 usft

Wellbore OH

Magnetics	Model Name	Sample Date	Declination (°)	Dip Angle (°)	Field Strength (nT)
	MVHD	5/3/2021	6.41	60.48	47,872.87437819

Design Plan 1 03-04-21

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	359.95

Plan Survey Tool Program **Date** 3/4/2021

	Depth From (usft)	Depth To (usft)	Survey (Wellbore)	Tool Name	Remarks
1	0.00	19,423.44	Plan 1 03-04-21 (OH)	MWD+IFR1+MS	
				OWSG MWD + IFR1 + Multi-St	

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00	
2,600.08	6.00	179.95	2,598.98	-31.40	0.03	1.00	1.00	0.00	179.95	
2,954.81	6.00	179.95	2,951.77	-68.48	0.06	0.00	0.00	0.00	0.00	
3,554.89	0.00	0.00	3,550.75	-99.88	0.09	1.00	-1.00	0.00	180.00	
8,737.18	0.00	0.00	8,733.04	-99.88	0.09	0.00	0.00	0.00	0.00	
9,637.18	90.00	359.95	9,306.00	473.08	-0.40	10.00	10.00	-0.01	359.95	
19,423.44	90.00	359.95	9,306.00	10,259.34	-8.63	0.00	0.00	0.00	0.00	BHL - King Eider 12 F

PHOENIX TECHNOLOGY SERVICES

Planning Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Database:	USA Compass	**Local Co-ordinate Reference:**	Well 501H
Company:	Centennial Resources Development, Inc.	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site:	King Eider 12 Fed Com	**North Reference:**	True
Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-04-21		

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	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
2,000.00	0.00	0.00	2,000.00	0.00	0.00	0.00	0.00	0.00	0.00
KOP, Begin 1.00°/100' Build									
2,100.00	1.00	179.95	2,099.99	-0.87	0.00	-0.87	1.00	1.00	0.00
2,200.00	2.00	179.95	2,199.96	-3.49	0.00	-3.49	1.00	1.00	0.00
2,300.00	3.00	179.95	2,299.86	-7.85	0.01	-7.85	1.00	1.00	0.00
2,400.00	4.00	179.95	2,399.68	-13.96	0.01	-13.96	1.00	1.00	0.00
2,500.00	5.00	179.95	2,499.37	-21.80	0.02	-21.80	1.00	1.00	0.00
2,600.00	6.00	179.95	2,598.90	-31.39	0.03	-31.39	1.00	1.00	0.00
2,600.08	6.00	179.95	2,598.98	-31.40	0.03	-31.40	1.00	1.00	0.00
Hold 6.00° Inc at 179.95° Azm									
2,700.00	6.00	179.95	2,698.36	-41.84	0.04	-41.84	0.00	0.00	0.00
2,800.00	6.00	179.95	2,797.81	-52.30	0.04	-52.30	0.00	0.00	0.00
2,900.00	6.00	179.95	2,897.26	-62.75	0.05	-62.75	0.00	0.00	0.00
2,954.81	6.00	179.95	2,951.77	-68.48	0.06	-68.48	0.00	0.00	0.00
Begin 1.00°/100' Drop									
3,000.00	5.55	179.95	2,996.73	-73.03	0.06	-73.03	1.00	-1.00	0.00
3,100.00	4.55	179.95	3,096.34	-81.83	0.07	-81.83	1.00	-1.00	0.00
3,200.00	3.55	179.95	3,196.09	-88.89	0.08	-88.89	1.00	-1.00	0.00
3,300.00	2.55	179.95	3,295.95	-94.21	0.08	-94.21	1.00	-1.00	0.00
3,400.00	1.55	179.95	3,395.88	-97.78	0.08	-97.78	1.00	-1.00	0.00
3,500.00	0.55	179.95	3,495.86	-99.61	0.08	-99.61	1.00	-1.00	0.00
3,554.89	0.00	0.00	3,550.75	-99.88	0.09	-99.88	1.00	-1.00	0.00
Begin Vertical Hold									
8,737.18	0.00	0.00	8,733.04	-99.88	0.09	-99.88	0.00	0.00	0.00
KOP2, Begin 10.00°/100' Build									
8,800.00	6.28	359.95	8,795.74	-96.43	0.08	-96.43	10.00	10.00	0.00
8,900.00	16.28	359.95	8,893.68	-76.89	0.07	-76.89	10.00	10.00	0.00
9,000.00	26.28	359.95	8,986.74	-40.64	0.04	-40.64	10.00	10.00	0.00
9,100.00	36.28	359.95	9,072.10	11.22	-0.01	11.22	10.00	10.00	0.00
9,200.00	46.28	359.95	9,147.15	77.11	-0.06	77.11	10.00	10.00	0.00
9,300.00	56.28	359.95	9,209.62	155.03	-0.13	155.03	10.00	10.00	0.00
9,400.00	66.28	359.95	9,257.61	242.62	-0.20	242.62	10.00	10.00	0.00
9,500.00	76.28	359.95	9,289.65	337.21	-0.28	337.21	10.00	10.00	0.00
9,600.00	86.28	359.95	9,304.79	435.93	-0.37	435.93	10.00	10.00	0.00
9,637.18	90.00	359.95	9,306.00	473.08	-0.40	473.08	10.00	10.00	0.00
LP, Hold 90.00° Inc at 359.95° Azm									
9,700.00	90.00	359.95	9,306.00	535.91	-0.45	535.91	0.00	0.00	0.00
9,800.00	90.00	359.95	9,306.00	635.91	-0.53	635.91	0.00	0.00	0.00
9,900.00	90.00	359.95	9,306.00	735.91	-0.62	735.91	0.00	0.00	0.00
10,000.00	90.00	359.95	9,306.00	835.91	-0.70	835.91	0.00	0.00	0.00
10,100.00	90.00	359.95	9,306.00	935.91	-0.79	935.91	0.00	0.00	0.00
10,200.00	90.00	359.95	9,306.00	1,035.91	-0.87	1,035.91	0.00	0.00	0.00
10,300.00	90.00	359.95	9,306.00	1,135.91	-0.96	1,135.91	0.00	0.00	0.00
10,400.00	90.00	359.95	9,306.00	1,235.91	-1.04	1,235.91	0.00	0.00	0.00
10,500.00	90.00	359.95	9,306.00	1,335.91	-1.12	1,335.91	0.00	0.00	0.00
10,600.00	90.00	359.95	9,306.00	1,435.91	-1.21	1,435.91	0.00	0.00	0.00
10,700.00	90.00	359.95	9,306.00	1,535.91	-1.29	1,535.91	0.00	0.00	0.00
10,800.00	90.00	359.95	9,306.00	1,635.91	-1.38	1,635.91	0.00	0.00	0.00
10,900.00	90.00	359.95	9,306.00	1,735.91	-1.46	1,735.91	0.00	0.00	0.00
11,000.00	90.00	359.95	9,306.00	1,835.91	-1.54	1,835.91	0.00	0.00	0.00
11,100.00	90.00	359.95	9,306.00	1,935.91	-1.63	1,935.91	0.00	0.00	0.00
11,200.00	90.00	359.95	9,306.00	2,035.91	-1.71	2,035.91	0.00	0.00	0.00

PHOENIX TECHNOLOGY SERVICES

Planning Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Database:	USA Compass	**Local Co-ordinate Reference:**	Well 501H
Company:	Centennial Resources Development, Inc.	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site:	King Eider 12 Fed Com	**North Reference:**	True
Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-04-21		

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)
11,300.00	90.00	359.95	9,306.00	2,135.91	-1.80	2,135.91	0.00	0.00	0.00
11,400.00	90.00	359.95	9,306.00	2,235.91	-1.88	2,235.91	0.00	0.00	0.00
11,500.00	90.00	359.95	9,306.00	2,335.91	-1.97	2,335.91	0.00	0.00	0.00
11,600.00	90.00	359.95	9,306.00	2,435.91	-2.05	2,435.91	0.00	0.00	0.00
11,700.00	90.00	359.95	9,306.00	2,535.91	-2.13	2,535.91	0.00	0.00	0.00
11,800.00	90.00	359.95	9,306.00	2,635.91	-2.22	2,635.91	0.00	0.00	0.00
11,900.00	90.00	359.95	9,306.00	2,735.90	-2.30	2,735.91	0.00	0.00	0.00
12,000.00	90.00	359.95	9,306.00	2,835.90	-2.39	2,835.91	0.00	0.00	0.00
12,100.00	90.00	359.95	9,306.00	2,935.90	-2.47	2,935.91	0.00	0.00	0.00
12,200.00	90.00	359.95	9,306.00	3,035.90	-2.55	3,035.91	0.00	0.00	0.00
12,300.00	90.00	359.95	9,306.00	3,135.90	-2.64	3,135.91	0.00	0.00	0.00
12,400.00	90.00	359.95	9,306.00	3,235.90	-2.72	3,235.91	0.00	0.00	0.00
12,500.00	90.00	359.95	9,306.00	3,335.90	-2.81	3,335.91	0.00	0.00	0.00
12,600.00	90.00	359.95	9,306.00	3,435.90	-2.89	3,435.91	0.00	0.00	0.00
12,700.00	90.00	359.95	9,306.00	3,535.90	-2.98	3,535.91	0.00	0.00	0.00
12,800.00	90.00	359.95	9,306.00	3,635.90	-3.06	3,635.91	0.00	0.00	0.00
12,900.00	90.00	359.95	9,306.00	3,735.90	-3.14	3,735.91	0.00	0.00	0.00
13,000.00	90.00	359.95	9,306.00	3,835.90	-3.23	3,835.91	0.00	0.00	0.00
13,100.00	90.00	359.95	9,306.00	3,935.90	-3.31	3,935.91	0.00	0.00	0.00
13,200.00	90.00	359.95	9,306.00	4,035.90	-3.40	4,035.91	0.00	0.00	0.00
13,300.00	90.00	359.95	9,306.00	4,135.90	-3.48	4,135.91	0.00	0.00	0.00
13,400.00	90.00	359.95	9,306.00	4,235.90	-3.56	4,235.91	0.00	0.00	0.00
13,500.00	90.00	359.95	9,306.00	4,335.90	-3.65	4,335.91	0.00	0.00	0.00
13,600.00	90.00	359.95	9,306.00	4,435.90	-3.73	4,435.91	0.00	0.00	0.00
13,700.00	90.00	359.95	9,306.00	4,535.90	-3.82	4,535.91	0.00	0.00	0.00
13,800.00	90.00	359.95	9,306.00	4,635.90	-3.90	4,635.91	0.00	0.00	0.00
13,900.00	90.00	359.95	9,306.00	4,735.90	-3.99	4,735.91	0.00	0.00	0.00
14,000.00	90.00	359.95	9,306.00	4,835.90	-4.07	4,835.91	0.00	0.00	0.00
14,100.00	90.00	359.95	9,306.00	4,935.90	-4.15	4,935.91	0.00	0.00	0.00
14,200.00	90.00	359.95	9,306.00	5,035.90	-4.24	5,035.91	0.00	0.00	0.00
14,300.00	90.00	359.95	9,306.00	5,135.90	-4.32	5,135.91	0.00	0.00	0.00
14,400.00	90.00	359.95	9,306.00	5,235.90	-4.41	5,235.91	0.00	0.00	0.00
14,500.00	90.00	359.95	9,306.00	5,335.90	-4.49	5,335.91	0.00	0.00	0.00
14,600.00	90.00	359.95	9,306.00	5,435.90	-4.57	5,435.91	0.00	0.00	0.00
14,700.00	90.00	359.95	9,306.00	5,535.90	-4.66	5,535.91	0.00	0.00	0.00
14,800.00	90.00	359.95	9,306.00	5,635.90	-4.74	5,635.91	0.00	0.00	0.00
14,900.00	90.00	359.95	9,306.00	5,735.90	-4.83	5,735.91	0.00	0.00	0.00
15,000.00	90.00	359.95	9,306.00	5,835.90	-4.91	5,835.91	0.00	0.00	0.00
15,100.00	90.00	359.95	9,306.00	5,935.90	-5.00	5,935.91	0.00	0.00	0.00
15,200.00	90.00	359.95	9,306.00	6,035.90	-5.08	6,035.91	0.00	0.00	0.00
15,300.00	90.00	359.95	9,306.00	6,135.90	-5.16	6,135.91	0.00	0.00	0.00
15,400.00	90.00	359.95	9,306.00	6,235.90	-5.25	6,235.91	0.00	0.00	0.00
15,500.00	90.00	359.95	9,306.00	6,335.90	-5.33	6,335.91	0.00	0.00	0.00
15,600.00	90.00	359.95	9,306.00	6,435.90	-5.42	6,435.91	0.00	0.00	0.00
15,700.00	90.00	359.95	9,306.00	6,535.90	-5.50	6,535.91	0.00	0.00	0.00
15,800.00	90.00	359.95	9,306.00	6,635.90	-5.58	6,635.91	0.00	0.00	0.00
15,900.00	90.00	359.95	9,306.00	6,735.90	-5.67	6,735.91	0.00	0.00	0.00
16,000.00	90.00	359.95	9,306.00	6,835.90	-5.75	6,835.91	0.00	0.00	0.00
16,100.00	90.00	359.95	9,306.00	6,935.90	-5.84	6,935.91	0.00	0.00	0.00
16,200.00	90.00	359.95	9,306.00	7,035.90	-5.92	7,035.91	0.00	0.00	0.00
16,300.00	90.00	359.95	9,306.00	7,135.90	-6.01	7,135.91	0.00	0.00	0.00
16,400.00	90.00	359.95	9,306.00	7,235.90	-6.09	7,235.91	0.00	0.00	0.00
16,500.00	90.00	359.95	9,306.00	7,335.90	-6.17	7,335.91	0.00	0.00	0.00
16,600.00	90.00	359.95	9,306.00	7,435.90	-6.26	7,435.91	0.00	0.00	0.00

PHOENIX TECHNOLOGY SERVICES

Planning Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Database:	USA Compass	**Local Co-ordinate Reference:**	Well 501H
Company:	Centennial Resources Development, Inc.	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site:	King Eider 12 Fed Com	**North Reference:**	True
Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-04-21		

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)
16,700.00	90.00	359.95	9,306.00	7,535.90	-6.34	7,535.91	0.00	0.00	0.00
16,800.00	90.00	359.95	9,306.00	7,635.90	-6.43	7,635.91	0.00	0.00	0.00
16,900.00	90.00	359.95	9,306.00	7,735.90	-6.51	7,735.91	0.00	0.00	0.00
17,000.00	90.00	359.95	9,306.00	7,835.90	-6.59	7,835.91	0.00	0.00	0.00
17,100.00	90.00	359.95	9,306.00	7,935.90	-6.68	7,935.91	0.00	0.00	0.00
17,200.00	90.00	359.95	9,306.00	8,035.90	-6.76	8,035.91	0.00	0.00	0.00
17,300.00	90.00	359.95	9,306.00	8,135.90	-6.85	8,135.91	0.00	0.00	0.00
17,400.00	90.00	359.95	9,306.00	8,235.90	-6.93	8,235.91	0.00	0.00	0.00
17,500.00	90.00	359.95	9,306.00	8,335.90	-7.02	8,335.91	0.00	0.00	0.00
17,600.00	90.00	359.95	9,306.00	8,435.90	-7.10	8,435.91	0.00	0.00	0.00
17,700.00	90.00	359.95	9,306.00	8,535.90	-7.18	8,535.91	0.00	0.00	0.00
17,800.00	90.00	359.95	9,306.00	8,635.90	-7.27	8,635.91	0.00	0.00	0.00
17,900.00	90.00	359.95	9,306.00	8,735.90	-7.35	8,735.91	0.00	0.00	0.00
18,000.00	90.00	359.95	9,306.00	8,835.90	-7.44	8,835.91	0.00	0.00	0.00
18,100.00	90.00	359.95	9,306.00	8,935.90	-7.52	8,935.91	0.00	0.00	0.00
18,200.00	90.00	359.95	9,306.00	9,035.90	-7.60	9,035.91	0.00	0.00	0.00
18,300.00	90.00	359.95	9,306.00	9,135.90	-7.69	9,135.91	0.00	0.00	0.00
18,400.00	90.00	359.95	9,306.00	9,235.90	-7.77	9,235.91	0.00	0.00	0.00
18,500.00	90.00	359.95	9,306.00	9,335.90	-7.86	9,335.91	0.00	0.00	0.00
18,600.00	90.00	359.95	9,306.00	9,435.90	-7.94	9,435.91	0.00	0.00	0.00
18,700.00	90.00	359.95	9,306.00	9,535.90	-8.03	9,535.91	0.00	0.00	0.00
18,800.00	90.00	359.95	9,306.00	9,635.90	-8.11	9,635.91	0.00	0.00	0.00
18,900.00	90.00	359.95	9,306.00	9,735.90	-8.19	9,735.91	0.00	0.00	0.00
19,000.00	90.00	359.95	9,306.00	9,835.90	-8.28	9,835.91	0.00	0.00	0.00
19,100.00	90.00	359.95	9,306.00	9,935.90	-8.36	9,935.91	0.00	0.00	0.00
19,200.00	90.00	359.95	9,306.00	10,035.90	-8.45	10,035.91	0.00	0.00	0.00
19,300.00	90.00	359.95	9,306.00	10,135.90	-8.53	10,135.91	0.00	0.00	0.00
19,400.00	90.00	359.95	9,306.00	10,235.90	-8.61	10,235.91	0.00	0.00	0.00
19,423.44	90.00	359.95	9,306.00	10,259.34	-8.63	10,259.34	0.00	0.00	0.00
TD at 19423.44									

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
BHL - King Eider 12 Fed - plan hits target center - Rectangle (sides W0.00 H9,786.26 D20.00)	0.00	359.95	9,306.00	10,259.34	-8.63	11,840,767.22	2,127,329.77	32° 36' 33.274777 N	103° 25' 5.889536 W
FTP - King Eider 12 Fed - plan misses target center by 237.82usft at 9200.00usft MD (9147.15 TVD, 77.11 N, -0.06 E) - Point	0.00	0.00	9,306.00	-99.88	0.09	11,830,410.61	2,127,492.50	32° 34' 50.774684 N	103° 25' 5.788149 W

PHOENIX TECHNOLOGY SERVICES

Planning Report

CENTENNIAL RESOURCE DEVELOPMENT, INC

Database:	USA Compass	**Local Co-ordinate Reference:**	Well 501H
Company:	Centennial Resources Development, Inc.	**TVD Reference:**	RKB @ 3681.30usft (TBD)
Project:	Lea County, NM (NAD83 - UTM Zone 13)	**MD Reference:**	RKB @ 3681.30usft (TBD)
Site:	King Eider 12 Fed Com	**North Reference:**	True
Well:	501H	**Survey Calculation Method:**	Minimum Curvature
Wellbore:	OH		
Design:	Plan 1 03-04-21		

Formations

Measured Depth (usft)	Vertical Depth (usft)	Name	Lithology	Dip (°)	Dip Direction (°)
2,025.30	2,025.30	Rustler		0.00	359.95
2,369.56	2,369.30	Salado		0.00	359.95
3,159.12	3,155.30	BX BLM (Fletcher)		0.00	359.95
3,712.44	3,708.30	Yates		0.00	359.95
3,723.44	3,719.30	Seven Rivers		0.00	359.95
4,055.44	4,051.30	Queen		0.00	359.95
5,076.44	5,072.30	Capitan		0.00	359.95
5,622.44	5,618.30	Cherry Canyon		0.00	359.95
5,892.44	5,888.30	Manzanita Lime		0.00	359.95
6,679.44	6,675.30	Brushy Canyon		0.00	359.95
8,038.44	8,034.30	Bone Spring Lime		0.00	359.95
8,243.44	8,239.30	Avalon		0.00	359.95
9,422.64	9,266.30	First Bone Spring Sand		0.00	359.95

Plan Annotations

Measured Depth (usft)	Vertical Depth (usft)	Local Coordinates +N/-S (usft)	Local Coordinates +E/-W (usft)	Comment
2,000.00	2,000.00	0.00	0.00	KOP, Begin 1.00°/100' Build
2,600.08	2,598.98	-31.40	0.03	Hold 6.00° Inc at 179.95° Azm
2,954.81	2,951.77	-68.48	0.06	Begin 1.00°/100' Drop
3,554.89	3,550.75	-99.88	0.09	Begin Vertical Hold
8,737.18	8,733.04	-99.88	0.09	KOP2, Begin 10.00°/100' Build
9,637.18	9,306.00	473.08	-0.40	LP, Hold 90.00° Inc at 359.95° Azm
19,423.44	9,306.00	10,259.34	-8.63	TD at 19423.44

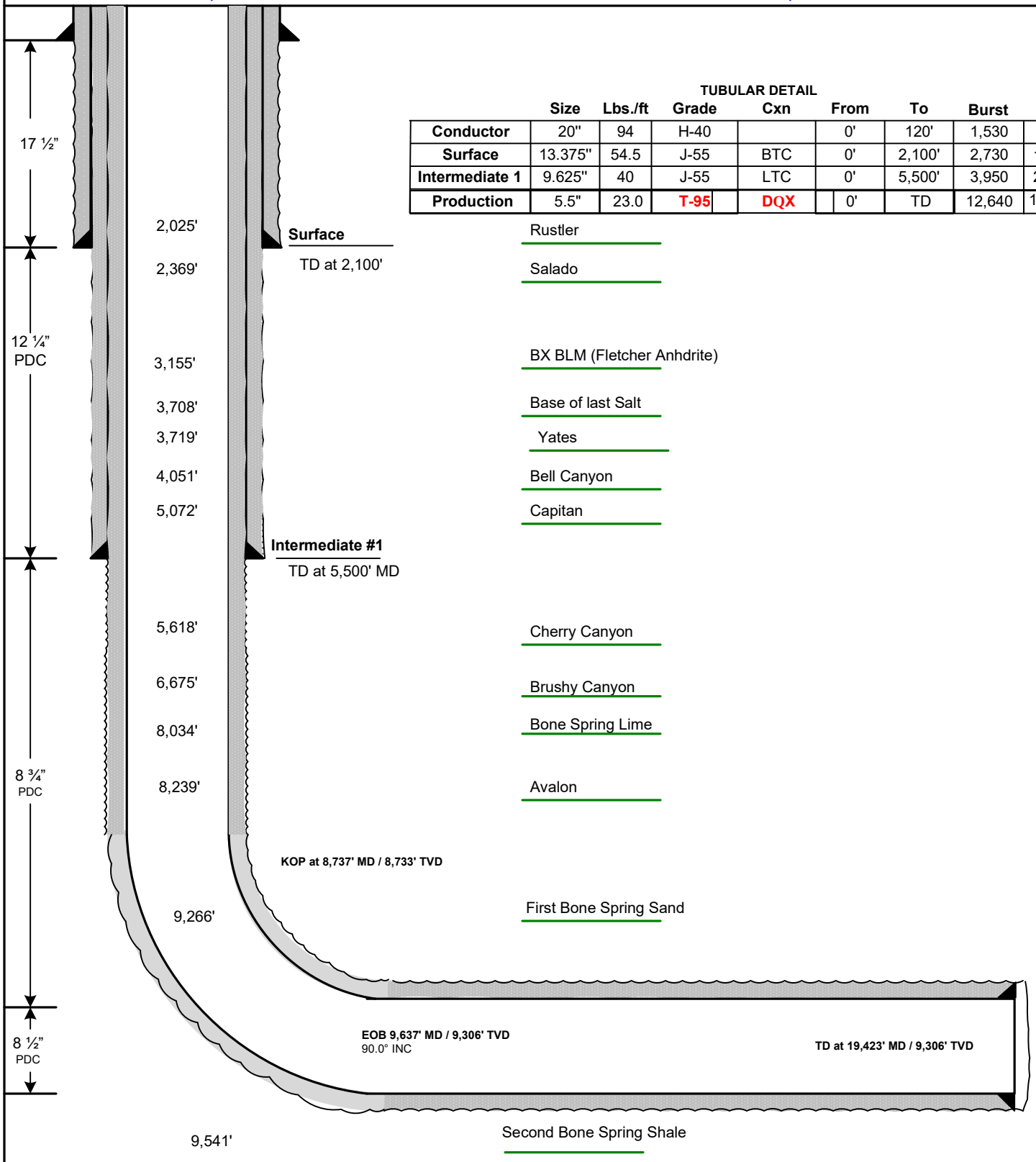
CENTENNIAL	WBD

Well : King Eider 12 Fed Com 501H
Area : The Pond **FM tgt :** 1st BSS
County : Lea **State** : NM
Location : Lot M Section 12, T20S, R35E; 200' FSL & 330' FWL
BHL : Lot D, Section 1, T20S, R34E; 100' FNL & 330' FWL
KB Elev : 3,681.3' MSL **KB** : 26' AGL **GL Elev** : 3,655.3' MSL

CENTENNIAL RESOURCE DEVELOPMENT, INC

TUBULAR DETAIL

	Size	Lbs./ft	Grade	Cxn	From	To	Burst	Cllps
Conductor	20"	94	H-40		0'	120'	1,530	520
Surface	13.375"	54.5	J-55	BTC	0'	2,100'	2,730	1,130
Intermediate 1	9.625"	40	J-55	LTC	0'	5,500'	3,950	2,570
Production	5.5"	23.0	T-95	DQX	0'	TD	12,640	12,930



Continental
ContiTech

CONTITECH RUBBER Industrial Kft.	No:QC-DB- 210/ 2014
	Page: 9 / 113

QUALITY CONTROL INSPECTION AND TEST CERTIFICATE					CERT. N°:	504	
PURCHASER:	ContiTech Oil & Marine Corp.				P.O. N°:	4500409659	
CONTITECH RUBBER order N°:	538236		HOSE TYPE:	3" ID	Choke and Kill Hose		
HOSE SERIAL N°:	67255		NOMINAL / ACTUAL LENGTH:		10,67 m / 10,77 m		
W.P. 68,9 MPa	10000 psi		T.P. 103,4 MPa	15000 psi	Duration:	60	min.

Pressure test with water at
ambient temperature

See attachment. (1 page)

↑ 10 mm = 10 Min.
→ 10 mm = 20 MPa

COUPLINGS Type	Serial N°		Quality	Heat N°
3" coupling with	9251	9254	AISI 4130	A0579N
4 1/16" 10K API b.w. Flange end			AISI 4130	035608

Not Designed For Well Testing

API Spec 16 C

Temperature rate:"B"

All metal parts are flawless

WE CERTIFY THAT THE ABOVE HOSE HAS BEEN MANUFACTURED IN ACCORDANCE WITH THE TERMS OF THE ORDER INSPECTED AND PRESSURE TESTED AS ABOVE WITH SATISFACTORY RESULT.

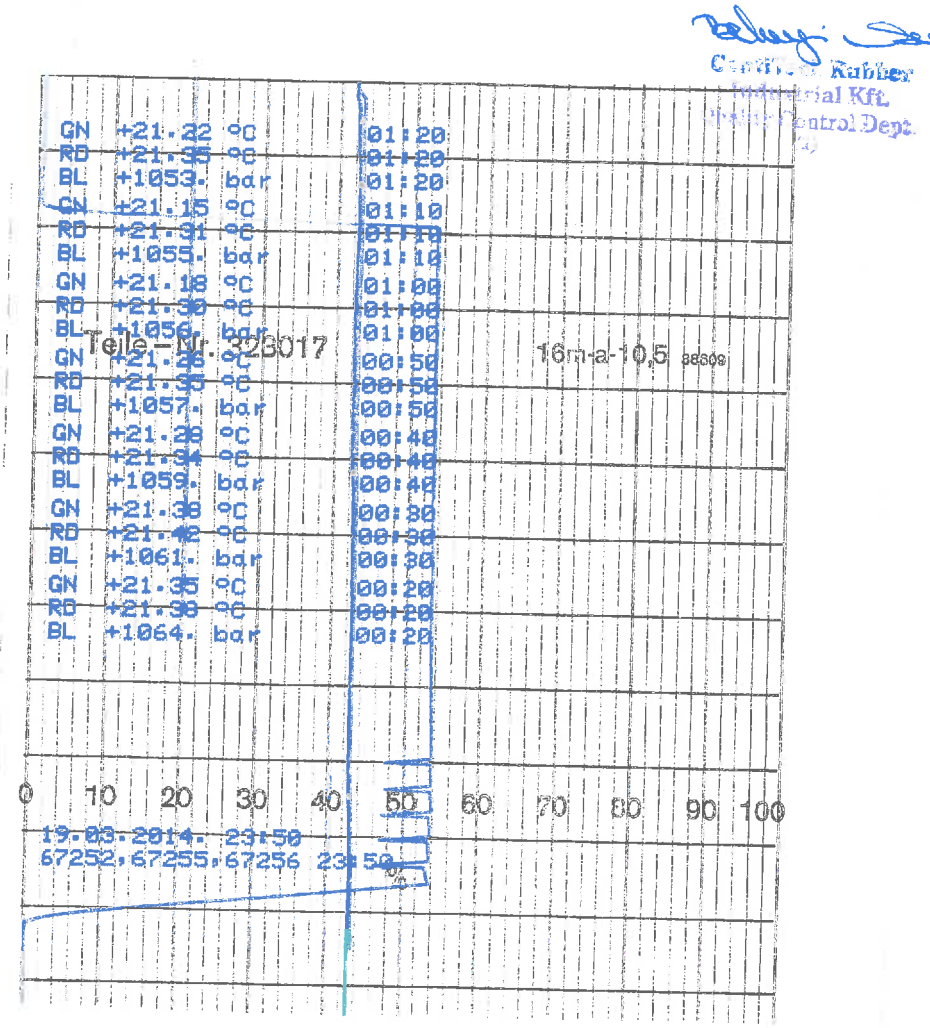
STATEMENT OF CONFORMITY: We hereby certify that the above items/equipment supplied by us are in conformity with the terms, conditions and specifications of the above Purchaser Order and that these items/equipment were fabricated inspected and tested in accordance with the referenced standards, codes and specifications and meet the relevant acceptance criteria and design requirements.

COUNTRY OF ORIGIN HUNGARY/EU

Date:	Inspector	Quality Control
20. March 2014.		ContiTech Rubber Industrial Kft. Quality Control Dept.

ATTACHMENT OF QUALITY CONTROL INSPECTION AND TEST CERTIFICATE No: 501, 504, 505

Page: 1 / 1



Hose Data Sheet

CRI Order No.	538236
Customer	ContiTech Oil & Marine Corp.
Customer Order No	4500409659
Item No.	1
Hose Type	Flexible Hose
Standard	**API SPEC 16 C**
Inside dia in inches	3
Length	35 ft
Type of coupling one end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
Type of coupling other end	FLANGE 4.1/16" 10K API SPEC 6A TYPE 6BX FLANGE C/W BX155 R.GR.SOUR
H2S service NACE MR0175	Yes
Working Pressure	10 000 psi
Design Pressure	10 000 psi
Test Pressure	15 000 psi
Safety Factor	2,25
Marking	USUAL PHOENIX
Cover	NOT FIRE RESISTANT
Outside protection	St.steel outer wrap
Internal stripwound tube	No
Lining	OIL + GAS RESISTANT SOUR
Safety clamp	No
Lifting collar	No
Element C	No
Safety chain	No
Safety wire rope	No
Max.design temperature [°C]	100
Min.design temperature [°C]	-20
Min. Bend Radius operating [m]	0,90
Min. Bend Radius storage [m]	0,90
Electrical continuity	The Hose is electrically continuous
Type of packing	WOODEN CRATE ISPM-15

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

SUPO Data Report
07/26/2021

APD ID: 10400064893 **Submission Date:** 11/10/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Section 1 - Existing Roads

Will existing roads be used? YES

Existing Road Map:

KING_EIDER_12_FED_COM_501H_Existing_Roads_20201108214246.pdf

Existing Road Purpose: ACCESS,FLUID TRANSPORT **Row(s) Exist?** NO

ROW ID(s)

ID:

Do the existing roads need to be improved? NO

Existing Road Improvement Description:

Existing Road Improvement Attachment:

Section 2 - New or Reconstructed Access Roads

Will new roads be needed? YES

New Road Map:

KING_EIDER_12_FED_COM_501H_Proposed_Roads_20201108214812.pdf

New road type: COLLECTOR

Length: 67 Feet **Width (ft.):** 65

Max slope (%): 2 **Max grade (%):** 4

Army Corp of Engineers (ACOE) permit required? N

ACOE Permit Number(s):

New road travel width: 25

New road access erosion control: Topsoil will be stock piled along the north fill slope and south edge of the borrow area. Topsoil along the south edge of borrow area will be redistributed over the borrow area. Drainage and erosion will be constantly monitored to prevent compromising the road integrity, and to protect the surrounding native topography.

New road access plan or profile prepared? N

New road access plan attachment:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Access road engineering design? N

Access road engineering design attachment:

Turnout? N

Access surfacing type: OTHER

Access topsoil source: ONSITE

Access surfacing type description: Caliche

Access onsite topsoil source depth: 4

Offsite topsoil source description:

Onsite topsoil removal process: Topsoil will be stock piled along the west fill slope and south edge of borrow area. Topsoil along the south edge of borrow area will be redistributed over the borrow area.

Access other construction information:

Access miscellaneous information: FEE/FEE/FED Caliche will be hauled from the existing Pearl Valley pit located in the NE/4 SW/4 & SE/4, Sec 24, T20S, R35E}. Pit has been identified for use in the attached exhibit.

Number of access turnouts: **Access turnout map:**

Drainage Control

New road drainage crossing: CULVERT

Drainage Control comments: Will be monitored and repaired as necessary. Water breaks will be added if needed to prevent unnatural erosion and loss of vegetation.

Road Drainage Control Structures (DCS) description: Drainage and erosion will be constantly monitored to prevent compromising the road intergrity, and to protect the surrounding native topography.

Road Drainage Control Structures (DCS) attachment:

Access Additional Attachments

Additional Attachment(s):

King_Eider_12_Fed_Com_501H_Freshwater_Route_20201108220652.pdf

Section 3 - Location of Existing Wells

Existing Wells Map? YES

Attach Well map:

KING_EIDER_12_FED_COM_501H_Well_Proximity_Map_20201110145506.pdf

Section 4 - Location of Existing and/or Proposed Production Facilities

Submit or defer a Proposed Production Facilities plan? SUBMIT

Production Facilities description: Production facility will be located on the S2 of Sec. 12, T20S-R35E where oil and gas

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

sales will take place.

Production Facilities map:

King_Eider_12_Fed_Com_501H_Flow_Diagram_20201110114113.pdf
KING_EIDER_12_FED_COM_501H_CTB_20201110114705.pdf

Section 5 - Location and Types of Water Supply

Water Source Table

Water source type: GW WELL

Water source use type: STIMULATION

Source latitude: **Source longitude:**

Source datum:

Water source permit type: OTHER

Water source transport method: PIPELINE

Source land ownership: PRIVATE

Source transportation land ownership: PRIVATE

Water source volume (barrels): 225000 **Source volume (acre-feet):** 29.00094667

Source volume (gal): 9450000

Water source and transportation map:

King_Eider_12_Fed_Com_501H_Freshwater_Route_20201108222451.pdf

Water source comments: Temporary surface lines will be used to transport water for drilling and completion operations from private pit to King Eider development.- Existing freshwater pit in Sec 21-T20S-R35E will be utilized for fresh water and source location for recycled water is tbd.
New water well? N

New Water Well Info

Well latitude: **Well Longitude:** **Well datum:**

Well target aquifer:

Est. depth to top of aquifer(ft): **Est thickness of aquifer:**

Aquifer comments:

Aquifer documentation:

Well depth (ft): **Well casing type:**

Well casing outside diameter (in.): **Well casing inside diameter (in.):**

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

New water well casing?

Used casing source:

Drilling method:

Drill material:

Grout material:

Grout depth:

Casing length (ft.):

Casing top depth (ft.):

Well Production type:

Completion Method:

Water well additional information:

State appropriation permit:

Additional information attachment:

Section 6 - Construction Materials

Using any construction materials: YES

Construction Materials description: Caliche will be hauled from the existing Pearl Valley pit located in the NE/4 SW/4 & SE/4 SW/4, Sec 24, T20S, R35E}. Pit has been identified for use in the attached exhibit.

Construction Materials source location attachment:

King_Eider_12_Fed_Com_501H_Freshwater_Route_20201108222813.pdf

Section 7 - Methods for Handling Waste

Waste type: DRILLING

Waste content description: Brine water based drilling fluid.

Amount of waste: 1500 barrels

Waste disposal frequency : Monthly

Safe containment description: Steel tanks with plastic-lined containment berms.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Haul to State approved facility.

Waste type: DRILLING

Waste content description: Fresh water based drilling fluid.

Amount of waste: 1500 barrels

Waste disposal frequency : Weekly

Safe containment description: Steel tanks with plastic-lined containment berms

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Disposal location description: Haul to state approved facility.

Waste type: SEWAGE

Waste content description: Grey water/Human waste

Amount of waste: 5000 gallons

Waste disposal frequency : Weekly

Safe containment description: Approved waste storage tanks with containment

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Haul to state approve facility.

Waste type: GARBAGE

Waste content description: General trash/garbage

Amount of waste: 5000 pounds

Waste disposal frequency : Weekly

Safe containment description: Enclosed trash trailer.

Safe containmant attachment:

Waste disposal type: HAUL TO COMMERCIAL FACILITY **Disposal location ownership:** COMMERCIAL

Disposal type description:

Disposal location description: Haul to state approved facility.

Reserve Pit

Reserve Pit being used? NO

Temporary disposal of produced water into reserve pit? NO

Reserve pit length (ft.) **Reserve pit width (ft.)**

Reserve pit depth (ft.) **Reserve pit volume (cu. yd.)**

Is at least 50% of the reserve pit in cut?

Reserve pit liner

Reserve pit liner specifications and installation description

Cuttings Area

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Cuttings Area being used? NO

Are you storing cuttings on location? Y

Description of cuttings location 10205 cubic ft of waste, stored in steel tanks. Hauled off to a commercial state approved facility.

Cuttings area length (ft.) **Cuttings area width (ft.)**

Cuttings area depth (ft.) **Cuttings area volume (cu. yd.)**

Is at least 50% of the cuttings area in cut?

WCuttings area liner

Cuttings area liner specifications and installation description

Section 8 - Ancillary Facilities

Are you requesting any Ancillary Facilities?: N

Ancillary Facilities attachment:

Comments:

Section 9 - Well Site Layout

Well Site Layout Diagram:

KING_EIDER_12_FED_COM_501H_Location_Layout_20201108223647.pdf
KING_EIDER_12_FED_COM_501H_Rig_Layout_20201108223841.pdf

Comments: FEE/FEE/FED

Section 10 - Plans for Surface Reclamation

Type of disturbance: New Surface Disturbance **Multiple Well Pad Name:**

Multiple Well Pad Number:

Recontouring attachment:

KING_EIDER_12_FED_COM_501H_Reclamation_Plat_20201108224049.pdf

Drainage/Erosion control construction: Culverts will be installed on an as needed basis.

Drainage/Erosion control reclamation: Water breaks will be added if needed, to prevent unnatural erosion and loss of vegetation.

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well pad proposed disturbance (acres): 9.21
Road proposed disturbance (acres): 0.2
Powerline proposed disturbance (acres): 0
Pipeline proposed disturbance (acres): 0
Other proposed disturbance (acres): 0

Total proposed disturbance: 9.41

Well pad interim reclamation (acres): 5.559
Road interim reclamation (acres): 0.1
Powerline interim reclamation (acres): 0
Pipeline interim reclamation (acres): 0
Other interim reclamation (acres): 0

Total interim reclamation: 5.659

Well pad long term disturbance (acres): 3.651
Road long term disturbance (acres): 0.1
Powerline long term disturbance (acres): 0
Pipeline long term disturbance (acres): 0
Other long term disturbance (acres): 0

Total long term disturbance: 3.751

Disturbance Comments:

Reconstruction method: This pad will not be reclaimed as it is a drill island.

Topsoil redistribution: Topsoil will be stock piled along the west fill slope and south edge of the borrow area. Topsoil along the south edge of borrow area will be redistributed over the borrow area at this is a drill island and will not be reclaimed.

Soil treatment: Native soil will be used in the initial construction of the well pad. Pad will be compacted using fresh water, dust control measures will be implemented as needed.

Existing Vegetation at the well pad: Surface disturbance will be limited to well site surveyed and extending south to borrow deficit quantities. Topsoil will be stored along the west edge of pad site and south edge of borrow area.

Existing Vegetation at the well pad attachment:

Existing Vegetation Community at the road: Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

Existing Vegetation Community at the road attachment:

Existing Vegetation Community at the pipeline: Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

Existing Vegetation Community at the pipeline attachment:

Existing Vegetation Community at other disturbances: Will be windrowed to the edge of the disturbance and be utilized as a barrier from water run-off.

Existing Vegetation Community at other disturbances attachment:

Non native seed used? N

Non native seed description:

Seedling transplant description:

Will seedlings be transplanted for this project? N

Seedling transplant description attachment:

Will seed be harvested for use in site reclamation? N

Seed harvest description:

Seed harvest description attachment:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Seed Management

Seed Table

Seed Summary

Total pounds/Acre:

Seed Type	Pounds/Acre

Seed reclamation attachment:

Operator Contact/Responsible Official Contact Info

First Name: **Last Name:**

Phone: **Email:**

Seedbed prep: Prepare a 3-5 inch deep seedbed, with the top 3-4 inches consisting of topsoil.

Seed BMP: Seeding will be done in the proper season and monitored for the re-establishment of native vegetation.

Seed method: Broadcast

Existing invasive species? N

Existing invasive species treatment description:

Existing invasive species treatment attachment:

Weed treatment plan description: Spray for noxious weeds and bare ground as needed.

Weed treatment plan attachment:

Monitoring plan description: All disturbed areas will be closely monitored for any primary or secondary noxious weeds.

Monitoring plan attachment:

Success standards: No primary or secondary noxious weed will be allowed. Vegetation will be returned to its native standard.

Pit closure description: No open pits will be constructed.

Pit closure attachment:

Section 11 - Surface Ownership

Disturbance type: WELL PAD

Describe:

Surface Owner: PRIVATE OWNERSHIP

Other surface owner description:

BIA Local Office:

BOR Local Office:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

COE Local Office:

DOD Local Office:

NPS Local Office:

State Local Office:

Military Local Office:

USFWS Local Office:

Other Local Office:

USFS Region:

USFS Forest/Grassland: **USFS Ranger District:**

Fee Owner: Peral Valley Lp **Fee Owner Address:** PO Box 1046

Phone: (575)390-2642 **Email:**

Surface use plan certification: NO

Surface use plan certification document:

Surface access agreement or bond: AGREEMENT

Surface Access Agreement Need description: Working on final agreement.

Surface Access Bond BLM or Forest Service:

BLM Surface Access Bond number:

USFS Surface access bond number:

Section 12 - Other Information

Right of Way needed? N **Use APD as ROW?**

ROW Type(s):

ROW Applications

SUPO Additional Information: Onsite not required. FEE/FEE/FED

Use a previously conducted onsite? N

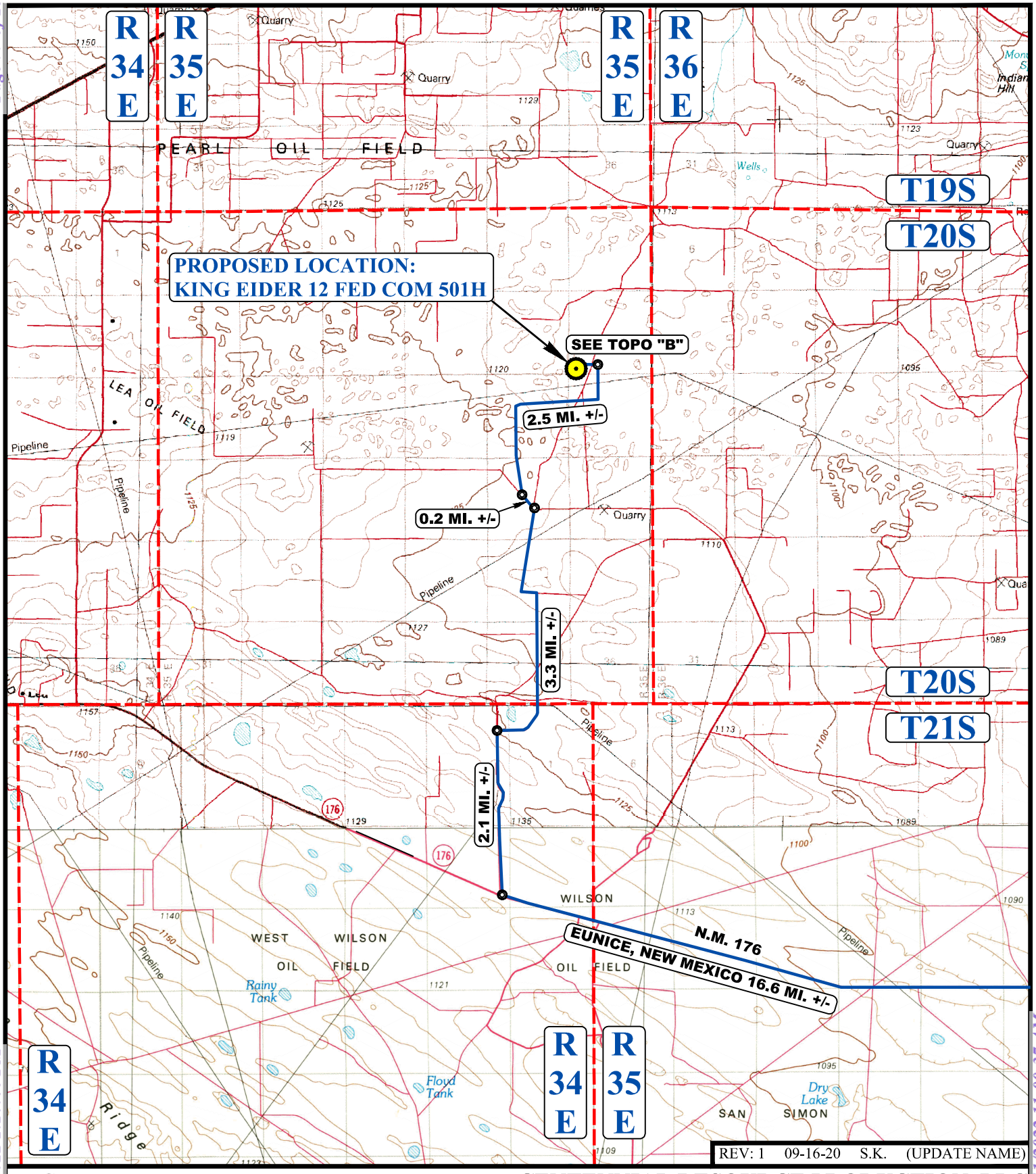
Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Previous Onsite information:

Other SUPO Attachment

King_Eider_12_Fed_Com_SUPO__20201110144741.pdf



REV: 1 09-16-20 S.K. (UPDATE NAME)

LEGEND:

PROPOSED LOCATION

N

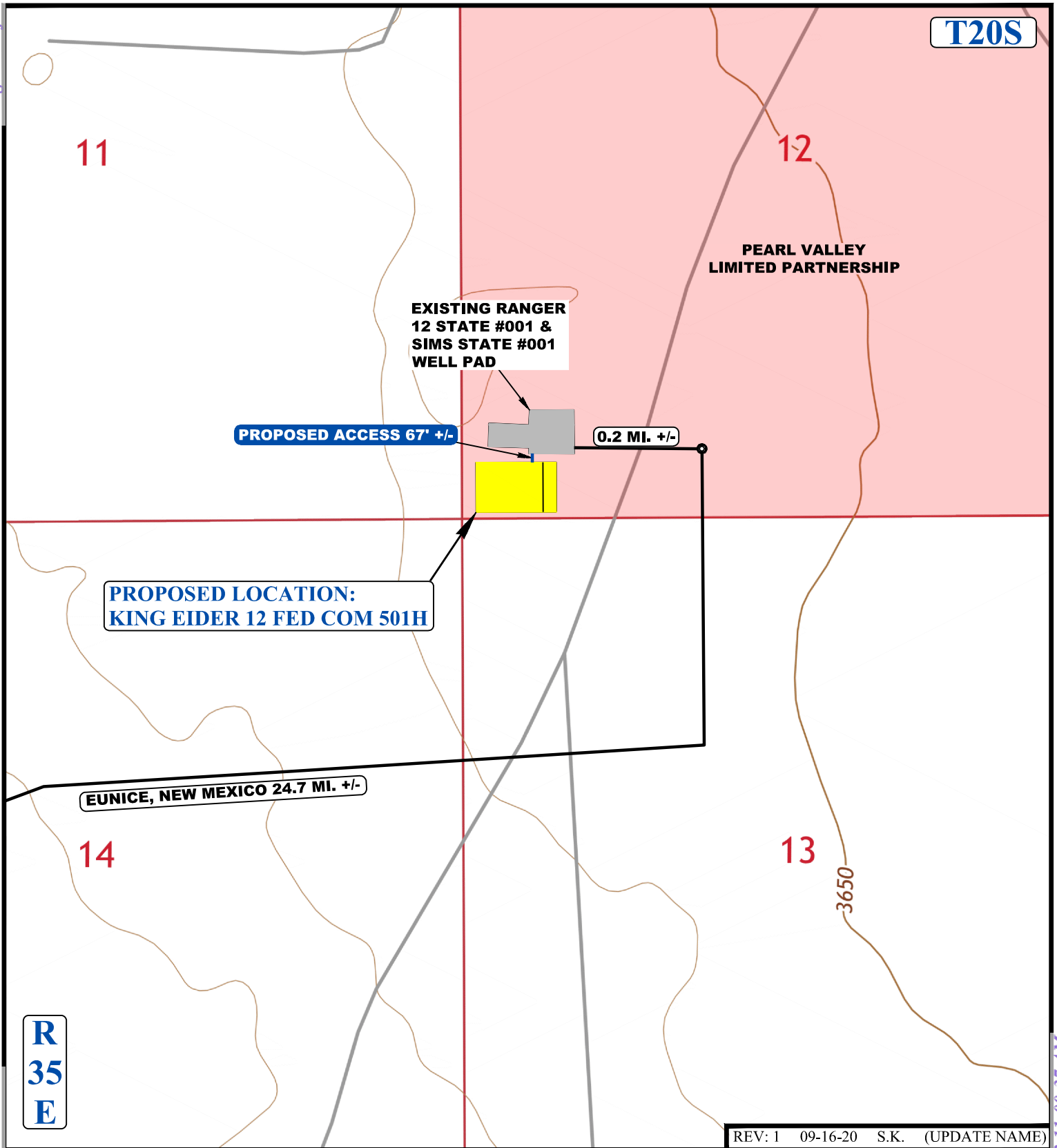
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 100,000
ACCESS ROAD MAP			TOPO A

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

PROPOSED ROAD

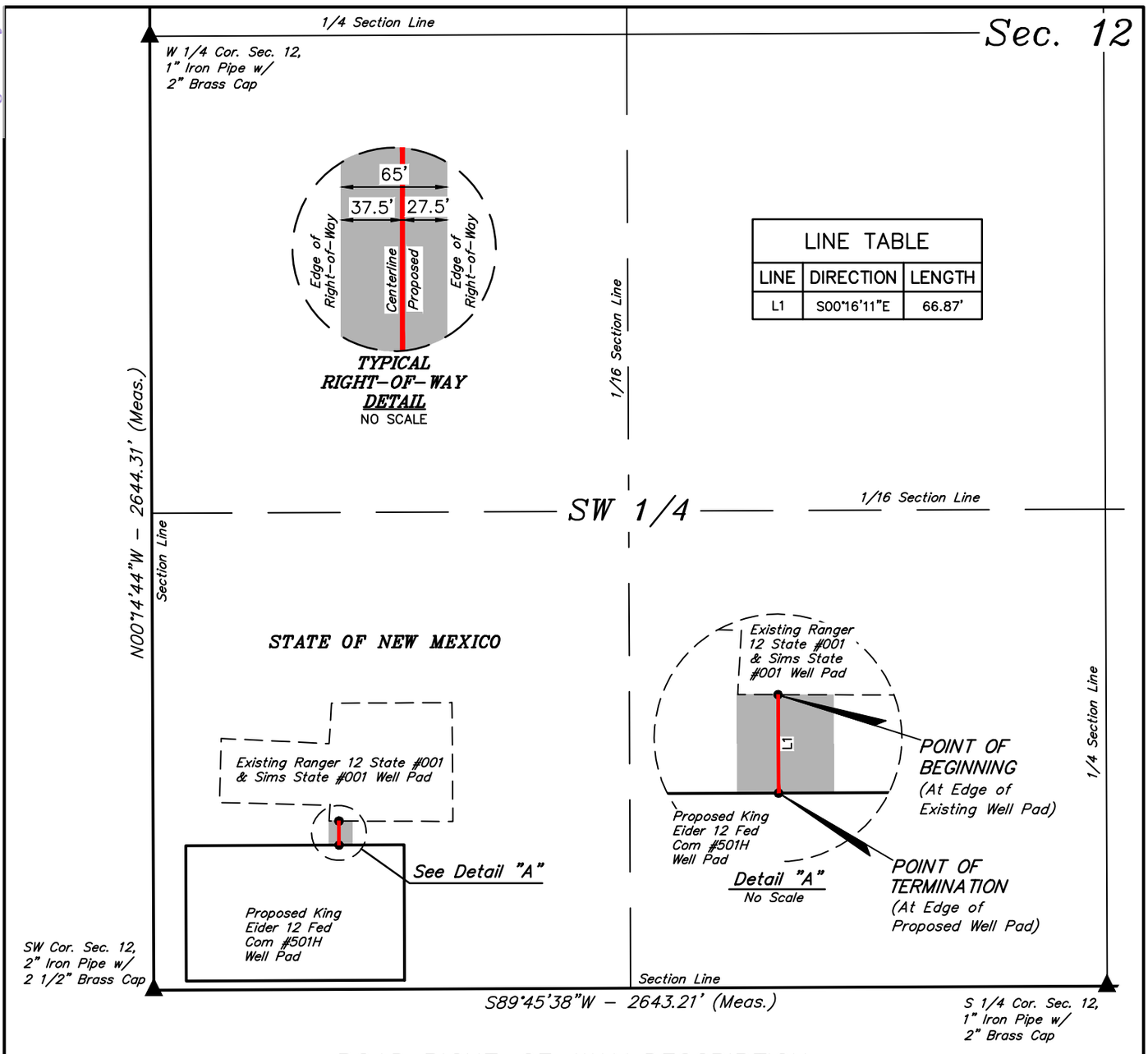
N

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 12,000
ACCESS ROAD MAP			TOPO B

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



ROAD RIGHT-OF-WAY DESCRIPTION

A 65' WIDE RIGHT-OF-WAY 37.5' ON THE LEFT SIDE AND 27.5' ON THE RIGHT SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 12, T20S, R35E, N.M.P.M.; THENCE S89°45'38"W 2643.21' ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION 12 TO THE SOUTHWEST CORNER OF SAID SECTION 12; THENCE N47°34'18"E 694.94' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 12 AND THE POINT OF BEGINNING; THENCE S00°16'11"E 66.87' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 12 AND THE POINT OF TERMINATION, WHICH BEARS N51°55'57"E 651.95' FROM THE SOUTHWEST CORNER OF SAID SECTION 12. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. CONTAINS 0.100 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS N47°34'18"E 694.94' FROM THE SOUTHWEST CORNER OF SECTION 12, T20S, R35E, N.M.P.M.

POINT OF TERMINATION BEARS N51°55'57"E 651.95' FROM THE SOUTHWEST CORNER OF SECTION 12, T20S, R35E, N.M.P.M.

400' 200' 0' 400'

ACREAGE / LENGTH TABLE

LOCATION	FEET	RODS	ACRES
SEC. 12 (SW 1/4 SW 1/4)	66.87	4.05	0.100

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

NEW MEXICO 23782 PROFESSIONAL SURVEYOR
09-16-20

REV: 1 09-16-20 S.K. (UPDATE NAME)

NOTES:
- The maximum grade of existing ground for the proposed access road is ±5.54%.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

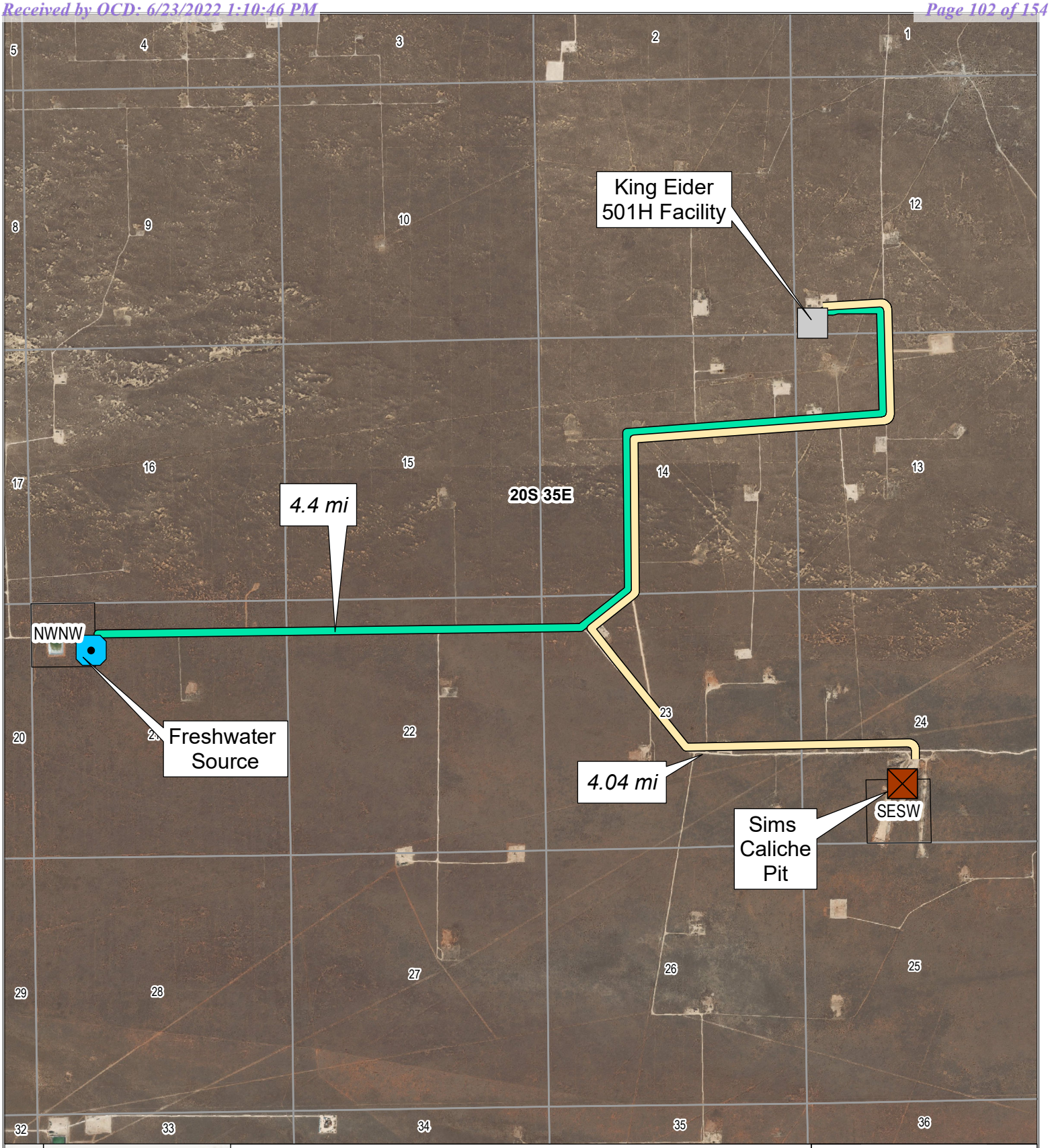
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
ON STATE OF NEW MEXICO LANDS IN
SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	T.P.	07-16-20	1" = 400'
FILE	C-7 2 3 4-A		

ACCESS ROAD R-O-W

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



Freshwater Source

Sims Caliche Pit

King Eider 501H Facility

King Eider Caliche Route

King Eider Freshwater Route

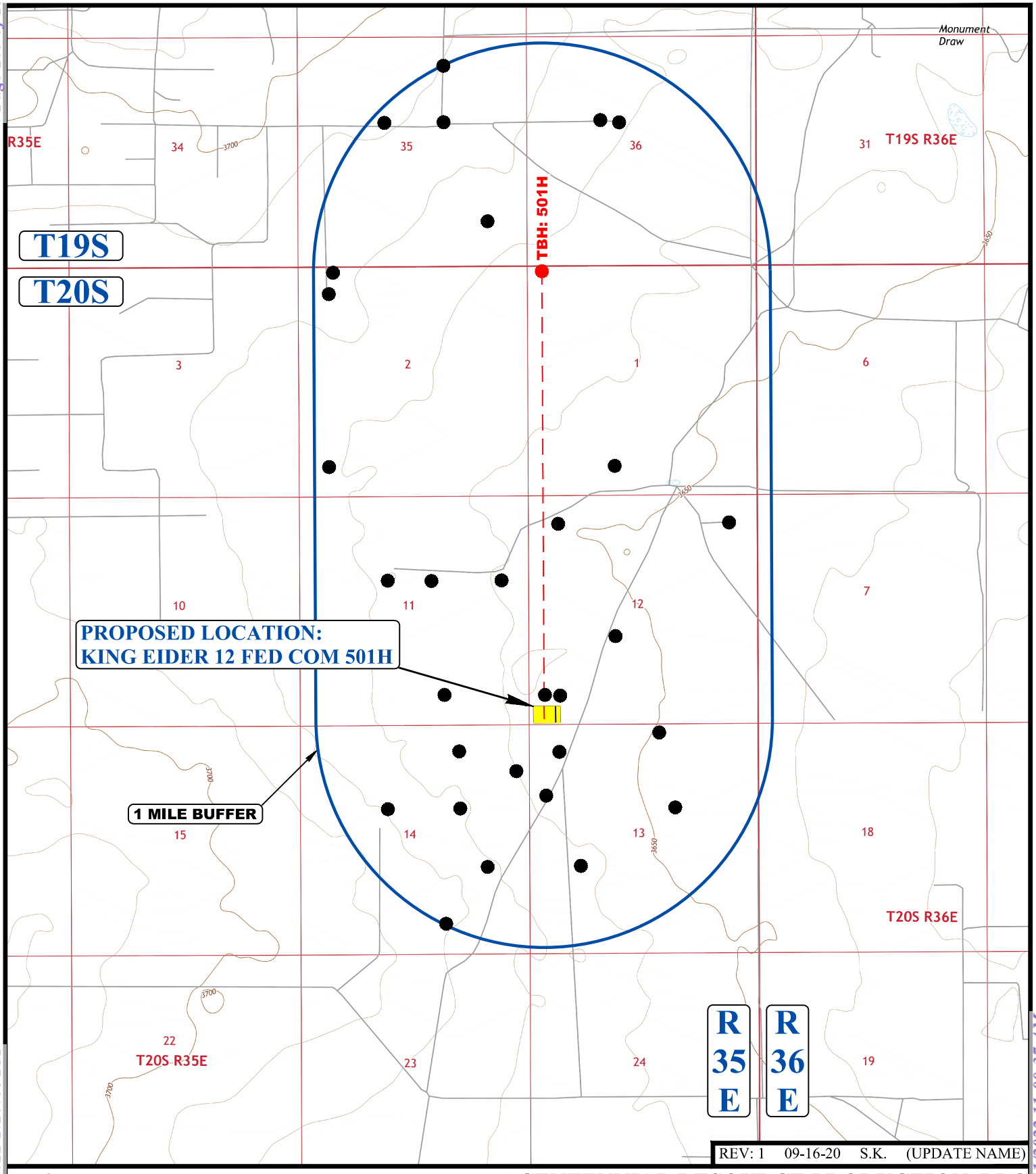
CENTENNIAL
RESOURCE DEVELOPMENT, LLC

King Eider 501H Freshwater/ Caliche Routes

A: Thomas.Douglass	D: 10/23/2020

0 600 1,200 2,400 Feet

N



LEGEND:

● EXISTING WELL

N

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 36,000
WELL PROXIMITY MAP			TOPO C

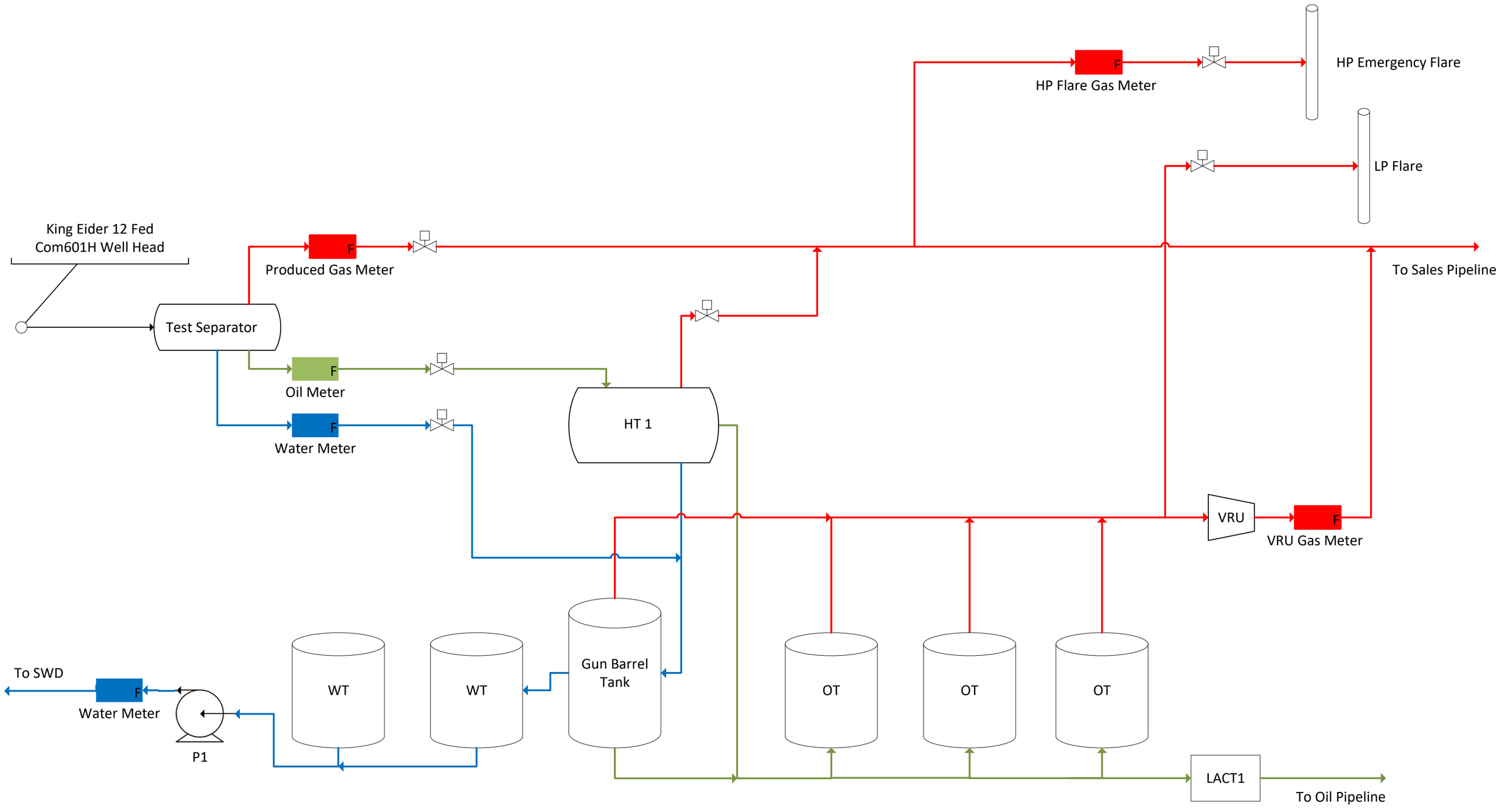
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

UINTAH ENGINEERING & LAND SURVEYING

KING EIDER 12 FED COM 501H

SUPPLEMENTAL OIL & GAS SPREADSHEET TO TOPO "C"
DRAWN BY: C.D. 11-10-20

OBJECTID	API	OPERATOR	WELL NAME	WELL TYPE	WELL STATUS	SECTION	TWP	RNG	UNIT LETTER	NAD 83 LATITUDE	NAD 83 LONGITUDE
34982	30-025-45850	Ridge Runner Resources Operating LLC	CENTAUR 0112 STATE COM #004H	Oil	New	1	20S	35E	M	32.5983737	-103.4182648
69054	30-025-45852	Ridge Runner Resources Operating LLC	CENTAUR 0112 STATE COM #001H	Oil	New	1	20S	35E	C	32.6092008	-103.4139749
70060	30-025-28578	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	1	20S	35E	N	32.5967979	-103.4129333
71454	30-025-45848	Ridge Runner Resources Operating LLC	CENTAUR 0112 STATE COM #002H	Oil	New	1	20S	35E	J	32.6020211	-103.4075303
73507	30-025-45849	Ridge Runner Resources Operating LLC	CENTAUR 0112 STATE COM #003H	Oil	New	1	20S	35E	P	32.5983907	-103.4032416
20487	30-025-03312	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	2	20S	35E	D	32.6077614	-103.4344330
22125	30-025-42444	EOG RESOURCES INC	BOYSENBERRY BVZ STATE #001	Oil	Plugged	2	20S	35E	D	32.6090222	-103.4340990
34931	30-025-34807	THRESHOLD DEVELOPMENT COMPANY	STATE 2 M #001	Gas	Plugged	2	20S	35E	M	32.5967789	-103.4343948
23190	30-025-03347	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	11	20S	35E	F	32.5895271	-103.4300995
26832	30-025-29203	XOG OPERATING LLC	JORDAN B #002	Oil	Plugged	11	20S	35E	G	32.5895309	-103.4268570
27522	30-025-29020	BLUE RUBY OPERATING LLC	JORDAN B #001	Gas	Active	11	20S	35E	O	32.5822601	-103.4257736
32676	30-025-03348	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Gas	Plugged	11	20S	35E	H	32.5895348	-103.4214935
34133	30-025-03350	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #002	Oil	Plugged	12	20S	35E	D	32.5931702	-103.4172134
35474	30-025-31883	MANZANO OIL CORP	SIMS STATE #001	Oil	Plugged	12	20S	35E	M	32.5822716	-103.4182739
67560	30-025-41091	MATADOR PRODUCTION COMPANY	RANGER 12 STATE #001	Gas	Plugged	12	20S	35E	M	32.5822716	-103.4172058
69817	30-025-27494	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Gas	Plugged	12	20S	35E	K	32.5858994	-103.4129181
72407	30-025-03349	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	12	20S	35E	A	32.5931778	-103.4043198
34079	30-025-37621	CHEVRON U S A INC	SIMS 13 STATE #002	Oil	Active	13	20S	35E	E	32.5759201	-103.4182663
34110	30-025-03351	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	13	20S	35E	D	32.5786438	-103.4171982
34719	30-025-20989	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	13	20S	35E	D	32.5786018	-103.4172516
68490	30-025-37294	CHEVRON U S A INC	SIMS 13 STATE #001	Gas	Active	13	20S	35E	L	32.5713692	-103.4156342
70661	30-025-42731	EOG RESOURCES INC	TAYBERRIES 13 STATE #501H	Oil	Active	13	20S	35E	B	32.5798071	-103.4096963
70979	30-025-29068	MANZANO OIL CORP	AMOCO STATE #001	Oil	Plugged	13	20S	35E	G	32.5750160	-103.4085922
22872	30-025-26620	DEVON ENERGY PRODUCTION COMPANY LP	FEDERAL AG COM #001	Gas	Plugged	14	20S	35E	F	32.5749969	-103.4300842
23062	30-025-37408	OXY USA INC	NEVER READY 14 FEDERAL #002	Oil	New	14	20S	35E	C	32.5777206	-103.4290161
27553	30-025-35153	CHESAPEAKE OPERATING INC.	NEUHAUS 14 FEDERAL #003	Gas	Plugged	14	20S	35E	O	32.5677338	-103.4257660
27589	30-025-36353	CHEVRON U S A INC	NEUHAUS 14 FEDERAL #004	Oil	Plugged	14	20S	35E	G	32.5750046	-103.4246979
27734	30-025-31970	CHEVRON U S A INC	NEUHAUS 14 FEDERAL #002	Oil	Plugged	14	20S	35E	B	32.5786324	-103.4246979
32681	30-025-37351	CHEVRON U S A INC	NEUHAUS 14 FEDERAL #005	Gas	Active	14	20S	35E	A	32.5774574	-103.4204102
68450	30-025-31768	M BRAD BENNETT INC	NEUHAUS 14 FEDERAL #001	Gas	Plugged	14	20S	35E	I	32.5713654	-103.4225540
22581	30-025-03308	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #004	Oil	Plugged	35	19S	35E	F	32.6186752	-103.4301453
26119	30-025-03307	AMTEX ENERGY INC	RECORD #002	Oil	Active	35	19S	35E	G	32.6186676	-103.4258041
26447	30-025-03309	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #005	Oil	Plugged	35	19S	35E	B	32.6222954	-103.4258041
26942	30-025-45347	SOLARIS WATER MIDSTREAM LLC	SIMMS 35 SWD #001	Salt Water Disposal	New	35	19S	35E	G	32.6175840	-103.4277080
31055	30-025-31337	AMTEX ENERGY INC	MERIT RECORD 35 #001	Oil	Plugged	35	19S	35E	P	32.6122818	-103.4225922
69774	30-025-03311	PRE-ONGARD WELL OPERATOR	PRE-ONGARD WELL #001	Oil	Plugged	36	19S	35E	F	32.6186485	-103.4126205
76807	30-025-31136	SABA ENERGY OF TEXAS INC	COYOTE STATE #001	Gas	Plugged	36	19S	35E	F	32.6186523	-103.4140167


HP Emergency Flare
F
HP Flare Gas Meter
LP Flare
King Eider 12 Fed
Com601H Well Head
F
Produced Gas Meter
To Sales Pipeline
Test Separator
F
Oil Meter
F
Water Meter
HT 1
VRU
F
VRU Gas Meter
Gun Barrel
Tank
WT
WT
OT
OT
OT
To SWD
F
Water Meter
P1
LACT1
To Oil Pipeline

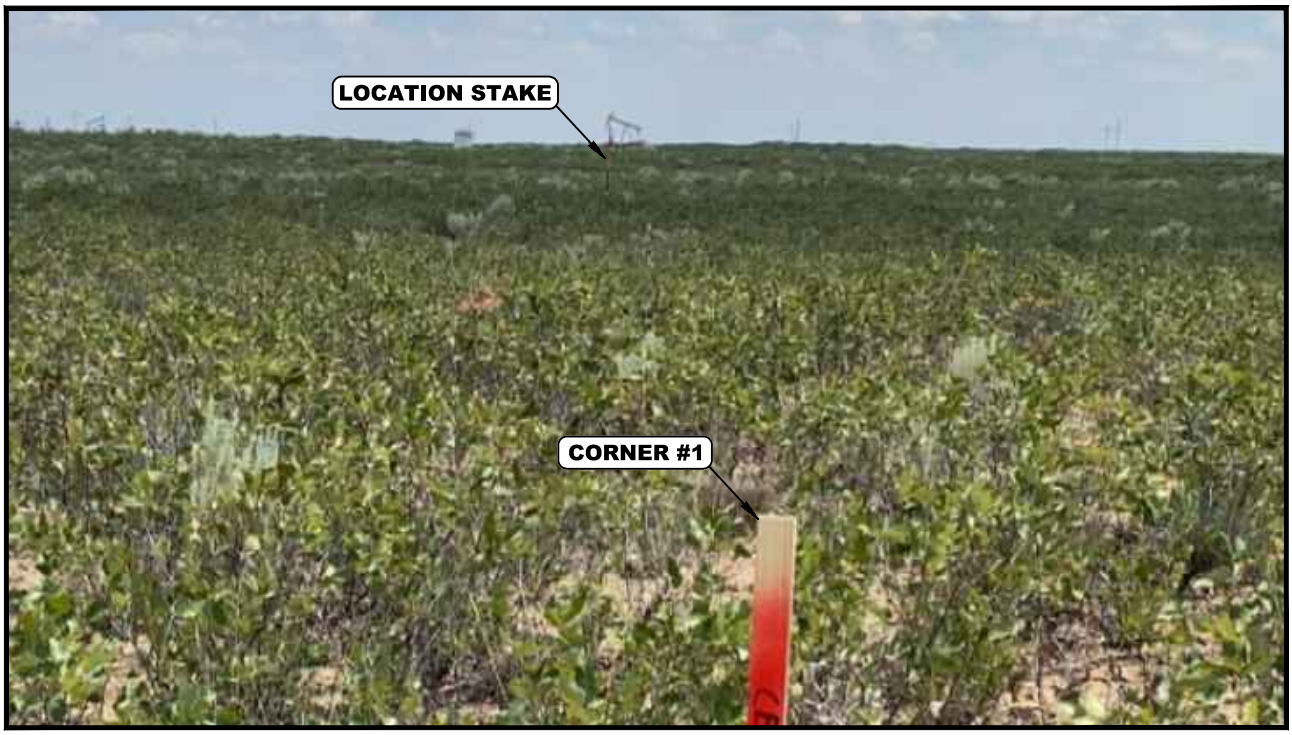


PHOTO: VIEW FROM CORNER #1 TO LOCATION STAKE

CAMERA ANGLE: SOUTHERLY

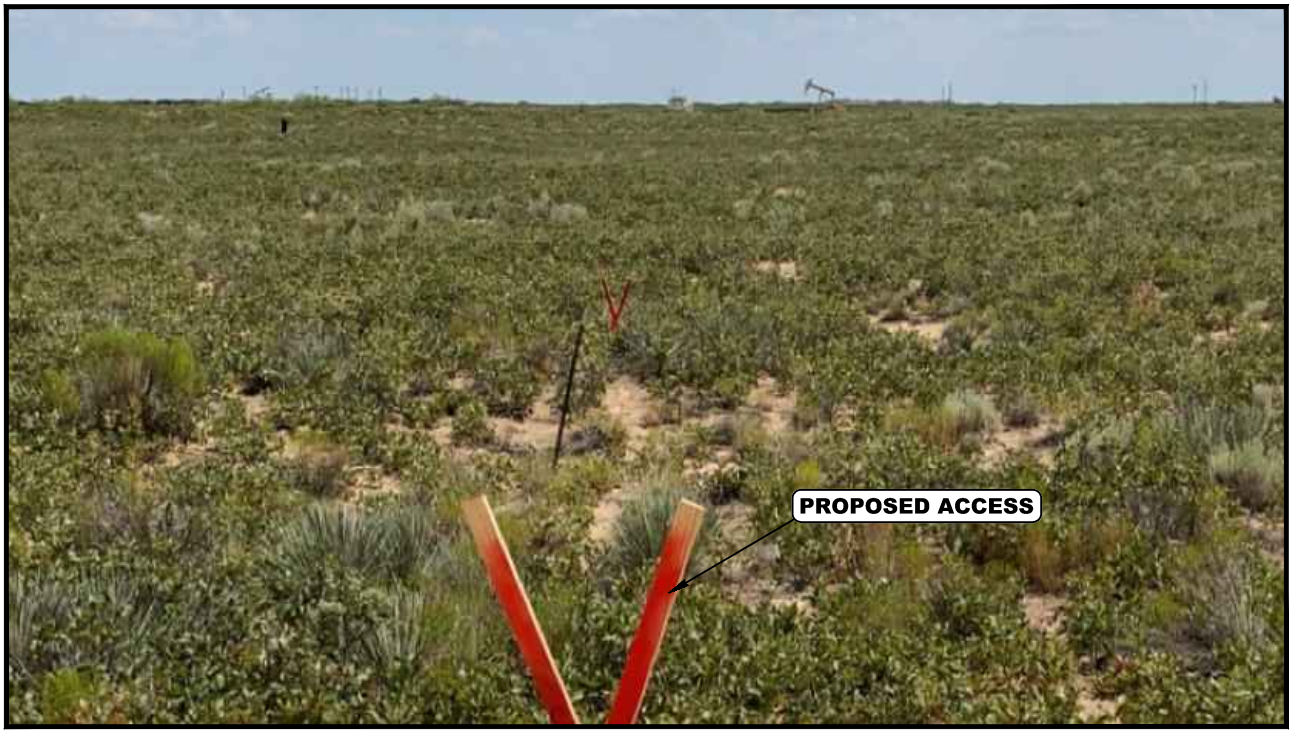


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY

REV: 1 09-16-20 S.K. (UPDATE NAME)

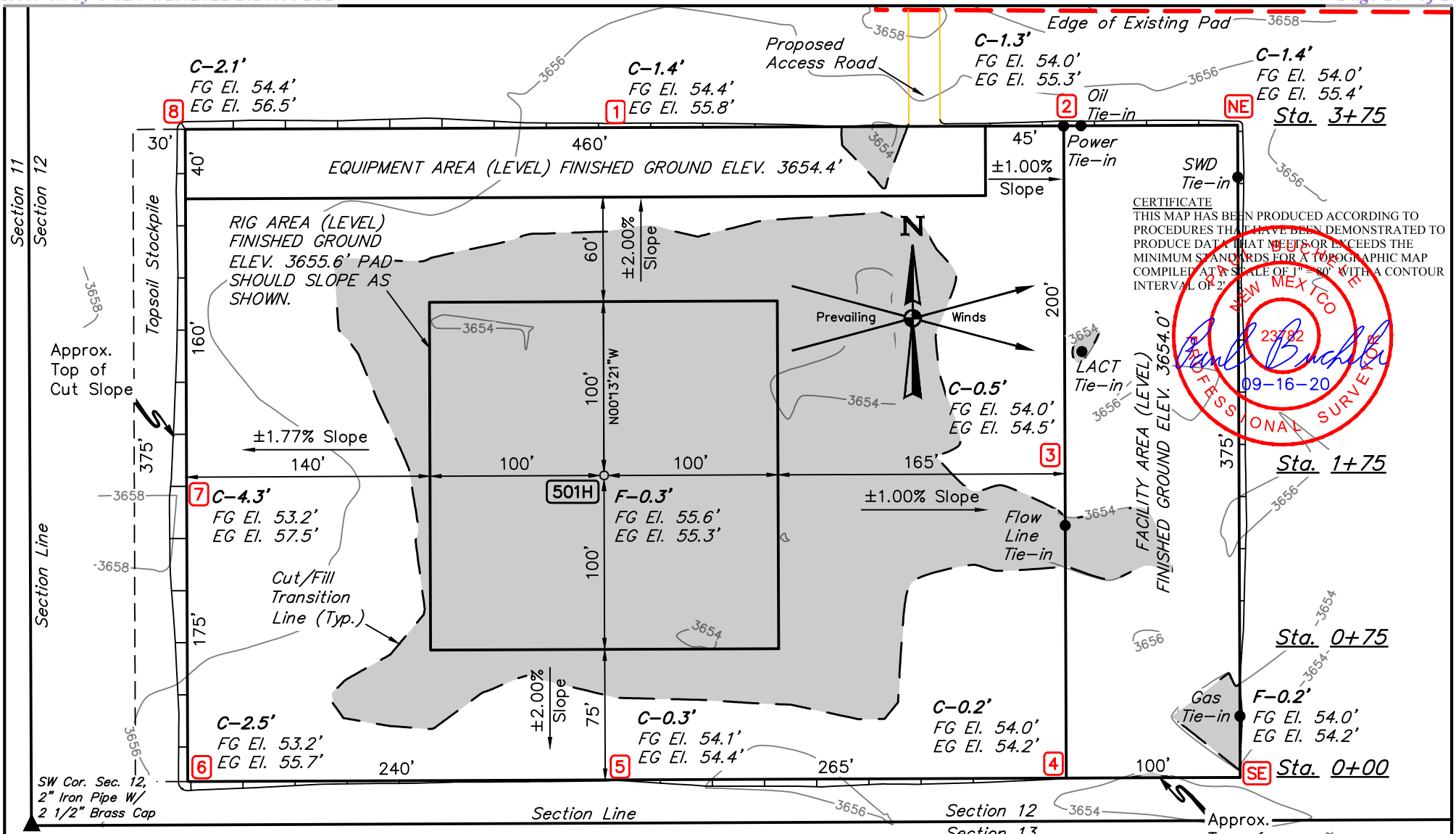
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

TAKEN BY	N.R.	07-07-20	
DRAWN BY	D.P.	07-15-20	
LOCATION PHOTOS			PHOTO

UELS, LLC
Regional Office * 606 US Highway 385 N
Seminole, TX 79360 * (432) 955-6100
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

UINTAH ENGINEERING & LAND SURVEYING



CERTIFICATE

THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

NOTE: Earthwork Calculations Require a Fill of 0.3' @ the Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill slopes 2:1 (Typ.)
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

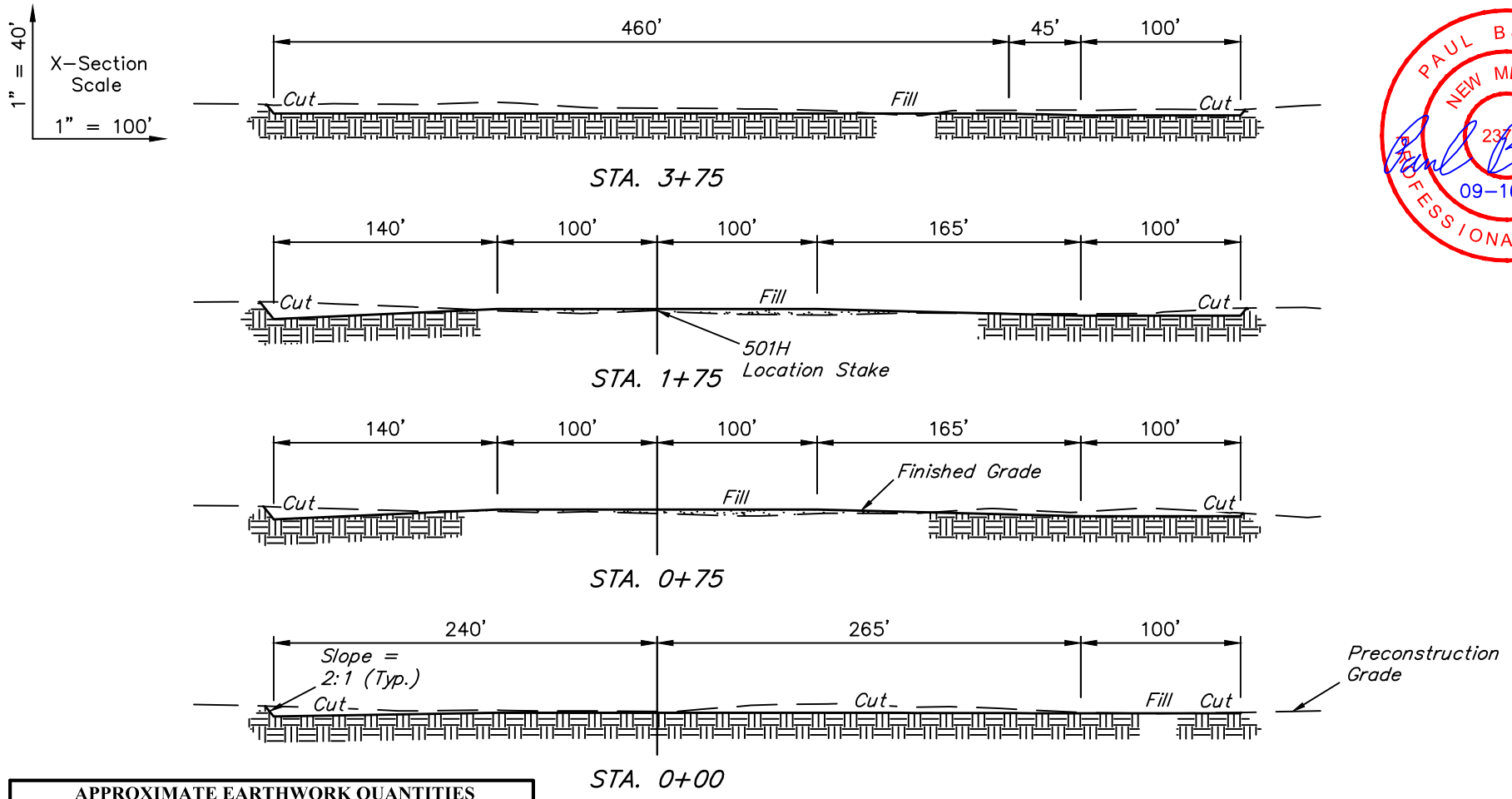
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'
LOCATION LAYOUT			FIGURE #1

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



PAUL BUCHELE
NEW MEXICO
23782
09-16-20
PROFESSIONAL SURVEYOR

APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2.880 Cu. Yds.
REMAINING LOCATION	4,350 Cu. Yds.
TOTAL CUT	**7,230 Cu. Yds.**
FILL	**4,350 Cu. Yds.**
EXCESS MATERIAL	2,880 Cu. Yds.
TOPSOIL	2,880 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	**0 Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	**ACRES**
WELL SITE DISTURBANCE	NA	±5.559
65' WIDE ACCESS ROAD R-O-W DISTURBANCE	±66.87'	±0.100
TOTAL SURFACE USE AREA		**±5.659**

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Fill quantity includes 5% for compaction.
- Cut/Fill slopes 2:1 (Typ.)

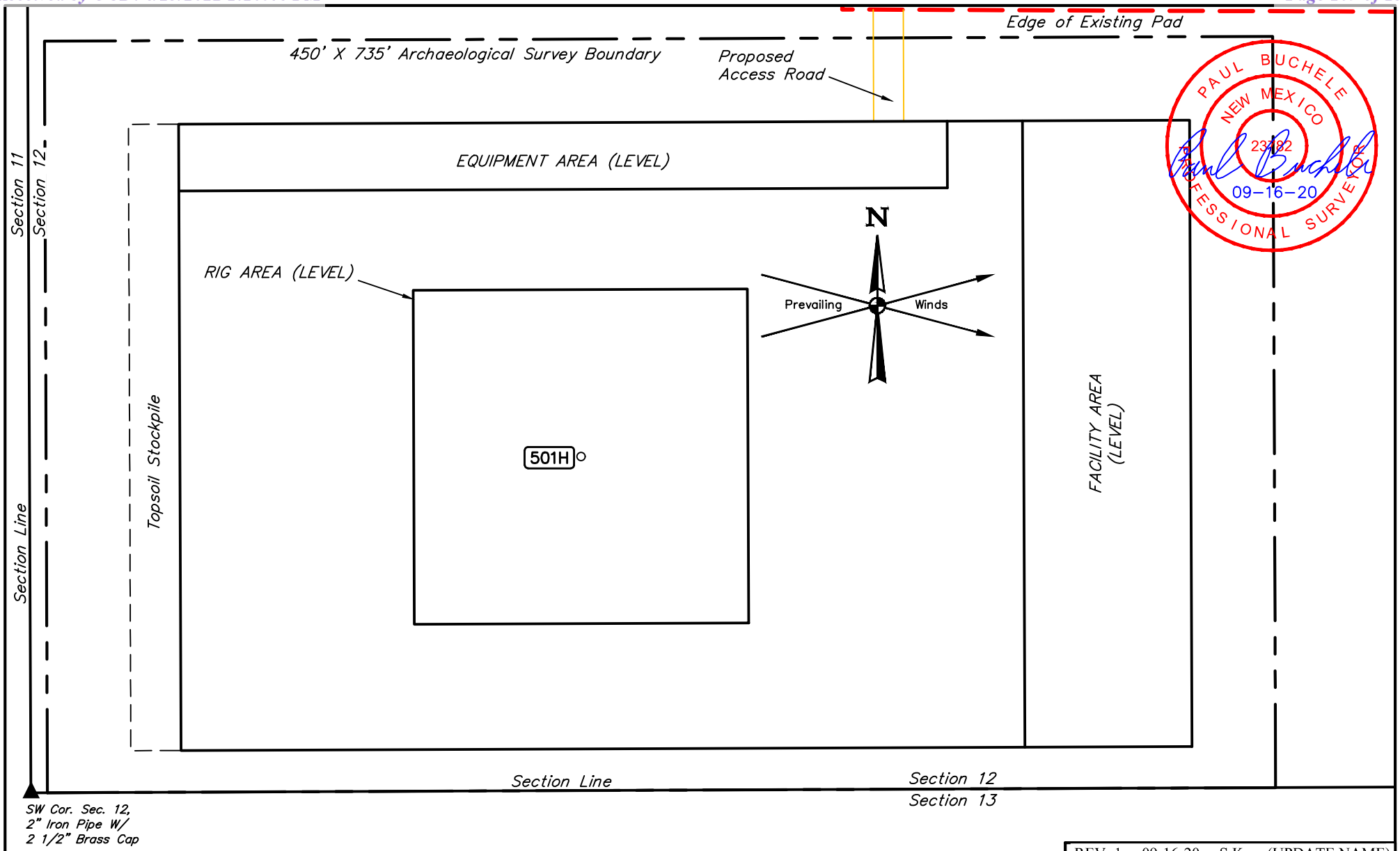
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	**SCALE**
DRAWN BY	D.P.	07-15-20	AS SHOWN
TYPICAL CROSS SECTIONS			**FIGURE #2**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'
ARCHAEOLOGICAL SURVEY BOUNDARY			FIGURE #5

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE JUNCTION OF MAIN ST. & NM-176 IN EUNICE, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY, THEN NORTHWESTERLY, DIRECTION ALONG NM-176 APPROXIMATELY 16.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 2.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN WESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY THEN EASTERLY THEN NORTHERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED APPROXIMATELY 0.2 MILES TO AN EXISTING WELL PAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 67' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM EUNICE, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 24.9 MILES.

REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

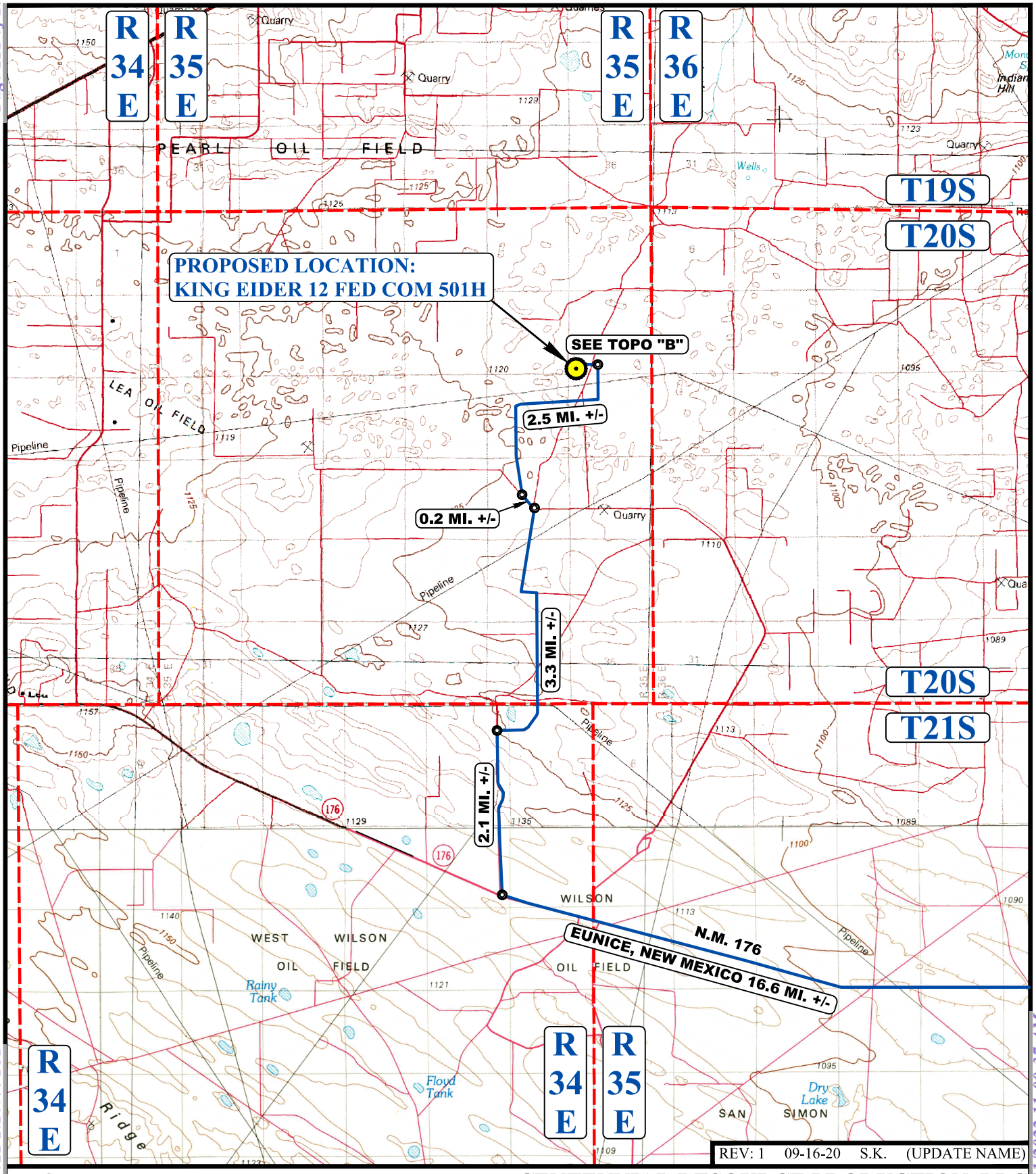
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	
DRAWN BY	D.P.	07-15-20	

ROAD DESCRIPTION

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

LEGEND:

PROPOSED LOCATION

N

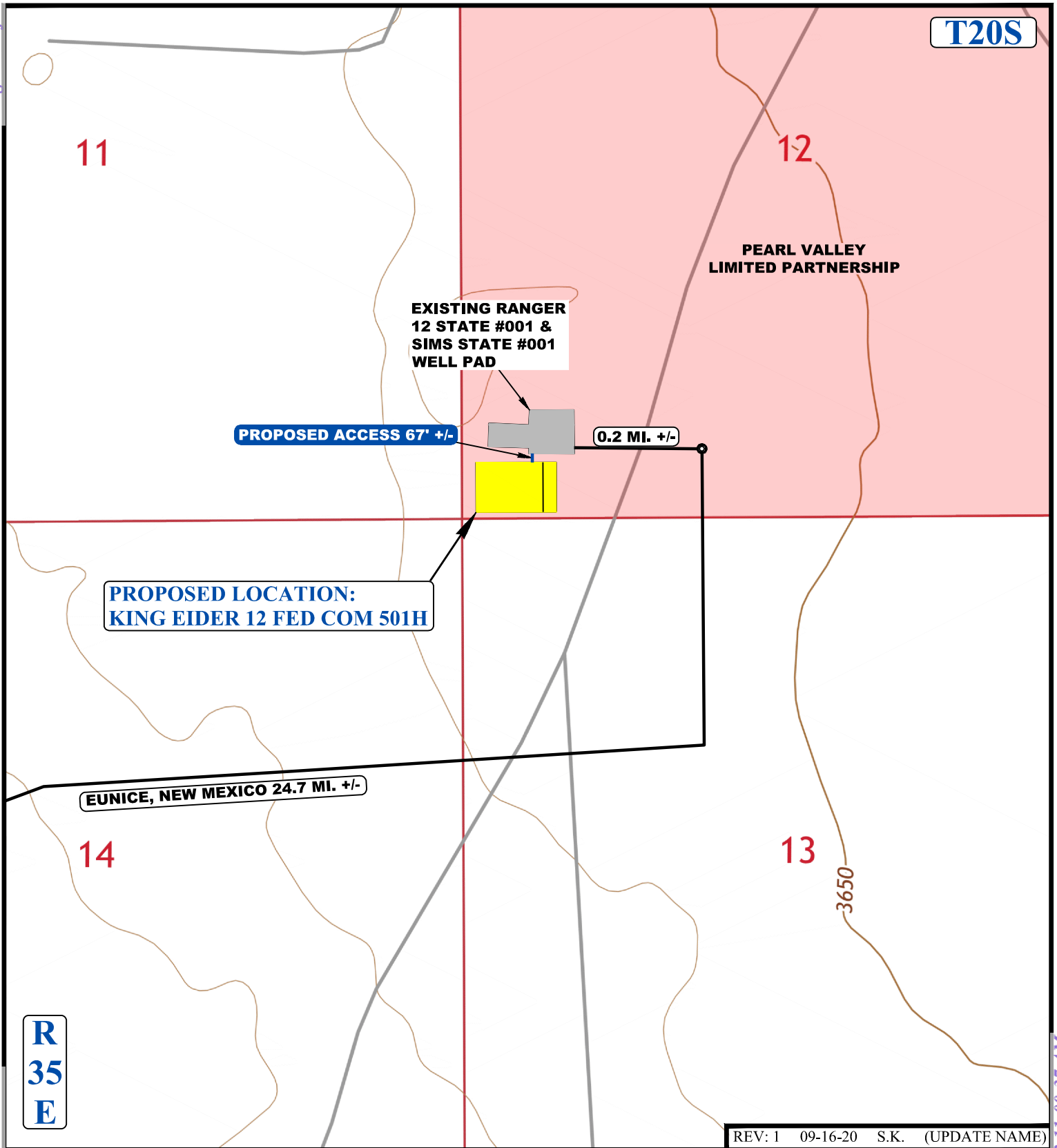
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 100,000
ACCESS ROAD MAP			TOPO A

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

PROPOSED ROAD

N

CENTENNIAL RESOURCE PRODUCTION, LLC

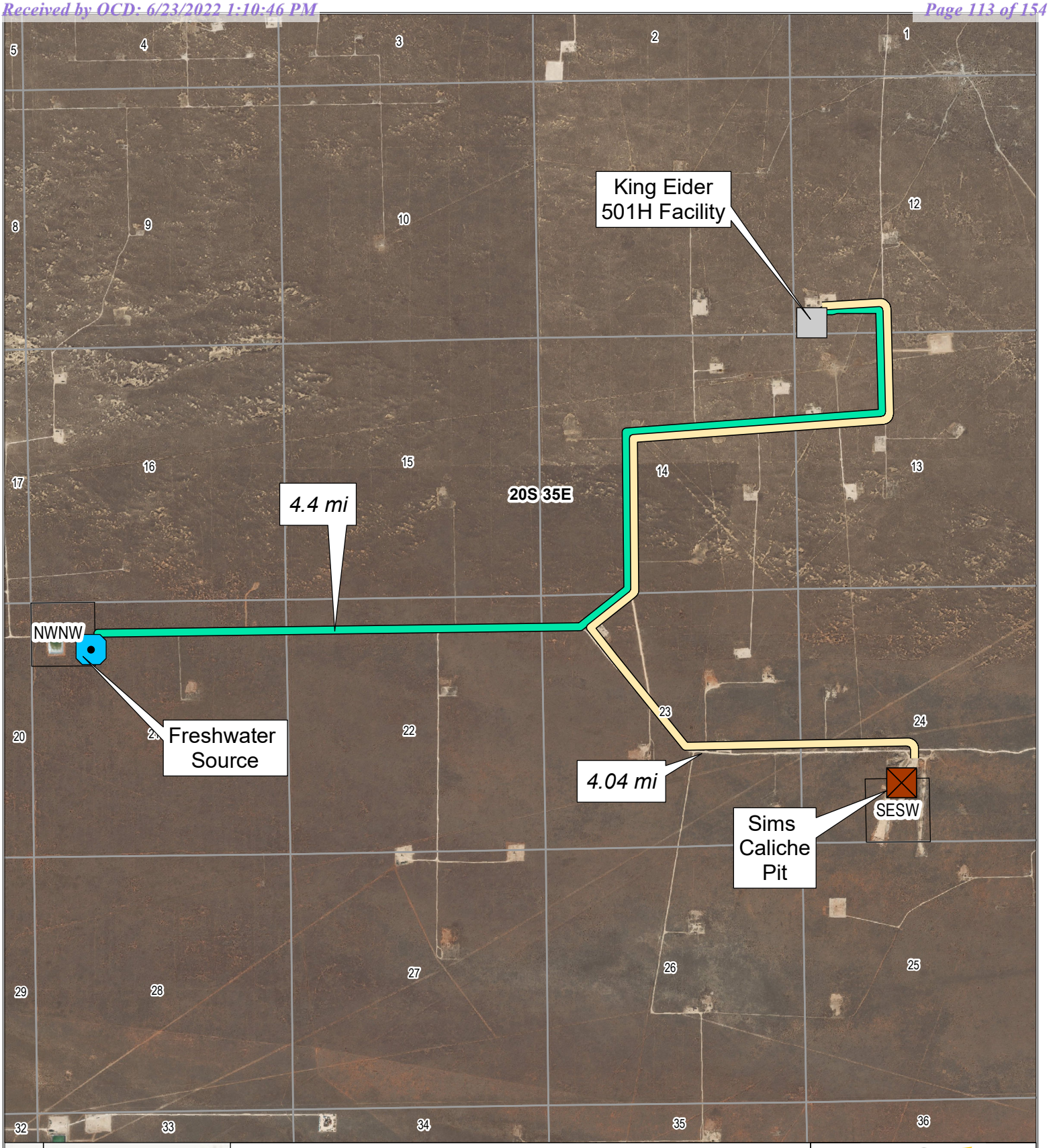
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

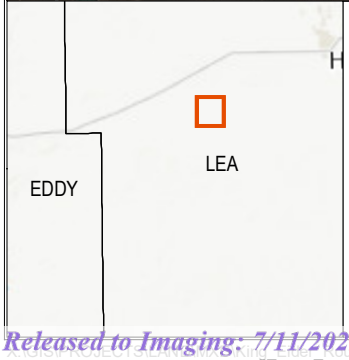
SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 12,000

ACCESS ROAD MAP | **TOPO B**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017





Freshwater Source

Sims Caliche Pit

King Eider 501H Facility

King Eider Caliche Route

King Eider Freshwater Route

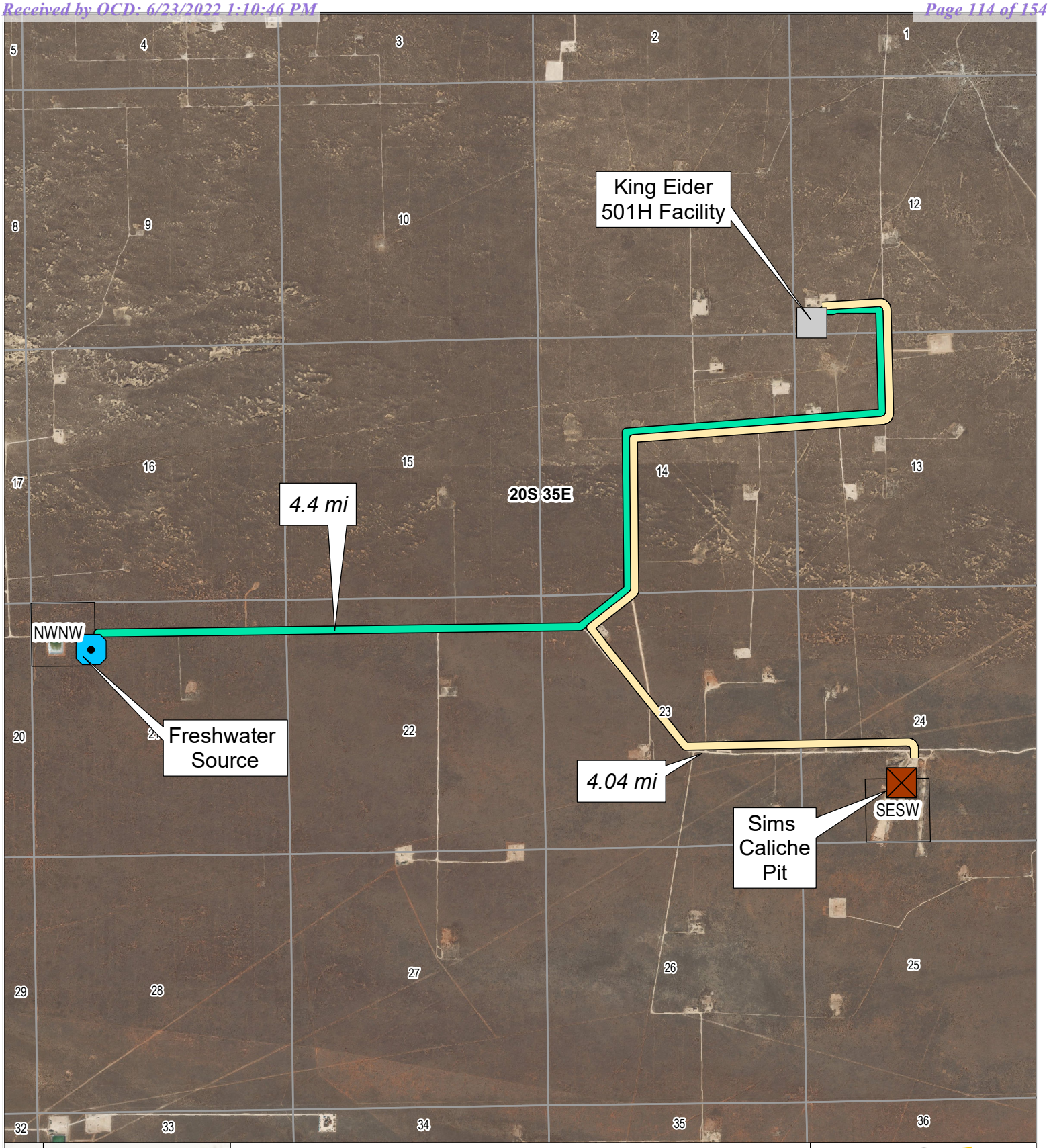
CENTENNIAL
RESOURCE DEVELOPMENT, LLC

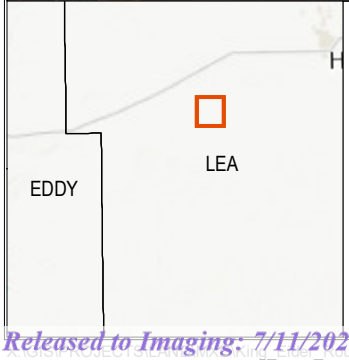
King Eider 501H Freshwater/ Caliche Routes

A: Thomas.Douglass	D: 10/23/2020

0 600 1,200 2,400 Feet

N





Freshwater Source

Sims Caliche Pit

King Eider 501H Facility

King Eider Caliche Route

King Eider Freshwater Route

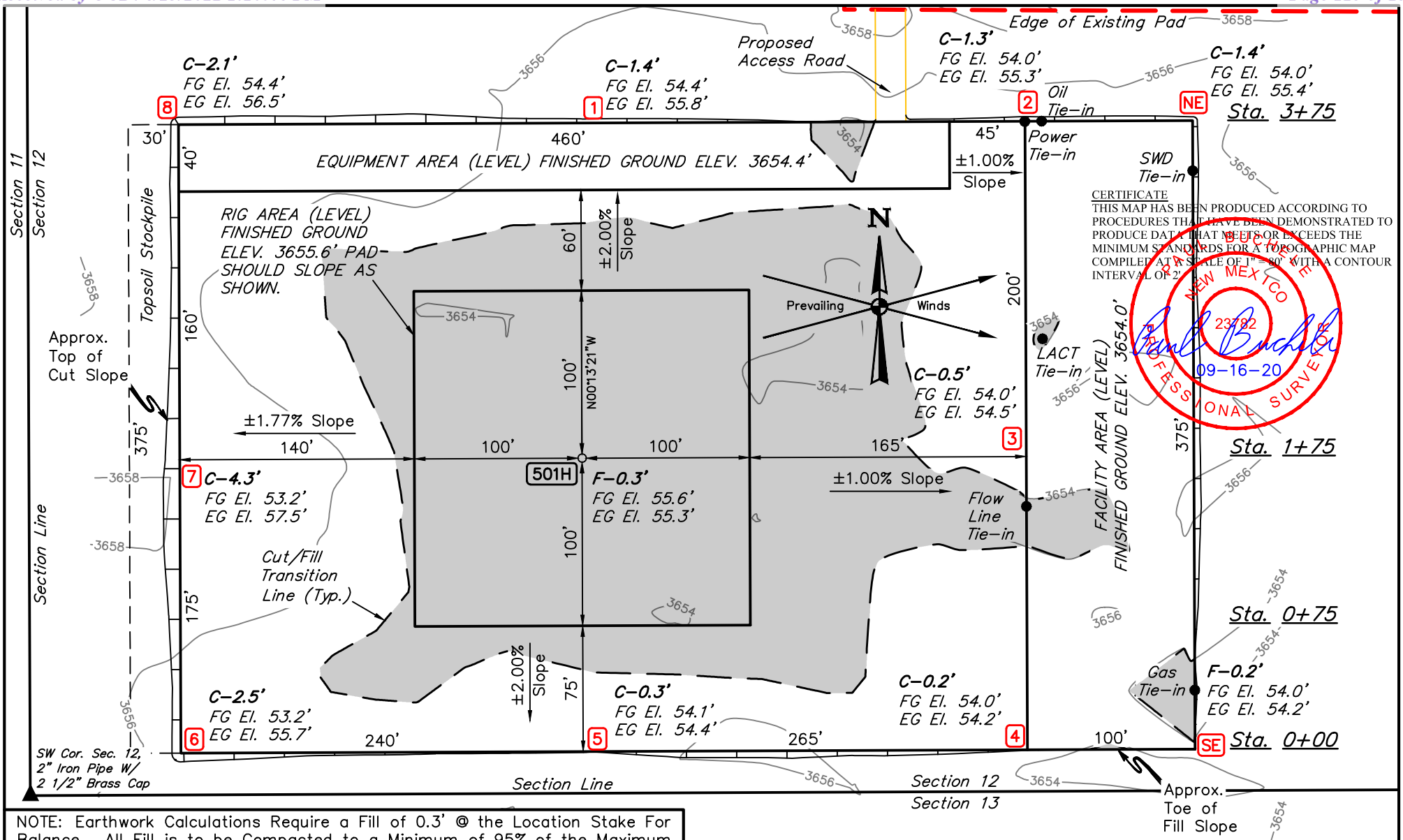
CENTENNIAL
RESOURCE DEVELOPMENT, LLC

King Eider 501H Freshwater/ Caliche Routes

A: Thomas.Douglass	D: 10/23/2020

0 600 1,200 2,400 Feet

N



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

NOTE: Earthwork Calculations Require a Fill of 0.3' @ the Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

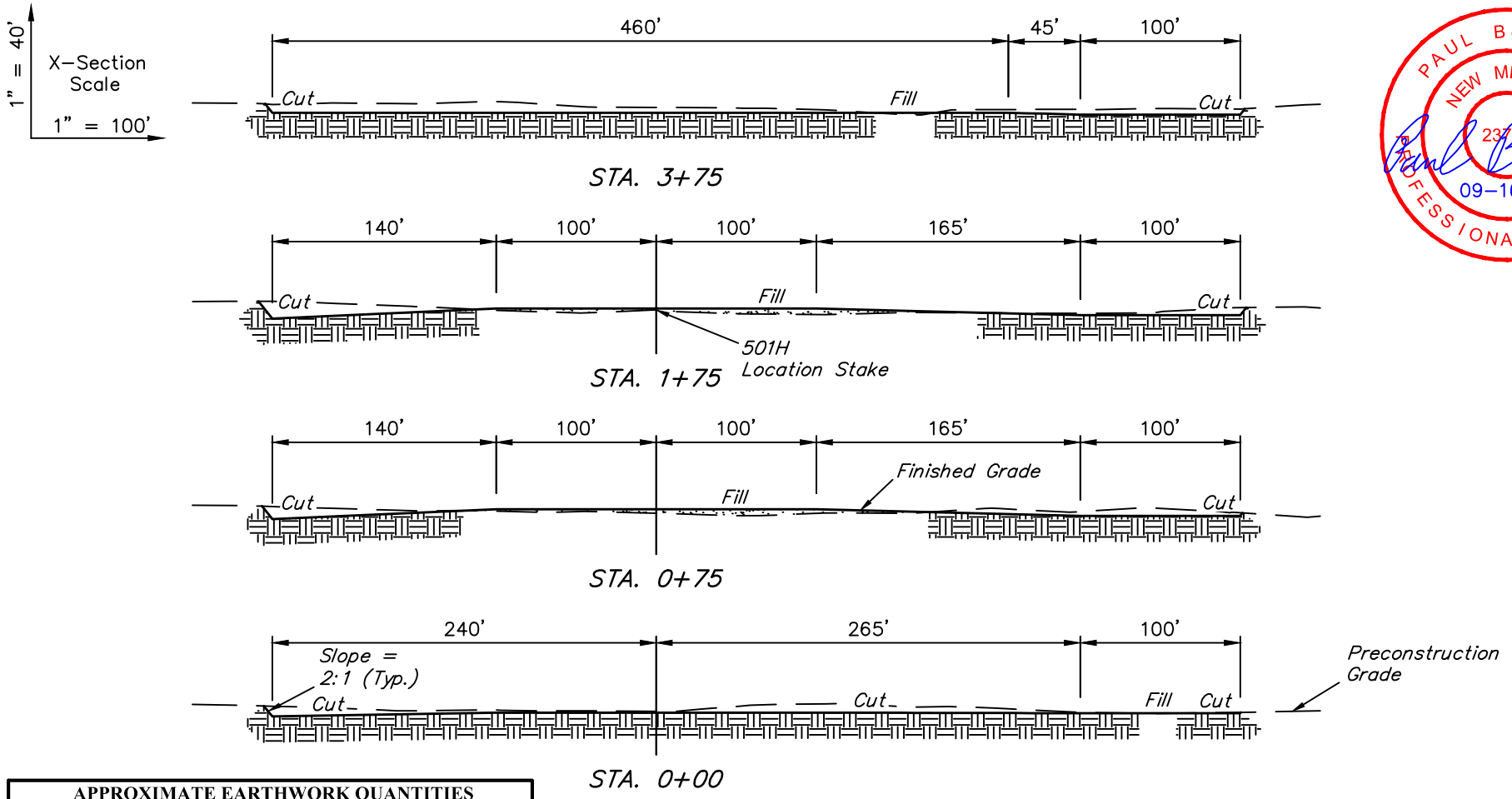
- Contours shown at 2' intervals.
- Cut/Fill slopes 2:1 (Typ.)
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'
LOCATION LAYOUT			FIGURE #1

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2,880 Cu. Yds.
REMAINING LOCATION	4,350 Cu. Yds.
TOTAL CUT	**7,230 Cu. Yds.**
FILL	**4,350 Cu. Yds.**
EXCESS MATERIAL	2,880 Cu. Yds.
TOPSOIL	2,880 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	**0 Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	**ACRES**
WELL SITE DISTURBANCE	NA	±5.559
65' WIDE ACCESS ROAD R-O-W DISTURBANCE	±66.87'	±0.100
TOTAL SURFACE USE AREA		**±5.659**

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Fill quantity includes 5% for compaction.
- Cut/Fill slopes 2:1 (Typ.)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	**SCALE**
DRAWN BY	D.P.	07-15-20	AS SHOWN
TYPICAL CROSS SECTIONS			**FIGURE #2**

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE JUNCTION OF MAIN ST. & NM-176 IN EUNICE, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY, THEN NORTHWESTERLY, DIRECTION ALONG NM-176 APPROXIMATELY 16.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 2.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN WESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY THEN EASTERLY THEN NORTHERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED APPROXIMATELY 0.2 MILES TO AN EXISTING WELL PAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 67' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM EUNICE, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 24.9 MILES.

REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

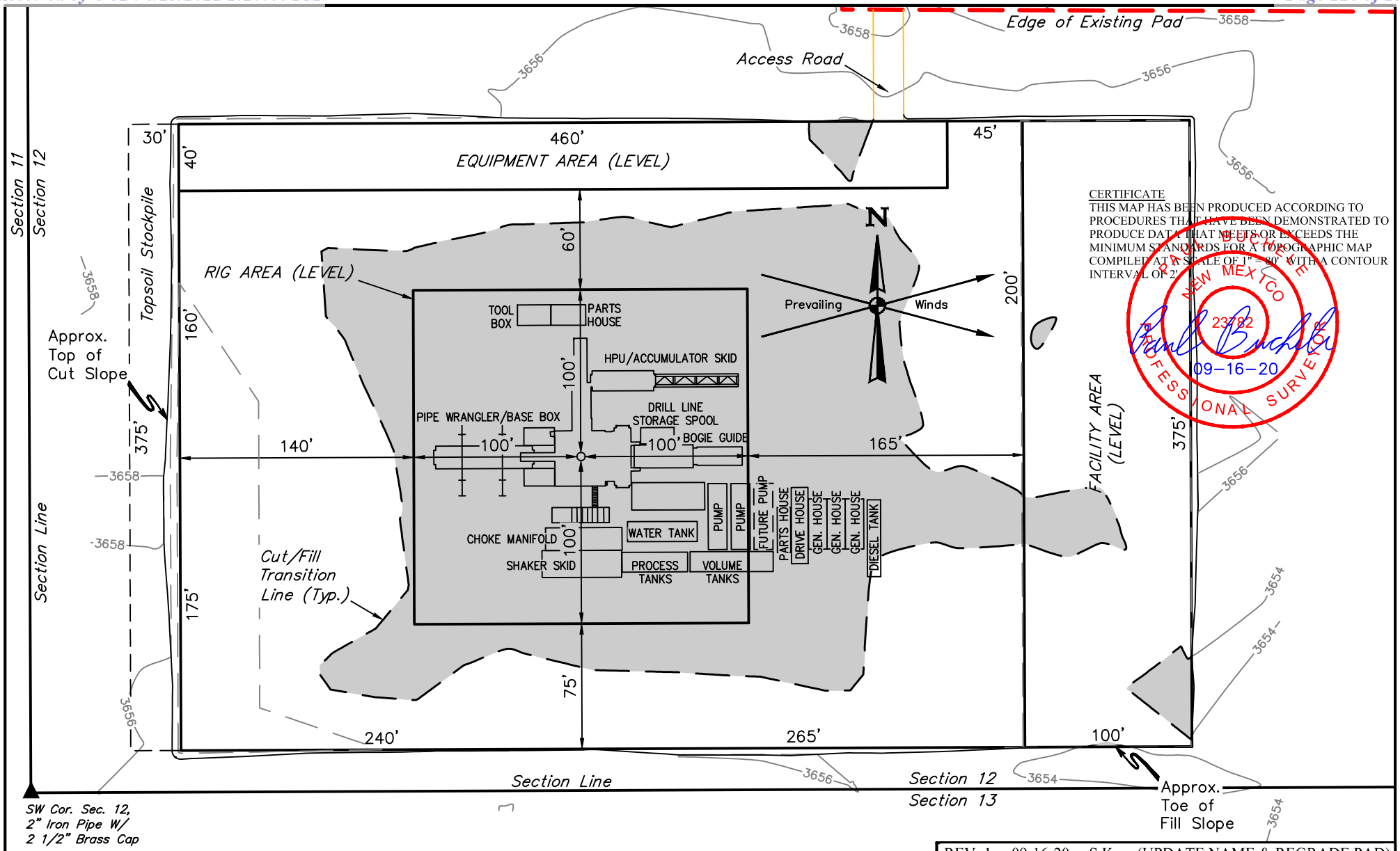
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	
DRAWN BY	D.P.	07-15-20	

ROAD DESCRIPTION

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE

THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CENTENNIAL RESOURCE PRODUCTION, LLC

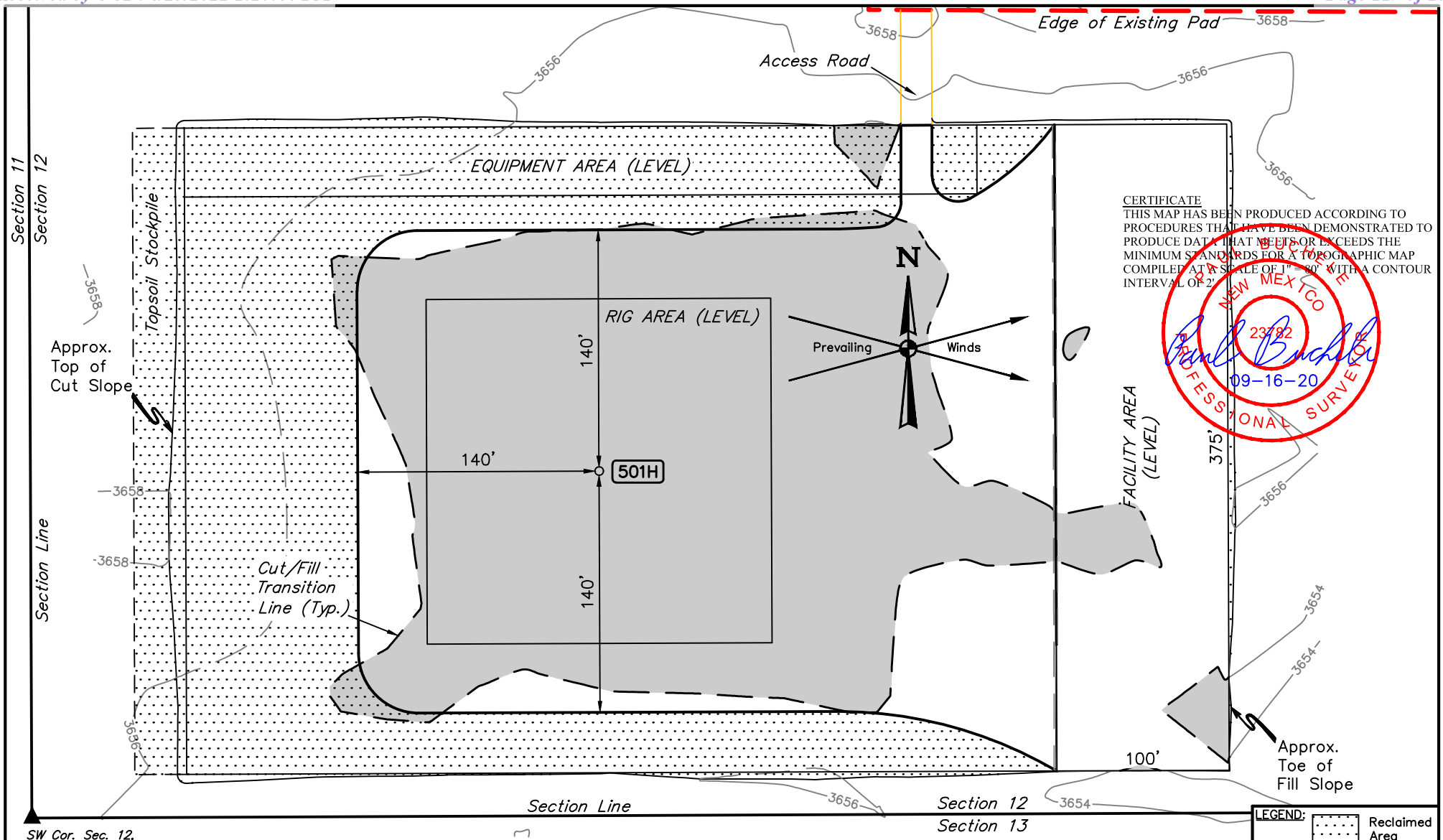
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'

TYPICAL RIG LAYOUT | **FIGURE #3**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE

THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

LEGEND: Reclaimed Area

APPROXIMATE PRODUCTION PAD ACREAGE = ±3.561 ACRES
APPROXIMATE RECLAIMED AREA ACREAGE = ±2.098 ACRES
TOTAL ACREAGE = ±5.659 ACRES

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	S.K.	09-15-20	1" = 80'

RECLAMATION DIAGRAM **FIGURE #4**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

LEA COUNTY, NM
KEITH MANES, COUNTY CLERK
000035441
Book2144 Page 514
1 of 2
01/09/2019 03:24 PM
BY ANGELA BEAUCHAMP

EXHIBIT C

MEMORANDUM OF SURFACE USE AND COMPENSATION AGREEMENT

For good and valuable consideration, Quail Ranch, LLC, whose address is One Concho Center, 600 West Illinois Avenue, Midland, Texas 79701 ("**Surface Owner**"), and Centennial Resource Production, LLC, a Delaware limited liability company, whose address is 1001 17th Street, Suite 1800, Denver, CO 80202, ("**Operator**"), have entered into that certain Surface Use and Compensation Agreement dated to be effective as of November 10, 2018 ("**Agreement**"), for the purpose of setting forth certain terms and conditions under which Operator can conduct various surface uses and/or operations in, on and under the following described lands owned by Surface Owner in Lea County, New Mexico (the "**Subject Lands**"), to-wit:

All of Section 15, All off Section 16, the North ½ of Section 21 and the East ½ of the Southeast ¼ and the West ½ of the Southwest ¼ of Section 21, All of Section 22, the Northwest ¼ of Section 27, The North ½ and Southwest ¼ of the Northeast ¼ of Section 27 and the North ½ of the Southwest ¼ of Section 27, all in Township 24 South, Range 34 East, N.M.P.M., Lea County, New Mexico

The Agreement is for a term beginning on the Effective Date, being November 10, 2018, and as long thereafter as Operator conducts oil and gas operations on the Subject Lands or any portion thereof with no cessation of such oil and gas operations of more than one hundred eighty (180) consecutive days. The Agreement, with all of its terms, covenants, and other provisions, is referred to and incorporated into this Memorandum for all purposes. This Memorandum is placed of record for the purpose of giving notice of the Agreement, which, by its express terms, shall run with the land and is binding upon the respective heirs, successors, assigns and personal representatives of Surface Owner and Operator. An original of the Agreement is maintained in the files of both Surface Owner and Operator at their respective addresses set forth above.

This Memorandum is signed as of the date of acknowledgment of the signatures of Surface Owner and Operator's authorized officer below but is effective for all purposes as of the effective date of the Agreement, as stated above.

SURFACE OWNER:

QUAIL RANCH, LLC

By: _____
Christopher Boehler
Attorney-In-Fact

OPERATOR:

CENTENNIAL RESOURCE PRODUCTION, LLC

By: _____ BT
Sean Marshall
VP of Land

SUR2199

LEA COUNTY, NM
KEITH MANES, COUNTY CLERK
000035441
Book2144 Page 514
2 of 2
01/09/2019 03:24 PM
BY ANGELA BEAUCHAMP

ACKNOWLEDGMENTS

STATE OF TEXAS §
§
COUNTY OF MIDLAND §

This instrument was acknowledged before me on this 18th day of December, 2018, by Christopher Boehler, as Attorney-In-Fact for QUAIL RANCH, LLC, a Delaware limited liability company, on behalf of said limited liability company.

Kimberly Kennedy
Notary Public-State of Texas

My commission expires:
3/8/2022

Kimberly Kennedy
Notary Public, State of Texas
Notary ID 13148289-4
My Commission Exp. 03-08-2022

STATE OF DENVER §
§
COUNTY OF COLORADO §

This instrument was acknowledged before me on this 12th day of November, 2018, by Sean Marshall, as Vice President of Land] for Centennial Resource Production, LLC, a Delaware limited liability company, on behalf of said company.

Reagan M Adams
Notary Public-State of Colorado

My commission expires:

REAGAN M ADAMS
Notary Public – State of Colorado
Notary ID 20174034384
My Commission Expires Aug 16, 2021

KING EIDER 12 FEDERAL COM 501H

SURFACE USE PLAN

EXISTING ROADS (ROAD PLAT ATTACHED AS PLAT #1)

- The operator will improve or maintain existing road in a condition the same as or better than before operations begin. The operator will repair potholes, clear ditches, repair the crown, etc. All existing structures o the entire access route such as cattle guards, other range improvement projects, culverts, etc. will be properly repaired or replaced if they are damaged or have deteriorated beyond practical use. We will prevent and abate fugitive dust as needed, whether created by vehicular traffic, equipment operations, or wind events. BLM written approval will be acquired before application of surfactants, binding agents, or the dust suppression chemicals on roadways.

DRIVING DIRECTIONS (ATTACHED AS PLAT #2)

- COMMENCING AT THE JUNCTION OF MAIN ST. & NM-176 IN EUNICE, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY, THEN NORTHWESTERLY, DIRECTION ALONG NM-176 APPROXIMATELY 16.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 2.1 MILES TO THEJUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAT; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN WESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PRCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY THEN EASTERLY THEN NORTHERLY DIRECTION

APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED APPROXIMATELY 0.2 MILES TO AN EXISTING WELL PAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 67' TO THE PROPOSED LOCATION. TOTAL DISTANCE FROM EUNICE, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 24.9 MILES.

NEW OR RECONSTRUCTED ACCESS ROADS (ATTACHED AS PLAT #3)

- There will be approximately 66.87' of new road construction for the well pad and facilities.
- Road Width: The access roads shall have a driving surface that creates the smallest possible surface disturbance and does not exceed 65'. (see "Access Road ROW" plat attached)
- Maximum Grade: 5.54%
- Crown Design: Crowning shall be done on the access road driving surface. The road crown shall have a grade of approximately 2%. The road shall conform to cross section and plans for typical road construction found in the BLM Gold Book.
- Ditch Design: Ditching will be constructed on both sides of road.
- Cattle guards: None suggested.
- Major Cuts and Fills: 2:1 during drilling and completions. Cuts and fills taken back to 3:1 at interim.
- Type of surfacing Material: Caliche.

LOCATION OF EXISTING WELLS (DIAGRAM & SPREADSHEET ATTACHED AS PLAT #4)

- 1-mile radius map and well details attached.

LOCATION OF EXISTING AND/OR PROPOSED PRODUCTION FACILITIES (WORK AREA DETAIL MAP ATTACHED AS PLAT #5)

- FACILITIES:
    - Production facility will be located on the S2 of Sec. 12, T20S-R35E where oil and gas sales will take place.

- An oil pipeline will be built to the pad for oil sales/gathering
- Open vent exhaust stacks will be modified to prevent birds or bats from entering, discourage perching, roosting and nesting.
- Facility will have a secondary containment 1.5 times the holding capacity of largest storage tank.
- All above ground structures will be painted non-reflective shale green for blending with the environment.
- The tank battery will be connected to the existing water gathering system in the field for permanent water disposal.

LOCATION OF PROPOSED ROW (WELL PLAT ATTACHED AS PLAT #6)

- Pipelines: 1 – buried SWD pipeline <12 ¾" OD , approximately 27,000', will be laid from well pad in Section 12, going West along South section line, through sections 11, 10, 9, 8, and 7, all in T20S-R35E to an existing 3 Bear Midstream SWD line in the SW4 of section 7-T20S-R35E.
  - A ROW will be required for these pipelines.
  - All construction activity will be confined to the approved ROW.
  - Pipeline will stay within approved ROW.
- Powerlines: A powerline, will be installed from the well location to an XCel takepoint TBD within section 12-T20S-R35E. When Xcel approves the takepoint on lease, plats will be submitted in order to file a sundry for the OHE line.
  - A ROW will be required for this ohe line.
  - All construction activity will be confined to the approved ROW.
  - Powerline will run parallel to the road and will stay within approved ROW.

LOCATION AND TYPES OF WATER (PLAT ATTACHED AS PLAT #7)

- Existing freshwater pit in the NW4 NW4 Sec 21-T20S-R35E will be utilized for fresh water and source location for recycled water is tbd.
- Fresh water will be obtained from a private water source.
- Temporary expanding water surface line will be used to transport water for drilling and completion operations from the pipeline to the King Eider location along existing road a total of approx. 23,225' from the well location to the existing frac pond in Sec 21-T20S-R35E.

- Fresh water line will run parallel to the existing road, then north within an existing pipeline right of way.
- A BLM ROW will not be required for the water transfer line.

CONSTRUCTION MATERIAL (ATTACHED AS PLAT #8)

- Caliche will be hauled from the existing Pearl Valley pit located in the NE/4 SW/4 & SE/4 SW/4, Sec 24, T20S, R35E}. Pit has been identified for use in the attached exhibit.
- Any native caliche on the proposed site can be used by "flipping" the location and using all native soils.
    - Notification shall be given to BLM at 575/234-5909 at least 2 working days prior to commencing construction of access road and /or well pad.

METHODS FOR HANDLING WASTE

- Drilling fluids and produced oil and water from the well during drilling and completion operations will be stored safely and disposed of properly in an NMOCD approved disposal facility.
- Garbage and trash produced during drilling and completion operations will be collected in a trash container and disposed of properly at a state approved disposal facility. All trash on and around the well site will be collected for disposal.
- Human waste and grey water will be properly contained and disposed of properly at a state approve disposal facility.
- After drilling and completion operations, trash, chemicals, salts frac sand and other waste material will be removed and disposed of properly at a state approved disposal facility.
- The well will be drilled utilizing a closed loop system. Drill cuttings will be properly disposed of into steel tank and taken to an NMOCD approved disposal facility.

ANCILLARY FACILITIES

- None

WELL SITE LAYOUT (WELL SITE PLAT ATTACHED AS PLAT #9)

- Well Site Plat
    - Exterior well pad dimensions are 375' x 560''.
    - Interior well pad dimensions from point of entry (well head) of the westernmost well are N-200', S-175', W-240', E-265'. The length to the east includes 30' spacing for next well on multi-well pad (three wells). Total disturbance area needed for construction of well pad will be 5.659 acres.
    - Topsoil placement is on the west where interim reclamation is planned to be completed upon completion of well and evaluation of best management practices.

PROPOSED PAD CUT & FILL (PLAT ATTACHED AS PLAT #10)

- Cut and fill: will be minimal.

RIG LAYOUT (ATTACHED AS PLAT #11)

PLANS FOR SURFACE RECLAMATION (RECLAMATION PLAT ATTACHED AS PLAT #12)

RECLAMATION OBJECTIVES

- The objective of interim reclamation is to restore vegetative cover and a portion of the landform sufficient to maintain healthy, biologically active topsoil; control erosion; and minimize habitat and forage loss, visual impact, and weed infestation, during the life of the well or facilities.
- The long-term objective of final reclamation is to return the land to a condition similar to what existed prior to disturbance. This includes restoration of the landform and natural vegetative community, hydrologic systems, visual resources, and wildlife habitats. To ensure that the long-term objective will be reached through human and natural processes, actions will be taken to ensure standards are met for site stability, visual quality, hydrological functioning, and vegetative productivity.
- The BLM will be notified at least 3 days prior to commencement of any reclamation procedures.
- IF CIRCUMSTANCES ALLOW, INTERIM RECLAMATION AND/OR FINAL RECLAMATION ACTIONS WILL BE COMPLETED. WE WILL GAIN WRITTEN PERMISSION FROM THE BLM IF MORE TIME IS NEEDED.

RECLAMATION WILL BE PERFORMED BY USING THE FOLLOWING PROCEDURES:

INTERIM RECLAMATION PROCEDURES

- Within 6 months, Centennial will contact BLM Surface Management Specialists to devise the best strategies to reduce the size of the location. Current plans for interim reclamation include reducing the pad size to approximately 2.098 acres from the proposed size of 3.561 acres. the well location and surrounding areas will be cleared of, and maintained free of, all materials, trash, and equipment not required for production. A plan will be submitted showing where interim reclamation will be completed to allow for safe operations, protection of the environment outside of drilled well, and following best Management practices found in the BLM "Gold Book".
- In areas planned for interim reclamation, all the surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- The areas planned for interim reclamation will then be recontoured to the original contour if feasible, or if not feasible, to an interim contour that blends with the surrounding topography as much as possible. Where applicable, the fill material of the well pad will be backfilled into the cut to bring the area back to the original contour. The interim cut and fill slopes prior to res-seeding will not be steeper than a 2:1 ratio, unless the adjacent native topography is steeper. Notice: Constructed slopes may be much steeper during drilling but will be recontoured to the above ratios during interim reclamation.
- Topsoil will be evenly re-spread and aggressively revegetated over the entire disturbed area not needed for all-weather operations including cuts & fills. To seed the area, the proper BLM seed mixture (BLM#2), free of noxious weeds, will be used.
- Proper erosion control methods will be used on the area to control erosion, runoff and siltation of the surrounding area.
- The interim reclamation will be monitored periodically to ensure that vegetation has reestablished.

Final Reclamation (well pad, buried pipelines, and powerlines, etc.)

- Prior to final reclamation procedures, the well pad, road and surrounding area will be cleared of material, trash, and equipment.
- All surfacing material will be removed and returned to the original mineral pit or recycled to repair or build roads and well pads.
- All disturbed areas, including roads, pipelines, pads, production facilities and interim reclaimed areas will be recontoured to the contour existing prior to initial construction or a contour that blends in distinguishably with the surrounding landscape. Topsoil that was spread over the interim reclamation areas will be stockpiled prior to recontouring. The topsoil will be redistributed evenly over the entire disturbed site to ensure successful revegetation.
- After all the disturbed areas have been properly prepared; the areas will be seeded with the proper BLM see mixture (BLM #2), free of noxious weeds.
- Proper erosion control methods will be used on the entire area to control erosion, runoff and siltation of the surrounding areas.

SURFACE OWNERSHIP

- Well pad and all other infrastructure is on Fee surface (Pearl Valley Lp).
- Landowner Contact Information:
  Pat Sims
  PO Box 1046
  Eunice, NM 88231
  575-390-2642
  Pearlvalley.ss@gmail.com

OTHER INFORMATION (PLATS ATTACHED AS PLAT 13)

- Fee/Fee/Fed: No onsite required
- Erosion / Drainage: Drainage control system shall be constructed on the entire length of road using any of the following: ditches, side hill out-sloping and in-sloping, lead-off ditched, culvert installation, or low water crossings.
- Enclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation, or low water crossings.

- Enclosure fencing will be installed around open cellar to prevent livestock or large wildlife from being trapped after installation. Fencing will remain in place while no activity is present and until backfilling takes place.
- Terrain: Landscape is flat
- Soil: Sandy loam
- Vegetation: Vegetation present in surrounding area includes mesquite, shrubs, and grass (needle-grass, burro grass, dropseed).
- Wildlife: No wildlife observed, but it is likely that deer, rabbits, coyotes and rodents pass through the area.
- Surface Water: No surface water concerns.
- Cave Karst: Low Karst area with no cave or visual signs of caves found.
- Watershed Protection: The entire perimeter of the well pad will be bermed to prevent oil, salt and other chemical contaminates from leaving the well pad.

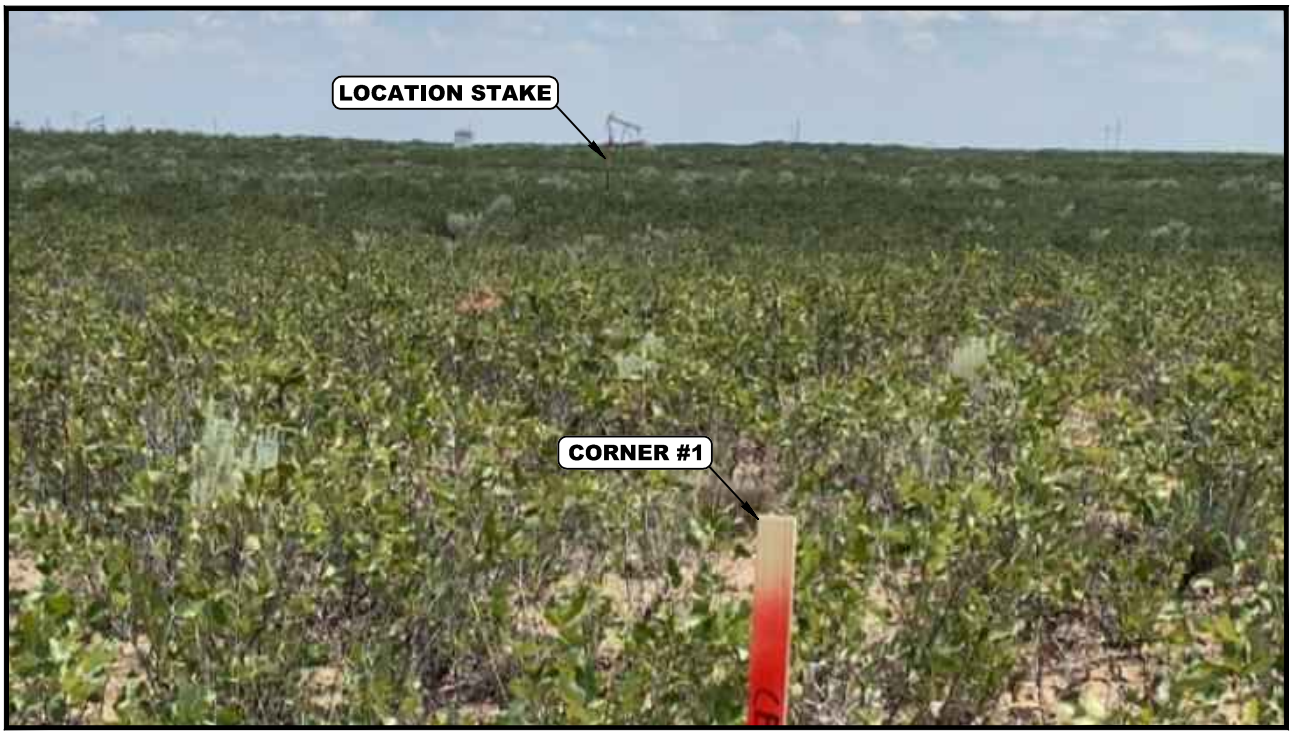


PHOTO: VIEW FROM CORNER #1 TO LOCATION STAKE

CAMERA ANGLE: SOUTHERLY

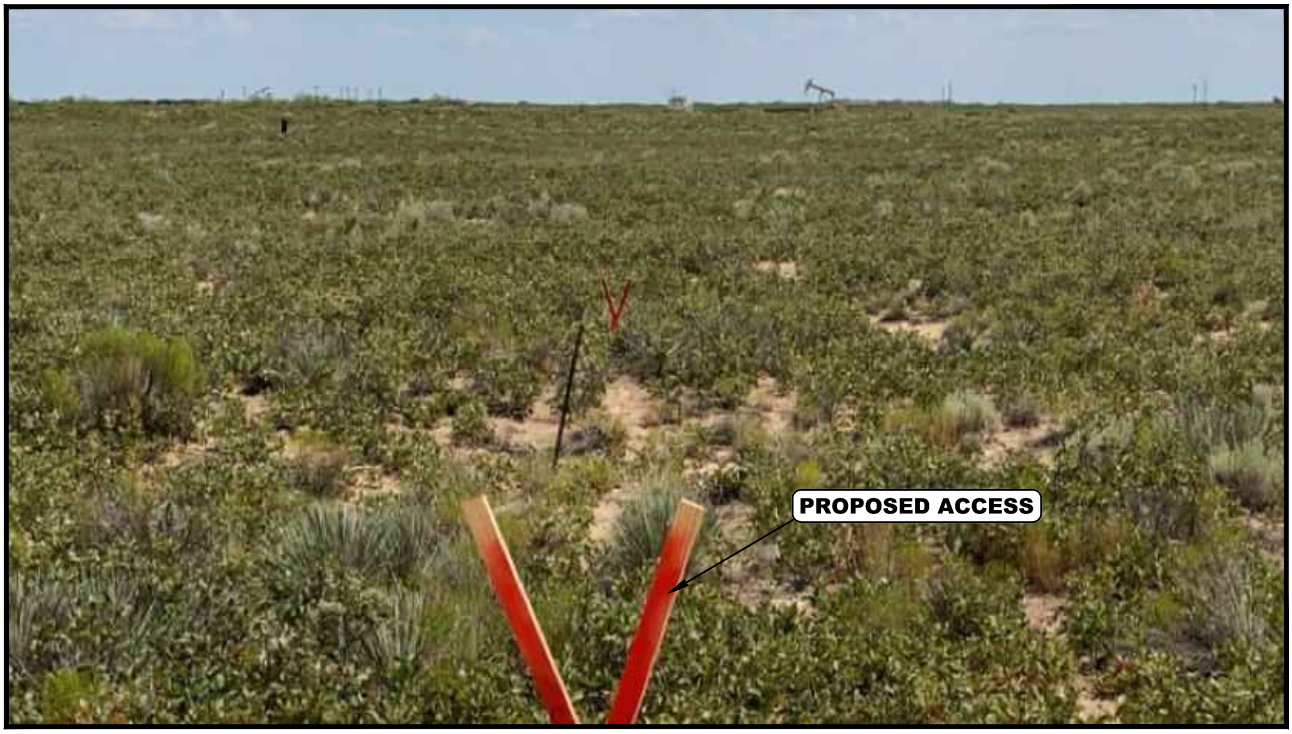


PHOTO: VIEW FROM BEGINNING OF PROPOSED ACCESS

CAMERA ANGLE: SOUTHERLY

REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

TAKEN BY	N.R.	07-07-20	
DRAWN BY	D.P.	07-15-20	
LOCATION PHOTOS			PHOTO

UELS, LLC
Regional Office * 606 US Highway 385 N
Seminole, TX 79360 * (432) 955-6100
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

UINTAH ENGINEERING & LAND SURVEYING

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name

[4] Property Code	[5] Property Name	[6] Well Number
	KING EIDER 12 FED COM	501H
[7] OGRID No.	[8] Operator Name	[9] Elevation
	CENTENNIAL RESOURCE PRODUCTION, LLC	3655.3'

[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
M	12	20S	35E		200	SOUTH	330	WEST	LEA

[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
D	1	20S	35E	4	100	NORTH	330	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.56			

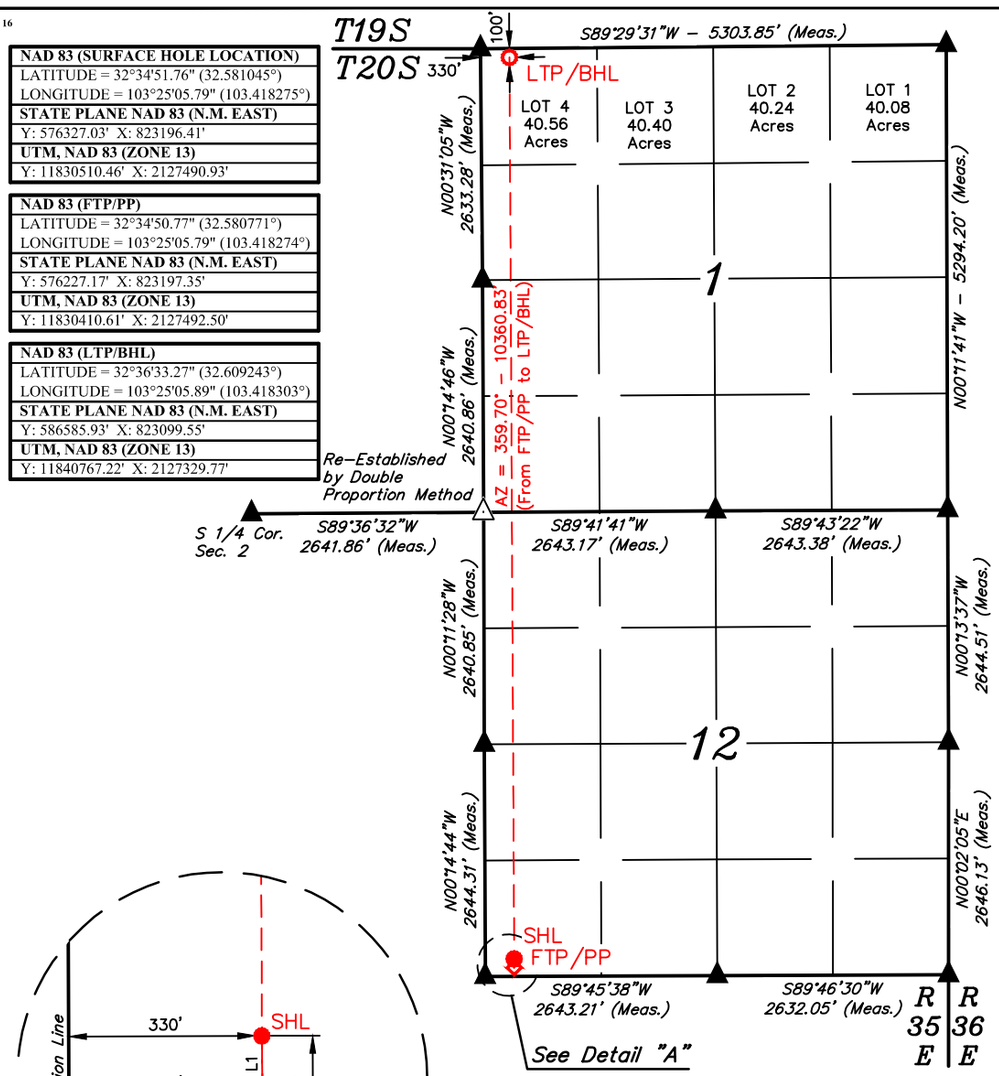
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

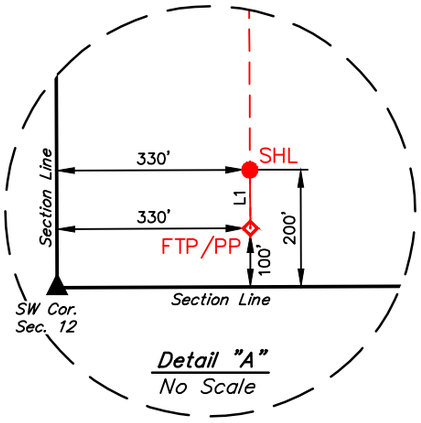
[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°34'51.76" (32.581045°)
LONGITUDE = 103°25'05.79" (103.418275°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576327.03' X: 823196.41'
UTM, NAD 83 (ZONE 13)
Y: 11830510.46' X: 2127490.93'

NAD 83 (FTP/PP)
LATITUDE = 32°34'50.77" (32.580771°)
LONGITUDE = 103°25'05.79" (103.418274°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576227.17' X: 823197.35'
UTM, NAD 83 (ZONE 13)
Y: 11830410.61' X: 2127492.50'

NAD 83 (LTP/BHL)
LATITUDE = 32°36'33.27" (32.609243°)
LONGITUDE = 103°25'05.89" (103.418303°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 586585.93' X: 823099.55'
UTM, NAD 83 (ZONE 13)
Y: 11840767.22' X: 2127329.77'





Detail "A"
No Scale

LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°17'56"E	99.89'

● = SURFACE HOLE LOCATION
◇ = FIRST TAKE POINT/ PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000' 1000' 0' 2000'

SCALE
DRAWN BY: D.P. 07-15-20
REV: 1 S.K. 09-16-20

[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.

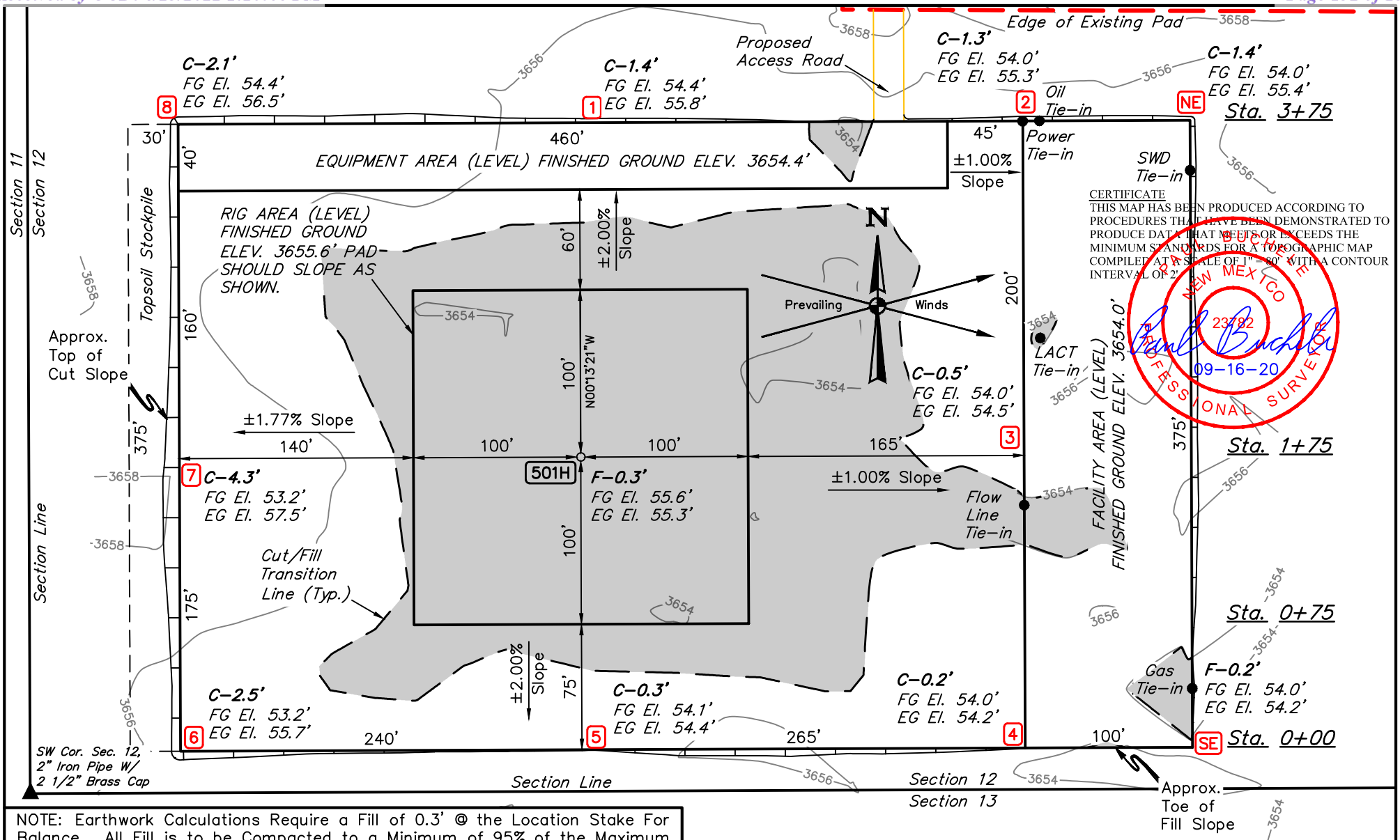
JULY 07, 2020

Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

Certificate Number:



CERTIFICATE
THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

NOTE: Earthwork Calculations Require a Fill of 0.3' @ the Location Stake For Balance. All Fill is to be Compacted to a Minimum of 95% of the Maximum Dry Density Obtained by AASHTO Method t-99.

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Contours shown at 2' intervals.
- Cut/Fill slopes 2:1 (Typ.)
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

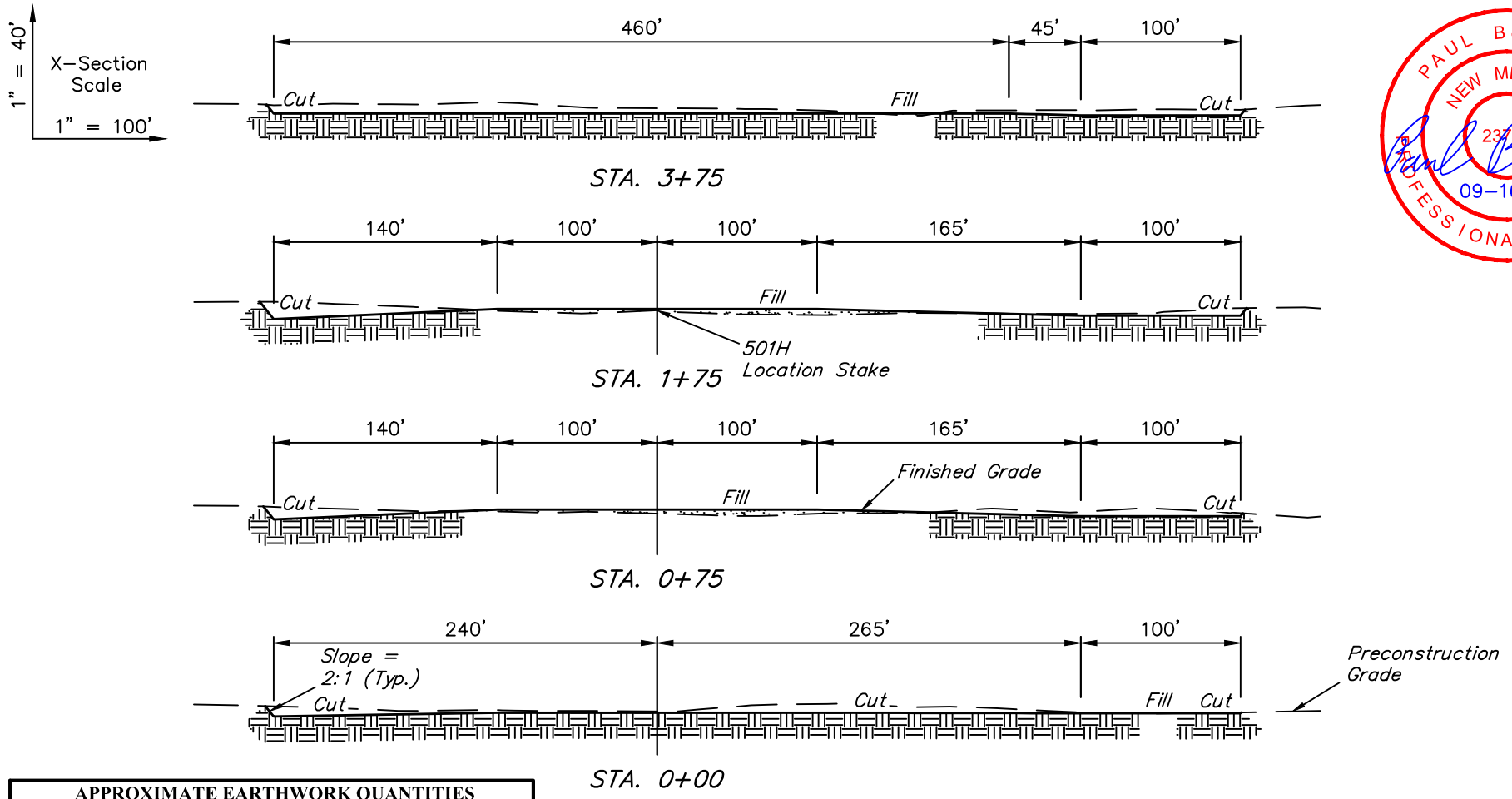
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'

LOCATION LAYOUT **FIGURE #1**

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



PAUL BUCHELE
NEW MEXICO
23782
09-16-20
PROFESSIONAL SURVEYOR

APPROXIMATE EARTHWORK QUANTITIES	
(4") TOPSOIL STRIPPING	2.880 Cu. Yds.
REMAINING LOCATION	4,350 Cu. Yds.
TOTAL CUT	**7,230 Cu. Yds.**
FILL	**4,350 Cu. Yds.**
EXCESS MATERIAL	2,880 Cu. Yds.
TOPSOIL	2,880 Cu. Yds.
EXCESS UNBALANCE (After Interim Rehabilitation)	**0 Cu. Yds.**

APPROXIMATE SURFACE DISTURBANCE AREAS		
	DISTANCE	**ACRES**
WELL SITE DISTURBANCE	NA	±5.559
65' WIDE ACCESS ROAD R-O-W DISTURBANCE	±66.87'	±0.100
TOTAL SURFACE USE AREA		**±5.659**

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Fill quantity includes 5% for compaction.
- Cut/Fill slopes 2:1 (Typ.)

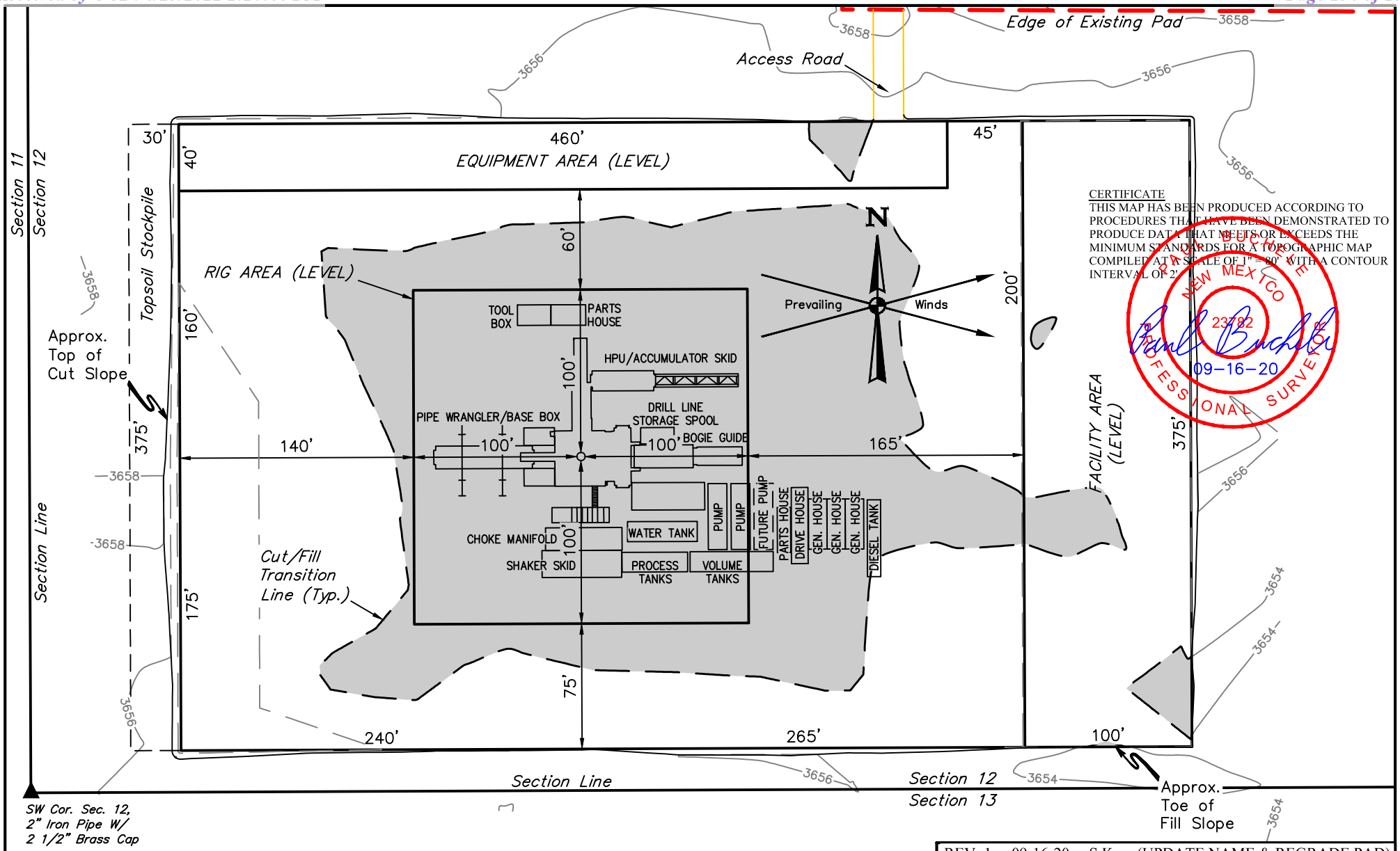
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	**SCALE**
DRAWN BY	D.P.	07-15-20	AS SHOWN
TYPICAL CROSS SECTIONS			**FIGURE #2**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE

THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

REV: 1 09-16-20 S.K. (UPDATE NAME & REGRADE PAD)

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CENTENNIAL RESOURCE PRODUCTION, LLC

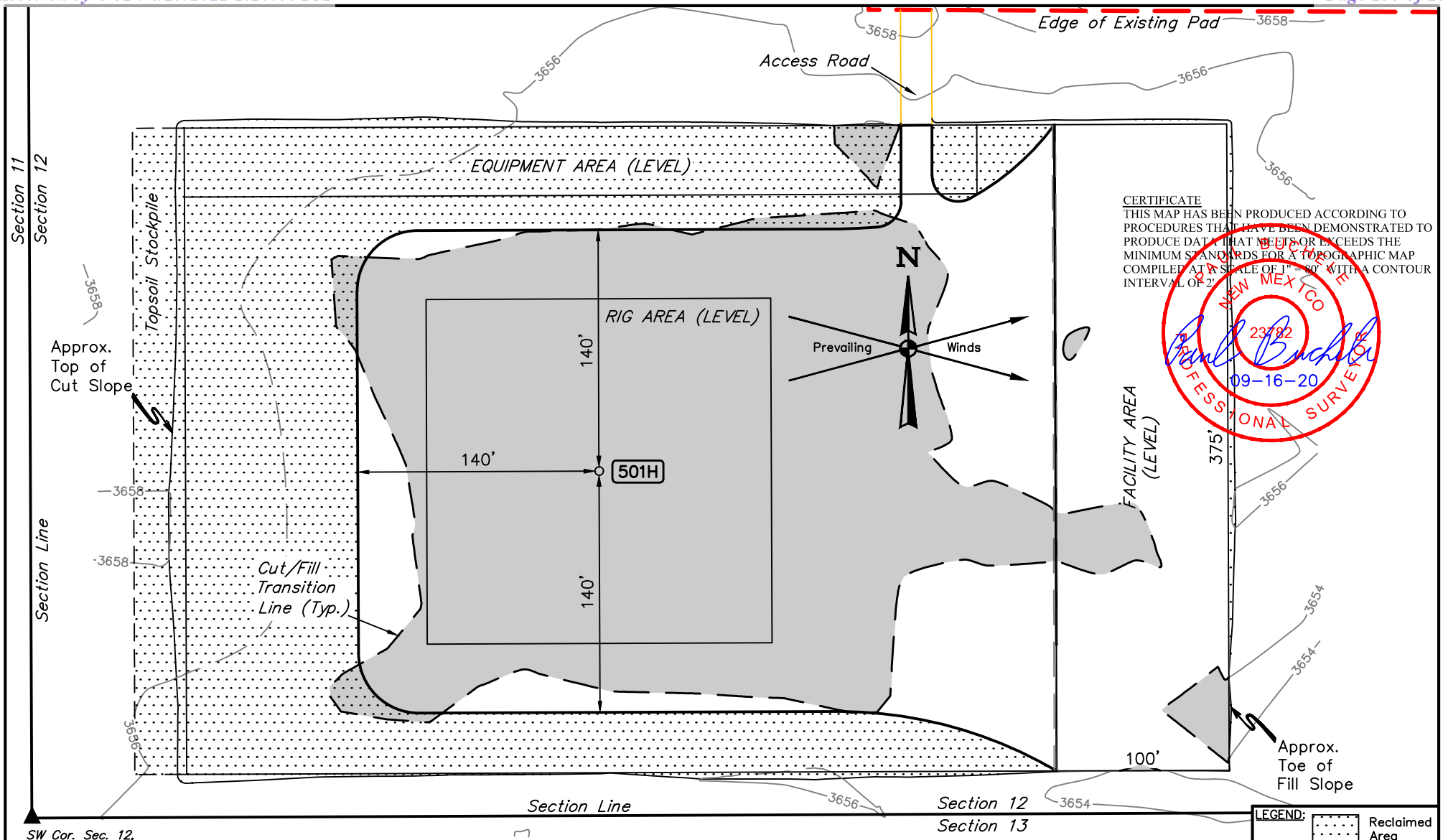
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'

TYPICAL RIG LAYOUT | **FIGURE #3**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



CERTIFICATE

THIS MAP HAS BEEN PRODUCED ACCORDING TO PROCEDURES THAT HAVE BEEN DEMONSTRATED TO PRODUCE DATA THAT MEETS OR EXCEEDS THE MINIMUM STANDARDS FOR A TOPOGRAPHIC MAP COMPILED AT A SCALE OF 1" = 80' WITH A CONTOUR INTERVAL OF 2'.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

LEGEND: Reclaimed Area

APPROXIMATE PRODUCTION PAD ACREAGE = ±3.561 ACRES
APPROXIMATE RECLAIMED AREA ACREAGE = ±2.098 ACRES
TOTAL ACREAGE = ±5.659 ACRES

NOTES:

- Contours shown at 2' intervals.
- May have different number of Pump Houses and Combination Buildings.

CENTENNIAL RESOURCE PRODUCTION, LLC

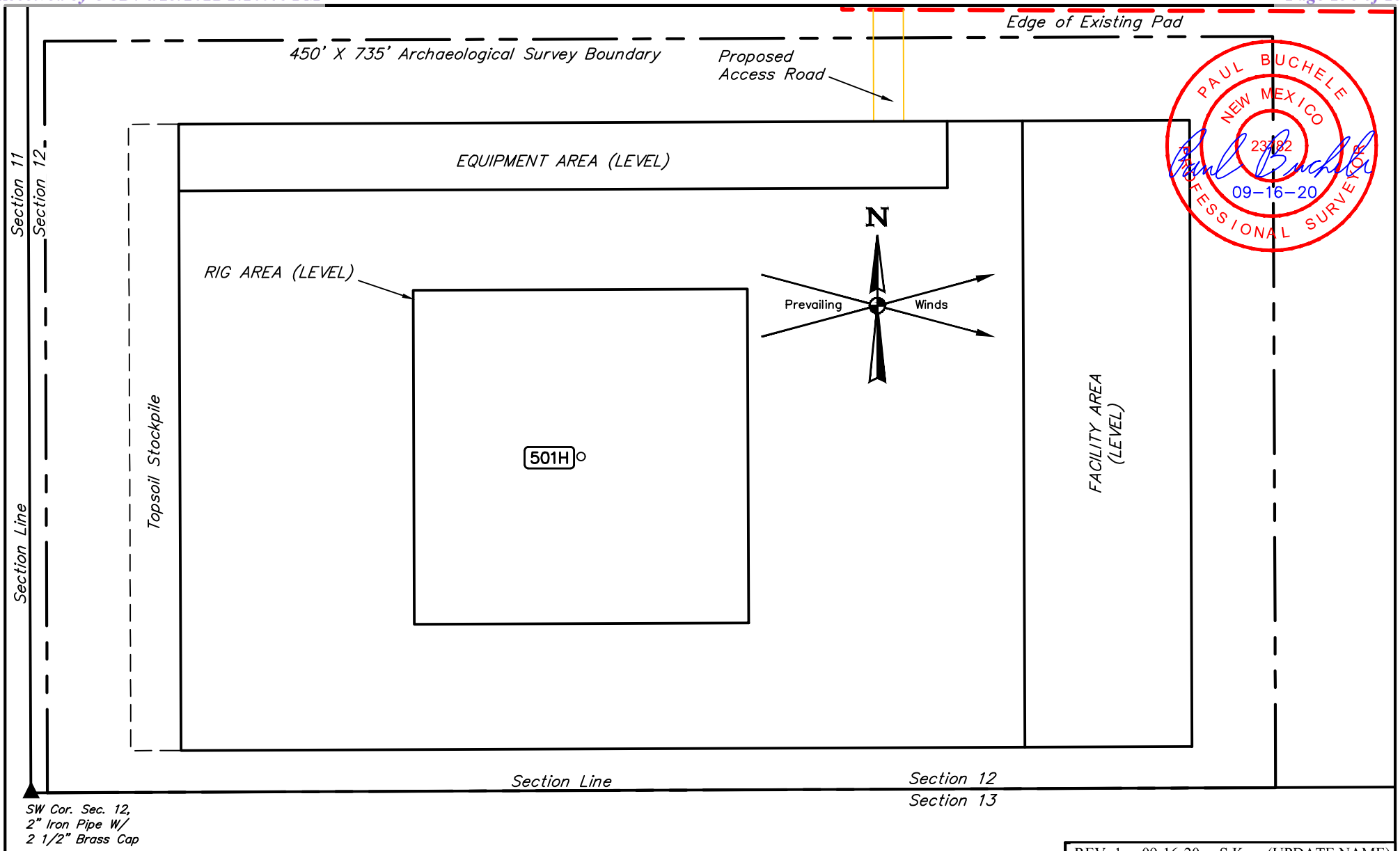
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	S.K.	09-15-20	1" = 80'

RECLAMATION DIAGRAM **FIGURE #4**

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1" = 80'
ARCHAEOLOGICAL SURVEY BOUNDARY			FIGURE #5

UINTAH ENGINEERING & LAND SURVEYING
UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

BEGINNING AT THE JUNCTION OF MAIN ST. & NM-176 IN EUNICE, NEW MEXICO PROCEED IN A WESTERLY, THEN NORTHWESTERLY, THEN WESTERLY, THEN NORTHWESTERLY, DIRECTION ALONG NM-176 APPROXIMATELY 16.6 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY DIRECTION APPROXIMATELY 2.1 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE EAST; TURN RIGHT AND PROCEED IN AN EASTERLY, THEN NORTHERLY, THEN WESTERLY, THEN NORTHEASTERLY DIRECTION APPROXIMATELY 3.3 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTHWEST; TURN LEFT AND PROCEED IN A NORTHWESTERLY DIRECTION APPROXIMATELY 0.2 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE NORTH; TURN RIGHT AND PROCEED IN A NORTHERLY THEN EASTERLY THEN NORTHERLY DIRECTION APPROXIMATELY 2.5 MILES TO THE JUNCTION OF THIS ROAD AND AN EXISTING ROAD TO THE WEST; TURN LEFT AND PROCEED APPROXIMATELY 0.2 MILES TO AN EXISTING WELL PAD AND THE BEGINNING OF THE PROPOSED ACCESS ROAD TO THE SOUTH; FOLLOW ROAD FLAGS IN A SOUTHERLY DIRECTION APPROXIMATELY 67' TO THE PROPOSED LOCATION.

TOTAL DISTANCE FROM EUNICE, NEW MEXICO TO THE PROPOSED WELL LOCATION IS APPROXIMATELY 24.9 MILES.

REV: 1 09-16-20 S.K. (UPDATE NAME)

CENTENNIAL RESOURCE PRODUCTION, LLC

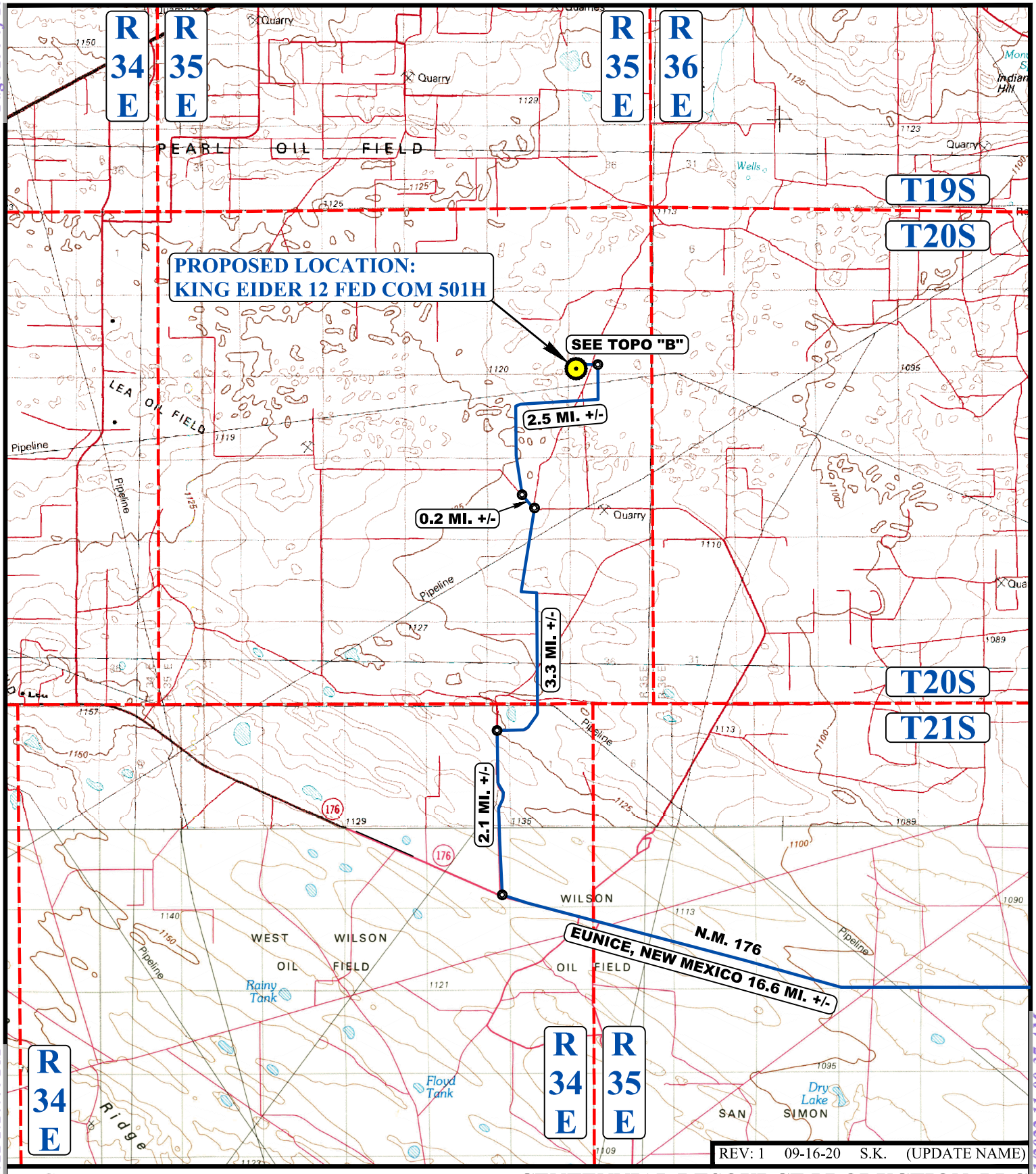
KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	
DRAWN BY	D.P.	07-15-20	

ROAD DESCRIPTION

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

LEGEND:

PROPOSED LOCATION

N

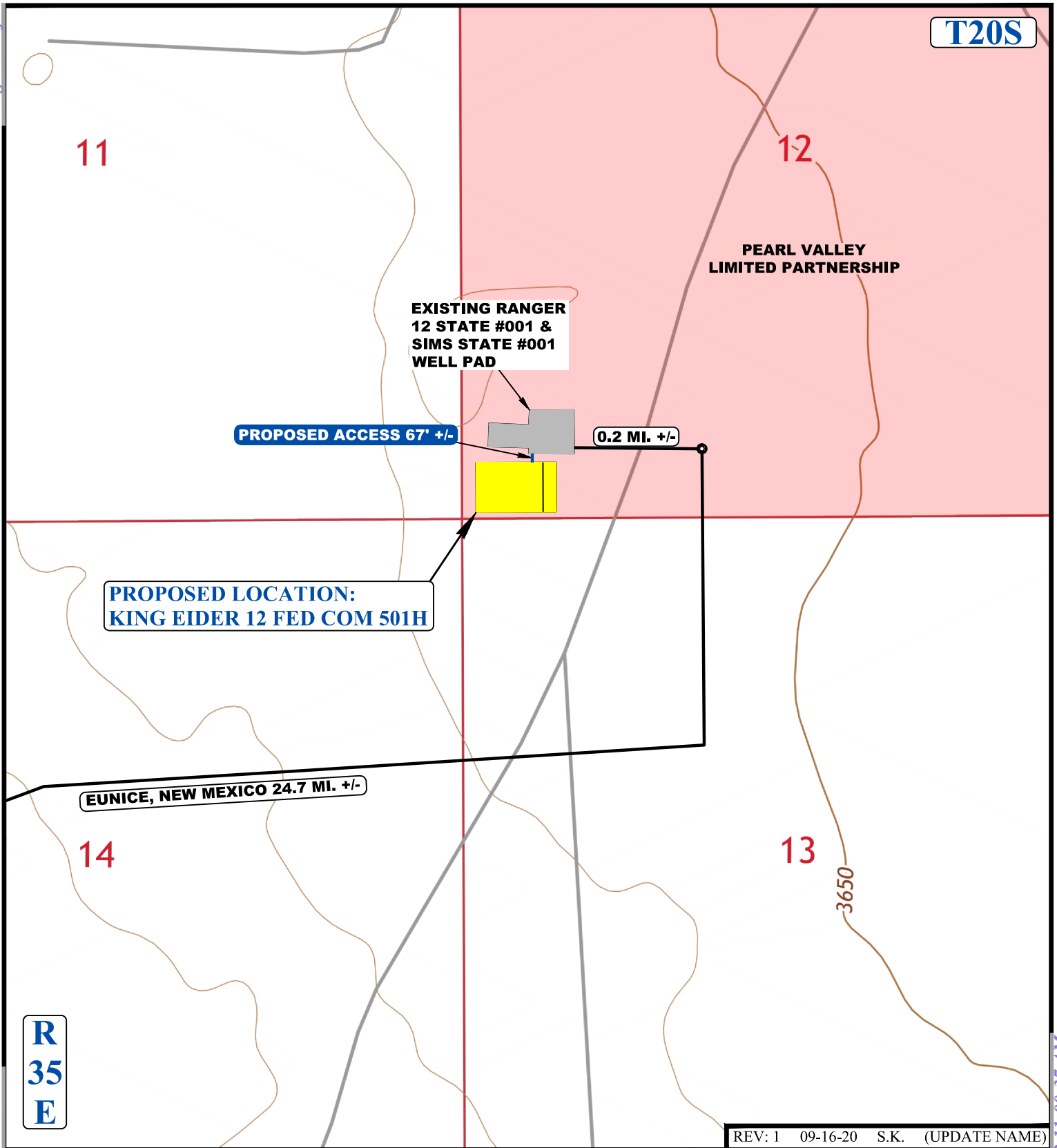
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 100,000
ACCESS ROAD MAP			TOPO A

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



REV: 1 09-16-20 S.K. (UPDATE NAME)

NOTE: PARCEL DATA SHOWN HAS BEEN OBTAINED FROM VARIOUS SOURCES AND SHOULD BE USED FOR MAPPING, GRAPHIC AND PLANNING PURPOSES ONLY. NO WARRANTY IS MADE BY UINTAH ENGINEERING AND LAND SURVEYING (UELS) FOR ACCURACY OF THE PARCEL DATA.

LEGEND:

EXISTING ROAD

PROPOSED ROAD

N

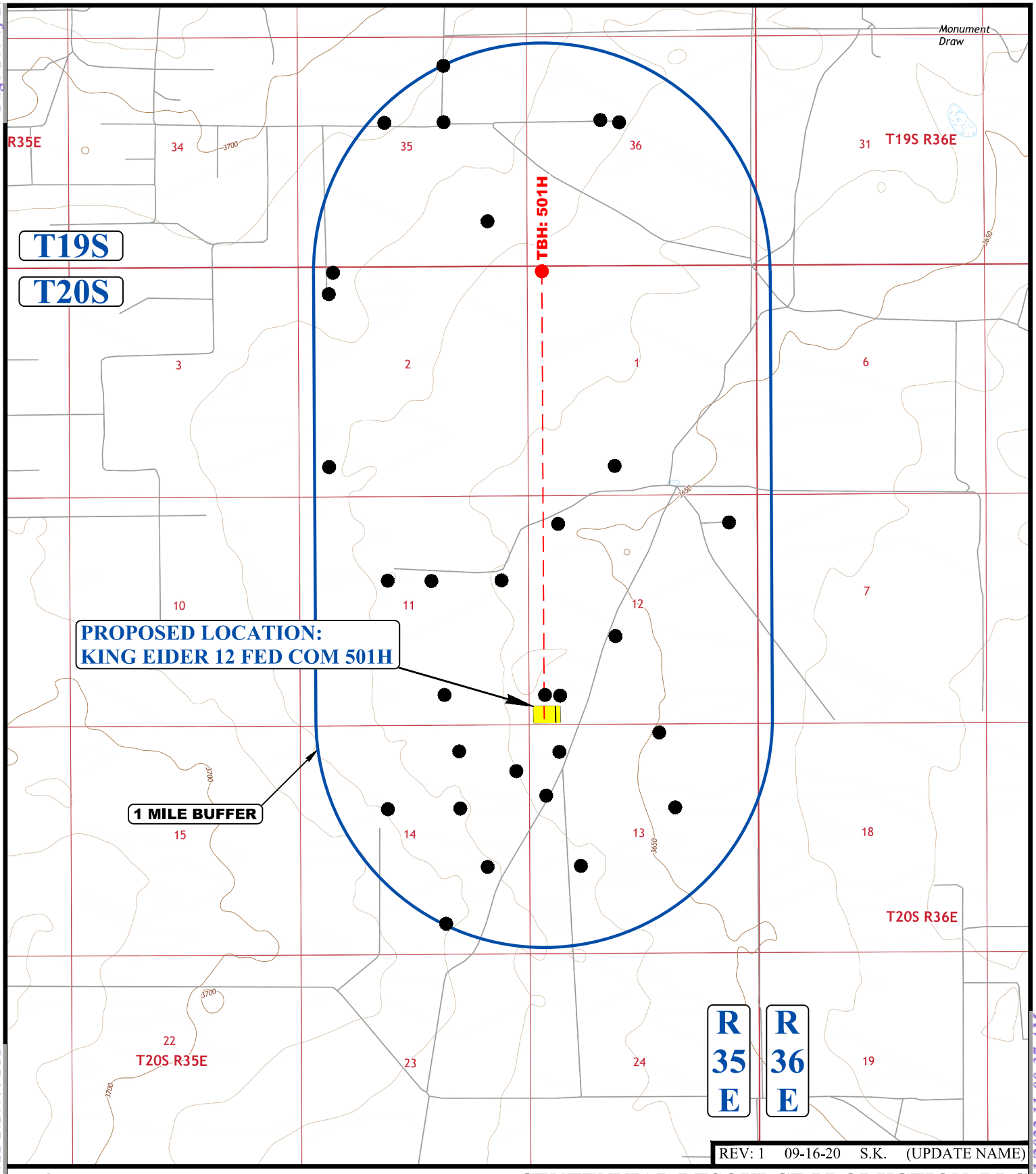
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 12,000
ACCESS ROAD MAP			TOPO B

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LEGEND:

● EXISTING WELL

N

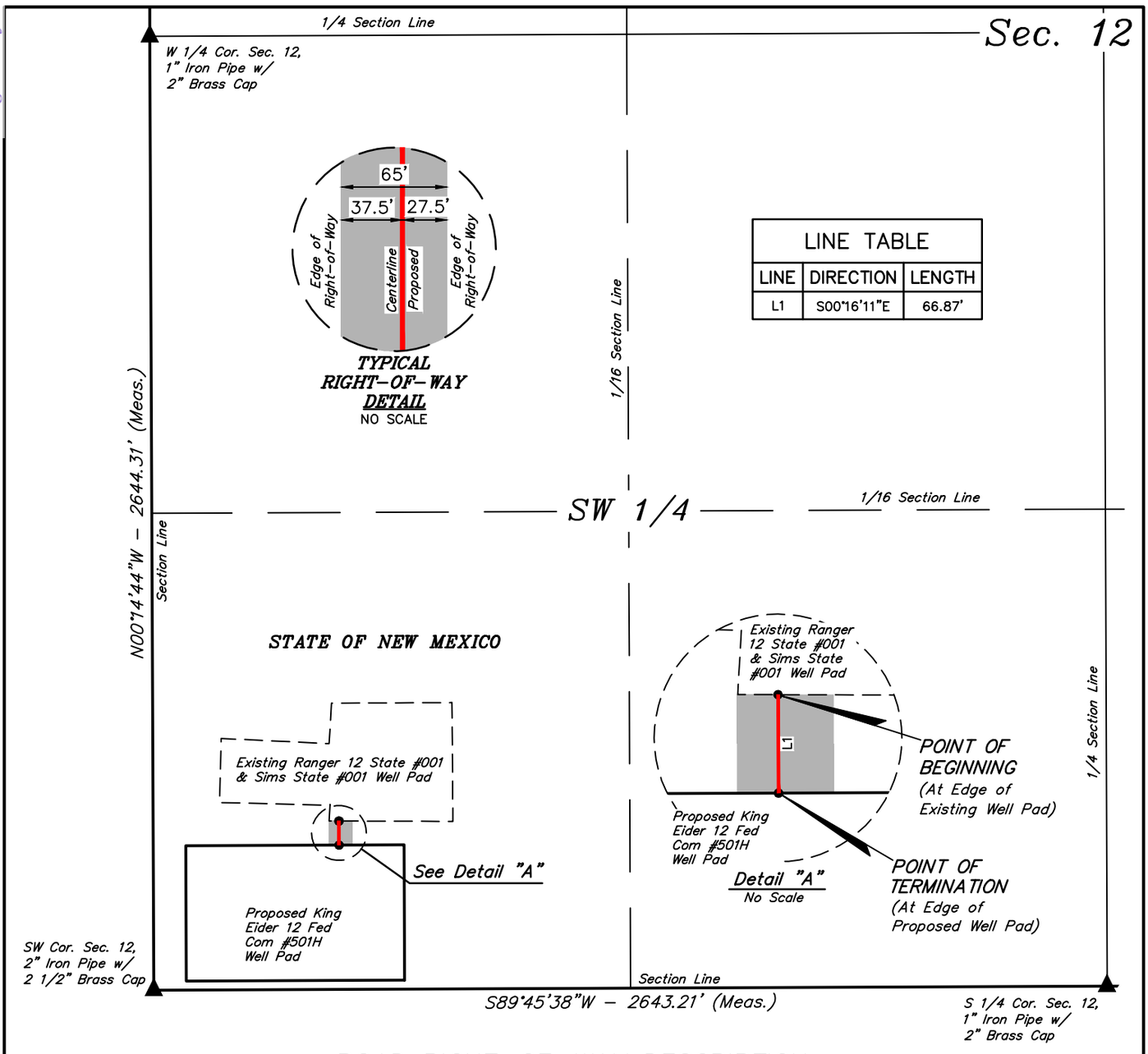
CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
200' FSL 330' FWL
SW 1/4 SW 1/4, SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	D.P.	07-15-20	1 : 36,000
WELL PROXIMITY MAP			TOPO C

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017



LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°16'11"E	66.87'

ROAD RIGHT-OF-WAY DESCRIPTION

A 65' WIDE RIGHT-OF-WAY 37.5' ON THE LEFT SIDE AND 27.5' ON THE RIGHT SIDE OF THE FOLLOWING DESCRIBED CENTERLINE.

COMMENCING AT THE SOUTH 1/4 CORNER OF SECTION 12, T20S, R35E, N.M.P.M.; THENCE S89°45'38"W 2643.21' ALONG THE SOUTH LINE OF THE SW 1/4 OF SAID SECTION 12 TO THE SOUTHWEST CORNER OF SAID SECTION 12; THENCE N47°34'18"E 694.94' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 12 AND THE POINT OF BEGINNING; THENCE S00°16'11"E 66.87' TO A POINT IN THE SW 1/4 SW 1/4 OF SAID SECTION 12 AND THE POINT OF TERMINATION, WHICH BEARS N51°55'57"E 651.95' FROM THE SOUTHWEST CORNER OF SAID SECTION 12. THE SIDE LINES OF SAID DESCRIBED RIGHT-OF-WAY BEING SHORTENED OR ELONGATED TO MEET THE GRANTOR'S PROPERTY LINES. CONTAINS 0.100 ACRES MORE OR LESS.

POINT OF BEGINNING BEARS N47°34'18"E 694.94' FROM THE SOUTHWEST CORNER OF SECTION 12, T20S, R35E, N.M.P.M.

POINT OF TERMINATION BEARS N51°55'57"E 651.95' FROM THE SOUTHWEST CORNER OF SECTION 12, T20S, R35E, N.M.P.M.

400' 200' 0' 400'

ACREAGE / LENGTH TABLE			
LOCATION	FEET	RODS	ACRES
SEC. 12 (SW 1/4 SW 1/4)	66.87	4.05	0.100

▲ = SECTION CORNERS LOCATED.

CERTIFICATE
THIS IS TO CERTIFY THAT THIS EASEMENT PLAT AND THE ACTUAL SURVEY ON THE GROUND UPON WHICH IT IS BASED WERE PERFORMED BY ME OR UNDER MY DIRECT SUPERVISION; THAT I AM RESPONSIBLE FOR THIS SURVEY; THAT THIS SURVEY MEETS THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO; AND THAT IT IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF.

STATE OF NEW MEXICO 23782 PROFESSIONAL SURVEYOR
09-16-20

REV: 1 09-16-20 S.K. (UPDATE NAME)

NOTES:
- The maximum grade of existing ground for the proposed access road is ±5.54%.
- Basis of Bearings is a Transverse Mercator Projection with a Central Meridian of 103°53'00" (NAD 83)

CENTENNIAL RESOURCE PRODUCTION, LLC

KING EIDER 12 FED COM 501H
ON STATE OF NEW MEXICO LANDS IN
SECTION 12, T20S, R35E, N.M.P.M.
LEA COUNTY, NEW MEXICO

SURVEYED BY	N.R.	07-07-20	SCALE
DRAWN BY	T.P.	07-16-20	1" = 400'
FILE	C-7 2 3 4-A		

ACCESS ROAD R-O-W

N

UINTAH ENGINEERING & LAND SURVEYING

UELS, LLC
Corporate Office * 85 South 200 East
Vernal, UT 84078 * (435) 789-1017

AFMSS

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

PWD Data Report

07/26/2021

APD ID: 10400064893 **Submission Date:** 11/10/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well Type: OIL WELL **Well Work Type:** Drill

Section 1 - General

Would you like to address long-term produced water disposal? NO

Section 2 - Lined Pits

Would you like to utilize Lined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Lined pit PWD on or off channel:

Lined pit PWD discharge volume (bbl/day):

Lined pit specifications:

Pit liner description:

Pit liner manufacturers information:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Lined pit precipitated solids disposal schedule:

Lined pit precipitated solids disposal schedule attachment:

Lined pit reclamation description:

Lined pit reclamation attachment:

Leak detection system description:

Leak detection system attachment:

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Lined pit Monitor description:

Lined pit Monitor attachment:

Lined pit: do you have a reclamation bond for the pit?

Is the reclamation bond a rider under the BLM bond?

Lined pit bond number:

Lined pit bond amount:

Additional bond information attachment:

Section 3 - Unlined Pits

Would you like to utilize Unlined Pit PWD options? N

Produced Water Disposal (PWD) Location:

PWD disturbance (acres): **PWD surface owner:**

Unlined pit PWD on or off channel:

Unlined pit PWD discharge volume (bbl/day):

Unlined pit specifications:

Precipitated solids disposal:

Decribe precipitated solids disposal:

Precipitated solids disposal permit:

Unlined pit precipitated solids disposal schedule:

Unlined pit precipitated solids disposal schedule attachment:

Unlined pit reclamation description:

Unlined pit reclamation attachment:

Unlined pit Monitor description:

Unlined pit Monitor attachment:

Do you propose to put the produced water to beneficial use?

Beneficial use user confirmation:

Estimated depth of the shallowest aquifer (feet):

Does the produced water have an annual average Total Dissolved Solids (TDS) concentration equal to or less than that of the existing water to be protected?

TDS lab results:

Geologic and hydrologic evidence:

State authorization:

Unlined Produced Water Pit Estimated percolation:

Unlined pit: do you have a reclamation bond for the pit?

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Is the reclamation bond a rider under the BLM bond?

Unlined pit bond number:

Unlined pit bond amount:

Additional bond information attachment:

Section 4 - Injection

Would you like to utilize Injection PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Injection PWD discharge volume (bbl/day):

Injection well mineral owner:

Injection well type:

Injection well number: **Injection well name:**

Assigned injection well API number? **Injection well API number:**

Injection well new surface disturbance (acres):

Minerals protection information:

Mineral protection attachment:

Underground Injection Control (UIC) Permit?

UIC Permit attachment:

Section 5 - Surface Discharge

Would you like to utilize Surface Discharge PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Surface discharge PWD discharge volume (bbl/day):

Surface Discharge NPDES Permit?

Surface Discharge NPDES Permit attachment:

Surface Discharge site facilities information:

Surface discharge site facilities map:

Section 6 - Other

Would you like to utilize Other PWD options? N

Produced Water Disposal (PWD) Location:

PWD surface owner: **PWD disturbance (acres):**

Other PWD discharge volume (bbl/day):

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Other PWD type description:

Other PWD type attachment:

Have other regulatory requirements been met?

Other regulatory requirements attachment:

AFMSS

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

Bond Info Data Report

07/26/2021

APD ID: 10400064893 **Submission Date:** 11/10/2020

Operator Name: CENTENNIAL RESOURCE PRODUCTION LLC

Well Name: KING EIDER 12 FED COM **Well Number:** 501H

Well Type: OIL WELL **Well Work Type:** Drill

Highlighted data reflects the most recent changes

Show Final Text

Bond Information

Federal/Indian APD: FED

BLM Bond number: NMB001841

BIA Bond number:

Do you have a reclamation bond? NO

Is the reclamation bond a rider under the BLM bond?

Is the reclamation bond BLM or Forest Service?

BLM reclamation bond number:

Forest Service reclamation bond number:

Forest Service reclamation bond attachment:

Reclamation bond number:

Reclamation bond amount:

Reclamation bond rider amount:

Additional reclamation bond information attachment:

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

State of New Mexico
Energy, Minerals & Natural Resources Department
OIL CONSERVATION DIVISION
1220 South St. Francis Dr.
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

[1] API Number	[2] Pool Code	[3] Pool Name
30-025-50328	96585	WC-025 G-06 S203511G, BONE SPRING

[4] Property Code	[5] Property Name	[6] Well Number
329782	KING EIDER 12 FED COM	501H

[7] OGRID No.	[8] Operator Name	[9] Elevation
372165	CENTENNIAL RESOURCE PRODUCTION, LLC	3655.3'

[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
M	12	20S	35E		200	SOUTH	330	WEST	LEA

[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
D	1	20S	35E	4	100	NORTH	330	WEST	LEA

[12] Dedicated Acres	[13] Joint or Infill	[14] Consolidation Code	[15] Order No.
320.56			

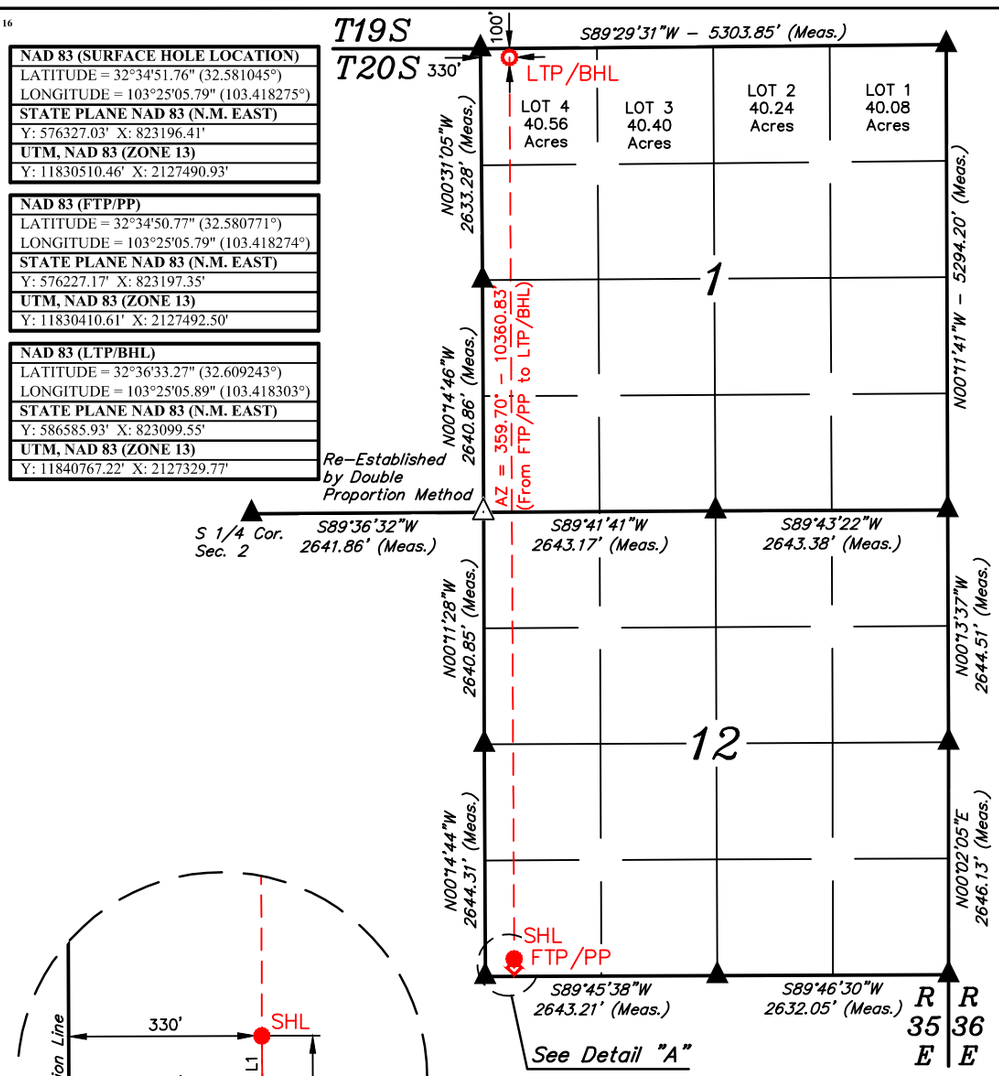
No allowable will be assigned to this completion until all interests have been consolidated or a non-standard unit has been approved by the division.

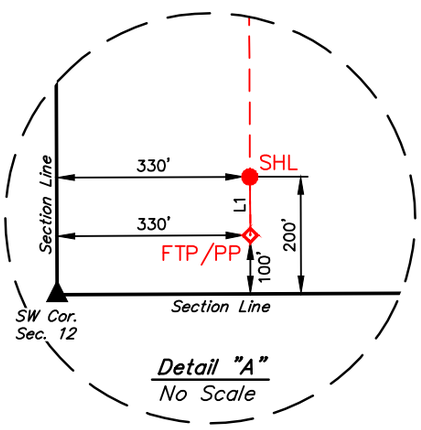
[16]

NAD 83 (SURFACE HOLE LOCATION)
LATITUDE = 32°34'51.76" (32.581045°)
LONGITUDE = 103°25'05.79" (103.418275°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576327.03' X: 823196.41'
UTM, NAD 83 (ZONE 13)
Y: 11830510.46' X: 2127490.93'

NAD 83 (FTP/PP)
LATITUDE = 32°34'50.77" (32.580771°)
LONGITUDE = 103°25'05.79" (103.418274°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 576227.17' X: 823197.35'
UTM, NAD 83 (ZONE 13)
Y: 11830410.61' X: 2127492.50'

NAD 83 (LTP/BHL)
LATITUDE = 32°36'33.27" (32.609243°)
LONGITUDE = 103°25'05.89" (103.418303°)
STATE PLANE NAD 83 (N.M. EAST)
Y: 586585.93' X: 823099.55'
UTM, NAD 83 (ZONE 13)
Y: 11840767.22' X: 2127329.77'





LINE TABLE		
LINE	DIRECTION	LENGTH
L1	S00°17'56"E	99.89'

● = SURFACE HOLE LOCATION
◇ = FIRST TAKE POINT/ PENETRATION POINT
○ = LAST TAKE POINT/ BOTTOM HOLE LOCATION
▲ = SECTION CORNER LOCATED
△ = SECTION CORNER RE-ESTABLISHED. (Not Set on Ground.)

NOTE:
- Distances referenced on plat to section lines are perpendicular.
- Basis of Bearing is a Transverse Mercator Projection with a Central Meridian of W103°53'00" (NAD 83)

2000' 1000' 0' 2000'

SCALE
DRAWN BY: D.P. 07-15-20
REV: 1 S.K. 09-16-20

[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.

6.23.22
Signature Date

Meghan Twele
Printed Name

meghan.twele@cdevinc.com
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.

JULY 07, 2020
Date of Survey

Signature and Seal of Professional Surveyor:

PAUL BUCHELE NEW MEXICO 23782 PROFESSIONAL SURVEYOR 09-16-20

Certificate Number:

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: Centennial Resource Prod, LLC **OGRID:** 372165 **Date:** 06/22/2022

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
King Eider 12 Fed Com 501H	**30-025-50328**	M-12-20S-35E	200FSL&330FWL	2,400 BBL/D	2,160 MCF/D	12,000 BBL/D

IV. Central Delivery Point Name: King Eider 12 Fed Com 501H [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
King Eider 12 Fed Com 501H	**30-025-50328**	6/29/2022	7/11/2022	8/25/2022	9/2/2022	9/2/2022

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:	Stewart MacCallum
Printed Name:	Stewart MacCallum
Title:	Director of Marketing
E-mail Address:	Stewart.MacCallum@cdevinc.com
Date:	6/22/2022
Phone:	(720) 499-1458

OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)

Approved By:	
Title:	
Approval Date:	
Conditions of Approval:	

Centennial Resource Production, LLC (372165)

Natural Gas Management Plan Descriptions

VI. Separation Equipment:

Centennial utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations. Our goal is to maintain 5 minutes of retention time in the test vessel and 20 minutes in the heater treater at peak production rates. The gas produced is routed from the separator to the gas sales line.

VII. Operational Practices:

Drilling

During Centennial's drilling operations it is uncommon for venting or flaring to occur. If flaring is needed due to safety concerns, gas will be routed to a flare and volumes will be estimated.

Flowback

During completion/recompletion flowback operations, after separation flowback begins and as soon as it is technically feasible, Centennial routes gas though a permanent separator and the controlled facility where the gas is either sold or flared through a high-pressure flare if needed.

Production

Per 19.15.27.8.D, Centennial's facilities are designed to minimize waste. Our produced gas will only be vented or flared in an emergency or malfunction situation, except as allowed for normal operations noted in 19.15.27.8.D(2) & (4). All gas that is flared is metered. All gas that may be vented will be estimated.

Performance Standards

Centennial utilizes a production forecast from our Reservoir Engineering team to appropriately size each permanent, 3-phase separator and heater treater utilized for production operations.

All of Centennial's permanent storage tanks associated with production operations which are routed to a flare or control device are equipped with an automatic gauging system.

All of Centennial's flare stacks, both currently installed and for future installation, are:

1) Appropriately sized and designed to ensure proper combustion efficiency.
2) Equipped with an automatic ignitor or continuous pilot.
3) Anchored and located at least 100 feet from the well and storage tanks.

Centennial's field operations and HSE teams have implemented an AVO inspection schedule that adheres to the requirements of 19.15.27.8.E(5).

All of our operations and facilities are designed to minimize waste. We routinely employ the following methods and practices:

- Closed-loop systems
- Enclosed and properly sized tanks

- Vapor recovery units to maximize recovery of low-pressure gas streams and potential unauthorized emissions
- Low-emitting or electric engines whenever practical
- Combustors and flare stacks in the event of a malfunction or emergency
- Routine facility inspections to identify leaking components, functioning control devices, such as flares and combustors, and repair / replacement of malfunctioning components where applicable

Measurement or estimation

Centennial measures or estimates the volumes of natural gas vented, flared and/or beneficially used for all of our drilling, completing and producing wells. We utilize accepted industry standards and methodology which can be independently verified. Annual GOR testing is completed on our wells and will be submitted as required by the OCD. None of our equipment is designed to allow diversion around metering elements except during inspection, maintenance and repair operations.

VIII. Best Management Practices:

Centennial utilizes the following BMPs to minimize venting during active and planned maintenance activities:

- Use a closed-loop process wherever possible during planned maintenance activities, such as blowdowns, liquid removal, and work over operations.
- Employ low-emitting or electric engines for equipment, such as compressors
- Adhere to a strict preventative maintenance program which includes routine facility inspections, identification of component malfunctions, and repairing or replacing components such as hatches, seals, valves, etc. where applicable
- Utilize vapor recovery units (VRU's) to maximize recovery of volumes of low-pressure gas streams and potential unauthorized emissions
- Route low pressure gas and emissions streams to a combustion device to prevent venting where necessary

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 119950

CONDITIONS

Operator: CENTENNIAL RESOURCE PRODUCTION, LLC 1001 17th Street, Suite 1800 Denver, CO 80202	OGRID: 372165
	Action Number: 119950
	Action Type: [C-101] BLM - Federal/Indian Land Lease (Form 3160-3)

CONDITIONS

Created By	Condition	Condition Date
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104	7/11/2022
pkautz	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	7/11/2022
pkautz	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	7/11/2022
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing	7/11/2022