

Well Name: FEDERAL I	Well Location: T23N / R7W / SEC 21 / SWNW / 36.215298 / -107.585675	County or Parish/State: SANDOVAL / NM
Well Number: 8	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM16586	Unit or CA Name:	Unit or CA Number:
US Well Number: 300432091800S1	Well Status: Oil Well Shut In	Operator: EPIC ENERGY LLC

Notice of Intent

Sundry ID: 2668163

Type of Submission: Notice of Intent

Type of Action: Plug and Abandonment

Date Sundry Submitted: 04/21/2022

Time Sundry Submitted: 04:29

Date proposed operation will begin: 04/21/2022

Procedure Description: Please find attached the P&A and reclamation plan.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Federal_I_8_P_A_20220421162917.pdf

Well Name: FEDERAL I-

Well Location: T23N / R7W / SEC 21 /
SWNW / 36.215298 / -107.585675County or Parish/State:
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Conditions of Approval**Additional**

General_Requirement_PxA_20220511122544.pdf

2668163_NOIA_I_8_3004320918_KR_05112022_20220511122533.pdf

23N07W21EKg_Federal_I_8_20220511111956.pdf

Operator

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a

Operator Electronic Signature: ARLEEN SMITH

Signed on: APR 21, 2022 04:29 PM

Name: EPIC ENERGY LLC

Title: Regulatory Specialist

Street Address: 332 RD 3100

City: AZTEC

State: NM

Phone: (505) 327-4892

Email address: ARLEEN@WALSHENG.NET

Field

Representative Name:

Street Address:

City:

State:

Zip:

Phone:

Email address:

BLM Point of Contact

BLM POC Name: KENNETH G RENNICK

BLM POC Title: Petroleum Engineer

BLM POC Phone: 5055647742

BLM POC Email Address: krennick@blm.gov

Disposition: Approved

Disposition Date: 05/11/2022

Signature: Kenneth Rennick

P&A Procedure
EPIC Energy – Federal I #008
Lybrook Gallup
1665' FNL & 970' FWL, Section 21, T23N, R7W
Sandoval Co, New Mexico, API #30-043-20918

Plug & Abandonment Procedure:

Note: All cement volumes use 100% excess outside casing and 50' excess inside pipe. Stabilizing wellbore fluid will be 8.33 ppg, sufficient to balance all exposed formation pressures. All cement will be ASTM Class G neat 1.15 ft³/sk or equivalent. If casing pressure tests tagging plugs will not be required. Cement circulated on surface and production casing strings. Volumes calculated off 4-1/2" 11.6# casing.

Prior to Mobilization

1. Notify BLM & NMOCD
2. Verify all cement volumes based on actual slurry to be pumped. Calculations based on 1.15 ft³/sk.
3. Comply with all COA's from BLM and NMOCD

P&A Procedure

1. MIRU PU and cement equipment
 2. ND WH, NU BOP, RU rig floor and 2 3/8" handling tools
 3. POOH 2 3/8" production string set at ~5822'.
 4. TIH with 4 1/2" casing scraper to 5625'. TOOH LD 4 1/2" scraper.
 5. TIH with CICR and set @ 5570'. Roll hole with fresh water. PT tubing to 750 psi. PT casing to 500 psi.
-
1. **Plug #1, 5570' – 5401' (Gallup top: 5451', Perfs 5620'-5828')**: Sting out of CICR, mix & spot 17 sxs (19.55 ft³) of Class G neat cement on top of CICR in balanced plug. PU 200' above plug reverse circulate to clean tubing. WOC and tag plug if casing does not test. Re-spot cement if necessary.
 2. **Plug #2, 4662' – 4762' (Mancos Top: 4712')**: Mix & spot 12 sx (13.8 ft³) Class G neat cement in balanced plug. PU 200' above plug and reverse circulate tubing clean. WOC and tag plug if casing does not test. Re-spot cement if necessary.
 3. **Plug #3, 3674' – 3774' (Mesaverde Top: 3724')**: Mix & spot 12 sx (13.8 ft³) Class G neat cement in balanced plug. PU 100' above plug and reverse circulate tubing clean. WOC and tag plug if casing does not test. Re-spot cement if necessary.

4. **Plug #4, 1968' – 2292' (FT Coal Top: 2018', PC Top: 2242'):** Mix and spot 29 sx (33.35 ft³) Class G neat cement in balanced plug. PUH 100' above plug and reverse circulate tubing clean. WOC and tag plug if casing does not test. Re-spot cement if necessary.
5. **Plug #5, 1583' – 1828' (Ojo Alamo top: 1633', Kirtland: 1778'):** Mix and spot 23 sx (26.45 ft³) Class G neat cement in balanced plug. PUH 100' above plug and reverse circulate tubing clean. WOC and tag plug if casing does not test. Re-spot cement if necessary.
6. **Plug #6, 423' – Surface (8-5/8" Shoe @ 373'):** **Note: Cement circulated on surface casing string.** Mix and pump 33 sx (37.95 ft³) or until cement circulates to surface. Top off cement as necessary.
6. ND BOP and cut off wellhead below surface casing flange, top off casing and annulus as necessary. Install P&A marker and cut off and/or remove anchors. RD, MOL - Restore location per BLM stipulations. Take pictures from all cardinal directions. Ensure to notify project management of all remaining equipment on location once plugging is complete.

Kyle T. Mason
Engineer

Federal I #008**Current WBD****Lybrook Gallup****1665' FNL & 970' FWL, Section 21, T23N, R7W, Sandoval, NM****API: 30-043-20918**

Today's Date: 02/01/2022

Spud: 2/2/94

Completed: 5/16/94

Elevation: 7488' GL

Ojo Alamo @ 1633'

Kirtland @ 1778'

Fruitland @ 2018'

Pictured Cliffs @ 2242'

Chacra @ 2651'

Cliff House @ 3724'

Mancos @ 4712'

Gallup @ 5451'

Hole Size
7.875PBTD: 5936'
TD: 5911'

Hole Size: 12-1/4"

8-5/8", 24#, Casing set @ 373'

Cement with 325 sx Class B, Did not circulate

Topped off with 50 sxs Class B. 5 bbls circ to surface

2-3/8" tubing set @ 5822'

Gallup Perforations
5620'-5828'

4-1/2", 11.6#, casing set @ 5967'

Production CMT:

1st stage: 1150 sxs. Circ 92 bbls off stage tool

Federal I #008

Proposed P&A

Lybrook Gallup

1665' FNL & 970' FWL, Section 21, T23N, R7W, Sandoval, NM

API: 30-043-20918

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Spud: 2/2/94

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Ojo Alamo @ 1633'

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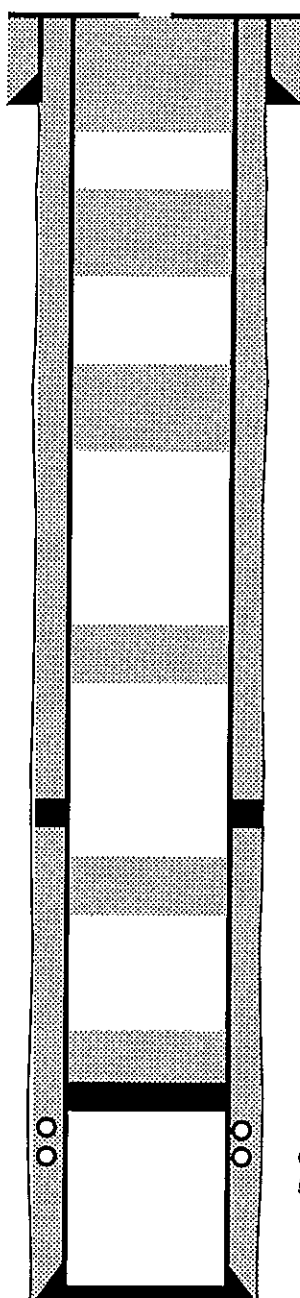
Pictured Cliffs @ 2242'

Chacra @ 2651'

Cliff House @ 3724'

Mancos @ 4712'

Gallup @ 5451'

Hole Size
7.875

PBSD: 5936'

TD: 5911'

Hole Size: 12-1/4"

8-5/8", 24#, Casing set @ 373'

Cement with 325 sx Class B, Did not circulate

Topped off with 50 sxs Class B. 5 bbis circ to surface

Plug #6: 8-5/8" Surface Shoe - 413' - Surface

Class G neat, 33 sx (37.95 ft³)

Plug #5: Ojo Alamo/Kirtland - 1583'-1828'

Class G neat, 23 sx (26.45 ft³)

Plug #4: Fruitland/PC - 1968'-2292'

Class G neat, 29 sx (33.35 ft³)

Plug #3: MesaVerde - 3674'-3774'

Class G neat, 12 sx (13.8 ft³)

Plug #2: Mancos - 4662'-4762'

Class G neat, 12 sx (13.8 ft³)

SET CICR @ 5570'

Plug #1: Gallup - 5570'-5401'

Class G neat, 17 sx (19.55 ft³)Gallup Perforations
5620'-5828'

4-1/2", 11.6#, casing set @ 5967'

Production CMT:

1st stage: 1150 sxs. Circ 92 bbis off stage tool

United States Department of the Interior
Bureau of Land Management

Reclamation Plan

EPIC Energy, LLC.

Federal I #8
Plug and Abandonment
Project

Prepared by

Arleen Smith, Regulatory Specialist

EPIC Energy, LLC.
332 Rd 3100
Aztec, New Mexico 87410

April
2022

U.S. Department of the Interior
Bureau of Land Management
Farmington District
Farmington Field Office
6251 N. College Blvd., Ste. A
Farmington, NM 87402
Phone: (505) 564-7600
FAX: (505) 564-7608

BLM



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Reclamation Plan (Procedure B)

Applicant	EPIC Energy, LLC.
Project Type	Reclamation of a natural gas well site.
Well, Oil and Gas Lease, or Right-of-Way (ROW) Name	Federal I #8
Legal Location	Section 21 (1665 FNL, 970' FWL), Township 23 North, Range 07 West, New Mexico Principal Meridian, in Sandoval County, New Mexico
Lease Number(s)	NMNM-16586

Introduction

This reclamation plan has been prepared to meet the requirements and guidelines of the Bureau of Land Management (BLM) Farmington Field Office (FFO) Bare Soil Reclamation Procedures (BLM 2013a) and Onshore Oil and Gas Order No. 1 as well as any requirements from the

Epic Energy, LLC contact person for this Reclamation Plan is:

Arleen Smith, Regulatory Specialist
332 Road 3100
Aztec, New Mexico 87410
Phone: (505) 327-4892

Vegetation Reclamation Procedure B

Completion of a Vegetation Reclamation Plan in accordance with Procedure B of the Bureau Land Management Bare Soil Reclamation Procedures is required for surface disturbing actions, grants, or permits authorized by the Bureau Land Management resulting in bare mineral soil **across an area greater than or equal to 1 acre**, not including a BLM approved working area. Working areas include areas routinely used to operate and maintain facilities or improvements. The FFO makes no distinction between interim and final revegetation processes; revegetation processes and standards are the same for all revegetation activities.

Revision of the Reclamation Plan

EPIC Energy LLC, may submit a request to the BLM/FFO to revise the Reclamation Plan at any time during the life of the project in accordance to page 44 of the Gold Book (USDI-USDA 2007). EPIC Energy LLC will include justification for the revision request.

Project Description

EPIC Energy is proposing to plug and abandon the Federal I #8 wellbore and reclaim the well pad. This location is located on lands owned and managed by the Bureau of Land Management, ~ 49.4 miles South of Bloomfield, NM. The Federal I #8 is accessed by travelling South on HWY 64 for 46.7 miles. Turn right 1.3 miles. Turn right 1.1 mile. The well will be located on straight ahead. The access road to the Federal I #8 will be rip and reclaim down to the Federal I #5 well pad. Remove rig anchors and above ground pipeline. Hide, cut or remove a piece of reserve pit liner that is visible. Spread the gravel that is around the wellhead across the pad and blend it with the natural rock terrain. Will not attempt to rip or reclaim any of the well pad, the entire pad is on sandstone rock.

Estimated Total Area of Disturbance

The existing Federal I #8 well pad was originally 71 ft by 73 ft with a maximum 1 ft cut and a maximum of a 1 ft fill. The access road to the Federal I #8 will be rip and reclaim down to the Federal I #5 well pad. The anchor and piping will be removed, and the disturbed area will be reclaimed with Mesa seed mix. The well location is located on Bureau of Land Management and is managed by the Bureau of Land Management. Total surface disturbance as a result of well pad and pipeline construction that will be reclaimed is approximately 0.47 acres on Bureau of Land Management Lands.

The pre-disturbance site visit occurred on February 24, 2022. The following persons were present at the site visit (Table 1).

Table 1. Site Visit Attendees

Name	Affiliation	Contact Info
John Hampton	EPIC Energy	505-486-6988
James Helickson	Envirotech	505-632-0615
Roger Herrera	BLM	505-564-7600

Vegetation Community

Based on observations made during the pre-disturbance site visit, it has been determined that the vegetation community which best represents the proposed project area is Mesa or Pinion –Juniper Community. The Mesa or Pinion–Juniper Community is comprised primarily of pinion and juniper trees with lesser amounts of basin big sage and minor areas of black sage with various grasses. It is found on all aspects from about 4,800 to 8,800 with pinyon trees dominating at higher elevations and juniper trees at lower elevations. The Mesa or Pinion –Juniper Community are typically found in shallow rock soils. The seed mix will be used with an emphasis placed on protecting reclaimed well pad from exotic plant invasion.

Proposed Reclamation Seed Mix

Disturbance will be re-contoured, and topsoil will be redistributed and prepared for seeding by the construction contractor. Ripping, disking, and seeding of the site will be done by EPIC Energy and its

contractor using the BLM-approved seed mix (Mesa), which is shown in Table 2. The proposed reclamation seed mix takes into account the existing vegetation on the proposed project site.

MESA menu-based seed mix by habitat type for reclamation (minimum requirement) **

<i>Common Name</i>	<i>Scientific Names</i>	<i>Variety</i>	<i>Season</i>	<i>Form</i>	<i>PLS lbs/acre*</i>
Plant one of the following:					
Mountain mahogany	<i>Cercocarpus montanus</i>	VNS	Warm	Shrub	2.0
Antelope bitterbrush	<i>Purshia tridentata</i>	VNS	Cool	Shrub	2.0
and two of the following:					
Western wheatgrass	<i>Pascopyrum smithii</i>	Arriba	Cool	Sod	2.0
Bottlebrush squirreltail	<i>Elymus elymoides</i>	Tusas or VNS	Cool	Bunch	3.0
Needleandthread	<i>Hesperostipa comata</i>	VNS	Cool	Bunch	3.0
and three of the following:					
Indian ricegrass	<i>Achnatherum hymenoides</i>	Paloma or Rimrock	Warm	Bunch	3.5
Blue grama	<i>Bouteloua gracilis</i>	Alma or Hachita	Warm	Bunch	2.0
Sand dropseed	<i>Sporobolus cryptandrus</i>	VNS	Warm	Bunch	0.5
Prairie Junegrass	<i>Koeleria macrantha</i>	VNS	Cool	Bunch	2.0
Muttongrass	<i>Poa fendleriana</i>	VNS	Cool	Bunch	2.0
and one of the following:					
Scarlet globemallow	<i>Sphaeralcea coccinea</i>	VNS	Warm	Forb	0.25
Utah sweetvetch	<i>Hedysarum boreale</i>	VNS	Warm	Forb	0.25

****Based on 60 pure live seeds (PLS) per square foot, drill seeded. Double this rate (120 PLS per square foot) if broadcast or hydroseeded.**

Vegetation Reclamation Standards

Requirements for determining reclamation and if it is successfully completed for the selected vegetation community are determined by the reclamation percent cover standards for the

community, as outline in Table 3. These standards must be met during post-disturbance monitoring procedures in order for the Bureau of Land Management to sign off on the attainment of vegetation reclamation standards.

Table 3. Reclamation Goal for Mesa or Pinion-Juniper-Mesa Community Cover – Wooded shrubland (deep soil)

<i>Functional Group</i>	<i>Percent (%) Foliar Cover</i>	<i>Common Species</i>
Trees/Shrubs/Grasses/Forbs	≥20	Utah juniper, Pinyon pine; big sagebrush, four-wing saltbrush, Antelope bitterbrush, rubber rabbitbrush, broom snakeweed, bottlebrush squirreltail, western wheatgrass, Indian ricegrass, galleta, sand dropseed, threeawn grass, scarlet globmallow, wooly Indianwheat, fleabane spp., Penstemon spp., buckwheat spp., threadleaf groundsel
Invasive/undesirables 10% allowed toward meeting standard of 20%.	≤10	Plants that have the potential to become a dominant species on a site where its presence is a detriment to revegetation efforts or the native plant community. Examples of invasive species include cheatgrass, Russian thistle, kochia.

Weed Survey

During the site visit, the proposed action area was surveyed for noxious weeds listed on the New Mexico Department of Agriculture's Class A and Class B list. During the survey, no noxious weeds were found.

Soil Evaluation

Unless any stained soil is discovered during the surface reclamation, no soil testing will be necessary.

Reclamation Techniques for Successful Revegetation

Site Clearing

After the well is plugged the wellhead will be cut-off 3' below ground level and a 4" diameter P&A marker will be welded to the casing stub. All flow lines and anchors will be cut-off at least 3' below ground level or removed completely. The meter will be removed and cut off down 6' or to the top of the pipeline. The production equipment (tanks, separator) have been previously removed from location.

Topsoil Replacement

No topsoil was stock piled during the original construction of the well pad. The remaining location will be re-contoured to match the natural topography. Epic Energy (and its contractor) will take care not

to mix topsoil with the underlying subsoil horizons. Topsoil and sub-surface soils will be replaced in the proper order, prior to final seedbed preparation.

Water Management/Erosion Control Features

Based on the site visit with the Bureau Land Management representative(s) and the EPIC Energy representative determined there was no need to develop any other site-specific erosion control or water management features than the planned silt trap. Based on the topography natural run off can occur with no impact as far as erosion is concerned.

EPIC Energy (or its contractors) will use erosion control blankets, straw bales, or straw wattles as appropriate to limit erosion and sediment transport from any stockpiled soils.

Seedbed Preparation

For cut and fill slopes, initial seedbed preparation will consist of backfilling and re-contouring to achieve a configuration as close to pre-disturbance conditions as possible. Areas to be reclaimed will be re-contoured to blend with the surrounding landscape, emphasizing restoration of existing drainage patterns and landform to pre-construction condition, to the extent practicable.

Seedbed preparation of compacted areas will be ripped to a minimum depth of 12 inches, with a maximum furrow spacing of 2 feet. Where practicable, ripping will be conducted in two passes at perpendicular directions. Disking will be conducted if large clumps or clods remain after ripping. Any tilling or disking that occurs along the contour of the slope and seed drills will also be run along the contour to provide terracing and prevent rapid run-off and erosion. If broadcast seeding is used, a dozer or other tracked equipment will track perpendicular to the slope prior to broadcast seeding.

Final seedbed preparation will consist of raking or harrowing the spread topsoil prior to seeding to promote a firm (but not compacted) seedbed without surface crusting.

Soil Amendments

Based on information gathered at the onsite inspection, the EPIC Energy and Bureau Land Management representatives have decided collaboratively that no soil amendments will be used during reclamation of the affected environment.

Seeding Requirements

The seed mix chosen for this project is listed in Table 2. Seeding will occur in November or later (depending upon weather conditions) after the well has been plugged and abandoned.

A Truax seed drill or modified rangeland drill that allows for seeding species from different seed boxes at different planting depths will be used to seed the disturbed areas of the project area. EPIC Energy or its reclamation contractor will ensure that perennial grasses and shrubs are planted at the appropriate depth. Intermediate size seeds (such as wheatgrasses and shrubs) will be planted at a depth of 1 to 2 inches. Small seeds (such as alkali sacaton and sand drop seed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable using available equipment, the entire seed mix will be planted no deeper than 0.25 inch.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where equipment and drills can safely operate. Where drill seeding is not practicable due to topography, the reclamation contractor will hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Broadcast application of seed requires a doubling of the drill-seeding rate. The seed will then be raked into the ground, so the seed is planted no deeper than 0.25 inch below the surface.

Mulching

Based on the onsite, mulching should not be necessary but if needed hand seeding with hydro-mulch, excelsior netting, and/or mulch with netting could be utilized on cut and fill slopes. Mulch should be grass or straw spread at 2,000 to 3,000 pounds per acre, or approximately 1 to 2 inches deep. Mulching will consist of crimping certified weed-free straw or certified weed-free native grass hay into the soil.

Straw or native grass hay mulch can be applied by hand broadcasting or blowing to a relatively uniform depth of 2 to 3 inches, equivalent to a rate of approximately 2 tons per acre (one 74-pound bale per 800 square feet). When applied properly, approximately 20 to 40 percent of the original ground surface will be visible.

Straw or native grass hay mulch will then be anchored using one of the following methods:

- Hand Punching – a spade or shovel is used to punch mulch into the topsoil at 1-foot intervals until all areas have mulch standing perpendicular to the slope and the mulch is embedded at least 4 inches into the soil.
- Roller Punching – a roller is used to spread mulch over an area; the roller is equipped with straight studs not less than 6 inches long, from 4 to 6 inches wide, and approximately 1 inch thick.
- Crimper Punching – similar to roller punching, a crimper is used over the soil. The crimper has serrated disk blades about 4 to 8 inches apart that force the mulch into the soil. Crimping should be done in two directions with the final pass across the slope.

Mulch applications in extremely clayey soils should be evaluated carefully to avoid developing an adobe mixture. In these cases, a soil amendment may be beneficial.

Noxious and Invasive Weed Control

Should noxious or invasive weeds be documented after earthwork and seeding activities, the Bureau Land Management weed coordinator will provide EPIC Energy, LLC with specific requirements and instructions for weed treatments, including the period of treatment, approved herbicides that may be used, required documentation to be submitted to the Bureau Land Management after treatment, and any other site-specific instructions that may be applicable.

Monitoring Requirements

Monitoring will be completed according to the Bureau Land Management Bare Soil Reclamation Procedure B (BLM 2013b) and Monitoring activities will be initiated after the project is completed, during the post-disturbance earthwork and seeding inspection process.

Post-Reclamation Monitoring Initiation

After the well has been plugged and the reclamation work and seeding have been completed, a post-disturbance inspection at the project site will occur. The Bureau Land Management representative (in collaboration with EPIC Energy) will determine site-specific monitoring locations for photo point monitoring and vegetation line point intercept transects, (if necessary). Bureau Land

Management will collect GPS data on the monitoring locations, take the initial monitoring photographs, and complete the initial monitoring report within 60 days of the post-disturbance earthwork and seeding inspection. The initial report will be available from the Bureau Land Management.

Post-Reclamation Monitoring Photographs

The minimum photo points necessary to document post-disturbance monitoring (including annual monitoring and long-term monitoring) are described in Table 5. Photographs will be taken with a digital camera without zoom or wide-angle adjustments. GPS coordinates for each photo point will be provided by the Bureau Land Management the initial monitoring report and subsequently included with each photograph in the annual monitoring report.

Table 5. List of Minimum Required Post-Disturbance Monitoring Photographs

Photo Point	Photographs	Location Description

Annual Monitoring

If needed, EPIC Energy will begin annual monitoring of the photo points and the vegetation line point intercept transects 2 calendar years after the completion and approval of the final earthwork and seeding. Monitoring may occur any time of the year. A completed monitoring report of the permanent photo points will be submitted by EPIC Energy to Bureau Land Management by December 31 of the year the site is monitored. Within 60 days after receipt, the Bureau Land Management will acknowledge that the report has been received and evaluated.

Vegetation line point intercept transects will be monitored annually until attainment of vegetation reclamation cover standards have been met. EPIC Energy will keep a record of the monitoring for future submittal to the Bureau Land Management at reclamation attainment.

Attainment of Vegetation Reclamation Standards

When vegetation on a reclaimed site appears to meet the required percent revegetation standard, EPIC Energy will submit to the Bureau Land Management a written request for concurrence that revegetation standards have been attained. The request will include all annual transect data sheets and a current set of monitoring photographs. The Bureau Land Management will review the request and approve or deny the request within 60 days of receipt. If the request is denied, the Bureau Land Management may initiate a site inspection within 60 days of the denial to analyze the site and determine if remedy actions may be appropriate.

Long-Term Monitoring

If needed, after the required percent revegetation standard has been attained, EPIC Energy will begin long-term monitoring. Every fifth year after attainment, EPIC Energy will monitor the site at all established photo points to ensure the site remains productive and stable. A completed monitoring report of the permanent photo points will be submitted to the Bureau Land Management by December

31 of the year the site is monitored. The Bureau Land Management will acknowledge that the report has been received and evaluated within 60 days after receipt.

Final Abandonment

If 1 or more acre of bare soil results from earthwork required in preparation for final abandonment, EPIC Energy, LLC will follow Vegetation Reclamation Plan in accordance with Procedure B of the BLM/FFO Bare Soil Reclamation Procedures (2013a) and any additional or separate requirements from the Bureau Land Management.

Revegetation percent cover standards will be attained, documented, and submitted to the Bureau Land Management by EPIC Energy, LLC or an exception granted before the Bureau Land Management will approve a final abandonment notice (FAN) or relinquishment.

Upon final reclamation, the location will be returned to pre-disturbance conditions as practicable.

Cessation of Monitoring

Monitoring requirements will remain in effect as long as the permit, grant, or authorization remains in effect and until all infrastructure or associated facilities are abandoned by established BLM procedure and a FAN or relinquishment is issued by the Bureau Land Management. EPIC Energy, LLC will document that percent cover standards have been attained when submitting a request for a FAN or relinquishment.

References

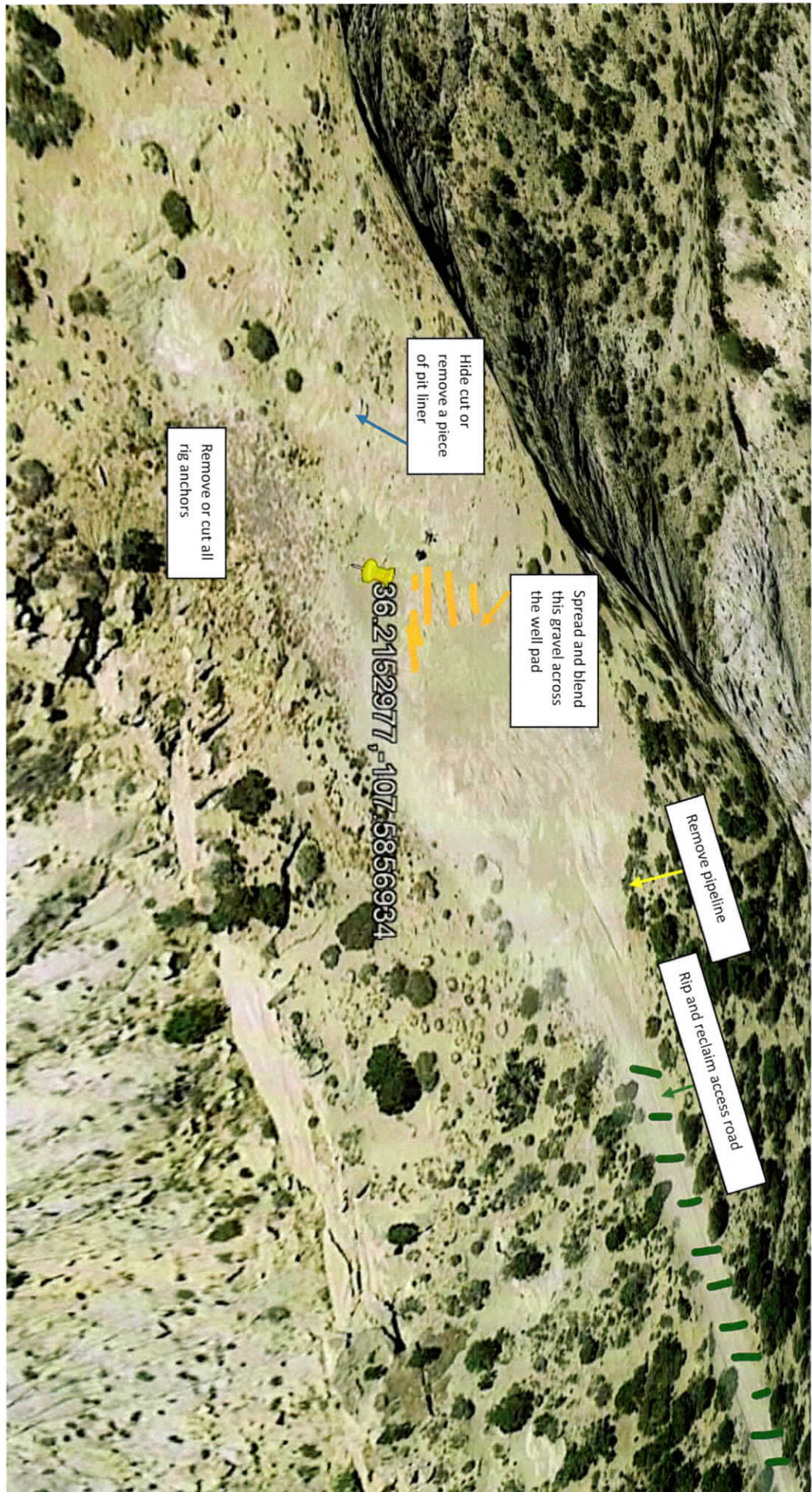
43 CFR Part 3160, "Onshore Oil and Gas Order No. 1; Onshore Oil and Gas Operations; Federal and Indian Oil and Gas Leases; approval of Operations," 72 Federal Register 44 (March 2007), pp. 10328-10338.

BLM. 2013a. Farmington Field Office Bare Soil Reclamation Procedures. Available at: http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of.html. Accessed November 2013.

BLM. 2013b. Updated Reclamation Goals. Available at: http://www.blm.gov/nm/st/en/fo/Farmington_Field_Office/ffo_planning/surface_use_plan_of/updated_reclamation.html. Accessed November 2013.

U.S. Department of the Interior, U.S. Department of Agriculture (USDI, USDA). 2007. Surface Operating Standards and Guidelines for Oil and Gas Exploration and Development. BLM/WO/ST-06/021+307/REV 07. Bureau of Land Management, Denver, Colorado. 84 pp.

Federal I #8 API# 3004320918
36.2152977, -107.5856934



**GENERAL REQUIREMENTS FOR
PERMANENT ABANDONMENT OF WELLS ON FEDERAL AND INDIAN LEASES
FARMINGTON FIELD OFFICE**

1.0 The approved plugging plans may contain variances from the following minimum general requirements.

1.1 Modification of the approved plugging procedure is allowed only with the prior approval of the Authorized Officer, Farmington Field Office.

1.2 Requirements may be added to address specific well conditions.

2.0 Materials used must be accurately measured. (densometer/scales)

3.0 A tank or lined pit must be used for containment of any fluids from the wellbore during plugging operations and all pits are to be fenced with woven wire. These pits will be fenced on three sides and once the rig leaves location, the fourth side will be fenced.

3.1 Pits are not to be used for disposal of any hydrocarbons. If hydrocarbons are present in the pit, the fluids must be removed prior to filling in.

4.0 All cement plugs are to be placed through a work string. Cement may be bull-headed down the casing with prior approval. Cement caps on top of bridge plugs or cement retainers may be placed by dump bailer.

4.1 The cement shall be as specified in the approved plugging plan.

4.2 All cement plugs placed inside casing shall have sufficient volume to fill a minimum of 100' of the casing, or annular void(s) between casings, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.3 Surface plugs may be no less than 50' in length.

4.4 All cement plugs placed to fill annular void(s) between casing and the formation shall be of sufficient volume to fill a minimum of 100' of the annular space plus 100% excess, calculated using the bit size, or 100' of annular capacity, determined from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug.

4.5 All cement plugs placed to fill an open hole shall be of sufficient volume to fill a minimum of 100' of hole, as calculated from a caliper log, plus an excess volume sufficient to provide for 50 linear feet of fill above the plug. In the absence of a caliper log, an excess of 100% shall be required.

4.6 A cement bond log or other accepted cement evaluation tool is required to be run if one had not been previously ran or cement did not circulate to surface during the original casing cementing job or subsequent cementing jobs.

5.0 All cement plugs spotted across, or above, any exposed zone(s), when; the wellbore is not full of fluid or the fluid level will not remain static, and in the case of lost circulation or partial returns during cement placement, shall be tested by tagging with the work string.

- 5.1 The top of any cement plug verified by tagging must be at or above the depth specified in the approved plan, without regard to any excess.
- 5.2 Testing will not be required for any cement plug that is mechanically contained by use of a bridge plug and/or cement retainer, if casing integrity has been established.
- 5.3 Any cement plug which is the only isolating medium, for a fresh water interval or a zone containing a prospectively valuable deposit of minerals, shall be tested by tagging.
- 5.4 If perforations are required below the surface casing shoe, a 30 minute minimum wait time will be required to determine if gas and/or water flows are present. If flow is present, the well will be shut-in for a minimum of one hour and the pressure recorded. Short or long term venting may be necessary to evacuate trapped gas. **If only a water flow occurs with no associated gas, shut well in and record the pressures. Contact the Engineer as it may be necessary to change the cement weight and additives.**

6.0 Before setting any cement plugs the hole needs to be rolled. All wells are to be controlled by means of a fluid that is to be of a weight and consistency necessary to stabilize the wellbore. This fluid shall be left in place as filler between all plugs.

- 6.1 Drilling mud may be used as the wellbore fluid in open hole plugging operations.
- 6.2 The wellbore fluid used in cased holes shall be of sufficient weight to balance known pore pressures in all exposed formations.

7.0 A blowout preventer and related equipment (BOPE) shall be installed and tested prior to working in a wellbore with any exposed zone(s); (1) that are over pressured, (2) where the pressures are unknown, or (3) known to contain H₂S.

8.0 Within 30 days after plugging work is completed, file a Sundry Notice, Subsequent Report of Abandonment (Form 3160-5), five copies, with the Field Manager, Bureau of Land Management, 6251 College Blvd., Suite A, Farmington, NM 87402. The report should show the manner in which the plugging work was carried out, the extent, by depth(s), of cement plugs placed, and the size and location, by depth(s), of casing left in the well. Show date well was plugged.

9.0 All permanently abandoned wells are to be marked with a permanent monument as specified in 43 CFR 3162.6(d). Unless otherwise approved.

10.0 If this well is located in a Specially Designated Area (SDA), compliance with the appropriate seasonal closure requirements will be necessary.

All of the above are minimum requirements. Failure to comply with the above conditions of approval may result in an assessment for noncompliance and/or a Shut-in Order being issued pursuant to 43 CFR 3163.1. You are further advised that any instructions, orders or decisions issued by the Bureau of Land Management are subject to administrative review pursuant to 43 CFR 3165.3 and appeal pursuant to 43 CFR 3165.4 and 43 CFR 4.700.

**UNITED STATES DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT
FARMINGTON DISTRICT OFFICE
6251 COLLEGE BLVD.
FARMINGTON, NEW MEXICO 87402**

AFMSS 2 Sundry ID 2668163

Attachment to notice of Intention to Abandon

Well: Federal I 8

CONDITIONS OF APPROVAL

1. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
2. The following modifications to your plugging program are to be made:
 - a. Add a plug to cover the Chacra formation top at 2651'.
3. Farmington Office is to be notified at least 24 hours before the plugging operations commence (505) 564-7750.

You are also required to place cement excesses per 4.2 and 4.4 of the attached General Requirements.

Office Hours: 7:45 a.m. to 4:30 p.m.

K. Rennick 05/11/2022

BLM FLUID MINERALS P&A Geologic Report

Date Completed: 05/11/2022

Well No. Federal I #8 (API# 30-043-20918)		Location	1665	FNL	&	970	FWL
Lease No. NMNM-16586		Sec. 21	T23N			R07W	
Operator Epic Energy, LLC		County	Sandoval		State	New Mexico	
Total Depth 5970'	PBTD 5911'	Formation Gallup					
Elevation (GL) 7488'		Elevation (KB) 7500'					

Geologic Formations	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm	Surface				Surface/possible freshwater sands
Nacimiento Fm		1633			
Ojo Alamo Ss	1633	1778			Aquifer (possible freshwater)
Kirtland Shale	1778	2018			
Fruitland Fm	2018	2242			Coal/Gas/Water
Pictured Cliffs Ss	2242	2350			Gas
Lewis Shale	2350	2651			
Chacra	2651	3724			Possible Gas
Cliff House Ss	3724	3751			Water/Possible gas
Menefee Fm	3751	4583			Coal/Ss/Water/Possible O&G
Point Lookout Ss	4583	4712			Probable water/Possible O&G
Mancos Shale	4712	5451			Probable O&G
Gallup	5451	PBTD			O&G/Water
Greenhorn					
Graneros Shale					
Dakota Ss					
Morrison Formation					

Remarks:

P & A

- No well log available for subject well. Operator submitted tops are acceptable based on Reference Well #1.
- Add a plug to cover the Chacra formation top at 2651'.
- The plugs proposed in the P&A procedure, with recommended changes, will adequately protect any freshwater sands in this well bore.
- Gallup perms 5620' – 5828'.

Reference Well:1) **Formation Tops**

Epic Energy, LLC
Federal I #5
1650' FNL, 2270' FEL
Sec. 21, T23N, R07W
KB 7392'

Prepared by: Chris Wenman

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 106460

CONDITIONS

Operator: EPIC ENERGY, L.L.C. 332 Road 3100 Aztec, NM 87410	OGRID: 372834
	Action Number: 106460
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
kpickford	Notify NMOCD 24 Hours Prior to beginning operations	5/16/2022
kpickford	Adhere to BLM approved COAs and plugs. See GEO report.	5/16/2022