Received by NCD: S/14/2021 2:53:48 PM U.S. Department of the Interior	Sundry Print Report		
BUREAU OF LAND MANAGEMENT		1995 - 1998 - 208 -	
Well Name: THEODORE ZINK	Well Location: T23N / R6W / SEC 15 / NWNW / 36.230667 / 107.461563	County or Parish/State: RIO ARRIBA / NM	
Well Number: 1	Type of Well: OIL WELL	Allottee or Tribe Name:	
Lease Number: NMNM23231	Unit or CA Name: THEODOR	Unit or CA Number: NMNM68170	
US Well Number: 3003922923	Well Status: Producing Oil Well	Operator: ENDURING RESOURCES LLC	

### **Notice of Intent**

Type of Submission: Notice of Intent

Date Sundry Submitted: 01/29/2021

Date proposed operation will begin: 02/01/2021

Type of Action Plug and Abandonment

Time Sundry Submitted: 10:42

**Procedure Description:** This sundry was originally submitted on 6/11/2020. It was rejected due to the WIS transition to WISX. Enduring Resources requests to plug and abandon the above mentioned well per plugging procedure, wellbore diagram and reclamation plan.

### **Surface Disturbance**

Is any additional surface disturbance proposed?: No

### **NOI Attachments**

**Procedure Description** 

WIS\_PRINT\_SUBMITTED\_518646\_NOI\_PA\_THEODORE\_1\_20210129103931.pdf

THEODORE\_ZINK\_COM\_001\_NOI\_P\_A\_PACKAGE\_20210129103908.pdf

Received by OCD: 6/14/2021 2:53:48 PM Well Name: THEODORE ZINK	Well Location: T23N / R6W / SEC 15 / NWNW / 36.230667 / 107.461563	<b>County or Parish/State:</b> RIO <b>ARRIBA / NM</b>
Well Number: 1	Type of Well: OIL WELL	Allottee or Tribe Name:
Lease Number: NMNM23231	Unit or CA Name: THEODOR	Unit or CA Number: NMNM68170
US Well Number: 3003922923	Well Status: Producing Oil Well	<b>Operator:</b> ENDURING RESOURCES LLC

### **Conditions of Approval**

#### **Specialist Review**

General\_Requirement\_P\_A\_20210316133503.pdf

#### **Additional Reviews**

Theodore\_Zink\_Com\_No\_1\_Geo\_Rpt\_20210609101534.pdf

### **Operator Certification**

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 submission of Form 3160-5 or a Sundry Notice.

**Operator Electronic Signature: HEATHER HUNTINGTON** 

Name: ENDURING RESOURCES LLC

Title: Permitting Technician

Street Address: 200 Energy Court

City: Farmington

State: NM

Phone: (505) 636-9751

Email address: HHUNTINGTON@ENDURINGRESOURCES.COM

### **Field Representative**

**Representative Name:** 

Street Address:

Email address:

City: Phone: State:

Zip:

### **BLM Point of Contact**

BLM POC Name: DAVE J MANKIEWICZ

BLM POC Phone: 5055647761

Disposition: Approved

Signature: Dave Mankiewicz

BLM POC Title: AFM-Minerals

BLM POC Email Address: DMANKIEW@BLM.GOV

Signed on: JAN 29, 2021 10:39 AM

Disposition Date: 06/09/2021

### 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 <u>minimum general</u> 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.

Page 1

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  $H_2S$ .

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 <u>date</u> 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.

### BLM FLUID MINERALS Geologic Report

### **Date Completed:** 8/5/2020

Well No.	Theodore Zink Com # 1		Location	460′	FNL	&	1005′	FWL	
Lease No.	ease No. NMNM23231		Sec. 15	r	Г23N			R6W	
Operator	Enduring Resou	rces	(	County	Rio A	rriba	State	New M	exico
Total Depth	5705'	PBTD 5656'	F	Formation	Counselo	ors Gallup	Dakota		
Elevation (GL) 6821'		Ε	Elevation (KE	B) 6236′					

<b>Geologic Formations</b>	Est. Top	Est. Bottom	Log Top	Log Bottom	Remarks
San Jose Fm			Surface	737'	Surface / Fresh water sands
Nacimiento Fm			737'	1417'	Fresh water sands
Ojo Alamo Ss			1417′	1608′	Aquifer (fresh water)
Kirtland Shale			1608′	1710′	
Fruitland Fm			1710′	1997'	Coal/Gas/Possible water
Pictured Cliffs Ss			1997'	2100'	Gas
Lewis Shale			2100'	2780'	
Chacra			2780'	3030'	Probable water or dry
Lewis Shale Stringer			3030'	3500'	
Cliff House Ss			3500'	3570'	Water/Possible gas
Menefee Fm			3570'	4211'	Coal/Ss/Water/Possible Gas
Point Lookout Ss			4211'	4450'	Probable water/Possible O&G
Mancos Shale			4450'	5200'	Source rock
Gallup			5200'		O&G/Water

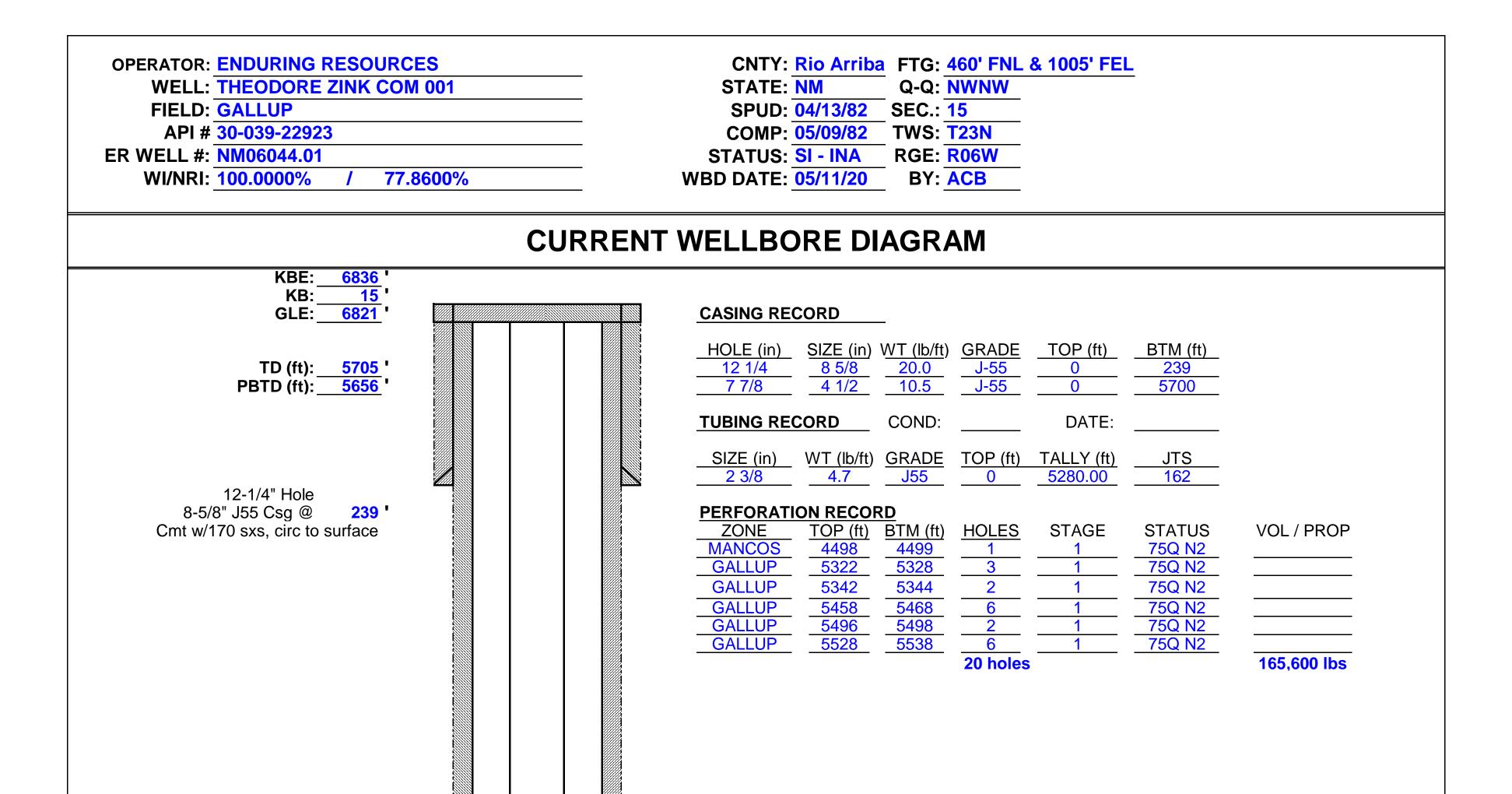
Remarks:

P & A

- Please ensure that the tops of the Pictured Cliffs and Fruitland formations as well as the entire Ojo Alamo aquifer, identified in this report, are isolated by proper placement of cement plugs. This will protect the freshwater sands in this well bore.

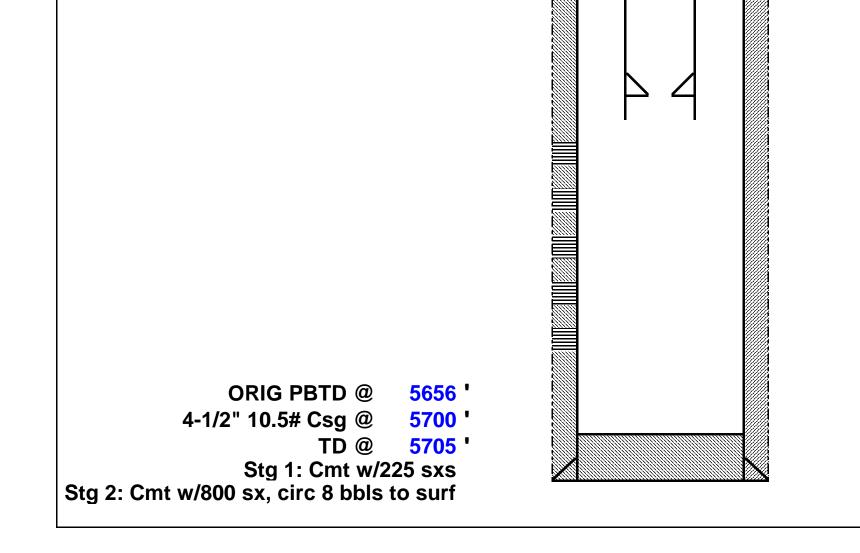
Formation Tops Reference Well: Enduring Resources Same

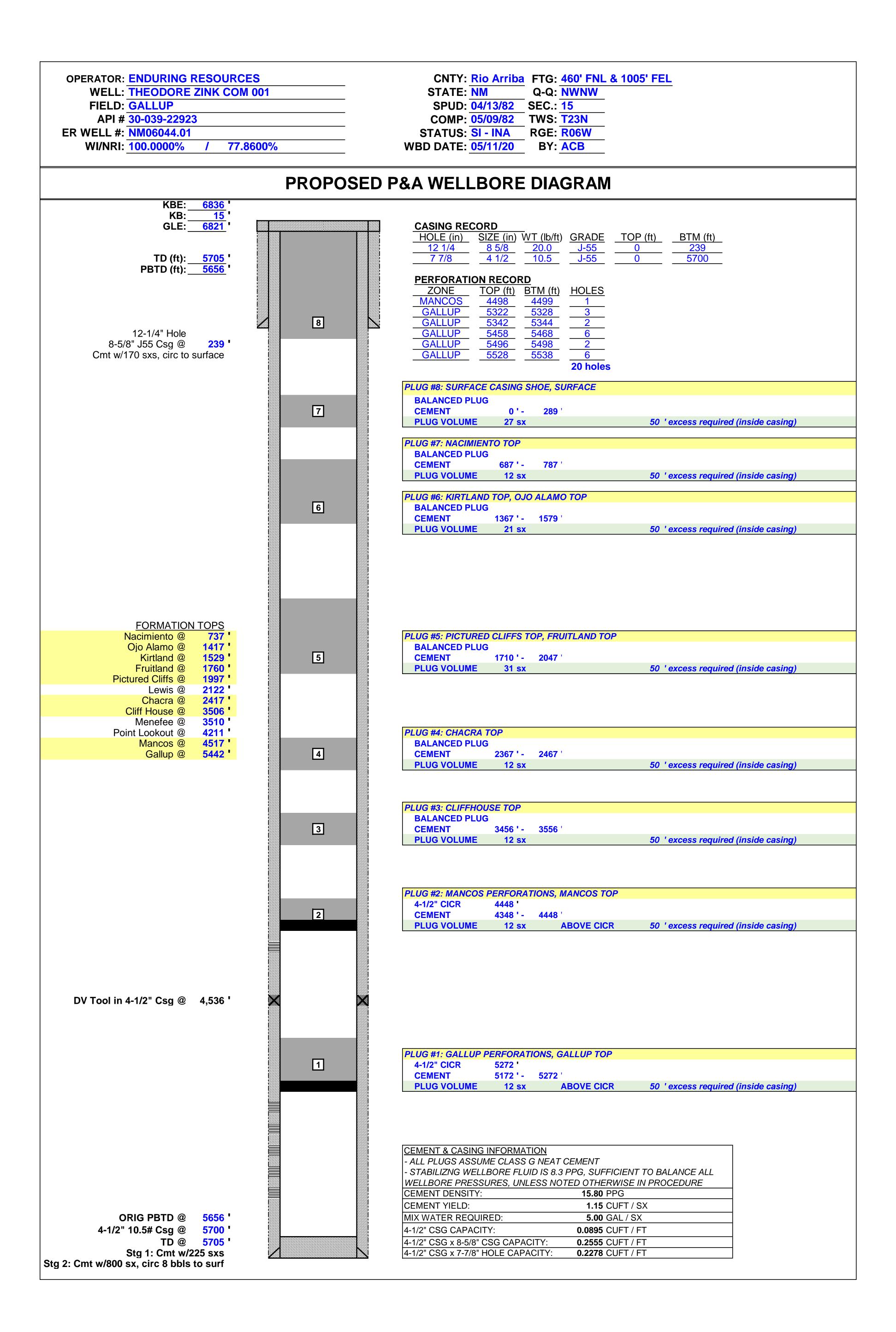
Prepared by: Walter Gage



FORMATION Nacimiento @ Ojo Alamo @ Kirtland @ Fruitland @ Pictured Cliffs @	737 1417 1529 1760 1997
Mancos @ Gallup @	4517 5442

DV Tool in 4-1/2" Csg @ 4,536 '





## **ENDURING RESOURCES IV, LLC**

### PLUG AND ABANDONMENT PROCEDURE

WELL:	THEODORE ZINK COM 001
API:	30-039-22923
ER WELL:	NM06044.01
LOCATION:	460' FNL & 1005' FEL, Sec.15, T23N, R06W

- **COUNTY:** Rio Arriba
  - STATE: NM
  - NOTES: 1) All cement volumes assume 100% excess volume outside pipe and 50' excess inside pipe. Cement will be Class 'G' (15.8 ppg and 1.15 cuft/sx). A stabilizing wellbore fluid with density of 8.3 ppg will be sufficient to balance pressures encountered in the well.
    - 2) Any waste fluids circulated from the well to surface, including excess cement, will be stored in steel tanks and then disposed of at an approved disposal facility.
    - **3)** Notify BLM and NMOCD prior to beginning well-work operations. Comply with all BLM and NMOCD regulations. Obtain approval from BLM and NMOCD prior to making any changes or adjustments to the procedure.
    - 4) Plugs will be adjusted as necessary depending on the results of any RCBLs.
    - 5) Wait on cement, tag, and spot additional cement plugs as necessary depending on results of casing pressure tests.
    - 6) Hold safety meetings daily (minimum) with all personnel on location. Record tubing, casing, and bradenhead pressures daily on reports.
    - 7) Test and install rig anchors, if necessary (if rig does not have a base-beam).
- **PROCEDURE:** 1) MIRU daylight pulling unit and associated equipment.
  - 2) Blow down well. Kill well. ND WH. NU BOPE and test.
  - **3)** TOH and LD production tubing
  - **4)** PU and TIH with 2-3/8" work-string and 4-1/2" casing scraper to 5,322' (top Gallup perf). TOH. LD scraper.

### 5) PLUG #1: GALLUP PERFORATIONS, GALLUP TOP

TIH with 4-1/2" CICR on 2-3/8" work-string. Set CICR. MIRU Cementers. Pump cement. TOH.

	12 sx	TOTAL	
Cement Volume:	12 sx	ABOVE CICR	
Plug Coverage:	5,172'	to	5,272'
4-1/2" CICR:	5,272'		

### 6) PLUG #2: MANCOS PERFORATIONS, MANCOS TOP

TIH with 4-1/2" CICR on 2-3/8" work-string. Set CICR. Prior to pumping cement, load casing and pressure test to 550 psig for 30 minutes. Pump cement. Pull up hole to spot additional plugs.

4-1/2" CICR:	4,448'		
Plug Coverage:	4,348'	to	4,448'

Cement Volume:	12 sx	ABOVE CICR	
—	12 sx	TOTAL	
7) PLUG #3: CLIFFHOUSE TOP			
Spot balanced plug. Pull up	hole.		
Plug Coverage:	3 <i>,</i> 456'	to	3 <i>,</i> 556'
Cement Volume:	12 sx		
	12 sx	TOTAL	
8) PLUG #4: CHACRA TOP			
Spot balanced plug. Pull up	hole.		
Plug Coverage:	2,367'	to	2,467'
Cement Volume:	12 sx		
	<b>12</b> sx	TOTAL	
9) PLUG #5: PICTURED CLIFFS	TOP, FRU	ITLAND TOP	
Spot balanced plug. TOH.			
Plug Coverage:	1,710'	to	2,047'
Cement Volume:	31 sx		
	<b>31 sx</b>	TOTAL	
10) PLUG #6: KIRTLAND TOP, O	JO ALAM	Ο ΤΟΡ	
Spot balanced plug. Pull up	hole.		
Plug Coverage:	1,367'	to	1,579'
Cement Volume:	21 sx		
	21 sx	TOTAL	
11) PLUG #7: NACIMIENTO TOI	D		
Spot balanced plug. Pull up	hole.		
Plug Coverage:	687'	to	787'
Cement Volume:	12 sx		
	12 sx	TOTAL	
12) PLUG #8: SURFACE CASING	SHOE, SU	IRFACE	
Spot balanced plug. TOH.			
Plug Coverage:	0'	to	289'
Cement Volume:	27 sx		

- 13) ND BOPE. Cut off casing and wellhead (minimum of 3' below finished grade). Top off annulus and casing with cement, if required. RDMO cement equipment. Install below-grade P&A marker (minimum 1/4" thick steel plate with weep hole, welded in place covering the well, well information permanently inscribed). RDMO.
- **14)** Complete surface reclamation as per approved reclamation plan.

*Created by:* A. Bridge 5/11/2020

# SURFACE RECLAMATION PLAN

*Theodore Zink COM 001 API No. 30-039-22923 NMNM-023231* 

June 2020



# **ENDURING RESOURCES IV, LLC**

200 Energy Court Farmington, New Mexico 87401 Phone: (505) 636-9720

Released to Imaging: 3/16/2022 9:40:27 AM

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Operator:	Enduring Resources IV, LLC (Enduring)
Well Name and Number:	Theodore Zink COM 001
API Number:	30-039-22923
Legal Location:	NW ¼ of the NW ¼ Sec. 15, T23N, R06W

**P&A Reclamation Plan** 

### **1** Introduction

This reclamation plan has been prepared to meet the requirements and guidelines of Onshore Oil and Gas Order No. 1 and supplemental guidance thereto; including, the BLM's Gold Book. This plan describes the final reclamation procedures, any changes if applicable based on the surface managing agencies designated final land use plan, and any mitigation measures associated with final reclamation performed by the operator. Final reclamation is considered complete when the success criteria outlined in this plan has been met and a final abandonment notice (FAN) has been received.

Enduring or their appointed contractor would call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipelines or cables located in proximity to the project area or any other areas anticipated to have ground disturbance at least two working days prior to ground disturbance.

Enduring or their appointed contractor would notify the BLM-FFO by phone or email 48 hours in advance of dirt work reclamation activities.

The Enduring Resources IV, LLC contact person for this reclamation plan is:

Casey Haga Surface Permitting Specialist Enduring Resources IV, LLC 200 Energy Court Farmington, New Mexico 87401 505-636-9752

### 2 **Pre-Reclamation Site Inspection**

A pre-reclamation site inspection for the Theodore Zink COM 001 was conducted on May 20, 2020 by Casey Haga and David Rogers with Enduring and May 28, 2020 by Casey Haga and David Rogers with Enduring and Randy Mckee with the BLM-FFO. During the inspections, an inventory of site conditions and equipment was conducted. Reclamation procedures were discussed, including recontouring, silt trap placement, seed mix selection, weed abatement procedures and any additional requirements needed to assist in reclaiming the area to as close to pre-disturbance conditions as practicable.

### 2.1 Vegetation Community

The vegetation community that best represents the surrounding project area is sagebrush shrubland valleys with Piñon/Juniper woodland hills and mesas. Since the location sits at the ecotone between these two communities, the reclaimed area will be seeded with BLM's sagebrush seed mix.

#### 2.2 Proposed Reclamation Seed Mix

Disturbance will be recontoured and topsoil will be redistributed and prepared for seeding. Ripping, disking, and seeding of the site will be done by Enduring's construction contractor. The seed mix is

#### listed in detail in Table 1 below.

Table	1.	Reclamation	Seed Mix
-------	----	-------------	----------

Common Name	Scientific Name	Season	Form	PLS lbs/acre <sup>1</sup>
Fourwing Saltbrush	Atriplex canescens	Cool	Shrub	2.0
Winterfat	Krascheninnikovia lanata	Cool	Shrub	2.0
Indian Ricegrass Rimrock	Achnatherum hymenoides	Cool	Bunch	4.0
Blue Grama	Bouteloua gracilis	Warm	Sod	2.0
Sand Dropseed	Sporobolus cryptandrus	Warm	Bunch	0.5
Western wheatgrass	Pascopyrum smithii	Cool	Sod	4.0
Bottle brush squirreltail	Elymus elymoides	Cool	Bunch	3.0
Small burnet	Sanguisorba minor	Cool	Forb	2.0
Blue flax	Linum lewisii	Cool	Forb	0.25

<sup>1</sup>Based on 60 pure live seeds (PLS) per square foot, drill seeded; double this rate (120 PLS per square foot) if broadcast or hydro-seeded.

#### 2.3 Pre-Reclamation Weed Survey

There was no contaminated soil observed on the surface of location. Once equipment is removed, further inspection of the soil under these facilities would be conducted to ensure no leaks had occurred contaminating the soil beneath. Soil testing may occur if determined to be necessary. If contaminated soil is encountered, it will be removed and hauled to an approved landfarm for remediation.

#### 2.4 Contaminated Soil and Soil Amendments

There was no contaminated soil observed on the surface of location. Once equipment is removed, further inspection of the soil under these facilities would be conducted to ensure no leaks had occurred contaminating the soil beneath. Soil tests may occur if determined to be necessary. If contaminated soil is encountered, it will be removed and hauled to an approved landfarm for remediation.

#### 2.5 Equipment and Facility Removal

- All Production equipment including steel tank, above grade fiberglass pit tank, separator, artificial lift equipment, meter run, methanol tank, and drip pot if present will be removed from location.
- Ancillary equipment including concrete slabs, fencing, anchors, and flow lines (above ground and/or buried) will also be removed and disposed of appropriately or reused.
- Debris and trash will be removed and disposed of at approved facilities.
- BLM requests that the well-connect pipeline be cut and capped off location on the west side of CR 379/NM 403. The pipeline needs removed from location and from under roadway. Additionally, BLM request that the pipeline be cut and caped at the tie in point.
- There is no catholic groundbed on location.
- The power line drop pole that serves the artificial lift equipment will be removed. Removal of the service poles to location is not required.
- The gravel present on location under the steel tank and separator will be stripped as practicable and spread over main roadway adjacent to location. Any remaining gravel that cannot be separated from soil adequately for reuse will be buried in the cut slope.
- Wellhead will be removed upon plugging and an above ground well monument installed.

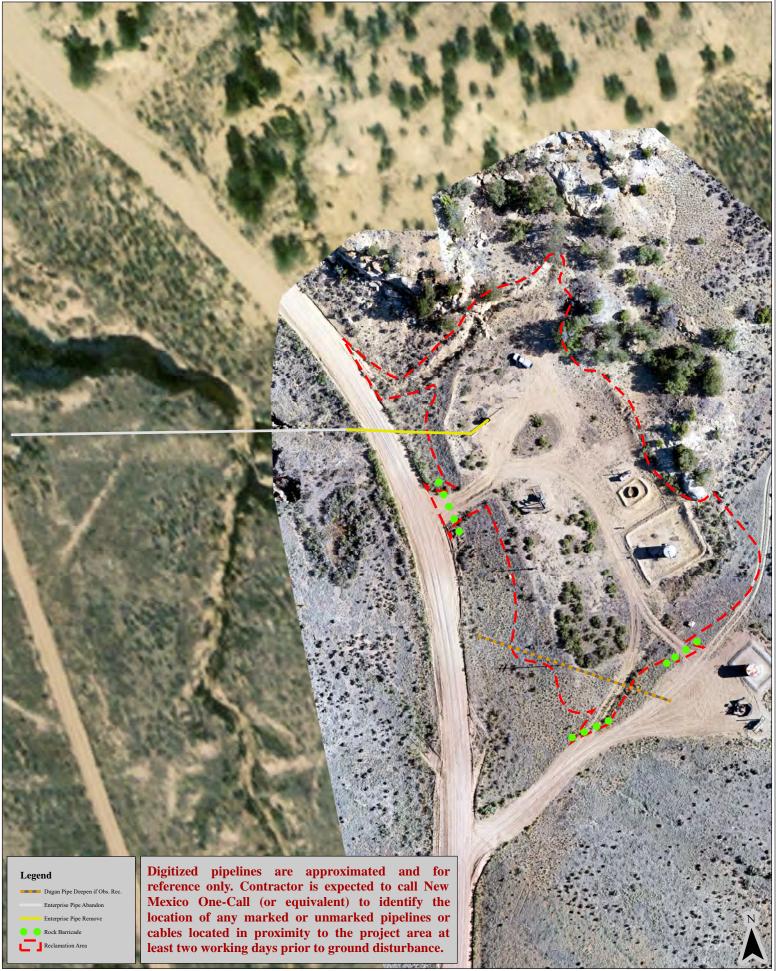
### 2.6 Equipment and Facilities to Remain

- No above grade facilities will remain related to the Theodore Zink COM 001 well.
- The power line service poles to location will remain. However, the drop pole and equipment related to, will be removed.
- Dugan has a trunk pipeline that runs through the well pad fill slope on the southwest corner of location. This pipeline will need deepened if not within native ground. The pipeline will not be removed.

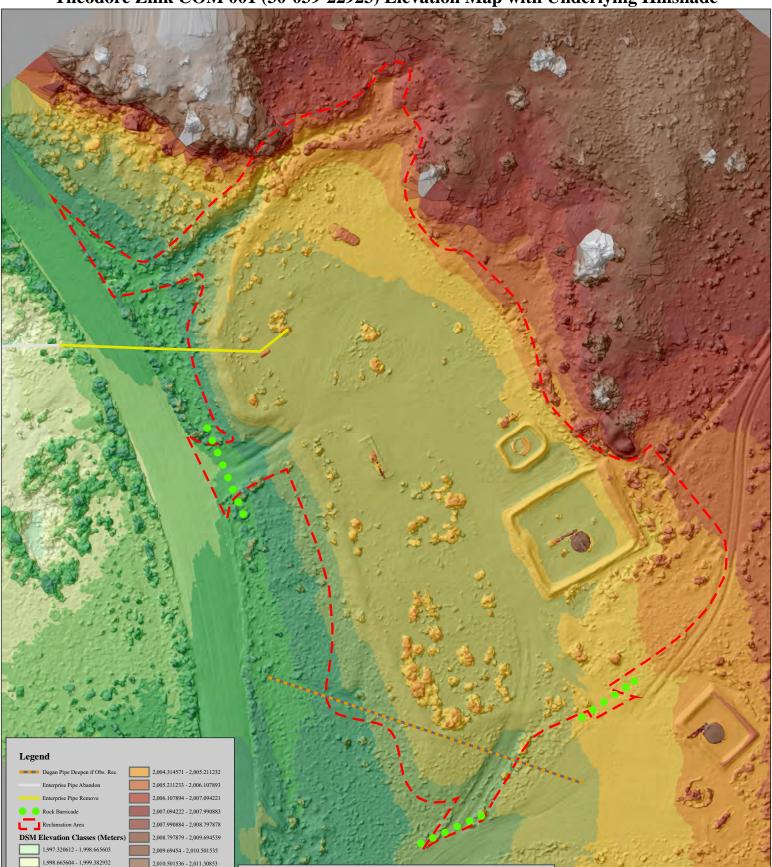
2.7 Project Area Maps

See project area maps on the following two pages.

Received by OCD: 6/14/2021 2:53:48 PM Theodore Zink COM 001 (30-039-22923) Orthomosaic Image Map



25 50 100 Feet Received by OCD: 6/14/2021 2:53:48 PM Theodore Zink COM 001 (30-039-22923) Elevation Map with Underlying Hillshade



Digitized pipelines are approximated and for reference only. Contractor is expected to call New Mexico One-Call (or equivalent) to identify the location of any marked or unmarked pipelines or cables located in proximity to the project area at least two working days prior to ground disturbance.

50

25

100

Feet

2,011.308531 - 2,012.294858

2,012.294859 - 2,013.101853

2.013.101854 - 2.013.998515

2,013.998516 - 2,014.895176

2,014.895177 - 2,015.702171

2,015.702172 - 2,017.316162

1,999.382933 - 2,000.010595

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2,001.176256 - 2,001.893584

2.001.893585 - 2.002.70058

2,002.700581 - 2,003.507575

003.507576 - 2,004.31457



## **3** Reclamation Techniques

All activities associated with the abandonment of the Theodore Zink COM 001 well are limited to areas approved in the Application for Permit to Drill (APDs) and/or the Right-of-Way (ROW) Grants.

### 3.1 P&A Marker

An above grade steel pipe well monument will be fixed to the top of the wellbore with all information required per regulation legibly welded on the pipe.

### 3.2 Vegetation and Site Clearing

Vegetation that has re-established within the interim reclaimed portions of the disturbance area will be mulched and incorporated into the topsoil as additional organic matter.

### 3.3 Topsoil Stripping, Storage, and Replacement

The upper 6 inches of topsoil (if available) will be stripped following vegetation and site clearing. Topsoil will not be mixed with the underlying subsoil horizons and will be temporarily stockpiled separate from subsoil or other excavated material during recontouring. Topsoil will be spread evenly over sub-soils upon completion of recontouring operations and prior to final seedbed preparation. Spreading shall not be done when the ground or topsoil is to wet to adequately support construction equipment.

### 3.4 Recontouring

All disturbed areas related to the Theodore Zink COM 001 will be recontoured to blend with the surrounding landscape, emphasizing, restoration of the existing drainage patterns and landforms to pre-construction condition to the extent practicable.

### 3.4.1 Well Pad

The well pad will be contoured to blend with the surrounding landforms removing signs of cut/fill slopes. The fill slope on the western side of location will be pushed (dozer)/ excavated (excavator)/ or carried (belly scraper) and placed within the cut slope on the eastern side of location. Natural rolling contours will be implemented to break up the surface and aid in removing signs of the well pad once vegetation establishes. Storm water entering the eastern side of location will be gathered in multiple silt traps to be constructed atop the cut slope at the entry of each drainage onto reclamation. Additional silt traps may be implemented across the lower areas of the recontoured well pad as needed. These silt traps will help slow the velocity of storm water through location, allow settling of suspended materials, and minimize erosion. The exact location and size of these silt traps will be determined during reclamation to best fit the recontoured terrain. Excelsior waddles or other biodegradable material may be used to prevent cutting and sediment transportation if needed within diversions and spillways. There is currently a large diversion that takes storm water around the northern end of location. This diversion will be filled in and all erosion related thereto on the eastern side of CR 379/NM 403 filled. Access points to the reclaimed location will be barricaded with large rock that can be sources on the northern edge of location.

### 3.4.2 Access Road

The Theodore Zink COM 001 has several access points off adjacent CR 379/NM 403 and Dugan's Gallo Gathering System CDP location. Total consolidated length of all access points is approximately 200 feet. Since these access roads are short and predominantly within well pad

disturbance, they will be reclaimed concurrently with the pad. Silt traps may be incorporated into the reclaimed access points to discourage use after reclamation and reduce erosion. The reclaimed access points will be ripped if needed and seeded. The access points will be barricaded with large sandstone rocks that can be sourced from the northern end of the well pad. Please see the orthomosaic image map in section 2.7 for location of barricade.

### 3.4.3 Pipeline Corridor

BLM requests that the well-connect pipeline be cut and capped off location on the west side of CR 379/NM 403. The pipeline needs removed from location and from under roadway. Additionally, BLM request that the pipeline be cut and caped at the tie in point. Disturbance resulting from pipeline work will be reclaimed.

### 3.5 Water Management/Erosion Control Features

Multiple silt traps will be incorporated into the reclamation. At least three of these silt traps will be on the eastern side of location where storm water will channel onto the reclamation due to the natural surrounding terrain. Additional silt traps and low pocket areas may be established within the reclaimed roadway and down gradient within location. The exact location and size of silt traps will be determined during reclamation to best fit the recontoured terrain. Diversions will be incorporated as needed. Diversions will be via rolling berms as opposed to cut diversion ditches. Excelsior waddles or other biodegradable material may be used to prevent cutting and sediment transportation if needed within diversions and spillways. If additional diversions or silt traps are found to be necessary during reclamation dirt work, they will be installed at that time. Ripping and disking would be conducted perpendicular to the recontoured slopes to promote water retention and provide terracing to prevent erosion and rills. Additional erosion control or water management features that may be used, if needed, include (but are not limited to) water bars or rolling dips, check dams, erosion control blankets or geotextiles, and straw wattles.

### 3.6 Seedbed Preparation

Seedbed will be prepped after the location has been contoured and topsoil has been evenly redistributed. Seedbed preparation within compacted areas will include ripping to a minimum depth of 18 inches, unless bed rock is encountered at a shallower depth, and spacing furrows 2 feet apart. Ripping will be conducted perpendicularly in two phases, where practicable. If large clumps/clods result from the ripping process, disking will be conducted perpendicular to slopes in order to provide terracing and minimize runoff and erosion. 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.

### 3.7 Seeding

**Prior to seeding, the contractor is to notify Enduring resources that dirt work is complete. The BLM and Enduring will inspect the recontoured location and silt traps prior to seeding.** The seed mix chosen for this project area is listed in Table 1. Seeding will occur immediately following recontouring and seedbed preparation. A disc-type seed drill with two boxes for various seed sizes will be utilized for seeding. Enduring or its reclamation subcontractor 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 0.5 inch, larger seeds (such as Indian ricegrass) will be planted at a depth of 1 to 2 inches, and small seeds (such as sand dropseed) will be planted at a depth of 0.25 inch. In situations where differing planting depths are not practicable with the equipment being used, the entire mix will be planted no deeper than 0.25 inch. A drag, packer, or roller will follow the seeder to ensure uniform seed coverage and adequate compaction. Seeding will

be run perpendicular to slopes in order to minimize runoff and erosion.

Drill seeding may be used on well-packed and stable soils that occur on gentler slopes and where tractors and drills can safely operate. Where drill seeding is not practical, the contractor will hand-broadcast seed using a "cyclone" hand seeder or similar broadcast seeder. Galleta and seeds the like, may also be broadcast; due to the light fluffy nature of these seeds, they do not seed well through a drill 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.

### 3.8 Vegetation Reclamation Standards

Reclamation will be deemed successful when a self-sustaining, vigorous, diverse, native (or otherwise accepted) plant community is established on site, with a density meeting required foliar cover in table 2 below. Erosion control will be deemed successful when the aforementioned vegetation has established and there is no gullying, headcutting, deep or excessive rilling, and slumping (unless intentionally depressed (silt trap) for velocity and volume control).

Table 2. Reclamation Goal for Sagebrush/Grass Community

Functional Group	Percent (%)	Common Species
	Foliar Cover	
Trees/Shrubs/Grasses/Forbs	>35	Utah juniper, Piñon pine; big sagebrush, four-wing
		saltbush, antelope bitterbrush, alkali sacaton, Western
		wheatgrass, Indian ricegrass, galleta, sand dropseed,
		scarlet globemallow, wooly Indian wheat, fleabane,
		Penstemon spp., buckwheat, threadleaf groundsel.
Invasive/undesirables	≤10	Plants that have the potential to become a dominant
10% allowed toward		species on a site where its presence is a detriment to
meeting standard of 35%.		revegetation efforts or the native plant community.
meeting standard of 55 %.		Examples of invasive species include cheatgrass, Russian
		thistle, kochia.

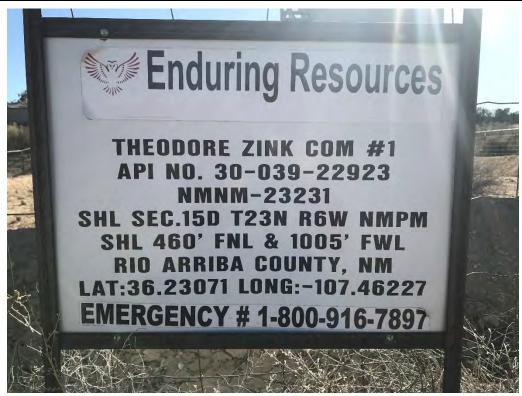
### 3.9 Noxious and Invasive Weed Control

Should any noxious or invasive weeds be documented on any portions of the action area after earthwork and seeding activities, the BLM-FFO weed coordinator would provide Enduring with specific requirements and instructions for weed treatments, including the period of treatment, list of approved herbicides, required documentation to be submitted to the BLM-FFO after treatment, and any other site-specific instructions that may be applicable.

### **4** Monitoring Requirements

Enduring will complete a site assessment of reclamation success on an annual basis to track and confirm successful reclamation of the site in accordance with the success criteria outlined in Table 2 above. When vegetation on the reclaimed site appears to meet the success criteria, Enduring will document that standards have been obtained and submit a Final Abandonment Notice (FAN).

### 5 Pre-Reclamation Site Photographs



#### Figure 1. Well sign.



Figure 2. Access road entry 1 start looking northeast.

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Figure 3. Access road entry 2 mid looking southwest.



Figure 4. Access road entry 3 mid looking southeast.



Figure 5. Production equipment to be removed.



*Figure 6. Production equipment to be removed.* 



Figure 7. Production equipment to be removed.



Figure 8. Possible drip pot in foreground to be removed.



Figure 9. Electric drop pole to be removed.



Figure 10. Production equipment to be removed and well to be plugged.



Figure 11. Measurement equipment to be removed.



Figure 12. Methanol drip equipment to be removed.



*Figure 13. Enterprise pipeline leaving location looking west-northwest. BLM requests pipeline be cut and capped on opposite side of roadway and removed roadway and location.* 



Figure 14. Fill slope on northwest corner looking southeast.

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Figure 15. Near northwest corner looking south-southeast across fill slope.



Figure 16. Near southwest corner looking northwest across fill slope.



Figure 17. Near southwest corner looking northeast up fill slope toward cut.



Figure 18. Cut slope at southeast corner behind tank looking northwest.



Figure 19. On eastern side looking south along cut slope.



Figure 20. On eastern side looking north-northwest along cut slope.



Figure 21. Northeast corner looking west-south west down cut slope toward fill.



Figure 22. Diversion atop cut slope on northern end of location.

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Figure 23. Erosion from diversion that will be filled and reclaimed.

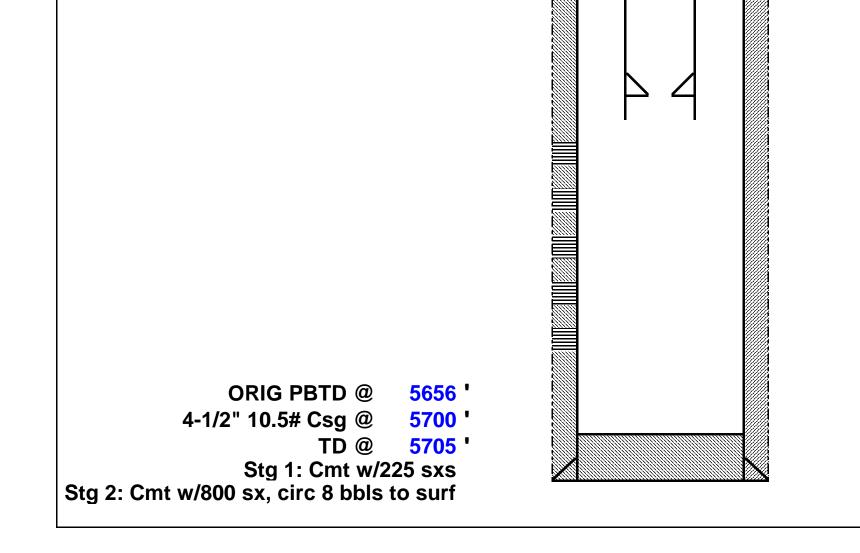
### **6** References

- 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. 10328-1033
- BLM. 2013a. Farmington Field Office Bare Soil Reclamation Procedures. Available at: http://www.emnrd.state.nm.us/MMD/AML/documents/FFOBareSoilReclamationProcedures 2-1-13.pdf. Accessed October 2019.
- 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.

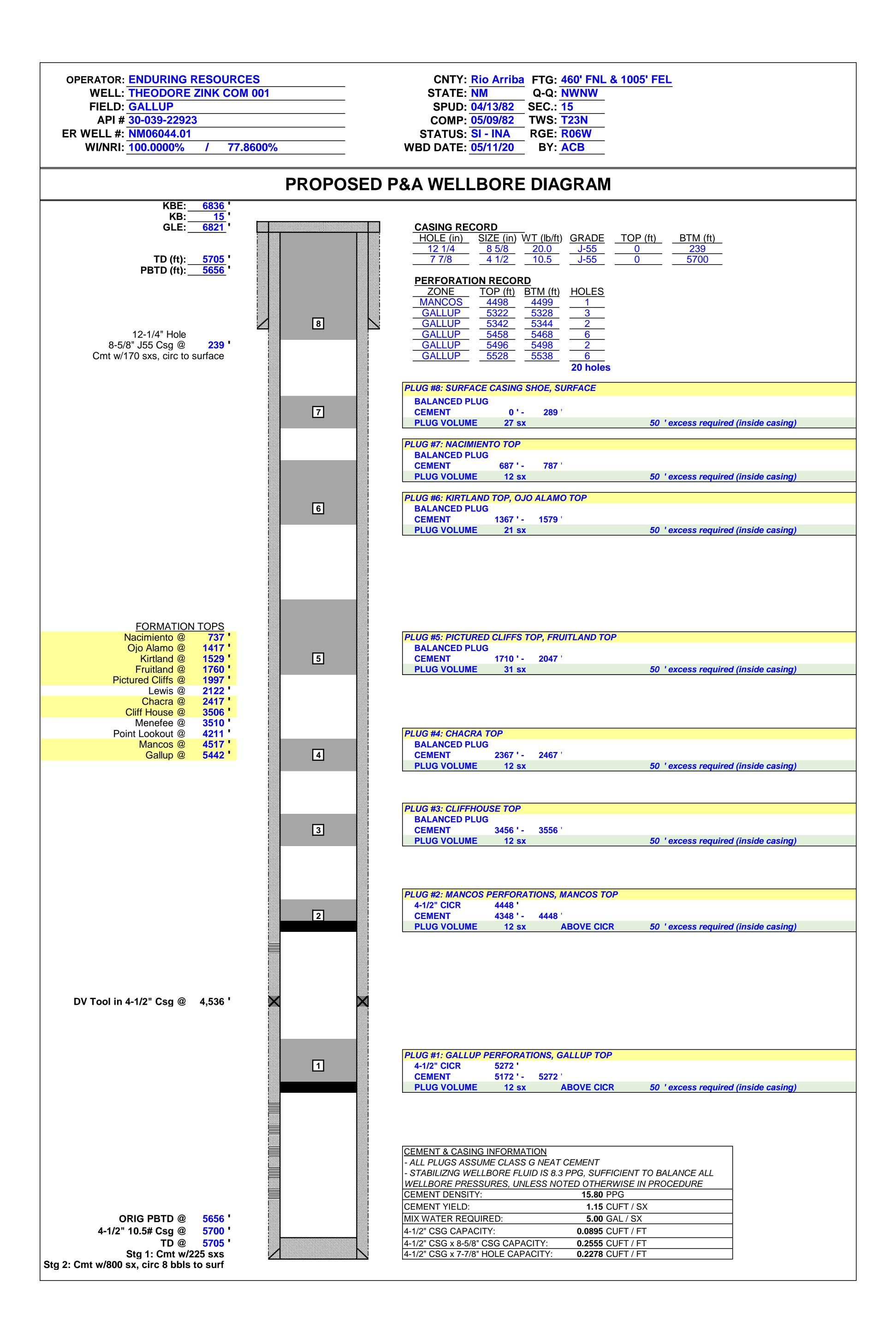
API # <u>30-039-22923</u> R WELL #: <u>NM06044.01</u> WI/NRI: <u>100.0000%</u> / <u>77.8600%</u>		COMP: 05/09/82 TWS: T23N   STATUS: SI - INA RGE: R06W   WBD DATE: 05/11/20 BY: ACB
	CURRENT	T WELLBORE DIAGRAM
KBE: <u>6836</u> ' KB: <u>15</u> '		
GLE: <u>6821</u> '		CASING RECORD
TD (ft): <u>5705</u> ' PBTD (ft): <u>5656</u> '		HOLE (in)SIZE (in)WT (lb/ft)GRADETOP (ft)BTM (ft)12 1/48 5/820.0J-5502397 7/84 1/210.5J-5505700
		TUBING RECORD COND: DATE:   SIZE (in) WT (lb/ft) GRADE TOP (ft) TALLY (ft) JTS
12-1/4" Hole		<u>2 3/8 4.7 J55 0 5280.00 162</u>
8-5/8" J55 Csg @ 239 '		PERFORATION RECORD
Cmt w/170 sxs, circ to surface		ZONETOP (ft)BTM (ft)HOLESSTAGESTATUSVOL / PROPMANCOS449844991175Q N2
		GALLUP   5322   5328   3   1   75Q N2
		GALLUP 5342 5344 2 1 75Q N2
		GALLUP   5458   5468   6   1   75Q N2     GALLUP   5496   5498   2   1   75Q N2
		GALLUP 5528 5538 6 1 75Q N2
		20 holes 165,600 lbs

FORMATION	TOPS
Nacimiento @	737 '
Ojo Alamo @	1417 '
Kirtland @	1529 '
Fruitland @	1760 <b>'</b>
Pictured Cliffs @	1997 '
Lewis @	2122 '
Chacra @	2417 '
Cliff House @	3506 '
Menefee @	3510 '
Point Lookout @	4211 '
Mancos @	4517 '
Gallup @	5442 '

DV Tool in 4-1/2" Csg @ 4,536 '



.



### **ENDURING RESOURCES IV, LLC**

### PLUG AND ABANDONMENT PROCEDURE

WELL:	THEODORE ZINK COM 001
API:	30-039-22923
ER WELL:	NM06044.01
LOCATION:	460' FNL & 1005' FEL, Sec.15, T23N, R06W

- **COUNTY:** Rio Arriba
  - STATE: NM
  - NOTES: 1) All cement volumes assume 100% excess volume outside pipe and 50' excess inside pipe. Cement will be Class 'G' (15.8 ppg and 1.15 cuft/sx). A stabilizing wellbore fluid with density of 8.3 ppg will be sufficient to balance pressures encountered in the well.
    - 2) Any waste fluids circulated from the well to surface, including excess cement, will be stored in steel tanks and then disposed of at an approved disposal facility.
    - **3)** Notify BLM and NMOCD prior to beginning well-work operations. Comply with all BLM and NMOCD regulations. Obtain approval from BLM and NMOCD prior to making any changes or adjustments to the procedure.
    - 4) Plugs will be adjusted as necessary depending on the results of any RCBLs.
    - 5) Wait on cement, tag, and spot additional cement plugs as necessary depending on results of casing pressure tests.
    - 6) Hold safety meetings daily (minimum) with all personnel on location. Record tubing, casing, and bradenhead pressures daily on reports.
    - 7) Test and install rig anchors, if necessary (if rig does not have a base-beam).
- **PROCEDURE:** 1) MIRU daylight pulling unit and associated equipment.
  - 2) Blow down well. Kill well. ND WH. NU BOPE and test.
  - **3)** TOH and LD production tubing
  - **4)** PU and TIH with 2-3/8" work-string and 4-1/2" casing scraper to 5,322' (top Gallup perf). TOH. LD scraper.

#### 5) PLUG #1: GALLUP PERFORATIONS, GALLUP TOP

TIH with 4-1/2" CICR on 2-3/8" work-string. Set CICR. MIRU Cementers. Pump cement. TOH.

	12 sx	TOTAL	
Cement Volume:	12 sx	ABOVE CICR	
Plug Coverage:	5,172'	to	5,272'
4-1/2" CICR:	5,272'		

### 6) PLUG #2: MANCOS PERFORATIONS, MANCOS TOP

TIH with 4-1/2" CICR on 2-3/8" work-string. Set CICR. Prior to pumping cement, load casing and pressure test to 550 psig for 30 minutes. Pump cement. Pull up hole to spot additional plugs.

4-1/2" CICR:	4,448'		
Plug Coverage:	4,348'	to	4,448'

Cement Volume:	12 sx	ABOVE CICR	
—	12 sx	TOTAL	
7) PLUG #3: CLIFFHOUSE TOP			
Spot balanced plug. Pull up	hole.		
Plug Coverage:	3 <i>,</i> 456'	to	3,556'
Cement Volume:	12 sx		
_	12 sx	TOTAL	
8) PLUG #4: CHACRA TOP			
Spot balanced plug. Pull up	hole.		
Plug Coverage:	2,367'	to	2,467'
Cement Volume:	12 sx		
	12 sx	TOTAL	
9) PLUG #5: PICTURED CLIFFS	TOP, FRU	ITLAND TOP	
Spot balanced plug. TOH.			
Plug Coverage:	1,710'	to	2 <i>,</i> 047'
Cement Volume:	31 sx		
	<b>31</b> sx	TOTAL	
10) PLUG #6: KIRTLAND TOP, C	JO ALAM	Ο ΤΟΡ	
Spot balanced plug. Pull up	hole.		
Plug Coverage:	1,367'	to	1,579'
Cement Volume:	21 sx		
	<b>21</b> sx	TOTAL	
11) PLUG #7: NACIMIENTO TOI			
Spot balanced plug. Pull up			
Plug Coverage:	687'	to	787'
Cement Volume:	12 sx		
	<b>12</b> sx	TOTAL	
12) PLUG #8: SURFACE CASING	SHOE, SU	IRFACE	
Spot balanced plug. TOH.			
Plug Coverage:	0'	to	289'
Cement Volume:	27 sx		
	27 sx	TOTAL	

- 13) ND BOPE. Cut off casing and wellhead (minimum of 3' below finished grade). Top off annulus and casing with cement, if required. RDMO cement equipment. Install below-grade P&A marker (minimum 1/4" thick steel plate with weep hole, welded in place covering the well, well information permanently inscribed). RDMO.
- **14)** Complete surface reclamation as per approved reclamation plan.

*Created by:* A. Bridge 5/11/2020

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

COMMENTS

Operator: 0	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	31914
	Action Type:
	[C-103] NOI Plug & Abandon (C-103F)

#### COMMENTS

Created By		Comment Date
kpickford	KP GEO Review 6/22/2021	6/22/2021

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Action 31914

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

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

CONDITIONS

Operator:	OGRID:
ENDURING RESOURCES, LLC	372286
6300 S Syracuse Way, Suite 525	Action Number:
Centennial, CO 80111	31914
	Action Type:
	[C-103] NOI Plug & Abandon (C-103F)

#### CONDITIONS

CONDITIONS		
Created By	Condition	Condition Date
kpickford	Notify NMOCD 24 Hours Prior to beginning operations	6/22/2021
kpickford	In addition to BLM approved plugs:	6/22/2021
kpickford	Ensure coverage from 3620-3520 to cover the MV top at 3570.	6/22/2021
kpickford	Ensure coverage from 2830-2730 to cover the Chacra top @ 2780	6/22/2021
kpickford	Extend top of PC/Fruitland plug to 1660 to cover the Furitland top @ 1710.	6/22/2021
kpickford	Extend bottom of Kirtland/Ojo plug to 1658 to cover the Kirtland top @ 1608.	6/22/2021

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Action 31914