

Submit One Copy To Appropriate District
Office
District I
1625 N. French Dr., Hobbs, NM 88240
District II
811 S. First St., Artesia, NM 88210
District III
1000 Rio Brazos Rd., Aztec, NM 87410
District IV
1220 S. St. Francis Dr., Santa Fe, NM
87505

State of New Mexico
Energy, Minerals and Natural Resources

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

Form C-103

Revised November 3, 2011

WELL API NO. 30-039-21749	
5. Indicate Type of Lease STATE <input type="checkbox"/> FEE <input type="checkbox"/>	
6. State Oil & Gas Lease No.	
7. Lease Name or Unit Agreement Name Largo Spur	
8. Well Number 4	
9. OGRID Number	
10. Pool name or Wildcat PC	
SUNDRY NOTICES AND REPORTS ON WELLS (DO NOT USE THIS FORM FOR PROPOSALS TO DRILL OR TO DEEPEN OR PLUG BACK TO A DIFFERENT RESERVOIR. USE "APPLICATION FOR PERMIT" (FORM C-101) FOR SUCH PROPOSALS.) 1. Type of Well: <input type="checkbox"/> Oil Well <input checked="" type="checkbox"/> Gas Well <input type="checkbox"/> Other 2. Name of Operator M&M Production Company (Operator). Record Title Holder: Merrion Oil & Gas Corp 3. Address of Operator 610 Reilly Ave Farmington NM 87401 4. Well Location Unit Letter <u>I</u> : <u>1580</u> feet from the <u>S</u> line and <u>810</u> feet from the _____ line Section <u>18</u> Township <u>24N</u> Range <u>6W</u> NMPM _____ County <u>Rio Arriba</u> 11. Elevation (Show whether DR, RKB, RT, GR, etc.)	
12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data	
NOTICE OF INTENTION TO: PERFORM REMEDIAL WORK <input type="checkbox"/> PLUG AND ABANDON <input checked="" type="checkbox"/> TEMPORARILY ABANDON <input type="checkbox"/> CHANGE PLANS <input type="checkbox"/> PULL OR ALTER CASING <input type="checkbox"/> MULTIPLE COMPL <input type="checkbox"/> OTHER: <input type="checkbox"/>	SUBSEQUENT REPORT OF: REMEDIAL WORK <input type="checkbox"/> ALTERING CASING <input type="checkbox"/> COMMENCE DRILLING OPNS. <input type="checkbox"/> P AND A <input type="checkbox"/> CASING/CEMENT JOB <input type="checkbox"/> <input type="checkbox"/>

Merrion Oil & Gas was required to Plug & Abandon the afore mentioned well per BLM as record title holder-

Per Notice of Written Order
3160 (LLNMF01110)
NMSF 078562
24KGR0013W

Please the attached BLM COAs. A CBL will be run prior to the start of plugging operations. BLM has granted an extension to PA by 9/1/2025 with an onsite to follow immediately following the successful PA of the facility to begin reclamation.

SIGNATURE Philana Thompson TITLE Regulatory Compliance Spec DATE 8/13/2025

TYPE OR PRINT NAME Philana Thompson E-MAIL: pthompson@merrion.bz PHONE: 505-486-1171
For State Use Only

APPROVED BY: _____ TITLE _____ DATE _____

Well Name: LARGO SPUR	Well Location: T24N / R6W / SEC 18 / NESE / 36.309204 / -107.502945	County or Parish/State: RIO ARRIBA / NM
Well Number: 4	Type of Well: CONVENTIONAL GAS WELL	Allottee or Tribe Name:
Lease Number: NMSF078562	Unit or CA Name:	Unit or CA Number:
US Well Number: 3003921749	Operator: M & M PRODUCTION & OPERATION	

Notice of Intent

Sundry ID: 2828904

Type of Submission: Notice of Intent	Type of Action: Plug and Abandonment
Date Sundry Submitted: 12/26/2024	Time Sundry Submitted: 09:15
Date proposed operation will begin: 01/01/2025	

Procedure Description: See attached. Merrion Oil & Gas Corporation is completing work as record title owner of lease.

Surface Disturbance

Is any additional surface disturbance proposed?: No

Oral Submission

Oral Notification Date:	Dec 20, 2024	Oral Notification Time:	12:00 AM
Contacted By:	Philana Thompson	Contact's Email:	pthompson@merrion.bz
Comments:	Submitted by Merrion Oil & Gas Corporation as record title owner of lease.		

Well Name: LARGO SPUR

Well Location: T24N / R6W / SEC 18 / NESE / 36.309204 / -107.502945

County or Parish/State: RIO ARRIBA / NM

Well Number: 4

Type of Well: CONVENTIONAL GAS WELL

Allottee or Tribe Name:

Lease Number: NMSF078562

Unit or CA Name:

Unit or CA Number:

US Well Number: 3003921749

Operator: M & M PRODUCTION & OPERATION

Conditions of Approval

Specialist Review

2828904_4_3003921749_NOIA_KR_12232024_20241226092334.pdf

General_Requirement_PxA_20241226091837.pdf

2828904_Largo_Spur_4_PA_GeoReport_20241226091837.pdf

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: 12/26/2024

Signature: Kenneth Rennick

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

Sundry Notices and Reports on Wells

1. Type of Well:

☐ Oil Well ☒ Gas Well ☐ Other:

2. Name of Operator:

M&M Production Company Operator
Record Title Holder: Merrion Oil & Gas Corp

3. Address & Phone No. of Operator:

Record Title Holder Address:
610 Reilly Ave Farmington, NM 87401 505-324-5300

4. Location of Well, Footage, Sec., T, R, M:

NESE, 1580' FSL & 810' FEL, Sec. 18, T24N, R6W, NMPM

5. Lease Number:

NMSF 078562

6. If Indian, All. Or Tribe Name:

NA

7. Unit Agreement Name:

8. Well Name & Number:

Largo Spur #4

9. API Well No.:

30-039-21749

10. Field and Pool:

PC

11. County and State:

Rio Arriba County

12. CHECK APPROPRIATE BOX TO INDICATE NATURE OF NOTICE, REPORT, OTHER DATA

Type of Submission:

- ☒
- Notice of Intent
-
- ☐
- Subsequent Report
-
- ☐
- Final Abandonment

Type of Action:

- | | | |
|---|--|---|
| <input type="checkbox"/> Acidize | <input type="checkbox"/> Fracture Treat | <input type="checkbox"/> Recomplete |
| <input type="checkbox"/> Alter Casing | <input type="checkbox"/> New Construction | <input type="checkbox"/> Temp Abandon |
| <input type="checkbox"/> Casing Repair | <input checked="" type="checkbox"/> Plug & Abandon | <input type="checkbox"/> Water Disposal |
| <input type="checkbox"/> Change of Plans | <input type="checkbox"/> Plug Back | <input type="checkbox"/> Water Shut-off |
| <input type="checkbox"/> Convert to Injection | <input type="checkbox"/> Production (Start/Resume) | <input type="checkbox"/> Well Integrity |
| <input type="checkbox"/> Deepen | <input type="checkbox"/> Reclamation | <input checked="" type="checkbox"/> Other: rev C102 |

13. Describe Proposed or Completed Operation:

Per Notice of Written Order
3160 (LLNMF01110)
NMSF 078562
24KGR0013W

Merrion Oil & Gas hereby submits the attached Plug & Abandon procedure. Plug & Abandonment is to be concluded by 8/1/2025.

14. I hereby certify that the foregoing is true and correct.

Signed Philana Thompson Philana Thompson Title Regulatory Compliance Spec. Date 12/20/2024

(This space for Federal or State Office use)

APPROVED BY _____ Title _____ Date _____

CONDITION OF APPROVAL, if any:

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



P&A PROCEDURE

Well Information			
Well:	Largo Spur #004	Field:	Largo
Location:	1580' FSL & 810' FEL Sec 18, T24N, R06W Rio Arriba, NM	Elevations:	6,568' GL
		Depths:	2,135' TD, 2,102' PBTD
API:	30-039-21749	Date:	12/10/2024
Tubulars:	7" 26# @ 66' 2-7/8" 6.4# @ 2,125' 1-1/2" 2.75# J-55 @ 2,053' w/ packer @ 2053'	Engineer:	Shacie Murray (505.330.7605)
Perforations:	Picture Cliffs 2,064' – 2,101'		

Version 1: Procedure subject to change based on changing well conditions.

Project Scope

Plug and abandonment procedure for the Largo Spur #4

Prepare Well for Plugging

1. Inspect and test all anchors
2. Spot fresh water storage tank and a steel wash-up/circulation pit
3. Blow down csg and tbg if pressure is present
4. MIRU, ND WH, NU BOP
5. Release packer, TOO H and stand back pipe, inspect and tally on the way out.
 - Call for work string if needed
6. Round trip 2-1/4" bit & scraper to 2,060'
7. RU Wireline and run CBL to establish TOC
 - TOC could affect plugs, adjustments will be made as needed and approved by representatives on location.
8. PU 2-7/8" CIBP, RIH on wireline and set @ 2,014'
9. RD Wireline



P&A PROCEDURE

Isolate and Abandon Intervals

All plugs based on 15.8 ppg class G cement yield of 1.15 cu. ft./sx.

1. **Plug #1 (Picture Cliffs & Fruitland intervals, 2,101' – 1,808')**: TIH to CIBP, pressure test tbg. Load hole w/ water, test csg to 1,000# and establish circulation. Mix and pump 8 sxs (6 sxs for plug and 2 sxs excess) and spot plug from CIBP to 1,808' to isolate the Picture Cliffs and Fruitland intervals. PUH to 1,618'.
 - *If csg does not pressure test, WOC and tag top at 1,808' or higher and top off as needed.*
2. **Plug #2 (Kirtland Interval, 1,618' – 1,518')**: Mix and pump 5 sxs (3 sxs for plug and 2 sxs excess) and spot balanced plug from 1,618' to 1,518' to isolate Kirtland interval. PUH to 116'.
 - *If csg does not pressure test, WOC and tag top at 1,518' or higher and top off as needed.*
3. **Plug #3 (Surface Casing Shoe, 116' – 0')**: Mix and pump 5 sxs (3 sxs for plug and 2 sxs excess) and spot balanced plug from 116' and circulate good returns to surface to isolate the surface csg shoe. TOOH. Shut in well and WOC.
 - *If TOC is below surface casing shoe, perf @ 116' and establish circulation through bradenhead. Mix and pump ~ 40 sxs to get good returns to surface.*

Top Off Annuli and Install Monument

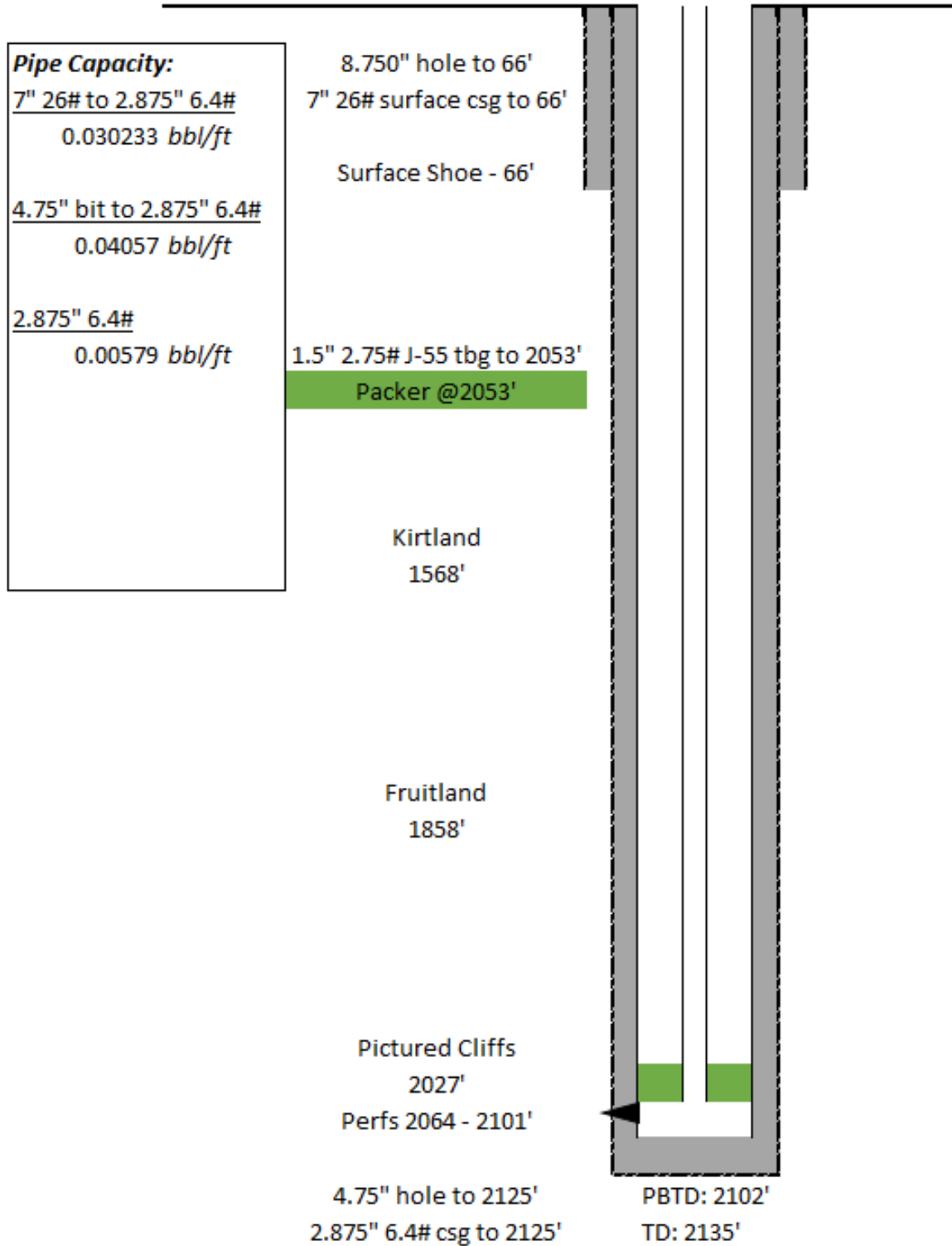
4. ND BOP and cut off wellhead below surface casing flange. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker. Photograph P&A marker in place.
5. RDMOL and cut off anchors.



P&A PROCEDURE

Curent Well Configuration:

Largo Spur #004 - 30-039-21749





P&A PROCEDURE

Proposed P&A Configuration:

Largo Spur #004 - 30-039-21749

Pipe Capacity:
7" 26# to 2.875" 6.4#
 0.030233 bbl/ft

4.75" bit to 2.875" 6.4#
 0.04057 bbl/ft

2.875" 6.4#
 0.00579 bbl/ft

Cement Properties:
Class G
 15.8 lb/gal
 1.15 cu. Ft/sx
 5.6146 cu. Ft/bbl

8.750" hole to 66'
7" 26# surface csg to 66'

Surface Shoe - 66'

Kirtland
1568'

Fruitland
1858'

Pictured Cliffs
2027'

Perfs 2064 - 2101'

4.75" hole to 2125'
2.875" 6.4# csg to 2125'

PBTD: 2102'
TD: 2135'

	Bottom	Top	Length	Inside (50' ex)	Outside (100% ex)	Total sxs
Plug 3	116	0	116	5	35	40
Perf @ 116'						
Plug 2	1618	1518	100	5		5
Plug 1	2014	1808	206	8		8
CIBP @ 1014'						
					Total:	53 sxs



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Boulevard, Suite A
Farmington, New Mexico 87402
<http://www.blm.gov/nm>



CONDITIONS OF APPROVAL

December 26, 2024

Notice of Intent – Plug and Abandonment

Operator: M & M Production & Operation
Merrion Oil & Gas Corporation will complete work as Record Title Owner

Lease: NMSF 078562

Well(s): Largo Spur 4, US Well # 30-039-21749

Location: NESE Sec 18 T24N R6W (Rio Arriba County, NM)

Sundry Notice ID #: 2828904

The Notice of Intent to Plug and Abandon is accepted with the following Conditions of Approval (COA):

1. Proposed work is to be completed by August 1, 2025.
2. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
3. The following modifications to your plugging program are to be made:
 - a. Modify the proposed plugs to account for the BLM geologist's formation top picks for the Fruitland and Kirtland. Minimum coverage for both formation tops are 50' below and 100' above.
 - b. Coverage is required for the Ojo Alamo formation top, BLM geologist's pick is 1400'. Minimum coverage is 50' below and 100' above.
4. Before or within 30 days after completing work, BLM Farmington Field Office must be contacted to schedule a reclamation onsite with a surface inspection staff.
5. **Notification:** Farmington Office is to be notified at least 24 hours before the plugging operations commence at (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 12/26/2024

BLM - FFO - Geologic Report

Date Completed: 23 Dec. 2024

Well No.	Largo Spur #4	Surf. Loc.	1580	FSL	810	FEL
API	30-039-21749		T. 24 N	R. 6 W	Section	18
Operator	Merrion Oil & Gas	County	Rio Arriba		State	NM
Elevation	6568					
Lease #	N/A					

Geologic Formations	Tops	Remarks
Ojo Alamo	1400	F/W Sands
Kirtland	1570	
Fruitland	1686	Coal, Gas
Pictured Cliffs	2023	Gas

Remarks: Add Plug for Ojo Alamo top, and adjust plug #1 to cover BLM-picked Fruitland formation top. Alternatively, plug Pic. Cliffs & Fruitland separately.

Completed by Alek Knapowski

**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), through the Automated Fluid Minerals Support System (AFMSS) 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.



P&A PROCEDURE

Well Information			
Well:	Largo Spur #004	Field:	Largo
Location:	1580' FSL & 810' FEL Sec 18, T24N, R06W Rio Arriba, NM	Elevations:	6,568' GL
		Depths:	2,135' TD, 2,102' PBTD
API:	30-039-21749	Date:	12/10/2024
Tubulars:	7" 26# @ 66' 2-7/8" 6.4# @ 2,125' 1-1/2" 2.75# J-55 @ 2,053' w/ packer @ 2053'	Engineer:	Shacie Murray (505.330.7605)
Perforations:	Picture Cliffs 2,064' – 2,101'		

Version 1: Procedure subject to change based on changing well conditions.

Project Scope

Plug and abandonment procedure for the Largo Spur #4

Prepare Well for Plugging

1. Inspect and test all anchors
2. Spot fresh water storage tank and a steel wash-up/circulation pit
3. Blow down csg and tbg if pressure is present
4. MIRU, ND WH, NU BOP
5. Release packer, TOO H and stand back pipe, inspect and tally on the way out.
 - Call for work string if needed
6. Round trip 2-1/4" bit & scraper to 2,060'
7. RU Wireline and run CBL to establish TOC
 - TOC could affect plugs, adjustments will be made as needed and approved by representatives on location.
8. PU 2-7/8" CIBP, RIH on wireline and set @ 2,014'
9. RD Wireline



P&A PROCEDURE

Isolate and Abandon Intervals

All plugs based on 15.8 ppg class G cement yield of 1.15 cu. ft./sx.

1. **Plug #1 (Picture Cliffs & Fruitland intervals, 2,101' – 1,808')**: TIH to CIBP, pressure test tbg. Load hole w/ water, test csg to 1,000# and establish circulation. Mix and pump 8 sxs (6 sxs for plug and 2 sxs excess) and spot plug from CIBP to 1,808' to isolate the Picture Cliffs and Fruitland intervals. PUH to 1,618'.
 - *If csg does not pressure test, WOC and tag top at 1,808' or higher and top off as needed.*
2. **Plug #2 (Kirtland Interval, 1,618' – 1,518')**: Mix and pump 5 sxs (3 sxs for plug and 2 sxs excess) and spot balanced plug from 1,618' to 1,518' to isolate Kirtland interval. PUH to 116'.
 - *If csg does not pressure test, WOC and tag top at 1,518' or higher and top off as needed.*
3. **Plug #3 (Surface Casing Shoe, 116' – 0')**: Mix and pump 5 sxs (3 sxs for plug and 2 sxs excess) and spot balanced plug from 116' and circulate good returns to surface to isolate the surface csg shoe. TOOH. Shut in well and WOC.
 - *If TOC is below surface casing shoe, perf @ 116' and establish circulation through bradenhead. Mix and pump ~ 40 sxs to get good returns to surface.*

Top Off Annuli and Install Monument

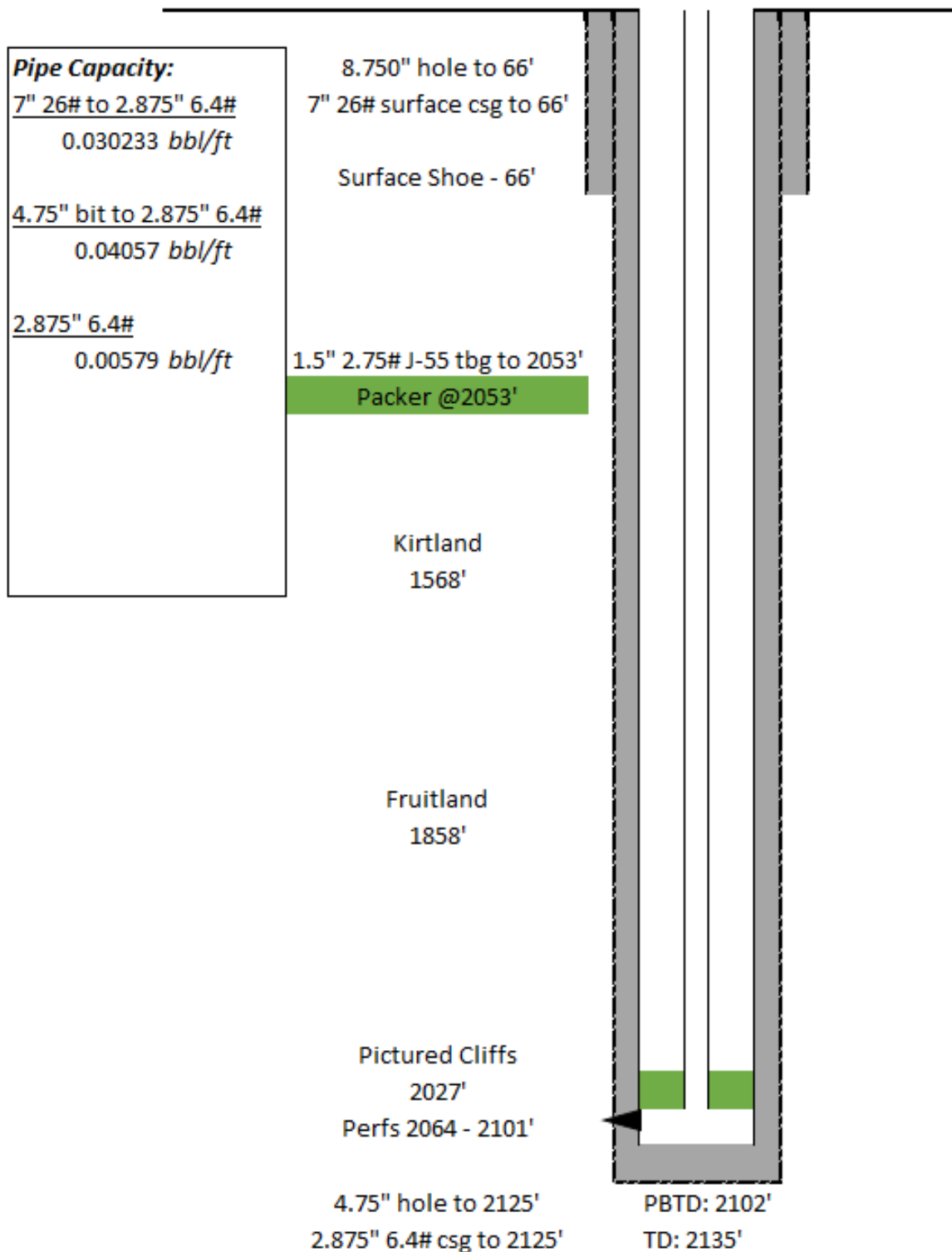
4. ND BOP and cut off wellhead below surface casing flange. Fill annuli with cement as necessary. Install P&A marker to comply with regulations. Record GPS coordinate for P&A marker. Photograph P&A marker in place.
5. RDMOL and cut off anchors.



P&A PROCEDURE

Curent Well Configuration:

Largo Spur #004 - 30-039-21749





P&A PROCEDURE

Proposed P&A Configuration:

Largo Spur #004 - 30-039-21749

			Plug Details		
Bottom	Top	Length	Inside (50' ex)	Outside (100% ex)	Total sxs
116	0	116	5	35	40
1618	1518	100	5		5
2014	1808	206	8		8
Total:				53	sxs

Pipe Capacity:

7" 26# to 2.875" 6.4#

0.030233 bbl/ft

4.75" bit to 2.875" 6.4#

0.04057 bbl/ft

2.875" 6.4#

0.00579 bbl/ft

Cement Properties:

Class G

15.8 lb/gal

1.15 cu. Ft/sx

5.6146 cu. Ft/bbl

8.750" hole to 66'

7" 26# surface csg to 66'

Surface Shoe - 66'

Kirtland

1568'

Fruitland

1858'

Pictured Cliffs

2027¹

Perfs 2064 - 2101'

4.75" hole to 2125'

2.875" 6.4# csg to 2125'

PBTD: 2102'

TD: 2135'



United States Department of the Interior

BUREAU OF LAND MANAGEMENT
Farmington District Office
6251 College Boulevard, Suite A
Farmington, New Mexico 87402
<http://www.blm.gov/nm>



CONDITIONS OF APPROVAL

December 26, 2024

Notice of Intent – Plug and Abandonment

Operator: M & M Production & Operation
Merrion Oil & Gas Corporation will complete work as Record Title Owner

Lease: NMSF 078562

Well(s): Largo Spur 4, US Well # 30-039-21749

Location: NESE Sec 18 T24N R6W (Rio Arriba County, NM)

Sundry Notice ID #: 2828904

The Notice of Intent to Plug and Abandon is accepted with the following Conditions of Approval (COA):

1. Proposed work is to be completed by August 1, 2025.
2. Plugging operations authorized are subject to the attached "General Requirements for Permanent Abandonment of Wells on Federal and Indian Lease."
3. The following modifications to your plugging program are to be made:
 - a. Modify the proposed plugs to account for the BLM geologist's formation top picks for the Fruitland and Kirtland. Minimum coverage for both formation tops are 50' below and 100' above.
 - b. Coverage is required for the Ojo Alamo formation top, BLM geologist's pick is 1400'. Minimum coverage is 50' below and 100' above.
4. Before or within 30 days after completing work, BLM Farmington Field Office must be contacted to schedule a reclamation onsite with a surface inspection staff.
5. **Notification:** Farmington Office is to be notified at least 24 hours before the plugging operations commence at (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 12/26/2024

BLM - FFO - Geologic Report

Date Completed: 23 Dec. 2024

Well No.	Largo Spur #4	Surf. Loc.	1580	FSL	810	FEL
API	30-039-21749		T. 24 N	R. 6 W	Section	18
Operator	Merrion Oil & Gas	County	Rio Arriba		State	NM
Elevation	6568					
Lease #	N/A					

Geologic Formations	Tops	Remarks
Ojo Alamo	1400	F/W Sands
Kirtland	1570	
Fruitland	1686	Coal, Gas
Pictured Cliffs	2023	Gas

Remarks: Add Plug for Ojo Alamo top, and adjust plug #1 to cover BLM-picked Fruitland formation top. Alternatively, plug Pic. Cliffs & Fruitland separately.

Completed by Alek Knapowski

**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), through the Automated Fluid Minerals Support System (AFMSS) 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.

Sante Fe Main Office
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General Information
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Online Phone Directory
<https://www.emnrd.nm.gov/ocd/contact-us>

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

CONDITIONS

Action 495835

CONDITIONS

Operator: MERRION OIL & GAS CORP 610 Reilly Avenue Farmington, NM 87401	OGRID: 14634
	Action Number: 495835
	Action Type: [C-103] NOI Plug & Abandon (C-103F)

CONDITIONS

Created By	Condition	Condition Date
loren.diede	Notify the OCD inspection supervisor via email 24 hours prior to beginning Plug & Abandon (P&A) operations.	8/14/2025
loren.diede	Submit photo and GPS coordinates of the P&A marker with final P&A reports. The API# on the P&A marker is to be legible in the photo.	8/14/2025
loren.diede	A Cement Bond Log (CBL) is required to be submitted to electronic permitting.	8/14/2025
loren.diede	NMOCD concurs with the BLM COAs.	8/14/2025