

ABOVE THIS LINE FOR DIVISION USE ONLY

**NEW MEXICO OIL CONSERVATION DIVISION**  
- Engineering Bureau -  
1220 South St. Francis Drive, Santa Fe, NM 87505



**ADMINISTRATIVE APPLICATION CHECKLIST**

THIS CHECKLIST IS MANDATORY FOR ALL ADMINISTRATIVE APPLICATIONS FOR EXCEPTIONS TO DIVISION RULES AND REGULATIONS WHICH REQUIRE PROCESSING AT THE DIVISION LEVEL IN SANTA FE

**Application Acronyms:**

[NSL-Non-Standard Location] [NSP-Non-Standard Proration Unit] [SD-Simultaneous Dedication]  
[DHC-Downhole Commingling] [CTB-Lease Commingling] [PLC-Pool/Lease Commingling]  
[PC-Pool Commingling] [OLS - Off-Lease Storage] [OLM-Off-Lease Measurement]  
[WFX-Waterflood Expansion] [PMX-Pressure Maintenance Expansion]  
[SWD-Salt Water Disposal] [IPI-Injection Pressure Increase]  
[EOR-Qualified Enhanced Oil Recovery Certification] [PPR-Positive Production Response]

PLC-388-A  
- LOGOS OPERATING  
289408  
WELLS  
- Warner-Caldwell  
1A  
30-045-35505

[1] **TYPE OF APPLICATION** - Check Those Which Apply for [A]

[A] Location - Spacing Unit - Simultaneous Dedication  
☐ NSL ☐ NSP ☐ SD

Check One Only for [B] or [C]

[B] Commingling - Storage - Measurement  
☐ DHC ☐ CTB ☒ PLC ☐ PC ☐ OLS ☒ OLM

[C] Injection - Disposal - Pressure Increase - Enhanced Oil Recovery  
☐ WFX ☐ PMX ☐ SWD ☐ IPI ☐ EOR ☐ PPR

[D] Other: Specify \_\_\_\_\_

[2] **NOTIFICATION REQUIRED TO:** - Check Those Which Apply, or Does Not Apply

[A] ☐ Working, Royalty or Overriding Royalty Interest Owners

[B] ☐ Offset Operators, Leaseholders or Surface Owner

[C] ☐ Application is One Which Requires Published Legal Notice

[D] ☒ Notification and/or Concurrent Approval by BLM or SLO  
U.S. Bureau of Land Management - Commissioner of Public Lands State Land Office

[E] ☐ For all of the above, Proof of Notification or Publication is Attached, and/or,

[F] ☐ Waivers are Attached

- Warner-Caldwell  
30-045-35506  
- LOGOS #6  
30-045-35422  
- LOGOS #5  
30-045-35423  
POOLS  
- Basin Manager  
47232  
- Basin Data  
7599  
- Nageezi  
Cullup  
47540

[3] **SUBMIT ACCURATE AND COMPLETE INFORMATION REQUIRED TO PROCESS THE TYPE OF APPLICATION INDICATED ABOVE.**

[4] **CERTIFICATION:** I hereby certify that the information submitted with this application for administrative approval is **accurate** and **complete** to the best of my knowledge. I also understand that **no action** will be taken on this application until the required information and notifications are submitted to the Division.

**Note:** Statement must be completed by an individual with managerial and/or supervisory capacity.

Tamra Sessions  
Print or Type Name

Signature

Operations Technician  
Title

Date

tsessions@logosresourcesllc.com  
e-mail Address

**Ezeanyim, Richard, EMNRD**

---

**From:** Tamra Sessions <tsessions@logosresourcesllc.com>  
**Sent:** Monday, April 14, 2014 1:09 PM  
**To:** Ezeanyim, Richard, EMNRD  
**Cc:** McMillan, Michael, EMNRD  
**Subject:** PLC 388\_Warner\_Caldwell 1A 3B  
**Attachments:** C-103 Surface Commingle WC1A Revised scan.pdf; Identical Ownership Letter to OCD.pdf; C-103 Surface Commingle WC3B revised scan.pdf

Richard here are the revised C-103s and letter to NMOCD. Please let me know if there is anything else you need. Thank you!

Tamra Sessions  
Logos Resources, LLC  
Operations Technician  
[tsessions@logosresourcesllc.com](mailto:tsessions@logosresourcesllc.com)  
505-330-9333

The information contained in this email and any attachments is confidential and may be subject to copyright or other intellectual property protection. If you are not the intended recipient, you are not authorized to use or disclose this information, and we request that you notify us by reply mail or telephone and delete the original message from your mail system.



4001 N. Butler Blvd. Bldg 7101  
Farmington, NM 87401  
Phone: (505) 436-2626  
Fax: (505) 832-3095

RECEIVED  
2014 APR 15 P 2:00  
April 14<sup>th</sup>, 2014

New Mexico Oil Conservation Division  
1220 S. St. Francis Drive  
Santa Fe, NM 87505

To whom it may concern:

As of April 14, 2014 the ownership in the following wells is identical:

- LOGOS 5
- LOGOS 6
- Warner-Caldwell 3B
- Warner-Caldwell 1A

Please contact me at 303-550-1877 if you have any questions.

Thank you.

A handwritten signature in black ink, appearing to read "John Akers", written over a horizontal line.

John Austin Akers  
VP of Land- LOGOS Resources, LLC

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENTFORM APPROVED  
OMB No. 1004-0137  
Expires: October 31, 2014**SUNDRY NOTICES AND REPORTS ON WELLS**  
**Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.**5. Lease Serial No.  
NM 109399 & NM 109398

6. If Indian, Allottee or Tribe Name

**SUBMIT IN TRIPLICATE – Other instructions on page 2.**

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

8. Well Name and No.  
Logos #6 & Logos #5 & Warner-Caldwell 1A and 3B9. API Well No.  
30-045-35422, 045-35423, 045-35505, 045-3550610. Field and Pool or Exploratory Area  
Basin Mancos & Basin Dakota & Nageezi Gallup11. County or Parish, State  
San Juan County, NM

## 1. Type of Well

☒ Oil Well ☐ Gas Well ☐ Other2. Name of Operator  
Logos Operating, LLC3a. Address  
4001 North Butler Avenue, Building 7101  
Farmington, NM 874013b. Phone No. (include area code)  
505-436-26274. Location of Well (Footage, Sec., T., R., M., or Survey Description)  
1662' FNL, 1973' FEL Logos #5 671' FSL, 973' FEL Warner-Caldwell 1A 348fml 1960fml Warner-Caldwell 3B 384fml 331fml  
Section 8, T23N, R8W, ULG Section 4, T23N, R8W, UL P Section 8, T23N, R8W, UL A Section 8, T23N, R8W, UL B

## 12. CHECK THE APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other <u>Off Lease</u>
	<input type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	Measurement &
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	Surface Commingle

13. Describe Proposed or Completed Operation: Clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No. on file with BLM/BIA. Required subsequent reports must be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 must be filed once testing has been completed. Final Abandonment Notices must be filed only after all requirements, including reclamation, have been completed and the operator has determined that the site is ready for final inspection.)

Logos Operating, LLC is requesting approval to surface commingle the gas production from the Warner-Caldwell 1A (and the Warner-Caldwell 3B for which an additional application is being submitted simultaneously with this application) with the current production being commingled between the Logos 6 and Logos 5 wells through Right-of-Way Grant NMNM 130583, at a central delivery point on the Logos 5 location. LOGOS has received approval to build on-lease pipelines from the Warner-Caldwell 1A and Warner-Caldwell 3B wells to the existing line on the lease.

There is identical ownership between all leases and all pools. The method of allocation will be subtraction method using electronic meters at the Warner-Caldwell 1A and 3B, as well as the LOGOS 6 well, the remainder being allocated to the LOGOS 5 well. All production will be sold at the sales meter next to the LOGOS No. 5 well. Ownership of all minerals and surface affected is the USA

The approval of this will greatly reduce the time necessary to flare the Warner-Caldwell wells. Completion of the gas lines and allowance of sales will reduce emissions and provide royalty income to the MMS.

This is a Category 1 action with no royalty impacts.

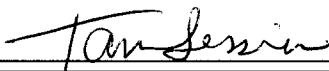
Attachments: C-102 plats, Pipeline plats, Memo with allocation method and list of leases, Facilities map, Aerial/Topo maps.

14. I hereby certify that the foregoing is true and correct. Name (Printed/Typed)

Tamra Sessions

Title Operations Technician

Signature



Date

3/26/14

**THIS SPACE FOR FEDERAL OR STATE OFFICE USE**

Approved by

Title

Date

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Office

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.

(Instructions on page 2)

DISTRICT I  
1626 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-0720

DISTRICT II  
511 S. First St., Artesia, N.M. 88210  
Phone: (575) 746-1283 Fax: (575) 746-9720

DISTRICT III  
1000 Rio Brazos Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87506  
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

Form C-10:  
Revised August 1, 201  
Submit one copy to appropriate  
District Office

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

1 API Number <b>30-045-35505</b>		2 Pool Code <b>47540</b>		3 Pool Name NAGEEZI GALLUP	
4 Property Code <b>40413</b>		5 Property Name WARNER - CALDWELL			6 Well Number 1A
7 OGRID No. 289408		8 Operator Name LOGOS OPERATING, LLC			9 Elevation 6857'

10 Surface Location

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
A	8	23-N	8-W		348	NORTH	331	EAST	SAN JUAN

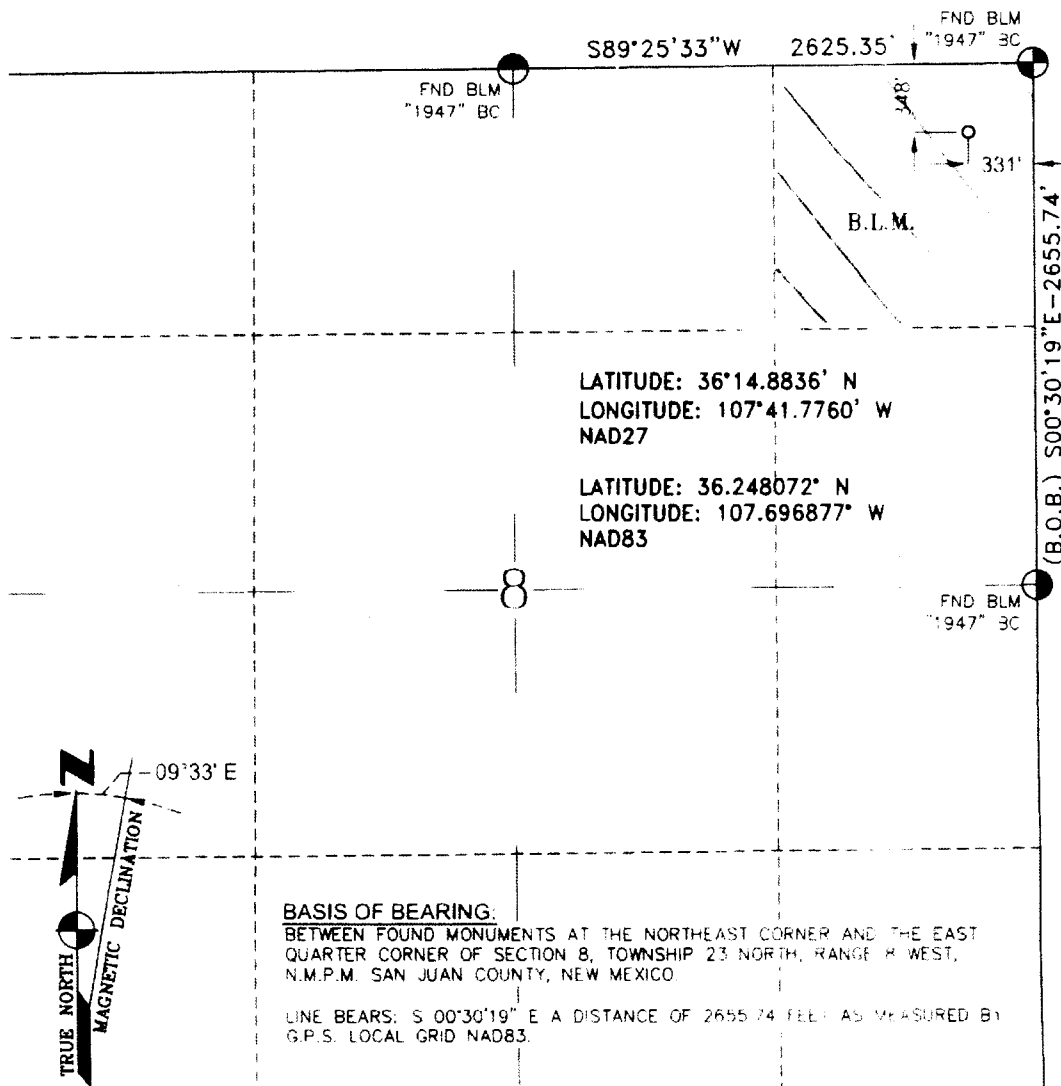
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County

12 Dedicated Acres <b>40 (NENE)</b>	13 Joint or Infill	14 Consolidation Code	15 Order No.
--	--------------------	-----------------------	--------------

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

16



17 OPERATOR CERTIFICATION

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

Signature \_\_\_\_\_ Date **9/20/13**  
Printed Name **Austin Akers**  
E-mail Address \_\_\_\_\_

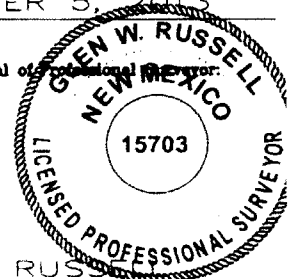
18 SURVEYOR CERTIFICATION

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

SEPTEMBER 5, 2013

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

DISTRICT I  
1626 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-8161 Fax: (575) 393-0720

DISTRICT II  
811 S. First St., Artesia, N.M. 88210  
Phone: (575) 748-1283 Fax: (575) 748-9720

DISTRICT III  
1000 Rio Branco Rd., Aztec, N.M. 87410  
Phone: (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV  
1220 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 478-3460 Fax: (505) 478-3462

State of New Mexico  
Energy, Minerals & Natural Resources Department

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.  
Santa Fe, NM 87505

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

☐ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35506	*Pool Code 47540	*Pool Name NAGEEZI GALLUP
*Property Code 40413	*Property Name WARNER-CALDWELL	*Well Number 3B
*OGRID No. 289408	*Operator Name LOGOS OPERATING, L.P.	*Elevation 6867'

<sup>10</sup> Surface Location

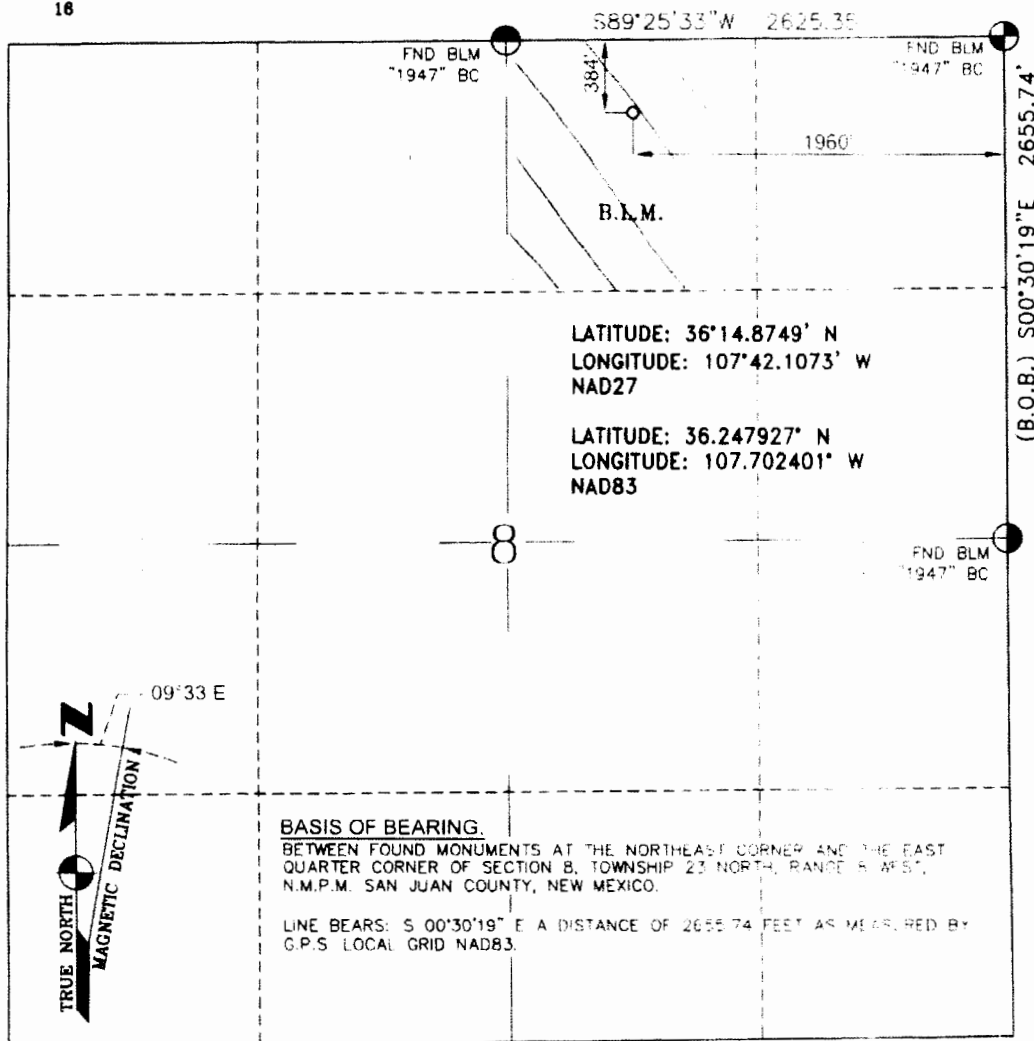
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
B	8	23-N	8-W		384	NORTH	1960	EAST	SAN JUAN

<sup>11</sup> Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
*Dedicated Acres 40 (NONE)			*Joint or Infill		*Consolidation Code		*Order No.		

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

16



17 OPERATOR CERTIFICATION

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

Signature

Date

Printed Name

E-mail Address

18 SURVEYOR CERTIFICATION

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

SEPTEMBER 4, 2013

Date of Survey

Signature and Seal of Professional Surveyor



GLEN W. RUSSELL

Certificate Number

15703

1200 S. Francis St., Santa Fe, NM 87505  
Phone (505) 826-6100 Fax (505) 826-6700

1200 S. Francis St., Santa Fe, NM 87505  
Phone (505) 826-6100 Fax (505) 826-6700

1200 S. Francis St., Santa Fe, NM 87505  
Phone (505) 826-6100 Fax (505) 826-6700

1200 S. Francis St., Santa Fe, NM 87505  
Phone (505) 826-6100 Fax (505) 826-6700

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

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

☒ AMENDED REPORT

WELL LOCATION AND ACREAGE DEDICATION PLAT

*API Number 30-045-35422		*Pool Code 71599-47540		*Pool Name BASIN DAKOTA-NAGEEZI GALLUP	
*Property Code 311963		*Property Name LOGOS		*Well Number 6	
*CORNED No. 289408		*Operator Name LOGOS Operating, LLC		*Elevation 6893'	

10 Surface Location

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County
G	8	23N	8W		1682'	NORTH	1973'	EAST	SAN JUAN

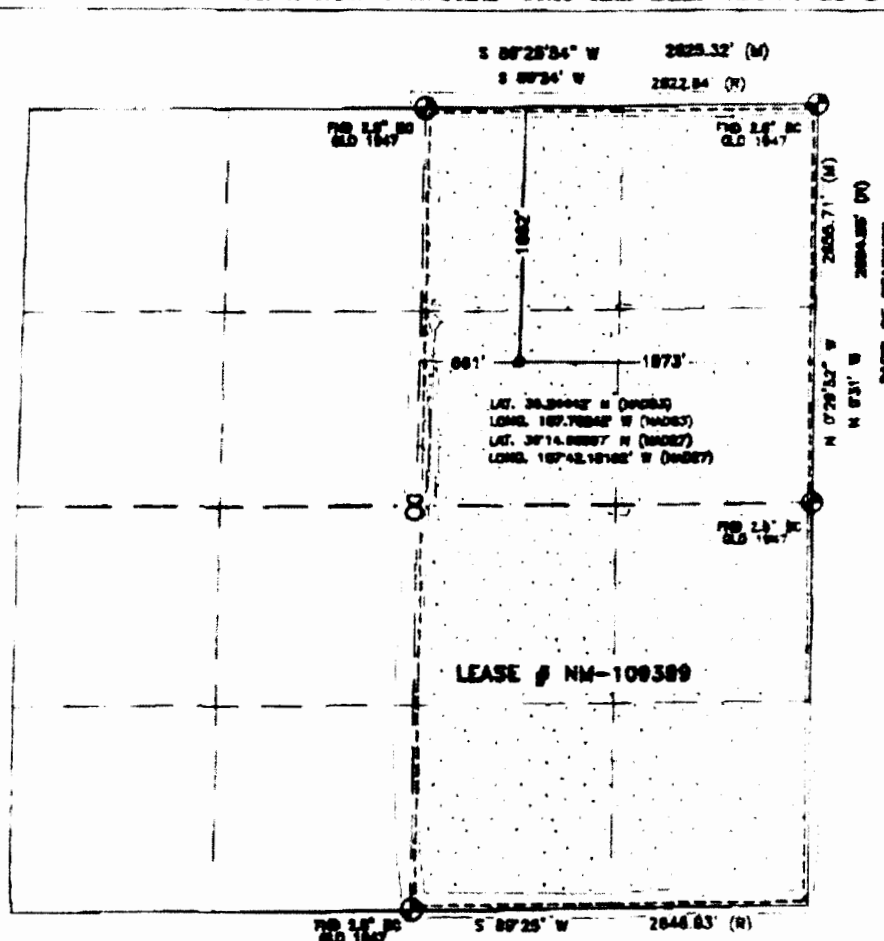
11 Bottom Hole Location If Different From Surface

UL or lot no.	Section	Township	Range	Lot No.	Feet from the	North/South line	Feet from the	East/West line	County

☐ Basin Dakota (320) E2  
☒ Nageezi Gallup (40) SWNE

RCUD JAN 18 '13  
OIL CONS. DIV.  
DIST. 3

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



17 OPERATOR CERTIFICATION

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

*[Signature]* 11/17/2012  
Signature Date

James M. Williams  
Printed Name

jmcwilliams@logosuccessllc.com  
E-mail Address

18 SURVEYOR CERTIFICATION

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

OCTOBER 19, 2012

Date of Survey

Signature and Seal of Professional Surveyor:

*[Signature]*  
DAVID R. RUSSELL  
NEW MEXICO  
10201  
DAVID RUSSELL  
10201

**CONFIDENTIAL**

**DISTRICT I**  
1625 N. French Dr., Hobbs, N.M. 88240  
Phone: (575) 393-6161 Fax: (575) 393-6728

**DISTRICT II**  
811 E. First St., Artesia, N.M. 88210  
Phone: (505) 748-1288 Fax: (505) 748-8722

**DISTRICT III**  
1805 Rio Bravo Rd., Artesia, N.M. 87410  
Phone: (505) 334-8176 Fax: (505) 334-8176

**DISTRICT IV**  
1280 S. St. Francis Dr., Santa Fe, NM 87505  
Phone: (505) 476-5488 Fax: (505) 476-5488

State of New Mexico  
Energy, Minerals & Natural Resources Department

Form C-102  
Revised August 1, 2011

Submit one copy to appropriate  
District Office

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

☐ AMENDED REPORT

**WELL LOCATION AND ACREAGE DEDICATION PLAT**

<sup>1</sup> API Number <b>30-045-35423</b>	<sup>2</sup> Pool Code <b>47232; 71599</b>	<sup>3</sup> Pool Name <b>Basin MANCOSHA BASIN DAKOTA</b>
<sup>4</sup> Property Code <b>311963</b>	<sup>5</sup> Property Name <b>LOGOS</b>	<sup>6</sup> Well Number <b>5</b>
<sup>7</sup> OSRD No. <b>289408</b>	<sup>8</sup> Operator Name <b>LOGOS OPERATING, LLC</b>	<sup>9</sup> Elevation <b>6867'</b>

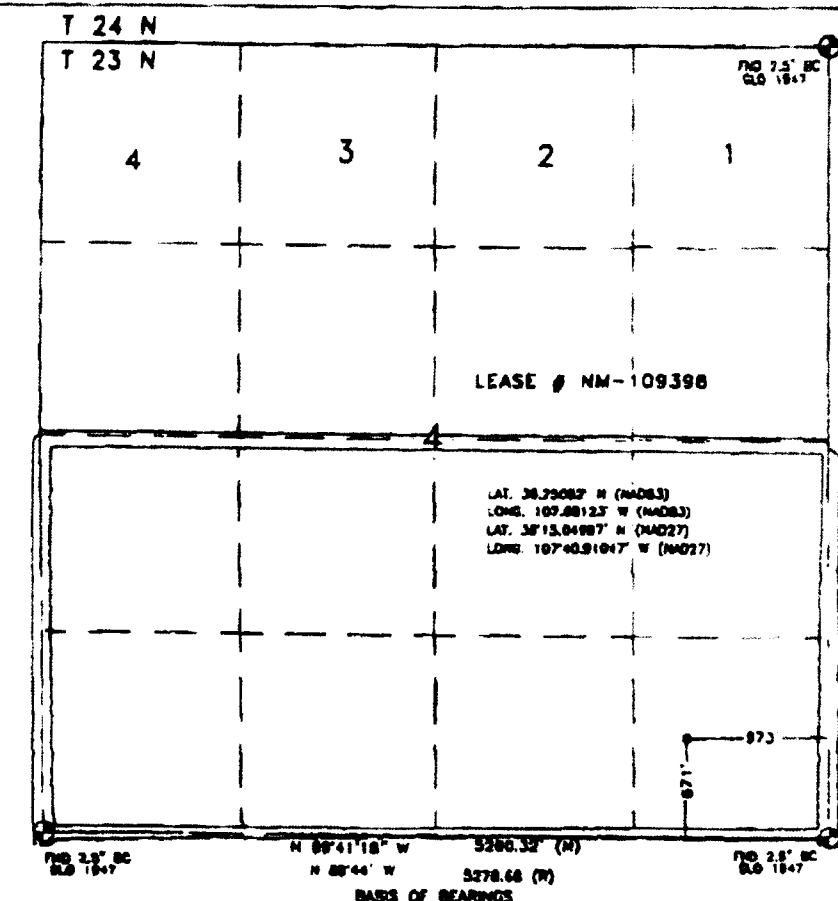
**<sup>10</sup> Surface Location**

UL or lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
P	4	23N	8W		671'	SOUTH	973'	EAST	SAN JUAN

**<sup>11</sup> Bottom Hole Location If Different From Surface**

UL or lot no.	Section	Township	Range	Lot 1st	Feet from the	North/South line	Feet from the	East/West line	County
									RCUD JAN 15 '13
<sup>12</sup> Dedicated Acres <b>320 - 5/2</b>	<sup>13</sup> Joint or Infill	<sup>14</sup> Consolidation Code	<sup>15</sup> Order No.	<b>OIL CONS. DIV. DIST. 3</b>					

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



**<sup>17</sup> OPERATOR CERTIFICATION**

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

*Kristy Graham*  
Signature Date **11/11/13**

**Kristy Graham**  
Printed Name

**Kgraham@logosresourcesllc.com**  
E-mail Address

**<sup>18</sup> SURVEYOR CERTIFICATION**

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

**OCTOBER 1, 2012**

Date of Survey  
Signature of **DAVID A. RUSSELL**  
Professional Land Surveyor

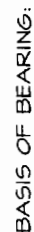


**DAVID RUSSELL**  
Certificate Number **10201**

Jason C. Edwards, P.L.S.  
New Mexico L.S. #15269

SHEET 2 OF 3	CHECKED BY: JOE
FILENAME: 2309P62	DRAWN BY: SLE

FOUND  
1947 GLO  
BRASS CAP



REAL-TIME KINEMATIC GPS SURVEY  
SOLUTION OBTAINED FROM SATELLITES  
TRACKED ON JUNE 4, 2013 FROM A  
REFERENCE STATION POSITIONED IN  
SE/4 NE/4 OF SECTION 9, T23N, R9W

PLAT NOTE:

BEFORE ANY CONSTRUCTION BEGINS,  
CONTRACTOR IS ADVISED TO CALL  
ONE-CALL FOR LOCATION OF ANY  
MARKED OR UNMARKED PIPELINES OR  
CABLES IN THE AREA OF THE PROJECT



~ SURFACE OWNERSHIP ~  
Bureau of Land Management

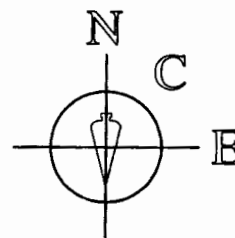
50+95.9 TO 81+86.2	3090.3 FT / 187.3 RODS
--------------------	------------------------

Date: June 18, 2013

Jason C. Edwards, P.L.S.  
New Mexico L.S. #15269

Prepared for:

LOGOS RESOURCES  
4001 N BUTLER BLVD  
FARMINGTON, NM 87401



SURVEYS, INC.

**Land Surveyor:**  
**Jason C. Edwards**

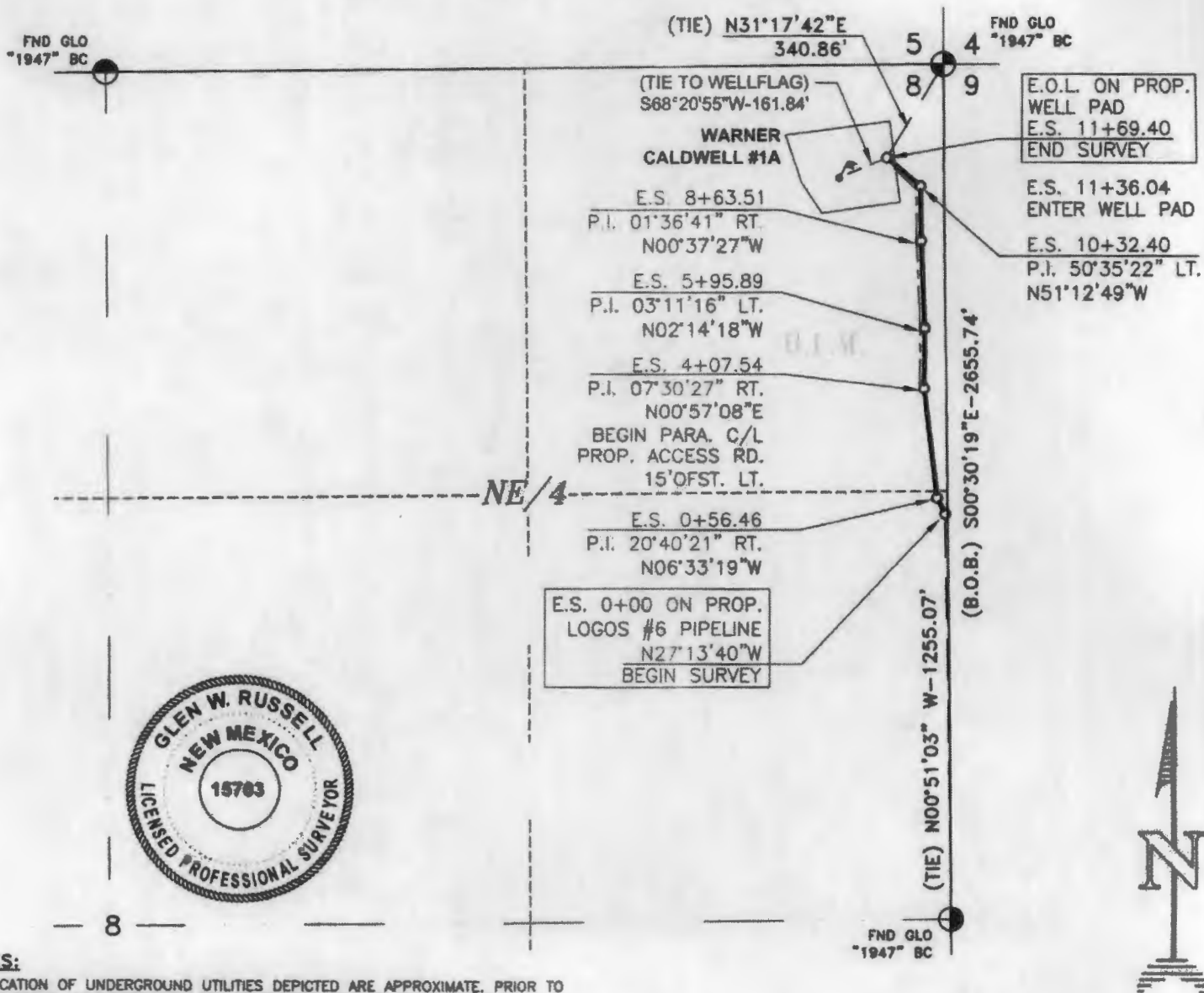
**Mailing Address:**  
Post Office Box 6612  
Farmington, NM 87499

**Business Address:**  
111 East Pinon Street  
Farmington, NM 87402  
(505) 325-2654 (Office)  
(505) 326-5650 (Fax)

SHEET 3 OF 3	CHECKED BY: JOE
FILENAME: 2300P63	DRAWN BY: SLE

# PIPELINE SURVEY FOR LOGOS OPERATING, LLC WARNER-CALDWELL #1A

LOCATED IN THE NE/4 OF SECTION 8, T-23-N, R-8-W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



OWNERSHIP			
LOCATION	OWNER	STATION	FT./RODS
S8, T23N, R8W	B.L.M.	E.S. 0+00 TO E.S. 11+69.40	1169.40/70.87

**BASIS OF BEARING:** AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE NORTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 8, TOWNSHIP 23 NORTH, RANGE 8 WEST, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. BEARS S00°30'19"E, A DISTANCE OF 2655.74' AS MEASURED BY G.P.S. LOCAL GRID NAD83.

**DATE OF SURVEY:** GWR **DRAWN BY:** TD  
**SURVEY CREW:** 8/14/13 **DATE:** 8/25/13

**REV.** 1 11/25/13  
2

I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

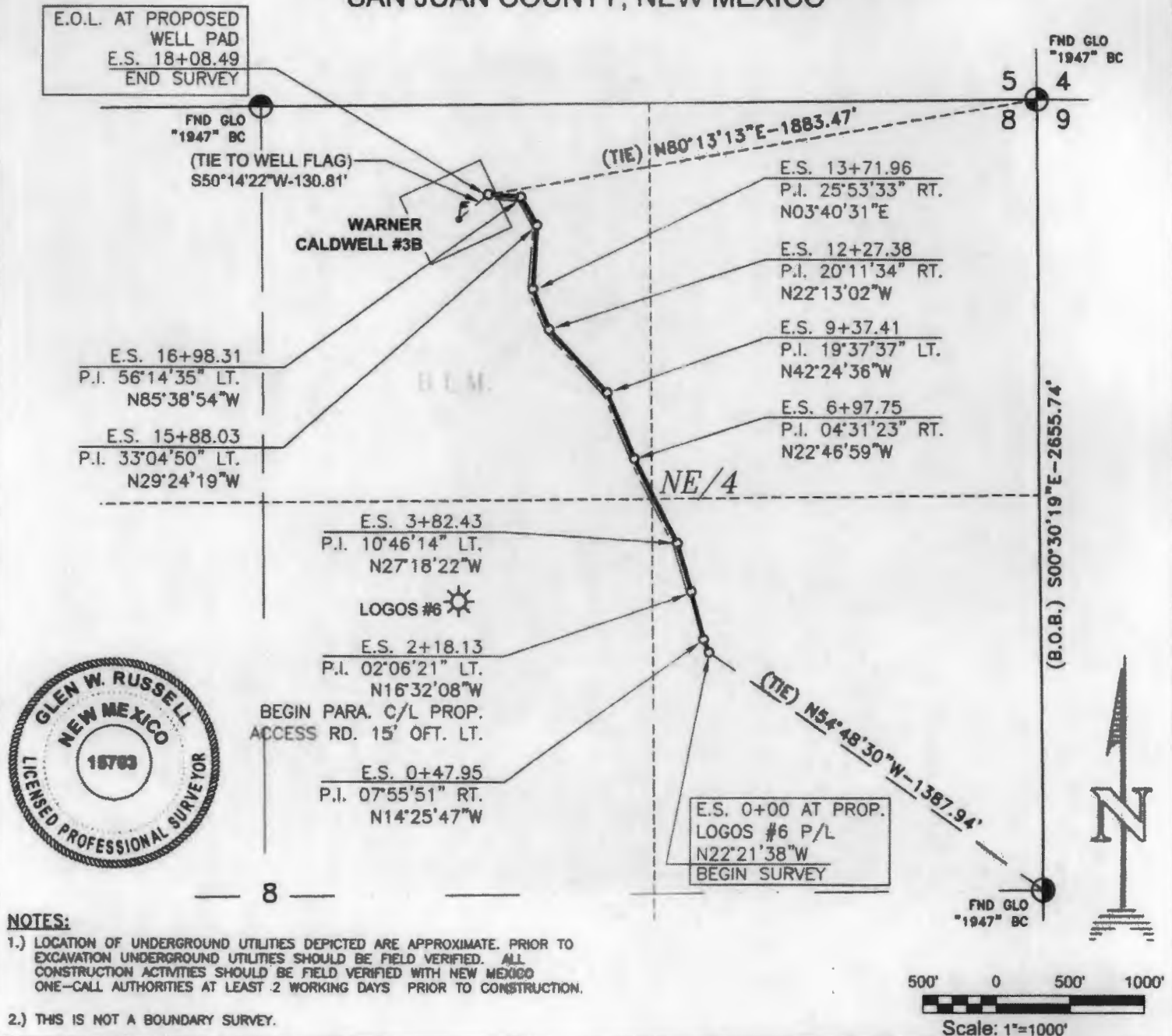
GLEN W. RUSSELL DATE NOVEMBER 27, 2013  
GLEN W. RUSSELL, PLS  
NEW MEXICO L.S. #15703

**VECTOR SURVEYS, LLC**  
Professional Land Surveys, Mapping,  
GPS Surveys & Oil Field Services  
127 N Wall Avenue, Farmington, NM 87401  
Phone (505) 544-3445 or 320-9595  
E-Mail: vectorinfo@vectorllc.com

**WORK ORDER NO.:** LOGOS006 **CAD FILE:** LOGOS006

# PIPELINE SURVEY FOR LOGOS OPERATING, LLC WARNER-CALDWELL #3B

LOCATED IN THE NE/4 OF SECTION 8, T-23-N, R-8-W, N.M.P.M.  
SAN JUAN COUNTY, NEW MEXICO



OWNERSHIP			
LOCATION	OWNER	STATION	FT./RODS
S8, T23N, R8W	B.L.M.	E.S. 0+00 TO E.S. 18+08.49	1808.49/109.61

I, GLEN W. RUSSELL, A NEW MEXICO REGISTERED PROFESSIONAL SURVEYOR CERTIFY THAT I CONDUCTED AND AM RESPONSIBLE FOR THIS SURVEY, THAT THIS SURVEY IS TRUE AND CORRECT TO THE BEST OF MY KNOWLEDGE AND BELIEF, AND THAT THIS SURVEY AND PLAT MEET THE MINIMUM STANDARDS FOR SURVEYING IN NEW MEXICO.

GLEN W. RUSSELL  
GLEN W. RUSSELL, PLS  
NEW MEXICO L.S. #15703

DATE DECEMBER 5, 2013

**BASIS OF BEARING:** AS MEASURED BY GPS BETWEEN FOUND MONUMENTS AT THE NORTHEAST CORNER AND THE EAST QUARTER CORNER OF SECTION 8, TOWNSHIP 23 NORTH, RANGE 8 WEST, N.M.P.M., SAN JUAN COUNTY, NEW MEXICO. BEARS S00°30'19"E, A DISTANCE OF 2655.74' AS MEASURED BY G.P.S. LOCAL GRID NAD83.

DATE OF SURVEY:	GWR	DRAWN BY:	TD
SURVEY CREW:	8/12/13	DATE:	8/25/13

REV	1	11/26/13
REV	2	

## VECTOR SURVEYS, LLC

Professional Land Surveys, Mapping,  
GPS Surveys & Oil Field Services  
122 N Wall Avenue, Farmington, NM 87401  
Phone (505) 564-5445 or 320-9995  
E-Mail: [vector@vectorllc.com](mailto:vector@vectorllc.com)

WORK ORDER NO.:	LOGOS011	CAD FILE:	LOGOS011
-----------------	----------	-----------	----------



4001 N. Butler Ave  
Farmington, NM 87401  
Phone: (505) 215-8215  
Fax: (303) 974-1767

Date: 3/26/2014

To: Bureau of Land Management

Re: Warner-Caldwell 1A - Off-lease Commingled Gas Measurement

Logos Operating, LLC ("LOGOS") proposes to surface commingle the gas production from the Warner-Caldwell 1A (API 30-045-35505) with the Logos #5 (API 30-045-35423) and Logos 6 (API 30-045-35424) which already have approval for surface comingling. Simultaneously with this application, LOGOS is submitting an application to add the Warner-Caldwell 3B (API 30-045-35506) which will also be added to the commingle. The surface commingle will allow for the Warner-Caldwell new drills to sell gas into a shared meter which will minimize flaring as well as allowing for an economical solution to share a common separator, compressor, and custody transfer meter.

The gas from the Warner-Caldwells will be piped through a steel pipeline and connect into the pre-existing pipeline running from the LOGOS No. 6 to the Logos No. 5, which will run into a gas scrubber located at the Logos #5 location. The gas will be commingled at the inlet of the gas scrubber and will be sold to a custody transfer Central Delivery Point (CDP) located at the Logos #5 location. The CDP will measure the total commingled gas volume from the Warner-Caldwell 1A, Warner-Caldwell 3B, the Logos #5, and Logos #6.

Gas allocations will be determined using electronic measurement meters at the LOGOS 6, Warner-Caldwell 1A, and Warner-Caldwell 3B locations, the remainder will be allocated to the LOGOS No. 5 well. Gas used on lease prior to the meters will be calculated using standard equipment specifications. OK

The estimated monthly gas production for the Logos #5 is 4,000MCF (130 MCFD) and the estimated monthly production for the Logos 6 and the Warner-Caldwell 3B and 1A wells is 1,600 MCF (54 MCFD).

Gas BTU on Logos 5 is 1309.8 and the Logos 6 is 1322.4. We estimate the BTU for the Warner-Caldwell wells will be more similar to the LOGOS 6 as we offset that well- we will do gas analysis to ensure exact measurement. ✓

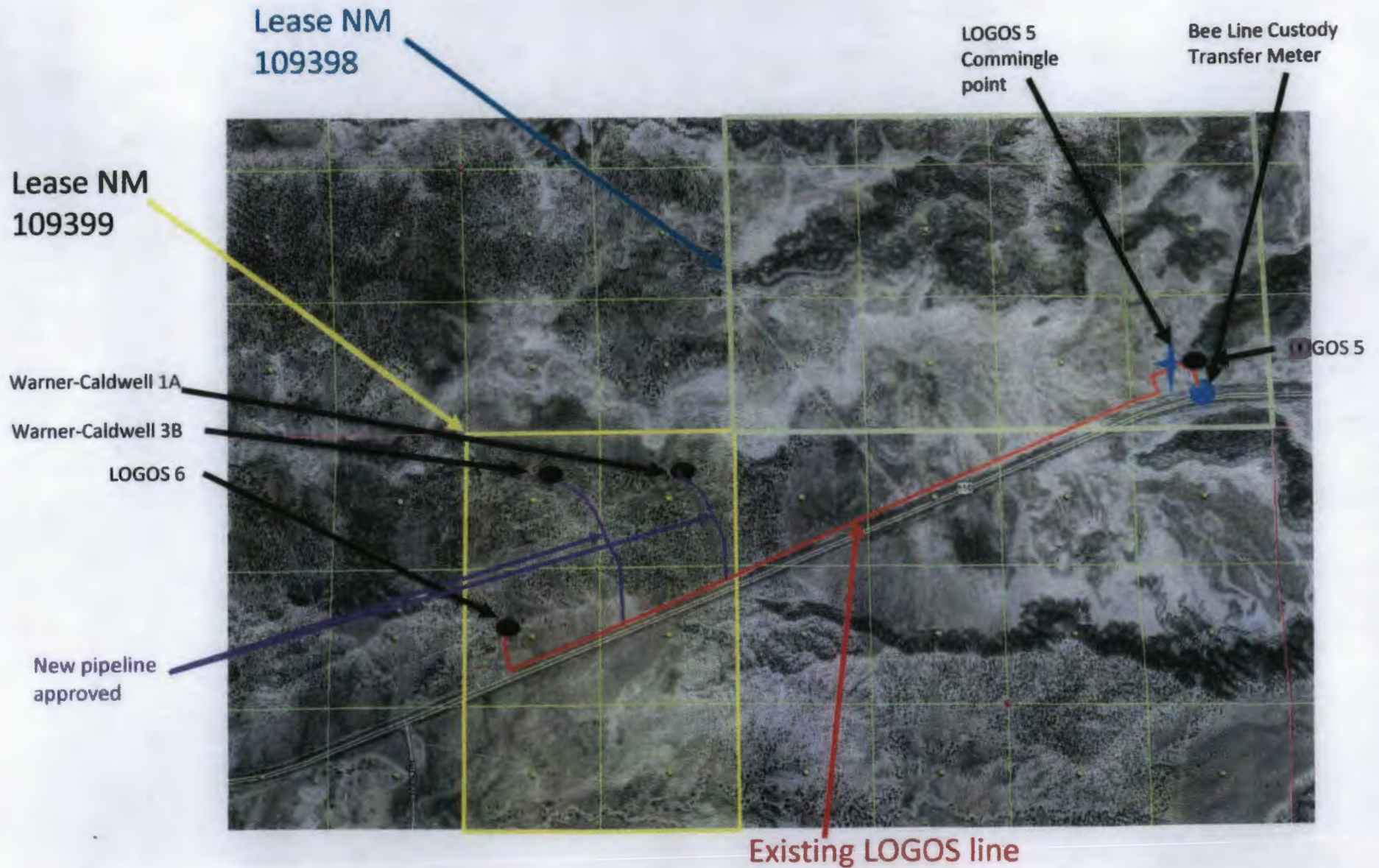
The BLM royalty interest is the exact same at all wells; therefore, there will be no effect on the BLM royalty interest. ✓

Well Name	Lease No.	Ownership	Royalty Rate (%)
Logos 5	NM 109398	Federal	12.5
Logos 6	NM 109399	Federal	12.5
Warner-Caldwell 1A	NM 109399	Federal	12.5
Warner-Caldwell 3B	NM 109399	Federal	12.5

Identification of Leases and Pools (Identical Ownership)

<u>WELL</u>	<u>Fed Lease No.</u>	<u>Pool 1</u>	<u>Pool 2</u>	<u>DHC</u>	<u>API</u>
Logos 5	109398	Basin Mancos 97232	Basin Dakota 71599	3779-AZ	30-045-35423
Logos 6	109399	Nageezi Gallup 47540	Basin Dakota 71599	4618	30-045-35422
Warner-Calwell 1A	109399	Nageezi Gallup 47540	N/A		30-045-35505
Warner-Caldwell 3B	109399	Nageezi Gallup 47540	N/A		30-045-35506

# Warner-Caldwell 1A and 3B to Logos 5-6 Gas Line (all federal lands)



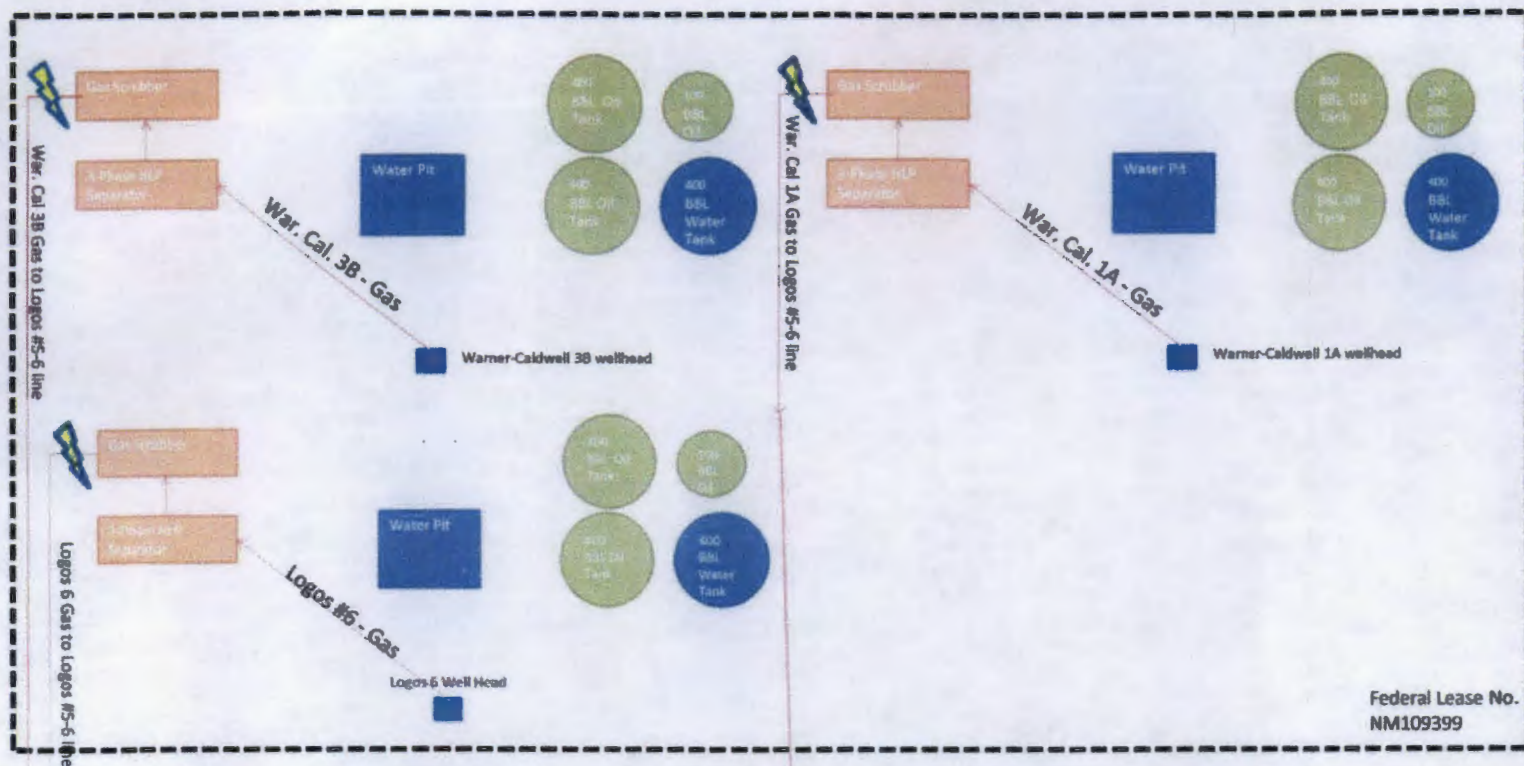
6

1

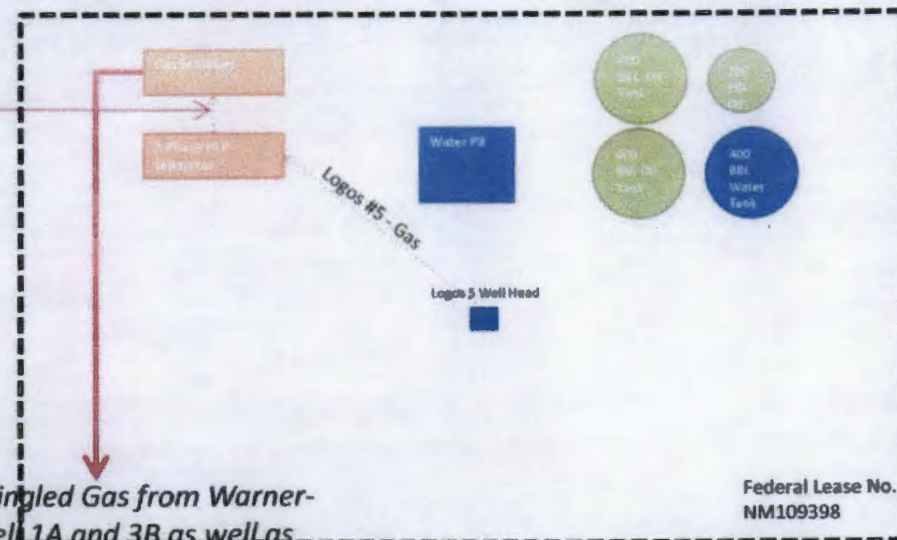
T23N  
R08W



### Warner-Caldwell 1A & 3B



 = Electric Flow Meter



Commingled Gas from Warner-Caldwell 1A and 3B as well as Logos #6 and #5 - To Bee Line Custody Transfer Meter

## Logos 6 to Logos 5 Pipeline

03/26/14

- Add Warner-Caldwell 1A and 3B to existing pipeline.

