Form 3160-4
(March 2012)

-Amended-

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 29 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: NMNM 109387

1a. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other:

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.:

2. Name of Operator: Logos Operating, LLC

8. Lease Name and Well No.: Logos #3

3. Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401

3a. Phone No. (include area code): 303-550-1877

9. API Well No.: 30-043-21135 - 0002

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface: 741' FSL & 1263' FEL
At top prod. interval reported below: Same as above.
At total depth: Same as above.

10. Field and Pool or Exploratory: WC 22N6W5; DAKOTA (O) 97997

11. Sec., T., R., M., on Block and Survey or Area: Sec. 5, T22N, R6W

12. County or Parish: Sandoval

13. State: NM

14. Date Spudded	15. Date T.D. Reached	16. Date Completed	17. Elevations (DF, RKB, RT, GL)*
01/24/2013	02/06/2013	☐ D & A ☑ Ready to Prod. 02/23/2013	7181' GL

18. Total Depth:	19. Plug Back T.D.:	20. Depth Bridge Plug Set:
MD 6695'	MD ~~6641'~~ 6616	MD
TVD	TVD	TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD APR 2'13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	6.5#J55 4887'							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Upper Dakota**	6266'	6272'	2 SPF	0.38"	12	open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
**6140'-6272'	**Frac'd w/ 2000 gal 10% HCl, 3,914 bbls Slickwater, 10,640# 100 mesh sand, & 40,120# 40/70 sand

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/19/13	3/19/13	3	→	3	TSTM	30			Swabbing

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
	no tbg	0	→	24	TSTM	240		Shut-in

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

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APR 17 2013
FARMINGTON FIELD OFFICE
BY William Tambekou

*(See instructions and spaces for additional data on page 2)

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28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back, Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
Kirtland	1480				
Fruitland	1910				
Pictured Cliffs	1920				
Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

**The lower Gallup perforations were frac'd with the Dakota based on the rock properties.

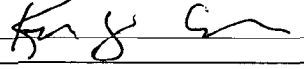
This is an amended report to correct #15 date TD reached and update frac data.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature  Date 03/29/2013

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.

(Continued on page 3)

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Form 3160-4
(March 2012)

RECEIVED
MAR 22 2013
Farmington Field Office
Bureau of Land Management

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.
NMNM 109387

1a. Type of Well ☑ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other:

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator
Logos Operating, LLC

8. Lease Name and Well No.
Logos #3

3. Address 4001 North Butler Ave, Building 7101
Farmington, NM 87401

3a. Phone No. *(include area code)*
303-550-1877

9. API Well No.
30-043-21135-0062

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**
At surface 741' FSL & 1263' FEL

At top prod. interval reported below Same as above.

At total depth Same as above.

10. Field and Pool or Exploratory
WC 22N6W5; DAKOTA (O) 97997

11. Sec., T., R., M., on Block and Survey or Area Sec. 5, T22N, R6W

12. County or Parish
Sandoval

13. State
NM

14. Date Spudded
01/24/2013

15. Date T.D. Reached
02/08/2013

16. Date Completed 02/23/2013
☐ D & A ☑ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*
7181' GL

18. Total Depth: MD 6695'
TVD

19. Plug Back T.D.: MD ~~6641'~~ 6616
TVD

20. Depth Bridge Plug Set: MD
TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD MAR 25 '13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	6.5#J55 4887'							

25. Producing Intervals

Formation	Top	Bottom
A) Upper Dakota**	6266'	6272'
B)		
C)		
D)		

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
2 SPF	0.38"	12	open

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
**6140'-6272'	**Frac'd with 47 bbls 10% HCl, 3914 bbls slickwater, 10,000# 100 mesh sand, 40,120# 40/70 sand

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/19/13	3/19/13	3	→	3	TSTM	30			Swabbing

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
	no tbg	0	→	24	TSTM	240		Shut-in

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

*(See instructions and spaces for additional data on page 2)

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MAR 25 2013
FARMINGTON FIELD OFFICE
BY T. Salyers

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back. Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
Kirtland	1480				
Fruitland	1910				
Pictured Cliffs	1920				
Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

**The lower Gallup perforations were frac'd with the Dakota based on the rock properties.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature Date 03/21/2013

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.

(Continued on page 3)

CONFIDENTIAL

Form 3160-4
(March 2012)

~Amended~

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 29 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NMNM 109387

1a. Type of Well ☑ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other: _____

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator: Logos Operating, LLC

8. Lease Name and Well No.: Logos #3

3. Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401

3a. Phone No. *(include area code)*: 303-550-1877

9. API Well No.: 30-043-21135 – 00C1

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**

At surface: 741' FSL & 1263' FEL

At top prod. interval reported below: Same as above.

At total depth: Same as above.

10. Field and Pool or Exploratory: WC 22N6W5; GALLUP(O) 98013

11. Sec., T., R., M., on Block and Survey or Area: Sec. 5, T22N, R6W

12. County or Parish: Sandoval

13. State: NM

14. Date Spudded	15. Date T.D. Reached	16. Date Completed	17. Elevations (DF, RKB, RT, GL)*
01/24/2013	02/06/2013	☐ D & A ☐ Ready to Prod. 02/23/2013	7181' GL

18. Total Depth:	19. Plug Back T.D.:	20. Depth Bridge Plug Set:
MD 6695' TVD	MD ~~6641'~~ 6616 TVD	MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD APR 2'13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
2-7/8"	6.5#J55 4887'							

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Gallup**	5024'	6236'		0.38"	120	open
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
	Please refer to section #32 for frac details.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/2/13	3/4/13	24	→	120	TSTM	741			flowing

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
16/64	no tbg	15 psi	→	120	TSTM	741		Shut-in

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

*(See instructions and spaces for additional data on page 2)

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APR 02 2013
FARMINGTON FIELD OFFICE
BY William Tambekou

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back, Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
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Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

**The lower Gallup perforations were frac'd with the Dakota based on the rock properties.

5024'-5150' Frac'd w/ 2000 gal 10% HCl, 6,633 bbls Slickwater, 10,000# 100 mesh, & 90,500# 40/70 sand
5268'-5392' Frac'd w/ 2000 gal 10% HCl, 2,401 bbls Slickwater, 10,000# 100 mesh, 94,000# 40/70 sand, & 2,300,000 scf N2
5440'-5504' Frac'd w/ 2000 gal 10% HCl, 2,245 bbls Slickwater, 10,840# 100 mesh, 93,805# 40/70 sand, & 2,642,562 scf N2
5838'-6050' Frac'd w/ 2000 gal 10% HCl, 6,072 bbls Slickwater, 10,000# 100 mesh sand, & 71,065# 40/70 sand
**6140'-6236' Frac'd w/ 2000 gal 10% HCl, 3,914 bbls Slickwater, 10,640# 100 mesh sand, & 40,120# 40/70 sand

This is an amended report to correct #15 date TD reached, the frac detail, and to include tubing data.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature Date 03/29/2013

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.

(Continued on page 3)

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Form 3160-4
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 08 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: NMNM 109387

1a. Type of Well: ☑ Oil Well ☐ Gas Well ☐ Dry ☐ Other
b. Type of Completion: ☑ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.
Other:

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.:

2. Name of Operator: Logos Operating, LLC

8. Lease Name and Well No.: Logos #3

3. Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401

3a. Phone No. (include area code): 303-550-1877

9. API Well No.: 30-043-21135-00 S1

4. Location of Well (Report location clearly and in accordance with Federal requirements)*
At surface: 741' FSL & 1263' FEL
At top prod. interval reported below: Same as above.
At total depth: Same as above.

10. Field and Pool or Exploratory: WC 22N6W5; GALLUP(O) ~~96894~~ 98013

11. Sec., T., R., M., on Block and Survey or Area: Sec. 5, T22N, R6W

12. County or Parish: Sandoval

13. State: NM

14. Date Spudded: 01/24/2013

15. Date T.D. Reached: 02/08/2013

16. Date Completed: 02/23/2013 ☐ D & A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*: 7181' GL

18. Total Depth: MD 6695' TVD

19. Plug Back T.D.: MD ~~6641'~~ 6616 TVD

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record (Report all strings set in well)

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD APR 10 '13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
To be	reported on	1st delivery date.						

25. Producing Intervals

Formation	Top	Bottom
A) Gallup**	5024'	6236'
B)		
C)		
D)		

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
	0.38"	120	open

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
	Please refer to section #32 for frac details.

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
3/2/13	3/4/13	24	→	120	TSTM	741			flowing

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
16/64	no tbg	15 psi	→	120	TSTM	741		Shut-in

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method
			→						

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status
			→					

ACCEPTED FOR RECORD
MAR 12 2013
FARMINGTON FIELD OFFICE
BY TL Salyers

*(See instructions and spaces for additional data on page 2)

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28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back. Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
Kirtland	1480				
Fruitland	1910				
Pictured Cliffs	1920				
Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

**The lower Gallup perforations were frac'd with the Dakota based on the rock properties.

5024'-5150' Frac'd w/ 4,348 bbls Slickwater, 10,000# 100 mesh, & 90,500# 40/70 sand
5268'-5392' Frac'd w/ 2,447 bbls Slickwater, 10,000# 100 mesh, & 94,000# 40/70 sand
5440'-5504' Frac'd w/ 2,293 bbls Slickwater, 10,000# 100 mesh, 100,359# 40/70 sand, & 2,642,562 scf N2
5838'-6050' Frac'd w/ 3,763 bbls Slickwater, 10,000# 100 mesh sand, & 71,065# 40/70 sand
*6140'-6236' *Frac'd w/ 2,342 bbls Slickwater, 10,000# 100 mesh sand, & 40,120# 40/70 sand

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey
☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature Kristy Graham Date 03/07/2013

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.

(Continued on page 3)

CONFIDENTIAL

Form 3160-4
(March 2012)

Amended

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 22 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No. NMNM 109387

1a. Type of Well ☐ Oil Well ☐ Gas Well ☑ Dry ☐ Other
b. Type of Completion: ☐ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other: * MV Dry Hole Completion

6. If Indian, Allottee or Tribe Name

7. Unit or CA Agreement Name and No.

2. Name of Operator: Logos Operating, LLC

8. Lease Name and Well No.: Logos #3

3. Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401

3a. Phone No. *(include area code)*: 505-436-2627

9. API Well No.: 30-043-21135-00X1

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**

At surface: 741' FSL & 1263' FEL

At top prod. interval reported below: Same as above.

At total depth: Same as above.

10. Field and Pool or Exploratory: WC 22N6W5; Mesa Verde (O) ~~96900~~ 98014

11. Sec., T., R., M., on Block and Survey or Area: Sec. 5, T22N, R6W

12. County or Parish: Sandoval

13. State: NM

14. Date Spudded: 01/24/2013

15. Date T.D. Reached: 02/08/2013

16. Date Completed: 02/23/2013 ☐ D & A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*: 7181' GL

18. Total Depth: MD 6695' TVD

19. Plug Back T.D.: MD ~~6641~~ 6616 TVD

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD MAR 25 '13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
To be	reported on	1st delivery date.						

25. Producing Intervals / 26. Perforation Record

Formation	Top	Bottom	Perforated Interval	Size	No. Holes	Perf. Status
A) Mesa Verde	3727'	3953'		0.38"	36	cemented**
B)						
C)						
D)						

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
3727'-3953'	750 gal 15% HCl acid
3727'**	100 sks type 3 cmt**
3908'-3918', 3953'**	175 sks type 3 cmt**

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

ACCEPTED FOR RECORD
MAR 25 2013
FARMINGTON FIELD OFFICE
BY T. Salyers

*(See instructions and spaces for additional data on page 2)

CONFIDENTIAL

NMOCD
PV

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back, Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
Kirtland	1480				
Fruitland	1910				
Pictured Cliffs	1920				
Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

Logos completed a cement squeeze on the Mesa Verde perforations from 3727'-3953' to shut off excessive water. Logos perforated and swabbed approximately 300 bbls of water in 3 days with no show of oil. Logos swabbed ~265 barrels of water on 3/8/13-3/9/13 from perforations 3908'-3918'. Logos swabbed ~40 barrels of water from perfs @ 3727' on 3/11/2013. Logos performed the squeeze work on 3/12/2013-3/16/2013. Please see attached.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey

☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature Date 03/22/2013

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.

(Continued on page 3)

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Form 3160-4
(March 2012)

UNITED STATES
DEPARTMENT OF THE INTERIOR
BUREAU OF LAND MANAGEMENT

RECEIVED
MAR 29 2013
Farmington Field Office
Bureau of Land Management

FORM APPROVED
OMB NO. 1004-0137
Expires: October 31, 2014

WELL COMPLETION OR RECOMPLETION REPORT AND LOG

5. Lease Serial No.: NMNM 109387

1a. Type of Well: ☐ Oil Well ☐ Gas Well ☑ Dry ☐ Other
b. Type of Completion: ☐ New Well ☐ Work Over ☐ Deepen ☐ Plug Back ☐ Diff. Resvr.,
Other: MV Dry Hole Completion

6. If Indian, Allottee or Tribe Name:

7. Unit or CA Agreement Name and No.:

2. Name of Operator: Logos Operating, LLC

8. Lease Name and Well No.: Logos #3

3. Address: 4001 North Butler Ave, Building 7101, Farmington, NM 87401

3a. Phone No. *(include area code)*: 505-436-2627

9. API Well No.: 30-043-21135 – 00X1

4. Location of Well *(Report location clearly and in accordance with Federal requirements)**
At surface: 741' FSL & 1263' FEL
At top prod. interval reported below: Same as above.
At total depth: Same as above.

10. Field and Pool or Exploratory: WC 22N6W5; Mesa Verde (O) 98014

11. Sec., T., R., M., on Block and Survey or Area: Sec. 5, T22N, R6W

12. County or Parish: Sandoval

13. State: NM

14. Date Spudded: 01/24/2013

15. Date T.D. Reached: 02/06/2013

16. Date Completed: 02/23/2013 ☐ D & A ☐ Ready to Prod.

17. Elevations (DF, RKB, RT, GL)*: 7181' GL

18. Total Depth: MD 6695' TVD

19. Plug Back T.D.: MD ~~6641'~~ 6616 TVD

20. Depth Bridge Plug Set: MD TVD

21. Type Electric & Other Mechanical Logs Run (Submit copy of each)
GR/CCL/CBL/Neutron/Density/Electric

22. Was well cored? ☑ No ☐ Yes (Submit analysis)
Was DST run? ☑ No ☐ Yes (Submit report)
Directional Survey? ☑ No ☐ Yes (Submit copy)

23. Casing and Liner Record *(Report all strings set in well)*

Hole Size	Size/Grade	Wt. (#/ft.)	Top (MD)	Bottom (MD)	Stage Cementer Depth	No. of Sks. & Type of Cement	Slurry Vol. (BBL)	Cement Top*	Amount Pulled
12-1/4"	9-5/8" J-55	36	0	319'	N/A	162 cu ft	29 bbls	surface	0
7-7/8"	5-1/2" L-80	17	0	6686'	4915'	946 sks	309 bbls	surface	0

RCVD APR 2 '13
OIL CONS. DIV.
DIST. 3

24. Tubing Record

Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)	Size	Depth Set (MD)	Packer Depth (MD)
To be	reported on	1st delivery date.						

25. Producing Intervals

Formation	Top	Bottom
A) Mesa Verde	3727'	3953'
B)		
C)		
D)		

26. Perforation Record

Perforated Interval	Size	No. Holes	Perf. Status
	0.38"	36	cemented**

27. Acid, Fracture, Treatment, Cement Squeeze, etc.

Depth Interval	Amount and Type of Material
3727'-3953'	750 gal 15% HCl acid
3727'**	100 sks type 3 cmt**
3908'-3918', 3953'**	175 sks type 3 cmt**

28. Production - Interval A

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28a. Production - Interval B

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

*(See instructions and spaces for additional data on page 2)

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NMOCD

ACCEPTED FOR RECORD
APR 02 2013
FARMINGTON FIELD OFFICE
BY William Tambekou

28b. Production - Interval C

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

28c. Production - Interval D

Date First Produced	Test Date	Hours Tested	Test Production →	Oil BBL	Gas MCF	Water BBL	Oil Gravity Corr. API	Gas Gravity	Production Method

Choke Size	Tbg. Press. Flwg. SI	Csg. Press.	24 Hr. Rate →	Oil BBL	Gas MCF	Water BBL	Gas/Oil Ratio	Well Status

29. Disposition of Gas *(Solid, used for fuel, vented, etc.)*
Flowing well back, Gas TSTM.

30. Summary of Porous Zones (Include Aquifers):

Show all important zones of porosity and contents thereof: Cored intervals and all drill-stem tests, including depth interval tested, cushion used, time tool open, flowing and shut-in pressures and recoveries.

31. Formation (Log) Markers

Formation	Top	Bottom	Descriptions, Contents, etc.	Name	Top Meas. Depth
Ojo Alamo	1350				
Kirtland	1480				
Fruitland	1910				
Pictured Cliffs	1920				
Cliffhouse	3390				
Menefee	3420				
Point Lookout	4220				
Mancos	4350				
Gallup	5190				
Greenhorn	6240				
Dakota	6266				

32. Additional remarks (include plugging procedure):

Logos completed a cement squeeze on the Mesa Verde perforations from 3727'-3953' to shut off excessive water. Logos perforated and swabbed approximately 300 bbls of water in 3 days with no show of oil. Logos swabbed ~265 barrels of water on 3/8/13-3/9/13 from perforations 3908'-3918'. Logos swabbed ~40 barrels of water from perfs @ 3727' on 3/11/2013. Logos performed the squeeze work on 3/12/2013-3/16/2013. Please see attached.

This is an amended report to correct #15 date TD reached.

33. Indicate which items have been attached by placing a check in the appropriate boxes:

☐ Electrical/Mechanical Logs (1 full set req'd.) ☐ Geologic Report ☐ DST Report ☐ Directional Survey

☐ Sundry Notice for plugging and cement verification ☐ Core Analysis ☐ Other:

34. I hereby certify that the foregoing and attached information is complete and correct as determined from all available records (see attached instructions)*

Name *(please print)* Kristy Graham Title Director of Administration and Engineering Support

Signature Date 03/28/2013

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(Continued on page 3)

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