

Submit 1 Copy To Appropriate District Office

District I – (575) 393-6161
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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 July 18, 2013

WELL API NO. 30-025-42139 **43470**

5. Indicate Type of Lease
STATE ☐ FEE ☒ FEDERAL ☐

6. State Oil & Gas Lease No.
NA

7. Lease Name or Unit Agreement Name
Monument AGI D

8. Well Number #2

9. OGRID Number
24650

10. Pool name or Wildcat
AGI: Devonian

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: Oil Well ☐ Gas Well ☐ Other: Acid Gas Injection Well ☒

2. Name of Operator
Targa Midstream Services LLC

3. Address of Operator
1000 Louisiana, Houston, TX 77002

4. Well Location
Unit Letter O : 685 feet from the SOUTH line and 2,362 feet from the EAST line
Section 36 Township 19S Range 36E NMPM County Lea

11. Elevation (Show whether DR, RKB, RT, GR, etc.)
3,384 (GR)

12. Check Appropriate Box to Indicate Nature of Notice, Report or Other Data

NOTICE OF INTENTION TO:		SUBSEQUENT REPORT OF:	
PERFORM REMEDIAL WORK <input type="checkbox"/>	PLUG AND ABANDON <input type="checkbox"/>	REMEDIAL WORK <input type="checkbox"/>	ALTERING CASING <input type="checkbox"/>
TEMPORARILY ABANDON <input type="checkbox"/>	CHANGE PLANS <input type="checkbox"/>	COMMENCE DRILLING OPNS. <input type="checkbox"/>	P AND A <input type="checkbox"/>
PULL OR ALTER CASING <input type="checkbox"/>	MULTIPLE COMPL <input type="checkbox"/>	CASING/CEMENT JOB <input checked="" type="checkbox"/>	
DOWNHOLE COMMINGLE <input type="checkbox"/>			
CLOSED-LOOP SYSTEM <input type="checkbox"/>		OTHER: (Acid Gas Injection Start-up) <input type="checkbox"/>	
OTHER: <input type="checkbox"/>			

13. Describe proposed or completed operations. (Clearly state all pertinent details, and give pertinent dates, including estimated date of starting any proposed work). SEE RULE 19.15.7.14 NMAC. For Multiple Completions: Attach wellbore diagram of proposed completion or recompletion.

The 12 1/4-inch borehole for the intermediate casing was drilled from November 27 to December 11, 2016, open hole geophysical logs and sidewall cores were run through December 13, 2016. From December 13 to December 21, 2016 four cement plugs were set in an attempt to control loss of circulation and described in the C-103 report submitted and approved on December 21, 2016. On December 22, 2016 the following casing segments were run in the 12 1/4-inch borehole (see Casing Tally):

Casing Segment (top to bottom)	Segment Depths		OD (in)	Wt (lb/ft)	Grade	Connection	Pressure Testing		
	Top (ft)	Btm (ft)					BOP & BOPE	Casing Integrity	FIT Test Required
Intermed: TD = 8,310.0 (three stage cement)									
			Run Date: 12/22/16		Testing Dates:		12/25/16	12/26/16	
Casing #1 (90 jts)	-5.24 - 3,942.0		9.625	40.0	L-80	LTC	250, 2,500, & 5,000 psi	Above DVT:	No
DVT #2	3,942.0 - 3,944.7							618-603psi	
ACP #2	3,944.7 - 3,969.4							(15 min)	
Casing #1 (22 jts)	3,969.4 - 4,947.8			47.0				Between	
Casing #2 (65 jts)	4,947.8 - 7,853.1							DVTs: 780-	
DVT #1	7,853.1 - 7,855.7							750 psi	
ACP #1	7,855.7 - 7,880.4							(20 min)	
Casing #2 (8 jts)	7,880.4 - 8,241.8							Below	
Float Collar	8,241.8 - 8,243.1							DVTs: 671-	
Casing #2 (1 jt)	8,243.1 - 8,288.4							689 psi	
Float Shoe	8,288.4 - 8,290.0							(25 min)	

Cementing of the 9 5/8-inch casing began on December 23, 2016 with 36 barrels of Halliburton "Well-Lock" resin for the first stage from 7,853 to TD (8,310 ft – MD). No water or cement (resin) was circulated following the first stage. The

second stage included 425 sacks (264 bbls) of “NeoCem” cement, with a yield of 3.485 ft³/sack, for the lead and 50 sacks (12 bbls) of “HalCem” cement, with a yield of 1.333 ft³/sack, for the tail. Following the second stage of cementing fluid circulation was re-established and an attempt was made to perform a fluid caliper log using the rig pumps, but the circulation of red diesel from earlier operations interfered with the red dye needed to verify a complete circulation.

Davis Fluid Calipers, Inc. was contracted to perform a fluid caliper using oats instead of dye and determined that an additional 1,000 sacks of cement were needed to safely complete the final stage of cementing. The third stage of cementing was performed on December 24, 2016. It included 1,000 sacks (440 bbls) of “EconoCem” cement, with a yield of 2.471 ft³/sack and 4,020 sacks (1,342 bbls) of “EconoCem” cement, with a yield of 1.875 ft³/sack for the lead and 50 sacks (12 bbls) of “HalCem” cement, with a yield of 1.333 ft³/sack, for the tail. Cement was not circulated to the surface and WOC time was approximately 41 hours. On December 25, 2016 the BOPE was successfully tested at 250, 2,500, and 5,000 psi and the casing was successfully prior to drilling the upper DV tool, after drilling the upper DV tool, and after drilling the lower DV tool (see attached charts).

Schlumberger ran a CBL on December 27, 2016, which failed to detect the 36 bbls of “Well-Lock” resin that was placed from the lower DV tool (7,853 ft) to TD (8,310 ft) in a tight dolomite. The CBL successfully identified areas of missing conventional cement located from the upper DV tool (3,942 ft) to approximately 4,510 ft in the San Andres formation, and from the surface to approximately 1,560 ft.

A meeting with representatives of the NMOCD was held to review the CBL and discuss remedial options for the cement. It was determined that the “Well-Lock” section of the CBL should be reprocessed to enhance its detection and a Braden Head squeeze should be performed to add cement behind the 9 5/8-inch casing at the surface. It was also determined that remedial actions for the missing cement in the San Andres section would not likely be successful. Later that day an unsuccessful attempt was made to establish an injection rate into the Braden Head. On December 28, 2016 the 9 5/8-inch casing was perforated at 1,500 to 1,502 ft with eight 0.51-inch shots. A cement retainer was placed at 1,450 ft and the perforations were squeezed with 2,823 sacks (1,242 bbls) of “EconoCem” cement, with a yield of 2.472 ft³/sack, for the lead and 340 sacks (81 bbls) of “HalCem” cement, with a yield of 1.333 ft³/sack, for the tail. Approximately 56 sacks (25 bbls) of cement were circulated to the surface. All cement lab and job summary reports are provided as attachments. The following table is a summary of the cement used for the 9 5/8-inch intermediate casing:

Casing Segment Stage	Shoe Depth (ft)	Casing Size (in)	Hole Size (in)	Slurry Yield (ft ³ /sack)	Number of Sacks	Barrels	Time to 500 psi (hh:mm)	Number of Sacks Circulated	Barrels Circulated	Date - Time Landed Plug	Projected Date - Time Test BOPE
Intermediate	8,290	9.625	12.25								
Stage #1 - 7,853 to 8,290											
Lead	Well Lock Resin			1.299	--	36	15:42	0	0	12/23/16	12/24/16
				Total Volume:	--	36	15:42			6:00	21:42
Stage #2 - 3,942 to 7,853											
Lead	NeoCem Cement			3.485	425	264	--	0	0	12/23/16	12/24/16
Tail	HalCem Class C			1.333	50	12	10:13			11:00	21:13
				Total Volume:	475	276	10:13				
Stage #3 - 0 to 3,942											
Lead	EconoCem			2.472	1,000	440	--	0	0	12/24/16	12/25/16
Lead	EconoCem			1.875	4,020	1342	--			15:12	3:00
Tail	HalCem Class C			1.333	50	12	--				
				Total Volume:	5,020	1,783	--				
Remedy Squeeze - 1,500 to Surface											
Lead	EconoCem			2.471	2,823	1242	--	56	25	12/29/16	12/30/16
Tail	HalCem Class C			1.333	340	81	--			17:00	5:00
				Total Volume:	3,163	1,323	--				

Following the successful cement squeeze, the retainer and conventional cement was drilled out from the uppers section and the 9 5/8-inch casing float, “Well Lock” resin, and casing shoe were drilled out prior to beginning the 8 1/2-inch borehole. No loss of circulation was encountered below the casing shoe. The re-processed CBL indicated that the “Well Lock” resin cement in the lower section of the 12 1/4-inch borehole had not fully set up prior to the running of the CBL. This was confirmed by the fact that when the 9 5/8” casing shoe was drilled out, there was no lost circulation which would clearly have occurred if the zone had not been properly cemented. All open hole and cased hole logs will be provided when hard copies are made available. A well bore schematic is attached that describes the events associated with the intermediate casing. Geolex obtained NMOCD approval to continue to drill out and install the 7” casing to just above the top of the injection zone

in the caprock at the depth of 8350'. This string will be cemented with 3000' of "Well Lock" resin cement from the 7" TD at 8350' up into the 9 5/8" casing to a level of approximately 5300'.

Spud Date:

November 23, 2016

Rig Release Date:

I hereby certify that the information above is true and complete to the best of my knowledge and belief.

SIGNATURE

Dale T Littlejohn

TITLE Consultant to Targa Midstream LLC

DATE 1-3-17

Type or print name Dale T Littlejohn

E-mail address: dale@geolex.com

PHONE: 505-842-8000

For State Use Only

APPROVED BY:

Mary S Brown

TITLE

AO/II

DATE

1/3/2017

Conditions of Approval (if any):