

Office

Energy, Minerals and Natural Resources

October 13, 2009

District I - (575) 393-6161

1625 N French Dr, Hobbs, NM 88241

District II - (575) 748-1283

811 S First St., Artesia, NM 88210

District III - (505) 334-6178

1000 Rio Brazos Rd., Aztec, NM 87410

District IV - (505) 476-3460

1220 S. St. Francis Dr., Santa Fe, NM

87505

HOBBS OGD

JUN 23 2011

RECEIVED

OIL CONSERVATION DIVISION

1220 South St. Francis Dr.

Santa Fe, NM 87505

WELL API NO.

30-025-21497

5. Indicate Type of Lease

STATE ☐FEE ☒

6. State Oil & Gas Lease No.

7. Lease Name or Unit Agreement Name

Eunice Gas Plant SWD

8. Well Number # 1

9. OGRID Number

24650

10. Pool name or Wildcat

SWD: San Andres

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 ☒

2. Name of Operator

Targa Midstream Services, LP

3. Address of Operator

1000 Louisiana, Suite 4300, Houston, TX 77002-5036

4. Well Location

Unit Letter L : 2580 feet from the South line and 1200 feet from the West lineSection 27Township 22SRange 37E

NMPM

Lea

County

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

3335 GR

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

NOTICE OF INTENTION TO:

PERFORM REMEDIAL WORK ☐PLUG AND ABANDON ☐TEMPORARILY ABANDON ☐CHANGE PLANS ☐PULL OR ALTER CASING ☐MULTIPLE COMPL ☐DOWNHOLE COMMINGLE ☐OTHER: Step Rate Test Procedure ☒

SUBSEQUENT REPORT OF:

REMEDIAL WORK ☐ALTERING CASING ☐COMMENCE DRILLING OPNS. ☐P AND A ☐CASING/CEMENT JOB ☐OTHER: ☐

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.

Per order No. R-12809-C attached are:

Attachment No. 1 - Wellbore Diagram

Attachment No. 2 - Test Procedure

Attachment No. 3 - Rig-up Diagram

Testing scheduled to start about June 30, 2011 per attachment No. 2. Please advise with concurrence with procedure.

Spud Date:

Rig Release Date:

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

SIGNATURE

Denise Jones

TITLE Regulatory Analyst

DATE 06/22/2011

Type or print name Denise Jones

E-mail address: djones@cambrianmgmt.com

PHONE: 432-620-9181

For State Use Only

APPROVED BY:

[Signature]

TITLE

STATE MGR

DATE

6-27-2011

Conditions of Approval (if any):

JUN 28 2011

Attachement #1

Eunice Gas Plant SWD #1

	Location:
Footage	2500 FSL & 1200 FWL
Section	27
Survey	T22S R37E
County	Lea
Elevations:	
GR	3345
TD	4550
PBTD	

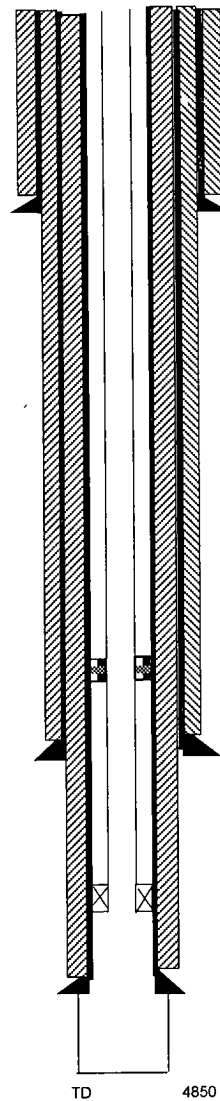
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	Tube Detail (top to bottom)
Joints	Description
1	X-over
1	2 7/8" 6 5# J-55 EUE Duoline sub
8	its 2 7/8" 6 5# J-55 EUE Duoline
1	X-over
1	Halliburton SSSV @ 277'
1	X-over
124	its 2 7/8" 6 5# J-55 EUE Duoline
1	Halliburton seal assembly stung in Halliburton pkr @ 4190'
1	2 7/8" 6 5# J-55 EUE Duoline sub
1	X nipple (1 875 ID)
1	2 7/8" 6 5# J-55 EUE Duoline sub, EOT @ 4219'

API No:	30-025-21497
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Hole Size:	15
Surf csg	10 3/4
Set @	300
Cement w/	300 sxs
Circ:	Surface

Hole Size:	8 3/4
Inter. csg	7" 20#
Set @	4010
Cement w/	1750 sxs
Circ:	Surface



Stage tool @ 3902'

Hole Size:	6 1/4
Prod. Csg	5 1/2" 17# J-55
Set @	4258
Cement w/	310
Circ:	1059' by CBL
Stage tool @	3902'

5 1/2" alloy csg @ 4182'-4199'

OH from 4258-4850

Sundry Notices and Reports on Wells

C-103

Attachment No. 2

June 22, 2011

Drilling and completion activities, including the setting of the packer and running of the injection tubing, have been completed on this well. Testing will be starting about June 29, 2011 to evaluate the well's injection capabilities. Following is the anticipated testing program that is meant to satisfy the requirements set out in Order Number R-12809-C.

Please advise of your approval of this program or what changes need to be made.

Mechanical Integrity Test

A mechanical integrity test will be run to pressure test the casing from the surface to the packer per OCD rules. Verbal notification will be given to the Division's Hobbs office to allow witnessing if desired.

Step Rate Test

The Step Rate Test will be run to determine injection performance at various injection rates. The written procedure for the test is included below and the rig-up diagram will be submitted to the OCD at least 24 hours before starting the test. This step rate test procedure contains the following information:

1. A diagram of the mechanical configuration of the recompleted well.
2. A description of the previous injection test in the SWD well.
3. The well has not had any fracture treatments and the ISIP is 0psi.
4. C-115's showing past injection volumes and pressure history are on file with the NMOCD.

Downhole pressure gauges will be used to measure bottom hole pressures at injection rates greater than 1 bpm. Starting pump rates and pressures will be lower than the current rates and pressures (if the well is currently injecting) and there will be at least 3 steps below the 0.2 psi/ft gradient and 3 steps above the break-over point. Rate changes will be 0.5 bpm or smaller unless the OCD witness determines that bigger rate changes are necessary due to small incremental increases in pressure. Each step will be at least 15 minutes in duration unless otherwise determined by the OCD. Step duration must not be changed during the test.

According to historical records contained in Order No. R-12809-C in 1983, a pump-in injection test on the original Eunice Gas Plant SWD Well No. 1 reached a rate of 10 bpm into the open hole interval of 4,010 ft to 4,550 ft at a bottom hole pressure of 3,000 psi without showing any apparent evidence of fracturing.

The Step Rate Test design will take into account the current Order's maximum surface injection pressure limitation of 1,300 psi (equivalent to a fracture pressure gradient of 0.3

psi/ft) as well as the plant's ultimate need to dispose of approximately 4,075 bpd (2.8 bpm) of TAG and waste water. Accordingly, the following rate schedule is proposed:

Step	Rate (bpm)	Time (min)	Bbls	Cum
1	1.00	20	20	20
2	1.50	20	30	50
3	2.00	20	40	90
4	2.50	20	50	140
5	3.00	20	60	200
6	3.50	20	70	270
7	4.00	20	80	350
8	4.50	20	90	440
9	5.00	20	100	540
		180	540	

3.0 hrs

If the well reacts similarly to the SWD well's test in 1983, then an obvious breakover point will probably not be reached by the time the 9th Step is reached at 5.0 bpm. In other words, if the injection pressure at this point is below 1,300 psi, Targa will have no need to amend their order to raise the surface injection pressure limitation. However, if the injection pressure exceeds 1,300 psi (or if the injection pressure at 3.0 bpm is greater than 1,300 psi), and no breakover is witnessed, Targa may use the data collected to prepare a request to NMOCD for approval of a higher surface injection pressure limitation, pursuant to paragraph D of Order No. R-12809-C.

Verbal notice will be given to the Division's Hobbs office 24-48 hours prior to initiating the test to allow witnessing if desired.

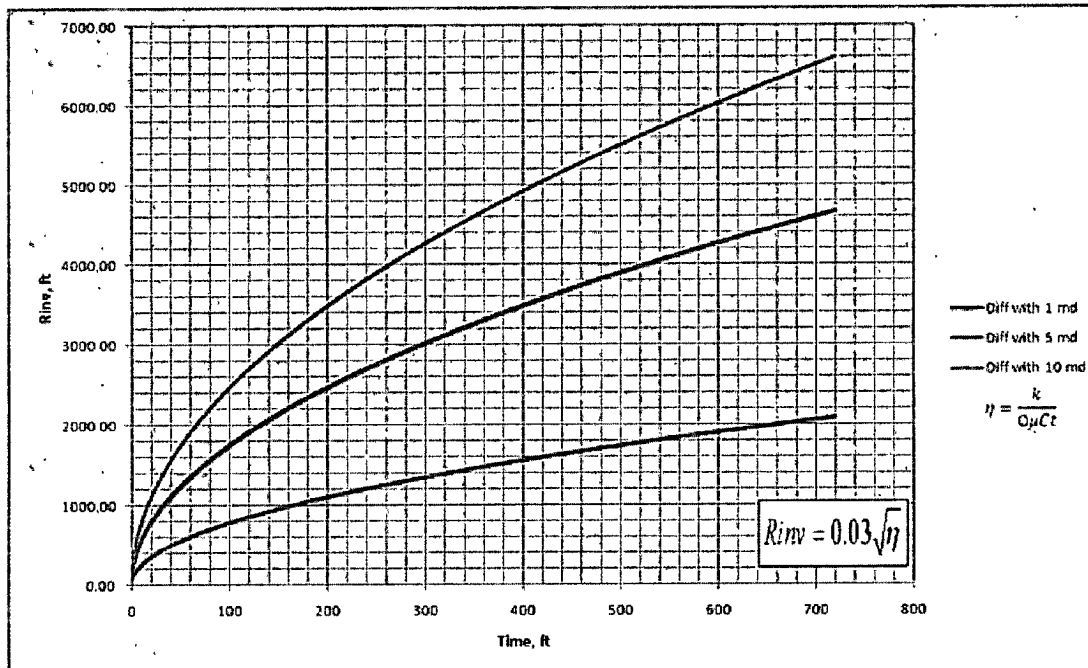
Transient (Falloff) Testing / Temperature Survey

This test will immediately follow the Step Rate Test.

Targa has designed an AGI system that will inject a maximum of approximately 2,500 bpd of (dense phase) acid gas, coupled with produced water and non-hazardous waste water of up to 1,575 bpd; for a total injection volume of up to 4,075 bpd (2.8 bbl/min).

The following graph uses assumed well properties and shows the sensitivity to formation permeability. In the base case, the expected time for the pressure transient to travel ½ mile is approximately 150 hours (6 days). If the permeability encountered is closer to 5 md, the corresponding time required for a transient to reach a radius of investigation of ½

mile would be approximately 11 days. Once the logs and core have been analyzed, the most appropriate duration for the injection test will be determined.



The proposed Falloff testing procedure encompassing the upper limits of the injection rate will be followed by a falloff period sufficient to test for any formation boundaries up to a minimum of ½ mile from the wellbore. The pressure data will be captured in downhole pressure gauge “bombs” designed to record pressure data. The proposed injection test will proceed as follows:

- Position the downhole gauges at the bottom of the injection interval if possible (4,825 ft)
- Begin waste water injection at 1.5 bpm. Inject for 2 hours. 180 bbls total.
- Increase injection rate to 3.0 bpm. Inject for 2 hours. 360 bbls (540 bbls cumulative total)
- Shut in for Falloff test for 150 hours (6 days).
- At end of 150 hours, pull out of hole with pressure bombs.
- Analyze pressure for transient pressures.
- Use data from tracer/temperature survey and transient testing for reservoir simulation and enhanced prediction of area affected by injection over 30 years.
- Provide results to NMOCD.

Injection Survey

This test will follow the Transient (Falloff) Test as soon as practical. Notice will be given to the Division’s Hobbs office to allow witnessing if desired.

Order R-12809-C instructs the Operator to run a tracer and temperature injection survey on this well as soon as practical after completion of the well and while injecting water (no acid gas) at a representative rate which approximates the disposal rate and supply the results of that survey to the Division.

Targa will run this Injection Profile log to satisfy the requirements of the Order. The injection profile provides an analogy of injection fluid movement down the well bore and into the formation. The injection profile log also gives a good indication of the mechanical integrity of the well, including possible fluid channeling away from the well bore.

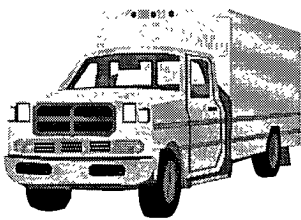
The service company will inject a radioactive (RA) material like Iodine 131 into the disposal stream of the well and measure the relative amounts of absorption each layer of the formation contributes to the overall injection. Several passes are usually required to develop a profile of the injection interval. A temperature probe on the bottom of the tool will help to correlate the various RA slug measurements, and an optional production logging "spinner" tool can measure the velocity changes of the injected fluid over the injection interval.

Sundry Notices and Reports on Wells

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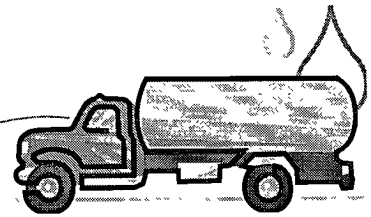
Attachement No. 3

June 22, 2011



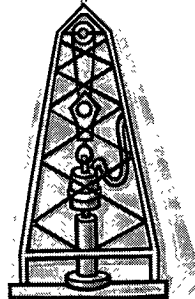
Schlumberger fiber
optic wireline unit-

BHP gauge to be
suspended in tubing
at 4825' for test



Pump Truck-

Equipped with gauges
and meters to measure
fluid volumes and rates.
Will pump fresh water



Eunice Gas Plant SWD #1 Wellhead