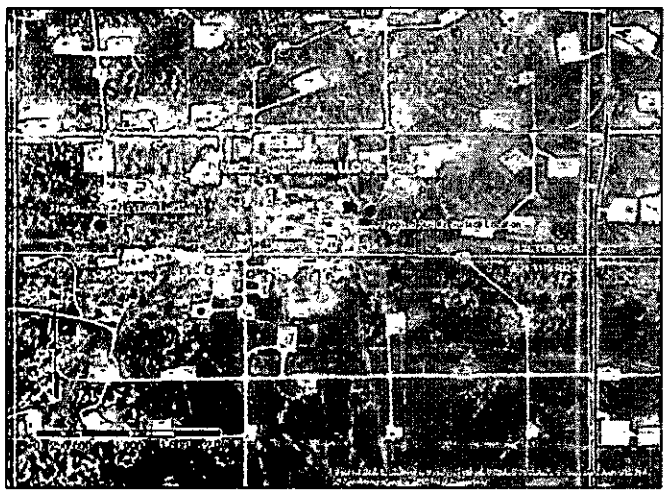
Frontier Field Services LLC

Application for Increase in Maximum Injection Rate Pursuant to NMOCC Order R-13443-B Case Number 15193

EXHIBIT NO. 3



Hearing Before the
New Mexico Oil Conservation Commission

September 10, 2015
Santa Fe, New Mexico

FRONTIER field services, llc
southern ute indian tribe

Summary of Request

- On November 19, 2014 the NMOCC signed order R-13443-B approving the drilling and operation of a redundant AGI well at Frontier's Maljamar Plant. This followed an unopposed hearing held in September, 2014 following submittal of a C-108 and appropriate notice given to all potentially affected parties. The order approves a maximum injection rate proposed by Frontier of 2 MMSCFD of TAG into either or both approved AGI wells. Since the issuance of the order, additional CO_2 and H_2S being handled at the facility have required the addition and modification of AGI compression facilities. As a result of the changing inlet concentrations and additional gas volume being processed by the facility, it is anticipated that TAG volumes will ramp up over the next couple of years to a maximum of 3.5 MMSCFD. Frontier is seeking a modification of this order to allow that additional TAG to be disposed of in either or both of the wells.

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Information and Data Analysis Supporting Injection Rate Increase Request

- Projected ramp up rate of TAG based on inlet concentrations and processing changes.
- Modeling of TAG volumes and plume size over time based on new proposed maximum rate of 3.5 MMSCFD vs. originally modeled rate of 2 MMSCFD .
- Reevaluation of area potentially affected by TAG injection over projected life of facility.
- Reevaluation of notice to parties within area of review.
- Examination of any additional or different wells in revised potential affected area.
- The plant serves approximately 70 producers in the area and services approximately 1500 individual wells and would now be incorporating flow from the Empire Abo Plant.
- The plant currently processes approximately 106 MMSCFD of sour gas and currently permitted to dispose of 1.8 MMSCFD of TAG. The increasing sour nature of inlet gas, along with process improvements and potential consolidation of plants in SE New Mexico, would result in processing up to 140 MMSCFD with higher H_2S and CO_2 concentrations resulting in maximum TAG production of up to 3.5 MMSCFD.
- Injection into both wells will increase the proportion of the TAG plume that will remain under Frontier's physical facility.
- This request aids all producers by allowing for the continued processing of their full gas volumes.
- Surface system will be designed such that wells may operate independently or flow split between wells to reduce surface injection pressure.

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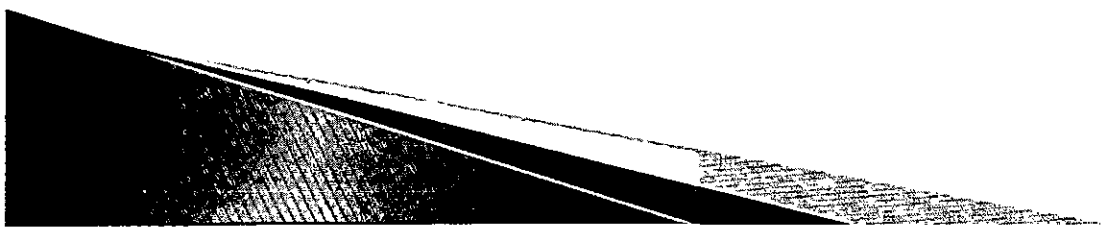
Executive Summary

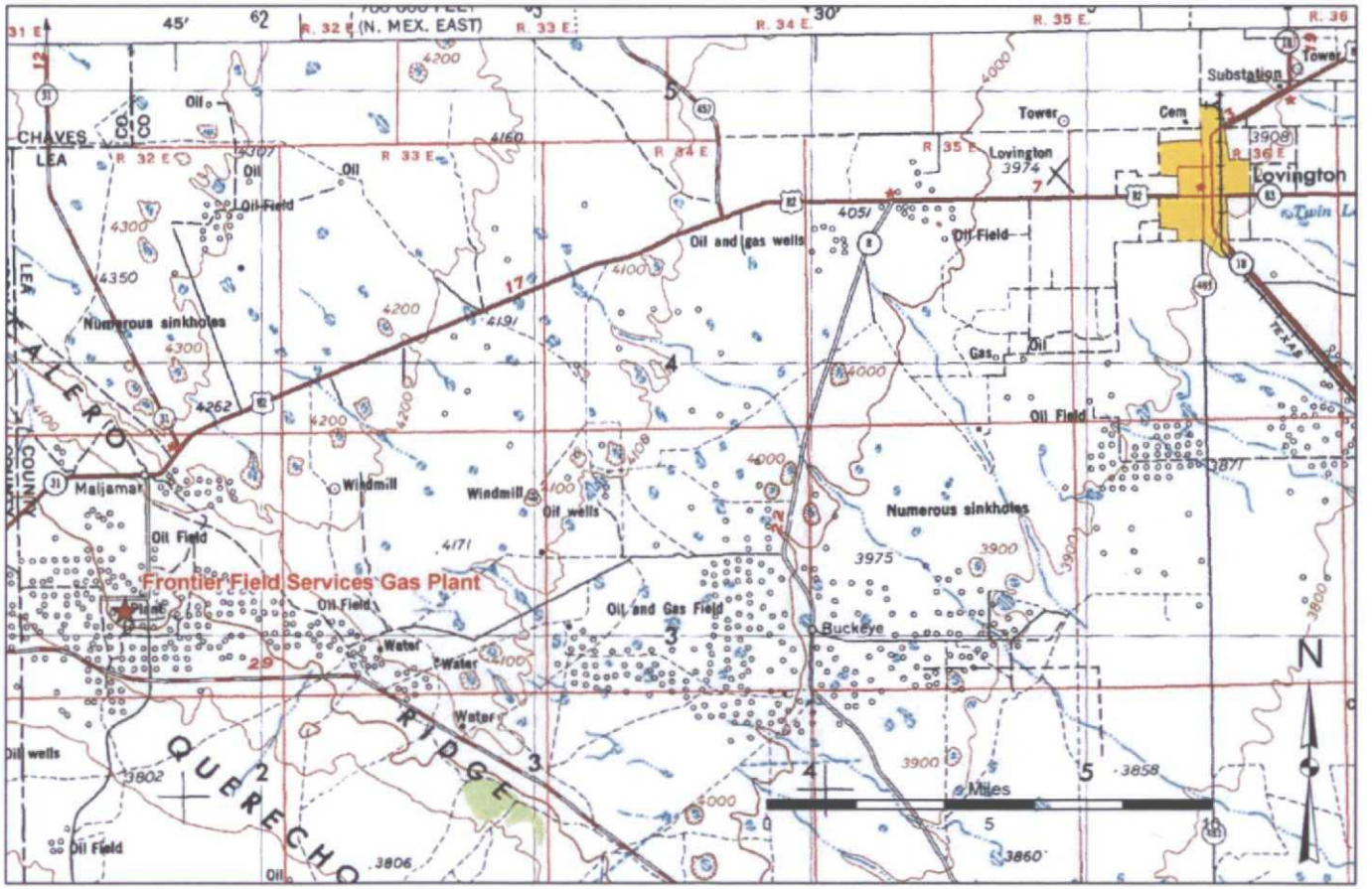
- Frontier is requesting NMOCC approval to increase the maximum daily rate of injection up to 3.5 MMSCFD combined in both AGI wells. This is due to the increasing sour nature of inlet gas to Maljamar, in addition to process improvements and the potential consolidation of the Maljamar and Empire Abo Plants driven by the reduced drilling activity as a result of the current commodity pricing environment.
- The area of review does not change after remodeling of cumulative plume size over life of injection wells. ***The area of review contains no additional wells or parties requiring notice***
- No active wells penetrate the Lower Wolfcamp zone within the one-half radius area of review. ***This remains unchanged with the rate increase request***
- The only plugged and abandoned well within the half-mile radius area of review (Queen B 036) is properly plugged and completed isolated from the proposed injection zone. ***This remains unchanged with the requested rate increase***
- The existing permitted program is based on a constant injection rate of 2.0 MMSCFD, which leads to a calculated injection radius of 0.26 miles and an area of 139 Acres. With the 200% safety factor, the radius increases to 0.37 miles and the area increases to 278 Acres.
- The requested new injection program will, after 30 years, increase the injection radius to 0.32 miles, and the area to 207 Acres. Using the 200% safety factor, the radius will grow to 0.45 miles and the area will increase to 292 Acres.
- Frontier is already required under the approved order R-13443-B to revise the Rule 11 H_2S contingency plan to accommodate the new well and has already submitted to OCD a revised plan to include additional H_2S volumes that the plant will be handling.



Injection Fluid Volume, Composition and Pressure Considerations

- Request up to 3.5 MMSCFD acid gas to be injected at maximum rate
- Injected fluid composition will increase to approximately 30% H_2S, 70% CO_2 and Trace hydrocarbons (C1-C8)
- Injected fluid compatibility determined through nearby injection experience and formation fluid analysis
- Maximum allowable operating pressure per NMOCC orders are 3200 psig and 3028 psig at surface for AGI #1 and AGI #2, respectively – no change requested here

Location of Frontier's Maljamar Gas Plant



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History of Frontier's Maljamar AGI Project

- Frontier Field Services has determined the need to have a redundant AGI well at the Maljamar Plant to allow continuous operations during workovers, etc.
- The second well approved by NMOCC will be located approximately 470 feet NNW of the existing Maljamar AGI #1 and will be connected to the same compressor system
- AGI #2 will be drilled as a inclined well (at approximately 31 degrees from vertical) and completed consistent with a proven AGI well design approved previously by NMOCD
- Geolex was originally retained in December 2010 to evaluate AGI feasibility, update H_2S Contingency Plan and prepare application for injection resulting in application submitted on May 16, 2011
- Approved injection reservoirs have been mapped and delineated with traditional geologic methods and enhanced by detailed 3-D seismic analysis
- Detailed mapping of reservoir and available well data assures that all wells within area of review are well protected and will not be affected by proposed injection
- H_2S Contingency Plan consistent with § 19.15.11 et. seq. NMAC was submitted as approved final in November 2012 after a delayed well completion. This approved plan will be modified upon final design of second AGI well and include the proposed increased injection volume, and will be resubmitted for review and approval prior to commencing injection
- C-108 Application submitted to NMOCC on June 9, 2014
- All required parties have been individually noticed, legal notice was published on August 14, 2014and hearing was set by NMOCC for September 11, 2014 and rescheduled by NMOCC to September 25, 2014 due to Commission schedule conflicts.
- Uncontested hearing was held on 9/25/14 and NMOCC signed order R-13443-B on 11/19/2014
- The BLM Application for Permission to Drill (APD) was approved in June 2015.
- A request for administrative approval of a maximum injection rate increase was submitted in May to OCD and after consultation with OCD technical and legal staff, it was determined the request had to go to hearing as OCD lacked authority to modify this part of the NMOCC order. OCD technical staff was supportive of the request.

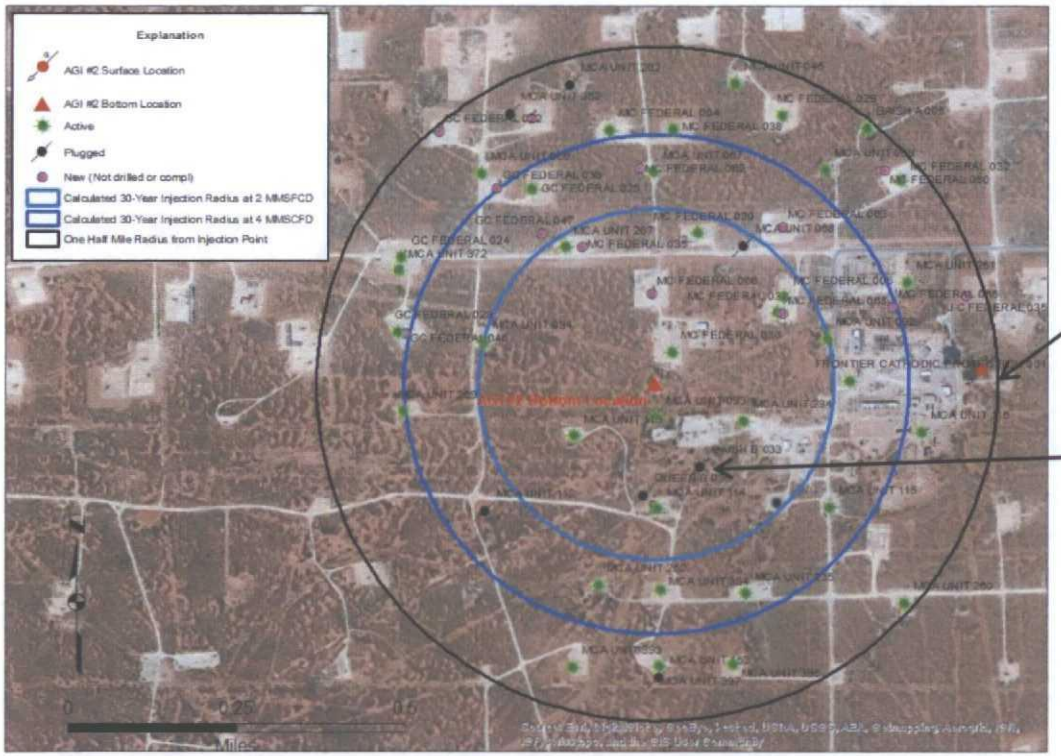
Adjacent Operators and Surface Owner Notification, Notices and Rule 11 Compliance

- Frontier's volume increase request details the full information needed to approve this increase and NMOCD has completed the technical review and supports the request. Individual notice was sent to previously noticed operators and surface owners via Certified Mail, Return Receipt Requested
- No objections to Frontier's application were submitted
- Adjacent operators and the BLM support the AGI project which will allow increased throughput and increase royalties paid to State of New Mexico while protecting fresh water resources and correlative rights
- NMOCD Environmental Bureau approved current H_2S Contingency Plan for current Maljamar Gas Plant in November 2012
- The approved Rule 11 plan has been modified for the volume increase and the new well as required by the order. It has been submitted to, and is in final review by NMOCD. Approval is anticipated this month. After completion of the well and connection to surface facilities, NMOCD will be notified prior to commencing injection.

Identification & Characterization of Wells, Stratigraphy & Geologic Structure in the Project Area

- Geolex researched NMOCD files to identify oil and gas wells in the area of review
- Within two miles of the approved AGI #2 there are 772 wells, of which 31 penetrate the Wolfcamp injection zone; 20 are active and 11 are plugged and abandoned
- Within one half mile of AGI #2, only two wells penetrate the Wolfcamp. One is the current AGI #1 and the second, Queen B 036, is properly plugged and isolates the Wolfcamp injection zone
- Based on stratigraphic and 3-D seismic analysis and evaluation of the AGI #1 performance, the injection zone is excellent acid gas reservoir
- 3-D seismic analysis and detailed information on well completions penetrating injection zone conclusively demonstrate that proposed injection will not negatively affect current or potential production and protect fresh water resources

Wells Within Area of Review
Only Two Penetrate Injection Zone



One Active Well-
Maljamar AGI#1

One P&A Well-
Queen B 036

Figure 8: Wells Within One Half Mile of Proposed AGI #2 Injection Point

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Total Life-Cycle Injection Volumes and Ranges of Reservoir Capacity Approved vs Requested

Daily TAG Injection Volume (MMSCF)	Daily Volume of TAG in Reservoir (BBLS/D)*	Total TAG Volume in Reservoir after 30 Years (MMBBLS)	Calculated Reservoir Volume in Wolfcamp (BBLS)	Percentage of Maximum Reservoir Occupied	Calculated Radii of Affected Area of Reservoir (Miles)	Affected Area of Reservoir (Acres)
2.0 vs 3.5	850 vs 1488	9.3 vs 15.8	24 Million	39 vs 66%	0.26 vs 0.32	139 vs 207

Notes:

At reservoir conditions of 4800 psi and 132° F, each 1 MMSCF at the surface will be compressed to 382 BBLS The irreducible water saturation of the reservoir is 45% and the available reservoir volume has been calculated taking this value into consideration. For this reason, while the actual configuration of the injected fluid plume will vary depending on depositional variability, the modeled radius of the injected plume is an accurate simulation of the volume that will be occupied. The injected plume will be limited to the areal extent and configuration of the Wolfcamp reservoir identified with the 3-D seismic.

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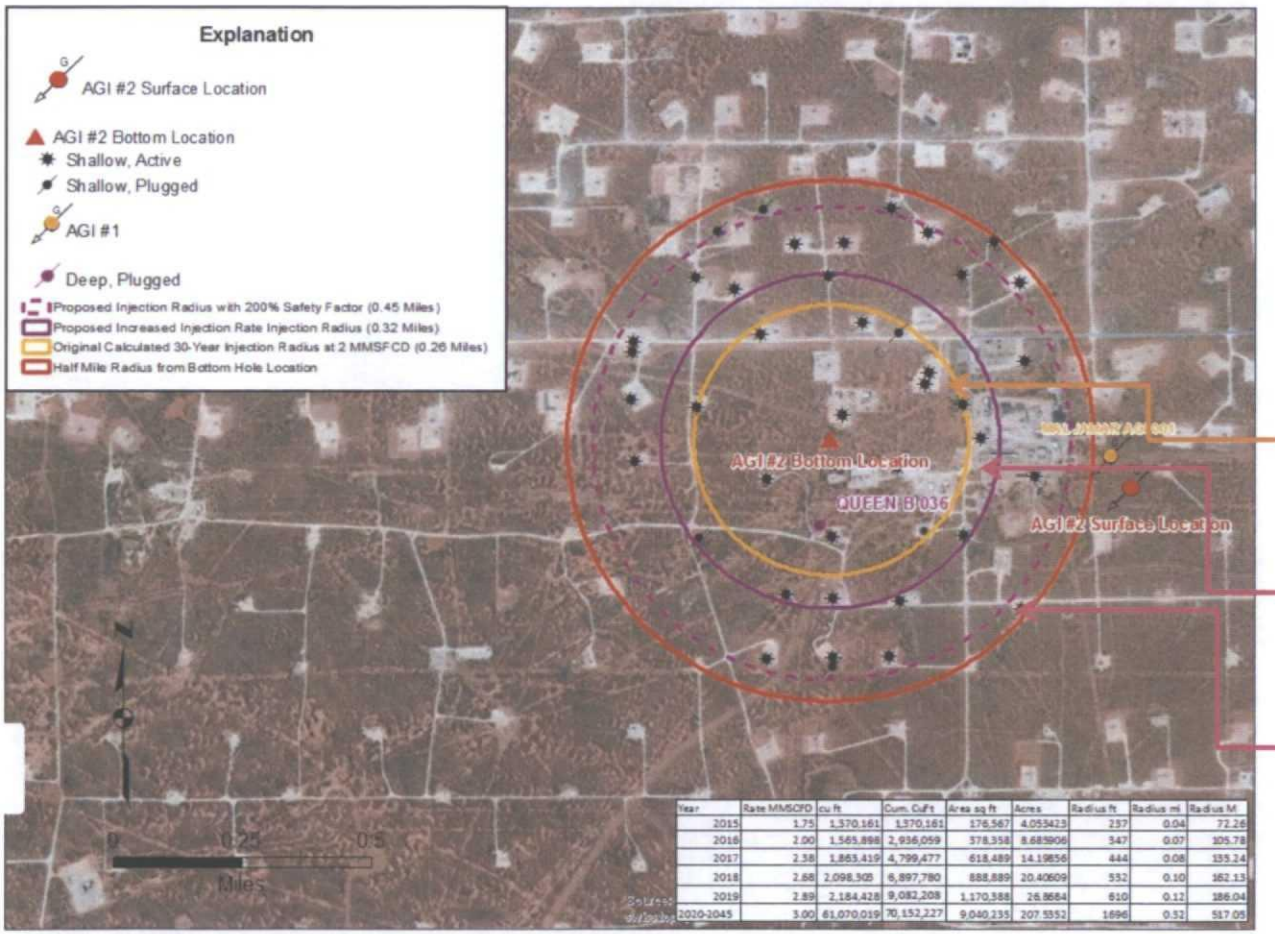
Calculations of Reservoir Area Affected after 30-Years of Injection Approved vs. Requested



Year	Rate MMSCFD	cu ft	Cum. Cu Ft	Area sq ft	Acres	Radius ft	Radius mi	Radius M
2015	1.75	1,370,161	1,370,161	176,567	4.053423	237	0.04	72.26
2016	2.00	1,565,898	2,936,059	378,358	8.683906	347	0.07	105.78
2017	2.38	1,863,419	4,799,477	618,489	14.19856	444	0.08	135.24
2018	2.68	2,098,303	6,897,780	888,889	20.40609	532	0.10	162.13
2019	2.89	2,184,428	9,082,208	1,170,388	26.8684	610	0.12	186.04
2020-2045	3.00	61,070,019	70,152,227	9,040,235	207.5552	1696	0.32	517.05

Approved

Requested

Requested with 200% Safety Factor

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Maljamar AGI #2 Well Schematic

Well design may be modified slightly to address drilling challenges encountered during drilling AGI#1. MIT will be performed prior to commencing injection and every year subsequent as required by approved NMOCC order R13443-B.

PROPOSED WELL SCHEMATIC

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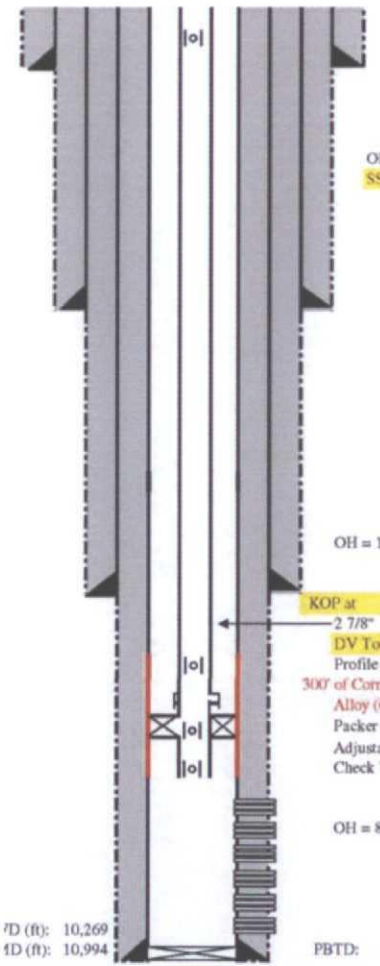
Location: Frontier Field Services Maljamar Gas Plant
3 miles south of Maljamar, NM
STR Section 21, T17S, R32E
County, St.: LEA COUNTY, NEW MEXICO

30.70° INCLINE



CONDUCTOR CASING
20" Conductor at 40 ft

SURFACE CASING
13 3/8", 48.00#/ft, H40, STC at 890 ft
Cemented to Surface

INTERMEDIATE CASING:
9 5/8", 40.0 #/ft, J55, LTC at 5,700 ft
Cemented to Surface; verified w/CBL

PRODUCTION CASING:
7", 26 #/ft, HCL-80, Prem at 9,954 ft
7", 26 #/ft, CRA, SM2550 Prem at 10,258 ft
7", 26 #/ft, HCL-80, Prem at 11,095 ft
Cemented to Surface; verified w/CBL

ANNULAR FLUID:
Diesel Fuel from top of packer to surface

TUBING:
SSSV at 295 ft
2 7/8", 6.5#/ft, L-80, Prem at 10,100 ft
(internally coated)

PACKER:
Permanent Injection Packer @ 10,100 ft
Adj. Choke (if needed, placed in nipple below packer)
Check valve (if needed, placed in nipple below packer)

PERFORATIONS:
6 Shots per foot at 60 degrees

	TVD (ft)	TMD (ft
Calculated Injection Zone Top in WC	9,648	10,27
Calculated Injection Zone Bottom in WC	10,201	10,91
Calculated Injection Zone Thickness WC	590	68

Specific sections of the inj.zone will be perforated based on elogs

PBTD: 10,220 ft TVD
10,937 ft TMD

Bottom Location: 350 FSL 650 FWL Sec 21, T17S, R32E

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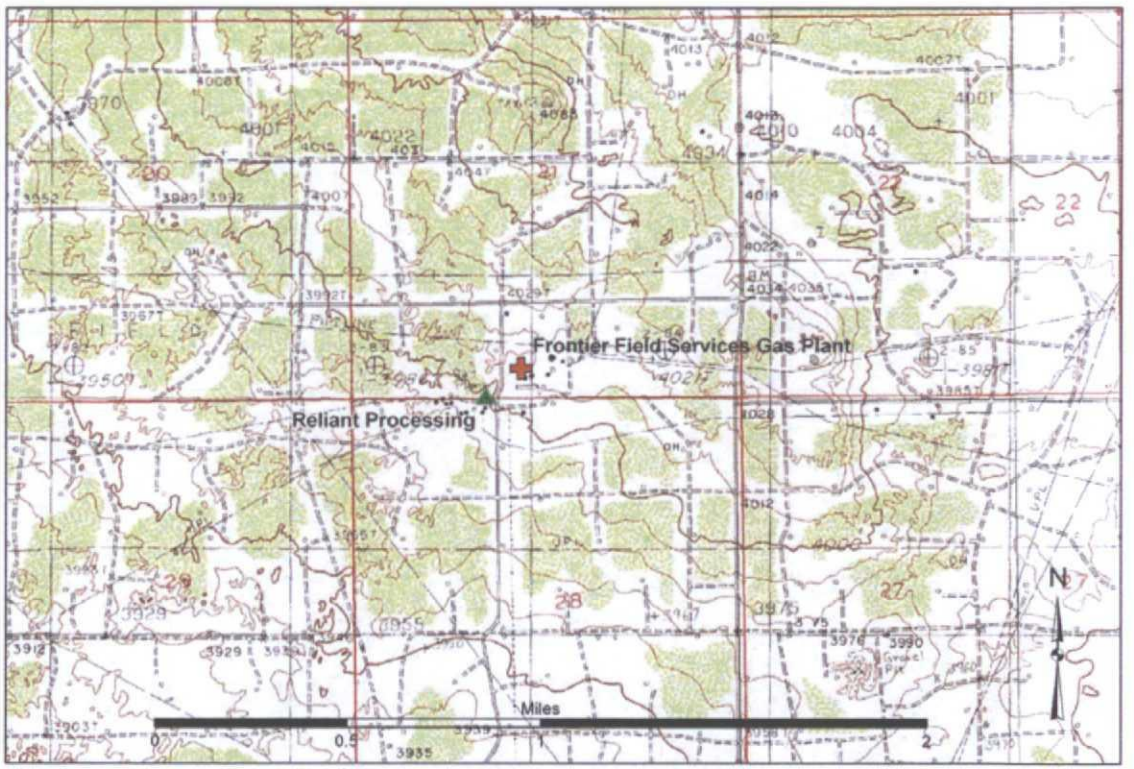
Only One Water Well in Area of Review

Only one water well is within area of review and total depth is 158 feet.

Groundwater will be protected by 550 feet of conductor casing cemented to the surface and 4200 feet of surface casing cemented to surface



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Key Elements of Frontier's Proposed Rate Increase

- No additional wells are located in increased area of reservoir affected by rate increase.
- AGI project has substantial environmental benefits of greenhouse gas reduction due to sequestration of CO_2 which otherwise would be released to atmosphere.
- AGI project reduces waste and air emissions by eliminating flaring of acid gas as sulfur control measure.
- Nearby oil and gas wells, nearby water wells and surface water are protected by well design and geologic factors.
- 3-D seismic has permitted the accurate delineation of the reservoir assuring that nearby SWD and producing wells will be protected.

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Summary of Frontier's Request for Revision of NMOCC Order R-13443-B

- No substantive change in anticipated impact to other wells or adjacent producers within unchanged area of review.
- The new calculated area affected (207 acres)is only 68 acres more than original 139 acres and the new radius is 0.32 vs 0.26 mile.
- Even with the safety factor of 200%, the new area is only 292 acres, and the radius is 0.45 miles. *This area is within the one-half mile area of review, and does not encompass any additional wells that penetrate the injection zone.*
- Frontier requests permission to increase maximum TAG injection rate to 3.5 MMSCFD below approved maximum operating pressure of 3200 psig in AGI#1 now and also for AGI#2 when it is drilled and operated at the 3028 psig MAOP as approved by NMOCC.
- All operators and surface owners have been re-notified and no objections have been received.
- NMOCD technical staff have reviewed the request and have found no problem with granting the request after hearing to revise order.