DURANGO MIDSTREAM

June 3, 2020

New Mexico Oil Conservation Division
Attn: Adrienne Sandoval, Director
1220 South St. Francis Dr.
Santa Fe, NM 87505
(505) 476-3200

RE: C-103 submittal frequency for Maljamar Gas Plant acid gas injection wells

Ms. Sandoval:

Frontier Field Services, LLC respectfully requests to reduce the frequency of Form C-103 submittal from quarterly to annually per Division Order R-13443-B item 25(h).

As reported in historical C-103 and C-115 reports, injection wells AGI #1: 30-025-40420 and AGI #2: 30-025-42628, routinely perform as designed and in full compliance with all applicable orders governing the operation. The most recent annual Mechanical Integrity Test was performed on July 22, 2019 resulting in no areas of concern.

Included with this correspondence, please find a copy of hearing order R-13443-B, as- built diagrams of both wells, and Form C-103 requesting a change in reporting frequency. If you have any questions or concerns, please contact me.

Sincerely,

Darin B. Kennard
Vice President and General Manager
Direct: (346) 351-2790
Mobile: (832) 388-8338
Email: DKennard@durangomidstream.com

Attachments: Division Order R-13443-B; Well Diagrams; Form C-103 Notice of Intent

STATE OF NEW MEXICO
ENERGY, MINERALS AND NATURAL RESOURCES DEPARTMENT OIL CONSERVATION COMMISSION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION COMMISSION FOR THE PURPOSE OF CONSIDERING:

APPLICATION OF FRONTIER FIELD SERVICES, LLC FOR AUTHORIZATION TO INJECT, LEA COUNTY, NEW MEXICO.

CASE NO. 15193
ORDER NO. R-13443-B

ORDER OF THE COMMISSION

THIS MATTER came before the Oil Conservation Commission ("Commission") on the application of Frontier Field Services, LLC ("Frontier" or the "Applicant") for authority to inject treated acid gas. The Commission having conducted a public hearing on September 25, 2014, and having considered the testimony, the record, and the arguments of the parties, and being otherwise fully advised, enters the following findings, conclusions and order.

THE COMMISSION FINDS THAT:

1. Notice has been given of the application and the hearing of this matter, and the Commission has jurisdiction of the parties and the subject matter herein.

2. Frontier seeks authorization to inject treated acid gas ("TAG") from its Maljamar Processing Plant into the proposed Maljamar AGI Well No. 2, to be drilled at a surface location 400 feet from the South line and 2100 feet from the East line of Section 21, Township 17 South, Range 32 East, NMPM, to a bottomhole location 350 feet from the South line and 650 feet from the West line of said Section 21. Applicant proposes to use the Maljamar AGI Well No. 2 to inject acid gas and carbon dioxide into the Wolfcamp formation at depths of approximately 9600-10200 feet subsurface at a maximum injection pressure of 3200 psi and a maximum daily injection rate of 2 MMSCFD.

3. Applicant further requests that the maximum daily injection rate apply to the proposed Maljamar AGI Well No. 2 and to the existing Maljamar AGI Well No. 1 (for either well, or both wells combined). The Maljamar AGI Well No. 1 is located 130 feet from the South line and 1813 feet from the East line of Section 21, Township 17 South, Range 32 East, NMPM. Injection into the Maljamar AGI Well No. 1 was approved by Commission Order No. R-13443-A.

4. The Form C-108 Application was complete and contains all the information

necessary to grant approval.

5. The purpose of the proposed Class II injection well is to dispose of natural gas processing wastes consisting of carbon dioxide ("CO2") and hydrogen sulfide ("H2S") from the Applicant's Maljamar gas processing plant ("Maljamar Processing Plant") by injecting TAG and produced wastewater into the target injection zone. The TAG will consist of approximately 12 percent H2S and 88 percent CO2.

6. The proposed acid gas injection well will be located within the boundary of the Maljamar Processing Plant premises.

7. Frontier provided personal notice, via certified mail, return-receipt requested, of the submission of its application and the Commission hearing to all operators, surface owners, and lessees within a one-half mile radius of the bottomhole location for the proposed well.

8. Pursuant to Rule 19.15.4.9.B(3) NMAC, the Oil Conservation Division ("Division") provided public notice by publishing notice of Frontier's application and the Commission hearing in a newspaper of general circulation in Lea County.

9. In support of the application, Frontier presented direct testimony from two witnesses: one fact witness, Coy Bryant, Frontier's Director of Operations; and a technical witness, Alberto Gutierrez, RG, President of Geolex, Inc.

10. The Oil Conservation Division filed an entry of appearance as an intervener and presented one witness, Phillip Goetze, who testified in support of the Division's recommended conditions of approval outlined in the Division's Pre-hearing Statement.

11. No objections to the application were filed.

12. Mr. Bryant testified that the Maljamar Processing Plant has a capacity to process up to 95 MMSCF of sour gas per day, resulting in approximately 1.4 MMSCFD of treated acid gas at this time. The operation and reliability of the Maljamar Processing Plant will be enhanced by approving the Maljamar AGI Well No.2. It will be operated as a redundant injection well and the existing Maljamar AGI Well No. 1 will be operated as the primary well. The Maljamar AGI Well No. 2 will be capable of operating concurrently with the existing AGI well or each well can operate independently, as appropriate. The Maljamar Processing Plant currently serves approximately 70 producers and 1500 wells, and a second well will allow Frontier to provide more reliable service to producers, to reduce flaring events in the field and at the Maljamar Processing Plant, and to reduce atmospheric emissions.

13. The proposed Maljamar AGI Well No. 2 is necessary to allow Frontier to meet the Maljamar Processing Plant's current operating capacity and to meet growing

production demand for sour gas processing and waste disposal.

14. Frontier technical witness Alberto Gutierrez, RG, testified that injection of TAG through the proposed AGI well will be at a maximum rate of 2.0 MMSCFD, and at a maximum operating surface pressure of 3200 psig.

15. With a safety factor of 100 percent, or the injection of 4.0 MMSCFD of TAG, the radius of influence for each well after injecting for thirty years will be approximately 0.37 miles. The actual projected radius of influence for each well, based on proposed injection volumes, will be approximately 0.26 miles after thirty years of TAG injection.

16. One well penetrates the proposed injection zone within a one-half mile radius of the proposed AGI well. The well has been plugged and abandoned and is isolated from the injection zone.

17. The proposed injection zone is laterally extensive, indicating that it will adequately contain the injected TAG and wastewater within the target injection zone and within the half-mile area of review.

18. The Maljamar AGI Well No. 1 encountered lower than expected permeability in the injection zone, resulting in surface pressures which were higher than originally anticipated. Based on additional well data obtained by Applicant, Frontier anticipates that the proposed well will encounter a higher permeability than the initial well. This will allow both wells to inject at pressure well below the maximum authorized operating pressure.

19. The proposed injection zone provides a sufficient geologic seal to contain the injected TAG and wastewater and prevent its migration into other zones. The injection zone is sufficiently isolated from any protectable groundwater sources and there is no evidence injection will impair existing or potential hydrocarbon production in the area. In addition, there is not any faulting or other geologic or man-made conduits that will allow the treated injected acid gas to migrate out of the injection zone.

20. Fresh water will be protected by surface casing, which will extend to approximately 890 feet below the deepest fresh water. Intermediate casing will extend to approximately 5700 feet below the surface. Production casing will extend to approximately 10220 feet total vertical depth and 10940 feet measured depth and will include approximately 295 feet of corrosion resistant production casing immediately above the injection zone. All casing strings will be cemented to the surface and pressure tested. The casing and cement program will meet all Oil Conservation Division requirements. The entire production tubing will be lined with fiberglass to prevent corrosion. This casing program may be altered with approval of the Division.

21. The annular space will be filled with corrosion-inhibited diesel that also contains a biocide.

22. Annular and injection tubing pressures, temperatures, and flow rates will be continuously monitored and recorded, as will surface annular pressure, and bottomhole temperatures, and pressures, in the tubing and annulus of the well.

23. Injection of the proposed waste stream will protect the environment and human health, and will not cause waste or impair correlative rights.

24. Phillip Goetze, the Division's witness, presented testimony that the Division proposed several conditions of approval in its Prehearing Statement and that the Division and Frontier had reached agreement on the proposed conditions.

25. Frontier and the Division reached agreement on the conditions of approval proposed by the Division, as follows:

(a) Frontier agrees to conduct a mechanical integrity test ("MIT") on the AGI wells every year.

(b) Frontier agrees to conduct a step-rate test on the completed well prior to commencing operation. The maximum surface injection pressure for the proposed well shall be 3028 psig, which may be increased after a step rate test.

(c) Frontier agrees to incorporate a biocide component in the inert annular fluid of the well.

(d) Frontier agrees to conduct continuous monitoring of pressure data, atmospheric H2S, and the safety measures in place for the proposed well.

(e) Frontier agrees to keep a maintenance log of its annular fluid (diesel) replacement activities in the annulus of the proposed well.

(f) Frontier agrees to incorporate temperature controls to govern the temperatures of injected fluid within parameters and provide an alarm system for these controls should parameters be exceeded.

(g) Frontier agrees to equip the well with a pressure-limiting device as well as a one-way safety valve on the tubing approximately 250 feet below the surface.

(h) Frontier agrees to provide summary data on injection parameters monitored in item (d) above, as requested by the Division in quarterly reports submitted on Form C-103. However, after one year Frontier may apply to the Division to submit such data annually.

(i) Frontier agrees to obtain approval of a H_2S Contingency Plan pursuant to Division Rule 11 that incorporates the activities and operations of the proposed AGI well operations, and to conduct and implement all

required air monitoring and safety measures pursuant to that Plan.

(j) Frontier agrees that thirty days prior to commencing injection, the operator shall coordinate with the Division to establish immediate notification parameters for annulus pressure and tubing and casing differential pressure at a set injection temperature.

(k) Frontier agrees that ninety days after commencing injection, the operator shall review the pre-injection immediate notification parameters with the Division. If the Division determines that the parameters require modification, new immediate notification parameters shall be developed and implemented in coordination with the Division.

(l) Frontier agrees that the immediate notification parameters shall be reviewed jointly by the operator and the Division periodically, but not less than once a year.

(m) Frontier agrees to submit all logs and the estimated static bottomhole pressure to the Division's District I Office.

(n) Frontier agrees to provide a report following every tenth year of operation summarizing performance of the well and potential calibration of models due to information collected during the period.

26. The requirements set forth in Paragraph 25 shall also apply to the Maljamar AGI Well No. 1 except for item (b) since this well is already permitted to 3200 psig.

THE COMMISSION CONCLUDES THAT:

1. The Commission has jurisdiction over the parties and the subject matter of this case.

2. Proper public notice has been given.

3. Proper individual notice has been given to all operators, surface owners, and lessees within a one-mile radius of the bottomhole location of the proposed injection well.

4. Under the conditions approved in this Order, Frontier's injection of C02 and H2S can be conducted in a safe manner without causing waste, impairing correlative rights, negatively impacting oil and gas producing zones, or endangering fresh water, public health, or the environment.

IT IS THEREFORE ORDERED THAT:

1. Frontier's application is approved as provided in the Form C-108, and as modified by the conditions described below and in Finding Paragraph 25, above.

Accordingly, Frontier is hereby authorized to drill and operate the proposed Maljamar AGI Well No. 2, to be drilled at a surface location 400 feet from the South line and 2100 feet from the East line of Section 21, Township 17 South, Range 32 East, NMPM, to a bottomhole location 350 feet from the South line and 650 feet from the West line of said Section 21. Applicant proposes to use the Maljamar AGI Well No. 2 to inject acid gas and carbon dioxide into the Wolfcamp formation at depths of approximately 9600-10220 feet subsurface at a maximum injection pressure of 3028 psi and a maximum daily injection rate of 2 MMSCFD.

2. Applicant is further authorized to use the maximum daily injection rate apply to the proposed Maljamar AGI Well No. 2 and to the existing Maljamar AGI Well No. 1 (for either well, or both wells combined). The Maljamar AGI Well No. 1 is located 130 feet from the South line and 1813 feet from the East line of Section 21, Township 17 South, Range 32 East, NMPM. Injection into the Maljamar AGI Well No. 1 was approved by Commission Order No. R-13443-A.

3. The maximum allowable operating pressure for the Maljamar AGI Well No. 2 shall be 3028 psig. Frontier shall conduct a step-rate test on the completed well prior to commencing operation. Based on the step rate test, the Division may allow an increase in the maximum allowable operating pressure up to 3200 psig.

4. The AGI wells shall be constructed substantially in accordance with the description in the Form C- 108 filed by the Applicant in this case, as amended, and as modified at the hearing by the conditions agreed to by Frontier and the Oil Conservation Division.

5. Frontier shall be required to conduct a MIT in accordance with Division rules on the Maljamar AGI Well No. 2 once every year.

6. Prior to commencing injection, the operator shall prepare and secure approval by the Division's Environmental Bureau of a hydrogen sulfide contingency plan that complies with Division Rule 19.15.11.9 NMAC.

7. The casing-tubing annulus of the Maljamar AGI Well No. 2 shall be loaded with diesel treated with corrosion inhibitors and biocides and equipped with a pressure gauge or approved leak-detection device to detect any leakage in the casing, tubing, or packer.

8. Thirty days prior to commencing injection, the operator shall coordinate with the Division to establish immediate notification parameters for annulus pressure and tubing and casing differential pressure at a set injection temperature.

9. Ninety days after commencing injection, the operator must review the pre-injection immediate notification parameters with the Division. If the Division determines that the parameters require modification, new immediate notification

parameters shall be developed and implemented in coordination with the Division.

10. The immediate notification parameters shall be reviewed jointly by the operator and the Division 'periodically, but not less than once a year.

11. The operator shall record injection rates and pressures on a continuous basis and report these readings in a summary form on a quarterly basis to the Engineering Bureau in the Division's Santa Fe Office and to the Division's District I Office. Each such report shall include the well name, location, API Number and the number of this Order. However, after one year Frontier may apply to the Division to submit such data annually.

12. The operator shall provide the Division a report every ten years, once injection begins, that compares the reservoir pressures, volumes injected and projected TAG plume extent to those provided in the original Order, along with a summary of all the injection results to date. The report shall include an updated model of current and projected plume migration and shall use the modeling technology in standard use at the time of the report and any available information about plume migration.

13. The operating conditions in this Order shall also apply to the Maljamar AGI Well No. 1, including the requirement for an annual MIT, the reporting requirements listed in Finding Paragraph 25, and the installation of monitoring equipment which may be installed during the first workover of the well.

14. Frontier shall notify the Division of any changes or conditions imposed by the U.S. Bureau of Land Management on the wells and the Division shall determine if the changes are significant enough to require a change in this Order by the Commission.

15. The injection authority herein granted shall terminate three years after the effective date of this Order if the operator has not commenced injection operations at the Maljamar AGI Well No. 2. The Division Director may, upon written request of the operator, extend this deadline for good cause shown.

16. Compliance with this Order does not relieve the operator of the obligation to comply with other applicable federal, state, or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

DONE at Santa Fe, New Mexico, on this 19th day of November, 2014.

STATE OF NEW MEXICO
OIL CONSERVATION COMMISSION

ROBERT BALCH, Member

TERRY WARNELL, Member

JAMI BAILEY, Chair

SEAL

Salaz, Robert <rsalaz@blm.gov>

NMOCC Order for Maljamar AGI #2, R-13443-B

1 message

James C. Hunter {GeoLex} <JCH@geolex.com> Thu, May 14, 2015 at 9:45 AM
To: rsalaz@blm.gov, "Fernandez, Edward" <efernand@blm.gov>
Cc: aag@geolex.com, "Briscoe, Brian" <bbriscoe@akaenergy.com>, khadrick@akaenergy.com

Mr. Salaz,

As we discussed this morning, the NMOCC Order R-13443 for the Frontier Field Services LLC Maljamar AGI #1 was amended on November 11, 2014 in NMOCC Order R-13443-B to approve the application to drill the second proposed well, Maljamar AGI #2.

A copy of this amended Order is attached to complete your files.

Please contact me if you have any further questions.

James C. Hunter, RG

Geolex, Incorporated®

500 Marquette Avenue, NW Suite 1350

Albuquerque, NM 87102

505-842-8000 Ext. 102

505-842-7380 Fax

505-239-8830 Cell

jch@geolex.com Email

FFS Maljamar#2 Order.pdf

STATE OF NEW MEXICO
ENERGY, MINERALS, AND NATURAL RESOURCES DEPARTMENT
OIL CONSERVATION DIVISION

IN THE MATTER OF THE HEARING CALLED BY THE OIL CONSERVATION DIVISION FOR THE PURPOSE OF CONSIDERING:

CASE NO. 14664
ORDER NO. R-13443

APPLICATION OF FRONTIER FIELD SERVICES, LLC FOR APPROVAL OF AN ACID GAS DISPOSAL WELL, LEA COUNTY, NEW MEXICO

ORDER OF THE DIVISION

BY THE DIVISION:

This case came on for hearing at 8:15 a.m. on June 23, 2011, at Santa Fe, New Mexico, before Examiner William V. Jones.

NOW, on this 11th day of August, 2011, the Division Director, having considered the testimony, the record, and the recommendations of the Examiner,

FINDS THAT:

(1) Due public notice has been given, and the Division has jurisdiction of this case and its subject matter.

(2) The applicant, Frontier Field Services, LLC ("Frontier" or "applicant"), seeks authority to utilize its proposed Maljamar AGI Well No. 1 [(API No. 30-025-NA), the "subject well"], to be located 130 feet from the South line and 1813 feet from the East line, Unit O of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, for disposal of Acid Gas and CO2 from its Gas Processing Plant into the Lower Leonard and Wolfcamp formations through perforations at a gross interval of from approximately 9300 feet to 10,000 feet.

(3) The applicant's witnesses presented the following testimony:

a. The proposed disposal well is to be located on a [pending] federal surface lease within approximately 300 feet of the plant near the current H2S flare.

b. The Maljamar Gas Plant is handling an increased amount of mostly sour gas from Bone Spring and Paddock formation drilling. The Maljamar Plant air quality permits limit emissions, which in turn, limits the plant's gas handling capacity. The disposal well is needed to allow more plant throughput. The proposed disposal well should handle any plant expansion.

c. Frontier expects disposed fluids to consist of 88 percent CO2 and 12 percent H2S.

d. The plant uses a cryogenic process to break the produced gas into products for sale and inerts for flaring or disposal.

e. In compliance with Division Rule 19.15.11.9 NMAC, Frontier has an H2S Contingency Plan in place for the plant and is working with the Division's Environmental Bureau to extend this plan to include the proposed disposal well.

f. This plant and proposed well are located just off the Caprock, in a heavily drilled area, approximately 3 miles south of the town of Maljamar and 1.5 miles north of highway 529.

g. Disposal of gas plant wastes will improve air quality by reducing sulfur dioxide and carbon dioxide. Installation of this disposal well will enable the plant to expand and handle increased volumes of locally produced natural gas. This will in turn lower pipeline pressures for producers and enable increased recovery of gas from reservoirs.

h. Frontier has run, processed, and interpreted 3-D seismic over this area and has shown the proposed disposal interval is isolated from any producing Wolfcamp intervals surrounding this location. The seismic survey indicates a Wolfcamp formation porosity pod of sufficient capacity to contain all plant waste gases including those gases associated with any proposed plant expansion.

i. Frontier intends to permit this well and drill it through the Wolfcamp depths, case the well with casing designed to allow various packer setting depths depending on whether the Lower Leonard is to be completed, perforate, equip the well with injection tubing and packer, and commence disposal of H2S and CO2 gases under pressure.

j. Frontier does not expect any waste of oil or gas to occur as a result of disposal into the Lower Leonard and Wolfcamp formations at this location.

k. The well will be adequately equipped and cemented to isolate any fresh water intervals within these Triassic aged surface rocks.

(4) Wolfcamp production attempts located nearby the proposed Acid Gas well have indicated the Wolfcamp to be largely unproductive or very short lived. Division records indicate the Wolfcamp is being produced successfully approximately one mile to the northeast of this proposed location. The existing Wolfcamp formation producing wells have frequently been commingled with the more prolific Abo production located 8800 to 9000 feet deep. Below the Wolfcamp, the Pennsylvanian Cisco formation is producing in at least one well within Section 20 located to the west of the proposed well.

(5) Division records indicate the Wolfcamp and Abo production in this area is "sweet" or devoid of H2S with API gravity of approximately 42.

(6) The "Lower Leonard" formation being proposed for disposal beginning at 9300 feet is called in Division records the "Wolfcamp formation" or sometimes the "upper Wolfcamp formation".

(7) Above the proposed disposal well in this Section 21, the MCA Unit (Grayburg San Andres formations, approximately 4400 feet deep) has been tested for tertiary recovery by injection of CO2 in a small pilot project.

(8) The Division has previously approved the following Wolfcamp SWD disposal wells offsetting this location approximately one mile or more:

a. The Queen B Well No 36 (API No. 30-025-00751), located in Unit D of Section 28 was approved in 1982 for disposal into the lower Wolfcamp formation by administrative permit SWD-241.

b. The Federal BI Well No 1 (API No. 30-025-27068), located in Unit N of Section 28 was approved as a Wolfcamp disposal well by administrative permit SWD-1093.

c. The Maljamar SWD 29 Well No 1 (API No. 30-025-39519), located in Unit O of Section 29 was approved as a Wolfcamp disposal well by administrative permit SWD-1179.

(9) The operator should evaluate the permitted disposal interval for rock stress direction and for potential production of hydrocarbons and supply copies of this new information to the Division, to the U.S. BLM, and to the following operators of surrounding deep wells – COG Operating LLC, ConocoPhillips Company, and V-F Petroleum, Inc.

(10) Per the application, this well should be permitted only for disposal of H2S and CO2 gases and not for disposal of waste waters.

(11) Division records indicate the following wells are completed in the Wolfcamp formation and located within 1.6 miles of the proposed Acid Gas well. The applicant shall ensure these wells or any other wells completed in the Wolfcamp formation within this distance are equipped with H2S warning flags – or other safety indicators as the U.S. BLM or Hobbs district office requires:

a. Baish A #14	D/22/17S/32E	30-025-30363
b. Federal BI #1	N/28/17S/32E	30-025-27068
c. Baish A #12	A/21/17S/32E	30-025-20568
d. Hudson #1	M/15/17S/32E	30-025-21226
e. Maljamar SWD29 #1	O/29/17S/32E	30-025-39519
f. Elvis #4	F/20/17S/32E	30-025-33949
g. Hudson Fed #1	K/15/17S/32E	30-025-25107
h. Elvis #2	O/17/17S/32E	30-025-33854

(12) Affected parties within one mile have been notified and no objections have been received. There were no other appearances at the hearing or objections to this application.

(13) The application has been duly filed under the provisions of 19.15.26.8 NMAC.

(14) The one mile Area of Review around this well contains six plugged and abandoned wells and six active wells that penetrated the disposal interval. The Area of Review wells are adequately cased and cemented in order to isolate the disposal interval.

(15) The applicant has presented satisfactory evidence that all requirements prescribed in 19.15.26.8 NMAC have been met and the operator is in compliance with 19.15.5.9 NMAC.

(16) This application as presented by Frontier should be approved.

IT IS THEREFORE ORDERED THAT:

(1) Frontier Field Services, LLC ("Frontier" or "operator"), is hereby authorized to utilize its proposed Maljamar AGI Well No. 1 (API No. 30-025-NA) to be located 130 feet from the South line and 1813 feet from the East line, Unit O of Section 21, Township 17 South, Range 32 East, NMPM, Lea County, New Mexico, for disposal of Acid Gas and CO2 from its gas processing plant into the Lower Leonard and Wolfcamp formations through perforations from approximately 9300 feet to 10,000 feet through tubing and a packer set within 100 feet above the permitted disposal interval. This well is not permitted for disposal of waste waters.

(2) During and after drilling this proposed well, the operator shall evaluate the permitted disposal interval for potential production of hydrocarbons and determine the

primary rock stress direction for the purpose of predicting the most likely invasion path for disposed gases. A mudlog or log of lithology and hydrocarbon samples shall be obtained while drilling. After drilling, the operator shall attempt to run an oriented fracture finder or wellbore stress log and conventional electric logs including porosity and resistivity tools. As soon as the data is available, copies of both the mudlog and the electric logs including processed oriented stress log shall be supplied to the Division, to the U.S. BLM, and to the following operators of surrounding deep wells – COG Operating LLC, ConocoPhillips Company, and V-F Petroleum, Inc.

(3) Pursuant to the requirements in 19.15.11.9.D(2) NMAC, the operator shall submit a hydrogen sulfide contingency plan to include the Maljamar Gas Plant and the Maljamar AGI Well No. 1. Before disposal operations commence the Division must determine the contingency plan is adequate and will protect public health.

(4) Pursuant to the requirements in 19.15.11.14 NMAC, this well and flowline to this well shall be designed using equipment capable of safely handling and confining the disposal gases. In addition, all requirements in 19.15.11 NMAC, Sections 10, 11, 12, and 13, shall be complied with during drilling, equipping and operation of this well.

(5) A one-way subsurface automatic safety valve shall be placed on the injection tubing approximately 250 feet below the surface to prevent the injected acid gas from migrating upwards in case of an upset or emergency.

(6) The operator shall ensure the following wells, and any other wells which are completed in the upper or lower Wolfcamp formation and located within 1.5 miles of the approved Acid Gas well, are equipped with H2S warning flags or other safety indicators as the U.S. BLM or the Division's Hobbs district office requires - until such time as the flagged well is permanently plugged back above the equivalent disposal interval:

a.	Baish A #14	D/22/17S/32E	30-025-30363
b.	Federal BI #1	N/28/17S/32E	30-025-27068
c.	Baish A #12	A/21/17S/32E	30-025-20568
d.	Hudson #1	M/15/17S/32E	30-025-21226
e.	Maljamar SWD29 #1	O/29/17S/32E	30-025-39519
f.	Elvis #4	F/20/17S/32E	30-025-33949
g.	Hudson Fed #1	K/15/17S/32E	30-025-25107
h.	Elvis #2	O/17/17S/32E	30-025-33854

(7) The operator shall take all steps necessary to ensure that the disposed fluids enter only the permitted disposal interval depths and are not permitted to escape to other formations or onto the surface through this well or any surrounding wells. If H2S levels on any of the wells listed above in ordering paragraph (6) reaches 100 ppm, the subject well shall be shut-in until Frontier Field Services, LLC has plugged those wells exhibiting newly discovered H2S.

(8) After installing tubing, the casing-tubing annulus shall be loaded with an inert fluid and equipped with a pressure gauge or an approved leak detection device in order to determine leakage in the casing, tubing, or packer. The casing shall be pressure tested from the surface to the packer setting depth to assure casing integrity.

(9) The well shall pass an initial mechanical integrity test ("MIT") prior to initially commencing disposal and prior to resuming disposal each time the disposal packer is unseated. All MIT testing procedures and schedules shall follow the requirements in Division Rule 19.15.26.11.A NMAC with the exception that this well shall be MIT tested every two years or more often as the Division and/or the U.S. Bureau of Land Management deems necessary.

(10) The wellhead injection pressure on the well shall be limited to **no more than 2973 psi**. In addition, the disposal well or system shall be equipped with a pressure limiting device in workable condition which shall, at all times, limit surface tubing pressure to the maximum allowable pressure for this well.

(11) The Director of the Division may authorize an increase in tubing pressure upon a proper showing by the operator of said well that such higher pressure will not result in migration of the disposed fluid from the target formation. Such proper showing shall be demonstrated by sufficient evidence including but not limited to an acceptable Step-Rate-Test.

(12) The operator shall notify the supervisor of the Division's Hobbs district office of the date and time of the installation of disposal equipment and of any MIT test so that the same may be inspected and witnessed. The operator shall provide written notice of the date of commencement of disposal to the Division's district office. The operator shall submit monthly reports of the disposal operations on Division Form C-115, in accordance with Rules 19.15.26.13 NMAC and 19.15.7.24 NMAC.

(13) Without limitation on the duties of the operator as provided in 19.15.29 NMAC and 19.15.30 NMAC, or otherwise, the operator shall immediately notify the Division's district office of any failure of the tubing, casing or packer in the well, or of any leakage or release of water, oil or gas from or around any produced or plugged and abandoned well in the area, and shall take such measures as may be timely and necessary to correct such failure or leakage.

(14) The injection authority granted under this order is not transferable except upon Division approval. The Division may require the operator to demonstrate mechanical integrity of any injection well that will be transferred prior to approving transfer of authority to inject.

(15) The Division may revoke this injection permit after notice and hearing if the operator is in violation of 19.15.5.9 NMAC.

(16) The Division Director shall be authorized to amend this permit administratively after proper notice and opportunity for hearing except as to the disposal formation(s) or the footage location of the well.

(17) The disposal authority granted herein shall terminate two years after the effective date of this order if the operator has not commenced injection operations into the subject well, provided however, the Division, upon written request, mailed by the operator prior to the termination date, may grant an extension thereof for good cause.

(18) One year after disposal into the well has ceased, the well will be considered abandoned and the authority to dispose will terminate *ipso facto.*

(19) Compliance with this order does not relieve the operator of the obligation to comply with other applicable federal, state or local laws or rules, or to exercise due care for the protection of fresh water, public health and safety and the environment.

(20) Jurisdiction is retained by the Division for the entry of such further orders as may be necessary for the prevention of waste and/or protection of correlative rights or upon failure of the operator to conduct operations (1) to protect fresh or protectable waters or (2) consistent with the requirements in this order, whereupon the Division may, after notice and hearing or prior to notice and hearing in event of an emergency, terminate the disposal authority granted herein.

DONE at Santa Fe, New Mexico, on the day and year hereinabove designated.

SEAL

STATE OF NEW MEXICO
OIL CONSERVATION DIVISION

JAMI BAILEY
Director

FRONTIER

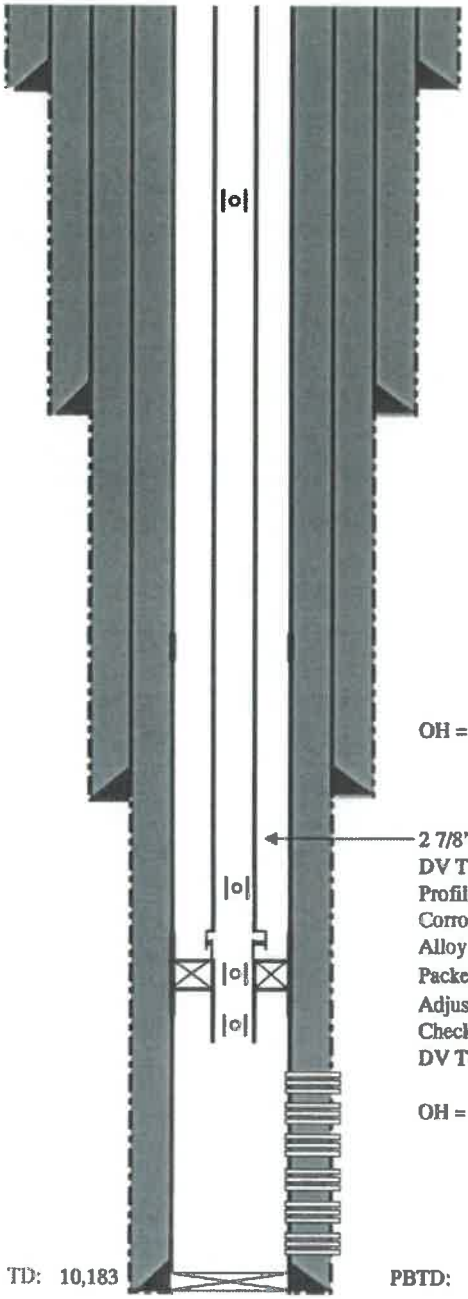
GEOLEX INCORPORATED

MALJAMAR AGI #1
AS BUILT WELL SCHEMATIC

API: 30-025-40420

Location: 130' FSL & 1831' FEL
STR Section 22-T17S-R32E
County, St.: LEA COUNTY, NEW MEXICO

VERTICAL



CONDUCTOR CASING
20" Conductor at 40'

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

INTERMEDIATE CASING:
8 5/8", 24.0 #/ft, J55, STC at 4,230'
Cemented to Surface; verified w/CBL

PRODUCTION CASING:
5 1/2", 17 #/ft, L-80, LTC at 10,183'
Cemented to Surface; verified w/CBL

DEVIATION:
Stuck string at ~5,200'. Req'd cmt plug 5,517'-5,800'
Re-drill w/total deviation ~17' from original track, returned to track at ~6,100'

ANNULAR FLUID:
Diesel Fuel from top of packer to surface

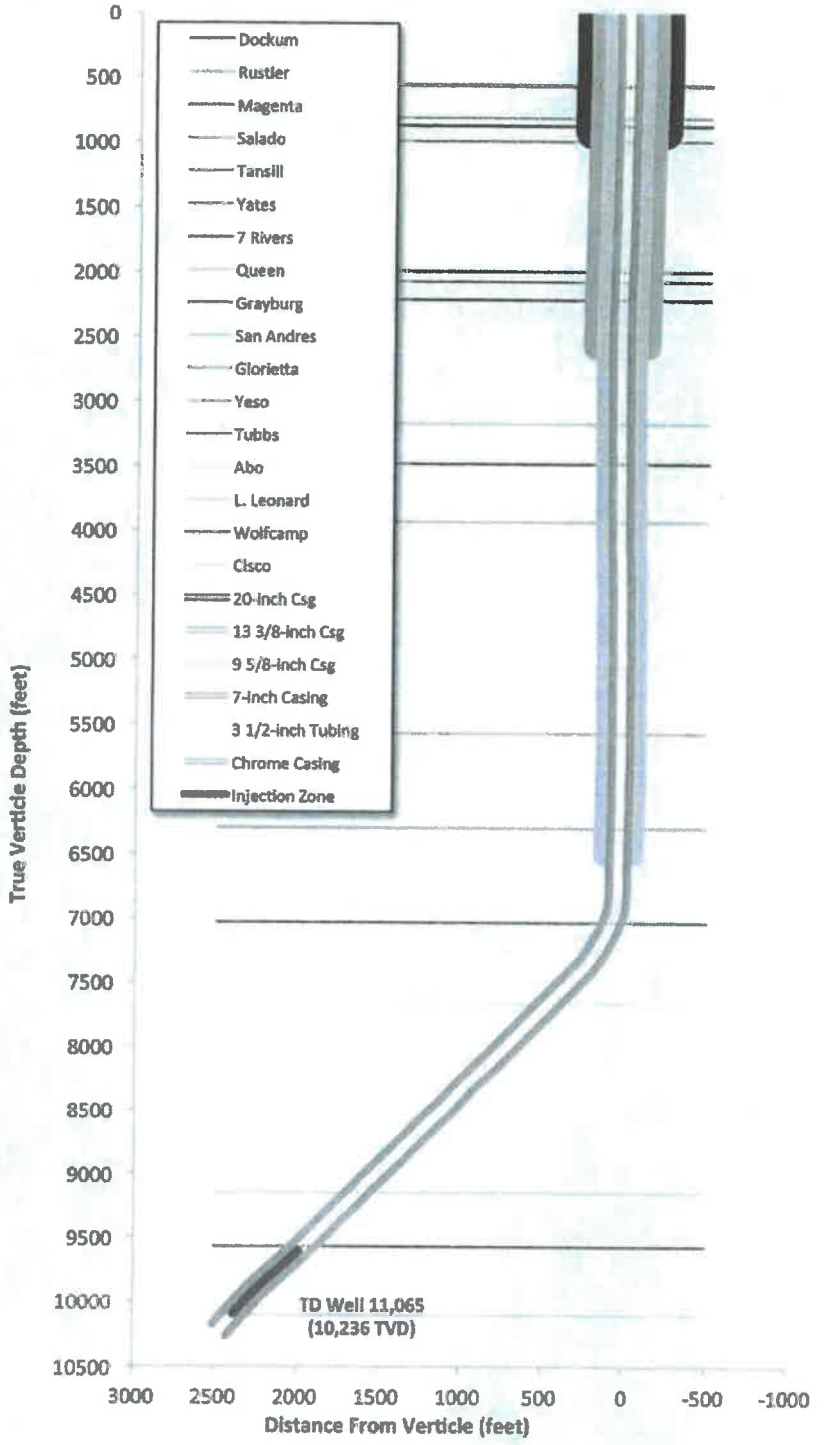
TUBING:
SSSV at 295'.
2 7/8", 6.5#/ft, L-80, Prem at 9,452'

PACKER:
Permanent Injection Packer @ 9,452'
Adj. Choke (if needed, placed in nipple below packer)
Check valve (if needed, placed in nipple below packer)

PERFORATIONS:
Upper Wolfcamp Formation
9,579'-9,732'
Middle Wolfcamp Formation
9,768'-9,821'
9,850'-9,917'
9,979'-9,997'
Lower Wolfcamp Formation
10,009'-10,025'
10,090'-10,130'

Well Name: Maljamar AGI #2 (API: 30-025-42628)

Surface Location: Section 21(O), T17S-R32E, (400' FSL & 2100' FEL)
Lea County, New Mexico



CONDUCTOR (36-in) to 82 ft

SURFACE CASING:
20", 94 lb/ft, J55, BTC at 900 ft in 26-in hole, cement to surface

1st INTERMEDIATE CASING:
13 3/8-inch, 61 lb/ft, J55, BTC at 2,567 ft in 17.5-in hole, cement to surface

DV Tool in 9 5/8-in casing at 5,278 ft

2nd INTERMEDIATE CASING:
9 5/8-inch, 40.0 lb/ft, HCL-80, LTC at 8,524' (8,523 ft TVD) in 12 1/4-inch hole, cement to surface (both stages)

PRODUCTION CASING:
7-inch, 29 lb/ft, HCL-80, LTC in 8 3/4-inch hole at 11,048 ft (10,222 ft TVD) with 16 joints of 7", 32 lb/ft, CRA G3-110 VAM Top HC from 9,794 to 10,239 ft (9,237 to 9,587 ft TVD) cement to surface (both stages)

DV Tool in 7-in casing at 9,323 ft (8,670 ft TVD)

PERFORATIONS:
10,266 - 10,304 ft MD
10,534 - 10,549 ft MD
10,637 - 10,676 ft MD
10,739 - 10,900 ft MD
(9,608 - 10,100 ft TVD)

BHL at TD: Section 21(M), T17S, R32E
(365' FSL & 713' FWL), Lea Co., NM

GEOLEX INCORPORATED	Frontier Energy Services Maljamar AGI #2	Attachment B
	Completion Information in Directional Hole Sec 21, 17S, 32E, 400' FSL & 2100' FEL, Lea Co NM	March 29, 2016

Submit 1 Copy To Appropriate District Office
District I – (575) 393-6161
1625 N. French Dr., Hobbs, NM 88240
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

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.	Maljamar AGI#1 30-025-40420 Maljamar AGI#2 30-025-42628
5. Indicate Type of Lease	STATE ☐ FEE ☐ FEDERAL ☒
6. State Oil & Gas Lease No.	NMLC029509A
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.)	7. Lease Name or Unit Agreement Name Maljamar AGI #1 and #2
1. Type of Well: Oil Well ☐ Gas Well ☐ Other: Acid Gas Injection Well ☒	8. Well Number #1 and #2
2. Name of Operator Frontier Field Services, LLC	9. OGRID Number 221115
3. Address of Operator 2002 Timberloch Place Suite 110 The Woodlands, TX 77380	10. Pool name or Wildcat AGI: Wolfcamp
4. Well Location AGI#1 Unit Letter O : 130 feet from the SOUTH line and 1,813 feet from the EAST line AGI#2 Unit Letter O : 400 feet from the SOUTH line and 2,100 feet from the EAST line Section 21 Township 17S Range 32E NMPM County Lea	
11. Elevation *(Show whether DR, RKB, RT, GR, etc.)* AGI#1 4,016 (GR) AGI#2 4,019 (GR)	

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

NOTICE OF INTENTION TO:				SUBSEQUENT REPORT OF:			
PERFORM REMEDIAL WORK	☐	PLUG AND ABANDON	☐	REMEDIAL WORK	☐	ALTERING CASING	☐
TEMPORARILY ABANDON	☐	CHANGE PLANS	☐	COMMENCE DRILLING OPNS.	☐	P AND A	☐
PULL OR ALTER CASING	☐	MULTIPLE COMPL	☐	CASING/CEMENT JOB	☐		
DOWNHOLE COMMINGLE	☐						
CLOSED-LOOP SYSTEM	☐						
OTHER:	☒	Requesting a change in reporting frequency.		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.

As reported in historical C-103 and C-115 reports, injection wells AGI #1 30-025-40420 and AGI #2 30-025-42628, routinely perform as designed and in full compliance with all applicable orders governing the operation. The most recent annual Mechanical Integrity test was performed on July 22, 2019 resulting in no areas of concern. Therefore, Frontier Field Services, LLC respectfully requests to reduce the frequency of Form C-103 submittal from quarterly to annually per Division Order R-13443-B item 25(h).

SIGNATURE Darin B. Kennard TITLE Vice President & General Manager DATE 6/03/2020
Type or print name Darin B. Kennard E-mail address: DKennard@durangomidstream.com PHONE: 346-351-2790
For State Use Only
APPROVED BY: _____ TITLE _____ DATE _____
Conditions of Approval (if any):