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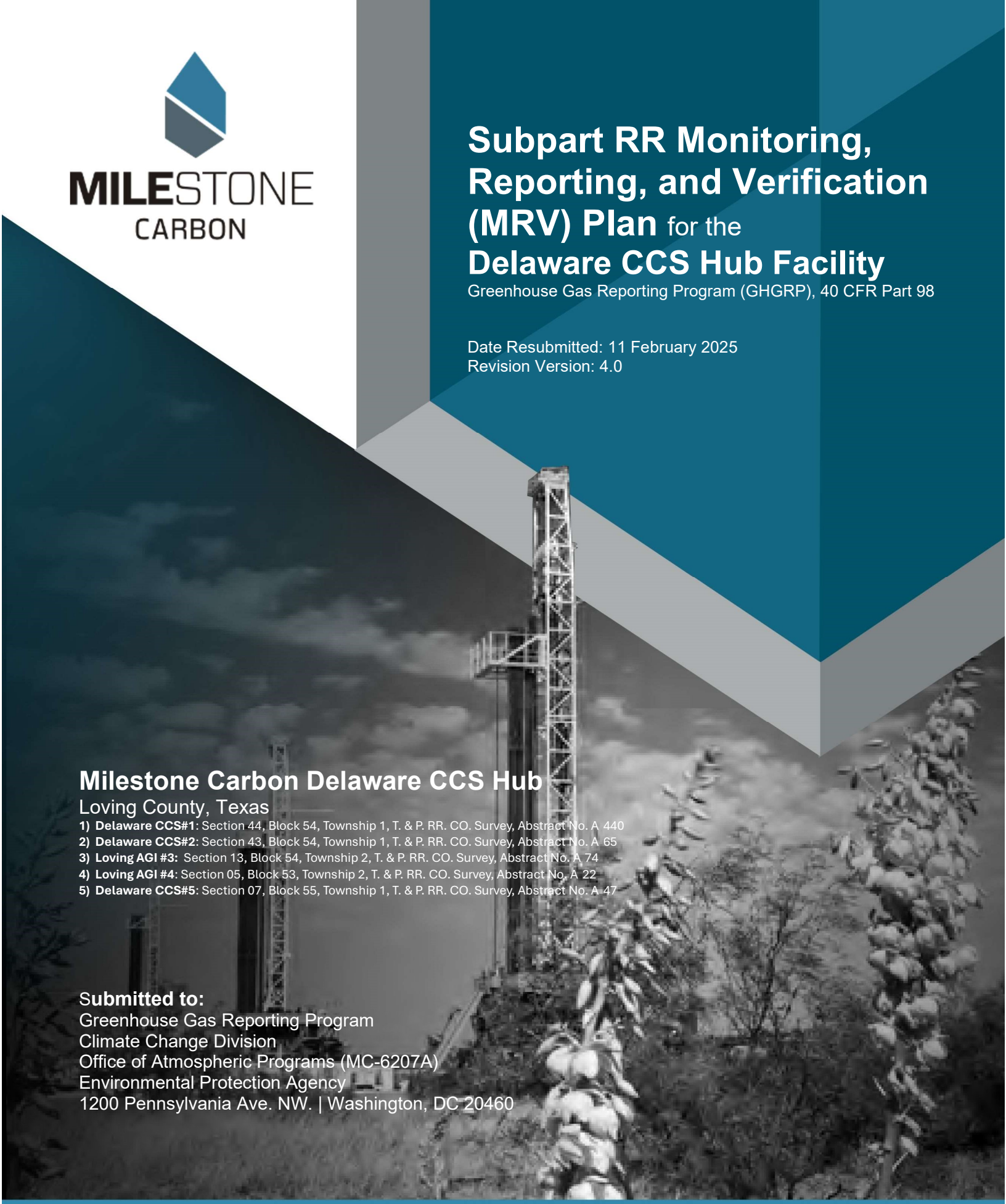
MILESTONE CARBON

Subpart RR Monitoring, Reporting, and Verification (MRV) Plan for the Delaware CCS Hub Facility

Greenhouse Gas Reporting Program (GHGRP), 40 CFR Part 98

Date Resubmitted: 11 February 2025
Revision Version: 4.0



Milestone Carbon Delaware CCS Hub

Loving County, Texas

1) **Delaware CCS#1**: Section 44, Block 54, Township 1, T. & P. RR. CO. Survey, Abstract No. A 440
2) **Delaware CCS#2**: Section 43, Block 54, Township 1, T. & P. RR. CO. Survey, Abstract No. A 65
3) **Loving AGI #3:** Section 13, Block 54, Township 2, T. & P. RR. CO. Survey, Abstract No. A 74
4) **Loving AGI #4**: Section 05, Block 53, Township 2, T. & P. RR. CO. Survey, Abstract No. A 22
5) **Delaware CCS#5**: Section 07, Block 55, Township 1, T. & P. RR. CO. Survey, Abstract No. A 47

Submitted to:
Greenhouse Gas Reporting Program
Climate Change Division
Office of Atmospheric Programs (MC-6207A)
Environmental Protection Agency
1200 Pennsylvania Ave. NW. | Washington, DC 20460

Milestone Carbon Delaware CCS Hub, LLC
840 Gessner Road, Suite 600 | Houston, Texas 77024
https://www.milestone-es.com/

Clean Up Energy℠

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1.0 DOCUMENT INTRODUCTION

Project Information

Owner and Operator

Milestone Carbon Delaware CCS Hub, LLC (Milestone)
840 Gessner, Suite 600,
Houston, Texas 77024

Facility Name & Address

Milestone Carbon Delaware CCS Hub (Facility)
GHGRP ID: 589181
Address: 7310 County Road 300; Mentone, TX 79754

Milestone Regulatory Contact

Ms. Elizabeth Hartson – Manager, Environmental Compliance and Regulatory
Milestone Carbon Delaware CCS Hub, LLC
Address: 840 Gessner, Suite 600, Houston, Texas 77024

Well(s) Information

Well	Type	Ground Elevation ft	Lat NAD83	Long NAD83	Field	UIC Number
Delaware CCS/AGI #1	Class VI	3,035.03	31.896621	-103.675125	Phantom	Not Yet Assigned
Delaware CCS/AGI #2	Class VI	3,014.16	31.884458	-103.696255	Phantom	Not Yet Assigned
Loving AGI #3	Class II	2,944.69	31.849678	-103.602734	Phantom	Not Yet Assigned
Loving AGI #4	Class II	2,985.05	31.874281	-103.566184	Phantom	Not Yet Assigned
Delaware CCS/AGI #5	Class VI	3,107.27	31.973854	-103.691218	Phantom	Not Yet Assigned

SIC Codes

4953 – Refuse Systems
8999 – Environmental Consulting

Project Introduction [40 CFR 146.82 (a)(1)]

Milestone Delaware CCS Hub, LLC, a subsidiary of Milestone Carbon, LLC, provides turnkey solutions for the permanent geological sequestration of CO2, including design, permitting, development, and operations for major industrial emitters across the United States. With extensive expertise in complex injection operations to ensure safe and reliable disposal of carbon dioxide through cutting-edge facilities.

Milestone Carbon Delaware CCS Hub, LLC (Milestone) is submitting this Monitoring, Reporting, and Verification (MRV) plan to the U.S. Environmental Protection Agency (EPA) under the Code of Federal Regulations (CFR) Title 40 Part §98.440(a), Subpart RR, of the Greenhouse Gas Reporting Program (GHGRP) for approval of a group of Underground Injection Control (UIC) wells in Loving County, Texas. Approval of an MRV plan will qualify Milestone to geologically sequester carbon dioxide (CO2) and ultimately serve to reduce significant amounts of CO2 emissions in the region.

Milestone will be the owner and operator of the wells and hub facility. Anticipated collaborators (“sourcing companies”) will include midstream companies capable of process development, construction, and maintaining pipelines to the facility. Accordingly, Milestone understands both the technical and regulatory obligations to responsibly manage and operate assets in the proposed

area. Under 40 CFR §98.449, this application includes the following required information: 1) Document introduction; 2) Project description and scope definition; 3) Delineation of maximum and active monitoring areas; 4) Identification of potential surface leakage pathways within the monitoring areas; 5) Monitoring strategy for detecting and quantifying leakage; 6) Strategy for establishing the baselines for monitoring; and, 7) Summary of CO_2 mass balance approach.

An aquifer exemption will not be required for this facility. The Railroad Commission of Texas (RRC), Groundwater Advisory Unit (GAU) provides groundwater protection determinations for surface casing, underground injection, and other underground activities. The GAU has determined the base of underground saltwater disposal wells is estimated to occur at a depth of 1,450 ft or less within the area of the Facility (GAU determination letters, **Section 10 Appendix D**). The top of the Injection Unit, at ~18,900 ft, is more than 16,500 ft deeper than the lowest known USDW. Additional information on local aquifers, salinity, and water chemistry is detailed subsequently in **Section 2** and **Section 4**. Pursuant the EPA's Clean Water Protection Act, the project site is **not** located on, or near, Indian lands, Indian reservations, or Tribal Nation waterways. The nearest Indian reservation is the Mescalero Apache Reservation, located in New Mexico. The reservation is located over 150 miles northwest of the calculated maximum monitoring area (MMA). A list of applicable federal, state, and local contacts within the area of review (AoR) can be found in **Table 2** [40 CFR 146.82(a)(20)].

Table 1: Operational Parameters

Proposed Property (All Wells)	Comment
Combined Well Injection Rate	3.75 million metric tons per annum (MMtA) (203.5 MMSCFD)
Injection Rate by Well Type	Class VI – 1 million metric tons per annum (MMtA) (54.5 MMSCFD) Class II – 375 thousand metric tons per annum (MtA) (20 MMSCFD)
Cumulative Injection Mass	45 million metric tons (MMt)
Injection Units	Ellenburger and Siluro-Devonian
Injection Period	12 years per well

Table 2: Contact Information for Key Local, State and Other Authorities [40 CFR 146.82(a)(20)]

Agency	Phone Number
Loving County Sheriff's Office	432-377-2411
Texas State Police	512- 424-2000 (HQ, Austin) 432-251-6436 (City of Kermit)
Texas Dept. of Public Safety 24-hour non-Emergency	800-525-5555
Texas Dept. of Transportation	800-558-9368
Texas Division of Emergency Management agency:	512-424-2208
Texas Commission of Environmental Quality / Water Division:	512-239-6696
Texas Commission of Environmental Quality UIC Program Office:	512-239-6466
The Railroad Commission of Texas 24-Hour Emergency reporting line	844-773-0305 (toll free) or 512-463-6788
The Railroad Commission of Texas UIC Program Office	512-463-6792
The Railroad Commission of Texas Ground Water Advisory Unit	512-463-6882

2.0 PROJECT DESCRIPTION [40 CFR §98.448(a)(1)]

The project description of well and facility locations, including relevant geological settings and planned operations, as outlined in EPA 40 CFR §98.448(a)(1), are discussed in this section. The Milestone Delaware CCS Hub, located NW of the city of Mentone, Texas, is designed to collectively receive ~200 MMSCFD from a variety of industrial emission sources (i.e. petroleum and natural gas systems and power plants, chemical and fertilizer production plants, or bioethanol processing facilities) and geologically sequester the CO_2 via the five proposed UIC wells (**Section 1**). The regional location of the central hub and proposed UIC well locations are illustrated in **Figures 1 & 2**.

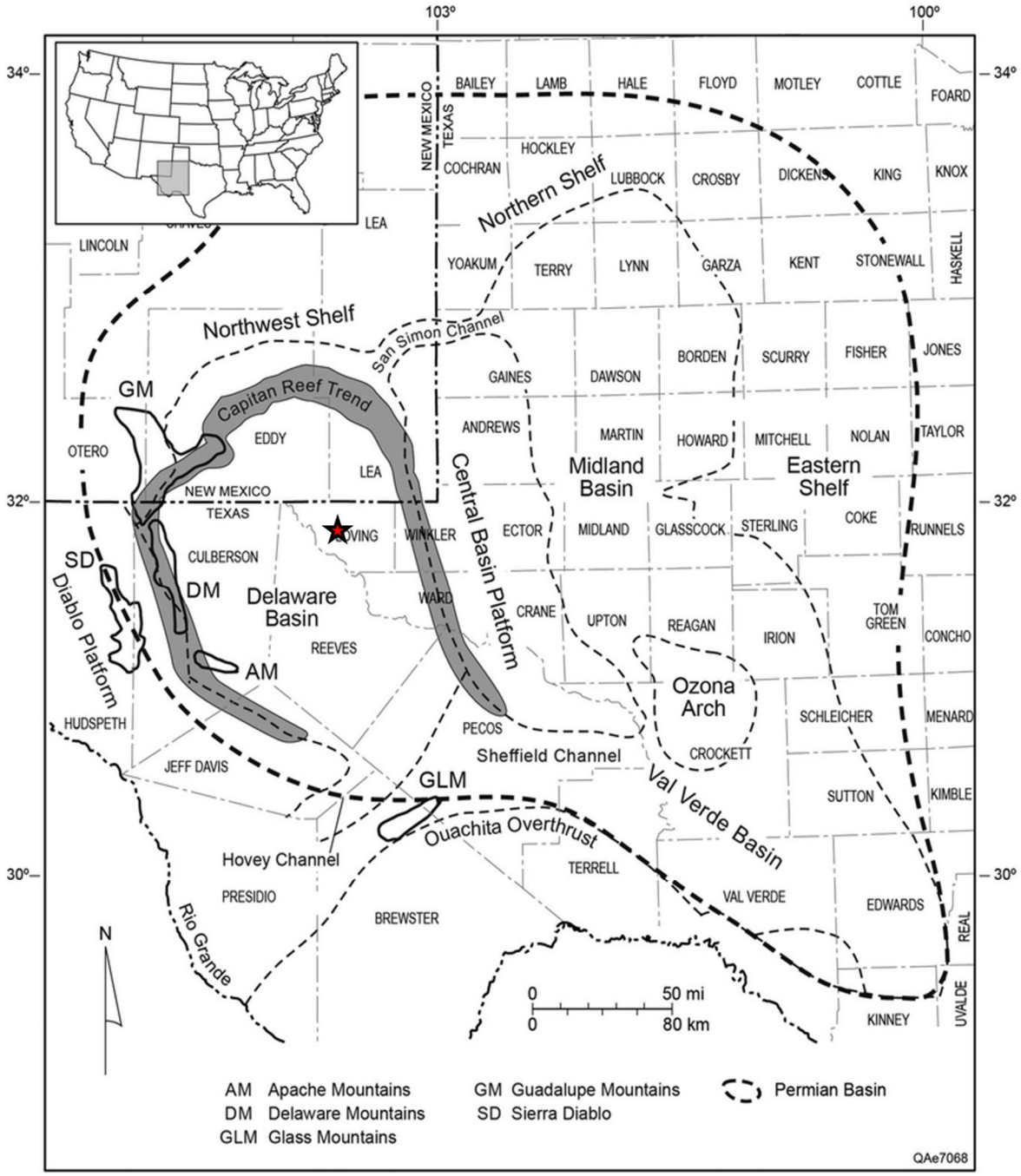

Figure 1: Regional Location Map with respect to Major Geologic Features (Modified from Fairhurst et al., 2021)
Red Star represents the Delaware CCS Hub in Loving County.

The Hub encompasses three facilities: the Central Loving Facility, the East Loving Facility, and the North Loving Facility. Delaware CCS #1 and CCS #2 wells are contained within the Central Loving Facility. Loving AGI #3 and Loving AGI #4 wells are contained within the East Loving Facility while the Delaware CCS #5 wells is contained within the North Loving Facility (**Figure 2**).

Three of the five wells are intended to be UIC Class VI wells to inject 1 MMtA, or 54.5 MMSCFD each. Two of the wells are UIC-designated Class II injecting wells at a maximum of 375 MtA or 20 MMSCFD per well. Collectively, these five wells will be referred to as the "Milestone Delaware Well Group," "Well Group," or "Hub" throughout the MRV plan document. Milestone will access the sites via public roadways and leased roads. Milestone does not anticipate any barriers to, or issues with, accessing the site to conduct monitoring activities.

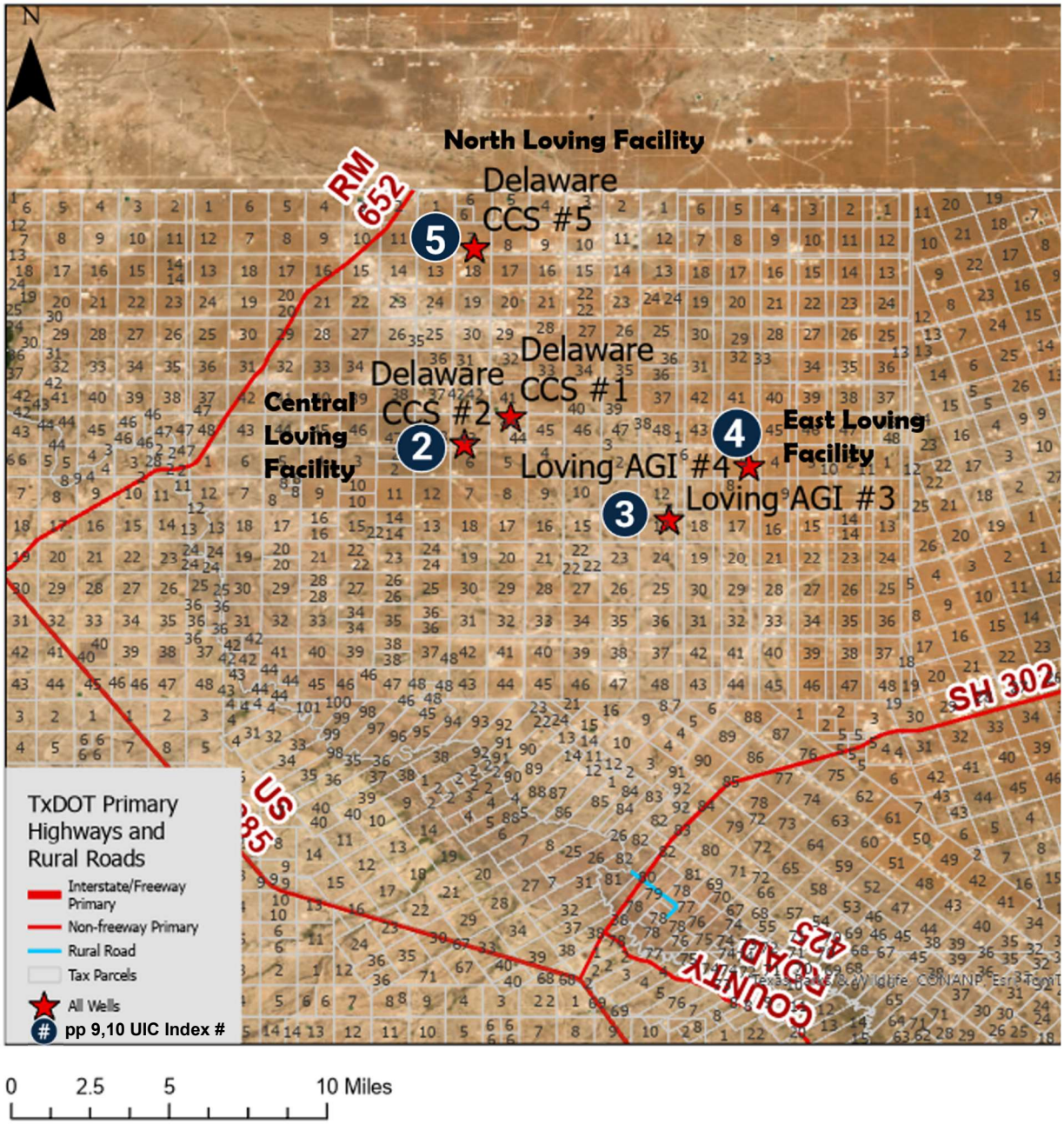

Figure 2: Regional Location Map with Respect to Major Roads in the Region
Red Stars represent five proposed UIC well locations

Delaware CCS Hub | Loving County
Five (5) Proposed UIC Wells

Well Index # (Figure2)	Proposed UIC Well Name	Well Description
1	**Delaware CCS #1**	UIC Class VI Well is located within Section 44, Block 54, Township 1, T. & P. RR. CO. Survey, Abstract No. A-440, in Loving County, Texas. Milestone holds an existing lease agreement with the landowners where the proposed injection well will be located. An injection rate of 54.5 MMSCFD of CO_2 for a period of 12 years is proposed. At the time of submission of this MRV plan, Milestone submitted a permit to RRC for drilling and completion of the Loving AGI #1 injection well and will submit an EPA permit for drilling and completion of the Delaware CCS #1 at the same location. The RRC Permit is referred to as the Loving AGI #1 and the EPA Class VI permit is referred to as the Delaware CCS #1. It is expected that once Texas receives primacy, Milestone will seek to convert the Class II permit to a Class VI, if the Class VI permit submitted to the EPA is not granted prior to primacy. No UIC permit numbers or RRC permit numbers have been assigned at this time.
2	**Delaware CCS #2**	UIC Class VI Well is located within Section 43, Block 54, Township 1, T. & P. RR. CO. Survey, Abstract No. A-65, in Loving County, Texas. Milestone holds an existing lease agreement with the landowners where the proposed injection well will be located. An injection rate of 54.5 MMSCFD of CO_2 for a period of 12 years is proposed. At the time of submission of this MRV plan, Milestone submitted a permit to RRC for drilling and completion of the Loving AGI #2 injection well and will submit an EPA permit for drilling and completion of the Delaware CCS #2 at the same location. The RRC Permit is referred to as the Loving AGI #2 and the EPA Class VI permit is referred to as the Delaware CCS #2. It is expected that once Texas receives primacy, Milestone will seek to convert the Class II permit to a Class VI, if the Class VI permit submitted to the EPA is not granted prior to primacy. No UIC permit numbers or RRC permit numbers have been assigned at this time.
3	**Loving AGI #3**	UIC Class II Well is located within Section 13, Block 54, Township 2, T. & P. RR. CO. Survey, Abstract No. A-74, in Loving County, Texas. Milestone holds an existing lease agreement with the landowners where the proposed injection well will be located. An injection rate of 20 MMSCFD of CO_2 for a period of 12 years is proposed. At the time of submission of this MRV plan, Milestone submitted a permit to RRC for drilling and completion of the Loving AGI #3 injection well. No UIC permit numbers or RRC permit numbers have been assigned at this time.
4	**Loving AGI #4**	UIC Class II Well is located within Section 5, Block 53, Township 2, T. & P. RR. CO. Survey, Abstract No. A-22, in Loving County, Texas. Milestone holds an existing lease agreement with the landowners where the proposed injection well will be located. An injection rate of 20 MMSCFD of CO_2 for a period of 12 years is proposed. At the time of submission of this MRV plan, Milestone submitted a permit to RRC for drilling and completion of the Loving AGI #4 injection well. No UIC permit numbers or RRC permit numbers have been assigned at this time.

Delaware CCS Hub | Loving County
Five (5) Proposed UIC Wells

Well Index # (Figure 2)	Proposed UIC Well Name	Well Description
5	**Delaware CCS #5**	UIC Class VI Well is located within Section 7, Block 54, Township 1, T. & P. RR. CO. Survey, Abstract No. A-47, in Loving County, Texas. Milestone holds an existing lease agreement with the landowners where the proposed injection well will be located. An injection rate of 54.5 MMSCFD of CO_2 for a period of 12 years is proposed. At the time of submission of this MRV plan, Milestone has not but will submit a permit to RRC for drilling and completion of the Loving AGI #5 injection well and will submit an EPA permit for drilling and completion of the Delaware CCS #5 at the same location. The RRC Permit is referred to as the Loving AGI #5 and the EPA Class VI permit is referred to as the Delaware CCS #5. It is expected that once Texas receives primacy, Milestone will seek to convert the Class II permit to a Class VI, if the Class VI permit submitted to the EPA is not granted prior to primacy. The Delaware CCS #5 has not yet been modeled using geomodelling software, hence not all results are available for this well. If it is omitted from some of the following discussion it is because this location is not as mature as the other locations. Based on modeling results this location may move to mitigate surface or subsurface risks. The CCS #5 is included for completeness as it is likely Milestone will file a permit at or near this location in the near future. No UIC permit numbers or RRC permit numbers have been assigned at this time - the EPA will be notified of the well-identification numbers when the relevant permits have been approved. In the event of a material change, including but not limited to location change and/ or permit class would necessitate submission of an MRV plan revision as described in Section 8.

Site Project Map

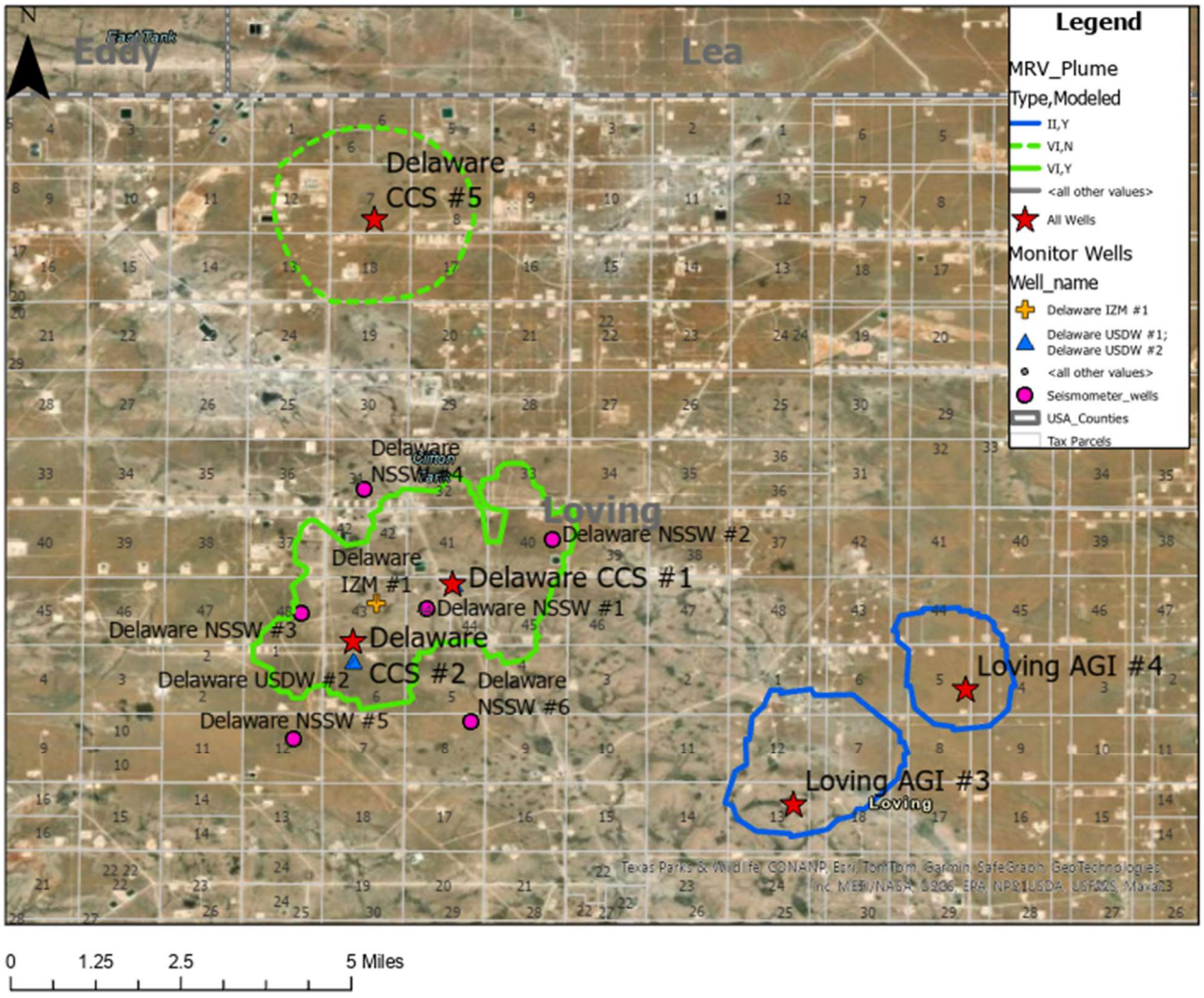

Figure 3: Site Location Map - Locations of the Milestone Delaware CCS Hub and Individual Wells and Plumes
Blue outlines represent Class II Plumes with 375 MtA injection rates. Green Outlines Represent Class VI plumes with 1 MMtA injection rates. Solid lines are modeled in Petrel and are representative AoRs that contain area of elevated pressure and CO_2 saturation. Dashed lines are hypothetical future locations that are estimated based on other wells and have not been modeled.

Project Geologic Setting

The proposed Injection Interval extends from the top of the Mississippian Limestone to 100 ft above the Precambrian granitic basement. The Barnett shale is the primary Top Seal. A generalized stratigraphic column for the deeper parts of the Delaware Basin is shown in **Figure 4**. The injection zone is spaced 100 ft above the granitic basement to avoid enhanced seismicity risk.

The stratigraphic column, **Figure 4**, depicts the expected stratigraphy at the proposed well locations. The Injection Interval (blue box area) and the primary Top Seal (grey box area) are outlined to the right of the stratigraphic column image with Injection Units noted. Since the Injection Interval encompasses multiple formations, it will be referred to in groupings of formations. The Siluro-Devonian unit encompasses the undifferentiated Devonian, Thirtyone formation, Wristen Group, Fusselman formation, and Montoya Group. The Ellenburger unit encompasses the Ellenburger down to basement since it is expected to be isolated from the above by the Simpson shale. The Ellenburger Injection Unit may include parts of the Bliss formation, if it is present, but its existence in the AoR is unclear from regional correlation, it is often eroded.

The proposed facility location (**Figure 5**) is in the eastern portion of the Delaware Basin within the larger Permian Basin. The Delaware Basin is the major western structural subdivision of the Permian Basin and is contained by the Central Basin Platform to the east, the Capitan Reef/Northwest Shelf to the north, the Ouachita Fold Belt to the south, and the Diablo Platform/Guadalupe Mountains to the west.

The Delaware Basin area is a large area (>15,000 square miles) that is dominated by large east-west trending faults and large north-south trending faults on the edge of the Central Basin Platform (CBP). The Marathon Fold and Thrust belt, Diablo Uplift and Central Basin Platform have all created different tectonic patterns of faults.

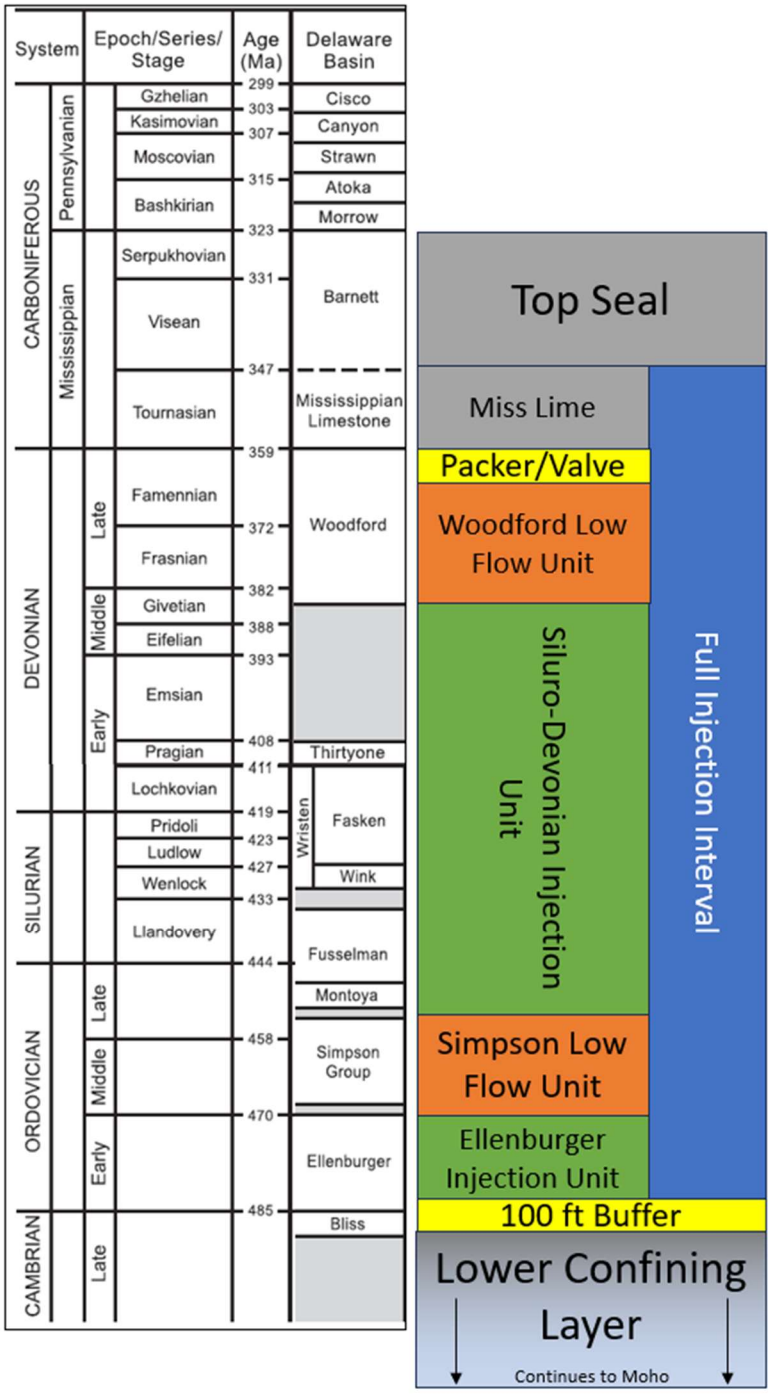

Figure 4: Stratigraphic Column of Injection Zone (Deep formations only) (Modified from Fairhurst et al, 2021)

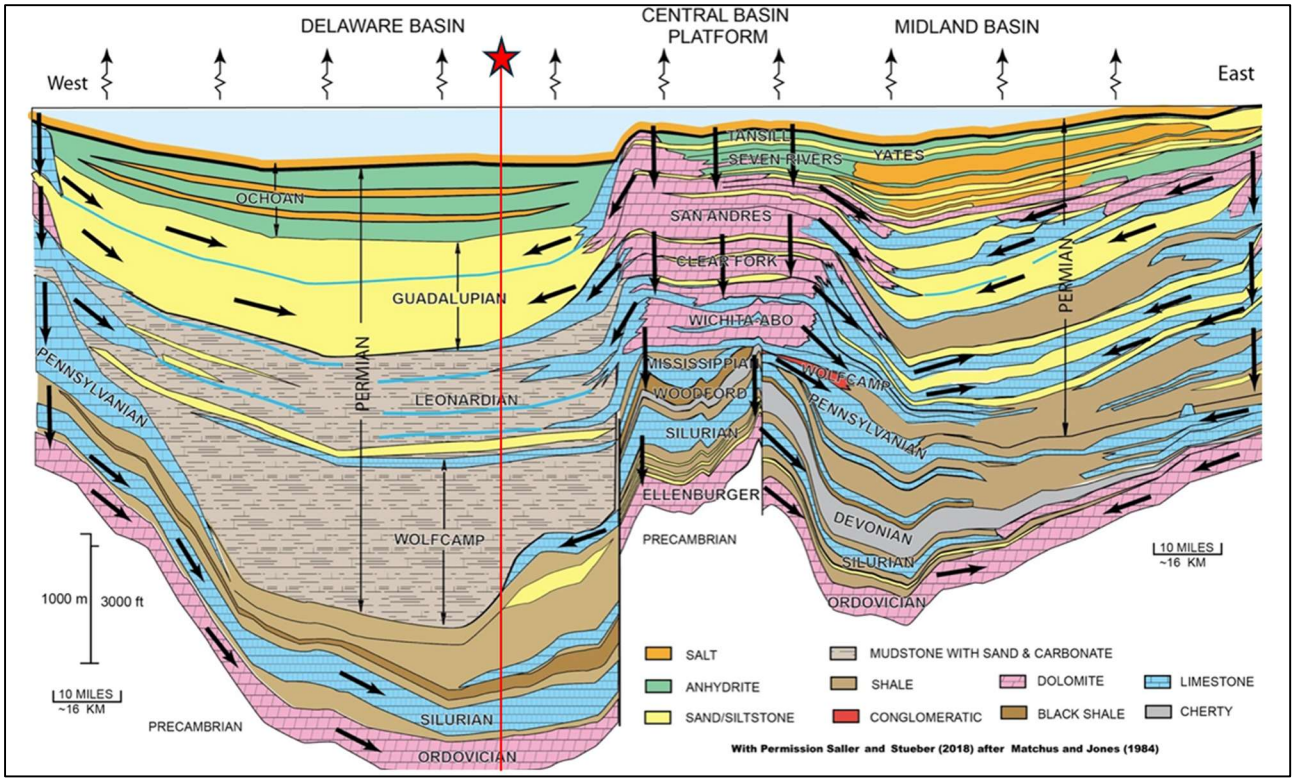

Figure 5: Regional Cross Section of the Permian Basin West-to-East at Facility Location
Approximate location of the Facility (red star). Figure adapted from S. R. Robichaud and N. W. Robichaud, Lithium - Recovery from Naturally Occurring Permian Basin Wastewater, Mineral Resources., 2019, 42475

Injection and Confinement Summary

Upper Confining Layer – Barnett shale

At the Hub, the Top Seal is defined as the Mississippian aged Barnett shale, from top to base. The Atoka shale is expected to occur directly above the Barnett shale at the Facility. In parts of eastern Loving County, the Morrow Sand is found in between the Atoka and the Barnett shale, but it is not expected to occur at the Facility. The interval of Mississippian age with high gamma ray is referred to as the Barnett formation. The Barnett sits above a section of low gamma ray which is un-named but referred to as “the Mississippian Lime” which is in turn underlain by the Woodford shale (**Figure 4**) (Ruppel et al., 2008). In the Delaware Basin, the Barnett is often broken up into the Barnett shale and the Lower Barnett shale.

The mineralogy of the Barnett shales is primarily quartz, calcite, smectite, and illite in roughly equal abundance. Higher gamma ray intervals increase clay and quartz minerals at the expense of carbonate minerals. Organic matter is present and indicated by intervals of high gamma ray and lower density. The shales are generally very fine grained with no distinguishable grains without the aid of electron microscopes.

The Barnett shale in the Delaware Basin is characterized by extreme overpressure. Mud weights while drilling through the Barnett often exceed 17 lb/gal (Bethancourt, 1977). No faults are observed to cut through the Barnett shale within the AoR on 3-D seismic. The extreme overpressure is believed to form a barrier to upward fracture propagation and fluid migration. The lack of through cutting faults and high pressure was the primary reason for selection as the Top Seal. The Barnett shale forms an effective Top Seal due to the high clay content, low grainsize, high entry pressure and extremely low permeability. Vertical permeability is expected to be <5nD. Horizontal permeabilities range from 100 to 200nD. The threshold entry pressure is expected to be greater than 10,000 psi based on capillary pressure data.

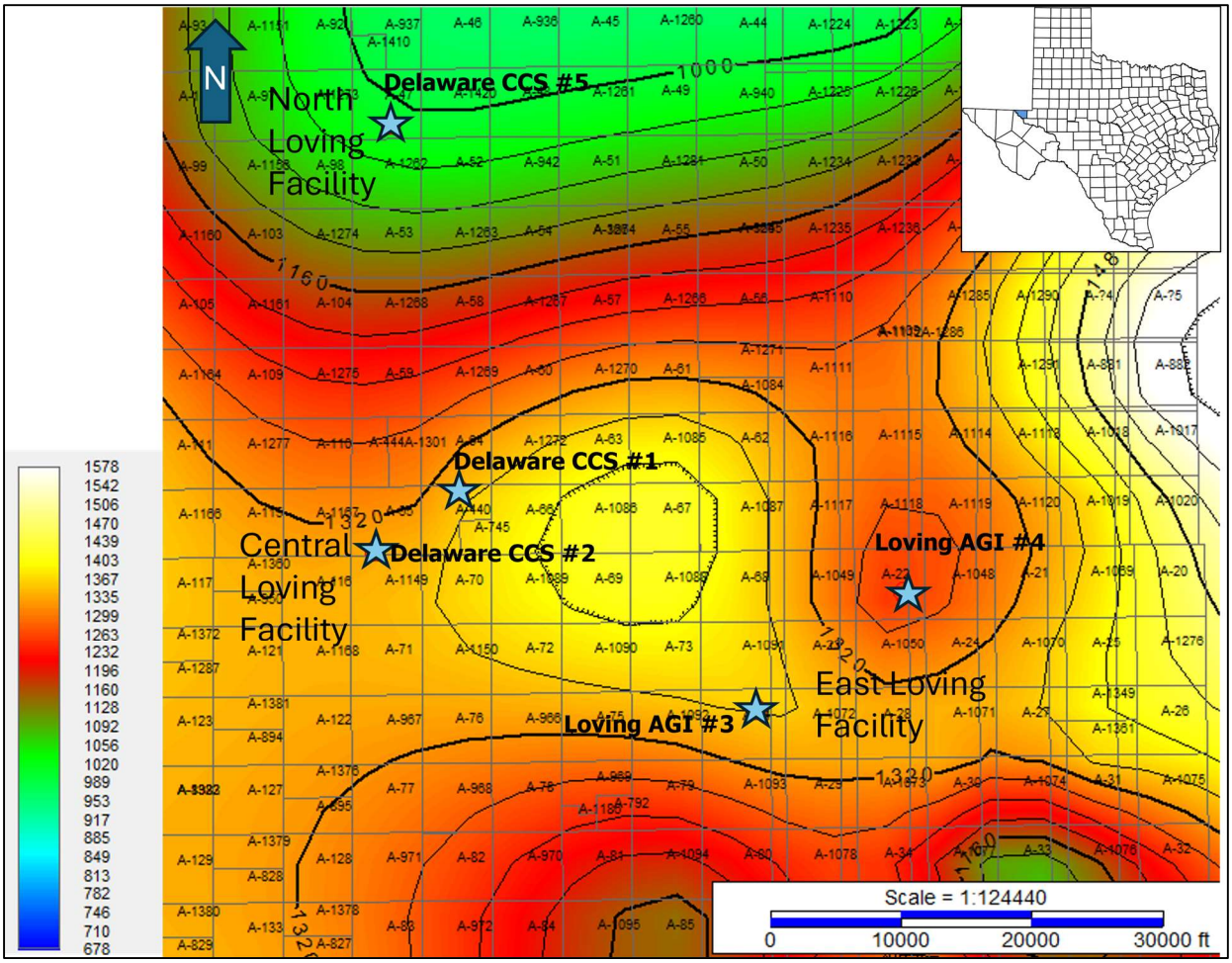

Figure 6: Thickness Map of Barnett shale, ft.
The blue stars represent wells at each Facility

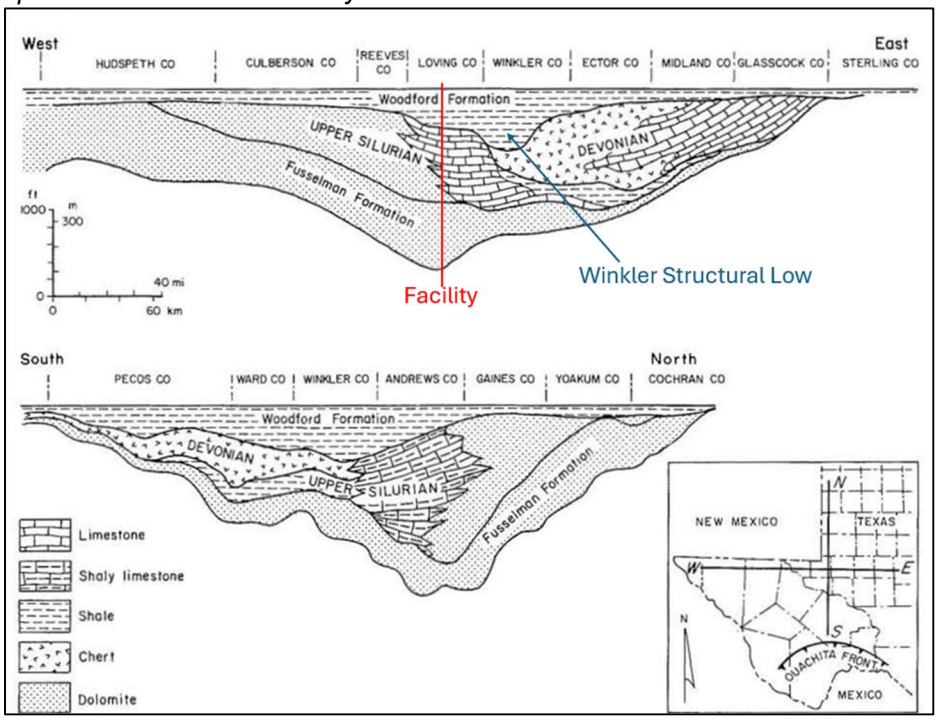

Figure 7: Schematic Cross Section of Siluro-Devonian Injection Interval
Red line is a projected location of Milestone Facility on each cross section (Ruppel and Holtz, 1994)

Upper Injection Interval – Siluro-Devonian Carbonates

The interval defined as the Siluro-Devonian Carbonates extends from the regional unconformity at the base of the Woodford to the top of the Fusselman formation. This includes the undifferentiated Devonian, the Thirtyone formation, and the Wristen Group. The Siluro-Devonian Carbonates are expected to be the first interval in the Injection Unit that has enough permeability for gas to enter the formation.

Siluro-Devonian aged undifferentiated packstones, dolomites and cherts are often referred to as "Siluro-Devonian Carbonates," or simply "Siluro-Devonian," in the remainder of this document. The Woodford is not included in this lithologic grouping even though the Woodford is also Devonian in age because it is an organic shale. The unconformity at the base of the Woodford is used as a boundary. Throughout most of the Permian Basin, Siluro-Devonian rocks comprise three distinct facies:

- Skeletal carbonates, primarily pelmatozoan packstones and grainstones.
- Bedded, commonly spiculitic and chert.
- Shallow water ramp carbonates that contain abundant dolomite (Modified from Ruppel and Holtz, 1994) (**Figure 7**).

Mineralogy of the Siluro-Devonian is primarily quartz in the chert intervals and calcite in the packstone intervals with some illite present and dolomite in dolomite intervals. In parts of southeastern New Mexico, and near Fort Stockton, Texas, packstone dolomite exists in a continuum with minority calcite in the interval. The Silurian Wristen Group is generally finer grained and is argillaceous and has small volumes of organic matter. Within the Wristen Group, the Frame and Wink members are present in the southern Permian Basin and the carbonate rich Fasken member present in the northern Permian Basin (Ruppel et al., 2008). Based on offset logs in the cross sections found in **Figure 11 and Figure 12**, the facies within the AoR are expected to be calcite dominated packstone with minimal dolomite or chert. The Wristen Group is expected to be primarily the Frame and Wink formations and may have up to 35% clay with the remainder being made up of Calcite.

Open and closed fractures are common in both chert and carbonate facies; however, cherts at Three Bar Field contain two to six times as many fractures as associated limestones. In addition, fractures are more abundant close to identified fault zones (Ruppel and Hovorka, 1995).

Lower Injection Interval – Ellenburger Group

The Ellenburger Injection Unit is defined as the base of the Simpson Group to 100 ft above granitic basement. This may, or may not, include a Cambrian-aged basal sand which is believed to be eroded but has been reported sporadically in the Midland Basin.

The Ellenburger Group of the Permian Basin is part of a Lower Ordovician carbonate platform sequence that covers a large area of the United States (Ross, 1976; Kerans, 1988, 1990). It is well known for being one of the largest shallow-water carbonate platforms in the geologic record (covering thousands of square miles and as much as 500 miles wide in west Texas). Extensive cave collapse features (karsting) lead to pervasive fracturing that occurred shortly after deposition. This fracturing enhances the permeability of the formation.

The Ellenburger is extensively fractured due to three stages of karsting that occurred repeatedly for millions of years as sea level rose and fell over an area that covered the entire Permian Basin. When sea level was lower than the carbonate platform, karst features would form leading to cave collapse and brecciation. Additionally, dolomitization favors preserving open fractures and pores because it is mechanically and chemically more stable than limestone. Pores within dolomites are commonly preserved to deeper burial depths and higher temperatures than those of pores in

limestone.Pore networks in the Ellenburger are complex because of the amount of dolomitization, brecciation, and fracturing associated with karsting and regional tectonic deformation. Pore networks can consist of any combination of the following pore types, depending on depth of burial (Loucks, 1999): (1) matrix; (2) cavernous; (3) interclast; (4) crackle-/mosaic-breccia fractures; or, (5) tectonic-related fractures. (**Figure 8**).

The Ellenburger's mineralogy is primarily composed of dolomite (>80% dolomite) but it may contain calcite, anhydrite, chert, gypsum and other minerals in small quantities at a core scale. Many minerals occur in minor quantities related to evaporite deposition or other chemical processes. Over 99% of the non-dolomite mineralogy is contained within the pervasive fractures.

Lower Confining Zone –Bliss and Precambrian Basement

The top of the lower confining layer is 100 ft above Precambrian basement. This confining layer contains Precambrian basement and potentially contains the Cambrian-aged Bliss formation.

An unconformity exists between the Ellenburger and Precambrian basement that may have eroded the lower Ellenburger and the Cambrian-aged Bliss formation from the geologic section. It is unknown whether the Cambrian-aged Bliss formation will be present at the base of the Ellenburger due to lack of well penetration. It is expected to be discontinuous if it is present. The crystalline basement below the Cambrian section has been well studied and is primarily granite and rhyolite in Loving County, TX. Loving County resides over the western extension of the Abeline gravity minimum (AGM) which is a large regional granitic and rhyolite bearing batholith (Ewing et al., 2019) (Adams and Keller, 1996). The age of the batholith is not known except that is cut by the Llano Deformation front. Samples taken near Abilene, TX yielded an age of 1,078 +/- 23 Mya from Uranium-Lead dating. This batholith is likely related to the large unusually deep low gravity anomaly that straddles the Texas-New Mexico border and is partially within Loving County (Ewing et al., 2019). The base of the batholith is unknown, but the lower confining layer can be considered to extend to the base of the Mohorovičić discontinuity at the mantle-crust interface.

The thickness of the Ellenburger Group varies across the basin owing to the unconformity at the base. Furthermore, the lack of well penetrations of granitic basement makes it difficult to reliably map. Milestone estimates the basement depth at 22,850 ft below ground level at the facility.

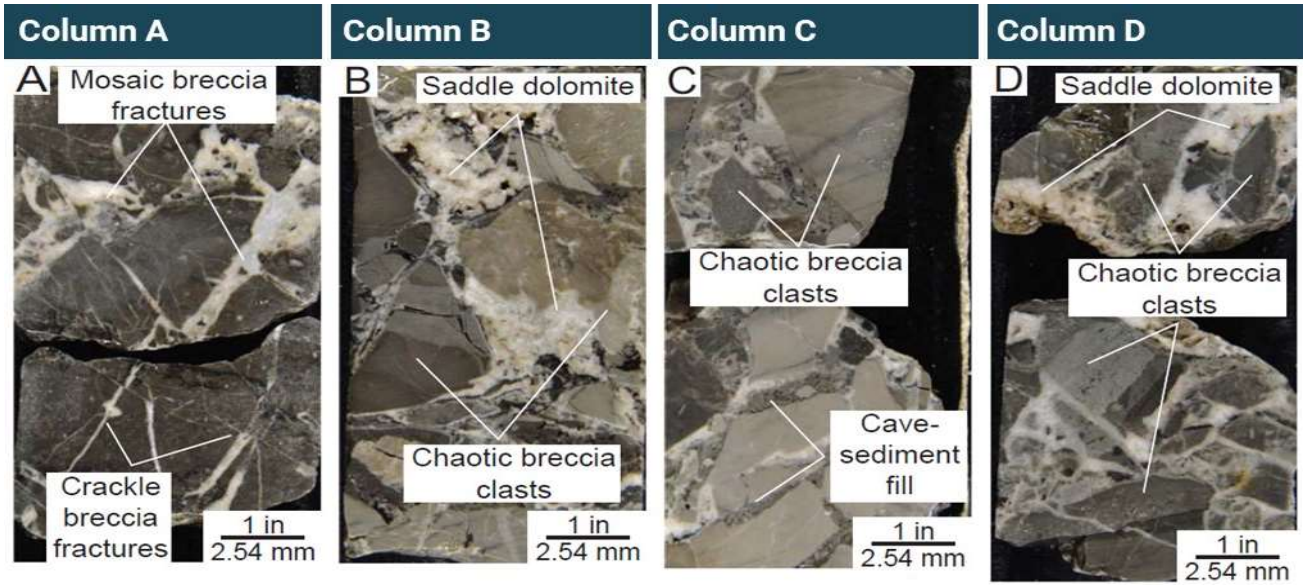

Figure 8: Meteoric Karst Breccias in Ellenburger Group
from McElroy #1, Crane County, Texas (R. Loucks, 2023).

Local Structure

The structure of the local area is relatively un-faulted area bounded on three sides by fault systems. The injection wells are strategically positioned to be as far from observable faults as possible. Injection wells are approximately 0.5-1.6 miles from the nearest faults (**Figure 10**).

The nearest identified faulting to the facility is 0.5 miles to the north of the CCS #1. There are five faults within the MMA #1, two faults within MMA #2 and 11 faults within MMA #3. Fortunately, none of the mapped faults cut through the Barnett shale. Due to the tectonic history and overpressuring within the Barnett, it forms an effective upward barrier to fluid migration and fracturing/faulting.

All the formations below the Wolfcamp are regionally extensive, conformable and cover Loving County. There are no regional pinchouts expected within the county or the AoR. One exception is the Morrow Sand which pinches out east of the AoR, but it is not within AoR, the Top Seal or the Injection Interval. Strike of the Paleozoic strata is approximately NE-SW direction with a SE dip direction.

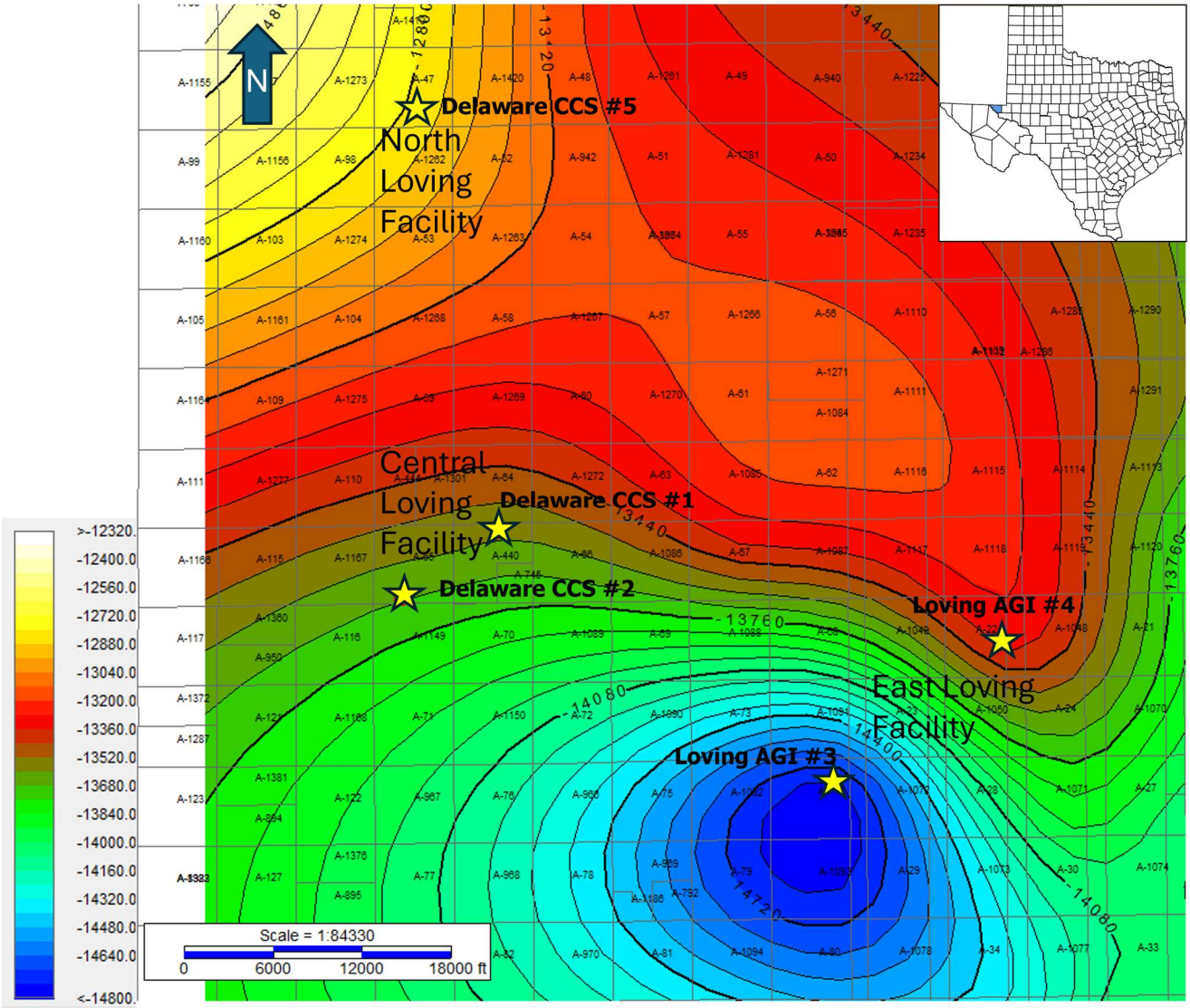

Figure 9: Top of Barnett shale (top of Top Seal), subsea ft
Yellow stars represent Facility wells - Please note the lack of faults

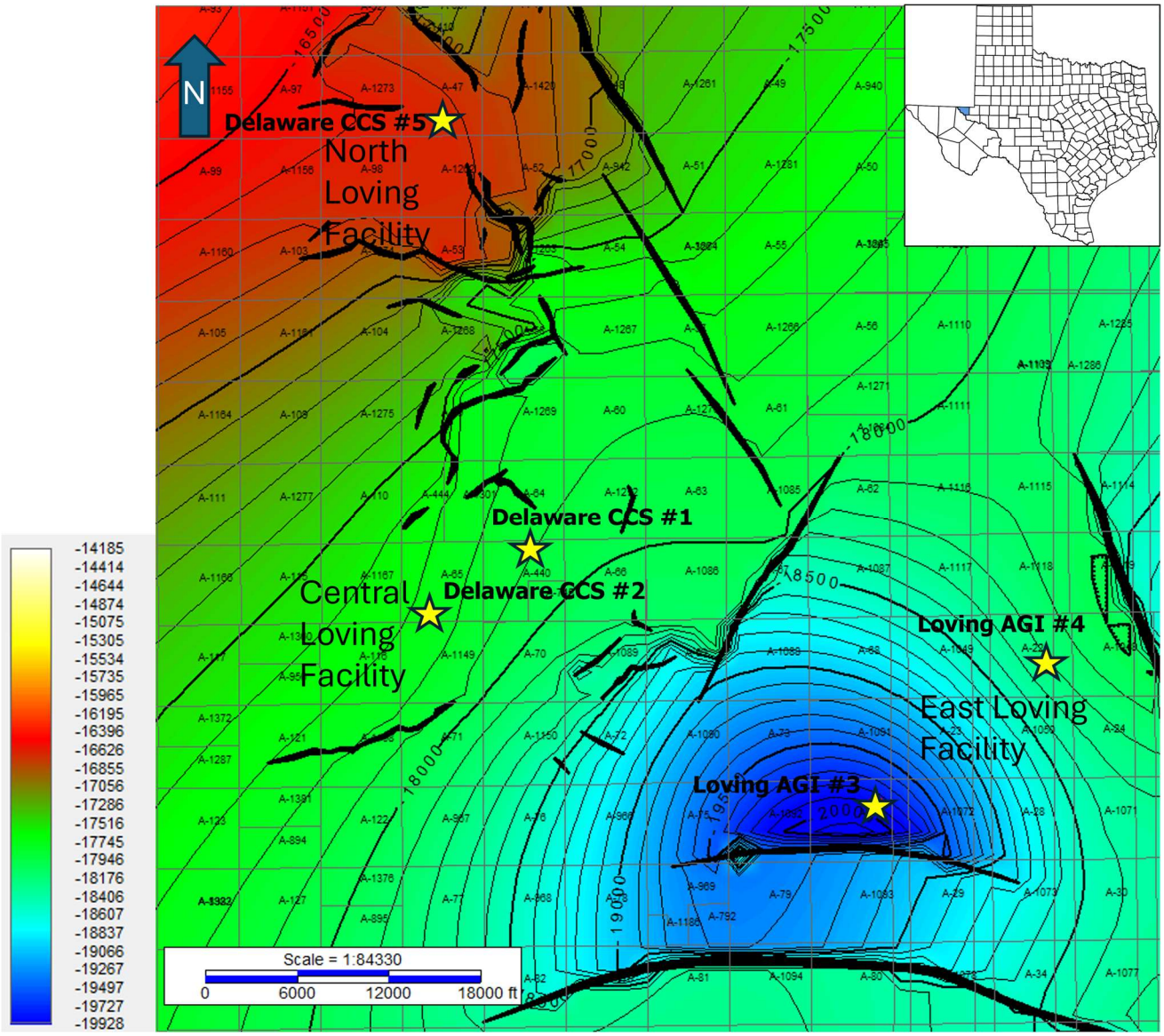

Figure 10: Localized Structure - Top of Ellenburger, subsea ft
Yellow stars represent Facility wells

The Siluro-Devonian and Ellenburger are much more extensively faulted than the Barnett or Woodford shales. Extensive faulting and fracturing are expected in both formations within the injection zone. There are no faults expected to cut through the Barnett shale. Milestone sought to put as much distance between faults and injection wells as possible to reduce seismicity risk (**Figure 10**).

Figures 11 and **12** illustrate a dip cross section and a strike cross section. There is sparse well control in the area given the lack of potential oil and gas accumulations. Well control is sparse and thus the cross sections have great distances between wells. There are approximately 5-10 miles between each well in the cross sections. **Figure 13** is an index map depicting the well locations contained in the cross sections.

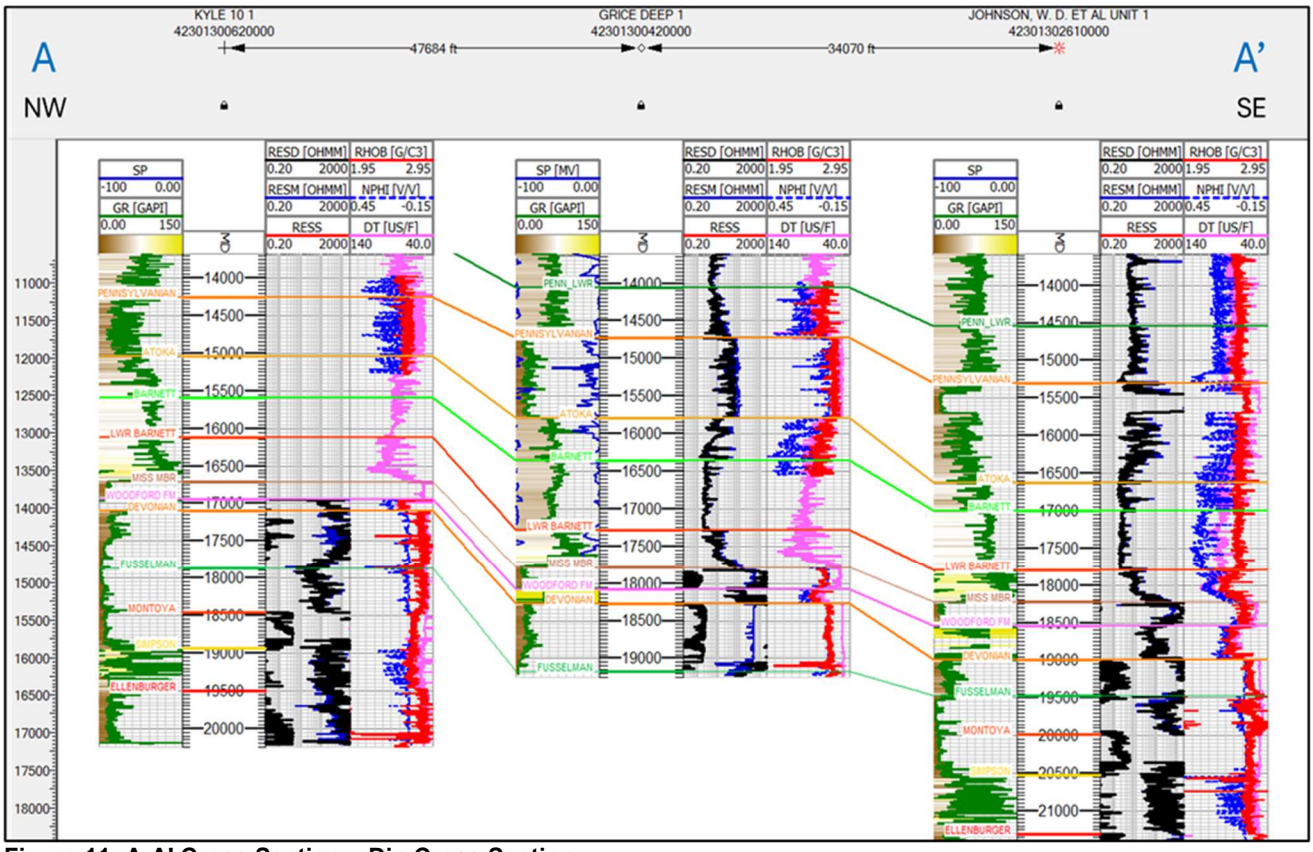

Figure 11: A-A' Cross Section – Dip Cross Section

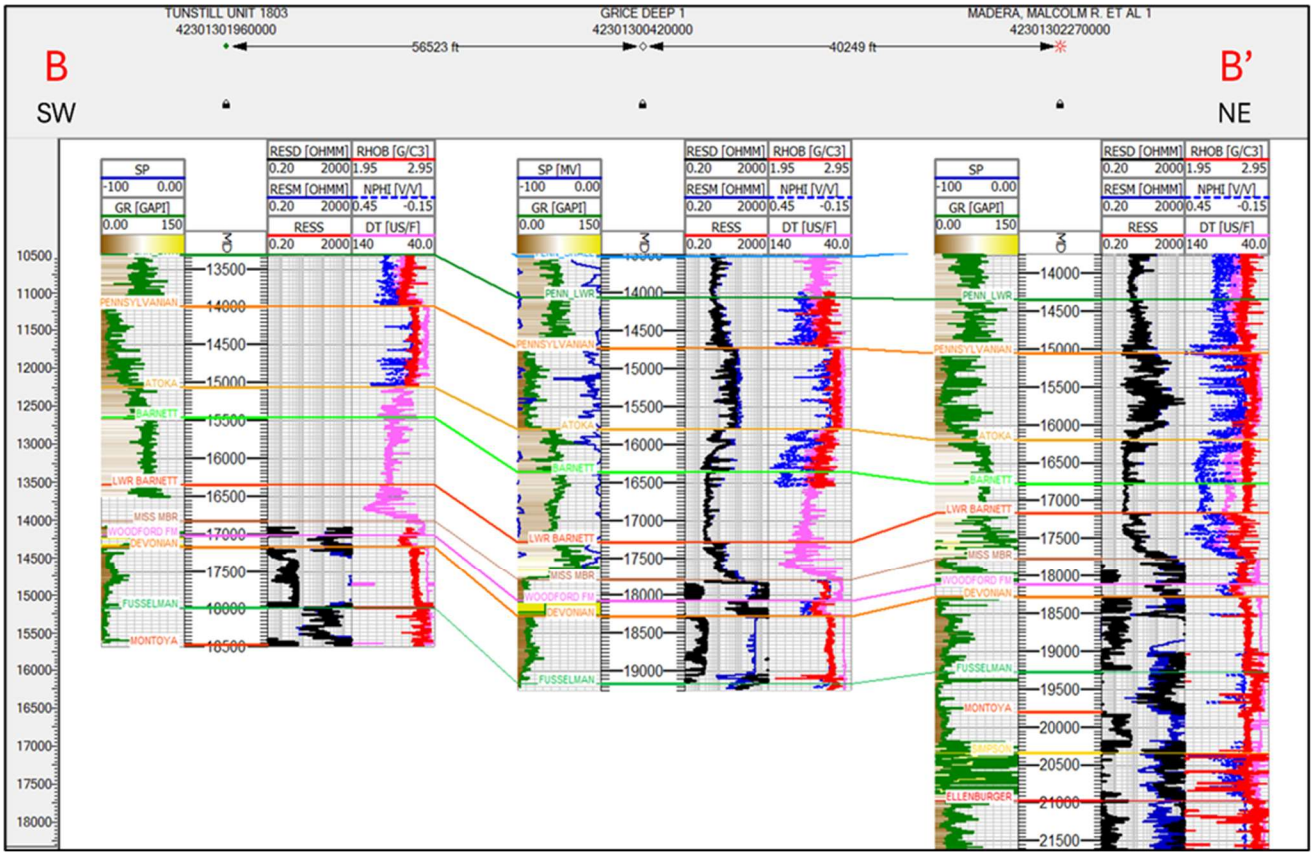

Figure 12: B-B' Cross Section – Strike Cross Section

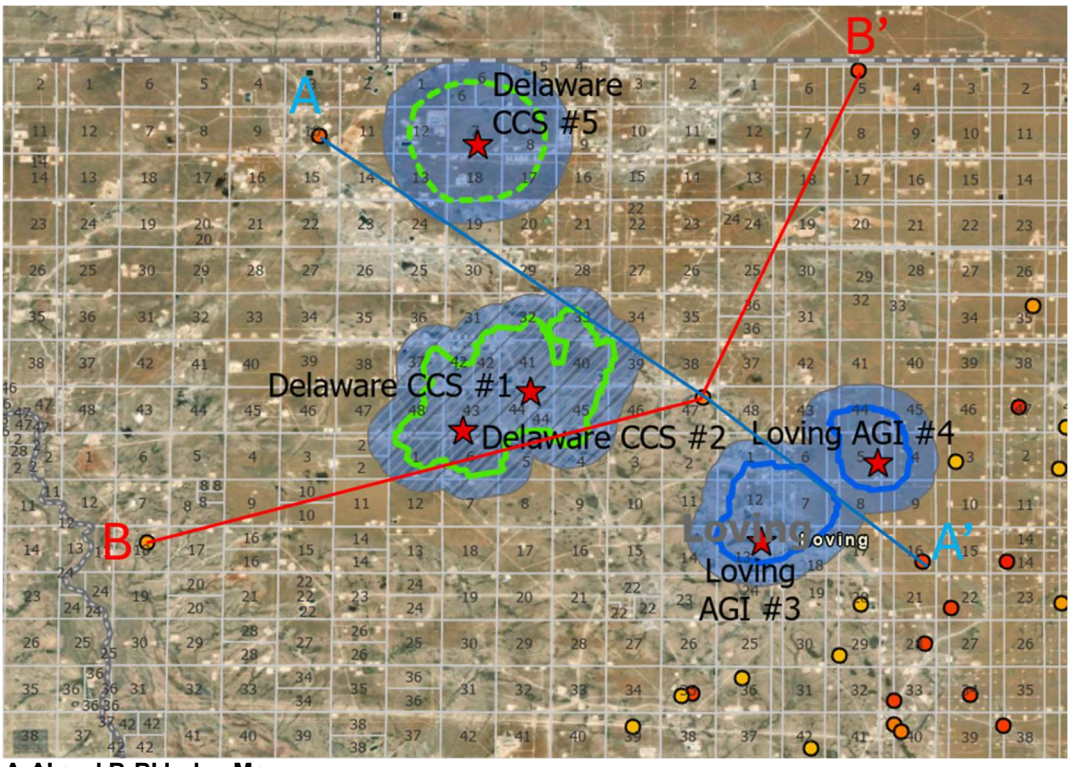

Figure 13: A-A' and B-B' Index Map

Interpolated depths at the proposed Hub are displayed in **Table 3**. These depths were interpolated from offset log data and 3-D seismic data. Depths will be updated when a stratigraphic test is drilled.

Table 3: TVD Depth, Subsea Depth and Thickness of formations at Well Locations

	Formation	Delaware CCS #1			Delaware CCS #2		
		TVD GL (ft)	TVD SS (ft)	Thickness (ft)	TVD GL (ft)	TVD SS (ft)	Thickness (ft)
	PENNSYLVANIAN	14,820	-11,785	1,062	14,823	-11,809	1,054
	ATOKA	15,882	-12,847	704	15,877	-12,863	783
Top Seal	BARNETT	16,586	-13,551	815	16,660	-13,646	720
	LOWER BARNETT	17,402	-14,366	543	17,380	-14,366	615
Injection Interval	MISS	17,945	-14,910	247	17,995	-14,980	217
	WOODFORD	18,192	-15,157	168	18,212	-15,198	176
	DEVONIAN	18,360	-15,325	873	18,388	-15,374	865
	FUSSELMAN	19,234	-16,199	531	19,253	-16,239	523
	MONTOYA	19,765	-16,730	669	19,776	-16,762	622
	SIMPSON	20,433	-17,398	505	20,397	-17,383	380
	ELLENBURGER	20,938	-17,903	1,789	20,778	-17,764	2,003
	WELL TD	22,727	-19,692	100	22,781	-19,766	100
	BASEMENT	22,827	-19,792		22,881	-19,866	

	Formation	Delaware AGI #3			Delaware AGI #4			Delaware CCS #5		
		TVD GL (ft)	TVD SS (ft)	Thickness (ft)	TVD GL (ft)	TVD SS (ft)	Thickness (ft)	TVD GL (ft)	TVD SS (ft)	Thickness (ft)
	PENNSYLVANIAN	15,939	-12,995	1,286	15,100	-12,115	795	14,367	-11,260	984
	ATOKA	17,226	-14,282	534	15,895	-12,910	442	15,351	-12,244	560
Top Seal	BARNETT	17,759	-14,815	882	16,337	-13,352	790	15,911	-12,804	521
	LOWER BARNETT	18,642	-15,698	483	17,128	-14,143	466	16,432	-13,325	489
Injection Interval	MISS	19,125	-16,181	303	17,594	-14,609	456	16,921	-13,814	264
	WOODFORD	19,428	-16,484	317	18,050	-15,065	296	17,185	-14,078	218
	DEVONIAN	19,744	-16,800	1,073	18,346	-15,361	1,009	17,403	-14,296	759
	FUSSELMAN	20,817	-17,873	485	19,354	-16,369	557	18,162	-15,055	636
	MONTOYA	21,302	-18,358	968	19,911	-16,926	515	18,798	-15,691	463
	SIMPSON	22,271	-19,327	601	20,426	-17,441	821	19,261	-16,154	515
	ELLENBURGER	22,872	-19,928	1,354	21,247	-18,262	1,704	19,776	-16,669	1,731
	WELL TD	24,226	-21,282	101	22,951	-19,966	100	21,507	-18,400	100
	BASEMENT	24,327	-21,383		23,051	-20,066		21,607	-18,500	

Groundwater Hydrology

The Texas Railroad Commission Ground Water Advisory Unit has set the base of USDW at 1,450 ft (CCS #1),1,475 ft (CCS #2), 1,500 ft (AGI #3), 1,500 ft (AGI #4) and 1,050 ft (offset well of CCS #5) at the proposed well locations (GAU Determination letters, **Section 10 Appendix D**). The proposed Delaware CCS #1, CCS #2, AGI #3 and AGI #4 Class VI wells will set casing at 1,900-1,950 ft depth to protect USDW sources per RRC regulations. The CCS #5 will set casing at 1,300 ft. At the proposed Facility, the top of the Injection Interval (the Mississippian) is at a depth of 17,945 ft (CCS #1), 17,995 ft (CCS #2), 19,125 ft (AGI #3), 17,594 ft (AGI #4) and 16,921 ft (CCS #5), respectively. Therefore, the base of the USDW is separated from the top of the uppermost Injection Unit by a minimum depth of at least 15,871 ft (depths of Injection Intervals noted in **Table 3**).

The 2011 and 2016 Aquifers of Texas report by the Texas Water Development Board (TWDB) identified two aquifers in the vicinity of the hub: The Pecos Valley Major aquifer and the Rustler Minor aquifer (George, Mace and Petrossian, 2011) (TWDB, 2016). The Dockum, Capitan Reef and Edwards Trinity aquifers are not present within the Hub although are often noted in regional reports. The Dockum boundary is about one mile to the east of the eastern edge of the hub (**Figure 14**). The Hub is not within a groundwater conservation district. The Hub resides within the Pecos Trough. The Pecos Trough is a Cenozoic depression which formed from dissolution and removal of evaporites in the underlying Ochoan Series. The Pecos Trough is west of the Monument Draw Trough (Ashworth, 1990).

In central Loving County, the principal source of drinking water is the unconfined Pecos Valley major aquifer, which is a shallow freshwater aquifer located at depths of <700 ft below the surface. This aquifer is unconfined and recharged by rainfall and is used for domestic, agricultural, and industrial purposes in the county. The top of the water table averages 250 ft below the surface and discharges into the Pecos River where the water table is near surface, and evapotranspiration occurs (Ashworth, 1990) (TWDB Texas Aquifers Study, 2016). The Pecos Valley aquifer has generally hard slightly brackish water with total dissolved solids (TDS) of approximately 6,100ppm in Loving County.

A secondary source of drinking water occurs within the minor confined Rustler aquifer. The Rustler aquifer is estimated to occur between 1,000 ft and 1,450 ft below the surface within the Hub, except at the CCS #5 where it is shallower and terminates at 1,050 ft. It recharges primarily from rainfall and transfers from adjacent aquifers. It primarily produces brackish hard water with total dissolved solids greater than 10,000ppm and has zero water wells producing within the Hub. Due to inferior water quality, it is generally not utilized for water production in western Loving County. The Rustler outcrops in Reeves County west of the Pecos River (TWDB Texas Aquifers Study, 2016).

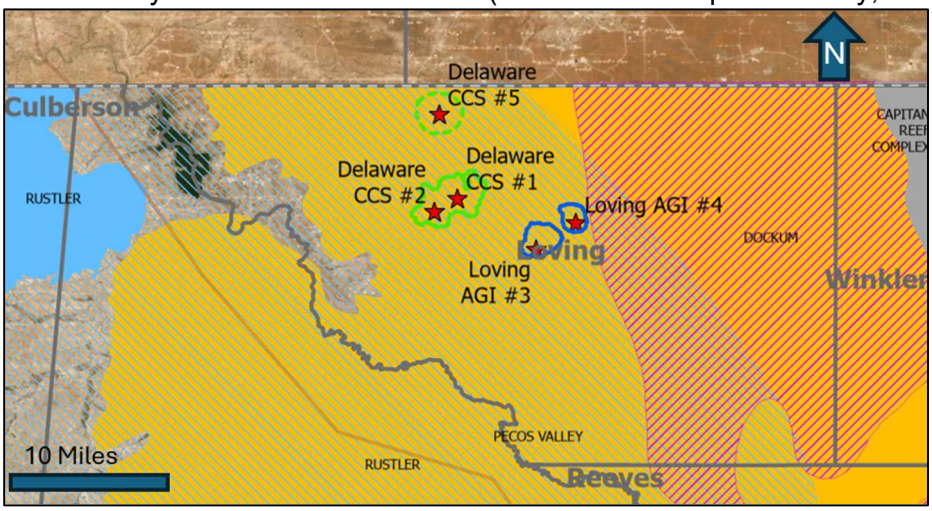

Figure 14: Map of hub in relation to Major and Minor Aquifers of Texas (Outlines Source: TWDB)

Description of the Injection Process and Planned Operations

The strategy is to inject into the Siluro-Devonian and the Ellenburger Injection Intervals via an open hole completion with a packer set just below the Top Seal. Bottomhole pressure will not exceed 90% of the fracture pressure of the Injection Interval, which will limit surface injection pressure. The anticipated bottomhole injection pressure (BHIP), frac gradient with 90% safety factor, and injection rate plot over time are also shown in **Table 4**.

Table 4: Summary of Injection Parameters by Well Class

Maximum Injection Pressure	Class II (375MtA)	Class VI (1MMtA)
Surface (Wellhead)	5,000 psi	5,000 psi
Bottomhole	10,605 psi	10,605 psi
Average Injection Pressure		
Surface (Wellhead)	2,500 psi	3,510 psi
Bottomhole	8,900 psi	9,151 psi
Average Injection Rate	1,027 metric tons/day 20.0 MMSCFD	2,740 metric tons/day, 54.5 MMSCFD
Average Injection Mass	375 Mt (per year)	1 MMt (per year)
Average Annulus Surface Pressure	2,600 psi	3,610 psi
Annulus Pressure / Tubing Differential	+100 psi	+100 psi
Duration of Injection	12 years	12 years

Values shown are the expected operating parameters for the CCS #1, CCS #2, AGI #3, AGI #4 and CCS #5. Average pressure values are likely to be adjusted once the test well is drilled and step rate injection tests (SRT) are conducted. Maximum pressure and rate values are not expected to change substantially since they are linked to the fracture gradient and pipe size constraints although minor adjustments from triaxial rock mechanics testing results are likely.

Injection is planned for an average of 1.0 MMtA of CO_2 into the three Class VI wells and an average of 375 MtA of CO_2 into the two Class II wells. **Table 4** summarizes the maximum wellhead and bottomhole pressures. Continuous monitoring will occur, as described in **Section 5**, at the Milestone Delaware CCS Hub site. The metering stations will monitor each pipeline as shown in **Figure 15**.

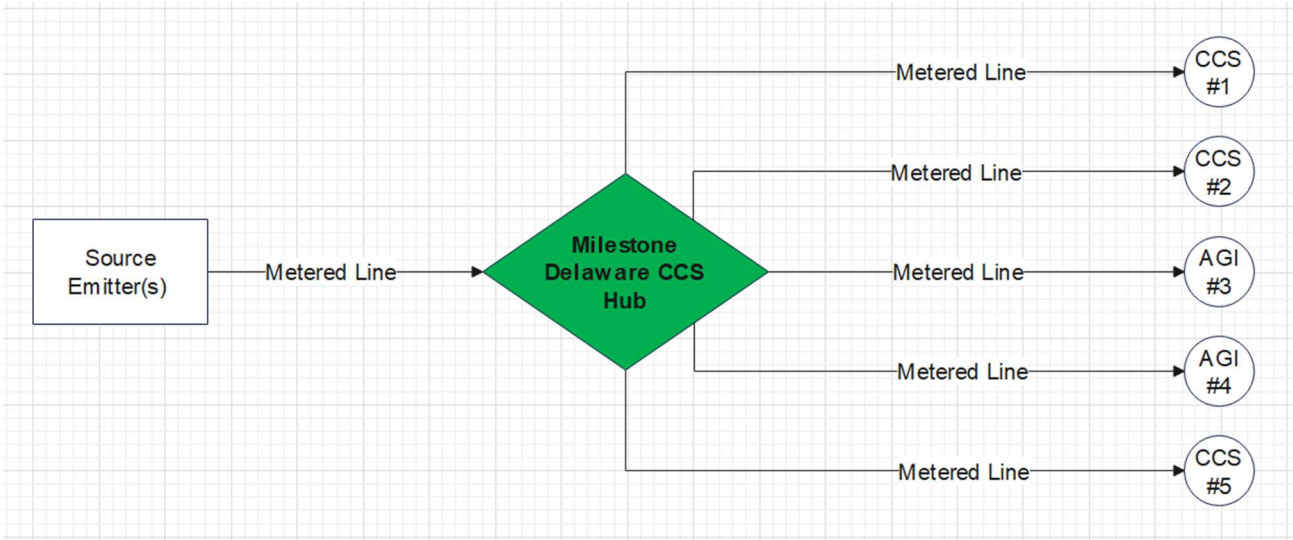

Figure 15: General Process Flow Diagram & Metering Pipelines

3.0 DELINEATION OF MONITORING AREA [40 CFR §98.448(a)(1)]

The delineation of the Maximum Monitoring Area (MMA) and Active Monitoring Area (AMA) as described in EPA 40 CFR §98.448(a)(1) is discussed in **Section 3**.

Maximum Monitoring Area (MMA)

The Maximum Monitoring Area (MMA) is defined under 40 CFR §98.448(a)(1) as the area that must be monitored, which is equal to or greater than the area expected to contain the free phase CO_2 plume until the CO_2 plume has stabilized plus an all-around buffer zone of at least one-half mile. Milestone's MMA is equal to the extent of the supercritical CO_2 plume 50 years after the injection ends (in the year 2038), with a Post-Injection Site Care (PISC) period ending in the year 2088, plus a half-mile buffer. Milestone's selected MMA accounts for spread 50 years post-injection, the outer limit of the critical pressure, and the required buffer zone. This represents the maximum area of the injected CO_2 over the life of the project, including the post-injection period, to define boundaries for monitoring leakage. An additional half-mile buffer is added to this area per EPA 40 CFR §98.448(a)(1). The buffer zone is intended to encompass hypothetical leaks that might migrate laterally as they move toward the surface. Since the plumes are not contiguous, an MMA has been defined around each plume. The cumulative MMA area for all facilities is equal to 38.897 square miles. A map of the MMA and 50-year PISC plumes is illustrated in **Figure 16**.

The CO_2 plumes are not contiguous in some cases. The Hub encompasses three facilities, the Central Loving Facility, the East Loving Facility, and the North Loving Facility. The MMAs are numbered #1, #2 and #3. It is expected that Milestone will continue to develop this facility and that there will eventually be one nearly contiguous MMA.

The CO_2 supercritical fluid plume is modeled in CMG's GEM™ and delineated by >2% CO_2 of total pore volume or >2% CO_2 saturation. The thickness of the Injection Interval is approximately 4,800 ft thick. The plume is further delineated using a critical pressure calculation defined by the pressure needed to displace fluid initially present in a hypothetical borehole. The critical pressure increase is defined as the pressure buildup needed for the hydraulic head of the Injection Interval to exceed the hydraulic head of the USDW (source: EPA UIC) Program Class VI Well Area of Review Evaluation and Corrective Action Guidance, revised May 2013). The plume size for permitted wells and drift distance were predicted using numerical simulation. For proposed wells, the average radius of nearby simulated wells is used and centered on the proposed injection location. The plume areal extent and density drift were determined through reservoir modeling using CMG's GEM™ simulation software package[1].

The plumes are expected to migrate rapidly during injection, achieving a radius of ~7,900 ft by year 2038 and then expanding <80 ft per year post injection. **Figure 17** illustrates how the plume is expected to stabilize around the year 2063 and radius increases by <1% per year after that point. As the Injection Intervals are regionally continuous over most of west Texas and southern New Mexico, the reservoir boundary is not contemplated. Note - the entirety of the AMA and MMA are contained within the state of Texas, no monitoring areas, AoRs or plumes cross into the State of New Mexico.

The following considerations were accounted for in the CMG model and the modeled area:

- Injection Period = 12 years, PISC Period = 50 years
- Offset well logs to estimate geologic properties
- Petrophysical analysis to calculate the heterogeneity of the rock
- Natural fracturing within the injection zone
- 3-D Seismic Surveys of the structure

[1] GEM™ is the leading reservoir simulation software for compositional, chemical, and unconventional Equation of State (EoS) based reservoir modelling.

- Geological interpretations to determine faulting and geologic structure
- Offset injection history to adequately predict the density drift of the plume
- Half-mile buffer beyond the farthest predicted extent per EPA 40 CFR §98.448(a)(1).

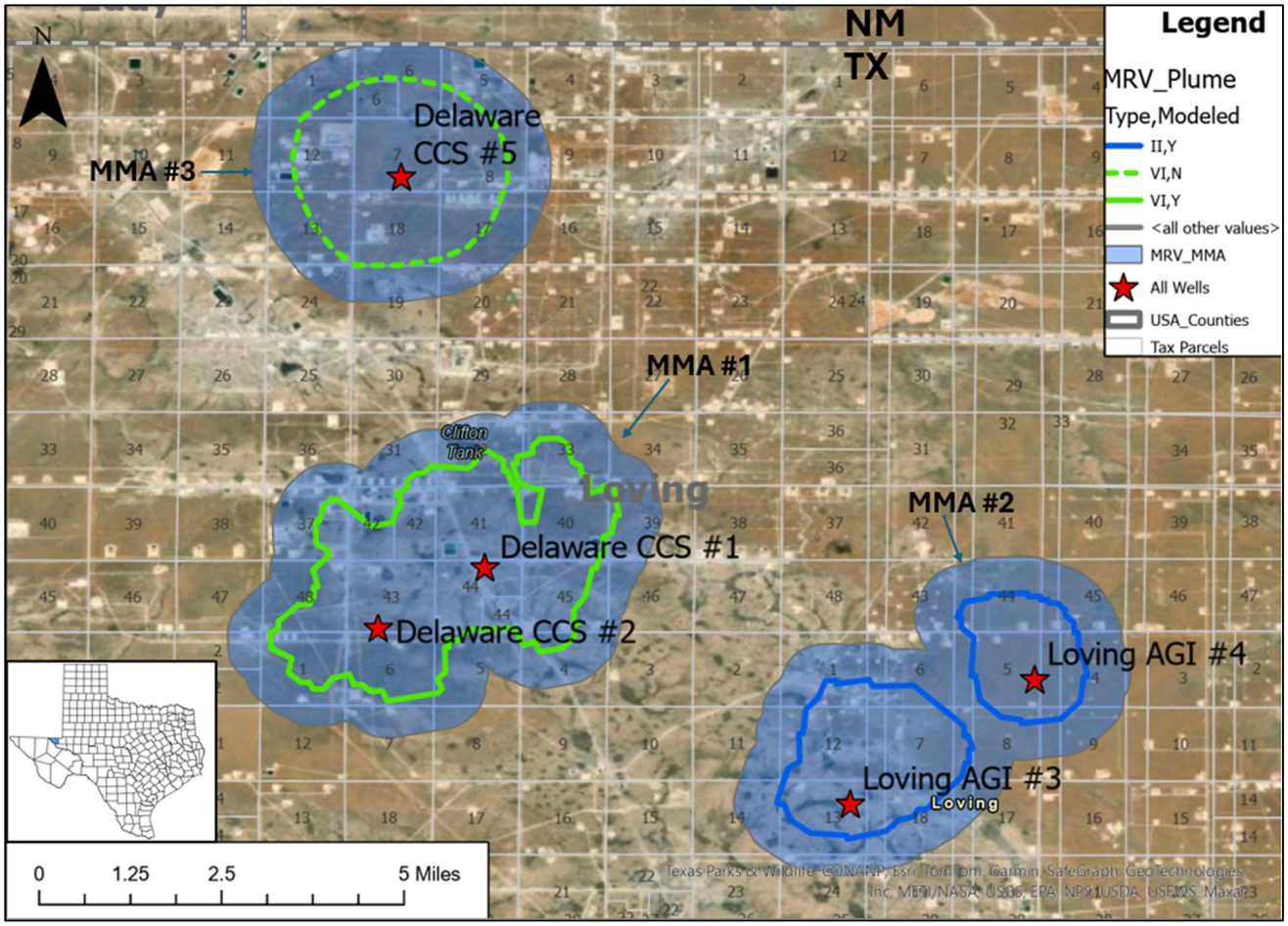

Figure 16: 50-year plumes for wells, Maximum Monitoring Area with half-mile buffer around maximum CO_2 extent

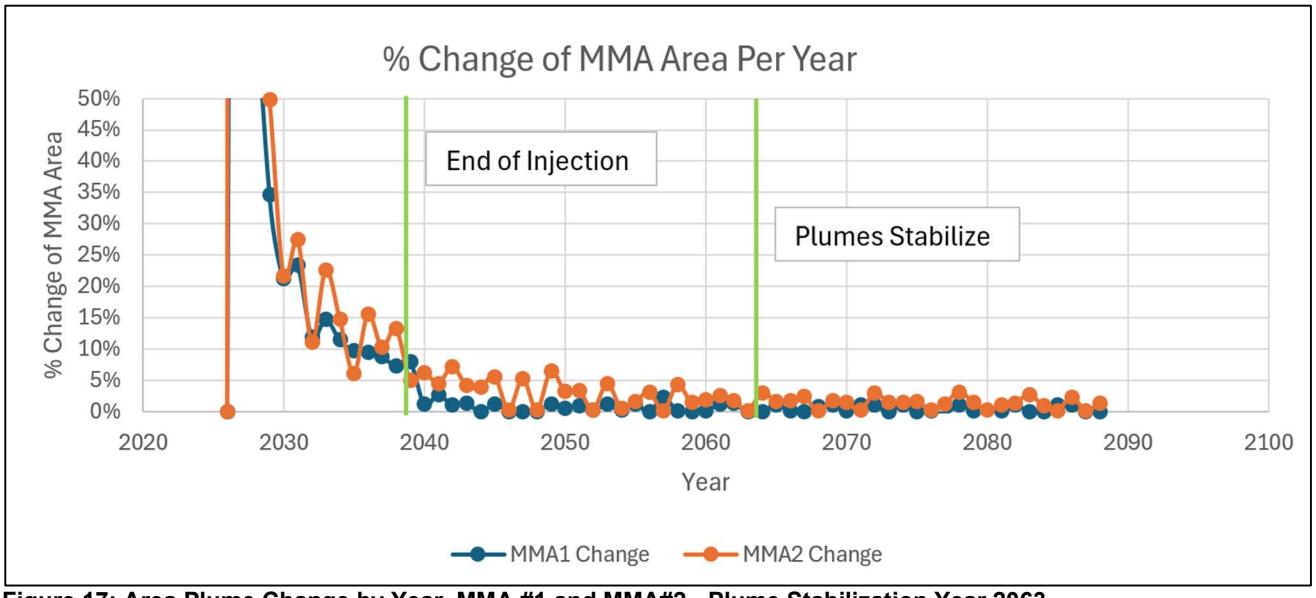

Figure 17: Area Plume Change by Year, MMA #1 and MMA#2 - Plume Stabilization Year 2063
MMA#3 not modeled at date of writing; therefore no area %change data available.

Active Monitoring Area (AMA)

The AMA is shown in **Figure 18**. The AMA is consistent with the requirements in 40 CFR 98.449 because it is established by superimposing two areas: (1) The area containing the free phase CO_2 plume for the duration of the project (year t, t = 2038), plus an all-around buffer zone of one-half mile and (2) the area containing the free phase CO_2 plume for at least 5 years after injection ceases (year t + 5, t + 5 = 2043).

Milestone intends to define the AMA as the same area as the Maximum Monitoring Area (MMA). When applying a one-half mile buffer to the year 2038 plume (as in case 1), it is nearly the same radius as the MMA. In **Figure 18**, the yellow polygon(s) show the plume extent at the end of the project, year 2038 (t = 2038). The red polygon(s) show the plume extent at the end of injection plus 5 years (t + 5 years), year 2043.

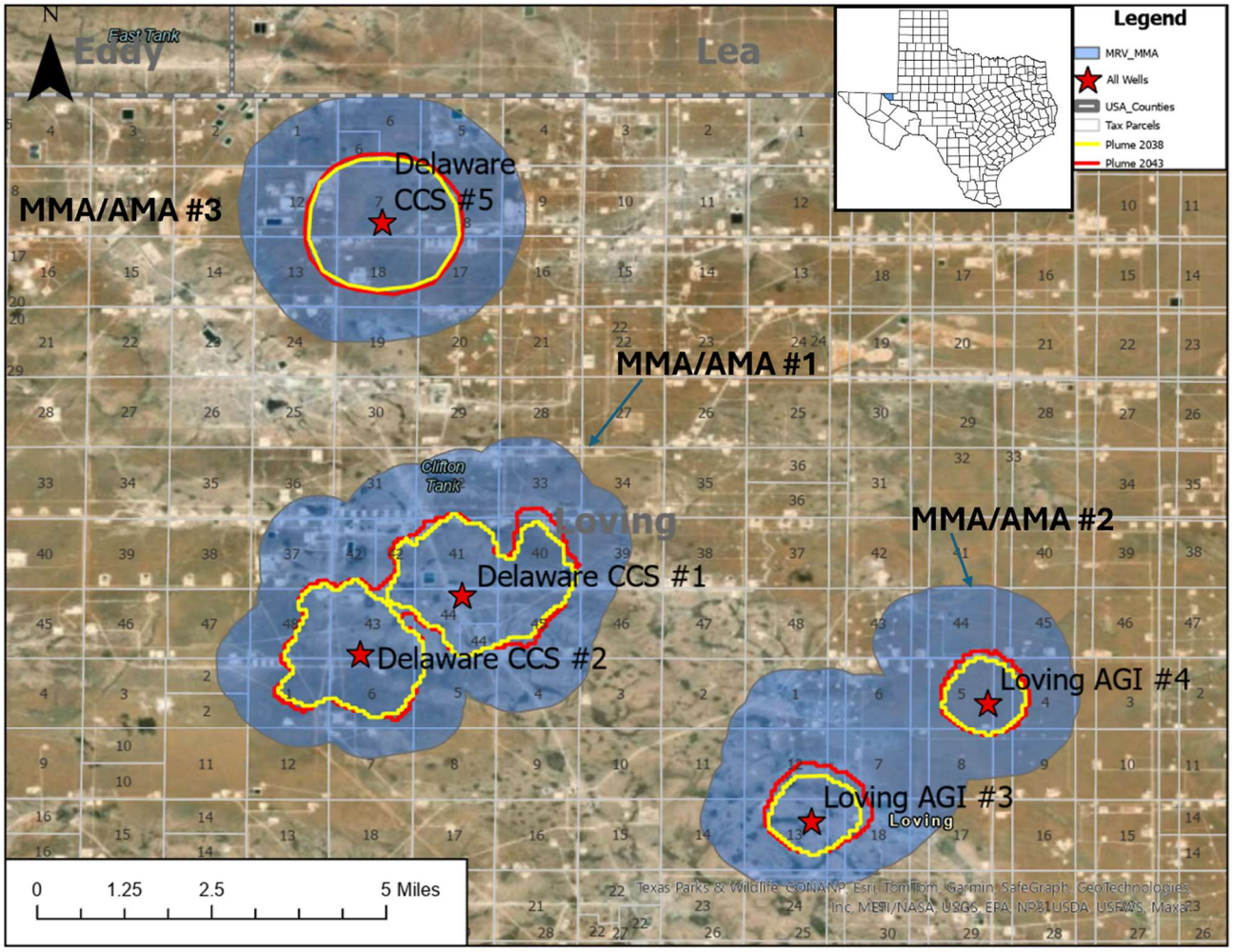

Figure 18: AMA Area with respect to MMA Areas, MMA = AMA.
Active Monitoring Area (AMA) for Delaware CCS #1, Delaware CCS #2, Loving AGI #3, Loving AGI #4, and Delaware CCS #5. AMA area represents the superimposed area of two areas 1) area time at the end of injection (year 2038) with a one-half mile buffer and 2) the area 5 years post injection monitoring (year 2043)

4.0 IDENTIFICATION AND EVALUATION OF POTENTIAL SURFACE LEAKAGE PATHWAYS [40 CFR §98.448(a)(2)]

Potential leakage pathways to surface within the MMA are identified in this section and evaluated for likelihood, timing, and magnitude per Subpart RR (40 CFR § 98.448[a][2]). The potential carbon dioxide leakage pathways include the following:

- Surface equipment and Injection Wells
- Existing penetrations within the MMA
- Groundwater wells in MMA
- Future penetrations or drilling operations in MMA
- Faults, fractures, and bedding plane partings
- Confining system pathways
- Natural or induced seismicity

Surface Equipment and Injection Well Leakage

The proposed Milestone surface facilities and injection wells are designed according to industry best standard practices to negate fugitive leakage points and potential volumes. In addition to design practices, the equipment will have meters and monitoring systems in place, as discussed in detail in **Section 5.** Resultantly, there is a low likelihood of any CO_2 leakage from the surface equipment or well heads. In the case of incidental CO_2 release during injection, the magnitude is limited to the volume in the pipeline by upstream control valves, downhole valves, and wellhead control valves, disallowing flowback out of the formation and minimizing leakage volumes. The timing of surface equipment and well leakage is limited to only during injection.

Per 40 CFR §98.448(a)(5) measurement, a volumetric meter will be installed for any additional streams should Milestone construct additional CO_2 facilities or pipelines. Furthermore, the casing and cement proposed for the Milestone well hub are designed to prevent any migration from the Injection Interval to the surface. At a minimum, the design includes purpose-built materials such as corrosion-resistant casing and tubing, and corrosion-resistant cement. After all casing strings are cemented in place, cement bond logs will be performed to ensure adequate cement bonding behind the pipe. To meet the requirements of [40 CFR 146.90(c)], Milestone will continuously monitor the tubing and casing materials during the operation period for loss of mass, thickness, cracking, pitting, and other signs of corrosion to ensure that the well components meet the minimum standards for material strength and performance. Using corrosion coupons, initial baseline and periodic measurements will follow the recommendations of AMPP NACE SP0775-2023.

Milestone will continuously monitor mechanical integrity via permanent fiber-optic cable installed in injection and in-zone monitoring wells. Additionally, Milestone will perform a mechanical integrity test program (MIT) at 5-year intervals to confirm well and wellhead integrity. Should corrosion monitoring or MIT indicate a leak or design failure, the well would then be isolated and remediated to prevent leakage to the atmosphere. Added safety systems to support safe operations and further mitigate release at the facilities include:

- Emergency Shutdown (ESD) valves that can isolate segments of the facility and pipeline.
- Pressure relief valves located along the pipeline to prevent over-pressurization or mechanical failure.
- SCADA systems for annular pressure system monitoring.
- Remote alarm systems for operator monitoring and automated fail-safes.

The Milestone Delaware CCS Hub Facility and its associated wells are designed and monitored according to rigorous specifications to mitigate potential CO_2 releases. In the event of an accidental release, the engineered systems will swiftly identify the source and activate safety mechanisms to minimize the release volume. Milestone will quantify the mass of CO_2 released based on operating conditions at the time, as required by 40 CFR §98.448(a)(5) and detailed in Section 7. To detect

CO_2 anomalies and surface leakage, the facility will employ continuous airborne gas monitoring using sensors strategically placed near potential leakage pathways. Emission rates will be calculated using atmospheric meter data and integrated with Equation RR-10, with results validated against background levels. These monitoring strategies, aligned with 40 CFR §98.448(3), ensure effective detection and quantification of any surface leakage.

Likelihood: Leakage from surface equipment between the flow meter and the injection wellhead is considered a low likelihood. The mitigating measures described above and in Sections 5 and 6 are in place to minimize the likelihood of a leakage event.
Magnitude: If a leak between the flow meter and the injection wellhead occurs, it will be detected immediately by the surveillance mechanisms described above and in Section 5 surface equipment. The magnitude of a leak depends on the failure mode at the point of leakage, the duration of the leak, and the operational conditions at the time of the leak. A sudden rupture may maximally discharge thousands of pounds of CO_2 into the atmosphere before it is brought under control. On the other hand, a gradual weakening of a seal at a flanged connection may only result in a minimal release of a few pounds of CO_2 over a period of days.
Timing: Leakage from surface equipment between the flow meter and the injection wellhead will only be possible during the operation of the injection system. Once injection ceases, surface injection equipment will be decommissioned thereby eliminating any potential for CO_2 leakage to the atmosphere.

Existing Penetrations within the MMA

Offset historical production near the facility has primarily been from the Wolfcamp, Bone Springs and Delaware Mountain Group formations. (See **Appendix E** for full stratigraphic column) Leakage through existing penetrations is not likely.

Loving County and the Delaware Basin is one of the most heavily drilled areas of the entire country. There are 758 wells that have been drilled, completed, or plugged within the MMA, 327 in MMA #1, 184 in MMA #2 and 247 in MMA #3. The status of these wells is detailed in **Table 5**, of which 322 are active, 45 are completed, 9 are drilled and waiting on completion, 62 are inactive, 100 are plugged and abandoned (P&A), 15 are shut-in, 1 is temporarily abandoned (T&A), and 29 are historical and unknown but likely shallow - far shallower than injection or Top Seal zones.

There was extensive drilling of the Delaware Mountain Group (DMG) (4,000 – 7,000 ft TVD) before modern records were kept starting in 1930s and continuing until the 1960s, represented by unknown wells (**Table 5**). The Injection Interval is at ~18,000 ft and will not be impacted by these DMG wells.

Most of the wells that are drilled in the MMAs do not come within 6,000 ft vertically of the Injection Interval. They are all vertically isolated by several impermeable shale formations such as the Barnett shale, Pennsylvanian shale, Cisco, Canyon, etc. **Figure 19** illustrates the total depth of all wells in the MMA. Zero (0) wells within the MMA are deep enough to penetrate the upper confining layer (Top Seal) or Injection Interval. **Figure 20** reflects all wells within the MMA. For wells that are horizontal, laterals wellbore sticks are noted connecting surface to bottomhole.

Likelihood: The likelihood of gas leakage through existing penetrations of oil and gas wells is considered extremely low.
Magnitude: Based on CMG analysis described in **Section 3**, the magnitude of potential gas leaks through existing penetrations is minimal.
Timing: Evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive monitoring protocols implemented.

Table 5: Summary of Well Penetrations within MMA outline by Status, Total is all wells in any MMA

Status	MMA #1	MMA #2	MMA #3	Total
ACTIVE	134	99	89	322
CANCELLED	9	3	13	25
COMPLETED	25	3	17	45
DRILLED	15	4	13	32
DUC	3		6	9
EXPIRED PERMIT	20	20	51	91
INACTIVE	37	5	20	62
P & A	46	42	12	100
PERMITTED	19		8	27
SHUT-IN	4		11	15
T & A		1		1
UNKNOWN	15	7	7	29
Total	327	184	247	758

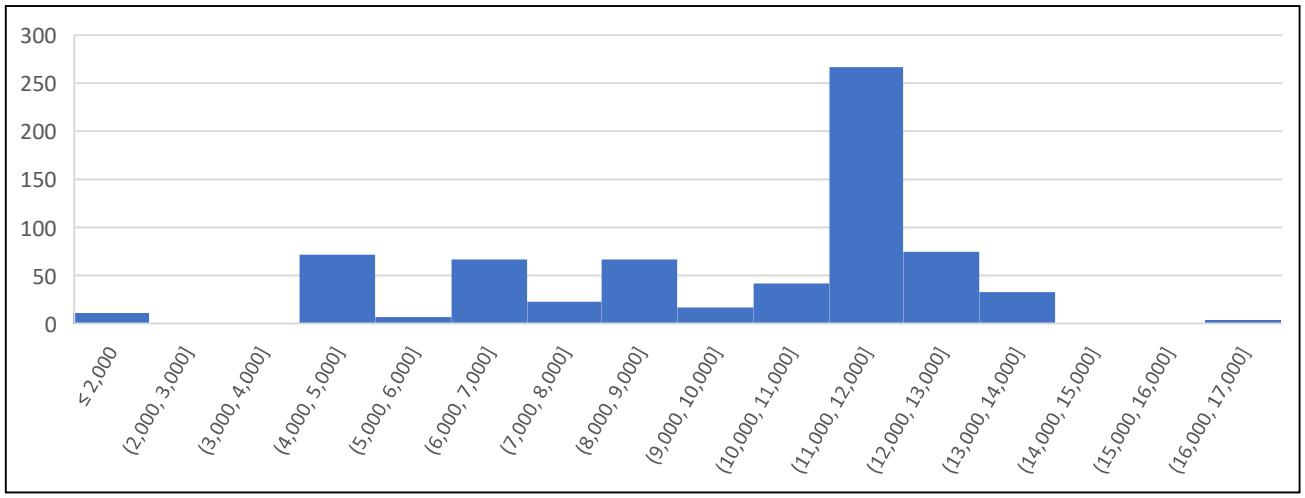

Figure 19: Histogram of True Vertical Depth of All Wells Within the MMA
Zero wells penetrate Injection Interval

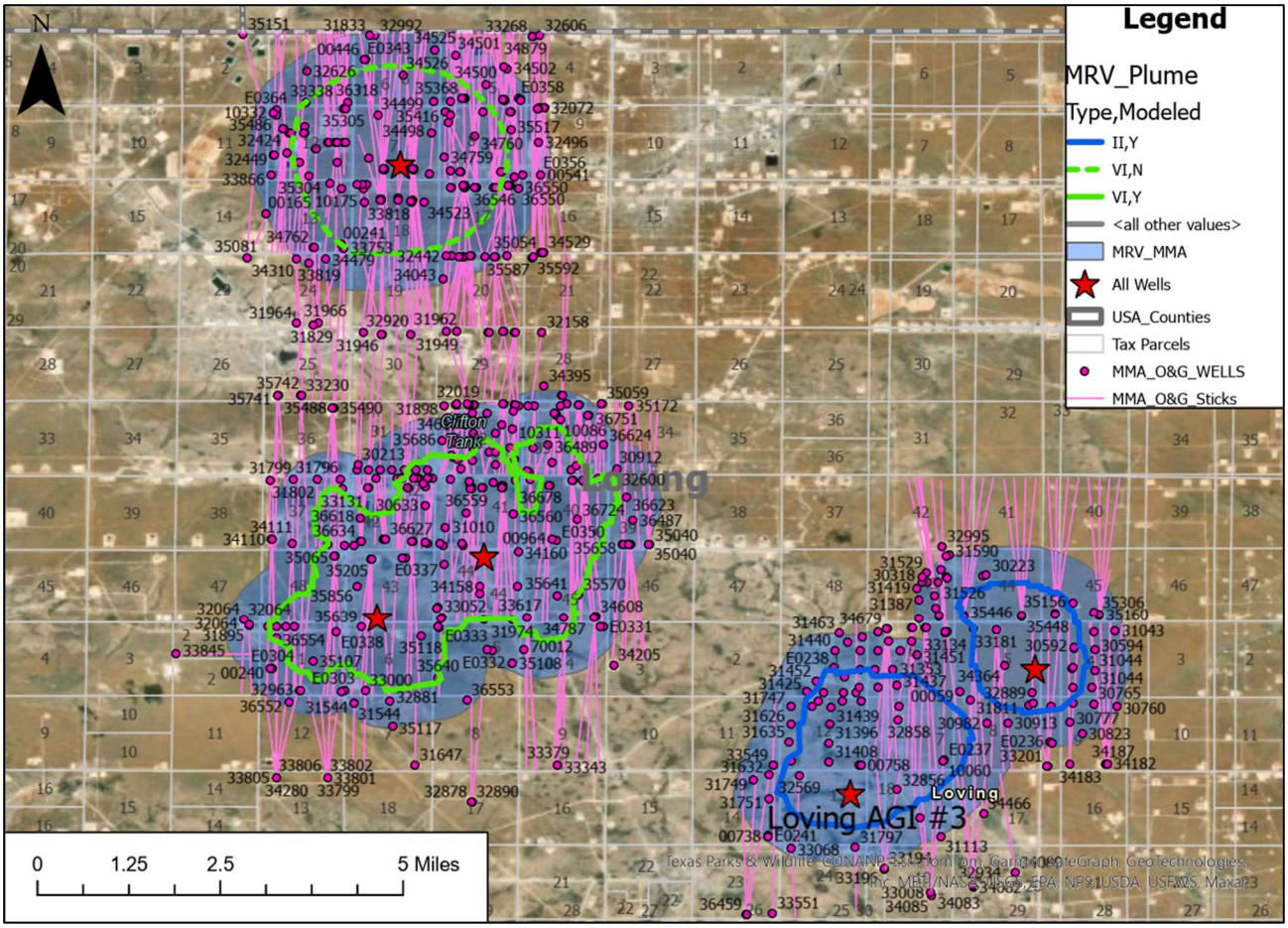

Figure 20: Oil & Gas Wells within the MMA labeled by last 5 digits of API identification number

Groundwater Wells within the MMA

The MMA boundary encircles 71 known, or suspected, groundwater wells (**Figure 21**), as identified by the Texas Water Development Board, with total depths no greater than 760 ft; although, most are less than 400 ft. Leakage through groundwater wells in the MMA is not likely. Over 99% of the wells produce from the Pecos Valley unconfined aquifer. The well types are detailed in **Table 6**. Nearly all the wells are used for oil and gas activities such as drilling and frac supply wells with only a single well noted for agricultural activities. Wells noted as general oil and gas were determined to be rig supply wells that may be abandoned but are mapped regardless.

The surface and intermediate casing strategies for the proposed injection wells were designed in accordance with both the GAU letters issued for this site and applicable RRC regulations to safeguard shallow freshwater aquifers. The GAU letters are included in **Section 10 Appendix D**. Protection against CO_2 leakage along the borehole to the surface is generated by the long string wellbore casings and cements and will be confirmed by cement bond logs, MIT testing, noise and temperature logs, and other leak detection techniques.

Likelihood: The likelihood of gas leakage through existing penetrations of groundwater wells is considered extremely low.
Magnitude: Using methodology consistent with Failure Modes as discussed in DOE's NETL-2020/2634, the magnitude of potential gas leaks through these wells is minimal.
Timing: Timing evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive monitoring protocols.

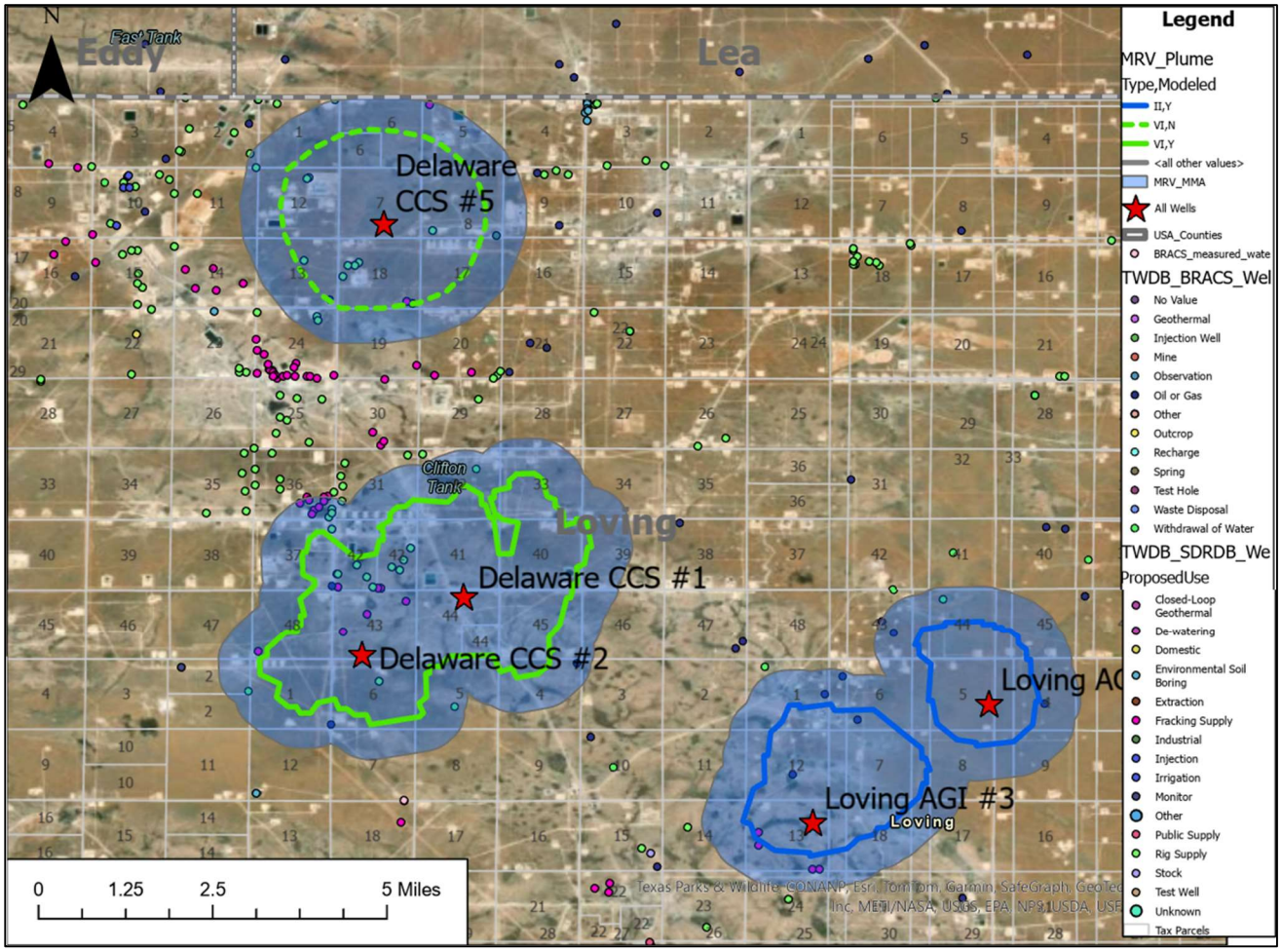

Figure 21: Groundwater Wells within MMA, Green – Rig Supply, Pink – Frac Supply, Blue- General Oil and Gas

Table 6: Groundwater Well Summary

Type of Water Well in MMA	Count
Rig Supply	39
Fracking Supply	24
Historical Wells Noted on Paper Maps	4
Unused	2
Industrial (Probably Oil and Gas)	1
Stock	1
TOTAL	**71**

Future Penetrations or Drilling Operations in MMA

Potential leakage pathways caused by future drilling of offset wells nearby are not expected to occur. Future above-zone drilling does not pose a risk as a leakage pathway. This location was selected because the deeper formations, such as the Siluro-Devonian and Ellenburger, have proven to date to be less productive or non-productive in this area. The closest historical production out of proposed Injection Intervals is about three miles southeast of the Facility in the Slash Ranch Field. This field is fault-bounded, was drilled in the 1960s-1980s and has since been largely abandoned. As a result, it is not expected that future drilling will penetrate the proposed Injection Interval.

Drilling permits issued by the RRC in the vicinity of Milestone Well Hub must comply with RRC Rule 13 ("Casing, Cementing, Drilling, Well Control, and Completion Requirements") 16 TAC § 3.13. According to RRC Rule 13, oil and gas operators are required to set steel casing cement according to one of the below conditions:

- Above and across all formations permitted for injection (under RRC Rule 9)
- Immediately above all formations permitted for injection (under Rule 46) for any proposed well within a quarter-mile radius of an injection well

In this case, new wells permitted and drilled within a quarter-mile radius of each well will be required to set steel casing and cement above and across the specified injection zone under RRC Rule 13. In addition, Rule 13 requires that operator's case and cement both above and across all potential flow zones and/or zones containing corrosive formation fluids. A list of such known zones listed by RRC district and county is maintained by the RRC and provided with the issuance of each drilling permit.

Until the RRC has an alert mechanism in place, Milestone will monitor RRC drilling permit applications filed within the MMA that have a proposed TVD indicating the possibility of penetrating the upper confining layer (Top Seal) or Injection Interval, which is essentially any proposed well deeper than the base of the Barnett shale. Milestone will work with these operators to mitigate any risk. Should any leakage be detected, Milestone will quantify the associated volume of CO_2 released based on operating conditions at the time of release.

Likelihood: The likelihood of gas leakage through future penetrations of wells is considered extremely low.
Magnitude: Magnitude for future penetrations would be considered minimal, limited to controlled volumes of production and drilling fluids.
Timing: Timing evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive area-monitoring for new permits.

Faults, Fractures and Bedding Plane Partings

Regional Faulting

The Permian Basin is underlain by Precambrian basement rock that was subject to multiple orogenic events between ~1.7 to 1.0 billion years ago. Reactivation of these preexisting structures influenced the development of younger structures, sedimentation, and accumulation within the basin (USGS, 2012).

Horne et al., 2022 reported the principal tectonic elements that define the modern greater Permian Basin formed as a result of the diachronous collision between the northwest-verging Ancestral Rocky Mountain orogeny and northeast-verging Ouachita-Marathon orogeny.

Subsequent Mesozoic and Cenozoic events are interpreted to have been influenced by the accumulated tectonic fabrics generated by these Paleozoic events; many of the structures exhibit characteristics of reactivation and transferred strain. These events include the Laramide orogeny, basin-range extension and the Rio Grande rifting. The post-Permian tectonic events control much of the western Delaware basin and rotations in stress orientation found there.

The nearest identified faulting to the facility is 1.1 miles to the south of the CCS #2. There are five faults within the MMA #1, two faults within MMA #2 and 11 faults within MMA #3. Fortunately, none of the mapped faults cut through the Barnett shale. Due to the tectonic history and overpressuring within the Barnett, it forms an effective upward barrier to fluid migration and fracturing/faulting. Horne et al., 2022 faults are shown in **Figure 22** relative to the Hubs' location.

Faults or Fractures

Plume modeling of the Injection Interval for the Delaware CCS #1, CCS #2, AGI #3 and AGI #4 locations indicates the MMA will not intersect any transmissible faults that cut through the Top Seal. The CCS #5 injection well has not yet been modeled. Faults within the Permian Basin tend to be near-vertical and terminate below Pennsylvanian strata (Fairhurst, Ewing, and Lindsay, 2020). The top of injection is separated from the Pennsylvanian section by over 200 ft of continuous Woodford shale and over 1,500 ft of Barnett section. In the unlikely scenario where, injected fluids breach the Barnett shale or transmit a fault, additional confinement can be found within thousands of feet of shale, evaporites, tight limestone, and tight sandstone that are present between the Injection Interval and lowest water-bearing aquifer.

While the Siluro-Devonian and Ellenburger are known to be naturally fractured from karsting and other tectonic events, the plastic nature of the Woodford and Barnett shales terminate the fractures that propagate through the more rigid carbonates below. The overpressuring in the Barnett shale forms a very effective pressure barrier to upward fracture propagation.

The Fusselman formation and Ellenburger Group are both expected to be heavily fractured due to prolonged periods of intense karsting that took place during the Ordovician period, approximately 430 Mya. Significant portions of the proposed Injection Interval are expected to exhibit porosity enhancement by means of karsting and natural fracturing. This will allow the Injection Interval to receive injectate at low surface pressures and provide adequate storage for gas to remain trapped underground.

Additionally, production from the Slash Ranch Field to the southeast indicates that the Injection Interval can contain gases for geologic time periods along fault planes. This means that the faults in the region are likely sealing and prevent the movement of fluids vertically and laterally.

Likelihood: Based on the above discussion, the likelihood of gas leakage through fractures or faults is considered extremely low.
Magnitude: Based on the NRAP analysis, the magnitude of potential gas leakage from faults, fractures or associated plane partings is minimal.
Timing: Timing evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive monitoring protocols implemented.

Confining System Pathways

The Siluro-Devonian injection reservoirs are overlain by the thick, continuous, transgressive Barnett shale. The Barnett provides excellent sealing properties because of its high clay content, high total organic carbon, low permeability, and low porosity. Additional confinement within the Siluro-Devonian section can be found in the Frame shale and tight non-reservoir rock of the lower Montoya. The underlying Simpson Group contains interbedded shale and tight limestone that will provide confinement between upper and lower Injection Intervals. Precambrian basement rock immediately underlies the gross Injection Interval with granitic and rhyolite rock that will prevent downward migration of injected fluids. Injected gas has a higher relative buoyancy compared to in-situ formation fluids which promotes upward migration and reduces likelihood of downward migration through tight lower confining rock. Injection well total depth will be set greater than 100 ft from the base of the Ellenburger to reduce the chance of injectables finding a migration path along the basement contact.

Above the primary confining zone of the Barnett shale are several zones that would impede the rise of CO_2 based on low vertical permeability (Kv) (<100 nD) and very high threshold entry pressures (>11,000 psi). These zones in order from bottom to top that would be difficult for CO_2 to penetrate are:

- Atoka shale – very friable shale directly above the Barnett shale
- Pennsylvanian shale – Limestone rich shale with medium clay content above Barnett
- Canyon shale – organic shale with high clay content above Strawn
- Cisco shale – organic shale with low porosity, low K and high clay content
- Wolfcamp shale – overpressured petroleum source rock and reservoir
- Bone Springs shales – petroleum source rock and reservoir
- Delaware Mountain Group – Currently overpressured from brine injection
- Castile formation– Thick section of anhydrites and tight carbonates
- Undifferentiated Ochoan shale above the Castille

All of the above formations are likely to impede any CO_2 plume vertical containment breaches due to their low vertical permeability (<100 nD) and very high threshold entry pressures (>11,000 psi). Given the cumulative vertical thickness of the secondary seals with low Kv before the Wolfcamp (~6,000 ft), the termination of faults within the Mississippian, and the vertical thickness of the underlying barriers, CO_2 escape from the Injection Interval is extraordinarily unlikely.

Likelihood: The likelihood of leakage through the confining system is considered extremely low.
Magnitude: Based on the NRAP analysis, the magnitude of potential gas leaks is minimal.
Timing: Timing evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive monitoring protocols implemented.

Natural or Induced Seismicity

The location of the Milestone Facility is locally a seismically quiet area for the Delaware Basin. The Delaware Basin is a very active basin for seismicity, induced or natural. The location of Loving County was partially chosen because of the low risk of seismic activity in the county. Leakage caused by natural or induced seismicity is highly improbable to occur.

The nearest earthquake to the MMA is ~3.6 miles, with MMA #3 having the closest point to the State Line Earthquake Trend. MMA #1 is farthest from any historical earthquakes at 13 miles. MMA #2 is approximately five miles west of the East Loving Earthquake Trend (**Figure 22, 23**).

The Bureau of Economic Geology's TexNet catalog and USGS's Advanced National Seismic System websites were reviewed for offset seismicity and results are shown in **Figures 22** and **23**. These sources suggest that the closest seismic event of 2.0+ magnitude is 3.6 miles north of the MMA #3. The next closest is 5.1 miles east of the MMA #2. These seismic events appear to be constrained to faulting in those local areas. Injection and Fault Slip Potential analysis indicates injection will not affect these faults. The closest large swarm of earthquakes is located approximately 22 miles southwest of the hub within the Culberson Reeves seismic response area located between Culberson and Reeves Counties, but seismicity magnitude and frequency die quickly moving north toward the site location. In compliance with required Class VI permit information and seismic history [146.82 (a) (3) (v)], there are no data to suggest seismic activity poses a risk of CO_2 migration to the surface in the area surrounding this location.

Dvory and Zoback (2021) demonstrated that decades of oil and gas production from the Delaware Mountain Group have reduced the seismicity risk in the region by depleting the injection zone prior to brine wastewater injection. They further suggest that most of the critically stressed faults are found to the south of Loving County and oriented in a southeastern direction (**Figure 24**).

Moment tensor and depth analysis suggest nearly all earthquakes are coming from the Precambrian in the region at depths of 20-30 km (12.42-8.64 miles).

An important consideration in the design and development of all new injection well projects is the determination for the potential of injection activities to induce a seismic event. There is a low probability that seismic activity will interfere with or adversely affect the proposed CCS project. In the unlikely event that seismic activity does occur due to injection activities, Milestone has set up a rigorous monitoring network. Milestone will install six (6) seismic monitoring stations around the Central Loving Facility and likely add additional stations on MMA #2 and MMA #3 that will be continuously monitored.

Any seismic event within 10 km (6.21 miles) of the injection wells and over magnitude 2.5 will be reported, additional procedures will be followed for higher magnitude earthquakes as noted in the emergency response plan in the UIC permit.

Likelihood: Due to the distance between the Delaware CCS Hub wells and the recent seismic events, Milestone considers the likelihood of CO_2 emissions to the surface caused by seismicity to be extremely low.
Magnitude: The leakage magnitude of seismic events is limited due to well design and considered minimal.
Timing: Timing evaluations indicate no imminent risk of gas leakage from the subsurface, given the stable operational conditions, reservoir characteristics and proactive monitoring protocols implemented.

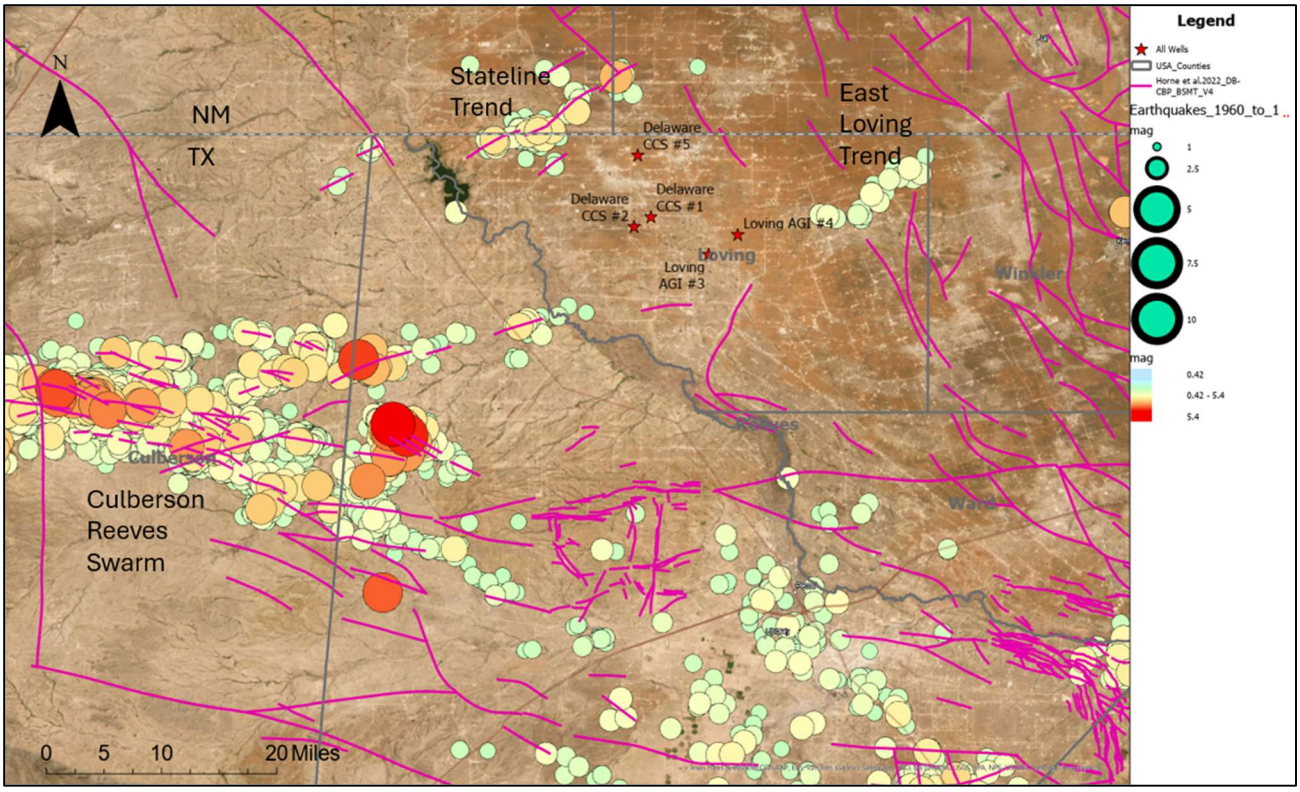

Figure 22: Regional Seismicity Review (USGS – January 1, 1960 to July 1, 2024, Magnitude 2 or greater)

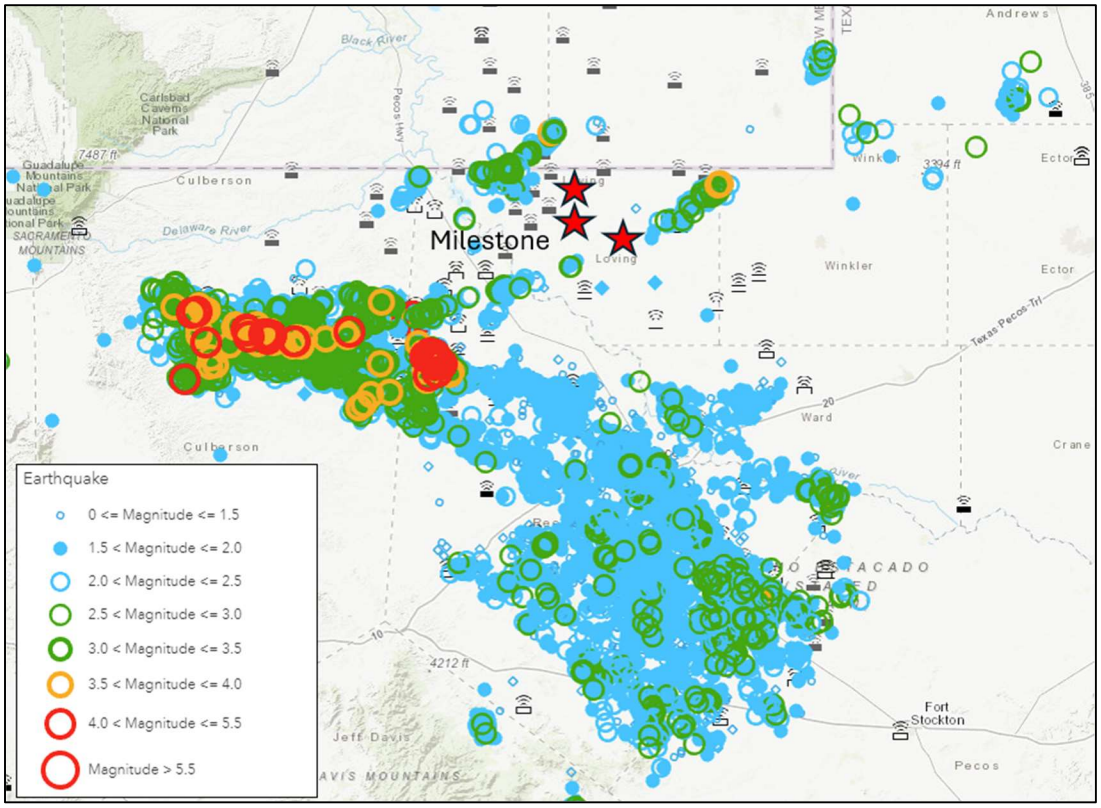

Figure 23: Regional Seismicity Review (TexNet – January 1, 1960 to July 1, 2024, Magnitude 1 or greater)

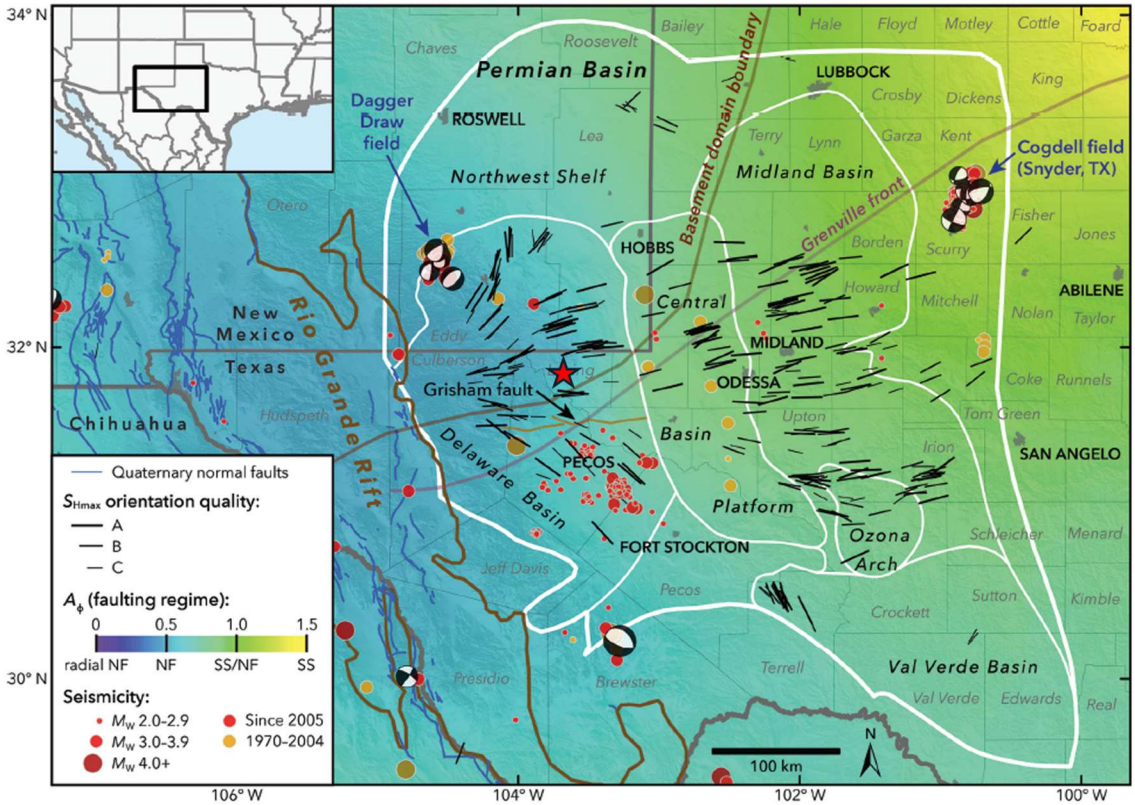

Figure 24: Faults (Lund, Snee and Zoback, 2018).
Faults are color-coded by pressure to slip - red being easiest to slip, black dots are earthquakes, beachballs are moment tensor analysis, red star depicts the location of the Milestone Carbon Delaware CCS Hub Facility

5.0 MONITORING STRATEGY [40 CFR §98.448(a)(3)]

Milestone has designed a monitoring strategy in compliance with 40 CFR §98.448(a)(3) to detect and quantify surface leakage of carbon dioxide through the possible pathways detailed in **Section 4**. This section will summarize the monitoring systems utilized to detect a release of CO_2. Monitoring is planned for the injection duration, in addition to a proposed 5-year post-injection period, pursuant to the PISC Plan Class VI permit **Section 9**. An overview of leakage pathways and monitoring methods is presented in **Table 7 f**or discussion purposes, monitoring methods have been broken into the following pathways and respective section:

- Leakage from surface equipment between the injection flow meter and the injection wellhead.
- Leakage through existing wells and future wells within MMA.
- Leakage through faults, fractures or confining seals.

Table 7: Summary of Leakage Monitoring Methods

CO_2 Monitoring Methods by Leakage Pathway	
Monitoring Method	**Monitoring Frequency**
Surface Equipment	
Pressure Gauges – Injection Well(s)and Flowline(s)	Continuously
Flowmeters – Injection Well(s) and Flowline(s)	Continuously
Visual Inspections	Risk Based Interval
Automated Remote System (SCADA)	Continuously
Personal CO_2 Monitor	Risk Based Interval
Atmospheric CO_2 Monitor	Continuously
Existing wells and future wells	
Pressure Gauges – Injection Well(s)and Flowline(s)	Continuously
Flowmeters – Injection Well(s) and Flowline(s)	Continuously
Automated Remote System (SCADA)	Continuously
Personal CO_2 Monitor	Risk Based Interval
Mechanical Integrity Testing	5 Year Interval
Cement Bond Logs	5 Year Interval
sDAS1* Fiber Installed on the Casing – Injection Well	Continuously
Reservoir saturation tool log (pulse neutron) – Injection Well	As Needed
Atmospheric CO_2 Monitor	Continuously
Faults, Fractures, and Confining Seal, Natural and Induced Seismicity	
Automated Remote System (SCADA)	Continuously
Cement Bond Logs	5 Year Interval
sDAS1* Fiber Installed on the Casing – Injection Well	Continuously
Reservoir saturation tool log (pulse neutron) – Injection Well	5 Year Interval
Atmospheric CO_2 Monitor	Continuously
Buried Seismometers (6 Surrounding Injection Plume)	Continuously

Leakage from Surface Equipment

As addressed in **Section 4**, the likelihood of leakage from surface equipment is unlikely as the Milestone facility and wells are robustly designed to prevent any such occurrence. In a leakage event, the issue would be swiftly detected and addressed.

To detect CO_2 anomalies and surface leakage, the facility will employ continuous airborne gas monitoring with strategically placed sensors near potential leakage pathways. Emission rates will be calculated using atmospheric meter data and integrated with Equation RR-10, validated against background levels.

These monitoring strategies, in compliance with 40 CFR §98.448(3), ensure effective detection and quantification of any surface leakage. Milestone's qualified technicians and operators will continuously monitor stream composition, pressure, flow, and temperature via the automated Supervisory Control and Data Acquisition (SCADA) system, which includes automated alerts and fail-safe alarms. Operators will also conduct visual field inspections from the injection flow meter to the injection wellhead, using personal CO_2 monitor-sensors for leak detection. Additional inspection programs will assess system integrity through risk-driven analysis of collected liquids and cathodic protection inspections. CO_2 gas detectors will be installed at the central collection hub and injection sites, while all field personnel will wear H_2S monitors in compliance with Occupational Safety and Health Administration (OSHA) requirements.

In the event of gas detection from surface equipment, corrective actions will be taken immediately to mitigate risks. The volume of CO_2 released from surface equipment will be quantified based on operating conditions at the time of release, as outlined in Section 7 and per 40 CFR §98.448(5).

Table 8: Summary of Sample Devices, Locations for Continuous Monitoring

Parameter	Device(s)	Location
Surface Injection Pressure	Wellhead Pressure Logger	Surface
Bottomhole pressure	Pressure Gauges	Wellbore
Injection rate	Meter Device	Surface
Injectate density	Meter Device	Surface
Injectate composition	Meter Device	Surface
Injection volume	Calculated from rate and density	N/A
Annular pressure	Pressure Guage	Wellhead
Annulus fluid volume	Pressure Guage	Wellhead
CO_2 stream temperature	Meter Device/ WPL	Wellhead
CO_2 stream temperature	DTS	Wellbore
Induced Seismicity	DAS and Surface Geophones	Wellbore and Surface
Strain	DAS	Wellbore

Leakage from Existing and Future Wells within the Monitoring Area

Leakage from Existing Wells

Upon completion of all the wells in the Delaware Well Hub, cased-hole logs will be run to establish baselines for future comparison. Cement bond logs will be run to confirm adequate cement bonding behind casing strings. In the future, cement bond logs can be run on an as-needed basis to verify that cement deterioration behind pipe is not a concern that could ultimately lead to CO_2 leakage from the wellbore. Additionally, a reservoir saturation tool log will be completed. Such tools allow for the measurement of elemental concentrations, including carbon and oxygen. Future logs can be compared to baseline to confirm whether any CO_2 is being observed behind the casing outside the Injection Interval.

Subsurface monitoring will consist of temperature profiling of the wellbore using temperature distributed temperature sensing (DTS) fiber-optic cable. In addition, pressure in the wellbore will be continuously monitored with at least one downhole, tubing-conveyed pressure–temperature (P–T) gauge and digital surface pressure gauges on the tubing and well annulus. Changes in annular pressure will signal the presence of a potential leak and mitigating safety devices will activate, as discussed in surface equipment monitoring **Section 5.1**.

As an extra layer of data gathering and monitoring, Milestone plans to install a Seismic Distributed Acoustic Sensing (sDAS) fiber optic cable along the exterior of the production casing string and cement it into place. Utilization of a fiber optic cable produces a long sensor array from the surface to the reservoir depth that allows real time or periodic monitoring using P-T gauges in the reservoir. The sDAS fiber optic cable contains sensors every one meter to produce the highest resolution data possible.

Milestone ensures the continuous monitoring and collection of data including injection volumes, temperatures, pressures, and gas composition data. The data for each wellhead is recorded via SCADA systems in conjunction with report logs. Data is reviewed by qualified personnel who will act upon designated response and reporting procedures if data exceeds acceptable performance limits.

The tubing-casing annulus pressure will be tested prior to injection and at least once every five years. An ultrasonic or alternative casing inspection log will also be acquired prior to injection for detecting any potential mechanical integrity issues behind casing and repeated at least once every five years.

Leakage from Future Wells

As previously discussed, Texas State Wide Rule (SWR) 13 ensures that new wells drilled in this field would be constructed such that migration from the Injection Interval is prevented. Additionally, Milestone will monitor new drilling permit applications in the MMA and mitigate potential risk with operators ahead of them drilling into the disposal reservoir. Milestone will construct and operate an in-field monitoring program as another measure to detect leakage of CO_2 within the MMA in addition to fixed monitors.

Detailed geologic and well data review indicates that zero wells, within the MMA, penetrate the Injection Interval. In the event that wells penetrating the Injection Interval are discovered, visual inspections with handheld CO_2 monitoring devices will be conducted on a quarterly basis at a minimum until it is confirmed with the operator of these wells that the Injection Interval is not penetrated. Ongoing CO_2 monitoring will occur at the proposed Hub. Milestone will have these monitoring systems in place upon approval of the MRV and through the post-injection monitoring duration.

Leakage through Faults, Fractures or Confining Seals

Leakage through faults, fractures, and confining seals are unlikely due to well site and regional geologic characteristics as addressed in **Section 4**. Milestone will use automated alarm systems to continuously monitor operations at each individual wellhead. Alerts will be triggered if any deviations from normal operating conditions occur that indicate movement into potential pathways such as faults or breakthroughs of the confining seal. Field personnel will review any such alert and, if necessary, take action to shut in the well.

Seismicity Monitoring

Throughout the operational phase of injection operations, continuous monitoring of seismicity will be performed. Existing seismometer stations within Texnet will be utilized. At each MMA area (MMA #1, MMA #2, and MMA #3), six additional Milestone owned broadband stations will be installed ("array" of near-surface seismometers) sufficient to confidently measure baseline seismicity 10 km (6.21 miles) radially from injection down to a magnitude of completeness of less than zero. This magnitude of completeness is based on forward modeling Milestone conducted. Milestone owned stations will be deployed in a circular pattern around the MMA areas and one station will be deployed roughly in the center of the MMA areas.

Milestone will deploy a downhole fiber optic cable cemented behind the production casing in all injection wells and in-zone monitoring wells. Each well will be equipped with fiberoptic cable cemented behind the production casing that contains multiple fiber strings. The fiber-optic cable will contain Distributed Acoustic Sensing (DAS), Distributed Temperature Sensing (DTS), and Distributed Strain Sensing (DSS). Fiber installed in the injection wells will continuously gather data to monitor induced seismicity. Fiber installed in In-zone monitoring wells will intermittently measure seismicity during periods of active monitoring, which will occur yearly and for the 1st two years and then every 6 months. However, due to sensitivity limitations, the fiber can only detect events with a moment magnitude of +0.5 or higher. Colocation of events between fiber and surface stations can increase accuracy and will be attempted for any event of 2.5 magnitude or greater that is detected during the project life.

6.0 BASELINE DETERMINATIONS [40 CFR §98.448(a)(4)]

Milestone will establish expected baselines to monitor for CO_2 surface leakage according to 40 CFR §98.448(a)(4) using the strategies identified in the section.

CO_2 Detection

Milestone will develop ambient CO_2 baseline values and forecasted values prior to CO_2 injection using samples from surface, near surface, and deep subsurface environments. Milestone will regularly update models during the monitoring period to ensure that ambient CO_2 baseline values are up to date for accurate comparisons. Milestone will construct and operate an in-field monitoring program to detect any leakage of CO_2 within the AMA in addition to the previously described fixed monitors. This strategy involves hand-held and remote CO_2 monitoring at both the proposed well site locations and atmospheric monitoring near penetrations identified within the AMA.

CO_2 Baseline Determinations at Surface and Near-Surface

Milestone will establish baseline surface and near-surface CO_2 readings prior to construction of site facilities. This baseline will use samples and analysis from near-surface and deep subsurface environments, such as soil gas in the vadose zone, shallow groundwater down to the lowest USDW, and the storage reservoir in the AMA. Baselines provide the background concentration of CO_2 (and other chemical concentrations, such as O_2, N_2, and CO_2) for comparative analysis to samples collected during the operational and post-injection phases.

CO_2 Baseline Determinations at Subsurface

Fluid Sample Baseline

Milestone will collect baseline fluid samples from the surface aquifers (Pecos Valley, and Rustler) and from Milestone operated water wells co-located with near surface seismicity stations. During drilling operations, Milestone will collect downhole reservoir fluid samples from the first permeable zone above the Injection interval, likely the Strawn formation, and the Injection Interval, the Ellenburger and Siluro-Devonian.

Fluid samples collected during pre-operational testing will be subjected to a rigorous testing regime. These samples will be tested for major cations, anions, dissolved CO_2, temperature, pH, specific conductivity, TDS, hydrogen isotopes, oxygen isotopes, carbon isotopes and alkalinity.

Pre-Operational Wireline Logging

Pre-injection baseline data will be collected in the CO_2 injection wells. A full suite of openhole wireline logs will be conducted during drilling operations. A pulsed-neutron log will be acquired from the wellbore prior to injection to confirm the CO_2 injection profile in the storage reservoir as well as ensure there are no signs of out-of-zone migration into formations overlying the storage reservoir, otherwise known as the above-zone monitoring interval.

Indirect Monitoring Baseline

Time-lapse geophysical surveys as the primary monitoring method to track the extent of the CO_2 plume within the storage reservoir. Milestone will employ two indirect methods to track the CO_2 plume and pressure spread during the injection phase of the project. Both methods will have pre-operational baseline surveys performed prior to injection: 1) Controlled Source Electromagnetic Surveys (CSEM), and 2) Microseismic Surveys. The baseline surveys are likely to respond to oil and gas operations being conducted approximately 7,000 ft above the Injection Interval in the Wolfcamp shale. The baseline will help filter out this background signal in future surveys.

7.0 SITE-SPECIFIC CONSIDERATIONS FOR MASS BALANCE EQUATION [40 CFR §98.448(a)(5)]

This section describes the calculation methods Milestone will employ to determine the mass of CO_2 injected, emitted, and sequestered. This also includes site-specific variables for calculating CO_2 emissions from equipment leaks and vented CO_2 between the injection well and flow meter, in accordance with 40 CFR §98.448(a)(5). CO_2 emissions from equipment leaks and vented emissions of CO_2 are not included in equation RR-10, which is used to calculate the total annual CO_2 mass emitted by surface leakage (metric tons) in the reporting year, per 40 CFR 98.443(e). CO_2 emissions from equipment leaks and vented emissions of CO_2 are represented by the term CO_{2FI} in equation RR-12, which is calculated separately from CO_{2E}, per 40 CFR 98.443(f)(2) and 40 CFR 98.444(d).

Mass CO_2 Received

The annual mass of CO_2 received will be calculated by using the mass of CO_2 injected pursuant to 40 CFR § 98.444(a)(4) and 40 CFR § 98.444(b). The point of measurement for the mass of CO_2 received (injected) will be the primary metering station located closest to each injection wellhead. The combined mass collected by each wellhead's meter will be reported at the total mass received.

Mass CO_2 Injected

Pending equipment availability, either a volumetric or mass flow meter will be used to measure the flow rates. In accordance with 40 CFR §98.444(b), the total annual mass of CO_2, in metric tons, will be calculated by multiplying the mass flow recorded using a mass flow meter, if used, by the CO_2 concentration in the flow according to RR-4 for calculating mass of CO_2 injected through mass flow meters into injection well, as seen in **Equation (1)**:

$$CO_{2,u} = \sum_{p=1}^{4} Q_{p,u} * C_{CO_{2,p,u}} \qquad \textbf{Equation (1)}$$

Where:

- $CO_{2,u}$ = Annual CO_2 mass injected (metric tons) as measured by flow meter u.
- $Q_{p,u}$ = Quarterly mass flow rate measurement for flow meter u in quarter p (metric tons per quarter).
- $CCO_{2,p,u}$ = Quarterly CO_2 concentration measurement in flow for flow meter u in quarter p (wt. percent CO_2, expressed as a decimal fraction).
- p = Quarter of the year.
- u = Flow meter.

If a volumetric flow meter is used, the total annual mass of CO_2, in metric tons, will be calculated by multiplying the mass flow by the CO_2 concentration in the flow according to RR-5 for calculating mass of CO_2 injected through volumetric flow meters into injection well, document **Equation (2)**:

$$CO_{2,u} = \sum_{p=1}^{4} Q_{p,u} * D * C_{CO_{2,p,u}} \qquad \textbf{Equation (2)}$$

Where:

- $CO_{2,\ u}$ = Annual CO_2 mass injected (metric tons) as measured by flow meter u
- $Q_{p,u}$ = Quarterly volumetric flow rate measurement for flow meter u in quarter p at standard conditions (standard cubic meters per quarter)
- D = Density of CO_2 at standard conditions (metric tons per standard cubic meter): 0.0018682
- $CCO_{2,p,u}$ = CO_2 concentration measurement in flow for flow meter u in quarter p (vol. percent CO_2, expressed as a decimal fraction).

p = Quarter of the year
u = Flow meter

Mass of CO_2 Produced

Carbon dioxide will not be produced as the proposed Milestone Delaware CCS Well Hub is not part of an enhanced oil recovery project.

Mass of CO_2 Emitted by Surface

Due to the low likelihood of emission from surface equipment, the mass of CO_2 emitted by surface leakage and equipment leaks will not be measured directly from the injection stream for this well. Gas detectors and continuous monitoring systems will be designed to trigger an alarm upon any release or leakage event. The mass of the CO_2 released would be calculated for the operating conditions at the time, which include pressure, flow rate, size of the leak point opening, and leak duration. This method complies with 40 CFR §98.448(a)(5), allowing the operator to calculate site-specific variables used in the mass balance equation. Milestone will calculate the total annual mass of CO_2 emitted from all leakage pathways in accordance with the procedure specified in Equation RR-10 from 40 CFR Part 98-Subpart RR, for calculating annual mass of CO_2 emitted by surface leakage and surface equipment, distinctly per 40 CFR 98.444(d), shown here in **Equation (3)**:

Equation (3)

$$CO_{2E} = \sum_{x=1}^{x} CO_{2,x}$$

Where:

CO_{2E} = Total annual CO_2 mass emitted by any surface leakage (metric tons) in the reporting year.
CO_{2X} = Annual CO_2 mass emitted (metric tons) at leakage pathway x in the reporting year.
x = Leakage pathway.

Mass of CO_2 emitted from equipment leaks and vented emissions annual mass of CO_2 emitted (in metric tons) from any equipment leaks and vented emissions of CO_2 from equipment located on the surface between the flow meter used to measure injection quantity and injection wellhead ($CO_{2\ FI}$) will comply with the calculation and quality assurance/quality control requirements proposed in Part 98, Subpart RR and will be reconciled with the annual data collected through the MRV plan.

Mass of CO_2 Sequestered

This well will not actively produce oil, natural gas, or any other fluids. The annual mass of CO_2 that is sequestered in subsurface geologic formations in the reporting year will be calculated with **Equation (4)** in accordance with 40 CFR Part 98-Subpart RR, Equation RR-12:

Equation (4)

$$CO_2 = CO_{2I} - CO_{2E} - CO_{2F}$$

Where:

CO_2 = Total annual CO_2 mass sequestered in subsurface geologic formations (metric tons) at the facility in the reporting year.
CO_{2I} = Total annual CO_2 mass injected (metric tons) in the well or group of wells covered by this source category in the reporting year.
CO_{2E} = Total annual CO_2 mass emitted (metric tons) by surface leakage in the reporting year.
CO_{2FI} = Total annual CO_2 mass emitted (metric tons) from equipment leaks and vented emissions of CO_2 from equipment located on the surface between the flow meter used to measure injection quantity and the injection wellhead, for which a calculation procedure is provided in Subpart W of this part.

8.0 IMPLEMENTATION AND QA/QC OF MRV [40 CFR §98.444]

Milestone plans to manage quality assurance and control under the requirements of 40 CFR §98.444 using the methods identified in this section, upon MRV approval. This section will summarize the intent to implement the MRV plan including the means and methods to monitor data quality, missing data collection, and MRV Plan revision control.

Implementation Schedule of MRV

Milestone has elected to submit an MRV plan for the proposed Delaware CCS Well Hub under Subpart RR, in compliance with 40 CFR §146.91, to be implemented upon EPA approval. The Annual Subpart RR Report will be filed by March 31st of the year following the reporting year. The testing and monitoring plan will be reviewed and updated at least every five years, incorporating collected monitoring data.

Any amended plan or revisions to the area of review re-evaluation or operational facility changes, such as new monitoring wells or injection wells will be made within 180 days per 40 CFR 98.448(d) if: (1) there are material changes to monitoring or operational parameters not in the original MRV plan; (2) the Underground Injection Control permit class changes; (3) the EPA notifies of substantive errors; or (4) the plan is revised for any other reason.

Monitoring QA/QC

All field equipment will be inspected and tested prior to use. Pressure gauges used in the fall-off test much be calibrated in accordance with manufacturers' recommendations and calibration certificates will be provided with the test results. The planned QA/QC means and methods to be used for monitoring the Milestone Delaware CCS hub as follows:

CO_2 Injected

- The flow rate of the CO_2 being injected will be measured with a flow meter, consistent with industry best practices. Either a volumetric or mass flow meter will be used, depending upon equipment availability. These flow rates will be compiled quarterly.
- The composition of the CO_2 stream will be measured upstream of the flow meter with a continuous gas composition analyzer or representative sampling consistent with industry best practices.
- The gas composition measurements of the injected stream will be averaged quarterly.
- The CO_2 measurement equipment will be calibrated according to manufacturer recommendations.

CO_2 Emissions from Leaks and Vented Emissions

- Gas detectors will be operated continuously, except for maintenance and calibration.
- Gas detectors will be calibrated according to manufacturer recommendations and API standards.

Measurement Devices

- Flow meters will be continuously operated except for maintenance and calibration.
- Flow meters will be calibrated according to the requirements in 40 CFR §98.3(i).
- Flow meters will be operated per an appropriate standard method as published by a consensus-based standards organization.
- Flow meter calibrations will be traceable to the National Institute of Standards and Technology (NIST).

All volumes of CO_2 measured will be converted to standard cubic meters at an absolute pressure of 1 atmosphere and temperature of 60 degrees Fahrenheit.

Procedures for Estimating Missing Data

Milestone will estimate missing data if unable to collect the necessary data for mass balance calculations using the following procedures, per 40 CFR §98.445:

- If a quarterly quantity of CO_2 injected is missing, the amount will be estimated using a representative quantity of CO_2 injected from the nearest previous period of time at a similar injection pressure.
- Fugitive CO_2 emissions from equipment leaks from facility surface equipment will be estimated and reported per the procedures specified in subpart W of 40 CFR §98.

MRV Plan Revisions

Milestone will revise and submit an amended MRV plan within 180 days to the Administrator for approval should any of the changes outlined in 40 CFR §98.448(d) occur. Revisions will include the following reason(s) for submittal.

1) A material change was made to monitoring and/or operational parameters that was not anticipated in the original MRV plan. Examples of material changes include but are not limited to:
    a. large changes in the volume of CO_2 injected;
    b. the construction of new injection wells not identified in the MRV plan;
    c. failures of the monitoring system including monitoring system sensitivity, performance, location, or baseline;
    d. changes to surface land use that affects baseline or operational conditions; observed plume location that differs significantly from the predicted plume area used for developing the MRV plan;
    e. a change in the maximum monitoring area or active monitoring area; or a change in monitoring technology that would result in coverage or detection capability different from the MRV plan.
2) A change in the permit class of applicable UIC permits.
3) If notified by EPA of substantive errors in the MRV plan or monitoring report.
4) Choose to revise MRV plan for any other reason in any reporting year.

Revisions to this MRV are tracked in **Section 9** – Document Revision Control.

Record Retention

In adherence to the requirements of 40 CFR §98.3(g), Milestone will retain records for at least three years and include:

1) Quarterly records of the CO_2 injected
    a. Flow rates at standard conditions
    b. Flow rates at operating conditions
    c. Operating temperature and pressure
    d. Concentration of the CO_2 stream
2) Annual records of the information used to calculate the CO_2 emitted by surface leakage from leakage pathways.
3) Annual records of information used to calculate CO_2 emitted from equipment leaks and vented emissions of CO_2 from equipment located on the surface between the flow meter used to measure injection quantity and the injection wellhead.

9.0 DOCUMENT REVISION CONTROL [40 CFR §98.448(d)]

Pursuant 40 CFR §98.448(d), revisions to this MRV Plan and the reason(s) for resubmittal will be tracked in this section for quick reference.

Revision Version No.	Date DD/MM/ YEAR	Author Name(s)	Comment / Reason for Revision	Reviewer / Approver
1.0	04/23/2024	Adam Haecker, P.G. Jake Richard	Initial Draft	Adam Haecker, P.G. Jason Larcher, P.E.
2.0	09/24/2024	Adam Haecker, P.G. Jake Richard	MRV Plan updates/edits/revisions per EPA Request for Additional Information, dated 28 Aug 2024	Adam Haecker, P.G. Jason Larcher, P.E.
3.0	11/29/2024	Adam Haecker, P.G. Jake Richard	MRV Plan updates/edits/revisions per EPA Request for Additional Information, dated 30 Oct 2024	Adam Haecker, P.G.
4.0	02/11/2025	Adam Haecker, P.G. Jake Richard	MRV Plan updates/edits/revisions per EPA Request for Additional Information, dated 17 Jan 2025	Adam Haecker, P.G. Jason Larcher, P.E.

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10.0 APPENDICES

Appendix A-1 | Structure Maps (1 of 2)

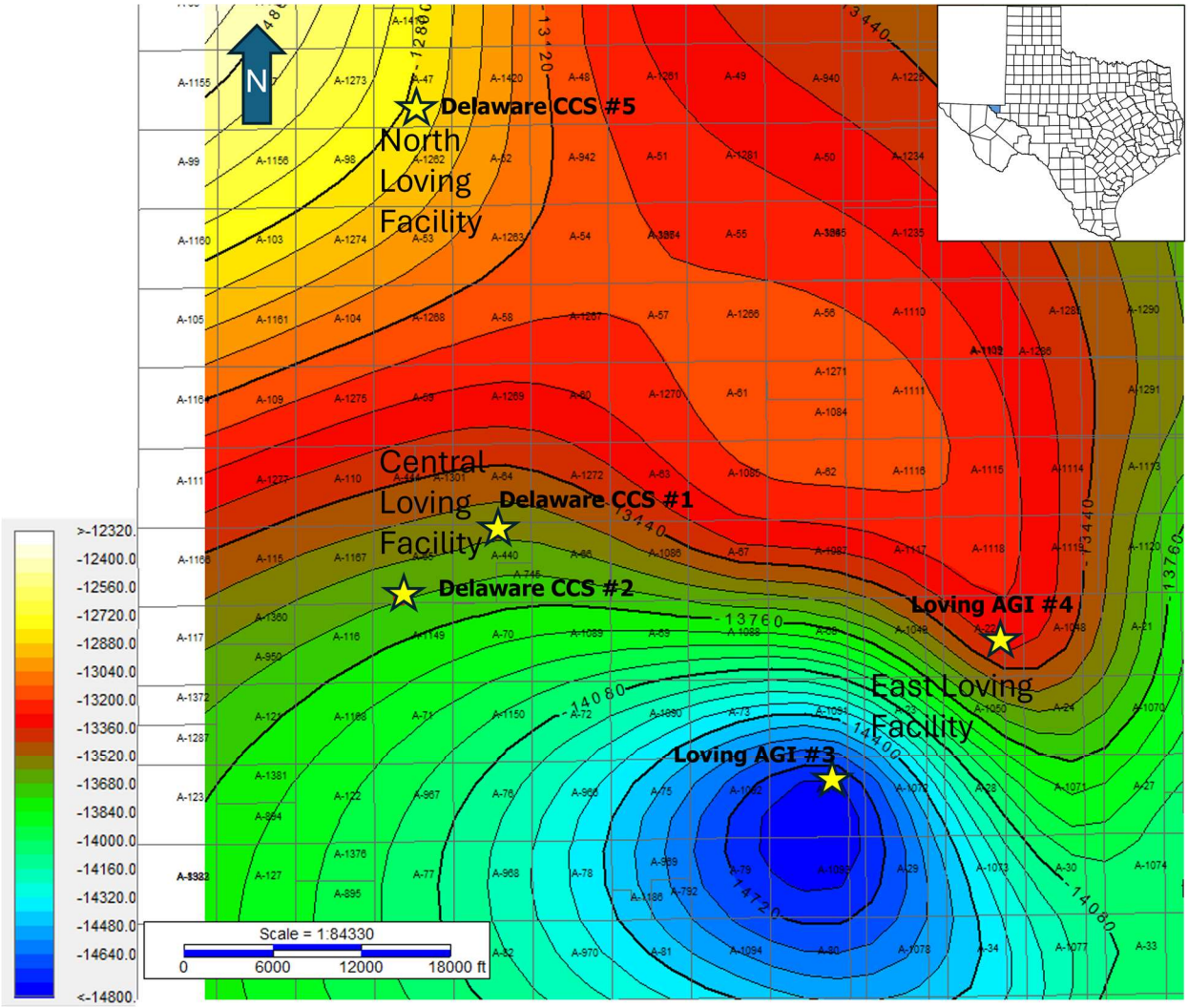


Figure 25: Top of Barnett shale (top of Top Seal), subsea ft
(Note the lack of faults)

Structure Maps (2 of 2)

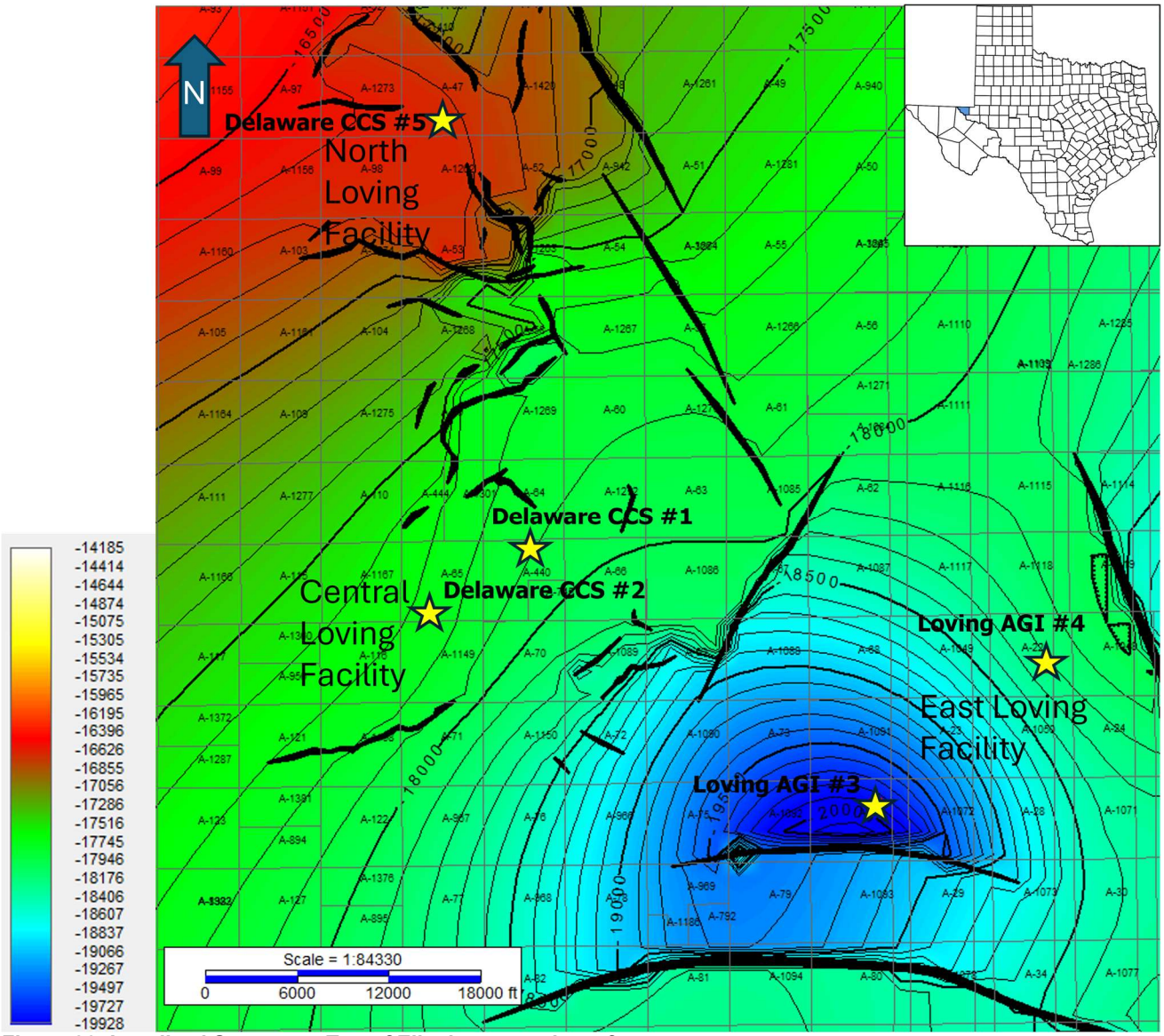
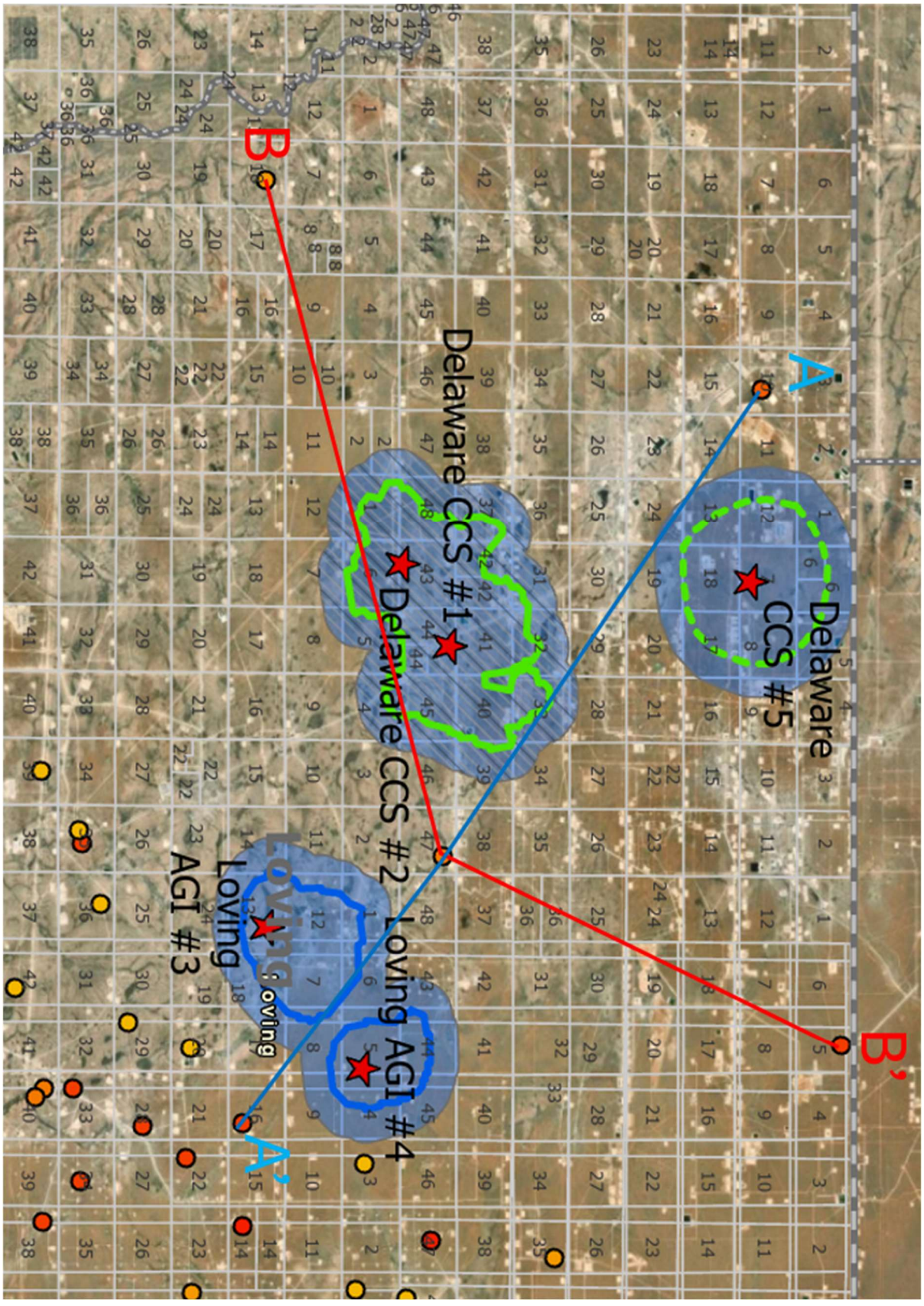


Figure 26: Localized Structure - Top of Ellenburger, subsea ft

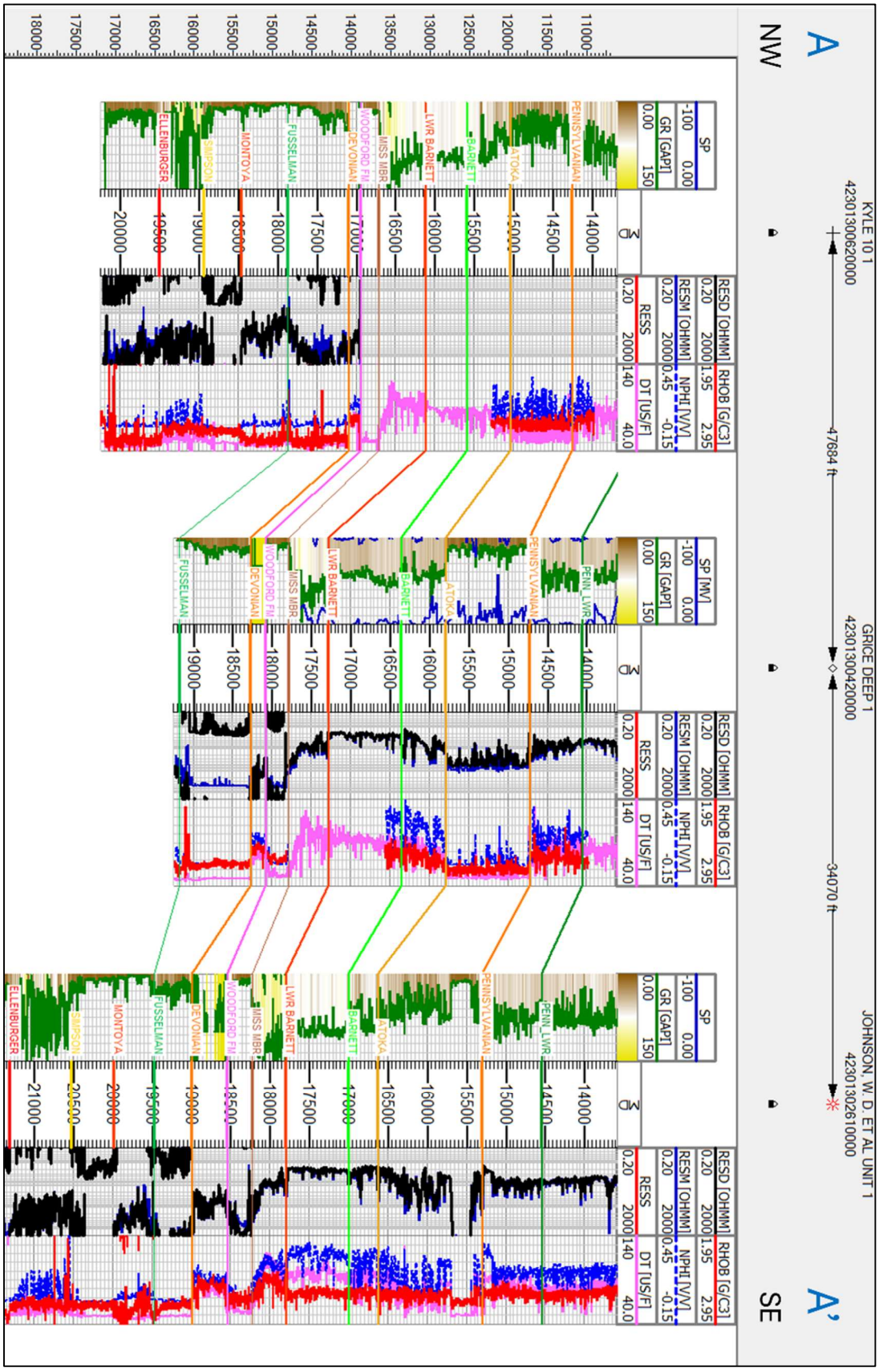
Appendix A-2 | Cross Sections Index Map

Figure 27: A-A' and B-B' Index Map



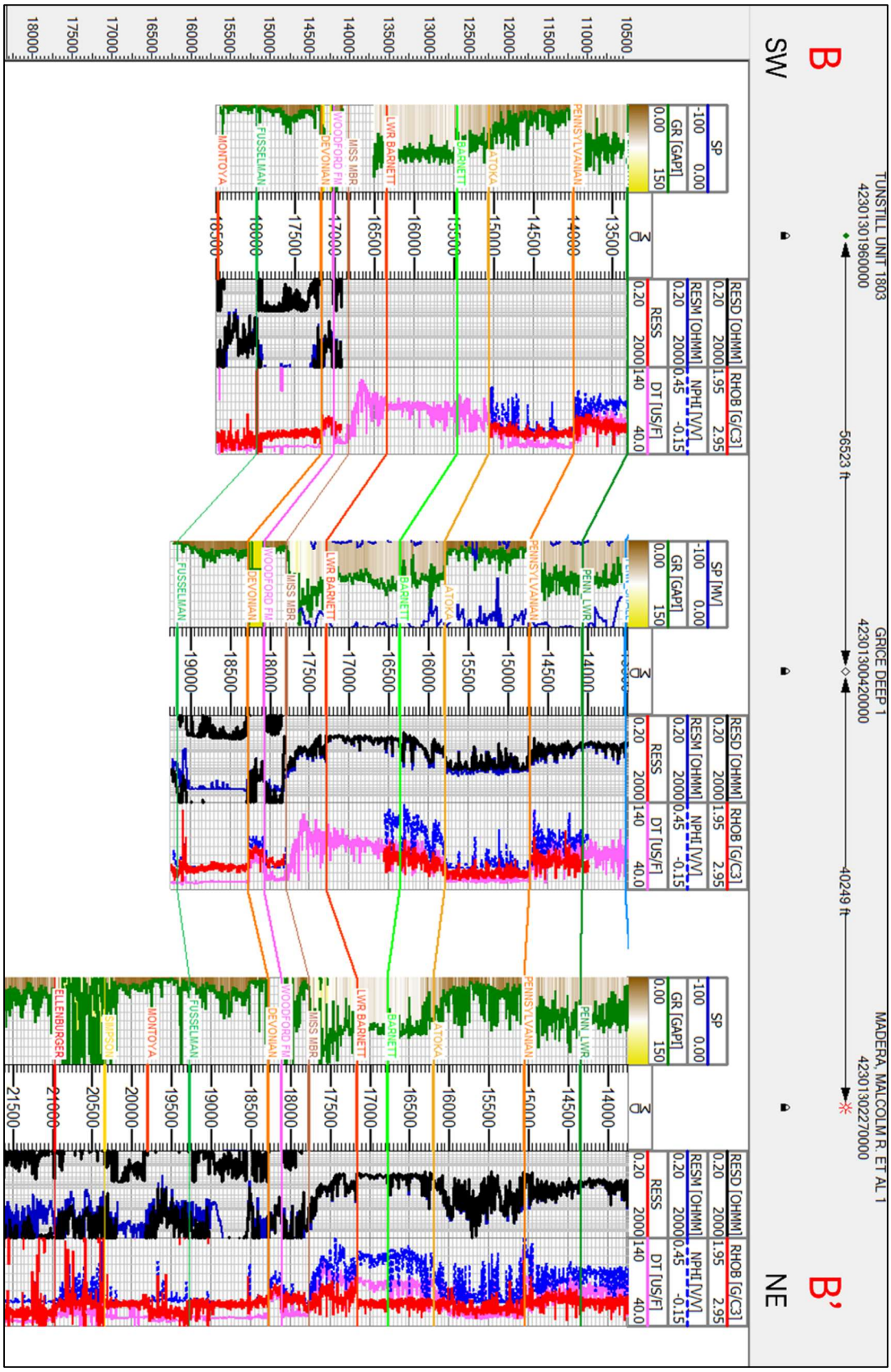
Appendix A-3 | A-A’ Cross Section

Figure 28: A-A' Cross Section – Dip Cross Section



Appendix A-4 | B-B’ Cross Section

Figure 29: B-B' Cross Section – Strike Cross Section



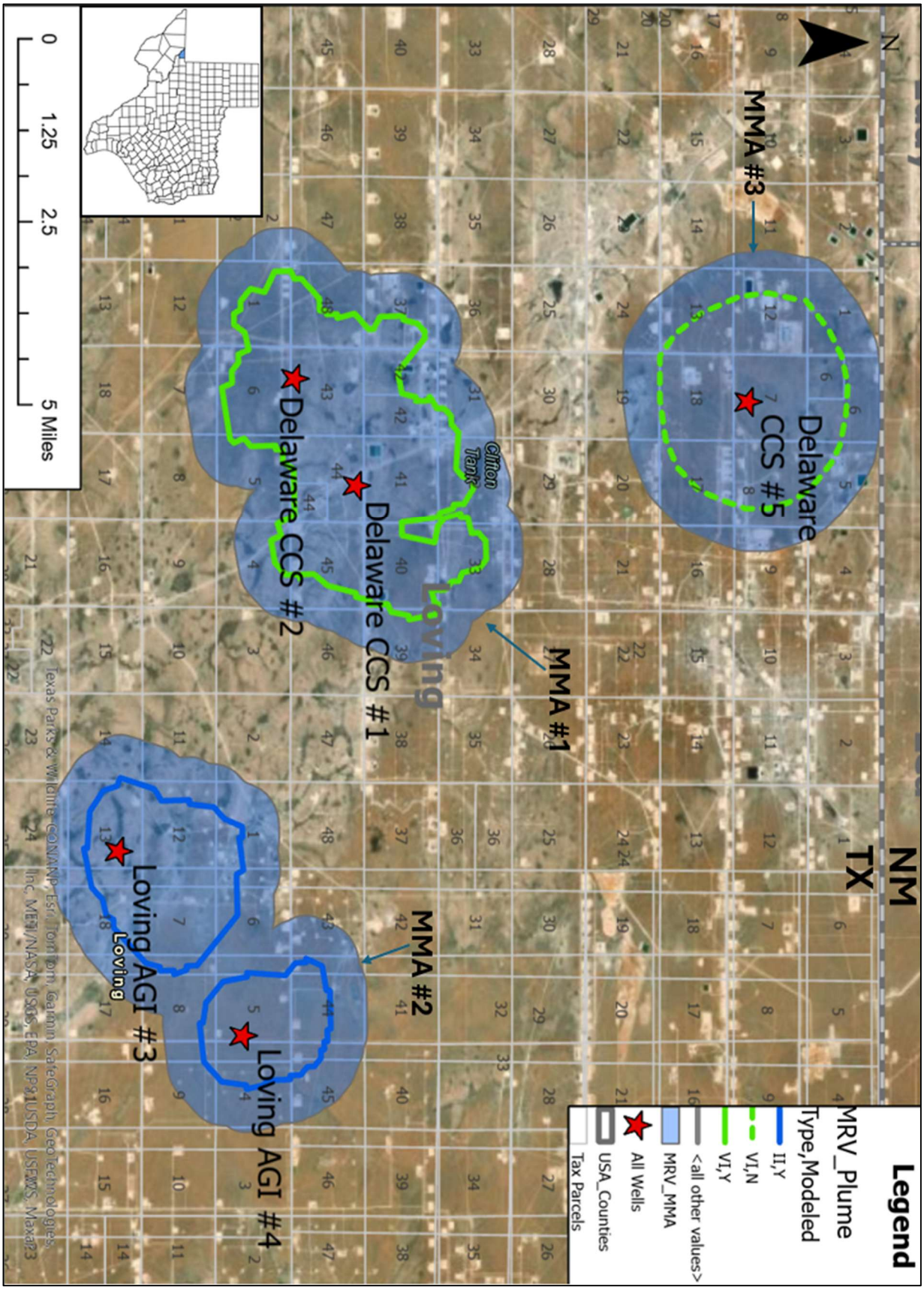
Appendix B | Gas Composition Specifications

Fluid delivered to Milestone's Well Group will meet the following specifications, herein called Quality Specifications:

1) CO_2 Content - Product composition shall be not less than ninety-five per cent (95%) CO_2 by mole fraction.
2) Water - Product will contain no free water and shall not contain more than thirty (30) pounds of water per million standard cubic feet (MMSCF) in the vapor phase.
3) H_2S - Product will not contain more than twenty (20) parts per million H_2S, by volume.
4) Nitrogen - Product will not contain more than four per cent (4%) nitrogen, by mole fraction.
5) Sulphur - Product will not contain more than thirty-five (35) parts per million Sulphur, by weight.
6) Oxygen - Product will not contain more than ten (10) parts per million, oxygen, by weight.
7) Hydrocarbons - Product shall not contain more than five percent (5%) hydrocarbons, by mole fraction.
8) Glycol - Product will not contain more than 0.3-gallon glycol, per million standard cubic ft, and at no time shall glycol be present in a liquid state at temperature and pressure conditions of the pipeline.
9) Carbon Monoxide - Product shall not contain more than 4,250 parts per million, carbon monoxide, by weight.
10) NOx - Product will not contain more than one (1) part per million, NOx, by weight.
11) Sox - Product will not contain more than one (1) part per million, SOx, by weight.
12) Particulates - Product will not contain more than one (1) part per million, particulates, by weight.
13) Amines - Product will not contain more than one (1) part per million amines, by weight.
14) Hydrogen - Product will not contain more than one per cent (1%) hydrogen, by mole fraction.
15) Mercury - Product will not contain more than five (5) nano grams per liter (ng/l) mercury.
16) Ammonia - Product will not contain more than fifty (50) parts per million, ammonia, by weight.
17) Argon - Product will not contain more than one volume percent (1% by volume) argon.
18) Compressor Lube Oil Carry Over - Compressor lube oil carry over in the product will not exceed fifty (50) parts per million, by weight, and shall not cause fouling of pipeline, pipeline equipment downstream systems or reservoirs.

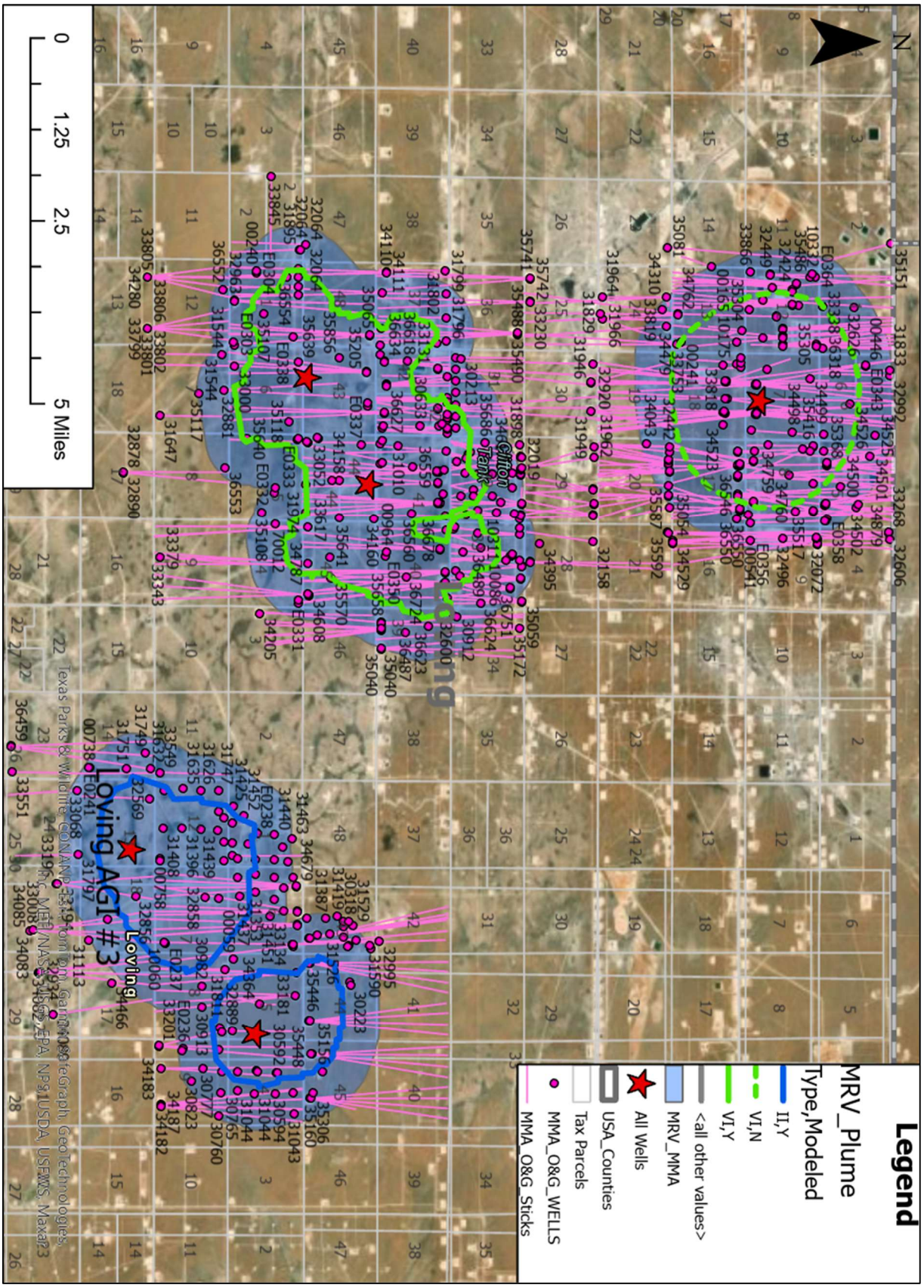
Appendix C | MMA / AMA Review Map

Figure 30: 50-year plumes for wells, Maximum Monitoring Area with half-mile buffer around maximum CO_2 extent



Appendix C-1 | Oil & Gas Wells within MMA Map

Figure 31: Oil & Gas Wells within the MMA labeled by last 5 digits of API identification number



Appendix C-2 | Oil & Gas Wells within MMA List

API14	Well Name	Operating Company	True Vertical Depth (ft)	Production Type	Well Status	Latitude (WGS84)	Longitude (WGS84)
42301E03860000				DRY HOLE	UNKNOWN	31.8925832	-103.5838451
42301E03700000				DRY HOLE	UNKNOWN	31.9104431	-103.6866902
42301E03640000				DRY HOLE	UNKNOWN	31.9847181	-103.7161834
42301E03630000				DRY HOLE	UNKNOWN	31.9693062	-103.7034165
42301E03620000				DRY HOLE	UNKNOWN	31.9693202	-103.6990006
42301E03580000				DRY HOLE	UNKNOWN	31.9869706	-103.6682816
42301E03560000				DRY HOLE	UNKNOWN	31.9720336	-103.6639539
42301E03500000				DRY HOLE	UNKNOWN	31.8998299	-103.6609483
42301E03490000				DRY HOLE	UNKNOWN	31.9133865	-103.6661949
42301E03480000				DRY HOLE	UNKNOWN	31.9162379	-103.6811696
42301E03430000				DRY HOLE	UNKNOWN	31.994662	-103.6986396
42301E03390000				DRY HOLE	UNKNOWN	31.8988732	-103.7028211
42301E03380000				DRY HOLE	UNKNOWN	31.8816141	-103.704335
42301E03370000				DRY HOLE	UNKNOWN	31.8963709	-103.6906941
42301E03360000				DRY HOLE	UNKNOWN	31.899196	-103.6863729
42301E03350000				DRY HOLE	UNKNOWN	31.8988737	-103.6831846
42301E03340000				DRY HOLE	UNKNOWN	31.8988483	-103.6793167
42301E03330000				DRY HOLE	UNKNOWN	31.8824276	-103.68408
42301E03320000				DRY HOLE	UNKNOWN	31.8779264	-103.6734116
42301E03310000				DRY HOLE	UNKNOWN	31.8826209	-103.6516342
42301E03040000				DRY HOLE	UNKNOWN	31.8744582	-103.716934
42301E03030000				DRY HOLE	UNKNOWN	31.8700242	-103.7027918
42301E02410000				DRY HOLE	UNKNOWN	31.8414621	-103.6189866
42301E02390000				DRY HOLE	UNKNOWN	31.8552836	-103.6009792
42301E02380000				DRY HOLE	UNKNOWN	31.8743876	-103.6061365
42301E02370000				DRY HOLE	UNKNOWN	31.8564138	-103.5841795
42301E02360000				DRY HOLE	UNKNOWN	31.8597752	-103.5632953
42301700950000		GEORGE L. BUCKLES CO. & GULF OIL CORP.			P & A	31.9867818	-103.6679636
42301700940000					P & A	31.8998306	-103.6609497
42301700120000	LOVING FEE 5-54-T2				DRILLED	31.8780203	-103.6672284
42301369500000	MAMMOTH 54-1-18-19 P	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9668918	-103.6892132
42301369490000	MAMMOTH 54-1-18-19 O	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9669438	-103.6892872
42301369480000	MAMMOTH 54-1-18-19 N	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9669988	-103.6893602
42301369470000	MAMMOTH 54-1-18-19 M	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9673828	-103.6921293
42301369460000	MAMMOTH 54-1-18-19 K	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9673798	-103.6922263
42301369450000	MAMMOTH 54-1-18-19 J	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9672248	-103.6954364
42301369440000	MAMMOTH 54-1-18-19 I	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9672218	-103.6955334

42301369430000	MAMMOTH 54-1-18-19 H	ANADARKO E&P ONSHORE LLC	11,977	OIL & GAS	PERMITTED	31.9672198	-103.6956304
42301369360000	MOOSEHORN 54-1-41-44 N	ANADARKO E&P ONSHORE LLC	11,895	OIL & GAS	PERMITTED	31.9106025	-103.6715841
42301369350000	MOOSEHORN 54-1-41-44 L	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	DRILLING	31.9106025	-103.6713901
42301369340000	MOOSEHORN 54-1-41-44 J	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	PERMITTED	31.9101785	-103.6754192
42301369330000	MOOSEHORN 54-1-41-44 K	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	PERMITTED	31.9106025	-103.6714871
42301369310000	MOOSEHORN 54-1-41-44 M	ANADARKO E&P ONSHORE LLC	11,895	OIL & GAS	PERMITTED	31.9104325	-103.6776313
42301369300000	MOOSEHORN 54-1-41-44 I	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	PERMITTED	31.9101785	-103.6755162
42301369290000	MOOSEHORN 54-1-41-44 H	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	PERMITTED	31.9104325	-103.6777273
42301369280000	MOOSEHORN 54-1-41-44 G	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	PERMITTED	31.9104335	-103.6778243
42301367600000	TITAN 7	EOG RESOURCES, INC.	10,939.81	OIL	ACTIVE	31.9246813	-103.66092
42301367510000	TITAN	EOG RESOURCES, INC.	10,143	OIL	ACTIVE	31.9243923	-103.6543738
42301367500000	TITAN	EOG RESOURCES, INC.	10,332	GAS	ACTIVE	31.9243923	-103.6544808
42301367490000	TITAN	EOG RESOURCES, INC.	10,122	GAS	ACTIVE	31.9243923	-103.6545868
42301367480000	TITAN	EOG RESOURCES, INC.	10,371.74	GAS	ACTIVE	31.9245913	-103.66092
42301367470000	TITAN	EOG RESOURCES, INC.	10,121.31	GAS	ACTIVE	31.9245003	-103.66092
42301367460000	TITAN	EOG RESOURCES, INC.	10,330.86	OIL	ACTIVE	31.9244093	-103.66092
42301367240000	DBM 54-1-40	WES WATER HOLDINGS LLC	7,100	INJECTION	DUC	31.9039856	-103.6568093
42301366780000	ELKHORN 54-1-40-45 D	ANADARKO E&P ONSHORE LLC	11,984.9	OIL	ACTIVE	31.9106515	-103.6622567
42301366570000	SIERRA STATE 54-1-7-6 H	ANADARKO E&P ONSHORE LLC	11,715.51	OIL	ACTIVE	31.9666298	-103.6894802
42301366560000	SIERRA STATE 54-1-7-6 G	ANADARKO E&P ONSHORE LLC	12,164.15	OIL	ACTIVE	31.9670388	-103.6921163
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42301366540000	SIERRA STATE 54-1-7-6 E	ANADARKO E&P ONSHORE LLC	11,686.64	OIL	ACTIVE	31.9667398	-103.6896242
42301366530000	SIERRA STATE 54-1-7-6 D	ANADARKO E&P ONSHORE LLC	12,123.5	OIL	ACTIVE	31.9670368	-103.6922133
42301366520000	SIERRA STATE 54-1-7-6 C	ANADARKO E&P ONSHORE LLC	11,805.59	OIL & GAS	COMPLETED	31.9668818	-103.6954244
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42301366410000	BIG EASY 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	11,654.28	OIL	ACTIVE	31.8996336	-103.6893184
42301366400000	BIG EASY 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	11,845.66	OIL	ACTIVE	31.8996346	-103.6894134
42301366390000	BIG EASY 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	11,488.25	OIL	ACTIVE	31.8996346	-103.6895114
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42301366230000	APHRODITE SWD	OWL SWD OPERATING LLC	6,430.4	DISPOSAL	ACTIVE	31.9084335	-103.6469811
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42301365490000	KING CANYON STATE 54-1-8-5 R	ANADARKO E&P ONSHORE LLC	10,480.11	OIL	ACTIVE	31.9695038	-103.6731866
42301365480000	KING CANYON STATE 54-1-8-5 P	ANADARKO E&P ONSHORE LLC	10,168.35	OIL	ACTIVE	31.9695038	-103.6733816
42301365470000	KING CANYON STATE 54-1-8-5 N	ANADARKO E&P ONSHORE LLC	10,453.64	OIL	ACTIVE	31.9694928	-103.6766258
42301365460000	KING CANYON STATE 54-1-8-5 S	ANADARKO E&P ONSHORE LLC	10,838.81	OIL	ACTIVE	31.9693228	-103.6683844
42301365450000	KING CANYON STATE 54-1-8-5 Q	ANADARKO E&P ONSHORE LLC	11,001.93	OIL	ACTIVE	31.9695038	-103.6732846
42301365440000	KING CANYON STATE 54-1-8-5 O	ANADARKO E&P ONSHORE LLC	10,817.14	OIL	ACTIVE	31.9695038	-103.6765568
42301365430000	KING CANYON STATE 54-1-8-5 M	ANADARKO E&P ONSHORE LLC	10,972.88	OIL	ACTIVE	31.9695038	-103.6767508
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42301364880000	HERMES SWD	OWL SWD OPERATING, LLC	9,000	INJECTION	PERMITTED	31.9150974	-103.6617718
42301364870000	POSEIDON SWD	OWL SWD OPERATING, LLC	9,000	INJECTION	DUC	31.9037316	-103.6456529
42301364600000	STEELHEAD 54-2 UNIT	PDEH LLC	11,649.57	OIL	ACTIVE	31.8258445	-103.6230841
42301364590000	STEELHEAD 54-2 UNIT	PDEH LLC	11,632.87	OIL	ACTIVE	31.8258445	-103.6232791
42301364570000	STEELHEAD 54-2 UNIT	PDEH LLC	11,716.84	OIL	ACTIVE	31.8258445	-103.6231811
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42301364310000	MOOSEHORN 54-1-41-44 B	ANADARKO E&P ONSHORE LLC	11,593.64	OIL	ACTIVE	31.9100895	-103.6776303
42301364300000	MOOSEHORN 54-1-41-44 E	ANADARKO E&P ONSHORE LLC	11,942.56	GAS	ACTIVE	31.9100895	-103.6777263
42301364290000	MOOSEHORN 54-1-41-44 A	ANADARKO E&P ONSHORE LLC	11,717.73	GAS	ACTIVE	31.9100895	-103.6778233
42301363180000	STATELINE SWD	DACO OPERATING, LLC	6,600	INJECTION	DUC	31.9862776	-103.7020082
42301363140000	Z&T 20	LRR PECOS VALLEY, LLC	9,830.04	OIL	ACTIVE	31.955793	-103.6794135
42301363130000	Z&T 20	LRR PECOS VALLEY LLC	9,920.41	GAS	ACTIVE	31.95583	-103.6729273
42301363120000	Z&T 20	LRR PECOS VALLEY LLC	10,235.56	GAS	ACTIVE	31.955831	-103.6730073
42301363110000	Z&T 20	LRR PECOS VALLEY LLC	10,893.05	GAS	ACTIVE	31.955831	-103.6730883
42301363100000	Z&T 20	LRR PECOS VALLEY LLC	9,880.46	GAS	ACTIVE	31.955831	-103.6731693
42301363090000	Z&T 20	LRR PECOS VALLEY LLC	11,834.6	GAS	ACTIVE	31.955793	-103.6791715
42301363080000	Z&T 20	LRR PECOS VALLEY, LLC	10,809.31	OIL	ACTIVE	31.955793	-103.6794945
42301363070000	Z&T 20	LRR PECOS VALLEY, LLC	9,823	GAS	ACTIVE	31.955793	-103.6792525
42301363020000	Z&T 20	LRR PECOS VALLEY, LLC	10,148	OIL	ACTIVE	31.955793	-103.6793335
42301361930000	MAMMOTH 54-1-18-19 G	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	DUC	31.9732167	-103.6894203

42301361880000	SIERRA STATE 54-1-7-6 E	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728708	-103.6949315
42301361870000	SIERRA STATE 54-1-7-6 D	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728708	-103.6950285
42301361860000	SIERRA STATE 54-1-7-6 H	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728728	-103.6890333
42301361850000	SIERRA STATE 54-1-7-6 A	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728708	-103.6951256
42301361840000	SIERRA STATE 54-1-7-6 C	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728728	-103.6891303
42301361830000	SIERRA STATE 54-1-7-6 G	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728728	-103.6892273
42301361820000	SIERRA STATE 54-1-7-6 F	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728728	-103.6893243
42301361810000	SIERRA STATE 54-1-7-6 B	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.9728718	-103.6948345
42301361720000	OLD PARTNER 54-1-30 UNIT A	ANADARKO E&P ONSHORE LLC	11,677.84	GAS	ACTIVE	31.9101465	-103.698037
42301361710000	OLD PARTNER 54-1-30 UNIT A	ANADARKO E&P ONSHORE LLC	11,544.83	GAS	ACTIVE	31.9101465	-103.698134
42301360980000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,292.92	GAS	ACTIVE	31.9843106	-103.6826304
42301359830000	OLD PARTNER B 54-1-31-30 E	ANADARKO E&P ONSHORE LLC	11,587.49	OIL	ACTIVE	31.9101425	-103.6901547
42301359820000	OLD PARTNER B 54-1-31-30 D	ANADARKO E&P ONSHORE LLC	11,722.6	OIL	ACTIVE	31.9101425	-103.6902517
42301359800000	OLD PARTNER B 54-1-31-30 C	ANADARKO E&P ONSHORE LLC	11,570.77	OIL	ACTIVE	31.9101425	-103.6903467
42301358740000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,500.07	GAS	ACTIVE	31.9842972	-103.6700722
42301358730000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,524.29	GAS	ACTIVE	31.9842972	-103.6698778
42301358720000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,303.25	GAS	ACTIVE	31.9842972	-103.669975
42301358560000	DBM 54-1-43	WES WATER HOLDINGS LLC	6,842	DISPOSAL	ACTIVE	31.8908047	-103.7001956
42301358340000	MAMMOTH 54-1-18-19 L	ANADARKO E&P ONSHORE LLC	9,484.74	GAS	ACTIVE	31.9732174	-103.6890322
42301358330000	MAMMOTH 54-1-18-19-G	ANADARKO E & P ONSHORE LLC	1,605	DRY HOLE	P & A	31.973217	-103.689129
42301358320000	MAMMOTH 54-1-18-19 F	ANADARKO E&P ONSHORE LLC	1,600	OIL	SHUT-IN	31.973217	-103.689227
42301358310000	MAMMOTH 54-1-18-19 E	ANADARKO E&P ONSHORE LLC	1,605	OIL	SHUT-IN	31.9732177	-103.6893243
42301358300000	MAMMOTH 54-1-18-19 D	ANADARKO E&P ONSHORE LLC	1,598	OIL	SHUT-IN	31.9732146	-103.6948325
42301358290000	MAMMOTH 54-1-18-19 C	ANADARKO E&P ONSHORE LLC	1,611	OIL	SHUT-IN	31.9732146	-103.6949297
42301358280000	MAMMOTH 54-1-18-19 B	ANADARKO E&P ONSHORE LLC	8,842	DRY HOLE	P & A	31.9732146	-103.6950269
42301357430000	WILLOW 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,409.21	GAS	ACTIVE	31.928504	-103.715818
42301357420000	WILLOW 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,499.9	GAS	ACTIVE	31.9285041	-103.7159154
42301357410000	WILLOW 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,368.83	GAS	ACTIVE	31.928504	-103.716013
42301356860000	RICKY WILLIAMS SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,800	INJECTION	EXPIRED PERMIT	31.9194824	-103.6834147
42301356850000	RICKY WILLIAMS SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,800	INJECTION	EXPIRED PERMIT	31.9158374	-103.6692071
42301356600000	TITAN 7 UNIT	EOG RESOURCES, INC.	14,000	OIL & GAS	EXPIRED PERMIT	31.9267443	-103.6519607
42301356580000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	DRILLED	31.8991126	-103.6477459
42301356420000	TITAN 7 UNIT	EOG RESOURCES INC.	11,741.2	OIL	ACTIVE	31.926589	-103.656221
42301356410000	DBM 54-1-45	APC WATER HOLDINGS 1, LLC	7,500	INJECTION	EXPIRED PERMIT	31.8888397	-103.6607071
42301356400000	VJ SWD	NGL WATER SOLUTIONS PERMIAN, LLC	5,300	INJECTION	EXPIRED PERMIT	31.8724449	-103.6842666
42301356390000	VJ SWD	NGL WATER SOLUTIONS PERMIAN, LLC	5,300	INJECTION	EXPIRED PERMIT	31.8826528	-103.6993634
42301356290000	KING CANYON STATE 54-1-8-5 J	ANADARKO E&P ONSHORE LLC	11,986	GAS	ACTIVE	31.969504	-103.672799
42301356280000	KING CANYON STATE 54-1-8-5 D	ANADARKO E&P ONSHORE LLC	11,061.68	GAS	ACTIVE	31.969504	-103.672895
42301356270000	KING CANYON STATE 54-1-8-5 I	ANADARKO E&P ONSHORE LLC	11,793.86	GAS	ACTIVE	31.969503	-103.672992

42301356260000	KING CANYON STATE 54-1-8-5 H	ANADARKO E&P ONSHORE LLC	11,959.87	GAS	ACTIVE	31.969503	-103.676946
42301356250000	KING CANYON STATE 54-1-8-5 C	ANADARKO E&P ONSHORE LLC	11,630.75	GAS	ACTIVE	31.969502	-103.678913
42301356240000	KING CANYON STATE 54-1-8-5 G	ANADARKO E&P ONSHORE LLC	11,777.18	GAS	ACTIVE	31.969503	-103.677043
42301356230000	KING CANYON STATE 54-1-8-5 F	ANADARKO E&P ONSHORE LLC	11,903	GAS	ACTIVE	31.969502	-103.681655
42301356220000	KING CANYON STATE 54-1-8-5 B	ANADARKO E&P ONSHORE LLC	11,612.54	GAS	ACTIVE	31.969502	-103.67901
42301356210000	KING CANYON STATE 54-1-8-5 E	ANADARKO E&P ONSHORE LLC	11,726	GAS	ACTIVE	31.969502	-103.681751
42301355920000	STATE ATLANTIS UNIT	EOG RESOURCES INC.	9,274.71	GAS	INACTIVE	31.9555865	-103.6655536
42301355870000	STATE ATLANTIS UNIT	EOG RESOURCES INC.	9,619.17	GAS	ACTIVE	31.9555865	-103.66566
42301355700000	DBM 54-1-45	WES WATER HOLDINGS LLC	7,062.51	DISPOSAL	ACTIVE	31.8891167	-103.6564309
42301355170000	LARRY SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,850	INJECTION	EXPIRED PERMIT	31.9808317	-103.6698648
42301354990000	MOE SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,850	INJECTION	EXPIRED PERMIT	31.9823906	-103.6823153
42301354900000	ELM 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9259453	-103.7048487
42301354890000	ELM 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,483.99	GAS	ACTIVE	31.925946	-103.704946
42301354880000	ELM 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,691.28	GAS	ACTIVE	31.925946	-103.705042
42301354870000	ELM 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,465.24	GAS	ACTIVE	31.925946	-103.705139
42301354860000	FOX SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,500	INJECTION	EXPIRED PERMIT	31.9838106	-103.7162826
42301354480000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,950.91	OIL	ACTIVE	31.884649	-103.568828
42301354460000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,904.84	OIL	ACTIVE	31.8846351	-103.5803342
42301354450000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,848.66	OIL	ACTIVE	31.88473	-103.568831
42301354430000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,805.01	OIL	ACTIVE	31.884813	-103.568831
42301354420000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,962	OIL	ACTIVE	31.8848958	-103.5688336
42301354410000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,791.43	OIL	ACTIVE	31.8848824	-103.580337
42301354400000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,937.48	OIL	ACTIVE	31.884799	-103.5803398
42301354390000	PERMIT 76-44 LOV UNIT	PDEH LLC	11,791.03	OIL	ACTIVE	31.8847157	-103.580337
42301354170000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,489.43	GAS	ACTIVE	31.9843116	-103.6827264
42301354160000	GREAT WHITE STATE 54-1-8 LOV	MEWBOURNE OIL COMPANY	12,254.09	GAS	ACTIVE	31.9843116	-103.6828234
42301354110000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,644.13	GAS	ACTIVE	31.911545	-103.655208
42301354080000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698798	-103.6700265
42301354070000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698798	-103.6701235
42301354060000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698788	-103.6788399
42301354050000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698788	-103.6789369
42301353980000	STATE ATLANTIS 7 UNIT	EOG RESOURCES INC.	12,527.28	GAS	ACTIVE	31.985162	-103.664148
42301353970000	STATE ATLANTIS 7 UNIT	EOG RESOURCES INC.	12,241.37	GAS	ACTIVE	31.985233	-103.663966
42301353960000	STATE ATLANTIS 7 UNIT	EOG RESOURCES INC.	12,245.67	GAS	ACTIVE	31.985213	-103.663897
42301353940000	STATE ATLANTIS 7 UNIT	EOG RESOURCES INC.	12,220.16	GAS	ACTIVE	31.985188	-103.664171
42301353910000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698798	-103.6702205
42301353900000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698798	-103.6703165
42301353890000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698798	-103.6704135
42301353880000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698788	-103.6790339

42301353870000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9698758	-103.6791349
42301353860000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9699028	-103.6792139
42301353850000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867326	-103.671033
42301353840000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867556	-103.671139
42301353830000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9870106	-103.6790003
42301353820000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9869976	-103.6790733
42301353800000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867466	-103.67121
42301353770000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867356	-103.671308
42301353750000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867506	-103.671434
42301353730000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9867506	-103.671531
42301353710000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9869926	-103.6791823
42301353700000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9869786	-103.6792613
42301353690000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9869816	-103.6793443
42301353680000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9870116	-103.6794543
42301353560000	TITAN 7 UNIT	EOG RESOURCES INC.	12,120.65	GAS	ACTIVE	31.926743	-103.652012
42301353450000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	1,480	DRY HOLE	P & A	31.911523	-103.655248
42301353440000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,289.22	GAS	ACTIVE	31.911522	-103.6554
42301353310000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9115455	-103.6554975
42301353300000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,870.23	GAS	ACTIVE	31.911547	-103.657641
42301353290000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9115455	-103.6555945
42301353280000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,645.09	GAS	ACTIVE	31.911547	-103.657738
42301353270000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9115455	-103.6556915
42301353260000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,310.65	GAS	ACTIVE	31.911547	-103.657835
42301353060000	BONEFISH 76-45 LOV UNIT	SHELL WESTERN E&P	12,100	OIL & GAS	EXPIRED PERMIT	31.8851968	-103.553464
42301353050000	FOX SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,727.4	DISPOSAL	COMPLETED	31.9849776	-103.7029452
42301353040000	FOX SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,940	DISPOSAL	INACTIVE	31.9718058	-103.7098601
42301353000000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,319.8	OIL	ACTIVE	31.899113	-103.646332
42301352990000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,311.31	OIL	ACTIVE	31.899113	-103.646622
42301352940000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,665.83	OIL	ACTIVE	31.899113	-103.646236
42301352930000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,844.19	OIL	ACTIVE	31.899113	-103.646429
42301352920000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,651.43	OIL	ACTIVE	31.899113	-103.646526
42301352460000	TITAN 7 UNIT	EOG RESOURCES INC.	11,709.67	OIL	ACTIVE	31.924847	-103.661116
42301352450000	TITAN 7 UNIT	EOG RESOURCES INC.	11,760.51	GAS	ACTIVE	31.924847	-103.661223
42301352440000	TITAN 7 UNIT	EOG RESOURCES INC.	11,685.92	GAS	ACTIVE	31.924847	-103.661329
42301352430000	TITAN 7 UNIT	EOG RESOURCES INC.	11,707.39	GAS	ACTIVE	31.926292	-103.665159
42301352120000	TABASCO CAT 54-43-6 UNIT	ANADARKO E&P ONSHORE LLC	11,139.45	GAS	ACTIVE	31.896185	-103.697409
42301352060000	TABASCO CAT 54-43-6 UNIT	ANADARKO E&P ONSHORE LLC	11,426.23	OIL	ACTIVE	31.896183	-103.697505
42301352050000	TABASCO CAT 54-43-6 UNIT	ANADARKO E&P ONSHORE LLC	11,639.11	OIL	ACTIVE	31.89618	-103.697601
42301351720000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	9,644.21	OIL	ACTIVE	31.926396	-103.646524

42301351600000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,999.21	OIL	ACTIVE	31.885118	-103.553466
42301351590000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,857.95	OIL	ACTIVE	31.884953	-103.553465
42301351580000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,993.54	OIL	ACTIVE	31.884871	-103.553464
42301351570000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,859.18	OIL	ACTIVE	31.885035	-103.553467
42301351560000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,992.78	OIL	ACTIVE	31.885306	-103.562187
42301351550000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,824.87	OIL	ACTIVE	31.88514	-103.562187
42301351540000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,979.65	OIL	ACTIVE	31.885058	-103.562186
42301351530000	BONEFISH 76-45 LOV UNIT	PDEH LLC	11,802.54	OIL	ACTIVE	31.885223	-103.562186
42301351510000	LINDSAY 2	WPX ENERGY PERMIAN LLC	12,315.39	GAS	ACTIVE	31.99964	-103.722755
42301351200000	TITAN 7 UNIT	EOG RESOURCES INC.	11,653.63	GAS	ACTIVE	31.9263829	-103.6651621
42301351180000	VJ SWD	NGL WATER SOLUTIONS PERMIAN, LLC	7,000	INJECTION	EXPIRED PERMIT	31.8808088	-103.6876619
42301351170000	VJ SWD	NGL WATER SOLUTIONS PERMIAN, LLC	7,000	INJECTION	PERMITTED	31.862868	-103.6932526
42301351080000	VJ SWD	NGL WATER SOLUTIONS PERMIAN, LLC	7,000	INJECTION	EXPIRED PERMIT	31.8753229	-103.6695371
42301351070000	VJ SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,727.03	DISPOSAL	COMPLETED	31.8757779	-103.7090196
42301350810000	SEQUOIA 55-1-14 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.955482	-103.7220831
42301350660000	MAGNOLIA 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,417.06	GAS	ACTIVE	31.896802	-103.704667
42301350650000	MAGNOLIA 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,128.14	GAS	ACTIVE	31.896804	-103.704764
42301350620000	TITAN 7 UNIT	EOG RESOURCES INC.	12,114.81	GAS	ACTIVE	31.926763	-103.651815
42301350610000	TITAN 7 UNIT	EOG RESOURCES INC.	1,330	GAS	SHUT-IN	31.926591	-103.656379
42301350590000	TITAN 7 UNIT	EOG RESOURCES INC.	11,812.93	OIL	ACTIVE	31.926741	-103.651706
42301350580000	TITAN 7 UNIT	EOG RESOURCES INC.	11,744.14	OIL	ACTIVE	31.926743	-103.651912
42301350570000	TITAN 7 UNIT	EOG RESOURCES INC.	11,758	GAS	ACTIVE	31.9265903	-103.6562729
42301350560000	TITAN 7 UNIT	EOG RESOURCES INC.	1,308	GAS	SHUT-IN	31.926595	-103.656492
42301350550000	TITAN 7 UNIT	EOG RESOURCES INC.	11,786.74	GAS	ACTIVE	31.926591	-103.656592
42301350540000	STATE ATLANTIS UNIT	EOG RESOURCES INC.	10,469.72	GAS	ACTIVE	31.956509	-103.66393
42301350470000	Z&T 20	ROSEHILL OPERATING COMPANY, LLC	12,400	OIL & GAS	EXPIRED PERMIT	31.955851	-103.6791695
42301350460000	Z&T 20	ROSEHILL OPERATING COMPANY, LLC	12,400	OIL & GAS	EXPIRED PERMIT	31.955851	-103.6792505
42301350400000	DUSK 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	11,911.72	OIL	ACTIVE	31.89911	-103.642465
42301350380000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	11,715.44	OIL	ACTIVE	31.899107	-103.642559
42301350360000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	11,911.63	GAS	ACTIVE	31.89911	-103.642656
42301350350000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	10,971.64	GAS	ACTIVE	31.899113	-103.647553
42301350340000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	11,722.75	OIL	ACTIVE	31.899113	-103.647456
42301350330000	MAGNOLIA CAT 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8961847	-103.6974087
42301350320000	BEARTOOTH 54-1-34 UNIT	ANADARKO E&P ONSHORE LLC	11,920.01	OIL	ACTIVE	31.899113	-103.64765
42301350300000	MAGNOLIA CAT 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8967986	-103.7045729
42301350290000	MAGNOLIA CAT 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8968016	-103.7046669
42301350280000	MAGNOLIA CAT 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8968046	-103.7047639
42301350190000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8991126	-103.6465258
42301350180000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	CANCELLED	31.8991126	-103.6466228

42301349850000	Z&T 20	ROSEHILL OPERATING COMPANY, LLC	13,100	OIL & GAS	EXPIRED PERMIT	31.955832	-103.6729283
42301349840000	Z&T 20	ROSEHILL OPERATING COMPANY, LLC	12,300	OIL & GAS	EXPIRED PERMIT	31.955832	-103.6730093
42301349780000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,672.7	GAS	ACTIVE	31.97831	-103.702553
42301349770000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,634.53	GAS	ACTIVE	31.978311	-103.702797
42301349590000	Z&T 42	LRR PECOS VALLEY LLC	11,733.54	OIL	SHUT-IN	31.912126	-103.692256
42301349580000	Z&T 42	LRR PECOS VALLEY LLC	11,472.14	OIL & GAS	ACTIVE	31.912126	-103.692336
42301348940000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,848.55	GAS	ACTIVE	31.978294	-103.702638
42301348930000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	DRILLED	31.978294	-103.702736
42301348920000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	1,040	OIL & GAS	EXPIRED PERMIT	31.978295	-103.702834
42301348860000	Z&T 32	LRR PECOS VALLEY LLC	10,092.47	OIL	ACTIVE	31.926313	-103.66827
42301348850000	Z&T 32	LRR PECOS VALLEY LLC	10,264.52	OIL	ACTIVE	31.926313	-103.66835
42301348840000	Z&T 32	LRR PECOS VALLEY LLC	10,064.93	OIL & GAS	ACTIVE	31.926597	-103.677136
42301348830000	Z&T 32	LRR PECOS VALLEY LLC	10,237.56	OIL	ACTIVE	31.926597	-103.677217
42301348820000	Z&T 32	LRR PECOS VALLEY LLC	10,047.27	OIL	ACTIVE	31.926597	-103.677297
42301348790000	STATE MERCURY	EOG RESOURCES, INC.	13,000	OIL & GAS	COMPLETED	31.9992694	-103.6655871
42301348730000	STATE MERCURY	EOG RESOURCES INC.	9,657.49	GAS	INACTIVE	31.999289	-103.665486
42301348660000	BONGO 76-43 LOV UNIT	SHELL WESTERN E&P	11,900	OIL & GAS	DRILLED	31.8847378	-103.5852182
42301348650000	BONGO 76-43 LOV UNIT	PDEH LLC	11,540.83	OIL	ACTIVE	31.884839	-103.585233
42301348640000	BONGO 76-43 LOV UNIT	PDEH LLC	11,888.35	OIL	ACTIVE	31.884921	-103.585233
42301348630000	BONGO 76-43 LOV UNIT	PDEH LLC	11,713.31	OIL	ACTIVE	31.885004	-103.585233
42301347880000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,569.09	OIL	ACTIVE	31.884592	-103.659448
42301347870000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,756.9	OIL	ACTIVE	31.884591	-103.659351
42301347620000	SASSAFRAS 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,615.41	GAS	ACTIVE	31.95772	-103.70889
42301347610000	POPLAR 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,534.55	GAS	ACTIVE	31.957726	-103.708803
42301347600000	MOE SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,850	DISPOSAL	INACTIVE	31.9796627	-103.676998
42301347590000	LARRY SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,985	DISPOSAL	INACTIVE	31.9753767	-103.6830352
42301347550000	POPLAR 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,694.54	GAS	ACTIVE	31.95772	-103.708697
42301347030000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	11,891.65	OIL	ACTIVE	31.882301	-103.595355
42301347010000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	11,667.72	OIL	ACTIVE	31.882301	-103.595452
42301346800000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	11,880.16	OIL	ACTIVE	31.882301	-103.595549
42301346790000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	11,701.39	OIL	ACTIVE	31.882301	-103.595644
42301346640000	Z&T 20	LRR PECOS VALLEY LLC	12,357.48	OIL & GAS	ACTIVE	31.955854	-103.680029
42301346630000	Z&T 20	LRR PECOS VALLEY LLC	12,114.52	OIL & GAS	ACTIVE	31.955854	-103.680109
42301346180000	RICKY WILLIAMS SWD	MESQUITE SWD INC	6,900	INJECTION	EXPIRED PERMIT	31.9227213	-103.6715984
42301346170000	RICKY WILLIAMS SWD	MESQUITE SWD INC	6,900	INJECTION	EXPIRED PERMIT	31.9227233	-103.6788416
42301346160000	RICKY WILLIAMS SWD	MESQUITE SWD INC	6,900	INJECTION	EXPIRED PERMIT	31.9138634	-103.6796634
42301346080000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,490.06	OIL	ACTIVE	31.884662	-103.653059
42301346070000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,813.1	OIL	ACTIVE	31.884662	-103.653155
42301346030000	CURLY SWD	NGL WATER SOLUTIONS PERMIAN LLC	6,653	DISPOSAL	INACTIVE	31.9844176	-103.6754681

42301345290000	STATE ATLANTIS UNIT	EOG RESOURCES INC.	8,884.93	GAS	INACTIVE	31.956667	-103.663405
42301345270000	STATE ATLANTIS UNIT	EOG RESOURCES INC.	8,880.06	GAS	INACTIVE	31.956667	-103.663511
42301345260000	APC 54-1-6	DBM WATER SERVICES, LLC	7,200	DISPOSAL	COMPLETED	31.9916415	-103.6910599
42301345250000	APC 54-1-6	DBM WATER SERVICES, LLC	7,200	DISPOSAL	COMPLETED	31.9966545	-103.6849028
42301345240000	APC 54-1-6	DBM WATER SERVICES, LLC	7,200	DISPOSAL	COMPLETED	31.9865326	-103.6850125
42301345230000	APC 54-1-18	WES WATER HOLDINGS LLC	6,944.31	DISPOSAL	ACTIVE	31.9665934	-103.6870807
42301345020000	BIG COUNTRY SWD	WATERBRIDGE STATELINE LLC	6,100	DISPOSAL	ACTIVE	31.9929455	-103.6705861
42301345010000	AIR JORDAN SWD	WATERBRIDGE STATELINE LLC	6,190	DISPOSAL	ACTIVE	31.9955985	-103.6808116
42301345000000	MAGIC SWD	WATERBRIDGE STATELINE LLC	6,075	DISPOSAL	ACTIVE	31.9897916	-103.6746902
42301344990000	AWR THE GLOVE SWD	CROWNQUEST OPERATING, LLC	6,050	INJECTION	COMPLETED	31.9837076	-103.6960699
42301344980000	AWR BIG NASTY SWD	CROWNQUEST OPERATING, LLC	6,050	INJECTION	EXPIRED PERMIT	31.9801387	-103.6856274
42301344970000	AWR ANSWER SWD	CROWNQUEST OPERATING, LLC	6,050	INJECTION	EXPIRED PERMIT	31.9751647	-103.6980227
42301344790000	POPLAR 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	22,302	DRY HOLE	P & A	31.955336	-103.7064485
42301344720000	Z&T 32	LRR PECOS VALLEY LLC	10,141.82	OIL & GAS	ACTIVE	31.926596	-103.678096
42301344710000	Z&T 32	LRR PECOS VALLEY LLC	10,043.17	OIL	ACTIVE	31.926596	-103.678175
42301344700000	Z&T 32	LRR PECOS VALLEY LLC	10,121.71	OIL	ACTIVE	31.926603	-103.678244
42301344660000	NUECES 53-2-17 LOV	SHELL WESTERN E&P	8,239	INJECTION	EXPIRED PERMIT	31.8456963	-103.5763969
42301343990000	RICKY WILLIAMS SWD	MESQUITE SWD INC	6,900	INJECTION	COMPLETED	31.9172104	-103.6742323
42301343950000	VINCE YOUNG SWD	NGL WATER SOLUTIONS PERMIAN, LLC	6,900	INJECTION	COMPLETED	31.9302503	-103.6632903
42301343820000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC		STRATIGRAPHIC TEST	EXPIRED PERMIT	31.9701908	-103.7057199
42301343810000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,895.85	OIL	SHUT-IN	31.9701955	-103.7056324
42301343640000	LLANO 53-2-5 LOV	SHELL WESTERN E&P	8,291	INJECTION	EXPIRED PERMIT	31.8749379	-103.5722225
42301343630000	LITTLE 53-2-5 LOV	SHELL WESTERN E&P	8,291	INJECTION	EXPIRED PERMIT	31.8749379	-103.5721255
42301343490000	SEVENGILLS 29 UNIT	EOG RESOURCES INC.	11,734.83	OIL & GAS	ACTIVE	31.940932	-103.674349
42301343480000	MCKNIGHT 29 UNIT	EOG RESOURCES INC.	11,684.26	OIL	ACTIVE	31.940932	-103.674243
42301343470000	MCKNIGHT 29 UNIT	EOG RESOURCES INC.	11,758.91	OIL	ACTIVE	31.940932	-103.674137
42301343460000	MCKNIGHT 29 UNIT	EOG RESOURCES INC.	11,714.6	OIL	ACTIVE	31.940928	-103.669135
42301343450000	MCKNIGHT 29 UNIT	EOG RESOURCES INC.	11,787.4	GAS	ACTIVE	31.940928	-103.669028
42301343440000	MCKNIGHT 29 UNIT	EOG RESOURCES INC.	11,725.9	OIL	ACTIVE	31.940928	-103.668922
42301343420000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	8,480.24	OIL	SHUT-IN	31.972536	-103.671724
42301343100000	SASSAFRAS 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,302.87	GAS	ACTIVE	31.955357	-103.712217
42301342800000	TIGER 55-2-12 LOV	PDEH LLC	11,233.63	OIL	ACTIVE	31.85271	-103.716278
42301342260000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	11,780.44	OIL	ACTIVE	31.8824046	-103.5905345
42301342250000	KUDU 53-2-6 LOV W UNIT	PDEH LLC	12,019.53	OIL	ACTIVE	31.882432	-103.590626
42301342240000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,901.63	OIL	ACTIVE	31.88238	-103.590443
42301342230000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,700.64	OIL	INACTIVE	31.882373	-103.590366
42301342220000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,807.39	OIL	ACTIVE	31.882512	-103.588008
42301342200000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,731.91	OIL	ACTIVE	31.882494	-103.587896
42301342190000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,893.13	OIL	ACTIVE	31.882494	-103.587798

42301342180000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,622.75	OIL	ACTIVE	31.882494	-103.587701
42301342050000	GOLDENEYE 54-2-3 UNIT	ANADARKO E&P ONSHORE LLC	11,724.29	OIL	ACTIVE	31.875046	-103.64956
42301341890000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,457.82	OIL	ACTIVE	31.855569	-103.552355
42301341880000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,812.91	OIL	ACTIVE	31.855569	-103.552257
42301341870000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,698.89	OIL	ACTIVE	31.855588	-103.552176
42301341850000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,522.39	OIL	ACTIVE	31.855588	-103.552081
42301341840000	SABLE 53-2-9 LOV W UNIT	PDEH LLC	11,705.43	OIL	ACTIVE	31.855499	-103.559407
42301341830000	SABLE 53-2-9 LOV W UNIT	PDEH LLC	11,831.32	OIL	ACTIVE	31.855417	-103.559408
42301341820000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,837.38	OIL	ACTIVE	31.855566	-103.551969
42301341810000	SABLE 53-2-9 LOV E UNIT	PDEH LLC	11,718.68	OIL	ACTIVE	31.855566	-103.551871
42301341670000	STATE ATLANTIS 7 UNIT	EOG RESOURCES INC.	11,839.8	OIL	ACTIVE	31.955771	-103.665372
42301341600000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,446.19	DISPOSAL	INACTIVE	31.897538	-103.668424
42301341590000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,432	DISPOSAL	INACTIVE	31.8951577	-103.6829661
42301341580000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,450	DISPOSAL	INACTIVE	31.8906907	-103.6760377
42301341440000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	12,143.86	OIL	SHUT-IN	31.9701898	-103.7055269
42301341430000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,497.79	GAS	ACTIVE	31.88445	-103.666629
42301341420000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,973.34	GAS	ACTIVE	31.884532	-103.666626
42301341410000	Z&T 20	LRR PECOS VALLEY LLC	11,516.43	OIL & GAS	ACTIVE	31.955702	-103.674967
42301341400000	Z&T 20	LRR PECOS VALLEY LLC	10,176.75	OIL & GAS	ACTIVE	31.95572	-103.674979
42301341260000	Z&T 32	LRR PECOS VALLEY LLC	12,012.66	OIL & GAS	ACTIVE	31.9267159	-103.6711857
42301341250000	Z&T 32	LRR PECOS VALLEY LLC	11,955.75	OIL	ACTIVE	31.9267159	-103.6712662
42301341240000	Z&T 32	LRR PECOS VALLEY LLC	11,914.68	OIL & GAS	ACTIVE	31.9267159	-103.6714274
42301341110000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,543.95	GAS	ACTIVE	31.900034	-103.717173
42301341100000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,356.46	GAS	ACTIVE	31.900034	-103.717076
42301341090000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,777.36	GAS	ACTIVE	31.900033	-103.71698
42301341080000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,471.03	GAS	ACTIVE	31.899206	-103.713155
42301341070000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,778.83	GAS	ACTIVE	31.899206	-103.713059
42301340850000	ROAN 53-2 LOV UNIT	SHELL WESTERN E&P	11,800	OIL	EXPIRED PERMIT	31.8296635	-103.5867419
42301340830000	ROAN 53-2 LOV UNIT	SHELL WESTERN E&P	11,800	OIL	EXPIRED PERMIT	31.8297105	-103.5866609
42301340820000	ROAN 53-2 LOV UNIT	PDEH LLC	11,562.88	OIL	ACTIVE	31.831667	-103.578531
42301340810000	ROAN 53-2 LOV UNIT	PDEH LLC	11,492.67	OIL	ACTIVE	31.831247	-103.578463
42301340800000	ROAN 53-2 LOV UNIT	SHELL WESTERN E&P	11,800	OIL	EXPIRED PERMIT	31.8340944	-103.5700964
42301340440000	Z&T 32 SWD	ROSEHILL OPERATING COMPANY, LLC	6,900	INJECTION	COMPLETED	31.9157964	-103.6803015
42301340430000	Z&T 20 SWD	ROSEHILL OPERATING COMPANY, LLC	6,900	INJECTION	COMPLETED	31.951454	-103.6833406
42301339720000	POPLAR 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,378.6	GAS	ACTIVE	31.95752	-103.703
42301339470000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,572.23	OIL	ACTIVE	31.8845804	-103.6533175
42301338670000	FOX SWD	NGL WATER SOLUTIONS PERMIAN LLC	5,500	DISPOSAL	INACTIVE	31.9744787	-103.7042219
42301338660000	FOX SWD	NGL WATER SOLUTIONS PERMIAN LLC	5,500	DISPOSAL	INACTIVE	31.9718698	-103.7172404
42301338450000	ABEL STATE 2	DOUBLE EAGLE OPERATING, LLC	12,450	OIL & GAS	EXPIRED PERMIT	31.8772269	-103.7360006

42301338190000	APC 55-1-24	WES WATER HOLDINGS LLC	6,743.11	DISPOSAL	ACTIVE	31.954529	-103.709863
42301338180000	APC 54-1-18	WES WATER HOLDINGS LLC	8,466	DISPOSAL	ACTIVE	31.9664698	-103.6987355
42301338090000	Z&T 32	LRR PECOS VALLEY LLC	6,888.42	DISPOSAL	ACTIVE	31.924905	-103.677444
42301338060000	TIGER 55-2-12 LOV	PDEH LLC	11,403.49	OIL	ACTIVE	31.852911	-103.716261
42301338050000	TIGER 55-2-12 LOV	PDEH LLC	1,361	OIL	SHUT-IN	31.8528582	-103.7162612
42301338040000	TIGER 55-2-12 LOV	PDEH LLC	11,418.61	OIL	ACTIVE	31.8528028	-103.7162611
42301338030000	TIGER 55-2-12 LOV	PDEH LLC	11,252.68	OIL	ACTIVE	31.8527473	-103.7162639
42301338020000	TIGER 55-2-12 LOV	PDEH LLC	11,415.91	GAS	INACTIVE	31.8528984	-103.7060793
42301338010000	TIGER 55-2-12 LOV	PDEH LLC	11,272.21	GAS	ACTIVE	31.8528434	-103.7060794
42301338000000	TIGER 55-2-12 LOV	PDEH LLC	11,455.07	GAS	ACTIVE	31.8527884	-103.7060795
42301337990000	TIGER 55-2-12 LOV	PDEH LLC	11,299.6	GAS	ACTIVE	31.852733	-103.706081
42301337940000	Z&T 20	LRR PECOS VALLEY LLC	11,983.62	OIL & GAS	ACTIVE	31.955878	-103.677714
42301337930000	Z&T 20	LRR PECOS VALLEY LLC	11,635.74	OIL & GAS	ACTIVE	31.9558787	-103.6778286
42301337920000	Z&T 20	LRR PECOS VALLEY LLC	11,399.03	OIL & GAS	ACTIVE	31.9558788	-103.6776035
42301337590000	Z&T 42	LRR PECOS VALLEY LLC	10,174.84	GAS	INACTIVE	31.9121293	-103.6861333
42301337580000	Z&T 42	LRR PECOS VALLEY LLC	9,914.37	OIL & GAS	ACTIVE	31.912126	-103.691375
42301337560000	Z&T 42	LRR PECOS VALLEY LLC	10,123.72	OIL & GAS	ACTIVE	31.912126	-103.691456
42301337530000	POPLAR 55-1-24 UNIT	ANADARKO E&P ONSHORE LLC	11,553.79	GAS	ACTIVE	31.957521	-103.70286
42301336860000	Z&T 32	LRR PECOS VALLEY LLC	11,893.87	OIL & GAS	ACTIVE	31.926593	-103.680475
42301336840000	Z&T 32	LRR PECOS VALLEY LLC	11,917.09	OIL & GAS	ACTIVE	31.926593	-103.680556
42301336820000	Z&T 32	LRR PECOS VALLEY LLC	11,847.84	OIL & GAS	ACTIVE	31.9265915	-103.6807173
42301336170000	HERON 54-2-4 UNIT	ANADARKO E&P ONSHORE LLC	11,787.54	OIL	INACTIVE	31.884607	-103.666629
42301336000000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782727	-103.7060411
42301335990000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782727	-103.7059441
42301335980000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782717	-103.7058471
42301335970000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782717	-103.7057501
42301335960000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782677	-103.7045441
42301335950000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782677	-103.704448
42301335940000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9782617	-103.702835
42301335930000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	DRILLED	31.9782617	-103.702738
42301335920000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.978261	-103.702642
42301335910000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.978261	-103.702545
42301335820000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,609.01	GAS	ACTIVE	31.978267	-103.704351
42301335810000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,811.64	GAS	ACTIVE	31.978267	-103.704254
42301335800000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,662.54	GAS	ACTIVE	31.978267	-103.704157
42301335510000	EGRET 54-2-23	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.8261395	-103.618158
42301335490000	IBIS 54-2-11	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.8553372	-103.6180587
42301335430000	LIGHT SHADOW 54-2-14	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.8553372	-103.6179617
42301334980000	Z&T 20	LRR PECOS VALLEY LLC	10,241.64	OIL & GAS	ACTIVE	31.9558823	-103.6816591

42301334690000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	13,000	OIL & GAS	EXPIRED PERMIT	31.9137695	-103.6580346
42301334530000	HIGH BELL 54-2-4	ANADARKO E&P ONSHORE LLC	12,000	OIL & GAS	DRILLED	31.8846038	-103.6666162
42301334170000	NYALA 53-2-5 LOV W UNIT	PDEH LLC	11,851.55	OIL	ACTIVE	31.8821903	-103.5783491
42301334150000	NYALA 53-2-5 LOV W UNIT	PDEH LLC	11,709.84	OIL	ACTIVE	31.882241	-103.578342
42301334130000	NYALA 53-2-5 LOV W UNIT	PDEH LLC	11,826.17	OIL	ACTIVE	31.882294	-103.578342
42301334110000	Z&T 42	LRR PECOS VALLEY LLC	11,264.96	OIL & GAS	ACTIVE	31.912132	-103.685328
42301334100000	Z&T 42	LRR PECOS VALLEY LLC	11,217.72	OIL & GAS	ACTIVE	31.912129	-103.68832
42301334090000	Z&T 42	LRR PECOS VALLEY LLC	11,546	OIL & GAS	ACTIVE	31.91213	-103.688
42301333900000	Z&T 42	LRR PECOS VALLEY LLC	11,799.5	OIL & GAS	ACTIVE	31.91216	-103.68834
42301333800000	Z&T 42	LRR PECOS VALLEY LLC	11,797.85	OIL & GAS	ACTIVE	31.912132	-103.685247
42301333790000	HIGH NOON 54-2-9 UNIT	ANADARKO E&P ONSHORE LLC		UNKNOWN	CANCELLED	31.8553911	-103.6606802
42301333430000	SILVERBELL 54-2-9 UNIT	ANADARKO E&P ONSHORE LLC		UNKNOWN	CANCELLED	31.8553911	-103.6605842
42301333420000	MOOSEHEAD 54-1-41 UNIT	ANADARKO E&P ONSHORE LLC	11,795.38	OIL	ACTIVE	31.911576	-103.668909
42301333380000	STATELINE SWD	DACO OPERATING LLC	6,560	DISPOSAL	ACTIVE	31.9861386	-103.7102915
42301332690000	STATE MERCURY	EOG RESOURCES INC.	10,396.95	GAS	INACTIVE	31.999286	-103.665598
42301332680000	STATE MERCURY 7	EOG RESOURCES INC.	12,318.1	GAS	ACTIVE	31.999286	-103.665708
42301332670000	REDBUD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,797.07	GAS	INACTIVE	31.977199	-103.708484
42301332310000	WILLOW 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,598.15	GAS	ACTIVE	31.928375	-103.711334
42301332300000	ELM 55-1-36 UNIT	ANADARKO E&P ONSHORE LLC	11,604.07	OIL	ACTIVE	31.928375	-103.71124
42301332200000	Z&T 20	LRR PECOS VALLEY LLC	12,480	GAS	ACTIVE	31.9558868	-103.670639
42301332040000	SABLE 53-2-9 LOV W UNIT	PDEH LLC	11,857.27	OIL	ACTIVE	31.855133	-103.563772
42301332020000	SABLE 53-2-9 LOV W UNIT	PDEH LLC	11,702.37	OIL	ACTIVE	31.855133	-103.563708
42301332010000	NYALA 53-2-5 LOV E UNIT	PDEH LLC	11,690.83	OIL	INACTIVE	31.855133	-103.563838
42301332000000	NYALA 53-2-5 LOV E UNIT	PDEH LLC	11,862.81	OIL	ACTIVE	31.8820683	-103.5739191
42301331960000	ROAN 53-2 LOV UNIT	PDEH LLC	11,632.01	OIL	ACTIVE	31.834847	-103.596109
42301331940000	ROAN 53-2 LOV UNIT	PDEH LLC	11,772.7	OIL	ACTIVE	31.834947	-103.596056
42301331820000	BOXWOOD 55-1-12 UNIT	ANADARKO E&P ONSHORE LLC	11,780.96	GAS	ACTIVE	31.977198	-103.708388
42301331810000	NYALA 53-2-5 LOV E UNIT	PDEH LLC	11,689.94	OIL	ACTIVE	31.8820133	-103.5739191
42301331780000	NYALA 53-2-5 LOV W UNIT	PDEH LLC	11,702.47	OIL	ACTIVE	31.881553	-103.583681
42301331770000	NYALA 53-2-5 LOV W UNIT	PDEH LLC	11,678.28	OIL	ACTIVE	31.8820133	-103.5739191
42301331750000	KUDU 53-2-6 LOV E UNIT	PDEH LLC	11,817.26	OIL	ACTIVE	31.8815	-103.584
42301331590000	VORTEX 54-1-40 UNIT	ANADARKO E&P ONSHORE LLC	11,806.98	OIL	ACTIVE	31.913788	-103.657951
42301331420000	HAMMERHEAD 54-1-28 UNIT	ANADARKO E&P ONSHORE LLC	12,200.69	GAS	ACTIVE	31.92835	-103.65974
42301331410000	CARLSBAD 54-1-28 UNIT	ANADARKO E&P ONSHORE LLC	11,981.85	OIL	ACTIVE	31.9283543	-103.6596527
42301331340000	BONGO 76-43 LOV UNIT	PDEH LLC	11,792.65	OIL	ACTIVE	31.88139	-103.584
42301331320000	BONGO 76-43 LOV UNIT	PDEH LLC	10,344.98	OIL	ACTIVE	31.88144	-103.584
42301331310000	APC 55-1-37	WES WATER HOLDINGS LLC	6,795.55	DISPOSAL	ACTIVE	31.909952	-103.703207
42301331270000	BONGO 76-43 LOV UNIT	PDEH LLC	11,702.86	OIL	ACTIVE	31.88161	-103.584
42301330680000	BRYCE 54-2-24	ANADARKO E&P ONSHORE LLC	11,688.09	OIL	ACTIVE	31.838993	-103.614567

42301330520000	TORTUGA 54-2-5	ANADARKO E&P ONSHORE LLC	11,521.19	OIL	ACTIVE	31.8844833	-103.6835391
42301330190000	THRESHER 54-1-7	ANADARKO E&P ONSHORE LLC	12,652	PRODUCER	DRILLED	31.9721171	-103.6858743
42301330080000	ROAN 53-2 LOV UNIT	PDEH LLC	11,803.6	OIL	ACTIVE	31.830219	-103.586941
42301330070000	ROAN 53-2 LOV UNIT	PDEH LLC	11,816.77	OIL	ACTIVE	31.830188	-103.586994
42301330000000	OLYMPIC 54-2-7	ANADARKO E&P ONSHORE LLC	11,680.73	OIL	ACTIVE	31.870069	-103.698628
42301329990000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	11,911.87	OIL	ACTIVE	31.972548	-103.679879
42301329950000	JOHNSON 76-43 LOV	SHELL WESTERN E&P		UNKNOWN	CANCELLED	31.8986846	-103.5845485
42301329920000	ODELL STATE 54-1-6 LOV	PDEH LLC	11,810.85	OIL & GAS	ACTIVE	31.999396	-103.696705
42301329630000	HICKORY 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,491.95	GAS	INACTIVE	31.870084	-103.71157
42301329620000	MAGNOLIA 55-2-1 UNIT	ANADARKO E&P ONSHORE LLC	11,517.84	GAS	ACTIVE	31.870084	-103.711473
42301329600000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,450	DISPOSAL	INACTIVE	31.8865128	-103.6843639
42301329360000	ROAN 53-2 LOV UNIT	PDEH LLC	11,863.75	OIL	ACTIVE	31.831564	-103.578552
42301329340000	ROAN 53-2 LOV UNIT	PDEH LLC	11,795.33	OIL	INACTIVE	31.831673	-103.578545
42301329200000	OLD PARTNER 54-1-30 UNIT A	ANADARKO E&P ONSHORE LLC	11,715.55	OIL	ACTIVE	31.940847	-103.698968
42301328900000	DOSEY DOE 54-2-17 UNIT	ANADARKO E&P ONSHORE LLC	11,664.22	OIL	ACTIVE	31.848103	-103.677537
42301328890000	NYALA 53-2-5 LOV E UNIT	PDEH LLC	11,690.95	OIL	ACTIVE	31.869546	-103.566761
42301328880000	GREAT WHITE STATE 54-1-8 LOV	PDEH LLC	11,866.23	OIL	INACTIVE	31.971878	-103.667498
42301328810000	BIG EASY 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	11,593.41	OIL	ACTIVE	31.86789	-103.693812
42301328790000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC	10,309.51	OIL	ACTIVE	31.9865228	-103.6817517
42301328780000	KINGSTON 54-2-17 UNIT	ANADARKO E&P ONSHORE LLC	11,643.36	OIL	ACTIVE	31.848123	-103.677648
42301328770000	TABASCO CAT 54-2-6 UNIT	ANADARKO E&P ONSHORE LLC	11,595.28	OIL	ACTIVE	31.867872	-103.693894
42301328580000	NAVIDAD 53-2-7 LOV	PDEH LLC	7,856.13	DISPOSAL	ACTIVE	31.864191	-103.593274
42301328560000	BRAZOS 53-2-18 LOV	PDEH LLC	8,275.39	DISPOSAL	ACTIVE	31.85056	-103.593538
42301328250000	BITTERROOT 54-1-18	ANADARKO E&P ONSHORE LLC	11,475.17	GAS	ACTIVE	31.970144	-103.698294
42301327150000	ELKHORN 54-1-40	ANADARKO E&P ONSHORE LLC	11,629.59	OIL	ACTIVE	31.911767	-103.666032
42301326400000	ELKHORN 54-1-40	ANADARKO E&P ONSHORE LLC	11,942.58	OIL & GAS	ACTIVE	31.911766	-103.666115
42301326310000	BITTERROOT 54-1-18	ANADARKO E&P ONSHORE LLC	11,877.36	OIL	ACTIVE	31.970144	-103.699261
42301326300000	ELKHORN 54-1-44	ANADARKO E&P ONSHORE LLC	11,571.49	OIL	ACTIVE	31.884363	-103.68356
42301326260000	STATELINE SWD	DACO OPERATING LLC	7,500	DISPOSAL	ACTIVE	31.9924335	-103.7102056
42301326060000	STATE MERCURY 7	EOG RESOURCES INC.	11,920.31	OIL & GAS	ACTIVE	31.9994	-103.664138
42301326000000	BEARTOOTH 54-1-34	ANADARKO E&P ONSHORE LLC	11,696.37	GAS	DRILLED	31.913396	-103.649005
42301325690000	SANDBAR 54-2-13	ANADARKO E&P ONSHORE LLC	11,725.1	OIL	ACTIVE	31.853309	-103.612835
42301325170000	TITAN	EOG RESOURCES, INC.	13,500	OIL & GAS	EXPIRED PERMIT	31.9267253	-103.658932
42301325120000	TITAN	EOG RESOURCES, INC.	13,500	OIL & GAS	EXPIRED PERMIT	31.9267253	-103.658835
42301324970000	SEVENGILLS 54-1-41 UNIT A	ANADARKO E&P ONSHORE LLC		UNKNOWN	CANCELLED	31.9118445	-103.6818275
42301324960000	ATLANTIS SWD	EOG RESOURCES, INC.	7,000	INJECTION	EXPIRED PERMIT	31.9783817	-103.6643325
42301324950000	SATURN SWD	EOG RESOURCES, INC.	7,000	INJECTION	COMPLETED	31.9933535	-103.6712502
42301324810000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	11,724.51	OIL & GAS	ACTIVE	31.97443	-103.711653
42301324800000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	11,651.33	OIL & GAS	ACTIVE	31.97443	-103.711573

42301324490000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	11,785.94	OIL & GAS	ACTIVE	31.975871	-103.71672
42301324480000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	11,803.32	OIL & GAS	ACTIVE	31.97587	-103.71664
42301324420000	Z&T 20 AH	TEMA OIL AND GAS COMPANY		UNKNOWN	CANCELLED	31.955876	-103.6826426
42301324410000	Z&T 20	LRR PECOS VALLEY LLC	11,794.67	OIL & GAS	ACTIVE	31.955876	-103.682707
42301324270000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC		PRODUCER	CANCELLED	31.981537	-103.710562
42301324260000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC		PRODUCER	CANCELLED	31.981538	-103.710654
42301324250000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	11,846	GAS	COMPLETED	31.981106	-103.714773
42301324240000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	13,000	GAS	CANCELLED	31.9810953	-103.7148691
42301324230000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	8,604.6	OIL	SHUT-IN	31.980201	-103.710645
42301324200000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	8,599.37	OIL	SHUT-IN	31.980201	-103.710725
42301324150000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	8,577.54	GAS	SHUT-IN	31.980223	-103.713805
42301323900000	Z&T 20	LRR PECOS VALLEY LLC	11,689.73	OIL & GAS	ACTIVE	31.955879	-103.677909
42301323040000	SEVENGILLS 54-1-41	ANADARKO E&P ONSHORE LLC	11,840.12	OIL	ACTIVE	31.911775	-103.681828
42301322800000	LOVING COUNTY BRINE 44	MESQUITE SWD INC	3,560	DRY HOLE	P & A	31.8906517	-103.6684874
42301321910000	Z&T 42	ROSEHILL OPERATING COMPANY LLC	9,213.86	OIL	P & A	31.912129	-103.68623
42301321900000	Z&T 42	LRR PECOS VALLEY LLC	8,807.17	GAS	INACTIVE	31.912129	-103.686294
42301321800000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	8,576.27	GAS	SHUT-IN	31.980167	-103.713341
42301321580000	HAMMERHEAD 54-1-28 UNIT	ANADARKO E&P ONSHORE LLC	9,837.5	PRODUCER	EXPIRED PERMIT	31.940938	-103.663753
42301321540000	Z&T 42	LRR PECOS VALLEY LLC	11,524.14	OIL	INACTIVE	31.912129	-103.689011
42301321270000	Z&T 42	LRR PECOS VALLEY LLC	9,100.35	GAS	INACTIVE	31.912126	-103.691536
42301321180000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	OIL & GAS	EXPIRED PERMIT	31.9725188	-103.6717117
42301321140000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	GAS	EXPIRED PERMIT	31.9725198	-103.6718727
42301321130000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	GAS	EXPIRED PERMIT	31.9725468	-103.679719
42301321110000	THRESHER 54-1-17	ANADARKO E&P ONSHORE LLC	14,000	GAS	EXPIRED PERMIT	31.9725478	-103.67988
42301321070000	Z&T 42	LRR PECOS VALLEY LLC	8,809.7	GAS	INACTIVE	31.912126	-103.6916
42301320830000	Z&T 32	LRR PECOS VALLEY LLC	9,211.96	GAS	INACTIVE	31.926576	-103.669061
42301320820000	Z&T 32	LRR PECOS VALLEY LLC	8,928.65	GAS	INACTIVE	31.926576	-103.668994
42301320720000	STATE MERCURY	EOG RESOURCES INC.	8,904.89	GAS	INACTIVE	31.985088	-103.663171
42301320710000	STATE MERCURY	EOG RESOURCES INC.	8,912.57	GAS	P & A	31.985088	-103.663268
42301320690000	STATE MERCURY	EOG RESOURCES INC.	9,303.45	OIL & GAS	ACTIVE	31.985047	-103.664449
42301320680000	STATE MERCURY	EOG RESOURCES INC.	8,920.47	GAS	INACTIVE	31.985047	-103.664546
42301320640000	STATE PROTECTION 55-T2-2	BPX OPERATING COMPANY	11,462.77	GAS	ACTIVE	31.884155	-103.722649
42301320450000	THRESHER 54-1-5	ANADARKO E&P ONSHORE LLC		PRODUCER	EXPIRED PERMIT	31.9865236	-103.6817514
42301320420000	HAMMERHEAD 54-2-1	ANADARKO E&P ONSHORE LLC	10,171.12	GAS	DRILLED	31.869676	-103.601544
42301320320000	THRESHER 55-1-12 UNIT A	ANADARKO E&P ONSHORE LLC	8,583.33	GAS	INACTIVE	31.976332	-103.714147
42301320190000	Z&T 32	LRR PECOS VALLEY LLC	8,813.68	GAS	INACTIVE	31.926718	-103.680636
42301320060000	Z&T 32	LRR PECOS VALLEY LLC	8,777.06	GAS	INACTIVE	31.926711	-103.678387
42301319810000	OUTLAW SWD-44-	MESQUITE SWD INC	7,450	INJECTION	COMPLETED	31.8893157	-103.6760517
42301319800000	OUTLAW SWD-44-	MESQUITE SWD INC	7,450	INJECTION	EXPIRED PERMIT	31.8864718	-103.6843979

42301319750000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,395	DISPOSAL	INACTIVE	31.8840488	-103.6751015
42301319740000	OUTLAW SWD-44-	NGL WATER SOLUTIONS PERMIAN LLC	7,450	DISPOSAL	INACTIVE	31.8840548	-103.6695233
42301319660000	MDJ 55-1-24	ANADARKO E&P ONSHORE LLC	8,545.42	GAS	INACTIVE	31.942707	-103.707936
42301319640000	MDJ 55-1-24	ANADARKO E&P ONSHORE LLC	8,521.14	GAS	INACTIVE	31.942693	-103.712243
42301319630000	MDJ 55-1-24	ANADARKO E&P ONSHORE LLC	8,555.14	GAS	INACTIVE	31.94269	-103.707843
42301319620000	SEVENGILLS 54-1-29	ANADARKO E&P ONSHORE LLC	8,703.1	GAS	INACTIVE	31.941058	-103.682672
42301319570000	Z&T 32	LRR PECOS VALLEY LLC	9,172.58	OIL & GAS	ACTIVE	31.926715	-103.671347
42301319490000	THRESHER 54-1-19	ANADARKO E&P ONSHORE LLC	8,654.66	GAS	INACTIVE	31.940503	-103.689594
42301319480000	THRESHER 54-1-19	ANADARKO E&P ONSHORE LLC	8,611.29	GAS	INACTIVE	31.940508	-103.695364
42301319470000	THRESHER 54-1-19	ANADARKO E&P ONSHORE LLC	8,620.86	GAS	INACTIVE	31.940508	-103.689677
42301319460000	THRESHER 54-1-19	ANADARKO E&P ONSHORE LLC	8,610.88	GAS	INACTIVE	31.940508	-103.695444
42301319380000	MCKNIGHT 54-1-29 UNIT	ANADARKO E&P ONSHORE LLC	8,792.67	GAS	INACTIVE	31.941041	-103.671312
42301319360000	SEVENGILLS 54-1-29	ANADARKO PETROLEUM CORPORATION	1,379	DRY HOLE	P & A	31.941058	-103.68051
42301319320000	MCKNIGHT 54-1-29 UNIT	ANADARKO E&P ONSHORE LLC	8,772.71	GAS	INACTIVE	31.941041	-103.671392
42301318980000	Z&T 32	LRR PECOS VALLEY LLC	8,463.37	GAS	EXPIRED PERMIT	31.926443	-103.682939
42301318950000	STATE PROTECTION 55-T2-2	BPX OPERATING COMPANY	8,522.69	GAS	INACTIVE	31.882908	-103.72164
42301318780000	STATE PROTECTION 55-T2-2	BPX OPERATING COMPANY	12,192.22	OIL	P & A	31.882963	-103.721638
42301318570000	MANSFELDT 55-1-12 LOV	CHESAPEAKE OPERATING, INC.	12,000	OIL & GAS	EXPIRED PERMIT	31.9850376	-103.7025462
42301318330000	ODELL STATE 54-1-6 LOV UNIT	PDEH LLC	8,855.91	GAS	INACTIVE	31.999501	-103.69767
42301318290000	MDJ 55-1-24 LOV	CHESAPEAKE OPERATING, INC.		UNKNOWN	CANCELLED	31.9423861	-103.7089023
42301318190000	BRIDWELL 54-1-40 LOV	PDEH LLC	8,738.37	GAS	INACTIVE	31.912107	-103.652648
42301318140000	APC 55-1-37	WES WATER HOLDINGS LLC	7,549.13	DISPOSAL	ACTIVE	31.89894	-103.705958
42301318110000	HARDIN-SIMMONS 53-2-8 LOV	SHELL WESTERN E&P	8,891.62	GAS	P & A	31.868188	-103.579075
42301318050000	WALLACE 54-1-42 LOV	PDEH LLC	8,644.59	GAS	P & A	31.912158	-103.69653
42301318020000	SEVENGILLS 55-1-37	ANADARKO E&P ONSHORE LLC	8,550.94	GAS	INACTIVE	31.9117609	-103.7128369
42301317990000	SEVENGILLS 55-1-37	ANADARKO E&P ONSHORE LLC	8,524.7	GAS	INACTIVE	31.911747	-103.7174313
42301317980000	SEVENGILLS 55-1-37	ANADARKO E&P ONSHORE LLC	8,583.52	GAS	INACTIVE	31.911782	-103.703534
42301317970000	JOHNSON 54-2-24 LOV	SHELL WESTERN E&P	8,713.23	GAS	P & A	31.839044	-103.601727
42301317960000	SEVENGILLS 55-1-37	ANADARKO E&P ONSHORE LLC	8,552.9	GAS	INACTIVE	31.911786	-103.708142
42301317810000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,591.52	GAS	INACTIVE	31.913654	-103.697989
42301317800000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,585.31	GAS	INACTIVE	31.913675	-103.7003
42301317760000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,625.89	GAS	INACTIVE	31.913647	-103.690997
42301317750000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,627.78	GAS	INACTIVE	31.913649	-103.6887
42301317740000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,601	GAS	INACTIVE	31.913654	-103.695692
42301317600000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,615.01	GAS	INACTIVE	31.913654	-103.693389
42301317560000	SEVENGILLS 54-1-31	ANADARKO E&P ONSHORE LLC	8,652.48	GAS	INACTIVE	31.913646	-103.686403
42301317510000	AFGHAN	ATLANTIC OPERATING, INC.	5,000	OIL	EXPIRED PERMIT	31.8487662	-103.6188405
42301317490000	AFGHAN	ATLANTIC OPERATING INC.	4,740	DRY HOLE	P & A	31.8524002	-103.6218407
42301317470000	EVEREST	ATLANTIC OPERATING II LLC	4,559	OIL	ACTIVE	31.866991	-103.6144658

42301317170000	SEVENGILLS 55-2-1	ANADARKO E&P ONSHORE LLC	8,437.95	GAS	INACTIVE	31.882573	-103.71265
42301317110000	SEVENGILLS 55-2-1	ANADARKO E&P ONSHORE LLC	8,410.57	GAS	INACTIVE	31.882578	-103.716097
42301316970000	SEVENGILLS 55-2-1	ANADARKO E&P ONSHORE LLC	8,404.16	GAS	INACTIVE	31.882561	-103.717806
42301316950000	SEVENGILLS 55-2-1	ANADARKO E&P ONSHORE LLC	8,423.26	GAS	INACTIVE	31.882576	-103.714372
42301316780000	KIEHNE RANCH 54-1-8 LOV	CHESAPEAKE OPERATING, INC.	8,100	INJECTION	COMPLETED	31.9838286	-103.6817893
42301316470000	SEVENGILLS 54-2-7	ANADARKO E&P ONSHORE LLC	8,705.77	GAS	P & A	31.855377	-103.688802
42301316350000	EVEREST	ATLANTIC OPERATING II LLC	4,602	OIL	ACTIVE	31.8598611	-103.6148337
42301316340000	EVEREST	ATLANTIC OPERATING, INC.	5,000	OIL & GAS	EXPIRED PERMIT	31.8561041	-103.6144776
42301316320000	AFGHAN	ATLANTIC OPERATING, INC.	5,000	OIL & GAS	EXPIRED PERMIT	31.8533762	-103.6187707
42301316260000	EVEREST	ATLANTIC OPERATING II LLC	4,571	OIL	ACTIVE	31.8633611	-103.6144997
42301316140000	GREAT WHITE STATE 54-1-8 LOV	PDEH LLC	8,856.66	GAS	INACTIVE	31.971612	-103.669126
42301315900000	POLAR	ATLANTIC OPERATING II LLC	4,715	OIL	ACTIVE	31.8968547	-103.5831934
42301315440000	SEVENGILLS 54-2-7	ANADARKO E&P ONSHORE LLC	8,487.38	GAS	P & A	31.8675714	-103.7008105
42301315300000	PAGE JOHNSON	ATLANTIC OPERATING, INC.		UNKNOWN	UNKNOWN	31.8914567	-103.5875024
42301315290000	POLAR	ATLANTIC OPERATING II LLC	4,693	OIL	ACTIVE	31.8933327	-103.5877755
42301315280000	POLAR	ATLANTIC OPERATING II LLC	4,701	OIL	ACTIVE	31.8939957	-103.5848684
42301315260000	POLAR	ATLANTIC OPERATING II LLC	4,694	OIL	ACTIVE	31.8914737	-103.5853764
42301315170000	EVEREST	ATLANTIC OPERATING II LLC	4,673	OIL	ACTIVE	31.866972	-103.6102227
42301314630000	PACIFIC 1	ATLANTIC OPERATING II LLC	4,589	OIL	ACTIVE	31.8813638	-103.6049398
42301314590000	JUNE	ATLANTIC OPERATING II LLC	7,320	OIL	ACTIVE	31.8797519	-103.5951044
42301314520000	RED LAKE	ATLANTIC OPERATING, INC.	5,000	OIL & GAS	EXPIRED PERMIT	31.871902	-103.6095938
42301314510000	JUNE	ATLANTIC OPERATING II LLC	4,620	OIL	P & A	31.8770239	-103.5896592
42301314430000	WEST CHINA BEACH	ATLANTIC OPERATING, INC.	8,600	UNKNOWN	CANCELLED	31.867888	-103.6091437
42301314400000	PACIFIC 1	ATLANTIC OPERATING II LLC	4,590	OIL	ACTIVE	31.8779549	-103.6057438
42301314390000	CHINA BEACH	ATLANTIC OPERATING II LLC	4,568	OIL	ACTIVE	31.866639	-103.6066665
42301314370000	FROST	ATLANTIC OPERATING II LLC	4,597	OIL	P & A	31.87096	-103.5935182
42301314250000	RED LAKE	ATLANTIC OPERATING II LLC	4,567	OIL	ACTIVE	31.869708	-103.6112708
42301314240000	JUNE	ATLANTIC OPERATING II LLC	4,614	OIL	P & A	31.8797739	-103.5906453
42301314200000	PACIFIC 1	ATLANTIC OPERATING II LLC	4,617	OIL	ACTIVE	31.8794869	-103.6032477
42301314190000	PAGE JOHNSON 43	ATLANTIC OPERATING II LLC	4,720	OIL	ACTIVE	31.8903937	-103.5896145
42301314100000	ARCTIC	ATLANTIC OPERATING II LLC	4,661	OIL & GAS	ACTIVE	31.8863138	-103.5859603
42301314090000	ARCTIC	ATLANTIC OPERATING II LLC	4,665	OIL	ACTIVE	31.8888038	-103.5860803
42301314080000	CHINA BEACH	ATLANTIC OPERATING II LLC	4,652	INJECTION	TA	31.8596241	-103.6069094
42301314070000	CHINA BEACH	ATLANTIC OPERATING, INC.	4,900	OIL & GAS	EXPIRED PERMIT	31.8559961	-103.6069313
42301313980000	RED LAKE	ATLANTIC OPERATING II LLC	4,635	OIL	ACTIVE	31.869694	-103.6079447
42301313960000	CHINA BEACH	ATLANTIC OPERATING II LLC	4,631	OIL	P & A	31.8633491	-103.6068905
42301313920000	ARCTIC	ATLANTIC OPERATING II LLC	4,704	OIL	ACTIVE	31.8843248	-103.5892493
42301313870000	ARCTIC	ATLANTIC OPERATING II LLC	4,774	OIL	ACTIVE	31.8879438	-103.5891504
42301313800000	RED LAKE	ATLANTIC OPERATING II LLC	4,637	OIL	ACTIVE	31.8726389	-103.6039166

42301313770000	CHINA BEACH	ATLANTIC OPERATING II LLC	4,688	OIL	ACTIVE	31.867861	-103.6005003
42301313760000	CHINA BEACH	ATLANTIC OPERATING II LLC	4,652	OIL	ACTIVE	31.867889	-103.6042505
42301313730000	RED LAKE	ATLANTIC OPERATING II LLC	4,644	OIL	ACTIVE	31.869694	-103.6040835
42301313690000	PACIFIC 1	ATLANTIC OPERATING II LLC	4,629	OIL	ACTIVE	31.8806689	-103.6003267
42301313570000	FROST	ATLANTIC OPERATING II LLC	4,710	OIL	ACTIVE	31.8742219	-103.5979164
42301313530000	FROST	ATLANTIC OPERATING II LLC	4,668	OIL	ACTIVE	31.8742219	-103.5942783
42301313510000	PACIFIC 1	ATLANTIC OPERATING II LLC	4,690	OIL	ACTIVE	31.8779529	-103.6008326
42301313500000	RED LAKE	ATLANTIC OPERATING II LLC	4,680	OIL	ACTIVE	31.870611	-103.6009164
42301313370000	RED LAKE	ATLANTIC OPERATING II LLC	4,670	OIL	ACTIVE	31.8742219	-103.6008885
42301313040000	JUNE	ATLANTIC OPERATING II LLC	4,770	OIL	ACTIVE	31.8816068	-103.5972636
42301312580000	JUNE	ATLANTIC OPERATING II LLC	4,700	OIL	ACTIVE	31.8779479	-103.5972265
42301312470000	ATLANTIC TXL '7'	ATLANTIC OPERATING INC.	4,704	OIL	P & A	31.866893	-103.593026
42301312020000	JUNE	ATLANTIC OPERATING II LLC	4,688	OIL	ACTIVE	31.8779449	-103.5929703
42301311130000	JOHNSON 18	SAHARA OPERATING COMPANY	4,800	DRY HOLE	P & A	31.8412843	-103.5849131
42301310910000	JOHNSON "45"	WPX ENERGY PERMIAN LLC	7,110	OIL	P & A	31.8854688	-103.5546421
42301310450000	AHEARN	AMERAC ENERGY CORPORATION	6,800	OIL & GAS	EXPIRED PERMIT	31.8742829	-103.558857
42301310440000	LELAND	UNIT PETROLEUM COMPANY	6,804	OIL	P & A	31.8740279	-103.5544718
42301310430000	LELAND "B"	AMERAC ENERGY CORPORATION	6,800	OIL & GAS	EXPIRED PERMIT	31.8818668	-103.5503588
42301310160000	LELAND '6'	ATLANTIC OPERATING II LLC	4,700	OIL	P & A	31.870667	-103.5972773
42301310100000	TEXACO MINERALS, TXL	NEW HORIZON EXPLORATION INC.	4,371	DRY HOLE	P & A	31.9024106	-103.6827543
42301310090000	TEXACO MINERALS "41"	NEW HORIZON EXPLORATION INC.	4,404	DRY HOLE	P & A	31.9113305	-103.6732851
42301310070000	TEXACO MINERALS "41"	NEW HORIZON EXPLORATION INC.	4,413	DRY HOLE	P & A	31.9113965	-103.6781163
42301309820000	LELAND "B"	SANDERS OIL & GAS, INCORPORATED	7,000	OIL & GAS	EXPIRED PERMIT	31.8635601	-103.5757943
42301309130000	LELAND "A"	SANDERS OIL & GAS INCORPORATED	6,447	OIL	P & A	31.8635951	-103.5715352
42301309120000	KYLE, SID "34"	CHOLLA PETROLEUM INC.	4,569	OIL	P & A	31.9139335	-103.6488913
42301309090000	LELAND "A"	SANDERS OIL & GAS INCORPORATED	6,560	OIL	P & A	31.867109	-103.5675321
42301308370000	LELAND "B"	UNIT PETROLEUM COMPANY	6,714	OIL	P & A	31.8816738	-103.554629
42301308340000	PAGE-JOHNSON	ATLANTIC OPERATING II LLC	15,430	DISPOSAL	ACTIVE	31.8915417	-103.5884675
42301308230000	SLASH -R-	LAST MILE PRODUCTION LLC	5,668	INJECTION	ACTIVE	31.8616111	-103.5569726
42301307770000	SLASH -R-	LAST MILE PRODUCTION LLC	6,530	OIL	INACTIVE	31.8637781	-103.5593337
42301307650000	SLASH -N-	20TH CENTURY PIPE & EQUIP.CO.INC	6,562	OIL	P & A	31.867417	-103.5546386
42301307600000	SLASH -N-	20TH CENTURY PIPE & EQUIP.CO.INC	6,560	OIL	P & A	31.866917	-103.5500835
42301307590000	SLASH -M-	20TH CENTURY PIPE & EQUIP.CO.INC	6,540	OIL	P & A	31.866889	-103.5629999
42301307460000	AHEARN	TAG OPERATING COMPANY, INC.	6,900	OIL	EXPIRED PERMIT	31.8745049	-103.558835
42301307290000	SLASH -G-	SHERIDAN PRODUCTION COMPANY LLC	6,550	OIL	P & A	31.867444	-103.5587218
42301306940000	JOHNSON, W.D. ETAL SEC. 18	MOBIL PRODUCING TX & NM	6,500	DRY HOLE	P & A	31.8449463	-103.5889204
42301306630000	JUNE	COSTA RESOURCES, INC.	6,600	OIL	EXPIRED PERMIT	31.867607	-103.5666451
42301306430000	JOHNSON	WPX ENERGY PERMIAN LLC	4,870	OIL	P & A	31.8927387	-103.5766411
42301306330000	MARY ANN	MEWBOURNE OIL COMPANY	4,500	DRY HOLE	P & A	31.9067655	-103.6868375

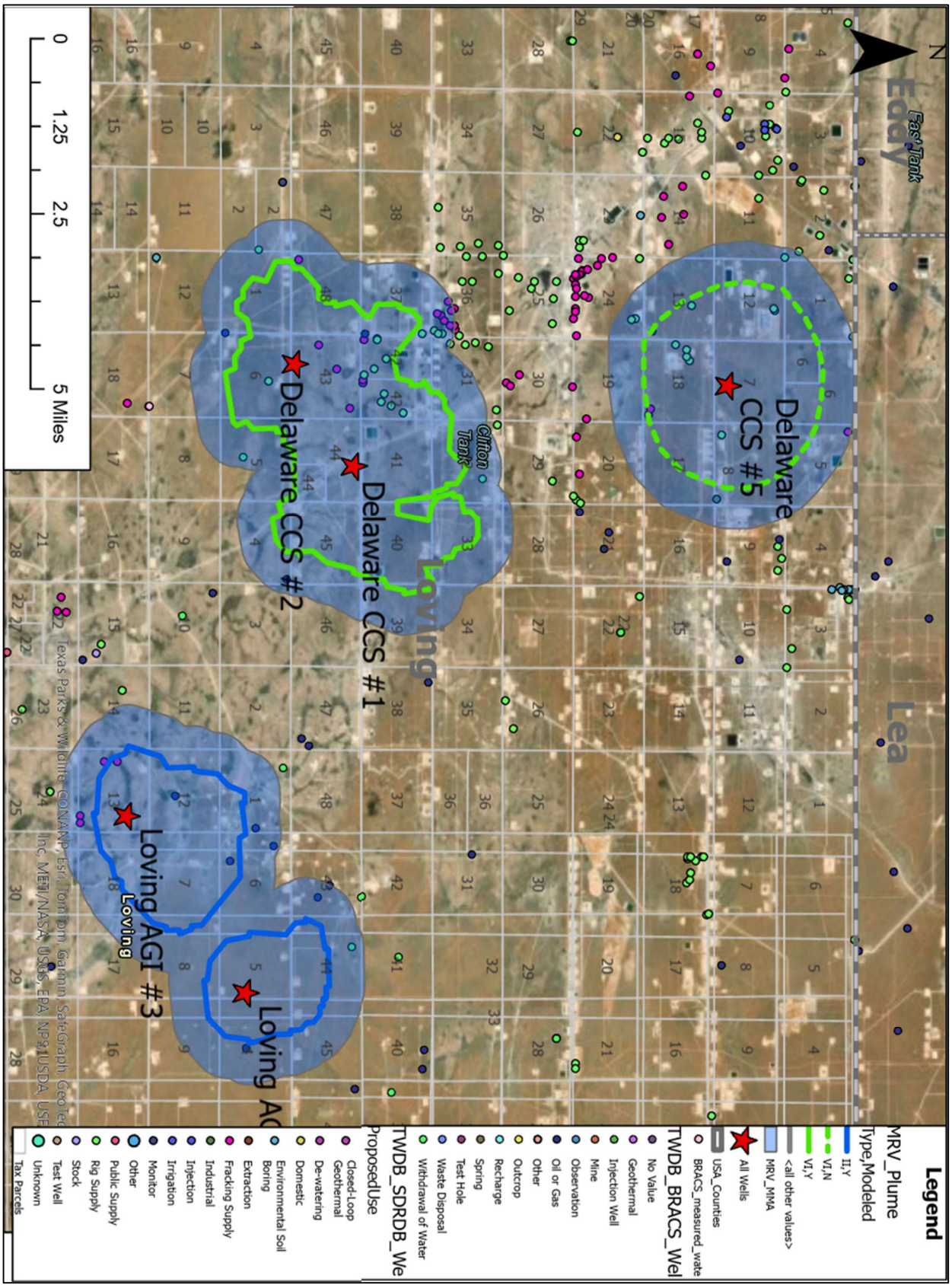
42301306100000	JOHNSON -43-	PERMIAN DEVELOPMENT INC.	6,815	OIL	P & A	31.8967847	-103.5837214
42301306030000	KYLE, SID	LRR PECOS VALLEY LLC	4,480	DISPOSAL	P & A	31.9253733	-103.6693304
42301305940000	LELAND "B"	UNIT PETROLEUM COMPANY	6,548	DISPOSAL	P & A	31.8780499	-103.5544629
42301305920000	AHEARN "B"	PETROCORP INCORPORATED A TX.CORP	6,590	OIL	P & A	31.8782089	-103.558589
42301305910000	LELAND	UNIT PETROLEUM COMPANY	6,585	DISPOSAL	P & A	31.870528	-103.5550277
42301305860000	AHEARN	UNIT PETROLEUM COMPANY	6,502	OIL	P & A	31.870528	-103.5587219
42301303180000	RUTH J "43"	TMBR/SHARP DRILLING INC.	16,160	GAS	P & A	31.8926497	-103.5886265
42301303040000	MYRTLE B-4	FOREST OIL CORPORATION	16,700	GAS	CANCELLED	31.8785199	-103.5585831
42301302720000	WOODY J "45"	SHELL WESTERN E&P	16,570	GAS	P & A	31.8873588	-103.5587363
42301302230000	ANNA K "44"	SHELL WESTERN E&P	16,200	GAS	P & A	31.8930977	-103.5758361
42301302130000	LOVING -AN- FEE	TEXACO INC.	5,753	DRY HOLE	P & A	31.9148124	-103.7000752
42301300120000	KYLE	ROSEHILL OPERATING COMPANY LLC	4,488	OIL	P & A	31.9249203	-103.6745985
42301103610000	KYLE, SID M., -32-	PUTNAM PAUL OIL	4,453	DISPOSAL	P & A	31.9156004	-103.6773494
42301103590000	SID KYLE	E.R. KENNEDY & W.D. FAULKNER			P & A	31.9165764	-103.6815966
42301103570000	KYLE -A-	ROSEHILL OPERATING COMPANY LLC	4,420	OIL	P & A	31.9234763	-103.6771826
42301103550000	KYLE -A-	ROSEHILL OPERATING COMPANY LLC	4,412	OIL	P & A	31.9190654	-103.6813556
42301103520000	KYLE, SID M., -32-	PUTNAM PAUL OIL	4,475	OIL	P & A	31.9181604	-103.6772895
42301103480000	KYLE -A-	ROSEHILL OPERATING COMPANY LLC	4,393	OIL	P & A	31.9208974	-103.6771515
42301103450000	LOVING -S- FEE	TEXACO INC.	4,465	OIL	P & A	31.9181194	-103.665459
42301103430000	KYLE -A-	ROSEHILL OPERATING COMPANY LLC	4,446	OIL	P & A	31.9146874	-103.6729242
42301103410000	KYLE, SID M., -32-	PUTNAM PAUL OIL	4,407	OIL	P & A	31.9209124	-103.6728654
42301103400000	KYLE, SID M., -32-	PUTNAM PAUL OIL	4,422	OIL	P & A	31.9181024	-103.6700732
42301103370000	KYLE -A-	ROSEHILL OPERATING COMPANY LLC	4,451	DISPOSAL	P & A	31.9172104	-103.6728513
42301103320000	MOBIL-KYLE	GRAUTEN & FAULK			P & A	31.9842456	-103.7168697
42301103110000	KYLE, SID	LRR PECOS VALLEY LLC	4,497	DISPOSAL	P & A	31.9218414	-103.6696453
42301101830000	EL MAR /DELAWARE/ UNIT	OXY USA WTP LP	4,560	OIL	P & A	31.9263493	-103.66004
42301101750000	LOVING FEE (STRAT TEST)	TEXACO INC			P & A	31.9692058	-103.7033788
42301101470000	JOHNSON	ROBERT B. HOLT			P & A	31.8923067	-103.5835623
42301100860000	EL MAR /DELAWARE/ UNIT	OXY USA WTP LP	4,606	OIL	P & A	31.9236403	-103.660109
42301100600000	LOVING FEE	TEXACO, INC			P & A	31.8560272	-103.5844915
42301100580000	ALLAR CO.	BUFFALO DRLG. CO., INC.			P & A	31.8994166	-103.6866663
42301100090000	EL MAR /DELAWARE/ UNIT	OXY USA WTP LP	4,600	OIL	P & A	31.9263553	-103.6664683
42301010020000	TXL BC	WILSON CERMANY PAUL PAGE AND GULF OIL CORP			P & A	31.9135965	-103.666626
42301009830000	TXL AU	DAVID W WESTBROOK AND GULF OIL CORP			P & A	31.869837	-103.7034362
42301009640000	TEXAS & PACIFIC C. &O.CO.	REX OIL COMPANY		UNKNOWN	DRILLED	31.8999866	-103.6617454
42301009600000	TXL	SUN OIL COMPANY			P & A	31.8964167	-103.6912864
42301009590000	TXL	R E SUTTON-GULF OIL CORP			P & A	31.8987066	-103.7008768
42301009580000	TXL 1-41	R. E. SUTTON & GULF OIL CORP.			P & A	31.8992366	-103.6838162

42301007580000	W D JOHNSON 12-A	HILL AND MEEKER			P & A	31.8553372	-103.600632
42301007380000	FAYMAN, RUTH	SINCLAIR			P & A	31.8412973	-103.6191124
42301006950000	TXL AQ	FRANK R ROBINSON AND GULF OIL CORP			P & A	31.8826168	-103.6841958
42301006740000	HUMBLE-STATE	FRED POOL DRLG. CO. ET AL			DRILLED	31.9727258	-103.681888
42301006660000	T-P LANDS-9	NEVILLE G. PENROSE			P & A	31.8595871	-103.5629008
42301005410000	TXL NCT-A	GULF OIL CORP.			P & A	31.9719358	-103.6638973
42301004970000	TXL NCT-A	GULF OIL CORP			P & A	31.8744869	-103.6059627
42301004650000	W. D. JOHNSON	R L HENDERSON AND E C JOHNSTON CO ET AT			P & A	31.8826368	-103.6521246
42301004460000	STATE-NEW ERA	THE TXL OIL CORP.			P & A	31.9946655	-103.6988593
42301004390000	LOVING -S- FEE	TEXACO INC.	4,595	OIL	P & A	31.9144774	-103.6568766
42301003860000	LOVING FEE "5-54-T2"	TEXACO INC			P & A	31.8780969	-103.6746053
42301003850000	LOVING FEE 1-55-T2	TEXACO, INC.			P & A	31.8816868	-103.7043565
42301003570000	TXL BD	R E SUTTON AND GULF OIL CORP			P & A	31.8992366	-103.6795561
42301002410000	T.X.L.	DAVIS FRED A.	2,904	DRY HOLE	P & A	31.9581939	-103.7033905
42301002400000	1 TXL	PROD A. DAVIS & GULF OIL CORP			P & A	31.8743669	-103.7174468
42301001720000	ALLAR COMPANY (FORMERLY SAM H.)	LIMPIA ROYALTIES CO.			P & A	31.9109665	-103.6871267
42301001650000	MS M K KYLE ETAL	LAWLESS DRILLING COMPANY INC			P & A	31.9641759	-103.7182792
42301000590000	TXL	ICE BROTHERS INC.	4,846	DRY HOLE	P & A	31.869731	-103.5811127
42301000540000	KYLE, S.M.	BURFORD-SMITH			P & A	31.9701158	-103.7001687
42301000480000	TXL	BUCKLES GEO L.			UNKNOWN	31.9865556	-103.6678279

Appendix C-3 | Groundwater Wells within the MMA

Figure 32: Groundwater Wells within MMA

Green – Rig Supply. Pink – Frac Supply. Blue- General Oil and Gas



Appendix D | Advisory Unit (GAU) Determination Letters

GROUNDWATER PROTECTION DETERMINATION **Form GW-2**

Groundwater Advisory Unit

Date Issued:	22 April 2024	**GAU Number:**	381402
Attention:	MILESTONE CARBON, LLC 840 GESSNER ROAD SUITE HOUSTON, TX 77024	**API Number:**	
		County:	LOVING
		Lease Name:	Loving AGI
		Lease Number:	
Operator No.:	100805	**Well Number:**	1
		Total Vertical	22726
		Latitude:	31.896494
		Longitude:	-103.674659
		Datum:	NAD27

Purpose: Injection into Non-producing Zone (W-14)
Location: Survey-T&P RR CO; Abstract-440; Block-54; Township-1; Section-44

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 700 feet and the Rustler, which is estimated to occur from 1,000 to 1,400 feet must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,450 feet at the site of the referenced well.

The vertical geological isolation from both bases of usable quality water and underground source of drinking water is at 1,750 feet in TVD depth.

*Injection of the oil & gas wells' waste (CO2 & H2S) into the subsurface interval from 18,360 to 22,726 feet in TVD depth, as proposed in the submitted W14 Form application dated on April 19, 2024 , WILL NOT ENDANGER the PROTECTED WATER STRATA at the proposed location in this area. For questions, see contact information below. *

Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 04/19/2024. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.

GROUNDWATER PROTECTION DETERMINATION **Form GW-2**

Groundwater Advisory Unit

Date Issued:	22 April 2024	**GAU Number:**	381431

Attention:	MILESTONE CARBON, LLC 840 GESSNER ROAD SUITE HOUSTON, TX 77024	**API Number:**	
		County:	LOVING
		Lease Name:	Loving AGI
		Lease Number:	
Operator No.:	100805	**Well Number:**	2
		Total Vertical	22780
		Latitude:	31.884337
		Longitude:	-103.695788
		Datum:	NAD27

Purpose: Injection into Non-producing Zone (W-14)
Location: Survey-T&P RR CO; Abstract-65; Block-54; Township-1; Section-43

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

Water-bearing strata from the land surface to a depth of 725 feet and the Rustler, which is estimated to occur from 1,000 to 1,425 feet must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,475 feet at the site of the referenced well.

The vertical geological isolation from both bases of usable quality water and underground source of drinking water is at 1,800 feet in TVD depth.

*Injection of oil & gas wells' waste (CO2 & H2S) into the subsurface interval from 18,387 to 22,780 feet in TVD depth, as proposed in the submitted W14 Form application dated on April 19, 2024 , WILL NOT ENDANGER the PROTECTED WATER STRATA at the proposed location in this area. For questions, see contact information below. *

Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 04/19/2024. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.

GROUNDWATER PROTECTION DETERMINATION **Form GW-2**

Groundwater Advisory Unit

Date Issued:	30 April 2024	**GAU Number:**	381692

Attention:	MILESTONE CARBON, LLC 840 GESSNER ROAD SUITE HOUSTON, TX 77024	**API Number:**	
		County:	LOVING
		Lease Name:	Loving AGI
		Lease Number:	
Operator No.:	100805	**Well Number:**	3
		Total Vertical	24227
		Latitude:	31.849551
		Longitude:	-103.602271
		Datum:	NAD27

Purpose: Injection into Non-producing Zone (W-14)
Location: Survey-T&P RR CO; Abstract-74; Block-54; Township-2; Section-13

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 1,000 feet, must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,050 feet at the site of the referenced well.

The vertical geological isolation from both bases of usable quality water and underground source of drinking water is at 1,500 feet in TVD depth. (for UIC Purpose Only)

*Injection of oil gas well's waste (CO2 & H2S) into the subsurface interval from 19,745 to 24,227 feet in TVD depth, as proposed in the submitted W-14 Form application dated on April 19, 2024 , WILL NOT ENDANGER the PROTECTED WATER STRATA at the proposed location in this area. (for UIC Purpose Only) *

Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 04/26/2024. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.

GROUNDWATER PROTECTION DETERMINATION **Form GW-2**

Groundwater Advisory Unit

Date Issued:	30 April 2024	**GAU Number:**	381694

Attention:	MILESTONE CARBON, LLC 840 GESSNER ROAD SUITE HOUSTON, TX 77024	**API Number:**	
		County:	LOVING
		Lease Name:	Loving AGI
		Lease Number:	
Operator No.:	100805	**Well Number:**	4
		Total Vertical	22945
		Latitude:	31.880445
		Longitude:	-103.574849
		Datum:	NAD27

Purpose: Injection into Non-producing Zone (W-14)
Location: Survey-T&P RR CO; Abstract-22; Block-53; Township-2; Section-5

To protect usable-quality groundwater at this location, the Groundwater Advisory Unit of the Railroad Commission of Texas recommends:

The interval from the land surface to the base of the Rustler, which is estimated to occur at a depth of 925 feet, must be protected.

The BASE OF UNDERGROUND SOURCES OF DRINKING WATER (USDW) is estimated to occur at a depth of 1,000 feet at the site of the referenced well.

The vertical geological isolation from both bases of usable quality water and underground source of drinking water is at 1,500 feet in TVD depth. (for UIC Purpose Only)

*Injection of the oil & gas well's waste (CO2 & H2S) into the subsurface interval from 18,339 to 22,945 feet in TVD depth, as proposed in the submitted W-14 Form application dated on April 19, 2024 , WILL NOT ENDANGER the PROTECTED WATER STRATA at the proposed location in this area. (for UIC Purpose Only) *

Note: Unless stated otherwise, this recommendation is intended to apply to all wells drilled within 200 feet of the subject well. Unless stated otherwise, this recommendation is for normal drilling, production, and plugging operations only.

This determination is based on information provided when the application was submitted on 04/26/2024. If the location information has changed, you must contact the Groundwater Advisory Unit, and submit a new application if necessary. If you have questions, please contact us at 512-463-2741 or gau@rrc.texas.gov.

Groundwater Advisory Unit, Oil and Gas Division

Form GW-2 Rev. 02/2014 P.O. Box 12967 Austin, Texas 78771-2967 512-463-2741 Internet address: www.rrc.texas.

Appendix E | Full Stratigraphic Column

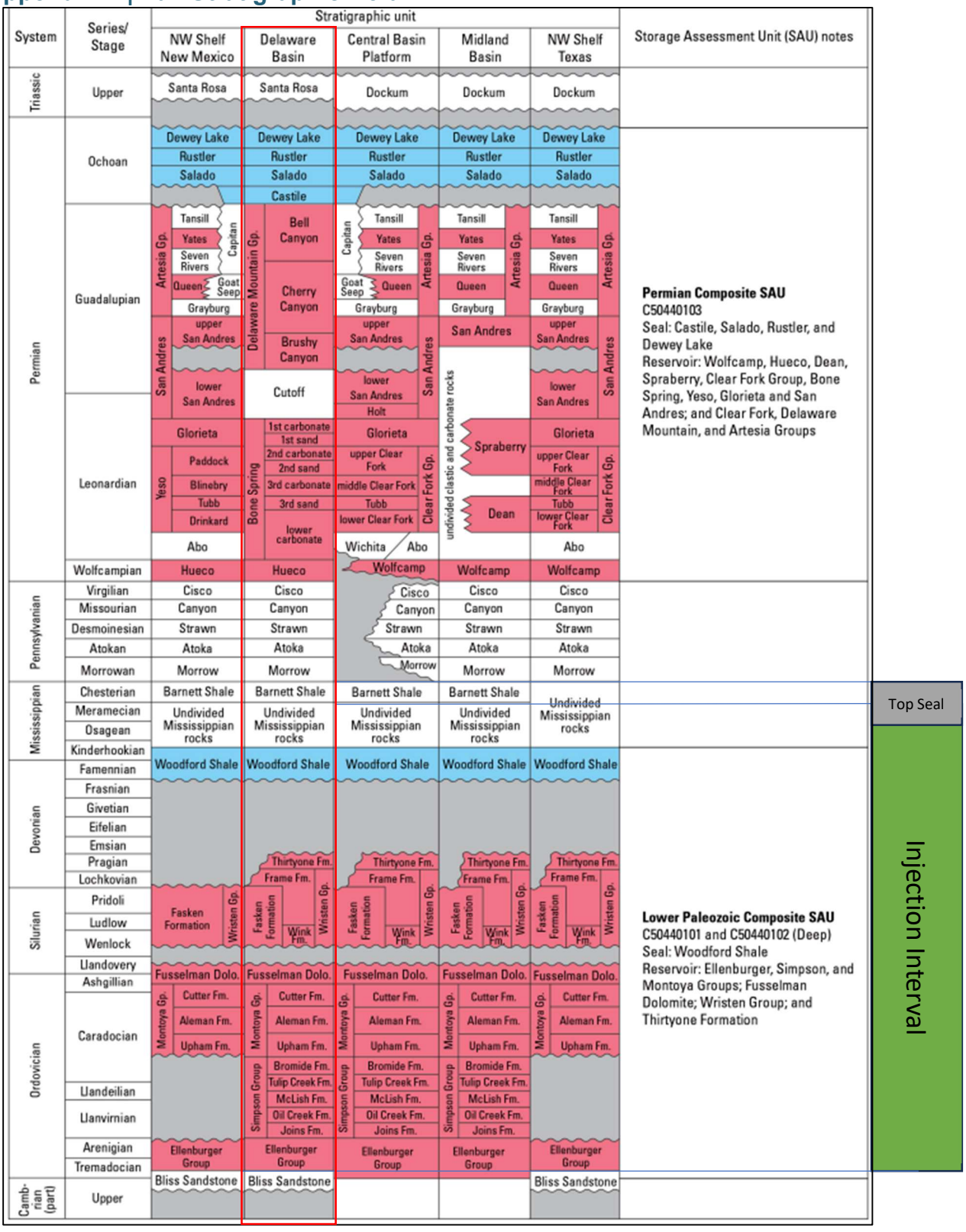


Figure 1-33: Stratigraphic Column Permian Basin, modified from Merril et al., 2012
Generalized Stratigraphic Column Permian Basin Province after Merrill et al., 2012 USGS Open file report on CCUS – 2012-1024-K. Delaware Basin stratigraphic column noted in Red Box. Undifferentiated Injection Interval noted in Green. Top Seal=Barnett Only noted in Grey. Formation thickness not to scale.

Appendix F | Relevant CFR Statutes

Code of Federal Regulation (CFR) Statute	Requirement Description	SPCC Plan Section
112.1	General Applicability	1.0
112.3(d)	Professional Engineer Certification	2.1
112.3(e)	Plan Availability on-site	2.5
112.4	Amendment by Regional Administrator	2.6
112.5	Management Certification/Scheduled Plan Reviews	2.7
112.7	Conformance with Requirements/General Requirements	3.1
112.7(a)(3)	Facility Description	3.1
112.7(a)(3)(i)	Container Contents	3.1.1
112.7(a)(3)(ii)	Discharge Prevention	3.1.2
112.7(a)(3)(iii)	Discharge or Drainage Controls	3.1.3
112.7(a)(3)(iv)	Countermeasures for Discharge, Discovery, Response, and Clean-up	3.1.4
112.7(a)(3)(v)	Methods of Disposal of Recovered Materials	3.1.5
112.7(a)(3)(vi)	Release Reporting/Contact Phone List	3.1.6
112.7(a)(4)	Release Reporting	3.1.7
112.7(b)	Reasonable potential for equipment failure scenarios	3.2
112.7(c)	Appropriate containment and/or diversionary structures	3.3
112.7(d)	Practicability of Structures or Equipment	3.4
112.7(e)	Inspections, Testing, and Records in accordance with written procedures	3.5
112.7(f)	Personnel Training and Discharge Prevention Procedures	3.6
112.7(g)	Security Requirements	3.7
112.7(h)	Discharge prevention requirements in loading/unloading areas	3.8
112.7(i)	Brittle Fracture Evaluation of Field Constructed Tanks	3.9
112.7 (j)	Compliance with other Federal, State, or Local rules/laws	3.10
112.7(k)	Qualified oil-filled operational equipment	3.11
112.8(a)	General requirements for Onshore Facilities (excluding production facilities)	4.1
112.8(b)(1) – (4)	Facility Drainage	4.2
112.8(c)(1)	Bulk Storage Containers	4.3.1
112.8(c)(2)	Secondary containment/structures	4.3.2
112.8(c)(3)	Drainage of uncontaminated storm water from diked areas	4.3.3
112.8(c)(4)	Corrosion protection for completely buried USTs	4.3.4
112.8(c)(5)	Corrosion protection for partially buried/bunkered USTs	4.3.5
112.8(c)(6)	Inspections and Tests of ASTs	4.3.6
112.8(c)(7)	Internal heating coils	4.3.7
112.8(c)(8)	Overfill Protection Systems	4.3.8
112.8(c)(9)	Effluent treatment facilities	4.3.8
112.8(c)(10)	Visible discharges from containers	4.3.10
112.8(c)(11)	Mobile or portable oil storage containers	4.3.11
112.8(d)	Transfer Operations, Pumping, and Facility Process	4.4
112.8(d)(1)	Corrosion protection for buried piping	4.4.1
112.8(d)(2)	Protection of piping not in service	4.4.2
112.8(d)(3)	Pipe support/design	4.4.3
112.8(d)(4)	Inspection of aboveground valves, piping, and appurtenances	4.4.4
112.8(d)(5)	Vehicular warning for piping	4.4.5
112.9	Requirements for onshore production facilities of Petroleum Oils and Non-Petroleum Oils	1.1 N/A
112.10	Requirements for onshore oil drilling and workover facilities of Petroleum Oils and Non-Petroleum Oils	1.1 N/A
112.11	Requirements for offshore oil drilling, production, or workover facilities of Petroleum Oils and Non-Petroleum Oils	1.1 N/A
112.20	Facility Response Plan requirements	2.4

Appendix G | Table of Acronyms, Abbreviations & Terms

Glossary of Acronyms, Abbreviations and Terms	
Acronym / Abbreviation / Term	**Definition / Meaning**
3-D	three-dimensional
AGM	Abeline Gravity Minimum
AMA	active monitoring area
AMPP	Association for Materials Protection and Performance
AoR	area of review
API	American Petroleum Institute
bbl(s)	barrel(s)
BHIP	bottomhole injection pressure
CBP	Central Basin Platform
CCS	carbon capture and storage
CFR	Code of Federal Regulations
CMG	Computer Modelling Group Ltd.
CO_2	carbon dioxide
CSEM	controlled-source electromagnetic
DAS	distributed acoustic sensing
°	degree symbol/glyph used to represent degrees of an arc (i.e., geographic coordinate systems), and degrees of temperature
DTS	distributed temperature sensing
EOS	equation of state
EPA	U.S. Environmental Protection Agency
ERR	emergency or remedial response
ESD	Emergency Shutdown
FS	field superintendent
ft	foot or feet
GAU	Groundwater Advisory Unit
GEM	generalized equation-of-state model
GHGRP	Greenhouse Gas Reporting Program
h	hour
H_2S	hydrogen sulfide
ID	Identification
Injection Unit	Devonian and/or Ellenburger stratigraphic injection formations of Deep Permian Basin. Discrete piece of Injection interval.
Injection Interval	full injection interval, inclusive of Devonian, Ellenburger and Simpson Group (no flow) stratigraphic formations of Deep Permian Basin. Interchangeable with “Injection Zone”
km	kilometer
Kv	vertical permeability
L	liter
lb/gal	Pound per gallon
m	meter
Midstream companies	operate the pipeline and gathering or transmission facilities that move the gas from the well (upstream) to our homes and businesses (downstream).
Milestone	Milestone Carbon Delaware CCS Hub, LLC
MIT	mechanical integrity test
MMSCF	million standard cubic feet
MMSCFD	million standard cubic foot per day
Mt	thousand metric tons
MMt	million metric tons
MMtA	million metric tons per annum (year)
MtA	thousand metric tons per annum (year)
MRV	monitoring, reporting, and verification
MSIP	maximum surface injection pressure
Mya	millions of years ago
N_2	Nitrogen
NACE	National Association of Corrosion Engineers
nD	nanodarcy
NIST	National Institute of Standards and Technology

Glossary of Acronyms, Abbreviations and Terms

Acronym / Abbreviation / Term	Definition / Meaning
NW	northwest
O_2	oxygen
OSHA	Occupation Health and Safety Administration
P&A	plug and abandon
PISC	post-injection site care
ppm	part per million
psi	pound per square inch
P-T	pressure/temperature
QA	quality assurance
QC	quality control
RRC	Railroad Commission of Texas
§	typographical character for referencing individually numbered sections
SCADA	supervisory control and data acquisition
sDAS	seismic distributed acoustic sensing
SE	southeast
SRT	Step Rate Injection Test
SW	southwest
SWR	Statewide Rule
T&A	Temporarily Abandoned
TAC	Texas Administrative Code
TCEQ	Texas Commission on Environmental Quality
TDS	total dissolved solids
Top Seal	Woodford and Barnett shale, interchangeable with Upper Confining Layer
TVD	true vertical depth
TWDB	Texas Water Development Board
UIC	underground injection control
Upper Confining Layer	Woodford and Barnett shale, interchangeable with Top Seal or Upper Confining Unit or Upper Confining Zone
Upper Confining Unit	Barnett shale, discrete unit of the Upper Confining Layer
USDW	underground source of drinking water
USGS	U.S. Geological Survey
UST	underground storage tank
WPL	wellhead pressure logger