DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 Phone (575) 393-6161 Pax: (575) 393-0720 DISTRICT II 811 S. First St., Artesia, NM 88210 Phone (676) 748-1283 Fax: (575) 748-0720

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410 Phone (505) 334-6178 Fax: (505) 334-6170

DISTRICT IV 1220 S. St. Francis Dr., Santa Pe, NM 87505 Phone (505) 476-3460 Pax: (505) 476-3462

## **HOBBS OCD**

Form C-102

## OIL CONSERVATION DIVISION

1220 South St. Francis Dr. Santa Fe, New Mexico 87505

State of New Mexico
Energy, Minerals and Natural Resources Department

RECEIVED

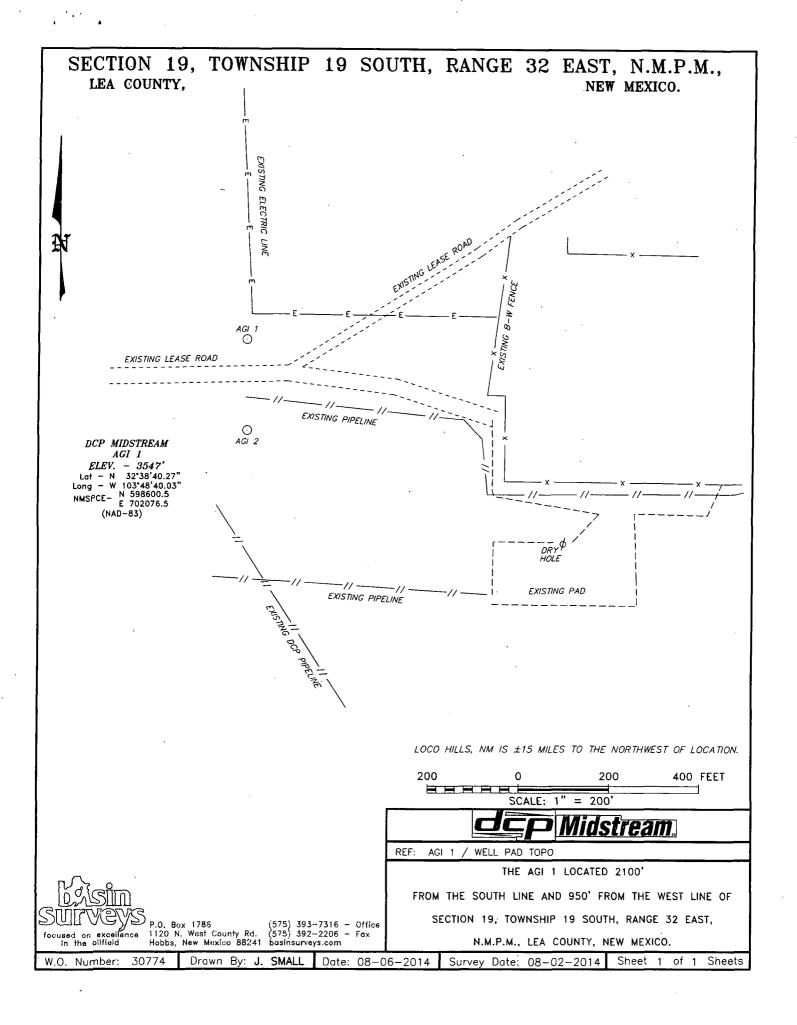
WELL LOCATION AND ACREAGE DEDICATION PLAT

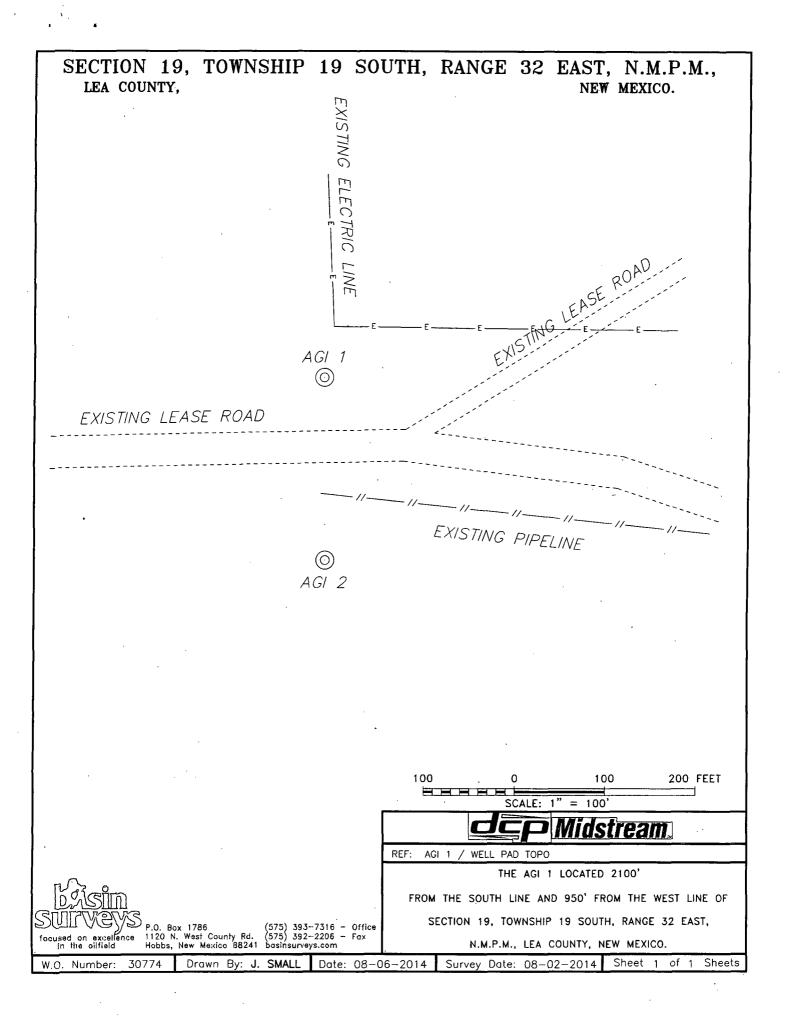
☐ AMENDED REPORT

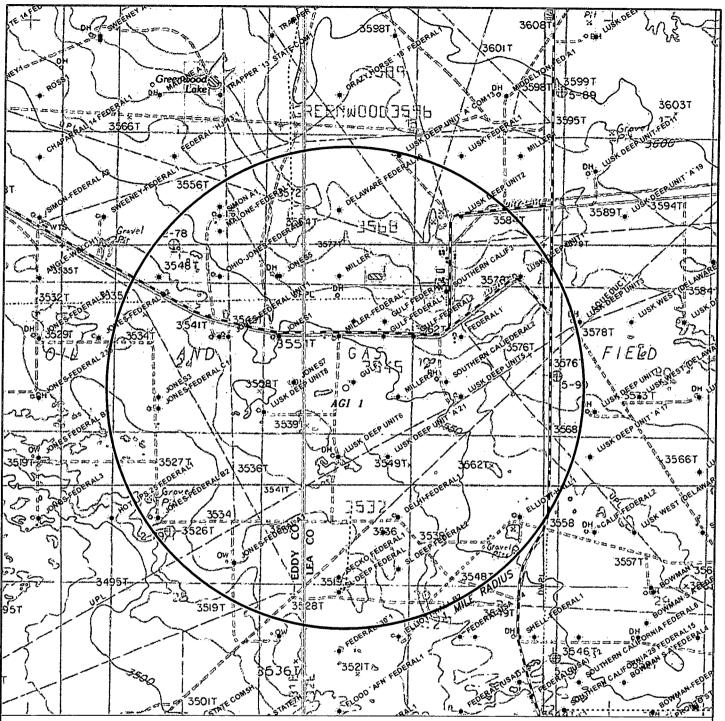
30-02	Number 25-4	2208	9	Pool Code 8090	; AG	I; CHER	Pool Name NY CANYO	W-BRUSH	LY CAA
Property Code 3/3824			Property Name Zia AGI				Well Number		
OGRID No. 36785				Operator Name DCP MIDSTREAM				Elevation 3547'	
Surface Location									
UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
L	19	19 S	32 E		2100	SOUTH	950	WEST	LEA
,			Bottom	Hole Loc	cation If Diffe	rent From Sur	face		
UL or lot No.	Section	Township	Range	Lot Idn,	Feet from the	North/South line	Feet from the	East/West line	County
E	19	19 S	32 E	l	2550	SOUTH	750	WEST	LEA
Dedicated Acres	Joint of	r Infill Con	solidation (	Code Or	der No.				<u> </u>

## NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED

N: 601778.8 E: 701104.3 NAD 83				N: 601787.0 E: 706416.7 NAD 83	OPERATOR CERTIFICATION  I hereby certify that the information contained herein is true and complete to the best of my knowledge and belief, and that this organization either owns a working interest or unleased mineral interest in the land including the proposed bottom hole location or has a right to drill this well at this location pursuant to a contract will an owner of such a mineral or working interest, or to a voluntary pooling agreement or a compulsory pooling order heretofore entered by the division.
750'	PROPOSED BOTTOM HOLE LOCATION Lot - N 32'38'48.92" Long - W 103'48'42.38" NMSPCE- N 599475.0 (NAD-83)				Signature Date  Printed Name  Email Address
N: 599138.3 E: 701122.9 NAD 83	SURFACE LOCATION  Lat - N 32'38'40.27"  Long - W 103'48'40.03"  NMSPCE - N 598600.5  E 702076.5  (NAD-83)			N: 599147.8 E: 706435.3 NAD 83	SURVEYOR CERTIFICATION  I hereby certify that the well location shown on this plat was plotted from field notes of actual surveys made by me or under my supervison and that the same is true and correct to the basis or my belief.  Date Shrveyor ME.  Signature & Spal of Professional surveyor
N: 596498.4 E: 701141.1 NAD 83	+	N: 596504.5 E: 703811.3 NAD 83		N: 596507.2 E: 706453.4 NAD 83	Certifical Capped Taxes 7977  0' 500' 1000' 1500' 2000'  SCALE: 1" = 1000'  WO Num.: 30774







AGI 1

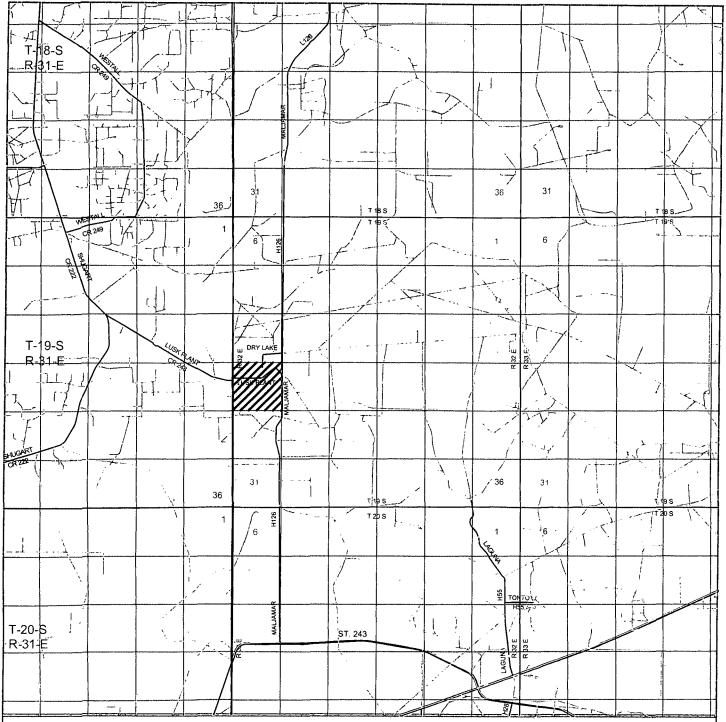
Located 2100' FSL and 950' FWL Section 19, Township 19 South, Range 32 East, N.M.P.M., Lea County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

7	0' 1000' 2000' 3000' 4000'	1 .
	SCALE: 1" = 2000'	1
	W.O Number: JMS 30774	1
	Survey Date. 08-02-2014	4
	YELLOW TINT - USA LAND BLUE TINT - STATE LAND NATURAL COLOR - FEE LAND	





AGI 1

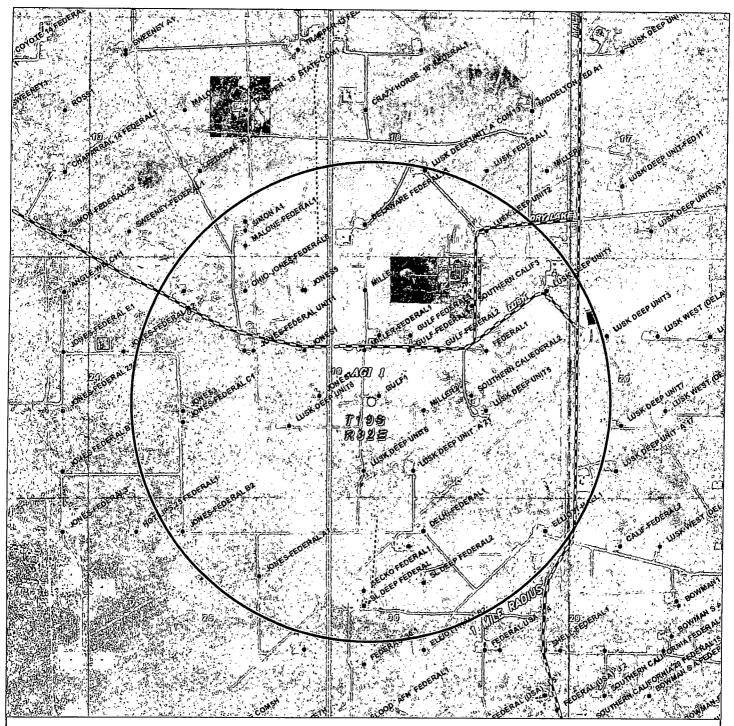
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1	O I MI 2 MI 3 MI 4 MI	
	SCALE: 1" = 2 MILES	,
	W.O Number. JMS 30774	
	Survey Date: 08-02-2014	(
	YELLOW TINT - USA LAND BLUE TINT - STATE LAND	
4	NATURAL COLOR - FEE LAND	





AGI 1
Located 2100' FSL and 950' FWL
Section 19, Township 19 South, Range 32 East,
N.M.P.M., Lea County, New Mexico.



P.O. Box 1786 1120 N. West County Rd. Hobbs, New Mexico 88241 (575) 393-7316 - Office (575) 392-2206 - Fax basinsurveys.com

1	0' 1000'	2000'	3000'	4000'	
	SCA	ALE: 1" =	2000'		1
	W.O. Number	JMS 3	30774		1
	Survey Date:	08~02	-2014	}	4
	YELLOW TINT BLUE TINT - NATURAL COLO	STATE LA	ND		



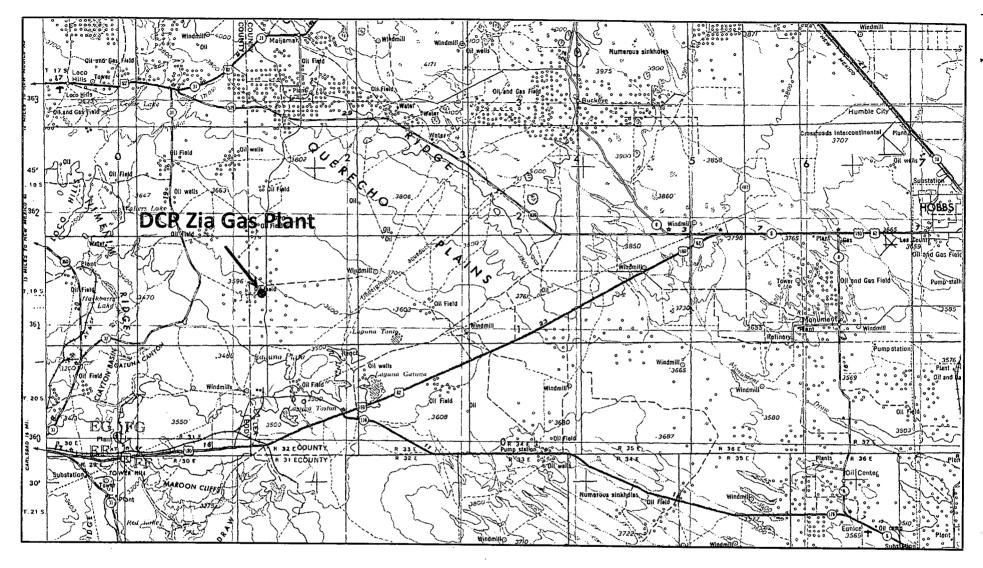


Figure 1: Location of the Proposed DCP Zia Gas Plant and AGI Wells. (USGS 1:250,000)

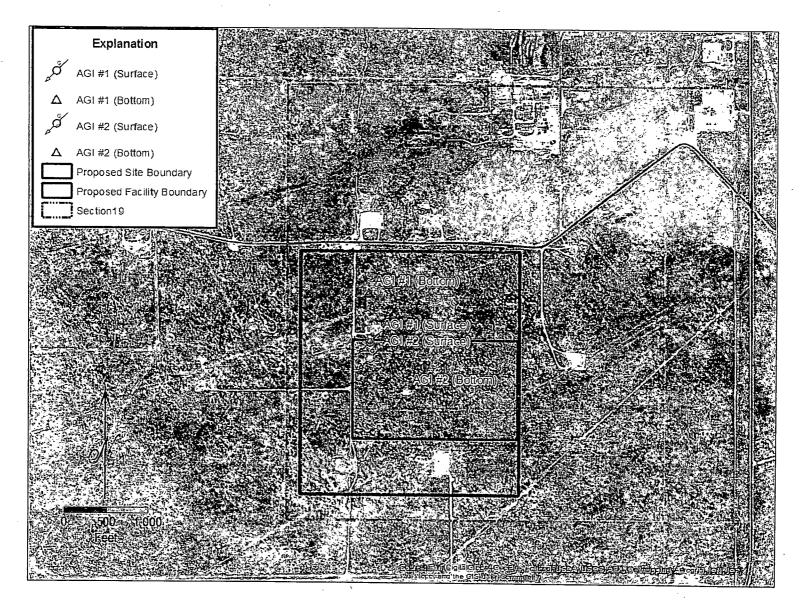
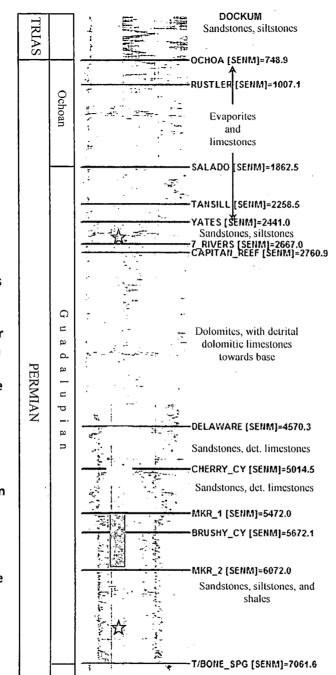


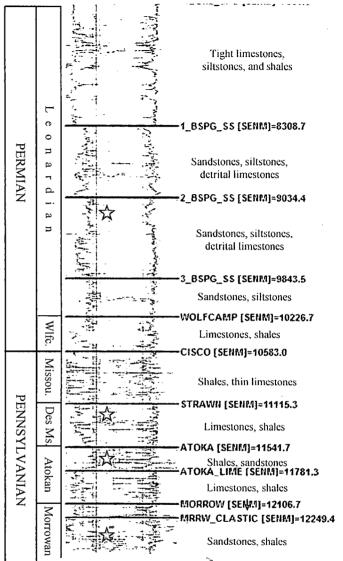
Figure 2: Map Showing Surface and Bottom Hole Locations of Proposed Wells Zia AGI #1 and AGI #2

## Figure 3: Stratigraphy and Lithology of Producing Zones Above and Below Proposed Injection Zone

Stratigraphy and generalized lithology of the subsurface formations underlying the proposed Zia AGI sites. Zones with active pay within the radii of investigation are shown by the red stars. Other than the Delaware Mountain Group, none of the other formations present under the site contain reservoirs with enough porosity and areal extent to support the AGI needs of the proposed Plant. The Delaware Group, specifically the interval shown by the blue bar, is the only formation with laterallyextensive reservoirs and are sufficiently isolated from active pay zones either above

or below.





COG OPERATING LUSK DEEP UNIT 'A' #21 660 FSL 1750 FWL T19S R32E S19 County: LEA

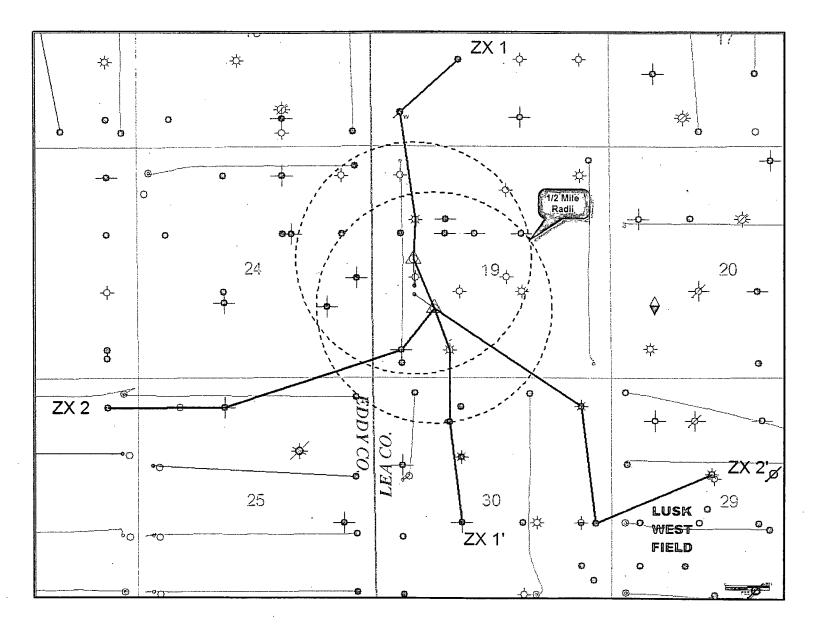


Figure 4: Locations of Cross-Sections ZP-1 and ZP-2

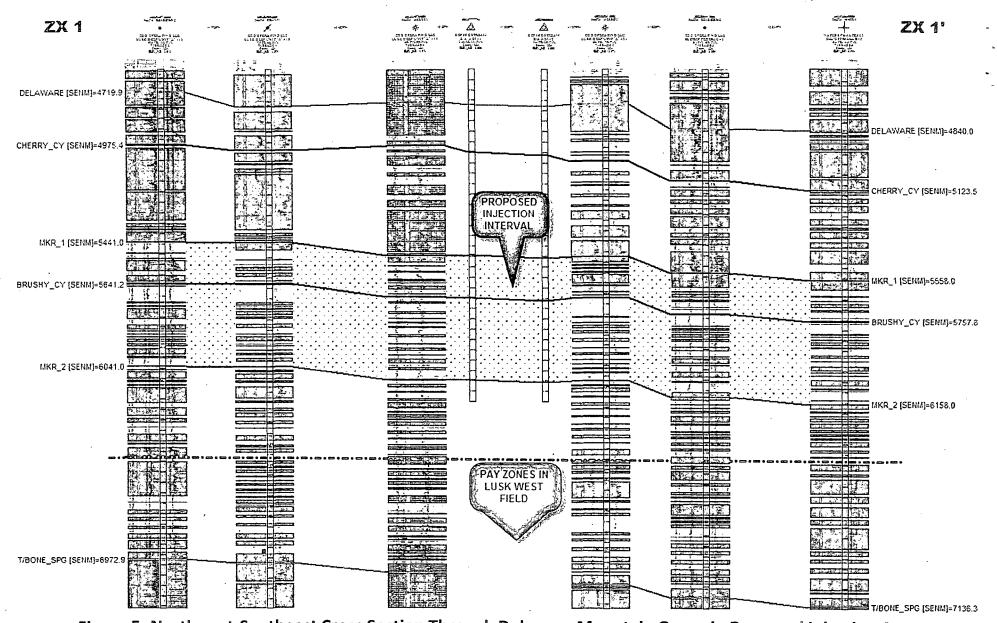


Figure 5: Northwest-Southeast Cross Section Through Delaware Mountain Group in Proposed Injection Area N-S structure section through the Delaware Mountain Group across the area of the proposed injection zone. Yellow shading denotes sandstone porosity in excess of 10%, and brown shading shows tight facies. There are very thick sections of tight rock above the proposed injection interval that will prevent upward migration of fluids into shallower (Yates) pay zones, and even shallower groundwater zones. There are also alternating tight and sandy facies between the injection interval and lower Brushy Canyon pay zones in the nearby Lusk West Field.

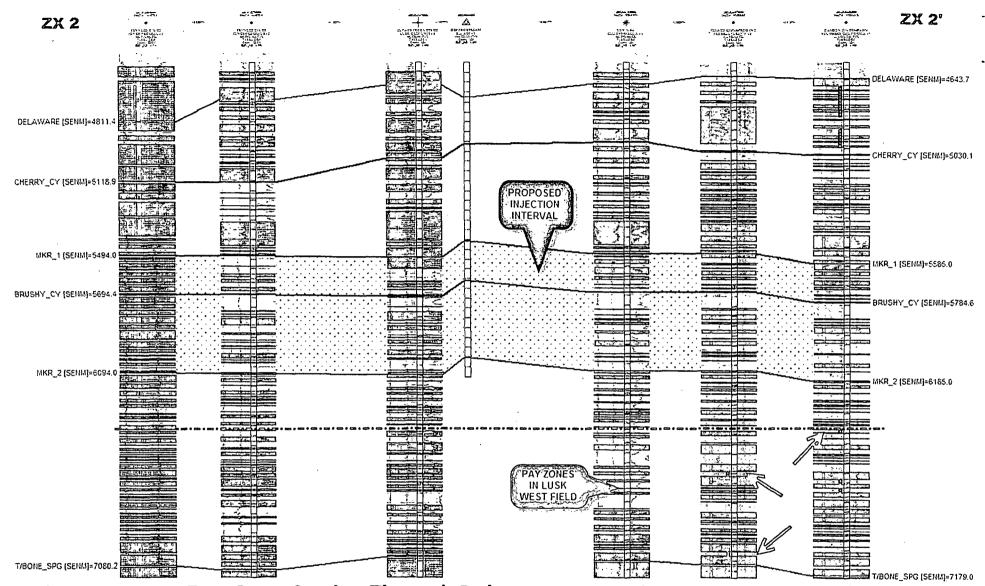


Figure 6: West-East Cross Section Through Delaware Mountain Group in Proposed Injection

Area

The W-E structure section shows the caprock relationship above the proposed injection interval, and the intervening tight facies below that would isolate the injection interval from any remaining pay zones in the lower Brushy Canyon. The Lusk West Field produces from several confined, thinner-bedded channel sands that are encased in tight facies.

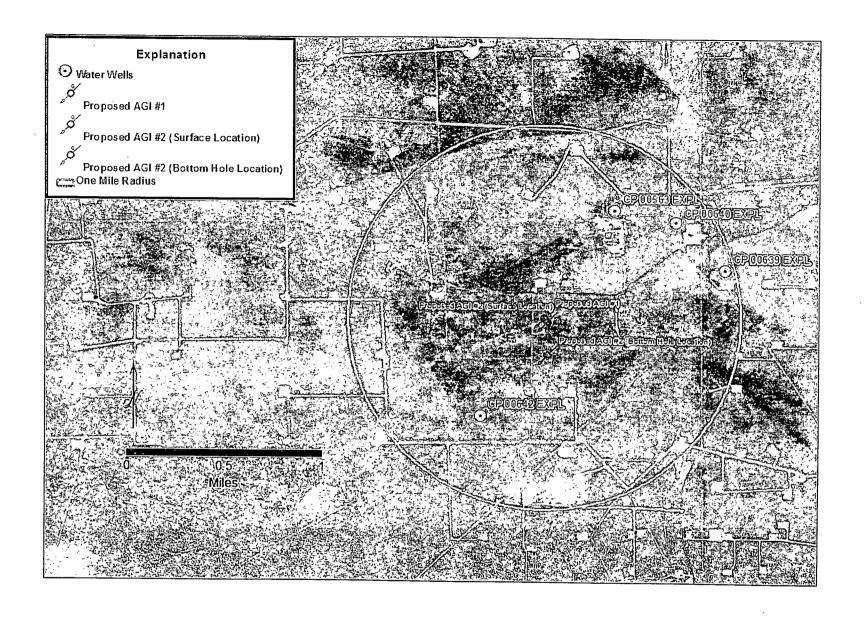


Figure 7: Water Wells Identified by the New Mexico State Engineer's Files within One Mile of the Proposed Zia AGI Wells

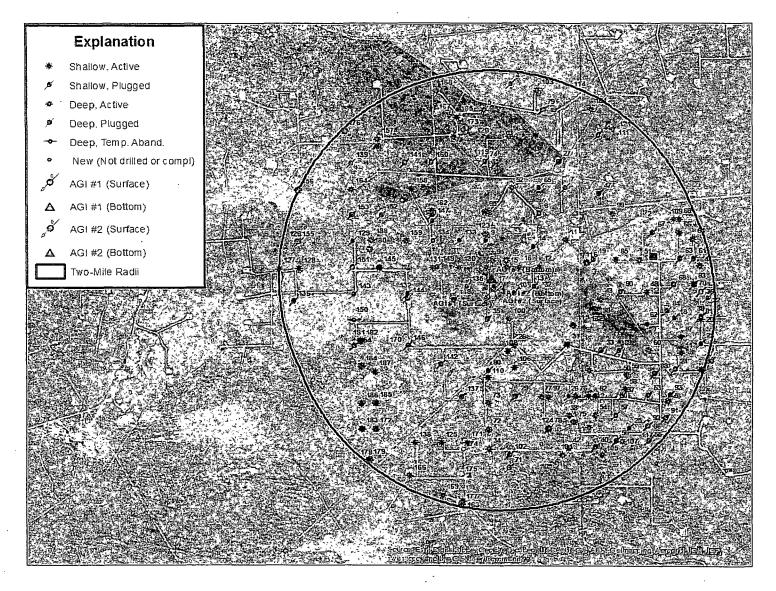


Figure 8: Wells identified within Two Mile Radius of Zia AGI #1 and AGI #2

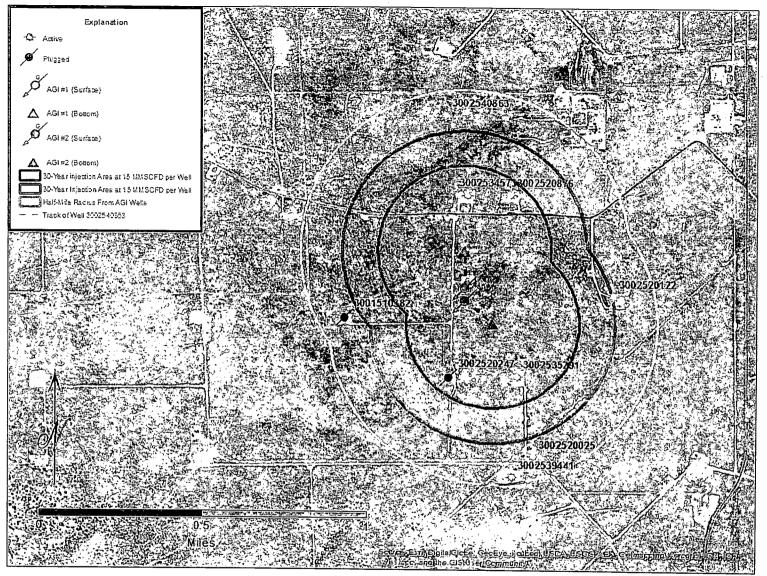


Figure 9: Wells Penetrating the Injection Zone Located Within One Half Mile of the Proposed AGI Wells

(Circles Show Anticipated Rate of 7.5 MMSCFD and 100% Safety Factor Injection Rate 15.0 MMSCFD)

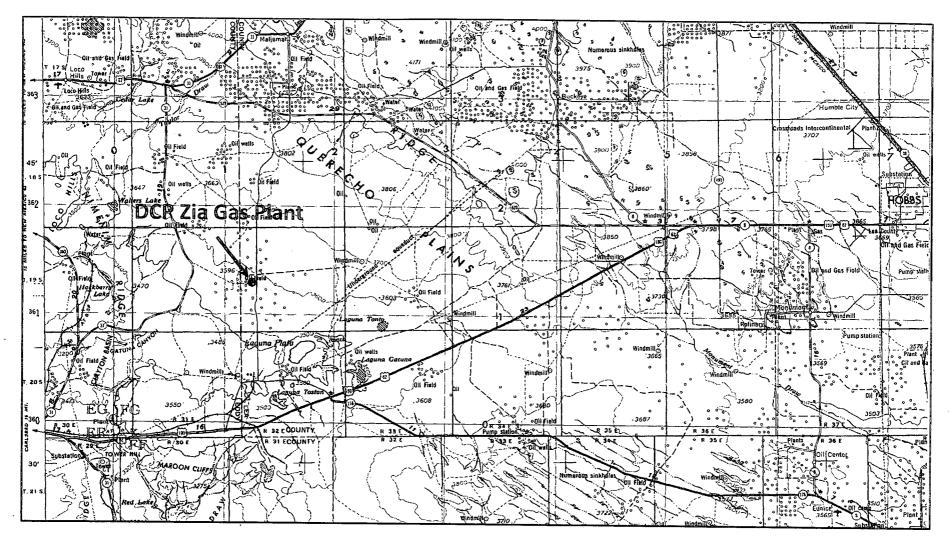


Figure 1: Location of the Proposed DCP Zia Gas Plant and AGI Wells. (USGS 1:250,000)

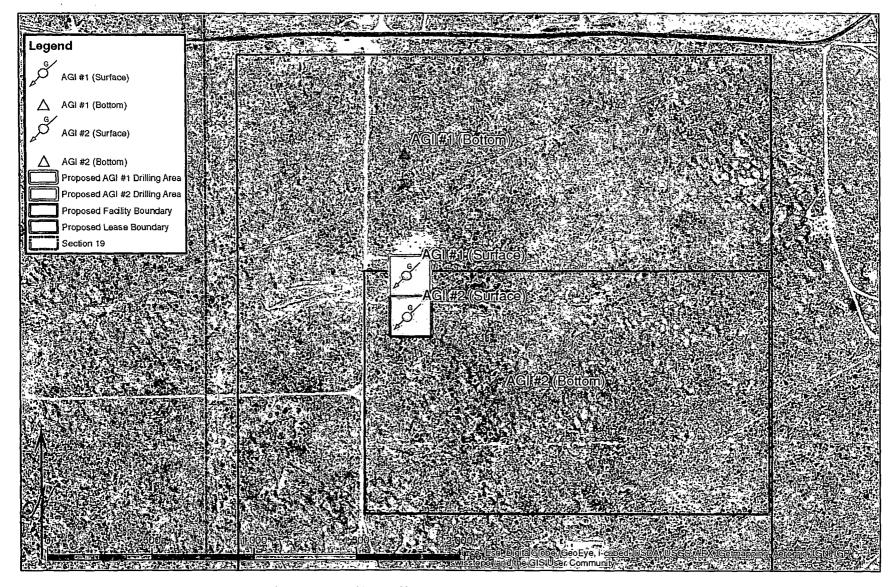


Figure 2: Proposed AGI Well Drilling Areas and Lease and Facility Boundaries

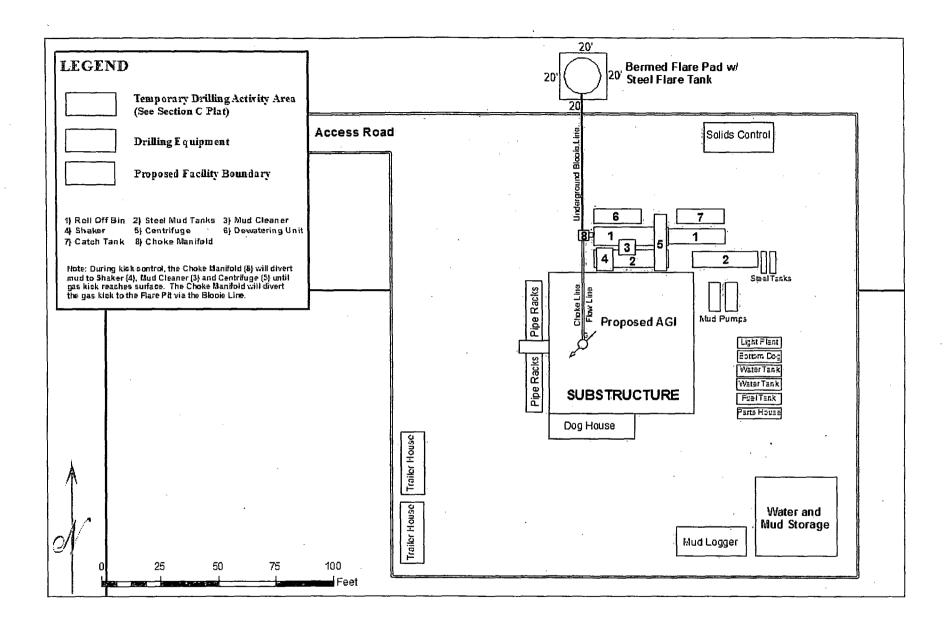


Figure 3: Rig Layout and Schematic with Closed Loop System

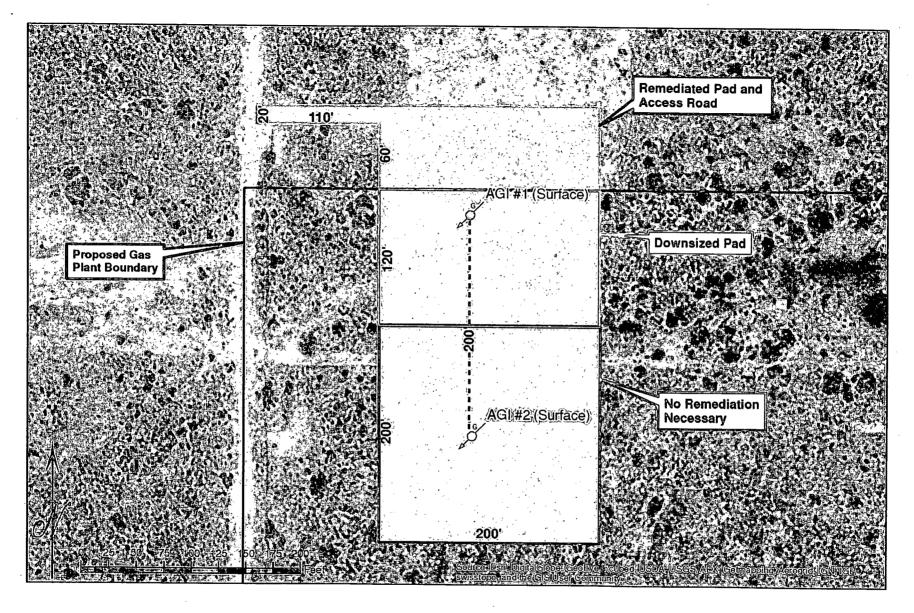


Figure 4: Interim Remediation of Existing and Proposed Parcels

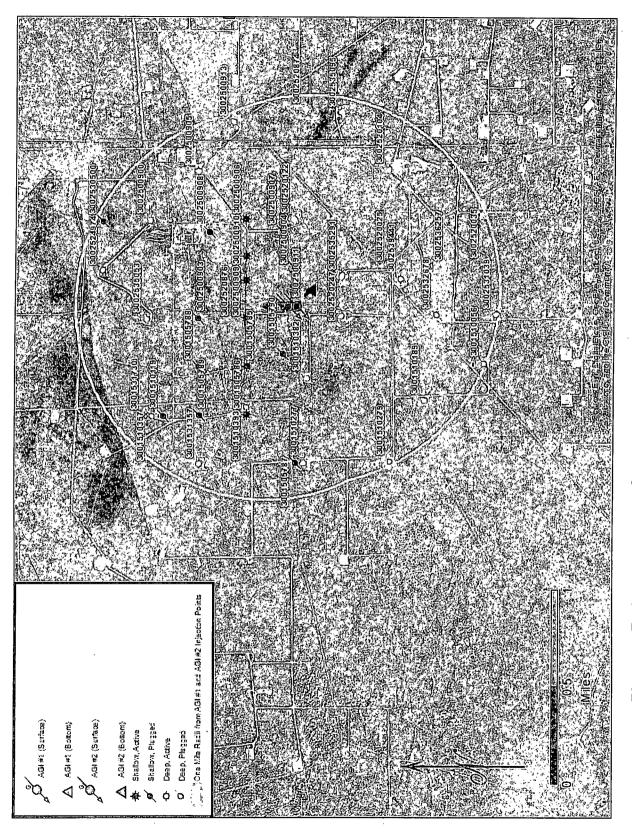


Figure 5: Locations of Wells Within 1/2 mile of AGI Zones

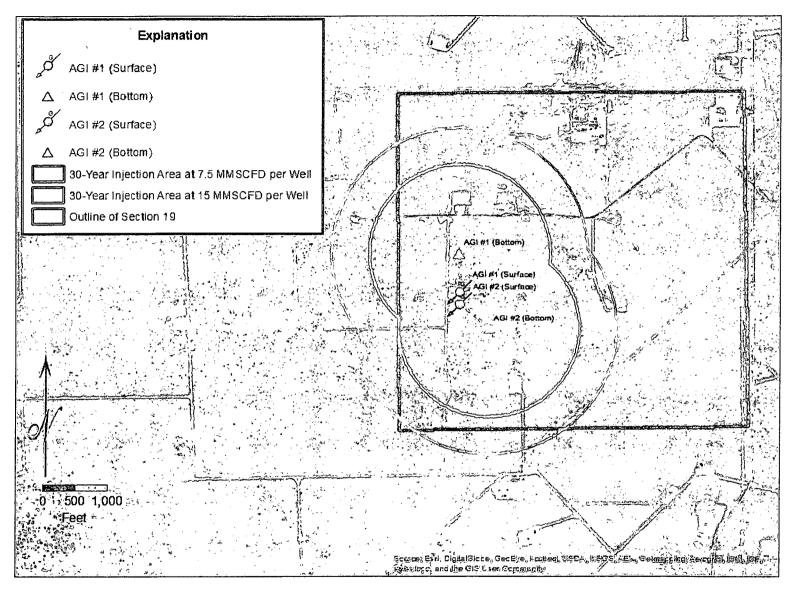


Figure 8: Map Showing ROI After 30 Years of TAG Injection (at max capacity 7.5 MMSCFD and 2X max capacity 15 MMSCFD)