# **AE Order Number Banner**

Application Number: pMSG2509032866

SWD-2647

# AMERICO ENERGY RESOURCES LLC [228051]

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January 10, 2025

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

Subject: Americo Energy Resources, LLC Application for Authorization to Inject Stiletto 16 State #4

OCD Director,

Americo Energy Resources, LLC (Americo) is applying for administrative approval of the attached Application for Authorization to Inject (Form C-108) for their Stiletto 16 State #4 (API# 30-015-34812). The application is requesting authorization to dispose of saltwater from Americo's oil and gas production in the area via non-commercial disposal into the Cisco formation in Eddy County, NM.

The Stiletto 16 State #4 is a dry gas well (spudded in 2006) and is Americo's lowest volume gas well that is also viable as an SWD (per discussions with the State Land Office). The Stiletto 16 State #4 is currently shut-in because decreased natural gas prices and increased produced water disposal costs resulted in it being uneconomic to produce. Recompletion of the Stiletto 16 #4 as an SWD would not only increase the utility of an otherwise uneconomic gas well but would simultaneously provide a more cost-effective produced water disposal solution, which would increase the economics of the remainder of the wells in the field.

Questions regarding this application or the included materials can be directed to Nate Alleman (Americo Regulator Advisor Contractor) via telephone at 918-237-0559 or via email at nate.alleman@aceadvisors.com.

Sincerely,

Nate Alleman Chief Regulatory Advisor Ace Energy Advisors

RE	CEIVED:	REVIEWER:	TYPE:	APP NO:	
			ABOVE THIS TABLE FOR OCD E	DIVISION USE ONLY	
			<b>O OIL CONSERV</b> cal & Engineering ancis Drive, Sant	g Bureau –	• THE REFERENCE
	THIS CHECK	KLIST IS MANDATORY FOR AL	ATIVE APPLICATI	ATIONS FOR EXCEPTIONS	
Арр	licant:			OGR	ID Number:
Well	Name:			API:	
Pool	:			Pool	Code:
SL	JBMIT ACCURATE	and complete inf	ORMATION REQUI		THE TYPE OF APPLICATION
1) 1	A. Location – Sp NSL B. Check one c [1] Comming DH [1] Injection	TON: Check those bacing Unit – Simult NSP(PR only for [1] or [11] gling – Storage – M C CTB PL D – Disposal – Pressu	aneous Dedicatio oject AREA) DNS easurement C DPC DC ire Increase – Enha	DLS OLM	SD ery
2)	A. Offset ope B. Royalty, c C. Applicatio D. Notificatio E. Notificatio F. Surface o	he above, proof of	ders wners, revenue ow ed notice ent approval by SL ent approval by BL	vners .O .M	FOR OCD ONLY Notice Complete Application Content Complete
i c	administrative appunderstand that <b>n</b>	nereby certify that t proval is <b>accurate</b> a <b>10 action</b> will be tak ubmitted to the Div	and <b>complete</b> to t ken on this applica	he best of my kn	
	Note: S	tatement must be comple	ted by an individual with	n managerial and/or su	pervisory capacity.

Print or Type Name

Date

Phone Number

Northan Alleman

Signature

e-mail Address

.

Received by OCD: 1/10/2025 3:36:41 PM

STATE OF NEW MEXICO ENERGY, MINERALS AND NATURAL **RESOURCES DEPARTMENT** 

**Oil Conservation Division** 1220 South St. Francis Dr. Santa Fe, New Mexico 87505

### APPLICATION FOR AUTHORIZATION TO INJECT

		AFFLICATION FOR	AUTHORIZATION TO INJE		
I.	PURPOSE:	Secondary Recovery for administrative approval?	Pressure MaintenanceNo	Disposal	Storage
II.	OPERATOR:				
	ADDRESS:				
	CONTACT PARTY:			PHONE:	
III.		lete the data required on the revers onal sheets may be attached if nec	se side of this form for each well p cessary.	proposed for injection.	
IV.		of an existing project?	YesNo project:		
V.			two miles of any proposed injecti e identifies the well's area of revie		mile radius circle
VI.	data shall include a de		l within the area of review which p struction, date drilled, location, de		
VII.	Attach data on the pro	oposed operation, including:			
	<ol> <li>Whether the syste</li> <li>Proposed average</li> <li>Sources and an approduced water; a</li> <li>If injection is for a</li> </ol>	and maximum injection pressure opropriate analysis of injection flu and, disposal purposes into a zone not	-	in one mile of the propo	osed well, attach a
*VIII	Give the geologic nat dissolved solids conc	me, and depth to bottom of all un	including appropriate lithologic of derground sources of drinking wa overlying the proposed injection	ter (aquifers containing	waters with total
IX.	Describe the proposed	d stimulation program, if any.			
*X.	Attach appropriate log	gging and test data on the well. (1	If well logs have been filed with the	he Division, they need r	ot be resubmitted).
*XI.		alysis of fresh water from two or n well showing location of wells and	nore fresh water wells (if available l dates samples were taken.	e and producing) within	one mile of any
XII.			e statement that they have examin logic connection between the disp		
XIII.	Applicants must com	plete the "Proof of Notice" section	on on the reverse side of this form.		
XIV.	Certification: I hereby c	certify that the information submit	ted with this application is true and	l correct to the best of m	y knowledge and
1	belief.				
]	NAME:		TITLE:		
	SIGNATURE: _Notton A	llena	]	DATE:	
]	E-MAIL ADDRESS:				
*	If the information request Please show the date a	uired under Sections VI, VIII, X, and circumstances of the earlier su	and XI above has been previously ubmittal:	submitted, it need not b	be resubmitted.

DISTRIBUTION: Original and one copy to Santa Fe with one copy to the appropriate District Office

Side 2

III. WELL DATA

- A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:
  - (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.
  - (2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.
  - (3) A description of the tubing to be used including its size, lining material, and setting depth.

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Division District Offices have supplies of Well Data Sheets which may be used or which may be used as models for this purpose. Applicants for several identical wells may submit a "typical data sheet" rather than submitting the data for each well.

- B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.
  - (1) The name of the injection formation and, if applicable, the field or pool name.
  - (2) The injection interval and whether it is perforated or open-hole.
  - (3) State if the well was drilled for injection or, if not, the original purpose of the well.
  - (4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.
  - (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.

#### XIV. PROOF OF NOTICE

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located. The contents of such advertisement must include:

- (1) The name, address, phone number, and contact party for the applicant;
- (2) The intended purpose of the injection well; with the exact location of single wells or the Section, Township, and Range location of multiple wells;
- (3) The formation name and depth with expected maximum injection rates and pressures; and,

(4) A notation that interested parties must file objections or requests for hearing with the Oil Conservation Division, 1220 South St. Francis Dr., Santa Fe, New Mexico 87505, within 15 days.

### NO ACTION WILL BE TAKEN ON THE APPLICATION UNTIL PROPER PROOF OF NOTICE HAS BEEN SUBMITTED.

NOTICE: Surface owners or offset operators must file any objections or requests for hearing of administrative applications within 15 days from the date this application was mailed to them.

### III. Well Data

A. The following well data must be submitted for each injection well covered by this application. The data must be both in tabular and schematic form and shall include:

# (1) Lease name; Well No.; Location by Section, Township and Range; and footage location within the section.

Operator: Americo Energy Resources, LLC (OGRID# 228051) Lease/Well Name & Number: Stiletto 16 State #4 Legal Location: 1,650' FNL & 990' FWL - Unit E – Section 16 T20S R25E – Eddy County Coordinates: 32.5763611, -104.4951389

(2) Each casing string used with its size, setting depth, sacks of cement used, hole size, top of cement, and how such top was determined.

Casing String	Hole Size (in)	Casing Size (in)	Casing Depth (ft)	Sacks Cement (sx)	Top of Cement (ft)	Method Determined
Surface	12-1/4	8-5/8	1,494	1,410	0	Circulation
Production	7-7/8	5-1/2	9,679	1,300	0	Circulation
Production	7-7/8	5-1/2	9,679	1,300	0	Circulation

A wellbore diagram is included in *Attachment* 1.

(3) A description of the tubing to be used including its size, lining material, and setting depth.

2-3/8" IPC tubing set at 7,220' (within 100' of the top of the injection interval)

(4) The name, model, and setting depth of the packer used or a description of any other seal system or assembly used.

Arrowset AS1X packer (or equivalent) set at 7,220' (within 100' of the top of the injection interval)

B. The following must be submitted for each injection well covered by this application. All items must be addressed for the initial well. Responses for additional wells need be shown only when different. Information shown on schematics need not be repeated.

(1) The name of the injection formation and, if applicable, the field or pool name.

Injection Formation Name - Cisco Pool Name - SWD; Cisco Pool Code – 96099

(2) The injection interval and whether it is perforated or open-hole.

Cased-hole injection between 7320' - 8520'

(3) State if the well was drilled for injection or, if not, the original purpose of the well.

Well is currently an active well producing uneconomic gas volumes from the Morrow formation.

(4) Give the depths of any other perforated intervals and detail on the sacks of cement or bridge plugs used to seal off such perforations.

The Morrow formation is currently perforated from 9,80' - 9,441' and 9,463' - 9,521'. These formations will be sealed off with a Cast Iron Bridge Plug and 100' cement plug to isolate them from the proposed overlying Cisco injection interval.

- (5) Give the depth to and the name of the next higher and next lower oil or gas zone in the area of the well, if any.
  - Overlying
    - San Andres (825')
    - Yeso (2,620')
  - Underlying
    - o Morrow (9,250')

# V. AOR Maps

Attach a map that identifies all wells and leases within two miles of any proposed injection well with a one-half mile radius circle drawn around each proposed injection well. This circle identifies the well's area of review.

The following figures are included in *Attachment 2*:

- AOR Well Map & List
- Leaseholder Map
- Mineral Ownership Map
- Surface Ownership Map

# VI. AOR List

Attach a tabulation of data on all wells of public record within the area of review which penetrate the proposed injection zone. Such data shall include a description of each well's type, construction, date drilled, location, depth, record of completion, and a schematic of any plugged well illustrating all plugging detail.

Details of the wells within the 0.5-mile AOR are included in Attachment 2.

# VII. Operational Information

Attach data on the proposed operation, including:

(1) Proposed average and maximum daily rate and volume of fluids to be injected;

Maximum: 3,000 bpd Average: 2,000 bpd

(2) Whether the system is open or closed;

The system will be closed.

(3) Proposed average and maximum injection pressure;

Maximum: 1,464 psi (surface) Average: approx. 1,000 psi (surface)

# (4) Sources and an appropriate analysis of injection fluid and compatibility with the receiving formation if other than reinjected produced water;

It is anticipated that produced water from Americo's Morrow, San Andres-Yeso production wells in the area will be injected into the proposed SWD. Therefore, water analyses from these formations were obtained and are included in *Attachment 3*.

(5) If injection is for disposal purposes into a zone not productive of oil or gas at or within one mile of the proposed well, attach a chemical analysis of the disposal zone formation water (may be measured or inferred from existing literature, studies, nearby wells, etc.).

The proposed injection interval for this SWD is the Cisco Canyon formation, which is a nonproductive zone known to be compatible with formation water from the Morrow, San Andres-Yeso formations. The closest produced water sample from the Cisco formation was located approx. 3.3 miles west of the proposed SWD. The analysis of this produced water sample is included in *Attachment 4.* 

# VIII. Geologic Description

Attach appropriate geologic data on the injection zone including appropriate lithologic detail, geologic name, thickness, and depth. Give the geologic name, and depth to bottom of all underground sources of drinking water (aquifers containing waters with total dissolved solids concentrations of 10,000 mg/l or less) overlying the proposed injection zone as well as any such sources known to be immediately underlying the injection interval.

The Cisco formation is an Upper Pennsylvanian-aged marine limestone shelf deposit with depths of approximately 7,320 ft– 8,520 ft bgs. The total thickness of the formation is approximately 1,200 ft with porosity lenses ranging from approximately 4-16% porosity.

Overlying geologic confinement for the proposed Cisco injection interval is provided by low permeability portions of the Wolfcamp formation (approx. 218 ft thick).

The underlying geologic confinement is provided by low permeability layers in the upper Strawn formation (approx. 113 ft thick). The Subject SWD will terminate in the Cisco formation at a depth of approx. 8,520 ft and the underlying impermeable formations will provide a barrier to ensure that injectate does not communicate with the lower Ordovician-aged Ellenburger, the Cambrian, or Precambrian basement rock below. In this area, Precambrian basement rock is expected to occur at a depth of approximately 11,500 ft bgs. Therefore, the proposed injection zone lies approximately 2,963 ft above the Precambrian basement.

Groundwater wells in the area range in depth from 90 ft - 500 ft bgs and depth to water ranging from approximately 30 ft - 270 ft bgs; therefore, the top of the injection interval (7,320 ft bgs) is separated from domestic groundwater sources in the area by approximately 7,050 ft of rock.

*Attachment 5* includes a Seismic Risk Assessment associated with operation of the proposed SWD.

## IX. Proposed Stimulation Program

Describe the proposed stimulation program, if any.

A minor acid job utilizing 15-20% hydrochloric acid may be used to cleanup the wellbore.

# X. Logging and Test Data

Attach appropriate logging and test data on the well. (If well logs have been filed with the Division, they need not be resubmitted).

Logs will be run and submitted to the Division once the well is completed.

# XI. Groundwater Wells

Attach a chemical analysis of fresh water from two or more fresh water wells (if available and producing) within one mile of any injection or disposal well showing location of wells and dates samples were taken.

Based on data obtained from the New Mexico Office of the State Engineer (OSE), a total of 2 groundwater wells are present within the 1-mile radius. Interviews with the water well owners revealed that one water well has been plugged and abandoned and the other water well has not been in service for many years. Therefore, none of the water wells within 1-mile meet the sampling criteria and no water well samples were collected.

*Attachment 6* includes a table with details of the water wells within 1-mile and map of the water well locations in relation to the proposed SWD.

# XII. No Hydrologic Connection Statement

Applicants for disposal wells must make an affirmative statement that they have examined available geologic and engineering data and find no evidence of open faults or any other hydrologic connection between the disposal zone and any underground sources of drinking water.

A geologic review conducted on offset wireline log data and published regional studies did not identify any faulting in the vicinity of the proposed locations that would allow for the hydraulic communication between the injection interval and overlying USDWs. An Affirmative Statement is included in *Attachment 7*.

# XIII. Proof of Notice

Applicants must complete the "Proof of Notice" section on the reverse side of this form.

All applicants must furnish proof that a copy of the application has been furnished, by certified or registered mail, to the owner of the surface of the land on which the well is to be located and to each leasehold operator within one-half mile of the well location.

A copy of the application was mailed to the Affected Persons, including the OCD District Office, surface owner, leasehold operators within the AOR, and BLM/SLO if they own minerals within the AOR. *Attachment 8* includes a list of the Affected Persons receiving notice of the application and the associated certified mailing receipts (green sheets).

# Where an application is subject to administrative approval, a proof of publication must be submitted. Such proof shall consist of a copy of the legal advertisement which was published in the county in which the well is located.

A Public Notice was published in the Carlsbad Current-Argus, a newspaper of general circulation in the area, and the associated affidavit is included in *Attachment 8*.

DISTRICT I 1825 N. French Dr., Hobbs, NM 88240 DISTRICT II 811 South First, Artesia, NM 88210

DISTRICT III 1000 Rio Brazos Rd., Aztec, NM 87410

DISTRICT IV 2040 South Pacheco, Santa Fe, NM 87505

#### State of New Mexico

Energy, Minerals and Natural Resources Department

Form C-102 Revised March 17, 1999

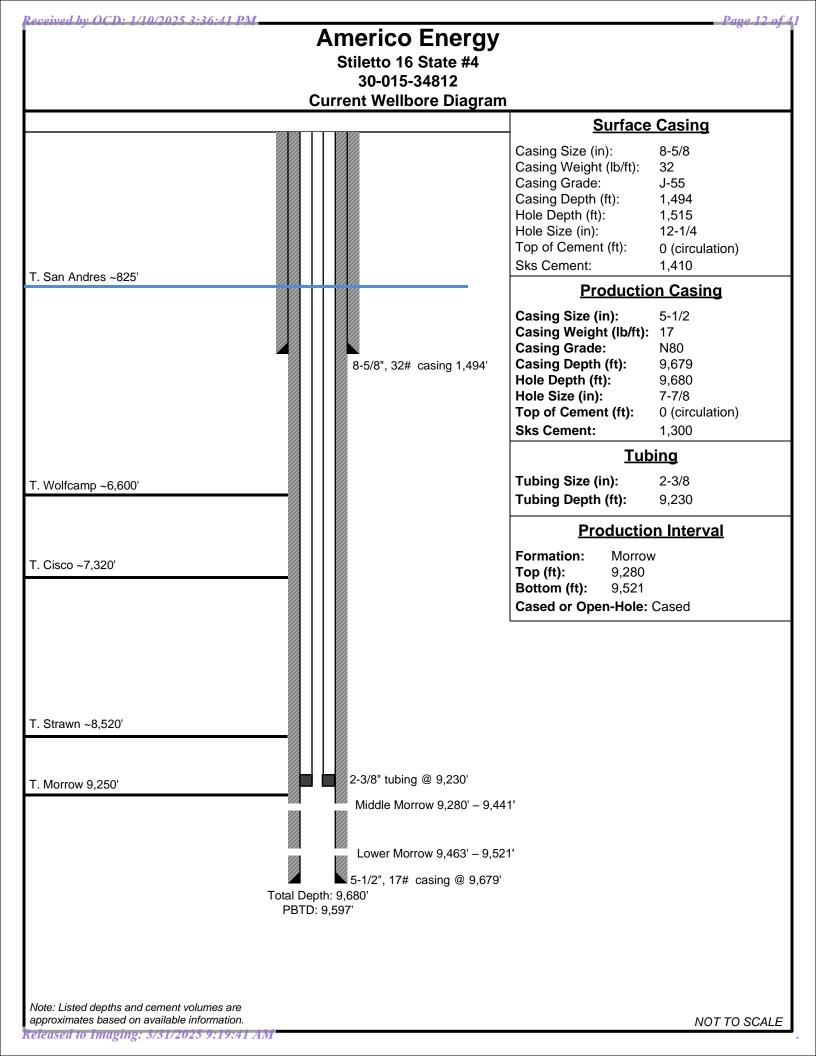
Submit to Appropriate District Office State Lease - 4 Copies Fee Lease - 3 Copies

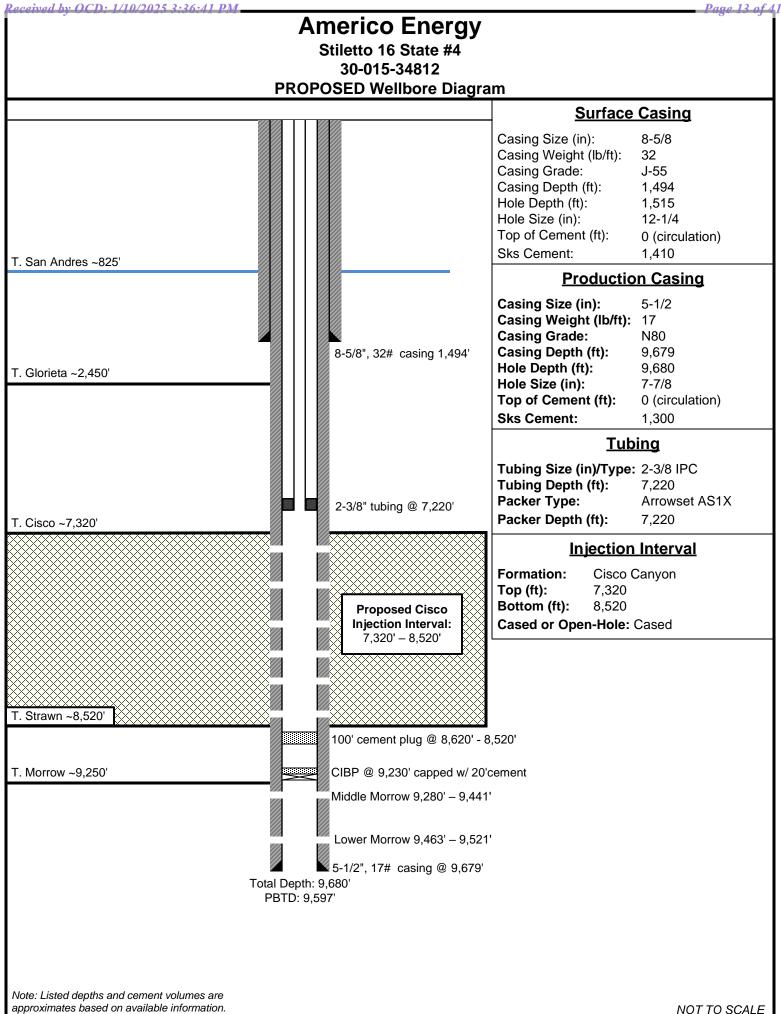
#### OIL CONSERVATION DIVISION 2040 South Pacheco Santa Fe, New Mexico 87505

WELL LOCATION AND ACREAGE DEDICATION PLAT

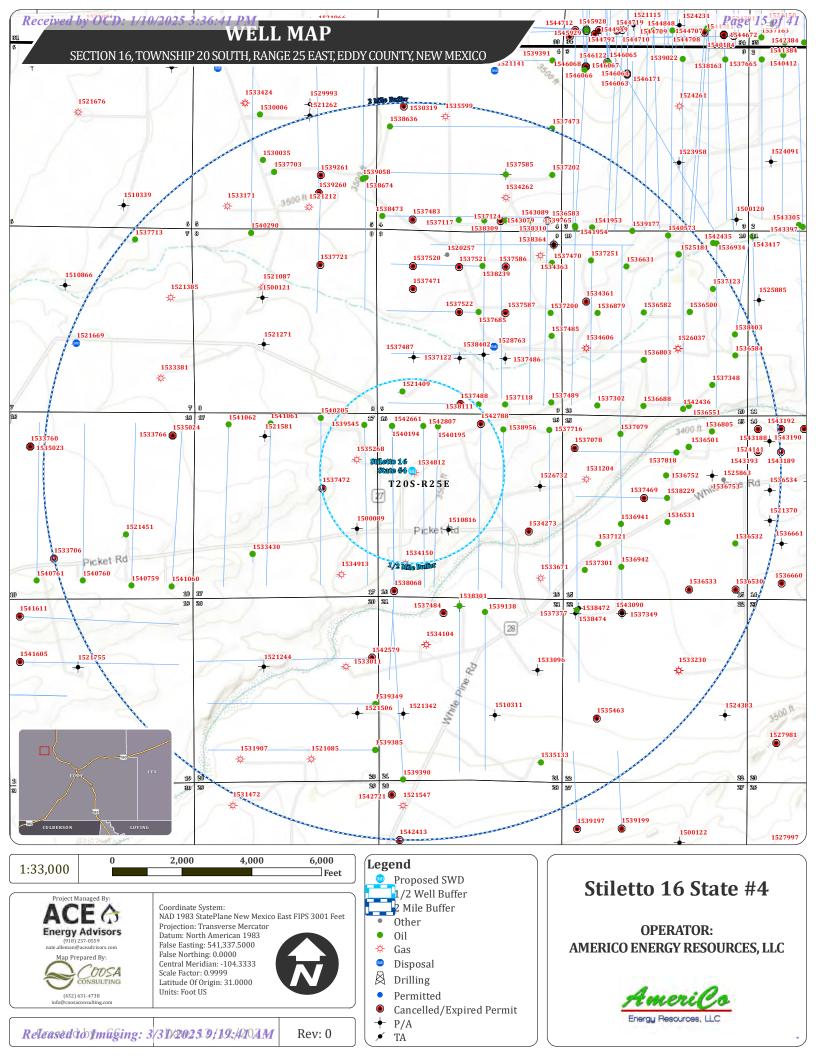
□ AMENDED REPORT

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	UL OF ICT NO.	Secuon	Township	Range	Lot Idn	Feet fro	m the	North/South line	Feet from the	East/West line	County				
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Released to Imaging: 3/31/2025 9:19:41 AM



Well Name	API#	Well Type	Operator	Status	Legal Location	Spud Date	Total Vertical Depth (ft)	Penetrate Inj Zone?
PINE BOX 17 FEDERAL COM #2	30-015-35268	Gas	MEWBOURNE OIL CO**	Active	H-17-20S-25E	2/28/2007	9,700	Yes
IST NATIONAL BANK OF ALBUQUERQUE A #1	30-015-21409	Oil	MEWBOURNE OIL CO**	Active	M-09-20S-25E	9/3/2009	9,660	Yes
ROYAL A #1	30-015-10816	Gas	BABER WELL SERVICING CO	Plugged	K-16-20S-25E	5/14/1966	9,620	Yes
BROWN HUMBLE #1	30-015-00089	Oil	THE GEORGE R. BROWN PARTNERSHIP	Plugged	C-16-20S-25E	12/5/1960	9,600	Yes
STILETTO 16 STATE #7H	30-015-40194	Oil	AMERICO ENERGY RESOURCES LLC**	Active	C-16-20S-25E	11/1/2014	2,883	No
STILETTO 16 STATE #8H	30-015-42661	Oil	AMERICO ENERGY RESOURCES LLC**	Active	D-16-20S-25E	11/25/2014	2,854	No
STILETTO 16 STATE #9H	30-015-42807	Oil	AMERICO ENERGY RESOURCES LLC**	Active	D-16-20S-25E	12/14/2014	2,853	No
PINE BOX 17 AP FEDERAL COM #1H	30-015-39545	Oil	MEWBOURNE OIL CO**	Active	A-17-20S-25E	12/20/2011	2,581	No
GUNSMOKE 9 N #1N	30-015-37488	Oil	MEWBOURNE OIL CO	Cancelled	N-09-20S-25E	N/A	0	No
STILETTO 16 STATE #8C	30-015-40195	Oil	EMKEY COMPANIES, LLC	Cancelled	C-16-20S-25E	N/A	0	No
STILETTO 16 STATE #11H	30-015-42788	Oil	AMERICO ENERGY RESOURCES LLC	Cancelled	B-16-20S-25E	N/A	0	No
PINE BOX 17 G FEDERAL #1	30-015-37472	Oil	MEWBOURNE OIL CO	Cancelled	G-17-20S-25E	N/A	0	No
GUNSMOKE 9 NM #1H	30-015-38111	Oil	MEWBOURNE OIL CO**	Active	O-09-20S-25E	1/30/2011	4,860	No
Horizon	tal Wells w/ Su	rface Locat	tion Outside the 0.5-mile AOR	(Injection	nterval: 7,3	20' - 8,520'	()	
Well Name	API#	Well Type	Operator		Field		Status	TVD (ft)
STILETTO 16 STATE - 6H	30-015-38956	Oil	AMERICO ENERGY RESOURCES LLC**	N. SEVEN RIVE	ERS; GLORIETA-YE	SO	Active	7,017
PINE BOX 17 BO FEDERAL - 1H	30-015-40205	Oil	MEWBOURNE OIL CO**	MALJAMAR; YI	ESO,WEST		Active	2,589

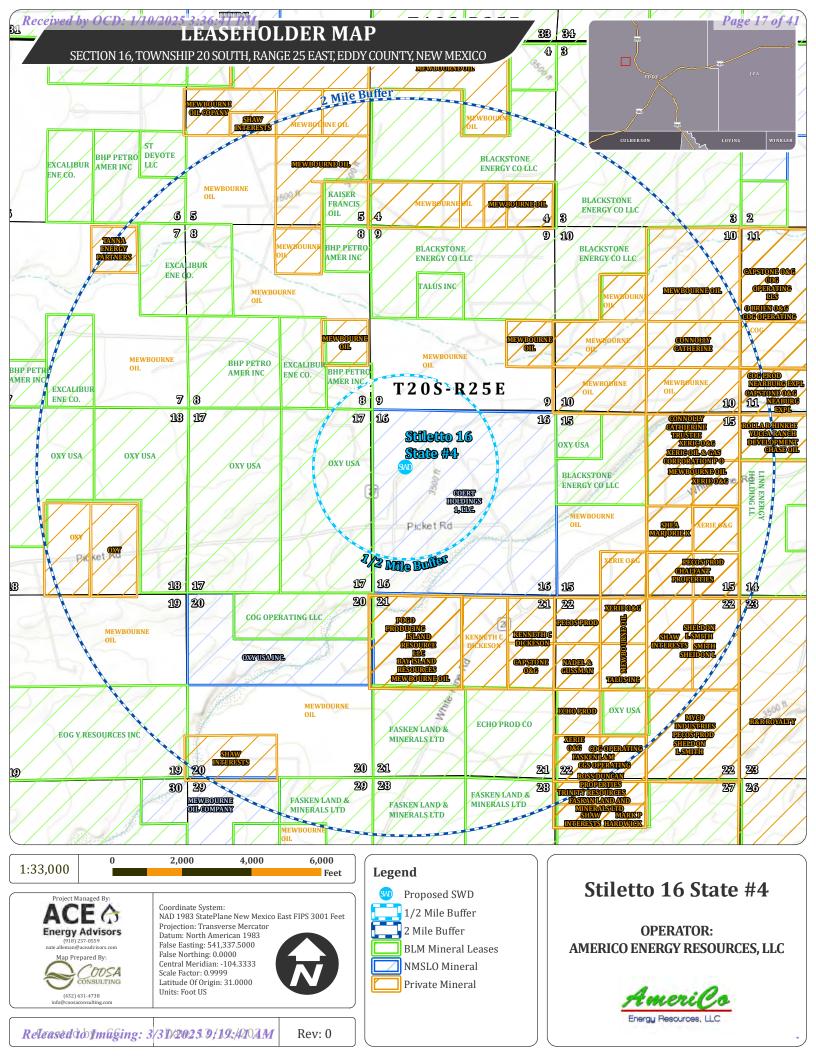
Four wells penetrate the injection interval within the AOR.
Two drilled, active horizontal wellbores intersect the AOR radius, but do not penetrate the injection interval within the AOR.

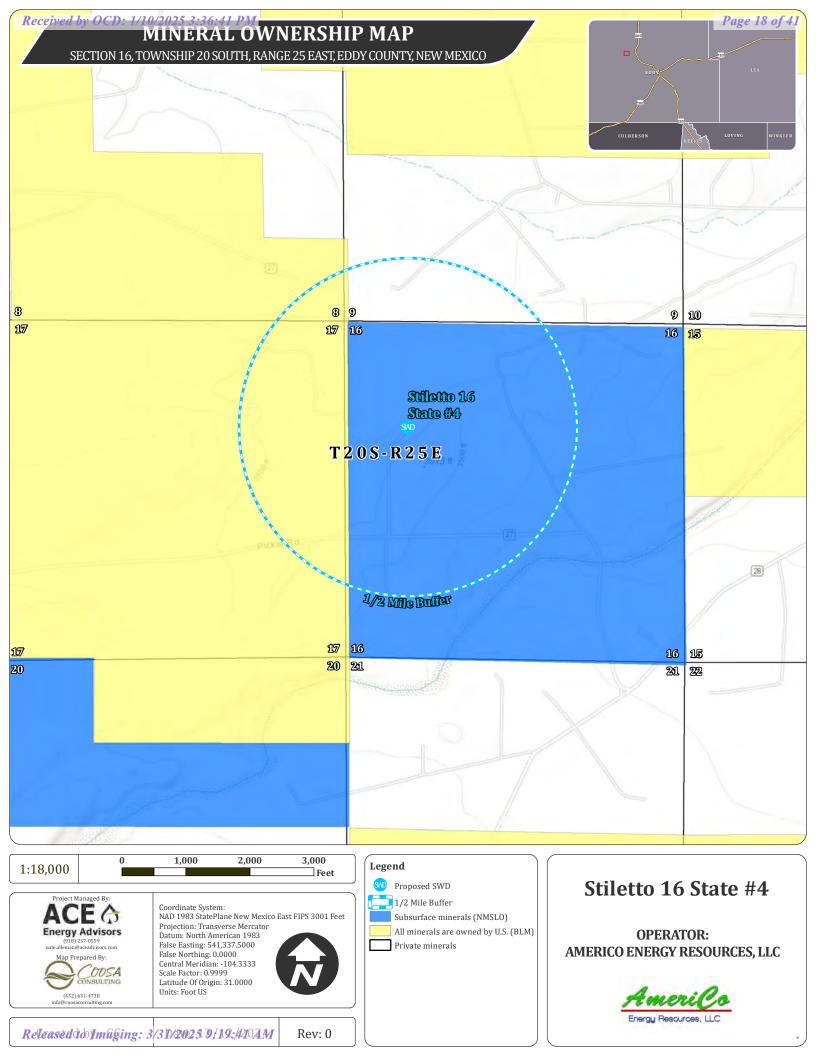
\*\* Operators of active, drilled well within AOR and will receive notification of this application.

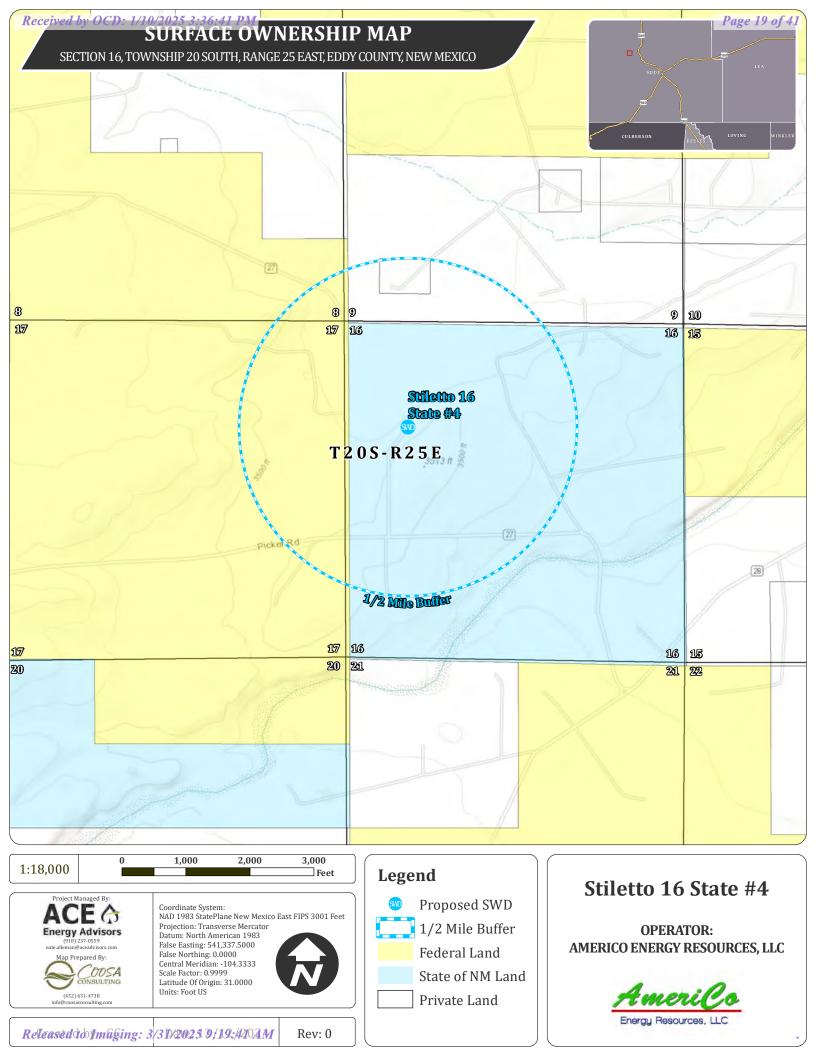
Penetrating Well Casing and Cement Details										
Well Name	API#	Туре	Hole	Size	Depth	Sacks	TOC	Method		
PINE BOX 17 FEDERAL COM #2	30-015-35268	Surface	12-1/4"	8-5/8"	1,160'	700	Surface	Circulation		
FINE BOX 17 FEDERAL CONT#2	30-013-33208	Production	7-7/8"	4-1/2"	9,700'	1,875	Surface	Circulation		
	30-015-21409	Surface	17-1/2"	13-3/8"	295'	300	Surface	Circulation		
1ST NATIONAL BANK OF ALBUQUERQUE A #1		Intermediate	11"	8-5/8"	1,250'	550	Surface	Circulation		
		Production	7-7/8"	4-1/2"	9,660'	600	Surface	Circulation		
ROYAL A #1	20.045.40040	Surface	12-1/4" & 11"	8-5/8"	2,300'	1,325	Surface	Circulation		
RUTAL A #1	#1 30-015-10816		7-7/8"	4-1/2"	9,620'	815	5,550'	TS		
BROWN HUMBLE #1	30-015-00089	Surface	17-1/2"	13-3/8"	1,001'	800	Surface	Circulation		
		Production	8-3/4"	5-1/2"	9,584'	360	7,900'	N/A		

\* calculated assuming 20% washout and 1 cubic ft per sack of cement

			Plugging		
Well Name	API#	Perfs	Casing Pulled	Plugs	Notes
ROYAL A #1	30-015-10816	4-1/2" casing 9,407' - 9,580' 8-5/8" casing 1,075' - 1,088'	5,000' of 4-1/2"	4-1/2" casing shot and pulled @ 5,000' 4-1/2" casing shot and pulled @ 5,000' 50 sx 4,862' - 5,035' 35 sx 3,500' - 3,379' 50 sx 2,212' - 2,385' 75 sx @ 1,076' 10 sx @ surface	Annular cement isolates injection interval and four cement plugs are present between the top of the injection interval at 7,320 ft and underground sources of drinking water, isolating and protecting underground drinking water resources.
BROWN HUMBLE #1	30-015-00089	9,346' - 9,434'	5,502' of 5-1/2"	CIBP @ 9,250'. Cap w/ cement to 9,210' Cut 5-1/2" casing @ 7,023'. Unable to pull Cut 5-1/2" casing @ 6,248'. Unable to pull Cut 5-1/2" casing @ 5,502' and pulled. 35 sx 4,700' - 4,800' 35 sx 3,000' - 3,100' 35 sx 2,250 - 2,350' 70 sx 950' - 1,050' Cement 0' - 20'	Five cement plugs are present between the top of the injection interval at 7,320 ft and underground sources of drinking water, isolating and protecting underground drinking water resources.







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	Source Formation Water Analysis																					
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftgns	Ftgew	County	State	Formation	Sampled	РН	TDS (Mg/L)	Sodium (Mg/L)	Calcium (MG/L)	Iron (MG/L)	Magnesium (MG/L)	Chloride (MG/L)	Bicarbonate (MG/L)	Sulfat (MG/L
NDIAN BASIN GAS COM #001	30-015-00037	32.4659195	-104.5794144	23	21S	23E	E	1980N	660W	EDDY	NM	MORROW			83,623							1
THOMAS #001	30-015-05917	32.6775208	-104.5005188	08	19S	25E	н	1980N	660E	EDDY	NM	SAN ANDRES/YESO			13,248					5226	1236	2412
THOMAS #001	30-015-05917	32.6775208	-104.5005188	08	19S	25E	н	1980N	660E	EDDY	NM	SAN ANDRES/YESO			49,145					31050	354	1656
OWE STAPLE AMR FEDERAL COM #001	30-015-10040	32.4623413	-104.4872971	22	21S	24E	K	1650S	2310W	EDDY	NM	MORROW	2001	7.1			1680	2.5	536	5112	671	1875
NDIAN FEDERAL GAS COM #001	30-015-10355	32.4662247	-104.5359268	19	21S	24E	G	1980N	1980E	EDDY	NM	MORROW			45,925							
BOYD BN COM #001	30-015-20153	32.6627655	-104.4661713	15	19S	25E	Н	1980N	660E	EDDY	NM	MORROW	2000	6.4			2120	60.0	536	38340	329	13
NDDUP UNIT #138	30-015-21478	32.6262703	-104.4918442	28	19S	25E	N	660S	1980W	EDDY	NM	MORROW	2000	8.51	7,125	1475	569	0.2	141	2066	737	1898
NDDUP UNIT #138	30-015-21478	32.6262703	-104.4918442	28	19S	25E	N	660S	1980W	EDDY	NM	MORROW	1999	7.6	10,988	2935	725	4.5	121	4296	670	2195
NDDUP UNIT #138	30-015-21478	32.6262703	-104.4918442	28	19S	25E	N	660S	1980W	EDDY	NM	MORROW	1999	7.3	206,220	87741	2503	46.4	369	135729	502	4411
NDDUP UNIT #138	30-015-21478	32.6262703	-104.4918442	28	19S	25E	N	660S	1980W	EDDY	NM	MORROW	1999	8.79	6258	1607	425	0.1	78	1783	385	1931
STATE ES #001	30-015-22280	32.5348358	-104.4405746	36	20S	25E	С	810N	1980W	EDDY	NM	MORROW	1977	6.4	82,312					50000	293	260
STATE ES #001	30-015-22280	32.5348358	-104.4405746	36	20S	25E	С	810N	1980W	EDDY	NM	MORROW	1977	7.9	189,050					111000	610	3600
ALLISON CQ FEDERAL COM #002	30-015-22935	32.6738396	-104.5480881	12	19S	24E	L	1980S	660W	EDDY	NM	MORROW	1985	6.1	3,852	115	1000	14.0	200	2500	112	40
RIO PENASCO KD COM #001	30-015-23227	32.684597	-104.4577332	02	19S	25E	Ν	660S	1980W	EDDY	NM	MORROW	2001	6.1			2800	50.0	2188	40896	171	50
ROUTH DEEP SWD #002	30-015-23585	32.6665802	-104.5566483	14	19S	24E	В	660N	1980E	EDDY	NM	MORROW	2000	7.98	7,511	1673	571	0.3	166	2254	865	1922
NORTH INDIAN BASIN UNIT #015	30-015-28305	32.5094452	-104.5757141	02	21S	23E	F	1980N	1830W	EDDY	NM	MORROW	1999	7.6	7,221	1734	536	2.0	121	2513	643	1584
WEEDY 9 SWD #001	30-015-28763	32,5861244	-104.487709	09	20S	25E	J	1980S	1980E	EDDY	NM	MORROW	1998	5.93	14.118	2692	1027	89.8	214	8072	364	19

•

	Injection Formation Water Analysis																				
Well Name	API	Latitude	Longitude	Section	Township	Range	Unit	Ftg	Ftg	County	State	Formation	Date	РН	TDS	Calcium (MG/L)	Iron (MG/L)		Chloride (MG/L)	Bicarbonate (MG/L)	
			-		-																(MG/L)
JOHN AGU #002	3001526468	32.5792274	-104.5523987	14	20S	24E	Α	660N	660E	EDDY	NM	CISCO	2000	6.1	216236	4576	1000	463	53321	72619	952
Note: the nearest	lote: the nearest Cisco produced water sample (above) was located approx. 3.3 miles west of the proposed SWD. No closer Cisco formation produced water samples were fidentified after a search of both public and private data.																				



# **SEISMIC RISK ASSESSMENT**

# **Well Information**

Stiletto 16 State #4 Americo Energy Resources LLC

## Well Location

1650 FNL & 990 FWL Sec 16 Township 20S Range 25 E Eddy County, New Mexico

# **Evaluation Performed By:**

Jason Currie Geologist. TXBG-PG Lic# 10329 Point Bar Energy

December 18, 2024

### **OVERVIEW**

### **GENERAL INFOMRATION**

Americo Energy Resources LLC (Americo) Stiletto 16 State #4 (Subject SWD) is in Section 16 Township 20S, Range 25E, about 19.5 miles northwest of Carlsbad, NM. Americo proposes open-hole injection of produced water for disposal within the Cisco Formation at depths of 7,320 ft – 8,520 feet (ft) below ground surface (bgs).

This report assesses the potential for concerns associated with induced seismicity associated with recorded faulting and seismicity as well as a description of the geologic isolation of the injection zone from known underground potable water sources.

### INJECTION INTERVAL DESCRIPTION

The Cisco formation is an Upper Pennsylvanian-aged marine limestone shelf deposit with depths of approximately 7,320 ft– 8,520 ft bgs. The total thickness of the formation is approximately 1,200 ft with approximately 25 ft of discontinuous lenses ranging in porosity from approximately 4-16%. The Cisco is overlaid by the Wolfcamp and underlain by the Strawn with confinement being provided by low permeability rock with each formation.

### **GROUNDWATER SOURCES**

Groundwater wells in the area range in depth from 90 ft – 500 ft bgs and depth to water ranging from approximately 30 ft – 270 ft bgs.

### **VERTICAL MIGRATION OF FLUIDS**

Overlying geologic confinement for the proposed Cisco injection interval is provided by low permeability portions of the Wolfcamp formation (approx. 218 ft thick). The top of the Cisco injection interval (7,320 ft bgs) is separated from domestic groundwater sources by approximately 7,050 ft of rock.

The underlying geologic confinement is provided by low permeability layers in the upper Strawn formation (approx. 113 ft thick). The Subject SWD will terminate in the Cisco formation at a depth of approx. 8,520 ft and the underlying impermeable formations will provide a barrier to ensure that injectate does not communicate with the lower Ordovician-aged Ellenburger, the Cambrian, or Precambrian basement rock below. In this area, Precambrian basement rock is expected to occur at a depth of approximately 11,500 ft bgs. Therefore, the proposed injection zone lies approximately 2,963 ft above the Precambrian basement.

# SEISMIC RISK ASSESSMENT

### **Historical Seismicity**

Review of the USGS and New Mexico Tech earthquake catalogs identified 26 seismic events within  $\ge$ M2.0 within the 6-mile Seismic Area of Interest (Seismic AOI) (Fig. 1 & Table 1). The closest recorded seismic events were an M3.0 and M3.4 located approx. 1.91 miles and 0.67 miles away, respectively. Both of these nearest seismic events were recorded by USGS in 2004 prior to the establishment of New Mexico Tech's seismic monitoring array. Additionally, depths for both events are recorded as 5.0km which is the default depth used by USGS for events when the actual depth is unknown. These findings indicate that the locations of these two nearest seismic events are not accurate.

Additionally, the depths for all other earthquake events within the Seismic AOI were recorded as the default 5.0-km, with one earthquake event at 10,794 bgs within the Dev-Silurian formation or at depths below the top of the Precambrian basement rock (11,500 ft bgs).

### **Faults and Subsurface Conditions**

As shown in Figure 1, the nearest known fault to the Subject SWD is a basement-rooted fault located approximately 10.6 miles to the southwest. No known faults are located within the 6-mile Seismic AOI of the Subject SWD.

Since no known faults are located within the 6-mile Seismic AOI, a Fault Slip Potential (FSP) model was not applicable; therefore, an FSP model was not performed.

### **CONCLUDING STATEMENTS**

Based on the available data, the seismic potential of the Subject SWD is expected to be minimal because of the following:

- 1. There is approx. 2,963 ft of rock between the bottom of the injection interval and Pre-Cambrian basement rock with numerous confining low permeability barriers preventing downward fluid migration which could result in hydrologic communication with Precambrian basement rock.
- 2. There are no known faults within the 6-mile Seismic AOI.
- 3. The locations of the seismic events recorded as occurring nearest to the Subject SWD are likely inaccurate based on the few USGS station counts present at the time of their occurrence to calculate an accurate location.
- 4. The remaining seismic events within the Seismic AOI either did not have enough station count data to calculate a depth, indicating an overall inaccuracy of the data, or the depth was recorded as being within the Precambrian Basement rock.

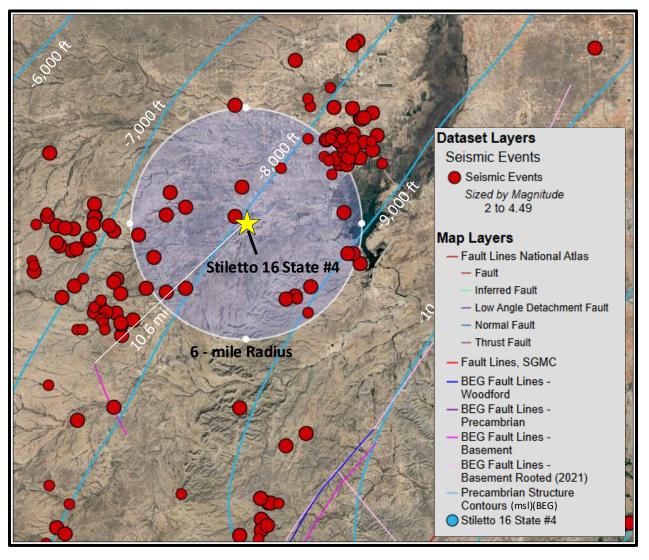
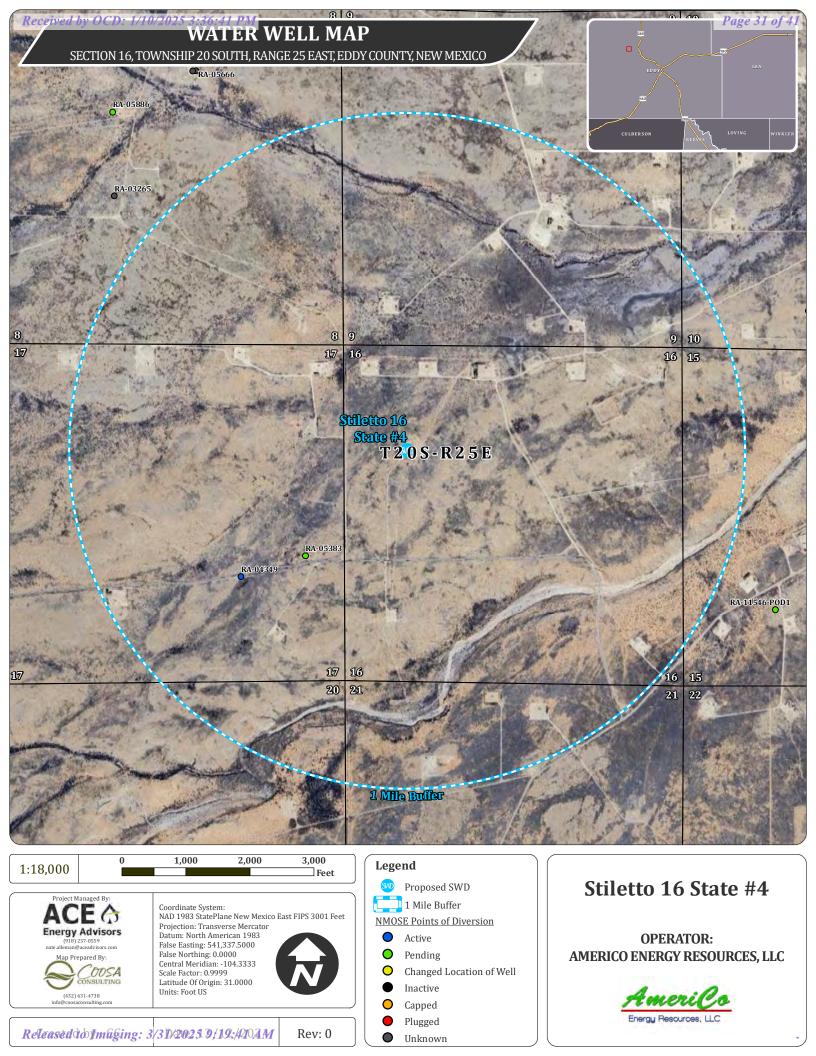


Figure1. Seismic Event and Fault Map with structural contours of the Precambrian basement in feet below sea level.

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Date	Magnitude	Depth (km)	Depth (ft)	Station Count	Source
07/26/2024	2.33	10.02	32,874	14	NM Tech
06/27/2024	2.60	5.00	16,404	22	USGS
06/27/2024	2.59	9.99	32,776	13	NM Tech
06/16/2024	2.05	3.29	10,794	19	NM Tech
03/01/2024	2.75	6.00	19,685	22	NM Tech
02/26/2024	2.02	8.16	26,772	11	NM Tech
02/24/2024	2.17	5.99	19,652	12	NM Tech
02/23/2024	2.85	12.42	40,748	20	NM Tech
01/06/2024	2.15	21.67	71,096	12	NM Tech
07/23/2023	2.21	5.00	16,404	13	NM Tech
06/05/2023	3.26	5.00	16,404	28	NM Tech
04/24/2023	2.51	5.00	16,404	31	NM Tech
11/30/2022	2.10	5.00	16,404	16	NM Tech
05/19/2022	2.09	5.00	16,404	20	NM Tech
04/03/2022	2.08	5.00	16,404	22	NM Tech
04/02/2022	2.90	5.00	16,404	32	NM Tech
03/25/2022	2.69	5.00	16,404	7	NM Tech
03/20/2006	3.00	5.00	16,404		USGS
01/27/2006	3.10	5.00	16,404		USGS
01/27/2006	2.70	5.00	16,404		USGS
12/22/2005	3.60	5.00	16,404		USGS
12/19/2005	4.10	5.00	16,404		USGS
10/28/2004	3.00	5.00	16,404		USGS
08/26/2004	3.40	5.00	16,404		USGS
05/23/2004	4.00	5.00	16,404	2	USGS
08/09/1999	2.90	5.00	16,404		USGS

Table 1. Seismic Event Details (B3 Insights, NM Tech, USGS)



.

			Water Well Samp	oling Table			
Water Well ID	<b>OSE Status</b>	Owner	Available Contact Information	Use	Latitude	Longitude	Notes
RA-04349	Active	Herman & George Brown	1133 Petroleum Life Bldg. Midland, TX 79705	Domestic	32.570899	-104.503686	Owner stated that the water well has been plugged
RA-05383	Pending	Bureau of Land Management	620 Greene St., Carlsbad, NM 88220-6292	Livestock watering	32.571806	-104.500431	Owner stated that the water well is not in service.
Note:							

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Subject

C-108 Application for Authorization to Inject Americo Energy Resources, LLC Stiletto 16 State #4 11650 FNL & 990 FWL, Sec 16 T20S R25E Eddy County, New Mexico

I have examined available geological and engineering data and found no evidence of open faults or any other hydrological connection between the proposed injection zone and any underground sources of drinking water.

Jun W Cumis

Jason Currie Geologist. TXBG-PG Lic# 10329 Ace Energy Advisors, LLC.

Date 12/112024

Americo Energy Resources, LLC, 7575 San Felipe, Ste 200, Houston, TX 77063, (OGRID# 228051), is filing Form C-108 (Application for Authorization to Inject) with the New Mexico Oil Conservation Division seeking administrative approval for commercial saltwater injection into its Stiletto 16 State SWD #4 (30-015-34812). This is an existing well located 1,650' FNL & 990' FWL in Section 16 Township 20S Range 25E in Eddy County, NM, which is approximately 19 miles NW of Carlsbad, NM. The purpose of the well is to inject produced water from permitted oil and gas wells in the area for non-commercial disposal into the Cisco Canyon formation at depths of 7320' – 8520' at a maximum surface injection pressure of 1,464 psi and a maximum injection rate of 3,000 barrels of water per day.

Objections or requests for hearing must be filed with the New Mexico Oil Conservation Division within fifteen (15) days. Any objection or request for hearing should be mailed to the Oil Conservation Division, 1220 South St. Francis Dr. Additional information may be obtained by contacting the operator contact, Nate Alleman, at (918) 237-0559 or info@aceadvisors.com.

### AFFIDAVIT OF PUBLICATION

CARLSBAD CURRENT-ARGUS **PO BOX 507** HUTCHINSON, KS 67504-0507

STATE OF MINNESOTA SS COUNTY OF REDWOOD }

Account Number: 226

Ad Number:	25890
Description:	Stiletto 16 State SWD 4
Ad Cost:	\$69.81

Sherry Groves, being first duly sworn, says:

That she is the Agent of the the Carlsbad Current-Argus, a Weekly newspaper of general circulation, printed and published in Carlsbad, Eddy County, New Mexico; that the publication, a copy of which is attached hereto, was published in said newspaper on the following dates:

December 14, 2024

That said newspaper was regularly issued and circulated on those dates. SIGNED:

Sherry Dances Agent

Subscribed to and sworn to me this 14th day of December 2024.

Leanne Kaufenberg, Notary Public, Redwood County

Minnesota

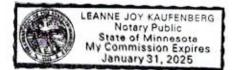
#### PUBLIC NOTICE

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Published in the Carlsbad Current-Argus December 14, 2024. #25890

NATHAN ALLEMAN ACE ENERGY ADVISORS 100 ESSEX LANE BARTLESVILLE, OK 74006 paul.keeler@aceadvisors.com



### **Statement of Affected Person Notification**

A copy of the C-108 application has been provided to the following Affected Persons as notification of the subject Application for Authorization to Inject (C-108).

Entity Name	Entity Address	Mailing Date		
Site Surface Owner				
State Land Office	602 N Canal, Suite B Carlsbad, NM 88220	01/10/2025		
Applicable Mineral Owners				
Bureau of Land Management	Oil and Gas Division 620 E Greene St. Carlsbad, NM 88220	01/10/2025		
State Land Office	602 N Canal, Suite B Carlsbad, NM 88220	01/10/2025		
OCD District Office				
OCD - District 2	506 W. Texas Ave. Artesia, NM 88210	01/10/2025		
	Leaseholders within AOR			
Coert Holdings 1, LLC	20 Horseneck Lane Greenwich, CT 06830	01/10/2025		
BHP Petro Amer. Inc.	P.O. Box 977 Farmington, NM 87499	01/10/2025		
OXY USA Inc	P.O. Box 4294 Houston, TX 77210	01/10/2025		
Mewbourne Oil Co.	PO Box 5270 Hobbs, NM 88241	01/10/2025		
Well Operators within AOR				
Mewbourne Oil Co.	PO Box 5270 Hobbs, NM 88241	01/10/2025		
Americo Energy Resources, LLC	7575 San Felipe, Ste 200 Houston, TX 77063	01/10/2025		



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Sante Fe Main Office Phone: (505) 476-3441

General Information Phone: (505) 629-6116

Online Phone Directory https://www.emnrd.nm.gov/ocd/contact-us

# State of New Mexico Energy, Minerals and Natural Resources Oil Conservation Division 1220 S. St Francis Dr. Santa Fe, NM 87505

CONDITIONS

Operator:	OGRID:
AMERICO ENERGY RESOURCES LLC	228051
7575 San Felipe	Action Number:
Houston, TX 77063	419611
	Action Type:
	[C-108] Fluid Injection Well (C-108)
CONDITIONS	

CONDITIONS		
Created By	Condition	Condition Date
mgebremichael	None	3/31/2025

Action 419611

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