<u>District I</u> 1625 N. French Dr., Hobbs, NM 88240 Phone:(575) 393-6161 Fax:(575) 393-0720

District II 811 S. First St., Artesia, NM 88210 Phone:(575) 748-1283 Fax:(575) 748-9720

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 Fe, NM 87505 Phone:(505) 476-3470 Fax:(505) 476-3462

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

Form C-101 August 1, 2011

Permit 345905

	APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A A	ZONE
Operator Name and Address		OCDID Num

Operator Name and Address	2. OGRID Number						
American Energy Resources LLC	372991						
P.O. BOX 114	3. API Number						
Hagerman, NM 88232		30-015-54000					
4. Property Code	5. Property Name	6. Well No.					
334557	Tansill Fee	002					

7 Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
1	8	22S	27E		2160	S	1129	E	Eddy

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	8	22S	27E	l i	2160	S	1129	E	Eddv

9. Pool Information

ESPERANZA;BONESPRING	97755

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		Private	3086
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	9875	Bone Spring		9/1/2023
Depth to Ground water		Distance from nearest fresh water well		Distance to nearest surface water

☑ We will be using a closed-loop system in lieu of lined pits

21. Proposed Casing and Cement Program

			Z I. FTOPOSEU Casili	and Cement Frogram		
Тур	e Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Su	rf 17.5	13.375	48	425	415	0
Int	1 12.25	9.625	36	2800	935	0
Pro	nd 7.875	5.5	17	9875	1675	0

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

22. Froposed Blowout Frevention Frogram								
Туре	Working Pressure	Test Pressure	Manufacturer					
Annular	5000	4000	Schaffer					
Double Ram	5000	4000	Schaffer					

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. I further certify I have complied with 19.15.14.9 (A) NMAC ☒ and/or 19.15.14.9 (B) NMAC ☒, if applicable.				OIL CONSERVATIO	ON DIVISION
Signature: Printed Name:	Electronically filed by Jonathan S	amaniego	Approved By:	Ward Rikala	
Title:	Owner		Title:		
Email Address:	Email Address: energy.jrs@gmail.com			7/25/2023	Expiration Date: 7/25/2025
Date:	7/23/2023	Conditions of Appr	oval Attached		

DISTRICT I

1625 N. French Dr., Hobbs, NM 88240
Phone: (575) 383-6161 Fax: (575) 393-0720

State of New Mexico

Energy, Minerals & Natural Resources Department

Form C-102 1 te e

Certificate No. CHAD HARCROW 17777

DRAWN BY: WN

W.O. #23-551

DISTRICT II 811 S. FIRST ST., A Phone: (575) 748-1283 DISTRICT III 1000 RIO BRAZOS F Phone: (505) 334-61	RD., AZTEC, N	88210 8-9720 M 87410		1220 S	OUTH S	Γ. F	ON DIVI RANCIS DR. xico 87505	SION	Revised A Submit one copy t	ugust 1, 201 to appropriati
DISTRICT IV 1220 S. ST. FRANCIS I Phone: (505) 476-34		NM 87505 476-3462	WEII I	OCATION	J AND A	ODE A	CE DEDICATI	ON DIAM	□ AMEND	ED REPOR
API	Number		WELL LO	Pool Code	AND A	CKEA	GE DEDICATI	Pool Name		
30-015- ₅₄₀	000			97755			Espera	anza;Bone Sp	oring	
Property (Proper	ty Nam		L FEE	Well Nur 2	nber
37299	9000			A	Operato MERICAN			2	Elevation 308	
					Surface	Loca	ation			
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from the	East/West line	County
	8	22-S	27-E		2160	C	SOUTH	1129	EAST	EDDY
			Bottom	Hole Lo	cation If	Diffe	rent From Sui	face		
UL or lot No.	Section	Township	Range	Lot Idn	Feet from	the	North/South line	Feet from the	East/West line	County
Dedicated Acres	Joint o	r Infill Co	nsolidation	Code 0	rder No.					
NO ALLO	WABLE W	OR A N	SSIGNED NON-STAN	TO THIS	COMPLETI NIT HAS E	ON U EEN	NTIL ALL INTE APPROVED BY	RESTS HAVE BI THE DIVISION	EEN CONSOLID	ATED
				SURFAC Y=51 X=58 LAT.=32	83 NME CE LOCATION 11469.2 N 80419.4 E 2.406033' N 04.206697' W	S	1129'	I hereby herein is true my knowledge organization en or unleased m including the or has a right location pursu owner of such or to a volunt compulsory poby the division Signature BRIAN W Printed Nam brian E-mail Address SURVEYOUS I hereby shown on this notes of actual under my super true and correct of the super supe	Date of Survey Date of Professiona	representation to best of this generation this generation this the land the location the land the location that the land the location the land the location that or a re-entered the land the la
	! 			<u> </u> 		2160,		TICENSE!	DL. HARCRO	NO.

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

Form APD Conditions

Permit 345905

PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
American Energy Resources LLC [372991]	30-015-54000
P.O. BOX 114	Well:
Hagerman, NM 88232	Tansill Fee #002

OCD Reviewer	Condition
ward.rikala	Notify OCD 24 hours prior to casing & cement
ward.rikala	Once the well is spud, to prevent ground water contamination through whole or partial conduits from the surface, the operator shall drill without interruption through the fresh water zone or zones and shall immediately set in cement the water protection string
ward.rikala	Cement is required to circulate on both surface and intermediate1 strings of casing
ward.rikala	Oil base muds are not to be used until fresh water zones are cased and cemented providing isolation from the oil or diesel. This includes synthetic oils. Oil based mud, drilling fluids and solids must be contained in a steel closed loop system
ward.rikala	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud

State of New Mexico Energy, Minerals and Natural Resources Department

Submit Electronically Via E-permitting

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

NATURAL GAS MANAGEMENT PLAN

This Natural Gas Management Plan must be submitted with each Application for Permit to Drill (APD) for a new or recompleted well.

Section 1 – Plan Description <u>Effective May 25, 2021</u>

1. Operator: AIVIERIC	AN ENERGY	RESOURCES LL	.c ogrid: 3.	27991		Date: _	07/2	21/23
II. Type: ☑ Original [☐ Amendment	due to □ 19.15.27.	9.D(6)(a) NMA	C □ 19.15.27.9.D((6)(b) N	MAC 🗆 (Other.	
If Other, please describe	e:							
III. Well(s): Provide the be recompleted from a s	e following info	formation for each roor connected to a connected to	new or recomple entral delivery p	eted well or set of vooint.	wells pr	oposed to	be dril	led or proposed to
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D		Anticipated Gas MCF/D P1		Anticipated oduced Water BBL/D
TANSILL FEE 2	30-015-	I-8-22S-27E	2160 FSL	100	1	150		200
		·	1129 FEL					
V. Anticipated Schedu proposed to be recomple Well Name	IN le: Provide the	I-8-22S-27E following informat	ion for each new nected to a centr	v or recompleted water al delivery point. Completion	ı	et of wells Initial F	propo	First Production
			Date	Commencement	Date	Back Date		Date
TANSILL FEE 2	30-015-	9-1-23	9-15-23	10-1-23		10-31-	23	11-15-23
VI. Separation Equipm VII. Operational Prac Subsection A through F VIII. Best Management during active and planner	tices: ☑ Attacl of 19.15.27.8 Int Practices: ☑	h a complete descr NMAC.	iption of the ac	tions Operator wil	l take to	o comply	with th	ne requirements of

Section 2 – Enhanced Plan

			E APRIL 1, 2022			
Beginning April 1, reporting area must	2022, an operator the complete this section	hat is not in compliance n.	with its statewide natural ga	is capture require	ement for the applicable	
capture requirement	for the applicable re	eporting area.	ction because Operator is in o	compliance with i	its statewide natural gas	
IX. Anticipated Na	tural Gas Producti	on:				
Well		API	API Anticipated Average Natural Gas Rate MCF/D		ed Volume of Natural the First Year MCF	
X. Natural Gas Gat	thering System (NC	GGS):				
Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in		
production operation the segment or portion XII. Line Capacity. production volume for XIII. Line Pressure	is to the existing or point of the natural gas. The natural gas gain from the well prior to the company of the	planned interconnect of the gathering system(s) to we thering system will the date of first product does not anticipate the	ocation of the well(s), the and the natural gas gathering system which the well(s) will be considered with the well(s) will be considered with the well(s) will be considered with the well(s) connected the existing well(s) connected meet anticipated increases in	m(s), and the manacted. ather 100% of the	e anticipated natural gas	
☐ Attach Operator's	s plan to manage pro	oduction in response to th	ne increased line pressure.			
Section 2 as provided	d in Paragraph (2) of	erts confidentiality pursu f Subsection D of 19.15.2 the basis for such asserti	uant to Section 71-2-8 NMS 27.9 NMAC, and attaches a fi ion.	A 1978 for the i	nformation provided in the specific information	

Section 3 - Certifications Effective May 25, 2021

Operator certifies that, after reasonable inquiry and based on the available information at the time of submittal:

☑ Operator will be able to connect the well(s) to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system; or

□ Operator will not be able to connect to a natural gas gathering system in the general area with sufficient capacity to transport one hundred percent of the anticipated volume of natural gas produced from the well(s) commencing on the date of first production, taking into account the current and anticipated volumes of produced natural gas from other wells connected to the pipeline gathering system. If Operator checks this box, Operator will select one of the following:

Well Shut-In.

Operator will shut-in and not produce the well until it submits the certification required by Paragraph (4) of Subsection D of 19.15.27.9 NMAC; or

Venting and Flaring Plan.

Operator has attached a venting and flaring plan that evaluates and selects one or more of the potential alternative beneficial uses for the natural gas until a natural gas gathering system is available, including:

- (a) power generation on lease;
- (b) power generation for grid;
- (c) compression on lease;
- (d) liquids removal on lease;
- (e) reinjection for underground storage;
- (f) reinjection for temporary storage;
- reinjection for enhanced oil recovery; (g)
- (h) fuel cell production; and
- (i) other alternative beneficial uses approved by the division.

Section 4 - Notices

- 1. If, at any time after Operator submits this Natural Gas Management Plan and before the well is spud:
- Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become (a) unavailable or will not have capacity to transport one hundred percent of the production from the well(s), no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised venting and flaring plan containing the information specified in Paragraph (5) of Subsection D of 19.15.27.9 NMAC; or
- Operator becomes aware that it has, cumulatively for the year, become out of compliance with its baseline natural gas capture rate or natural gas capture requirement, no later than 20 days after becoming aware of such information, Operator shall submit for OCD's approval a new or revised Natural Gas Management Plan for each well it plans to spud during the next 90 days containing the information specified in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and shall file an update for each Natural Gas Management Plan until Operator is back in compliance with its baseline natural gas capture rate or natural gas capture requirement.
- 2. OCD may deny or conditionally approve an APD if Operator does not make a certification, fails to submit an adequate venting and flaring plan which includes alternative beneficial uses for the anticipated volume of natural gas produced, or if OCD determines that Operator will not have adequate natural gas takeaway capacity at the time a well will be spud.

and Gas Act. Signature: Printed Name: **BRIAN WOOD** Title: CONSULTANT E-mail Address: brian@permitswest.com Date: 7-23-23 Phone: 505 466-8120 OIL CONSERVATION DIVISION (Only applicable when submitted as a standalone form) Approved By: Title: Approval Date: Conditions of Approval:

I certify that, after reasonable inquiry, the statements in and attached to this Natural Gas Management Plan are true and correct to the best of my knowledge and acknowledge that a false statement may be subject to civil and criminal penalties under the Oil

VI. SEPARATION EQUIPMENT

American Energy Resources LLC (American) tentatively plans to install a separator, heater-treater, oil and water tanks, vapor recovery tower and piping among tanks, gas scrubber, and fuel safety shut-off valve depending on volumes.

VII. Operational Practices

NMAC 19.15.27.8 (A) Venting & Flaring of Natural Gas

1. American will comply NMAC 19.15.27.8 – venting and flaring of gas during drilling, completion, or production that constitutes waste as defined in 19.15.2 is banned.

NMAC 19.15.27.8 (B) Venting & Flaring During Drilling

- 1. American will capture or combust gas if technically feasible during drilling operations using best industry practices.
- 2. A flare stack with a 100% capacity for expected volume will be set on the pad ≥100 feet from the nearest well head and storage tank.
- 3. In an emergency, AMERICAN will vent gas in order to avoid substantial impact. AMERICAN will report vented or flared gas to the NMOCD.

NMAC 19.15.27.8 (C) Venting & Flaring During Completion or Recompletion

- 1. Facilities will be built and ready from the first day of flowback
- 2. Test separator will be properly separate gas and liquids. Temporary test separator will be used initially to process volumes. In addition, separator will be tied into flowback tanks which will be tied into the gas processing equipment for sale down a pipeline.
- 3. Should the facility not be ready to process gas, or the gas does not meet quality standards, then storage tanks will be set that are tied into gas busters or a temporary flare to manage all gas. This flare would meet the following requirements:
 - a) An appropriately sized flare stack with an automatic igniter
 - b) American analyzes gas samples twice a week
 - c) American flows the gas into a gathering line as soon as the pipeline specifications are met
 - d) American provides the NMOCD with pipeline specifications and natural gas data.

NMAC 19.15.27.8 (D) Venting & Flaring During Production

American will not vent or flare natural gas except:

1. During an emergency or malfunction

- 2. To unload or clean-up liquid holdup in a well to atmospheric pressure, provided
 - a) American does not vent after the well achieves a stabilized rate and pressure
 - b) American will be on-site while unloading liquids by manual purging and take all reasonable actions to achieve a stabilized rate and pressure as soon as possible
 - c) American will optimize the system to minimize gas venting if the well is equipped with a plunger lift or auto control system
 - d) Best management practices will be used during downhole well maintenance.
- 3. During the first year of production from an exploratory well provided
 - a) American receives approval from the NMOCD
 - b) American stays in compliance with NMOCD gas capture requirements
 - c) American submits an updated C-129 form to the NMOCD
- 4. During the following activities unless prohibited
 - a) Gauging or sampling a storage tank or low-pressure production vessel
 - b) Loading out liquids from a storage tank
 - c) Repair and maintenance
 - d) Normal operation of a gas-activated pneumatic controller or pump
 - e) Normal operation of a storage tank but not including venting from a thief hatch
 - f) Normal operation of dehydration units
 - g) Normal operations of compressors, engines, turbines, valves, flanges, & connectors
 - h) During a Braden head, packer leak test, or production test lasting <24 hours
 - i) When natural gas does not meet the gathering line specifications
 - j) Commissioning of lines, equipment, or facilities only for as long as necessary to purge introduced impurities.

NMAC 19.15.27.8 (E) Performance Standards

- 1. American used a safety factor to design the separation and storage equipment. The equipment will be routed to a vapor recovery system and uses a flare as back up for startup, shutdown, maintenance, or malfunction of the VRU system.
- 2. American will install a flare that will handle the full facility vapor volume in case the VRU fails. It will have an auto-ignition system.
- 3. Flare stacks will be appropriately sized and designed to ensure proper combustion efficiency
 - a) Flare stacks installed or replaced will be equipped with an automatic ignitor or continuous pilot.
 - b) Previously installed flare stacks will be retrofitted within 18 months of May 25, 2021 with an automatic ignitor, continuous pilot, or technology that alerts AMERICAN to flare malfunction.
 - c) Flare stacks replaced after May 25, 2021 will be equipped with an automatic ignitor or continuous pilot if at a well or facility with an average production of ≤60 Mcfd of natural gas.

- d) Flare stacks will be located >100 feet from well head and storage tanks and securely anchored.
- 4. American will conduct an audio/visual/olfactory inspection on all components for leaks and defects every week.
- 5. American will make and keep records of AVO inspections available to the NMOCD for at least 5 years.
- 6. American may use a remote or automated monitoring technology to detect leaks and releases in lieu of AVO inspections with prior NMOCD approval.
- 7. Facilities will be designed to minimize waste.
- 8. American will resolve emergencies as promptly as possible.

NMAC 19.15.27.8 (F) Measuring or Estimating Vented & Flared Natural Gas

- 1. American will have meters on both the low pressure and high-pressure sides of the flares. Volumes will be recorded in the SCADA system.
- 2. American will install equipment to measure the volume of flared natural gas that has an average production of <a>>60 Mcfd.
- 3. American's measuring equipment will conform to industry standards.
- 4. Measurement system will be designed such that it cannot be bypassed except for inspections and servicing the meters.
- 5. American will estimate the volume of vented or flared gas using a methodology that can be independently verified if metering is not practicable due to low flow rate or pressure.
- 6. American will estimate the volume of vented and flared gas based on the results of an annual GOR test for wells that do not require measuring equipment reported on form C-116.
- 7. American will install measuring equipment whenever the NMOCD determines that metering is necessary.

VIII. Best Management Practices

American will minimize venting during maintenance by:

- 1. Designing and operating system to route storage tank and process equipment emissions to the VRU. If the VRU is not operable, then vapors will be routed to the flare.
- 2. Scheduling maintenance for multiple tasks to minimize the need for blowdowns.
- 3. After completion of maintenance, gas will be flared until it meets pipeline specifications.