<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 334061

APPLICATION FOR PERMIT TO DRILL, RE-ENTER, DEEPEN, PLUGBACK, OR ADD A ZO
--

AT LIGATION ON LIMIT TO BRILL, HE LITTLING DELL LIN, I LOODAGING ON ADDITIONE								
Operator Name and Address		2. OGRID Number						
Spur Energy Partners LLC	328947							
9655 Katy Freeway		3. API Number						
Houston, TX 77024		30-025-51073						
4. Property Code	5. Property Name	6. Well No.						
333781	PEBBLE 8 7 STATE COM	010H						

7. Surface Location

ſ	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
	В	8	17S	33E	В	775	N	2215	E	Lea

8. Proposed Bottom Hole Location

	UL - Lot	Section	Township	Range	Lot Idn	Feet From	N/S Line	Feet From	E/W Line	County
١	D	7	17S	33E	1	1270	N	50	W	Lea

### 9. Pool Information

MALJAMAR;YESO, WEST	44500

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
New Well	OIL		State	4211
16. Multiple	17. Proposed Depth	18. Formation	19. Contractor	20. Spud Date
N	14477	Paddock		6/15/2023
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

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Surf	17.5	13.375	54.5	1450	1414	0
Int1	12.25	9.625	36	3175	808	0
Prod	8.75	7	32	6350	2830	0
Prod	8.85	5.5	20	14477	2830	0

### **Casing/Cement Program: Additional Comments**

22. Proposed Blowout Prevention Program

==·····									
Туре	Working Pressure	Test Pressure	Manufacturer						
Double Ram	5	5000	SHAFFER						

knowledge and be	· · ·			OIL CONSERVATIO	ON DIVISION
Signature:					
Printed Name:	Electronically filed by Sarah Cha	apman	Approved By:	Paul F Kautz	
Title:	Regulatory Director			Geologist	
Email Address:	nail Address: schapman@spurenergy.com			2/10/2023	Expiration Date: 2/10/2025
Date:	2/9/2023	Phone: 832-930-8613	Conditions of Appr	oval Attached	

District 1 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 Road, Aztec, NM 87410 Phone: (505) 334-6178 Fax: (505) 334-6170 District IV 1220 S. St. Francis Dr., Santa Fe. NM 87505

Phone: (505) 476-3460 Fax: (505) 476-3462

# State of New Mexico Energy, Minerals & Natural Resources Department OIL CONSERVATION DIVISION 1220 South St. Francis Dr. Santa Fe, NM 87505

Form C-102 Revised August 1, 2011 Submit one copy to appropriate District Office

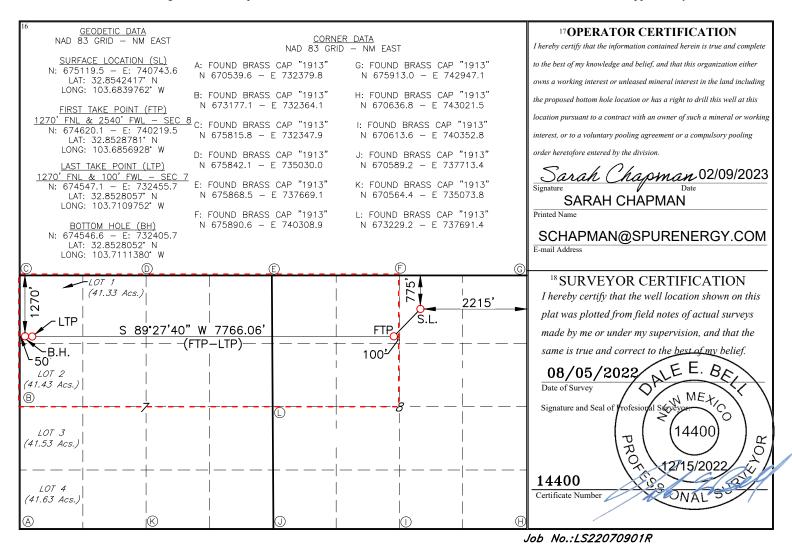
☐ AMENDED REPORT

### WELL LOCATION AND ACREAGE DEDICATION PLAT

30-025-5	<sup>2</sup> Pool Code <b>97727</b> WC-				WC-025 G-03 S173318N;YESO						
<sup>4</sup> Property Co <b>333781</b>	ode		PEBBLE 8-7 STATE COM						<sup>6</sup> Well Number <b>10H</b>		
70GRID 32894			SPUR ENERGY PARTNERS LLC.								
					10 Surface	Location					
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet From the	East/W	est line	County	
В	8	17S	33E		775	75 NORTH 2215 EAST				LEA	
	11 Bottom Hole Location If Different From Surface										

	Bottom Hole Location II Different From Surface								
UL or lot no.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
1	7	17S	33E		1270	NORTH	50	WEST	LEA
12 Dedicated Acres	13 Joint	or Infill 14	Consolidation	Code 15	Order No.				
480									

No allowable will be assigned to this completion until all interest have been consolidated or a non-standard unit has been approved by the division.



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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 334061

### PERMIT CONDITIONS OF APPROVAL

Operator Name and Address:	API Number:
Spur Energy Partners LLC [328947]	30-025-51073
9655 Katy Freeway	Well:
Houston, TX 77024	PEBBLE 8 7 STATE COM #010H

OCD	Condition
Reviewer	
pkautz	Notify OCD 24 hours prior to casing & cement
pkautz	Will require a File As Drilled C-102 and a Directional Survey with the C-104
pkautz	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
pkautz	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
pkautz	The Operator is to notify NMOCD by sundry (Form C-103) within ten (10) days of the well being spud
pkautz	Cement is required to circulate on both surface and intermediate1 strings of casing

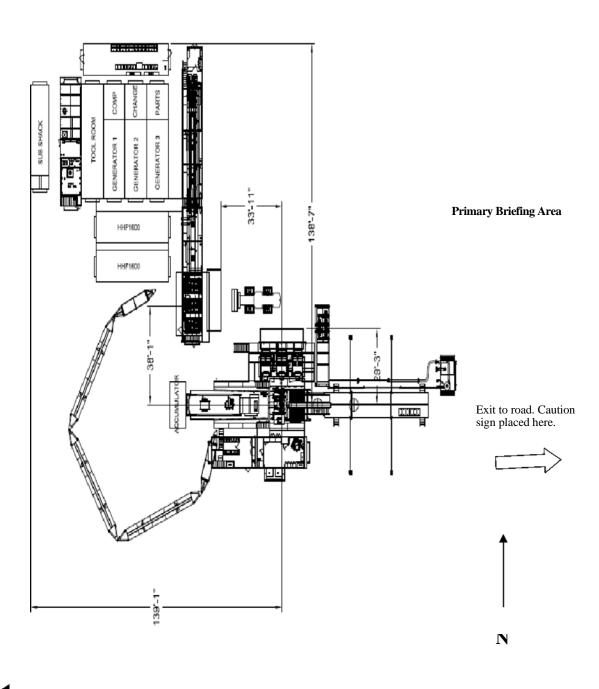
Intent	:	As Dril	ed											
API#														
Opei	rator Nar	ne:				Prop	perty N	ame:						Well Number
						l								
Kick C	off Point	(KOP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	de				Longitu	ude					NAD			
					1									
First T	ake Poin	t (FTP)												
UL	Section	Township	Range	Lot	Feet		From N	I/S	Feet		Fron	n E/W	County	
Latitu	de				Longitu	ıde							NAD	
Lact T	ake Poin	+ /I TD\												
UL	Section	Township	Range	Lot	Feet	Fror	m N/S	Feet		From	E/W	Count	:y	
Latitu	de				Longitu	ıde						NAD		
Is this	well the	defining w	ell for th	ne Hori:	zontal Sp	pacing	g Unit?							
Is this	well an i	infill well?			7									
15 (1115	Well diri				_									
	l is yes pl ng Unit.	ease provi	de API if	availak	ole, Opei	rator I	Name	and w	vell ni	umbei	r for I	Definir	ng well fo	r Horizontal
API#														
Opei	rator Nar	ne:	l			Prop	perty N	ame:						Well Number

KZ 06/29/2018



# Hydrogen Sulfide (H2S) Operations Plan For Spur Energy Partners New Mexico Operations

# **Secondary Briefing Area**





**WIND:** Prevailing winds are from the <u>Southwest</u>



# Spur Energy Partners New Mexico Operations Hydrogen Sulfide Operation Plan

# A. Introduction:

The Safety of all personnel at Spur Energy Partners Facilities is of utmost importance to the company, and therefor management and employees must take responsibility for their safety and for the safety of all employees and others at a facility. If you have any concerns about the safe operations of the facility, contract personnel, or vendors, please contact the Company's Safety Contact, Superintendent, or Production Foreman immediately.

The objective of this contingency plan is to provide an organized plan of action for alerting, responding to and protecting employees, other workers and the public from H2S exposure in the event of a release of a potentially hazardous volume of H2S to the atmosphere. This plan should be activated immediately if any such release occurs. The Superintendent is responsible for initiating and carrying out the plan.

# B. Scope:

Prevent the uncontrolled release of H<sub>2</sub>S into the atmosphere. Provide proper procedures and equipment to alert and respond to emergencies.

Provide immediate and adequate medical attention should an injury occur.

To provide Company employees working at actual or potential Hydrogen Sulfide (H2S) facilities with a safe procedure to comply with applicable Federal, State and Company requirements.

This document is intended to provide general policy, procedures and expectations surrounding elevated levels of H2S. The intent is to promote sound and safe operations, while seeking effective communication surrounding operational considerations working around H2S.

This procedure applies to all Company employees and contractors working at facilities that have the potential to release 100 ppm or higher concentrations of H2S.

The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H<sub>2</sub>S).

# C. Hydrogen Sulfide Gas (H2S) Characteristics:

- H2S is a toxic, poisonous gas that could cause death or injury. And it is also flammable.
- 2. H2S is an irritant and extremely toxic gas that is several times deadlier than carbon monoxide (CO).
- 3. H2S is heavier than air with a specific gravity of 1.1895 @ 600 F. so it will tend to lie in lower areas. Wind movement or air currents can readily disperse H2S since wind currents can easily overcome the heavier weight. On calm days, with no wind, the H2S will tend to accumulate in dangerous concentrations; however, if the H2S is warmer than the surrounding air it may rise.
- 4. H2S is colorless.
- 5. In small concentrations, H2S has the characteristic odor of rotten eggs. It may be detected by smell at a concentration in air of about 2 ppm but may NOT be detected

at high concentrations. DO NOT DEPEND ON THE SENSE OF SMELL TO DETECT H2S! H2S will paralyze the olfactory nerve causing a loss of the sense of smell within 2 – 15 minutes of an exposure in concentrations as low as 100-150 ppm.

H2S burns with a blue flame and has an auto ignition temperature of 5000 F. H2S forms an explosive mixture in the range of 4.3% to 45% by volume with air. H2S, when ignited, produces Sulfur Dioxide (SO2). SO2 is another toxic gas but less toxic than H2S.

# 7. Physiological Effects

- 1,000-2,000+ ppm: Loss of consciousness and possible death.
- 100-1,000 ppm: Serious respiratory, central nervous, and cardiovascular system effects.
- 150-200 ppm: Olfactory fatigue (sense of smell is significantly impaired).
- 100 ppm: Immediately Dangerous to Life and Health (IDLH concentration).
- 5-30 ppm: Moderate irritation of the eyes.
- 5-10 ppm: Relatively minor metabolic changes in exercising individuals during short-term exposures.
- Less than 5 ppm: Metabolic changes observed in exercising individuals, but not clinically significant.
- 5 ppm: Increase in anxiety symptoms (single exposure).
- 5 ppm: Start of the dose-response curve (short-term exposure).
- 0.032-0.02 ppm: Olfactory threshold (begin to smell).

# D. H<sub>2</sub>STraining

All personnel, whether regularly assigned, contracted, or employed on an unscheduled basis, will receive training from a qualified instructor in the following areas prior to commencing work at an effected facility:

- 1. The hazards and characteristics of hydrogen sulfide (H2S)
- 2. The proper use and maintenance of personal protective equipment and life support systems.
- 3. The proper use of H<sub>2</sub>S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.
- 5. The procedures for operating process equipment.

In addition, supervisory personnel will be trained in the following areas:

- 1. Corrective action and shutdown procedures when a release or leak occurs.
- 2. Notification process

Annual drills will be conducted to utilize the procedures and make improvements as needed. It will also serve as refresher training on the process.

Note: All H2S safety equipment and systems will be installed, tested, and operational when operation commences.

# E. Protective equipment controls:

Any facility that has the potential to emit H2S at 100 ppm or higher will be required to install and utilize the below controls:

- 1. Where applicable, area air monitors will be installed and function tested and calibrated no less than monthly and set on a quarterly basis PM schedule.
- 2. Facility operators will use self contained breathing apparatuses (SCBA's ) to perform routine operations in areas where H2S may be present.
- 3. Trigger of 100 PPM or more must be communicated and work proceeding the trigger must use the buddy system.
- 4. Visible windsocks must be installed at key locations surrounding the facility.
- 5. H2S warning signs must be placed at the entrance to the facility as well as other key locations.
- 6. Personal H2S Monitor are required to be worn by all personnel on locations.
- 7. Stairs and ladders leading to the top of a tank or vessel containing 300 ppm or greater shall be chained or marked to restrict entry.

# F. Emergency Procedures

# 1. Spill or Release of H₂S gas

If a spill or leak releases H<sub>2</sub>S the following action must be initiated and completed:

- a. Internally Employee contacts supervisor and HSE Department and performs "d" below.
- b. Externally Someone identifies a possible H<sub>2</sub>S emergency and reports it to Company Management, via the listed phone number on posted facility signs.
- c. The Company dispatches an employee to investigate possible H<sub>2</sub>S emergency and will secure situation or initiate emergency call for backup.
- d. If the Radius of Exposure has been breached begin the following:
  - Establish safe command center.
  - Call for additional personnel and delegate the following:
    - i. Notifying public safety agencies (Sheriff, Fire Department, Department of Public Safety, Hwy. Department).
    - ii. Safeguarding the facility and effected area.
    - iii. Blocking roads as needed.
    - iv. Notifying/evacuating public.
    - v. Notifying regulatory agencies.
    - vi. Gathering additional information about release ie., location, flowrate, quantity, etc.
    - vii. Stopping release if safe to do so (use 2 trained persons)
    - viii. Notifying company management.
    - ix. Cleanup/repair facilities.

# e. Facility Standard Operating Procedure

- Evacuate the area, travel crosswind then proceed upwind.
- Gather at muster point. Ensure Primary Muster point is upwind
- Notify managers & appropriate EMS if required.
- Safely shut down (ESD) facility if the facility hasn't already shut in.
- Pick up SCBA (should be a 30 minute 1 hour pack, located at Muster point.)
- Use buddy system for man down scenario with rescuers assigned.
  - 1 person to mask up to operate facility controls as needed.
  - 1 person for rescue if needed.
  - 1 person for calling EMS and company management
- Investigate area and isolate release of gas if safe to do and ensure closure using 4 gas monitor.
- If venting gas can't be isolated, return to muster point, and re-evaluate path forward.
- Give detailed description where/how gas is being released.
- After isolation verify that area monitors return to 0 and are not in alarm.
- Resume normal operations, once managers agree the ROOT CAUSE has been addressed and corrected.

# G. Contacting Authorities

Company personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the NM Emergency Response Commission must be notified of the release as soon as possible but no later than 4 hours. Agencies will ask for information such as type and volume of release, wind direction, location of release, etc. Be prepared with all information available. The following call list of essential and potential responders has been prepared for use during a release. Spur Energy Partners response must be in coordination with the State of New Mexico's 'Hazardous Materials Emergency Response Plan' (HMER).

# H. Call List

Spur Energy Partner	s Eme	rgency (	Contact List			
Person	Loc	ation	Office Phor	ıe	Cell Phone	
Drilling and Con	npletio	ns Depa	artment			
Drilling Manager - Chris Hollis	Houst	on	832-930-8629	)	713-380-7754	
Completions Manager - Theresa Voss	Houst	on	832-930-8614	ļ	832-849-8635	
VP of Operations - Seth Ireland	Houst	on	832-930-8527	7	940-704-6375	
Senior VP of Operations - John Nabors	Houst	on	832-930-8526	6	281-904-8811	
Executive VP of Operations - Todd Mucha	Houst	on	832-930-8515	5	281-795-2286	
HES/Environmental a	nd Re	gulatory	Department			
EHS Manager - Braidy Moulder	Artesia	а	575-616-5400	)	713-264-2517	
Superintendent - Jerry Mathews	Artesia	а	575-616-5400	)	575-748-5234	
Asst. Superintendent - Kenny Kidd	Artesia	а	575-616-5400	)	575-703-5851	
Regulatory Director - Sarah Chapman	Houst	on	832-930-8613	3	281-642-5503	
Regulate	ory Ag	encies				
Bureau of Land Management		Carlsbad 575-886-6			5-886-6544	
Bureau of Land Management		Hobbs		57	5-393-3612	
Bureau of Land Management		Roswell		575-622-5335		
Bureau of Land Management		Santa F	e	50	5-954-2000	
DOT Judicial Pipelines - Incident Reporting Public Regulation Commission	NM				05-827-3549 05-490-2375	
EPA Hotline		Dallas		21	4-665-6444	
Federal OSHA, Area Office		Lubbock	Κ	80	6-472-7681	
National Response Center		Washin	gton, D.C.	80	0-424-8803	
National Infrastructure Coordinator Center		Washin	gton, D.C.	20	2-282-2901	
New Mexico Air Quality Bureau		Santa F	e	50	5-827-1494	
New Mexico Oil Conservation Division		Artesia			75-748-1283 5-370-7545After	
New Mexico Oil Conservation Division		Hobbs 578			5-393-6161	
New Mexico Oil Conservation Division		Santa F	e	50	5-476-3770	
New Mexico OCD Environmental Bureau		Santa F	e		)5-827-7152 5-476-3470	
New Mexico Environmental Department		Hobbs		57	5-827-9329	
NM State Emergency Response Center		Santa F	e	505-476-9600		

Lovington City Police

575-396-2811

Medica	al Facilities	
Artesia General Hospital	Artesia	575-748-3333
Covenant Medical Center	Lubbock	806-725-1011
Covenant Medical Center Lakeside	Lubbock	806-725-6000
Guadalupe County Hospital	Carlsbad	575-887-6633
Lea Regional Hospital	Hobbs	575-492-5000
Medical Center Hospital	Odessa	432-640-4000
Midland Memorial Hospital	Midland	432-685-1111
Nor-Lea General Hospital	Lovington	575-396-6611
Odessa Regional Hospital	Odessa	432-334-8200
Union County General Hospital	Clayton	575-374-2585
University Medical Center	Lubbock	806-725-8200
Law Enforce	ement - Sheriff	
Ector County Sheriff's Department	Odessa	432-335-3050
Ector County Sheriff's Department	Artesia	575-746-2704
Ector County Sheriff's Department	Carlsbad	575-887-7551
Lea County Sherrif's Department	Eunice	575-384-2020
Lea County Sherrif's Department	Hobbs	575-393-2515
Lea County Sherrif's Department	Lovington	575-396-3611
Lubbock County Sheriff's Department	Abernathy	806-296-2724
Midland County Sheriff's Department	Midland	432-688-1277
Union County Sheriff's Department	Clayton	575-374-2583
Law Enforce	cement - Police	
Abernathy Police Department	Abernathy	806-298-2545
Artesia City Police	Artesia	575-746-2704
Carlsbad City Police	Carlsbad	575-885-2111
Clayton City Police	Clayton	575-374-2504
Eunice City Police	Eunice	575-394-2112
Hobbs City Police	Hobbs	575-397-9265 575-393-2677
Jal City Police	Jal	575-395-2501

Lovington

Midland	432-685-7113
Odessa	432-335-3378
ment - FBI	•
Albuquerque	505-224-2000
Midland	432-570-0255
nt - DPS (911)	
Artesia	575-746-2704
Carlsbad	575-885-3137
Eunice	575-392-5588
Hobbs	575-392-5588
Clayton	575-374-2473
Rescue (911)	
Abernathy	806-298-2022
Amistad/Rosebud	575-633-9113
Artesia	575-746-5751
Carlsbad	575-885-3125
Clayton	575-374-2435
Eunice	575-394-2111
Hobbs	575-397-9308
Jal	575-395-2221
Lovington	575-396-2359
Maljamar	575-676-4100
Midland	432-685-7346
Nara Visa	575-461-3300
Odessa	432-335-4659
Tucumcari	911
Odessa	432-381-3033
	Odessa  Ment - FBI Albuquerque Midland  Artesia Carlsbad Eunice Hobbs Clayton  Rescue (911) Abernathy Amistad/Rosebud Artesia Carlsbad Clayton  Buice Hobbs Anistad/Rosebud Artesia Carlsbad Clayton Anistad/Rosebud Artesia Carlsbad Clayton Anistad Artesia Carlsbad Clayton Anistad Artesia Carlsbad Clayton Artesia Carlsbad Clayton Artesia Carlsbad Clayton Anistad/Rosebud Artesia Coarlsbad Clayton Anistad/Rosebud Artesia Coarlsbad Clayton Anistad/Rosebud Artesia Coarlsbad Clayton

Ambula	ance (911)	
Abernathy Ambulance	Abernathy	806-298-2241
Amistad/Rosebud	Amistad/Rosebud	575-633-9113
Artesia Ambulance	Artesia	575-746-2701
Carlsbad Ambulance	Carlsbad	575-885-2111
Clayton Ambulance	Clayton	575-374-2501
Eunice Ambulance	Eunice	575-394-3258
Hobbs Ambulance	Hobbs	575-397-9308
Jal Ambulance	Jal	575-395-3501
Lovington Ambulance	Lovington	575-396-2811
Midland Ambulance	Midland	432-685-7499
Nara Visa Ambulance	Nara Visa	575-461-3300
Odessa Ambulance	Odessa	432-335-3378
Tucumcari Ambulance	Tucumcari	911
Medical Air Ar	nbulance Service	
AEROCARE - Methodist Hospital	Lubbock	800-627-2376
Southwest MediVac	Hobbs	800-242-6199
Odessa Care Star	Odessa	888-624-3571

I. List of Facilities with the potential for 500ppm or higher H2S exposure.

ALASKA 29 FEE TANK BATTERY
ARABIAN 6 FEE TANK BATTERY
ARCO 26 A STATE OIL BATTERY
ARCO B FEDERAL COM NO. 001
ARKANSAS STATE 23 TANK BATTERY

**AVALON FEDERAL #001** 

**B&B/ROSS RANCH OIL TANK BATTERY** 

BC FEDERAL 10 (9-13) TNK BTY
BC FEDERAL 1-8 &14 TNK BTY
BC FEDERAL 42 TNK BTY
BEE FED OIL BATTERY

**BEECH 25 FEDERAL #9H BATTERY** 

BEECH FEDERAL 1

BEECH FEDERAL 2 BATTERY BERRY A FEDERAL #005 SWB BERRY A FEDERAL PADD BATTERY

**BIG BOY STATE TB** 

BLUETAIL 8 FEDERAL 2 TANK BATTERY BONE YARD 11 FEE TANK BATTERY

**BOOT HILL 25 1H SWB** 

**BOSE IKARD 4 ST COM 18H BATTERY** 

BRANTLEY FEDERAL #001 BR-549 STATE BATTERY BRADLEY 8 FEE #3H-BATTERY BRADLEY 8 FEE BATTERY BRAGG 10 FEE 1 BATTERY

**BRIGHAM H 2** 

BRIGHAM H FED (NORTH) BATTERY

BURCH KEELY 13C TK BTY
BURCH KEELY 18A TK BATT
BURCH KEELY 19A OIL BATT
BURCH KEELY 23A TK BATT

BURCH KEELY EAST 18B TANK BAT BURCH KEELY SEC 13A NORTH BTTY BURCH KEELY SEC 13B SOUTH BTTY

BURCH KEELY UNIT CTB BTTY BURCH KEELY UNIT E BATTERY

**BURKETT 16 STATE** 

CADDO FEDERAL BATTERY CADILLAC ST 4 BATTERY CALIFORNIA 29 FEE 1

CARMEN 3 FEDERAL BATTERY
CARRINGTON 12 ST 3,4,7 BATTERY

CHASER 8 STATE 2 TANK BATTERY
CHEYENNE FEDERAL TNK BTY
CLYDESDALE 1 FEE #1H BAT
CLYDESDALE 1 FEE 6H - BATTERY
COAL TRAIN FEDERAL COM #1

COFFIN STATE #1

COLLIER 22 STATE COM #43H
COLLIER STATE OIL BATTERY

CONOCO 8 STATE 4 TB

CONTINENTAL A STATE TNK BTY
CONTINENTAL B YESO TANK BTY
CONTINENTAL STATE 15A TNK BTY

CRYPT 30 STATE #1H

DAGGER DRAW FED/FOSTER FED TANK BATTERY

**DARNER 9 STATE 1 TANK BATTERY** 

DARNER 9 STATE 2

**DARTER 9 STATE 8 TANK BATTERY** 

**DARNER 9 STATE CTB** 

DEXTER FEDERAL PAD TNK BTY

DODD 10A OIL BATTERY
DODD 10B TK BTTY
DODD FED #14C TK BATT
DODD FED 11A BATTERY

DODD FED UNIT 980H BATTERY

**DODD FEDERAL 14A-TB** 

DODD FEDERAL UNIT 15A BTTY DODD FEDERAL UNIT NORTH BTTY DODD FEDERAL UNIT SOUTH BTTY DOGWOOD FEDERAL TNK BTY

DORAMI 33 FEDERAL COM 2H.4H.9H TANK BATTERY

**EBONY STATE TB** 

EDWARD STATE TNK BTY

ELECTRA FEDERAL 33 (NORTH) BATTERY
ELECTRA FEDERAL 5 (SWEET) TNK BTY
ELECTRA FEDERAL SOUR TNK BTY
EMPIRE SOUTH DEEP UNIT 21
FALABELLA 31 FEE #1H TK BATT
FALABELLA 31 FEE 8H TK BTY
FAT TIRE 12 COM FEDERAL CTB
FEDERAL BA COM NO. 001

FEDERAL BB NO. 001

FLAT HEAD FED COM 6H TANK BATTERY FLAT HEAD FED COM 27H TANK BATTERY

FIR FEDERAL TNK BTY
FIRECRACKER STATE TB

FLEMMING STATE OIL BATTERY

FOLK FEDERAL B TNK BTY
FOLK FEDERAL TNK BTY
FOLK STATE TANK BATTERY
FORAN STATE OIL BATTERY
GC FEDERAL 11 TNK BTY

GC FEDERAL 27 TNK BTY GC FEDERAL TNK BTY

GILLESPIE STATE OIL BATTERY
GISSLER FEDERAL 13H TANK BATT

GJ WEST COOP SOUTH TB
GJ WEST COOP UNIT 092 BTY
GJ WEST COOP UNIT 191 BTY
GJ WEST COOP UNIT 210 BTY
GJ WEST COOP UNIT CENTRAL
GJ WEST COOP UNIT N TNK BTY

**GOLD STAR TNK BTY** 

**GOODMAN 22 TANK BATTERY** 

GRAVE DIGGER FEDERAL COM TANK BATTERY
GRAVE DIGGER ST COM #3H TANK BATTERY

**GRAVE DIGGER STATE COM #8H SWB** 

HALBERD 27 ST 3H BATTERY HANOVER STATE #3 (YESO) HARPER STATE TNK BTY HARVARD FEDERAL TNK BTY

HATFIELD B TB

HEARSE 36 ST COM TANK BATTERY HOBGOBLIN 7 FED COM 4H TK BAT

**HOLDER CB 11 TNK BTY** 

**HOLDER CB FEDERAL 6&7 TNK BTY** 

**HOLIDAY** 

HOUMA STATE TNK BTY

HT 18 FED 01.05.04 TANK BATTERY

HT 18 FEDERAL 8

HUBER 10,11,12 FEDERAL OIL TANK BATTERY

HUBER 3 FEDERAL OIL TANK BATTERY

HUBER 5 FEDERAL OIL TANK BATTERY

HYDRUS 10 FED 04.05 TANK BATTERY

HYDRUS 10 FED 06.09.10.12 TANK BATTERY

HYDRUS 10 FED 03.07.08.11 TANK BATTERY

IMPERIAL STATE TNK BTY

IVAR THE BONELESS FED 11H - BATTERY

JC FEDERAL 13 TNK BTY

JC FEDERAL 2 (SOUR) TNK BTY

JC FEDERAL 27 TNK BTY

JENKINS B FEDERAL TNK BTY

JG STATE 16 1 TANK BATTERY

JG STATE 16 7 TANK BATTERY

JON BOB 1

JUNIPER STATE TNK BTY KIOWA OIL BATTERY

**KOOL AID STATE** 

LAKEWOOD NORTH TANK BATTERY
LAKEWOOD SOUTH TANK BATTERY
LARA MICHELLE STATE OIL BTTY

LEAKER CC STATE TB LEE 3 FEE 6H - TK BATT LIVE OAK TANK BATTERY

MALCO 23 FEDERAL COM #13H

MAPLE STATE

**MARACAS 22 STATE TANK BATTERY** 

MARY FEDERAL OIL BATTERY

MAYARO 22 STATE TANK BATTERY MC FEDERAL 14 TANK BATTERY

MC FEDERAL 6 DEVONIAN

MC FEDERAL PADDOCK TNK BTY

MC SOUTHEAST BATTERY
MC STATE OIL BATTERY

MCCOY STATE TB

MCINTYRE A EAST TANK BATTERY

MCINTYRE B 10 MCINTYRE B 4

MCINTYRE B TNK BTY
MCINTYRE DK 15 TNK BTY

MCINTYRE DK FEDERAL 28H SWB MEADOWHAWK 5 FEDERAL 3 MELROSE FEDERAL TNK BTY

MERAK 7 FEDERAL 8 TANK BATTERY

MESILLA STATE 3 & 5 TNK BTY

MESILLA STATE TNK BTY

MESQUITE STATE TANK BATTERY

MIMOSA STATE TNK BTY

MIRANDA FEDERAL B TNK BTY

MIRANDA FEDERAL TB

MOE FEDERAL OIL BATTERY MOHAWK FEDERAL TNK BTY **MONCRIEF 3 OIL BATTERY** MOORE STATE OIL BATTERY MORRIS BOYD 26 FEE COM 1H MORRIS BOYD TANK BATTERY **MORRIS E & F TANK BATTERY** 

MUSKEGON SOUTH STATE OIL BATTERY

NAVAHO FEDERAL TNK BTY NELSON 13.23. TNK BATT

**NEWCASTLE 6 FED COM - TANK BATTERY** 

NIRVANA TANK BATTERY NOOSE FED 10 TANK BATTERY NOOSE FED 5 TANK BATTERY **OKLAHOMA 32 TANK BATTERY** 

OSAGE BOYD 15 FED 09.12.13.14 TANK BATTERY

OSAGE BOYD YESO TANK BATTERY

**PAINT 32 FEE OIL BATTERY** 

PAN CANADIAN A2-B3 TANK BATTERY PASSION 1 FED PDK 5H TK BATT PATTON 5 FEE 2H OIL BATTERY PATTON 5 FEE 8H OIL BATTERY

PAWNEE STATE TNK BTY

PEACEMAKER 25 FEDERAL TANK BATTERY

PERE MARQUETTE 18 FEDERAL 1 TANK BATTERY

PILUM 15 FEE 2H BATTERY

PINTO 36 STATE COM 1H TNK BTY PINTO 36 STATE COM 4H TNK BTY

PINTO 36 STATE TB

POLARIS B 5-10 TANK BTTY

POSEIDON 3 FEDERAL 4 TANK BATTERY

POSEIDON 3 FEDERAL 05.07.17.18 TANK BATTERY

PUCKETT 13 FEDERAL COM 35H

**PUCKETT 13 FEDERAL TB** 

**RAGNAR FED COM 25H - BATTERY** 

**RANDALL FED 3 BATTERY RED LAKE 32 TANK BATTERY** REDBUD FEDERAL TNK BTY RINCON STATE TANK BATTERY RJ UNIT NORTH TANK BATTERY RJ UNIT SOUTH TANK BATTERY

**RONCO FEDERAL #1** 

ROSE 02.03.04.05.06 TANK BATTERY

**ROSE SOUTH TANK BATTERY** ROSS RANCH 09.13.14 BATTERY SAM ADAMS 12 FED 4H UBB TK BATT SANDY CROSSING 32 STATE COM 1

SCHLEY FEDERAL TNK BTY SHAWNEE FEDERAL TNK BTY

**SHELBY 23 BATTERY** 

SHERMAN 4 FEE 4H BATTERY SHERMAN 4 FEE 6H BATTERY

SHORTY 2 STATE COM TANK BATTERY SINCLAIR PARKE (PADDOCK) TNK BTY

**SKELLY 605 BATTERY SKELLY 942 BATTERY** SKELLY 968 BATTERY **SKELLY 973 BATTERY SKELLY 989 BATTERY** 

**SKELLY UNIT 907 CTB BATTERY SKELLY UNIT 940 BATTERY** 

SOUTH BOYD FED COM OIL TANK BATTERY

SOUTH EMPIRE STATE COM 1 SPIKETAIL 5 STATE 2 TANK BATTERY

SPRUCE FEDERAL TNK BTY STATE B GAS COM NO. 001 STATE S-19 YESO (SOUR) TNK BTY

STONEWALL 9 FEE #1H TBAT STONEWALL 9 FEE 8H BATTERY SUBMARINE 10 FED COM 2H OIL BAT

TAYLOR D TANK BATTEY TENNECO STATE TNK BTY

TEX MACK FED **TEXACO BE TNK BTY** 

**TEXAS 32 FEE TANK BATTERY** TEXMACK 36 STATE COM #1

TH STATE #1

THO STATE OIL BATTRY THORNTAIL 31 FEDERAL 1

THUNDER ROAD FEDERAL OIL BTTY

**TUMAK FED 3 BAT** 

**VEGA 9 FED TANK BATTERY** 

VT 36 STATE #1H W D MCINTYRE C 10

**WAUKEE 36 STATE COME CTB** WD MCINTYRE C 8-9 TNK BTY

WD MCINTYRE E TNK BTY
WELCH A 28 10.20.50 CTB
WESTERN FEDERAL TNK BTY
WHITE OAK STATE B TB
WHITE OAK STATE TNK BTY
WHITE STAR FEDERAL TNK BTY
WICHITA STATE TNK BTY
WILLOW STATE TNK BTY
YALE B OIL BATTERY
YALE STATE TANK BTY
YUCCA STATE TNK BTY

# SPUR ENERGY PARTNERS LLC.

Lea County, NM (NMEZ) Grid NAD83 Pebble 8-7 Pebble 8-7 State Com 10H

Lateral

Plan: Plan #1

# **Standard Planning Report**

08 February, 2023

PRIME EDM Database:

Company: SPUR ENERGY PARTNERS LLC. Project: Lea County, NM (NMEZ) Grid NAD83

Site: Pebble 8-7

Pebble 8-7 State Com 10H Well:

Lateral Wellbore: Plan #1 Design:

Local Co-ordinate Reference:

**TVD Reference:** MD Reference: North Reference:

**Survey Calculation Method:** 

Well Pebble 8-7 State Com 10H 4211+20 @ 4231.0usft (akita57) 4211+20 @ 4231.0usft (akita57)

Minimum Curvature

Lea County, NM (NMEZ) Grid NAD83 **Project** 

Map System: Geo Datum:

Map Zone:

US State Plane 1927 (Exact solution) NAD 1927 (NADCON CONUS)

New Mexico East 3001

System Datum:

Mean Sea Level

Pebble 8-7 Site

675,119.50 usft Site Position: Northing: Latitude: 32° 51' 12.713 N From: Мар Easting: 740,743.60 usft Longitude: 103° 32' 57.801 W 0.43°

**Position Uncertainty:** 0.0 usft Slot Radius: 13-3/16 " **Grid Convergence:** 

Well Pebble 8-7 State Com 10H

**Well Position** +N/-S 0.0 usft Northing: 675,119.50 usft 32° 51' 12.713 N Latitude: 0.0 usft 740,743.60 usft 103° 32' 57.801 W +E/-W Easting: Longitude:

0.0 usft Wellhead Elevation: **Ground Level:** 4,211.0 usft **Position Uncertainty** 

Wellbore Lateral Declination Magnetics **Model Name** Sample Date Dip Angle Field Strength (°) (°) (nT) IGRF2020 02/08/23 6.39 60.42 47,689.13840101

Design Plan #1 Audit Notes: Version: Phase: **PROTOTYPE** Tie On Depth: 0.0

MWD+SAG+FDIR

Vertical Section: Depth From (TVD) +N/-S +E/-W Direction (usft) (usft) (usft) (°) 0.0 0.0 0.0 269.46

02/08/23 Date Plan Survey Tool Program

14,476.4

**Depth From** Depth To

0.0

(usft) (usft) Survey (Wellbore) **Tool Name** Remarks

OWSG MWD + Sag Correction

Plan #1 (Lateral)

**Plan Sections** Measured Vertical Dogleg Build Turn Depth Inclination Azimuth Depth +N/-S +E/-W Rate Rate Rate TFO (usft) (°) (°) (usft) (usft) (usft) (°/100usft) (°/100usft) (°/100usft) **Target** (°) 0.00 0.00 0.0 0.00 0.00 0.0 0.0 0.0 0.00 0.00 300.0 300.0 0.0 0.00 0.00 0.00 0.00 0.00 0.00 0.0 646.0 6.92 140.80 645.2 -16.2 13.2 2.00 2.00 0.00 140.80 5,279.7 6.92 140.80 5,245.1 -448.8 366.0 0.00 0.00 0.00 0.00 6,085.4 60.00 269.46 5,919.1 -494.7 9.4 8.00 6.59 15.97 131.45 6,285.4 60.00 -496.3 0.00 0.00 0.00 0.00 269 46 6,019.1 -163.8 -499.7 6,664.6 90.33 269.46 6,115.0 -526.0 8.00 8.00 0.00 0.01 14,476.9 90.33 269.46 6,070.0 -572.9 -8,337.9 0.00 0.00 0.00 0.00 PBL 8-7 SC 10H PBH

Database: PRIME\_EDM

Company: SPUR ENERGY PARTNERS LLC.

Project: Lea County, NM (NMEZ) Grid NAD83

Site: Pebble 8-7

Well: Pebble 8-7 State Com 10H

Wellbore: Lateral Design: Plan #1

Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Pebble 8-7 State Com 10H 4211+20 @ 4231.0usft (akita57) 4211+20 @ 4231.0usft (akita57)

Grid

d Survey									
Measured Depth (usft)	Inclination	Azimuth	Vertical Depth (usft)	+N/-S	+E/-W	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
` '	(°)	(°)	` '	(usft)	(usft)	, ,	,	,	,
0.0	0.00 10H SHL 775FNL	0.00 2215FFI	0.0	0.0	0.0	0.0	0.00	0.00	0.00
100.0	0.00	0.00	100.0	0.0	0.0	0.0	0.00	0.00	0.00
200.0	0.00	0.00	200.0	0.0	0.0	0.0	0.00	0.00	0.00
300.0	0.00	0.00	300.0	0.0	0.0	0.0	0.00	0.00	0.00
400.0	2.00		400.0	-1.4	1.1		2.00		
400.0	2.00	140.80	400.0	-1.4	1.1	-1.1	2.00	2.00	0.00
500.0	4.00	140.80	499.8	-5.4	4.4	-4.4	2.00	2.00	0.00
600.0	6.00	140.80	599.5	-12.2	9.9	-9.8	2.00	2.00	0.00
646.0	6.92	140.80	645.2	-16.2	13.2	-13.0	2.00	2.00	0.00
700.0	6.92	140.80	698.8	-21.2	17.3	-17.1	0.00	0.00	0.00
800.0	6.92	140.80	798.0	-30.6	24.9	-24.6	0.00	0.00	0.00
900.0	6.92	140.80	897.3	-39.9	32.5	-32.2	0.00	0.00	0.00
1,000.0	6.92	140.80	996.6	-49.2	40.1	-39.7	0.00	0.00	0.00
1,100.0	6.92	140.80	1,095.9	-58.6	47.8	-47.2	0.00	0.00	0.00
1,200.0	6.92	140.80	1,195.1	-67.9	55.4	-54.7	0.00	0.00	0.00
1,300.0	6.92	140.80	1,294.4	-77.2	63.0	-62.3	0.00	0.00	0.00
1,400.0	6.92	140.80	1,393.7	-86.6	70.6	-69.8	0.00	0.00	0.00
1,500.0	6.92	140.80	1,492.9	-95.9	78.2	-77.3	0.00	0.00	0.00
1,600.0	6.92	140.80	1,592.2	-105.2	85.8	-84.8	0.00	0.00	0.00
1,700.0	6.92	140.80	1,691.5	-105.2	93.5	-92.4	0.00	0.00	0.00
1,700.0	6.92	140.80	1,790.8	-114.6	101.1	-92.4 -99.9	0.00	0.00	0.00
1,000.0	0.92	140.00	1,790.0	-123.9	101.1	-99.9	0.00	0.00	0.00
1,900.0	6.92	140.80	1,890.0	-133.3	108.7	-107.4	0.00	0.00	0.00
2,000.0	6.92	140.80	1,989.3	-142.6	116.3	-114.9	0.00	0.00	0.00
2,100.0	6.92	140.80	2,088.6	-151.9	123.9	-122.5	0.00	0.00	0.00
2,200.0	6.92	140.80	2,187.8	-161.3	131.5	-130.0	0.00	0.00	0.00
2,300.0	6.92	140.80	2,287.1	-170.6	139.1	-137.5	0.00	0.00	0.00
2,400.0	6.92	140.80	2,386.4	-179.9	146.8	-145.1	0.00	0.00	0.00
2,500.0	6.92	140.80	2,485.7	-189.3	154.4	-152.6	0.00	0.00	0.00
2,600.0	6.92	140.80	2,584.9	-198.6	162.0	-160.1	0.00	0.00	0.00
2,700.0	6.92	140.80	2,684.2	-208.0	169.6	-167.6	0.00	0.00	0.00
2,800.0	6.92	140.80	2,783.5	-217.3	177.2	-175.2	0.00	0.00	0.00
2,900.0	6.92	140.80	2,882.7	-226.6	184.8	-182.7	0.00	0.00	0.00
3,000.0	6.92	140.80	2,982.0	-236.0	192.4	-190.2	0.00	0.00	0.00
3,100.0	6.92	140.80	3,081.3	-245.3	200.1	-197.7	0.00	0.00	0.00
3,200.0	6.92	140.80	3,180.6	-254.6	207.7	-205.3	0.00	0.00	0.00
3,300.0	6.92	140.80	3,279.8	-264.0	215.3	-212.8	0.00	0.00	0.00
	0.00	140.00					0.00		0.00
3,400.0	6.92	140.80	3,379.1	-273.3	222.9	-220.3	0.00	0.00	0.00
3,500.0	6.92	140.80	3,478.4	-282.6	230.5	-227.8	0.00	0.00	0.00
3,600.0	6.92	140.80	3,577.6	-292.0	238.1	-235.4	0.00	0.00	0.00
3,700.0	6.92	140.80	3,676.9	-301.3	245.7	-242.9	0.00	0.00	0.00
3,800.0	6.92	140.80	3,776.2	-310.7	253.4	-250.4	0.00	0.00	0.00
3,900.0	6.92	140.80	3,875.5	-320.0	261.0	-258.0	0.00	0.00	0.00
4,000.0	6.92	140.80	3,974.7	-329.3	268.6	-265.5	0.00	0.00	0.00
4,100.0	6.92	140.80	4,074.0	-338.7	276.2	-273.0	0.00	0.00	0.00
4,200.0	6.92	140.80	4,173.3	-348.0	283.8	-280.5	0.00	0.00	0.00
4,200.0	6.92	140.80	4,173.5	-357.3	291.4	-288.1	0.00	0.00	0.00
	0.92	140.00	4,212.0	-337.3	231. <del>4</del>	-200. I		0.00	
4,400.0	6.92	140.80	4,371.8	-366.7	299.1	-295.6	0.00	0.00	0.00
4,500.0	6.92	140.80	4,471.1	-376.0	306.7	-303.1	0.00	0.00	0.00
4,600.0	6.92	140.80	4,570.4	-385.3	314.3	-310.6	0.00	0.00	0.00
4,700.0	6.92	140.80	4,669.6	-394.7	321.9	-318.2	0.00	0.00	0.00
4,800.0	6.92	140.80	4,768.9	-404.0	329.5	-325.7	0.00	0.00	0.00
4.900.0	6.92	140.80	4,868.2	-413.4	337.1	-333.2	0.00	0.00	0.00

Database: PRIME\_EDM

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Wellbore: Lateral Design: Plan #1 Local Co-ordinate Reference:

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MD Reference:
North Reference:

Survey Calculation Method:

Well Pebble 8-7 State Com 10H 4211+20 @ 4231.0usft (akita57) 4211+20 @ 4231.0usft (akita57)

Grid

nned Survey									
Measured Depth	In alice there	A = i	Vertical Depth	IN/ C	(E/)4/	Vertical Section	Dogleg Rate	Build Rate	Turn Rate
(usft)	Inclination (°)	Azimuth (°)	(usft)	+N/-S (usft)	+E/-W (usft)	(usft)	(°/100usft)	(°/100usft)	(°/100usft)
5,100.0	6.92	140.80	5,066.7	-432.0	352.4	-348.3	0.00	0.00	0.00
5,200.0		140.80	5,166.0	-441.4	360.0	-355.8	0.00	0.00	0.00
5,279.7	6.92	140.80	5,245.1	-448.8	366.0	-361.8	0.00	0.00	0.00
5,300.0	5.97	152.58	5,265.3	-450.7	367.3	-363.0	8.00	-4.68	58.05
5,350.0		193.73	5,315.1	-455.2	368.0	-363.6	8.00	-1.37	82.28
5,400.0		226.73	5,364.8	-459.6	365.1	-360.8	8.00	3.87	66.01
5,450.0	10.40	242.86	5,414.2	-463.8	358.8	-354.4	8.00	6.37	32.25
5,500.0	14.01	251.15	5,463.0	-467.9	349.1	-344.6	8.00	7.21	16.58
5,550.0	17.78	256.03	5,511.1	-471.7	335.9	-331.5	8.00	7.55	9.78
5,600.0		259.24	5,558.2	-475.2	319.5	-315.0	8.00	7.70	6.42
5,650.0		261.52	5,604.0	-478.5	299.7	-295.2	8.00	7.79	4.55
5,700.0		263.22	5,648.4	-481.6	276.9	-272.3	8.00	7.84	3.41
5,750.0		264.55	5,691.0	-484.3	251.0	-246.4	8.00	7.88	2.67
5,800.0	37.34	265.63	5,731.8	-486.8	222.1	-217.5	8.00	7.90	2.16
5,850.0		266.54	5,731.6	-400.0 -488.9	190.5	-217.5 -185.9	8.00	7.90 7.92	1.80
5,900.0		267.31	5,806.9	-490.8	156.3	-151.7	8.00	7.93	1.54
5,950.0		267.98	5,840.8	-492.3	119.6	-115.0	8.00	7.94	1.34
6,000.0		268.57	5,872.1	-493.5	80.7	-76.0	8.00	7.95	1.19
6,050.0 6,085.4		269.11 269.46	5,900.6 5,919.1	-494.3 -494.7	39.6 9.4	-35.0	8.00 8.00	7.95 7.96	1.07 0.99
6,100.0		269.46	5,919.1	-494.7 -494.8	-3.2	-4.8 7.9	0.00	0.00	0.00
6,200.0		269.46	5,926.4	-495.6	-89.8	94.5	0.00	0.00	0.00
6,285.4		269.46	6,019.1	-496.3	-163.8	168.5	0.00	0.00	0.00
6,300.0		269.46	6,026.3	-496.4	-176.5	181.1	8.00	8.00	0.00
6,350.0		269.46	6,048.8	-496.8	-221.1	225.8	8.00	8.00	0.00
6,400.0		269.46	6,068.2	-497.3	-267.2	271.8	8.00	8.00	0.00
6,450.0 6,500.0		269.46 269.46	6,084.4 6,097.2	-497.7 -498.2	-314.5 -362.8	319.1 367.5	8.00 8.00	8.00 8.00	0.00 0.00
6,550.0		269.46	6,106.5	-498.6	-411.9	416.6	8.00	8.00	0.00
6,600.0		269.46	6,112.5	-499.1	-461.5	466.2	8.00	8.00	0.00
6,650.0		269.46	6,115.0	-499.6	-511.4	516.1	8.00	8.00	0.00
6,663.2		269.46	6,115.0	-499.7	-524.6	529.3	8.00	8.00	0.00
	C 10H FTP 1270FN	_		100 7	500.0	500 7	0.00	2.22	0.00
6,664.6	90.33	269.46	6,115.0	-499.7	-526.0	530.7	8.00	8.00	0.00
6,700.0		269.46	6,114.8	-500.0	-561.4	566.1	0.00	0.00	0.00
6,800.0	90.33	269.46	6,114.3	-501.0	-661.4	666.1	0.00	0.00	0.00
6,900.0		269.46	6,113.7	-501.9	-761.4	766.1	0.00	0.00	0.00
7,000.0		269.46	6,113.1	-502.8	-861.4	866.1	0.00	0.00	0.00
7,100.0	90.33	269.46	6,112.5	-503.8	-961.4	966.1	0.00	0.00	0.00
7,200.0	90.33	269.46	6,111.9	-504.7	-1,061.4	1,066.1	0.00	0.00	0.00
7,300.0		269.46	6,111.4	-505.6	-1,161.4	1,166.1	0.00	0.00	0.00
7,400.0	90.33	269.46	6,110.8	-506.6	-1,261.4	1,266.1	0.00	0.00	0.00
7,500.0		269.46	6,110.2	-507.5	-1,361.4	1,366.1	0.00	0.00	0.00
7,600.0	90.33	269.46	6,109.6	-508.5	-1,461.4	1,466.1	0.00	0.00	0.00
7,700.0	90.33	269.46	6,109.1	-509.4	-1,561.4	1,566.1	0.00	0.00	0.00
7,800.0		269.46	6,108.5	-510.3	-1,661.4	1,666.1	0.00	0.00	0.00
7,900.0		269.46	6,107.9	-511.3	-1,761.4	1,766.1	0.00	0.00	0.00
8,000.0		269.46	6,107.3	-512.2	-1,861.4	1,866.1	0.00	0.00	0.00
8,100.0	90.33	269.46	6,106.8	-513.1	-1,961.4	1,966.1	0.00	0.00	0.00
8,200.0	90.33	269.46	6,106.2	-514.1	-2,061.3	2,066.1	0.00	0.00	0.00
8,300.0		269.46	6,105.6	-515.0	-2,161.3	2,166.1	0.00	0.00	0.00
8,400.0		269.46	6,105.0	-516.0	-2,261.3	2,266.1	0.00	0.00	0.00
8,500.0		269.46	6,104.5	-516.9	-2,361.3	2,366.1	0.00	0.00	0.00
8,600.0		269.46	6,103.9	-517.8	-2,461.3	2,466.1	0.00	0.00	0.00

Database: PRIME\_EDM

Company: SPUR ENERGY PARTNERS LLC.
Project: Lea County, NM (NMEZ) Grid NAD83

Site: Pebble 8-7

Well: Pebble 8-7 State Com 10H

Wellbore: Lateral Design: Plan #1 Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Pebble 8-7 State Com 10H 4211+20 @ 4231.0usft (akita57) 4211+20 @ 4231.0usft (akita57)

Grid

lanned Survey									
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
8,700.0	90.33	269.46	6,103.3	-518.8	-2,561.3	2,566.1	0.00	0.00	0.00
8,800.0	90.33	269.46	6,102.7	-519.7	-2,661.3	2,666.1	0.00	0.00	0.00
8,900.0	90.33	269.46	6,102.1	-520.6	-2,761.3	2,766.1	0.00	0.00	0.00
9,000.0	90.33	269.46	6,101.6	-521.6	-2,861.3	2,866.1	0.00	0.00	0.00
9,100.0	90.33	269.46	6,101.0	-522.5	-2,961.3	2,966.1	0.00	0.00	0.00
9,200.0	90.33	269.46	6,100.4	-523.4	-3,061.3	3,066.1	0.00	0.00	0.00
9,300.0	90.33	269.46	6,099.8	-524.4	-3,161.3	3,166.1	0.00	0.00	0.00
9,400.0	90.33	269.46	6,099.3	-525.3	-3,261.3	3,266.1	0.00	0.00	0.00
9,500.0	90.33	269.46	6,098.7	-526.3	-3,361.3	3,366.1	0.00	0.00	0.00
9,600.0	90.33	269.46	6,098.1	-527.2	-3,461.3	3,466.1	0.00	0.00	0.00
9,700.0	90.33	269.46	6,097.5	-528.1	-3,561.3	3,566.1	0.00	0.00	0.00
9,800.0	90.33	269.46	6,097.0	-529.1	-3,661.3	3,666.1	0.00	0.00	0.00
9,900.0	90.33	269.46	6,096.4	-530.0	-3,761.2	3,766.1	0.00	0.00	0.00
10,000.0	90.33	269.46	6,095.8	-530.9	-3,861.2	3,866.1	0.00	0.00	0.00
10,100.0	90.33	269.46	6,095.2	-531.9	-3,961.2	3,966.1	0.00	0.00	0.00
10,200.0	90.33	269.46	6,094.7	-532.8	-4,061.2	4,066.1	0.00	0.00	0.00
10,300.0	90.33	269.46	6,094.1	-533.8	-4,161.2	4,166.1	0.00	0.00	0.00
10,400.0	90.33	269.46	6,093.5	-534.7	-4,261.2	4,266.1	0.00	0.00	0.00
10,500.0	90.33	269.46	6,092.9	-535.6	-4,361.2	4,366.1	0.00	0.00	0.00
10,600.0	90.33	269.46	6,092.3	-536.6	-4,461.2	4,466.1	0.00	0.00	0.00
,									
10,700.0	90.33	269.46	6,091.8	-537.5	-4,561.2	4,566.1	0.00	0.00	0.00
10,800.0	90.33	269.46	6,091.2	-538.4	-4,661.2	4,666.1	0.00	0.00	0.00
10,900.0	90.33	269.46	6,090.6	-539.4	-4,761.2	4,766.1	0.00	0.00	0.00
11,000.0	90.33	269.46	6,090.0	-540.3	-4,861.2	4,866.1	0.00	0.00	0.00
11,100.0	90.33	269.46	6,089.5	-541.3	-4,961.2	4,966.1	0.00	0.00	0.00
11,200.0	90.33	269.46	6,088.9	-542.2	-5,061.2	5,066.1	0.00	0.00	0.00
11,300.0	90.33	269.46	6,088.3	-543.1	-5,161.2	5,166.1	0.00	0.00	0.00
11,400.0	90.33	269.46	6,087.7	-544.1	-5,261.2	5,266.0	0.00	0.00	0.00
11,500.0	90.33	269.46	6,087.2	-545.0	-5,361.1	5,366.0	0.00	0.00	0.00
11,600.0	90.33	269.46	6,086.6	-545.9	-5,461.1	5,466.0	0.00	0.00	0.00
11,700.0	90.33	269.46	6,086.0	-546.9	-5,561.1	5,566.0	0.00	0.00	0.00
11,800.0	90.33	269.46	6,085.4	-547.8	-5,661.1	5,666.0	0.00	0.00	0.00
11,900.0	90.33	269.46	6,084.9	-548.8	-5,761.1	5,766.0	0.00	0.00	0.00
12,000.0	90.33	269.46	6,084.3	-549.7	-5,861.1	5,866.0	0.00	0.00	0.00
12,100.0	90.33	269.46	6,083.7	-550.6	-5,961.1	5,966.0	0.00	0.00	0.00
12,200.0	90.33	269.46	6,083.1	-551.6	-6,061.1	6,066.0	0.00	0.00	0.00
12,300.0	90.33	269.46	6,082.5	-552.5	-6,161.1	6,166.0	0.00	0.00	0.00
12,400.0	90.33	269.46	6,082.0	-553.4	-6,261.1	6,266.0	0.00	0.00	0.00
12,500.0	90.33	269.46	6,081.4	-554.4	-6,361.1	6,366.0	0.00	0.00	0.00
12,600.0	90.33	269.46	6,080.8	-555.3	-6,461.1	6,466.0	0.00	0.00	0.00
12,700.0	90.33	269.46	6,080.2	-556.2	-6,561.1	6,566.0	0.00	0.00	0.00
12,800.0	90.33	269.46	6,079.7	-557.2	-6,661.1	6,666.0	0.00	0.00	0.00
12,900.0	90.33	269.46	6,079.1	-558.1	-6,761.1	6,766.0	0.00	0.00	0.00
13,000.0	90.33	269.46	6,078.5	-559.1	-6,861.1	6,866.0	0.00	0.00	0.00
13,100.0	90.33	269.46	6,077.9	-560.0	-6,961.1	6,966.0	0.00	0.00	0.00
13,200.0	90.33	269.46	6,077.4	-560.9	-7,061.0	7,066.0	0.00	0.00	0.00
13,300.0	90.33	269.46	6,076.8	-561.9	-7,161.0	7,166.0	0.00	0.00	0.00
13,400.0	90.33	269.46	6,076.2	-562.8	-7,261.0	7,266.0	0.00	0.00	0.00
13,500.0	90.33	269.46	6,075.6	-563.7	-7,361.0	7,366.0	0.00	0.00	0.00
13,600.0	90.33	269.46	6,075.1	-564.7	-7,461.0	7,466.0	0.00	0.00	0.00
13,700.0	90.33	269.46	6,074.5	-565.6	-7,561.0	7,566.0	0.00	0.00	0.00
13,800.0	90.33	269.46	6,073.9	-566.6	-7,661.0	7,666.0	0.00	0.00	0.00
13,900.0	90.33	269.46	6,073.3	-567.5	-7,761.0	7,766.0	0.00	0.00	0.00

Database: PRIME\_EDM

Company: SPUR ENERGY PARTNERS LLC.
Project: Lea County, NM (NMEZ) Grid NAD83

Site: Pebble 8-7

Well: Pebble 8-7 State Com 10H

Wellbore: Lateral Design: Plan #1 Local Co-ordinate Reference:

TVD Reference:
MD Reference:
North Reference:

Survey Calculation Method:

Well Pebble 8-7 State Com 10H 4211+20 @ 4231.0usft (akita57) 4211+20 @ 4231.0usft (akita57)

Grid

Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)
14,000.0	90.33	269.46	6,072.7	-568.4	-7,861.0	7,866.0	0.00	0.00	0.00
14,100.0	90.33	269.46	6,072.2	-569.4	-7,961.0	7,966.0	0.00	0.00	0.00
14,200.0	90.33	269.46	6,071.6	-570.3	-8,061.0	8,066.0	0.00	0.00	0.00
14,300.0	90.33	269.46	6,071.0	-571.2	-8,161.0	8,166.0	0.00	0.00	0.00
14,400.0	90.33	269.46	6,070.4	-572.2	-8,261.0	8,266.0	0.00	0.00	0.00
14,461.9	90.33	269.46	6,070.1	-572.8	-8,322.8	8,327.9	0.00	0.00	0.00
PBL 8-7 SC	10H LTP 1270FN	L_100FWL							
14,472.9	90.33	269.46	6,070.0	-572.9	-8,333.8	8,338.9	0.00	0.00	0.00
PBL 8-7 SC (	OH PBHL 775FN	NL_50FWL							
14,476.9	90.33	269.46	6,070.0	-572.9	-8,337.9	8,342.9	0.00	0.00	0.00
C1Y (rad) - C	1 (rad) - PBL 8-7	SC 10H PBHL	1270FNL_50FW	'L					

Design Targets									
Target Name - hit/miss target - Shape	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
PBL 8-7 SC 10H LTP 12 - plan misses target - Point		0.00 0.2usft at 14	0.0 461.9usft ME	-572.4 ) (6070.1 TVD	-8,287.9 , -572.8 N, -8	674,547.10 322.8 E)	732,455.74	32° 51' 7.648 N	103° 34' 34.999 W
PBL 8-7 SC 10H SHL 77 - plan hits target cer - Point		0.00	0.0	0.0	0.0	675,119.50	740,743.60	32° 51' 12.713 N	103° 32' 57.801 W
PBL 8-7 SC 10H PBHL 1 - plan hits target cer - Point	0.00 nter	0.00	6,070.0	-572.9	-8,337.9	674,546.60	732,405.70	32° 51' 7.646 N	103° 34' 35.585 W
PBL 8-7 SC 10H FTP 12 - plan misses target - Point		0.00 usft at 6663.2	6,115.0 Pusft MD (611	-499.4 15.0 TVD, -499	-524.6 9.7 N, -524.6	674,620.10 E)	740,219.00	32° 51' 7.810 N	103° 33' 3.994 W

# SPUR ENERGY PARTNERS LLC.

Project: Lea County, NM (NMEZ) Grid NAD83

Site: Pebble 8-7

Well: Pebble 8-7 State Com 10H

Start Build 2.00

Start 4633.7 hold at 646.0 MD

1000

Start DLS 8.00 TFO 131.45

168

531

Start 200.0 hold at 6085.4 MD

Vertical Section at 269.46° (200 usft/in)

Start DLS 8.00 TFO 0.01

Start 7812.4 hold at 6664.6 MD

PBL 8-7 SC 10H FTP 1270FNL\_100FCntSec

Vertical Section at 269.46° (500 usft/in)

Wellbore: Lateral Design: Plan #1

300.0

500 645.2 -13

<u>0</u>1500

3000

3200

3400-

3600

3800

4000

4200

<del>-4400</del>

5200 5245.1 -362

6115.0

5400-

5600

5800-

6200-

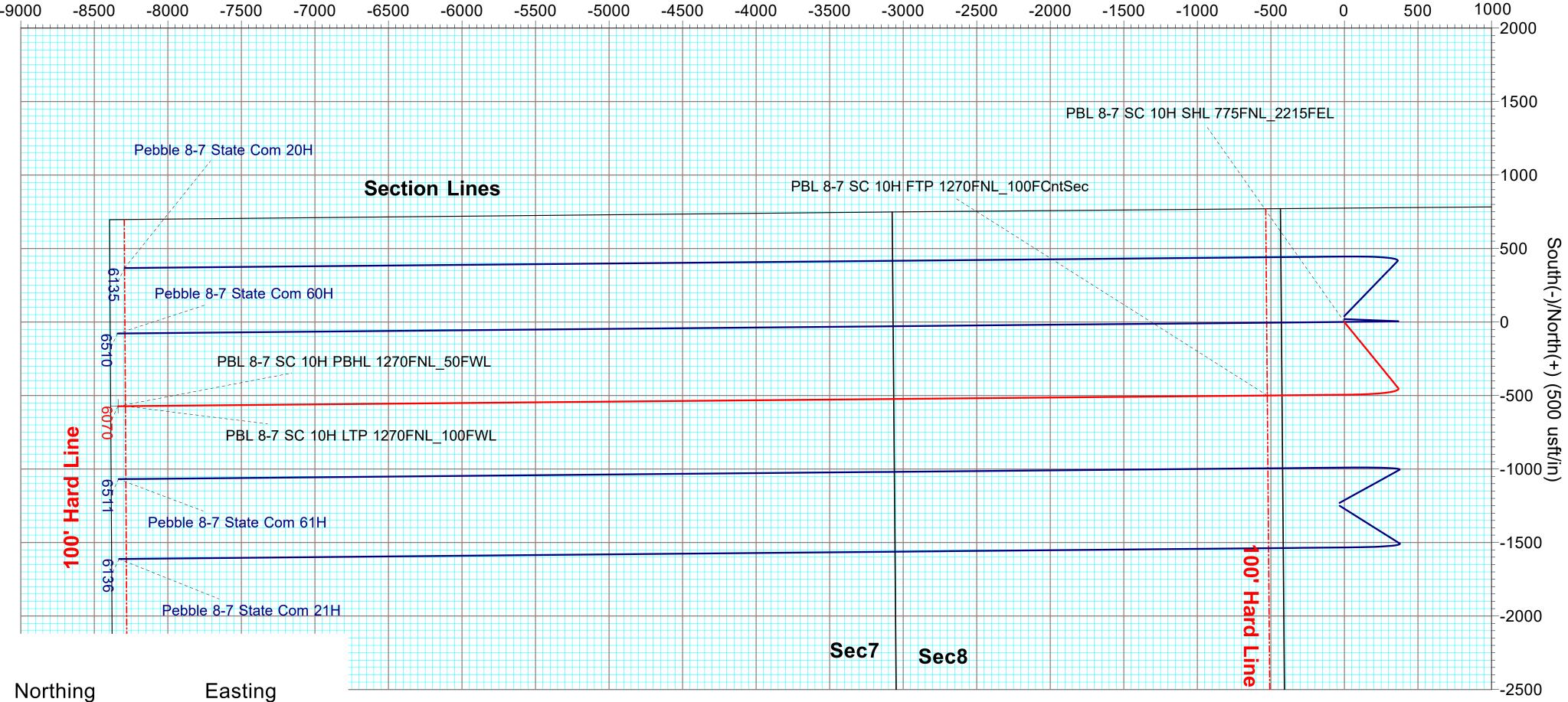
6400-



4211+20 @ 4231.0usft (akita57) NAD 1927 (NADCON CONUS)

# PLAN SECTIONS

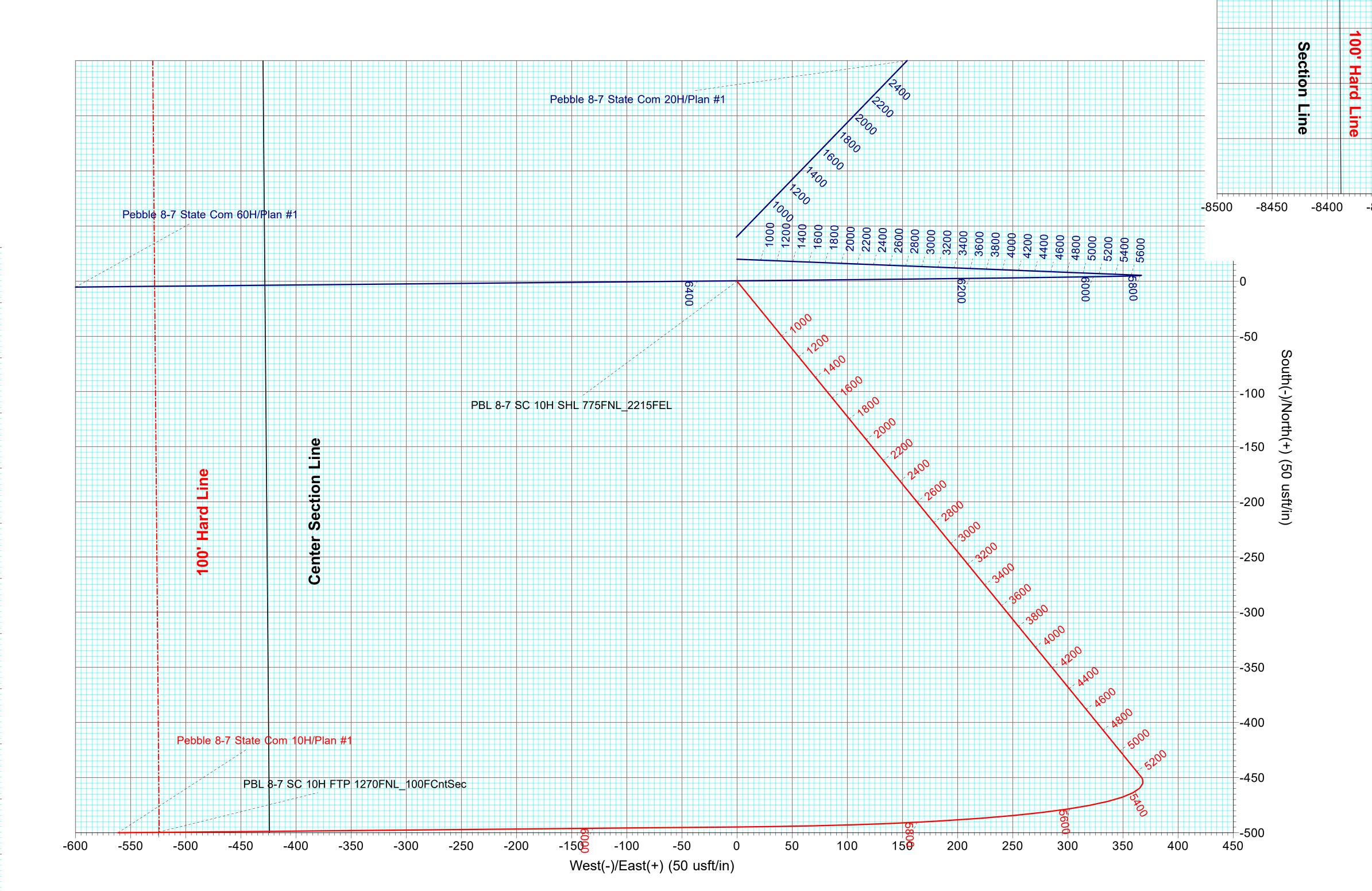
VSect	TFace	Dleg	+E/-W	+N/-S	TVD	Azi	Inc	MD
0.0	0.00	0.00	0.0	0.0	0.0	0.00	0.00	0.0
0.0	0.00	0.00	0.0	0.0	300.0	0.00	0.00	300.0
-13.0	140.80	2.00	13.2	-16.2	645.2	140.80	6.92	646.0
-361.8	0.00	0.00	366.0	-448.8	5245.1	140.80	6.92	5279.7
-4.8	131.45	8.00	9.4	-494.7	5919.1	269.46	60.00	6085.4
168.5	0.00	0.00	-163.8	-496.3	6019.1	269.46	60.00	6285.4
530.7	0.01	8.00	-526.0	-499.7	6115.0	269.46	90.33	6664.6
9242 0	0.00	0.00	9227 0	572 O	6070.0	260.46	00.22	11176 0

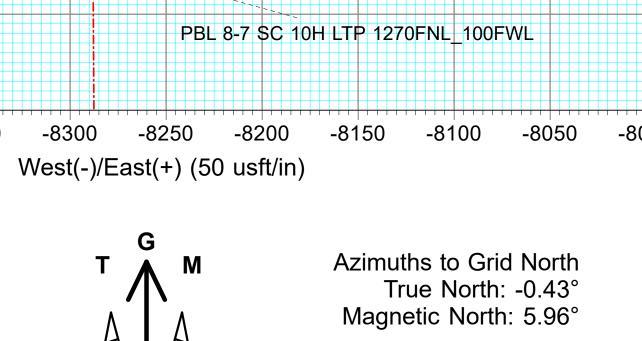


West(-)/East(+) (500 usft/in)

# TARGET DETAILS

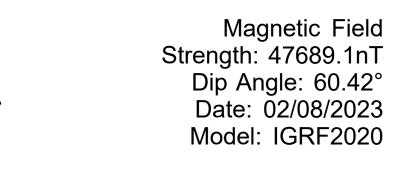
Name	TVD	+N/-S	+E/-W	Northing	Easting
PBL 8-7 SC 10H LTP 1270FNL 100FWL	0.0	-572.4	-8287.9	674547.10	732455.74
PBL 8-7 SC 10H SHL 775FNL 2215FEL	0.0	0.0	0.0	675119.50	740743.60
PBL 8-7 SC 10H PBHL 1270FNL 50FWL	6070.0	-572.9	-8337.9	674546.60	732405.70
PBL 8-7 SC 10H FTP 1270FNL 100FCntSec	6115.0	-499 4	-524 6	674620 10	740219 00





PBL 8-7 SC 10H PBHL 1270FNL\_50FWL

Pebble 8-7 State Com 10H/Plan #1



-500 fh -)/N

-550 💢

\_-600 **5** 

PROJECT DETAILS: Lea County, NM (NMEZ) Grid NAD83
Geodetic System: US State Plane 1927 (Exact solution)
Datum: NAD 1927 (NADCON CONUS)
Ellipsoid: Clarke 1866
Zone: New Mexico East 3001
System Datum: Mean Sea Level

Magnetic North is 5.96° East of Grid North (Magnetic Convergence) Magnetic North is 6.39° East of True North (Magnetic Declination)

To convert a Magnetic Direction to a Grid Direction, Add 5.96°



| PBL 8-7 SC 10H PBHL 1270FNL\_50FWL | PBL 8-7 SC 10H PBHL 1270FNL\_

SPUR ENERGY PARTNERS LLC.
Lea County, NM (NMEZ) Grid NAD83
Pebble 8-7
Pebble 8-7 State Com 10H
Lateral
Plan #1
Created By: Mekka Williams
eSomina Well Design
mekka@esominawelldesign.com

# 1. Geologic Formations

TVD of Target	6,070'
MD at TD	14,477'

Formation	Depth	Lithology	Expected Fluids
Quaternary	0'	Dolomite, other: Caliche	Useable Water
Rustler	1400'	Dolomite, Shale, Anhydrite	Other: Brackish Water
Top Salt	1510'	Anhydrite	Other: Salt
Tansill	2610'	Sandstone, Dolomite	None
Yates	2710'	Dolomite, Limestone, Shale, Siltstone	None
Seven Rivers	3050'	Dolomite, Limestone	Natural Gas, Oil
Queen	3690'	Anhydrite, Dolomite, Sandstone	Natural Gas, Oil
Grayburg	4125'	Anhydrite	Natural Gas, Oil
San Andres	4445'	Dolomite	Natural Gas, Oil
Glorieta	5900'	Dolomite, Siltstone	Natural Gas, Oil
Paddock	5985'	Dolomite, Limestone	Natural Gas, Oil
Blinebry	6350'	Dolomite, Limestone	Natural Gas, Oil
Tubb	7280'	Dolomite, Limestone	Natural Gas, Oil

<sup>\*</sup>H2S, water flows, loss of circulation, abnormal pressures, etc.

# 2. Casing Program

All casing strings will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.h

Casing Formation Set	Hole Size (in)	Casing Inter	val	Csg. Size	Weight	Grade	Conn.	SF	SF Burst	Body SF	Joint SF
Interval	Hole Size (III)	From (ft)	To (ft)	(in)	(lbs)	Grade	Comi	Collapse	Sr Buist	Tension	Tensio n
Rustler	17.5	0	1450	13.375	54.5	J-55	BTC	1.125	1.2	1.4	1.4
Seven Rivers	12.25	0	3175	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
N/A	8.75	0	6350	7	32	L-80	BK-HT	1.125	1.2	1.4	1.4
Yeso	8.75	6350	14477	5.5	20	L-80	BK-HT	1.125	1.2	1.4	1.4
	_	<u> </u>				_		SF	Values will me	et or Exceed	

	Y or N
Is casing new? If used, attach certification as required in Onshore Order #1	Y
Does casing meet API specifications? If no, attach casing specification sheet.	Y
Is premium or uncommon casing planned? If yes attach casing specification sheet.	N
Does the above casing design meet or exceed BLM's minimum standards? If not provide justification (loading assumptions, casing design criteria).	Y
Will the intermediate pipe be kept at a minimum 1/3 fluid filled to avoid approaching the collapse pressure rating of the casing?	Y
Is well located within Capitan Reef?	N
If yes, does production casing cement tie back a minimum of 50' above the Reef?	
Is well within the designated 4 string boundary.	
Is well located in SOPA but not in R-111-P?	N
If yes, are the first 2 strings cemented to surface and 3 <sup>rd</sup> string cement tied back 500' into previous casing?	
Is well located in R-111-P and SOPA?	N
If yes, are the first three strings cemented to surface?	
Is 2 <sup>nd</sup> string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	N
If yes, are there two strings cemented to surface?	
Is well located in critical Cave/Karst?	N
If yes, are there strings cemented to surface?	

# 3. Cementing Program

Casing String	Top (ft)	Bottom (ft)	% Excess
Surface Tail	0	1450	165%
Intermediate (Lead)	0	1450	100%
Intermediate (Tail)	1450	3175	100%
Production (Lead)	0	5350	100%
Production (Tail)	5350	14477	25%

Casing String	# Sks	Wt.	Yld	H20	500# Comp. Strength	Slurry Description
		(lb/gal)	(ft3/sack)	(gal/sk)	(hours)	
Surface Tail	1414	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Intermediate (Lead)	220	12	2.4	13.48	8:12	Clas C Premium Plus Cement
Intermediate (Tail)	588	13.2	1.87	9.92	6:59	Clas C Premium Plus Cement
Production (Lead)	1059	11.4	2.42	15.29	N/A	Clas C Premium Plus Cement
Production (Tail)	1771	13.2	1.56	9.81	N/A	Clas C Premium Plus Cement

# 4. Pressure Control Equipment

# \*Spur Energy Partners LLC variance for flex hose\*

Spur requests a variance to use a flex line from the BOP to the choke manifold. Documentation will be attached in the APD and be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no bends).

BOP installed and tested before drilling which hole?	Size?	Min. Required WP	Туре	✓	Tested to:
		5M	Annular	✓	70% of working pressure
12.25" Hole	13-5/8"		Blind Ram	✓	
12.25 Hole		5M	Pipe Ram	✓	250 psi / 3000 psi
			Double Ram		
			Other*		
		5M	Annular	✓	70% of working pressure
8.75" Hole	13-5/8"	516	Blind Ram	✓	
8.73 Hote			Pipe Ram	✓	250: / 2000:
		5M	Double Ram		250 psi / 3000 psi
			Other*		

# \*Spur Energy Partners LLC will be utilizing a 5M BOP\*

Condition	Specify what type and where?
BH Pressure at deepest TVD	2831 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	129°F

<sup>\*</sup>Specify if additional ram is utilized.

BOP/BOPE will be tested by an independent service company to 250 psi low and the high pressure indicated above per Onshore Order 2 requirements. The System may be upgraded to a higher pressure but still tested to the working pressure listed in the table above. If the system is upgraded all the components installed will be functional and tested.

Pipe rams will be operationally checked each 24-hour period. Blind rams will be operationally checked on each trip out of the hole. These checks will be noted on the daily tour sheets. Other accessories to the BOP equipment will include a Kelly cock and floor safety valve (inside BOP) and choke lines and choke manifold. See attached schematics.

Formation integrity test will be performed per Onshore Order #2.

On Exploratory wells or on that portion of any well approved for a 5M BOPE system or greater, a pressure integrity test of each casing shoe shall be performed. Will be tested in accordance with Onshore Oil and Gas Order #2 III.B.1.i.

Y	Are anchors required by manufacturer?
A con	ventional wellhead system will be employed. The wellhead and connection to the
BOPE	will meet all API 6A requirements. The BOP will be tested per Onshore Order #2
after in	nstallation on the surface casing which will cover testing requirements for a maximum
of 30 d	days.
See at	tached schematics.

# **5.** BOP Break Testing Request

Spur Energy Partners LLC requests permission to adjust the BOP break testing requirements as follows:

BOP break test under the following conditions:

- After a full BOP test is conducted
- When skidding to drill the production section, where the surface casing point is shallower than the 3 Bone Spring or 10,000 TVD.
- When skidding to drill a production section that does not penetrate the 3<sup>rd</sup> Bone Spring or deeper.

If the kill line is broken prior to skid, four tests will be performed.

- 1) The void between the wellhead and the spool (this consists of two tests)
- 2) The spool between the kill lines and the choke manifold (this consists of two tests)

If the kill line is not broken prior to skid, two tests will be performed.

1) The void between the wellhead and the pipe rams

# 6. Mud Program

Sufficient mud materials to maintain mud properties and meet minimum lost circulation and weight increase requirements will be kept on location at all times. The following is a general list of products: Barite, Bentonite, Gypsum, Lime, Soda Ash, Caustic Soda, Nut Plug, Cedar Fiber, Cotton Seed Hulls, Drilling Paper, Salt Water Clay, CACL2. Spur will use a closed mud system.

Depth	Depth		Waight (nng)	Viscosity	Water Loss	
From (ft)	To (ft)	Type Weight (ppg)	viscosity			
0	1450	Water-Based Mud	8.6-8.9	32-36	N/C	
1450	3175	Brine	10.0-10.5	32-36	N/C	
3175	14477	Brine	10.0-10.5	38-50	N/C	

What will be used to monitor the loss or gain of fluid?	PVT/PASON/Visual Monitoring
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# 7. Logging and Testing Procedures

Logg	Logging, Coring and Testing.					
Yes	Will run GR from TD to surface (horizontal well – vertical portion of hole). Stated logs					
	run will be in the Comp	letion Report and submitted to the Bl	LM.			
No	Logs are planned based	on well control or offset log informa	tion.			
No	Drill stem test? If yes, explain					
No	Coring? If yes, explain					
Addi	tional logs planned	Interval				
No	Resistivity					
No	Density					
No	CBL					
Yes	Mud log	ICP - TD				

# 8. Drilling Conditions

PEX

No

Pump high viscosity sweeps as needed for hole cleaning. The mud system will be monitored visually/manually as well as with an electronic PVT. The necessary mud products for additional weight and fluid loss control will be on location at all times. Appropriately weighted mud will be used to isolate potential gas, oil, and water zones until such time as casing can be cemented into place for zonal isolation.

Hyd	lrogen Sulfide (H2S) monitors will be installed prior to drilling out the surface shoe. If H2S			
is de	is detected in concentrations greater than 100 ppm, the operator will comply with the provisions			
of C	of Onshore Oil and Gas Order #6. If Hydrogen Sulfide is encountered, measured values and			
form	nations will be provided to the BLM.			
N	H2S is present			
Y	H2S Plan attached			

Total estimated cuttings volume: 1339.1 bbls.

# 9. Other facets of operation

	Yes/No
Will more than one drilling rig be used for drilling operations? If yes, describe.	Yes
Spur Energy Partners LLC. requests the option to contract a Surface Rig to drill,	
set surface casing, and cement for this well. If the timing between rigs is such that	
Spur Energy Partners LLC. would not be able to preset surface, the Primary Rig	
will MIRU and drill the well in its entirety per the APD. Please see the attached	
document for information on the spudder rig.	

# Attachments

- \_x\_\_ Directional Plan
- \_x\_\_ H2S Contingency Plan
- \_x\_\_ Akita 57 Attachments
- \_x\_\_ BOP Schematics
- \_x\_\_ Transcend Spudder Rig Attachments

# 10. Company Personnel

<u>Name</u>	<u>Title</u>	Office Phone	Mobile Phone
Christopher Hollis	Drilling Manager	832-930-8629	713-380-7754
Johnny Nabors	Senior Vice President Operations	832-930-8502	281-904-8811

PEBBLE 8-7 STATE COM 60H

# 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 Effective May 25, 2021

I. Operator: SPUR E	ENERGY PAR	RTNERS LLC	OGRID:	328947	7	Date: <u>02</u>	/ <u>09</u> / <u>202</u> 3	
II. Type:  ☐ Original ☐ Amendment due to ☐ 19.15.27.9.D(6)(a) NMAC ☐ 19.15.27.9.D(6)(b) NMAC ☐ Other.								
If Other, please describe	e:							
• · · · · · · · · · · · · · · · · · ·								
III. Well(s): Provide the	e following inf	Formation for each r	new or recomplet	ted well or set of v	wells prop	osed to be o	drilled or proposed to	
be recompleted from a s	_				rems reer	00000	armos or proposition	
Ι.	8 1		,					
Well Name	API	ULSTR	Footages	Anticipated Oil BBL/D	Anticip Gas MC		Anticipated Produced Water BBL/D	
PEBBLE 8-7 STATE COM 10H	30-025-	B-8-17S-33E	775' FNL 2215' FEL	425 BBL/D	534 MCF/I	/D	1698 BBL/D	
PEBBLE 8-7 STATE COM 20H	30-025-	B-8-17S-33E	735' FNL 2215' FEL	425 BBL/D	534 MCF/	:/D	1698 BBL/D	
PEBBLE 8-7 STATE COM 60H	30-025-	B-8-17S-33E	755' FNL 2215' FEL	390 BBL/D	462 MCF/	/D	1950 BBL/D	
		<u> </u>			<u> </u>			
IV. Central Delivery Point Name: PEBBLE 8-7 STATE COM TANK BATTERY [See 19.15.27.9(D)(1) NMAC]								
V. Anticipated Schedu	V. Anticipated Schedule: Provide the following information for each new or recompleted well or set of wells proposed to be drilled or							
proposed to be recomple						1	F	
Well Name	API	Spud Date	TD Reached	Completion	J	Initial Flow	First Production	
	'		Date	Commencement		Back Date	Date	

VI. Separation Equipment: X Attach a complete description of how Operator will size separation equipment to optimize gas capture.

06/30/2023

07/30/2023

08/06/2023

09/04/2023

09/04/2023

- VII. Operational Practices: 

  ✓ Attach a complete description of the actions Operator will take to comply with the requirements of Subsection A through F of 19.15.27.8 NMAC.
- VIII. Best Management Practices: 🔀 Attach a complete description of Operator's best management practices to minimize venting during active and planned maintenance.

09/15/2023

09/15/2023

# Section 2 – Enhanced Plan EFFECTIVE APRIL 1, 2022

Beginning April 1, 2022, an operator that is not in compliance with its statewide natural gas capture requirement for the applicable reporting area must complete this section.

Operator certifies that it is not required to complete this section because Operator is in compliance with its statewide natural gas capture requirement for the applicable reporting area.

# IX. Anticipated Natural Gas Production:

Well	API	Anticipated Average Natural Gas Rate MCF/D	Anticipated Volume of Natural Gas for the First Year MCF

# X. Natural Gas Gathering System (NGGS):

Operator	System	ULSTR of Tie-in	Anticipated Gathering Start Date	Available Maximum Daily Capacity of System Segment Tie-in

XI. Map. $\square$ Attach an accurate and legible map depicting the location of the well(s), the anticipated pipeline route(s) connecting the
production operations to the existing or planned interconnect of the natural gas gathering system(s), and the maximum daily capacity of
the segment or portion of the natural gas gathering system(s) to which the well(s) will be connected.

XII. Line Capacity. The natural gas gathering system [	$\square$ will $\square$ will not have $\alpha$	capacity to gather 100% of	the anticipated natural gas
production volume from the well prior to the date of first	st production.		

<b>XIII. Line Pressure.</b> Operator $\square$ does $\square$ does not anticipate that its e	existing well(s) connected to the same segment, or po	ortion, of the
natural gas gathering system(s) described above will continue to meet	anticipated increases in line pressure caused by the r	iew well(s).

☐ Attach Operator's plan to manage production in re	sponse to th	he increased	line pressure
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XIV. Confidentiality: $\Box$ Operator asserts confidentiality pursuant to Section 71-2-8 NMSA 1978 for the information pr	ovided in
Section 2 as provided in Paragraph (2) of Subsection D of 19.15.27.9 NMAC, and attaches a full description of the specific in	formation
for which confidentiality is asserted and the basis for such assertion.	

# Section 3 - Certifications <u>Effective May 25, 2021</u>

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; compression on lease; (c) (d) liquids removal on lease; reinjection for underground storage; (e)

- **(f)** reinjection for temporary storage;
- **(g)** reinjection for enhanced oil recovery;
- fuel cell production; and (h)
- (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:
- (a) Operator becomes aware that the natural gas gathering system it planned to connect the well(s) to has become 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.

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 and Gas Act.

Signature: Sarah Chapman
Printed Name: SARAH CHAPMAN
Title: REGULATORY DIRECTOR
E-mail Address: SCHAPMAN@SPURENERGY.COM
Date: FEBRUARY 9, 2023
Phone: 832-930-8613
OIL CONSERVATION DIVISION
(Only applicable when submitted as a standalone form)
Approved By:
Title:
Approval Date:
Conditions of Approval: