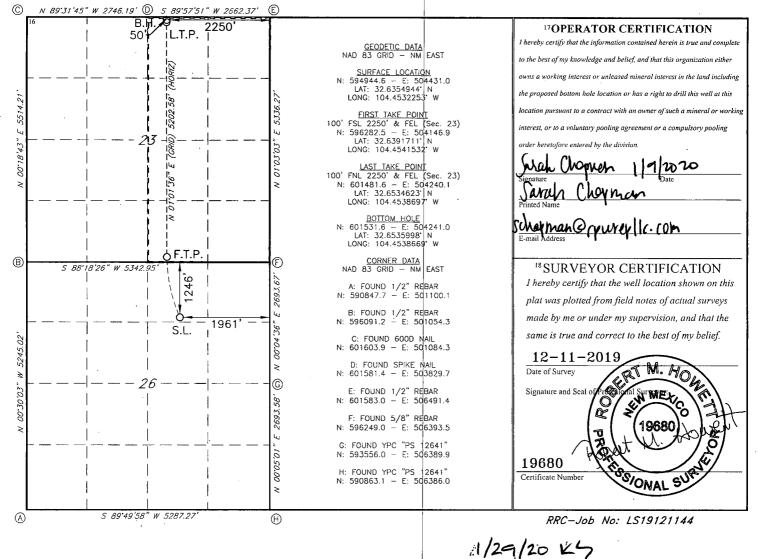
30-015-46624

Phone: (575) District II 811 S. First S Phone: (575) District III 1000 Rio Bra Phone: (505) District IV 1220 S. St. F	393-6161 Fa St., Artesia, N 748-1283 Fa 1205 Road, A 334-6178 Fa rancis Dr., Sa	ss, NM 88240 ax: (575) 393-1 M 88210 tx: (575) 748-9 ttec, NM 8741 tx: (505) 334-6 inta Fe, NM 87 tx: (505) 476-2	720 0 170 2505	Energ	gy, Mine OIL	rals & Nati CONSER	ural Res VATIO	ources De N DIVISI	ECEIVED partment AN 2 1 2020 D-OCD AF	Submit on	Form C-102 vised August 1, 2011 e copy to appropriate District Office MENDED REPORT
			W	/ELL L	OCATIC	ON AND A	CREAC	E DEDIC	CATION PLA	Т	
30)-01	5- -]/	0024	9	² Pool Code 7565		J. Sever	hivers;	Filmeta-	ne Yeso	
4	Property Co	ode	(u)				rty Name BY 23				⁶ Well Number 2H
3.	70grid 2 894	NO. 1			SPUR	^{8 Opera} ENERGY	tor Name PARTN	NERS · LLO	C	9	Elevation 3422'
						¹⁰ Surfa	ce Loca	tion	•		
UL	or lot no.	Section	Township	Range	Lot Idn	Feet from th	ie No	orth/South line	Feet From the	East/West line	County
j	В	26	19S	25E		1246		ORTH	1961	EAST	EDDY
				н	Bottom I	Iole Locati	ion If D	ifferent Fro	om Surface		· · · · · · · · · · · · · · · · · · ·
	r lat na	Conting	Taumshin	Damas	T and Tala	East from d		1. 10		D (017)	0

L or lot Range Feet from the North/South line Feet from the East/West line County В 23 19S 25E NORTH 50 2250 EAST EDDY 14 Consolidation Code 12 Dedicated Acres 13 Joint or Infill 15 Order No. 320 7

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.



								REC	EIVE	D			
nten	t X	As Dril	lled					JAN	2 1 2()20			
API #	ŧ						EMN	RD-O	CDA	RT	Esia		
Ope	rator Nai	me:				Property	Name:					Well Nu	mbe
SPl	JR ENE	RGY PA	RTNEF	RS LL	С	SHELBY	(23					2H	
								- <u> </u>				1	
Kick (Off Point	(KOP)											
UL B	Section	Township 195	Range 25E	Lot	Feet 776	From		2234	From	E/W ST	EDD	ý	
Latit	ude			1		4.453					NAD		
32	.636	13			-10	4.400	333				NAC	103	
First `	Take Poir	nt (FTP)											
UL	Section 23	Township 195	Range 25E	Lot	Feet 100	From		2250	From	^{E/W} ST	EDD'	Y	
Latite 32	639	1711	1	_!	Longitu	4.454	1533	26	_ I)83	
					1.0								
_ast 1	Take Poin	t (LTP)				x							
B	Section 23	Township 195	Range 25E	Lot	Feet 100	From N/S	1 225	0 EA	ST	Count ED	ĎY		
Latitu 32	.635	4623	1	-1	Longitu	4.453	869	7			D83	<u>-</u>	-
												<u> </u>	
ls this	s well the	defining v	well for th	ne Hori	zontal Sp	bacing Unit	?						
۱۰ +۲۰	wollon	infill well?		YES									
IS UTI	s weil aff	iniii well?								•			
	ll is yes p ng Unit.	lease prov	ide API if	availal	ble, Opei	rator Name	and we	ll numbe	er for D	efinir	ng well fo	r Horizon	tal
API #													
Ope	rator Na	me:				Property	Name:					Well Nu	mb
							1						
SPU	JR ENE	RGY PA	RTNEF	RS LL	С	SHELB	(23					4H	

State of New Mexico

Energy, Minerals and Natural Resources Department

Submit Original to Appropriate District Office

CEIVED Oil Conservation Division JAN 2 1 2020 1220 South St. Francis Dr. 20 South St. 1 Marson Santa Fe, NM 87505 EMNRD-OCD ARTESIA

Date: 01/07/2020

 \boxtimes Original

Operator & OGRID No.: SPUR ENERGY PARTNERS LLC (328947)

□ Amended - Reason for Amendment:

This Gas Capture Plan outlines actions to be taken by the Operator to reduce well/production facility flaring/venting for new completion (new drill, recomplete to new zone, re-frac) activity.

GAS CAPTURE PLAN

Note: Form C-129 must be submitted and approved prior to exceeding 60 days allowed by Rule (Subsection A of 19.15.18.12 NMAC).

Well(s)/Production Facility – Name of facility

The well(s) that will be located at the production facility are shown in the table below.

Well Name	API	Well Location (ULSTR)	Footages	Expected MCF/D	Flared or Vented	Comments
SHELBY 23 2H	30-015-Pending	B-26-19S-25E	1246'FNL 1961'FEL	600 mcf/day	Flared	Will flare until gathering line tie-in
SHELBY 23 3H	30-015-Pending	B-26-19S-25E	1235' FNL 1944' FEL	600 mcf/day	Flared	Will flare until gathering line tie-in
SHELBY 23 4H	30-015-Pending	A-26-19S-25E	858' FNL 718' FEL	600 mcf/day	Flared	Will flare until gathering line tie-in
SHELBY 23 5H	30-015-Pending	A-26-19S-25E	847' FNL 702' FEL	600 mcf/day	Flared	Will flare until gathering line tie-in
SHELBY 23 6H	30-015-Pending	A-26-19S-25E	836' FNL 685 'FEL	600 mcf/day	Flared	Will flare until gathering line tie-in

Gathering System and Pipeline Notification

Well(s) will be connected to a production facility after flowback operations are complete, if gas transporter system is in place. The gas produced from production facility is dedicated DCP Operating Company, LP and will be connected to DCP's low/high pressure gathering system located in Eddy County, New Mexico. It will require 1,100' of pipeline to connect the facility to low/high pressure gathering system. Spur Energy Partners LLC provides (periodically) to DCP a drilling, completion and estimated first production date for wells that are scheduled to be drilled in the foreseeable future. In addition, Spur Energy Partners LLC and DCP have periodic conference calls to discuss changes to drilling and completion schedules. Gas from these wells will be processed at DCP's Processing Plant located in Sec. 36, Twn. 19S, Rng. 24E, Eddy County, New Mexico. The actual flow of the gas will be based on compression operating parameters and gathering system pressures.

Flowback Strategy

After the fracture treatment/completion operations, well(s) will be produced to temporary production tanks and gas will be flared or vented. During flowback, the fluids and sand content will be monitored. When the produced fluids contain minimal sand, the wells will be turned to production facilities. Gas sales should start as soon as the wells start flowing through the production facilities, unless there are operational issues on DCP's system at that time. Based on current information, it is Spur Energy Partners LLC's belief the system can take this gas upon completion of the well(s).

Safety requirements during cleanout operations from the use of underbalanced air cleanout systems may necessitate that sand and non-pipeline quality gas be vented and/or flared rather than sold on a temporary basis.

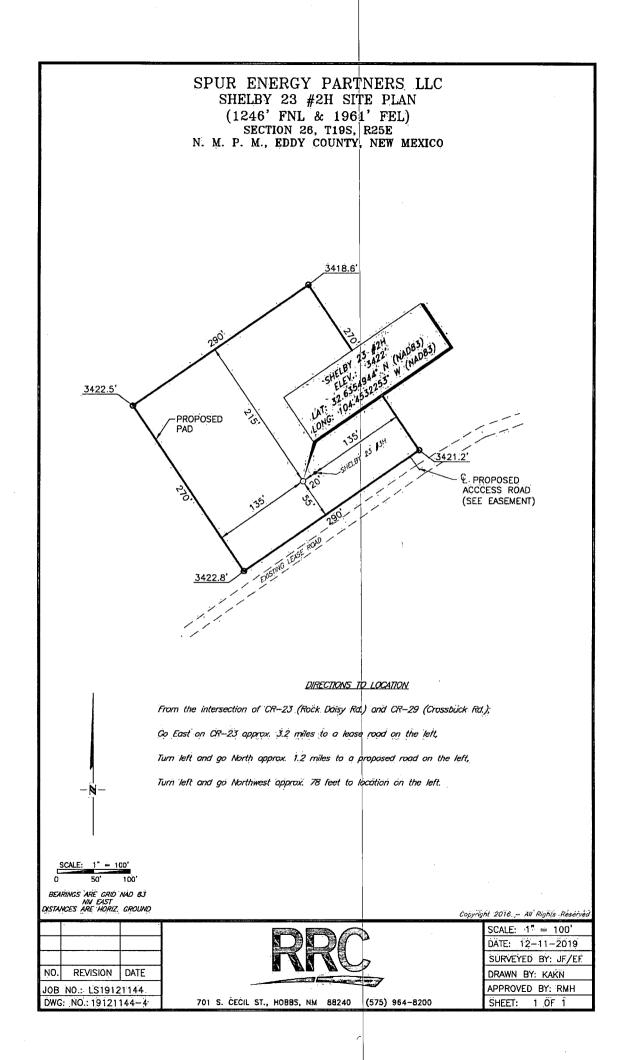
Alternatives to Reduce Flaring

Below are alternatives considered from a conceptual standpoint to reduce the amount of gas flared.

- Power Generation On lease ٠
 - Only a portion of gas is consumed operating the generator, remainder of gas will be flared
- Compressed Natural Gas On lease

• Gas flared would be minimal, but might be uneconomical to operate when gas volume declines

- NGL Removal On lease
 - Plants are expensive, residue gas is still flared, and uneconomical to operate when gas volume declines



Spur Energy Partners LLC. - Shelby 23 2H

1. Geologic Formations

TVD of target	2675'	Pilot Hole Depth	N/A
MD at TD:	8517'	Deepest Expected fresh water:	397'

Delaware Basin

Formation	TVD - RKB	Expected Fluids
San Andres Upper	810	Losses
San Andres Middle	1,105	Losses
San Andres Lower	1,790	Losses
Glorieta Top	2,385	Oil/Gas
Upper Paddock	2,525	Oil/Gas
Lower Paddock 1	2,685	Oil/Gas
Lower Paddock 2	2,795	Oil/Gas
Lower Paddock 3	2915	Oil/Gas

*H2S, water flows, loss of circulation, abnormal pressures, etc.

2. Casing Program

.									Buoyant	Buoyant
Uala Siza (iii)	Casing	Interval	Csg. Size	Weight	C *1		SF .;	5, CED	Body SF.	Joint SF
Hole Size (iñ)	From (ft)	. To (ft)	(iñ)	(lbs)	Grade	 Conn.	Collapse	* SF Burst	Tension	Tension
12.25	0	1200	9.625	36	J-55	BTC	1.125	1.2	1.4	1.4
8.75	0	2973	7	32	L-80	LTC	1.125	1.2	1.4	1.4
8.75	2973	8517	5.5	20	L-80	BK-HT	1.125	1.2	1.4	1.4

Spur Energy Partners	LLC Shelby 23 2H
-----------------------------	------------------

	Yor 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.	Y
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?	N/A
	7048. O 112
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 rd 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 nd string set 100' to 600' below the base of salt?	
Is well located in high Cave/Karst?	Y
If yes, are there two strings cemented to surface?	Y
(For 2 string wells) If yes, is there a contingency casing if lost circulation occurs?	
Is well located in critical Cave/Karst?	Ν
If yes, are there three strings cemented to surface?	

3. Cementing Program

Casing String	#Sks	Wt(lb/gal)	¥ld _(ft3/sack)	H20 (gal/sk)	500# Comp. Strength (hours)	Slurry Description
Surface (Lead)	380	12.8	1.65	8.19	10:25	35/65 Poz C
Surface (Tail)	170	14.8	1.33	6.32	6:40	Class C Cement, Accelerator
Production (Lead)	265	11.5	2.63	9.7	N/A	50/50 Poz C
Production (Tail)	1225	14.2	1.38	6.686	N/A	50/50 Poz C

Casing String	Top (ft)	Bottom (ft)	% Éxcess.
Surface (Lead)	0	950	100%
Surface (Tail)	950	1200	165%
Production (Lead)	0	1640	0%
Production (Tail)	1640	8517	50%

Spur Energy Partners LLC - Shelby 23 2H

4. Pressure Control Equipment

BOP installed and tested before drilling which hole?	Size?	Min: Required WP	а Дана ту	pe	√	Tested to:	
		3М	Ann	ular	1	70% of working pressure	
12.25" Holo	13-5/8"		Blind	Ram	✓	· · · · · · · · ·	
12.25" Hole	13-378	3M	Pipe Ram			250	
			Double Ram		✓	250 psi / 3000 psi	
			Other*				
		3M	Annular		1	70% of working pressure	
8.75" Hole	13-5/8"		Blind Ram Pipe Ram Double Ram		✓		
	13-5/8	3M				250 psi / 3000 psi	
					✓		
			Other*				

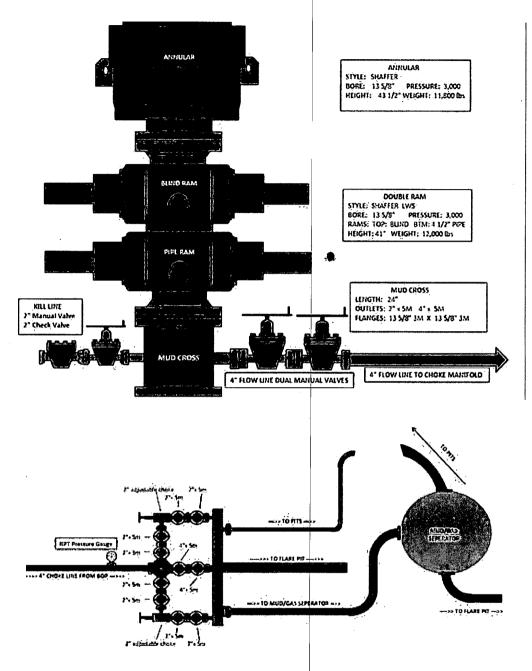
*Specify if additional ram is utilized.

Spur will utilize a 5M annular with a 5M BOPE stack. The 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.

Manifold. See attached for specs and hydrostatic test chart.YAre anchors required by manufacturer?A multibowl or a unionized multibowl 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 installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.	A variance is requested for the use of a flexible choke line from the BOP to Choke
A multibowl or a unionized multibowl 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 installation on the surface casing which will cover testing requirements for a maximum of 30 days. If any seal subject to test pressure is broken the system must be tested. We will test the flange connection of the wellhead with a test port that is directly in the flange. We are proposing that we will run the wellhead through the rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.	
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rotary prior to cementing surface casing as discussed with the BLM on October 8, 2015.	
See attached schematics	
See attached schematics.	See attached schematics.





The buffer tank and panic line will not be connected at any point during drilling operations.

Required safety valves, with appropriate wrenches and subs for the drill string being utilized, will be in the open position and accessible on the rig floor.

Spur Energy Partners LLC - Shelby 23 2H

5. Mud Program

De From (ft)	pth To (ft)	Туре	Weight (ppg)	Viscosity	Water Loss
0	1200	Water-Based Mud	8.6-8.9	32-36	N/C
1200	8517	Water-Based Mud	8.6-8.9	32-36	N/C

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.

What will be used to monitor the	loss or gain of fluid?	PVT/MD Totco/Visual Monitoring

6. Logging and Testing Procedures

Logg	ing, Coring and Testing					
Yes	Will run GR from TD to	o surface (horizonta	ıl well – v	vertical porti	on of hole).	Stated logs
	run will be in the Comp	letion Report and s	ubmitted	to the BLM	•	-
No	Logs are planned based	on well control or o	offset log	information	1.	
No	Drill stem test? If yes, e	explain				
No	Coring? If yes, explain					
Addi	tional logs planned	Interval				
No	Resistivity					
No	Density					
No	CBL					
Yes	Mud log	SCP - TD				
No	PEX					

7. Drilling Conditions

Condition	Specify what type and where?
BH Pressure at deepest TVD	1238 psi
Abnormal Temperature	No
BH Temperature at deepest TVD	102°F

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.

Spur Energy Partners LLC. - Shelby 23 2H

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8. Other facets of operation

	Yes/No
Will the well be drilled with a walking/skidding operation? If yes, describe.	Yes
• We plan to drill the two well pad in batch by section: all surface sections,	
and production sections. The wellhead will be secured with a night cap	
whenever the rig is not over the well.	
Will more than one drilling rig be used for drilling operations? If yes, describe.	No

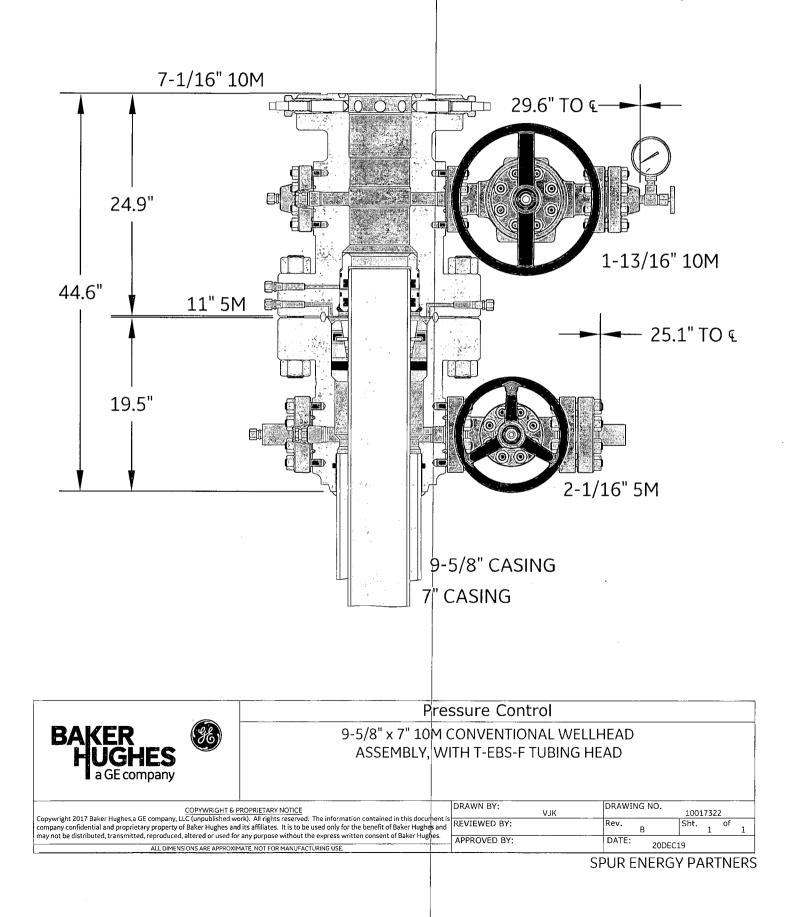
Total estimated cuttings volume: 808.4 bbls.

Attachments

- _x__ Directional Plan
- _x__ H2S Contingency Plan
- _x_ Rig Attachments
- _x__ Premium Connection Specs

9. Company Personnel

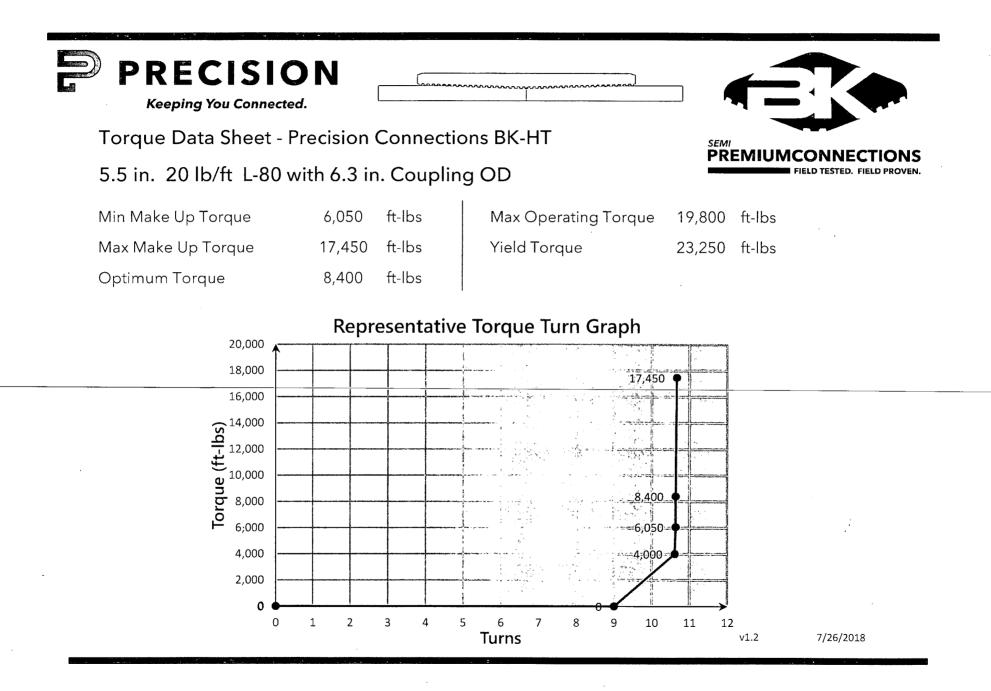
Name		Title	Office Phone	Mobile Phone
Christopher Hollis	*	Drilling Manager	832-930-8629	713-380-7754

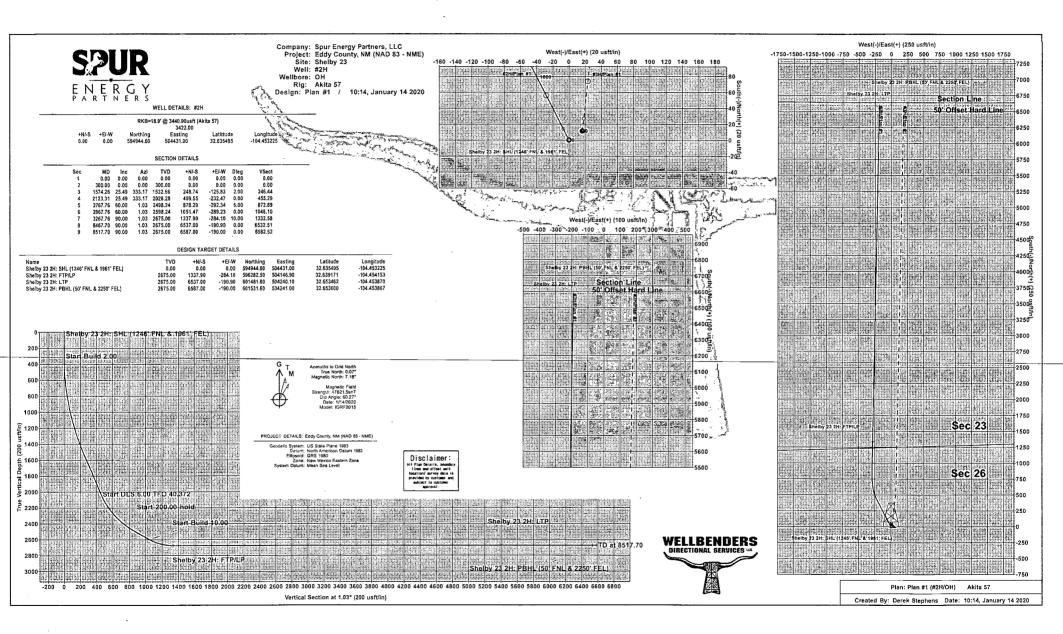


PRECISION Keeping You Connected. Precision Connections I 5.5 in. 20 lb/ft L-80 with	BK-HT	. Coupli	ng OD		NECTIONS ESTED. FIELD PROVEN.
Pipe Body			Connection		
Nominal OD	5.500	inches	Coupling OD	6.300	inches
Nominal Weight	20.00	lb/ft	Coupling Length	8.250	inches
Wall Thickness	0.361	inches	Make Up Loss	4.125	inches
Plain End Weight	19.81	lb/ft	Critical Section Area	8.456	in²
Drift	4.653	inches	Internal Pressure Rating	100%	
Nominal ID	4.778	inches	External Pressure Rating	100%	
Grade	L-80		Tension Efficiency	100%	
Min Yield	80,000	lbf/in²	Connection Strength	466	kips
Min Tensile	95,000	lbf/in²	Compression Efficiency	100%	
Critical Section Area	5.828	in²	Uniaxial Bend Rating	58.2	° / 100 ft
Pipe Body Yield Strength	466	kips	Min Make Up Torque	6,050	ft-lbs
Min Internal Yield Pressure	9,190	psi	Yield Torque	23,250	ft-lbs 🚺
Collapse Pressure	8,830	psi		v1.2	7/26/2018

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E N E P A R T	R G Y

Spur Energy Partners, LLC

Eddy County, NM (NAD 83 - NME) Shelby 23 #2H OH

Plan: Plan #1

Standard Plan With Toolface

14 January, 2020

RECEIVED JAN 2 1 2020 EMNRD-OCD ARTESIA



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Wellbenders

Standard Plan With Toolface

Project: E Site: S Well: # Wellbore: C	Spur Energy Partners Eddy County, NM (N, Shelby 23 #2H OH Plan #1		Ε)		Local Co-ordinate TVD Reference: MD Reference: North Reference: Survey Calculatior Database:	RKB=18.9' @ RKB=18.9' @ Grid		
Map System: Geo Datum: Map Zone:	US State Plane 1 North American D New Mexico East	983 Jatum 1983	· · · · · · · · · · · · · · · · · · ·		System Datum:	Mean Sea Le	vel	
Site	Shelby 2	3						
Site Position: From: Position Uncertaint	Мар	0.00 usft	E	orthing: asting: lot Radius:	594,944.60 usft 504,431.00 usft 13.200 in	Latitude: Longitude: Grid Convergence:		32.635495 -104.453225 -0.065 °
Well	#2H		· · ·			*****		· · · · · · · · · · · · · · · · · · ·
Well Position	+N/-S +E/-W	0.00 usft 0.00 usft	Nort East	-	594,944.60 usft 504,431.00 usft	Latitude: Longitude:		32.635495 -104.453225
Position Uncertaint	nty	0.00 usft	Well	nead Elevation:	usft	Ground Level:		3,422.00 usft
		0.00 usft	Well	nead Elevation:	usft	Ground Level:		3,422.00 usft
Wellbore ·	OH Model Nam	e Sample D			Dip Angle Field St (°) (n1	rength		3,422.00 usft
Wellbore Magnetics	OH Model Nam IGRF	e Sample D	ate Declina (°)	tiọn [Dip Angle Field St (°) (n1	rength T)		3,422.00 usft
Wellbore Magnetics	OH Model Nam	e Sample D	ate Declina (°)	tiọn [Dip Angle Field St (°) (n1 60.266 47,82	rength T)		3,422.00 usft
Wellbore Magnetics Design Audit Notes:	OH Model Nam IGRF	e Sample D 2015 1/1	ate Declina (°) 4/2020	tion [7.116	Dip Angle Field St (°) (n1 60.266 47,82	rength T)		3,422.00 usft
Wellbore Magnetics Design Audit Notes: Version: Vertical Section:	OH Model Nam IGRF Plan #1	e Sample D 2015 1/1 Phase: Depth From (TVD) (usft) 0.00	ate Declina (°) 4/2020 PLAN +N/-S (usft)	tion E 7.116 Tie On Depth +E/-W (usft)	Dip Angle Field St (°) (n1 60.266 47,82 n: 0.00 Direction (°)	rength T)		
Wellbore Magnetics Design Audit Notes: Version: Vertical Section: Survey Tool Progra	OH Model Nam IGRF Plan #1	e Sample D 2015 1/1 Phase: Depth From (TVD) (usft) 0.00	ate Declina (°) 4/2020 PLAN +N/-S (usft) 0.00	tion E 7.116 Tie On Depth +E/-W (usft)	Dip Angle Field St (°) (n1 60.266 47,82 n: 0.00 Direction (°)	rength T)		

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Standard Plan With Toolface

Project: Site: Well: Wellbore:	1 .	ergy Partners, LLC unty, NM (NAD 83 3					Local Co-ordina TVD Reference: MD Reference: North Reference Survey Calculat Database:	e:	Well #2H RKB=18.9' @ 3440 RKB=18.9' @ 3440 Grid Minimum Curvature WBDS_SQL_2	90usft (Akita 57)	
Planned Survey MD			zi (azimuth)	TVD	N/S	E/W	V: Sec	DLeg	Build	Turn	TFace
(usft) 0.0	<u></u>	(°) 0,00	(°) 0.00	(usft) 0.00	(usft) 0.00	(usft) 0.00	(usft) 0.00	(°/100ft) 0.00	(°/100ft) 0.00	(°/100ft)	(°)
100.0		0.00	0.00	100.00	0.00	0.00	0.00	0.00	0.00	0.00 0.00	0.0 0.0
200.0		0.00	0.00	200.00	0.00	0.00	0.00	0.00	0.00	0.00	0.0
300.0		0.00	0.00	300.00	0.00	0.00	0.00	0.00	0.00	0.00	
400.0		2.00	333.17	399.98	1.56	-0.79	1.54	2.00	2.00	0.00	0.0 333.1
500.0		4.00	333.17	499.84	6.23	-3.15	6.17	2.00	2.00	0.00	0.0
600.0	00	6.00	333.17	599.45	14.00	-7.08	13.87	2.00	2.00	0.00	0.0
700.0	00	8.00	333.17	698.70	24.88	-12.58	24.65	2.00	2.00	0.00	0.0
800.0		10.00	333.17	797.47	38.84	-19.65	38.48	2.00	2.00	0.00	0.0
900.0	00	. 12.00	333.17	895.62	55.86	-28.26	55.34	2.00	2.00	0.00	0.0
1,000.0	00	14.00	333.17	993.06	75.93	-38.41	75.23	2.00	2.00	0.00	0.0
1,100.0	00	16.00	333.17	1,089.64	99.03	-50.09	98.11	2.00	2.00	0.00	0.0
1,200.0	00	18.00	333.17	1,185.27	125.12	-63.29	123.96	2.00	2.00	0.00	0.0
1,300.0	00	20.00	333.17	1,279.82	154.17	-77.99	152.74	2.00	2.00	0.00	0.0
1,400.0	0	22.00	333.17	1,373.17	186.14	-94.16	184.42	2.00	2.00	0.00	0.0
1,500.0	n	24.00	333.17	1,465.21	221.01	-111.80	218.96	2.00	2.00	0.00	0.0
1,574.2		25.49	333.17	1,532.66	248.74	-125.83	246.44	2.00	2.00	0.00	0.0
1,600.0		25.49	333.17	1,555.89	258.62	-130.83	256.23	0.00	0.00	0.00	0.0
1,700.0		25.49	333.17	1,646.16	297.02	-150.25	294.27	0.00	0.00	0.00	0.0
1,800.0		25.49	333.17	1,736.43	335.41	-169.67	332.31	0.00	0.00	0.00	0.0
1,900.0		25.49	333.17	1,826.70	373.81	-189.09	370.35	0.00	0.00	0.00	0.0
2,000.0		25.49	333.17	1,916.97	412.20	-208.52	408.39	0.00	0.00	0.00	0.0
2,100.0		25.49	333.17	2,007.24	450.60	-227.94	446.43	0.00	0.00	0.00	0.0
2,123.3		25.49	333.17	2,028.28	459.55	-232.47	455.29	0.00	0.00	0.00	0.0
2,150.0	10	26.72	335.47	2,052.25	470.13	-237.55	465.78	6.00	4.64	8.64	40.3
2,200.0	00	29.13	339.29	2,096.42	491.75	-246.52	487.24	6.00	4.82	7.64	38.3
2,250.0	00	31.64	342.57	2,139.56	515.65	-254.76	510.99	6.00	5.00	6.55	34.9



Standard Plan With Toolface

Proječt: E Site: S Well: # Wellbore: C	Spur Energy Partners, Eddy County, NM (NAE Shelby 23 #2H OH Plan #1					Local Co-ordinat TVD Reference: MD Reference: North Reference Survey Calculati Database:		Well #2H RKB=18.9' @ 3440 RKB=18.9' @ 3440 Grid Minimum Curvature WBDS_SQL_2	90usft (Akita 57)	
Planned Survey		a ana ana ana ana ana ana ana ana ana a					er find verste filteren en sen sen en e			
, MD (usft)	Inc (°)	Azi (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100 ft)	TFace (°)
2,300.00		345.40	2,181.53	541.77	-262.23	536.97	6.00	5.15	5.67	32.09
2,350.00	36.84	347.88	2,222.22	570.03	-268.92	565.11	6.00	5.26	4.96	29.71
2,400.00) 39.52	350.07	2,261.52	600.37	-274.81	595.33	6.00	5.35	4.38	27.69
2,450.00	42.23	352.03	2,299.32	632.69	-279.88	627.55	6.00	5.43	3.91	25.97
2,500.00		353.79	2,335.53	666.90	-284.12	661.69	6.00	5.49	3.52	24.49
2,550.00		355.39	2,370.03	702.92	-287.53	697.64	6.00	5.54	3.20	23.22
2,600.00	50.53	356.85	2,402.74	740.65	-290.08	735.31	6.00	5.58	2.93	22.12
2,650.00	53.34	358.20	2,433.56	779.97	-291.77	774.60	6.00	5.61	2.70	21.16
2,700.00	56.16	359.45	2,462.42	820.79	-292.60	815.40	6.00	5.64	2.51	20.33
2,750.00	58.99	0.63	2,489.22	862.99	-292.56	857.59	6.00	5.66	2.35	19.60
2,767.76	60.00	1.03	2,498.24	878.29	-292.34	872.89	6.00	5.68	2.25	18.97
2,800.00	60.00	1.03	2,514.36	906.21	-291.84	900.81	0.00	0.00	0.00	0.00
2,900.00	60.00	1.03	2,564.36	992.79	-290.29	987.42	0.00	0.00	0.00	· 0.00
2,967.76	60.00	1.03	2,598.24	1,051.47	-289.23	1,046.10	0.00	0.00	0.00	0.00
3,000.00	63.22	1.03	2,613.56	1,079.82	-288.73	1,074.46	10.00	10.00	0.00	0.00
3,050.00	68.22	1.03	2,634.11	1,125.38	-287.91	1,120.02	10.00	10.00	0.00	0.00
3,100.00	73.22	1.03	2,650.62	1,172.55	-287.06	1,167.20	10.00	10.00	0.00	0.00
3,150.00	78.22	1.03	2,662.94	1,220.99	-286.20	1,215.64	10.00	10.00	0.00	0.00
3,200.00	83.22	1.03	2,671.00	1,270.31	-285.31	1,264.97	10.00	10.00	0.00	0.00
3,250.00	88.22	1.03	2,674.72	1,320.15	-284.42	1,314.82	10.00	10.00	0.00	0.00
3,267.76	90.00	1.03	2,675.00	1,337.90	-284.10	1,332.58	10.00	10.00	0.00	0.00
3,300.00	90.00	1.03	2,675.00	1,370.13	-283.52	1,364.82	0.00	0.00	0.00	0.00
3,400.00	90.00	1.03	2,675.00	1,470.12	-281.73	1,464.82	0.00	0.00	0.00	0.00
3,500.00	90.00	1.03	2,675.00	1,570.10	-279.94	1,564.82	0.00	0.00	0.00	0.00
3,600.00	90.00	1.03	2,675.00	1,670.09	-278.14	1,664.82	0.00	0.00	0.00	0.00
3,700.00	90.00	1.03	2,675.00	1,770.07	-276.35	1,764.82	0.00	0.00	0.00	0.00
3,800.00	90.00	. 1.03	2,675.00	1,870.05	-274.56	1,864.82	0.00	0.00	0.00	0.00



Standard Plan With Toolface

Project:ESite:SWell:#Wellbore:C	Spur Energy Partne Eddy County, NM (N Shelby 23 #2H DH Plan #1					Local Co-ordinate TVD Reference: MD Reference: North Reference: Survey Calculatio Database:		Well #2H RKB=18.9' @ 3444 RKB=18.9' @ 3444 Grid Minimum Curvatur WBDS_SQL_2	0.90usft (Akita 57)	
Planned Survey MD (usft)	Inc (°)	Azi (azimuth)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (°/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
3,900.00	90.0	0 1.03	2,675.00	1,970.04	-272.77	1,964.82	0.00	0.00	0.00	0.000
4,000.00	90.0	0 1.03	2,675.00	2,070.02	-270.98	2,064.82	0.00	0.00	0.00	0.000
4,100.00	90.0	0 1.03	. 2,675.00	2,170.01	-269.18	2,164.82	0.00	0.00	0.00	0.000
4,200.00	90.0	0 1.03	2,675.00	2,269.99	-267.39	2,264.82	0.00	0.00	0.00	0.000
4,300.00	90.0	0 1.03	2,675.00	2,369.97	-265.60	2,364.82	0.00	0.00	0.00	0.000
4,400.00	90.0	0 1.03	2,675.00	2,469.96	-263.81	2,464.82	0.00	0.00	0.00	0.000
4,500.00	90.0	0 1.03	2,675.00	2,569.94	-262.01	2,564.82	0.00	0.00	0.00	0.000
4,600.00	90.0	0 1.03	2,675.00	2,669.93	-260.22	2,664.82	0.00	0.00	0.00	0.000
4,700.00	90.0	0 1.03	2,675.00	2,769.91	-258.43	2,764.82	0.00	0.00	0.00	0.000
4,800.00	90.0	0 1.03	2,675.00	2,869.89	-256.64	2,864.82	0.00	0.00	0.00	. 0.000
4,900.00	90.0	0 1.03	2,675.00	2,969.88	-254.84	2,964.82	0.00	0.00	0.00	0.000
5,000.00	90.0	0 1.03	2,675.00	3,069.86	-253.05	3,064.82	0.00	0.00	0.00	0.000
5,100.00	90.0	0 1.03	2,675.00	3,169.85	-251.26	3,164.82	0.00	0.00	0.00	0.000
5,200.00	90.0	0 1.03	2,675.00	3,269.83	-249.47	3,264.82	0.00	0.00	0.00	0.000
5,300.00	90.0	0 1.03	2,675.00	3,369.81	-247.67	3,364.82	0.00	0.00	0.00	0.000
5,400.00	90.0	0 1.03	2,675.00	3,469.80	-245.88	3,464.82	0.00	0.00	0.00	0.000
5,500.00	90.0	0 1.03	2,675.00	3,569.78	-244.09	3,564.82	0.00	0.00	0.00	0.000
5,600.00	90.0	0 1.03	2,675.00	3,669.77	-242.30	3,664.82	0.00	0.00	0.00	0.000
5,700.00	90.0	0 1.03	2,675.00	3,769.75	-240.50	3,764.82	0.00	0.00	0.00	0.000
5,800.00	90.0	0 1.03	2,675.00	3,869.73	-238.71	3,864.82	0.00	0.00	0.00	0.000
5,900.00	90.0	0 1.03	2,675.00	3,969.72	-236.92	3,964.82	0.00	0.00	0.00	0.000
6,000.00	90.0	0 1.03	2,675.00	4,069.70	-235.13	4,064.82	0.00	0.00	0.00	0.000
6,100.00	90.0	0 1.03	2,675.00	4,169.68	-233.33	4,164.82	0.00	0.00	0.00	0.000
6,200.00	90.0	0 1.03	2,675.00	4,269.67	-231.54	4,264.82	0.00	0.00	0.00	0.000
6,300.00	90.0	0 1.03	2,675.00	4,369.65	-229.75	4,364.82	0.00	0.00	0.00	0.000
6,400.00	90.0	0 1.03	2,675.00	4,469.64	-227.96	4,464.82	0.00	0.00	0.00	0.000
6,500.00	90.0	0 1.03	2,675.00	4,569.62	-226.17	4,564.82	0.00	0.00	0.00	0.00



Standard Plan With Toolface

	• · ·	- NME)				Local Co-ordina TVD Reference: MD Reference North Reference Survey Calculati Database:	:	Well #2H RKB=18.9' @ 3440. RKB=18.9' @ 3440. Grid Minimum Curvature WBDS_SQL_2	90usft (Akita 57)	
Planned Survey										
MD (usft)	inc Az (°)	i (azimuth) (°)	TVD (usft)	N/S (usft)	E/W (usft)	V. Sec (usft)	DLeg (?/100ft)	Build (°/100ft)	Turn (°/100ft)	TFace (°)
6,600.00	90.00	1.03	2,675.00	4,669.60	-224.37	4,664.82	0.00	0.00	0.00	0.000
6,700.00	90.00	1.03	2,675.00	4,769.59	-222.58	4,764.82	0.00	0.00	0.00	0.000
6,800.00	90.00	1.03	2,675.00	4,869.57	-220.79	4,864.82	0.00	0.00	0.00	0.000
6,900.00	90.00	1.03	2,675.00	4,969.56	-219.00	4,964.82	0.00	0.00	0.00	0.000
7,000.00	90.00	1.03	2,675.00	5,069.54	-217.20	5,064.82	0.00	0.00	0.00	0.00
7,100.00	90.00	1.03	2,675.00	5,169.52	-215.41	5,164.82	0.00	0.00	0.00	0.00
7,200.00	90.00	1.03	2,675.00	5,269.51	-213.62	5,264.82	0.00	0.00	0.00	0.00
7,300.00	90.00	1.03	2,675.00	5,369.49	-211.83	5,364.82	. 0.00	0.00	0.00	0.000
7,400.00	90.00	1.03	2,675.00	5,469.48	-210.03	5,464.82	0.00	0.00	0.00	0.000
7,500.00	90.00	1.03	2,675.00	5,569.46	-208.24	5,564.82	0.00	0.00	0.00	0.00
7,600.00	90.00	1.03	2,675.00	5,669.44	-206.45	5,664.82	0.00	0.00	0.00	0.00
7,700.00	90.00	1.03	2,675.00	5,769.43	-204.66	5,764.82	0.00	0.00	0.00	0.00
7,800.00	90.00	1.03	2,675.00	5,869.41	-202.86	5,864.82	0.00	0.00	0.00	0.000
7,900.00	90.00	1.03	2,675.00	5,969.40	-201.07	5,964.82	0.00	0.00	0.00	0.000
8,000.00	90.00	1.03	2,675.00	6,069.38	-199.28	6,064.82	0.00	0.00	0.00	0.000
8,100.00	90.00	1.03	2,675.00	6,169.36	-197.49	6,164.82	0.00	0.00	0.00	0.000
8,200.00	90.00	1.03	2,675.00	6,269.35	-195.69	6,264.82	0.00	0.00	0.00	0,000
8,300.00	90.00	1.03	2,675.00	6,369.33	-193.90	6,364.82	0.00	0.00	0.00	0.000
8,400.00	90.00	1.03	2,675.00	6,469.32	-192.11	6,464.82	0.00	0.00	0.00	0.00
8,467.70	90.00	1.03	2,675.00	6,537.00	-190.90	6,532.51	0.00	0.00	0.00	0.00
8,500.00	90.00	1.03	2,675.00	6,569.30	-190.32	6,564.82	0.00	0.00	0.00	0.00
8,517.70	90.00	1.03	2,675.00	6,587.00	-190.00	6,582.52	0.00	0.00	0.00	0.00

Checked By:

Ap

Approved By:

Date:

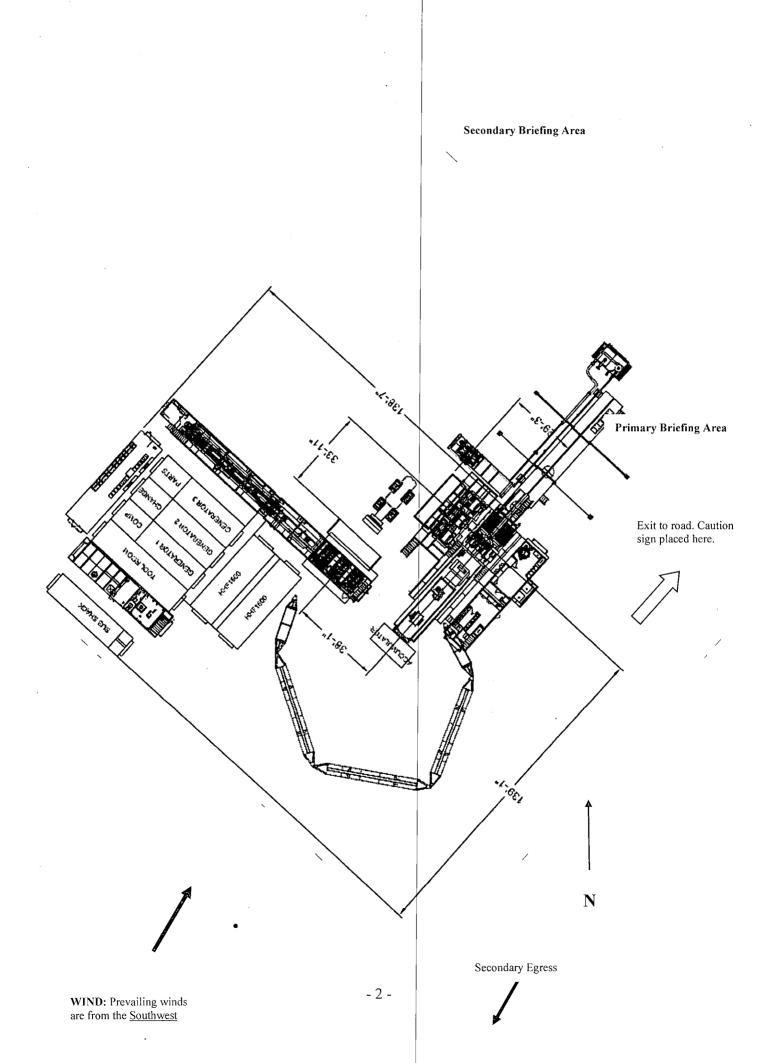


Permian Drilling Hydrogen Sulfide Drilling Operations Plan Shelby 23 2H

Open drill site. No homes or buildings are near the proposed location.

1. Escape

Personnel shall escape upwind of wellbore in the event of an emergency gas release. Escape can take place through the lease road on the Southeast side of the location. Personnel need to move to a safe distance and block the entrance to location. If the primary route is not an option due to the wind direction, then a secondary egress route should be taken.



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Hydrogen Sulfide (H2S) Contingency Plan ^{For} Spur Energy Partners New Mexico Operations

Spur Energy Partners

New Mexico Operations

Hydrogen Sulfide Operation Plan

Introduction:

H2S is a toxic, poisonous gas that could cause death or injury. The objective of this contingency plan is to provide an organized plan of action for alerting and protecting the public from H2S exposure in the event a potentially hazardous volume is accidentally released 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.

Characteristics of H2S and SO2:

Common Name	Chemical Formula	Specific Gravity	Threshold Limit	Hazardous Limit	Lethal Concentration
Hydrogen Sulfide	H2S	1.189 Air= 1	10 ppm	100 ppm/hr	600 ppm
Sulfur Dioxide	S02	2.21 Air= 1	2 ppm	N/A	1000 ppm

Scope:

This contingency plan provides an organized plan of action for alerting and protecting the public within an area of exposure prior to an intentional release, or following the accidental release of a potentially hazardous volume of hydrogen sulfide. The plan establishes guidelines for all personnel whose work activity may involve exposure to Hydrogen Sulfide Gas (H₂S).

Objective:

Prevent any and all accidents, and prevent the uncontrolled release of H₂S into the atmosphere. Provide proper evacuation procedures to cope with emergencies.

Provide immediate and adequate medical attention should an injury occur.

H₂STraining

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 drilling operations on this well:

- 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 H₂S detectors, alarms, warning systems, briefing areas, evacuation procedures, and prevailing winds.
- 4. The proper techniques for first aid and rescue procedures.

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

1. The effects of H₂S metal components. If high tensile tubular are to be used, personnel will be trained in their special maintenance requirements.

- 2. Corrective action and shut-in procedures when drilling or reworking a well and blowout prevention and well control procedures.
- 3. The contents and requirements of the H₂S Drilling Operation's Plan and Public Protection Plan.

There will be an initial training session just prior to encountering a known or probable H₂S zone (within 3 days or 500 feet) and weekly H₂S and well control drills for all personnel in each crew. The initial training session shall include a review of the site specific H₂S Drilling Operations Plan and the Public Protection Plan.

Note: All H2S safety equipment and systems will be installed, tested, and operational when drilling reaches a depth of 500 feet above, or three days prior to penetrating the first zone containing or reasonable expected to contain H2S.

Well Control Equipment

- A. Flare Line installed
- B. Choke Manifold
- C. Blind rams and pipe rams to accommodate all pipe sizes with properly sized closing unit.
- D. Auxiliary equipment may include if applicable: annular preventer and rotating head.

Protective equipment for essential personnel:

30-minute SCBA units located in the doghouse and at briefing areas, as indicated on well site diagram. As it may be difficult to communicate audibly while wearing these units, hand signals shall be utilized.

H2S detection and monitoring equipment:

Portable H2S monitors positioned on location for best coverage and response. These unites have warning lights and audible sirens when H2S levels of 20 PPM are reached. These units are usually capable of detecting SO₂, which is a byproduct of burning H2S.

Visual warning systems:

- A. Wind direction indicators as shown on well site diagram
- B. Caution/ Danger signs shall be posted on roads providing direct access to locations Signs will be painted a high visibility yellow with black lettering of sufficient size to be reasonable distance from the immediate location. Bilingual signs will be used when appropriate.

Mud program:

The mud program has been designed to minimize the volume of H2S circulated to surface. Proper mud weight, safe drilling practices and the use of H2S scavengers will minimize hazards when penetrating H2S bearing zones.

Metallurgy:

- A. All drill strings, casings, tubing, wellhead, blowout preventer, drilling spool, kill lines, choke manifold lines, and valves shall be H2S trim.
- B. All elastomers used for packing and seals shall be H2S trim.

Communication:

- A. Radio communications in company vehicles including cellular telephones and 2-way radio
- B. Land line (telephone) communications at Office

Well testing:

- A. Drill stem testing will be performed with a minimum number of personnel in the immediate vicinity, which are necessary to safety and adequately conduct the test. The drill stem testing will be conducted during daylight hours and formation fluids will not be flowed to the surface. All drill-stem-testing operations conducted in an H2S environment will use the closed chamber method of testing.
- B. There will be no drill stem testing.

Emergency Procedures

Assumed 100 ppm Radius Of Exposure (ROE) = 3000'

100 ppm H2S concentration shall trigger activation of this plan.

In the event of a release of gas containing H2S, the first responder(s) must

- Isolate the area and prevent entry by other persons into the 100 ppm ROE.
- Evacuate any public places encompassed by the 100 ppm ROE.
- Be equipped with H2S monitors and air packs in order to control the release.
- Use the "buddy system" to ensure no injuries occur during the response
- Take precautions to avoid personal injury during this operation.
- Contact operator and/or local officials to aid in operation. See list of phone numbers attached.
- Have received training in the
 - o Detection of H2S, and
 - o Measures for protection against the gas,
 - Equipment used for protection and emergency response.

Ignition of Gas Source

Should control of the well be considered lostand ignition considered, take care to protect against exposure to Sulfur Dioxide (S02). Intentional ignition must be

coordinated with the NMOCD and local officials. Additionally, the NM State Police may become involved. NM State Police shall be the Incident Command on scene of any major release. Take care to protect downwind whenever there is an ignition of the gas

Contacting Authorities

Company personnel must liaison with local and state agencies to ensure a proper response to a major release. Additionally, the OCD 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).

Spur Energy Partners Company Call List

Superintendent - Jerry Mathews	575-748-5234
Engineer – Michael Sliva	281-723-1473
Vice President Oper Todd Mucha	832-930-8515
HSE Manager – Mike Schoch	713-816-6350

Lea County Agency Call List - (575)

Hobbs

392-5588
393-2515
911
393-2870
393-6161
393-3612

Eddy County Agency Call List - (575)

Carlsbad

State Police	
City Police	
Sheriff's Office	
Ambulance	
Fire Department	885-2111
LEPC (Local Emergency Planning Committee	e) 887-3798
US Bureau of Land Management	887-6544 [·]
NM Emergency Response Commission (Sant	a Fe). (505) 476-9600
24 HR	(505) 827-9126
National Emergency Response Center (Washington,	DC) (800) 424-8802

Emergency Services

(575)-393-3386
(806) 743-9911
(806) 747-8923
(575) 842-4433
(575) 272-3115