

U.S. Department of the Interior BUREAU OF LAND MANAGEMENT Sundry Print Report

Well Name: BIG STAGG FED COM Well Location: T21S / R32E / SEC 1 / County or Parish/State: LEA /

SWSE / 32.5007663 / -103.6271233

Well Number: 503H Type of Well: OIL WELL Allottee or Tribe Name:

Lease Number: NMNM092187, Unit or CA Name: **Unit or CA Number:**

NMNM92187

Well Status: Approved Application for

Permit to Drill

Operator: ASCENT ENERGY

Notice of Intent

US Well Number: 3002546978

Type of Action Other Type of Submission: Notice of Intent

Time Sundry Submitted: 03:19 Date Sundry Submitted: 05/25/2021

Date proposed operation will begin: 05/30/2021

Procedure Description: Ascent Energy respectfully requests approval on the Big Stagg Fed Com 503H for an option to: • Addition of an External Casing Packer on the 9-5/8" Casing • Increase the casing size of our vertical casing strings • Revise proposed BOP beneath the base of the 20" surface shoe to setting the 1st Intermediate casing string only (13 3/8"). The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string. Please see the attached document for further information.

Surface Disturbance

Is any additional surface disturbance proposed?: No

NOI Attachments

Procedure Description

Big_Stag_503H_Sundry_24May_v2__002__20210525151827.pdf

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ed by OCD: 6/4/2021 11:02:42 AM ell Name: BIG STAGG FED COM

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SWSE / 32.5007663 / -103.6271233

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Permit to Drill

Operator: ASCENT ENERGY

LLC

Zip:

Conditions of Approval

Additional Reviews

1_21S_32E_O_ATS_19_2249_Big_Stagg_Fed_Com_503H_Lea_NMNM092187_Ascent_Energy_LLC_13_22_Sundry_ 05_18_2021_Yolanda_Jimenez_20210602163431.pdf

Well Status: Approved Application for

Big_Stagg_Fed_Com_503H_Sundry_COA_20210602163403.pdf

Operator Certification

I certify that the foregoing is true and correct. Title 18 U.S.C. Section 1001 and Title 43 U.S.C. Section 1212, make it a crime for any person knowingly and willfully to make to any department or agency of the United States any false, fictitious or fraudulent statements or representations as to any matter within its jurisdiction. Electronic submission of Sundry Notices through this system satisfies regulations requiring a submission of Form 3160-5 or a Sundry Notice.

Operator Electronic Signature: BEN METZ Signed on: MAY 25, 2021 03:18 PM

Name: ASCENT ENERGY LLC Title: Vice President Exploration Street Address: PO BOX 270983

City: LITTLETON State: CO

Phone: (303) 513-8590

Email address: BMETZ@ASCENTENERGY.US

Field Representative

Representative Name:

Street Address:

City:

Phone:

Email address:

State:

BLM Point of Contact

BLM POC Name: CHRISTOPHER WALLS BLM POC Title: Petroleum Engineer

BLM POC Phone: 5752342234 BLM POC Email Address: cwalls@blm.gov

Disposition: Approved Disposition Date: 06/03/2021

Signature: Chris Walls

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1-21S-32E-O ATS-19-2249 Big Stagg Fed Com 503H Lea NMNM092187 Ascent Energy LLC 13-22 Sundry 05-18-2021 Yolanda Jimenez

Big Stagg Fed Com 503H

20	surface	-	26	inch hole.		Design				Surface		
Segment	#/ft	Grade		Coupling	Joint	Collapse	Burst	Length	B@s	a-B	a-C	Weight
"A"	94.00	J	55	BTC	9.32	0.7	1.04	1,600	3	1.81	1.31	150,400
"B"				BTC				0				0
w/8.4#,	g mud, 30min Sf	c Csg Test psig:	779	Tail Cmt	does not	circ to sfc.	Totals:	1,600	-			150,40
Comparison o	of Proposed to	Minimum R	equired Ceme	nt Volumes				,				
Hole	Annular	1 Stage	1 Stage	Min	1 Stage	Drilling	Calc	Rea'd				Min Dis
Size	Volume	Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt	MASP	BOPE				Hole-Cpl
26	1.5053	2994	4708	2409	95	9.00	1168	2M				2.50
						0.00						
					Site plat (pip	e racks S or E)	as per 0.0.1.	III.D.4.i. not f				
13 3/8	casing in	side the	20			Design I	Factors		-	Int 1	,	
Segment	#/ft	Grade		Coupling	Body	Collapse	Burst	Length	B@s	a-B	a-C	Weigh
"A"	54.50		55	BTC	4.01	0.56	1.04	3,900	1	1.92	0.97	212,550
"B"	34.30	J	33	ыс	4.01	0.50	1.04	0		1.92	0.37	0
	g mud, 30min Sf	s Coa Tost poia					Totals:	3.900				212,55
			intended to a	chieve a top of	0	ft from su		3,900 1600				overlap.
Hole	Annular	1 Stage		Min	1 Stage	Drilling	Calc					Min Dis
	Volume	•	1 Stage			•	MASP	Req'd				
Size		Cmt Sx	CuFt Cmt	Cu Ft	% Excess	Mud Wt		BOPE				Hole-Cp
4 - 4 /0	0 00 10						1/1/0					1.56
17 1/2 Class 'H' tail cm	0.6946 nt yld > 1.20	2103	4427	3228	37	10.00	1419	2M			,	
Class 'H' tail cm	nt yld > 1.20			3220	31			ZIVI		Int 2		
Class 'H' tail cm	casing ins	side the	13 3/8			Design Fa	ctors_		B @s	Int 2	a-C	
Glass 'H' tail cm 9 5/8 Segment	casing ins	side the Grade	13 3/8	Coupling	Body	<u>Design Fa</u> Collapse	ctors Burst	Length	B@s	a-B	a-C	Weigh
9 5/8 Segment "A"	casing ins	side the Grade				Design Fa	ctors_	Length 5,500	B@s 2		a-C 1.81	Weigh 220,000
9 5/8 Segment "A" "B"	casing ins #/ft 40.00	side the Grade J	13 3/8 55	Coupling	Body	<u>Design Fa</u> Collapse	ctors Burst 0.45	Length 5,500		a-B		Weigh 220,000 0
9 5/8 Segment "A" "B" w/8.4#,	casing ins #/ft 40.00	side the Grade J	13 3/8 55 365	Coupling BTC	Body 2.86	Design Fa Collapse 0.98	Ctors Burst 0.45 Totals:	Length 5,500 0 5,500		a-B	1.81	Weigh 220,000 0 220,000
9 5/8 Segment "A" "B" w/8.4#	casing ins #/ft 40.00 /g mud, 30min Sf	side the Grade J c Csg Test psig: Dlume(s) are	13 3/8 55 365 intended to ac	Coupling BTC	Body 2.86	Design Fa Collapse 0.98	Ctors Burst 0.45 Totals:	Length 5,500 0 5,500 3900		a-B	1.81	Weigh 220,000 0 220,000 overlap.
9 5/8 Segment "A" w/8.4#	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo	side the Grade J c Csg Test psig: blume(s) are 1 Stage	13 3/8 55 365 intended to ac 1 Stage	Coupling BTC chieve a top of	Body 2.86 0 1 Stage	Design Fa Collapse 0.98	Ctors Burst 0.45 Totals: urface or a Calc	Length 5,500 0 5,500 3900 Req'd		a-B	1.81	Weigh 220,000 0 220,000 overlap. Min Dis
9 5/8 Segment "A" "B" w/8.4#	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume	side the Grade J c Csg Test psig: blume(s) are 1 Stage Cmt Sx	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt	Coupling BTC chieve a top of Min Cu Ft	Body 2.86 0 1 Stage % Excess	Design Fa Collapse 0.98 ft from su Drilling Mud Wt	Ctors Burst 0.45 Totals: urface or a Calc MASP	Length 5,500 0 5,500 3900 Req'd BOPE		a-B	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl
9 5/8 Segment "A" w/8.4#	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo	side the Grade J c Csg Test psig: blume(s) are 1 Stage	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417	Coupling BTC chieve a top of Min Cu Ft 1916	Body 2.86 0 1 Stage % Excess 26	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20	Ctors Burst 0.45 Totals: urface or a Calc	Length 5,500 0 5,500 3900 Req'd		a-B	1.81	Weigh 220,000 0 220,000 overlap. Min Dis
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume 0.3132	side the Grade J c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within	Coupling BTC chieve a top of Min Cu Ft	Body 2.86 0 1 Stage % Excess 26	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20	Ctors Burst 0.45 Totals: urface or a Calc MASP	Length 5,500 0 5,500 3900 Req'd BOPE		a-B	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume	side the Grade J c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within	Coupling BTC chieve a top of Min Cu Ft 1916	Body 2.86 0 1 Stage % Excess 26	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20	Ctors Burst 0.45 Totals: urface or a Calc MASP	Length 5,500 0 5,500 3900 Req'd BOPE		a-B	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Burst Frac Grac	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume 0.3132	c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72,	Coupling BTC chieve a top of Min Cu Ft 1916	Body 2.86 0 1 Stage % Excess 26	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip?	ctors Burst 0.45 Totals: urface or a Calc MASP 4865	Length 5,500 0 5,500 3900 Req'd BOPE		a-B 0.81	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Burst Frac Grac	casing ins #/ft 40.00 /g mud, 30min sf The cement vo Annular Volume 0.3132 dient(s) for Seg	side the Grade J c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within	Coupling BTC chieve a top of Min Cu Ft 1916 10% of 5000ps	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip?	ctors Burst 0.45 Totals: urface or a Calc MASP 4865	Length 5,500 0 5,500 3900 Req'd BOPE 5M	2	a-B 0.81	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl 0.81
9 5/8 Segment "A" "B" w/8.4#/ Hole Size 12 1/4 Burst Frac Grac Tail cmt 5 1/2 Segment	casing ins #/ft 40.00 /g mud, 30min sf The cement vo Annular Volume 0.3132 dient(s) for Seg casing ins	c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72,	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip? Design Collapse	Ctors Burst 0.45 Totals: urface or a Calc MASP 4865 Factors Burst	Length 5,500 0 5,500 3900 Req'd BOPE 5M	2 B@s	a-B 0.81 Prod 1 a-B	1.81 a-C	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl 0.81
9 5/8 Segment "A" "B" w/8.4#/ Hole Size 12 1/4 Burst Frac Grac Tail cmt 5 1/2 Segment "A"	casing ins #/ft 40.00 /g mud, 30min sf The cement vo Annular Volume 0.3132 dient(s) for Seg	c Csg Test psig: blume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72,	Coupling BTC chieve a top of Min Cu Ft 1916 10% of 5000ps	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip?	ctors Burst 0.45 Totals: urface or a Calc MASP 4865	Length 5,500 0 5,500 3900 Req'd BOPE 5M	2	a-B 0.81	1.81	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl 0.81
9 5/8 Segment "A" "B" w/8.4#/ Hole Size 12 1/4 Surst Frac Grac Tail cmt 5 1/2 Segment "A" "B"	casing ins #/ft 40.00 /g mud, 30min sf The cement vo Annular Volume 0.3132 dient(s) for Seg casing ins #/ft 20.00	c Csg Test psig: clume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72, 9 5/8 110	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip? Design Collapse	Ctors Burst 0.45 Totals: urface or a Calc MASP 4865 Factors Burst 1.45	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0	2 B@s	a-B 0.81 Prod 1 a-B	1.81 a-C	Weigh 220,00 0 220,00 overlap. Min Dis Hole-Cpi 0.81 Weigh 216,36
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Surst Frac Grac Tail cmt 5 1/2 Segment "A" "B" w/8.4#,	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume 0.3132 dient(s) for Seg casing ins #/ft 20.00	c Csg Test psig: plume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B Grade P c Csg Test psig:	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is withir , C, D = 0.72, 9 5/8 110 2,380	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps Coupling BTC	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip? Design Collapse 2.05	Ctors Burst 0.45 Totals: Irface or a Calc MASP 4865 Factors Burst 1.45 Totals:	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0	2 B@s	a-B 0.81 Prod 1 a-B	a-C 3.67	Weigh 220,00 0 220,00 overlap. Min Dis Hole-Cpi 0.81 Weigh 216,36 0 216,36
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 curst Frac Grac Tail cmt 5 1/2 Segment "A" "B" w/8.4#,	casing ins #/ft 40.00 /g mud, 30min Sf The cement vo Annular Volume 0.3132 dient(s) for Seg casing ins #/ft 20.00 /g mud, 30min Sf The cement vo	side the Grade J c Csg Test psig: plume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B side the Grade P c Csg Test psig: plume(s) are	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72, 9 5/8 110 2,380 intended to ac intended to ac	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps Coupling BTC	Body 2.86 0 1 Stage % Excess 26 ig, need exrta	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip? Design Collapse 2.05	Ctors Burst 0.45 Totals: Irface or a Calc MASP 4865 Factors Burst 1.45 Totals: Irface or a	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0 10,818 5500	2 B@s	a-B 0.81 Prod 1 a-B	a-C 3.67	Weigh 220,00 0 220,00 overlap. Min Dis Hole-Cp 0.81 Weigh 216,36 0 216,36 overlap.
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Surst Frac Grac Tail cmt 5 1/2 Segment "A" "B" w/8.4#, Hole	casing ins #/ft 40.00 //g mud, 30min Sf The cement vo Annular Volume 0.3132 //dient(s) for Seg casing ins #/ft 20.00 //g mud, 30min Sf The cement vo Annular	side the Grade J c Csg Test psig: plume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B side the Grade P c Csg Test psig: plume(s) are 1 Stage	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72, 9 5/8 110 2,380 intended to ac 1 Stage	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps Coupling BTC chieve a top of Min	Body 2.86 0 1 Stage % Excess 26 ig, need exrta Body 2.96 0 1 Stage	Design Factorial Collapse 0.98 ft from surprilling Mud Wt 9.20 arequip? Design Collapse 2.05 ft from surprilling	Ctors Burst 0.45 Totals: Irface or a Calc MASP 4865 Factors Burst 1.45 Totals: Irface or a Calc	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0 10,818 5500 Req'd	2 B@s	a-B 0.81 Prod 1 a-B	a-C 3.67	Weigh 220,00 0 220,00 overlap. Min Dis Hole-Cp 0.81 Weigh 216,36 0 216,36 overlap. Min Dis
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Surst Frac Grac Tail cmt 5 1/2 Segment "A" "B" w/8.4#, Hole Size	casing ins #/ft 40.00 //g mud, 30min Sf The cement vo Annular Volume 0.3132 //dient(s) for Seg casing ins #/ft 20.00 //g mud, 30min Sf The cement vo Annular Volume	side the Grade J c Csg Test psig: plume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B side the Grade P c Csg Test psig: plume(s) are 1 Stage Cmt Sx	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72, 9 5/8 110 2,380 intended to ac 1 Stage CuFt Cmt	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps Coupling BTC	Body 2.86 0 1 Stage % Excess 26 ig, need exrta Body 2.96 0 1 Stage % Excess	Design Fa Collapse 0.98 ft from su Drilling Mud Wt 9.20 a equip? Design Collapse 2.05	Ctors Burst 0.45 Totals: Irface or a Calc MASP 4865 Factors Burst 1.45 Totals: Irface or a	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0 10,818 5500	2 B@s	a-B 0.81 Prod 1 a-B	a-C 3.67	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl 0.81 Weigh 216,36 0 216,36 overlap. Min Dis Hole-Cpl
9 5/8 Segment "A" "B" w/8.4#, Hole Size 12 1/4 Surst Frac Grac Tail cmt 5 1/2 Segment "A" "B" w/8.4#, Hole	casing ins #/ft 40.00 //g mud, 30min Sf The cement vo Annular Volume 0.3132 //dient(s) for Seg casing ins #/ft 20.00 //g mud, 30min Sf The cement vo Annular	side the Grade J c Csg Test psig: plume(s) are 1 Stage Cmt Sx 1192 ment(s): A, B side the Grade P c Csg Test psig: plume(s) are 1 Stage	13 3/8 55 365 intended to ac 1 Stage CuFt Cmt 2417 MASP is within , C, D = 0.72, 9 5/8 110 2,380 intended to ac 1 Stage	Coupling BTC chieve a top of Min Cu Ft 1916 110% of 5000ps Coupling BTC chieve a top of Min	Body 2.86 0 1 Stage % Excess 26 ig, need exrta Body 2.96 0 1 Stage	Design Factorial Collapse 0.98 ft from surprilling Mud Wt 9.20 arequip? Design Collapse 2.05 ft from surprilling	Ctors Burst 0.45 Totals: Irface or a Calc MASP 4865 Factors Burst 1.45 Totals: Irface or a Calc	Length 5,500 0 5,500 3900 Req'd BOPE 5M Length 10,818 0 10,818 5500 Req'd	2 B@s	a-B 0.81 Prod 1 a-B	a-C 3.67	Weigh 220,000 0 220,000 overlap. Min Dis Hole-Cpl 0.81 Weigh 216,360 0 216,360 overlap. Min Dis

Carlsbad Field Office 6/2/2021

Ascent Energy respectfully requests approval on the Big Stagg Fed Com 503H for an option to:

- Addition of an External Casing Packer on the 9-5/8" Casing
- Increase the casing size of our vertical casing strings
- Revise proposed BOP beneath the base of the 20" surface shoe to setting the 1st Intermediate casing string only (13 3/8").

The reason for the request is based on improved drilling efficiencies and improved cementing in-place for each casing string. We believe the larger casing diameters in the vertical section will increase the likelihood of getting cement to surface for each string.

There will be no change in Geology formations, and mud specifications.

External Casing Packer:

The pending hole conditions the addition of an External Casing Packer to the Intermediate #2 9-5/8" casing string is requested. A DV Tool is already approved, and the cement volumes will not change with the addition of an External Casing Packer.

New/Optional proposed design:

Casing:

	INTERVAL (ft)			FORMATION	MW@	SAFETY FACTORS							
DESCRIPTION	Hole Size (in)	CSG Size (in)	TOP MD	B1 TVD	Г М мо	WEIGHT (ppf)	GRADE	COUPLING	DDESS @	CSG DEPTH (PPG)	BURST (psi)	COLLAPSE (psi)	TENSION (1000 lbs)
CONDUCTOR	36	30	0	120	120			WELD					
00112001011	00	- 00	Ŭ	0	0								
SURFACE	26	20	_	1.600	1.600	94	J-55	BTC	8.3	0.0	2,110	520	1480
SURFACE	26	20	0	1,600	1,600	94	J-55	ВІС	8.3	9.0	2.6	2.7	9.8
INT. #1	17.5	13.375	0	3.900	3.900	54.5	J-55	BTC	8.3	10.0	2,730	1,130	853
IIN1.#1	17.5	13.373	0	3,900	3,900	34.3	0-33	ыс	0.3	10.0	1.6	1.4	4.0
INT. #2	12.25	9.625	0	5.500	5.500	40	J-55	BTC	8.3	9.2	3,950	2,570	630
IIN1.#∠	12.23	9.023	U	5,500	5,500	40	0-55	ыс	0.3		1.1	3.2	2.9
PRODUCTION	8.75	5.5	0	10 010	17,457	20	P-110	втс	8.7	9.6	12,630	11,100	641
PRODUCTION	0.75	5.5	U	10,010	17,457	20	P-110	ыс	0.7	9.0	3.5	2.7	1.8

Cement:

DESCRIPTION	HOLE (IN)	CSG (IN)	ТОР	втм	LENGTH (FT)	SLURRY DESCRIPTION	FT ³	EXCESS	WEIGHT (ppg)	YIELD (FT³/SK)
CONDUCTOR	36	30	0	120	120	Class G	518	100%	15.8	1.17
CONDOCTOR	30	30	0	120	120	Olass G	443	100 /6	13.0	1.17
SURFACE - LEAD	26	20	0	1,100	1,100	Class C	3203	100%	13.5	1.72
GOTT AGE LEAD	20	20	0	1,100	1,100		1862	10070	10.0	1.72
SURFACE - TAIL	26	20	1,100	1,600	500	Class C	1506	100%	14.8	1.33
GOTH AGE TAIL	20	20	1,100	1,000	300	0.0000	1132	10070	14.0	1.33
INT #1 - LEAD	17.5	13.375	0	3,400	3,400	Class C	3820	75%	12.7	2.32
INT #1 LEAD	17.0	10.073	0	0,400	0,400		1646	7570	12.7	۷.٥٤
INT #1 - TAIL	17.5	13.375	3,400	3,900	500	Class C	608	75%	14.8	1.33
IIVI #1 IZAE	#1 - TAIL 17.5 15.575 5,400 5,900 500 Glass 0			457	7570	14.0	1.00			
INT #2 - LEAD	12.25	9.625	0	5,000	5,000	50/50Poz Class C	2104	100%	11.5	2.2
INT #2 - LLAD	12.23	3.023	0	3,000	3,000	30/301 02 01833 0	956	100 /6	11.5	2.2
INT # 2 - TAIL	12.25	9.625	5,000	5,500	500	Class C	313	100%	14.8	1.33
INT#2-TAIL	12.23	3.023	3,000	3,300	300	Class O	236	100 /6	14.0	1.00
INT #2 - DV LEAD	12.25	9.625	0	3,450	3,450	50/50Poz Class C	1203	50%	11.5	2.2
IIVI #2 BV LEAB	12.20	3.023	0	0,400	0,400		547	30 /0	11.0	2.2
INT # 2 - DV TAIL	12.25	9.625	3,450	3,950	500	Class C	235	50%	14.8	1.33
INT # Z BV TAIL	12.20	3.023	0,400	0,000	300		177	30 /0	14.0	1.00
PRODUCTION - LEAD	8.75	5.5	0	9,000	9,000	Nine Lite	2496	20%	11.0	2.48
THOUSENION LEAD	0.70	0.0	,	0,000	0,000	THIS END	1006	2070	11.0	2.70
PRODUCTION - TAIL	8.75	5.5	9,000	17,457	8,457	35/65 Poz Class H	2564	20%	13.2	1.47
THODOGHON TAIL	0.73	5.5	3,000	17,437	0,407	55,55 . 52 0135 11	1744	2076	10.2	1.47

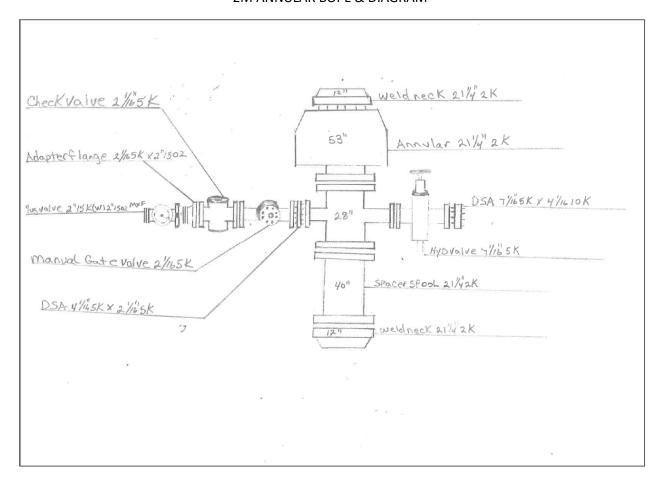
Note: Int 2 is two stage cement job. DVT and External Casing packer to be placed @ approximately 3,950' MD. 50ft from previous casing shoe and will be adjusted real time

New Proposed BOP:

From the Base of the 20" Surface pipe, the well will be equipped with a 2M Annular system. Before drilling out the 20" surface pipe, the 2M system will be tested to 250psi low and 1000psi high by an 3rd party service company. The 2M BOPE and related equipment will meet or exceed the requirements of a 2M psi system as set forth in On Shore Order No. 2 while drilling below the 20" surface shoe and to TD of Intermediate #1 (13-3/8" Casing). Once the Intermediate #1 13-3/8" Casing is cemented the 20" 2M BOPE and 21-1/4" wellhead will be removed and a 13-5/8" Multi-bowl wellhead and previously permitted 13-5/8" 5M BOPE will be installed. From the base of the Intermediate #1 13-3/8" casing string through running of the 5-1/2" production string the 5M BOPE will be equipped.

The previously permitted 5M choke will be utilized in conjunction with the 2M Annular System.

ASCENT ENERGY 2M ANNULAR BOPE & DIAGRAM



PECOS DISTRICT DRILLING CONDITIONS OF APPROVAL Sundry

OPERATOR'S NAME: | Ascent Energy LLC

LEASE NO.: | NMNM092187

WELL NAME & NO.: Big Stagg Federal Com 503H

SURFACE HOLE FOOTAGE: 30'/S & 2250'/E **BOTTOM HOLE FOOTAGE** 1320'/S & 1650'/E

LOCATION: | Section 1, T.21 S., R.32 E., NMPM

COUNTY: Lea County, New Mexico

COA

H2S	• Yes	O No	
Potash	O None	Secretary	© R-111-P
Cave/Karst Potential	• Low	Medium	O High
Cave/Karst Potential	Critical		
Variance	O None	• Flex Hose	Other
Wellhead	Conventional	• Multibowl	O Both
Other	✓ 4 String Area		□WIPP
Other	Fluid Filled	☐ Cement Squeeze	☐ Pilot Hole
Special Requirements	☐ Water Disposal	☑ COM	□ Unit

A. HYDROGEN SULFIDE

A Hydrogen Sulfide (H2S) Drilling Plan shall be activated 500 feet prior to drilling into the **Bone Spring** formation. As a result, the Hydrogen Sulfide area must meet Onshore Order 6 requirements, which includes equipment and personnel/public protection items. If Hydrogen Sulfide is encountered, please provide measured values and formations to the BLM.

B. CASING

Surface, Intermediate 1, and Intermediate 2 casing must be kept fluid filled to meet BLM minimum collapse requirement.

1. The **20** inch surface casing shall be set at approximately **1,600** feet (a minimum of **25** feet (Lea County) into the Rustler Anhydrite and above the salt) and cemented to the surface.

- a. If cement does not circulate to the surface, the appropriate BLM office shall be notified and a temperature survey utilizing an electronic type temperature survey with surface log readout will be used or a cement bond log shall be run to verify the top of the cement. Temperature survey will be run a minimum of six hours after pumping cement and ideally between 8-10 hours after completing the cement job.
- b. Wait on cement (WOC) time for a primary cement job will be a minimum of **24 hours in the Potash Area** or 500 pounds compressive strength, whichever is greater. (This is to include the lead cement)
- c. Wait on cement (WOC) time for a remedial job will be a minimum of 4 hours after bringing cement to surface or 500 pounds compressive strength, whichever is greater.
- d. If cement falls back, remedial cementing will be done prior to drilling out that string.
- 2. The 13-3/8 inch Intermediate 1 casing shall be set at approximately 3,900 feet and the minimum required fill of cement behind the Intermediate 1 casing is:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- ❖ In <u>R111 Potash Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- ❖ In <u>Capitan Reef Areas</u> if cement does not circulate to surface on the first two casing strings, the cement on the 3rd casing string must come to surface.
- Special Capitan Reef requirements. If lost circulation (50% or greater) occurs below the Base of the Salt, the operator shall do the following:
 (Use this for 3 string wells in the Capitan Reef, if 4 string well ensure FW based

mud used across the capitan interval)

- Switch to fresh water mud to protect the Capitan Reef and use fresh water mud until setting the intermediate casing. The appropriate BLM office is to be notified for a PET to witness the switch to fresh water.
- Daily drilling reports from the Base of the Salt to the setting of the intermediate casing are to be submitted to the BLM CFO engineering staff via e-mail by 0800 hours each morning. Any lost circulation encountered is to be recorded on these drilling reports. The daily drilling report should show mud volume per shift/tour. Failure to submit these reports will result in an Incidence of Non-Compliance being issued for failure to comply with the Conditions of Approval. If not already planned, the operator shall run a caliper survey for the intermediate well bore and submit to the appropriate BLM office.

3. The minimum required fill of cement behind the **9-5/8 inch** Intermediate 2 casing is:

Option 1

• Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

Option 2

Operator has proposed a DV tool, the depth may be adjusted as long as the cement is changed proportionally. The DV tool may be cancelled if cement circulates to surface on the first stage.

- a. First stage to DV tool: Cement to circulate. If cement does not circulate off the DV tool, contact the appropriate BLM office before proceeding with second stage cement job.
- b. Second stage above DV tool:
 - Cement to surface. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

- 4. The minimum required fill of cement behind the **5-1/2 inch** production casing with a tie-back to the surface is:
 - Cement should tie-back at least **50 feet** on top of Capitan Reef top. If cement does not circulate see B.1.a, c-d above.

Wait on cement (WOC) time for a primary cement job is to include the lead cement slurry due to cave/karst or potash.

C. PRESSURE CONTROL

- 1. Variance approved to use flex line from BOP to choke manifold. Manufacturer's specification to be readily available. No external damage to flex line. Flex line to be installed as straight as possible (no hard bends).'
- 2. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the surface casing shoe shall be **2000 (2M)** psi.

- 3. Operator has proposed a multi-bowl wellhead assembly. This assembly will only be tested when installed on the surface casing. Minimum working pressure of the blowout preventer (BOP) and related equipment (BOPE) required for drilling below the intermediate 1 and 2 casing shoe shall be **5000** (**5M**) psi.
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP test.
 - d. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
 - e. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.

D. SPECIAL REQUIREMENT (S)

Communitization Agreement

- The operator will submit a Communitization Agreement to the Carlsbad Field Office, 620 E Greene St. Carlsbad, New Mexico 88220, at least 90 days before the anticipated date of first production from a well subject to a spacing order issued by the New Mexico Oil Conservation Division. The Communitization Agreement will include the signatures of all working interest owners in all Federal and Indian leases subject to the Communitization Agreement (i.e., operating rights owners and lessees of record), or certification that the operator has obtained the written signatures of all such owners and will make those signatures available to the BLM immediately upon request.
- If the operator does not comply with this condition of approval, the BLM may take enforcement actions that include, but are not limited to, those specified in 43 CFR 3163.1.
- In addition, the well sign shall include the surface and bottom hole lease numbers. When the Communitization Agreement number is known, it shall also be on the sign.

GENERAL REQUIREMENTS

The BLM is to be notified in advance for a representative to witness:

- a. Spudding well (minimum of 24 hours)
- b. Setting and/or Cementing of all casing strings (minimum of 4 hours)
- c. BOPE tests (minimum of 4 hours)

 - ✓ Lea CountyCall the Hobbs Field Station, 414 West Taylor, Hobbs NM 88240, (575)393-3612
- 1. Unless the production casing has been run and cemented or the well has been properly plugged, the drilling rig shall not be removed from over the hole without prior approval.
 - a. In the event the operator has proposed to drill multiple wells utilizing a skid/walking rig. Operator shall secure the wellbore on the current well, after installing and testing the wellhead, by installing a blind flange of like pressure rating to the wellhead and a pressure gauge that can be monitored while drilling is performed on the other well(s).
 - b. When the operator proposes to set surface casing with Spudder Rig
 - Notify the BLM when moving in and removing the Spudder Rig.
 - Notify the BLM when moving in the 2nd Rig. Rig to be moved in within 90 days of notification that Spudder Rig has left the location.
 - BOP/BOPE test to be conducted per Onshore Oil and Gas Order No. 2 as soon as 2nd Rig is rigged up on well.
- 2. Floor controls are required for 3M or Greater systems. These controls will be on the rig floor, unobstructed, readily accessible to the driller and will be operational at all times during drilling and/or completion activities. Rig floor is defined as the area immediately around the rotary table; the area immediately above the substructure on which the draw works are located, this does not include the dog house or stairway area.
- 3. The record of the drilling rate along with the GR/N well log run from TD to surface (horizontal well vertical portion of hole) shall be submitted to the BLM office as well as all other logs run on the borehole 30 days from completion. If available, a digital copy of the logs is to be submitted in addition to the paper copies. The Rustler top and top and bottom of Salt are to be recorded on the Completion Report.

A. CASING

- 1. Changes to the approved APD casing program need prior approval if the items substituted are of lesser grade or different casing size or are Non-API. The Operator can exchange the components of the proposal with that of superior strength (i.e. changing from J-55 to N-80, or from 36# to 40#). Changes to the approved cement program need prior approval if the altered cement plan has less volume or strength or if the changes are substantial (i.e. Multistage tool, ECP, etc.). The initial wellhead installed on the well will remain on the well with spools used as needed.
- 2. Wait on cement (WOC) for Potash Areas: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi for all cement blends, 2) until cement has been in place at least 24 hours. WOC time will be recorded in the driller's log. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 3. Wait on cement (WOC) for Water Basin: After cementing but before commencing any tests, the casing string shall stand cemented under pressure until both of the following conditions have been met: 1) cement reaches a minimum compressive strength of 500 psi at the shoe, 2) until cement has been in place at least 8 hours. WOC time will be recorded in the driller's log. See individual casing strings for details regarding lead cement slurry requirements. The casing intergrity test can be done (prior to the cement setting up) immediately after bumping the plug.
- 4. Provide compressive strengths including hours to reach required 500 pounds compressive strength prior to cementing each casing string. Have well specific cement details onsite prior to pumping the cement for each casing string.
- 5. No pea gravel permitted for remedial or fall back remedial without prior authorization from the BLM engineer.
- 6. 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. Formation at the shoe shall be tested to a minimum of the mud weight equivalent anticipated to control the formation pressure to the next casing depth or at total depth of the well. This test shall be performed before drilling more than 20 feet of new hole.
- 7. If hardband drill pipe is rotated inside casing, returns will be monitored for metal. If metal is found in samples, drill pipe will be pulled and rubber protectors which have a larger diameter than the tool joints of the drill pipe will be installed prior to continuing drilling operations.
- 8. Whenever a casing string is cemented in the R-111-P potash area, the NMOCD requirements shall be followed.

B. PRESSURE CONTROL

- 1. All blowout preventer (BOP) and related equipment (BOPE) shall comply with well control requirements as described in Onshore Oil and Gas Order No. 2 and API RP 53 Sec. 17.
- 2. If a variance is approved for a flexible hose to be installed from the BOP to the choke manifold, the following requirements apply: The flex line must meet the requirements of API 16C. Check condition of flexible line from BOP to choke manifold, replace if exterior is damaged or if line fails test. Line to be as straight as possible with no hard bends and is to be anchored according to Manufacturer's requirements. The flexible hose can be exchanged with a hose of equal size and equal or greater pressure rating. Anchor requirements, specification sheet and hydrostatic pressure test certification matching the hose in service, to be onsite for review. These documents shall be posted in the company man's trailer and on the rig floor.
- 3. 5M or higher system requires an HCR valve, remote kill line and annular to match. The remote kill line is to be installed prior to testing the system and tested to stack pressure.
- 4. If the operator has proposed a multi-bowl wellhead assembly in the APD. The following requirements must be met:
 - a. Wellhead shall be installed by manufacturer's representatives, submit documentation with subsequent sundry.
 - b. If the welding is performed by a third party, the manufacturer's representative shall monitor the temperature to verify that it does not exceed the maximum temperature of the seal.
 - c. Manufacturer representative shall install the test plug for the initial BOP
 - d. Whenever any seal subject to test pressure is broken, all the tests in OOGO2.III.A.2.i must be followed.
 - e. If the cement does not circulate and one inch operations would have been possible with a standard wellhead, the well head shall be cut off, cementing operations performed and another wellhead installed.
- 5. The appropriate BLM office shall be notified a minimum of **4** hours in advance for a representative to witness the tests.
 - a. In a water basin, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. The casing cut-off and BOP installation can be initiated four hours after installing the slips, which will be approximately six hours after bumping the plug. For those casing strings not using slips, the minimum wait time before cut-off is eight hours after bumping the plug. BOP/BOPE testing can begin after cut-off or once cement reaches 500 psi compressive strength (including

- lead when specified), whichever is greater. However, if the float does not hold, cut-off cannot be initiated until cement reaches 500 psi compressive strength (including lead when specified).
- b. In potash areas, for all casing strings utilizing slips, these are to be set as soon as the crew and rig are ready and any fallback cement remediation has been done. For all casing strings, casing cut-off and BOP installation can be initiated at twelve hours after bumping the plug. However, **no tests** shall commence until the cement has had a minimum of 24 hours setup time, except the casing pressure test can be initiated immediately after bumping the plug (only applies to single stage cement jobs).
- c. The tests shall be done by an independent service company utilizing a test plug not a cup or J-packer. The operator also has the option of utilizing an independent tester to test without a plug (i.e. against the casing) pursuant to Onshore Order 2 with the pressure not to exceed 70% of the burst rating for the casing. Any test against the casing must meet the WOC time for water basin (8 hours) or potash (24 hours) or 500 pounds compressive strength, whichever is greater, prior to initiating the test (see casing segment as lead cement may be critical item).
- d. The test shall be run on a 5000 psi chart for a 2-3M BOP/BOP, on a 10000 psi chart for a 5M BOP/BOPE and on a 15000 psi chart for a 10M BOP/BOPE. If a linear chart is used, it shall be a one hour chart. A circular chart shall have a maximum 2 hour clock. If a twelve hour or twenty-four hour chart is used, tester shall make a notation that it is run with a two hour clock.
- e. The results of the test shall be reported to the appropriate BLM office.
- f. All tests are required to be recorded on a calibrated test chart. A copy of the BOP/BOPE test chart and a copy of independent service company test will be submitted to the appropriate BLM office.
- g. The BOP/BOPE test shall include a low pressure test from 250 to 300 psi. The test will be held for a minimum of 10 minutes if test is done with a test plug and 30 minutes without a test plug. This test shall be performed prior to the test at full stack pressure.
- h. BOP/BOPE must be tested by an independent service company within 500 feet of the top of the Wolfcamp formation if the time between the setting of the intermediate casing and reaching this depth exceeds 20 days. This test does not exclude the test prior to drilling out the casing shoe as per Onshore Order No. 2.

C. DRILLING MUD

Mud system monitoring equipment, with derrick floor indicators and visual and audio alarms, shall be operating before drilling into the Wolfcamp formation, and shall be used until production casing is run and cemented.

D. WASTE MATERIAL AND FLUIDS

All waste (i.e. drilling fluids, trash, salts, chemicals, sewage, gray water, etc.) created as a result of drilling operations and completion operations shall be safely contained and disposed of properly at a waste disposal facility. No waste material or fluid shall be disposed of on the well location or surrounding area.

Porto-johns and trash containers will be on-location during fracturing operations or any other crew-intensive operations.

YJ (06/02/2021)

District I
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

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**

CONDITIONS

Action 30638

CONDITIONS

Operator:	OGRID:
ASCENT ENERGY, LLC.	325830
1125 17th St	Action Number:
Denver, CO 80202	30638
	Action Type:
	[C-103] NOI Change of Plans (C-103A)

CONDITIONS

Created By	Condition	Condition Date
pkautz	None	7/26/2021