DISTRICT I 1625 N. French Dr., Hobbs, NM 88240 BBS OCD Phone (676) 993-6161 Fax: (676) 393-0720 BBS OCD DISTRICT II

State of New Mexico

Form C-102 Revised August 1, 2011

Submit one copy to appropriate

Phone (575) 748-1283 Fax: (575) 748-9720 DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT III
1000 Rio Brazos Rd., Aztec, NM 87410
DISTRICT IV

DISTRICT IV

District Office

1220 S. St. Francis Dr., Santa Fe, NM 8750ECENED Phone (505) 476-3460 Fax: (505) 476-3462

WELL LOCATION AND ACREAGE DEDICATION PLAT

☐ AMENDED REPORT

25 API Number	Pool Code	Pool Name	
30-025-41610		Triste Draw; Bone Spri	ng, East
Property Code	-	erty Name STATE UNIT	Well Number
0GRID No. 025575	•	ator Name EUM CORPORATION /	Elevation 3469

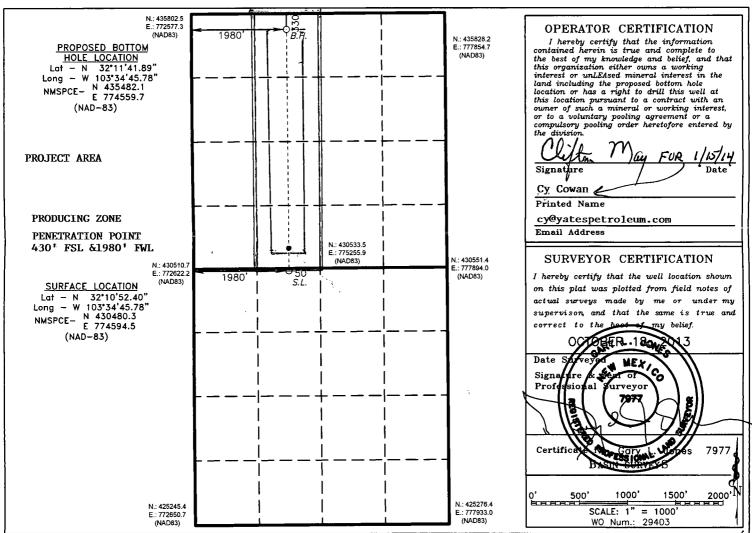
Surface Location

UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
С	33	24 S	33 E		50	NORTH	1980	WEST	LEA 1

Bottom Hole Location If Different From Surface

ſ	UL or lot No.	Section	Township	Range	Lot Idn	Feet from the	North/South line	Feet from the	East/West line	County
١	С	28	24 S	33 E		330	NORTH	1980	WEST	LEA
Ì	Dedicated Acre	s Joint o	r Infill Co	nsolidation (Code Or	der No.				
	160									

NO ALLOWABLE WILL BE ASSIGNED TO THIS COMPLETION UNTIL ALL INTERESTS HAVE BEEN CONSOLIDATED OR A NON-STANDARD UNIT HAS BEEN APPROVED BY THE DIVISION





Drilling Prognosis Report

CARAVAN STATE UNIT #6H

- sanaamma	ALO OF HIS								·~! V~! V/	AN 31	AIE UI	****	•								
PIOWI 9900000246399	999		County			State NEV	N MEXI	ICO			Property S	Gub			N/S Dis	t (ft) 50.0	N/S Ref		E/W Dist (ft) 1,980		W Ref
round Elevation (ft)		Current KB El	evation (ft)		Number	1.464					ce Legal Lo		IC 205"	INIT C		0				·	
3,469.00 rections To Well		3,49	94.00	VB-0	1647					SEC	33/TWN	1 24S/RN	IG 33E/U	NTC							
/ellbore - Orig	inal H	ole - HORI Wellbore	ZONTAL Botto	m Hole Le	egal Location	n		NS Dist (n) NS	Flag	EW Dist (ft)	EW Fla	g Hole	Direction			KO MD (fik	(B) [k	Cick Off Metho	id	
Original Hole		•	SEC			NG 33E/	UNT C	330		FNL	1,980.0			RIZONTA	\L		10,597		Steerable I		
Vellbore Section	ons	-			Size (in)					Depth Top	Proposed (fi	KB)				Depth Btm	Proposed (RKB)			
	Co	nductor					26					25	5.0						65.0		
ection	s	urface			Size (in)	1	17 1/2			Depth Top	Proposed (fi	кв) 65	5.0			Depth Btm	Proposed (,190.0		
ection					Size (in)					Depth Top	Proposed (f	KB)				Depth Btm	Proposed (ftKB)		-	
ection	Inte	rmediate			Size (in)		12 1/4			Depth Top	Proposed (fl	1,19 KB)	30.0			Depth Btm	Proposed (,200.0		
	Pro	duction 1	· ·				8 3/4					5,20	0.00						1,350.0		
ection	Pro	duction 2			Size (in)		8 1/2			Depth Top	Proposed (fi	кв) 11,3	50.0			Depth Btm	Proposed (1		5,872.0		
ormations																					
RUSTLER						Formation I	Name]			Prog	Top Mi	D (fiKB)		1,165.0
SALADO																					1,520.0
308																					4,845.0
ELAWARE ELL CANYON																			·		5,095.0 5,125.0
HERRY CANY	ON																				6,110.0
RUSHY CANY	ON																				7,910.0
ONE SPRING	N																				9,110.0 9,185.0
OWER AVALO	N																				9,520.0
ST BONE SPR																					10,080.0 10,701.0
ND BONE SPE			· · · · · ·																		11,350.0
OL,																					15,872.0
ob Description b Category	n	Tou:	mary Job Type							Primar	Wellbore A	fected		Target Form	ation		Total	Doth - M	ID (RKB)	Tat Dath	TVD (RKB)
ew Drilling			ew Well								al Hole			2ND BO		NGS SA			72.0		055.0
FE Number			•	Tota	al AFE Amo	unt					Status	POSED									
ob Contacts											1									· · · · · · · · · · · · · · · · · · ·	
	Title				Contact N	ame		Ţ		Office				Pho	ne Home				Mobi	le	
lud Program								_ 				1									
Mud Program lepth Start (RKB) 65.0			Mud Type Fresh Wat	or			Ī	Weight 8.60	Weight 9.20		scosity Mi 32		scosity M	Witr Los	Wtr Los	Oil Perc	Oil Perc	Chlorid	es Min (mg/L)	Chloride	s Max (mg/l
omment	<u>) (,</u>	130.0	i icali vvat	<u> </u>			ļ	0.00	3.20	<u> </u>	~	<u> </u>		ـــــــ	L		<u> </u>	1		Ш	
Depth Start (ftKB)	Denth =	nd (ftKB)	Mud Type					Weight	Weight	Funnel \/	scosity Mi	Funnal V	scosity M	Wtrles	Wtr I ne	IOil Perc	Oil Pare	Chlorid	les Min (mg/L)	Chlorida	s May (mr/l
1,190.0			Brine Wate	er ·				10.00	10.20		28		29								
comment																					
Depth Start (ftKB)			Mud Type						Weight					Wtr Los	Wtr Los	Oil Perc	Oil Perc	Chlorid	les Min (mg/L)	Chloride	s Max (mg/l
5,200.0 omment	15	,872.0	Cut Brine					8.80	9.20	L	28		32	<u> </u>	L	L	1	L		ــــــــــــــــــــــــــــــــــــــ	
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Drilling Prognosis Report

CARAVAN STATE UNIT #6H

Instructions

Samples: 30' Samples to 5200'. 10' samples 5200' to TD

Logging: SCH: PLATFORM EXPRESS-CURVE CNI/LDT/NGT-CURVE-INTERM CSG CNI/GR-CURVE-SURFACE CSG DLL-MSFL-CURVE-SURFACE CSG HORIZONTAL-MWD-GR-HORIZONTAL

Mudlogging: 2000' to TD

Mud Level Monitoring:

After surface casing is set an electronic PVT system will be installed as our primary mud level monitoring system. A seconday system will also be implemented as to ensure the PVT system is functioning properly. The secondary system will be comprised of the derrick hand checking the fluid level in the pits periodically using a nut on the end of a rope hanging just above the fluid level in the lot.

KEEP LOCATION CLEAN, FILL OUT YPC SAFETY BOOK WEEKLY. NOTIFY BLM OF BUILDING LOCATION, SPUD, RESUME DRILLING, CEMENTING CASING, BOP TEST, ETC.

USE ONLY VENDORS ON YPC'S APPROVED VENDORS LIST FOR THE SERVICES YPC IS RESPONSIBLE FOR.

PRESSURE CONTROL EQUIPMENT: A 3000 psi system will be nippled up and tested on 13 3/8" casing and a 5M on 9 5/8" casing.

MAXIMUM ANTICIPATED BHP:

0'-1195' 572 PSI 1195'-5200' 2758 PSI 5200'-11090' 5305 PSI

H2S is not anticipated.

Well will be drilled to 10597'. Well will then be kicked off at approx. 10597' and directionally drilled at 12 degrees per 100' with an 8 3/4" hole to 11350' MD (11075' TVD) where hole size will then be reduced to 8 1/2" and drilled to 15872' MD (11055' TVD) where 5 1/2" casing will be set and cemented 500' into previous casing string. Production casing will be cemented in two stages with a DV/Packer stage tool at approx. 7500' (cement volumes will be adjusted per tool placement). Penetration point of the producing zone will be encountered at 430' FSL and 1980' FWL, 28-24S-33E. Deepest TVD is 11075' in the lateral.

CASING DESIGN FACTORS:

BURST 1.0 TENSILE 1.8 COLLAPSE 1.125

EOC= 11075' TVD EOL= 11055' TVD

Casing -	Conductor C	asing - 65.	0 - Wellbore - Original Hole										
Somment													
String Nomin	al OD (in)		Weight/Length (lbs/ft)		Set Depth (ftKB)			Wellbore				-	
-	20		94.00			65.0		Original Hole					
OD (in) 20	Wt (lbs/ft) 94.00	Grade H-40	Casing Threads ST&C	Top (ftKB) 25.0	Bottom (ftKB) 65.0	Length (ft) 40.00	P (collapse) (p 520.0	. Burst Pres (psi) 1,530,0	Max Tensile (1 581	ID (in) 19.124	Drift (in) 18.936	Mk-up Tq (ft-l	Max Tq (ft-lbs)
Casing -	Surface Casi	ina - 1.190.	0 - Wellbore - Original Hole)			•		1				·
Comment													
tring Nomin	al OD (in)		Weight/Length (lbs/ft)	··-	Set Depth (ftKB)			Wellbore					
-	13 3/8		48.00			1,190.0		Original Hole					
DD (in) 13 3/8	Wt (lbs/ft) 48.00	Grade J-55	Casing Threads ST&C	Top (ftKB) 0.0	Bottom (ftKB) 1,190.0	Length (ft) 1,190,00	P (collapse) (p 740.0	Burst Pres (psi) 2,370,0	Max Tensile (1 433	ID (in) 12.715	Drift (in) 12,559	Mk-up Tq (ft-l 4.330	Max Tq (ft-lbs) 5.410
		1	200.0 - Wellbore - Original	1	1 1,100.0	1,100.00	7 70.0	1 2,070.0	1	12.710	12.000	4,000	0,410
Comment	memediate	Casing - 5	,200.0 - Wellbole - Original	поне					.				
	7***							· · · · · · · · · · · · · · · · · · ·					
String Nomin	ai OD (in) 95/8		Weight/Length (lbs/ft) 36.00		Set Depth (ftKB)	5.200.0	i	Wellbore Original Hole					
OD (in)	Wt (lbs/ft)	Grade	Casing Threads	(Top (ftKB)		Length (ft)	IP (collapse) (p.	Burst Pres (psi)	IMax Tensile (1	ID (in)	Drift (in)	Mk-up Tq (ft-l	Max Tg (ft-fbs)
9 5/8	40.00	J-55	LT&C	0.0	80.0	80.00	2,570.0	3,950.0	520	8.835	8.750	5.200	6.500
OD (in)	Wt (lbs/ft)	Grade	Casing Threads	Top (ftKB)	Bottom (ftKB)	Length (ft)		Burst Pres (psi)			Drift (in)		Max Tq (ft-lbs)
9 5/8	36.00	J-55	LT&C Casing Threads	80.0 Top (ftKB)	3,200.0	3,120.00	2,020.0 P (collapse) (p	3,520.0	453 Max Tensile (1	8.921	8.765 Drift (in)	4,530	5,660 Max Tq (ft-lbs)
	Wt (lbs/ft) 40 00	Grade J-55			Bottom (ftKB)	Length (ft) 1 000 00							
9 5/8	Wt (lbs/ft) 40.00 Wt (lbs/ft)	Grade J-55 Grade	LT&C	3,200.0 Top (ftKB)		1,000.00 Length (ft)	2,570.0 P (collapse) (p	3,950.0	520 Max Tensile (1	8.835	8.750 Drift (in)	5,200 Mk-up Tq (ft-l	6,500 Max Tq (ft-lbs)
OD (in) 9 5/8 OD (in) 9 5/8	40.00	J-55	LT&C	3,200.0	9 4,200.0 Bottom (RKB)	1,000.00	2,570.0	3,950.0	520	8.835	8.750	5,200	6,500
9 5/8 DD (in) 9 5/8 Casing -	40.00 Wi (lbs/ft) 40.00	J-55 Grade HCK-55	LT&C Casing Threads	3,200.0 Top (fiKB) 4,200.0	9 4,200.0 Bottom (RKB)	1,000.00 Length (ft)	2,570.0 P (collapse) (p	3,950.0 Burst Pres (psi)	520 Max Tensile (1	8,835 ID (in)	8.750 Drift (in)	5,200 Mk-up Tq (ft-l	6,500 Max Tq (ft-lbs)
9 5/8 DD (in) 9 5/8 Casing -	40.00 Wi (lbs/ft) 40.00	J-55 Grade HCK-55	LT&C Casing Threads LT&C	3,200.0 Top (fiKB) 4,200.0	9 4,200.0 Bottom (RKB)	1,000.00 Length (ft)	2,570.0 P (collapse) (p	3,950.0 Burst Pres (psi)	520 Max Tensile (1	8,835 ID (in)	8.750 Drift (in)	5,200 Mk-up Tq (ft-l	6,500 Max Tq (ft-lbs)
9 5/8 DD (in) 9 5/8 Casing -	40.00 Wi (lbs/ft) 40.00 Production C	J-55 Grade HCK-55 Casing - 15,	LT&C Casing Threads LT&C	3,200.0 Top (fiKB) 4,200.0	9 4,200.0 Bottom (RKB)	1,000.00 Length (ft)	2,570.0 P (collapse) (p 4,230.0	3,950.0 Burst Pres (psi)	520 Max Tensile (1	8,835 ID (in)	8.750 Drift (in)	5,200 Mk-up Tq (ft-l	6,500 Max Tq (ft-lbs)
9 5/8 OD (in) 9 5/8 Casing - Comment	40.00 Wi (bs/h) 40.00 Production C	J-55 Grade HCK-55 Casing - 15,	LT&C Casing Threads LT&C 872.0 - Wellbore - Original Weight/Length (lbs/ft) 17.00	3,200.0 Top (ftKB) 4,200.0 Hole	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB)	1,000.00 Length (t) 1,000.00	2,570.0 P (collapse) (p 4,230.0	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole	520 Max Tensile (1 604	8,835 ID (in) 8,835	8.750 Drift (in) 8.750	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment String Nomin	40.00 Wi (bs/h) 40.00 Production C	J-55 Grade HCK-55 Casing - 15,	LT&C Casing threads LT&C 672.0 - Wellbore - Original Weight/Length (lbs/ft) 17.00 Casing Threads	3,200.0 Top (RKB) 4,200.0 Hole	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB)	1,000.00 Length (ft) 1,000.00	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps)	520 Max Tensile (1 604	8,835 ID (in) 8,835	8.750 Drift (in) 8.750	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs)
9 5/8 DD (in) 9 5/8 Casing - Comment String Nomin DD (in) 5 1/2	40.00 Wt (lbs/ft) 40.00 Production C at OD (in) 5 1/2 Wt (lbs/ft) 17.00	J-55 Grade HCK-55 Casing - 15,	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/ft) 17.00 Casing Threads Buttress Thread	3,200.0 Top (RKB) 4,200.0 Hole	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB)	1,000.00 Length (ft) 1,000.00	2,570.0 P (collapse) (p 4,230.0	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole	520 Max Tensile (1 604	8,835 ID (in) 8,835	8.750 Drift (in) 8.750	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment String Nomin DD (in) 5 1/2 Cement J	40.00 Wt (lbs/ft) 40.00 Production C at OD (in) 5 1/2 Wt (lbs/ft) 17.00	J-55 Grade HCK-55 Casing - 15,	LT&C Casing threads LT&C 672.0 - Wellbore - Original Weight/Length (lbs/ft) 17.00 Casing Threads	3,200.0 Top (RKB) 4,200.0 Hole	9 4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB) 15,872.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps)	520 Max Tensile (1 604	8.835 ID (in) 8.835	8.750 Drift (in) 8.750 Drift (in) 4.767	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment Bring Nomin DD (in) 5 1/2 Cement J Description	40.00 Wt (lbs/ft) 40.00 Production C at OD (in) 5 1/2 Wt (lbs/ft) 17.00	J-55 Grade HCK-55 Casing - 15,	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/ft) 17.00 Casing Threads Buttress Thread	3,200.0 Top (RKB) 4,200.0 Hole	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB) 15,872.0	1,000.00 Length (ft) 1,000.00	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p 7,480.0	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0	520 Max Tensile (1 604	8,835 ID (in) 8,835	8.750 Drift (in) 8.750 Drift (in) 4.767	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment DD (in) 5 1/2 Cement J Description	40.00 Wi (lbs/h) 40.00 Production C al OD (ln) 5 1/2 Wi (lbs/h) 17.00 ob - Interm the Cement Wi [Description of the companion	J-55 Grade HCK-55 Casing - 15, Grade P-110 ediate Casi	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/th) 17.00 Casing Threads Buttress Thread ng, 5,200.0ftKB, Proposed:	3,200.0 Top (RKB) 4,200.0 Hole	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB) 15,872.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p 7,480.0	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0	520 Max Tensile (1 604	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore	8.750 Drift (in) 8.750 Drift (in) 4.767	5,200 Mk-up Tq (fi-l 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment Rring Nomin 5 1/2 Cement J Pescription Intermedia	40.00 Wi (lbs/h) 40.00 Production C al OD (ln) 5 1/2 Wi (lbs/h) 17.00 ob - Interm the Cement Wi [Description of the companion	Grade HCK-55 Casing - 15, Grade P-110 ediate Casi	LT&C Casing Threads LT&C 872.0 - Wellbore - Original Weight/Length (Ibs/ft) 17.00 Casing Threads Buttress Thread ng, 5,200.0ftKB, Proposed:	3,200.0 Top (fiKB) 4,200.0 Hole Top (fiKB) 0.0 Yes	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB) 15,872.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p 7,480.0 ing, 5,200.0ft	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (ftKB) 5,2	520 Max Tensile (1 604 Max Tensile (1 568	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Origina	8.750 Drift (in) 8.750 Drift (in) 4.767 at Hole Hole	5,200 Mk-up Tq (ft-I 6,940	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment Rring Nomin 5D (in) 5 1/2 Cement J lescription Intermedia tage Number	40.00 Wi (lbs/h) 40.00 Production C al OD (ln) 5 1/2 Wi (lbs/h) 17.00 ob - Interm the Cement Wi [Description of the companion	Grade HCK-55 Casing - 15, Grade P-110 ediate Casi	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/ft) 17.00 Casing Threads Buttress Thread ng, 5,200.0ftKB, Proposed:	3,200.0 Top (RKB) 4,200.0 Hole	4,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 P(collapse) (p 7,480.0	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (ftKB) 5,2	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original Wellbore Original	8.750 Drift (in) 8.750 Drift (in) 4.767 at Hole Hole	5,200 Mk-up Tq (ft 6,940 Mk-up Tq (ft	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 2asing - comment tring Nomin 5 1/2 2ement J escription ntermediatage Number (uid Type ead	40.00 Wi (lbs/h) 40.00 Production C al OD (ln) 5 1/2 Wi (lbs/h) 17.00 ob - Interm the Cement Wi [Description of the companion	Grade HCK-55 asing - 15, Grade P-110 edlate Casin	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/ft) 17.00 Casing Threads Buttress Thread ng, 5,200.0ftKB, Proposed:	3,200.0 Top (fitRB) 4,200.0 Hole Top (fitRB) 0.0 Yes	4,200.0 Bottom (ftKB) 5,200.0 Set Depth (ftKB) Bottom (ftKB) 15,872.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cast Top (ftKB) 25	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p 7,480.0 pr (collapse) (p 7,480.0 12,50	3,950.0 Burst Pres (ps) 3,950.0 Wellibore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (RKB) 5,2	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 20.00 2.0 (1/47/sack)	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original Wellbore Original	8.750 Drift (in)	5,200 Mk-up Tq (f-I 6,940 Mk-up Tq (R-I O Ratio (gal/sack) 11.00	6,500 Max Tq (f-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment String Nomin DD (in) 5 1/2 Cement J Description Interrnedic Rage Number	40.00 Wi (lbs/h) 40.00 Production C al OD (ln) 5 1/2 Wi (lbs/h) 17.00 ob - Interm the Cement Wi [Description of the companion	Grade HCK-55 asing - 15, Grade P-110 edlate Casin	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/ft) 17.00 Casing Threads Buttress Thread ng, 5,200.0ftKB, Proposed:	3,200.0 Top (fiKB) 4,200.0 Hole Top (fiKB) 0.0 Yes	4,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas	2,570.0 P (collapse) (p 4,230.0 P (collapse) (p 7,480.0 pr (collapse) (p 7,480.0 12,50	3,950.0 Burst Pres (ps) 3,950.0 Wellibore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (RKB) 5,2	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original Wellbore Original	8.750 Drift (in)	5,200 Mk-up Tq (ft 6,940 Mk-up Tq (ft	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment Rring Nomin 50 (in) 5 1/2 Cement J Pescription Intermedia Rage Number Luid Type Lead	40.00 Wi (libs/h) 40.00 Production C af OD (in) 5 1/2 Wi (libs/h) 17.00 ob - Interm the Cement or Descriptio	Grade P-110 ediate Casi	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (lbs/ft) 17.00 Casing threads Buttress Thread ng, 5,200.0ftKB, Proposed: 1t ount (sacks) 1,490 ount (sacks)	3,200.0 Top (fitRB) 4,200.0 Hole Top (fitRB) 0.0 Yes	0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas Top (ftKB) VVeight (lb/g	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 p(collapse) (p 7,480.0 12.50 p(collapse) (p 1,480.0	3,950.0 Burst Pres (ps) 3,950.0 Wellibore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (RKB) 5,2	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0 g (ft*/sack) 2.0	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original Wellbore Original	8.750 Drift (in)	5,200 Mk-up Tq (ft-1 6,940 Mk-up Tq (ft-1 0 Ratio (gal/sack) 0 Ratio (gal/sack)	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Forment Fring Nomin DD (in) 5 1/2 Cement J escription Intermediatage Number Luid Type ail Luid Type ail Cement J escription	40.00 WI (bis/h) 40.00 Production C at OD (in) 5 1/2 WI (bis/h) 17.00 ob — Interm ate Cement W Descriptio Interme	Grade P-110 ediate Casi	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/h) 17.00 Casing threads Buttress Thread ng, 5,200.0ftKB, Proposed: nt count (sacks) 1,490 count (sacks) 210 { \(\cap \) \(\	3,200.0 Top (fitRB) 4,200.0 Hole Top (fitRB) 0.0 Yes	4,200.0 80tom (RKB) 5,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cass Top (ft/S) Weight (fb/g Weight (fb/g	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 collapse) (p 7,480.0 12.50 a) 12.50 a) 14.20	3,950 0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (ftKB) 5,2 Yield	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0 J (ft*/sack) 2.0 (ft*/sack) 1.3	8,835 ID (in) 8.835 ID (in) 4.892 IWellbore Original October 100 IVellbore Wellbore Wellbore Original Wellbore Original October 100 IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore	8.750 Drik (in) 8.750 Drik (in) 4.767 Al Hole Hole Mix H2	5,200 Mk-up Tq (ft-1 6,940 Mk-up Tq (ft-1 0 Ratio (gal/sack) 0 Ratio (gal/sack)	6,500 Max Tq (f-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - 1 Somment String Nomin 50 (in) 5 1/2 Cement J bescription intermedia Rage Number Guid Type Lead Initial Type Lead Cement J Surface C Surface Coscription	40.00 Wi (libs/h) 40.00 Production C al OD (in) 17.00 ob - Interm the Cement or Descriptio Interme	Grade P-110 ediate Cemen Arr e Casing, 1	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/h) 17.00 Casing threads Buttress Thread ng, 5,200.0ftKB, Proposed: nt count (sacks) 1,490 count (sacks) 210 { \(\cap \) \(\	3,200.0 Top (fitRB) 4,200.0 Hole Top (fitRB) 0.0 Yes	4,200.0 80tom (RKB) 5,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas Top (ft/s) Weight (ib/g Weight (ib/g String Surface Casing,	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 collapse) (p 7,480.0 12.50 a) 12.50 a) 14.20	3,950.0 Burst Pres (ps) 3,950.0 Wellibore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (fikB) 5,2 Yield	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0 J (ft*/sack) 2.0 (ft*/sack) 1.3	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original OO Wellbore Original OO	8.750 Drik (in) 8.750 Drik (in) 4.767 Al Hole Hole Mix H2	5,200 Mk-up Tq (ft-1 6,940 Mk-up Tq (ft-1 0 Ratio (gal/sack) 0 Ratio (gal/sack)	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - Comment String Nomin DD (in) 5 1/2 Cement J Description Intermedia Stage Number Lead Lead Lead Lead Lead Lead Lead Lead	40.00 Wi (libs/h) 40.00 Production C al OD (in) 5 1/2 Wi (libs/h) 17.00 ob - Interm ate Cement T Descriptio Interme	Grade P-110 ediate Cemen Arr e Casing, 1	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/h) 17.00 Casing threads Buttress Thread ng, 5,200.0ftKB, Proposed: nt count (sacks) 1,490 count (sacks) 210 { \(\cap \) \(\	3,200.0 Top (fitRB) 4,200.0 Hole Top (fitRB) 0.0 Yes	4,200.0 80tom (RKB) 5,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cass Top (ft/S) Weight (fb/g Weight (fb/g	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 12.50 14.20 1,190.0ftKB, F	3,950.0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (fikis) 5,2 Yield Proposed: Yes Bottom (fikis)	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0 J (ft*/sack) 2.0 (ft*/sack) 1.3	8,835 ID (in) 8.835 ID (in) 4.892 IWellbore Original October 100 IVellbore Wellbore Wellbore Original Wellbore Original October 100 IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore IVellbore	B.750 Drift (in) B.750 Drift (in) A.767 Al Hole Mix H2 Mix H2	5,200 Mk-up Tq (ft-1 6,940 Mk-up Tq (ft-1 0 Ratio (gal/sack) 0 Ratio (gal/sack)	6,500 Max Tq (ft-lbs) 8,680
9 5/8 DD (in) 9 5/8 Casing - 1 Somment String Nomin 50 (in) 5 1/2 Cement J bescription intermedia Rage Number Guid Type Lead Initial Type Lead Cement J Surface C Surface Coscription	40.00 Wi (libs/h) 40.00 Production C al OD (in) 5 1/2 Wi (libs/h) 17.00 ob - Interm ate Cement T Descriptio Interme	Grade P.110 Grade P.110 ediate Casing And	LT&C Casing threads LT&C 872.0 - Wellbore - Original Weight/Length (ibs/h) 17.00 Casing threads Buttress Thread ng, 5,200.0ftKB, Proposed: nt count (sacks) 1,490 count (sacks) 210 { \(\cap \) \(\	3,200.0 Top (first) 4,200.0 Hole Top (first) 0.0 Yes Class	4,200.0 80tom (RKB) 5,200.0	1,000.00 Length (ft) 1,000.00 15,872.0 Length (ft) 15,872.00 String Intermediate Cas Top (ftKB) Weight (ib/g Weight (ib/g Sturface Casing, Top (ftKB)	2,570.0 P(collapse) (p 4,230.0 P(collapse) (p 7,480.0 p(collapse) (p 7,480.0 12,50 p(collapse) (p 14,20 14,20 1,190.0ftKB, F	3,950 0 Burst Pres (ps) 3,950.0 Wellbore Original Hole Burst Pres (ps) 10,640.0 KB, Proposed Bottom (RKB) 7/ridd	520 Max Tensile (1 604 Max Tensile (1 568 : Yes 200.0 I (ft ³ /sack) 1.3	8.835 ID (in) 8.835 ID (in) 4.892 Wellbore Original Original Wellbore Original Original Original Original	B.750 Drift (in) 8.750 Drift (in) 4.767 al Hole Mix H2	5,200 Mk-up Tq (ft-1 6,940 Mk-up Tq (ft-1 0 Ratio (gal/sack) 0 Ratio (gal/sack)	6,500 Max Tq (ft-lbs) 8,680