

AFE:



Long Shot Unit SWD #1

SWD WELL

 REGULATORY: NMOCD
 API:
 COUNTY: LEA CO, NM

 RIG:
 KB:
 GL: 3,778

NAD 83

SHL: Sec. 2, T-22S, R-33E; 1490' FWL & 2100' FSL

BHL: Sec. 2, T-22S, R-33E; 1490' FWL & 2100' FSL

HOLE SIZE	MD	FORMATION	TVD	MUD	CASING	CEMENT	SPECIAL INSTRUCTIONS
	Conductor			SPUD MW 8.4 ppg FRESH	26"	Top of Lead: Surface 50% OH excess	Circ cement to surface is a NMOCD requirement
30"	1,625	Rustler	1,625	TD MW 10.0 ppg	12 Bowsprings 1 joint shoe track	Top of Tail: 1320' 20% excess	PROGRAM ATTACHED Casing must be set 25' into the rustlerMUD: Fresh water ONLY
	1,650	SURF CSG PT	1,650	DRLOUT MW 10.0 ppg BRINE	20"	Top of Lead: Surface 50% OH excess	Circ cement to surface is a NMOCD requirement
24"	3,550	Base of Salt	3,550	TD MW 10.5 ppg	17 Bowsprings 1 joint shoe track	Top of Tail: 2880' 20% excess	PROGRAM ATTACHED
	3,600	INTRM 1 CSG PT	3,600	DRLOUT MW 10.0 ppg BRINE	13-3/8"	2 STAGE CEMENT 1st Stage Top of Lead: 2800' 50% excess Top of Tail: 4200' 20% excess	Circ cement to surface is a NMOCD requirement
17-1/2"	3,700	DV TOOL & PACKER	3,700	TD MW 10.5 ppg	DV Tool & Packer @ +/-3,700' 1 joint shoe track	2nd Stage Top of Lead: Surface 50% excess (OH only) Tail: 100 sks no excess	PROGRAM ATTACHED
	5,250	INTRM 2 CSG PT	5,250	DRLOUT MW 9.0 ppg CUT BRINE	9-5/8"	Top of Lead: Surface 50% excess (OH only)	Circ cement to surface is a NMOCD requirement
12-1/2"	12,035	Wolfcamp	12,035	TD MW 9.2 ppg	47 Bowsprings 1 joint shoe track	Top of Tail: 9788' 20% excess	PROGRAM ATTACHED
	12,135	TOP OF LINER	12,135	DRLOUT MW 11.5 ppg WEIGHTED CUT BRINE	DRILLING LINER 7-5/8"	Top of Tail: 12996' 20% excess	Circ cement to surface is a NMOCD requirement
	12,235	INTRM 3 CSG PT	12,235	TD MW 12.5 ppg	23 Bowsprings 1 joint shoe track		PROGRAM ATTACHED
8-3/4"	16,225	Woodford	16,225	DRLOUT MW 8.4 ppg FRESH	OPEN HOLE INJECTION STRING 5-1/2"	PACKER FLUID	
	16,375	PERM PACKER	16,375	TD MW 8.6 ppg			
	16,425	LINER CSG PT	16,425				
	16,425	Devonian	16,425				
	17,084	Fusselman	17,084				
6-3/4"	17,595	Montoya	17,595				
	17,695	TD	17,695				

Est BHT = 250* F

DIRECTIONS TO LOCATION:

Surface



PROPOSAL#: 200206163353-A

WELL INFORMATION

MUD	8.4# Spud Mud
PREVIOUS PIPE	32" 250.3# CSG to 120
OPEN HOLE	30" OH to 1650
CASING/INJECTION	26" 202.3# to 1650
MD	1650
EST BHST/BHCT	96-F / 86-F (0.96-F/100-FT)
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	120	30.5	26		0.2470	29.6
Lead	1200	30	26	50%	0.3264	391.7
Tail	330	30	26	20%	0.2611	86.2
SHOE JOINT	40	26	24.5		0.5831	23.3

FLUIDS

SPACER

Fresh Water

VOLUME 20-bbl

Lead

100% Class C+5% SALT+2% SMS+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A

VOLUME	935-SX	423-bbls
DENSITY	12-ppg	
YIELD	2.54-cf/sx	
MIX WATER	15.07-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

Surface



PROPOSAL#: 200206163353-A

Tail

100% Class C+0.005GPS NoFoam V1A

VOLUME	465-SX	110.1-bbls
DENSITY	14.8-ppg	
YIELD	1.33-cf/sx	
MIX WATER	6.35-gps	
TOP OF CEMENT	1320-ft	
EXCESS	20%	

DISPLACEMENT

Displacement

VOLUME	938.7-bbl
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1st Intermediate



PROPOSAL#: 200206163353-A

WELL INFORMATION						
MUD	10# Brine					
PREVIOUS PIPE	26" 202.3# CSG to 1650					
OPEN HOLE	24" OH to 3600					
CASING/INJECTION	20" 94# to 3600					
MD	3600					
EST BHST/BHCT	115-F / 98-F (0.96-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 4-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	1650	24.5	20		0.1945	320.9
Lead	1230	24	20	50%	0.2564	315.4
Tail	720	24	20	20%	0.2052	147.7
SHOE JOINT	40	20	19.124		0.3553	14.2
FLUIDS						
SPACER						
Fresh Water						
VOLUME	20-bbl					
Lead						
50% P_Poc+50% Class C+10% Gel+5% SALT+1% SMS+0.4% R-1300+3PP5 Kol-Seal+0.25PP5 Pol-E-Flake+0.005GPS NoFoam V1A						
VOLUME	1430-SX					
DENSITY	11.8-ppg					
YIELD	2.51-cf/sx					
MIX WATER	14.18-gps					
TOP OF CEMENT	Surface					
EXCESS	50%					
		639.3-bbls				

639.3-bbl/s

1st Intermediate



PROPOSAL#: 200206163353-A

Tail

100% Class C+0.1% R-1300+0.005GPS NoFoam V1A

VOLUME	685-SX	162.3-bbls
DENSITY	14.8-ppg	
YIELD	1.33-cf/sx	
MIX WATER	6.35-gps	
TOP OF CEMENT	2880-ft	
EXCESS	20%	

DISPLACEMENT

Displacement

VOLUME	1264.7-bbl
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2nd Multi-Stage Intermediate



PROPOSAL#: 200206163353-A

WELL INFORMATION						
MUD	10# Brine					
PREVIOUS PIPE	20" 94# CSG to 3600					
OPEN HOLE	17.5" OH to 5250					
CASING/INJECTION	13.375" 54.5# to 5250					
MD	5250					
EST BHST/BHCT	131-F / 108-F (0.96-F/100-FT)					
DV TOOL	3700					
EST BHST/BHCT STG2	116-F / 98-F (0.96-F/100-FT)					
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.					
VOLUMES						
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
1st Stage Lead	800	19.124	13.375		0.1815	145.2
1st Stage Lead	600	17.5	13.375	50%	0.1856	111.3
1st Stage Tail	1050	17.5	13.375	20%	0.1485	155.9
2nd Stage Lead	3538	19.124	13.375		0.1815	642.1
2nd Stage Tail	62	19.124	13.375		0.1815	11.3
2nd Stage Tail	100	17.5	13.375	0%	0.1237	12.4
SHOE JOINT	40	13.375	12.615		0.1546	6.2
FLUIDS						
SPACER						
Fresh Water						
VOLUME	20-bbl					
1st Stage Lead						
50% P_Poz+50% Class C+10% Gel+5% SALT+1% SMS+0.4% R-1300+3PPS Kol-Seal+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A						
VOLUME	575-SX					257-bbls
DENSITY	11.8-ppg					
YIELD	2.51-cf/sx					
MIX WATER	14.18-gps					
TOP OF CEMENT	2800-ft					
EXCESS	50%					

2nd Multi-Stage Intermediate



PROPOSAL#: 200206163353-A

1st Stage Tail

50% P_Poz+50% Class C+2% Gel+5% SALT+0.45% C-20+0.005GPS NoFoam V1A

VOLUME	700-SX	162.1-bbls
DENSITY	14.2-ppg	
YIELD	1.3-cf/sx	
MIX WATER	5.94-gps	
TOP OF CEMENT	4200-ft	
EXCESS	20%	

DISPLACEMENT

Displacement

VOLUME	805.4-bbl
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SPACER

Fresh Water

VOLUME	20-bbl
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2nd Stage Lead

50% P_Poz+50% Class C+10% Gel+5% SALT+1% SMS+0.2% C-20+3PPS Kol-Seal+0.25PPS Pol-E-Flake+0.005GPS NoFoam V1A

VOLUME	1445-SX	643.4-bbls
DENSITY	11.8-ppg	
YIELD	2.5-cf/sx	
MIX WATER	14.17-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

2nd Stage Tail

100% Class C+0.005GPS NoFoam V1A

VOLUME	100-SX	23.7-bbls
DENSITY	14.8-ppg	
YIELD	1.33-cf/sx	
MIX WATER	6.35-gps	
TOP OF CEMENT	3538-ft	
EXCESS	0%	

DISPLACEMENT

Displacement

VOLUME	571.9-bbl
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3rd Intermediate



PROPOSAL#: 200206163353-A

WELL INFORMATION

MUD	9.2# Cut Brine
PREVIOUS PIPE	13.375" 54.5# CSG to 5250
OPEN HOLE	12.25" OH to 12235
CASING/INJECTION	9.625" 40# to 12235
MD	12235
EST BHST/BHCT	198-F / 156-F (0.96-F/100-FT)
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.

VOLUMES

FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)
Lead	5250	12.615	9.625		0.0646	339.1
Lead	4538	12.25	9.625	50%	0.0837	379.7
Tail	2447	12.25	9.625	20%	0.0669	163.8
SHOE JOINT	40	9.625	8.835		0.0758	3.0

FLUIDS

SPACER

Fresh Water+ 2.5GPB Soda Ash +1PPB R-1300+0.5PPB SuspendaCem 6302+10PPB Zone Seal

VOLUME	20-bbl
DENSITY	8.34-ppg

Lead

100% TXI Lite+10% Gel+5PPS Plexcrete STE+5PPS Micro Shell+10PPS Gypsum+2% SMS+0.4% C-20+3PPS Gilsonite+0.125PPS Web Seal+0.005GPS NoFoam
V1A

VOLUME	895-SX	720.5-bbls
DENSITY	10.3-ppg	
YIELD	4.52-cf/sx	
MIX WATER	28.89-gps	
TOP OF CEMENT	Surface	
EXCESS	50%	

3rd Intermediate



PROPOSAL#: 200206163353-A

Tail

100% Class H+0.05% SuspendaCem 6302+0.3% C-20+0.2% C-47B+0.005GPS NoFoam V1A

VOLUME	790-SX	167.4-bbls
DENSITY	15.6-ppg	
YIELD	1.19-cf/sx	
MIX WATER	5.24-gps	
TOP OF CEMENT	9788-ft	
EXCESS	20%	

DISPLACEMENT

Displacement

VOLUME	924.6-bbl
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Drilling Liner



PROPOSAL#: 200206163353-A

WELL INFORMATION							
MUD	12.5# WBM						
PREVIOUS PIPE	9.625" 40# CSG to 12235						
OPEN HOLE	8.75" OH to 16245						
CASING/INJECTION	5.5" 21.9# DP to 12135; 7.625" 29.7# to 16245						
MD	16245						
EST BHST/BHCT	236-F / 193-F (0.96-F/100-FT)						
LINER TOP	12135						
NOTES	Standby charges start after WTC has been on location for more than 8-hrs.						
VOLUMES							
FLUID NAME	LENGTH (ft)	OD (in.)	ID (in.)	XS (%)	FACTOR (bbl/ft)	VOLUME (bbl)	
Tail	100	8.835	7.625		0.0193	1.9	
Tail	4010	8.75	7.625	20%	0.0215	86.1	
SHOE JOINT	80	7.625	6.875		0.0459	3.7	
FLUIDS							
SPACER							
Wt. Spacer 32.5PPB Water+8PPB PolyScrub 4320+252.35PPB Barite+1.5GPB SFG+1PPB R-1300							
VOLUME	25-bbl						
DENSITY	13-ppg						
Tail							
50% B_Pos+50% Class H+2% Gel+5% SALT+0.05% SuspendsCem 6302+0.45% C-20+0.7% C-47B+0.005GPS NoFoam V1A							
VOLUME	395-SX						
DENSITY	14.2-ppg						
YIELD	1.31-cf/sx						
MIX WATER	5.92-gps						
TOP OF CEMENT	12135-ft						
EXCESS	20%						
DISPLACEMENT							
Fresh Water							
VOLUME	185-bbl						

Advance Energy Partners
Long Shot Unit SWD #1
Lea County, NM

Drilling Liner



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DISPLACEMENT

Wt. Displacement Spacer 32.5PPB Water+8PPB PolyScrub 4320+252.35PPB Barite+1.5GPB SFG+1PPB R-1300

VOLUME 10-bbl

DENSITY 13-ppg

DISPLACEMENT

WBM

VOLUME 259.1-bbl

DENSITY 12.5-ppg