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 Road, Aztec, NM 87410
Phone: (505) 334-6178 Fax: (505) 334-6170
District IV
1220 S. St. Francis Dr., Santa Fe, NM 87505
Phone: (505) 476-3460 Fax: (505) 476-3462

State of New Mexico
Energy Minerals and Natural Resources
Oil Conservation Division
1220 South St. Francis Dr.
Santa Fe, NM 87505

HOBBSOCD
DEC 15 2014
RECEIVED

Form C-101
Revised July 18, 2013

☐ AMENDED REPORT

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

1. Operator Name and Address	2. OGRID Number
Alta Mesa Service, LP 15021 Katy Freeway Suite 400 Houston, TX 77094	295752
	3. API Number 30-009-20026

4. Property Code	5. Property Name	6. Well No.
313987	Burnett 22 P	~~22-P~~ 1

7. Surface Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County
P	22	8N	35E		940	SOUTH	660	EAST	CURRY

8. Proposed Bottom Hole Location

UL - Lot	Section	Township	Range	Lot Idn	Feet from	N/S Line	Feet From	E/W Line	County

9. Pool Information

Pool Name	Pool Code
WC-009 N083522P; MISS (GAS)	98108

Additional Well Information

11. Work Type	12. Well Type	13. Cable/Rotary	14. Lease Type	15. Ground Level Elevation
N	G	R	P	4522.0
16. Multiple	**17. Proposed Depth**	**18. Formation**	**19. Contractor**	**20. Spud Date**
S	10,350'	Mississippian	NORTON ENERGY	DECEMBER 20TH, 2014

Depth to Ground water	Distance from nearest fresh water well	Distance to nearest surface water

☒ **We will be using a closed-loop system in lieu of lined pits**

21. Proposed Casing and Cement Program

Type	Hole Size	Casing Size	Casing Weight/ft	Setting Depth	Sacks of Cement	Estimated TOC
Conductor	24-inch	16-inch	94#	180-feet	NA	Surface
Surface	14.75-inch	11.75-inch	47#	1,900-feet	880	Surface
Intermediate	10.625-in	8.625-inch	32#	7,840-feet	800	~~1,900~~-feet 1700
Production	7.875-in	5.50-inch	20#	10,350-feet	500	7,400-feet

Casing/Cement Program: Additional Comments

22. Proposed Blowout Prevention Program

Type	Working Pressure	Test Pressure	Manufacturer
Annular	3,000 psi	2,100 psi	Hydril
Double Ram	3,000 psi	3,000 psi	Shaffer

DEC 18 2014

Attachments: Burnett 22-P Drilling & Completion Plan (2 pgs)
Lithology (1 pg)
Preliminary Drilling Program (1 pg)
Norton Energy Rig 6 BOP Stack Diagram (1 pg)
Wellbore Schematic (1 pg)
Casing and Cementing Details for Surface/Intermediate/Production Holes (3 pgs)
Surface Use Plan (2 pgs)
C-102 Plat (1 pg)
Location Plat (1 pg)
One Mile Radius Plat (2 pgs)
Plat (1 pg)
Well Pad Plat (1 pg)

23. I hereby certify that the information given above is true and complete to the best of my knowledge and belief. **I further certify that I have complied with 19.15.14.9 (A) NMAC ☐ and/or 19.15.14.9 (B) NMAC ☐, if applicable.** Signature: Bridget Helfrich	OIL CONSERVATION DIVISION Approved By:
Printed name: Bridget Helfrich	Title: Petroleum Engineer
Title: Regulatory Coordinator	Approved Date: 12/16/14 Expiration Date: 12/16/16
E-mail Address: bhelfrich@altamesa.net	
Date: 12/8/14 Phone: 281-943-1373	Conditions of Approval Attached

DEC 18 2014

Burnett 22-P Drilling and Completion Plan

The well will be drilled with reserve pit water transferred from our Pulliam Farms 27-P (one mile south of this location) water-based fluids from surface to the bottom of the Santa Rosa Formation ("freshwater aquifer"). Surface conductor and surface casing strings will be installed and cemented. Below the Santa Rosa Formation, the well will be drilled with diesel-oil base drilling fluid to our total depth in the Mississippi Lime formation. Additional intermediate strings and production casing will be installed and cemented as prescribed, with contingency casing and cementing solutions approved by the District supervisor. Hydraulic stimulation will be performed in the prospective zones, and gas and water flow testing will be conducted in individual and/or commingled zones.

Drilling Program

- Lithology
    - Tucumcari Basin
        - This area has been the subject of limited oil & gas exploration activity
        - Approximate depths of key geologic formations are shown in table below
    - Prospective formations are in the Pennsylvanian section
- Fluid Bearing Formations
    - Potable water (300 – 1700 feet below ground surface)
    - Brackish water (1700+ feet below ground surface)
    - Natural gas/condensate (~7,000 – 10,100 feet below ground level)
- Drilling Fluids
    - Freshwater drilling fluids (see Attachment A2)
        - Reserve pit recycled water for water-based, 8.3-8.6 ppg, viscosifiers and LCM additives
    - Oil-based drilling fluids (see Attachment A2)
        - Diesel oil-based fluids, 8.0-9.0 ppg, lime, caustic soda, viscosifiers and LCM additives
    - Lost Circulation Materials (LCM)
        - As needed, LCM consisting of, but not limited to, cedar fibers, mica, drilling paper, graphite, walnut plug, cottonseed hulls and calcium carbonate may be introduced into the well bore
- Wellhead Pressure Control (Blowout Prevention [BOP])
    - Wellhead BOP equipment is standard design for "tight gas" wells, as shown on Attachment A3
        - Maximum pressures for equipment (wellhead A section to be 11" 5,000 psi; wellhead B section to be 11" 5,000 psi; BOP with 11" 3,000 psi annular preventer; and with 11" 3,000 psi ram preventers)
        - Maximum downhole pressures anticipated ~4400 psi
    - BOP testing procedures conducted by third party contractor upon installation
        - Ram preventers to 3,000 psi and 250 psi; Annular preventer to 2100 psi and 250 psi, for 10 minutes and 5 minutes, respectively
- Directional Drilling
    - This well is planned as vertical; inclination added for engineering effort to simulate tortuosity

Casing and Cementing Program

- All casing run and set will be new and unused. Details are included below:
- Surface Casing
    - 14.75-inch diameter well bore, drilled to 1,900 feet.
    - 11.75-inch diameter casing installed and cemented to surface
- Intermediate Casing
    - 10.625-inch diameter well bore, drilled to 7,640 feet.
    - 8.625-inch diameter casing installed and cemented to 1,900 feet
- Production Casing

- 7.875-inch diameter well bore, drilled to 10,350 feet.
- 5.50-inch diameter casing installed and cemented to 7,600 feet

Well Completion

- Casing Perforation
  - Perforate casing in prospective sand zones, using six shots per foot (spf), 60 degree, phased perforating guns
- Hydraulic Fracturing
  - Treat prospective sand zones with ceramic and/or sand proppant materials during hydraulic fracturing

Logging and Testing

- Lithologic Logging
  - Mudlogging (00' to TD); Selective coring (side-wall cores likely with wireline)
- Wireline-Logging, including but not limited to:
  - Gamma Ray, Resistivity, Porosity, Neutron and Sonic data collection
  - Spectroscopy, Sigma, and NMR
- Flow Testing
  - Flow individual production zones for up to 3 days
  - Flow entire well for up to 120 days

Lithology

Wellsite elevation is 4,522' Rig KB 17.5' above ground level

Significant Formation Tops	Drill Depth	Subsea Depth
Santa Rosa	1,200'	+3,339'
San Andres	3,450'	+1,089'
Glorietta	3,764'	+775'
Tubb	5,141'	-602'
Abo	5,640'	-1,101'
Wolfcamp	6,591'	-2,052'
Pennsylvanian	7,638'	-3,099'
Mississippian	10,206'	-5,667'
Basement	10,331'	-5,792'

Preliminary Drilling Program

Lease and Well Name:
Burnett 22-P

Location:

Broadview, NM	34° 49' 10.11"N 103° 12' 48.87"W
Lease Entrance	34° 53' 43.82"N 103° 12' 49.49"W
Well Site	34° 53' 47.04"N 103° 12' 55.49"W

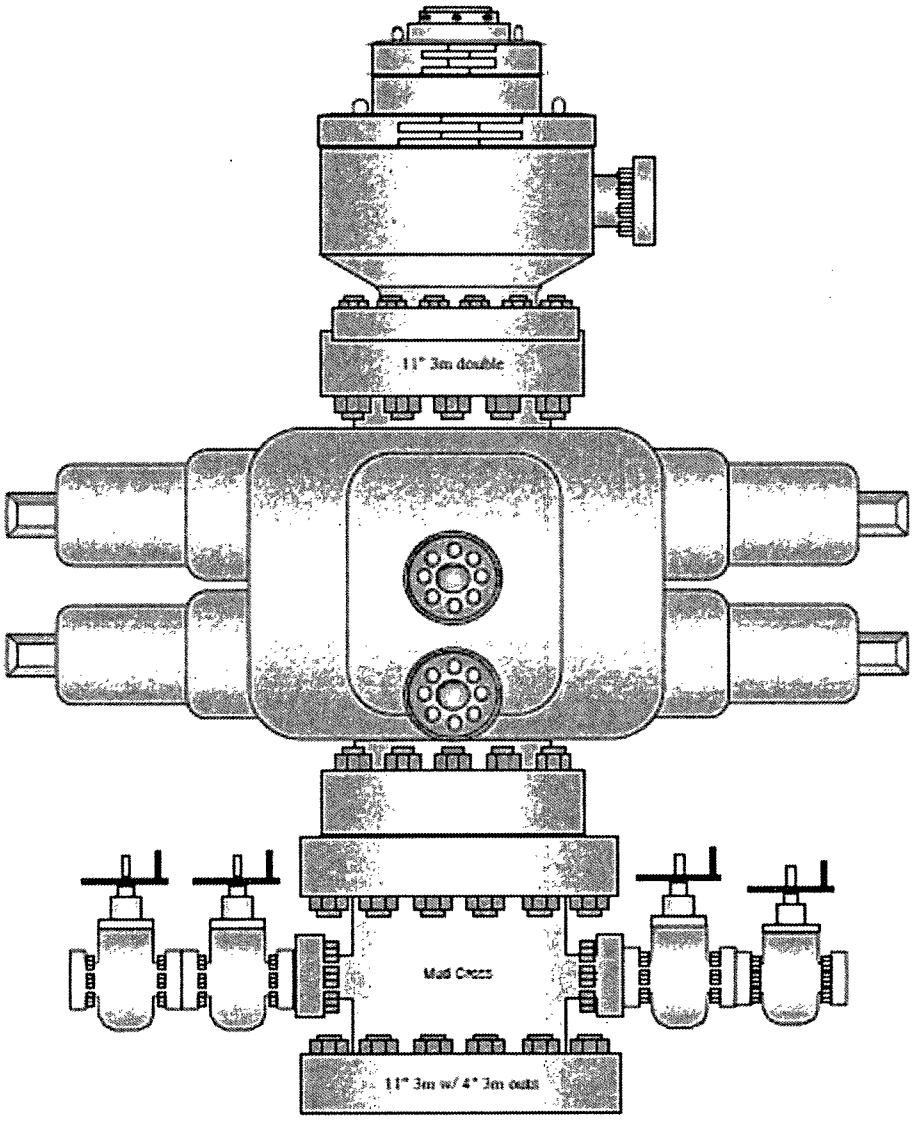
Directions:

From Tucumcari, take Interstate 40 East. Take Exit 356 toward San Jon. Keep right at the fork and merge onto NM-469 (South 4th St). Go 14.9 miles and turn left onto NM-275. Go 7.9 miles and turn right on NM-275 (Curry Road K). Go 1.8 miles and entrance will be on the right.

From Clovis, take NM-209 North. Go 28.1 miles to Broadview and continue north on Curry Road K. Go 5.2 miles and entrance will be on the left.

Alta Mesa Services, LP
Burnett 22-P
Curry County, New Mexico

Norton Energy Drilling, LLC
Blowout Preventer Stack



Wellbore Schematic

ALTA MESA SERVICES, LP
WELL DESIGN SUMMARY

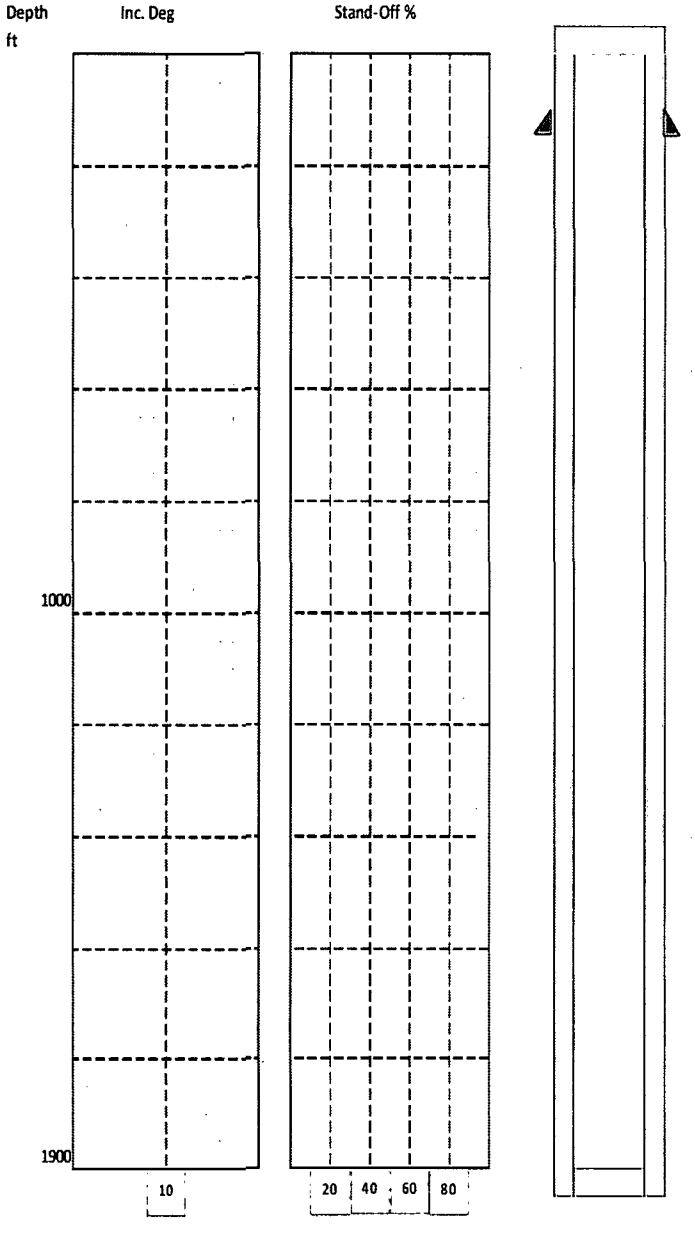
BURNETT 22-P		Surf. Loc.:	X = 1,419,429.7' N Y = 835,224.5' E
Sec 22, T8S, R35E		BHL:	Same
CURRY COUNTY, NM		Rig:	Norton Energy Drilling Rig #6

DIRECTIONAL & DEVIATION	OPEN HOLE LOGGING	SANDS/ MARKERS	DEPTH MD	DEPTH SS	CASING PROFILE	HOLE SIZE	CASING DETAILS	MUD WT. TYPE	CEMENT PROGRAM
	None		+/-180'	+/-4,359'		24"	16" x .375"	Fresh Water	Grout
	Mud								580 sx lead
Totco	Loggers							Fresh Water	Cl C 35/65
500'								Spud Mud	+6% gel
maximum							11.75"	Gel, Lime	12.8 ppg
	GR-SP						47.0 PPF	LCM	300 sx tail
Straight hole	DILL	Santa Rosa	1,200'	3,339'			J-55		Cl C
	SONIC	Water Sands					BTC OR		14.8 ppg
< 3°			1,700	2,839		14.75"	STC	MW 8.8 PPG	
	Mud								
Straight hole	Loggers								
Totco								Diesel OBM	
500'								MW 8.4 ppg	
maximum									
to 3,000'									
		San Andre	3,450'	1,089'					
		Glorietta	3,764'	775'					
		Tubb	5,141'	-602'					
		Abo	5,640'	-1,101'					600 sx lead
Straight hole									Cl C 35/65 +6% gel 11.8 ppg
Totco	GR-DILL	Wolfcamp	6,591'	-2,052'			Intermediate Casing		200 sx tail Cl C
1,000'	NEUTRON						8.625"		14.8 ppg
maximum	DENSITY						32.0 PPF		
to 6,700'	SONIC SCAN						J-55 &		
Gyro	MAG RES						HCK-55		
Optional	ECS	Pennsylvanian	7,638'	-3,099'		10.625"	LT&C	MW 8.4 ppg	
Straight hole									
Totco								Diesel OBM	
1,000'								MW 8.4 ppg	
maximum									
to TD'									
	GR-DILL NEUTRON DENSITY	Mississippian	10,206'	-5,667'			Production Casing 5.5"		500 sx Cl C Star Bond Cmt 12.8 ppg
Gyro	SONIC SCAN						20.0 ppf		
Optional	MAG RES	Granite	10,331'	-5,792'			P-110		
	ECS	Total Depth	10,350'	-5,811'		7.875"	LTC	MW 8.4 ppg	

Casing and Cementing Details

Surface Hole

Set Depth	Top (RTE)	Size	Weight	Grade	Conn	Drift	Burst	Collapse	Tension
1,900'	17.5'	11 ¾"	47#	J-55	BTC	10.844"	3,070 psi	1,510 psi	807 kips



CASING LINER CEMENT JOB

Shoe Depth : 1900.00 ft
Shoe TVD : 1900.00 ft
OH SIZE : 14.750 in

CASING From Bottom to Top
1900 ft Casing OD 11.750 in ID 11.0 in W 47.00 lb/ft

Displacement: 120.8 bbl

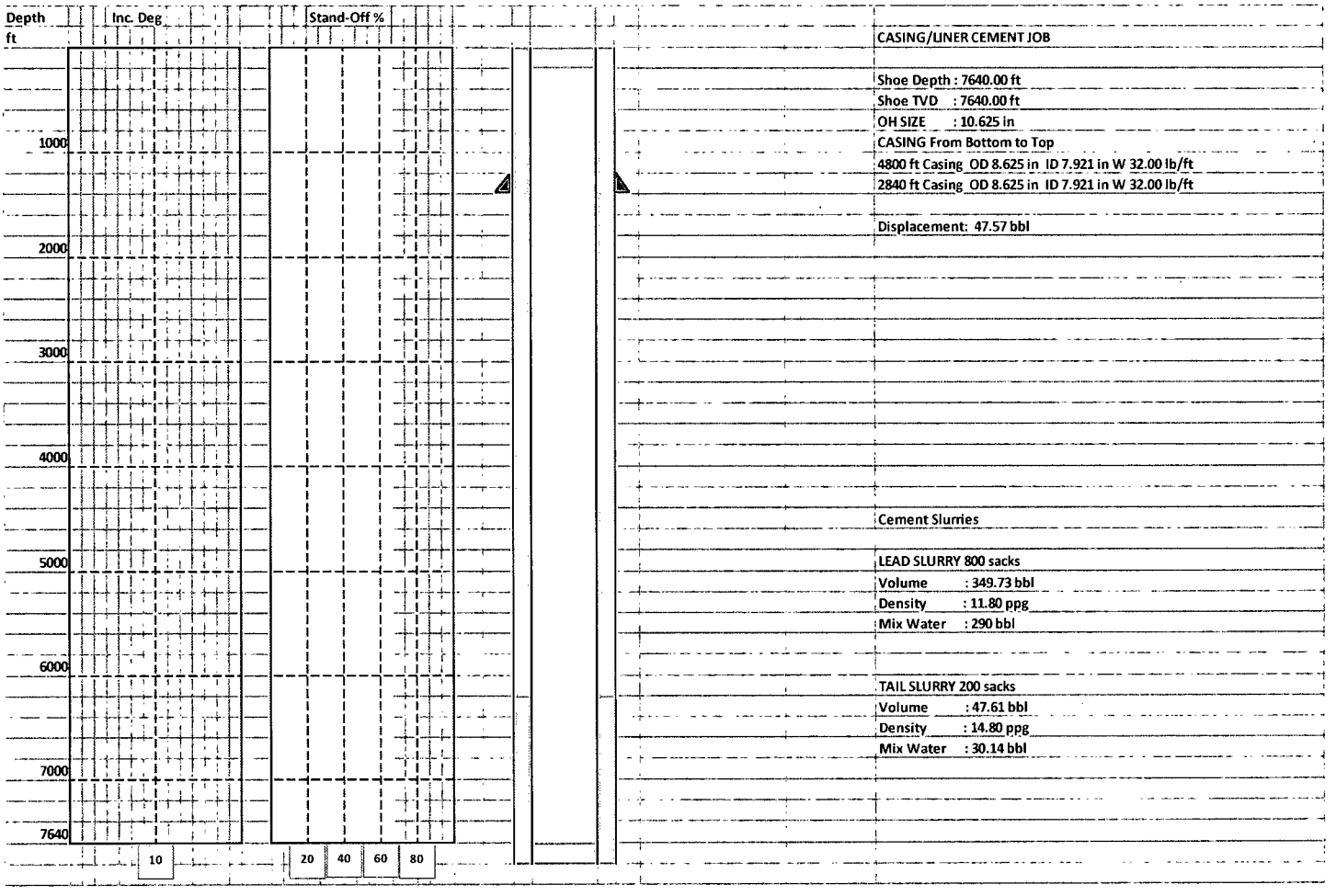
Cement Slurries

LEAD SLURRY 585 sacks
Volume : 191.15 bbl
Density : 12.80 ppg
Mix Water : 136.06 bbl

TAIL SLURRY 300 sacks
Volume : 71.92 bbl
Density : 14.80 ppg
Mix Water : 45.3 bbl

Intermediate Hole

Set Depth	Top (RTE)	Size	Weight	Grade	Conn	Drift	Burst	Collapse	Tension
4,800'	15'	8 5/8"	32#	J55	LTC	7.875"	3,930 psi	2,530 psi	417 kips
7,640'	4,800'	8 5/8"	32#	HCK55	LTC	7.875"	3,930 psi	4,130 psi	556 kips



CASING/LINER CEMENT JOB

Shoe Depth : 7640.00 ft
Shoe TVD : 7640.00 ft
OH SIZE : 10.625 in
CASING From Bottom to Top
4800 ft Casing OD 8.625 in ID 7.921 in W 32.00 lb/ft
2840 ft Casing OD 8.625 in ID 7.921 in W 32.00 lb/ft

Displacement: 47.57 bbl

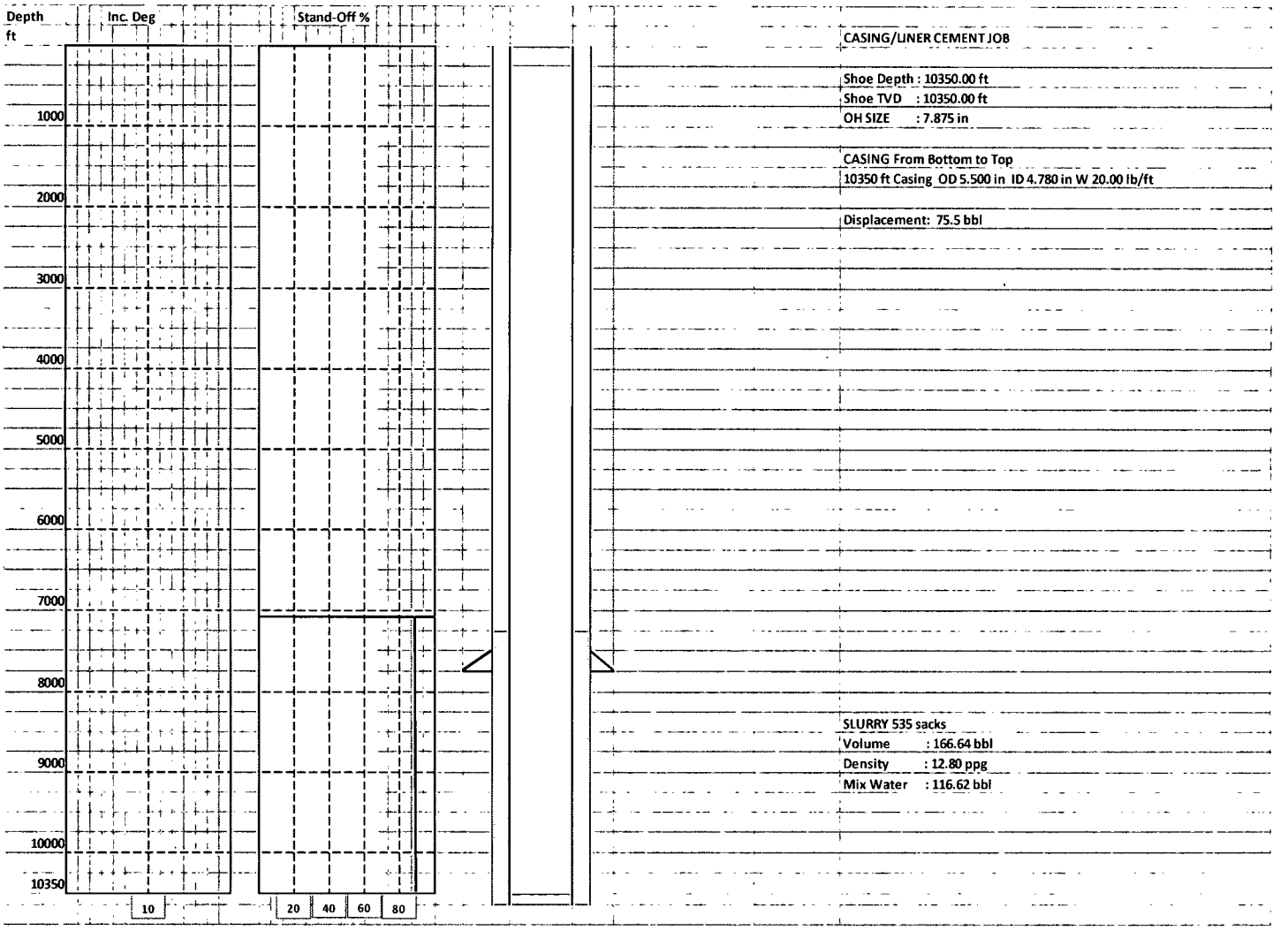
Cement Slurries

LEAD SLURRY 800 sacks
Volume : 349.73 bbl
Density : 11.80 ppg
Mix Water : 290 bbl

TAIL SLURRY 200 sacks
Volume : 47.61 bbl
Density : 14.80 ppg
Mix Water : 30.14 bbl

Production Hole

Set Depth	Top (RTE)	Size	Weight	Grade	Conn	Drift	Burst	Collapse	Tension
10,350'	15'	5 ½"	20#	P110	LTC	4.653	12360 psi	11080 psi	548 kips



Burnett 22-P Surface Use Plan

The well location, associated facilities and access roads will be constructed on fee surface, upon approval of the surface owner. Well site and access roads will be constructed to withstand the loads occurring during mobilization, placement and operation of drilling, completion and testing equipment. Construction activities will be conducted to minimize surface disturbances and to readily accommodate reclamation activities on disturbed areas.

Existing Roads

- Access to Location
    - From the town of Broadview, New Mexico
        - Drive north on County Road K, about 5.2 miles
        - Location is on the west side of County Road K

Roads to be Constructed/Maintained

- Improved Roads
    - County Road (maintained by Curry County)
- Two-Track Roads
    - Construct improved 2-Track road segment to access *Burnett 22-P* location adjacent to existing county road
        - Grade/crown road, placing crushed aggregate as needed
        - Install culverts and/or rock-filled, low water crossings, as needed

Well Site Layout

- Well pad location and associated facilities are shown on Well Location, *Burnett 22-P*, Topographic Maps
    - The staked well location and proposed access road are shown on Location photos
    - Well location, water well, access roads, above-ground tanks and temporary buildings, and storage areas are shown on Location Layout for *Burnett 22-P*

Water Supply

- See previous section in Drilling and Completion Plan

Existing Oil & Gas Wells

- *Terry Pamela Stovall Partnership 13-1* is located approximately 2.3 miles northeast of the Burnett 22-*P*
    - Well is permanently abandoned
- *Pulliam Farms 27-P* is located approximately 1.0 miles south of the Burnett 22-*P*
    - Well is permanently abandoned

Existing and/or Proposed Facilities

- Well Site Facilities
    - Located at well site
- Temporary living quarters
    - Located at well site

Storm Water Management Plan

- Storm water management and erosion control practices will be implemented during construction, operations, and reclamations
    - To utilize surface location that minimizes impact on natural storm water flow
    - To use diversion trenches to eliminate flow of storm water onto the location

Waste Management and Disposal

- Drilling fluids and cuttings and other solids will be disposed of off-site at an approved commercial facility
- Other solid wastes will be accumulated and disposed of off-site at permitted landfill

Produced Water Management and Disposal

- Produced water, and hydraulic fracturing fluids will be disposed of off-site; some fluids may be treated and re-used on-site or at other well locations. Concentrated waste fluids will be disposed of off-site at permitted disposal facility

Construction Materials

- Fill material and Aggregate – obtained from local sources
- Top soil – temporarily stockpiled at perimeter of well pad and along construction corridors for subsequent use during reclamation

Reclamation

- Areas temporarily disturbed during construction, and well drilling, completion and testing will be reclaimed to original conditions, as soon as is practical and in consultation with the surface owner
    - Disturbed areas will be re-contoured to match existing topography
    - Topsoil salvaged during construction activities will be spread to a minimum thickness of 6 inches
    - Reclaimed areas will be planted with seed mixture recommended by local Soil Conservation Service and/or BLM staff, and approved by surface owner
- Areas disturbed during construction and subsequent oil & gas production will be reclaimed to original conditions as soon after oil & gas production ceases, as is practical, and in consultation with the surface owner