DIVISION OF LAND AND WATERWAYS
300 N. 6th St. Ste 103
PO Box 83720
Boise ID 83720-0050
Phone (208) 334-0200
Fax (208) 334-3698

IDAHO DEPARTMENT OF LANDS

TOM SCHULTZ, DIRECTOR
EQUAL OPPORTUNITY EMPLOYER

IDAHO OIL AND GAS CONSERVATION COMMISSION
C. L. "Butch" Otter, Governor
Ben Ysursa, Secretary of State
Lawrence G. Wasden, Attorney General
Brandon Woolf, State Controller
Tom Luna, Sup't of Public Instruction

June 11, 2013

Ronda Louderman
Alta Mesa Services, LP
15021 Katy Freeway, Suite 400
Houston, Texas 77094

SUBJECT: Permit to Drill LU600115 (API#11-075-20-021), Smoke Ranch LLLP #1-21)

The Idaho Department of Lands has completed our review of this permit to drill for oil and gas. Enclosed is a copy of the approved permit. This permit was approved with the following stipulations:

1. The permittee shall be required to submit an affidavit covering the initial BOP pressure test after installation signed by the operator or contractor attesting to the satisfactory pressure test.

2. The permittee shall ensure tanks are adequately sized, designed and constructed for the reception and confinement of mud and cuttings and to prevent contamination of streams and potable water.

3. Drilled holes cannot be used for any other purposes unless they are constructed according to the applicable well construction standards administered by the Idaho Department of Water Resources.

4. Applicant will obtain any needed water rights from Idaho Department of Water Resources if nearby wells will be used to supply water for the drilling operations.

5. All well log information required by IDAPA 20.07.02.091 will be submitted to IDL within 30 days of the logs being run.

Please ensure that all operations are conducted in accordance with the requirements of IDAPA 20.07.02 (Rules Governing Conservation Of Crude Oil And Natural Gas In The State Of Idaho).

This permit will be administered by Nancy Welbaum in our Southwest Supervisory Area. She will be inspecting the drilling operation. Please contact her at 208-334-3488 if you have any questions.

Sincerely,

Eric Wilson
Minerals Program Manager

cc: Nancy Welbaum
Chad Hersley, IDWR, PO Box 83720, Boise, Idaho 83720-0098
Patti Nitz, Payette County Planning and Zoning

LU600115
API# - 11-075-20021

IDAHO OIL AND GAS CONSERVATION COMMISSION

Application For Permit to Drill, Deepen or Plug Back

APPLICATION TO: Drill ($2,000) [X] Deepen ($500) [ ] Plug Back ($500) [ ]

NAME OF COMPANY OR OPERATOR: ALTA MESA SERVICES, LP Date: 04-30-2013

Address: 15021 KATY FRWY., SUITE 400

City: HOUSTON State: TX Zip Code: 77094 Telephone: 281-530-0991

Contact Name: RONDA LOUDERMAN Email Address: rlouderman@altamesa.net

DESCRIPTION OF WELL AND LEASE

Name of Lease: Smoke Ranch LLLP Well Number: 1-21 Elevation (ground) GL2178.02'/RKB 20'

Well Location: Section: 21 Township: 8N Range: 4W (or block and survey)

(give footage from Section lines): BH - 77.3' TH - 268.5'

Field and Reservoir (if wildcat, so state): Willow County: Payette

Distance, in miles, and direction from nearest town or post office: 3.08 miles

Nearest distance from proposed location to property or lease line: 325.6' feet

Distance from proposed location to nearest drilling, completed or applied for on the same lease: N/A feet

Proposed depth: 5899' Rotary or cable tools: Rotary

Planned logging tools:

Approx date work will start: May 25, 2013 Number of acres in lease(s): 640

Number of wells on lease, including this well, completed in or drilling to this reservoir: 1

If lease purchased with one or more wells drilled, complete the following information:

Purchased from (name) N/A

Address of above

Status of bond

Remarks: (If this is an application to deepen or plug back, briefly describe work to be done, giving present producing zone and expected new producing zone) N/A

CERTIFICATE: I, the undersigned, state that I am the Regulatory Coordinator of Alta Mesa Services, LP (company) and that I am authorized by said company to make this application and that this application was prepared under my supervision and direction and that the facts stated herein are true, correct and complete to the best of my knowledge.

Date: 04-30-2013 Signature: Ronda Louderman

Permit Number: LU600115 Approval Date: 6/4/13 Approved by: Thomas M. Schultz

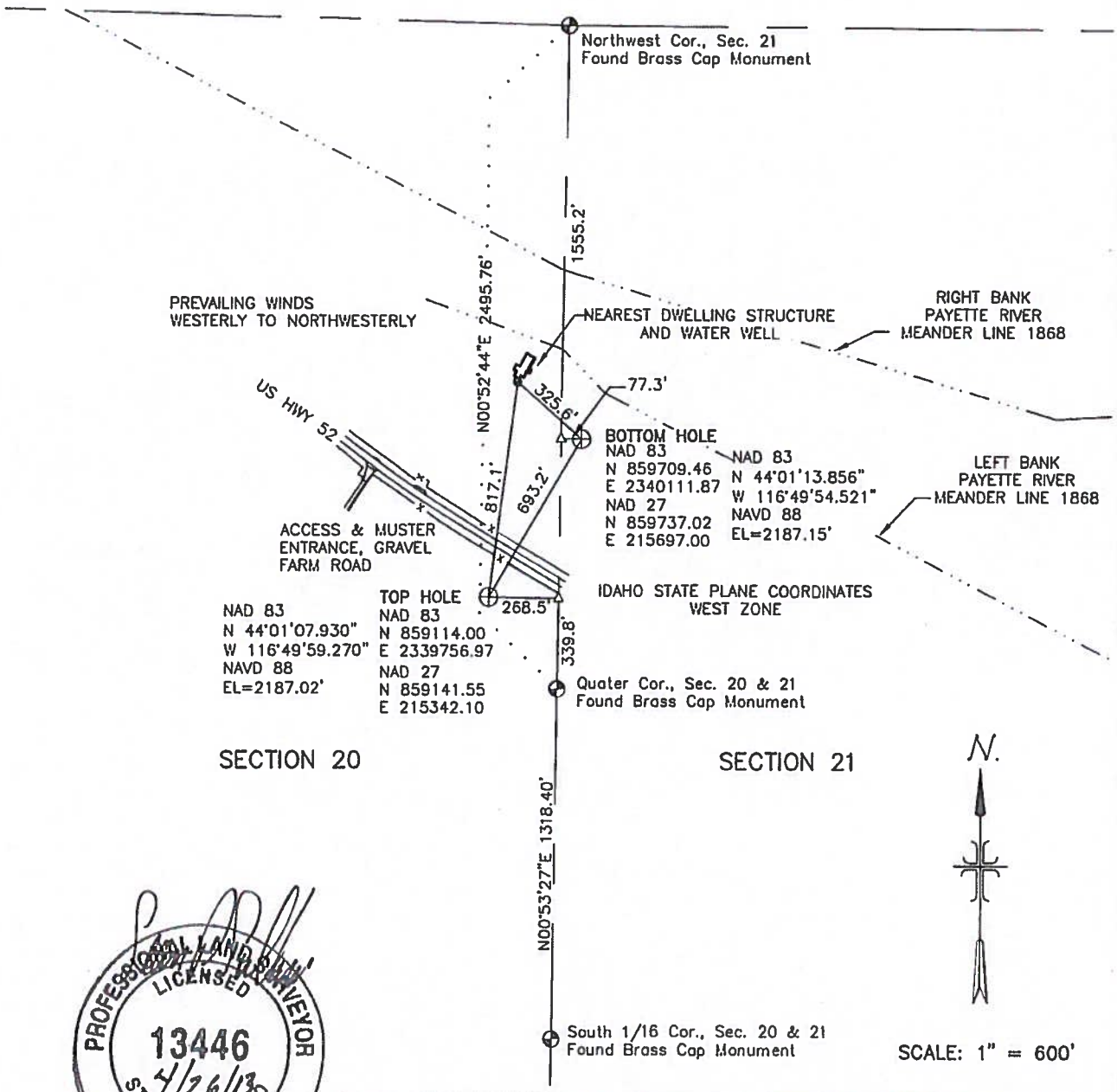
API Number: 11-075-20021

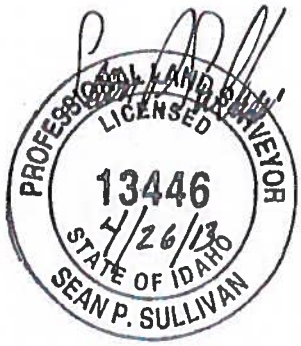
NOTICE: Before sending in this form, be sure that you have given all information requested. See instructions on back.

Rev. 05/31/12

EXHIBIT MAP OF
SMOKE RANCH LLLP 1-21

Lying in a Portions of the Section 20 & 21, Township 8 North, Range 4 West of the Boise Meridian, Payette County, Idaho 2013



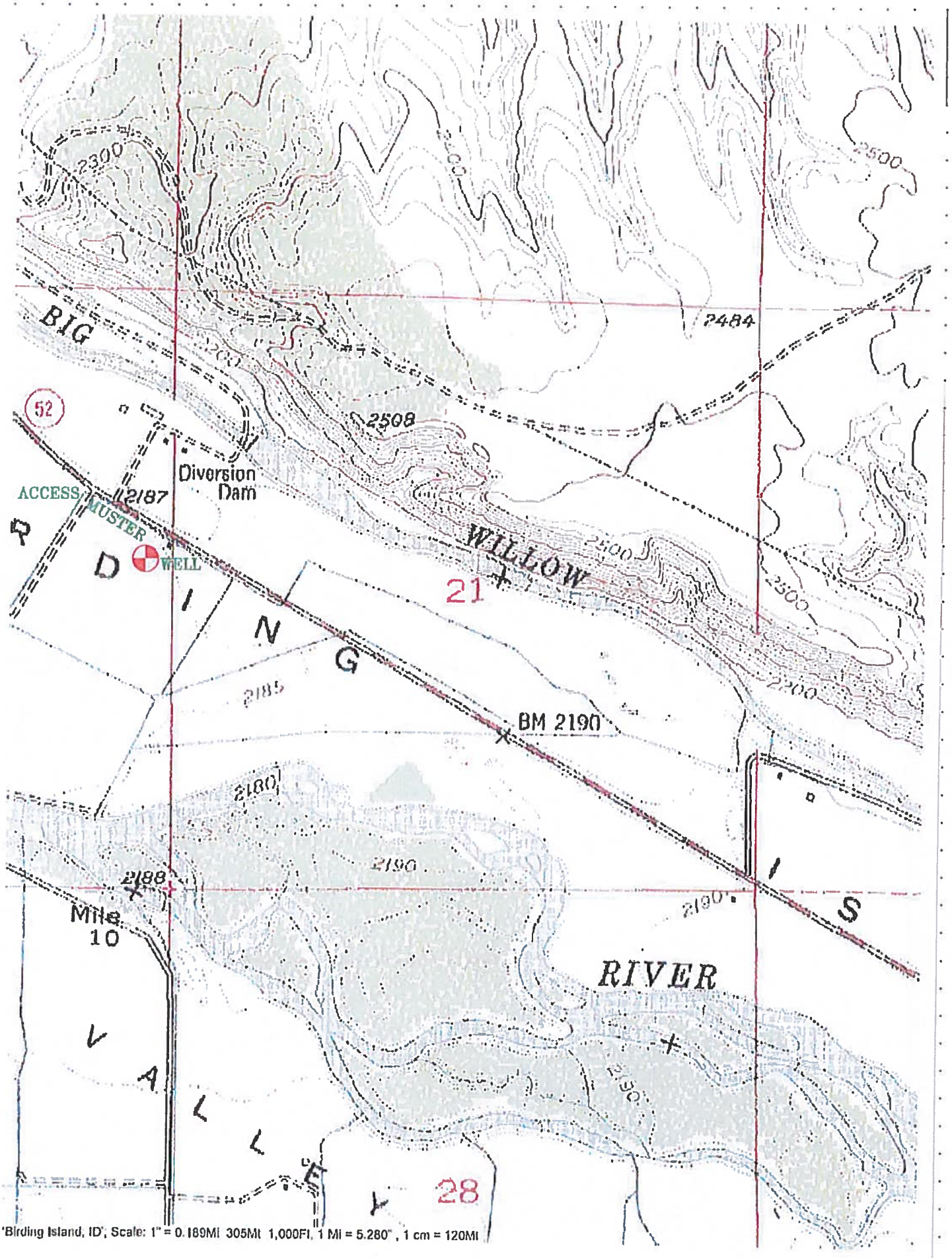


DATE: April 26, 2013	FILE: 0165-01 SMOKE RANCH LLLP 1-21.dwg

ALS

Surveyors • Planners

1103 West Main Street
Middleton, Idaho
208-585-5858



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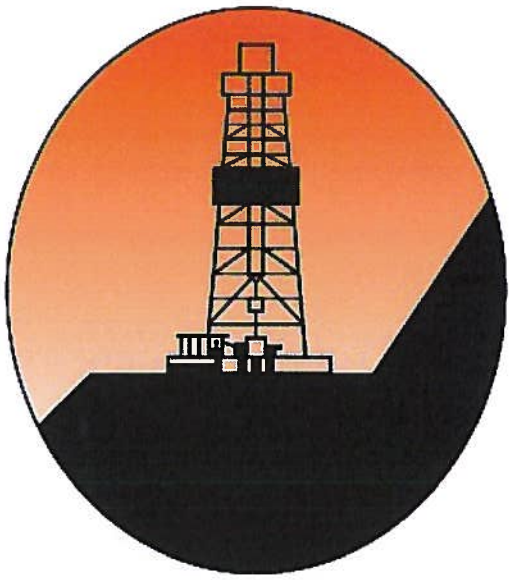

ALTA MESA

ALTA MESA SERVICES, LP

IDL Permit Supplement

Smoke Ranch LLLP 1-21

Willow

Payette County, ID

April 29, 2013

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1 Background Information

Objective: The objective of this operation is to drill a directional well to develop the "1-15 Sand".

AFE #: 113DC1462
Well Type: Directional
Well Name: Smoke Ranch LLLP 1-21
Field: Willow

County: Payette
State: Idaho
Section: 21
Township: 8N
Range: 4W

Mapping Reference:
System: NAD83 / NAD27
Zone: UTM11
SPCS: Idaho West Zone 1103

Mag Dec: -2.367° (15-Aug-2012)
Grid Conv: 0.167°
Total Corr: -2.534°

Coordinates:

Surface Location:
NAD83
Lat: N 44° 01' 07.930" (44.01887°)
Long: W 116° 49' 59.270" (116.83313°)
SPCS: 2339756.97 ft E
859114.00 ft N
NAD27
SPCS: 215342.10 ft E
859141.55 ft N

Bottom Hole Location:
NAD83
Lat: N 44° 01' 13.856" (44.02052°)
Long: W 116° 49' 54.521" (116.83181°)
SPCS: 2340111.87 ft E
859709.46 ft N
NAD27
SPCS: 215697.00 ft E
859737.02 ft N

Elevation:
GL: 2187.02 ft
RKB: 2197.02 ft

Planned TD:
MD: 5899.0 ft
TVD: 5820.0 ft

Operator #: NA
Field #: Willow
District:

Issue Date:
API #:
Permit #:

Contractor:

Rig:

Directions:

From Boise, take Interstate 84 West. Go 36.6 miles and take Exit 13 toward Black Canyon Junction. Go 0.2 miles and turn right onto Black Canyon Exit. Go 0.4 miles and turn left onto Sand Hollow Road. Go 5.8 miles and continue straight onto State Highway 52 West. Go 6.0 miles and location entrance will be on the left.

2 Geologic Prognosis

2.1 Prospect

[redacted]

2.2 PROPOSED WELL:

The well is to be directionally drilled to a measured depth of 5897' (5800' TVD). The Surface location being in Section 20-8N-4W and the Bottom hole location in Section 21-8N-4W (Payette County, Idaho).

2.3 POTENTIAL DRILLING HAZARDS:

[redacted]

Well Name	Offset Distance	Depth Gas Found	Comparable Depth/Formations in SR 1-21	Comments
Virgil Johnson #1	2.2 miles SE	[redacted]		
Tracy Trust 3-2	4.0 miles SE			
Interstate Finance #1	3.0 Miles NW			

[redacted]

2.4 Estimated Geological Formation Tops

		Est. Tops are +/- 300'			Correlation Wells		
		Alta Mesa	Alta Mesa	Alta Mesa	Bridge	Bridge	Bridge
		SR 1-21	SR # 1-21	SR #1-21	DJS 1-15	ML- 1-10	DJS 1-14
Formation Tops	Comments	Est. MD	Est. TVD	Est. SS	MD	MD	MD
[redacted]							

3 Site Preparation

3.1 Access Roads

Being removed from the highway, a ~450' roadbed, 30' wide, will be constructed. Drive-up access to the wellhead and a 150' x 150' workover pad will be permatized. The remainder of the drill pad will be constructed for temporary use. The location will be leveled to grade with wooden mats used for surface stability.

3.2 Erosion Control

Appropriate grading, mechanical and chemical stabilization (soil cement), and silt fencing will be used to prevent soil erosion.

3.3 Cellars

An 8' deep round cellar box will be installed after the conductor is installed per the relevant section below.

3.4 Pit System

A closed-loop circulating system will be used for this well from spud. Zero discharge practices will be implemented, and all cuttings and waste fluid will be solidified and disposed of at an approved facility.

3.5 Sump

The location will have a 2' deep trench on all sides where the spoil from that trench will be used to construct an earthen berm around the location. The trench will act as a sump to collect rain and wash water for controlled release or appropriate disposal as required.

4 Well Construction

4.1 Wellbore Schematic

REV 1.0
Prepared by: Alexis Husser
April 26th, 2013

Alta Mesa Services, LP
Willow Field – Payette County, ID
Smoke Ranch LLLP 1-21 – *Proposed* Wellbore Schematic

Depth Reference: Drill Floor
Drill Floor above GL: 20'
GL Elevation above MSL: 2187.0'

Bit & Directional	Evaluation	PP / FG
		PPG
17.5" Auger Vertical	None	8.4/9.2
10-5/8" Milled Tooth Vertical Drilled To: 850'/850'	None	8.4/11.1
7-7/8" PDC w/ PDM KOP @ 900' MD Build 3°/100' from 900' to 13.71° INC @ 30.79° AZI @ 1377' MD / 1372' TVD Hold to 3842' MD / 3767' TVD Drop 3°/100' from 13.71° INC @ 30.79° AZI to 0° @ 4299' MD / 4220' TVD	MWD: Mud Pulse WL: GR, SP Induction Res Density, Por	8.9/16.9

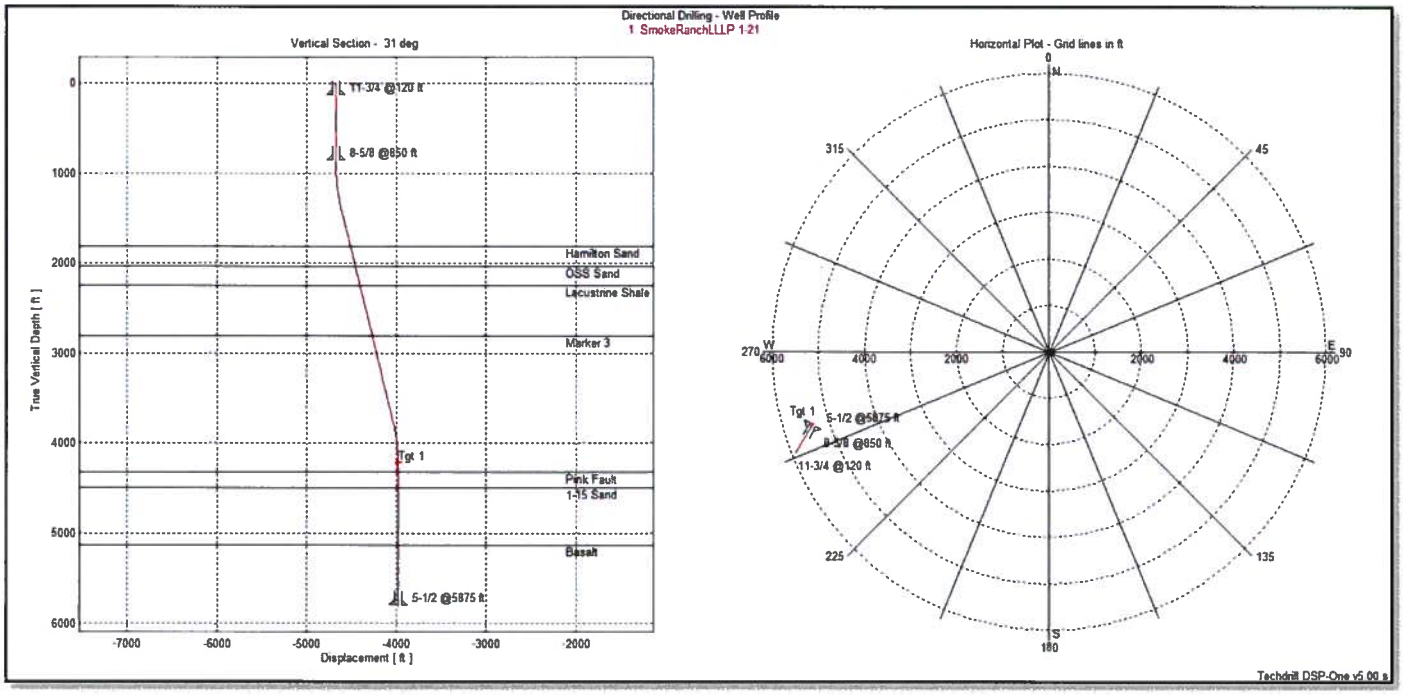
Drilling Fluid	Casing	Cement
Dry	13-3/8" Conductor 120' /120'	Grout
Spud Mud 8.5–9.0 ppg	8 5/8" 32.0# K-55 STC Set @: 850' /850'	Class A 13.5ppg Return to Surface Class A 15.8 ppg TOC @ 650'
8.5 Fresh Water Polymer 9.8	5 ½" 15.5# K-55 LTC Set @ 5,899'/5,899'	Class D 13.5 ppg Return to Surface Class D 15.8 ppg TOC @ 4,000'

4.2 Directional Plan

4.2.1 Justification

The geological target for this prospect, intersected with a vertical well, would require a surface location directly behind the landowner's home. Slight adjustment of the surface location, maintaining a vertical trajectory, might have compromised the target and egress limitations would have remained. To intersect the geological target successfully, minimize landowner impact, and eliminate additional access points on Highway 52, the well will be drilled directionally.

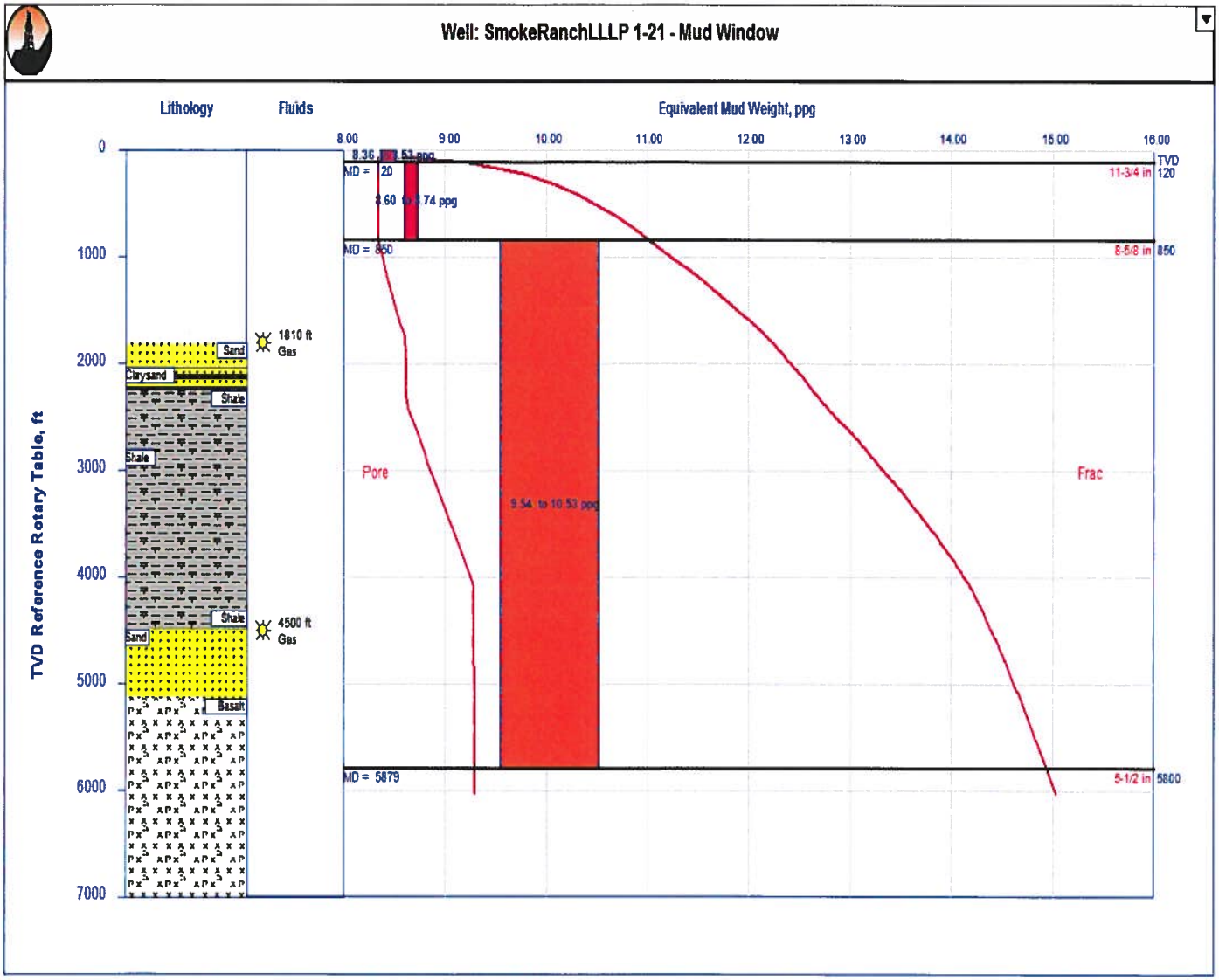
4.2.2 Vertical Section & Plan View



4.3 Pore Pressure and Formation Integrity

Normal pressures are anticipated through the surface hole, with a slight pressure ramp through the production hole to 9.29 PPG equivalent in the 1-15 Sand.

The fracture gradient is calculated using Eaton & Eaton (1998) modeled for Gulf Coast formations.



4.4 Blow-Out Preventers

4.4.1 BOP Hardware Configuration

BOP Stack configuration includes an annular preventer and double ram preventers. The top most ram preventer will be fitted with variable ram blocks, the lower ram preventer will be fitted with blind ram blocks. A full-opening safety valve, inside BOP, and functioning wrench – *specific to the pipe in use and only those specific to the pipe in use* – are to be kept on the rig floor with easy access at all times.

4.4.2 BOP Testing

Test annular, rams, choke manifold, FOSV, and IBOP when BOP is first nippled up on casing head. Low-pressure test to 250psi and high-pressure test to 5,00psi (100% of 5M wellhead), except for annular. Test annular preventer to 3,500psi (70% of 5,000psi rating). Test the kelly hose and standpipe back to pump isolation valves to 200 psi above pop off setting or minimum of 5,000 psi. All tests must hold for five minutes. Retest specific component each time a seal is broken. Work BOP's and flush choke lines each trip. Tighten BOP and wellhead bolts every 3 days. Non-ported float valves to be used in BHA after surface casing set.

During drilling and completion operations, the ram-type blow-out preventer shall be function tested by closing on the drill pipe once every seven (7) days. Independently powered accumulators or accumulators and pumps shall maintain a pressure capacity reserve at all times to provide for repeated operation of hydraulic preventers. All tests may be conducted using a test plug. Tests shall be recorded by charts, if required by the Supervisor.

4.5 13-3/8" Conductor

4.5.1 Specific HSE Considerations

None

4.5.2 Drilling

The conductor will be installed via auger and grout unless surface conditions dictate driving.

4.5.2.1 Directional Objective

It is imperative that the conductor be placed with as much verticality as reasonably possible to minimize any directional corrections in the surface hole. Driving and/or drilling forces should be managed to maintain verticality.

Hole Size	Action	From		Build /100'	Turn /100'	DLS /100'	To	
		MD/TVD	INC/AZ				MD/TVD	INC/AZ
17 ½"	Hold	22'	0°/0°	0°	0°	0°	120'	0°/0°

4.5.3 Casing

Set Depth	Top (RTE)	Size	Weight	Grade	Burst	Collapse	Centralizers
120'	20'	13 3/8"	61#	J-55	3090 psi	1540 psi	NO

4.6 10-5/8"" Surface Hole

4.6.1 Specific HSE Considerations

This hole interval will penetrate all usable water zones. Based on regional activity, there is a minimal risk of shallow formation instability in the surface hole. In the event that such instability occurs, and cannot be managed within 12 hrs, the surface hole will be enlarged to 12 ¼"" and a 10 ¾" contingency string will be set. This contingency MUST be reviewed and approved by Alta Mesa Engineering and the IDL supervisor.

4.6.2 Drilling

4.6.2.1 Directional Objective

The surface hole will be drilled to 850' MD/TVD with no inclination. Drilling WOB will be managed to maintain verticality throughout the section and to optimize ROP without inducing shock & vibration. Surveys will be obtained using gyro Multi-shot.

Hole Size	Action	From		Build /100'	Turn /100'	DLS /100'	To	
		MD/TVD	INC/AZ				MD/TVD	INC/AZ
10-5/8"	Hold	120'	0°/0°	0°	0°	0.0°	850'	0°/0°

4.6.2.2 Bottom Hole Assembly

The surface hole will be drilled with a 10-5/8" milled tooth bit and the bottom hole assembly as specified below.

Length	Cumul		Connection	OD in	ID in	lb/ft	S.R.
to surface		4-1/2" D.P.16.60# - G105 - Class II	TOP Box 4-1/2 XH * BTM Pin 4-1/2 XH	4.366	3.825	16.60	3.18
180.0 ft	416.0 ft	4-1/2" HWDP 42.00# - Range 3	TOP Box 4 IF * BTM Pin 4 IF	5.000	3.000	50.00	2.44
4.0 ft	236.0 ft	Xover - OD 6.50"	TOP Box 4 IF * BTM Pin 5-1/2 REG	6.500	2.813	91.65	1.26
60.0 ft	232.0 ft	7" D.C.	TOP Box 5-1/2 REG * BTM Pin 5-1/2 REG	7.000	2.813	109.66	1.50
4.0 ft	172.0 ft	Xover - OD 8.00"	TOP Box 5-1/2 REG * BTM Pin 6-5/8 REG	8.000	3.000	147.02	1.00
60.0 ft	168.0 ft	8" D.C.	TOP Box 6-5/8 REG * BTM Pin 6-5/8 REG	8.000	2.813	149.64	1.10
6.0 ft	108.0 ft	8-1/4" Stab. - Blade 12.125"	TOP Box 6-5/8 REG * BTM Pin 6-5/8 REG	8.250	2.813	161.00	1.10
30.0 ft	102.0 ft	8" D.C.	TOP Box 6-5/8 REG * BTM Pin 6-5/8 REG	8.000	2.813	149.64	1.10
6.0 ft	72.0 ft	8-1/4" Stab. - Blade 12.125"	TOP Box 6-5/8 REG * BTM Pin 6-5/8 REG	8.250	2.813	161.00	1.10
60.0 ft	66.0 ft	8" D.C.	TOP Box 6-5/8 REG * BTM Pin 6-5/8 REG	8.000	3.000	147.02	1.00
5.0 ft	6.0 ft	Bit Sub - OD 8.00"	TOP Box 6-5/8 REG * BTM Box 6-5/8 REG	8.000	3.000	147.00	
1.0 ft		Milled Tooth GTX-1 10.625 in	TOP Pin 6-5/8 REG				

Well: SmokeRanchLLLP 1-21
String: No Name

4.6.2.3 Mud System

The surface hole will be drilled using spud mud. Additives will be included for inhibition and also to build high-vis sweeps as necessary.

Measured Depth, ft	Mud Density, ppg	Funnel Viscosity, cP	Yield Point, lb/100ft^2	API Fluid Loss, ml	pH	LGS %
110 - 850'	8.6	25-36	8-12	N/C	7.0-8.0	4 - 7

4.6.2.4 Torque & Drag

Vertical through this interval. Monitor PU & SO weight to ensure good hole cleaning.

4.6.3 Open Hole Evaluation

No open-hole evaluation will be conducted in this interval

4.6.4 Casing

The surface casing is to be set at a depth that isolates problematic formations and usable water strata. Special drift is required.

Set Depth	Top (RTE)	Size	Weight	Grade	Conn	Drift	Burst	Collapse	Tension
850'	20'	8 5/8"	32.0#	K-55	LTC	7.875"	3930 psi	2530 psi	503 kips

4.6.4.1 Shoe Track

1. Washdown guide shoe – thread locked
2. Single Casing joint – thread locked
3. Float Collar – thread locked
4. Joints to surface

4.6.4.2 Centralizers

- Type: Bow Spring
- Placement: One each, first four joints. One every third joint to surface.

4.6.5 Cementing Operations

Displacement

Volume from Surface to Landing Collar : 46.9 bbl

Static Fluid Pressure at End of Job

Inside Pressure : 406 psi
Annulus Pressure : 579 psi
Final Differential Pressure : 173 psi

Pumping Schedule

Spacer1	4.00 mn	20.0 bbl	@	0.00 ft
Spacer2	4.00 mn	20.0 bbl	@	0.00 ft
Btm Plug	2.00 mn			
Tail Slurry	7.11 mn	35.5 bbl	@	20.00 ft
Top Plug	2.00 mn			
Mud	6.14 mn	43.0 bbl	@	0.00 ft

Slow Displacement 7.72 mn 3.9 bbl @ 0.00 ft
TOTAL PUMPING TIME 33 mn

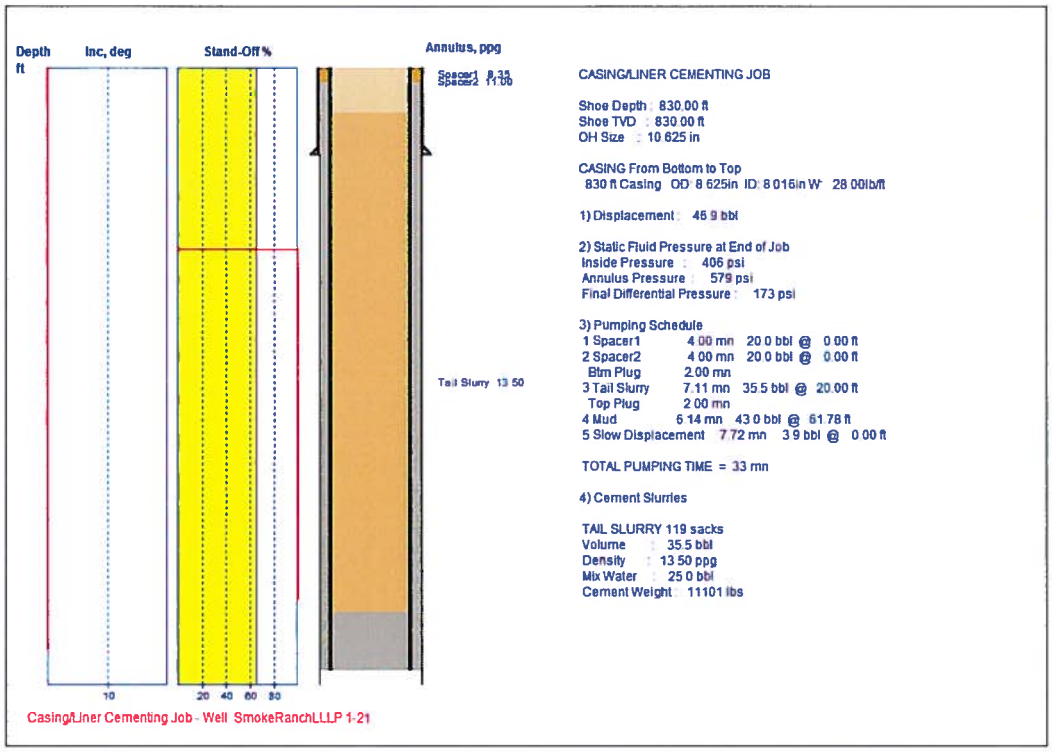
Cement Slurries

TAIL SLURRY: 119 sacks
Volume : 35.5 bbl
Density : 13.50 ppg
Mix Water : 25.0 bbl
Cement Weight : 11101 lbs

Free Fall Analysis

Maximum Pumping Rate : 7.0 bbl
Maximum Return Rate : 9.3 bbl
Max Injection Pressure : 257 psi

Depth of Interest : 829.90 ft
TVD of Interest : 829.90 ft
Maximum Pressure : 601 psi
Maximum EMW : 13.96 ppg
Minimum Pressure : 390 psi
Minimum EMW : 9.05 ppg



4.7 7-7/8" Production Hole

Upon drilling out of the 8 5/8" casing, the 7-7/8" hole will be drilled vertically to ~900', then kicked to the northeast and dropped back to vertical @ ~4,200'.

4.7.1 Specific HSE Considerations

This hole section will be drilled through hydrocarbon bearing formations. Any fluid containing oily cuttings and the contaminated cuttings are to be managed appropriately to maintain a safe working area and prevent environmental damage.

4.7.2 Drilling

4.7.2.1 Directional Objective

Hole Size	Action	From		Build /100'	Turn /100'	DLS /100'	To	
		MD/TVD	INC/AZ				MD/TVD	INC/AZ
7-7/8"	Hold	850'	0°/0°	0°	0°	0°	900'	0°/0°
	Build	900'	0°/0°	3.0°	0°	2.5°	1377'/1372'	13.71°/30.79°
	Hold	1377'/1372'	13.71°/30.79°	0°	0°	0°	3842'/3767'	13.71°/30.79°
	Drop	3842'/3767'	13.71°/30.79°	-3.0°	0°	2.5°	4299'/4220'	0°/0°
	Hold	4299'/4220'	0°/0°	0°	0°	0°	5899'/5820'	0°/0°

4.7.2.2 Bottom Hole Assembly

The BHA will be managed over the production interval to address significant formation changes and formation evaluation requirements. The BHA is representative, where the bit and specific collar arrangement may vary.

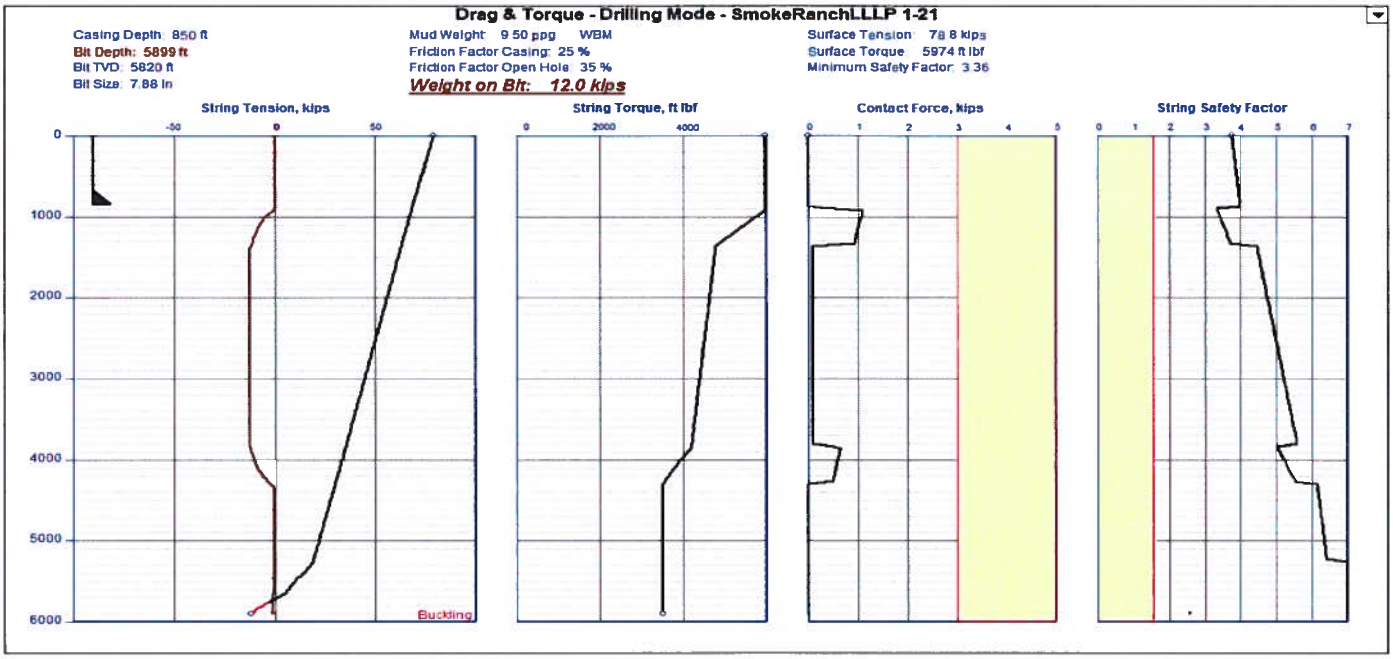
Length	Cumul		Connection	OD in	ID in	lb/ft	S.R.
to surface				4.366	3.825	16.60	2.29
186.0 ft	644.4 ft			4.500	2.750	42.00	2.70
18.8 ft	458.4 ft			6.000	2.250	96.00	2.70
186.0 ft	439.6 ft			4.500	2.750	42.00	3.38
5.0 ft	253.6 ft			6.500	2.813	91.65	1.00
155.0 ft	248.6 ft			6.500	2.813	91.65	1.10
30.0 ft	93.6 ft			6.250	2.250	90.51	1.13
4.0 ft	63.6 ft			6.000	2.250	82.50	1.25
3.0 ft	59.6 ft			6.500	2.813	91.65	1.12
27.0 ft	56.6 ft			6.750	3.000	37.04	1.33
4.7 ft	29.6 ft			6.750	4.900	85.10	1.28
3.0 ft	24.9 ft			6.750	3.500	89.15	1.28
21.0 ft	21.9 ft			6.750	4.894	80.00	
0.9 ft		PDC MKF58 7.875 in	TOP Pin 4-1/2 REG	Well: SmokeRanchLLLP 1-21 String: No Name			

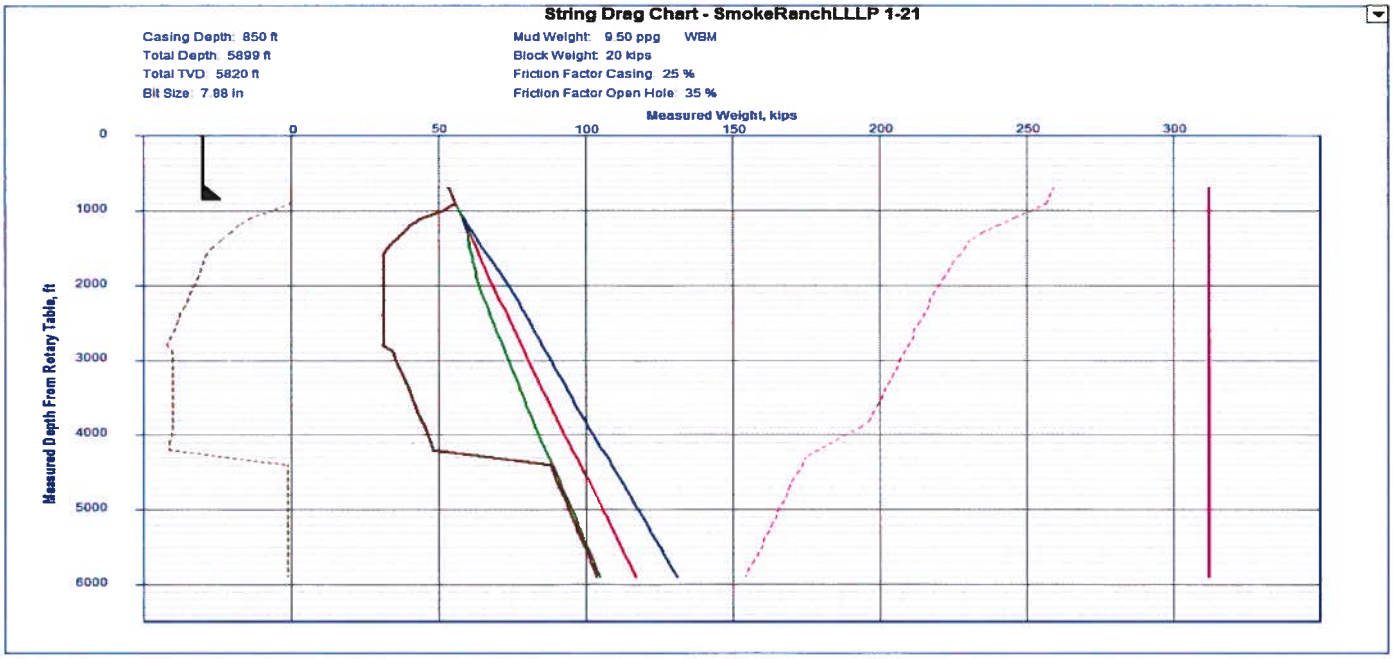
4.7.2.3 Mud System

See mud program for specific recommendations.

4.7.2.4 Torque & Drag

Below are the T&D charts for Rotary Drilling at total depth and Tripping.





4.7.3 Logging Program

While Drilling: Mud logging only

Coring: None

Wireline: After reaching TD, and conditioning the hole, wireline evaluation will be conducted as follows:

- Spontaneous Potential
- Gamma Ray
- Propagation Resistivity
- Density
- Neutron Porosity
- Electron Capture Spectroscopy

4.7.4 Production Casing

The production casing string is designed with varying grades to accommodate H2S production and salt creep. Below is the primary casing design and the contingency design with HCP-110 for salt intervals.

Set Depth	Top (RTE)	Size	Weight	Grade	Conn	Drift	Burst	Collapse	Tension
5,899	20'	5 ½"	15.5#	K-55	LTC	4.825"	4810 psi	4040 psi	248 kips

4.7.4.1 Shoe Track

5. Washdown float shoe – thread locked
6. Double Casing joint – thread locked
7. Float Collar – thread locked
8. Joints to surface

4.7.4.2 Centralizers

- Type: Bow Spring
- Placement: One each, first four joints. One every third joint to TOC

4.7.5 Cementing Operations

Displacement

Volume from Surface to Landing Collar : 137.4 bbl

Static Fluid Pressure at End of Job

Inside Pressure : 2874 psi
Annulus Pressure : 4128 psi
Final Differential Pressure : 1254 psi

Pumping Schedule

Spacer1	5.60 mn	20.0 bbl	@	0.00 ft
Spacer2	5.60 mn	20.0 bbl	@	0.00 ft
Btm Plug	2.00 mn			
Lead Slurry	30.78 mn	108.0 bbl	@	20.00 ft

Tail Slurry	14.76 mn	59.0 bbl	@ 4000.00 ft
Top Plug	2.00 mn		
Mud	22.50 mn	135.0 bbl	@ 0.00 ft
Slow Displacement	4.77 mn	2.4 bbl	@ 0.00 ft
TOTAL PUMPING TIME	88 mn		

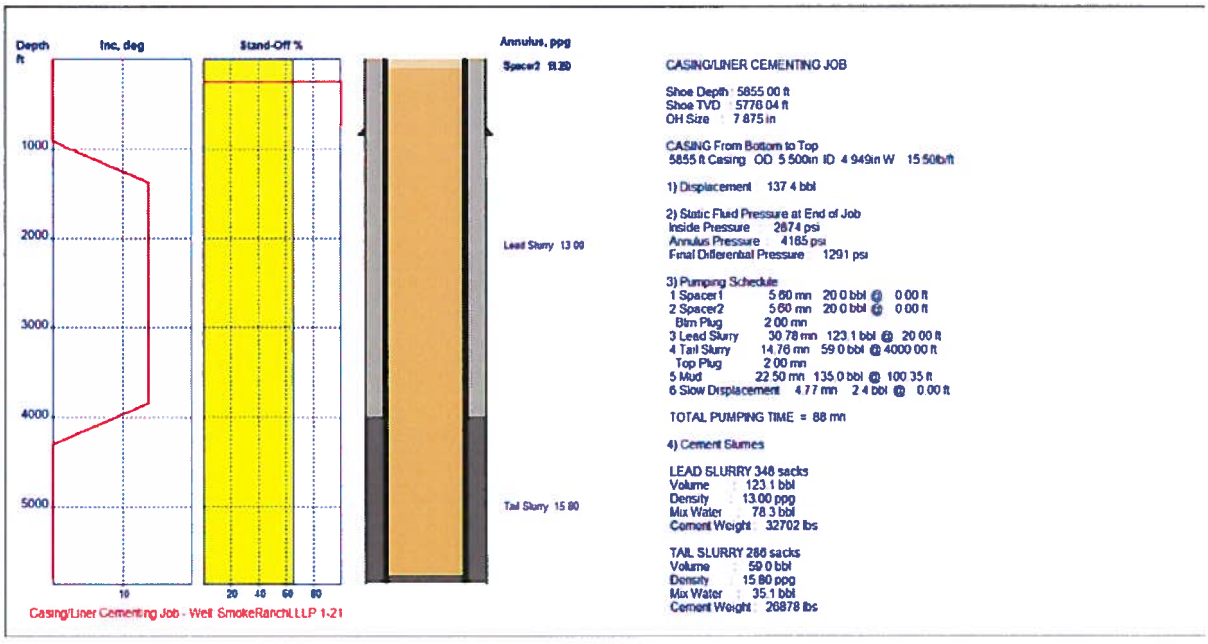
Cement Slurries

LEAD SLURRY: 348 sacks
Volume : 123.10 bbl
Density : 13.00 ppg
Mix Water : 78.3 bbl
Cement Weight : 32702 lbs
TAIL SLURRY: 286 sacks
Volume : 59.0 bbl
Density : 15.80 ppg
Mix Water : 35.1 bbl
Cement Weight : 26878 lbs

Free Fall Analysis

Maximum Pumping Rate : 6.0 bbl
Maximum Return Rate : 6.5 bbl
Max Injection Pressure : 1688 psi

Depth of Interest : 5854.90 ft
TVD of Interest : 5775.94 ft
Maximum Pressure : 4224 psi
Maximum EMW : 14.09 ppg
Minimum Pressure : 2879 psi
Minimum EMW : 9.60 ppg



5 Completion

Method of completion will be determined subsequent to review of open-hole log data and cased hole cement bond logs (CBL).

6 Well Head – Design Criteria

At this time wellhead proposals are pending, but those proposals are being developed according to the following design criteria.

- Working Conditions:
  - 0ppm H2S
  - 0% CO2
  - 5,000#
  - PSL1
  - AA
  - Temperature Class U (0-250 F)
  - Base Plate on A-Section
- Casing Program:
  - 13 3/8" Conductor
  - 8 5/8" Surface Pipe
  - 5 ½" Production String
- Contingency:
  - In the area there have been instances of unconsolidated sands causing problems in the surface hole, where the most effective solution is opening up to 12 ¼" and setting a short string of 10 ¾" Surface Pipe, followed by the 8 5/8" and 5 ½" strings at the planned depths. Need proposal for base case and contingency.
- BOP:
  - 11"x5M Cameron Type U
- Consideration:
  - Would like to minimize improve NU speed an minimize need for cutting and welding. A speed head would be desirable.

7 Reclamation

This well site is located in a pasture with negligible relief. Reclamation of the site will be addressed according to the Surface use Agreement signed with the landowner per IDAPA 20.07.02 Section 325.08

PERKINS & TROTTER PLLC
Attorneys and Counselors

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May 20, 2013

Mr. Eric Wilson
Idaho Department of Lands
Idaho Oil and Gas Conservation Commission
300 N. 6th Street
Suite 103
Boise, ID 83702

RE: Exceptional Location Letter Application
Section 21, Township 8 North, Range 4 West
Willow Field, Payette County, Idaho

Mr. Wilson,

Please allow this letter to serve as Alta Mesa Services, LP's application for an exceptional location for its well proposed in Section 21, Township 8 North, Range 4 West in the Willow Field located in Payette County, Idaho. The well permit application has previously been transmitted for your consideration and Alta Mesa Services, LP ("Applicant") requests that this letter application be attached to the well permit as an additional submittal.

In accordance with IDAPA 20.07.02.330.04, the Applicant submits with this application a plat which provides the following information:

a. The location at which an oil or gas well could be drilled in compliance with Subsections 330.01 or 330.02 or the applicable order; (*demonstrated as the nearest potential well location within Section 21*)
b. The location at which the applicant requests permission to drill; and (*demonstrated by the Proposed Well Location*)
c. The location at which oil or gas wells have been drilled or could be drilled, in agreement with Subsection 330.01 or 330.02 or the applicable order, directly or diagonally offsetting the proposed exception. (*No wells exist at this time in any of the offsetting sections. Potential locations are demonstrated by the 1,660 foot legal location boxes shown within each section.*)

It should be noted that Alta Mesa Services, LP is the only working interest owner in the offset sections and thus would be operator in each of those sections.

The Applicant, Alta Mesa Services, LP, requests the approval of an exceptional location due to surface and reservoir characteristics related to the target formation. The proposed surface hole and bottom hole locations are the most protective of the environment; are the most

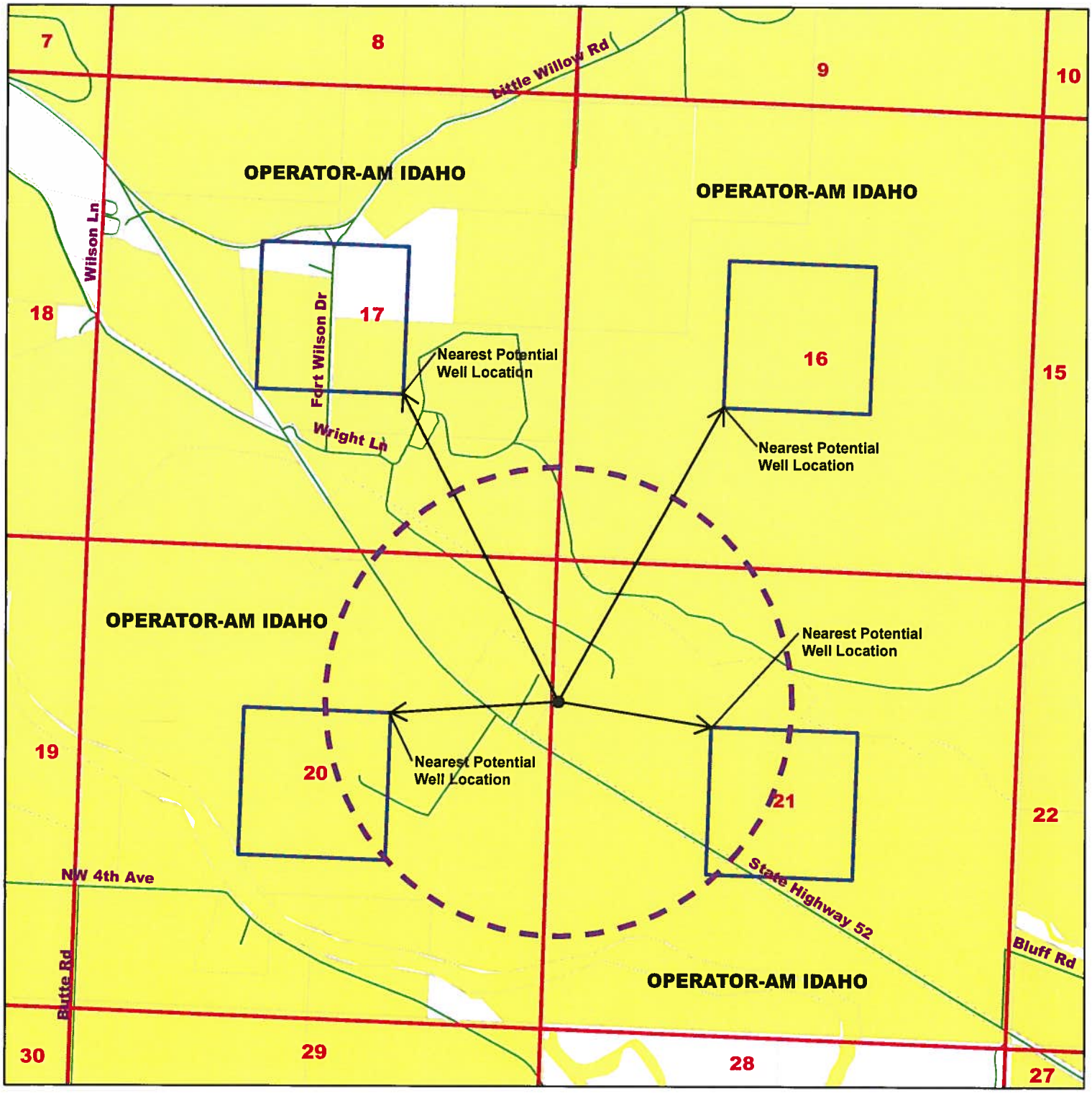
prospective for [redacted] and are necessary to prevent waste and avoid stranding of resources.

The target formation presents the optimal drilling target at the location selected by the Applicant. Specifically, [redacted]. Geologically, the selected target is believed to be the best potential location [redacted] with the greatest chance that the target will be prospective for [redacted]. Selection of this location will reduce the number of wells necessary to fully develop the prospect by selecting the target with the greatest drainage potential which will prevent economic waste; prevent drilling of additional otherwise unnecessary wells which causes additional surface impacts; and avoid creating areas within the reservoir that are incapable of being drained.

For the reasons stated above, Alta Mesa Services, LP respectfully requests the approval of this exceptional location. If you have further questions, please contact me.

Sincerely,

John F. Peiserich



Well Prospect in Section 21 T8N R4W

05/16/13

Legend

- Legal Location
- Anticipated Well Drainage Zone (1 Mile Diameter Circle)
- Section Lines
- Roadways
- Property Boundary
- AM Idaho
- Proposed Well Location

N

1 inch equals 1,500 feet

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Little Rock, Arkansas 72202

May 20, 2013

Mr. Eric Wilson
Idaho Department of Lands
Idaho Oil and Gas Conservation Commission
300 N. 6th Street
Suite 103
Boise, ID 83702

RE: Directional Deviation Letter Application
Section 21, Township 8 North, Range 4 West
Willow Field, Payette County, Idaho

Mr. Wilson,

Please allow this letter to serve as Alta Mesa Services, LP's application for a directional deviation for its well proposed in Section 21, Township 8 North, Range 4 West in the Willow Field located in Payette County, Idaho. The well permit application has previously been transmitted for your consideration and Alta Mesa Services, LP ("Applicant") requests that this letter application be attached to the well permit as an additional submittal.

In accordance with IDAPA 20.07.02.170.02, the Applicant submits the following information:

a. Alta Mesa Services, LP
15021 Katy Freeway, Suite 400
Houston, TX 77094

b. Smoke Ranch LLP 1-21
Willow Field, 1-15 Sand, Payette County

c. Surface Hole Location

2,300.2 feet from the North Section Line and 268.5 feet from the East Section Line of Section 20, Township 8 North, Range 4 West

NAD83		NAD27	
Lat:	N 44.01887°	SPCS:	215342.10 ft E
Long:	W 116.83313°		859141.55 ft N

Bottom Hole Location

1,552,2 feet from the North Section Line and 77.3 feet from the West Section Line of Section 21, Township 8 North, Range 4 West

NAD83		NAD27	
Lat:	N 44.02052°	SPCS:	215697.00 ft E
Long:	W 116.83181°		859737.02 ft N

d. The proposed deviation is request to meet lease obligations to the landowner; avoids unnecessary damages to the surface; and allows for the most effective drainage of the reservoir by placing the bottom hole at a location which is most prospective for oil and/or gas. Accordingly, it prevents waste and avoids stranding of resources. Specifically the surface hole location directly above, i.e. the location that would require no directional deviation, is located in the near proximity to the landowner's home, approximately 325.6 feet, and the resulting well location would be directly viewed from his porch. The proposed surface hole location is located 817.1 feet from the landowner's home across State Highway 52. Additionally, that a directly vertical surface hole location would be located along the bank of Big Willow Creek where a diversionary dam is currently located. The placement of a well pad in the vertical location would present an unacceptable interference with landowner farming operations and require substantial grading which would adversely impact water conservation and use by the landowner. As a result, the Applicant, in coordination with the landowner, has selected a significantly more appropriate location that can be developed without the same impacts.

e. Alta Mesa Services, LP holds the majority leasehold positions and is the offset operator in each of the offset sections. No other operator exists in any of the offset sections thus no notice is required.

f. Below is the signature of Alta Mesa Services, LP's authorized representative.

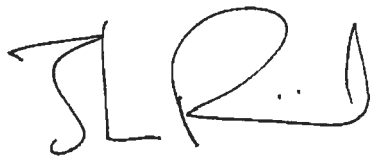
g. As referenced in e. above, no other operators exist.

h. This application is accompanied by a survey which shows the surface hole location and the bottom hole location. Additionally, the application is accompanied by a plat which shows that Alta Mesa Services, LP is the offset operator in each of the offset sections.

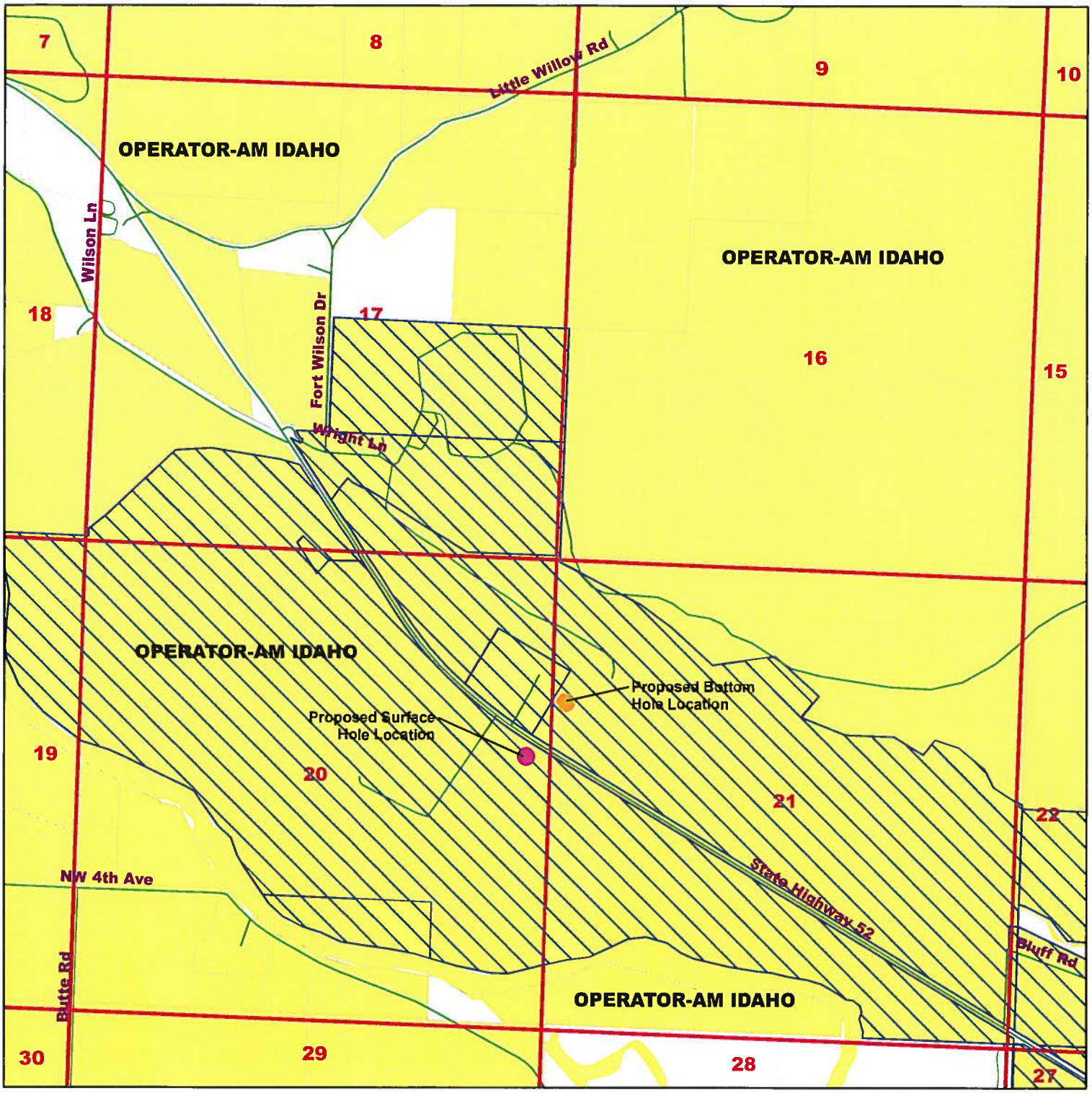
Pursuant to IDAPA 20.07.02.170.04, Alta Mesa Services, LP requests that, since no other offset operators exist and it is the only offset operator, the Department treat this application as written consent by the offset operator and thereby waive the fifteen (15) day waiting period otherwise required.

For the reasons stated above, Alta Mesa Services, LP respectfully requests the approval of this exceptional location. If you have further questions, please contact me.

Sincerely,



John F. Peiserich



Proposed Well Location in Section 20 & 21 T8N R4W

05/20/13

Legend

- AM Idaho
- Smoke Ranch/Colwell Leases
- Section Lines
- Roadways
- Proposed Surface Hole Location
- Proposed Bottom Hole Location

N

1 inch equals 1,500 feet