

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
BUREAU OF LAND MANAGEMENT

OCD-HOBBS

HOBBS OCD

FORM APPROVED  
OMB No. 1004-0135  
Expires: January 31, 2004

SUNDRY NOTICES AND REPORTS ON WELLS

Do not use this form for proposals to drill or to re-enter an abandoned well. Use Form 3160-3 (APD) for such proposals.

RECEIVED  
MAY 02 2012

SUBMIT IN TRIPLICATE- Other instructions on reverse side.

1. Type of Well <input type="checkbox"/> Oil Well <input type="checkbox"/> Gas Well <input checked="" type="checkbox"/> Other	5. Lease Serial No LC 029509B
2. Name of Operator Frontier Field Services	6. If Indian, Allottee or Tribe Name N/A
3a. Address 4200 Skelly Dr., St. 700, Tulsa OK 74135	7. If Unit or CA/Agreement, Name and/or No. N/A
3b. Phone No (include area code) 918-388-8408	8. Well Name and No. Maljamar AGi #1
4. Location of Well (Footage, Sec., T., R., M., or Survey Description) 130' FSL, 1813' FEL Sec. 21, T 17 S, R 32 E, NMPM, Lea Co. NM Acid Gas Injection Well, Unorthodox Location	9. API Well No. 30-025-40420
	10. Field and Pool, or Exploratory Area Exploratory (Lower Wolfcamp)
	11. County or Parish, State Lea

12. CHECK APPROPRIATE BOX(ES) TO INDICATE NATURE OF NOTICE, REPORT, OR OTHER DATA

TYPE OF SUBMISSION	TYPE OF ACTION			
<input checked="" type="checkbox"/> Notice of Intent	<input type="checkbox"/> Acidize	<input type="checkbox"/> Deepen	<input type="checkbox"/> Production (Start/Resume)	<input type="checkbox"/> Water Shut-Off
<input type="checkbox"/> Subsequent Report	<input type="checkbox"/> Alter Casing	<input type="checkbox"/> Fracture Treat	<input type="checkbox"/> Reclamation	<input type="checkbox"/> Well Integrity
<input type="checkbox"/> Final Abandonment Notice	<input type="checkbox"/> Casing Repair	<input type="checkbox"/> New Construction	<input type="checkbox"/> Recomplete	<input checked="" type="checkbox"/> Other plug back lost hole and side track to TD
	<input checked="" type="checkbox"/> Change Plans	<input type="checkbox"/> Plug and Abandon	<input type="checkbox"/> Temporarily Abandon	
	<input type="checkbox"/> Convert to Injection	<input type="checkbox"/> Plug Back	<input type="checkbox"/> Water Disposal	

13. Describe Proposed or Completed Operation (clearly state all pertinent details, including estimated starting date of any proposed work and approximate duration thereof. If the proposal is to deepen directionally or recompleat horizontally, give subsurface locations and measured and true vertical depths of all pertinent markers and zones. Attach the Bond under which the work will be performed or provide the Bond No on file with BLM/BIA. Required subsequent reports shall be filed within 30 days following completion of the involved operations. If the operation results in a multiple completion or recompleat in a new interval, a Form 3160-4 shall be filed once testing has been completed. Final Abandonment Notices shall be filed only after all requirements, including reclamation, have been completed, and the operator has determined that the site is ready for final inspection.)

Please see attached detail of Emergency Request for approval to set cement plug and sidetrack well. The attachment contains the description of the work to be done including detailed cementing program, description of dress off procedure and detailed directional drilling plan.

We respectfully request approval of this plan today as we are on standby to set cement later today.

14. I hereby certify that the foregoing is true and correct  
Name (Printed/Typed)

Alberto A. Gutierrez, RG

Signature

Title Consultant to Frontier Field Services, LLC

Date 4/25/2012

THIS SPACE FOR FEDERAL OR STATE OFFICE USE

Approved by

Conditions of approval, if any, are attached. Approval of this notice does not warrant or certify that the applicant holds legal or equitable title to those rights in the subject lease which would entitle the applicant to conduct operations thereon.

Title

Office

WESLEY W. INGRAM  
PETROLEUM ENGINEER

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.

(Instructions on page 2)

MAY 03 2012

**Maljamar AGI #1 Request to Set Cement Plug and Sidetrack**

On April 12, 2012, after drilling to a depth of 5843 ft the drill pipe became stuck. WRH Fishing Company (Roswell, NM) was retained to provide fishing services in an attempt to get the stuck pipe free. Surface jarring produced little results. Wireline free point surveys were run which indicated 100% stuck pipe below 5457 ft and free pipe above 5361 ft. A backoff service was used to backoff the top drill collar and the drill pipe at 5361 ft, leaving approximately 633 ft of drill collars, stabilizers, a shock sub, and the bit in the hole. During the next 12 days, numerous attempts were made to free the fish including jarring, washing over collars, backing off freed collars, more jarring, washing over stabilizers, and ultimately washing over the fish to the top of the bit. On April 24, 2012, after pulling nearly 150,000 lbs over string weight, the grapple broke free from the overshot and was lost in the hole on top of the fish. At that point, the chances of retrieving a broken grapple on top of a stuck fish did not appear good, so further fishing operations were abandoned. A grapple, a shock sub, and a bit (approximately 11 feet total) were left in the hole.

On 4/22/12 we requested an extension of the waiver for the Lesser Prairie Chicken timing restriction to allow us to complete operations due to the delay caused by the unexpected fishing operations. A phone call with Don Peterson of the Carlsbad District on 4/23/12 indicated that BLM would issue the extension.

**AKA ENERGY REQUESTS APPROVAL TO SET CEMENT PLUG AND SIDETRACK THE WELL AS PER THE FOLLOWING PLAN:**

We will use Halliburton to pump 200 sx of Class C Regular cement containing 0.7% Halad(R)-322 fluid loss additive. Density = 16.8 ppg and yield = 1.02 ft<sup>3</sup>/sx. Open ended drill pipe will be lowered to 5790 ft (7 ft above the fish) and the cement will be pumped from there to reach a height of 600 ft (top of cement will be approximately 5190 ft). We will wait on cement at least 24 hours before dressing off (see attached Halliburton Cementing Plan).

Based on discussions with Scientific Drilling we anticipate the cement can be adequately dressed off within 100 ft of the top, starting a kickoff point approximately 500 ft above the top of the fish and current depth. This will leave a competent cement plug in the Glorieta Dolomite approximately 500 feet thick (approximately 5300'-5800') From there they propose to turn the hole in a 225 degree (south westerly) direction with a dogleg severity of no more than 2 degrees per 100 feet. The hole will be returned to vertical with a lateral displacement of 21 feet from the original borehole. We will then follow a vertical path to an expected TD of 10,000 ft. Completion of the well will be as originally proposed in the APD (see attached Scientific Drilling directional plan)

Please let us know today if this plan meets with your approval as we hope to set cement plug later today.

The Road to Excellence Starts with Safety						
Sold To #: 304429		Ship To #: 2915495		Primary Sales Order #: 9466402		
Customer: PB ENERGY STORAGE SERVICES INC			Job Purpose: Plug Service - Whipstock			
Well Name: Frontier Maljamar AGI			Well #: 1		API/UWI #: 30-025-40420	
Field:		City: MALJAMAR		County/Parish: Lea		State/Prov: New Mexico
Customer Rep: Ardoin, Gerald Mobile:432-400-2384						
Ordered By: Ardoin, Gerald Mobile:432-400-2384						
Contractor: United Drilling;						
Rig/Platform Name/Num: United Drilling 41					Location: Land	
Sales Person: COOPER, JAMES				Status: Job Scheduled		
PPE, Safety Huddles, JSA's, HOC & Near Miss Reporting, BBP Observations						
Distance/Mileage(1 way) Srvcs:		30.0 miles		Distance/Mileage(1 way) Mtls:		30.0 miles
Call Taken By:		LOUIS SOSA		Call Taken Date/Time:		
Call Out Crew Date/Time:				Rqstd On Location Date/Time:		25-Apr-2012 14:00 MST
				Rqstd Job Start Date/Time:		25-Apr-2012 15:00 MST
HSE Information						
H2S Present:		Unknown		CO2 Present:		Unknown
Drive Safely. Lights On for Safety. Wear Seat Belts. Observe all HES / Customer Safety Policies.						
Directions: On 62/180 to 529 turn right for 23 miles to MM7 (Maljamar Rd) turn right for 1.8 miles to Conoco Rd rig will be on the right.						
Remarks						
General: SERVICE SUPERVISORS, YOU NEED TO MAKE SURE TICKET IS ACCURATE BEFORE RECEIVING CUSTOMER SIGNATURE. IF YOU HAVE ANY DOUBT IN YOUR MIND THAT YOU ARE NOT SURE OF PRICING, PLEASE CONTACT A COORDINATOR IF NO SERVICE LEADER IS ON LOCATION.						
WILL CALL						
4/25 THIS IS A READY NOW JOB. HAVE BULK PLANT LOAD CEMENT CATCH SAMPLE AND GET TO LAB NOW. DO NOT LEAVE THE YARD WITH CEMENT UNTIL WE HAVE BLESSING FROM LAB. LOUIS SOSA						
4/25 HAVE BULK PLANT USE THE CEMENT THAT WAS LOADED FOR THE XTO NASH UNIT 50H. THEY WILL NEED TO REBLEND WITH AN ADDITIONAL .2% HALAD 322. LOUIS SOSA						
Pumping Equipment (Generic)						
Description	Qty	Comments	Description	Qty	Comments	
RCM PUMP TRUCK	1		PICK UP TRUCK	1		
BULK TRUCKS	1		BOOSTER PUMP	1		
Surface Equipment (Generic)						
Description	Qty	Comments	Description	Qty	Comments	
DRILL PIPE PIN	1		LO-TORC VALVES 2"	1		
Job Info / Well Data						
Job Depth (MD) ft	Job Depth (TVD) ft	Max Pressure psig	Well Fluid Type	Well Fluid Weight lbm/gal	Displacement Fluid	Displ Fluid Weight lbm/gal
9000.0	5790.0					
Job Tubulars/Tools						

Description	Size in	Weight lbm/ft	ID in	Thread	Grade	Top MD ft	Btm MD ft	Top TVD ft	Btm TVD ft	Shoe Jnt ft	% Excess											
<b>Drill Pipe</b>	<b>4.5</b>		<b>3.826</b>			<b>0.0</b>	<b>5,790.0</b>				<b>0</b>											
<b>7 5/8" Pilot Hole</b>			<b>7.625</b>			<b>0.0</b>	<b>5,790.0</b>				<b>0</b>											
<b>Tie on Connection</b>																						
Size: <b>4 1/2 in</b>	Thread: <b>X-HOLE (XH)</b>				Type: <b>Drill Pipe</b>				Cross Over Required: <b>No</b>													
<b>Materials</b>																						
Stage/Plug #: 1																						
Fluid #	Fluid Name	Package/SBM/Material Name			Rqstd Del Qty	UOM	Density lbm/gal	Yield ft <sup>3</sup> /sk	Mix Fluid Gal/sk	Rate bbl/min	Fluid+Liq AddGal/sk											
<b>1</b>	<b>Plug Cement</b>	<b>Plug Cement</b>			<b>200</b>	<b>sacks</b>	<b>16.8</b>	<b>1.02</b>	<b>3.95</b>		<b>3.95</b>											
	<b>94 lbm</b>	<b>CMT - PREMIUM PLUS - CLASS C REG OR TYPE III, BULK (100012205) Pre-Mix Dry</b>																				
	<b>0.7 %</b>	<b>HALAD(R)-322, 50 LB (100003646) Pre-Mix Dry</b>																				
	<b>3.95 Gal</b>	<b>FRESH WATER Mix-On-Fly to Slurry</b>																				
<b>Sales/Rental/3<sup>rd</sup> Party</b>																						
SAP #	Description				Qty	Qty uom	Supplier		Comments/ Tech ID #													
<b>100008028</b>	<b>SUGAR, GRANULATED, IMPERIAL</b>				<b>200</b>	<b>LB</b>																

Sold To #: **304429**

Ship To #: **2915495**

Lab Project #:

Sales Order #: **9466402**

SUMMIT Version: **7.3.0021**

**Wednesday, April 25, 2012 10:23:00**

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# **Parsons Brinckerhoff**

Lea County, NM (NAD83)

AGI #1

AGI #1

OH

Plan: Plan #1

## **Standard Planning Report**

25 April, 2012



**Scientific Drilling International, Inc.**  
Planning Report



<b>Database:</b>	EDM-Regulatory	<b>Local Co-ordinate Reference:</b>	Site AGI #1
<b>Company:</b>	Parsons Brinckerhoff	<b>TVD Reference:</b>	GL @ 4016 00usft (Original Well Elev)
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	GL @ 4016 00usft (Original Well Elev)
<b>Site:</b>	AGI #1	<b>North Reference:</b>	Grid
<b>Well:</b>	AGI #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

<b>Project</b>	Lea County, NM (NAD83)		
<b>Map System:</b>	US State Plane 1983	<b>System Datum:</b>	Mean Sea Level
<b>Geo Datum:</b>	North American Datum 1983		
<b>Map Zone:</b>	New Mexico Eastern Zone		

<b>Site</b>	AGI #1		
<b>Site Position:</b>		<b>Northing:</b>	660,051 14 usft
<b>From:</b>	Map	<b>Easting:</b>	714,794 89 usft
<b>Position Uncertainty:</b>	0 00 usft	<b>Slot Radius:</b>	13-3/16 "
		<b>Latitude:</b>	32° 48' 47 651 N
		<b>Longitude:</b>	103° 46' 7 448 W
		<b>Grid Convergence:</b>	0 31 °

<b>Well</b>	AGI #1		
<b>Well Position</b>	+N/-S	0 00 usft	<b>Northing:</b> 660,051 14 usft
	+E/-W	0 00 usft	<b>Easting:</b> 714,794 89 usft
<b>Position Uncertainty</b>	0 00 usft	<b>Wellhead Elevation:</b>	<b>Ground Level:</b> 0 00 usft

<b>Wellbore</b>	OH				
<b>Magnetics</b>	<b>Model Name</b>	<b>Sample Date</b>	<b>Declination (°)</b>	<b>Dip Angle (°)</b>	<b>Field Strength (nT)</b>
	IGRF2010	04/25/12	7 62	60 68	48,859

<b>Design</b>	Plan #1			
<b>Audit Notes:</b>				
<b>Version:</b>	<b>Phase:</b>	PROTOTYPE	<b>Tie On Depth:</b>	5,300 00
<b>Vertical Section:</b>	<b>Depth From (TVD) (usft)</b>	<b>+N/-S (usft)</b>	<b>+E/-W (usft)</b>	<b>Direction (°)</b>
	0 00	0 00	0 00	225 00

<b>Plan Sections</b>										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	TFO (°)	Target
5,300 00	0 00	0 00	5,300 00	0 00	0 00	0 00	0 00	0 00	0 00	
5,450 00	3 00	225 00	5,449 93	-2 78	-2 78	2 00	2 00	0 00	225 00	
5,700 00	3 00	225 00	5,699 59	-12 03	-12 03	0 00	0 00	0 00	0 00	
5,860 58	0 00	0 00	5,860 10	-15 00	-15 00	1 87	-1 87	0 00	180 00	
6,100 48	0 00	0 00	6,100 00	-15 00	-15 00	0 00	0 00	0 00	0 00	

**Scientific Drilling International, Inc.**  
Planning Report



<b>Database:</b>	EDM-Regulatory	<b>Local Co-ordinate Reference:</b>	Site AGI #1
<b>Company:</b>	Parsons Brinckerhoff	<b>TVD Reference:</b>	GL @ 4016 00usft (Original Well Elev)
<b>Project:</b>	Lea County, NM (NAD83)	<b>MD Reference:</b>	GL @ 4016 00usft (Original Well Elev)
<b>Site:</b>	AGI #1	<b>North Reference:</b>	Grid
<b>Well:</b>	AGI #1	<b>Survey Calculation Method:</b>	Minimum Curvature
<b>Wellbore:</b>	OH		
<b>Design:</b>	Plan #1		

Planned Survey										
Measured Depth (usft)	Inclination (°)	Azimuth (°)	Vertical Depth (usft)	+N/-S (usft)	+E/-W (usft)	Vertical Section (usft)	Dogleg Rate (°/100usft)	Build Rate (°/100usft)	Turn Rate (°/100usft)	
5,300 00	0 00	0 00	5,300 00	0 00	0 00	0 00	0 00	0 00	0 00	
5,400 00	2 00	225 00	5,399 98	-1 23	-1 23	1 75	2 00	2 00	0 00	
5,450 00	3 00	225 00	5,449 93	-2 78	-2 78	3 93	2 00	2 00	0 00	
5,500 00	3 00	225 00	5,499 86	-4 63	-4 63	6 54	0 00	0 00	0 00	
5,600 00	3 00	225 00	5,599 73	-8 33	-8 33	11 78	0 00	0 00	0 00	
5,700 00	3 00	225 00	5,699 59	-12 03	-12 03	17 01	0 00	0 00	0 00	
5,800 00	1 13	225 00	5,799 52	-14 58	-14 58	20 61	1 87	-1 87	0 00	
5,860 58	0 00	0 00	5,860 10	-15 00	-15 00	21 21	1 87	-1 87	0 00	
5,900 00	0 00	0 00	5,899 52	-15 00	-15 00	21 21	0 00	0 00	0 00	
6,000 00	0 00	0 00	5,999 52	-15 00	-15 00	21 21	0 00	0 00	0 00	
6,100 00	0 00	0 00	6,099 52	-15 00	-15 00	21 21	0 00	0 00	0 00	
6,100 48	0 00	0 00	6,100 00	-15 00	-15 00	21 21	0 00	0 00	0 00	
PBHL - AGI #1										

Design Targets									
Target Name	Dip Angle (°)	Dip Dir. (°)	TVD (usft)	+N/-S (usft)	+E/-W (usft)	Northing (usft)	Easting (usft)	Latitude	Longitude
- hit/miss target									
- Shape									
PBHL - AGI #1	0 00	0 00	6,100 00	-15 00	-15 00	660,036 14	714,779 89	32° 48' 47 503 N	103° 46' 7 624 W
- plan hits target center									
- Point									



AGI #1

Lea County, NM (NAD83)

Northing: (Y) 660051.13

Easting: (X) 714794.90

Plan #1

## WELL DETAILS: AGI #1

+N/-S +E/-W	Northing	Ground Level	0 00	Easting	Latitude	Longitude
0 00 0 00	660051.13	714794.90	48' 48"	651 N	03° 46'	7 448 W

## SITE DETAILS: AGI #1

Site Centre Northing 660051.13  
Easting 714794.90  
Positional Uncertainty 0.00  
Convergence 0.31  
Local North Grid

## PROJECT DETAILS: Lea County, NM (NAD83)

Geodetic System US State Plane 1983  
Datum North American Datum 1983  
Ellipsoid GRS 1980  
Zone New Mexico Eastern Zone  
System Datum Mean Sea Level

## SECTION DETAILS

Sec	MD	Inc	Azi	TVD	+N/-S	+E/-W	Dleg	TFace	VSec	Target
1	5300.00	0.00	0.00	5300.00	0.00	0.00	0.00	0.00	0.00	0.00
2	5450.00	3.00	225.00	5449.93	-2.78	-2.78	2.00	225.00	3.93	3.93
3	5700.00	3.00	225.00	5699.59	-12.03	-12.03	0.00	0.00	17.01	17.01
4	5860.58	0.00	0.00	5860.10	-15.00	-15.00	1.87	180.00	21.21	21.21
5	6100.48	0.00	0.00	6100.00	-15.00	-15.00	0.00	0.00	21.21	21.21

## LEGEND

— Plan #1

