

BISON OIL WELL CEMENTING, INC.

1547 Gaylord Street
 Denver, Colorado 80206
 Phone: 303-296-3010
 Fax: 303-298-8143
 E-mail: bisonoil1@qwestoffice.net



INVOICE #
 LOCATION
 FOREMAN

12543
 72-131
 mate

TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY
10-27-13	Hardesty 10-0566	10	6N	66W	Weld
BILL TO	CONSULTANT				
nable	Chris				
OWNER	RIG NAME & NUMBER				
	Ensign 303				
MAILING ADDRESS	DISTANCE TO LOCATION		UNITS ON LOCATION		
	20.5		3106 - 3204		
CITY	TIME REQUESTED		TIME ARRIVED ON LOCATION		
	1000 AM		1000 AM		
STATE, ZIP	TIME LEFT LOCATION				
	12:30 PM				
WELL DATA			Cement Makeup		
HOLE SIZE	TUBING SIZE	PERFORATIONS	Cement Blend		
	1 1/4		BFN III 30% BCP-1 .25/6BFLA-1		
TOTAL DEPTH	TUBING DEPTH	SHOTS/FT	Cement - Specs	lbs	Yield
	823			15.2	1.27
CASING SIZE	TUBING WEIGHT	OPEN HOLE	Annulus Factor	Capacity Factor	
				.00097	
CASING DEPTH	TUBING CONDITION	TREATMENT VIA	TYPE OF TREATMENT		
	Good		<input type="checkbox"/> Surface Pipe	<input type="checkbox"/> Production	<input type="checkbox"/> Squeeze
CASING WEIGHT	PACKER DEPTH		<input type="checkbox"/> MISC Pump	<input checked="" type="checkbox"/> P&A	
	15		HYD HHP = RATE X PRESSURE / 40.8		
CASING CONDITION			% Excess		
			BBL to Pit		
Max Rate					
Max Pressure					

DESCRIPTION OF JOB EVENTS

X

Authorization To Proceed

Title

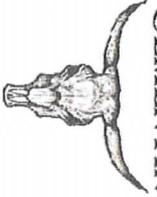
Date

12/27-13

Customers hereby acknowledges and specifically agrees to the terms and conditions on this work order, including, without limitation, the provisions on the reverse side hereof which include the release and indemnity.

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 72+31
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Treatment Report Page 2

DESCRIPTION OF JOB EVENTS

Safety Meeting	MIRU	CIRCULATE	Drop Plug	Displace 1			Displace 2			Displace 3			Displace 4			Displace 5		
				BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI	BLS	Time	PSI
				0	11:33	380	0			0			0			0		
				20			10			10			10			10		
				30			20			20			20			20		
				40			30			30			30			30		
				50			40			40			40			40		
				60			50			50			50			50		
				70			60			60			60			60		
				80			70			70			70			70		
				90			80			80			80			80		
				100			90			90			90			90		
				110			100			100			100			100		
				120			110			110			110			110		
				130			120			120			120			120		
				140			130			130			130			130		
				150			140			140			140			140		
							150			150			150			150		

Notes:

Displace 5 BLS Ahead mix + Pump 165 Sks 15.2 1.27 Yield 5.81 H₂O Displace 2 BBL H₂O

X _____ Title _____ Date 11-22-13

Work Performed



BISON

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET

OILGJOB/TASK: Plug and Abandon		CEMENTER/SUPERVISOR: monte bedeaux		PAGE 1	OF 3
WELL NAME: hardest 10-05g6		RIG # Enbridge 303	LOCATION: 72-31	DATE: 12-27-13	
OPERATOR: noble		CONSULTANT: chris I		INVOICE # 12543	
PPE REQUIRED: <input checked="" type="checkbox"/> Hard Hat <input checked="" type="checkbox"/> FR Coveralls/ADDITIONAL PPE (based on job specific hazards) <input type="checkbox"/> Safety Glasses <input type="checkbox"/> Reflective Vest <input type="checkbox"/> Goggles <input type="checkbox"/> Air Purifying Respirator <input checked="" type="checkbox"/> Steel Toe Boots <input type="checkbox"/> Faceshield <input type="checkbox"/> Supplied Air Respirator <input checked="" type="checkbox"/> Impact Gloves <input type="checkbox"/> Chemical Resistant Gloves/Personal H2S Monitor <input type="checkbox"/> Chemical Resistant Clothing/Personal Methane Monitor					
JOB STEPS		POTENTIAL HAZARDS		RECOMMENDED ACTION OR PROCEDURE	
1. Review JSA		Misunderstanding		Clarify job and associated hazards and safety concerns	
2. Conduct pre job safety meeting		Misunderstanding		-Hold safety meeting with all personnel on location, ensure everyone pays attention to ensure they understand their role and responsibility during the job -Review treatment report with consultant and attain signature for authorization to proceed -Identify and address short service employees (SSE) who are on location -Verify method of relaying hand signals to rig crew for shutting down mud pump	
3. Move trucks in and rig up equipment		Other traffic on location, overhead lines, pinch points, heavy lifting, slips/falls		-Coordinate with well site supervisor for directions on where and when to park the equipment -All Bison crew members walk the location prior to driving in to access specific hazards -Utilize spotters when trucks are in motion -Establish buffer zone around equipment utilizing cones and caution tape -Cementer follows up to ensure connections are secure -Lift with your legs and use teamwork when rigging up -Utilize reflective vests and wands to increase visibility at night -Deploy spill berms and buckets -Verify connections on mudline for compatibility	
4. Raise hose to rig floor		Overhead work, improper hook up/load not properly secured, miscommunication between ground personnel and the crane/tugger operator		-Inspect chains, slings, hooks prior to lift -Ensure line of sight with crane/tugger operator is maintained throughout the lift and hand signals are clarified before the lift. -Ensure no personnel are under suspended loads -Utilize tag line	
5. Attach swage to tubing/Connect to swage on drill pipe		Connections/equipment failing under pressure, spills, slips and falls		-Inspect swage has proper pressure rating for the job and falls within the parameters of the <i>Bison Oilwell Cementing Iron Inspection Program</i> -Verify the compatibility of the connections on a swage/pin provided by the rig -Minimize number of people on rig floor, utilize Bison personnel to attach cement lines -Be aware of surroundings when swinging a hammer	
6. Pressure test lines		Equipment failing under high pressures		-Ensure rig floor is clear and personnel are away from hoses prior to test -Establish buffer area around high pressure hoses -Lines are checked from a distance and using pressure gauges -Cementer ensures pressure gauges are working properly	
Test to: PSI- 2500 Maximum pressure allowed for job: PSI- 3000				Pressure relief valve set to: PSI- 3500 Max. pump pressure: PSI- 4000	
				REVIEWED BY <i>MBS</i>	

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



7. Pump Spacer/Mix and Pump Cement	Serious injury from high pressure line failure or catastrophic equipment failure. Burns or skin irritation from splashing cement, uncontrolled spills	<ul style="list-style-type: none"> -Pressure test prior to job, utilize heavy duty hose hobbles and pressure relief valve -Keep rig floor and buffer area clear while pumping -Utilize proper PPE -Have access to water to rinse affected skin -Deploy spill berms and buckets 	mbs
8. Displacement	Unexpected pressure associated with resuming of pumping, serious injury from high pressure line failure catastrophic equipment failure, spills, overpressure of mudlines	<ul style="list-style-type: none"> -Ensure rig floor remains clear and non-essential personnel stay clear from buffer area -Pump operator monitors pump pressure constantly -Utilize proper PPE -During displacement ensure one mudline valve is always open -Review method of relaying hand signals to rig crew to engage/disengage mud pumps 	
REPEAT STEPS 7 AND 8 AS REQUIRED			
9. Wash up / Rig down	Splashing cement slurry, heavy lifting, pinch points, unsecured hoses	<ul style="list-style-type: none"> -Utilize stakes or portable tank manifold to secure hoses -Use proper lifting technique (2 man lift, lift with legs, plan your route) 	
10. Depart location	Other traffic and personnel and location, overhead lines	<ul style="list-style-type: none"> -All Bison crew member walk the planned exit route to access possible obstacles and hazards -Utilize spotters while backing 	
11. General Precautions/Stop Work	<ul style="list-style-type: none"> -If you see a leaking connection, notify the cementer. Do not attempt to hammer up a leaking connection as there may be pressure on the lines. -Any person on location, regardless of their position or experience level has the authority and responsibility to stop the job if they witness an unsafe act or condition. 		
OTHER HAZARDS SPECIFIC TO LOCATION OR ENVIRONMENT NOT ADDRESSED ABOVE:			
DESIGNATED EMERGENCY MUSTER AREA: access rd	NEAREST EMERGENCY MEDICAL FACILITY (OTHER THAN 911): grealey		
HEAD COUNT - 14			

M/D TOTCO 2000 SERIES

— Barrels / Minute — Barrels — Lbs / Gallon — Stage Volume

