

# BISON OIL WELL CEMENTING, INC.

1738 Wynkoop St., Ste. 102  
 Denver, Colorado 80202  
 Phone: 303-296-3010  
 Fax: 303-298-8143  
 E-mail: bisonoil1@qwestoffice.net



## SERVICE INVOICE

**№ 11704**

WELL NO. AND FARM <i>State Peterson</i>	COUNTY <i>Weld</i>	STATE <i>CO</i>	DATE <i>3-2-13</i>
CHARGE TO <i>Encana</i>	WELL LOCATION SEC. <i>20</i> TWP. <i>5N</i> RANGE <i>63W</i>		CONTRACTOR <i>Ensign 135</i>
	DELIVERED TO <i>61-388</i>	LOCATION <i>1 Shop</i>	CODE
	SHIPPED VIA <i>3/03-3211</i>	LOCATION <i>2 61-388</i>	CODE
	TYPE AND PURPOSE OF JOB <i>Surface Pipe</i>	LOCATION <i>3 Shop</i>	CODE
		WELL TYPE <i>643</i>	CODE

PRICE REFERENCE	DESCRIPTION	UNITS		UNIT PRICE	AMOUNT	
		QTY.	MEAS.			
	<i>Pump charge</i>	<i>1</i>	<i>each</i>	<i>1400<sup>00</sup></i>	<i>1400</i>	<i>00</i>
	<i>BFLA 30% BFLA-1, 25lbs per SR BFLA-1</i>	<i>428</i>	<i>SKS</i>	<i>22<sup>45</sup></i>	<i>9608</i>	<i>60</i>
	<i>mileage Trucks 4<sup>00</sup> per mile 60 mile min Round trip</i>	<i>2</i>	<i>each</i>	<i>240<sup>00</sup></i>	<i>480</i>	<i>00</i>
	<i>mileage Pickup 1<sup>00</sup> per mile 60 mile min Round trip</i>	<i>1</i>	<i>each</i>	<i>90<sup>00</sup></i>	<i>90</i>	<i>00</i>
	<i>BFLA-1</i>	<i>3</i>	<i>CS</i>	<i>25<sup>00</sup></i>	<i>75</i>	<i>00</i>
	<i>Dye - Blue</i>	<i>10</i>	<i>oz</i>	<i>15<sup>00</sup></i>	<i>150</i>	<i>00</i>
	<i>Data fee</i>	<i>1</i>	<i>each</i>	<i>225<sup>00</sup></i>	<i>225</i>	<i>00</i>
	<i>Sugar</i>	<i>100 lbs</i>	<i>lbs</i>	<i>2<sup>00</sup></i>	<i>200</i>	<i>00</i>

Bison Oil Well Cementing (USA) Inc.	
DJ Basin State Peterson 2E-204	
Well:	<i>13172458</i>
AFE:	
Major/Minor CC:	<i>8715-618</i>
Signature:	<i>[Signature]</i>
Approver:	<i>[Signature]</i>
Total Weight	<i>M Loaded Miles</i>

If this account is not paid within 30 days of invoice date a FINANCE CHARGE will be made. Computed at a single monthly rate of 1 1/2% which is equal to an ANNUAL PERCENTAGE RATE OF 18%.

**TAX REFERENCES**

SUB TOTAL	<i>12228<sup>60</sup></i>
TAX	<i>12228<sup>60</sup></i>
TOTAL	

"TAXES WILL BE ADDED AT CORPORATE OFFICE"

SUBJECT TO CORRECTION

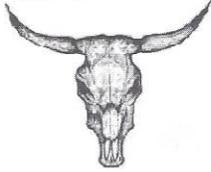
*[Signature]*  
 Customer or His Agent

*[Signature]*  
 Bison Oil Well Cementing, Inc. Representative

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.

# 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

11704  
 61-388  
 Kirk

## TREATMENT REPORT

DATE	WELL NAME	SECTION	TWP	RGE	COUNTY
3-2-13	Shade Peterson ZF-204	20	5N	63W	Weld
BILL TO	CONSULTANT				
Encana	Dennis				
OWNER	RIG NAME & NUMBER				
	Ensign 135				
MAILING ADDRESS	DISTANCE TO LOCATION	UNITS ON LOCATION			
		3103-3211			
CITY	TIME REQUESTED	TIME ARRIVED ON LOCATION			
	12:00am	10:30pm			
STATE, ZIP	TIME LEFT LOCATION				
	4:30am				

WELL DATA			Cement Makeup		
HOLE SIZE	TUBING SIZE	PERFORATIONS	Cement Blend	BFNTH 310 BCAA .25 lbs per sk BPLA-1	
12 1/4			Cement - Specs	lbs	Yield
				15.2	1.27
TOTAL DEPTH	TUBING DEPTH	SHOTS/FT	Annulus Factor	Capacity Factor	
982			3/31	1.0758	
CASING SIZE	TUBING WEIGHT	OPEN HOLE			
9 5/8					
CASING DEPTH	TUBING CONDITION	TREATMENT VIA	TYPE OF TREATMENT		
982			<input checked="" type="checkbox"/> Surface Pipe	<input type="checkbox"/> Production	<input type="checkbox"/> Squeeze
CASING WEIGHT	PACKER DEPTH		<input type="checkbox"/> MISC Pump	<input type="checkbox"/> P&A	
4015					
CASING CONDITION	HYD HHP = RATE X PRESSURE / 40.8				
good					
Max Rate	% Excess				
	60%				
Max Pressure	BBL to Pit				
	23				

## DESCRIPTION OF JOB EVENTS

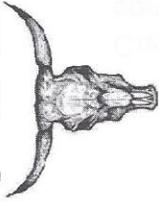
Site prep meeting, Rig up, Ps. test, Per cement cis 30 BBS full H2O 2nd 10wt dye mix Pump 428 SKS cement at 60% Excess at 1.27 yield at 15.2 lbs Release Plug Disp 714 BBS H2O, Bump Plug at 150 PSI over L.P.S. Psi wait 5 min Release Ps7 wash up Rig Down

Arrived w/ 600 SKS cement 4/5 all full 1600 Dye  
 H2O test OK  
 96.8 BBS string

X \_\_\_\_\_ Title \_\_\_\_\_ Date 3-2-13

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INVOICE #  
 LOCATION  
 FOREMAN

11704  
 61-388  
 F. R. K.

## Treatment Report Page 2

### DESCRIPTION OF JOB EVENTS

	Displace 1		Displace 2		Displace 3		Displace 4		Displace 5	
	BBLS	Time								
Safety Meeting	2:10 am									
MIRU	1:30									
CIRCULATE	2:45	10	3:13	10	3:45	10	4:10	10	4:40	10
Drop Plug		20	3:15	20	3:40	20	4:05	20	4:35	20
		30	3:17	30	3:35	30	4:00	30	4:30	30
		40	3:18	40	3:30	40	4:00	40	4:25	40
		50	3:25	50	3:25	50	4:00	50	4:25	50
M & P		60	3:27	60	3:20	60	4:00	60	4:25	60
		70	3:29	70	3:20	70	4:00	70	4:25	70
Time	Sacks	80	3:33	80	3:15	80	4:00	80	4:25	80
2:52 am	420	90	3:35	90	3:15	90	4:00	90	4:25	90
3:11 am		100		100		100		100		100
		110		110		110		110		110
		120		120		120		120		120
		130		130		130		130		130
		140		140		140		140		140
		150		150		150		150		150

Notes:

Bump Plug 3:35 910 psi

60% EXCESS

96.8 BBLS slurry

23 BBLS BACK

Lftw/ 172 sbs cement 3 gal lgt cu 600 Dye

X Title

X 3-2-13 Date



Bison Oil Well Cementing, Inc  
 1738 Wynkoop St., Ste. 102  
 Denver, CO 80202  
 303-296-3010  
 www.Bisonoilwell.com

**Cementing Customer Satisfaction Survey**

Service Date 3-2-13  
 Invoice Amount \_\_\_\_\_  
 Well Name State Peterson  
 Well Location 61-388  
 County weld  
 SEC/TWP/RNG 20-SU-63W  
 State CO  
 Supervisor Name Lark Kalhoff

Invoice Number 11704  
 Well Permit Number \_\_\_\_\_  
 Well Type Gas  
 Well Number 2F-20H  
 Lease \_\_\_\_\_  
 Job Type Surface Pipe  
 Company Name Encana  
 Customer Representative Dennis  
 Customer Phone Number \_\_\_\_\_

Employee Name

Exposure Hours (Per Employee)

Dario  
Pablo

6  
6

Total Exposure Hours \_\_\_\_\_

Did we encounter any problems on this job? Yes  No

**To Be Completed By Customer**

**Rating/Description**

- 5 - Superior Performance ( Established new quality / performance standards )
  - 4 - Exceeded Expectations ( Provided more than what was required / expected )
  - 3 - Met Expectations ( Did what was expected )
  - 2 - Below Expectations ( Job problems / failures occurred [ \* Recovery made ] )
  - 1 - Poor Performance ( Job problems / failures occurred [ \* Some recovery made ] )
- \* Recovery: resolved issue(s) on jobsite in a timely and professional manner

**Opportunity**

- Best Practices
- Potential Best Practice
- Prevention/Improvement

**RATING / CATEGORY**

- \_\_\_\_\_ Personnel -
- \_\_\_\_\_ Equipment -
- \_\_\_\_\_ Job Design -
- \_\_\_\_\_ Product / Material -
- \_\_\_\_\_ Health & Safety -
- \_\_\_\_\_ Environmental -
- \_\_\_\_\_ Timeliness -
- \_\_\_\_\_ Condition / Appearance -
- \_\_\_\_\_ Communication -
- \_\_\_\_\_ Improvement -

**CUSTOMER SATISFACTION RATING**

- Did our personnel perform to your satisfaction ?
- Did our equipment perform to your satisfaction ?
- Did we perform the job to the agreed upon design ?
- Did our products and materials perform as you expected ?
- Did we perform in a safe and careful manner ( Pre / post mtgs, PPE, TSMR, etc.. ) ?
- Did we perform in an environmentally sound manner ( Spills, leaks, cleanup, etc.. ) ?
- Was job performed as scheduled (On time to site, accessible to customer, completed when expected)?
- Did the equipment condition and appearance meet your expectation?
- How well did our personnel communicate during mobilization, rig up, and job execution?
- What can we do to improve our service?

**Please Circle:**

- Yes / No - Did an accident or injury occur?
- Yes / No - Did an injury requiring medical treatment occur?
- Yes / No - Did a first-aid injury occur?
- Yes / No - Did a vehicle accident occur?
- Yes / No - Was a post-job safety meeting held?

**Please Circle:**

- Yes / No - Was a pre-job safety meeting held?
- Yes / No - Was a job safety analysis completed?
- Yes / No - Were emergency services discussed?
- Yes / No - Did environmental incident occur?
- Yes / No - Did any near misses occur?

Additional Comments:

\_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_

THE INFORMATION HEREIN IS CORRECT -

[Signature]  
 Customer Representative's Signature

3-2-13  
 Date

Any additional Customer Comments or HSE concerns should be described on the back of this form



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# B.O.C. Tailgate Safety Meeting Report

INVOICE 11764

Date 3-2-13 Time 2:10  AM  PM Meeting Facilitator Kirk Kalloff  
 Facility Name and Location State Peterson 2P-2611 Work to be Undertaken Surface Pipe  
 Nearest Emergency Medical Service Number (Other than 911) Greeley

**MINIMUM STANDARDS REQUIREMENT VERIFICATION (must be verified for all members of a work party)**

- Hard Hat  Safety Glasses w/sideshields  Safety Toed Footwear  Personal Methane Monitor  Verify Safety Training
- Flame Resistant Clothing  New on Job Review  Onsite Orientation  Other (specify) \_\_\_\_\_

**HAZARD IDENTIFICATION AND SAFETY BRIEFING DISCUSSION (Check and Discuss all Relevant Hazards)**

- |   |  |   |
|---|--|---|
| <input checked="" type="checkbox"/> Positions of People | <input checked="" type="checkbox"/> Job Safety Analysis Reviewed (if applicable) | <input type="checkbox"/> Hazardous Substance                    |
| <input type="checkbox"/> Falling from Heights           | <input type="checkbox"/> NORM or Other Radiation                                 | <input type="checkbox"/> Hazardous Atmosphere                   |
| <input checked="" type="checkbox"/> Slips/Trips/Falls   | <input checked="" type="checkbox"/> Overhead work/suspended Loads/Chains/Slings  | <input checked="" type="checkbox"/> Walking/Working Surfaces    |
| <input type="checkbox"/> Extreme Heat/Cold              | <input type="checkbox"/> Trapped Pressure  | <input type="checkbox"/> Noise Levels                           |
| <input type="checkbox"/> Electrical Current             | <input type="checkbox"/> Flammable/Combustible/Explosives                        | <input type="checkbox"/> Sharp Edges                            |
| <input type="checkbox"/> Overexertion/Heavy Lifting     | <input type="checkbox"/> Pinch Points/Moving/Rotating Equipment                  | <input type="checkbox"/> Insects/Snakes/etc.                    |
| <input type="checkbox"/> Spills/Releases                | <input type="checkbox"/> Waste Handling/Disposal                                 | <input type="checkbox"/> MSDS's Reviewed                        |
| <input type="checkbox"/> Flying Particles               | <input checked="" type="checkbox"/> Excavation Collapse                          | <input checked="" type="checkbox"/> Walk Around Site Assessment |
| <input type="checkbox"/> Overhead Power Lines           | <input type="checkbox"/> _____   | <input type="checkbox"/> _____                                  |

**ADDITIONAL PPE REQUIREMENT (based on the job specific hazards, check all that apply)**

- |   |  |   |   |
|---|--|---|---|
| <b>Eyes/Face</b>                            | <b>Hands</b>                                       | <b>Feet</b>                               | <b>Other</b>  |
| <input type="checkbox"/> Tinted Lenses      | <input type="checkbox"/> Chemical Resistant Gloves | <input type="checkbox"/> Rubber Boots     | <input type="checkbox"/> Air Purifying Respirator               |
| <input type="checkbox"/> Goggles            | <input type="checkbox"/> Heat Resistant Gloves     | <input type="checkbox"/> Over Boots       | <input type="checkbox"/> Supplied Air Respirator                |
| <input type="checkbox"/> Faceshield         | <input type="checkbox"/> Cotton or Leather Gloves  | <input type="checkbox"/> Dielectric Boots | <input type="checkbox"/> Personal H2S Monitor (if in sour area) |
| <input type="checkbox"/> Hearing Protection | <input type="checkbox"/> Dielectric Gloves         | <input type="checkbox"/> _____            | <input type="checkbox"/> Chemical Resistant Clothing            |
| <input type="checkbox"/> _____              | <input type="checkbox"/> _____                     |   | <input type="checkbox"/> Personal Fall Arrest Systems           |
|   |  |   | <input type="checkbox"/> _____                                  |

**EMERGENCY PREPARATIONS**

- Muster Areas  Communication Methods  Means of Egress  Emergency Equipment

Additional Topics Covered:

Attendees (Signature)/Company	Attendees (Signature)/Company
<u>[Signature]</u>	<u>[Signature] ENSIGN</u>
<u>[Signature]</u>	<u>[Signature] ENSIGN</u>
<u>[Signature]</u>	<u>[Signature]</u>
<u>[Signature]</u>	<u>[Signature]</u>

Other Considerations and Field Notes:

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



JOB/TASK: SURFACE CASING CEMENTING		CEMENTER/SUPERVISOR: Kirk Kallhoff		PAGE: 1	OF: 2
WELL NAME: state peterson 2f-20h		RIG #: ensign 135	LOCATION: 61-388	DATE: 3-2-13	INVOICE #: 11704
OPERATOR: ENCANA	CONSULTANT: Dennis		<input type="checkbox"/> Goggles <input type="checkbox"/> Faceshield <input type="checkbox"/> Chemical Resistant Gloves <input type="checkbox"/> Chemical Resistant Clothing <input type="checkbox"/> Air Purifying Respirator <input type="checkbox"/> Supplied Air Respirator <input type="checkbox"/> Personal H2S Monitor <input type="checkbox"/> Personal Methane Monitor		
PPE REQUIRED: <ul style="list-style-type: none"> <li><input checked="" type="checkbox"/> Hard Hat</li> <li><input checked="" type="checkbox"/> Safety Glasses</li> <li><input checked="" type="checkbox"/> Steel Toe Boots</li> <li><input checked="" type="checkbox"/> Impact Gloves</li> <li><input checked="" type="checkbox"/> FR Coveralls</li> <li><input checked="" type="checkbox"/> Reflective Vest</li> </ul> ADDITIONAL PPE (based on job specific hazards)		RECOMMENDED ACTION OR PROCEDURE			
JOB STEPS		POTENTIAL HAZARDS		RECOMMENDED ACTION OR PROCEDURE	
1. Review JSA	Misunderstanding	Clarify job and associated hazards and safety concerns	RLC		
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 -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 into 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 -Inspect slings, chains and hooks prior to lift -Ensure line of sight with crane/tugger operator is maintained throughout the lift and hand signals are understood -Ensure no personnel are under suspended equipment -Utilize a tag line to control the load	RLC		
3. Move trucks in and rig up equipment	Other traffic on location, overhead lines, pinch points, heavy lifting, slips/falls	-Only Bison personnel install the cement head and hoses -Maintain line of sight and communication with crane/tugger operator -Remove non-essential personnel from rig floor, wait until other activity is done -Rig crew does not install chains until head and hoses are installed -Ensure a clear path when swinging a hammer -Ensure all fittings and hoses have proper pressure rating for the job and fall within the parameters of the Bison Oilwell Iron Inspection Program	RLC		
4. Raise cement head and hoses to rig floor	Overhead work, improper hookup/load not properly secured, poor communication between ground personnel and crane/tugger operator	-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	RLC		
5. Connect Cement head/swage/pin, chickens and hoses.	Working in a congested area, pinch points, swinging hammers, slippery rig floor	-Ensure all fittings and hoses have proper pressure rating for the job and fall within the parameters of the Bison Oilwell Iron Inspection Program	RLC		
6. Pressure test lines	Equipment falling under high pressures	-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	Test to: PSI: 800 Maximum pressure allowed for job: 2000 PSI: 2000	Pressure relief valve set to: PSI: 1750 Max. pump pressure: 3000 PSI	RLC
7. Pump Spacer (dye marker)/Mik and Pump Cement	Serious injury from high pressure line failure or catastrophic equipment failure. Casing hydraulicing from hole, causing injury. Burns or skin irritation from splashing cement, uncontrolled spills		RLC		

BISON OILWELL CEMENTING JOB SAFETY ANALYSIS WORKSHEET



		<ul style="list-style-type: none"> <li>-Deploy spill berms and buckets</li> </ul>	
8. Drop plug	Slips, trips, falls. Miscommunication between pump operator and cementer, pressure against a closed stop	<ul style="list-style-type: none"> <li>-Utilize 3 points of contact while descending/climbing ladder and stairs</li> <li>-Have visual contact between cementer and pump operator before pump is engaged</li> </ul>	L/C
9. Displacement	Unexpected pressure associated with resuming of pumping, casing hydraulicking from hole, serious injury from high pressure line failure or catastrophic equipment failure.	<ul style="list-style-type: none"> <li>-Ensure rig floor remains clear and non-essential personnel stay clear from buffer area</li> <li>-Pump operator monitors pump pressure constantly</li> <li>-Utilize proper PPE</li> </ul>	L/C
10. Bump plug-Test float and release pressure	Pressure jumps before expected (calculated) displacement. Pressure jumps rapidly and higher than expected	<ul style="list-style-type: none"> <li>-Pump operator slows rate to 2 BPM when 5 blis from calculated displacement and down to 1 bpm within 2 blis of calculated displacement</li> <li>-Pump operator monitors pressure constantly</li> <li>-Pressure relief valve installed on pump</li> </ul>	L/C
11. Pressure test casing (if required)	Test to: PSI- <input type="text"/> FOR: MIN- <input type="text"/>	<ul style="list-style-type: none"> <li>-Ensure rig floor remains clear and non-essential personnel stay clear from the buffer area</li> </ul>	L/C
12. Wash up / rig down	Splashing cement slurry, heavy lifting, pinch points, unsecured hoses	<ul style="list-style-type: none"> <li>-Utilize stakes or portable tank manifold to secure hoses</li> <li>-Use proper lifting technique (2 man lift, lift with legs, plan your route)</li> </ul>	L/C
13. Depart location	Other traffic and personnel and location, overhead lines	<ul style="list-style-type: none"> <li>-All Bison crew member walk the planned exit route to access possible obstacles and hazards</li> <li>-Utilize spotters while backing</li> </ul>	L/C
OTHER HAZARDS SPECIFIC TO LOCATION OR ENVIRONMENT NOT ADDRESSED ABOVE:			
DESIGNATED EMERGENCY MUSTER AREA: <input type="text" value="access road"/>		NEAREST EMERGENCY MEDICAL FACILITY (OTHER THAN 911): <input type="text" value="greeley"/>	

State Peterson ZF-204

### M/D TOTCO 2000 SERIES

