

EXHIBIT B-6

West Bay Exploration Co. Cementing Records

West Bay Exploration Company (WBEC), Haystead #9 SWD
(Permit #MI-079-2D-0010)

**Administrative Record
Item # 19**

May 21, 2012

Timothy Brock, WBEC



RE: Haystead 9 SWD

Timothy J. Brock

to:

Timothy Elkins

05/21/2012 01:47 PM

Cc:

"Tim Baker", "Ann Baker"

Hide Details

From: "Timothy J. Brock" <brock.engineering@yahoo.com>

To: Timothy Elkins/R5/USEPA/US@EPA,

Cc: "Tim Baker" <timb46@hotmail.com>, "Ann Baker" <anni@wbeco.net>

History: This message has been replied to.

3 Attachments



Haystead 1-9A HD1 WBD.pdf Haystead 1-9 CMCS Cementing Records.pdf



Haystead 1-9A Halliburton Long String Cementing.pdf

H9-AR
ITEM # 19

Tim,

Please find attached the cementing records from Central Michigan Cementing Service for the Haystead 1-9, which was the original wellbore prior to being sidetracked to the Haystead 1-9A. The 11-3/4" and 8-5/8" casings were cemented by CMCS. The Haystead 1-9A was cemented by Halliburton Services and I have been unable to find the company's cementing record (field ticket) for this string. However, I have attached a copy of the invoice proving that the cement job was pumped. Further, as a registered professional engineer, I certify that the Flowstop has a yield of 1.49 cuft/sx and weighs 14.5 ppg. This stage was pumped as the first stage of this multi-stage cement job (below the DV tool). The Halcem was pumped as the second stage of the cement job and is Halliburton's tradename for Class A cement. It has a yield of 1.18 cuft/sx and a density of 15.8 ppg. Therefore, the slurry volume below the DV tool was 149 cuft and the volume above it was 236 cuft. The top of cement behind the 5-1/2" production casing in the Haystead 1-9A was logged at 3,134' with a cement bond log. I have attached a wellbore diagram for your consideration and review. Please contact me immediately if you have any further questions.

Timothy J. Brock

State of Michigan Registered Professional Engineer #39603

Brock Engineering, LLC

771 N West Silver Lake Rd.

Traverse City, MI 49685

Phone: (231) 421-3001

Fax: (231) 421-3033

Cell: (517) 242-6688

From: Timothy Elkins [mailto:Elkins.Timothy@epamail.epa.gov]

Sent: Wednesday, May 09, 2012 12:43 PM

To: brock.engineering@yahoo.com

Subject: Haystead 9 SWD

Hi Mr. Brock,

I previously indicated that I had anticipated that the Haystead 9 SWD injection well permit would be drafted and on public notice soon, however I cannot receive management sign off without reviewing the information requested

in my letter to you dated February 10, 2012. To date I have not received documentation which clearly indicates the **slurry volume** of Flowstop and HalCem cement used in the cementing of the Haystead 1-9A casings. Mr. Baker has provided cementing tickets, however the slurry volumes are not documented. Unfortunately, I am not familiar with these cements and cannot properly access the construction and plugging of the Hatstead 1-9A casing without proper documentation. Please review item number 2 in the attached letter and feel free to contact me if you have further questions.

Thank you.

Timothy M. Elkins
US EPA Region 5
Underground Injection Control
77 W. Jackson Blvd., WU-16J
Chicago, IL 60604
Phone: 312-886-0263



Central Michigan Cementing Services

1934 Commercial Drive • Mt. Pleasant, MI USA 48858

Phone: 989/775-0940 • Fax: 989/775-0943

midstatetools@msn.com

PRIMARY CEMENTING REQUIREMENTS

Company West Bay Exploration Date 5-20-10 Job # _____

Well Name Haystead No. 1-9

County Jackson Section 9 4 2 E State MI

Contractor Birdie Barnett

Job Description 11 3/4 Surface Ccs

Casing Size 11 3/4 Lbs/Ft. 42# Casing TD 430

Insert Type None LV 30' in pipe Insert TD 398

Open Hole Size 14 3/4 From 32 To 425 TD

Annular Casing Size 16" To 32" Lbs/FT 55

JOB REQUIREMENTS:

Annular Volume Casing 32 Ft. x .5364 Cu/Ft = 17.2 Cu Ft.

Annular Volume O.H. 398 Ft. x .4336 Cu/Ft = 172.6 Cu Ft.

Excess 160% of open hole % = _____ Cu Ft.

Total Cubic Foot Needed for Job = 472.75 Cu Ft.

Lead Cement Type 65/35/6 3 1/2 cack

Sacks of Cement 113.8 Type A x (94 Lbs.) = 10697.2

Sacks of Ash 61.2 x ~~70~~ Lbs.) = 4284

Sacks of Bentonite 9 x (100 Lbs.) = 900

Sacks of Cal Chl. 9 x (50 Lbs.) = 450

Lead Cement Yield 1.69 x 175 Total Sacks = 295.75 Cu Ft.

Tail Cement Type Class A 3 1/2 cack

Sacks of Cement 150 Type Type E x (94 Lbs.) = 14100

Sacks of Calcium Chloride 9 x (50 Lbs.) = 450

Tail Cement Yield 1.18 x 150 Total Sacks = ~~150~~ 177 Cu Ft.

Type of Pre Flush Fresh Water Total BBLs 30

Mix Water Req. Lead Cement = 34.2 BBLs Tail Cement = 18.6 BBLs

Displace Water Used Fresh Water 47.5 BBLs Total BBLs Required 130.3

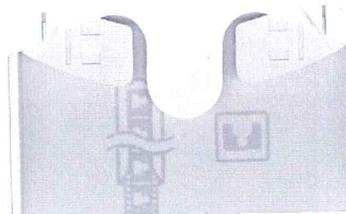
Was Wiper Plug Run W/B stop cut at 398' Cement Returned to Surface 40 BBLs

Time and Date When Landed Plug 10:00 pm 5-20-10

Comments _____

40 BBL To pits Cement stayed in place

Cementer Bill Russell Operator Matt P Land G.





Central Michigan Cementing Services

1934 Commercial Drive • Mt. Pleasant, MI USA 48858

Phone: 989/775-0940 • Fax: 989/775-0943

midstatetools@msn.com

PRIMARY CEMENTING REQUIREMENTS

Company West Bay Exploration Date 5-26-10 Job # _____

Well Name Haystead No. 1-9

County Jackson Section 9 4s 2e State MI

Contractor Birdie Burnett

Job Description 8 5/8 Enterprise Csg

Casing Size 8 5/8 Lbs/Ft. 32 Casing TD 3340

Insert Type Auto Fill Insert TD 3300

Open Hole Size 10 5/8 From 425 To 3340 TD

Annular Casing Size 11 3/4 To 425 Lbs/FT 42*

JOB REQUIREMENTS:

Annular Volume Casing 425 Ft. x 0.2643 Cu/Ft = 112.3 Cu Ft.

Annular Volume O.H. 2915 Ft. x 0.2100 Cu/Ft = 612.2 Cu Ft.

Excess 80% of open hole % = _____ Cu Ft.

Total Cubic Foot Needed for Job = 1250 Cu Ft.

Lead Cement Type 45/35/6 + 2% CaCl₂

Sacks of Cement 390 Type Class A x (94 Lbs.) = 36660

Sacks of Ash 210 x 70(00) Lbs. = 14700

Sacks of Bentonite 31 x (100 Lbs.) = 3100

Sacks of Cal Chl. 22 x (50 Lbs.) = 1100

Lead Cement Yield 1.69 x 600 Total Sacks = 1014 Cu Ft.

Tail Cement Type Class A 3% CaCl₂

Sacks of Cement 200 Type Class A x (94 Lbs.) = 18800

Sacks of Calcium Chloride 12 x (50 Lbs.) = 600

Tail Cement Yield 1.18 x 200 Total Sacks = 236 Cu Ft.

Type of Pre Flush Fresh Water Total BBLs 20

Mix Water Req. Lead Cement = 117.2 BBLs Tail Cement = 24.8 BBLs

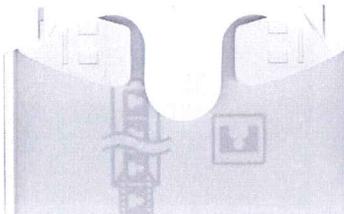
Displace Water Used 67 Barite 201 gal BBLs Total BBLs Required 363

Was Wiper Plug Run Yes Cement Returned to Surface _____ BBLs

Time and Date When Landed Plug 4:00 pm 5-26-10

Comments _____

Cementor Bill Russell Operator Justin K Matt P Brett F.



Wellbore Sketch

Well: HAYSTEAD 1-9A HD1 KB: 967.3 Permit#: 60310
 Operator: WEST BAY EXPLORATION COMPANY GL: 954 PrePerm _____
 Surf. Loc.: NE /Q NW /Q SW /Q Sec. 9 T 4S R 2E
 Btm Hole Loc.: NW /Q SE /Q NE /Q Sec. 8 T 4S R 2E

CONDUCTOR
16 " SA 32 ft
 DRIVEN

Notes:

HAYSTEAD 1-9A IS REDRILL
OF HAYSTEAD 1-9
1-9A KOP = 3375'
5-1/2" CMT RETNR SA 4400'
SQZ W/ 100 SX CLASS A
5-1/2" CIBP SA 4300'
WHIPSTOCK SET ON CIBP
4-3/4" Open hole compl.

SURFACE
11.75 " SA 425 ft

Grd: H-40 42 lb/ft ST&C threads

Cmt: Lead: 175 SX 65/35 POZ W/ 6% GEL AND 3% CaCl2; TAIL: 150 SX CLASS A W/ 3% CaCl2 CIRC 40 BBL TO SURFACE

Top of Cement SURFACE ft

	SX	YLD	HOLE	VOL, cuft	TheoFILL	EST. TOC
LEAD	<u>175</u>	<u>1.69</u>	<u>14.8</u>	<u>295.75</u>	<u>682</u>	<u>-257</u>
TAIL	<u>150</u>	<u>1.18</u>	<u>14.8</u>	<u>177</u>	<u>408</u>	<u>-665</u>

	BBL	YLD	SX
Sx CTS	<u>40</u>	<u>1.69</u>	<u>133</u>

INTERMEDIATE

8.625 " SA 3340 ft

Grd: J-55 32 lb/ft ST&C threads

Cmt: LEAD: 600 SX 65/35 POZ W/ 6% GEL AND 2% CaCl2; TAIL: 200 SX CLASS A W/ 3% CaCl2 CIRC 40 BBL TO SURFACE

Top of Cement SURFACE ft

	SX	YLD	HOLE	VOL, cuft	Theo.FILL	EST. TOC
LEAD	<u>600</u>	<u>1.69</u>	<u>10.6</u>	<u>1014</u>	<u>4829</u>	<u>-1489</u>
TAIL	<u>200</u>	<u>1.18</u>	<u>10.6</u>	<u>236</u>	<u>1124</u>	<u>-2613</u>

	BBL	YLD	SX
Sx CTS	<u>40</u>	<u>1.69</u>	<u>133</u>

Perforations: Date

<u>4502</u>	to	<u>4512</u>	<u>6/24/2010</u>
<u>4412</u>	to	<u>4430</u>	<u>6/25/2010</u>
	to		
	to		
	to		

Orig.TD: 4589
 PBDT: 5585
 TD: 5585

PRODUCTION

5.5 " SA 4572 ft

J-55 15.5 lb/ft LT&C threads

Cmt: 1)100 SX FLO-STOP, 2) 200 SX HALCEM (CLASS A)

Top of Cement 3134 ft

(BOND LOG)

	SX	YLD	HOLE	Base VOL, cuft	Theo.FILL	EST. TOC
Stg 1	<u>100</u>	<u>1.49</u>	<u>7.88</u>	<u>4572</u>	<u>149</u>	<u>860</u>
Stg 2	<u>200</u>	<u>1.18</u>	<u>7.88</u>	<u>4281</u>	<u>236</u>	<u>1362</u>

	BBL	YLD	SX
Sx CTS	<u>6</u>	<u>1.49</u>	<u>22.6</u>

(from first stage)

INVOICE

<h2 style="margin: 0;">HALLIBURTON</h2> <p style="font-size: small; margin: 0;">Halliburton Energy Services, Inc.</p> <p style="margin: 0;">Remit To: P.O. Box 203143, Houston, TX 77216-3143</p>	<p style="margin: 0;">Wire Transfer Information</p> <p style="margin: 0;">Account Number: Account 00032969</p> <p style="margin: 0;">ABA Routing No.021000089</p> <p style="margin: 0;">ABA Routing Number:</p>
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Invoice Date: June 15, 2010	Invoice Number: 96973289
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<p>DIRECT CORRESPONDENCE TO:</p> <p>301 Lucerne Road HOMER CITY, PA 15748 US Tel: (888) 223-4255 Fax: (724) 479-3592</p>	<p>Rig Name:</p> <p>Well Name: WEST BAY HAYSTEAD 1 9 J^AJACKSON Ship to: JACKSON, MI 49201 JACKSON^A</p> <p>Job Date: June 07, 2010 Cust. PO No.: NA Payment Terms: Net 20 days from Invoice date Quote No.:</p>
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<p>TO:</p> <p>WEST BAY EXPLORATION CO 13685 S WEST BAY SHORE, STE 200 TRAVERSE CITY MI 49684</p>	<p>Sales Order No.: 7419648</p> <p>Manual Ticket No.:</p> <p>Shipping Point: KALKASKA Shipping Point Ultimate Destination Country: US Customer Account No.: 306427</p>
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	<p>Contract No.:</p> <p>Contract from:</p> <p>Contract to:</p>
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Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
392189	CMT MULTIPLE STAGES BOM	1.00	JOB					
404249	Cmt Equipment & Pump Charge, C Cmt Equipment & Pump Charge, CMT	1.00	EA					
452962	FLOWSTOP (TM) SYSTEM	100.00	SK		1.49 F13/SX			
452986	HALCEM (TM) SYSTEM	200.00	SK		1.18 F13/SX			
100001585	KCL POTASSIUM CHLORIDE	250.000	LB					
100063955	FLO-CHEK P CHEMICAL - FLO-CHEK P - 100# FIBER / DRUM	800.000	LB					
76400	ZI MILEAGE,CMT MTLs DEL/RET MI 500-306 / MILEAGE,CMTG MTLs DEL/RET PER/TON MI,MIN NUMBER OF TONS	195.000	MI					
		14.77	ton					
3965	HANDLE&DUMP SVC CHRg, CMT&ADDI 500-207 NUMBER OF EACH	330.000	CF					
		1	each					
404249	MSC Tool Operator Cmt Equipment & Pump Charge, CMT	1.00	EA					
372867	Cmt PSL - DOT Vehicle Charge, Cmt PSL - DOT Vehicle Charge, CMT	3.000	EA					
100004672	PLUG SET - FREE FALL - 5-1/2 8 PLUG SET, FREE FALL, 5 1/2 8RD, & / BUTTRESS 13-23 LBS 2-STAGE CEMENTER, / WITH 2.87 ID BAFFLE	1.000	EA					
100005045	KIT,HALL WELD-A	3.000	EA					

INVOICE

Continuation

HALLIBURTON

Halliburton Energy Services, Inc.

Remit To: P.O. Box 203143, Houston, TX 77216-3143

Invoice Date: June 15, 2010

Invoice Number: 96973289

Material	Description	QTY	UOM	Base Amount	Unit Amount	Gross Amount	Discount	Net Amount
100004685	CMTR, TY P ES, 5-1/2 8RD 14-17LB CEMENTER, TYPE P ES, 5-1/2 8RD 14-17 / LBS/FT, SUITABLE FOR USE WITH K-55	1,000	EA					
100004895	SHOE, FLOAT, 5 1/2 8RD, 2 3/4 SUP SHOE. FLOAT, 5-1/2 8RD, K-55, 2-3/4 / SUPER SEAL II VALVE	1,000	EA					
	Taxable							
	Non-Taxable							
	Total							
INVOICE TOTAL								

Payment Terms: If Customer does not have an approved open account with Halliburton, all sums are payable in cash at the time of performance of services or delivery of equipment, products, or materials. If Customer has an approved open account, invoices are payable based upon the payment terms stated on this invoice or as otherwise stated in the applicable Halliburton contract governing performance or delivery. Customer agrees to pay interest on any unpaid balance from the date payable until paid at the highest lawful contract rate applicable. In the event Halliburton employs an attorney for collection of any amount, Customer agrees to pay all reasonable and necessary attorney fees to recover the unpaid amount, plus all collection and court costs.

Edwin Garcia Phone: 972-418-3042 Cell: 972-983-8729



RE: Haystead 9 SWD

Timothy J. Brock

to:

Timothy Elkins

05/09/2012 01:39 PM

Cc:

"Ann Baker"

Hide Details

From: "Timothy J. Brock" <brock.engineering@yahoo.com>

To: Timothy Elkins/R5/USEPA/US@EPA,

Cc: "Ann Baker" <anni@wbeco.net>

Tim,

Thanks for your e-mail. I am getting a copy of the cementing records e-mailed to me and I will get you the information that you need as soon as possible.

Regards,

Tim Brock

Timothy J. Brock, PE
Brock Engineering, LLC
771 N West Silver Lake Rd.
Traverse City, MI 49685
Phone: (231) 421-3001
Fax: (231) 421-3033
Cell: (517) 242-6688

From: Timothy Elkins [<mailto:Elkins.Timothy@epamail.epa.gov>]

Sent: Wednesday, May 09, 2012 12:43 PM

To: brock.engineering@yahoo.com

Subject: Haystead 9 SWD

Hi Mr. Brock,

I previously indicated that I had anticipated that the Haystead 9 SWD injection well permit would be drafted and on public notice soon, however I cannot receive management sign off without reviewing the information requested in my letter to you dated February 10, 2012. To date I have not received documentation which clearly indicates the *slurry volume* of Flowstop and HalCem cement used in the cementing of the Haystead 1-9A casings. Mr. Baker has provided cementing tickets, however the slurry volumes are not documented. Unfortunately, I am not familiar with these cements and cannot properly access the construction and plugging of the Hatstead 1-9A casing without proper documentation. Please review item number 2 in the attached letter and feel free to contact me if you have further questions.

Thank you.

Timothy M. Elkins
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Chicago, IL 60604
Phone: 312-886-0263