

# HALLIBURTON

iCem<sup>®</sup> Service

## **CATAMOUNT ENERGY PARTNERS LLC-EBUS**

**For: Reed Fischer**

Date: Friday, December 01, 2017

### **IGW**

IGNACIO-BLANCO

CATAMOUNT ENERGY IGW 123B 8.625 SURFACE

Job Date: Friday, December 01, 2017

Sincerely,

**Farmington Cement Engineering**

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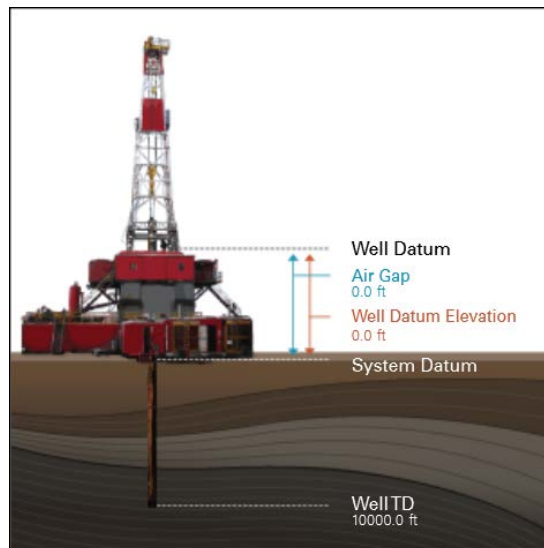
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## 1.0 Job Design

### 1.1 Overview

Job Type	Primary Cement Job
Injection Path	Casing/Conventional
Foam Job	No

#### Well Snapshot



#### Simulations Performed

### 1.2 Pump Schedule

Description	Stage No.	Density (ppg)	Rate (bbl/min)	Yield (ft <sup>3</sup> /sack)	Water Req. (gal/sack)	Volume (bbl)	Bulk Cement (sacks)	Duration (min)
fresh water	1	8.33	4.00			0.00		0.00
Fresh Water Spacer	2	8.33	4.00			10.00		2.50
Shallow Surface Primary - 2227671/1	3	15.80	4.00	1.1818	5.244	55.78	265.00	13.94
Top Plug/Start Displacement								
fresh water	4-1	8.33	4.00			15.00		3.75
fresh water	4-2	8.33	2.00			6.36		3.18
<b>Total:</b>						<b>87.14</b>		<b>23.37</b>

\*Pump schedule may include additional rows for displacement if "Automatic Rate Adjustment" was enabled and ECDs approached the fracture gradient.

## 2.0 Real-Time Job Summary

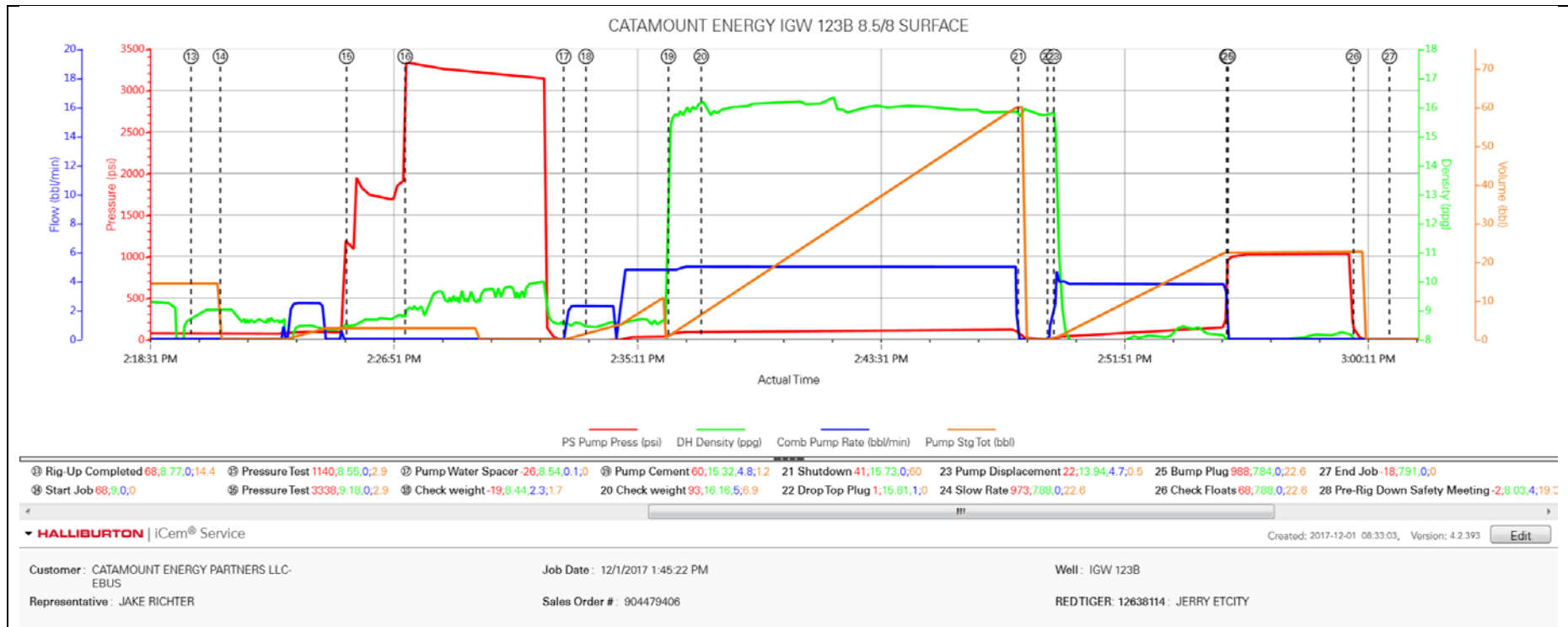
## 2.1 Job Event Log

Type	Seq. No.	Graph Label	Date	Time	Source	Pass-Side Pump Pressure (psi)	Downhole Density (ppg)	Combined Pump Rate (bbl/min)	Pump Stage Total (bbl)	Comments
Event	1	Call Out	12/1/2017	08:00:00	USER					HES crew called out at 2300 on 9/22/16, requested on location at 1200 on 12/1/17
Event	2	Depart Yard Safety Meeting	12/1/2017	10:00:00	USER					HES crew discuss the hazards of driving to location
Event	3	Depart from Service Center or Other Site	12/1/2017	10:05:00	USER					HES crew depart from yard to location
Event	4	Arrive At Loc	12/1/2017	12:00:00	USER					Rig running casing
Event	5	Well Information	12/1/2017	12:10:00	USER					TD: __387__, TP __377__, SJ: __45.45__, OH: __12.125__, Casing: Size/Weight/Grade: __8.625__ __24__j-55__, Previous Casing Shoe: __0__
Event	6	Assessment Of Location Safety Meeting	12/1/2017	12:15:00	USER					Customer was offered/received MSDS
Event	7	Water Test	12/1/2017	12:20:00	USER					Water test=pH: __7.2__, Cl: __0__, temp __55__degrees, sulfate __<200__
Event	8	Pre-Rig Up Safety Meeting	12/1/2017	12:25:00	USER					HES crew discuss the hazards of rigging up equipment
Event	9	Rig-Up Equipment	12/1/2017	12:30:00	USER					Rig up all iron and water hoses
Event	10	Prime Pumps	12/1/2017	13:00:00	USER					Pump 3 bbls to fill pumps and lines
Event	11	Pre-Job Safety Meeting	12/1/2017	14:00:00	USER	72.00	8.58	0.00	14.4	HES and rig crew discuss the hazards of rigging up the rig floor and pumping the job
Event	12	Rig Info	12/1/2017	14:01:00	USER	72.00	8.69	0.00	14.4	Rig Circulation: __300__bbls, Rate __5__ bbl/min, Pressure __100__PSI, MW __8.4__ ppg, Pipe Movement __No__, Rat Hole Length __10__
Event	13	Rig-Up Completed	12/1/2017	14:20:00	USER	68.00	8.77	0.00	14.4	Rig-up Complete
Event	14	Start Job	12/1/2017	14:21:00	USER	68.00	9.00	0.00	0.0	Start Job

Event	15	Pressure Test	12/1/2017	14:25:19	USER	1140.00	8.55	0.00	2.9	700 psi low pressure kick out test
Event	16	Pressure Test	12/1/2017	14:27:19	USER	3338.00	9.18	0.00	2.9	Pressure test HES iron to 3000 psi
Event	17	Pump Water Spacer	12/1/2017	14:32:44	USER	-26.00	8.63	0.90	0.0	Pump 10 bbls of h2o spacer.
Event	18	Check weight	12/1/2017	14:33:30	COM7	-19.00	8.44	2.30	1.7	8.33 PPG
Event	19	Pump Cement	12/1/2017	14:36:19	USER	60.00	15.32	4.80	1.3	Pump 265 sks of CEMENT 15.8 ppg, 1.18 ft3/sack, 5.24 gal/sack at 5 bpm
Event	20	Check weight	12/1/2017	14:37:27	COM7	93.00	16.15	5.00	6.8	15.8 PPG
Event	21	Shutdown	12/1/2017	14:48:18	USER	45.00	15.66	0.00	60.0	Shutdown
Event	22	Drop Top Plug	12/1/2017	14:49:18	USER	0.00	15.85	0.90	0.0	Drop top plug, customer witnessed
Event	23	Pump Displacement	12/1/2017	14:49:30	USER	19.00	14.64	3.80	0.4	Pump 21 bbls of h2o displacement
Event	24	Slow Rate	12/1/2017	14:55:25	USER	973.00	7.88	0.00	22.6	Slow Rate to 2 bpm last 2 bbls of H2O displacement
Event	25	Bump Plug	12/1/2017	14:55:28	USER	988.00	7.84	0.00	22.6	Bump Plug, bring pressure up 1000 psi over final circulating pressure.
Event	26	Check Floats	12/1/2017	14:59:46	USER	78.00	7.88	0.00	22.6	Check Floats, .5 bbls back to HES cement pump
Event	27	End Job	12/1/2017	15:01:00	USER	-18.00	7.92	0.00	0.0	End Job, final circulating pressure was psi
Event	28	Pre-Rig Down Safety Meeting	12/1/2017	15:10:00	USER	-2.00	8.03	4.00	19.3	HES and rig crew discuss the hazards of rigging down equipment
Event	29	Rig-Down Equipment	12/1/2017	15:15:00	USER					Rig-Down equipment
Event	30	Rig-Down Completed	12/1/2017	15:45:00	USER					Rig-Down complete
Event	31	Pre-Convoy Safety Meeting	12/1/2017	15:50:00	USER					HES crew discuss the hazards of driving
Event	32	Other	12/1/2017	15:55:00	USER					Items being returned: TOP AND BOTTOM PLUG
Event	33	Well Information	12/1/2017	16:00:00	USER					H2O Spacer: 10 bbl, TOS: surface, Lead Cement: 55.7 bbl, 265 sks, TOC surface: Displacement: 21 bbl. CMT left in Pipe___45.45___ Reason ___shoe joint___
Event	34	Job Complete	12/1/2017	16:02:00	USER					Job complete, estimated top of CEMENT SURFACE, 25 bbls of lead back to surface, thank you for using Halliburton- James Sherratt

## 3.0 Attachments

### 3.1 CATAMOUNT ENERGY IGW 123B 8.625 SURFACE-WITH EVENTS.png



## 3.2 CATAMOUNT ENERGY IGW 123B 8.625 SURFACE-WITHOUT EVENTS.png

