

Miami County, KS
Well: Stahl AI-13
Lease Owner: Altavista Energy

Town Oilfield Service, Inc.
(913) 837-8400

Commenced Spudding:
6-19-2015

WELL LOG

Thickness of Strata	Formation	Total Depth
0 - 14	Soil - Clay	14
34	Shale	48
24	Lime	72
14	Shale	86
11	Lime	97
9	Shale	106
3	Lime	109
21	Shale	130
5	Lime	135
35	Shale	170
11	Lime	181
15	Shale	196
25	Lime	221
7	Shale	228
20	Lime	248
3	Shale	251
3	Lime	254
2	Shale	256
12	Lime	268
11	Shale	279
4	Sand	283
16	Shale	299
8	Sand	307
43	Sandy Shale	350
119	Shale	469
4	Lime	473
2	Shale	475
5	Lime	480
8	Shale	488
8	Lime	496
18	Shale	514
4	Lime	518
9	Shale	527
3	Lime	530
12	Shale	542
5	Lime	547
75	Shale	622
1	Sand	623
3	Sand	626
1	Sand	627

Short Cuts

TANK CAPACITY

BBLs. (42 gal.) equals $D^2 \times .14 \times h$
D equals diameter in feet.
h equals height in feet.

BARRELS PER DAY

Multiply gals. per minute x 34.2

HP equals BPH x PSI x .0004

BPH - barrels per hour

PSI - pounds square inch

TO FIGURE PUMP DRIVES

- * D - Diameter of Pump Sheave
- * d - Diameter of Engine Sheave
- SPM - Strokes per minute
- RPM - Engine Speed
- R - Gear Box Ratio
- *C - Shaft Center Distance

D - $\text{RPM} \times d$ over $\text{SPM} \times R$

d - $\text{SPM} \times R \times D$ over RPM

SPM - $\text{RPM} \times D$ over $R \times d$

R - $\text{RPM} \times D$ over $\text{SPM} \times d$

BELT LENGTH - $2C + 1.57(D + d) + \frac{(D-d)^2}{4C}$

* Need these to figure belt length

TO FIGURE AMPS: $\frac{\text{WATTS}}{\text{VOLTS}} = \text{AMPS}$

746 WATTS equal 1 HP

Log Book

Well No. AI-13

Farm Stahl

KS Miami
(State) (County)

17 16 24
(Section) (Township) (Range)

For Altavista Energy inc
(Well Owner)

Town Oilfield Services, Inc.

1207 N. 1st East
Louisburg, KS 66053
913-710-5400

Stahl Farm: Miami County
KS State; Well No. AI-13
Elevation 989
Commenced Spuding 6-19 .20 15
Finished Drilling 6-22 .20 15
Driller's Name Wesley Dillard
Driller's Name _____
Driller's Name _____
Tool Dresser's Name Ryan Ward
Tool Dresser's Name _____
Tool Dresser's Name _____
Contractor's Name TOS
17 16 24

(Section) (Township) (Range)
Distance from 5 line, 1980 ft.
Distance from E line, 5000 ft.
4 sacks 2 7/8 casing
7 hrs
5 5/8 borehole

CASING AND TUBING RECORD

10" Set _____ 10" Pulled _____
8" Set _____ 8" Pulled _____
7 3/8" Set 23 _____ 6 1/2" Pulled _____
4" Set _____ 4" Pulled _____
2" Set _____ 2" Pulled _____

CASING AND TUBING MEASUREMENTS

Feet	In.	Feet	In.	Feet	In.
668.30				Baffle	
699.85				Floater	
720 TD					2 7/8

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0-14	soil-clay	14	
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11	Lime	97	
9	Shale	106	
3	Lime	109	
21	Shale	130	
5	Lime	135	
35	Shale	170	
11	Lime	181	
15	Shale	196	
25	Lime	221	
7	Shale	228	
20	Lime	248	
3	Shale	251	
3	Lime	254	
2	Shale	256	
12	Lime	268	Hertha
11	Shale	279	
4	sand	283	slight show
16	Shale	299	
8	sand	307	solid- good show
43	sandy shale	350	
119	Shale	469	
4	Lime	473	
2	Shale	475	

475

Thickness of Strata	Formation	Total Depth	Remarks
5	Lime	480	
8	Shale	488	
8	Lime	496	
18	shale	514	
4	Lime	518	
9	Shale	527	
3	Lime	530	
12	Shale	542	
5	Lime	547	
75	Shale	622	
1	Sandy	623	Solid - good saturation broken - 25% oil solid - good saturation broken - very little oil broken - 50% oil
3	Sand	626	
1	Sand	627	
2	Sand	629	
2	sand	631	
29	sandy shale	660	
60	shale	720	TD

D
S
4



REMIT TO
 Consolidated Oil Well Services, LLC
 Dept:970
 P.O.Box 4346
 Houston, TX 77210-4346

MAIN OFFICE
 P.O.Box884
 Chanute, KS 66720
 620/431-9210, 1-800/467-8676
 Fax 620/431-0012

Invoice Invoice# 804682

Invoice Date: 06/28/15 Terms: Net 30 Page 1

ALTAVISTA ENERGY INC
 4595 K-33 HWY, PO BOX 128
 WELLSVILLE KS 66092
 USA
 7858834057

STAHL # AI-13

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,500.0000	46.000	810.00
CE0002	Equipment Mileage Charge - Heavy Equipment	30.000	7.1500	46.000	115.83
CE0711	Minimum Cement Delivery Charge	1.000	660.0000	46.000	356.40
WE0853	80 BBL Vacuum Truck (Cement Services)	2.000	100.0000	46.000	108.00
CC5840	Poz-Blend I A (50:50)	88.000	13.5000	46.000	641.52
CC5965	Bentonite	248.000	0.3000	46.000	40.18
CC5326	Sodium Chloride, Salt	185.000	0.7500	46.000	74.93
CC6077	Kolseal	440.000	0.5000	46.000	118.80
CC6128	Mud Flush - C	0.500	50.0000	46.000	13.50
CP8176	2 7/8" Top Rubber Plug	1.000	45.0000	46.000	24.30

Subtotal 4,265.65
 Discounted Amount 1,962.20
 SubTotal After Discount 2,303.45

Amount Due 4,395.02 If paid after 07/28/15

Tax: 69.86
 Total: 2,373.32



CONSOLIDATED
Oil Well Services, LLC

PO Box 884, Chanute, KS 66720
620-431-9210 or 800-467-8676

3270
3195
Invoice # 804682

FIELD TICKET & TREATMENT REPORT
CEMENT

TICKET NUMBER 51033
LOCATION Chawaks
FOREMAN Cary Kennedy

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
6/22/15	3244	Stahl # AT-13	Sw 17	16	24	Mi
CUSTOMER <u>Altavista Energy</u>			TRUCK #			
MAILING ADDRESS <u>PO Box 128</u>			DRIVER			
CITY <u>Wellsville</u>			TRUCK #			
STATE <u>KS</u>			DRIVER			
ZIP CODE <u>66602</u>			TRUCK #			
			DRIVER			

JOB TYPE logstring HOLE SIZE 5 5/8" HOLE DEPTH 720' CASING SIZE & WEIGHT 2 7/8" EUE
CASING DEPTH 700' DRILL PIPE _____ TUBING baffle- 6608' OTHER _____
SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 32'
DISPLACEMENT 3.87 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 bpm

REMARKS: hold safety meeting, established circulation, mixed & pumped 1/2 gal mud flush, circulated for 1 hr to condition hole, mixed & pumped 100 # coal followed by 5 bbls fresh water, mixed & pumped 88 sks 50/50 Pozblend cement w/ 2% gel, 5% salt, & 5 # Kalsol per sk, cement to surface, flushed pump clean, pumped 2 1/2" rubber plug to baffle w/ 3.87 bbls fresh water, pressured to 800 PSI, released pressure, shut in casing.

Handwritten signature/initials

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
CE0450	1	PUMP CHARGE	1500.00	
CE0002	30 mi	MILEAGE	24.50	
CE0711	min	ton mileage	100.00	
WE0853	2 hrs	80 Vac	200.00	
		trucks	2574.50	
		-46%	1184.27	
		subtotal		1390.23
CC5840	88 sks	50/50 Pozblend	1188.00	
CC5965	248 #	Gel	74.40	
CC5326	185 #	Salt	138.75	
CC6077	440 #	Kalsol	220.00	
CC6128	1/2 gal	Mud Flush	25.00	
CP8176	1	2 1/2" rubber plug	45.00	
		materials	1691.15	
		-46%	777.93	
		subtotal		913.22
		7.65%		69.86
		SALES TAX ESTIMATED		69.86
		TOTAL		2373.31

AUTHORIZATION Danica Kelly TITLE _____ DATE (4395.02)

I acknowledge that the payment terms, unless specifically amended in writing on the front of the form or in the customer's account records, at our office, and conditions of service on the back of this form are in effect for services identified on this form.