

Miami County, KS
 Well: Nevius A-12
 Lease Owner: Altavista Energy

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

Commenced Spudding:
 5-4-2015

WELL LOG

Thickness of Strata	Formation	Total Depth
0 - 6	Soil	6
9	Lime	15
46	Shale	61
9	Lime	70
7	Sandy Lime	77
29	Lime	106
21	Shale	127
10	Lime	137
6	Shale	143
1	Lime	144
21	Shale	165
5	Lime	170
9	Shale	179
1	Lime	180
26	Shale	206
10	Lime	216
16	Shale	231
26	Lime	257
6	Shale	263
22	Lime	285
4	Shale	289
2	Lime	291
6	Shale	297
6	Lime	303
10	Shale	313
3	Sand	316
16	Shale	332
22	Sand	354
142	Shale	496
9	Lime	505
6	Shale	511
9	Lime	520
20	Shale	539
4	Lime	543
10	Shale	553
3	Lime	556
9	Shale	565
8	Lime	573
65	Shale	638
3	Shale - Black	641

Core

		642
1	Sandy Shale	643
1		644
1		645
1		646
1		647
1		648
1		649
1	Solid Sand	650
1		651
1		652
1		653
1	Best Saturation	654
1		655
1		656
1		657
1	Sandy Shale	658
1	Sandy Shale	659

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. A-12

Farm Nevius

KS MIAMI
(State) (County)

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

For DE EXP
(Well Owner)

Town Oilfield Services, Inc.

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

Thickness of Strata	Formation	Total Depth	Remarks
0-6	Soil	6	
9	Lime	15	
46	Shale	61	
9	Lime	70	
7	Sandy Lime	77	Water
29	Lime	106	
21	Shale	127	
10	Lime	137	
6	Shale	143	
1	Lime	144	
21	Shale	165	Red bed
5	Lime	170	
9	Shale	179	
1	Lime	180	
26	Shale	206	
10	Lime	216	
16	Shale	231	
26	Lime	257	Winterset
6	Shale	263	
22	Lime	285	Bethany Falls
4	Shale	289	
2	Lime	291	ICC
6	Shale	297	
6	Lime	303	Hertha
10	Shale	313	
3	Sand	316	Oil, Good bleed
16	Shale	332	

332

Thickness of Strata	Formation	Total Depth	
22	Sand	354	Solid Sand Bottom 4 ft bleed good.
142	Shale	496	
9	Lime	505	
6	Shale	511	
9	Lime	520	
20	Shale	539	
4	Lime	543	
10	Shale	553	
3	Lime	556	
9	Shale	565	
8	Lime	573	
65	Shale	638	
3	Shale-Black	641	
1	Sand	642	
17	Core	659	
6	Sandy Shale	665	
54	Shale	720	

Thickness of Strata	Formation	Total Depth	Remarks
642	Sandy Shale	10-	Sand, slight bleed
643			
644			
645			
646			
647			
648			
649			
650	Solid Sand		Oil Bleed
651			
652	Best Saturation		Perf.
653			
654	Sandy Shale	NO	OIL
655			
656			
657			
658			
659			



CONSOLIDATED
Oil Well Services, LLC

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

MAIN OFFICE

P.O.Box 884
Chanute, KS 66720
620/431-9210, 1-800/467-8676
Fax 620/431-0012

Invoice Invoice# 804214

Invoice Date: 05/19/15 Terms: Net 30 Page 1

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

NEVIUS #A-12

Part No	Description	Quantity	Unit Price	Discount(%)	Total
CE0450	Cement Pump Charge 0 - 1500'	1.000	1,085.0000	30.000	759.50
CE0002	Equipment Mileage Charge - Heavy Equipment	30.000	4.2000	30.000	88.20
CE0461	Cement Pump Charge Below 12000'	713.000	0.0000	0.000	0.00
CE0711	Minimum Cement Delivery Charge	1.000	368.0000	30.000	257.60
WE0853	80 BBL Vacuum Truck (Cement Services)	2.000	100.0000	30.000	140.00
CC5840	Poz-Blend I A (50:50)	91.000	11.5000	30.000	732.55
CC5965	Bentonite	353.000	0.2200	30.000	54.36
CC5326	Sodium Chloride, Salt	191.000	0.3900	30.000	52.14
CC6077	Kolseal	455.000	0.4600	30.000	146.51
CP8176	2 7/8" Top Rubber Plug	1.000	29.5000	30.000	20.65

Subtotal 3,216.45
Discounted Amount 964.94
SubTotal After Discount 2,251.51

Amount Due 3,326.41 If paid after 06/18/15

Tax: 76.97
Total: 2,328.48



CONSOLIDATED
Oil Well Services, LLC

2843
767

INVOICE # 804214

TICKET NUMBER 50957
LOCATION Chanaw, KS
FOREMAN Casey Kennedy

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

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
5/5/15	3244	Norris # A-12	NE 17	16	24	MI
CUSTOMER Atavista Energy			TRUCK # DRIVER TRUCK # DRIVER			
MAILING ADDRESS PO Box 128			729 Casken Safety Maching			
CITY STATE ZIP CODE Wellsville KS 66092			4167 KeiCar			
			558 Ar Med			
			675 Kei Det			

JOB TYPE Logging HOLE SIZE 5 5/8" HOLE DEPTH 720' CASING SIZE & WEIGHT 2 7/8" EUE
CASING DEPTH 713' DRILL PIPE TUBING baffle - 682' OTHER _____
SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 31'
DISPLACEMENT 3.95 bbls DISPLACEMENT PSI _____ MIX PSI _____ RATE 4 bpm

REMARKS: held safety maching, established circulation, mixed & pumped 200 # Gel, followed by 10 bbl fresh water, pressure 800 mixed & pumped 91 sks 5950 Pozmix cement w/ 2% gel, 5% salt, + 5 # Kalseal per sk, cement to surface, flushed pump clean, pumped 2 1/2" rubber plug to baffle w/ 3.95 bbls fresh water, pressured to 800 PSI, released pressure, shut in casing.

[Handwritten signature]

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401 C20450	1	PUMP CHARGE	1085.00	
5406 C20002	30 mi	MILEAGE	126.00	
5402 C20401	713'	casing footage		
5407 C20711	minimum	you mileage	368.00	
5502 C20853	2 hrs	80 Vac	200.00	
		trucks	1779.00	
		-30%	533.70	
		subtotal		1245.30
1124 CC5840	91 sks	50/50 Pozmix cement	1046.50	
118B CC5965	33 #	Gel	77.60	
111 CC5326	121 #	Salt	74.49	
1110A CC6077	55 #	Kalseal	209.30	
4402 CP8174	1	2 1/2" rubber plug	29.50	
		materials	1437.45	
		-30%	431.24	
		subtotal		1006.21
		7.65%	SALES TAX	76.98
		ESTIMATED TOTAL		2328.49

completed

AUTHORIZATION [Signature] TITLE _____ DATE 3/3/2011

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.