



Fueling American Prosperity™

Oil and Gas Well Drilling

3137 Virginia Rd, Wellsville KS 66092

Owners: Clay Hughes

Isaac Burbank

Well Log

DE & TZ LLC

Knabe Well #: I-22

Sec. 31 Twp. 14 Rng. 22

FSL: 4505 FEL: 200

API: 15-091-24410

Start: 03/26/15

End: 03/27/15

Phone: (785) 979-9493

(913) 963-9127

Fax: (785) 883-2305

<u>Thickness of Strata</u>	<u>Formation</u>	<u>Total</u>
9	Soil & Clay	9
11	Sandstone	20
50	Shale	70
3	Lime	73
2	Shale	75
17	Lime	92
7	Shale	99
9	Lime	108
7	Shale	115
19	Lime	134
13	Shale	147
7	Sand	154
2	Shale	156
30	Lime	186
7	Shale	193
14	Lime	207
10	Shale	217
30	Lime	247
14	Shale	261
9	Lime	270
20	Shale	290
6	Lime	296
4	Shale	300
6	Lime	306
33	Shale	339
2	Lime	341
9	Shale	350
7	Lime	357
2	Shale	359
17	Lime	376
9	Shale	385
22	Lime	407
4	Shale	411

Light oil show

4	Lime	415	
4	Shale	419	Black
6	Lime	425	Base of Kansas City / Hertha
32	Shale	457	
5	Broken Sand	462	Grey sand & shale, light gas odor
2	Silty Shale	464	
73	Shale	537	
7	Silty Shale	544	
53	Shale	597	
6	Lime	603	
2	Shale	605	
3	Lime	608	
8	Shale	616	
8	Broken Lime	624	
1	Broken Sand	625	Brown sand & shale, light bleed
1	Silty Shale	626	
13	Shale	639	
3	Lime	642	
13	Shale	655	
5	Lime	660	
22	Shale	682	Red bed
3	Lime	685	
3	Shale	688	
2	Lime	690	
6	Shale	696	
4	Silty Shale	700	
37	Shale	737	
1	Lime & Shells	738	
11	Shale	749	
1	Lime & Shells	750	
10	Shale	760	
1	Broken Sand	761	Brown & grey, no oil, no gas
6	Silty Shale	767	
3	Broken Sand	770	Brown sand & shale, no oil, no gas
31	Shale	801	
3	Silty Shale	804	
10	Shale	814	
1	Coal	815	
4	Shale	819	
1	Silty Shale	820	
2	Broken Sand	822	Brown & grey sand, light bleed
3	Silty Shale	825	
6	Shale	831	
1	Coal	832	
3	Shale	835	
7	Silty Shale	842	Sandy white & grey shale

14	Shale	856	
1	Coal	857	
23	Shale	880	
3	Broken Sand	883	White limey sand & brown oil sand, good bleed
3	Oil Sand	886	Soft brown sand, good bleed
2	Broken Sand	888	70% dark brown sand, 30% white sand, good bleed
4	Oil Sand	892	Soft dark brown sand, good bleed
1	Lime	893	
3	Broken Sand	896	50% black sand, 50% shale, light bleed
5	Black Sand	901	No bleed
4	Silty Shale	905	
59	Shale	964	TD

Drilled an 11" hole to 23'
 Drilled a 5 5/8" hole to 964'

03/26/15 set 23' of 7" surface casing, cemented with 9 sacks of cement.

03/27/15 chip sampled Bartlesville zone.

03/27/15 set 949' of 2 7/8" 8 round upset tubing including 3 centralizers, 1 clamp, 1 float-shoe, and baffle.
 Baffle set at 919'.



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# 803831

Invoice Date: 03/31/15 Terms: C.O.D. Page 1

D.E. EXPLORATION
 P.O. BOX 128 KNABE I-22
 WELLSVILLE KS 66092
 USA
 7858834057

Part No	Description	Quantity	Unit Price	Discount(%)	Total
5401	Cement Pumper	1.000	1,085.0000	10.000	976.50
5406	Mileage Charge	30.000	4.2000	10.000	113.40
5402	Casing Footage	949.000	0.0000	0.000	0.00
5407	Min. Bulk Delivery Charge	1.000	368.0000	10.000	331.20
5502C	80 Vacuum Truck Cement	2.000	100.0000	10.000	180.00
1124	Poz Cement Mix	132.000	11.5000	30.000	1,062.60
1118B	Premium Gel / Bentonite	322.000	0.2200	30.000	49.59
1111	Sodium Chloride (Granulated Salt)	266.000	0.3900	30.000	72.62
1110A	Kol Seal (50# BAG)	660.000	0.4600	30.000	212.52
4402	2 1/2 Rubber Plug	1.000	29.5000	0.000	29.50
1401	HE 100 Polymer	0.500	47.2500	0.000	23.63

Subtotal 3,828.31
 Discounted Amount 776.75
 SubTotal After Discount 3,051.56

Amount Due 3,979.44 If paid after 03/31/15

Tax: 106.97
 Total: 3,158.53



CONSOLIDATED
Oil Well Services, LLC

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

Invoice # 803831 ²⁵³¹ ₂₄₆₉

TICKET NUMBER 50905
LOCATION Ottawa KS
FOREMAN Fred Maden

FIELD TICKET & TREATMENT REPORT
CEMENT

DATE	CUSTOMER #	WELL NAME & NUMBER	SECTION	TOWNSHIP	RANGE	COUNTY
3-27-15	2355	Knabe #I-22	SE 31	14	22	JO

CUSTOMER		TRUCK #		DRIVER	
DE+TZ LLC % DE Exploration		712	Frc Maden		
MAILING ADDRESS		495	Har Bec		
P.O. Box 128		369	Mix Hca		
CITY	STATE	ZIP CODE	804	Gar Moo	
Wellsville	KS	66092			

JOB TYPE Long string HOLE SIZE 5 7/8 HOLE DEPTH 964 CASING SIZE & WEIGHT 2 7/8 EUF
 CASING DEPTH 949 DRILL PIPE 50 ft 6 in TUBING @ 919 OTHER _____
 SLURRY WEIGHT _____ SLURRY VOL _____ WATER gal/sk _____ CEMENT LEFT in CASING 30' +
 DISPLACEMENT 5.3413 DISPLACEMENT PSI _____ MIX PSI _____ RATE 5 BPM

REMARKS: Hold Safety meeting. Establish pump rate. Pump 1/2 Gal HE-100 Polymer. Circulate well to condition hole. Mix + Pump 100# Gel Flush. Mix + Pump 132 sks 50/50 Poz Mix Cement 270 Gal 5% Salt 5# Kol Seal /sk. Cement to surface. Flush pump & lines clean. Displace 2 1/2" Rubber plug to casing. Baffle. Pressure to 600# PSI. Release pressure to set float valve. Shut in casing.

HB Energy

Fred Maden

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE	495	1085 ⁰⁰
5406	30 mi	MILEAGE	495	126 ⁰⁰
5402	949	Casing Footage	N/C	
5407	Minimum	Ten Miles	804	368 ⁰⁰
5502	2 hrs	80 BBL Vac Truck	369	200 ⁰⁰
		Sub Total		1779 ⁰⁰
		Less 10%		-177 ⁹⁰
				1601 ¹⁰
7124	132 sks	50/50 Poz Mix Cement	1518 ⁰⁰	
1118B	322#	Premium Gel	70 ⁸⁹	
1111	266#	Granulated Salt	103 ²⁴	
1110H	660#	Kol Seal	303 ⁶⁹	
		Material	1996 ¹⁵	
		Less 30%	-598 ⁸⁵	
		Total		1397 ³³
4402	1	2 1/2" Rubber Plug		29 ⁵⁹
140L	1/2 Gal	HE-100 Polymer		236 ⁶³
			7.3752	SALES TAX
				106 ⁹²
				ESTIMATED TOTAL
				3158 ⁵³

Flavin 3737
 AUTHORIZATION Bryan Miller TITLE _____ DATE 3/28/15
 TOTAL 3835.69

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.