



1198804

Operator Name: \_\_\_\_\_ Lease Name: \_\_\_\_\_ Well #: \_\_\_\_\_

Sec. \_\_\_\_\_ Twp. \_\_\_\_\_ S. R. \_\_\_\_\_  East  West County: \_\_\_\_\_

**INSTRUCTIONS:** Show important tops of formations penetrated. Detail all cores. Report all final copies of drill stems tests giving interval tested, time tool open and closed, flowing and shut-in pressures, whether shut-in pressure reached static level, hydrostatic pressures, bottom hole temperature, fluid recovery, and flow rates if gas to surface test, along with final chart(s). Attach extra sheet if more space is needed.

Final Radioactivity Log, Final Logs run to obtain Geophysical Data and Final Electric Logs must be emailed to kcc-well-logs@kcc.ks.gov. Digital electronic log files must be submitted in LAS version 2.0 or newer AND an image file (TIFF or PDF).

Drill Stem Tests Taken <input type="checkbox"/> Yes <input type="checkbox"/> No <i>(Attach Additional Sheets)</i>  Samples Sent to Geological Survey <input type="checkbox"/> Yes <input type="checkbox"/> No  Cores Taken <input type="checkbox"/> Yes <input type="checkbox"/> No Electric Log Run <input type="checkbox"/> Yes <input type="checkbox"/> No  List All E. Logs Run: _____	<input type="checkbox"/> Log Formation (Top), Depth and Datum <input type="checkbox"/> Sample  Name Top Datum
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CASING RECORD <input type="checkbox"/> New <input type="checkbox"/> Used							
Report all strings set-conductor, surface, intermediate, production, etc.							
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs. / Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percent Additives

ADDITIONAL CEMENTING / SQUEEZE RECORD				
Purpose:	Depth Top Bottom	Type of Cement	# Sacks Used	Type and Percent Additives
<input type="checkbox"/> Perforate <input type="checkbox"/> Protect Casing <input type="checkbox"/> Plug Back TD <input type="checkbox"/> Plug Off Zone				

Did you perform a hydraulic fracturing treatment on this well?  Yes  No *(If No, skip questions 2 and 3)*

Does the volume of the total base fluid of the hydraulic fracturing treatment exceed 350,000 gallons?  Yes  No *(If No, skip question 3)*

Was the hydraulic fracturing treatment information submitted to the chemical disclosure registry?  Yes  No *(If No, fill out Page Three of the ACO-1)*

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record <i>(Amount and Kind of Material Used)</i>	Depth

TUBING RECORD:	Size:	Set At:	Packer At:	Liner Run: <input type="checkbox"/> Yes <input type="checkbox"/> No
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Date of First, Resumed Production, SWD or ENHR.	Producing Method: <input type="checkbox"/> Flowing <input type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other <i>(Explain)</i> _____
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Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity

<b>DISPOSITION OF GAS:</b> <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease <i>(If vented, Submit ACO-18.)</i>	<b>METHOD OF COMPLETION:</b> <input type="checkbox"/> Open Hole <input type="checkbox"/> Perf. <input type="checkbox"/> Dually Comp. <input type="checkbox"/> Commingled <i>(Submit ACO-5)</i> <input type="checkbox"/> Other <i>(Specify)</i> _____	<b>PRODUCTION INTERVAL:</b> _____ _____
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**REMIT TO**  
**FINV**  
 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 # 266878

=====  
 Invoice Date: 03/27/2014      Terms: 0/30/10,n/30      Page 1

D & Z EXPLORATION  
 901 N. ELM ST.  
 P.O. BOX 159  
 ST. ELMO IL 62458  
 (618) 829-3274

DONOVAN I-20  
 42698  
 NE 28-14-22  
 03-24-2014  
 KS

Part Number	Description	Qty	Unit Price	Total
1124	50/50 POZ CEMENT MIX	135.00	11.5000	1552.50
1118B	PREMIUM GEL / BENTONITE	427.00	.2200	93.94
1111	SODIUM CHLORIDE (GRANULA	284.00	.3900	110.76
1110A	KOL SEAL (50# BAG)	675.00	.4600	310.50
4402	2 1/2" RUBBER PLUG	1.00	29.5000	29.50

Sublet Performed	Description	Total
9996-120	CEMENT MATERIAL DISCOUNT	-620.31

Description	Hours	Unit Price	Total
368 CEMENT PUMP	1.00	1085.00	1085.00
368 EQUIPMENT MILEAGE (ONE WAY)	30.00	4.20	126.00
368 CASING FOOTAGE	924.00	.00	.00
370 80 BBL VACUUM TRUCK (CEMENT)	2.00	100.00	200.00
548 MIN. BULK DELIVERY	1.00	368.00	368.00

Amount Due 4030.88 if paid after 04/06/2014

Parts:	2097.20	Freight:	.00	Tax:	108.93	AR	3364.82
Labor:	.00	Misc:	.00	Total:	3364.82		
Sublt:	-620.31	Supplies:	.00	Change:	.00		

Signed \_\_\_\_\_ Date \_\_\_\_\_

BARTLESVILLE, OK 918/338-0808    EL DORADO, KS 316/322-7022    EUREKA, KS 620/583-7664    PONCA CITY, OK 580/762-2303    OAKLEY, KS 785/672-8822    OTTAWA, KS 785/242-4044    THAYER, KS 620/839-5269    GILLETTE, WY 307/686-4914    CUSHING, OK 918/225-2650



**CONSOLIDATED**  
Oil Well Services, LLC

266878

TICKET NUMBER 42698  
LOCATION Chautau, 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
3/24/14	3392	Dovonan # I-20	NE 28	14	22	JO

  

CUSTOMER	TRUCK #	DRIVER	TRUCK #	DRIVER
DTZ Exploration MAILING ADDRESS 901 N. Elm St CITY St Elmo STATE IL ZIP CODE 62458	729	Casey	✓	Safety Meeting
	368	Ad McD	✓	
	548	Mik Haa	✓	
	370	Jas Ric	✓	

JOB TYPE logstring HOLE SIZE 5 5/8" HOLE DEPTH 960' CASING SIZE & WEIGHT 2 7/8" EVE  
 CASING DEPTH 924' DRILL PIPE \_\_\_\_\_ TUBING \_\_\_\_\_ OTHER \_\_\_\_\_  
 SLURRY WEIGHT \_\_\_\_\_ SLURRY VOL \_\_\_\_\_ WATER gal/sk \_\_\_\_\_ CEMENT LEFT in CASING \_\_\_\_\_  
 DISPLACEMENT 5.35 bbls DISPLACEMENT PSI \_\_\_\_\_ MIX PSI \_\_\_\_\_ RATE 3 bpm

REMARKS: held safety meeting, established circulation, mixed & pumped 200# Premium Gel followed by 10 bbls fresh water, mixed & pumped 135 sks 5% POZ cement w/ 2% gel, 5% salt, & 5# Kalseal per sk, cement to surface, flushed pump clean, pumped 2 1/2" rubber plug to casing TO w/ 5.35 bbls fresh water, pressured to 800 PSI, well held pressure for 30 min MIT, released pressure, shut in casing.

*Handwritten signature/initials*

ACCOUNT CODE	QUANTITY or UNITS	DESCRIPTION of SERVICES or PRODUCT	UNIT PRICE	TOTAL
5401	1	PUMP CHARGE		1085.00 ✓
5406	30 mi	MILEAGE		126.00 ✓
5402	924'	Casing footage		_____ ✓
5407	minimum	ton mileage		368.00 ✓
5502C	2 hrs	80 Vac		200.00 ✓
1124	135 sks	5% POZ cement	1552.50	✓
1118B	427 #	Premium Gel	93.94	✓
1111	284 #	Salt	110.76	✓
1110A	675 #	Kalseal	310.50	✓
		materials	2067.70	
		- 30%	620.31	
		sub total		1447.39 ✓
4402	1	2 1/2" rubber plug		29.50 ✓
		<input checked="" type="checkbox"/> completed	3876.00	✓
			- 620.31	3255.89 ✓
		7.375%		108.93 ✓
		SALES TAX		108.93 ✓
		ESTIMATED TOTAL		3364.82 ✓

Authorization Dan Beckwith TITLE \_\_\_\_\_ DATE \_\_\_\_\_

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

Johnson County, KS  
Well:Donovan #I-20  
Lease Owner:D and Z

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

Commenced Spudding:  
03/21/2014

WELL LOG

Thickness of Strata	Formation	Total Depth
4	soil/clay	4
16	sandstone	20
3	lime	23
17	shale	40
5	lime	45
19	shale	64
5	lime	69
4	shale	73
13	lime	86
9	shale	95
8	lime	103
9	shale	112
20	lime	132
15	shale	147
20	lime	167
8	shale	175
56	lime	231
22	shale	253
9	lime	262
17	shale	279
7	lime	286
5	shale	291
9	lime	300
34	shale	334
1	lime	335
11	shale	346
25	lime	371
7	shale	378
24	lime	402
4	shale	406
4	lime	410
6	shale	416
6	lime	422
5	shale	427
16	sandy shale	443
89	shale	532
7	sand	539
51	shale	590
4	lime	594
3	shale	597



# 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  $BPH \times PSI \times .0004$

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 -  $RPM \times d$  over  $SPM \times R$

d -  $SPM \times R \times D$  over RPM

SPM -  $RPM \times D$  over  $R \times D$

R -  $RPM \times D$  over  $SPM \times d$

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

\* Need these to figure belt length

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

746 WATTS equal 1 HP

# Log Book

Well No. # 1-20

Farm Donovan

KS Johnson  
(State) (County)

28 14 22  
(Section) (Township) (Range)

For D+2 Exploration  
(Well Owner)

## Town Oilfield Services, Inc.

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





Thickness of Strata	Formation	Total Depth	Remarks
4	sil/dclay	4	
16	sandstone	20	
3	Lime	23	water
17	shale	40	
5	Lime	45	
19	shale	64	
5	Lime	69	
4	shale	73	
13	Lime	86	
9	shale	95	
8	Lime	103	
9	shale	112	
20	Lime	132	
15	shale	147	
20	Lime	167	
8	shale	175	
56	Lime	231	
22	shale	253	
9	Lime	262	
17	shale	279	
7	Lime	286	
5	shale	291	
9	Lime	300	
34	shale	334	
1	Lime	335	
11	shale	346	
25	Lime	371	

Thickness of Strata	Formation	Total Depth	Remarks
		371	
7	shale	378	
24	lime	402	
4	shale	406	
4	lime	410	
6	shale	416	
6	lime	422	
5	shale	427	Harder
16	sandy shale	443	
89	shale	532	
7	sand	539	
51	shale	590	grey, no oil
4	lime	594	
3	shale	597	
3	lime	600	
8	shale	608	
8	lime	616	
14	shale	630	
3	lime	633	
6	shale	639	
5	lime	644	
3	shale	647	
3	lime	650	
37	shale	687	red bed - 655'
20	sand	707	grey, no oil
7	sandy shale	714	
41	shale	755	
7	broken sand	762	dark, little oil, broken sand

