

**KANSAS CORPORATION COMMISSION
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
WELL HISTORY - DESCRIPTION OF WELL & LEASE**

Form ACO-1
September 1999
Form Must Be Typed

ORIGINAL

Operator: License # 3842
LARSON OPERATING COMPANY
 Name: A DIVISION OF LARSON ENGINEERING, INC.
 Address: 562 WEST HIGHWAY 4
 City/State/Zip: OLMITZ, KS 67564-8561
 Purchaser: _____
 Operator Contact Person: TOM LARSON
 Phone: (620) 853-7368
 Contractor: Name: DUKE DRILLING CO., INC.
 License: 5929
 Wellsite Geologist: JON D. CHRISTENSEN

Designate Type of Completion:
 New Well Re-Entry Workover
 Oil SWD SIOW Temp Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc)

If Workover/Re-entry: Old Well Info as follows:
 Operator: _____
 Well Name: _____

Original Comp. Date: _____ Original Total Depth: _____
 Deepening Re-perf. Conv. to Enhr./SWD
 Plug Back Plug Back Total Depth
 Commingled Docket No. _____
 Dual Completion Docket No. _____
 Other (SWD or Enhr.?) Docket No. _____

<u>9/24/2003</u>	<u>10/3/2003</u>	
Spud Date or Recompletion Date	Date Reached TD	Completion Date or Recompletion Date

API No. 15 - 097-21520-0000
 County: KIOWA
SW SE Sec. 25 Twp. 30 S. R. 20 East West
660 feet from SOUTH Line of Section
1980 feet from EAST Line of Section

Footages Calculated from Nearest Outside Section Corner:
 (circle one) NE SE NW SW
 Lease Name: LIGGETT Well #: 1-25
 Field Name: _____ W/C
 Producing Formation: _____
 Elevation: Ground: 2163' Kelly Bushing: 2174'
 Total Depth: 5200' Plug Back Total Depth: _____
 Amount of Surface Pipe Set and Cemented at 663 Feet
 Multiple State Cementing Collar Used? Yes No
 If yes, show depth set _____ Feet
 If Alternate II completion, cement circulated from _____
 feet depth to _____ w/ _____ sx cmt.

Drilling Fluid Management Plan *D+A* *KJR* *6/08/07*
(Data must be collected from the Reserve Pit)
 Chloride content 31000 ppm Fluid volume 1800 bbls
 Dewatering method used ALLOWED TO DRY
 Location of fluid disposal if hauled offsite: _____
 Operator Name: _____
 Lease Name: _____ License No.: _____
 Quarter _____ Sec. _____ Twp. _____ S. R. _____ East West
 County: _____ Docket No.: _____

INSTRUCTIONS: An original and two copies of this information shall be filed with the Kansas Corporation Commission, 130 South Market-Room 2078, Wichita, Kansas 67202, within 120 days of the spud date, recompletion, workover or conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on side two of this form will be held confidential for a period of 12 months if requested in writing and submitted with the form (see rule 82-3-107 for confidentiality in excess of 12 months). One copy of all wireline logs and geologist well report shall be attached with this form. ALL CEMENTING TICKETS MUST BE ATTACHED. Submit CP-4 form with all plugged wells. Submit CP-111 form with all temporarily abandoned wells.

All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature: Thomas Larson
 Title: PRESIDENT Date: 2/14/2004
 Subscribed and sworn to before me this 14TH day of FEBRUARY,
 2004.
 Notary Public: Carol S. Larson
 Date Commission Expires: JUNE 25, 2005

CAROL S. LARSON
 Notary Public - State of Kansas
 My Appt. Expires 6-25-2005

KCC Office Use ONLY

Letter of Confidentiality Attached

If Denied, Yes Date: _____

Wireline Log Received

Geologist Report Received

UIC Distribution

✓

X

LARSON OPERATING COMPANY
 Operator Name: A DIVISION OF LARSON ENGINEERING, INC. Lease Name: LIGGETT Well #: 1-25
 Sec. 25 Twp. 30 S. R. 20 East West County: KIOWA

INSTRUCTIONS: Show important tops and base of formation penetrated. Detail all cores. Report all final copes of drill stem 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. Attach copy of all Electric Wireline Logs surveyed. Attach final geologist well site report.

Drill Stem Tests Taken <i>(Attach Additional Sheets)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Sample Sent to Geological Survey	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	HOWARD	3732	-1558
Electric Log Run <i>(Submit Copy)</i>	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	HEEBNER SHALE	4198	-2024
List All E. Logs Run:	DUAL INDUCTION		BROWN LMST	4383	-2209
	DUAL COMP POROSITY		LANSING "A"	4406	-2232
			STARK SHALE	4709	-2535
			MARMATON	4859	-2685
			ALTAMONT	4896	-2722
			PAWNEE	4927	-2753
			CHEROKEE SHALE	4971	-2797
			MISSISSIPPI	5061	-2887
			MISSISSIPPI DOLOMITE	5103	-2929

CASING RECORD <input checked="" 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
COND	30"	20"	48#	40'	6 YD 10 SK GROUT		
SURFACE	12-1/4"	8-5/8"	24#	663'	65-35 POZ CLASS A	225 100	6% GEL, 3% CC, 1/4#/SK FLOCELE 2% GEL, 3% CC, 1/4#/SK FLOCELE

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

Shots per Foot	PERFORATION RECORD – Bridge Plugs Set/Type		Acid. Fracture, Shot, Cement, Squeeze Record	
	Specify Footage of Each Interval Perforated		(Amount and Kind of Material Used)	
				Depth

TUBING RECORD		Size	Set At	Packer At	Liner Run	<input type="checkbox"/> Yes <input type="checkbox"/> No
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 (Explain)			
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity	

Disposition of Gas: Vented Sold Used on Lease *If vented, submit ACO-18.*

METHOD OF COMPLETION: Open Hole Perf. Dually Comp. Commingled Other (Specify) _____

Production Interval: _____

ALLIED CEMENTING CO., INC.

15257

ORIGINAL

REMIT TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT
Medicine L.D.G.

DATE <u>10-4-03</u>	SEC. <u>25</u>	TWP. <u>30</u>	RANGE <u>20</u>	CALLED OUT <u>8:00 A.M.</u>	ON LOCATION <u>12:00 P.M.</u>	JOB START <u>12:30 P.M.</u>	JOB FINISH <u>2:30 P.M.</u>
LEASE <u>Liggett</u>		WELL # <u>1-25</u>	LOCATION <u>Coldwater Ks, N To Co.</u>	COUNTY <u>Kiowa</u>	STATE <u>KS,</u>		
OLD OR <u>NEW</u> (Circle one)			<u>line 7W / N F/into</u>				

CONTRACTOR Doke #1

TYPE OF JOB Rotary Plug

HOLE SIZE 7 7/8 T.D. 1200

CASING SIZE _____ DEPTH _____

TUBING SIZE _____ DEPTH _____

DRILL PIPE 4 1/2 DEPTH 1200

TOOL _____ DEPTH _____

PRES. MAX 100 PSI MINIMUM _____

MEAS. LINE _____ SHOE JOINT _____

CEMENT LEFT IN CSG. _____

PERFS. _____

DISPLACEMENT Fresh H₂O & Mud

OWNER Larson Operating

CEMENT
AMOUNT ORDERED 125 sk 60' 40' 6"
1/4" Flo-Seal

COMMON	<u>75 A</u>	@	<u>7.15</u>	<u>536.25</u>
POZMIX	<u>50</u>	@	<u>3.80</u>	<u>190.00</u>
GEL	<u>6</u>	@	<u>10.00</u>	<u>60.00</u>
CHLORIDE		@		
	<u>Flo Seal 31*</u>	@	<u>1.40</u>	<u>43.40</u>
		@		
		@		
		@		
		@		
HANDLING	<u>132</u>	@	<u>1.15</u>	<u>151.80</u>
MILEAGE	<u>55 x .05 x 1.32</u>			<u>363.00</u>

EQUIPMENT

PUMP TRUCK CEMENTER David W.

302 HELPER Dayne W.

BULK TRUCK

353 DRIVER Traux C.

BULK TRUCK

_____ DRIVER _____

RECEIVED TOTAL 1344.45

FEB 19 2004

KCC WICHITA SERVICE

REMARKS:
1st Plug 1200 FT
Pump 9 BBLs, Water Mix 50sk
Cement pump 3 BBLs, Water pump
8 BBLs, Mud 2nd Plug 650 FT
Pump 6 BBLs, water Mix 50sk
Cement pump 3 BBLs, Water
10sk at 110 FT Plug Ret 16sk
Plug Mouse w/10sk Wash up Rig
Down.

DEPTH OF JOB	<u>1200</u>			
PUMP TRUCK CHARGE				<u>520.00</u>
EXTRA FOOTAGE		@		
MILEAGE	<u>55</u>	@	<u>3.50</u>	<u>192.50</u>
PLUG		@		
		@		
		@		

TOTAL 712.50

CHARGE TO: Larson Operating

STREET _____

CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

	@		
	@		
	@		
	@		
	@		

TOTAL _____

To Allied Cementing Co., Inc.
You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____

TOTAL CHARGE ~~1344.45~~

DISCOUNT ~~1344.45~~ IF PAID IN 30 DAYS

SIGNATURE Mike Godfrey

Mike Godfrey
PRINTED NAME

ANY APPLICABLE TAX
WILL BE CHARGED
UPON INVOICING

ALLIED CEMENTING CO., INC. ORIGINAL 5278

TO P.O. BOX 31
RUSSELL, KANSAS 67665

SERVICE POINT:
Med. Lodge, KS

DATE	9-25-03	SEC	25	TWP.	30s	RANGE	20 W	CALLED OUT	5 ⁰⁰ AM	ON LOCATION	6 ³⁰ AM	JOB START	10 ⁵⁰ AM	JOB FINISH	11 ³⁰ AM
LEASE	Liggett	WELL #	1-25	LOCATION	Coldwater N. To Co. line.			COUNTY	Kiowa	STATE	KS				
OLD OR	NEW (Circle one)		Tw, 1N, W. into												

CONTRACTOR Duke #1
 TYPE OF JOB Surface
 HOLE SIZE 12 1/4" T.D. 665'
 CASING SIZE 8 5/8 24.00 DEPTH 660'
 TUBING SIZE _____ DEPTH _____
 DRILL PIPE 4 1/2" DEPTH 665'
 TOOL _____ DEPTH _____
 PRES. MAX _____ MINIMUM _____
 MEAS. LINE _____ SHOE JOINT 36.85
 CEMENT LEFT IN CSG. 36.85
 PERFS. _____
 DISPLACEMENT 40 bbl fresh

OWNER Larson Operating

CEMENT
 AMOUNT ORDERED 225 sx 65:35:6 + 3% cc + 1/4" flo-seal / 200sx Class A + 3% cc + 2% gel

COMMON	Class A 100sx	@	7.15	715. ⁰⁰
POZMIX		@		
GEL	4sx	@	10.00	40. ⁰⁰
CHLORIDE	14sx	@	30.00	420. ⁰⁰
ALW	225sx	@	6.70	1,507. ⁵⁰
flo-seal	56 [#]	@	1.40	78. ⁴⁰
		@		
		@		
		@		
HANDLING	536sx	@	1.15	616. ⁴⁰
MILEAGE	536 x 55 x .05			1474. ⁰⁰

EQUIPMENT
 PUMP TRUCK CEMENTER Mike Rucker
 # 352 HELPER Dave Felio
 BULK TRUCK
 # 353 DRIVER Travy Cushenbery
 BULK TRUCK
 # _____ DRIVER _____

RECEIVED TOTAL 4851.³⁰

FEB 19 2004

SERVICE

KCC WICHITA

REMARKS:
⁵⁰
 10 An Pipe on bottom break Circ. 11" Start
 Lead Cement: 225 sx 65:35:6 + 3% cc + 2 1/4" flo-seal
 @ 12.5 weight @ 200psi. 11^{am} Start tail Cement
 100sx Class A + 3% cc + 2% gel @ 15.2 weight @ 150psi.
 11¹⁵ Stop Pumps, Release Plug, Start Disp.
 @ 20 bbl out See Cement. 300psi. 11³⁰ AM
 Pump Plug 300-500 40 bbl Disp. Shut-in
 Circ. 20 bbl Cement 50sx to pit

DEPTH OF JOB	660'		
PUMP TRUCK CHARGE			520. ⁰⁰
EXTRA FOOTAGE	366	@	1.50 183. ⁰⁰
MILEAGE	55	@	3.50 192. ⁵⁰
PLUG Top Rubber Plug		@	100. ⁰⁰ 100. ⁰⁰
		@	
		@	

TOTAL 995.⁵⁰

CHARGE TO: Larson Operating
 STREET _____
 CITY _____ STATE _____ ZIP _____

FLOAT EQUIPMENT

8 5/8 Gemaco			
1-BAFFIE PLATE	@	45.00	45. ⁰⁰
3-CENTRALIZERS	@	55.00	165. ⁰⁰
1-BASKET	@	180.00	180. ⁰⁰
	@		
	@		

TOTAL 390.⁰⁰

To Allied Cementing Co., Inc.
 You are hereby requested to rent cementing equipment and furnish cementer and helper to assist owner or contractor to do work as is listed. The above work was done to satisfaction and supervision of owner agent or contractor. I have read & understand the "TERMS AND CONDITIONS" listed on the reverse side.

TAX _____
 TOTAL CHARGE ~~4851.30~~
 DISCOUNT ~~4851.30~~ IF PAID IN 30 DAYS

SIGNATURE Mike Gaffey

SIGNATURE Mike Godfrey
 PRINTED NAME _____

ANY APPLICABLE TAX
 WILL BE CHARGED
 UPON INVOICING