

ORIGINAL

STATE CORPORATION COMMISSION OF KANSAS
OIL & GAS CONSERVATION DIVISION
WELL COMPLETION FORM
ACO-1 WELL HISTORY
DESCRIPTION OF WELL AND LEASE

API NO. 15- 051-24,894-0000

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: KOCH OIL COMPANY

Operator Contact Person: TOM LARSON

Phone (316) 653-7368

Contractor: Name: DUKE DRILLING CO., INC.

License: 5929

Wellsite Geologist: BOB STOLZLE

Designate Type of Completion
 New Well Re-Entry Workover

Oil SWD SLOW Temp. Abd.
 Gas ENHR SIGW
 Dry Other (Core, WSW, Expl., Cathodic, etc.)

If Workover/Re-Entry: Oil well info as follows:

Operator: _____

Well Name: _____

Comp. Date _____ Old Total Depth _____

Deepening Re-Perf. Conv. to Inj/SWD
 Plug Back _____ PBSD

Commingled _____ Docket No. _____

Dual Completion _____ Docket No. _____

Other (SWD or Inj?) _____ Docket No. _____

3/29/95 4/3/95 5/23/95
Spud Date Date Reached TD Completion Date

County ELLIS

NE - NE - NW - NW Sec. 2 Twp. 11S Rge. 17 E

5 Feet from (circle one) Line of Section

1299 Feet from (circle one) Line of Section

Footages Calculated from Nearest Outside Section Corner:
 (circle one)

Lease Name BRUNGARDT UNIT Well # 21

Field Name BRUNGARDT

Producing Formation ARB, CONG, LKC, PLATTS, TOPEKA

Elevation: Ground 1923 KB 1931

Total Depth 3560 PBSD 3514

Amount of Surface Pipe Set and Cemented at 211 Feet

Multiple State Cementing Collar Used? Yes No

If yes, show depth set 1165 Feet

If Alternate II completion, cement circulated from 1165

feet depth to SURFACE w/ 200 sx cmt.

Drilling Fluid Management Plan ALT 2 JH 11-16-95
(Data must be collected from the Reserve Pit)

Chloride content 6000 ppm Fluid Volume 4800 bbls

Dewatering method used ALLOWED TO DRY

Location of fluid disposal if hauled offsite: _____

Operator Name _____

Lease Name _____

_____ Quarter Sec. _____ Twp. _____ Rng. _____ W

County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form 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 geological 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 08/21/95

Subscribed and sworn to before me this 21ST day of AUGUST, 1995.

Notary Public Carol S. Larson
CAROL S. LARSON

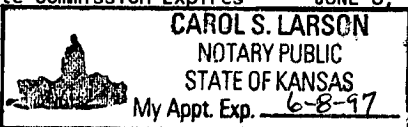
Date Commission Expires JUNE 8, 1997

K.C.C. OFFICE USE ONLY
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received
Distribution
_____ SWD/Rep _____ NGPA
_____ Plug _____ Other (Specify)

RECEIVED KCC
STATE CORPORATION COMMISSION KGS

AUG 2 1995

8-23-1995
DDA/...
WICHITA, KANSAS



SIDE TWO

Operator Name LARSON OPERATING COMPANY,
A DIVISION OF LARSON ENGINEERING, INC.

Lease Name BRUNGARDT UNIT

Well # 21

Sec. 2 Twp. 11S Rge. 17

East
 West

County ELLIS

Instructions: Show important tops and base of formation penetrated. Detail all cores. Report all 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 during test. Attach extra sheet if more space is needed. Attach copy of log.

Drill Stem Tests Taken Yes No
(Attach Additional Sheets.)

Samples Sent to Geological Survey Yes No

Cores Taken Yes No

Electric Log Run Yes No
(Submit Copy.)

List All E. Logs Run:
COMP NEUTRON DENSITY
DUAL INDUCTION

Log Formation (Top), Depth and Datums Sample

Name	Top	Datum
ANHYDRITE	1135	+796
TOPEKA	2840	-909
PLATTSMOUTH	3000	-1069
TORONTO	3088	-1157
LANSING GP	3111	-1180
BASE KC	3349	-1418
CONG SD	3395	-1464
ARBUCKLE	3500	-1569

CASING RECORD New 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
SURFACE PIPE	12-1/4	8-5/8	20#	211'	60-40 POZ	140	2% GEL, 3% CC
PRODUCTION	7-7/8	5-1/2	14#	3556'	60-40 POZ	75	2% GEL, 7#/SK GILS, 6% H322
			PORT COLLAR	→ 1165'	EA-2	125	18% SALT, 5% CALSEA

ADDITIONAL CEMENTING/SQUEEZE RECORD 7#/SK GILS, .6% H322

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	SURF-1165	65-35 POZ	200	6% GEL, 1.4#/SK FLOCELE

Shots Per Foot	PERFORATION RECORD - Bridge Plugs Set/Type Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
4	3500-05, 3396-3400	300 GAL 28% NEFE	3500-05
4	3196-3201, 3031-35	500 GAL 15% NEFE	3396-3400
2	2868-78	500 GAL 15% NEFE	3196-3201
	CIBP @ 3438	500 GAL 15% NEFE	3031-35

TUBING RECORD

Size 2-7/8	Set At 3435	Packer At	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First, Resumed Production, SWD or Inj. 6/7/95	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
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Estimated Production Per 24 Hours	Oil 15 Bbls.	Gas Mcf	Water 279 Bbls.	Gas-Oil Ratio	Gravity 35
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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: 3500-05, 3396-3400
3196-3201, 3031-35
2868-78

15-051-24894-00-00

ATTACHMENT TO ACO-1

ORIGINAL

Operator Name LARSON OPERATING COMPANY,
A DIVISION OF LARSON ENGINEERING, INC. Lease Name BRUNGARDT UNIT Well # 21

Sec. 2 Twp. 11S Rge. 17 East
 West County ELLIS

API # 15-051-24894

ACID, FRACTURE, SHOT, CEMENT SQUEEZE RECORD

Depth	Amount and Kind of Material Used
3031-35	2000 GAL 15% FE W/ 10 GAL 17N
3396-3400	10000 GAL MY-T-GEL & 7000# SAND

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8-23-1995
AUG 23 1995

MISSISSIPPI STATE CORPORATION COMMISSION
MEMPHIS, TENNESSEE



JOB SUMMARY

HALLIBURTON DIVISION
HALLIBURTON LOCATION

CONTRACT NO. 1145, KS

BILLED ON TICKET NO. 806625

WELL DATA

FIELD _____ SEC 2 TWP. 11S RNG. 17W COUNTY ELLIS STATE KS

FORMATION NAME _____ TYPE _____

FORMATION THICKNESS _____ FROM _____ TO _____

INITIAL PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

PRESENT PROD: OIL _____ BPD. WATER _____ BPD. GAS _____ MCFD

COMPLETION DATE _____ MUD TYPE _____ MUD WT. _____

PACKER TYPE _____ SET AT _____

BOTTOM HOLE TEMP. _____ PRESSURE _____

MISC. DATA _____ TOTAL DEPTH _____

	NEW USED	WEIGHT	SIZE	FROM	TO	MAXIMUM PSI ALLOWABLE
CASING	<u>4</u>	<u>14</u>	<u>5 1/2</u>	<u>KB</u>	<u>3557</u>	
LINER						
TUBING						
OPEN HOLE			<u>7 7/8</u>	<u>3557</u>	<u>3560</u>	SHOTS/FT.
PERFORATIONS						
PERFORATIONS						
PERFORATIONS						

JOB DATA

TOOLS AND ACCESSORIES

TYPE AND SIZE	QTY.	MAKE
FLOAT COLLAR		
FLOAT SHOE		
GUIDE SHOE		
CENTRALIZERS		
BOTTOM PLUG		
TOP PLUG <u>SW</u>	<u>1</u>	<u>HOLKO</u>
HEAD <u>P.C.</u>	<u>1</u>	<u>"</u>
PACKER		
OTHER <u>ROTAORIG HEAD</u>	<u>1</u>	<u>"</u>

CALLLED OUT	ON LOCATION	JOB STARTED	JOB COMPLETED
DATE <u>4-3</u>	DATE <u>4-3</u>	DATE <u>4-3</u>	DATE <u>4-3</u>
TIME <u>0730</u>	TIME <u>1030</u>	TIME <u>1200</u>	TIME <u>1400</u>

PERSONNEL AND SERVICE UNITS

NAME	UNIT NO. & TYPE	LOCATION
<u>W. WILSON</u>	<u>B9317</u>	<u>1145, KS</u>
<u>D. ASH</u>	<u>E1609</u>	<u>"</u>
<u>B. KUHN</u>	<u>51361</u>	<u>"</u>

MATERIALS

TREAT. FLUID _____ DENSITY _____ LB/GAL. °API

DISPL. FLUID _____ DENSITY _____ LB/GAL. °API

PROP. TYPE _____ SIZE _____ LB.

ACID TYPE _____ GAL. _____ %

SURFACTANT TYPE _____ GAL. _____ IN.

NE AGENT TYPE _____ GAL. _____ IN.

FLUID LOSS ADD. TYPE _____ GAL.-LB. _____ IN.

GELLING AGENT TYPE _____ GAL.-LB. _____ IN.

FRIC. RED. AGENT TYPE _____ GAL.-LB. _____ IN.

BREAKER TYPE _____ GAL.-LB. _____ IN.

BLOCKING AGENT TYPE _____ GAL.-LB. _____

PERFPAC BALLS TYPE _____ QTY. _____

OTHER _____

OTHER _____

DEPARTMENT CEMENT

DESCRIPTION OF JOB 5 1/2" LONGSTRONG

TOTAL PIPE 61 - 2549.54

PORT COLUMN @ 1166'

JOB DONE THRU: TUBING CASING ANNULUS TBG./ANN.

CUSTOMER REPRESENTATIVE X

HALLIBURTON OPERATOR Wayne White

COPIES REQUESTED 1

CEMENT DATA

STAGE	NUMBER OF SACKS	CEMENT	BRAND	BULK SACKED	ADDITIVES	YIELD CU.FT./SK.	MIXED LBS./GAL.
	<u>75</u>	<u>40% POZ</u>	<u>60% SPD</u>	<u>B</u>	<u>270T-GEL, 7# GELSPHERE, 0.6% HAWK-322</u>	<u>1.24</u>	<u>13.8</u>
	<u>125</u>	<u>EA-2</u>		<u>B</u>	<u>570 CAL-SEAL, 7# GELSPHERE, 18% SALT, 0.6% HAWK-322</u>	<u>1.41</u>	<u>15.3</u>

PRESSURES IN PSI

CIRCULATING _____ DISPLACEMENT _____

BREAKDOWN _____ MAXIMUM _____

AVERAGE _____ FRACTURE GRADIENT _____

SHUT-IN: INSTANT _____ 5-MIN _____ 15-MIN _____

HYDRAULIC HORSEPOWER _____

ORDERED _____ AVAILABLE _____ USED _____

TREATING _____ DISPL. _____ OVERALL _____

CEMENT LEFT IN PIPE _____

FEET 39.43 REASON INSERT

SUMMARY

PRELUSH 20 - 12 GAL.

LOAD & BKDN: BBL.-GAL. _____

TREATMENT: BBL.-GAL. _____

DISPL. 85.7 GAL.

CEMENT SLURRY 18.6 - 31.4 = 50 GAL.

TOTAL VOLUME 50 GAL.

VOLUMES

TYPE COMPLEX-MULTIFLOW

DISPL. 85.7 GAL.

REMARKS

SEE JOB LOG & CHART

THANK YOU

DATE 4-3-95

CUSTOMER UNION OF PATROL
LEASE BRUBAKER
WELL NO. 21
JOB TYPE 5 1/2" LONGSTRONG
DATE 4-3-95



JOB LOG HAL-2013-C

DATE	PAGE NO.
4-3-95	1

CUSTOMER	WELL NO.	LEASE	JOB TYPE	TICKET NO.
PARSON OPERATING	21	BROWARDT	5 1/2" LOGSTRETCH	806685

CHART NO.	TIME	RATE (BPM)	VOLUME (BBL/GAL)	PUMPS		PRESSURE (PSI)		DESCRIPTION OF OPERATION AND MATERIALS
				T	C	TUBING	CASING	
	0730							CALLED OUT ORIGINAL
	1030							ON LOCATION - DISCUSS JOB PROCEDURE
	1125							BREAK CIRCULATION
1	1232	6 1/2	20		✓		250	PUMP CLAYTEX PREFLUSH
	1235	6 1/2	12		✓		250	PUMP MUDFLUSH
	1240		6.2					PLUG PATHHOLE & MOUSE HOLE LD-CEMENT 15 SKS 10 SKS
	1247	6	18.6		✓		200	MAX CEMENT LD - 75 SKS
			31.4		✓			TL - 125 SKS
	1256							WASH OUT PUMP & LINES
	1257							RELEASE PLUG
	1258	7 Avg	0		✓		600	DISPLACE PLUG
	1310		85.7				1200	PLUG DOWN
	1314						1200	RELEASE PSE
								OK FLOAT HELD
								WASH-UP
								RACK-UP
	1400							RECEIVED STATE CORPORATION COMMISSION AUG 23 1995 8-23-1995 JOB COMPLETE
								THANK YOU WAYNE, DAVE, RICH

Phone 913-483-2627, Russell, KS
 Phone 316-793-5861, Great Bend, KS

Phone 913-625-5516, Hays, KS
 Phone 913-672-3471, Oakley, KS

Phone 316-886-5926, Medicine Lodge, KS
 Phone 913-798-3843, Ness City, KS

ALLIED CEMENTING CO., INC. 0007044

Home Office P. O. Box 31

Russell, Kansas 67665

old

WAL

Date	4-8-95	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish	
Lease		Well No.	Location			R.R. 8 Codell Jct 2M	County	Ellis	State
								Ks	

Contractor	Express	
Type Job	PORT collar Top stage	
Hole Size	T.D.	
Csg.	5 1/2	Depth
Tbg. Size	27	Depth
Drill Pipe		Depth
Tool		Depth
Cement Left in Csg.		Shoe Joint
Press Max.		Minimum
Meas Line		Displace
Perf.		

Owner	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 listed.
Charge To	
Street	
City	State
The above was done to satisfaction and supervision of owner agent or contractor.	
Purchase Order No.	
X	T.C. Janson
	CEMENT

EQUIPMENT		
Pumptrk	No. 279	Cementer Bill L Helper W...
Pumptrk	No.	Cementer Helper
Bulktrk	213	Driver Jason
Bulktrk		Driver

Amount Ordered	245 pbr 65/85 6% Gel
Consisting of	J.M. FLO 50% US 200 pbr
Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	
	Sales Tax

DEPTH of Job		
Reference:	Pump Truck	550.00
	2 3/4 p/m	
	Sub Total	
	Tax	
	Total	

Handling	
Mileage	
	Sub Total
	Total
Floating Equipment	

Remarks: PORT collar C 1165 - Test 1000 p ST OK
 Cement w/ 200 pbr cement
 49 pbr to put, Clog tool - Test 1000 p ST OK
 Run 3 pbr & wash clean

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 AUG 23 1995
 8-23-1995
 THANKS

15-051-24894-00-00

Phone 913-483-2627, Russell, KS
Phone 316-793-5861, Great Bend, KS

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Phone 316-886-5926, Medicine Lodge, KS
Phone 913-798-3843, Ness City, KS

ALLIED CEMENTING CO., INC. 0007402

Home Office P. O. Box 31 Russell, Kansas 67665

New

ORIGINAL

Date	3-29-95	Sec.	2	Twp.	11S	Range	17W	Called Out		On Location		Job Start		Finish	2:00PM
Lease	Burgardt	Well No.	Unit #21	Location	Cockill River Rd Jct			County	Ellis	State	KS				
Contractor	Duke Drlg. Rig 2		Owner 2 N 4 E 4 N												
Type Job	Surface		To Allied Cementing Co., Inc. You are hereby requested to rent cementing equipment and furnish cement and helper to assist owner or contractor to do work as listed.												
Hole Size	12 1/4"	T.D.	212												
Csg.	8 1/2"	Depth	208												
Tbg. Size		Depth													
Drill Pipe		Depth													
Tool		Depth													
Cement Left in Csg.	10-15	Shoe Joint													
Press Max.		Minimum													
Meas Line	20'	Displace	12.84												
Perf.															

Charge To Larson Operating Co

Street

City State

The above was done to satisfaction and supervision of owner agent or contractor.

Purchase Order No.

X John J. Vandrunter

CEMENT

Amount Ordered 140 ⁶⁰/₄₀ 3% cc 2% gel

Consisting of

Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	

EQUIPMENT

No.	Cementer	Dave
Pumptrk 177	Helper	Mark
No.	Cementer	
Pumptrk	Helper	Paul
Bulktrk 160	Driver	
Bulktrk	Driver	

DEPTH of Job

Reference:	Pump tik chg	
	2 1/35 Per mile	
	8' wooden plug	
	Sub Total	
	Tax	
	Total	

Remarks: Cement Cir

Handling	
Mileage	
Sub Total	
Total	

Floating Equipment

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