# KANSAS CORPORATION COMMISSION OIL & GAS CONSERVATION DIVISION

Form ACO-1 October 2008 Form Must Be Typed

CONFIDENTIAL

# **WELL COMPLETION FORM WELL HISTORY - DESCRIPTION OF WELL & LEASE**

2/3/12

OPERATOR: License # 3842	API No. 15 - 171-20734-00-00
Name: LARSON ENGINEERING, INC.	Spot Description:
Address 1: 562 WEST STATE ROAD 4	N2 - SE - NE - NE Sec. 22 Twp. 17 S.R. 31 ☐ East ☑ West
Address 2:	750 feet from NORTH Line of Section
City: OLMITZ State: KS Zip: 67564 + 8561	330 feet from EAST Line of Section
Contact Person: TOM LARSON	Footages Calculated from Nearest Outside Section Corner:
Phone: (620) 653-7368	NE □NW □SE □SW
CONTRACTOR: License # 5822	County: SCOTT
	Lease Name: DONNA Well #: 1-22
Wellsite Geologist: ROBERT LEWELLYN _	Field Name: WILDCAT
Name: VAL ENERGY, INC  Wellsite Geologist: ROBERT LEWELLYN  Purchaser: NCRA  RECEIVED	Producing Formation: CHEROKEE, MARMATON, L-KC
Designate Type of Completion:	Elevation: Ground: 2919' Kelly Bushing: 2924'
V Now Well Be Entry Workeyer 5 2010	Total Depth: 4653' Plug Back Total Depth: 4605'
X OII SWD SIGW SIGW SIGW	Amount of Surface Pipe Set and Cemented at: 258 Feet
Gas ENHR SIGW	Multiple State Cementing Collar Used? ⊠ Yes ☐ No
CM (Coal Bed Methane) Temp. Abd.	If yes, show depth set: 2172 Feet
Dry Other	If Alternate II completion, cement circulated from: 2172
(Core, WSW, Expl., Cathodic, etc.)	feet depth to: SURFACE w/ 195 sx cmt.
If Workover/Re-entry: Old Well Info as follows:	
Operator:	Drilling Fluid Management Plan (Data must be collected from the Reserve Pil)
Well Name:	
Original Comp. Date: Original Total Depth:	Chloride content: 2500 ppm Fluld volume: 800 bbls
Deepening Re-perf Conv. to Enhr./SWD	Dewatering method used: ALLOWED TO DRY
Plug Back: Plug Back Total Depth	Location of fluid disposal if hauled offsite:
Commingled Docket No	Operator Name:
Dual Completion Docket No	Lease Name: License No.:
Other (SWD or Enhr.?) Docket No.	Quarter Sec. Twp. S. R. East West
10/12/2009 10/26/2009 1/1/2010	County: Docket No.:
Spud Date or Date Reached TD Completion Date or Recompletion Date	<u> </u>
Kansas 67202, within 120 days of the spud date, recompletion, workover or on side two of this form will be held confidential for a period of 12 months if	d with the Kansas Corporation Commission, 130 S. Market - Room 2078, Wichita, conversion of a well. Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information requested in writing and submitted with the form (see rule 82-3-107 for confidenwell report shall be attached with this form. ALL CEMENTING TICKETS MUST m with all temporarily abandoned wells.
	the oil and gas industry have been fully complied with and the statements herein
are complete and correct to the best of my knowledge.	V00 015 11 0111 V
( a. a) Xa	KCC Office Use ONLY
Signature:	Letter of Confidentiality Received
Title: SECRETARY/TREASURER Date: 2/3/2010	If Denied, Yes Date:
Subscribed and sworn to before me this3RD_ day ofFEBRUARY	, Wireline Log Received
2010.	Geologist Report Received
// h.a. 1	
Notary Public: NUCCUA THE LAW CO	UIC Distribution
Date Commission Expires: MAY 5, 2012	
DEBRA J. LUD Notary Public - State of Ny Anot. Exp res. 5/5/2	fiKar z
CA STATE OTOTO	

#### s Side Two

Operator Name: L	ARSON ENG	INEERIN	G, INC.		Leas	se Name: _	DONNA		Well #:	1-22
Sec. 22 Twp.	17 S. R.	31 [	☐ East	West     ■	Cou	nty:	SCOTT			
INSTRUCTIONS: time tool open and c recovery, and flow re surveyed. Attach fir	Show impor closed, flowin- ates if gas to	tant tops a g and shu surface te	ind base t-in press st, along	of formation ures, wheth	ner shut-in pr	ressure read	ched static level, hy	drostatic pro	essures, bottom hol	e temperature, fluid
Drill Stem Tests Tak (Attach Addition			⊠ Yes	□ No	)		•	on (Top), De	pth and Datum	Sample
Samples Sent to Ge	ological Surv	ey	⊠ Yes	□ No	)		ie IYDRITE E ANHYDRITE		Top 2244 2304	Datum +680 +620
Cores Taken			☐ Yes	⊠ No	)	HEE	BNER SHALE		3897	-973
Electric Log Run (Submit Copy)			⊠ Yes	□ No	•	STA BAS	SING-KC GROUP RK SHALE E KANSAS CITY		3937 4213 4294	-1013 -1289 -1370
List All E. Logs Run:	DUAL (	NDUCTIC COMP PO PRESISTIN	ROSITY			PAV FOF CHE	AMONT VNEE RT SCOTT POKEE SISSIPPIAN		4344 4413 4463 4487 4558	-1420 -1489 -1539 -1563 -1634
		Rep	ort all str		NG RECORE	_	lew 🛭 Useo			
Purpose of string	Size Hote Drilled	Size Ca Set (in		Weight Lbs./Ft.	Setting Depth		Type of Cement	# Sacks Used	Type and F	Percent Additives
SURFACE	12-1/4"	8-5/	8*	20#	258'	CLASS A		175	2% GEL, 3% CC	
PRODUCTION	7-7/8*	5-1/	2"	15.5#	4652'	SMD		100	1/4#/SK FLOCELI	<u> </u>
						EA-2		100	7#/SK GILSONITE	E, 1/2% CFR-1
				ADDITI	ONAL CEME	NTING/SQ	UEEZE RECORD			
Purpose:		Depth Fop Bot	tom		Тур	e of Cemen	t	# Sacks Used	Type and P	Percent Additives
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							250 GAL 15% M	CA		4366-68
		·					250 GAL 15% M	CA		4334-36
				i			250 GAL 15% M	CA		4273-76
							SQZ: 75 SX CLA	SS A		4273-76
TUBING RECORD:	Size:	2-3/8*	Set A	t: 4603'	Packer At:		Liner Run:	☐ Yes	⊠ No	
Date of First, Resum	ned Production 1/1/10	on, SWD o	r Enhr.	Produci	ng Method:	☐ Flowin	ng 🖾 Pumping	<u> </u>	Sas Lift	ner (Explain)
Estimated Production Per 24 Hours	n	Oil 54	Bbls.	Gas	Mcf		Water 0	Bbls.	Gas-Oil Ratio	Gravity
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USPOSIT	TION OF GAS Id ☐ Used	s: d on Leas		Open Hole			MPLETION:  Jally Comp.   (1)	Commingled	•	334 - 4541 OA
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# ALLIED CEMENTING CO., LLC. 044386

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

SERVICE POINT:

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10-12-09 DATE	SEC.	TWP.	RANGE	CALLED OUT	ON LOCATION	JOB START	JOB FINISH 6:00pm
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SWIFT OPERATOR

CHARGE TO:	Larson	Engin	ecri 19	
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CITY, STATE, ZIP	CODE			

**TICKET** 

Nº 16756

Thank You!

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APPROVAL



PO Box 466 Ness City, K\$ 67560

# TICKET CONTINUATION

TICKET No. 167.56 -

Service	o. Inc. Off:		5-798-23			CUSTOME	Larso	NE	19126	Wing	y v	VELL#	22	Dani	20	DATE -	26-	09	PAGE 1	)F
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SWIFT Services, Inc. JOB LOG WELL NO #1-2 2 PRESSURE (PSI) VOLUME (BBL) (GAL) 0200 RTD 4650' 5'5"X 15,5 "X 4652'X38 P.C. @ 2218' circonbotten 0235 BHYMH Start Mudflush Start T, Cenert 1005ks EA-2@15.5# Drop & D. Plage Start Displacement Catch Coment 0406 0 0420 5 80 Release Pressure 110 Thank You Nick, Josh F. & Lane

SWIFT
Services, Inc.

CHARGE TO:	Larson	Engi	necrino	
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CITY STATE	7IP CODE			

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SERVICE LOCATIONS 1. Wess Cit	J	2 Do	nna	Scott	KS	Ness C	city		5-09	WNER	
2. 3. REFERRAL LOCATION	WELL TYPE WELL TYPE	VIID West WELL O	ell Service	OB PURPOSE Cement Port Col	VIA	Manning WELL PERMIT NO.		WEL	ER NO. L LOCATION CANNING IN	Wento	
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SWIFT Services, Inc. **JOB LOG** CUSTOMER JOB TYPE Cement Port Coller WELL NO. LEASE Onne Larson Engineering 1-22 PUMPS PRESSURE (PSI) VOLUME (BBL) (GAL) DESCRIPTION OF OPERATION AND MATERIALS 0900 On Location 100 2172' 23/8×51/2 0915 Pressure Test-Helo 17920 314 600 Open Tool Injection-Rate 0925 600 Cement to Surface-Cement 14,0pg 190s ks Total - 20sks To pit Shut Down Start Displacement 100 300 Shut Down - Shutin 2500 CloseTool-Pressure Test-Held 0955 1000 Run 4 Jts Reverse Clein 1005 25 1030 Thank you Brift, Dave & Jason

# Robert C. Lewellyn

Consulting Petroleum Geologist

P. O. Box 375 Kechi, KS 67067-0375 Office 316-744-2567 Cell 316-518-0495 boblowallyn@yahoo.com

#### GEOLOGICAL REPORT

## Larson Engineering, Inc.

Donna No. 1-22

750' FNL & 330' FEL Sec. 22-17S-31W

Scott County, Kansas

CONTRACTOR:

Val Drilling, Inc., Rig No. 4

SPUDDED:

RECEIVED
FEB 0 5 20%
KCC WICHTA

October 12, 2009

DRILLING COMPLETED

October 25, 2009

SURFACE CASING:

8 5/8" @ 258 KBM/175 sx,

**ELECTRIC LOGS:** 

Log-Tech DIL CNL/CDL MEL

**ELEVATIONS:** 

2924 KB 2919 GL

## FORMATION TOPS (Electric Log):

Anhydrite	2244 (+ 680)
Base Anhydrite	2304 (+ 620)
Heebner Shale	3897 (- 973)
Lansing-Kansas City Group	3937 (-1013)
Muncie Creek Shale	4122 (-1198)
Stark Shale	4213 (-1289)
Hushpuckney shale	4253 (-1329)
Base Kansas City	4294 (-1370)
Altamont	4344 (-1420)
Pawnee	4413 (-1489)
Myrick Station	4443 (-1519)
Fort Scott	4463 (-1539)
Cherokee	4487 (-1563)
Mississippian	4558 (-1634)
Electric Log Total Depth	4653 (-1729)

Samples were examined microscopically from 3600 to Rotary Total Depth. Samples were examined wet and dry and samples from potentially productive zones were viewed under a fluoroscope and checked for oil cut. Following is a description of zones of

interest, Drill Stem Tests, etc. For a complete lithologic description of all formations, refer to the sample log in the back pages of this report.

Toronto Zones:

3912-3916

Limestone, cream to buff, finely crystalline, partly chalky, fair to good intercrystalline and vugular porosity, good spotted stain, some saturated stain, good show of free oil, good odor, fair fluorescence, good cut.

Drill Stem Test No. 1

3890-3915

15-30-30-60; one-inch blow throughout first flow, no blowback, one-inch blow on second flow, no blowback; recovered 65 feet of mud cut water (75% water, 25% mud) with oil spots on top; ISIP 1068# FSIP 1073# IFP 18-35# FFP 38-63# IHP 1913# FHP 1859# BHT 115 degrees.

Lansing-Kansas City Zones:

3937-3950 (A Zone)

Limestone, cream to buff, dense to finely crystalline and chalky, scattered poor to fair intercrystalline porosity, some dead stain, rare trace of scattered poor live stain, no free oil, no odor, no fluorescence, no cut.

3975-3986 (B Zone)

Limestone, cream to buff, fine to medium crystalline, slightly fossiliferous, slight chalky, fair to good intercrystalline and scattered vugular porosity, good spotted stain, trace of saturated stain, good show of free oil, good odor, fair fluorescence, good cut, some buff, partly rhombic large crystal overgrowth in some fragments.

Drill Stem Test No. 2

3958-3986

15-30-30-60; 3 ¼ inch blow on first flow, no blowback, 5 inch blow on second flow, no blowback; recovered 120 feet of mud cut water (80% water, 20% mud) with oil spots on top. 1SIP 925# FSIP 861# IFP 20-36# FFP 39-65# IHP 1926# FHP 1837# BHT 122 degrees.

3989-4022 (C/D Zone)

Limestone, cream to buff, dense to finely crystalline with much cream chalky, zone is mostly tight with no shows of oil.

4028-4037 (E Zone)

Limestone, buff, fine to medium crystalline, slightly oolitic, slightly fossiliferous, fair to good intercrystalline and scattered vugular porosity, fair spotted stain, trace of saturated stain, fair to good show of free oil, good odor, fair fluorescence, good cut.

4042-4046 (F Zone)

Limestone, cream to buff, dense to finely crystalline, scattered fair intercrystalline and scattered vugular porosity, fair spotted stain, slight show of free oil, fair to good odor, poor to fair fluorescence, fair to good cut. Much white, opaque, fresh chert with trace of light gray chert and trace of tripolitic chert with poor vugular porosity and show of oil as above.

Drill Stem Test No. 3 4016-4046

15-30-30-60; three-inch blow on first flow, no blowback, 2 ¾ inch blow on second flow, no blowback; recovered five feet of free oil and 90 feet of mud cut water (85% water, 15% mud); ISIP 1056# FSIP 1055# IFP 20-36# FFP 38-64# IHP 1954# FHP 1021# BHT 112 degrees.

4076-4086 (G Zone)

Limestone, cream to buff, dense, finely crystalline and chalky, partly oolitic, poor to fair intercrystalline, intercolitic and scattered ooliticastic porosity, no show of oil.

4126-4134 (H Zone)

Limestone, buff to tan, dense to finely crystalline, fair intercrystalline porosity, poor to fair small vug porosity on edge of fragments, fair spotted stain, fair show of free oil, good odor, fair fluorescence, good cut.

Drill Stem Test No. 4 4116-4140

15-30-15-30; 3/4" blow on first flow, no blowback, 1/2" blow on second flow, no blowback; recovered six inches of free oil and 40 feet of mud cut water (75% water, 25% mud); ISIP 1082# FSIP 1082# IFP 13-27# FFP 29-39# IHP 2012# FHP 1974# BHT 118 degrees.

4158-4180 (I Zone)

Limestone, cream to buff, dense to finely crystalline, some chalky, slightly fossiliferous, trace of poor intercrystalline porosity, trace of very poor scattered spotted stain, no free oil, faint fleeting odor, no fluorescence, no cut. Lower portion becomes brown to mottled dense limestone with trace of very poor spotted stain on fracture faces, some dead stain, no free oil, no odor, no fluorescence, no cut.

4195-4213 (J Zone)

Limestone, tan to brown, dense to finely crystalline, slightly fossiliferous, scattered poor interfossil and intercrystalline porosity, trace of very poor spotted stain, very slight trace of free oil, no odor, no fluorescence, no cut.

## 4216-4238 (K Zone)

Limestone, buff to tan, dense to finely crystalline, partly fossiliferous, fair to good scattered intercrystalline and vugular porosity, fair to good spotted stain, good show of free oil, good odor, fair fluorescence, good cut.

Drill Stem Test No. 5 4205-4237 15-30-30-60; 2 ½" blow on first flow, no blowback, 3 ¾" blow on second flow, no blowback; recovered 80 feet of mud cut water (70% water, 30 % mud) with oil spots on top. ISIP 952# FSIP 941# IFP 16-30# FFP 32-55# IHP 2036# FHP 2012# BHT 123 degrees.

#### 4256-4261 (Middle Creek Zone)

Limestone, tan to brown to dark brown, dense to finely crystalline, slightly fossiliferous, scattered fair intercrystalline and small vug porosity, fair spotted stain, good show of free oil, fair odor, fair fluorescence, fair to good cut, some black, opaque chert from Hushpuckney section.

#### 4266-4276 (L Zone)

Limestone, cream to buff, some tan, dense to finely crystalline, fossiliferous in part, scattered poor to fair intercrystalline and interfossil porosity with poor to fair spotted stain, fair show of free oil, fair odor, fair fluorescence, fair cut, small trace of rhombic calcite crystal overgrowth,

Drill Stem Test No. 6

4248-4267

15-30-30-60; blow off bottom of bucket in 1 ½" of first flow, blowback built to five inches, blow off bottom of bucket in one minute of second flow, blowback built to six inches; recovered 640 feet of gas in drill pipe and 1840 feet of fluid as follows: 228 feet of clean gassy oil (20% gas, 80% oil), 1488 feet of clean gassy oil (20% gas, 80% oil, reversed out), and 124 feet of mud cut gassy oil (no breakdown), no water. ISIP 941# FSIP 927# IFP 98-334# FFP 344-668# IHP 2062# FHP 2024# BHT 132 degrees.

### 4294-4332 (Pleasanton Zone)

Limestone, gray to buff, fine to medium crystalline, some scattered coarsely crystalline, partly fossiliferous, some buff finely crystalline friable limestone with fair small vug and intercrystalline porosity, fair spotted stain, show of free oil, faint to fair odor, poor fluorescence, fair cut.

#### 4332-4338 (Lenapah Zone)

Limestone, buff to tan and brown, some mottled, dense, some scattered finely crystalline with very poor intercrystalline porosity, rare trace of poor spotted stain, very slight show of free oil, no odor, no fluorescence, no cut.

4352-4355 & 4366-4369 (Altamont Zone)

Limestone, buff to tan, fine to medium crystalline, partly fossiliferous, fair to good intercrystalline porosity with scattered fair interfossil porosity, fair to good spotted stain, good show of free oil, fair odor, fair fluorescence, fair cut.

Drill Stem Test No. 7 4280-4370

15-30-45-90; 2 ½" blow on first flow, no blowback, 2 ½" blow on second flow, no blowback; recovered five feet of free oil and 70 feet of oil cut mud (30% oil, 70% mud). ISIP 792# FSIP 618# IFP 15-25# FFP 30-45# IHP 2079# FHP 1075# BHT 123 degrees.

The lower Altamont section consisted of limestones, buff to tan, dense to finely crystalline with some cream chalky, trace of scattered very poor intercrystalline porosity, trace of poor scattered stain, no free no odor, no fluorescence, no cut.

4420-4428 (Pawnee Zone)

Limestone, buff to tan, some brown, dense to finely crystalline, some partly fossiliferous, partly chalky, scattered cream fine to medium crystalline limestone with poor vugular and intercrystalline porosity, scattered poor to fair spotted stain, some dead stain, very slight show of free oil, faint fleeting odor, poor fluorescence, poor cut.

4443-4460 (Myrick Station Zone)

Limestone, tan to brown, trace of mottled, dense with scattered finely crystalline, zone is mostly tight with very poor scattered spotted stain, trace of dead stain, no free oil, no odor, no fluorescence and no cut.

4463-4487 (Fort Scott Zone)

Limestone, tan to brown, dense to finely crystalline, some buff oolitic with dark gray oolites, some dense-oolitic, zone is mostly tight with trace of poor spotted stain, very slight show of free oil, no odor, no fluorescence, poor cut. Lower portion is limestone, tan to brown, finely crystalline and oolitic, zone is mostly tight with trace of poor spotted stain, no free oil, no odor, no fluorescence, no cut.

4538-4542 (Johnson Zone)

Limestone, brown, some mottled, dense to finely crystalline, slightly fossiliferous, slightly oolitic, scattered fair vugular and intercrystalline porosity, fair spotted stain, fair show of free oil, fair odor, fair fluorescence and good cut.

Detridal Zone (4551-4558)

Sand, light grey, very fine grained, well cemented, well sorted, hard, tight, scattered poor stain with dark tarry to dead stain, very slight show of free oil, faint odor, poor fluorescence, poor cut.

Drill Stem Test No. 8 4483-4555

15-30-30-60; blow off bottom of bucket in 15 minutes, no blowback, blow off bottom of bucket in four minutes, no blowback; recovered 950 feet of gas in drill pipe, 70 feet of gassy oil cut mud (10% gas, 15% oil, 75% mud). ISIP 1027# FSIP 1097# IFP 20-28# FFP 38-53# IHP 2201# FHP 2085# BHT 122 degrees.

4558-4597 (Mississippian Zone)

Limestone, cream to buff, finely crystalline and partly chalky, scattered finely oolitic with poor intercrystalline and scattered poor ooliticastic porosity, some scattered buff dolomitic limestone, tight, no shows of oil in section.

4597-4627

Dolomite, tan, medium crystalline, trace of sucrosic, zone is mostly tight with no shows of oil, some scattered medium grey chert, fresh, opaque to sub-traslucent.

4627-4650 (Rotary Total Depth)

Limestone, dolomitic, tan, some brown to mottled, dense to finely crystalline, some medium crystalline, some brown dolomite inclusions, trace of finely oolitic, zone is mostly tight, no show of oil.

Conclusions and Recommendations:

Casing was cemented in the No. 1-22 Donna. Numerous zones appear to have the possibility of commercial production. The well should be completed with treatment as necessary to facilitate production as per Tom Larson.

Respectfully submitted,

Robert C. Lewellyn Petroleum Geologist

RCL:me









