ORIGINAL

STATE CORPORATION COMMISSION OF KANSAS	API NO. 15- 109-20,5710 051			
OIL & GAS CONSERVATION DIVISION WELL COMPLETION FORM	County Logan			
ACO-1 WELL HISTORY DESCRIPTION OF WELL AND LEASE	NE - SE - SE Sec. 16 Twp. 12S Rge. 33W XX W			
Operator: License # 5393	990' Feet from N (circle one) Line of Section			
Name: A.L. Abercrombie Inc.	330' Feet from EW (circle one) Line of Section			
Address 150 N. Main Suite 801	Footages Calculated from Nearest Outside Section Corner: NE, SP, NW or SW (circle one)			
City/State/Zip Wichita, Ks. 67202	Lease Name THORN Well # 1			
Purchaser: KOCH OJL CO.	Field Name Owen North Ext.			
Operator Contact Person: Jerry Langrehr	Producing Formation Lansing-Kansas City & Cherokee			
Phone (<u>316</u>) 262-1841	Elevation: Ground 3084 KB 3089			
Contractor: Name: Abercrombie RTD, Inc.	Total Depth 4735' PBTD			
License: 30684	Amount of Surface Pipe Set and Cemented at 345.90° Feet			
Wellsite Geologist:	Multiple Stage Cementing Collar Used? XX Yes No-			
	If yes, show depth setFeet			
Designate Type of Completion New Well Re-Entry _XX Workover	If Alternate II completion, cement circulated from 1737'			
XX Oil SWD SIOW Temp. Abd SIGW	feet depth to Surface w/ 450 sx cmt.			
Dry Other (Core, WSW, Expl., Cathodic, etc)	Drilling Fluid Management Plan REWORK 99 1-26-96 (Data must be collected from the Reserve Pit)			
If Workover:	the Reserve Projection			
Operator:A.L. Abercrombie, Inc.	Chloride content 21,000 ppm Fluid volume 1100 bbls			
Well Name: THORN #1	Dewatering method used Evaporation			
Comp. Date <u>1-6-95</u> Old Total Depth 4735'	Location of fluid disposal if hauled offsite:			
Deepening X Re-perf. Conv. to Inj/SWD Plug Back PBTD XX Commingled Docket No.	Operator Name			
Dual Completion Docket No. Other (SWD or Inj?) Docket No.	Lease NameLicense No			
1-11-96 1-24-96 1-24-96	Quarter SecTwpS RngE/W			
Completion Date OF Cable Tools Completion Date OF Workover	County Docket No			
Rule 82-3-130, 82-3-106 and 82-3-107 apply. Information on 12 months if requested in writing and submitted with the months). One copy of all wireline logs and geologist well recommendations.	be filed with the Kansas Corporation Commission, 130 S. Market spud date, recompletion, workover or conversion of a well. side two of this form will be held confidential for a period of form (see rule 82-3-107 for confidentiality in excess of 12 report shall be attached with this form. ALL CEMENTING TICKETS ls. Submit CP-111 form with all temporarily abandoned wells.			
All requirements of the statutes, rules and regulations promuls with and the statements herein are complete and correct to the	gated to regulate the oil and gas industry have been fully complied best of my knowledge.			
Signature Januaren , Jerry Langro	ehr K.C.C. OFFICE USE ONLY TON COMMISSION			
Title Vice President Date 1-	24-96 F Letter of Confidentiality Attached Wireline Log Received AN D 1000			
Subscribed and sworn to before me this 24 day of 2000	Geologist Report Received 5 1996 Distribution Of 1996			
Notary Public Sandra () Tala	KCC SWD/Rep 0 A DANGPA 16.00 KGS Plug Other			
Date Commission Expires $\frac{1.31.98}{}$	(Specify)			

SANDRA C. McCAIG NOTARY PUBLIC STATE OF KANSAS My Appt. Exp. 1-31 98

Form ACO-1 (7-91)

C I	DE	77.2

INSTRUCTIONS: Show interval tested, time hydrostatic pressures if more space is need. Drill Stem Tests Take (Attach Additional Samples Sent to Geold Cores Taken Electric Log Run (Submit Copy.) List All E.Logs Run:	important tops e tool open an , bottom hole t ded. Attach co	and base of forma d closed, flowing emperature, fluid	tions penetrated.	Detail all ssures, wheth w rates if gas	er shut-in pre	all drill ssure reac ing test.	hed static leve
All logs were forw Filed 1-18-95.	arded with or	iginal ACO-1				- 	
:	Report al	CASING RECO	XXI New LI	Jsed intermediate,	production, etc	c.	
Purpose of String	Size Hole Drilled	Size Casing Set (In O.D.)	Weight Lbs./Ft.	Setting Depth	Type of Cement	# Sacks Used	Type and Percen
Surface	124"	8 5/8"	23#	345.9'	60/40 pos mix	225 sks	2% gel, 3% CC
Production	7 7/8"	4 1/2" D•V• Tool	10.5#	4724 . 98'	Common 60/40 pos mix		CFR 2% gel, 7# gil
	ADDITIONAL CE	MENTING/SQUEEZE R	ECORD	1	1		L
Purpose: Perforate Protect Casing Plug Back TD	Depth Top Bottom	Type of Cement	#Sacks Used		Type and Percen	t Additive	s
Plug Off Zone							···
Shots Per Foot		RECORD - Bridge e of Each Interva			Fracture, Shot, d Kind of Mater		ueeze Record Depth
5 4	4594'-4597'	3'		500 gals,			4660
4	4250' to 4255 4196' to 4200		4182'-4184' 2	500 gals, 1500 gals	15% INS 15% INS		4300° 4230°
8	4105° to 4106	11		500 gals,	15% INS		41501
TUBING RECORD	Size 2 3/8	Set At 4633'	Packer At None	Liner Run	☐ Yes ⊠	No	
Date of First, Resulting January 6,1995/ F	•	SWD or Inj. Pr	oducing Method	Flowing XX Pu	mping Gas L	ift Ot	her (Explain)
Estimated Production Per 24 Hours		Bbls. Gas	Mcf Wat				Gravity
Disposition of Gas:	METHOD OF	COMPLETION	en Hole 🖾 Perf		oduction Interv		94' to 4597'

ORIGINAL

15-109-20571-0001

THORN #1 NE-SE-SE Sec. 16-12S-33W LOGAN CO., KS

DST #1 (Toronto) 3992 '-4028'	ELECTRIC	ELECTRIC LOG TOPS		
30-45-30-30	HEBNER	3993' (-904)		
Recovered 30' mud	TORONTO	4020' (- 931')		
IFP 29-29 ISIP 1086	LANSING	4035' (- 946')		
FFP 49-49 FSIP 986	MUNCIE	4183' (-1094')		
	STARK	4262' (-1178')		
DST #2 "A" Zone 4028'-4050'	MARMATON	4373' (-1284')		
30-45-60-45	PAWNEE	4466' (-1377'		
Recovered 190' muddy water	CHEROKEE SHALE	4553' (-1464')		
Chlorides 75,000	JOHNSON	4597' (-1508')		
IFP 29-49 ISIP 1106	ELOGTO	4734		
FFP 78-108 FSIP 1006	2209-			

DST #3 - "B" Zone 4054'-4080' 30-45-60-45 Recovered 5' clean oil, 62' mud Chlorides 84,000 IFS 68-88 ISIP 1116 FFP 118-147 FSIP 1076

DST #4 - E/F Zone 4100'-4123'
30-45-60-45
Recovered 62' MCO, 80% oil
62' OCM, 20% oil
62' SOCMW, 5% oil, 60% water, 35% mud
186' SW 54,000 chlorides
IFS 29-78 ISIP 1106
FFP 98-167 FSIP 1016

DST #5 - "H" Zone 4176'-4210'
30-45-60-45
Recovered 62' CO
62' OCGM, 10% gas, 10% oil
62' OCGM, 15% gas, 5% oil
62' SOWCM, 3% oil, 10% water
IFS 39-68 ISIP 561
FFP 88-108 FSIP 501

STATE CORPORATION COMMISSION

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Green Hangar marion

15-109-20571-00-01 ORIGINAL

THORN #1 NE-SE-SE Sec. 16-12S-33W LOGAN CO., KS

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DST #6 "J" Zone 4245'-4266'

30-45-60-45

Recovered 1240' GIP

496' CGO, 20% gas, 80% oil, 38°

124' OCGM, 40%gas, 5% oil, 5% water

IFP 98-1779

ISIP 246

FFP 196-226

FSIP 265

DST #7 "K" Zone 4265'-4289'

30-45-60-45

Recovered 30' OSM, 248' SW

Chlorides 55,000

IFP 29-68

68 ISIP 492

FFP 98-127 FSIP 472

DST #8 - Ft. Scott 4493'-4545"

30-45-60-45

Weak blow thru out

Recovered 140' drlg mud w/oil spots

60' mud cut water, 70% water

IFS 41-62

ISIP 769

FFP 104-124 FSIP 669

DST #9 - Johnson Zone 4571'-4605"

30-45-60-45

Fair blow increasing to strong & then dying to 4" in bucket (surging)

Gas to surface during 2nd open period

Recovered 1465' clean gassy oil, gravity 29.3

150' slightly gas & oil cut mud, 10% gas, 35% oil

60' water cut mud, 30% water

IFS 104-259 ISIP 1060

FFP 353-579 FSIP 1060

DST #10 Lansing Zone 4208'-4240' (Straddle Packers)

30-45-30-45

Fair blow 1st open

Weak blow 2nd open

Recovered 180' mud

IFS 72-83 ISIP 280

FFP 93-93 FSIP 280

STATE CORPORATION TO CO.

JAN 2 5 1996

White the house