

Operator Name CRYSTAL OIL COMPANY Lease Name HIRT FARMS Well # #1
 Sec. 26 Twp. 27 Rge. 12 East County PRATT
 West

INSTRUCTIONS: Show important tops and base of formations 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 (Attach Additional Sheets.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	<input checked="" type="checkbox"/> Log	Formation (Top), Depth and Datum	<input type="checkbox"/> Sample
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	Name	Top	Datum
Cores Taken	<input type="checkbox"/> Yes <input type="checkbox"/> No	HEEBNER	3480	-1638
Electric Log Run (Submit Copy.)	<input checked="" type="checkbox"/> Yes <input type="checkbox"/> No	BROWN LIME	3564	-1720
List All E.Logs Run:		LANSING	3564	-1720
DUAL POROSITY LOG		KANSAS CITY	3735	-1834
DUAL INDUCTION LOG		MISS CHERT	4119	-2281
BOND LOG		VIOLA	4331	-2489
		ARBUCKLE	4511	
		RTB	4533	-2691

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
SURFACE	12 1/4"	8 5/8"	20#	255	60-40POZ	210	2%GEL, 3%CC
PRODUCTION	7 7/8"	5 1/2"		4532	50-50POZ	200	18%SALT
						40	HALCO LITE

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					

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
2	4126 -36 4156-66	HY-T-GELL L.T. FRACJOB	4126 -66
		pumped down 2 7/8 tubing	
		1000gal pre-pd-5000galxlinkpd,	
		12000galxlinkgel- with	130sks
		of 20-40 and 140sks of 12-20sd.	

TUBING RECORD	Size	Set At	Packer At	Liner Run <input type="checkbox"/> Yes <input type="checkbox"/> No

Date of First, Resumed Production, SUD or Inj.	Producing Method <input type="checkbox"/> Flowing <input checked="" type="checkbox"/> Pumping <input type="checkbox"/> Gas Lift <input type="checkbox"/> Other (Explain)
--	--

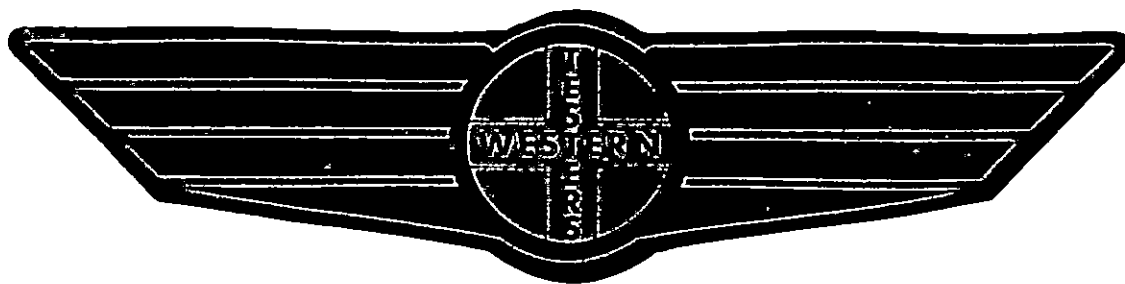
Estimated Production Per 24 Hours	Oil Bbls.	Gas Mcf	Water Bbls.	Gas-Oil Ratio	Gravity
-----------------------------------	-----------	---------	-------------	---------------	---------

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: 4126 - 66

FORMATION TEST REPORT



Home Office:

Wichita, Kansas 67201

P.O. Box 1599

Phone 1 - 800-688-7021

GAS FLOW REPORT

Date : 1-15-92	Ticket # : 17600
Customer : CRYSTAL OIL COMPANY	Lease : HIRT FARMS
Well : 1 Test : 1	Geologist : SCOTT
Elevation (KB) : 1842 Formation : KANSAS CITY A&B	
Section : 26 Township : 27S	
Range : 12W County : PRATT	State : KANSAS
Gauge SN # : 1051 Range : 4150	Clock : 12

TIME GAUGE (MIN)	TESTER TYPE	ORFICE SIZE	PRESSURE (PSI)	FLOW DESCRIPTION
---------------------	-------------	----------------	-------------------	------------------

PRE FLOW
=====

SECOND FLOW
=====

15 MIN.	MERLA	1/8"		GAS TO SURFACE
15 MIN.	MERLA	1/8"	5"WTR	1180 C.F.P.D.
20 MIN.	MERLA	1/8"	7"WTR	1390 C.F.P.D.
25 MIN.	MERLA	1/8"	7"WTR	1390 C.F.P.D.
30 MIN.	MERLA	1/8"	7"WTR	1390 C.F.P.D.

TOO WEAK A BLOW - NO GAS SAMPLE TAKEN

Gas Bottle SN # :
 Date Bottle Filled : 1-15-92
 Date to be Invoiced : 1-15-92

COMPANY : CRYSTAL OIL COMPANY
WELL : 1
GAUGE # : 1051
DATE : 15/ 1/92

FIELD : HIRT FARMS
JOB # : 17600
DEPTH : 3754
TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-j)
49	6:18: 0	2.800	807.000	108.00	57.000
50	6:21: 0	2.850	846.000	108.00	39.000
51	6:24: 0	2.900	874.000	108.00	28.000
52	6:27: 0	2.950	900.000	108.00	26.000
53	6:30: 0	3.000	920.000	108.00	20.000
54	6:33: 0	3.050	934.000	108.00	14.000

WESTERN TESTING CO. INC.

RECOVERED : 90 FT OF: MUD
RECOVERED : 60 FT OF: SLY OIL CUT MUD

Total Barrels Fluid = 0.91
Total Fluid Prod Rate = 17.48 BFPD
Indicated Oil Rate = 0.35 BOPD
Indicated Wtr Rate = 1.75 BWPD
Corrected Oil Rate = 10.26 BOPD
Corrected Wtr Rate = 51.32 BWPD

REMARK 1 :
REMARK 2 :
REMARK 3 :
REMARK 4 :

SET PACKER(S) : 3:30 A.M.

TIME STARTED OFF BOTTOM : 6:30 A.M.

WELL TEMPERATURE : 108

INITIAL HYDROSTATIC PRESSURE

(A) 1764

INITIAL FLOW PERIOD MIN: 30

(B) 64

PSI TO (C) : 64

INITIAL CLOSED IN PERIOD MIN: 45

(D) 955

FINAL FLOW PERIOD MIN: 45

(E) 97

PSI TO (F) : 97

FINAL CLOSED IN PERIOD MIN: 63

(G) 934

FINAL HYDROSTATIC PRESSURE

(H) 1726

WESTERN TESTING CO. INC.
SUBSURFACE PRESSURE SURVEY

DATE : 1-15-92
 CUSTOMER : CRYSTAL OIL COMPANY
 WELL : 1 TEST: 1
 ELEVATION : 1842 KB
 SECTION : 26
 RANGE : 12W COUNTY : PRATT
 GAUGE SN# : 1051 RANGE : 4150
 TICKET : 17600
 LEASE : HIRT FARMS
 GEOLOGIST : SCOTT
 FORMATION : KANSAS CITY
 TOWNSHIP : 27S
 STATE : KANSAS
 CLOCK : 12

INTERVAL FROM : 3686 TO : 3754 TOTAL DEPTH : 3754
 DEPTH OF SELECTIVE ZONE :
 PACKER DEPTH : 3681 SIZE : 6.63
 PACKER DEPTH : 3686 SIZE : 6.63
 PACKER DEPTH : SIZE :
 PACKER DEPTH : SIZE :

DRILLING CON. : RED TIGER RIG 6
 MUD TYPE : CHEMICAL VISCOSITY : 45
 WEIGHT : 8.8 WATER LOSS (CC) : 12.0
 CHLORIDES (PPM) : 4000
 JARS-MAKE : SERIAL NUMBER :
 DID WELL FLOW ? : NO REVERSED OUT ? : NO

DRILL COLLAR LENGTH : 0 FT I.D. inch : 0.00
 WEIGHT PIPE LENGTH : 597 FT I.D. inch : 2.50
 DRILL PIPE LENGTH : 3069 FT I.D. inch : 3.80
 TEST TOOL LENGTH : 20 FT TOOL SIZE : 5.50
 ANCHOR LENGTH : 68 FT ANCHOR SIZE : 5.50
 SURFACE CHOKE SIZE : .75 IN BOTTOM CHOKE SIZE : .75
 MAIN HOLE SIZE : 7.875 IN TOOL JOINT SIZE : 4.5XH

BLOW COMMENT #1 : INITIAL FLOW PERIOD STRONG BLOW.
 BLOW COMMENT #2 : FINAL FLOW PERIOD STRONG BLOW - GAS TO SURFACE
 BLOW COMMENT #3 : IN 15 MINUTES - SEE FLOW CHART.
 BLOW COMMENT #4 :

COMPANY : CRYSTAL OIL COMPANY
 WELL : 1
 GAUGE # : 1051
 DATE : 15/ 1/92

FIELD : HIRT FARMS
 JOB # : 17600
 DEPTH : 3754
 TEST :

DATA No.	REAL TIME HR:MN:SS	ELAPSE TIME DELTA HOURS	PRESSURE PSIG	TEMP DEG F	DELTA P Pi-P(i-1)
INITIAL FLOW PERIOD					
2	3:30: 0	0.000	64.000	108.00	0.000
3	3:34:59	0.083	64.000	108.00	0.000
4	3:40: 0	0.167	64.000	108.00	0.000
5	3:45: 0	0.250	64.000	108.00	0.000
6	3:49:59	0.333	64.000	108.00	0.000
7	3:55: 0	0.417	64.000	108.00	0.000
8	4: 0: 0	0.500	64.000	108.00	0.000
INITIAL SHUT-IN PERIOD					
9	4: 3: 0	0.550	83.000	108.00	19.000
10	4: 6: 0	0.600	177.000	108.00	94.000
11	4: 9: 0	0.650	266.000	108.00	89.000
12	4:12: 0	0.700	328.000	108.00	62.000
13	4:15: 0	0.750	379.000	108.00	51.000
14	4:18: 0	0.800	422.000	108.00	43.000
15	4:21: 0	0.850	455.000	108.00	33.000
16	4:24: 0	0.900	477.000	108.00	22.000
17	4:27: 0	0.950	490.000	108.00	13.000
18	4:30: 0	1.000	506.000	108.00	16.000
19	4:33: 0	1.050	658.000	108.00	152.000
20	4:36: 0	1.100	750.000	108.00	92.000
21	4:39: 0	1.150	833.000	108.00	83.000
22	4:42: 0	1.200	895.000	108.00	62.000
23	4:45: 0	1.250	955.000	108.00	60.000
FINAL FLOW PERIOD					
24	4:46: 0	1.267	97.000	108.00	-858.000
25	4:49:59	1.333	97.000	108.00	0.000
26	4:55: 0	1.417	97.000	108.00	0.000
27	5: 0: 0	1.500	97.000	108.00	0.000
28	5: 4:59	1.583	97.000	108.00	0.000
29	5:10: 0	1.667	97.000	108.00	0.000
30	5:15: 0	1.750	97.000	108.00	0.000
31	5:19:59	1.833	97.000	108.00	0.000
32	5:25: 0	1.917	97.000	108.00	0.000
33	5:30: 0	2.000	97.000	108.00	0.000
FINAL SHUT-IN PERIOD					
34	5:33: 0	2.050	122.000	108.00	25.000
35	5:36: 0	2.100	170.000	108.00	48.000
36	5:39: 0	2.150	223.000	108.00	53.000
37	5:42: 0	2.200	269.000	108.00	46.000
38	5:45: 0	2.250	313.000	108.00	44.000
39	5:48: 0	2.300	354.000	108.00	41.000
40	5:51: 0	2.350	392.000	108.00	38.000
41	5:54: 0	2.400	411.000	108.00	19.000
42	5:57: 0	2.450	427.000	108.00	16.000
43	6: 0: 0	2.500	437.000	108.00	10.000
44	6: 3: 0	2.550	454.000	108.00	17.000
45	6: 6: 0	2.600	539.000	108.00	85.000
46	6: 9: 0	2.650	624.000	108.00	85.000
47	6:12: 0	2.700	690.000	108.00	66.000
48	6:15: 0	2.750	750.000	108.00	60.000

WESTERN TESTING CO. INC.
WICHITA-KANSAS

Pressure Transient Report

COMPANY : CRYSTAL OIL COMPANY
RIG : PRATT-KANSAS
FIELD : HIRT FARMS
WELL : 1
DATE : 1-15-92
GAUGE NO : 1051

OPERATIONAL COMMENTS



HALLIBURTON SERVICES

Duncan, Oklahoma 73228

A Division of Halliburton Company

BULK MATERIALS DELIVERY AND TICKET CONTINUATION

15-151-22074-00-00

FOR INVOICE AND TICKET NO.

055-306

DATE 1/19/92	CUSTOMER ORDER NO.	WELL NO. AND FARM 1 Hirt Farms	COUNTY Pratt	STATE Ks.
CHARGE TO Crystal Oil Co.		OWNER Same	CONTRACTOR Red Tiger Drlg.	No. B 115223
MAILING ADDRESS		DELIVERED FROM Pratt, Ks.	LOCATION CODE 25555	PREPARED BY Jim Arend
CITY & STATE		DELIVERED TO Well Site	TRUCK NO. 2609=5621	RECEIVED BY <i>JWA</i>

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE L D	DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT
				QTY.	MEAS.	QTY.	MEAS.		
Front			50/50 Pozmix Cement						
504-308			Standard Cement	100	Sks			5.35	535.00
506-105			Pozmix A	100	Sks			3.29	329.00
506-121			Halliburton Gel @ 2%	3	Sks				N/C
508-291			Gilsonite	1200	#			.35	420.00
509-968			Salt	1800	#			.10	180.00
507-775			Hallad 322	100	#			6.15	615.00
Rear			Halliburton Light Cement	40	Sks				
504-316			Halliburton Lite Cement	40	Sks			5.64	225.60

Enclosed are the cement tickets for the Hirt #1 well in Pratt county

Bessie Kuehling

				LOADED MILES	TON MILES	RECEIVED OCT 2 1992 CONSERVATION DIVISION 300 W. 1st St. As	COMMISSION
			SERVICE CHARGE ON MATERIALS RETURNED				
500-207			SERVICE CHARGE				345.00
500-306			Mileage Charge	23,924	15	179.43	143.54
			TOTAL WEIGHT			.80	
No. B 115223				CARRY FORWARD TO INVOICE		SUB-TOTAL	2,793.14

BULK MATERIALS DELIVERY AND TICKET CONTINUATION

HALLIBURTON SERVICES
Duncan, Oklahoma 73538

A Division of Halliburton Company

FOR INVOICE AND
TICKET NO. 055303

DATE 1-9-92	CUSTOMER ORDER NO.	WELL NO. AND FARM Hirt Farms 1	COUNTY Pratt	STATE Ks.
CHARGE TO Crystal Oil Company		OWNER Same	CONTRACTOR Red Tiger Drlg.	No. B 115217
MAILING ADDRESS		DELIVERED FROM Pratt, Ks.	LOCATION CODE 25555	PREPARED BY J.M. Sheets
CITY & STATE		DELIVERED TO Location	TRUCK NO. 50808	RECEIVED BY <i>[Signature]</i>

PRICE REFERENCE	SECONDARY REF. OR PART NO.	CODE		DESCRIPTION	UNITS 1		UNITS 2		UNIT PRICE	AMOUNT	
		L	D		QTY.	MEAS.	QTY.	MEAS.			
				160 40% Pozmix 60% Cement 2% Gel							
504-308	516.00261	1	b	Standard Cement	96	sk			5.35	513.60	
506-105	516.00286	1	b	Pozmix A	64	sk			3.29	210.56	
506-121	516.00259	1	bb	Halliburton Gel 2% allowed	3	sk				NC	
509-406	890.50812	1	b	Calcium Chloride 3% W/160	4	sk			26.50	106.00	
				50 40% Pozmix 60% Cement 2% Gel							
504-308	516.00261	1	b	Standard Cement	30	sk			5.35	160.50	
506-105	516.00286	1	b	Pozmix A	20	sk			3.29	65.80	
506-121	516.00259	1	b	Halliburton Gel 2% allowed						NC	
509-406	890.50812	1	b	Calcium Chloride 3% W/50	1	sk			26.50	26.50	
				Returned Mileage Charge	TOTAL WEIGHT		LOADED MILES		TON MILES		
				SERVICE CHARGE ON MATERIALS RETURNED			CU. FEET		STATE OF KANSAS RECEIVED OPERATION COMMISSION OCT 2 1992		
500-207		1	b	SERVICE CHARGE			CU. FEET		253.00 1.15		
500-306		1	bb	Mileage Charge	18,821 14,355	15	141.16 107.69	.80	112.93 186.77		
No. B 115217		CARRY FORWARD TO INVOICE					SUB-TOTAL		1109.49 1448.89		