

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

Operator: License # 5046
Name Raymond Oil Company
Address P. O. Box 48788
Wichita, KS 67201
City/State/Zip

Purchaser Inland Purchasing

Operator Contact Person Pat Raymond
Phone 316-267-4214

Contractor: License # 6033
Name Murfin Drilling Company

Wellsite Geologist Clarke T. Sandberg
Phone 316/267-4214

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD Temp Abd
 Gas Inj Delayed Comp.
 Dry Other (Core, Water Supply etc.)

If OWO: old well info as follows:
Operator
Well Name
Comp. Date
Old Total Depth

WELL HISTORY

Drilling Method:
 Mud Rotary Air Rotary Cable

10-22-87 10-31-87 1-2-88
Spud Date Date Reached TD Completion Date
4700' 4425'
Total Depth PBD

8-5/8" @ 372'

Amount of Surface Pipe Set and Cemented at.....feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set.....feet
If alternate 2 completion, cement circulated
from.....feet depth to.....w/.....SX cmt
Cement Company Name
Invoice #

API NO. 15-193-20,452-00-00

County Thomas

C SE SE Sec. 25 Twp. 9 Rge. 32 East West

660 Ft North from Southeast Corner of Section
650 Ft West from Southeast Corner of Section

(Note: Locate well in section plat below)

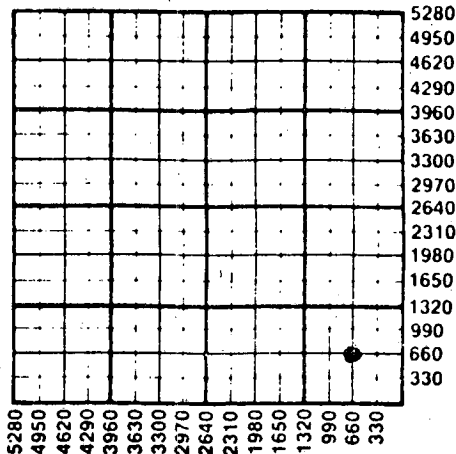
Lease Name Engelhardt Well # 1

Field Name Wildcat - New Field Discovery

Producing Formation Lansing-Kansas City

Elevation: Ground 3059' KB 3064'

Section Plat



WATER SUPPLY INFORMATION

Disposition of Produced Water: Disposal
Docket # Repressuring

Questions on this portion of the ACO-1 call:

Water Resources Board (913) 296-3717

Source of Water: Hauled.
Division of Water Resources Permit #

Groundwater.....Ft North from Southeast Corner
(Well)Ft West from Southeast Corner of
Sec Twp Rge East West

Surface Water.....Ft North from Southeast Corner
(Stream, pond etc).....Ft West from Southeast Corner
Sec Twp Rge East West

Other (explain) Hauled
(purchased from city, R.W.D. #)

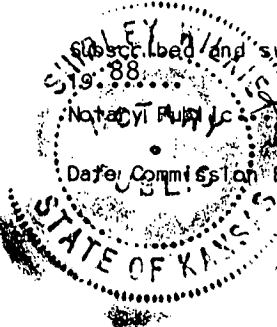
INSTRUCTIONS: This form shall be completed in triplicate and filed with the Kansas Corporation Commission, 200 Colorado Derby Building, Wichita, Kansas 67202, within 120 days of the spud date of any well. Rule 82-3-130, 82-3-107 and 82-3-106 apply. Information on side two of this form will be held confidential 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 drillers time log shall be attached with this form. 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 Clarke T. Sandberg
Title Geologist Date 2-1-88

Subscribed and sworn to before me this 1st day of February 1988
Notary Public Shirley Wilkie
Date Commission Expires January 29, 1992

K.C.C. OFFICE USE ONLY
 Letter of Confidentiality Attached
 Wireline Log Received
 Drillers Timelog Received
Distribution
 KCC SWD/Rep
 KGS Plug
Specify
02-02-1988
Wichita, Kansas



Operator Name Raymond Oil Company Lease Name..... Engelhardt Well #..... 1

Sec..... 25 Twp..... 9S Rge..... 32 East West County..... Thomas

WELL LOG

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 Yes No
 Samples Sent to Geological Survey Yes No
 Cores Taken Yes No

DST #1: 4210'-4248', 30-60-45-75, Strong blow bottom bucket 20 min. rec. 10' OCWM, 5% oil, 45% W, 50% M, 840' Mdy. wtr. IFP 60-264, FFP 294-426, ISIP 1353, FSIP 1393, Temp. 126°.

DST #2: 4259'-4305', 30-30-30-30, Rec. 20' MW, weak blow, died in 30 min. IFP 50-50, FFP 50-50, ISIP 517, FSIP 335, Temp. 128°.

DST #3: 4309'-4334', 30-60-45-75, Weak blow throughout, Rec. 90' SLOCM, 2% oil, 98% M, 120' Mdy Wtr., 55% W, 45% M, IFP 30-40, FFP 45-71, ISIP 1345, FSIP 1333, Temp. 128°.

DST #4: 4333'-4400', 30-60-45-75, Strong blow off bottom for 6 mins. Rec. 848' GIP, 213' CGO, 40°, 427' GMC0 (55% oil, 20% G, 25% M), 244' GMCWO (60% oil, 10% G, 20% M), 122' GOCM (25% oil, 20% G, 55% M, 305' GOCMW, (5% oil, 10% G, 65% W,

Name	Formation Description	
	Log	Sample
	Log Top	Bottom
B. Anhydrite	2661'	
Topeka	3832'	
Heebner	4044'	
Lansing	4085'	
Stark Shale	4297'	
B. Kansas City	4361'	
Cherokee Shale	4585'	
Miss.	4669'	
LTD	4698'	

DST #4 (Cont'd):
 20% M), Total fluid 1311'. IFP 41-315, FFP 355-537, ISIP 1363, FSIP 1353, Temp. 129°

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	12 1/2"	8-5/8"	20#	372'	60-40 Poz	250	2% gel, 3% cc
Production	7-7/8"	5-1/2"	14#	4463.79'	"	200	7 1/2% salt

Shots Per Foot	Specify Footage of Each Interval Perforated	Acid, Fracture, Shot, Cement Squeeze Record (Amount and Kind of Material Used)	Depth
2	4342'-4348'	250 gals. mud acid.	4348'

TUBING RECORD	Size 2"	Set At 4422.68'	Packer at none	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First Production 1-2-88
 Producing Method Flowing Pumping Gas Lift Other (explain).....

Estimated Production Per 24 Hours	Oil Bbls	Gas MCF	Water Bbls	Gas-Oil Ratio CFPB	Gravity
	110	none	2	--	40°

METHOD OF COMPLETION Production Interval

Disposition of gas: Vented Open Hole Perforation
 Sold Other (Specify) 4342' to
 Used on Lease Dually Completed Commingled 4348'

ORIGINAL

BJ-TITAN SERVICES COMPANY

15-193-20452-00-00

INVOICE DATE
12/01/87

DIRECT BILLING INQUIRIES TO: 713-895-5821	TERMS: NET AMOUNT DUE 30 DAYS FROM DATE OF INVOICE	REMIT TO: BJ-TITAN SERVICES P.O. BOX 200416 HOUSTON, TX 77216
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PAGE 1	INVOICE NO. 21070
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RAYMOND OIL
BOX 167
LYONS

KS 67554

AUTHORIZED BY 281930

PURCH. ORDER REF. NO. 5248

WELL NUMBER : 1

CUSTOMER NUMBER : 03339015

LEASE NAME AND NUMBER ENGELHARDT	STATE 15	COUNTY/PARISH	CITY	DISTRICT NAME OAKLEY	DISTR. NO. 3320
JOB LOCATION/FIELD		MTA DISTRICT	DATE OF JOB 12/01/87	TYPE OF SERVICE LAND-LONG STRING/PRODUC	

PRODUCT NUMBER	QUANTITY	DESCRIPTION	UNIT PRICE	U/M	EXTENDED PRICE
10101501	1.00	ADD STAGES, CONTINUOUS OR INTERMITT	695.00		695.00
10109005	20.00	MILEAGE CHRG, FROM NEAREST BASE OF	1.10		22.00
10415005	300.00	LITE	5.56	CF	1,668.00
10422005	75.00	CELLO FLAKE,	1.27	GL	95.25
10880085	300.00	MIXING CUSTOMERS MATERIALS, PER CUB	0.95		285.00
10940101	132.00	DRAYAGE, PER TON MILE	0.70		92.40
SUBTOTAL					2,357.65
DISCOUNT					571.53

ACCOUNT	4.00000% STATE TAX 1.00000% COUNTY TAX	RECEIVED STATE CORPORATION COMMISS MAR 1 1988 CONSERVATION DIVISION Wichita, Kansas	2286.12 2286.12	91.45 22.96
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TAX EXEMPTION STATUS:

PAY THIS AMOUNT

2,400.43

15-193-20452-00-00

COMPLETION REPORT

Engelhardt #1 (ROCI & Murfin)
C SE/4 SE/4 Sec. 25-9S-32W
Thomas County, Kansas

- 11-1-87 Set 8-5/8" 20# surf. csg @ 371'. RTD 4700'. Set 5-1/2" 14# production csg. @ 4463.79' cemented w/200 sx. 60-40 posmix 7½% salt. Plug TD 4425'.
- 11-30-87 Ran Gamma Ray & Cement Top logs. Cement top @ 3264'. Perforated from 4342'-4348', 2 holes/ft. w/DP jets. Ran 2" tubing w/5½" tension packer to test & treat. Swab test for 4 hrs., 3 BOPH w/mud. Acidized w/250 gal. mud acid. Broke @ 1400#. Treated w/900# @ 2 BPM. Swabbed back load.
- 12-1-87 3800' fill up over night. Swabbed down & tested. Tested 24.75 BOPH, after 3 hrs. last test was 25.50 BOPH, 3% water. Squeezed back side of casing w/300 sx. cement @ 500# pressure. Put DV tool @ 2657'. Put 20 bbls. water behind cement to put cement over sand zone. Pulled tubing & packer out.
- 12-2-87 Ran 2" tubing & rods in hole:
2" tubing 4422.68' 141 jts.
3/4" rods 4375' 175 jts.
2" x 1½" x 12' THD Pump - new.

Bill Schoenhofer

BS/sw

RECEIVED
STATE CORPORATION COMMISSION

MAR 15 1988

CONSERVATION DIVISION
Wichita, Kansas

193
 15-~~19~~-20452-00-00



Wichita, Kansas
 Phone 316-267-4214

Casings • Tubing
 Engines • Tanks
 Pumping Units

Office Phone (Lyons)
 316-257-3161

BASKET
~~2657.95~~
 2650'

DATE DEL. 11-1 19 87

CHARGE TO Raymond Oil Co Inc

LEASE Engelhardt #1 WELL NO. _____

DESCRIPTION 5 1/2" OD 8rd thd 14^H casing

TALLIED BY _____

	FEET	INCH	FEET	INCH	FEET	INCH	FEET	INCH	FEET	INCH	FEET	INCH
1	27	43	42	45	41	30	41	80	32	28	31	08
2	41	93	42	35	42	50	42	41	32	79	42	98
3	41	54	42	62	42	91	42	49	32	18	32	62
4	41	60	42	02	42	98	42	11	32	02	32	41
5	41	50	42	61	41	04	41	85	32	98	42	15
6	42	70	42	54	41	16	41	87	32	61	26	10
7	41	53	42	12	43	16	42	85	39	69	32	52
8	42	88	42	56	42	65	42	91	30	80	30	45
9	43	05	42	36	41	52	41	05	39	76	32	08
10	41	66	43	18	41	34	42	90	32	28	32	24
11	41	75	42	27	42	65	33	06	32	40	32	10
12	40	91	42	19	42	-	42	16	32	14	32	98
13	43	18	42	80	42	95	32	67	31	28	39	41
14	42	36	40	98	42	90	31	94	32	35	32	71
15	41	06	42	92	43	36	31	21	32	10	32	10
16	43	22	42	90	43	30	32	16	32	19		
17	42	63	41	90	41	90	31	24	32	03		
18	41	26	42	40	42	37	32	36	35	09		
19	42	54	42	45	42	81	32	06	32	28		
20	42	28	42	70	41	99	32	81	39	25		
1	830	01	849	32	846	79	453	91	669	00	514	76

RECEIVED
 STATE CORPORATION COMMISSION

THE ABOVE JOINTS RECEIVED IN GOOD ORDER

4463.79

CONSERVATION DIVISION
 Wichita, Kansas

BY _____

BJ-TITAN SERVICES

P.O. BOX 4442 HOUSTON, TX 77210

CEMENTING LOG

STAGE NO.

15-193-20452-00-00

Date 12-1-87 District Oakley Ticket No. 281930
 Company Raymond Oil Rig POE
 Lease Engelhardt Well No. 1
 County Thomas State KS
 Location Oakley 8N-2E Field _____

CEMENT DATA:
 Spacer Type: _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 LEAD: Pump Time _____ hrs. Type Lite 1/4" Collar
 Excess _____
 Amt. 300 Sks Yield _____ ft³/sk Density _____ PPG
 TAIL: Pump Time _____ hrs. Type _____
 Excess _____
 Amt. _____ Sks Yield _____ ft³/sk Density _____ PPG
 WATER: Lead _____ gals/sk Tail _____ gals/sk Total _____ Bbls.

CASING DATA: PTA Squeeze
 Surface Intermediate Production Liner
 Size _____ Type _____ Weight _____ Collar _____

Casing Depths: Top _____ Bottom _____

Drill Pipe: Size _____ Weight _____ Collars _____
 Open Hole: Size _____ T.D. _____ ft. P.B. to _____ ft.

CAPACITY FACTORS:
 Casing: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Open Holes: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Drill Pipe: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Annulus: Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Bbls/Lin. ft. _____ Lin. ft./Bbl. _____
 Perforations: From _____ ft. to _____ ft. Amt. _____

Pump Trucks Used 27
 Bulk Equip. 2750
 Float Equip: Manufacturer _____
 Shoe: Type _____ Depth _____
 Float: Type _____ Depth _____
 Centralizers: Quantity _____ Plugs Top _____ Btm. _____
 Stage Collars _____
 Special Equip. _____
 Disp. Fluid Type _____ Amt. _____ Bbls. Weight _____ PPG
 Mud Type _____ Weight _____ PPG

COMPANY REPRESENTATIVE _____

CEMENTER [Signature]

TIME	PRESSURES PSI		FLUID PUMPED DATA			REMARKS
	AM/PM	DRILL PIPE CASING	ANNULUS	TOTAL FLUID	Pumped Per Time Period	
2:30	pm					On location & Set up
						Put 300 PSI on Cas (5 1/2)
3:30	pm					Put Pump into with 4 Bbls to Open hole - Mix Cement. Down Annulus. Displace to 600 ft on Annulus Shut in @ 500 PSI
4:15	pm					Job finished

RECEIVED STATE CORPORATION COMMISSION

MAR 15 1988

CONSERVATION DIVISION Wichita, Kansas

[Signature]

FINAL DISP. PRESS. _____ PSI BUMP PLUG TO _____ PSI BLEEDBACK _____ BBLs. THANK YOU

Rec'd
2-2-88

SIDE ONE

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

API NO. 15-193-20,452-00-00
County Thomas
C SE SE Sec 25 Twp 9 Rge 32 East West

Operator: License # 5046
Name Raymond Oil Company
Address P. O. Box 48788
Wichita, KS 67201
City/State/Zip

660 Ft North from Southeast Corner of Section
650 Ft West from Southeast Corner of Section
(Note: Locate well in section plat below)

Purchaser Inland Purchasing

Lease Name Engelhardt Well # 1
Field Name Wildcat New Field Discovery

Operator Contact Person Pat Raymond
Phone 316-267-4214

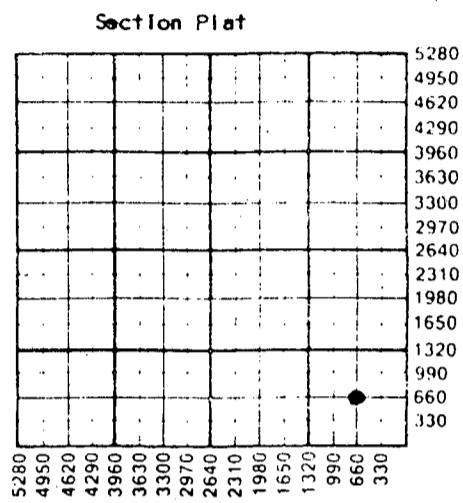
Producing Formation Lansing-Kansas City

Elevation: Ground 3059' KB 3064'

Contractor: License # 6033
Name Murfin Drilling Company

Wellsite Geologist Clarke T. Sandberg
Phone 316/267-4214

Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD Temp Abd
 Gas Inj Delayed Comp.
 Dry Other (Core, Water Supply etc.)



If **OWO**: old well info as follows:
Operator
Well Name
Comp. Date Old Total Depth

WATER SUPPLY INFORMATION
Disposition of Produced Water: Disposal Repressuring
Docket #

WELL HISTORY

Drilling Method:
 Mud Rotary Air Rotary Cable
10-22-87 10-31-87 1-2-88
Spud Date Date Reached TD Completion Date
4700' 4425'
Total Depth PBTD 8-5/8" @ 372'
Amount of Surface Pipe Set and Cemented at...feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set...feet
If alternate 2 completion, cement circulated from...feet depth to...w/...SX cmt
Cement Company Name
Invoice #

Questions on this portion of the ACO-1 call:
Water Resources Board (913) 296-3717
Source of Water: Hauled.
Division of Water Resources Permit #
 Groundwater...Ft North from Southeast Corner (Well) ...Ft West from Southeast Corner of Sec Twp Rge East West
 Surface Water...Ft North from Southeast Corner (Stream, pond etc)...Ft West from Southeast Corner Sec Twp Rge East West
 Other (explain) Hauled (purchased from city, R.W.D. #)

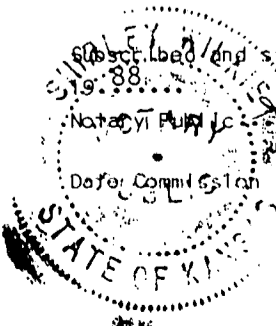
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All requirements of the statutes, rules and regulations promulgated to regulate the oil and gas industry have been fully complied with and the statements herein are complete and correct to the best of my knowledge.

Signature Clarke T. Sandberg
Title Geologist Date 2-1-88

Subscribed and sworn to before me this 1st day of February 1988
Notary Public Starley Wilkie
Date Commission Expires January 29, 1992

K.C.C. OFFICE USE ONLY
 Letter of Confidentiality Attached
 Wireline Log Received
 Drillers Timelog Received
Distribution
 KCC SWD/Rep NGPA
 KGS Plug Other (Specify)



Operator Name Raymond Oil Company Lease Name Engelhardt Well # 1

Sec. 25 Twp. 9S Rge. 32 East West County Thomas

WELL LOG

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	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	Formation Description <input checked="" type="checkbox"/> Log <input type="checkbox"/> Sample Name Log Top Bottom B. Anhydrite 2661' Topeka 3832' Heebner 4044' Lansing 4085' Stark Shale 4297' B. Kansas City 4361' Cherokee Shale 4585' Miss. 4669' LTD 4698'
Samples Sent to Geological Survey	<input checked="" type="checkbox"/> Yes	<input type="checkbox"/> No	
Cores Taken	<input type="checkbox"/> Yes	<input checked="" type="checkbox"/> No	
DST #1: 4210'-4248', 30-60-45-75, Strong blow bottom bucket 20 min. rec. 10' OCWM, 5% oil, 45% W, 50% M, 840' Mdy. wtr. IFP 60-264, FFP 294-426, ISIP 1353, FSIP 1393, Temp. 126°.			
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DST #3: 4309'-4334', 30-60-45-75, Weak blow throughout, Rec. 90' SLOCM, 2% oil, 98% M, 120' Mdy Wtr., 55% W, 45% M, IFP 30-40, FFP 45-71, ISIP 1345, FSIP 1333, Temp. 128°.			
DST #4: 4333'-4400', 30-60-45-75, Strong blow off bottom for 6 mins. Rec. 848' GIP, 213' CGO, 40%, 427' GMCO (55% oil, 20% G, 25% M), 244' GMCWO (60% oil, 10% G, 20% M), 122' GOCM (25% oil, 20% G, 55% M, 305' GOCMW, (5% oil, 10% G, 65% W,			
DST #4 (Cont'd): 20% M), Total fluid 1311'. IFP 41-315, FFP 355-537, ISIP 1363, FSIP 1353, Temp. 129°			

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
Surface	12 1/2"	8-5/8"	20#	372'	60-40 Poz	250	2% gel, 3% cc
Production	7-7/8"	5-1/2"	14#	4463.79'	"	200	7 1/2% salt

PERFORATION RECORD		Acid, Fracture, Shot, Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth
2	4342'-4348'	250 gals. mud acid	4348'

TUBING RECORD	Size 2"	Set At 4422.68'	Packer at none	Liner Run <input type="checkbox"/> Yes <input checked="" type="checkbox"/> No
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Date of First Production 1-2-88	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 110 Bbls	Gas none MCF	Water 2 Bbls	Gas-Oil Ratio -- CFPB	Gravity 40°
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METHOD OF COMPLETION		Production Interval
Disposition of gas: <input type="checkbox"/> Vented <input type="checkbox"/> Sold <input type="checkbox"/> Used on Lease	<input type="checkbox"/> Open Hole <input checked="" type="checkbox"/> Perforation <input type="checkbox"/> Other (Specify)	4342' to 4348'
<input type="checkbox"/> Dually Completed <input type="checkbox"/> Commingled		

RELEASED
 MAR 30 1989
 FROM CONFIDENTIAL