

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

Operator: License # 7076
Name: Black Diamond Oil, Inc.
Address P.O. Box 641

City/State/Zip Hays, KS 67601
Purchaser: _____
Operator Contact Person: Kenneth Vehige
Phone (913) -625-5891
Contractor: Name: Emphasis Oil Operations
License: 8241

Wellsite Geologist: Kenneth Vehige
Designate Type of Completion
 New Well Re-Entry Workover
 Oil SWD SIOV Temp. Abd.
 Gas ENHR SIGV
 Dry Other (Core, WSV, Expl., Cathodic, etc)

If Workover/Re-Entry: old 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. _____
7/28/93 8/4/93 8/4/93
Spud Date Date Reached TD Completion Date

API 15-135-23,763 **ORIGINAL**
County Ness
Approx. NE - NE - NW - Sec. 32 Twp. 19S Rge. 24 X V
4840 Feet from M (circle one) Line of Section
3080 Feet from W (circle one) Line of Section
Footages Calculated from Nearest Outside Section Corner:
NE, SE, NW or SW (circle one)
Lease Name Harkness Well # 1
Field Name Hair NW
Producing Formation _____
Elevation: Ground 2322' KB 2327'
Total Depth 4450' PBSD _____
Amount of Surface Pipe Set and Cemented at 217 Feet
Multiple Stage Cementing Collar Used? Yes No
If yes, show depth set: _____ Feet
If Alternate II completion, cement circulated from _____
feet depth to _____ w/ _____ sx cnt.
Drilling Fluid Management Plan D&A JH 12-21-93
(Data must be collected from the Reserve Pit)
Chloride content 26,000 ppm Fluid volume 200 bbls
Dewatering method used Air Dry and Backfill
Location of fluid disposal if hauled offsite: _____
Operator Name _____
Lease Name _____ License No. _____
Quarter Sec. Twp. S Rng. E/W
County _____ Docket No. _____

INSTRUCTIONS: An original and two copies of this form shall be filed with the Kansas Corporation Commission, 200 Colorado Derby Building, 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 geologist 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 Kenneth Vehige Kenneth Vehige
Title President Date 10-26-93
Subscribed and sworn to before me this 26 day of October, 1993.
Notary Public Verda M. Vehige Verda M. Vehige
Date Commission Expires 7-18-95

RECEIVED
K.C.C. OFFICE OF THE KANSAS CORPORATION COMMISSION
F Letter of Confidentiality Attached
C Wireline Log Received
C Geologist Report Received **NOV 02 1993**
Distribution:
 KCC
 GGS
 SWD/Reg
 Plug
Wichita, Kansas
(Specify)

VERDA M. VEHIGE
Notary Public - State of Kansas
My Appt. Expires 7-18-95

PI

Operator Name Black Diamond Oil, inc. Lease Name Harkness Well # 1

Sec. 32 Twp. 19S Rge. 24 East West
 County Ness

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 type="checkbox"/> Log	Formation (Top), Depth, and Datum	<input checked="" 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 checked="" type="checkbox"/> No	Anhydrite	1608	1643
Electric Log Run (Submit Copy.)	<input type="checkbox"/> Yes <input checked="" type="checkbox"/> No	Heebner	3718	
List All E.Logs Run:		Lansing K.C.	3758	4113
		Pawnee	4196	
		Fort Scott	4276	
		Mississippi	4378	
		Osage	4422	
		T.D.	4450	

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 1/4	8 5/8	20#	220'	60/40 Poz	140	2% gel, 3% C.C.

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				

PERFORATION RECORD - Bridge Plugs Set/Type		Acid Fracture Shot Cement Squeeze Record	
Shots Per Foot	Specify Footage of Each Interval Perforated	(Amount and Kind of Material Used)	Depth

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

Date of First, Resumed Production, SWD or Inj. | Producing Method Flowing Pumping Gas Lift 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 _____

Phone 913-483-2627, Russell, Kansas

Phone 316-793-5861, Great Bend, Kansas

15-135-23763-0000
ORIGINAL

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

1293

Home Office P. O. Box 31

Russell, Kansas 67665

New

Date	7-28-93	Sec.	19	Range	24	Called Out	6:30 pm	On Location	10:00 pm	Job Start	11:00 pm	Finish	12:00 AM
Lease	Harkness	Well No.	1	Location	2 1/2 E - 6 1/2 S	County	Ness	State	KS				

Contractor	EMPHASIS		
Type Job	SURFACE		
Hole Size	12 1/4	T.D.	220
Csg.	8 3/4	Depth	217.76
Tbg. Size		Depth	
Drill Pipe		Depth	
Tool		Depth	
Cement Left in Csg.	15'	Shoe Joint	
Press Max.		Minimum	
Meas Line		Displace	13.1
Perf.			

Owner	SAME
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	Black Diamond Oil Inc
Street	
City	State
The above was done to satisfaction and supervision of owner agent or contractor.	
Purchase Order No.	
X	Tom Ahn

EQUIPMENT

Pumptrk	No. 158	Cementer	Don H
		Helper	Kent R
Pumptrk	No.	Cementer	
		Helper	
Bulktrk	69	Driver	Bob B
Bulktrk		Driver	

CEMENT	
Amount Ordered	145.5K 69/40 2+3
Consisting of	
Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	
	Sales Tax
Handling	
Mileage	
	Sub Total
	Total
Floating Equipment	

DEPTH of Job	
Reference:	1 8 3/8 Plug
	Sub Total
	Tax
	Total

Remarks: Pumped all cement
Released Plug Displaced
Down. Cement Did
Circulate. By Allied
Cementing Thanks
D. J. Hines

RECEIVED
STATE CORPORATION COMMISS
NOV 02 1993
CONSERVATION DIVISION
Wichita, Kansas

GENERAL TERMS AND CONDITIONS

DEFINITIONS: In these terms and conditions, "Allied" shall mean Allied Cementing Co., Inc., and "Customer" shall refer to the party identified by that term on the front of this contract. As applicable, "Job" relates to the services described on the front side of this contract, "merchandise" refers to the material described on the front of this contract and to any other materials, products, or supplies used, sold, or furnished under the requirements of this contract.

—**TERMS:** Unless satisfactory credit has been established, "CUSTOMER" must tender full cash payment to "ALLIED" before the job is undertaken or merchandise is delivered. If satisfactory credit has been established, the terms of payment for the job and/or merchandise, including bulk cement, are net cash, payable in 30 days from the completion of the job and/or delivery of the merchandise. For all past due invoices, "CUSTOMER" agrees to pay interest on amounts invoiced at a rate of 18 percent per annum until paid. Notwithstanding the foregoing, in no event shall this Contract provide for interest exceeding the maximum rate of interest that "CUSTOMER" may agree to pay under applicable law. If any such interest should be provided for, it shall be and hereby is deemed to be a mistake, and this contract shall be automatically reformed to lower the rate of interest to the maximum legal contract rate, any amounts previously paid as excess interest shall be deducted from the amounts owing from the "CUSTOMER" or at the option of "ALLIED," refunded directly to "CUSTOMER." For purposes of this paragraph, ALLIED and CUSTOMER agree that KANSAS law shall apply. Any discounts granted with this contract are null and void if the charges are not paid when due.

—**ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees:

—**PRICES AND TAXES:** All merchandise listed in "ALLIED'S" current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.

—**TOWING CHARGES:** ALLIED will make a reasonable attempt to get to and from each job site using its own equipment. Should ALLIED be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by ALLIED, will be charged to and paid by CUSTOMER.

—**PREPARATION CHARGES:** If a job and/or merchandise is ordered and CUSTOMER cancels the order after preparation of a chemical solution or other material, CUSTOMER will pay ALLIED for the expenses incurred by ALLIED as a result of the cancellation.

—**DEADHAUL CHARGES:** Unless otherwise specified on the front of this Contract, a deadhaul charge as set forth in ALLIED'S current price book will be charged each way for each service unit which is ordered by CUSTOMER but not used.

—**SERVICE CONDITIONS AND LIABILITIES:** 1. ALLIED carries public liability and property damage insurance, but since there are so many uncertain and unknown conditions beyond ALLIED'S control, ALLIED shall not be liable for injuries to property or persons or for loss or damage arising from the performance of the job or delivery of the merchandise. Customer shall be responsible for and indemnify, defend, and hold harmless ALLIED, its officers, agents and employees, from and against any and all claims or suits for:

(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with ALLIED'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of ALLIED or its employees.

2. With respect to any of ALLIED'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to ALLIED at the landing, CUSTOMER shall either recover the lost item without cost to ALLIED or reimburse ALLIED the current replacement cost of the item unless the loss or damage results from the sole negligence of ALLIED or its employees.

3. ALLIED does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

~~WARRANTIES:~~ 1. ALLIED warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. ALLIED'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by ALLIED to be defective. THIS IS THE SOLE WARRANTY OF ALLIED AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and ALLIED shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

2. More specifically:

(A) Nothing in this contract shall be construed as a warranty by ALLIED of the success or the effectiveness of the result of any work done or merchandise used, sold, or furnished under this contract.

(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by ALLIED or any interpretation of tests, meter readings, chart information, analysis of research, or recommendations made by ALLIED, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of ALLIED or its employees in the preparation or furnishing of such facts, information or data.

(C) Work done by ALLIED shall be under the direct supervision and control of the CUSTOMER or his agent and ALLIED will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

Phone 913-483-2627, Russell, Kansas

Phone 316-793-5861, Great Bend, Kansas

ORIGINAL

Phone Plainville 913-434-2812

Phone Ness City 913-798-3843

ALLIED CEMENTING CO., INC.

Home Office P. O. Box 31

Russell, Kansas 67665

4756

Date	Sec.	Twp.	Range	Called Out	On Location	Job Start	Finish
8-4-93	32	19	24	11:00 AM	3:00 P.M.	4:00 P.M.	5:45 P.M.
Lease	Well No.	Location		County	State		
Hobbes	1	New City		KS	Kan		

Contractor	Emphasis Drilling Co.	
Type Job	Plug	
Hole Size	7 7/8	T.D. 4450
Csg.	8 5/8	Depth 220
Tbg. Size		Depth
Drill Pipe		Depth
Tool		Depth
Cement Left in Csg.		Shoe Joint
Press Max.		Minimum
Meas Line		Displace
Perf.		

Owner	Same
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	Black Diamond Oil
Street	
City	Ways
State	Kansas
The above was done to satisfaction and supervision of owner agent or contractor.	
Purchase Order No.	
X	Thomas Ahm

EQUIPMENT

Pumptrk	No. 177	Cementer	R. Davis
		Helper	Will
Pumptrk	No.	Cementer	
		Helper	
		Driver	
Bulktrk	160		Paul
Bulktrk		Driver	

CEMENT	
Amount Ordered	205 Sbs 60/40 690 Gel
Consisting of	1/4 3/4 Seal
Common	
Poz. Mix	
Gel.	
Chloride	
Quickset	

DEPTH of Job

Reference: #		430 ⁰⁰
	18 5/8 Plug	21 ⁰⁰
	225 Per Mile	
	Sub Total	
	Tax	
	Total	

Sales Tax	
Handling	
Mileage	
Sub Total	
Total	

Remarks:
 1st Plug 50 Sbs @ 1640'
 2nd Plug 80 Sbs @ 800'
 3rd Plug 40 Sbs @ 230'
 4th Plug 10 Sbs @ 40'
 10 Sbs in Mouse hole

Floating Equipment

Thank you ✓

15 Sbs in Rat hole

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—**ATTORNEY FEES:** In any legal action or proceeding between the parties to enforce any of the terms of this Service Contract, or in any way pertaining to the terms of this Contract, the prevailing party shall be entitled to recover all expenses, including, but not limited to, a reasonable sum as and for attorney's fees:

—**PRICES AND TAXES:** All merchandise listed in "ALLIED'S" current price schedule are F.O.B. ALLIED'S local station and are subject to change without notice. All prices are exclusive of any federal, state, local, or special taxes for the sale or use of the merchandise or services listed. The amount of taxes required to be paid by ALLIED shall be added to the quoted prices charged to CUSTOMER.

—**TOWING CHARGES:** ALLIED will make a reasonable attempt to get to and from each job site using its own equipment. Should ALLIED be unable to do so because of poor or inadequate road conditions, and should it become necessary to employ a tractor or other pulling equipment to get to or from the job site, the tractor or pulling equipment will be supplied by CUSTOMER or, if furnished by ALLIED, will be charged to and paid by CUSTOMER.

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(A) Damage to property or for bodily injury, sickness, disease, or death, brought by any person, including CUSTOMER and/or the well owner; and:

(B) Oil spills, pollution, surface or sub-surface damage, injury to the well, reservoir loss, or damage arising from a well blowout arising out of or in connection with ALLIED'S performance of the job or furnishing of merchandise in accordance with this contract, unless such loss or damage is caused by the willful misconduct or gross negligence of ALLIED or its employees.

2. With respect to any of ALLIED'S tools, equipment, or instruments which are lost in the well or damaged when performing or attempting to perform the job or, in the case of marine operations, are lost or damaged at any time after delivery to the landing for CUSTOMER and before return to ALLIED at the landing, CUSTOMER shall either recover the lost item without cost to ALLIED or reimburse ALLIED the current replacement cost of the item unless the loss or damage results from the sole negligence of ALLIED or its employees.

3. ALLIED does not assume any liability or responsibility for damages or conditions resulting from chemical action in cements caused by contamination of water or other fluids.

WARRANTIES: 1. ALLIED warrants all merchandise manufactured or furnished by it to be free from defects in material and workmanship under normal use and service when installed, and used, and/or serviced in the manner provided and intended. ALLIED'S obligation under this warranty is expressly limited to repair, replacement, or allowance for credit, at its option, for any merchandise which is determined by ALLIED to be defective. THIS IS THE SOLE WARRANTY OF ALLIED AND NO OTHER WARRANTY IS APPLICABLE, EITHER EXPRESS OR OTHERWISE IMPLIED, IN FACT OR IN LAW, INCLUDING ANY WARRANTY AS TO MERCHANTABILITY OR FITNESS FOR A PARTICULAR USE OR PURPOSE, CUSTOMER'S sole and only remedy with regard to any defective merchandise shall be the repair or replacement thereof or allowance for credit as herein provided, and ALLIED shall not be liable for any consequential, special, incidental, or punitive damages resulting from or caused by defective materials, products or supplies.

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(B) Nothing in this contract shall be construed as a warranty of the accuracy or correctness of any facts, information, or data furnished by ALLIED or any interpretation of tests, meter readings, chart information, analysis of research, or recommendations made by ALLIED, unless the inaccuracy or incorrectness is caused by the willful misconduct or gross negligence of ALLIED or its employees in the preparation or furnishing of such facts, information or data.

(C) Work done by ALLIED shall be under the direct supervision and control of the CUSTOMER or his agent and ALLIED will accomplish the job as an independent contractor and not as an employee or agent of the CUSTOMER.

ORIGINAL

GEOLOGICAL REPORT

BLACK DIAMOND OIL, INC.
HARKNESS #1
NE-NE-NW
SEC. 32-19S-24W
NESS COUNTY, KANSAS

API # 15-135-23763-0000

Gentlemen:

The following is the geological report for the above captioned well.

CONTRACTOR: Emphasis Oil Operations
COMMENCED: 7/28/93
COMPLETED: 8/4/93
ELEVATIONS: 2322' GL, 2327' KB
DRILL STEM TESTS: Trilobite Testing
ELECTRIC LOG: None
CASING RECORD: Surface: 8 5/8" @ 217'
Production: D & A

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Geological Report
Harkness #1

-2-

FORMATION TOPS (Kelly Bushing Measurements)

FORMATION	DEPTH (SAMPLE)	SUBSEA
Anhydrite	1608'	+715'
Base Anhydrite	1643'	+684'
Heebner	3718'	-1391'
Lansing-K.C.	3758'	-1431'
Base-K.C.	4113'	-1786'
Pawnee	4196'	-1869'
Fort Scott	4276'	-1949'
Conglomerate	4352'	-2025'
Mississippi	4378'	-2051'
Osage	4422'	-2095'
T.D.	4450'	-2123'

STRUCTURAL COMPARISON

FORMATION	HARKNESS "H" #1	SHRAMEK #1	MELLIES #1
	C-NW-NW Sec. 32-19-24	SW-SE-NE Sec. 32-19-24	C-SE-NW Sec. 29-19-24
Heebner	-1390	-1389	-1391
Lansing-K.C.	-1431	-1432	-1433
Fort Scott	-1955	-1952	-1951
Mississippi	-2061	-2053	-2067
Osage	-2085	-2073	N/R

ZONES OF INTEREST

FORMATION	DESCRIPTION
Lansing-K.C. 3758 (-1431)	No shows seen.
Pawnee 4196 (-1869)	No shows seen.
Fort Scott 4276 (-1949) 4276-4278	Limestone, tan-light grey, fine-crystalline, fossiliferous, oolitic, very spotted vuggy porosity, very spotted stain, trace free oil.
4293-4296	Limestone, white-cream, fine-crystalline, slightly fossiliferous, chalky, spotted poor crystal porosity, trace stain

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Geological Report Harkness #1

Johnson Limestone
4339-4342

Limestone, tan-cream, fine-crystalline, oolitic, fossiliferous, fair vuggy porosity, spotted stain, slight odor, slight show of free oil. (Condemned by DST #1)

Conglomerate 4352 (-2025)
4356-4360

Chert, white, weathered, spotted pin point and vuggy porosity, black stain, show of black tarry oil. (Condemned by DST #1)

Mississippi 4378 (-2051)
4378-4410

Dolomite (with stringers of grey and grey shale), cream-light grey, fine crystalline, slightly fossiliferous, dense spotted fossil and vuggy porosity, slight-fair odor, fair show of free oil. (Condemned by DST #1)

4410-4422

White cherty dolomite, fine-crystalline, chalky, no visible porosity, no shows (Condemned by DST #1)

DST #1

4319-4415

Blow: 1st: Weak blow-died in 6 min.
Blow: 2nd: No blow-flush tool, no after surge.

Recovery: 5' of mud (oil specked), good show of oil in tool.

IF: 67-67 in 30 mins.

ISI: 74 in 30 mins.

FF: 67-___ in 5 mins.

FSI: not taken

4422-4450

Dolomite, cream fine-medium crystalline, fair vuggy porosity, no shows.

T.D. 4450 (-2123)

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CONSERVATION DIVISION
Wichita, Kansas

ORIGINAL

Geological Report
Harkness #1

SUMMARY

This well was under geological supervision from 3700' to 4450', R.T.D. Wet and dry samples were examined from 3400 to R.T.D. This test hole ran structurally flat to high ti nearby hole, however, all shows of oil were either judged no value or condemned by the one drill stem test. Because no commercial shows of oil were encountered this test was plugged and abandoned.

Respectfully submitted:

Kenneth Vehige, Geologist

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NOV 02 1993
CONSERVATION DIVISION
Wichita, Kansas