AMOCO DECALTA

AL POPLAR RIVER

G-32

Drilling Authority No. 412

Date Issued 26 January 1970

WELL NAME Amoco Docalta A1 Poplar River G/1-32

FIELD

LOCATION Unit G Area:

Section 32

Grid 61-10-121-15

Latitude 61-01-~~27~~ 28.61 Longitude 121-21-~~28~~ 12.59

U.W.L.R. ~~62.00695 — 122.35000~~

U.W.I. 300G326110121150

61.02462 — 121.35344

Rig Release Date:

Status

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
26-1-70	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
23/2/70	Application to Amend a Drilling Authority.
	Application to change a Well Name.
26/3/70	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
5/6/70	Well Completion Data.
	Work-over Report No.
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells – Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells – Vitter's Method.
	M.P.R. – Oil – Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....

IAND 52-90 (3-69)

Drilling Authority No. 412

Date Issued January 26, 1970

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

WELL COMPLETION DATA

To be submitted in duplicate within thirty days after the completion, rework, abandonment, recompletion or suspension of every well.

Well name and number: Amoco Decalta A-1 Poplar River C-12

Permit No. 4293 Lease No.

Western Decalta & The Inland Oil & Gas Co. Exploratory Licence No. 1228 & 1296

Amoco Canada Petroleum Co. Ltd. Exploratory Licence No. 1335

Location: Unit C Section 32 Grid 61°10'N, 121°15'W

Latitude 61°01'28.61"N Longitude 121°21'12.38"W

From Established Reference Marker

Universal Well Location Reference Lat. 61.024629°N Long. 121.35344°W

	DATE	DEPTH
Spudded	2/5/70	
Suspended		
Resumed Operations		
Finished Drilling	3/5/70	4988'
Deepened		
Complete (gas/oil)		
Abandoned	3/11 & 12	
Rig released	3/13/70	

Pool(s) Nil

Interval(s) open to production Nil

Elevation: Gr. 1520 K.B. 1532.6'

Rig No. 20

Drilling Contractor General Petroleums Drilling Ltd.

Contractor's Business Licence No. 0706

CASING RECORD

	Casing Size (inches)	Grade	Weight	Amount	Set at -	Sacks of Cement and Additives
1.	9 5/8"	J-55	36#	17 jts.	733	700 sx OH + 2% $CaCl_2$.
2.						30 sx cement added
3.						
4.						
5.						
6.						

GEOLOGICAL TOPS	ELEVATION	
	Depths	Sub-Sea
KB	0	1532.6
Devonian	730	802.6
Limestone	935	597.6
Trout River	1058	474.6
Jean Marie	2036	-503.4
Fort Simpson	2082	-549.4
Horn Plateau	3947	-2414.4
Kahanni	4310	-2777.4
Arnika Dolomite	4594	-3061.4
Anhydrite	4764	-3231.4

CORE RECORD

From	To	Rec.	From	To	Rec.
3957	4017	60'			
4017	4077	60'			

LOG RECORD

Run No.	Type of Log	From	To
1	BHC & GR Caliper	730	4986
1	HR Cont. Dipmeter	3600	4984
1	Porosity Lithology	3600	4987
1	Formation Density	3600	4987
1	SNP	3600	4987
1	IEL	730	4987

IAND 52-90 (2) (2-69)

CEMENTING RECORD (Plug, Squeeze, etc.)

Date	From	To	Remarks
3/11/70	4588	4988	215 sx
3/12/70	3800	4200	230 sx + 2% $CaCl_2$ felt at 3775'
3/12/70	683	783	70 sx + 3% $CaCl_2$ felt at 640'
3/13/70	top of casing		3 sx

PERFORATING RECORD (Bullet, Jet)

Date	From	To	Remarks
			Nil

SERVICING RECORD (Acidizing, Fracing, etc.)

Date	From	To	Remarks
			Nil

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.B.H.P.	I.H.P.	F.H.P.	REMARKS
1	2/25/70	Horn Plateau	3957	4170								1881	1881	Misrun
2	2/26/70	Horn Plateau	4027	4170	60	60	60	980	719	319	486	1989	1939	Strong initial puff decreasing to very weak after one hour, recovered 270' gas cut mud, 660' salt water
3	3/8/70	Anhydrite	4924	4946	60	60	90	99	46	47	33	2399	2324	No gas to surface, weak initial puff dying in 30 min. Rec. 30' drilling mud.
4	3/9/70	Amica Dolomite	4594	4645	60	60	120	1863	1704	52	66	2233	2233	Weak initial puff, decreasing slightly Rec. 45' drilling fluid.
5	3/10/70	Horn Plateau	3966	4025								1927	1902	Misrun
6	3/10/70	Horn Plateau	3968	4025	60	60	120	1507	1496	525	902	1983	1983	Strong initial puff decreasing to light during test period. No gas to surface. Rec. 240' drilling fluid, slightly salt cut.

ANALYSIS

Lab. No.	Sample	From	To	Source	Remarks
C70-5836-1	Water	4017	4170	DST #2	930' above tool
-2	Water	4017	4170	DST #2	550' above tool
-3	Water	4017	4170	DST #2	top of tool
R70-604 -1	Water	3968	4025	DST #6	top of tool
-2	Water	3968	4025	DST #6	150' above tool
-3	Water	3968	4025	DST #6	lower drill stem
CNP-4-5022	#1	3957	4017	Core #1	recovered 60'
" "	#2	4017	4077	Core #2	recovered 60'

PRESENT STATUS OF WELL

		(Interval.)
Oil		
Gas		(Interval.)
Dry	X	Abandoned
Susp.		

Company Amoco Canada Petroleum Co. Ltd.

Signed by W. F. McTaggart

Title for Area Foreman

Date June 5, 1970

Forms to be prepared in duplicate and forwarded to the Oil Conservation Engineer, Calgary, Alberta.

File No.
Drilling Authority No. 422

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

Application to Abandon a Well or Suspend Drilling

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to abandon, to suspend drilling:—

Name and number of well Amoco Beaulta A-i Poplar River G-32

Location: Unit H Section 32 Grid 61° 19'N 121° 15'W

Latitude 61° 01' 28.61" N Longitude 121° 21' 12.39"W

From Established Reference Marker

Universal Well Location Reference Lat. 61.02462°N Long. 121.35344°W

Permit No. 4295 Lease No.

Western Beaulta & The Petrol Oil & Gas Co.
(Permittee, Licensee, Lessee)

Date of commencement of proposed program March 12, 1970

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at

Gas at

Water at 4017 - 4170';

Total Depth 4198' Date of last operations

Present condition of well

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1.					
2. 9 5/8"	36#	733'	733'	700 sx + 2% $CaCl_2$	Nil
3.					
4.					
5.					

SUSPENDED ABANDONMENT

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1.	4588 - 4098	Mahoney-Amiskwi Bel. Anydrite	215 sx	
2.	3800 - 4200	Ft. Simpson Horn Plateau	200 sx	+ 2% $CaCl_2$ felt @3775'
3.	683 - 783	Casing. Devonian	70 sx	+ 2% $CaCl_2$ felt @660'
4.	spotted in casing		3 sx	
	Weld on plate and erect well sign.			

The following logs have been run BHC Sonic, G.R. Caliper, HR Dipmeter, Density
Other operations proposed SNP Caliper, Porosity Lithology, IES

Operations to be carried out by General Petroleums Drilling Ltd. Contractor's Licence No. 706
Address 3600 8 street S.E. Address Calgary, Alberta
Responsible Agent in field Amoco Canada Petroleum Company Ltd.
Dated at Grande Prairie, this 20 Day of March 1970
Signed by [signature] Company Amoco Canada Petroleum Company Ltd.
Title Area Foreman Operator's Exploratory Licence No. 1335

Note:—The Oil Conservation Engineer's office must be notified before work is commenced.

(For RESOURCE MANAGEMENT DIVISION use only)

APPROVAL

This application has been examined and proposed programme approved, subject to the following conditions:

Confirming oral approval given by Mr. G. E. Hine on the 9th March 1970

Dated 26th March, 1970

[signature]
Oil Conservation Engineer

Forms to be submitted in triplicate to Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 52-90 (5) (3-67)

File No. 412

Drilling Authority No.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

RESOURCE MANAGEMENT DIVISION

OIL AND MINERAL DIVISION

Application to Amend a Drilling Authority

This application, in triplicate, must be submitted and approved before commencing operations. If the well location is changed, this application must be accompanied where required, with a plan of survey approved by the Surveyor General.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made to amend Drilling Authority No. 432, concerning Amoco Decalta A-1 Poplar River J-32

(Name and Number of Well)

The following amendments are required:

Location unit changed from "J" to "G" as per attached plan of survey.

Reasons for the amendments:

Wellsite situated in Unit G, Section 32 and not unit J, Section 32

Dated at Grande Prairie, this 19 day of February, 1970

Signed by

Title Area Foreman

Company Amoco Canada Petroleum Company Ltd.

(For Resource Management Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:

CHANGE OF WELL NUMBER: From Amoco Decalta A-1 Poplar River J-32 To Amoco Decalta A-1 Poplar River G-32

CHANGE OF LOCATION: To Lat. 61° 01' 28.61" N., Long. 121° 21' 12.39" W.

CHANGE OF UNIVERSAL WELL LOCATION REFERENCE: To Lat. 61.02462° N., Long. 121.35344° W.

CHANGE OF UNIQUE WELL IDENTIFIER: To 300G326110121150

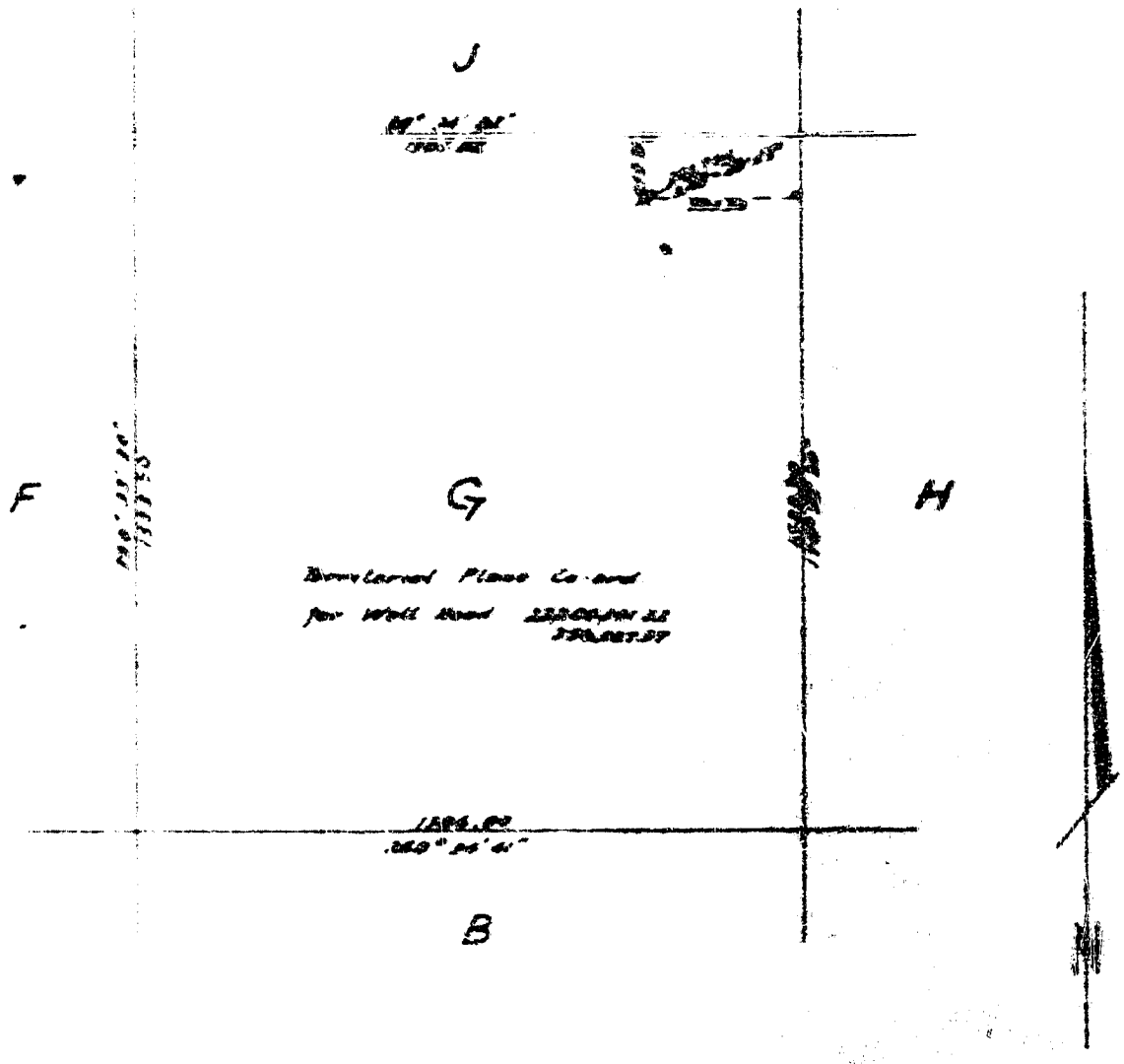
Date 23rd February, 1970

Oil Conservation Engineer

Forms to be submitted to the Oil Conservation Engineer, Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 52-90-3 (3-67)

POOR COPY



Well Head
Lat 61° 01' 30.61"
Long 121° 21' 13.33"

Located by Traverse to Monument PM 8
as per Dept of Mines and Technical Surveys
Records (File 963 - Ref Plan 61-15W-LSD)

PLAN OF SURVEY OF

AMOCO DECALTA A-1 POPLAR RIVER G-32 WELL SITE

IN THE TREBA.

UNIT G, SECTION 32, GRID 61° 15'N [illegible]

AMOCO CANADA PETROLEUM COMPANY LTD.

SIGNATURES

[illegible] P.Eng
Amoco Canada Petroleum Company Ltd.

I certify that [illegible] and that I completed the survey on January 27, [illegible]

[illegible] A.L.S.

[illegible]

ELEVATION

Datum used is datum of Well Site
TOP OF I.P. CORNER WELL SITE
TOP OF M.P. CORNER WELL SITE
REF. ELEV. NOTE ELEVATION OF WELL HEAD IS 10.1 FT HIGHER THAN GROUND ELEVATION OF [illegible]

CO-ORDINATES

Well is located:
353.34 [illegible]
and 140.75 [illegible]
of Unit G

WHITE, MORFORD & HAFEY LTD.
[illegible] WHITEHORSE

[illegible] Jan. 30, 1970

AREAS REQUIRED

	Area	Acres
Well Site		
Access Road		
Total		

LEGEND

Drilling Authority No 412

Project No.

File No.

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
OIL AND MINERAL DIVISION

JAN 19

Application for a Drilling Authority

This notice of intention to begin drilling operations, in triplicate, and where required a plan of survey approved by the Surveyor General showing the target area or the site of the well must be submitted and approved before commencing operations.

In compliance with the "Canada Oil and Gas Land Regulations", application is hereby made for approval to drill:—

Name and number of well: Amoco Decalta A-1 Poplar River J-32

Location: Unit J Section 32 Grid 60° 10' N., 121° 15' W

Latitude 61° 01' 37" N Longitude 121° 21' 10" W

Unique Well Identifier 300J32611012113O

Universal Well Location Reference Lat. 61.02695° N., Long. 121.35278° W.

Elevation: Ground 1520 K.B. feet above sea level.

Well is expected to produce from Middle Devonian Carbonate formation at a depth of about 4960 feet. Expected total final depth 5200

Area assigned to well

(For Oil Conservation Engineer's use only)

Permit No. 4293 Lease No. Acreage 61,920

Permittee, licensee, or lessee Western Decalta & The Petrol Oil & Gas Company Limited

Exploratory Licence No. 1228 1296

Surface owned by Crown or

(If otherwise, submit name and address of owner and occupant.)

Petroleum and natural-gas rights owned by Crown

We propose to use the following strings of casing, either cementing or landing them as indicated below:—

	Casing Size O.D. (Inches)	Weight (Lb./Ft.)	Grade	New or Used	Estimated Depth	Sacks of Cement
1.	9 5/8	36	K-55	New	0 - 700'	To Surface
2.	7	23	"	"	Top Joint	As Req'D
3.	"	20	"	"	0 - 4200'	"
4.	"	23	"	"	4200 - 5200	"
5.						

Expected water, gas, and oil horizons and type of control equipment

Drilling Mud & Blowout Preventers
1 Hydril & 1 Double Gate Schaeffer Hydril with remote controls

Well will be drilled with Rotary Rig No. 20 by General Petroleums Drilling Ltd.
(Drilling Contractor or company)

Responsible agent of applicant:— Contractor's business Licence No.

At well Jack Savage At registered office Same

Address 9916A Richmond Avenue Address

Grande Prairie Alberta

It is understood that if changes become necessary, notice of the change of plan will be submitted.

Dated at Grande Prairie, this 23 day of January 19 70

Signed by [signature] Company Amoco Canada Petroleum Co. Ltd.

Title Area Foreman Operator's Licence No. 1335

(For Oil and Mineral Division use only)

APPROVED

This application has been examined and approved subject to the following conditions:—

1. The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.

2. During well drilling and testing operations, every effort shall be made to ensure

Dated 26th January 19 70 Please see over page
Oil Conservation Engineer

Forms to be submitted to Oil Conservation Engineer,
Department of Indian Affairs and Northern Development, Calgary, Alberta.

IAND 52-90-1 (3-69)

that drilling fluids, chemicals and wastes shall be disposed of or contained in a manner that will prevent the contamination of adjacent vegetation and surface or sub-surface waters.

3. We draw your attention to Sections 95 and 96 of the Canada Oil and Gas Land Regulations.

B.H.J. Thomas

B.H.J. Thomas, Oil Conservation Engineer

AMOCO DECALTA A-1 POPLAR RIVER C-32
UNIT C SEC. 32 GRID 61°10'N, 121°15'W
NORTHWEST TERRITORIES

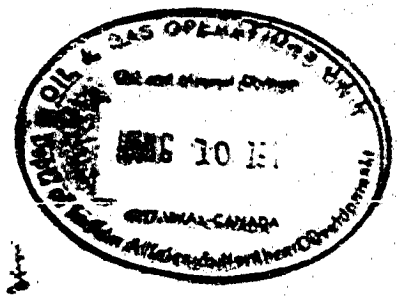
60-11-4-89

WELL HISTORY REPORT

AMOCO DECALTA :-1 POPLAR RIVER C-32
UNIT C SEC. 32 GRID 61°10'N, 121°15'W
NORTHWEST TERRITORIES

BY:
Pat Phelan
P.E. J.C. T.

A. F. Holan
Area Foreman





AMOCO CANADA PETROLEUM COMPANY LTD.
444 - 7th Ave. S.W.
Calgary 2, Alberta

I N D E X

SECTION		PAGE
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V	Analysis	7
VI	Completion Summary	7

A T T A C H M E N T S

Core Analysis

Water Analysis

Core Description

Sample Description

WELL HISTORY REPORT

Section I - Summary of Well Data

(a) Well Name and Number

Amoco Decalta A-1 Popular River C-32

(b) Permittee

Western Decalta and The Petrol Oil and Gas Company Ltd.

(c) Operator

Amoco Canada Petroleum Company Limited
444 - 7th Avenue, S.W., Calgary, Alberta

(d) Location

Unit G Section 32 Grid 61°10'N, 121°15'W
Latitude 61°01'28.61"N ; Longitude 121°21'12.39"W
Universal Well Location Reference - Lat. 61.02462°N; Long. 121.35344°W
Unique Well Identifier 300G326110121150

(e) Co-ordinates

333.34' West of East Boundary & 140.75' South of North Boundary of Unit G Section 32 Grid 61°10'N, 121°15W

(f) Permit No.

4293

(g) Drilling Contractor
Name: General Petroleums Drilling Limited
Rig: #20
Type: Rotary

(h) Drilling Authority

No. 412
Date of issue: January 26th, 1970

(i) Classification

New - Field Wildcat

(j) Elevation

Ground: 1520'
K.B.: 1532.6'

(k) Spudded

February 5th, 1970

(l) Completed Drilling

March 5th, 1970

(m) Depths

T.D. 4988'

(n) Well Status

Abandoned

(o) Rig Released

March 13th, 1970

(p) Hole Size

13 3/4" 0'- 733'
8 3/4" 733'- 4988'

(q) Casing

Casing Size:	9 5/8"
Grade:	J-55
Weight:	36#
Amount:	17 jts. (719.1'including float shoe and collar and thread correction)
Set at:	733' KB

Section II - Geological Summary

1a. Formation Tops

TOPS	DEPTHS	SUB-SEA
KB	0	1532.6
Devonian	730	802.6
Limestone	935	597.6
Trout River	1058	474.6
Jean Marie	2036	-503.4
Fort Simpson	2082	-549.4
Horn Plateau	3947	-2414.4
Nahanni	4310	-2777.4
Arnika Dolomite	4594	-3061.4
Anhydrite	4764	-3231.4

b. Cored Intervals

Core #1 3957 - 4017 REC. 60'
Core #2 4017 - 4077 REC. 60'

c. Core Description

See Attachment

d. Sample Description

See attachment

e. Paleontological Determination

Not performed

Section III - Engineering Summary

(a) Drill Stem Tests

DST #1 Lynes United, February 25, 1970, 3597'-4170'
IHP - 1881, FHP - 1881
Packer seat failed, Misrun
DST #2 Lynes United, February 26, 1970, 4017' - 4170'
PF - 5 min., VO - 60 mins., ISI - 60 mins., FSI - 60 min., IHP - 1989
Remarks - Strong initial puff decreasing to very weak after one hour.
Recovered 270' gas cut mud + 660' salt water.

Section III - Engineering Summary (Cont.)

DST #3 Lynes United, March 8th, 1970, 4924' - 4946' (Obtained from field test form - Apparent error on final report)
FF - 5 min., VO - 60 min., ISI - 60 min., FSI - 90 min., IHP - 2399
ISIP - 99, IFP - 47, FFP - 33, FSIP - 46, FHP - 2324
Remarks - No gas to surface. Weak initial puff, dying in 30 min.
DST #4 Lynes United, March 9, 1970, 4594' - 4645'
FF - 5 min., VO - 60 min., ISI - 60 min., FSI - 120 min. IHP - 2233
ISIP - 1865, IFP - 52, FFP - 66, FSIP - 1704, FHP - 2233
Remarks - Weak initial puff, decreasing slightly.
DST # 5 Lynes United, March 10, 1970, 3966' - 4025'
IHP - 1927, FHP - 1902, No seat. Misrun
DST #6 Lynes United, March 10, 1970, 3968' - 4024'
FF - 5 min., VO - 60 min., ISI - 60 min., FSI - 120 min., IHP - 1983.
ISIP - 1507, IFP - 525, FFP - 902, FSIP - 1496, FHP - 1983
Remarks - Strong initial puff; decreasing to light during the test period.

(b) Casing Record

Surface Casing

Hole size:	13 3/4"
Casing Size:	9 5/8"
Weight:	36#
Grade:	J-55
Joints Run:	17
KB setting depth:	733
Cement & additives:	700 sx ow + 2% $CaCl_2$, 30 sx added
	Returns to surface
Date Run:	February 9, 1970
Date Cemented:	February 9, 1970

(c) Bit Record

BIT NO.	SIZE	TYPE	MAKE	IN	OUT	FT.	HOURS
1	13 3/4	OSC3	H.W.	0	290	290	29
2	13 3/4	YT3AR	Security	290	681	391	15 3/4
3	13 3/4	OSC3J	H.W.	681	733	52	1 1/2
4	8 3/4	X3A	H.W.	733	1539	806	21
5	8 3/4	STIAG	Reed	1539	2216	677	36 1/4
6	8 3/4	STIAG	Reed	2216	2717	501	31 1/4
7	8 3/4	SSIGJ	Reed	2717	2942	225	15 3/4
8	8 3/4	OSCIG	H.W.	2942	3793	851	34 1/4
RR-7	8 3/4	SSIGJ	Reed	3793	3957	164	17 3/4
9	8 11/16	Diamond	Christen.	3957	4077	120	13 1/2
10	8 3/4	XDV	H.W.	4077	4170	93	10 3/4
RR-10	8 3/4	XDV	H.W.	Clean fill to test			
11	8 3/4	SMJ	Reed	4170	4314	144	16 1/2
12	8 3/4	FBC5-J	Reed	4314	4833	519	79 3/4
13	8 3/4	WD75	H.W.	4833	4988	155	28 3/4
RR-11	8 3/4	SMS-J	Reed	4988	Circulate		

(d) Mud Report

Type - (a) Gel (b) Benex
Quantity - (a) 78450#
(b) 215#

(e) Deviation Record

DEPTH	DEVIATION (Degrees)	DEPTH	DEVIATION (Degrees)
77	1	1288	1/8
109	1/2	1470	1/4
164	0	1539	1/4
253	1/8	1728	1/4
348	1	1947	1 1/4
379	7/8	2010	2
406	3/4	2041	1 1/2
435	1/2	2062	1 1/2
465	1/8	2105	1 1/4
523	1/2	2136	1 1/4
617	0	2199	2
733	1/4	2216	2 1/2
880	1/4	2260	2
1071	1/4	2293	1 3/4

(e) Deviation Record

DEPTH	DEVIATION (Degrees)	DEPTH	DEVIATION (Degrees)
2324	1 3/4	3259	2 1/8
2356	1 1/2	3290	2
2387	1 1/4	3353	1 3/4
2450	1	3414	1 3/4
2513	1/2	3478	1 3/4
2576	3/4	3541	1 3/4
2638	3/4	3604	1 1/2
2701	1	3668	1 1/2
2717	1	3731	2
2585	1 1/8	3793	1 1/2
2879	Misrun	3856	3 1/8
2910	4	3888	2 1/2
2940	5	3951	2 1/4
2977	4 1/2	4108	2 1/4
3009	4 1/2	4170	3
3040	3 3/4	4200	1 3/4
3070	3 1/2	4310	1 3/4
3102	3	4380	Misrun
3133	2 3/4	4609	1 1/2
3165	2 1/4	4829	1
3196	2 1/2	4988	3/4
3227	2 1/8		

(f) ABANDONMENT PLUGS

4588 - 4988; 215 Sx Cement
3800 - 4200; 230 Sx Cement + 2% $CaCl_2$; Felt at 3775'
683 - 783; 70 Sx Cement + 3% $CaCl_2$; Felt at 640'
Spotted in casing; 3 Sx Cement

(g) Lost Circulation Zones

None

(h) Report of Blow-Outs

None

Section IV - Logs

DATE	RUN NO.	TYPE	INTERVAL
Mar. 5, 1970	1	Borehold Compensated & Gamma Ray Caliper	730 - 4986'
Mar. 6, 1970	1	HR Dipmeter	3600 - 4984'
Mar. 7, 1970	1	Porosity Lithology	3600 - 4987'
Mar. 6, 1970	1	Density	3600 - 4987'
Mar. 7, 1970	1	Sidewall Neutron Porosity	3600 - 4987'
Mar. 7, 1970	1	Induction-Electical	730 - 4987'

Section V - Analysis

(a) Core Analysis - See attached analysis
(b) Water Analysis - See attached analysis
(c) Gas Analysis - Nil
(d) Oil Analysis - Nil

Section VI - Completion Summary

(a) Tubing record
Nil

(b) Perforation Record
Nil

(c) Cementation Record
Nil

(d) Acidization and Fracturing Record
Nil

CORE DESCRIPTION

CORE NO. 1	3957 - 4017	Recovered 60 feet
CORE NO. 2	4017 - 4077	Recovered 60 feet

Limestone, pale cream to buff and medium brown, reefoid; coral fragments colonial and solitary, strematoporoids, few Amphipora.
Generally dense. Few thin beds earthy limestone with chalky and poor vuggy porosity. Occassional stylolites and bituminous shale partings.

AMOCO DI CALTA A-1 POPLAR RIVER G-32
61°10'N 121°15'W

SAMPLE DESCRIPTIONS

0 - 150' WO Samples caught.

150' - 430' Glacial Drift : granite sand, trace conglomeritic, mainly unconsolidated, unsorted; imbedded in a greyish-brown, soft, silty-clayey matrix (washes out), composed of subrounded to angular igneous grains; cream and buff, sublithographic to micro-crystalline limestone, little hard calcareous siltstone to very fine grained sandstone; trace of fossils; greyish-green, micro-micaceous shale with occasional rolled, black, bituminous shale fragments; trace of pyrite granules; few metamorphic rock fragments; abundant subrounded, frosted quartz grains.

Note : From 430' to 640' the samples consist mainly of greyish-brown, soft, silty - clayey matrix which washes out. Samples extremely poor and few caught.

CRETACEOUS ⇒480'

480' - 520' Shale, dark brownish-grey to black, bituminous, micro-micaceous, silty in part, generally rounded, reworked; trace of dolomite stringers, dark reddish-brown, sublithographic, hard, dense, argillaceous.

550' - 590' Dolomite, reddish-brown, sublithographic to micro-crystalline; silty, dense, hard, glauconitic, slightly argillaceous with interbedded siltstone, light greyish-brown, siliceous.

590' - 730' Shale, dark brownish-grey to black, micro-micaceous, soft with interbedded dolomite, dark reddish-brown, micro-crystalline and siltstone, grey to brownish-grey. From 700' to 730' occasional pyritized monaxon spicules and glauconitic siltstone and greenish-grey shale.

UPPER DEVONIAN (WABAMUN) 730'

730' - 750' Limestone, cream to buff, sublithographic to micro-crystalline, bioclastic, fragmental, crinoids, ostracods with interbedded pale to light grey, very calcareous, argillaceous siltstone and silty shale.

750' - 810' Shale, very calcareous, pale to light greyish-green, soft, micro-micaceous with interbedded siltstone and occasional limestone interbed, crinoids.

810' - 935' Shale, calcareous, pale to light greyish-green, soft, micro-micaceous, silty in part, trace pyritic with subordinate dark grey shale partings.

SAMPLE DESCRIPTIONS con't

935' - 1010' Limestone, cream to buff, sublithographic to micro-crystalline, chalky in part, scattered pyrite specks, crinoids, occasional brachiopods, trace bitumen, with occasional calcite infilled hairline fractures and pin-point vugs. Few brownish-grey, calcareous, soft shale partings.

1010' - 1060' Limestone as above with abundant interbedded shale, calcareous, dark brown to brownish-grey, micro-micaceous. Scattered microscopic pyrite grains and bituminous flakes, crinoids and ostracods.

1060' - 1100' Limestone, cream to buff, sublithographic to micro-crystalline, trace silty, chalky in part, occasional crinoids, algae?, scattered microscopic pyrite grains and bituminous flakes. Some staining present.

TROUT RIVER 1100'

1100' - 1210' Limestone, cream to buff, sublithographic to micro-crystalline, silty and occasionally sandy; chalky in part. Trace of bitumen and staining. Occasional calcite infilled pin-point vugs, scattered pyrite, crinoids, ostracods, brachiopods and gastropods. Few shale partings, brown to greenish-grey.

1210' - 1270' Interbedded limestone, greyish-cream, sublithographic to micro-crystalline, silty, crinoids, ostracods, gastropods, and brachiopods, trace pyrite and greyish-green, calcareous, silty shale grading to calcareous, argillaceous, siltstone.

1270' - 1340' Shale, brownish-grey to greenish-grey, calcareous, silty, micro-micaceous, with interbedded limestone as above. Occasional dark grey shale partings.

GRUMBLER FORMATION EQUIVALENT 1340'

1340' - 1380' Limestone, pale cream to light brown, dense to micro-crystalline, chalky in part, slightly silty, crinoids, ostracods, gastropods, with occasional greenish-grey shale interbed and light grey to greenish-grey, argillaceous siltstone.

1380' - 1440' Shale, medium grey, micro-micaceous, non-calcareous, soft, with occasional interbeds grey, silty, slightly calcareous shale and pale cream to buff limestone. Trace very finely disseminated pyrite and some glauconitic shale.

1440' - 1470' Interbedded shale and limestone as above with occasional argillaceous siltstone interbeds, crinoids, ostracods and shell fragments.

1470' - 1485' Shale, medium grey, micro-micaceous, very slightly to non-calcareous and interbedded very calcareous slightly argillaceous siltstone.

SAMPLE DESCRIPTIONS con't

1485' - 1540' Siltstone, light grey, very calcareous, quartzitic, grades to very fine grained sandstone. Scattered glauconitic specks Occasional shell fragments and crinoids.

1540' - 1580' Limestone, creamish-grey to light brownish-grey, sublithographic to micro-crystalline, silty, scattered glauconitic specks, occasional shell fragments, trace bituminous flakes. Occasional calcite infilled pin-point vugs.

SHALE UNIT 1580'

1580' - 1860' Shale, greenish-grey to greyish-green, micro-micaceous, with brownish-maroon shale interbeds and occasional dark grey shale partings. Few light greenish-grey, calcareous siltstone and limestone interbeds.

1860' - 1960' Shale, medium grey to greenish-grey, micro-micaceous, with occasional glauconite specks. Few pale cream to brownish-grey, silty, limestone interbeds and subordinate brownish, maroon and dark grey shale partings.

1960' - 1990' Interbedded shale as above, limestone, greyish cream to buff, scattered glauconite and grey calcareous sandy siltstone, trace iron staining.

1990' - 2035' Shale, dark grey to greenish-grey, micro-micaceous, calcareous, trace pyritic and iron stained, with occasional limestone interbed, crinoids, shell fragments, ostracods, gastropods. Trace of waxy green shale and glauconite.

JEAN MARIE 2035'

2035' - 2085' Limestone, cream to buff and dark tan, crypto-crystalline to micro-crystalline, earthy to chalky in part, trace bitumen and staining, contains ostracods, shell fragments and corals. Few calcite infilled vugs.

FORT SIMPSON 2085'

2085' - 2220' Shale, dark grey to greenish-grey, micro-micaceous with occasional brownish maroon interbeds and brown to dark grey shale partings. Trace of greenish-grey, calcareous siltstone.

2220' - 2370' Shale as above, with abundant brownish-maroon shale interbeds and increase in greenish-grey, calcareous siltstones.

2370' - 2660' Shale, dark grey to greenish-grey with interbedded siltstones to very fine grained sandstones and occasional limestone interbeds light grey to buff.

SAMPLE DESCRIPTIONS con't

2660' - 2740' Shale as above with occasional siltstone interbeds.

2740' - 2780' Shale as above with abundant siltstone and occasional limestone interbeds. Few crinoids and gastropods at 2740'.

2780' - 3930' Shale, greenish-grey, micro-micaceous, soft, very slightly to non-calcareous with minor interbeds of shale, brownish-maroon; light grey to greenish-grey calcareous siltstone; cream to tan, cryptocrystalline limestone and brown, sublithographic, argillaceous dolomite. Increase in dark shale interbeds from 3800' to 3930'.

3930' - 3947' Shale, brownish-black to black, bituminous, abundant pyrite.

HORN PLATEAU REEF 3947'

3947' - 4310' Limestone, pale cream to buff and medium brown, dense to cryptocrystalline matrix; reefal. Abundant coral fragments in a fine fossiliferous matrix, colonial and solitary corals, finger corals, stromatoporoids, shell fragments and amphipora. Scattered microscopic pyrite, calcite infilled vugs and hairline fractures. Occasional stylolites and black bituminous shale partings. Some interbeds of dark brown earthy to chalky limestone with scattered pin-point vugs and fair chalky porosity with some pyrobitumen plugged.

NAHANNI 4310'

4310' - 4600' Limestone, buff to dark brown, dense to sublithographic, micropyritic, chalky in part, scattered bituminous flakes. Occasional shell fragments, calcite infilled fractures. Becomes increasingly siliceous from 4500' to 4600'.

DOLOMITE (ARNICA) 4600'

4600' - 4640' Dolomite, dark brown to dark grey, very fine to finely crystalline, some intercrystalline porosity, trace red shale.

4640' - 4650' Dolomite as above, fair intercrystalline porosity.

4650' - 4655' Red shale.

4655' - 4670' Dolomite, fine - medium crystalline, dense. Some silty, dense, dolomite. Trace of pyrite.

4670' - 4680' Dolomite as above, some microcrystalline dolomite.

4680' - 4690' Dolomite as above, trace grey, dense, micritic limestone.

4690' - 4710' Dolomite, very fine, crystalline; finely disseminated pyrite; dolomite has weathered appearance; partly chalky; trace of grey shale.

SAMPLE DESCRIPTIONS con't

4710' - 4730' Dolomite, medium to coarse crystalline, dark grey to brown, dense.

4730' - 4740' Dolomite, medium to coarse crystalline as above, with aphanitic dense dolomite; some coarse crystalline white secondary dolomite. Possibly fracture filling.

4740' - 4780' Dolomite, aphanitic to micro-crystalline, pyritic.

4780' - 4810' Dolomite, as above, with traces anhydrite.

4810' - 4820' Anhydrite.

4820' - 4900' Siltstone, red, slightly calcareous.

4900' - 4910' Siltstone as above, with floating sand grains.

4910' - 4920' Siltstone as above, trace sandstone, white, medium to coarse grained, with clear quartz grains.

4920' - 4930' Sandstone as above, partly uncemented.

4930' - 4940' Siltstone, red, slightly calcareous.

4940' - 4950' Siltstone, dolomite, anhydrite, all argillaceous.

4950' - 4960' As above with granite wash sand.

4960' - 4970' As above, trace quartzite.

4970' - 4990' Quartzite, white to clear, medium grained.

CORE LABORATORIES - CANADA, LTD
CALGARY ALBERTA

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD.
WELL AMOCO PECALTA A-1 POPLAR RIVER G-32
FIELD WILDCAT - POPLAR RIVER AREA, NWT
LOCATION 61° 01' 28.61" N. LAT
121° 21' 12.39" W. LONG

FORMATION
DRILLING FLUID
ELEVATION
ANALYSIS
REMARKS

CORED INTERVAL 3957' - 4077'

CORE NO. 1 3957' - 4017' (REC. 60') (16 BOXES)

-	3957.0-71.2	14.2	-	-	-	-	-	-	-	-	-	-	PPV
1	3971.2-72.7	1.5	0.22	0.22	-0.01	0.33	2.6	3.90	2.62	2.69	-	-	
2	3972.7-74.1	1.4	0.79	0.37	-0.01	1.11	5.4	7.56	2.54	2.68	0.0	3.8	PPV
3	3974.1-75.3	1.2	0.88	0.48	-0.01	1.06	5.0	6.00	2.55	2.69	-	-	STY
4	3975.3-76.5	1.2	0.64	0.27	-0.01	0.77	5.3	6.36	2.54	2.68	0.0	4.1	
5	3976.5-77.9	1.4	17.20	0.29	0.55	24.08	4.0	5.60	2.57	2.68	-	-	PPV VP
6	3977.9-79.8	1.9	0.05	-0.01	-0.01	0.10	2.0	1.80	2.63	2.68	0.0	6.7	
7	3979.8-81.0	1.2	17.90	10.20	4.04	21.48	12.3	14.76	2.36	2.69	-	-	PPV VP
8	3981.0-82.2	1.2	*	73.70	*	88.44	17.0	20.40	2.13	2.63	0.0	16.0	PPV VP
9	3982.2-83.3	1.1	1.97	1.03	0.30	2.17	8.5	9.35	2.45	2.68	-	-	PPV
10	3983.3-84.4	1.1	2.21	0.89	4.43	2.43	5.6	6.16	2.53	2.68	0.0	2.1	PPV P
11	3984.4-85.5	1.1	41.70	26.60	16.20	45.87	8.2	9.02	2.47	2.69	-	-	PV P
12	3985.5-87.0	1.5	0.63	0.63	0.12	0.95	5.7	8.55	2.53	2.69	0.0	4.1	PPV
13	3987.0-88.8	1.8	0.08	0.04	-0.01	1.58	2.4	4.32	2.63	2.70	-	-	STY
14	3988.8-90.4	1.6	0.16	0.05	-0.01	0.26	3.4	3.74	2.62	2.69	0.0	10.2	
15	3990.4-91.9	1.5	-	-	-	-	-	-	-	-	-	-	
16	3991.9-96.5	0.6	4.32	.60	-0.01	2.59	5.3	1.18	2.54	2.68	-	-	
[illegible]	[illegible]	1.3	0.10	0.06	-0.01	0.13	4.0	[illegible]	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	1.1	0.23	0.23	-0.01	0.25	2.1	2.31	[illegible]	2.67	-	-	
[illegible]	[illegible]	3.5	-	-	-	-	-	-	-	-	-	-	PPV
[illegible]	[illegible]	1.8	0.08	0.05	0.01	0.11	1.6	[illegible]	[illegible]	[illegible]	[illegible]	3.1	
[illegible]	[illegible]	1.2	1.45	0.08	0.31	1.74	[illegible]	[illegible]	[illegible]	[illegible]			
[illegible]	[illegible]	1.2	0.84	0.35	0.58	1.01	3.4	[illegible]	[illegible]	[illegible]	[illegible]	10.1	V
[illegible]	[illegible]	0.8	0.12	-	-	0.10	4.2	3.36	-	-	-	-	
[illegible]	[illegible]	1.8	0.10	0.10	-0.01	0.13	1.5	2.70	[illegible]	[illegible]	[illegible]	[illegible]	
[illegible]	[illegible]	1.6	0.17	0.08	-0.01	0.27	1.3	2.08	[illegible]	[illegible]	-	-	
[illegible]	[illegible]	1.1	0.33	0.14	-0.01	[illegible]	2.1	2.31	2.62	2.68	[illegible]	6.1	

CALGARY ALBERTA

COMPANY AMOCO CANADA PETROLEUM COMPANY LTD. FORMATION PAGE 2 of 4
WELL AMOCO PCOA A-1 POPLAR RIVER G-12 DRILLING FLUID WATER BASE MUD DEF [illegible]

CORE NO.	DEPTH	FEET	POROSITY %	PERMEABILITY MAX	PERMEABILITY 90°	PERMEABILITY VERT	GRAIN DENSITY gm/cc	SATURATIONS OIL %	SATURATIONS WATER %	SATURATIONS GAS %	FRACTURE	VUGGY	DESCRIPTION
	CORE NO. 1 (Cont'd)												
25	4011.9-12.9	1.0	4.42	2.74	1.45	1.42	5.4	5.10	2.54	2.69	-	-	[illegible]
26	4012.9-13.9	1.0	2.53	1.53	0.33	2.53	5.7	5.70	2.53	2.69	0.0	1.4	[illegible]
27	4013.9-14.9	1.0	5.66	2.49	0.89	5.66	2.9	2.30	2.61	2.69	-	-	[illegible]
	4014.9-15.9	1.0	4.96	1.05	0.53	4.96	4.4	1.40	2.56	2.68	0.0	13.1	[illegible]
29	4015.9-17.0	1.1	1.30	0.72	0.09	1.43	4.1	4.51	2.55	2.66	-	-	[illegible]
	CORE NO. 2 4017' - 4077' (REC. 60') (16 BOXES)												
30	4017.0-18.5	1.5	18.30	0.20	2.09	27.45	3.2	4.80	2.60	2.69	0.0	7.9	[illegible]
31	4018.5-19.7	1.2	1.71	1.47	-0.01	2.05	7.7	9.24	2.50	2.71	-	-	[illegible]
32	4019.7-20.8	1.1	1.50	0.75	-0.01	1.65	5.5	6.05	2.54	2.69	0.0	16.2	[illegible]
33	4020.8-22.0	1.2	4.67	0.19	-0.01	5.60	4.8	5.76	2.57	2.70	-	-	[illegible]
34	4022.0-23.7	1.7	0.04	0.02	-0.01	0.07	2.4	4.08	2.63	2.70	0.0	2.9	[illegible]
35	4023.7-25.4	1.7	0.05	0.03	-0.01	0.09	1.2	2.04	2.67	2.70	-	-	[illegible]
36	4025.4-27.0	1.6	0.36	0.26	-0.01	0.58	0.9	1.44	2.67	2.69	0.0	21.4	DENSE STY
37	4027.0-28.7	1.7	1.08	0.39	-0.01	1.84	2.2	3.74	2.63	2.69	-	-	[illegible]
38	4028.7-30.3	1.6	0.07	0.05	-0.01	0.11	1.8	2.88	2.64	2.69	0.0	28.9	[illegible]
39	4030.3-31.6	1.3	0.13	0.09	-0.01	0.17	2.7	3.51	2.62	2.69	-	-	[illegible]
-	4031.6-33.6	2.0	-	-	-	-	-	-	-	-	-	-	DENSE SCATTERED FRV
	4033.6-35.0	1.4	0.27	0.09	-0.01	0.38	3.4	4.76	2.60	2.69	0.0	4.9	[illegible]
	4035.0-36.7	1.7	0.04	0.04	-0.01	0.07	1.4	2.33	2.66	2.70	-	-	[illegible]
	4036.7-38.3	1.6	1.13	1.00	-0.01	1.81	0.9	1.14	2.67	2.70	0.0	22.0	DENSE F
	4038.3-39.8	1.5	3.72	0.13	0.65	4.84	0.8	1.04	2.67	2.70	-	-	DENSE F
	4039.8-41.2	1.4	-0.01	0.01	-0.01	-	1.1	1.76	2.68	2.71	0.0	22.8	[illegible]
	4041.2-42.9	1.7	0.42	0.34	-0.01	0.71	1.4	2.38	2.65	2.69	-	-	[illegible]
	4042.9-44.9	2.0	0.71	0.20	0.08	1.42	1.1	2.20	2.67	2.70	0.0	21.2	[illegible]
	4044.9-46.0	1.1	-	-	-	-	-	-	-	-	-	-	[illegible]
	4046.0-48.0	2.0	4.85	0.32	0.01	9.70	1.0	1.80	2.65	2.70	-	-	[illegible]
	4048.0-50.0	2.0	0.23	0.13	-0.01	0.58	2.5	4.60	2.61	2.69	0.0	13.0	[illegible]
	4050.0-52.0	2.0	0.59	0.26	-0.01	1.18	0.5	1.00	2.67	2.69	-	-	[illegible]
	4052.0-53.2	1.2	0.45	0.22	-0.01	0.54	0.9	1.68	2.67	2.69	0.0	33.3	[illegible]
	4053.2-54.7	1.5	*	0.77	*	1.15	1.0	1.80	2.66	2.69	-	-	[illegible]
	4054.7-56.3	1.6	26.70	14.10	11.50	4.72	2.9	1.41	2.61	2.69	0.0	3.5	[illegible]
	4056.3-57.9	1.6	12.60	2.29	0.11	19.20	4.9	1.30	2.53	2.69	-	-	[illegible]
	4057.9-59.1	1.2	0.32	0.21	0.14	0.38	2.1	3.92	2.63	2.69	0.0	30.4	[illegible]

CORE LABORATORIES · CANADA, LTD.
CALGARY ALBERTA

COMPANY [redacted] CANADA PETROLEUM COMPANY LTD. FORMATION PAGE 1 of 4
WELL [redacted] CALTA A-1 POPLAR RIVER G-32 DRILLING FLUID WATER BASE MUD FILE [redacted]-5022

CORE NO. 2 (Cont'd)

55	3072.1-73.4	1.3	1.43	0.38	1.79	1.86	2.4	3.12	2.63	2.69	-	-	F
56	3073.4-74.8	1.4	186.00	99.30	105.00	260.40	4.1	5.74	2.58	2.69	0.0	19.8	F
57	3074.8-75.8	1.0	4.35	3.97	0.29	4.35	4.6	4.60	2.58	2.70	-	-	F
	3075.8-77.0	1.2	3.62	0.88	0.41	4.34	3.1	3.72	2.61	2.69	0.0	11.7	F

CORE LABORATORIES – CANADA, LTD.

Petroleum Reservoir Engineering

WELL: AMOCO DECALTA A-1 POPLAR RIVER G-32 — PAGE 4 OF 4

FORMATION: — FILE CLP-A-5022

SUMMARY INTERVAL: 3957.0 - 4077.0

TOTAL FOOTAGE: 120.0

FOOTAGE ANALYZED: 80.7

FOOTAGE NOT ANALYZED: TOTAL 39.3 CAVE 39.3 LOST .0 DRILLED .0 UNDR .0 RUBBLE .0

SUMMARY OF ANALYZED CORE:

	FOOTAGE	NO. OF ANALYZED CORE	WEIGHTED AVERAGE POROSITY %	POROSITY FEET	WEIGHTED AVERAGE PERM MD	PERM FEET	WEIGHTED AVERAGE SATURATION %	WEIGHTED AVERAGE OIL SATURATION %
TOTAL	80.7	100.00	3.31	267.41	7.78	627.62	.00	.00
BY PERM RANGES								
LESS THAN 0.10 Md.	12.0	14.87	1.65	19.82	.05	.57	.00	.00
0.10 TO 1.00 Md.	21.2	26.27	2.19	46.39	.25	5.22	.00	.00
1.00 TO 10.00 Md.	13.8	17.10	3.01	41.57	.74	10.22	.00	.00
10.00 TO 100.00 Md.	22.7	28.13	3.89	88.27	2.91	65.97	.00	.00
GREATER THAN 100.00 Md.	11.0	13.63	6.49	71.36	69.00	545.64	.00	.00

NOT ANALYZED BY REQUEST

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

WATER ANALYSIS

Lab No. I70-604-3

Received: Mar. 14, 1970 Reported: Mar. 20, 1970

Well: Location: **Amoco Decalta A-1 Poplar River C-32**

Operator: AMOCO CANADA PETROLEUM COMPANY LTD. Field or Area: Fort Simpson, N.W.T. (Wildcat)

Elev.: K.B. Grd. Zone/Formation: Horn River Sample Interval: 3968' - 4023'

Method of Production: D.S.T. #6 Dual Straddle Sampled from: Pelletea (lower) Sampled by: D. [illegible]

OTHER PERTINENT DATA

TIGHT HOLE

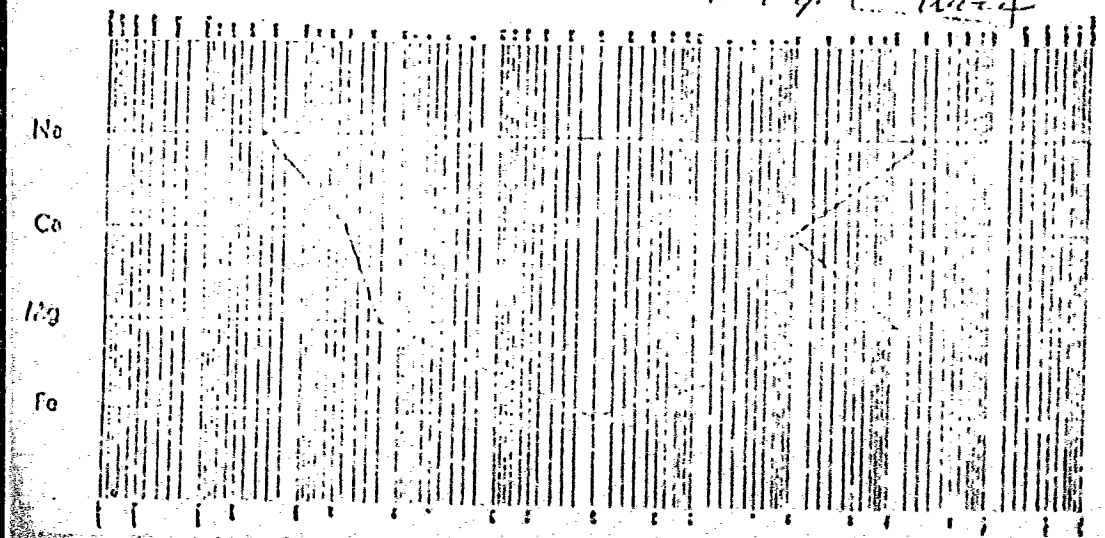
(Signed)

	Na	K	Ca	Mg					SO_4	Cl			CO_3	HCO_3		
Mg./L	6746		839	196					6329	7450				590		
Meq./L	293.43		41.87	16.11					131.64	210.09				9.68		
Meq. %	41.75		5.96	2.29					18.73	29.89				1.38		

Total Solids Mg/L: By Evaporation 22,485 Fe present Specific Gravity 1.019 @60°F Observed pH 8.1 @ 76 °F

Calculated 22,150 After Ignition 20,415 H_2S nil Refractive Index 1.3367 @25°C Resistivity 0.458 ohm meters @ 68 °F

Pattern Unit: Meq./L



Remarks and Conclusions: Analysis determined on colourless water filtered from watery mud. [illegible] refractory organic matter detected in total solids.

LABORATORY NUMBER	SAMPLED FROM	RESISTIVITY (Observed @ 68°F.)
I70-604-1	Top	0.786
I70-604-2	150' above tool	0.561

Both Resistivities determined on colourless water filtered from mud.

CHEMICAL & GEOLOGICAL LABORATORIES LTD. WATER ANALYSIS

Received: March 11, 1970 Reported: March 17, 1970 Well Location: Amoco A-1 Poplar River G-32 61° 10' N - 12[illegible]

Operator: AMOCO CANADA PETROLEUM COMPANY LTD. Field or Area:

Elev: K.B. Grd. Zone/Formation: Sample No. 40[illegible]

Method of Production: D.S.T. #2 Sampled from: Top of Tool Sampled by: Lynes Limited Drill Stem Services Ltd.

CONFIDENTIAL DATA

TIGHT HOLE

(Signed)

	Na	K	Ca	Mg					SO4	Cl			CO3	[illegible]
mg/l	40,400		11,500	2500					112	59,700				240
meq/l	1756.75		573.85	205.50					2.33	2529.54				4.76
%	34.64		11.31	4.05					0.05	49.87				0.08

Total Solids Mg/l: By Evaporation 156,620 Density of Specific Gravity 1.104 @60°F Observed pH 6.7 @ 74 °F

Calculated 144,772 After Dilution 140,960 H2S Nil Refractive Index 1.3588 @25°C Resistivity 0.057 Observed @ 68 °F

Petrol Unit meq/l

Cl

HCO3

SO4

CO3

Remarks and Conclusions

The sample as received contained [illegible]

The filtrate was [illegible]

LABORATORY NUMBER	SAMPLING DEPTH	RESISTIVITY (Ohm-meters)
C70 [illegible]	9[illegible] Above Tool	[illegible]
C70 [illegible]	5[illegible] Above Tool	[illegible]

POOR COPY

CORE LABORATORIES (CANADA) LTD. Petroleum Reservoir Engineering

COMPANY [redacted] FIELD WILLESDEN GREEN FILE 7-4-5077

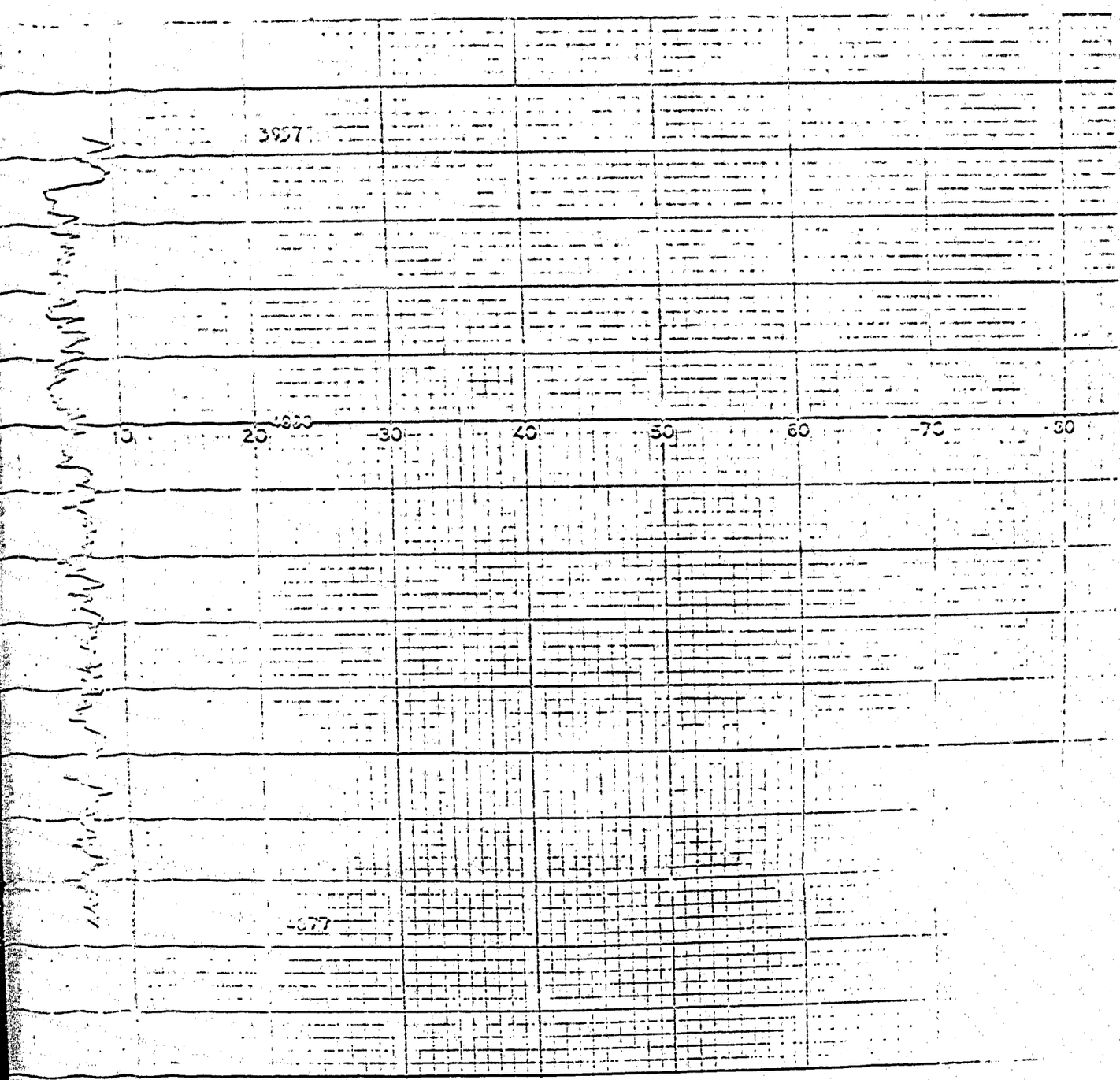
WELL [redacted] DATE

LOCATION [redacted] PROV [redacted] ELEV.

CORE-GAMMA CORRELATION

VERTICAL SCALE: 5" = 100'

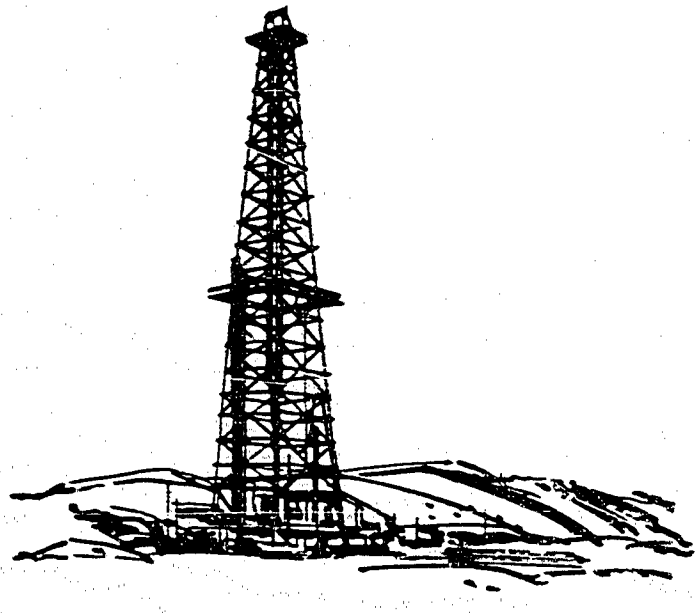
T.C. 11 SECS SENS. 5000 CPM



LYNES

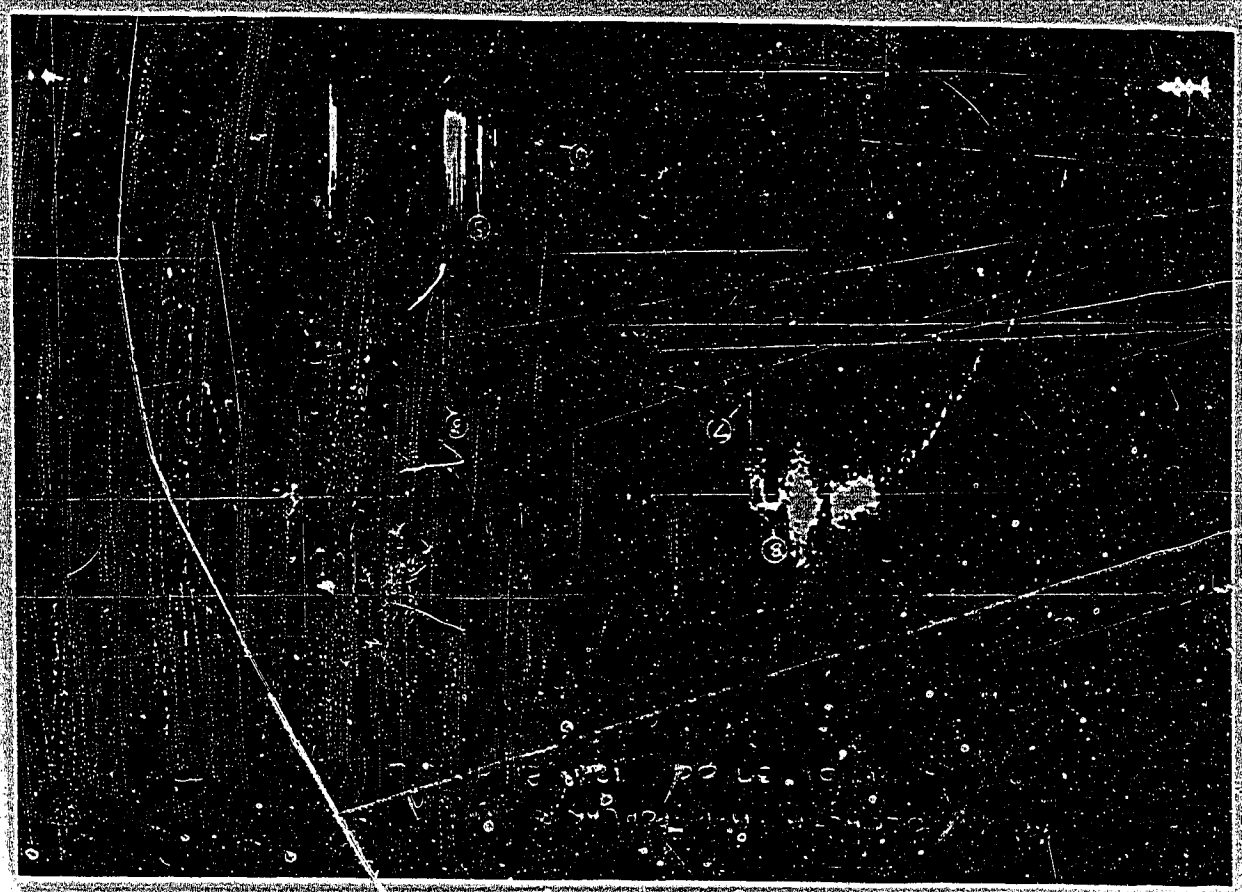
BRIGHT NAME IN THE OIL PATCH

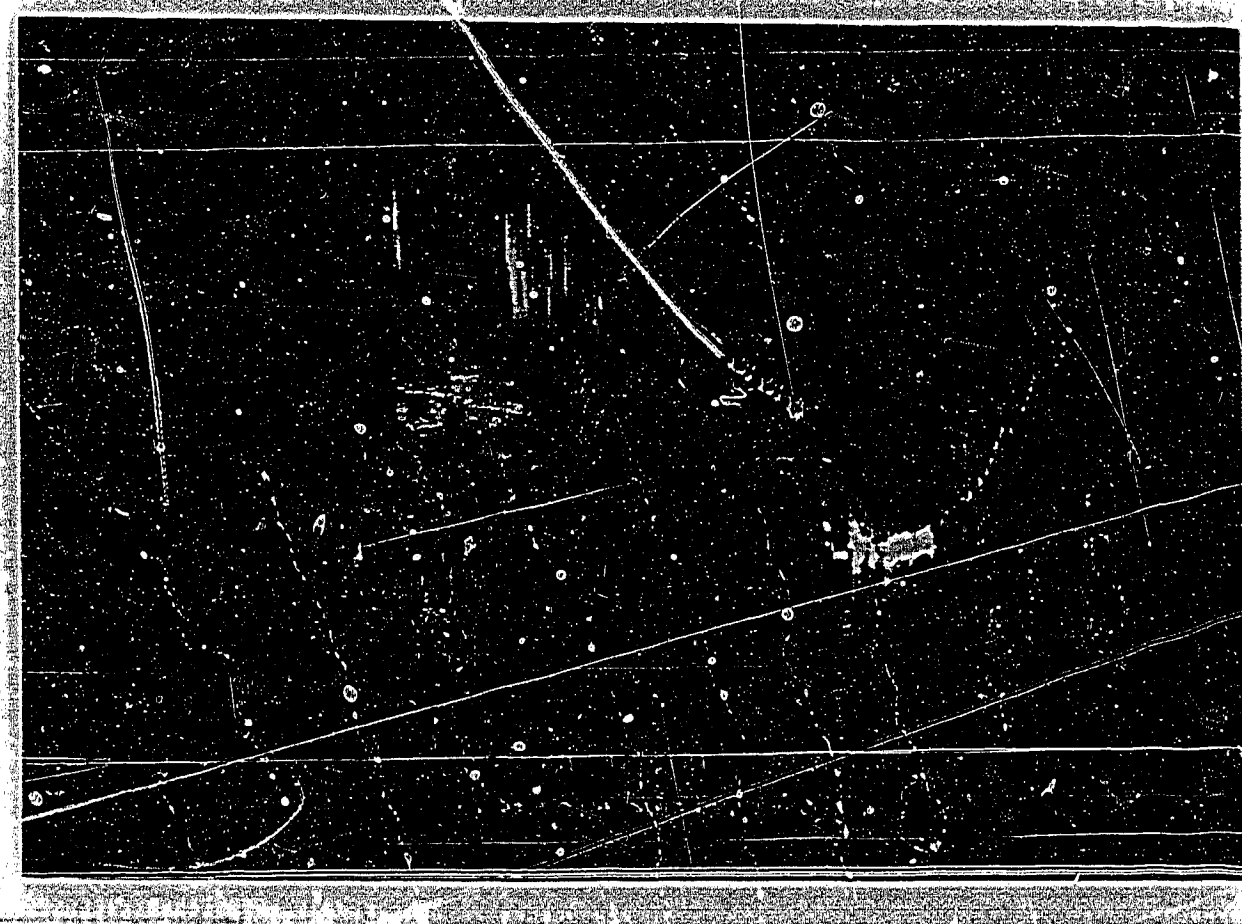
Inflatable and Conventional Packer Tools

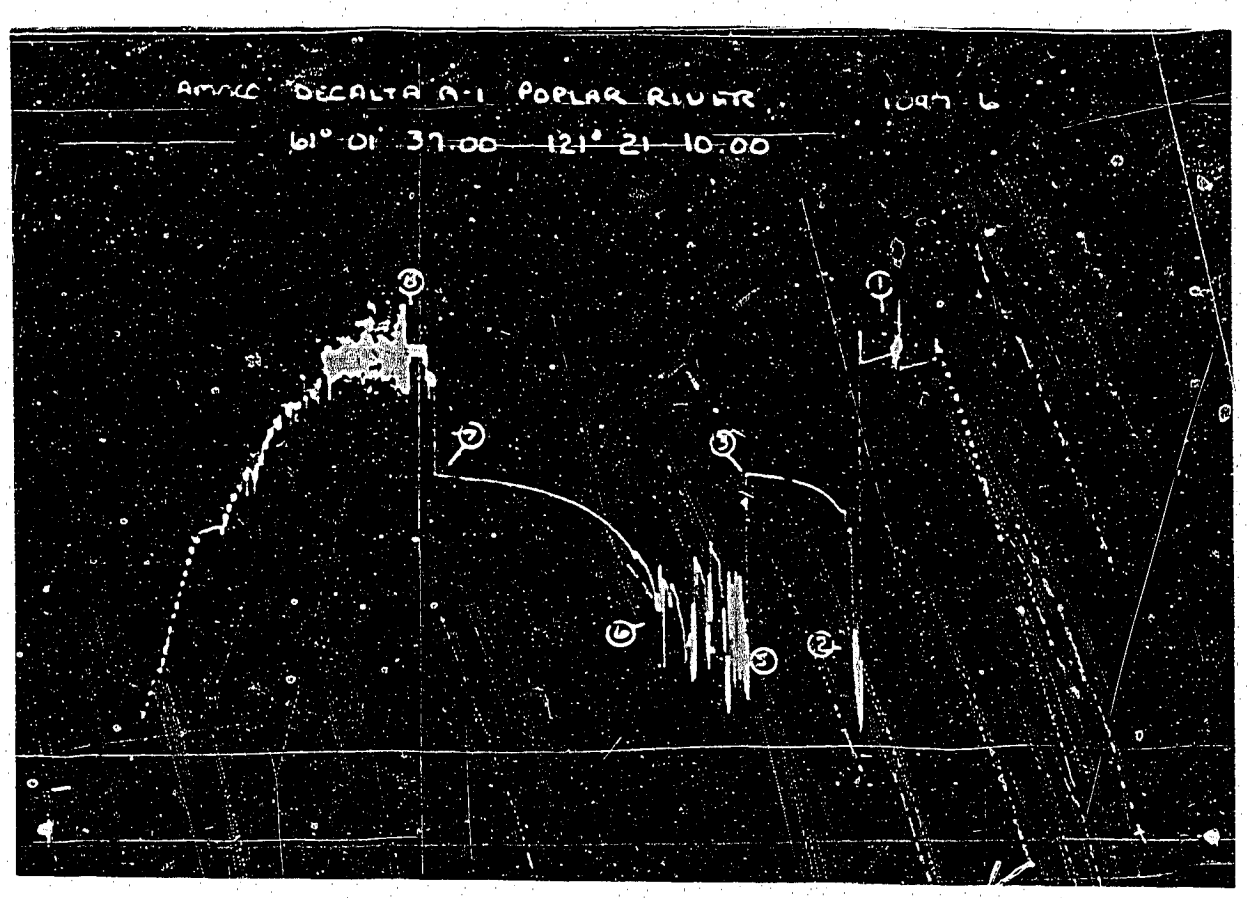


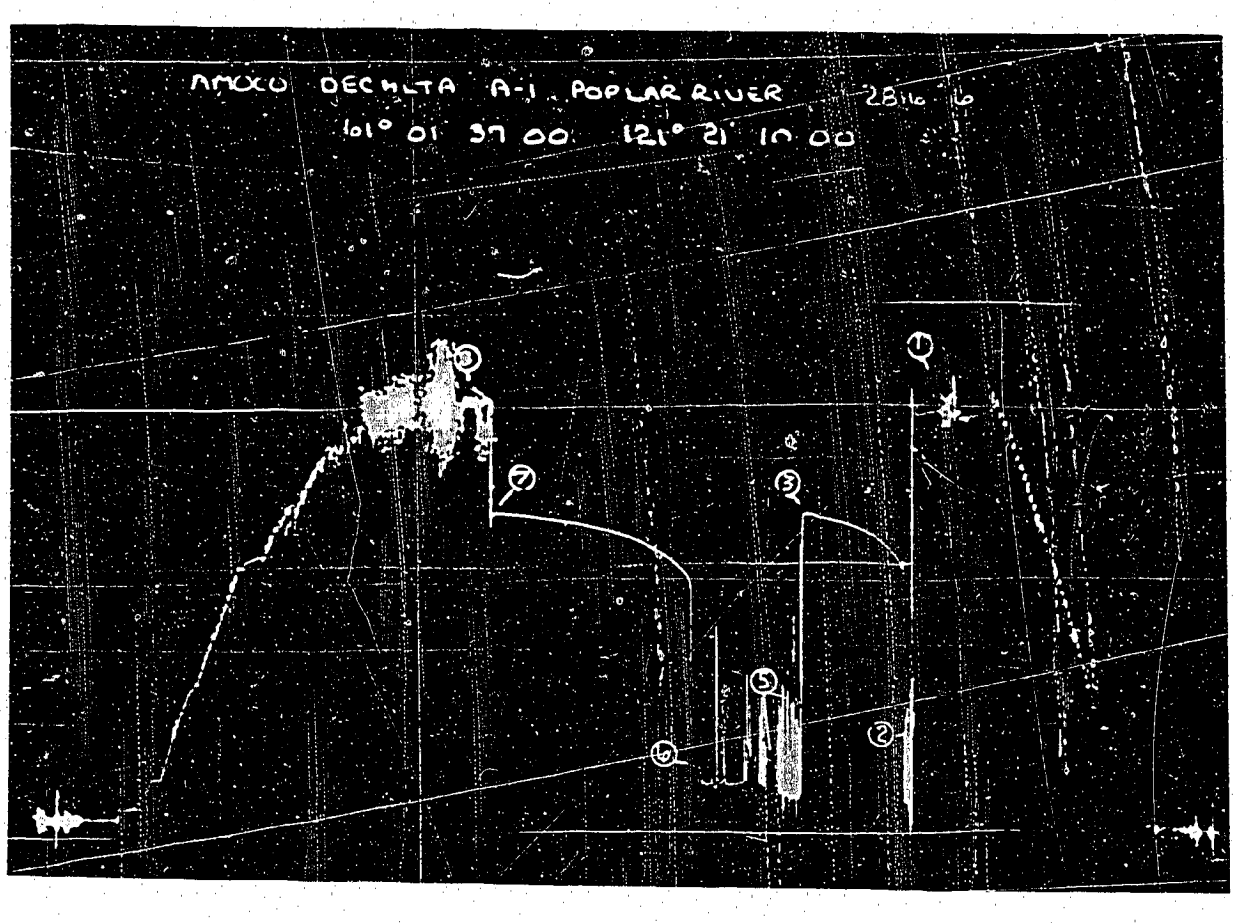
DRILL STEM TEST
TECHNICAL SERVICE REPORT

Amoco Canada Petroleum Co. Ltd. Amoco Decalta Al Poplar River 61° 01' 121° 21' #6 March 10, 1970






AMOCO DECALTA A-1 POPLAR RIVER
61° 01' 37.00 121° 21' 10.00


AMOCO DECALTA A-1 POPLAR RIVER
61° 01' 37.00 121° 21' 10.00

Amoco Canada Petroleum Co. Ltd.
Amoco Decalta Al Poplar River 61° 01' 121° 21'
DST # 1 G-32

NOMENCLATURE (Definition of Symbols)

Q	=	average production rate during test, bbls./day
Q_g	=	measured gas production rate during test, MCF/day
k	=	permeability, md
h	=	net pay thickness, ft. (when unknown, test interval is chosen)
μ	=	fluid viscosity, centipoise
Z	=	compressibility factor
T_r	=	reservoir temperature, ° Rankine
m	=	slope of final SIP buildup plot, psig/cycle ($psig^2$/cycle for gas)
b	=	approximate radius of investigation, feet
r_w	=	wellbore radius, feet
t_p	=	total flowing time, minutes
P_o	=	Extrapolated maximum reservoir pressure, psig
P_f	=	final flowing pressure, psig
P.I.	=	productivity index, bbls. /day/psi
$P.I._t$	=	theoretical productivity index with damage removed, bbl./day/psi
D.R.	=	damage ratio
E.D.R.	=	estimated damage ratio
AOF	=	absolute open flow potential MCF/D
AOF_t	=	theoretical absolute open flow if damage were removed
Z	=	subsea depth
W	=	water gradient based on salinity
H_w	=	potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 3980 ft. Subsea depth ft. Ticket No. 169 Hour Recorder No. 2816

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	---	136				0	---	296	
5	2.000	1293				10	7.500	1251	
10	1.500	1339				20	4.250	1309	
15	1.333	1376				30	3.167	1355	
20	1.250	1406				40	2.625	1388	
25	1.200	1425				50	2.300	1413	
30	1.167	1446				60	2.083	1434	
35	1.143	1459				70	1.928	1450	
40	1.125	1470				80	1.812	1462	
45	1.111	1479				90	1.722	1473	
50	1.100	1487				100	1.650	1480	
55	1.091	1498				110	1.591	1488	
60	1.083	1505				120	1.542	1493	

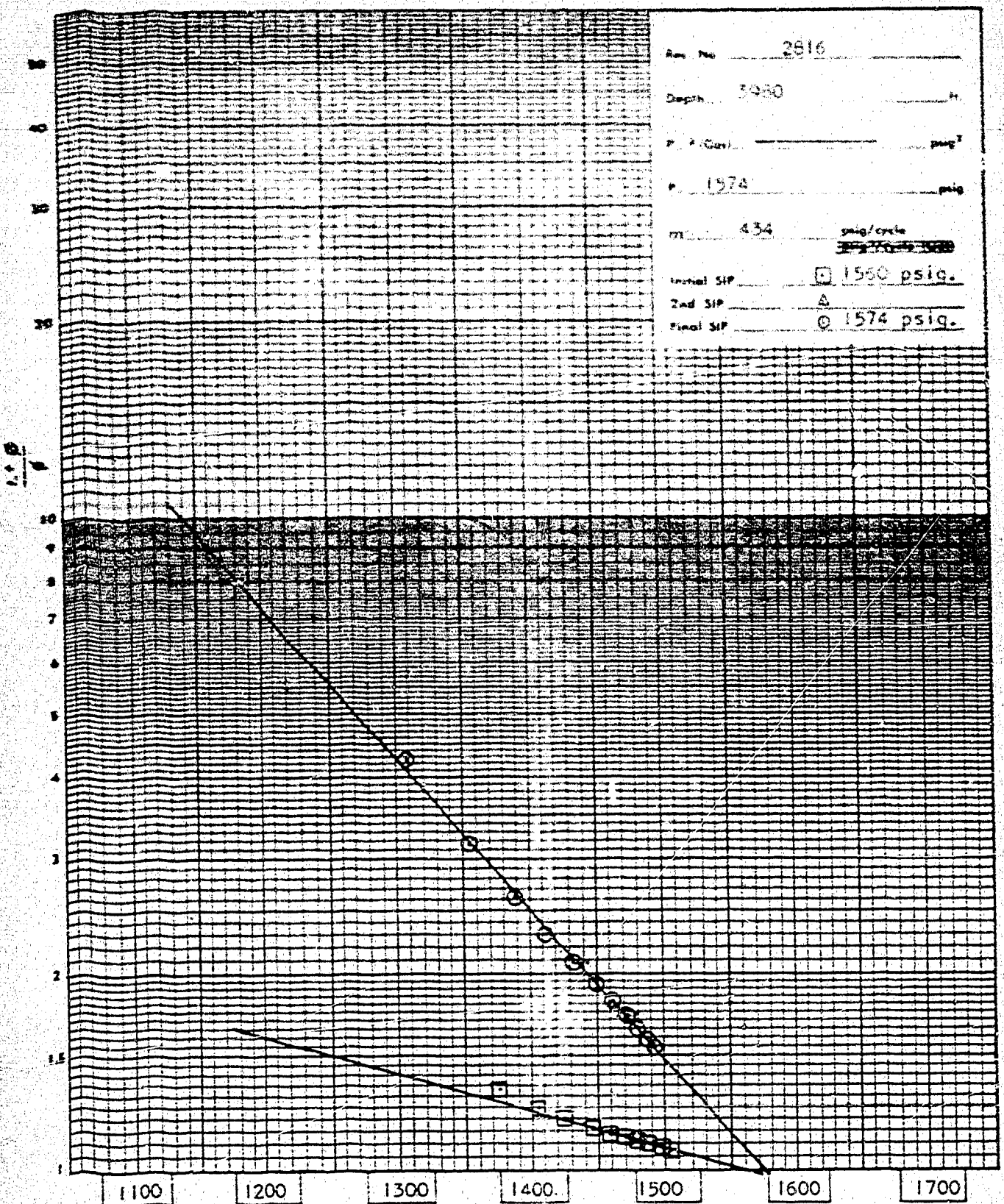
Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 10

Remarks: DST # 6

PRESSURE DATA



PSIG (OIL OR WATER)

DST # 6

PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA | Test No. 6 | Type Test

Formation		T.D. 4985	Ft
Interval Tested	3968	Ft. to 4025	Ft
Feet of Net Pay Tested	57		Ft
Type of Test	Dual Straddle By-Pass		
Cushion		Amount	Ft
Started in Hole at	7:00	Hrs. Tool Open at 9:20	Hrs
Pre-Flow	5	Mins. Initial Shut-in 60	Mins
2nd Flow		Mins. Second Shut-in	Mins
Final Flow	60	Mins. Final Shut-in 120	Mins

Remarks: Strong initial puff decreasing to light during the test period.

Blows:

GENERAL INFORMATION

Company	Amoco Canada Petroleum Co. Ltd.
Address	444 - Seventh Avenue S.W.
	Calgary, Alberta
Well Name	Amoco Decalta Al Poplar River G-32
Well Number	61° 01' 25 61' 121 21' 12.39
K.B. Elevation	1530 Sub-Sea Elevation
Area	Ft. Simpson Province N.W.T.
Company Rep.	Doug Jenkins
Tester	Wes Goodwin
Contractor	Gen Pete Rig No. 20
Ticket No.	1690 Date March 10, 1970
Services Reports To:	
	10 - above address

GAS BLOW MEASUREMENTS

Measured with: No gas to surface.

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type	Gel Chem
Weight 9.5	Viscosity 350 Water Loss 7.4
Filter Cake	2/32" Bottom Hole Temperature 140°
Drill Pipe Size	4 1/2" FH Weight 16.
Drill Collars	6 1/4&5"H90 I.D. 2 7/8" Feet Run 150
Main Hole or Casing Size	8 3/4"
Bathole or Liner Size	No. of Feet
Bottom Hole Choke Size	1/2"
Surface Choke Size	
Packer Rubber Size	(4) 7 3/4"

REMARKS

Shut-in pressures suggest below average permeability within the interval tested. Plugging occurred during the flow period.

RECOVERY

TOTAL FLUID RECOVERED 240 Ft. Consisting of:

240 Ft. of Drilling fluid slightly
Ft. of salt cut.
Ft. of
Ft. of

Test was/was not Reversed Circulated

Oil Recovery A.P.I. Water Specific Gravity

Salinity 111,[redacted] PPM

PRESSURE READINGS

	Inside X Outside	Inside Outside X	Inside Outside	Inside Outside
Recorder No.	1097	2816		
Capacity	4100	4600		
Depth	3955	3980		

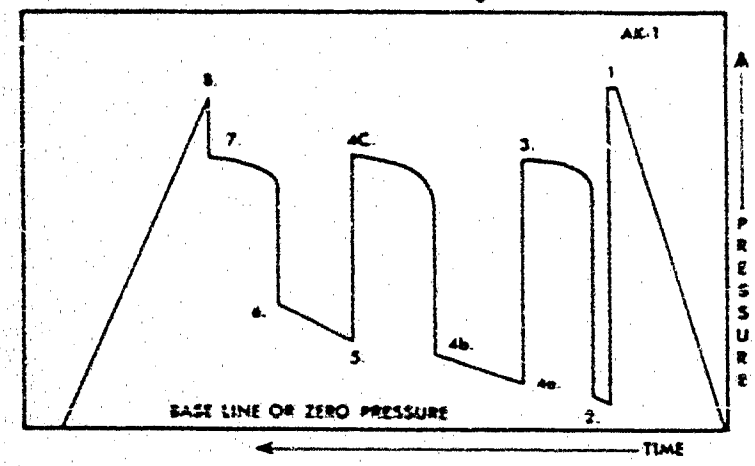
NUMBER KEY:					
1 - INITIAL HYDROSTATIC	1983	1993		
2 - PRE-FLOW	583	136		
3 - INITIAL SHUT-IN	1507	1505		
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW	525	155		
6 - FINAL FLOW	902	296		
7 - FINAL SHUT-IN	1496	1493		
8 - FINAL HYDROSTATIC	1983	1993		

Amoco Canada Petroleum Co. Ltd. Calgary — Amoco Decalta Al Poplar River G-32 61° 01' 121° 21' — Well Name and Description — Test No. #6 — March 10, 1970 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK-1 recorders. Read from right to left.

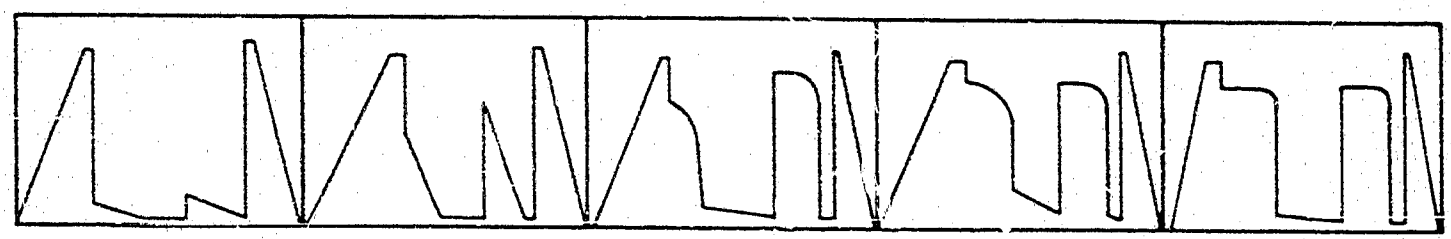


K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



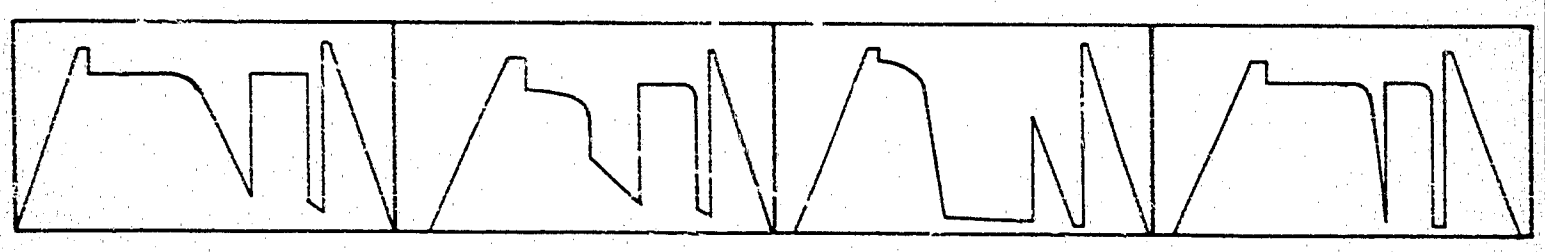
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

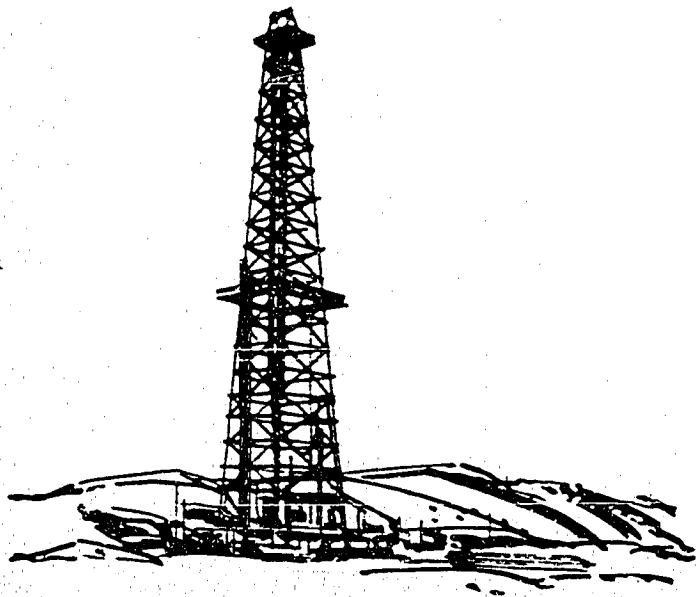
Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.

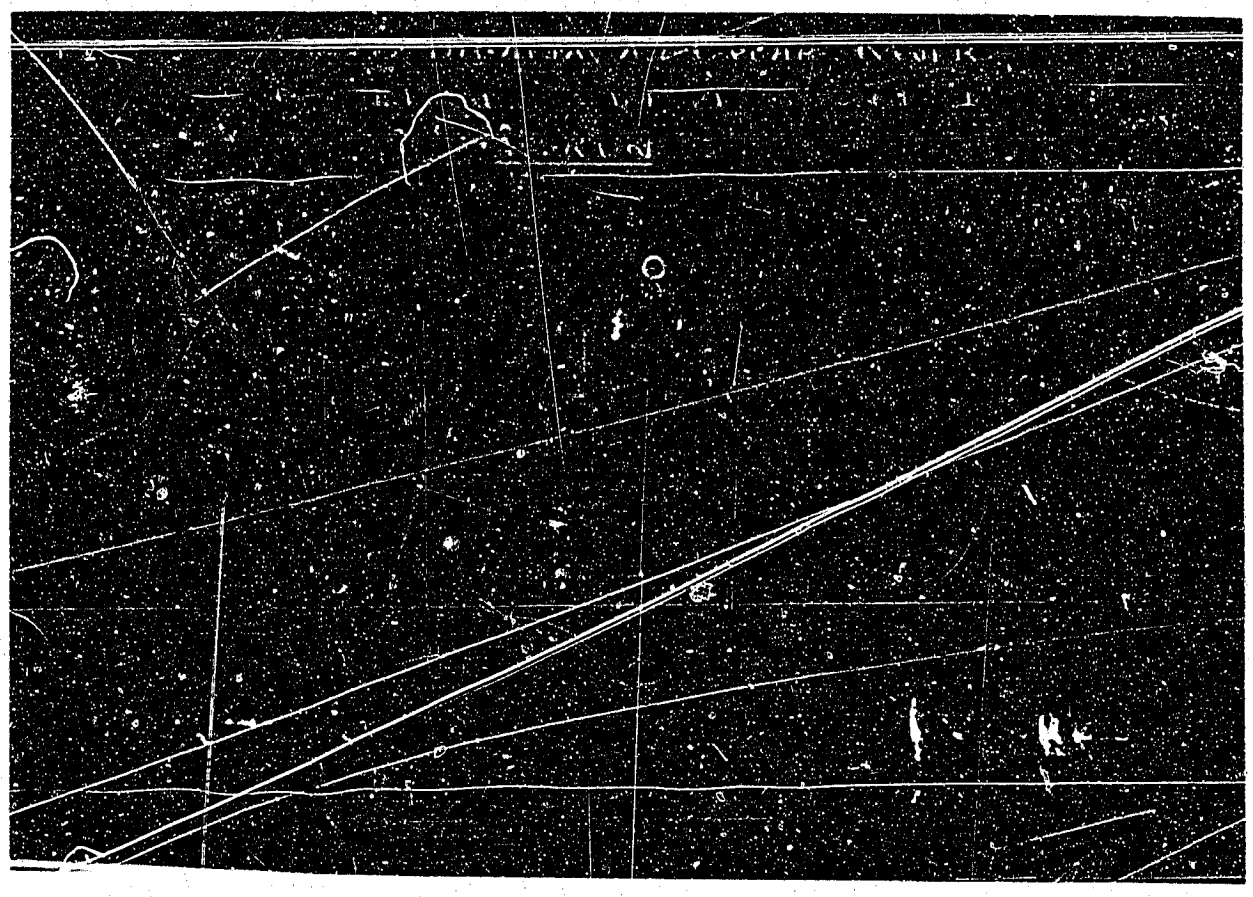
LYNES

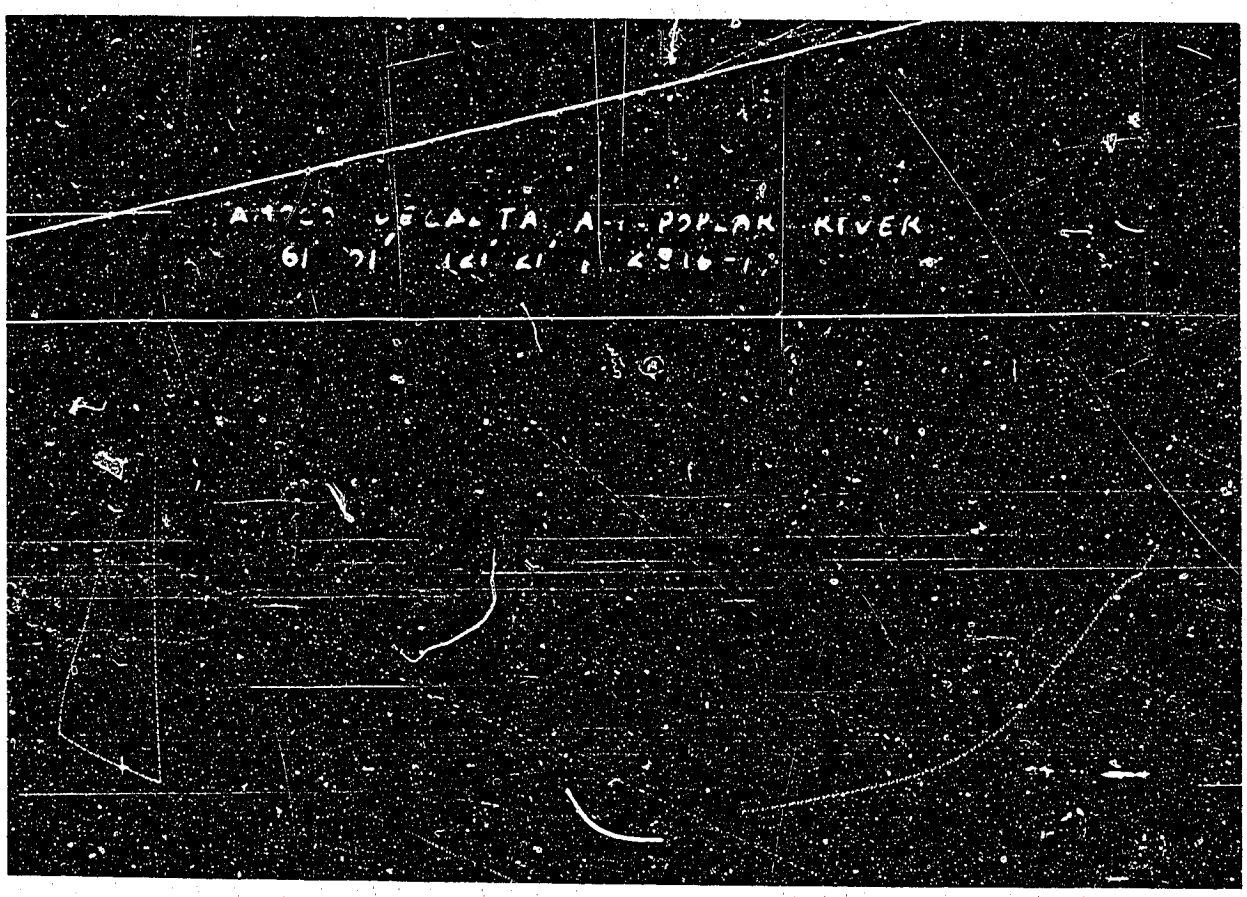
BRIGHT NAME IN THE OIL PATCH

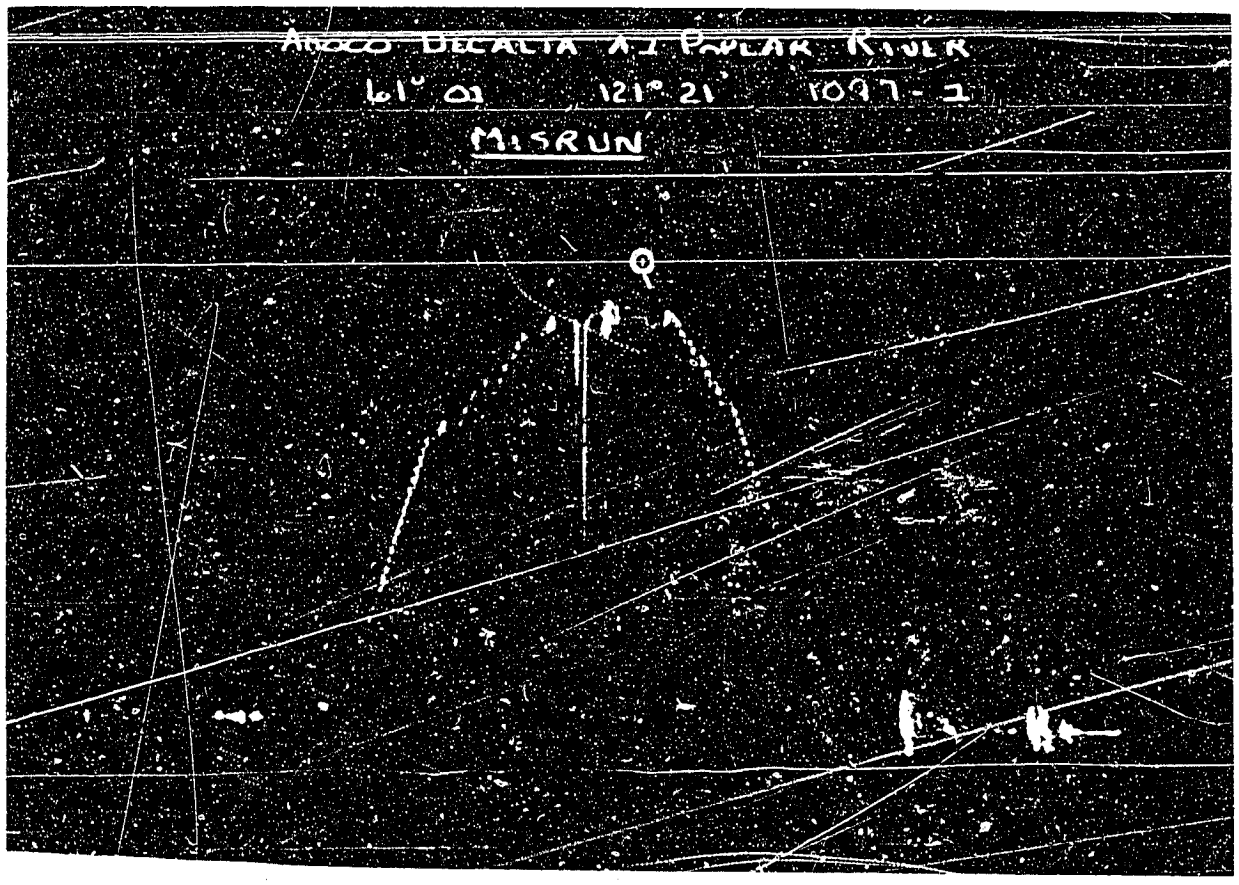
Inflatable and Conventional Packer Tools

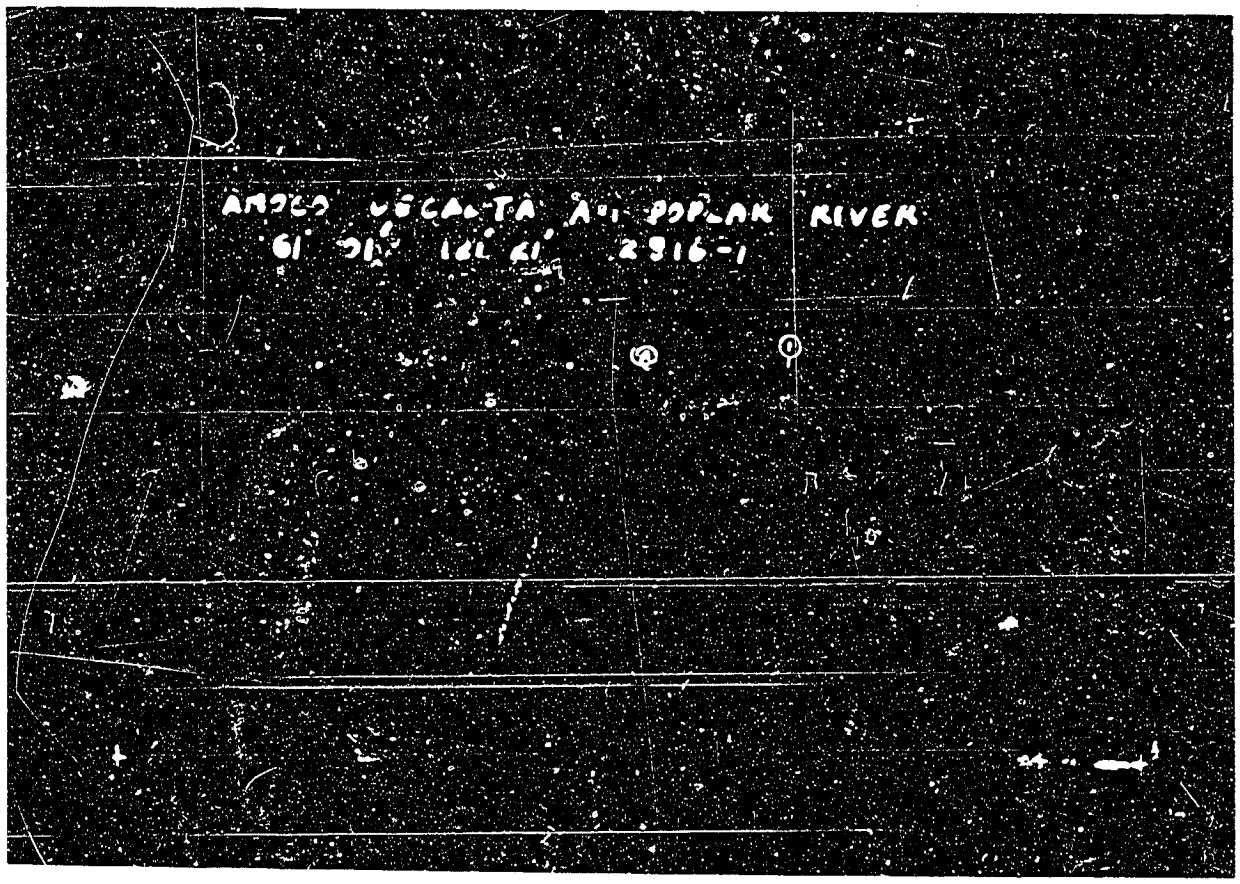


DRILL STEM TEST
TECHNICAL SERVICE REPORT




ARCO UGLAUTA A-1 - POPLAR RIVER


ANGLO DECALTA AT POPLAR RIVER
61° 01 121° 21 1097 - 2
MISRUN


ANGLO DECALTA AT POPLAR RIVER
61° 01' 121° 21' 2916-1

LYNES UNITED SERVICES LTD.

TEST DATA | Test No. 1 | Lynes Test 1

Formation | T.D. 4170 Ft.

Interval Tested 3957 Ft. to 4170 Ft.

Feet of Net Pay Tested 213 Ft.

Type of Test Dual Bottom Hole Conventional

Cushion Amount Ft.

Started in Hole at 1000 Hrs. Tool Open at 1230 Hrs.

Pre-Flow	Mins.	Initial Shut-in	Mins.
2nd Flow	Mins.	Second Shut-in	Mins.
Final Flow	Mins.	Final Shut-in	Mins.

Remarks: 120 feet of fill-open tool - mud dropped rapidly in hole. Very slight blow until mud dropped, then stronger.

Blow:

GENERAL INFORMATION

Company: Amoco Canada Petroleum Ltd.

Address: 444 - Seventh Avenue S.W. Calgary, Alberta

Well Name: Amoco Decalta Al Poplar River G-32

Well Number: 61° 01' 28" 60' 121° 21' 12.39

K B Elevation: Sub-Sea Elevation:

Area: Ft. Simpson Province: N.W.T.

Company Rep: Fred Bondar

Tester: Wes Goodwin

Contractor: General Pete Rig No 20

Ticket No: 1684 Date: February 25, 1970

Service Reports To:

8 - above address

GAS BLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chem

Weight: 9.3 Viscosity: 105 Water Loss: 8.0

Filter Cake: 2/32" Bottom Hole Temperature: 138

Drill Pipe Size: 4 1/2" FH Weight: 16

Drill Collars: 6 1/4"5"H90 I.D. 2 7/8" Feet Run

Mono Hole or Casing Size: 8 3/4"

Rathole or Liner Size: No. of Feet

Bottom Hole Choke Size: 1/2"

Surface Choke Size:

Packer Rubber Size:

REMARKS: Misrun.

RECOVERY

TOTAL FLUID RECOVERED: 270 Ft. Consisting of:

270 Ft. of Drilling fluid

Ft. of

Ft. of

Ft. of

Test was/was not Reversed Circulated

Oil Recovery A.P.I. Water Specific Gravity

Salinity

PRESSURE READINGS

	Inside ____ Outside X	Inside ____ Outside X	Inside ____ Outside ____	Inside ____ Outside ____
Recorder No.	1097	2616		
Capacity	4100	4600		
Depth	3960	3985		
1 - INITIAL HYDROSTATIC	1881	1903		
2 - PRE-FLOW				
3 - INITIAL SHUT-IN				
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW				
6 - FINAL FLOW				
7 - FINAL SHUT-IN				
8 - FINAL HYDROSTATIC	1881	1903		

Amoco Canada Petroleum Ltd. — Company

Amoco Decalta Al Poplar River 61° 01' 121° 21' G-32 — Well Name and Description

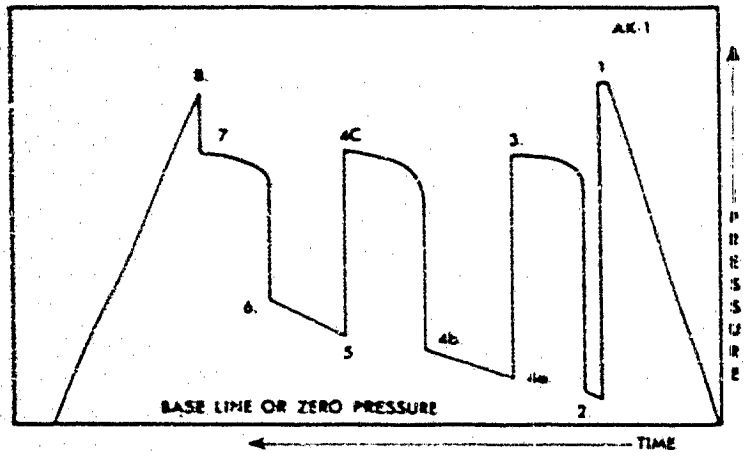
1 — Test No.

February 25, 1970 — Date of Test

LYNES

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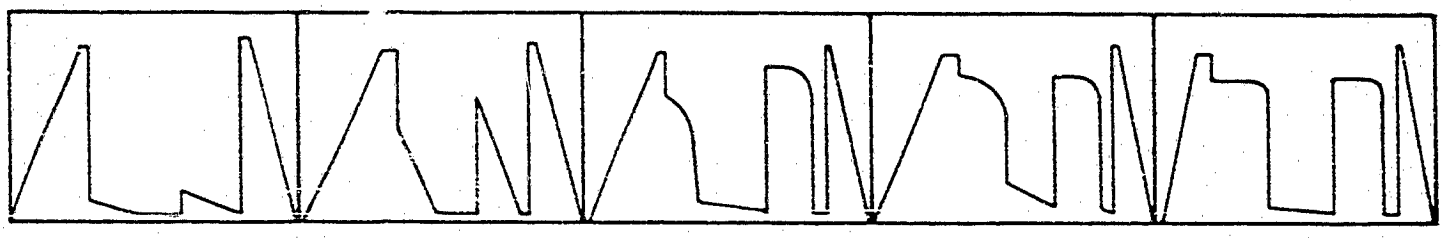


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2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



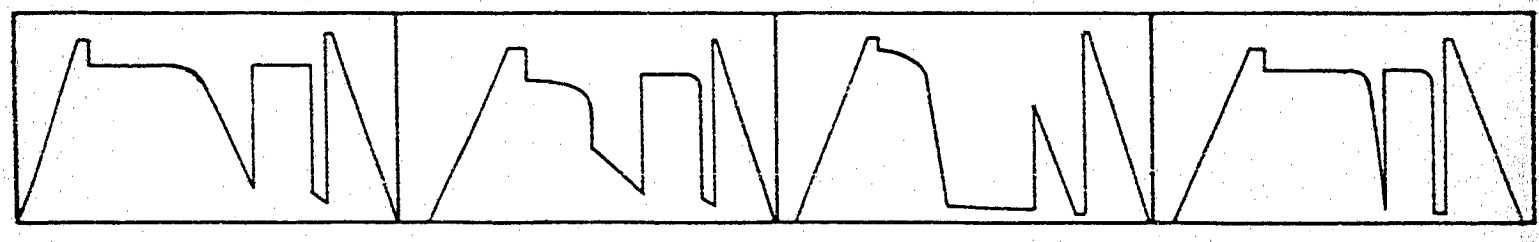
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

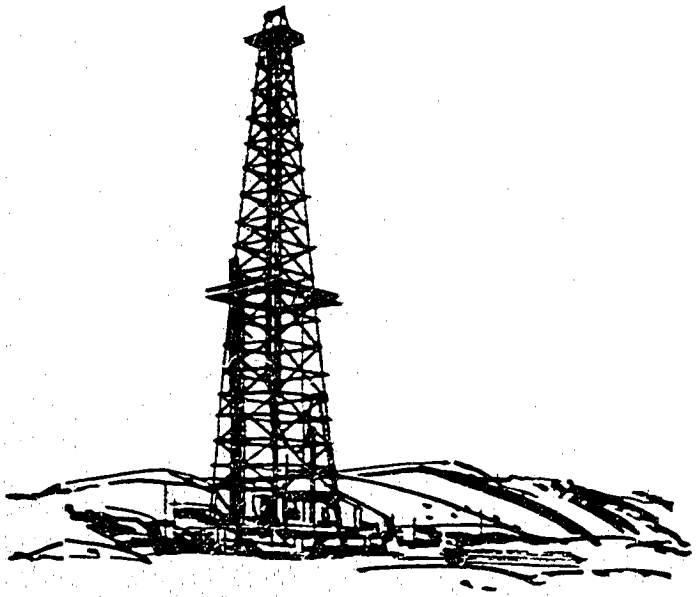
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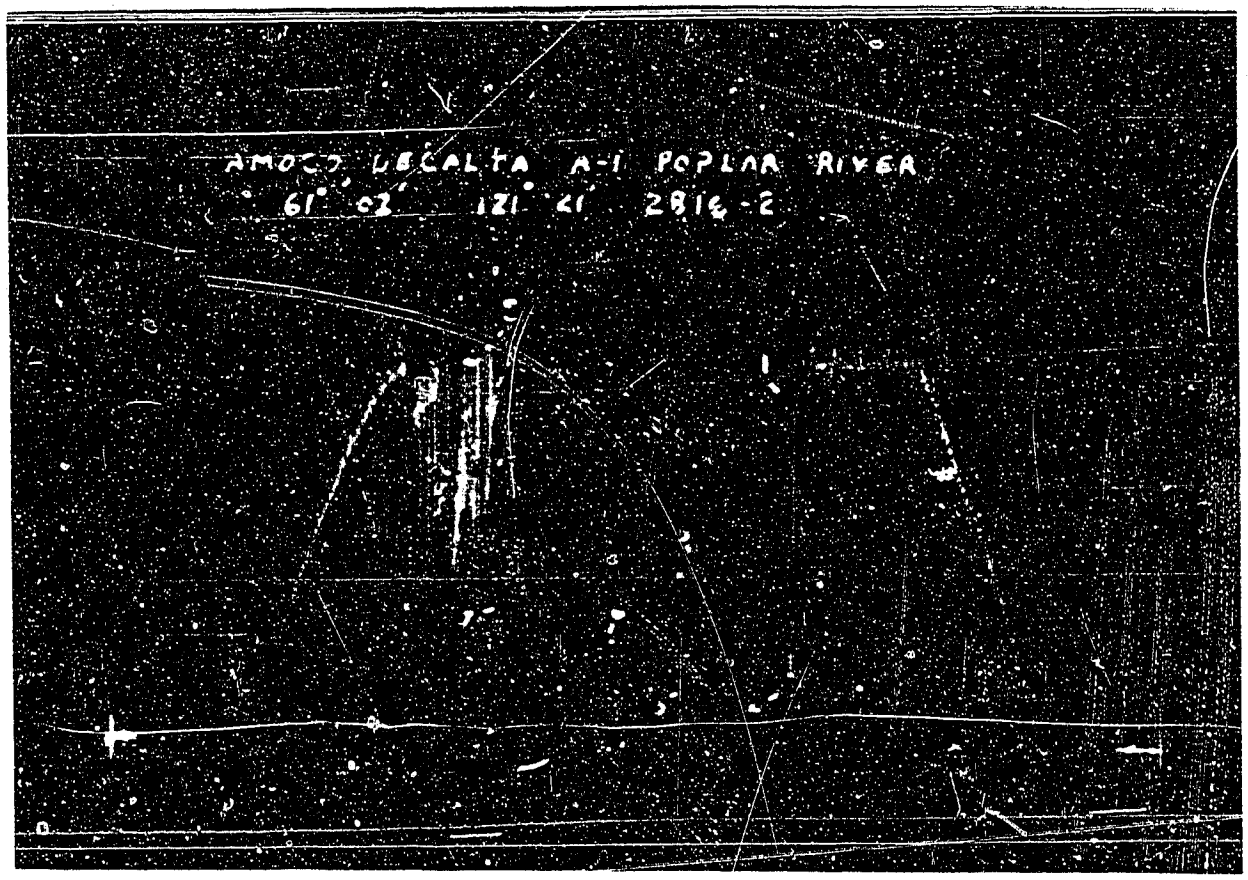
LYNES

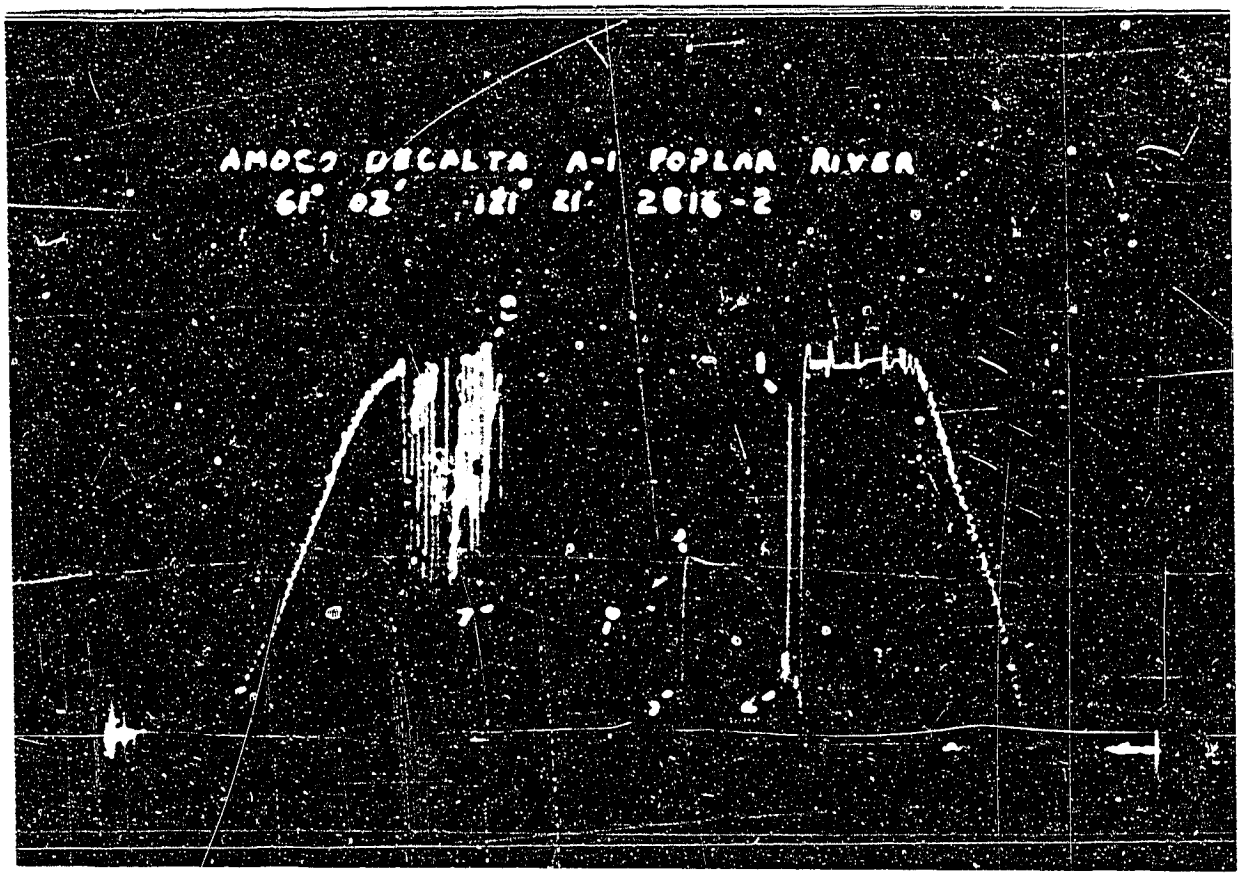
BRIGHT NAME IN THE OIL PATCH

Inflatable and Conventional Packer Tools



DRILL STEM TEST
TECHNICAL SERVICE REPORT


AMOCO UBCALTA A-1 POPLAR RIVER
61° 03' 121° 41' 2816-2


AMOCO DECALTA A-1 POPLAR RIVER
69° 02' -131° 21' 2616-2

Amoco Canada Petroleum Ltd.
Amoco Decalta Al Poplar River 61° 01' 121° 21'
G-32

NOMENCLATURE (Definition of Symbols)

DST # 2

Q_o	= average production rate during test bbls /day
Q_g	= measured gas production rate during test, MCF, day
k	= permeability, md
h	= net pay thickness, ft (when unknown test interval is chosen)
μ	= fluid viscosity, centipoise
Z	= compressibility factor
T_f	= reservoir temperature, ° Rankine
m	= slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	= approximate radius of investigation feet
r_w	= wellbore radius, feet
t_p	= total flowing time minutes
P_a	= Extrapolated maximum reservoir pressure, psig
P_f	= final flowing pressure, psig
P.I.	= productivity index, bbls./day/psi
$P.I._i$	= theoretical productivity index with damage removed, bbl./day/psi
D.R.	= damage ratio
E.D.R.	= estimated damage ratio
AOF	= absolute open flow potential, MCF/D
AOF_i	= theoretical absolute open flow if damage were removed
$\bar{Z}$	= subsea depth
W	= water gradient based on salinity
H_w	= potentiometric surface

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DEFINITION OF SYMBOLS

Recorder Depth 4045 ft. Subsea depth ft. Ticket No. 1685 Hour Recorder No. 2816

t_o = 5 Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = 65 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	-----	328				0	---	486	
5	2.000	697				5	14.000	550	
10	1.500	785				10	7.500	577	
15	1.333	830				15	5.333	598	
20	1.250	864				20	4.250	615	
25	1.200	887				25	3.600	633	
30	1.167	909				30	3.167	649	
35	1.143	924				35	2.857	663	
40	1.125	938				40	2.625	675	
45	1.111	948				45	2.444	689	
50	1.100	958				50	2.300	701	
55	1.091	970				55	2.182	710	
60	1.083	980				60	2.083	719	

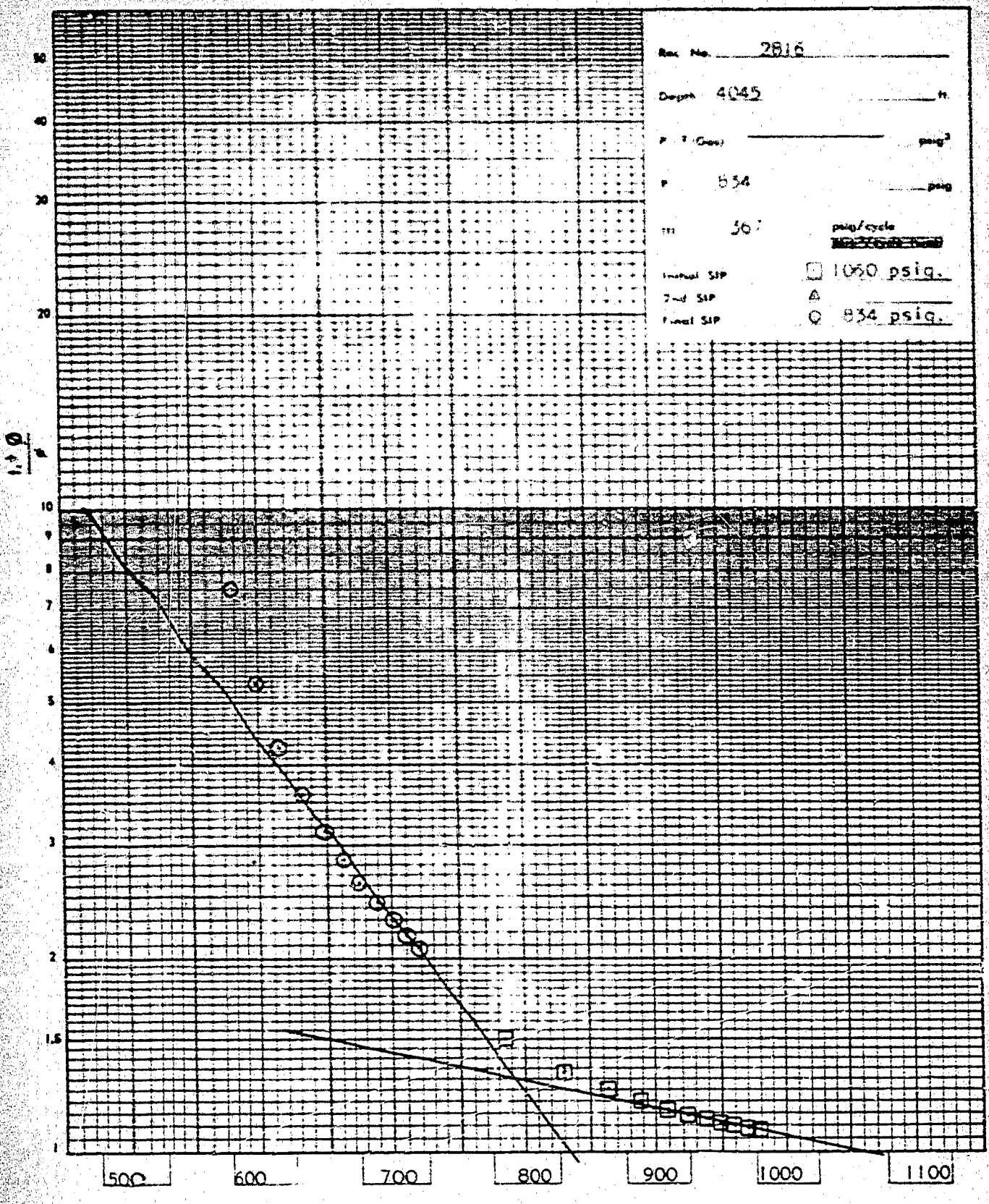
Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_o = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 5

Remarks: DST # 2

PRESSURE DATA



PRESSURE EXTRAPOLATION PLOT DST # 2

LYNES UNITED SERVICES LTD.

TEST DATA

Test No. 2 Lynes Test 2

Formation — TD 4170 Ft

Interval Tested 4017 Ft to 4170 Ft

Feet of Net Pay Tested 153 Ft

Type of Test Dual Bottom Hole Conventional

Cushion — Amount — Ft

Started in Hole at 5:30 Hrs. Tool Open at 8:57 Hrs.

Pre-Flow 5 Mins. Initial Shut-in 60 Mins.

2nd Flow — Mins. Second Shut-in — Mins.

Final Flow 60 Mins. Final Shut-in 60 Mins.

Remarks:

Blows: Strong initial puff, decreasing to very weak after one hour.

GENERAL INFORMATION

Company: Amoco Canada Petroleum Ltd.

Address: 444 - Seventh Avenue S.W.
Calgary, Alberta

Well Name: Amoco Decalta Al Poplar River G-32

Well Number: 61° 01' 28" / 121° 21' 12.39

K.B. Elevation — Sub-Sea Elevation

Area: Ft. Simpson Province: N.W.T.

Company Rep: Fred Bondar

Tester: Wes Goodwin

Contractor: General Pete Rig No: 20

Ticket No: 1685 Date: February 26, 1970

Service Reports To:

8 - above address

GAS BLOW MEASUREMENTS

Measured with: No gas to surface.

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chem

Weight: 9.3 Viscosity: 260 Water Loss: 8.0

Filter Cake: 2/32" Bottom Hole Temperature: 138

Drill Pipe Size: 4 1/2" FH Weight: 16.

Drill Collars: 6 1/4" 5"H90 D Feet Run

Main Hole or Casing Size: 8 3/4"

Packsle or Liner Size — No. of Feet

Bottom Hole Choke Size: 1/2"

Surface Choke Size

Packer Rubber Size: (2) 7 3/4"

REMARKS

Shut-in pressures suggest average permeability within the interval tested with a limited reservoir.

RECOVERY

TOTAL FLUID RECOVERED 930 Ft. Consisting of:

270 Ft. of Gas cut drilling mud

660 Ft. of Salt water

Ft. of

Ft. of

Test was/was not Reverse Circulated: was not

Oil Recovery A.P.I. — Water Specific Gravity

Salinity

PRESSURE READINGS

	Inside	Outside X	Inside	Outside	Inside	Outside X	Inside	Outside
Recorder No.	1097				2816			
Capacity	4100				4600			
Depth	4022				4045			

NUMBER KEY:

1 - INITIAL HYDROSTATIC	Clock failure		1989
2 - PRE-FLOW			328
3 - INITIAL SHUT-IN	No chart.		980
4a - 2nd INITIAL FLOW			
4b - 2nd FINAL FLOW			
4c - 2nd SHUT-IN			
5 - 3rd INITIAL FLOW			319
6 - FINAL FLOW			486
7 - FINAL SHUT-IN			719
8 - FINAL HYDROSTATIC			1939

Company: Amoco Canada Petroleum Ltd.

Well Name and Description: Amoco Decalta Al Poplar River G-32 61° 01' 121° 21'

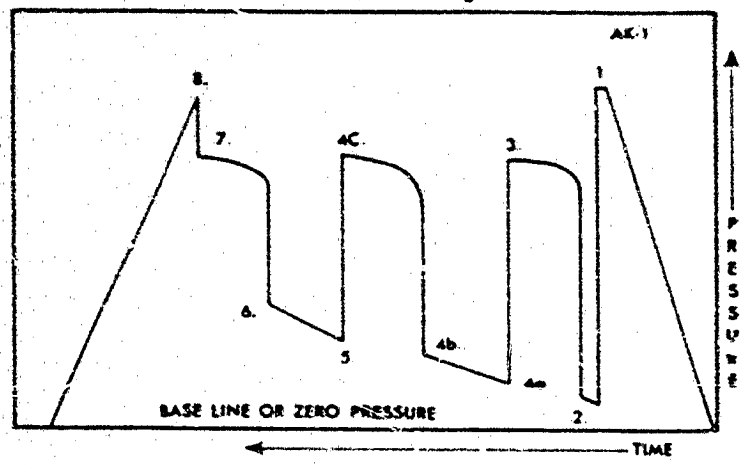
Test No.: 2

Date of Test: February 26, 1970

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK-1 recorders. Read from right to left.

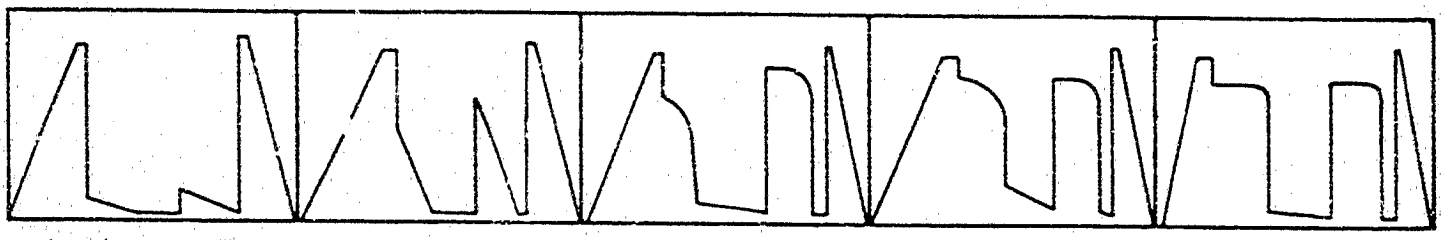


K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



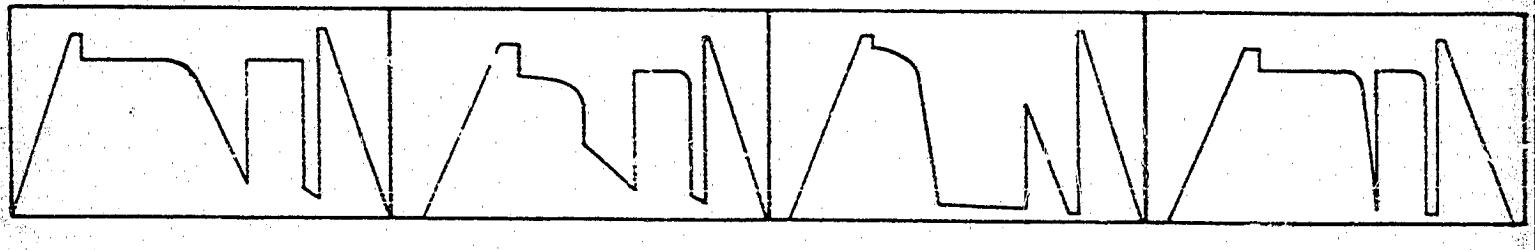
Very low permeability. Usually only mud recovered from interval tested. Virtually no permeability.

Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' ft).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

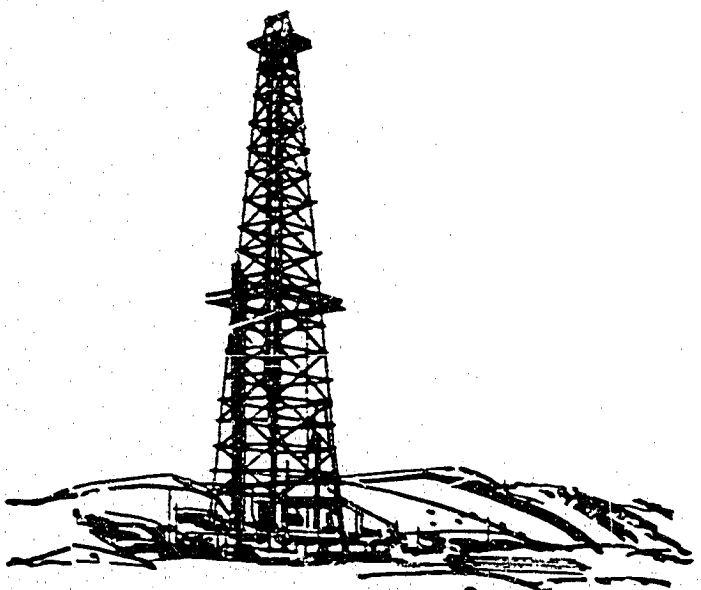
Deep well bore invasion or damage. Final shut-in higher than the initial shut-in.

Tight hole chamber tester. Permeability very difficult to interpret unless the recovery is less than chamber length. Flow pressure builds up rapidly if recovery is large, similar to a shut-in.

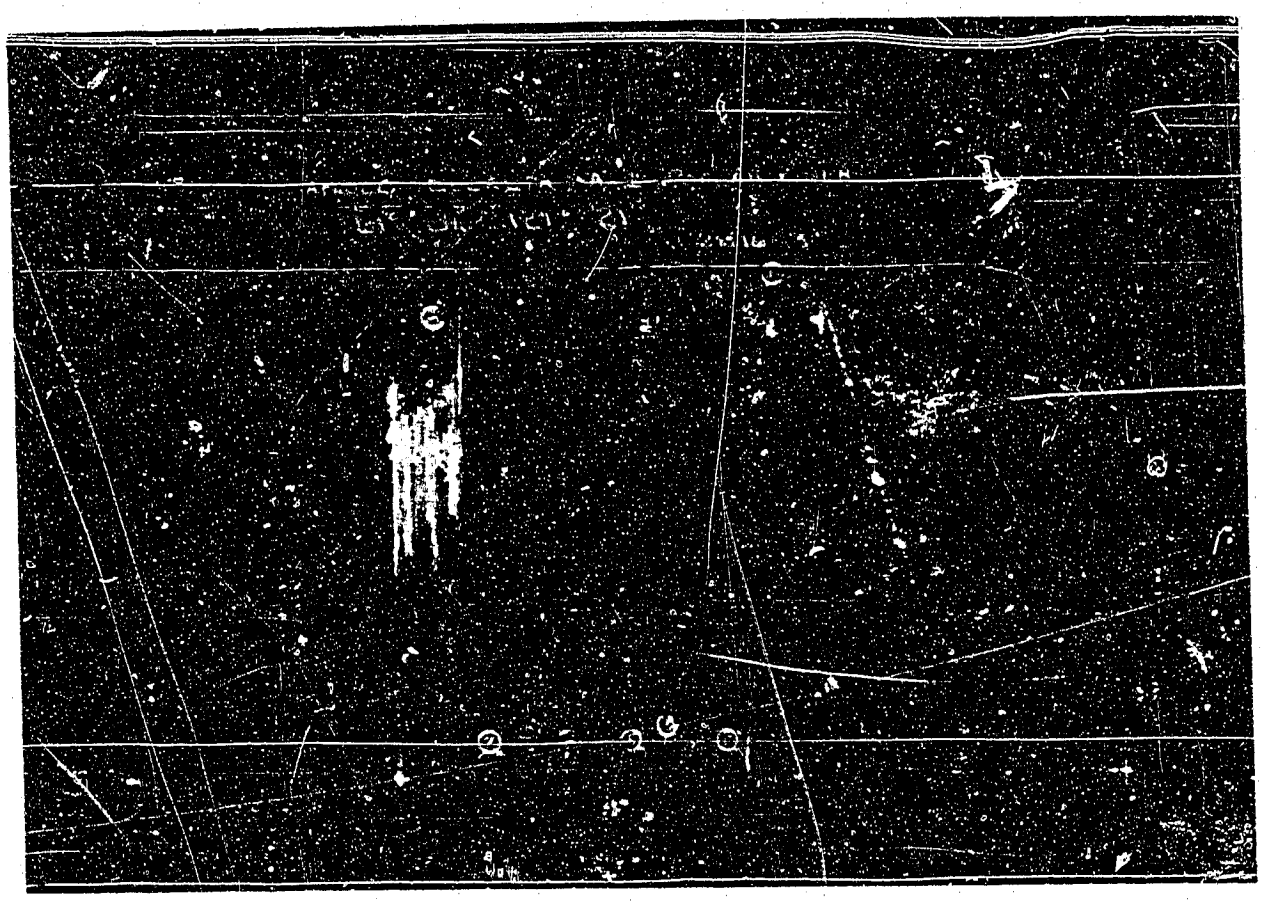
LYNES

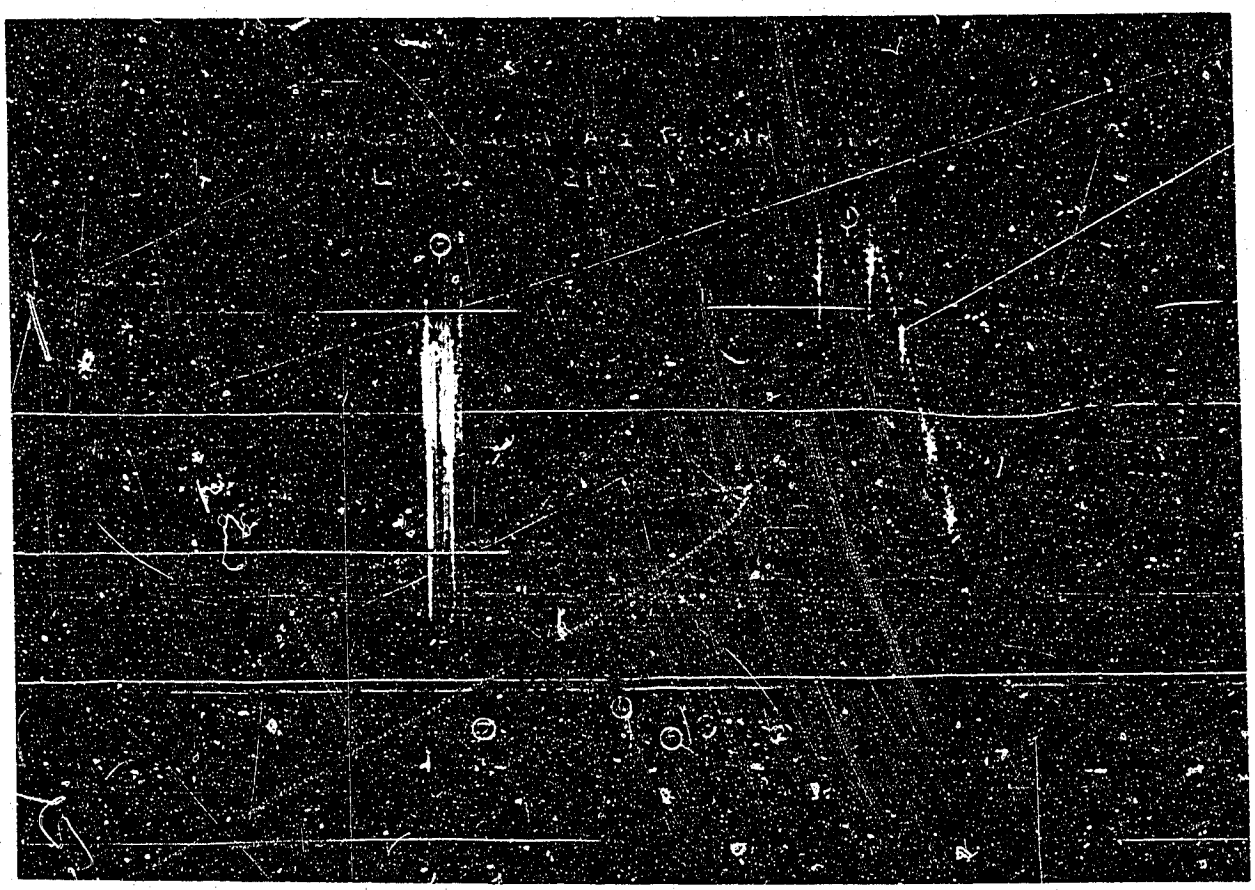
BRIGHT NAME IN THE OIL PATCH

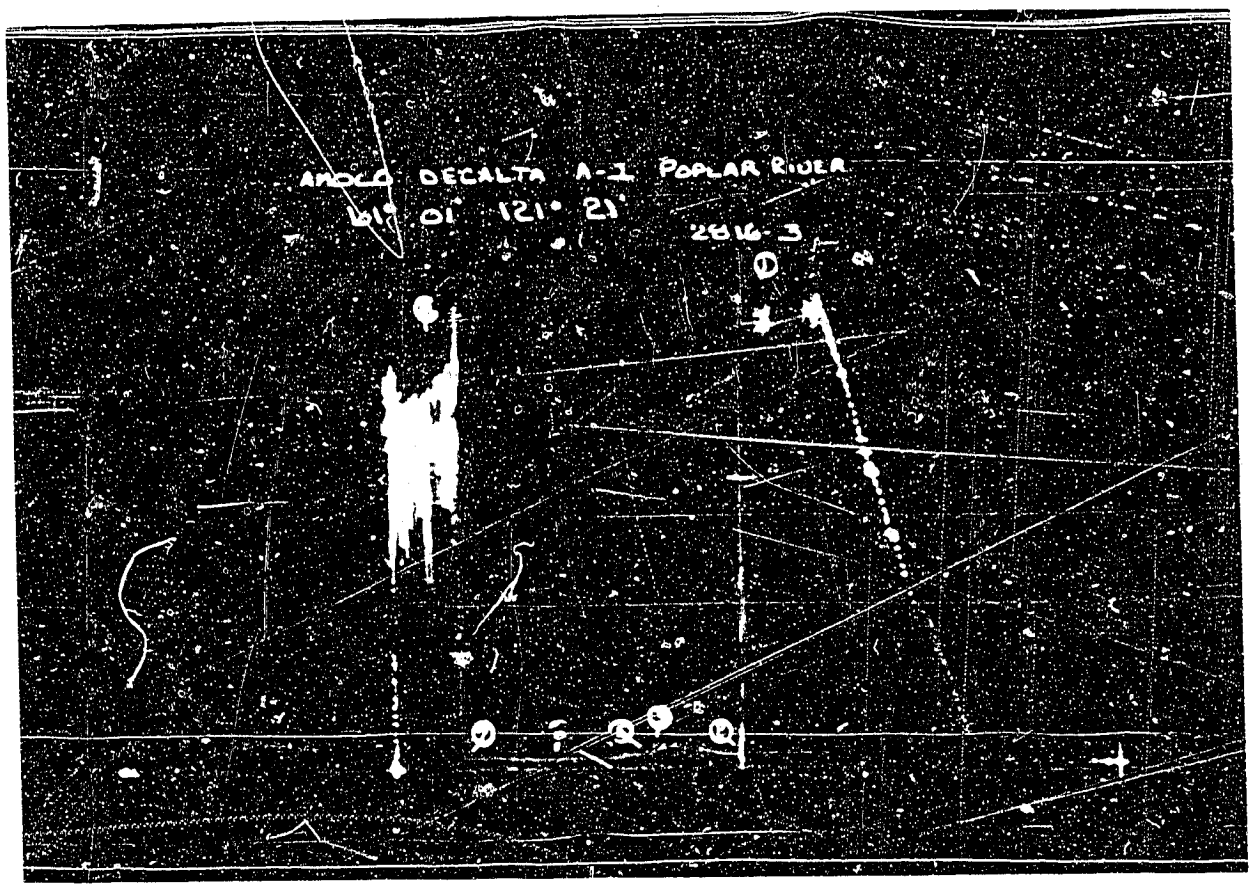
Inflatable and Conventional Packer Tools

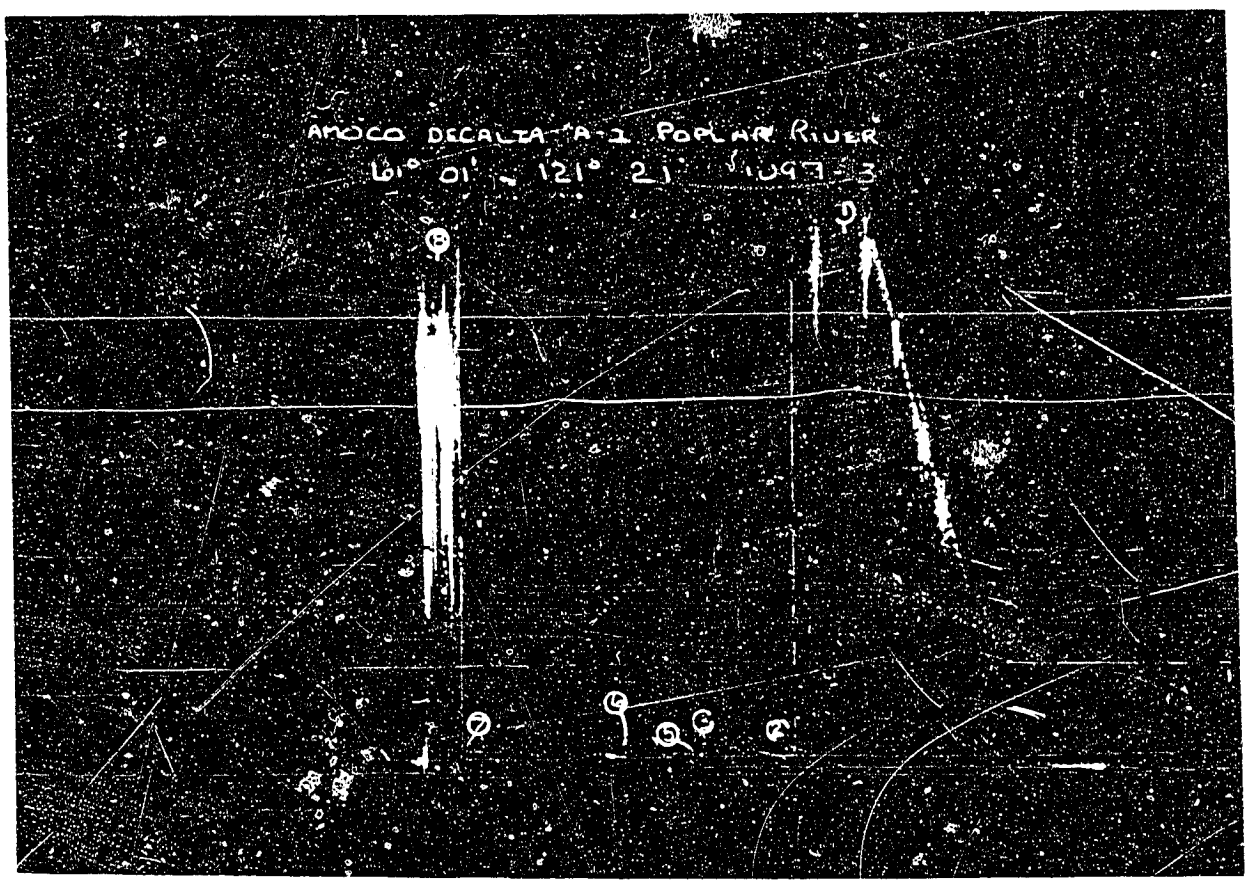


DRILL STEM TEST
TECHNICAL SERVICE REPORT






AMOCO DECALTA A-1 POPLAR RIVER
61° 01' 121° 21'
2816-3


AMOCO DECALTA A-1 POPLAR RIVER
61° 01' 121° 21'
1097-3

LYNES UNITED SERVICES LTD.

TEST DATA | Test No. 3 | Lynes Test 5

Formation — T.D. 4998 Ft.
Interval Tested 4924 Ft. to 2906 Ft.
Feet of Net Pay Tested 22 Ft.
Type of Test Dual Straddle By-Pass
Cushion — Amount — Ft.
Started in Hole at 8:00 Hrs. Total Open at 11:55 Hrs.
Pre-Flow 5 Mins. Initial Shut-in 60 Mins.
2nd Flow — Mins. Second Shut-in — Mins.
Final Flow 60 Mins. Final Shut-in 90 Mins.
Remarks: weak initial putt. dying in 30 mins.

Blow:

GENERAL INFORMATION

Company: Amoco Canada Petroleum Ltd.
Address: 444 - Seventh Avenue S.W.
Calgary, Alberta
Well Name: Amoco Decalta Al Poplar River G-32
Well Number: 61° 01' 28.61 121° 21' 18.39
K.B. Elevation: 1520 Sub Sea Elevation
Area: Ft. Simpson Province: N.W.T.
Company Rep: Doug Jenkins
Tester: Wes Goodwin
Contractor: General Pete Rig No. 20
Ticket No: 1687 Date: March 8, 1970
Service Reports To:
6 - above address

GAS BLOW MEASUREMENTS

Measured with — No gas to surface.

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Mud Chem
Weight: 9.6 Viscosity: 350 Water Loss: 7.4
Filter Cake: 2/32" Bottom Hole Temperature: 145
Drill Pipe Size: 4 1/2" FH Weight: 16.00
Drill Collars: 5" H90 I.D. 2 7/8" Feet Run: 180
Main Hole or Casing Size: 4988
Bathsite or Liner Size — No. of Feet
Bottom Hole Choke Size: 1/2"
Surface Choke Size:
Packer Rubber Size: (4) 7 3/4"

REMARKS

Shut-in pressures suggest virtually no permeability within the interval tested.

RECOVERY

TOTAL FLUID RECOVERED 30 Ft. Consisting of:
30 Ft. of Drilling fluid
Ft. of
Ft. of
Ft. of
Test was/was not Reverse Circulated
Oil Recovery A.P.I. Water Specific Gravity
Salinity

PRESSURE READINGS

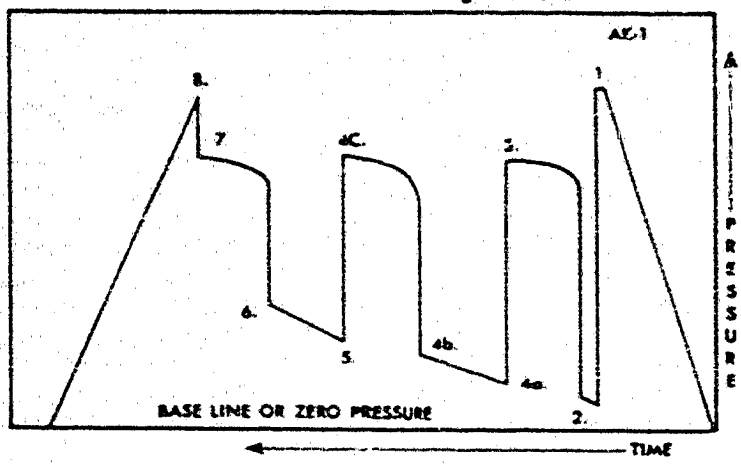
	Inside / Outside	Inside X / Outside	Inside / Outside	Inside / Outside
Recorder No.		1097	2216	
Capacity		4000	4000	
Depth		4988	4988	
1 - INITIAL HYDROSTATIC		2399	2411	
2 - PRE-FLOW		41	63	
3 - INITIAL SHUT-IN		99	122	
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW		47	73	
6 - FINAL FLOW		33	54	
7 - FINAL SHUT-IN		46	60	
8 - FINAL HYDROSTATIC		2324	2348	

Amoco Canada Petroleum Ltd. — Company
Amoco Decalta Al Poplar River G-32 — Well Name and Description
61° 01' 21" — Test No. 3
March 8, 1970 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK-1 recorders. Read from right to left.

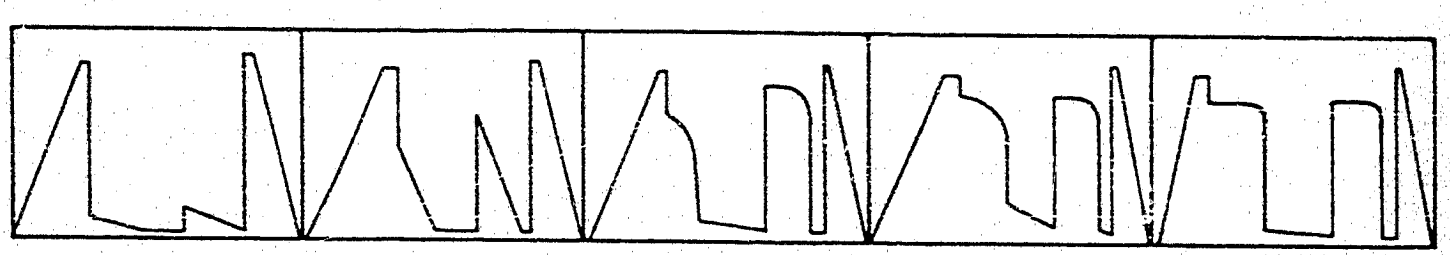


K-3 recorders. Read from left to right.

1. INITIAL HYDROSTATIC MUD PRESSURE
2. PRE-FLOW
3. INITIAL SHUT-IN
4a. 2nd INITIAL FLOW
4b. 2nd FINAL FLOW
4c. 2nd SHUT-IN
5. 3rd INITIAL FLOW
6. FINAL FLOW
7. FINAL SHUT-IN
8. FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



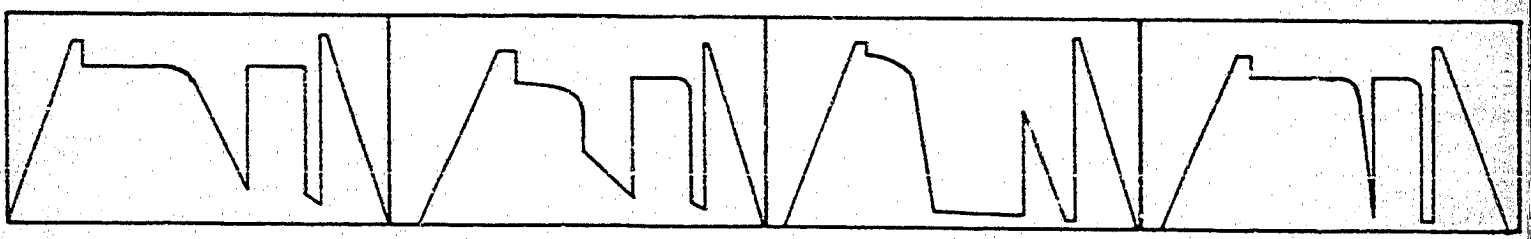
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Slightly higher permeability. Again usually mud recovered.

Slightly higher permeability. Small recovery, less than 200' (±).

Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong [illegible] effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

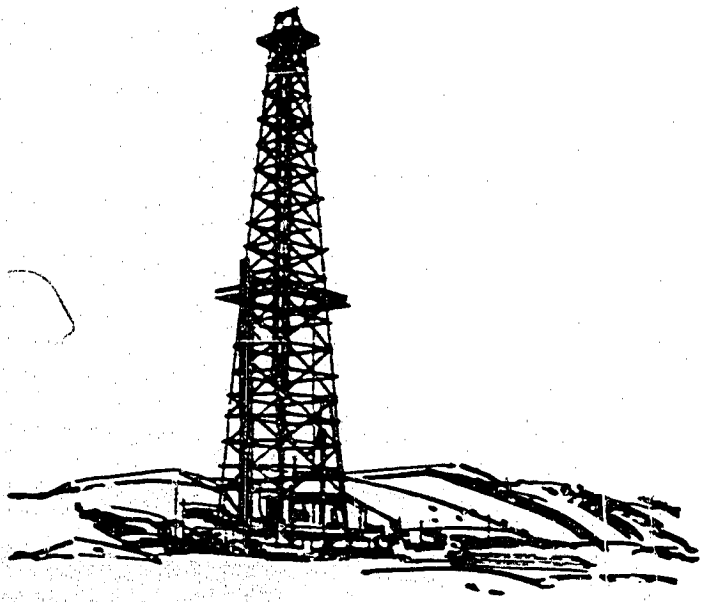
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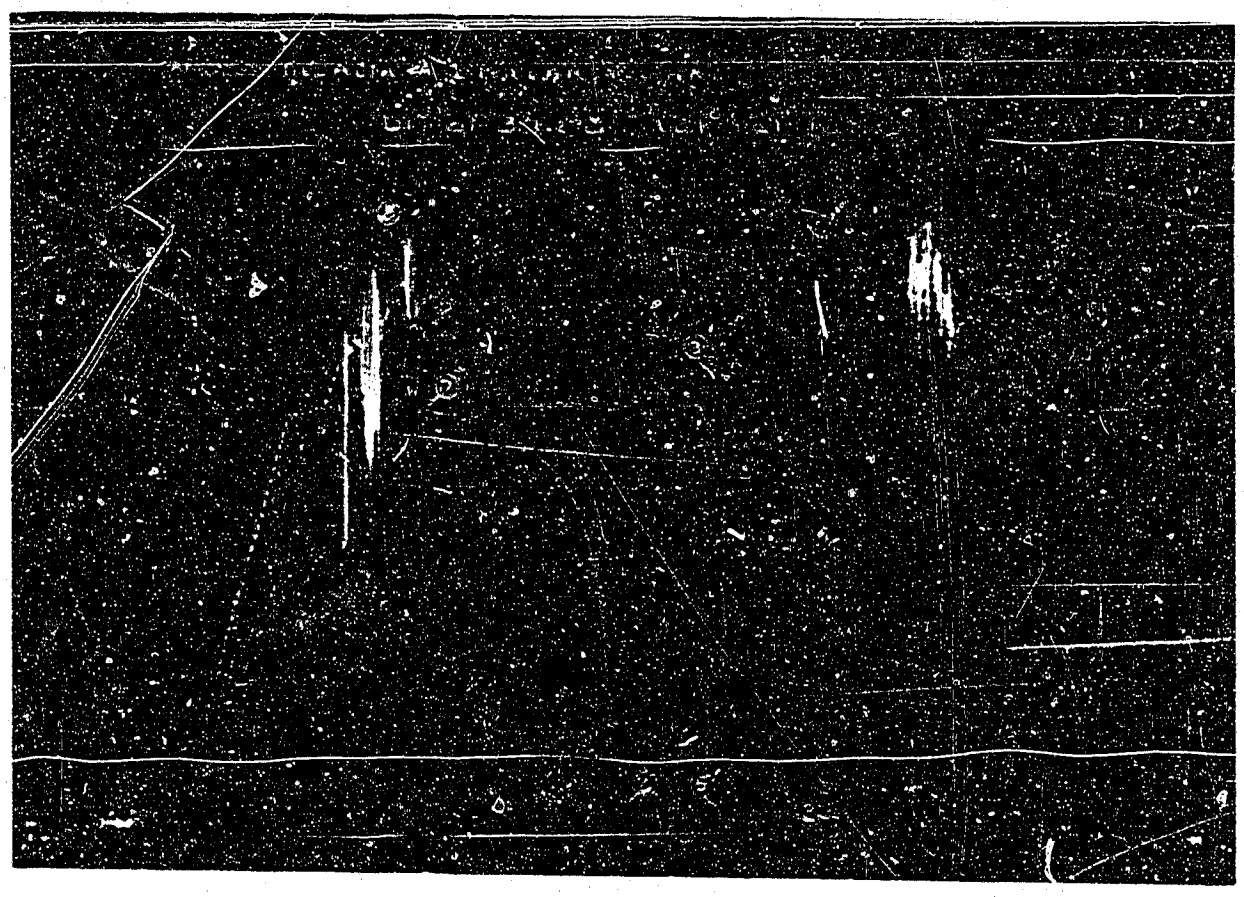
LYNES

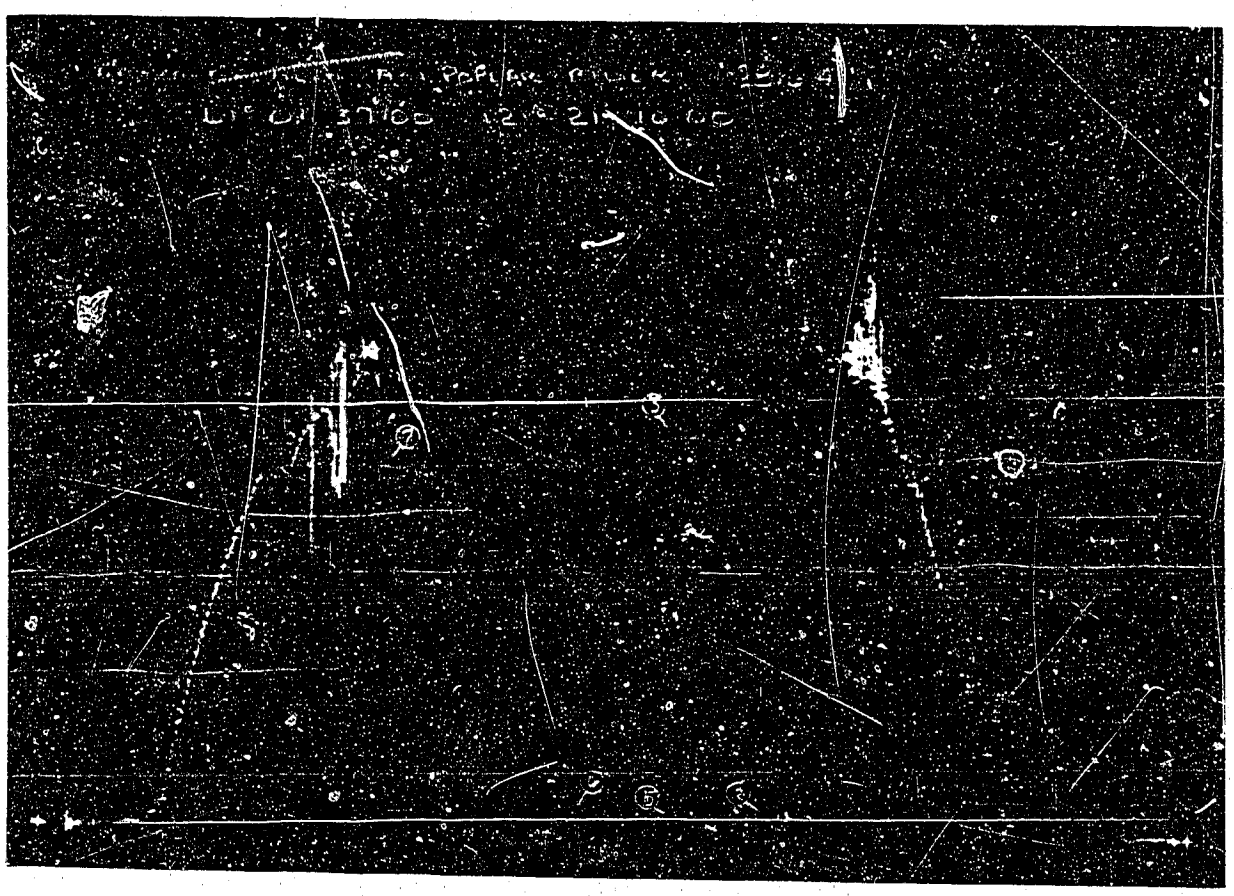
BRIGHT NAME IN THE OIL PATCH

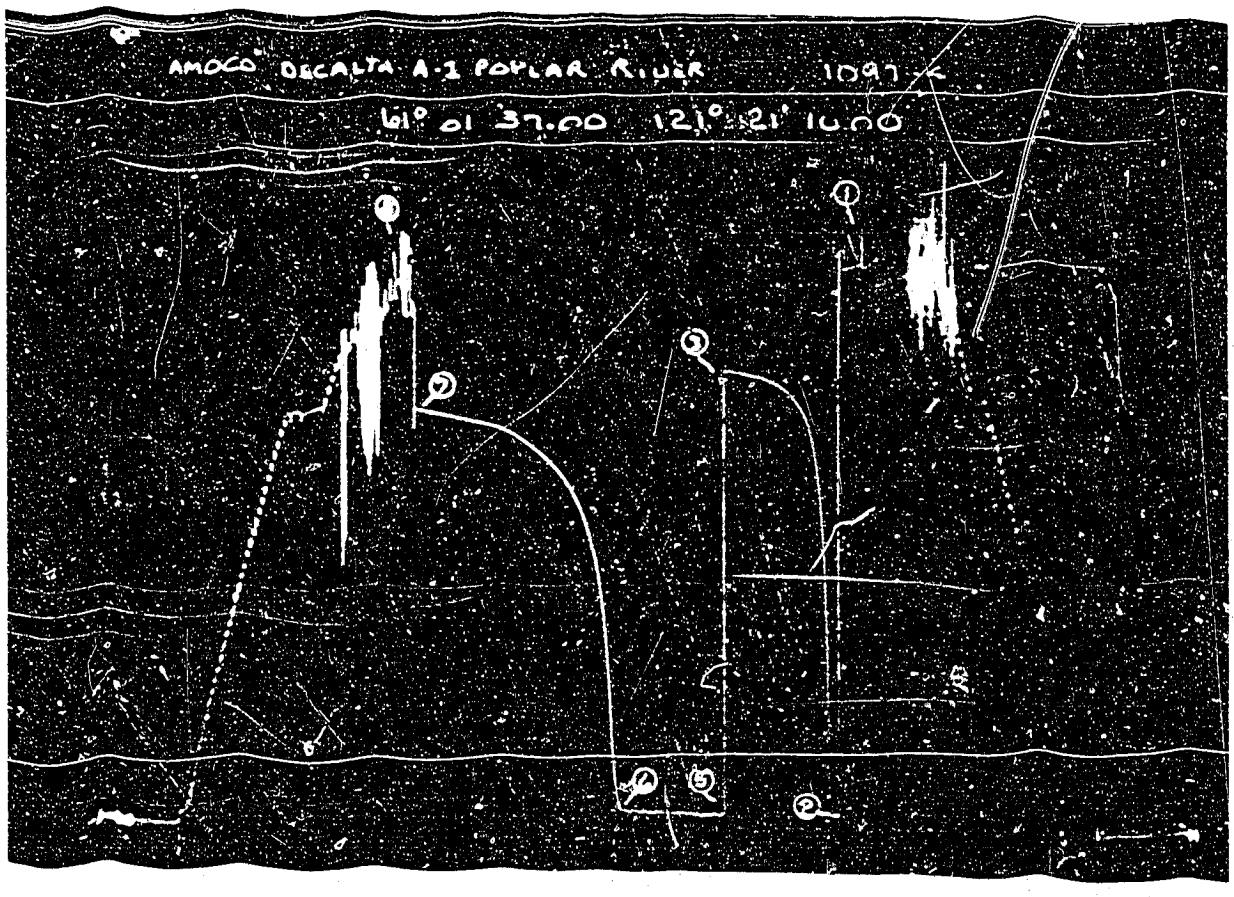
Inflatable and Conventional Packer Tools

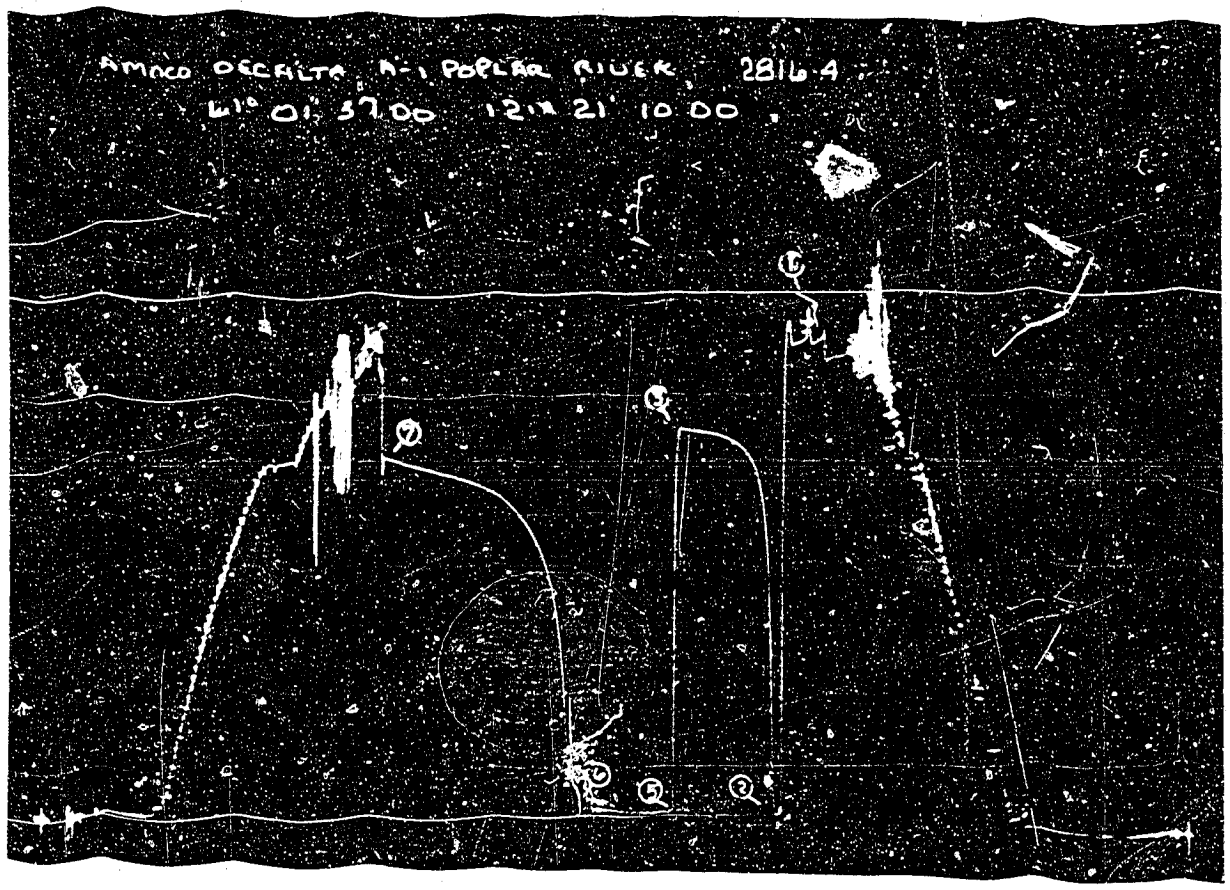


DRILL STEM TEST
TECHNICAL SERVICE REPORT






AMOCO DECALTA A-1 POPLAR RIVER 1097
61° 01 37.00 121° 21' 10.00


AMOCO DECALTA A-1 POPLAR RIVER 2816-4
61° 01' 37.00 121° 21' 10.00

NOMENCLATURE (Definition of Symbols)

Q	=	average production rate during test, bbls./day
Q_g	=	measured gas production rate during test MCF/day
k	=	permeability, md
h	=	net pay thickness, ft. (when unknown test interval is chosen)
μ	=	fluid viscosity, centipoise
Z	=	compressibility factor
T_r	=	reservoir temperature, ° Rankine
m	=	slope of final SIP buildup plot, psig/cycle (psig²/cycle for gas)
b	=	approximate radius of investigation, feet
r_w	=	wellbore radius, feet
t_p	=	total flowing time, minutes
P_e	=	Extrapolated maximum reservoir pressure psig
P_f	=	final flowing pressure, psig
P.I.	=	productivity index, bbls./day/psi
$P.I._t$	=	theoretical productivity index with damage removed, bbl./day/psi
D.R.	=	damage ratio
E.D.R.	=	estimated damage ratio
AOF	=	absolute open flow potential, MCF/D
AOF_t	=	theoretical absolute open flow if damage were removed
Z	=	subsea depth
W	=	water gradient based on salinity
H_w	=	potentiometric surface

In making any interpretation, our employees will give Customer the benefit of their best judgment as to the correct interpretation. Nevertheless, since all interpretations are opinions based on inferences from electrical, mechanical or other measurements, we cannot, and do not, guarantee the accuracy or correctness of any interpretations, and we shall not be liable or responsible, except in the case of gross or wilful negligence on our part, for any loss, costs, damages or expenses incurred or sustained by Customer resulting from any interpretation made by any of our agents or employees.

DEFINITION OF SYMBOLS

Recorder Depth 3615 ft. Subsea depth ft. Ticket No. 1688 Hour Recorder No. 2816

t_o = 5 Mins. Initial Shut-In Pressure				Second Flow Pressure		t_p = 65 Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)
0	-----	67				0	-----	77	
5	2.000	1162				10	7.500	782	
10	1.500	1588				20	4.250	1214	
15	1.333	1730				30	3.167	1396	
20	1.250	1787				40	2.625	1500	
25	1.200	1824				50	2.300	1563	
30	1.167	1846				60	2.083	1607	
35	1.143	1859				70	1.928	1638	
40	1.125	1872				80	1.812	1662	
45	1.111	1878				90	1.722	1687	
50	1.100	1882				100	1.650	1701	
55	1.091	1888				110	1.591	1715	
60	1.083	1892				120	1.542	1726	

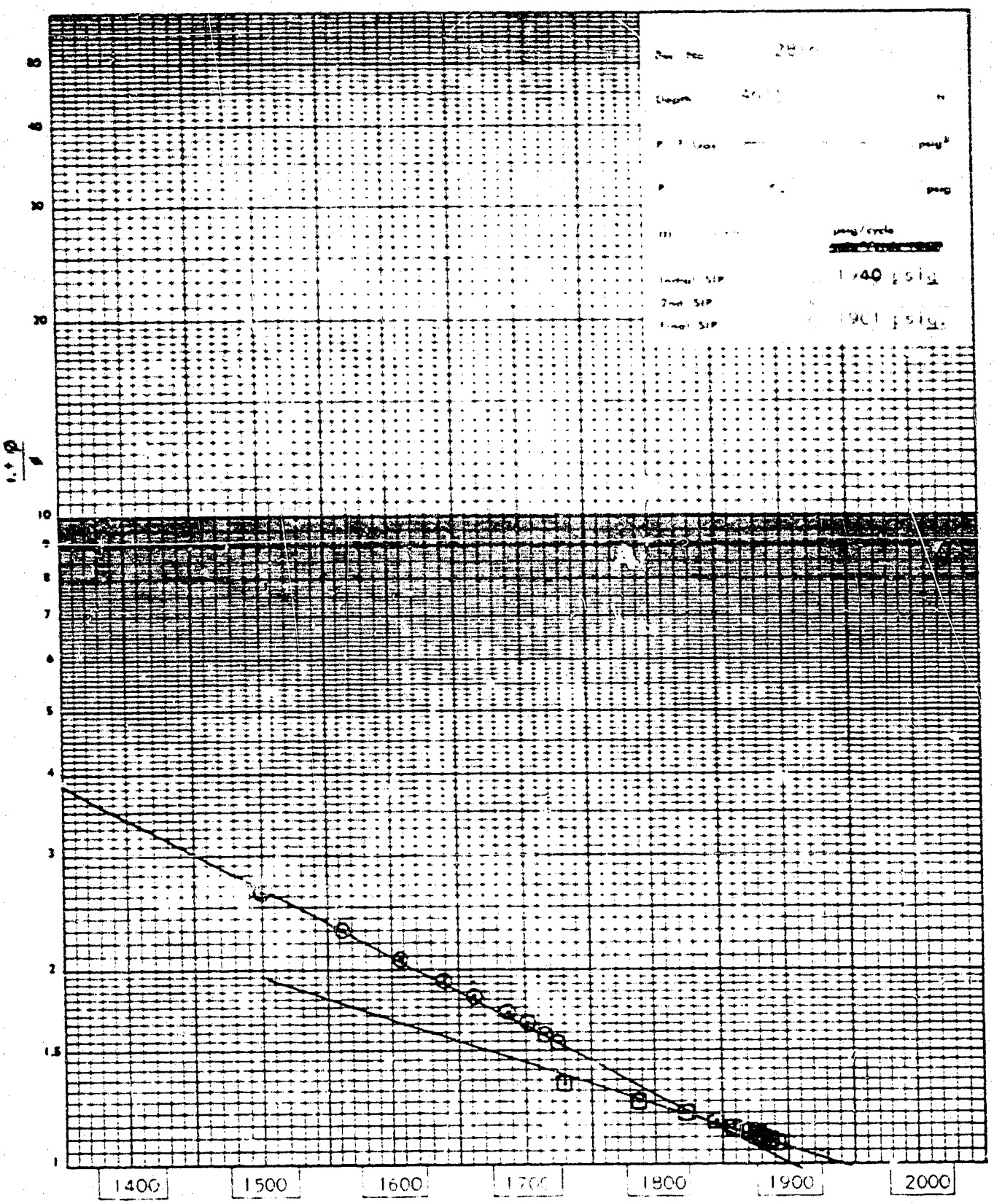
Recorder Depth ft. Subsea depth ft. Ticket No. Hour Recorder No.

t_o = Mins. Initial Shut-In Pressure				Second Flow Pressure		t_p = Mins. Final Shut-In Pressure			
Time, Min. Ø	$\frac{t_o + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ Ø	Time Defl. .000"	PSIG	Time, Min. Ø	$\frac{t_c + Ø}{Ø}$	PSIG	PSIG² ÷10⁶ (Gas)

Interval of Pressure Readings (Mins.) ISIP 5 2nd Flow Press. FSIP 10

Remarks: DST # 4

PRESSURE DATA



DST # 4

PRESSURE EXTRAPOLATION PLOT

LYNES UNITED SERVICES LTD.

TEST DATA

Test No. 4 — Lynes Test 4

Formation — T.D. 4988 Ft

Interval Tested 4594 Ft to 4615 Ft

Point of Max Flow Tested 50 Ft

Type of Test Dual Straddle By-Pass

Cushion — Amount — Ft

Started in Hole at 9:30 Hrs — Tool Open at — Hrs

Pre-Flow	5	Mins.	Initial Shut-in 60	Mins.
2nd Flow		Mins.	Second Shut-in	Mins.
Final Flow	60	Mins.	Final Shut-in 120	Mins.

Remarks: Weak initial puff, decreasing slightly.

Blow:

GENERAL INFORMATION

Company: Amoco Canada Petroleum Co. Ltd.

Address: 444 - Seventh Avenue S.W.
Calgary, Alberta

Well Name: Amoco Decalta Al Poplar River G-32

Well Number: 61° 01' 28.67" 121° 21' 12.39"

K.B. Elevation: 1530 — Sub-Sea Elevation

Area: Ft. Simpson — Province: N.W.T.

Company Rep: Doug Jenkins

Tester: Les Goodwin

Contractor: General Pete — Rig No: 20

Ticket No: 1688 — Date: March 9, 1970

Service Reports To:

10 - above address

GAS BLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chem

Weight: 9.5 — Viscosity: 350 — Water Loss: 7.0

Filter Cake: 2/32" — Bottom Hole Temperature: 145°

Drill Pipe Size: 4 1/2" FH — Weight: 16.2

Drill Collars: 5" H90 — I.D. — Feet Run: 80.00

Main Hole or Casing Size: 8 3/4"

Rathole or Liner Size — No. of Feet

Bottom Hole Choke Size: 1/2"

Surface Choke Size

Packer Rubber Size (s): 7 3/4"

REMARKS

Shut-in pressures suggest below average permeability within the interval tested.

RECOVERY

TOTAL FLUID RECOVERED 45 Ft Consisting of

45 Ft of Drilling fluid

Ft of

Ft of

Ft of

Test was/was not Reverse Circulated

Oil Recovery API — Water Specific Gravity

Salinity

PRESSURE READINGS

	Inside	Outside
Recorder No		1097
Capacity		4100
Depth		4585

	Inside	Outside
Recorder No		2816
Capacity		4600
Depth		4615

	Inside	Outside
Recorder No		
Capacity		
Depth		

	Inside	Outside
Recorder No		
Capacity		
Depth		

NUMBER KEY:

1 - INITIAL HYDROSTATIC	2233	2240	
2 - PRE-FLOW	52	57	
3 - INITIAL SHUT-IN	1865	1892	
4a - 2nd INITIAL FLOW			
4b - 2nd FINAL FLOW			
4c - 2nd SHUT-IN			
5 - 3rd INITIAL FLOW	52	65	
6 - FINAL FLOW	66	77	
7 - FINAL SHUT-IN	1704	1726	
8 - FINAL HYDROSTATIC	2215	2240	

Amoco Canada Petroleum Co. Ltd. — Company

Amoco Decalta Al Poplar River G-32 61° 01' 121° 21' — Well Name and Description

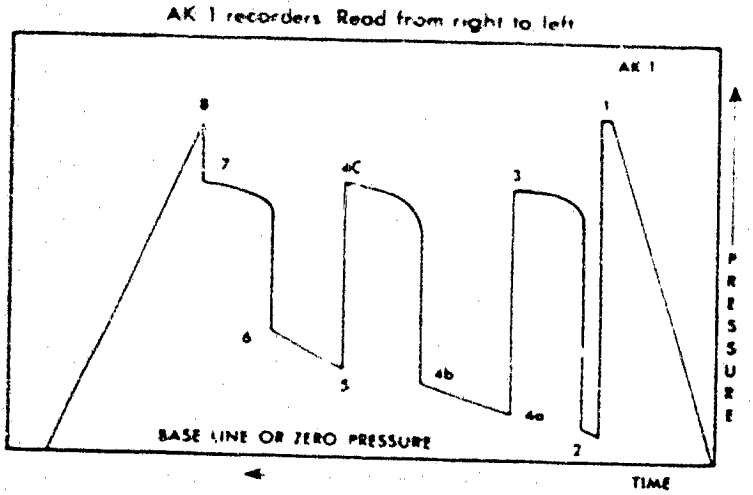
#4 — Test No.

March 9, 1970 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

AK 1 recorders. Read from right to left

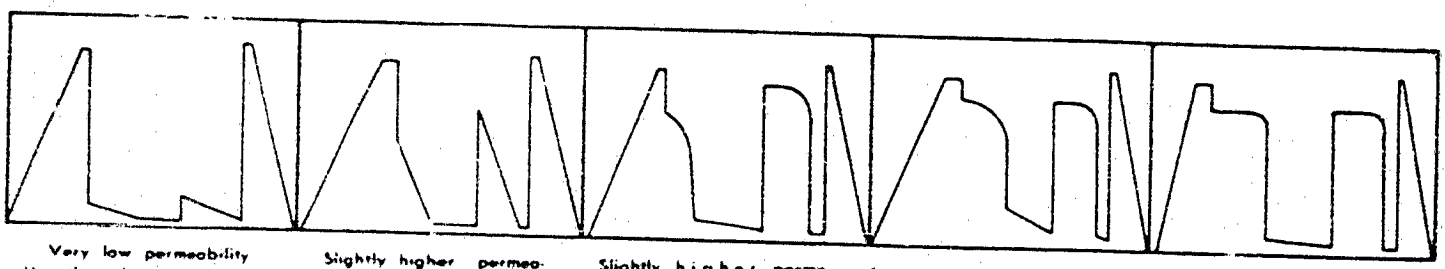


K-3 recorders. Read from left to right

1 INITIAL HYDROSTATIC MUD PRESSURE
2 PRE FLOW
3 INITIAL SHUT-IN
4a 2nd INITIAL FLOW
4b 2nd FINAL FLOW
4c 2nd SHUT-IN
5 3rd INITIAL FLOW
6 FINAL FLOW
7 FINAL SHUT-IN
8 FINAL HYDROSTATIC MUD PRESSURE

N.B. When only two shut-in and flow periods are run, 4a, 4b and 4c are omitted.

Typical charts for visual field analysis ranging from very low to high permeability.



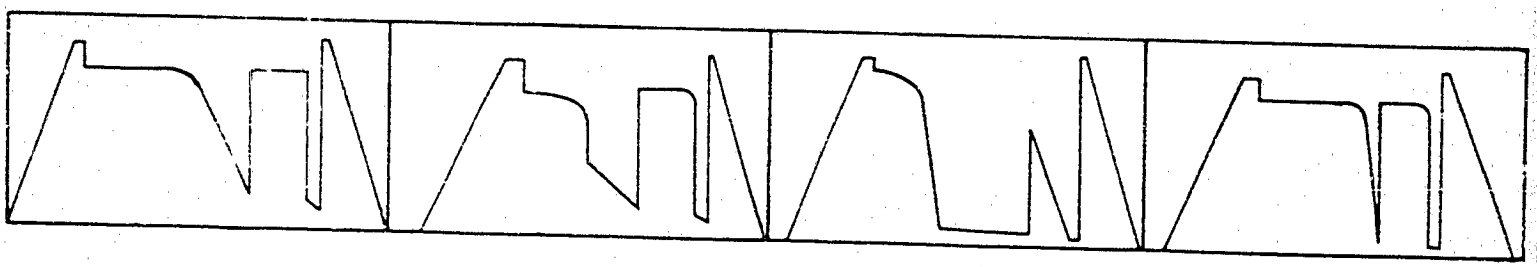
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Average permeability. Final and initial shut-ins differ by 50 psi.

Average permeability. Strong damage effect. High shut-in pressure, low flow pressure.



Excellent permeability where final flow final shut-in pressure.

High permeability where ISIP and FSIP are within 10 psi.

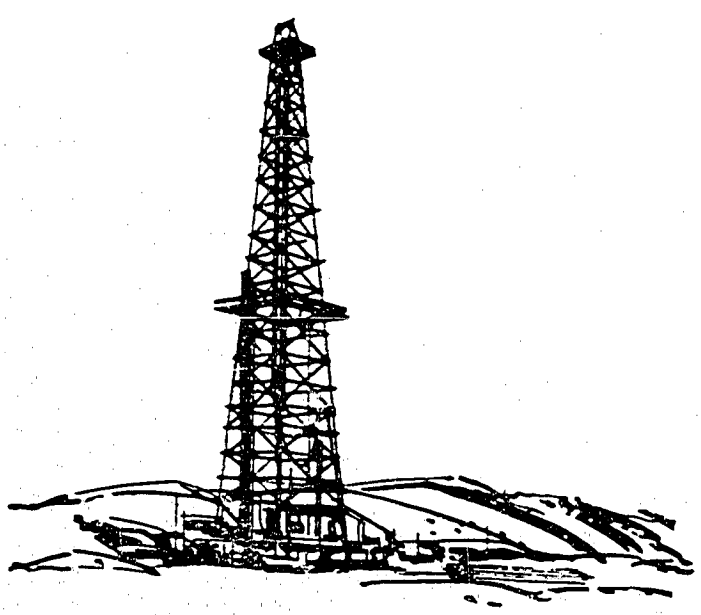
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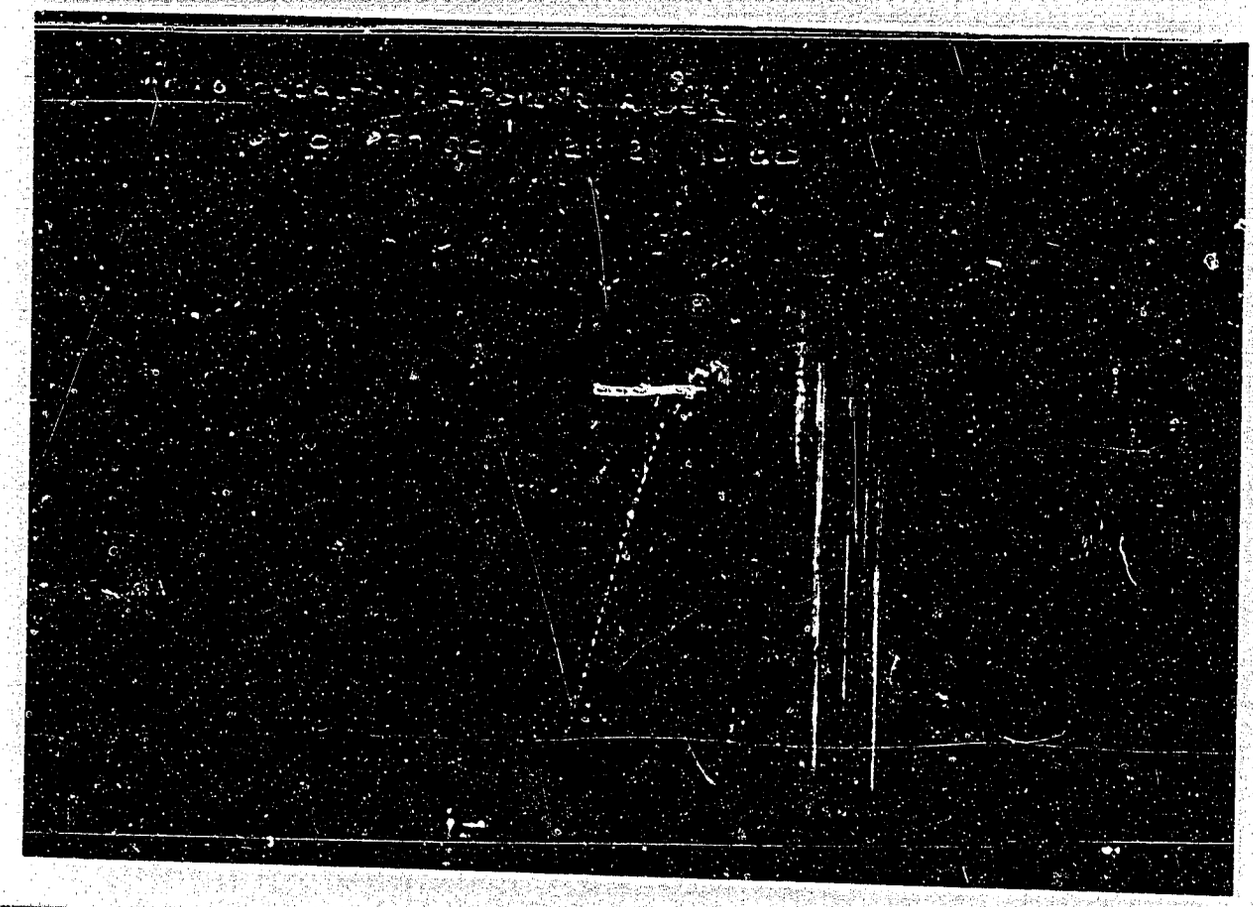
LYNES

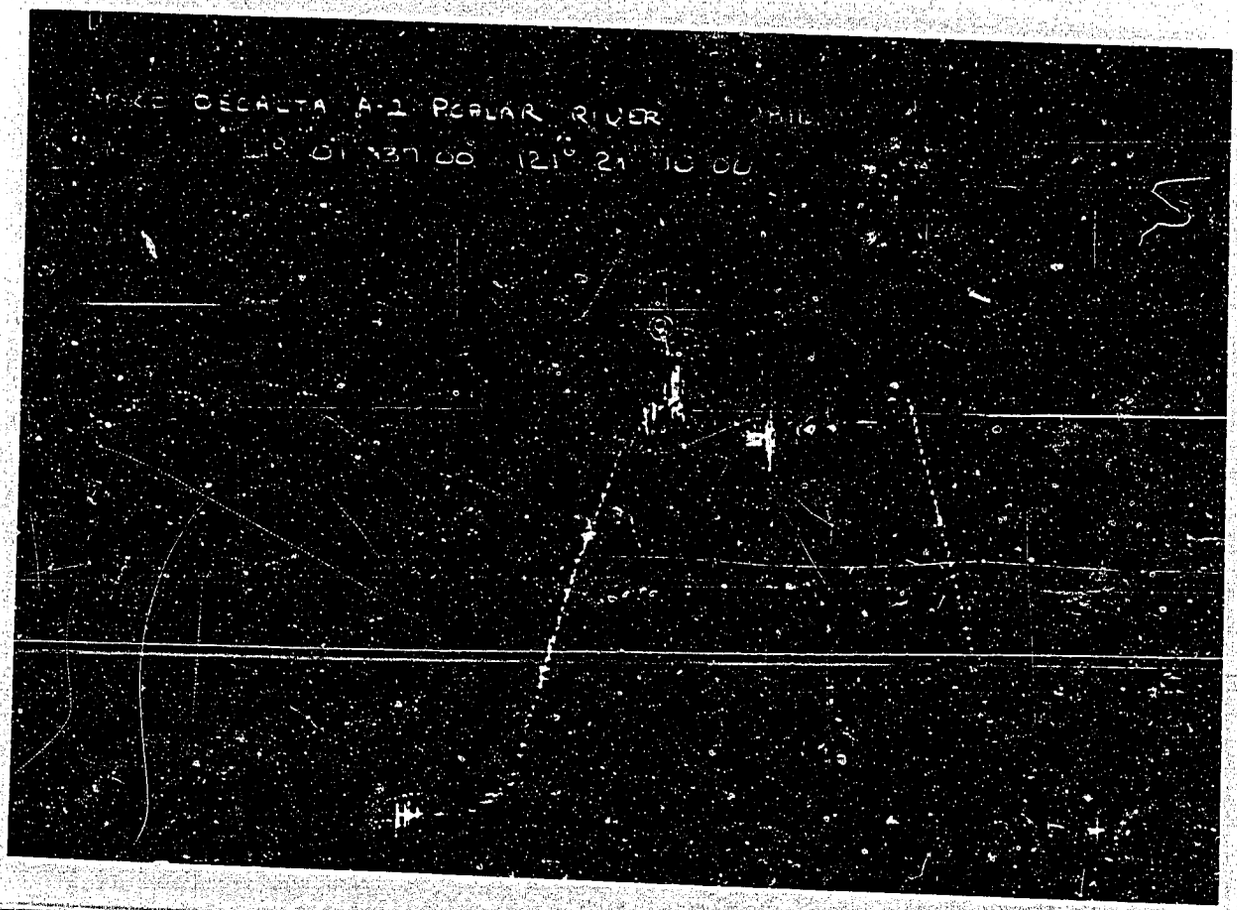
BRIGHT NAME IN THE OIL PATCH

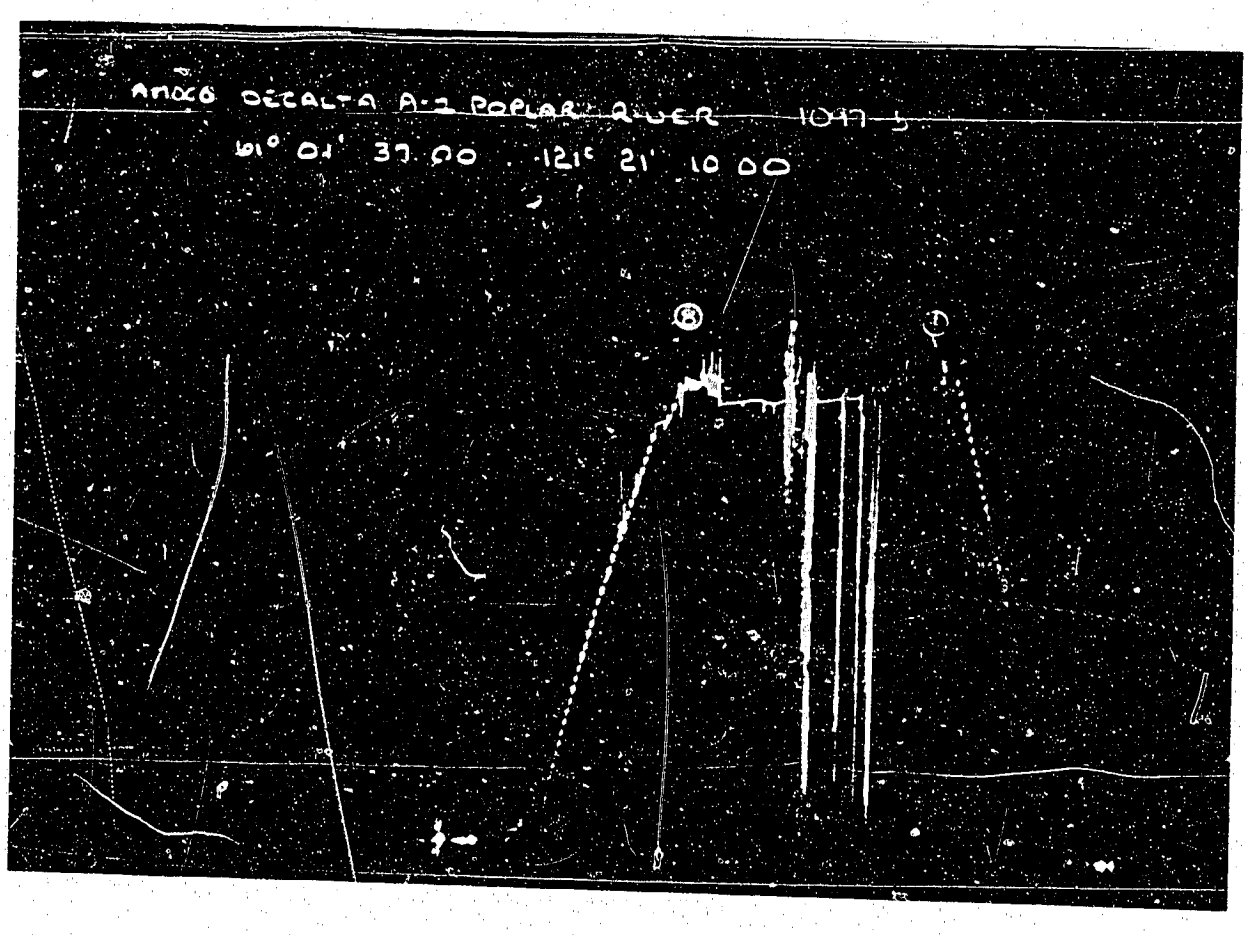
Inflatable and Conventional Packer Tools

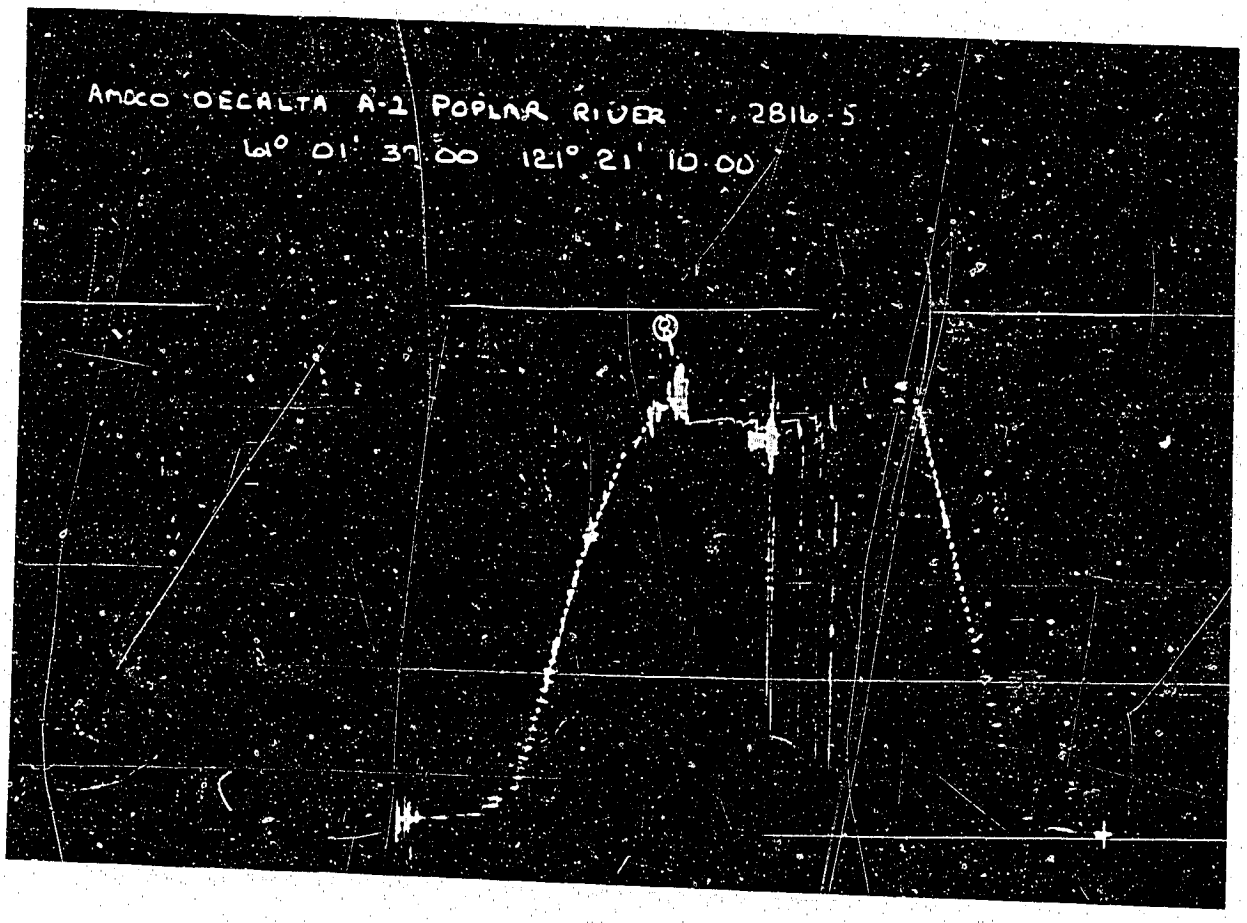


DRILL STEM TEST
TECHNICAL SERVICE REPORT




DECALTA A-2 PEARL RIVER
37 00 121° 21' 10 00


AMOCO OECALTA A-2 POPLAR RIVER 1097-5
60° 01' 37.00 121° 21' 10.00


AMOCO OECALTA A-2 POPLAR RIVER 2816-5
60° 01' 37.00 121° 21' 10.00

LYNES UNITED SERVICES LTD.

TEST DATA — Test No. 5 — Lynes Test 5

Formation — TD 4985 Ft

Interval Tested 3966 Ft to 4025 Ft

Feet of Net Pay Tested 59 Ft

Type of Test Dual Straddle By-Pass

Cushion — Amount — Ft

Started in Hole at 9:30 Hrs — Tool Open at 11:00 Hrs

Pre-Flow — Mins — Initial Shut-in — Mins

2nd Flow — Mins — Second Shut-in — Mins

Final Flow — Mins — Final Shut-in — Mins

Remarks: Mud dropped when tool opened. Reset tool five times. No seat.

Blow:

GENERAL INFORMATION

Company: Amoco Canada Petroleum Co. Ltd.

Address: 444 - Seventh Avenue S.W. Calgary, Alberta

Well Name: Amoco Decalta A1 Poplar River G-32

Well Number: 61° 01' 28 61 121° 21' 12.39

K.B. Elevation: 1940 Sub-Sea Elevation

Area: Ft. Simpson Province: N.W.T.

Company Rep: Doug Jenkins

Tester: Wes Goodwin

Contractor: G. P. Rig No. 20

Ticket No: 1089 Date: March 10, 1970

Service Reports To:

10 - above address

GAS FLOW MEASUREMENTS

Measured with

Time	Surface Choke	Reading Inches	Cubic Feet/Day

MUD AND HOLE DATA

Mud Type: Gel Chem

Weight: 9.5 Viscosity: 350 Water Loss: 7.8

Filter cake: 2/32" Bottom Hole Temperature: 140

Drill Pipe Size: 4 1/2" FH Weight: 16

Drill Collars: 5" H90 I.D. 2 7/8" Feet Run: 150

Main Hole or Casing Size: 8 3/4"

Rathole or Liner Size — No. of Feet

Bottom Hole Choke Size: 1/2"

Surface Choke Size

Packer Rubber Size: (4) 7 3/4"

REMARKS: Misrun.

RECOVERY

TOTAL FLUID RECOVERED: nil Ft. Consisting of:

Ft. of

Ft. of

Ft. of

Ft. of

Test was/was not Reverse Circulated

Oil Recovery A.P.I. — Water Specific Gravity

Salinity

PRESSURE READINGS

	Inside X Outside	Inside Outside X	Inside Outside	Inside Outside
Recorder No.	1097	2816		
Capacity	4100	4600		
Depth	3955	3990		
1 - INITIAL HYDROSTATIC	1927	1949		
2 - PRE-FLOW				
3 - INITIAL SHUT-IN				
4a - 2nd INITIAL FLOW				
4b - 2nd FINAL FLOW				
4c - 2nd SHUT-IN				
5 - 3rd INITIAL FLOW				
6 - FINAL FLOW				
7 - FINAL SHUT-IN				
8 - FINAL HYDROSTATIC	1902	1933		

Amoco Canada Petroleum Co. Ltd. — Company

Amoco Decalta A1 Poplar River G-32 — Well Name and Description

61° 01' 121° 21' — Well No.

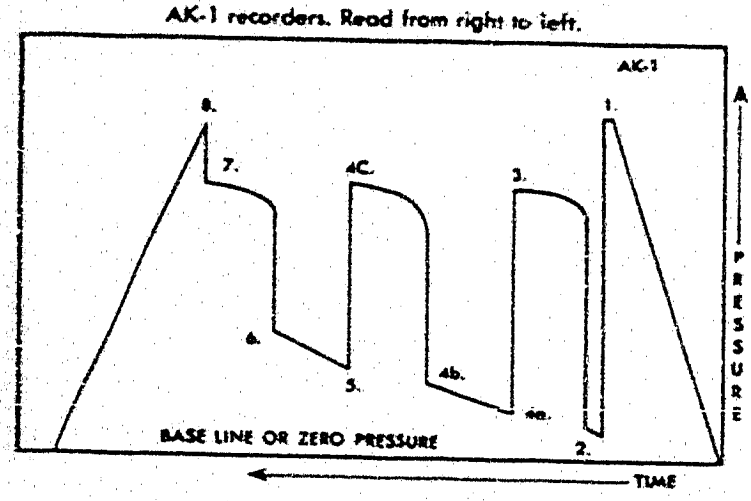
5 — Test No.

March 10, 1970 — Date of Test

LYNES

GUIDE TO INTERPRETATION AND IDENTIFICATION OF LYNES DRILL STEM TEST PRESSURE CHARTS

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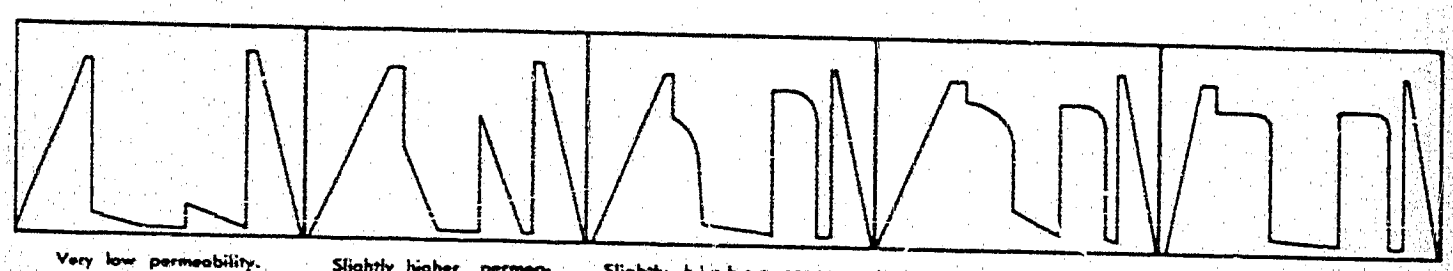


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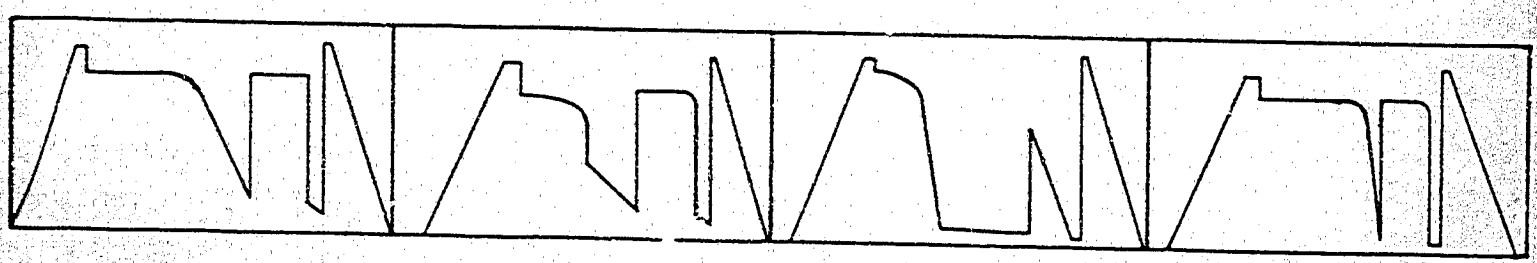
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Amoco Decalia A-1 Poplar River G-32

Drilling Authority No. 412

Date Issued 26th January 1970

WELL NAME AMOCO DECALTA A-1 POPLAR RIVER G-32

FIELD ..... Area: .....

LOCATION: Unit G Section 32 Grid 61°10'; 121°15'

Latitude 61° 01' 28.61" Longitude 121° 21' 12.39"

U.W.L.R. Lat. 61.02462° N., Long. 121.35344° W.

U.W.I. 300G326110121150

Rig Release Date: 13th March 1970

Status Abandoned

Information Release Date 13th March 1972

CHANGE OF NAME: Formerly Amoco Decalta A-1 Poplar River J-32

DATE RECEIVED		INDEX
26th January '70	3	Application for a Drilling Authority.
9th June '70	2	Well Completion Data.
2nd July '70	3	Well History Report.
23rd February '70	3	Application to Amend a Drilling Authority.
		Application to change a Well Name.
25th March '70	3	Application to Abandon a Well ~~or Suspend Drilling~~
		Application to Alter Condition of a Well.
		Well History Supplement.
		Well Completion Data.
		Work-over Report No. .....
		Application to Commingle Production before Measurement.
		Data for Back Pressure Test on Natural Gas Wells – Monograph 7 Method.
		Data for Back Pressure Test on Natural Gas Wells – Vitter's Method.
		M.P.R. – Oil – Calculations.
		New Oil Well Report.
		New Gas Well Report.
		Well Inspection Report.
		Rig Inspection Report.
		Battery Inspection Report.
		Equipment Report.
6th July '70		Well Card.
		New Service Well Report.
		Monthly Water Flood Operations Report
		Monthly Water Receipts and Disposal of Fluids Report
		Logs. Large scale..... Small scale.....
20th March '70		Daily Drilling Reports

IAND 52-90 (3-69)

DATE RECEIVED

LOGS:

DATE RECEIVED	Name	Run No.	Type	Interval
22nd April '70	Schlumberger	1	BHC-SGR-C	730-5986'
20th March '70	"	1	HR-CDM	3600-4988'
22nd April '70	"	1	Lith.Id.	3600-4987'
"	"	1	FDC	3600-4987'
"	"	1	SNP	3600-4987'
"	"	1	TRS	730-4987'

ANALYSES:

DATE RECEIVED	Sample	Lab. No.	Formation	Interval	
30th April '70	Core	CNP-4-5022		3957-4077'	
24th March '70	Water	C70-5836-3		4017-4170'	DST #2
31st March '70	"	E70-604-3		3968-4025'	DST #6

A.O.F. Potential	Formation	Interval	MC.F.D.	Test Date

DRILL STEM TESTS:

DATE RECEIVED	No.	Formation	Interval	
15th April '70	1	Horn Plateau	3957-4170'	Misrun
"	2	"	4017-4170'	
"	3	Anhydrite	4924-4946'	
8th May '70	4	Arnica	4594-4645'	
"	5	Horn Plateau	3966-4025'	Misrun
"	6	"	3968-4025'	

6th April '70 — CORES: 3957-4017' Rec. 60' SLABBED
4017-4077' Rec. 60 SLABBED

July '70 — DRILL CUTTINGS: 160' to 4990'

Hole size 13 3/4 - 733'
8 1/2 733 -

Unocal Decalta A-1 Poplar River 6-32

1970

Feb 5 Spud
Cemented Conductor Pipe with 130 sacks cement.
6 Cemented with 150 sacks + 2% $CaCl_2$.
9 Casing 9 5/8" 17/16 36# J-55 @ 733' w/ 700 sacks neat OW + 2% $CaCl_2$
18 Survey @ 2977 - 4 1/2°
23 Core #1 3165 - 2 1/2°
23 Core #1 3951 - ~~4017~~ 4017 Rec 60'
#2 ~~4017~~ 4017 - ~~4977~~ 4977 Rec 60
25 DST #1 3977 - 4170
27 DST #2 4017 - 4170
Mar 5 Logging - GR
6+7 - BHC SGR-C, HRD Dipmeter. SNP, IES
8 DST #3 4924 - 4946 5-60-60-60
9 DST #4 4595 - 4645
10 DST #5 Recovery
11 DST #6 3968 - 4025
Plug #1 4588 - 4988 215 sacks neat
12 #2 3800 - 4200 330 sacks + 2% $CaCl_2$. Set @ 3775'
#3 683 - 783' 70 sacks 3% $CaCl_2$. Set @ 640'
12 Cut off 3' below ground + run 3-sack plug
Weld on plate + install sign
Released rig

Finished Drilling 5th March 1970
Total Depth 4988
Released rig - 13th March 1970

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO DECALTA POPLAR RIVER	A-1	AMOCO DECALTA POPLAR RIVER A-1	MARCH 14-70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G. P. DALE LTD.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D Martin

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hann.

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N. S. CO	C-250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-1'-37"N 120°-21'-10" WL.

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	MAA	36 J55	17	733	12.40	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1⅛	8	64

FT. CUT OFF: 64 — PRESENT LENGTH: 1M14

TON MI. OR TRIPS SINCE LAST CUT: 8162

CUMULATIVE TON MI. OR TRIPS: 8520

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	16	12	12
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	16	12	12

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES	DP	FT.
	KELLY DOWN		FT.
	TOTAL		FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	/
GELS.	/
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PART'L-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
				The Rig Move.
				Move Rig From ~~Amoco Poplar #20~~ Amoco Decalta A-1.
				Poplar River to the Mclb 100 on Ft Simpson Highway
				ist a total of 82. Mlbs.
				JDH.

DRILLER

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PART'L-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00			1	DISMANTLE DERRICK & SUB BASE.
			1	PICKUP PUMPS & RIG MATTING
	8 00	12	1	LOADING OUT TRUCKS
				BOILER SHUT DOWN @ 1291 PM
				800 GALS FUELING TANK

DRILLER W. L. Stewart

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PART'L-P COM'D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
				TEAR OUT & LOAD TRUCKS

DRILLER L. D. Lowell

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT

REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
POPLAR RIVER A-1	412	AMOCO DECALTA POPLAR RIVER A-1	MAR. 13-70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
D.J. Hamilton	J. Doug Hopson

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.6	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.C.O.	C-250	15
2	G.E.D.	FXQ	14

LOCATION 61° 1' 37" N 121° 21' 10" W.L.

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	mm	36 J-55	17	733	12.40	733

WIRE LINE RECORD REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1/8	8	64

FT. CUT OFF 64 — PRESENT LENGTH 1414

TON MI. OR TRIPS SINCE LAST CUT 8162

CUMULATIVE TON MI. OR TRIPS 8520

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	4	8	6
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK	6		
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	10	8	6

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour)

NO.			
BIT			FT.
STB RMR	OD		FT.
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STB RMR	OD		FT.
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STB RMR	OD		FT.
STANDS DP			FT.
SINGLES	DP		FT.
KELLY DOWN			FT.
TOTAL			FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME				
WEIGHT				
PRESSURE GRADIENT				
VISC.-SEC.				
PV/YP				
GELS.				
WL -CC'S.				
pH				
SOLIDS %				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SURVEY-P PARTIAL-P COMPLE-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:00			FINISH TEARING OUT B.O.P.'S
4:00	6:00			CUT OFF BOWL 3' BELOW GROUND - PLUG STUB WITH 3 3x.4 WELD ½" PLATE. INSTAL SIGN.
	6:00			RIG RELEASED.
6:00	8:00			TEARING OUT
				5 hrs WELDING CHARGES TO AMOCO - CUT OFF Csg BOWL WELD ON ¼" PLATE & MAKE UP & INSTALL WELL DESCRIPTION SIGN ON Csg.

DRILLER Lars Lundberg

DAY TOUR

FOOTAGE FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SURVEY-P PARTIAL-P COMPLE-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:00	12		TEARING OUT & LOAD OUT TRUCKS

DRILLER Mel Stewart

EVENING TOUR

FOOTAGE FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SURVEY-P PARTIAL-P COMPLE-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:00	12		TEARING OUT

DRILLER George Lowell

FORM 3T5 APPROVED APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River A-1	412	Amoco Decalta Poplar River A-1	MAR 12-70
OPERATOR		**CONTRACTOR**	**RIG NO.**
Amoco Pete		G.P. Drilling Co	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
		J Doug Hamer	

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16#	E	6"	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.C.O	C-250	15
2	G.E.D	FXQ	14

LOCATION 61° 1' 37" N 121° 31' 10" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	mm	36# J 55	17	733	12.40	733

WIRE LINE RECORD — REEL NO.
SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 1/4
FT. CUT OFF 64 — PRESENT LENGTH 1414
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS		7¼	
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT	6¾		4¾
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK	1¼		1¼
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD: 36
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour)

BIT		FT.
STB RMR	OD	FT.
D.C. ID	OD	FT.
STB RMR	OD	FT.
D.C. ID	OD	FT.
STB RMR	OD	FT.
STANDS DP		FT.
SINGLES	DP	FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.–SEC.			
PV/YP			
GELS.			
WL –CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL–S PARFL–P COMP–C
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12³⁰	½	17	Pull 8½ STDS. Ran Plug #2
12³⁰	1⁰⁰	½	17	Mix Pack #2 3800 – 4200
1⁰⁰	1³⁰	½	17	Displace Plug #2. 230 Sx + 2% CaCl2
1³⁰				Pull 7 STDS & Circ. Plug Down 1³⁰ AM
	8⁰⁰	6¾	13.	W.O.C. & Lay Down 36 Sgls. ~~Start to move.~~
				Hoist & Remove Packer Rubber & Drill Pipe Run In

DRILLER L. Lundberg

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL–S PARFL–P COMP–C
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8³⁰	½	6	Run In To 3700 & Break Circ.
8³⁰	9³⁵	3/4	17	Feel For Plug @ 3775' 20M For 5 Mins.
9³⁵	11⁰⁰	1¾	6	Hoist To 833.
11⁰⁰	11¹⁵	¼	17	Run Plug #3 Plug #3 ~~833~~ – 883
11¹⁵	4⁰⁰	4¾	13	W.O.C. & Lay 70 Sx + 3% CaCl2
				Down D.P.

DRILLER Ole Stuvrud

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL–S PARFL–P COMP–C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	7¹⁵			Lay Down D.P.
7¹⁵	7³⁰			Feel Plug #3 @ ~~680~~ All Wt. For 5 Mins.
7³⁰	12⁰⁰			Lay Down 10 STDS. Tear Out B.O.P.'s

DRILLER Leo Lavallee

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River A-1	412.	Amoco Decalta Poplar River A-1	MAR 11-70
OPERATOR		**CONTRACTOR**	RIG NO.
Amoco Pgte		G. P. Drilling Co.	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
		J Doug Horn	

D.P. SIZE	WT. / FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.6	E	6	F.H	#1

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	C-350	15
2	G.E.D	FXB	14

LOCATION 61° 1' 37" N 121° 21' 10" W.

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	mm	J55 36#	17	733	12.40	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1/8	8	64

FT. CUT OFF 64 — PRESENT LENGTH 1414

TON MI. OR TRIPS SINCE LAST CUT 8162

CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL			
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS	6½	9½	
7	LUBRICATE RIG			
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST	1½		
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	LAY DOWN			1½
22	PACKER E			
23	LOAD OUT			
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	W/ORDERS		2	
TOTALS		8	8	

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK			
NO. OF DAYS FROM SPUD	35		
CUMULATIVE ROTATING HRS.			
TOTAL MUD COST			

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
6	D.C. ID 6¾	OD 175.03	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	⅝ 6¼	2.44	
51	STANDS DP	4799.20	FT.
	SINGLES DP		FT.
	KELLY DOWN	12.00	FT.
	TOTAL	4988.00	FT.
WT. OF STRING	70m		LBS.

BIT RECORD

BIT NO.	DST #6	
SIZE	PRE FLOW 5	Mins
MFG.	INT SHUTIN	60 Mins
TYPE	FLOW	60 Mins
JETS 1/32"	FINAL SHUT IN	120
SER. NO.		
DEPTH OUT		
DEPTH IN	I.H.P.	2027
TOTAL FTG.	P.F.P.	406
TOTAL HRS. RUN	I.S.I.P.	1533
COND. 1/8" & T/B" GAGE	I.F.P.	505
GPM/ PD-PSI	F.F.P.	687
	F.S.I.P.	1532
	F.H.P.	2027

MUD RECORD

TIME	3968 - 4025
WEIGHT	Good Int Blow
PRESSURE GRADIENT	Decreasing To
VISC.-SEC.	Weak. Rec.
PV/YP	240' Drlg Mud
GELS.	110, 0ff RPM
WL -CC'S.	NaCl.
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-DC
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
			0					

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	130	1½	16	FINAL SIHUT IN.
130	515	3¾	6	PULL PACKER LOOSE & HOIST
515	730	2¼	21	BREAK DOWN TOOL & LOAD OUT
730	800	½	6	RUN DCS & LAY DOWN

DRILLER L Lundberg

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JET 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8" & T/B" GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-DC
4988								6				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1000	2	6	W/ ON ORDERS
1000	1130	1½	21	RUN IN & LAY DOWN DRILL COLLARS
1130	400	4½	6	RUN IN Open end. BRIDGED OFF @ 4250 CIRC. & WORK pipe

DRILLER W. Stewart

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8" & T/B" GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-DC
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	915	5¾		CIRC. WORK PIPE FROM 4250' TO 4885'
945	1030	¾		CIRC.
1030	1200	1½		RIG UP DOWEL & CEMENT
				RAN PLUG #1 4588 - 4988 215 SX NEAT. PLUG DOWN MIDNIGHT.

DRILLER Jim Howells

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE: Amoco Poplar River A-1 — WELL NO.: 412 A-1

API WELL NUMBER: Amoco Decalta #412 — DATE: MAR. 10-70

OPERATOR: Amoco Pete

CONTRACTOR: G.P. Drilling Co. — RIG NO.: 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Gardner

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Doug Hopson

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½ FH	16	E	6"	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	C-250	15
2	G&D	FXQ	14

LOCATION: 6° 1' 37" NL 121° 21' 10" WL

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36 J 55	17	733	12.50	733.

WIRE LINE RECORD — REEL NO.

SIZE 1⅛ — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1414

TON MI. OR TRIPS SINCE LAST CUT 8162

CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL			
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE	2½		
6	TRIPS	3¾	4½	3½
7	LUBRICATE RIG	¼		
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST	1½	½	3
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	MAKE UP TOOLS	2½	2½	
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	9

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.

HRS. W/OPR. D.P.

HRS. WO/D.P.

HRS. STANDBY

TOTAL DAY WORK

NO. OF DAYS FROM SPUD: 34

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
6	D.C. ID 6¾ OD	175.03	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
51	STANDS DP	4799.20	FT.
	SINGLES DP		FT.
	KELLY DOWN	12.00	FT.
	TOTAL	4988.00	FT.
	WT. OF STRING	70M.	LBS.

BIT RECORD

BIT NO.	R.R. 13
SIZE	8¾
MFG.	REED
TYPE	SMC-3
JETS 1/32"	3-15
SER. NO.	657224
DEPTH OUT	
DEPTH IN	4988
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	1N
GPM/ PD-PSI	300 1301

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMP-C
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼	7	R.g SERVICE & B.O.P
12:15	1:15	1	6	RUN IN.
1:15	3:45	2½	5	CIRC. & WORK PIPE
3:45	6:30	2¾	6	BLOW LINES & HOIST
6:30	8:00	1½	16	PICK UP DST #5

DRILLER: L. Lundberg

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
6	D.C. ID 6¾ OD	175.03	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
51	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JET 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMP-C
4988								6				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4988	3¼°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	½	16	MAKE UP D.S.T. #5 (3966 – 4025)
8:30	10:45	2¼		RUN IN.
10:45	11:15	½		HEAD UP
	11:15			SEAT PACKER & 5 MIN PREFLOW No SEAT
11:15	12:15			~~INITIAL SHUT IN~~ HOIST
12:15	4:00			~~FLOW~~ SERVICE PACKER
2:16	4:00			~~FINAL SHUT IN~~

DRILLER: Alex Stewart

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
6	STB RMR 6¾ OD	175.03	FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
51	STANDS DP	4799.20	FT.
	SINGLES DP		FT.
	KELLY DOWN	12.00	FT.
	TOTAL	4988	FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMP-C
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	6:30	2½		MAKE UP DST #6.
6:30	9:00	2½		RUN IN
9:00	9:30			HEAD UP
	9:30	1		SEAT PACKER & PREFLOW
9:30	10:30	0		INITIAL SHUT IN
10:30	11:30	1		FLOW.
11:30	15:00			FINAL SHUT IN

DRILLER: Jos Howard

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR RIVER	A-1	AMOCO DECALTA A-1 POPLAR RIVER 5-32	MAR 9

OPERATOR	CONTRACTOR	RIG NO.
AMCO PETE	G.P. DRLG LTD	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Doug Gardiner

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hansen.

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	F.H.		

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61° 01-37N 121° 21-10W

WIRE LINE RECORD — REEL NO.

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
LAST CASING TUBING OR LINER	9 5/8	Mac	34 J55	17	733	12.50	733

WIRE LINE RECORD: SIZE 1 1/8 — NO. LINES 9 — FT. SLIPPED 64 — FT. CUT OFF — PRESENT LENGTH — TON MI. OR TRIPS SINCE LAST CUT — CUMULATIVE TON MI. OR TRIPS 8074

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE	3 1/2		
6. TRIPS	8 3/4	3.	4 1/2
7. LUBRICATE RIG			1/2
8. REPAIR RIG	3/4		
9. CUT OFF DRILLING LINE			1
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST		5	1/2
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. PICK UP TOOLS	1		
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	33
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO.	TIME
			SIZE	WEIGHT
	STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
6	DC 6 3/4 OD	175 FT.	TYPE	VISC.-SEC.
	STB RMR OD	FT.	JETS 1/32"	PV/YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL -CC'S.
;	C/O	2.04	DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
			TOTAL HRS. RUN	
51	STANDS DP	4799.20 FT.	COND. 1/8's T/B/ GAGE	MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.
	SINGLES DP	FT.	GPM/ PD-PSI	
	KELLY DOWN	12.00 FT.		
	TOTAL	4988.00 FT.		
	WT. OF STRING	40 LBS.		

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO. DST #4	TIME 4590 – 4645
			SIZE STRADDLE	WEIGHT PASS
	STB RMR 6 3/4 OD	175.03 FT.	MFG. PREFLOW 3 MINS	PRESSURE GRADIENT WEAK INIT. PUFF.
6	D.C. ID OD	FT.	TYPE INITIAL SHUT IN 60 MINS	VISC.-SEC. DECREASING
	STB RMR OD	FT.	JET 1/32" FLOW 60 MINS	PV/YP THROUGH OUT TEST
	D.C. ID OD	FT.	SER. NO. FINAL SHUT IN 120 MINS	GELS. REC. 45' MUD.
	STB RMR OD	FT.	DEPTH OUT I.H.P. 2290	WL -CC'S.
1	C/O	2.04	DEPTH IN PREFLOW 50	pH
			TOTAL FTG. I.S.I.P. 1871	SOLIDS %
			TOTAL HRS. RUN I.F.P. 50	
51	STANDS DP	4799.20 FT.	COND. 1/8's T/B/ GAGE F.F.P. 70	MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.
	SINGLES DP	FT.	GPM/ PD-PSI F.S.I.P. 1715	
	KELLY DOWN	12.00 FT.	F.H.P. 2262	
	TOTAL	4988.00 FT.		
	WT. OF STRING	80 m. LBS.		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	7 7/8 13 FT.	BIT NO.	TIME
			SIZE	WEIGHT
	STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
6	DC 6 3/4 ID 6 3/4 OD	175.03 FT.	TYPE	VISC.-SEC.
	STB RMR OD	FT.	JETS 1/32"	PV/YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL -CC'S.
1	C/O	2.04'	DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
			TOTAL HRS. RUN	
51	STANDS DP	4799.20 FT.	COND. 1/8's T/B/ GAGE	MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.
	SINGLES DP	FT.	GPM/ PD-PSI	
	KELLY DOWN	12.00 FT.		
	TOTAL	FT.		
	WT. OF STRING	65 LBS.		

EVENING TOUR

FOOTAGE — FORMATION (SHOW CORE RECOVERY) — PUMP NO. — METHOD RUN

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.FL.-P COM.D.C
4989							900	16	3/4 55	1		

DEVIATION RECORD: DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 30	1/2		PICK UP KELLY, HOSE, RUN IN 2°F, 11
12 30	3 00	2 1/2		CIRC.
3 00	6 15	3 1/4		HOIST TO TEST
6 15	7 00	3/4		PUT NEW BELTS ON AIR COMPRESSER
7 00	8 00	1		PICKING UP TESTER

DRILLER: Ken Snowball

FOOTAGE — FORMATION (SHOW CORE RECOVERY) — PUMP NO. — METHOD RUN

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SGL.-S PAR.FL.-P COM.D.C
4988												

DEVIATION RECORD: DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 00	1	15	MAKE UP DST #5
9 00	12 00	3	6	RUN IN – BRIDGE @ 4550
12 00	12 30	1/2	15	HEAD UP + TEST MANIFOLD TO 1500 PSI
	12 30		15	SET PACKER + PREFLOW.
12 30	1 30	1	15	INITIAL SHUT IN
1 30	2 30	1		FLOW
2 30	4 00	1 1/2	15	FINAL SHUT IN

DRILLER: L Lundberg

FOOTAGE — FORMATION (SHOW CORE RECOVERY) — PUMP NO. — METHOD RUN

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.FL.-P COM.D.C
4988								6				

DEVIATION RECORD: DEPTH 4988 – 3/4 — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 30	1/2	15	FINAL SHUT IN.
4 30	7 00	2 1/2	6	HOIST
7 00	9 00	2	16	BREAK DOWN PACKER
9 00	10 00	1	9	SLIP & CUT 64 ft D/LINE
10 00	10 15	1/4	7	RIG SERVICE
10 15	12 00	1 3/4	6	RUN IN W/ TEST

DRILLER: D. W. Stewart

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR RIVER	A-1	AMOCO DECATUR A-1 POPLAR RIVER J-32	MARCH 8/70

OPERATOR: AMOCO PETE — CONTRACTOR: G.P DAIE LTD — RIG NO. 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D.J. [illegible] — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hooper

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6"	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C-250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-01-37N 121°-21-10W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	NAT.	36 J55	17	733	12.40	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1 1/4	8	64

FT. CUT OFF: 64 — PRESENT LENGTH: 1478

TON MI. OR TRIPS SINCE LAST CUT:

CUMULATIVE TON MI. OR TRIPS: 7904

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE	2 3/4		
6. TRIPS	2 3/4	2½	6½
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.	1¼	5½	
16. DRILL STEM TEST	1 3/4	5½	
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. [illegible]	½		
22. MAKE UP TOOLS			1½
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	32
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO. 13	TIME
			SIZE 8 3/4	WEIGHT
	STB RMR OD	FT.	MFG. REED	PRESSURE GRADIENT
6	D.C. ID 6¾ OD	175.00 FT.	TYPE SMCJ	VISC.-SEC.
	STB RMR OD	FT.	JETS 1/32" 3/3/3	PV/YP
	D.C. ID OD	FT.	SER. NO. 687224 (RR)	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL.-CC'S.
1	C/O	2.04	DEPTH IN 4988	pH
			TOTAL FTG.	SOLIDS %
51	STANDS DP	4799.20 FT.	TOTAL HRS. RUN	
	SINGLES DP	FT.	COND. 1/8's T/B/ GAGE	MUD & CHEMICALS ADDED
	KELLY DOWN	12.00 FT.	GPM/ PD-PSI 300 / 30	TYPE AMT. TYPE AMT.
	TOTAL	4988 FT.		
	WT. OF STRING	80 M LBS.		

MORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PARTEL-P COMP-C
4988	4988						700	6	#2			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	2.45	2 3/4	5	CIRC WORK PIPE & W.O.O.
2.45	3.15	½	21	BLOW LAND LINES TAKE KELLY HOSE OFF
3.15	6.00	2 3/4	6	HOIST TO TEST
6.00	6.15	¼	15	CLEAN UP FLOOR OPERATE BLIND RAMS & PIPE RAMS
6.15	8.00	1 3/4	16	PICK UP TESTING TOOLS

DRILLER: Geo Gonnella

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO. DST #3. STRADDLE	4924-4946.
			SIZE (BASE REPORT BDS)	WEIGHT
	STB RMR OD	FT.	MFG. PRE FLOW 5 MINS.	PRESSURE GRADIENT
6	D.C. ID 6¾ OD	175.00 FT.	TYPE INITIAL SHUT IN 60 MINS.	VISC.-SEC.
	STB RMR OD	FT.	JET 1/32" FLOW 60 MINS	PV/YP
	D.C. ID OD	FT.	SER. NO. FINAL SHUT IN 120 MINS.	GELS.
	STB RMR OD	FT.	DEPTH OUT WEAK INITIAL PUFF. DEAD IN	WL.-CC'S.
1	C/O	2.04	DEPTH IN 30 MINS.	pH
			TOTAL FTG. RECOVERED	SOLIDS 30 DRILLING MUD
51	STANDS DP	4799.20 FT.	TOTAL HRS. RUN I.N.P. 945 2	F.H.P 2510
	SINGLES DP	FT.	COND. 1/8's T/B/ GAGE PREFLOW 87	MUD & CHEMICALS ADDED
	KELLY DOWN	12.00 FT.	GPM/ PD-PSI 1.5/1.P, 145	TYPE AMT. TYPE AMT.
	TOTAL	4988.00 FT.	IFP 87	FSIP 57
	WT. OF STRING	80 M LBS.		FFP 57

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SGL-S PARTEL-P COMP-C
4988												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.30	2½	6	RUN IN DST #3.
10.30	11.45	1¼	16	HEAD UP - TEST MANIFOLD ETC. TO 3000 PSI.
11.45	12.00	¼	16	SEAT PACKER & PREFLOW 5 MINS
12.00	1.00	1	16	INITIAL SHUT IN. 60 MINS.
1.00	2.00	1	16	FLOW 60 MINS
2.00	4.00	2	16	FINAL SHUT IN 120 MINS.

DRILLER: L Lundberg

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT 73	1 FT.	BIT NO. 13	TIME
			SIZE 8-3/4	WEIGHT
	STB RMR 6¾ OD	175.00 FT.	MFG. Reed	PRESSURE GRADIENT
6	D.C. ID OD	FT.	TYPE SMC	VISC.-SEC.
	STB RMR OD	FT.	JETS 1/32" 3/15	PV/YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL.-CC'S.
1	C/O	2.04	DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
51	STANDS DP	4799.20 FT.	TOTAL HRS. RUN	
	SINGLES DP	FT.	COND. 1/8's T/B/ GAGE	MUD & CHEMICALS ADDED
	KELLY DOWN	12.00 FT.	GPM/ PD-PSI	TYPE AMT. TYPE AMT.
	TOTAL	4988.00 FT.		
	WT. OF STRING	60 LBS.		

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PARTEL-P COMP-C
4988								6				

DEVIATION RECORD — DEPTH 4988 — DEV. 3/4

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00			6	PULL PACKER LOOSE & HOIST SAME. WORK
	8.30	4½		THROW TIGHT HOLE 4300'-4150'
8.30	10.00	1½	16	BREAK DOWN PACKER
10.00	12.00	2	6	RUN IN W/ BIT & CSG. HOOK

DRILLER: D W Stewart

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR RIVER	19-1	AMOCO DECALTA A-1 POPLAR RIVER J-32	MAR 7/70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DALE LTD.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
D.J. Lundberg	Doug Hansen

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6"	F.H.	
			"		

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO.	250	15
2	GARDNER DENVER	FXB	14

LOCATION 61°-01-37N 121°-21-10W4

WIRE LINE RECORD — REEL NO. — SIZE 1 1/8 — NO. LINES 9 — FT. SLIPPED 64 — FT. CUT OFF 64 — PRESENT LENGTH 1474 — TON MI. OR TRIPS SINCE LAST CUT — CUMULATIVE TON MI. OR TRIPS

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	NKK	36 J55	17	733	12.90	733

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	11½		
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE	¾	4½	
6	TRIPS		3	
7	LUBRICATE RIG		½	
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS	¾		
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	LAY DOWN DC 3¾			
22	THAW KELLY			
23	W.O.O.		8	
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD 31
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
6	D.C. ID	OD 873.93	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O	2.04	
51	STANDS DP		FT.
1	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL	4988	FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	8 3/4
MFG.	REED
TYPE	SMC
JETS 1/32"	3/15
SER. NO.	687224
DEPTH OUT	
DEPTH IN	4989
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARTEL-P COMP.-C
4988	4988							6				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4988	¾°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:45	¾		LOG
12:45	1:00	¼		LAY DOWN LOG TOOLS
1:00	2:00	1		RIH W/ D.C. LAY DOWN STDS.
2:00	3:00	1		THAW KELLY HOSE
3:00	3:45	¾		CIRC
3:45	7:30	3¾		LAY DOWN 13 D.C. PICK UP 13 SINGLES
7:30	8:00	½		RUN IN

DRILLER D.J. Lundberg

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
16	D.C. ID 6¾	OD 873.93	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O	2.04	
51	STANDS DP	4570.46	FT.
1	SINGLES DP	31.42	FT.
	KELLY DOWN	10.15	FT.
	TOTAL	4988.00	FT.
WT. OF STRING		80M	LBS.

BIT RECORD

BIT NO.	
SIZE	8¾
MFG.	REED
TYPE	SMC
JET 1/32"	3/15
SER. NO.	687224
DEPTH OUT	
DEPTH IN	4988
TOTAL FTG.	—
TOTAL HRS. RUN	—
COND. 1/8's T/B/ GAGE	IN
GPM/ PD-PSI	300 1130

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GEL S.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARTEL-P COMP.-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	½	7	Rig Service & B.O.P.
8:30	11:30	3	6	Run in
11:30	4:00	4½	5	Circ & work Pipe & W.O.O.

DRILLER L. Lundberg

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
6	D.C. ID 6¾	OD 873.93	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O	2.04	
51	STANDS DP	4570.46	FT.
1	SINGLES DP	31.42	FT.
	KELLY DOWN	10.15	FT.
	TOTAL	4988.00	FT.
WT. OF STRING		80M	LBS.

BIT RECORD

BIT NO.	13
SIZE	8¾
MFG.	REED
TYPE	SMC
JETS 1/32"	3/15
SER. NO.	687224
DEPTH OUT	
DEPTH IN	4988
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	300 1130

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARTEL-P COMP.-C
4988							700	6	42			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4988	¾°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8	5	Circ. & W.O.B. & Pipe & W.O.O.

DRILLER D.W. Stewart

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE: AMOCO POPLAR RIVER — WELL NO.: 17-1 — API WELL NUMBER: AMOCO DECALTA A-1 POPLAR RIVER T-32 — DATE: MAR 6/70

OPERATOR: AMOCO PETE

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

CONTRACTOR: G.P DOIE LTD — RIG NO.: 20

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hunter

LOCATION: 61°-01-37N 121°-21-10W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.G. CO	250	15
2	GARDENER DENVER	FXQ	14

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	LAM	36 555	17	733	1290	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1/4	8	64

FT. CUT OFF: 64 — PRESENT LENGTH: 1478

TON MI. OR TRIPS SINCE LAST CUT: 427

CUMULATIVE TON MI. OR TRIPS: 7931

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1.	RIG UP AND TEAR DOWN			
2.	DRILL ACTUAL			
3.	REAMING			
4.	CORING			
5.	CONDITION MUD & CIRCULATE			
6.	TRIPS			
7.	LUBRICATE RIG			
8.	REPAIR RIG			
9.	CUT OFF DRILLING LINE			
10.	DEVIATION SURVEY			
11.	WIRE LINE LOGS	8	8	8
12.	RUN CASING & CEMENT			
13.	WAIT ON CEMENT			
14.	NIPPLE UP B.O.P.			
15.	TEST B.O.P.			
16.	DRILL STEM TEST			
17.	PLUG BACK			
18.	SQUEEZE CEMENT			
19.	FISHING			
20.	DIR. WORK			
21.				
22.				
23.				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD: 30
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

MORNING TOUR

NO. — DRILLING ASSEMBLY (At end of tour)

1	BIT 8¾		FT.
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. ID 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
47	STANDS DP	4421.18	FT.
	SINGLES DP		FT.
	KELLY DOWN	11.94	FT.
	TOTAL	4988	FT.
WT. OF STRING		99	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

NO. — DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. ID 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
47	STANDS DP 4½	4421.18	FT.
	SINGLES DP		FT.
	KELLY DOWN	11.94	FT.
	TOTAL	4988.00	FT.
WT. OF STRING		98M.	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JET 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

NO. — DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
	STB RMR OD		FT.
1	D.C. ID 8¾ OD	4.45	FT.
19	STB RMR 6¾ OD	548.39	FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
47	STANDS DP 4½	4421.18	FT.
	SINGLES DP		FT.
	KELLY DOWN	11.94	FT.
	TOTAL	4988.00	FT.
WT. OF STRING		98M	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE: FROM 4984 TO 4988 — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY)

DEVIATION RECORD: DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	9	11	406 W/ SCHLUMBERGER Run Gamma Ray 4988-4780 to ensure coverage of Pre-Devonian top. Run BHC Sonic G.R. Caliper 733-4988 Run HRD Dipmeter 3600-4988 Dual Induction log not operating.

FOOTAGE: FROM — TO — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. 1 LINER SIZE 6 — PUMP NO. 2 LINER SIZE — S.P.M. — METHOD RUN

DEVIATION RECORD: DEPTH 4988 — DEV. 3/4° — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	4:00	8	11	Log w/ SCHLUMBERGER Run Porosity Lithology Log 3600-4988 & Sidewall Density Caliper Log 3600-4988 Wait on Dual Induction Laterlog & Sidewall Neutron Porosity-Caliper

DRILLER

FOOTAGE: FROM — TO — DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM — WT. ON BIT 1000# — PUMP PRESS — PUMP NO. 1 LINER SIZE 6 — PUMP NO. 2 LINER SIZE 5½ — S.P.M. — METHOD RUN

DEVIATION RECORD: DEPTH 4988 — DEV. 3/4° — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00				Log G I of G Run Sidewall Neutron Porosity without caliper 3600-4988. Dual Induction not operating. Run I.E.S. 333-4988.

DRILLER

DAY TOUR

EVENING TOUR

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER
AMOCO - POPLAR RIVER	A-1	AMOCO DECATAH 1 POPLAR RIVER 5-32 MAR 5/75

OPERATOR: AMOCO PETE.
SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]
CONTRACTOR: G. P. DAIE LTD. — RIG NO. 20
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J. Doug Hansen

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	250	15
3	GARDNER DENVER	FXQ	14

LOCATION: 61-01-37N 121-21-10W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	NKK	36 J55	17	733	1280	733

WIRE LINE RECORD — REEL NO.
SIZE 1 1/8 — NO. LINES 8 — FT. SLIPPED 64
FT. CUT OFF 64 — PRESENT LENGTH 1478
TON MI. OR TRIPS SINCE LAST CUT ~~7783~~ 7815
CUMULATIVE TON MI. OR TRIPS 7873

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	7 3/4	7 1/2	2
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			1
6	TRIPS			2 1/2
7	LUBRICATE RIG	1/4	1/2	1/4
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			3/4
11	WIRE LINE LOGS			1 1/2
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)
HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD: 29
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD		4.45 FT.
19	D.C. ID 6 3/4 OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O		2.04
46	STANDS DP		4327.11 FT.
1	SINGLES DP		31.32 FT.
	KELLY DOWN		33.79 FT.
	TOTAL		4947.10 FT.
WT. OF STRING		98 M	LBS.

BIT RECORD

BIT NO.	13
SIZE	8 3/4
MFG.	H.W
TYPE	WDT-7
JETS 1/32"	1/3 3/15
SER. NO.	11280
DEPTH OUT	
DEPTH IN	4833
TOTAL FTG.	114
TOTAL HRS. RUN	19 1/4
COND. 1/8" T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	2	6
WEIGHT	9.3	9.4	9.4
PRESSURE GRADIENT	2376.5	2401	
VISC.-SEC.	185	175	170
PV/YP	22/66	22/66	22/66
GELS.	20/64	20/64	20/64
WL -CC'S.	8.6	8.6	8.6
pH	10.0	10.0	10.0
SOLIDS %	8.5	8.5	8.5

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PARFL-P COMP-C
4896	4947	5			55	35	700	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:45	3/4	2	DRILL
12:45	1:00	1/4	7	RIG SERV. B.O.P.S
1:00	8:00	7	2	DRILL

DRILLER: Leo Gravelle

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD		4.45 FT.
19	D.C. ID 6 3/4 OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	9/16 6 3/4		2.04
	STANDS DP		4337.86 FT.
2	SINGLES DP		62.75 FT.
	KELLY DOWN		37.51 FT.
	TOTAL		4982.00 FT.
WT. OF STRING		98 M	LBS.

BIT RECORD

BIT NO.	13
SIZE	8 3/4
MFG.	H.W.
TYPE	WDT-7J
JET 1/32"	1/3 2/15
SER. NO.	11280
DEPTH OUT	
DEPTH IN	4833
TOTAL FTG.	149
TOTAL HRS. RUN	26 3/4
COND. 1/8" T/B/ GAGE	1N.
GPM/ PD-PSI	300 /130

MUD RECORD

TIME	8:00	10:00	2:00
WEIGHT	9.4	9.3	9.3
PRESSURE GRADIENT	2401		
VISC.-SEC.	165	165	170
PV/YP	30/50		
GELS.	50/59		
WL -CC'S.	7.4 @ 2/32		
pH	10.5		
SOLIDS %	9%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL			
BEN-EX			
SODA ASH			
CAUSEX			

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SCI-S PARFL-P COMP-C
4947	4982	35			55	40	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4609	1 1/2							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	1/2	2	DRILL
8:30	9:00	1/2	7	RIG SERVICE & B.O.P.
9:00	4:00	7	2	DRILL

DRILLER: L. Lundberg

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD		4.45 FT.
19	D.C. ID 6 3/4 OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O		2.04
47	STANDS DP		4432.06 FT.
1	SINGLES DP		FT.
	KELLY DOWN		2.45 FT.
	TOTAL		4998.00 FT.
WT. OF STRING		98M.	LBS.

BIT RECORD

BIT NO.	13
SIZE	8 3/4
MFG.	H.W
TYPE	WDT-5
JETS 1/32"	1/3 2/15
SER. NO.	11280
DEPTH OUT	4988
DEPTH IN	4833
TOTAL FTG.	155
TOTAL HRS. RUN	28 3/4
COND. 1/8" T/B/ GAGE	
GPM/ PD-PSI	300 /130

MUD RECORD

TIME	4:00	6:00	
WEIGHT	9.3	9.3	
PRESSURE GRADIENT	2401	2401	
VISC.-SEC.	175	175	
PV/YP	30/50	30/50	
GELS.	50/59	50/59	
WL -CC'S.	7.4 @ 2/32		
pH	10.5	11.0	
SOLIDS %	9%	9%	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PARFL-P COMP-C
4982	4998	6			55	40	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4988	3/4							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1 1/4	2	Drlg
5:30	5:30	1/4	7	Rig Service
5:30	6:15	3/4	2	Drlg
6:15	7:15	1	5	Condition Hole for Logging
7:15	8:00	3/4	10	Survey & Blow Mud Lines
8:00	10:30	2 1/2	6	Hoist to Log
10:30	10:45	1/4	11	Rig to Log. Run GR over 4988-4750 to ensure Top of Pokowsie is on Log
10:45	12:00	1 1/4	11	Logging

DRILLER: John Wrick

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE: AMOCO POLAR RIVER — WELL NO.: A-1

API WELL NUMBER: J-32 — DATE: MARCH 1978

OPERATOR: AMOCO PETE

CONTRACTOR: G.P. DALE LTD — RIG NO.: 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hamm

LOCATION: 61-01-37N 121°-21-10W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	250	15
2	GARDNER DENVER	FXR	14

LAST CASING / TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	NAM	36 J55	17	733	1280	733

WIRE LINE RECORD — REEL NO.

SIZE 1 1/8 — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7815

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	3/4	4	7 1/2
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE	1	1/2	
6	TRIPS	4	3	
7	LUBRICATE RIG		1/2	1/2
8	REPAIR RIG	1/2		
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY	1/4		
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	RIG DOWN CUT OFF	1 1/2		
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
	TOTALS	9	8	4

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	8 8 8
NO. OF DAYS FROM SPUD	28
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
45	STANDS DP	4233.09	FT.
1	SINGLES DP	31.30	FT.
	KELLY DOWN	13.71	FT.
	TOTAL	4833	FT.
	WT. OF STRING	92	LBS.

BIT RECORD

BIT NO.	12 / 13
SIZE	8 3/4
MFG.	REED
TYPE	FBC5
JETS 1/32"	3/13 3/13
SER. NO.	378776
DEPTH OUT	4833
DEPTH IN	4314
TOTAL FTG.	519
TOTAL HRS. RUN:	79 3/4
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	2
WEIGHT	9.3	9.3
PRESSURE GRADIENT	2328	
VISC.-SEC.	190	190
PV/YP	22 /46	/
GELS.	20 /54	/
WL -CC'S.		
pH		
SOLIDS %	8.5	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE FROM	FOOTAGE TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH. PAR'L P. COMPL.
4831	4833	2			48	30	1100	6	40			

DEVIATION RECORD: DEPTH 4829 — DEV. 1° — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 45	3/4	2	DRILL
12 45	1 45	1		CIRC
1 45	2 00	3/4	10	SURVEY
2 00	4 00	2		HOIST BIT #2 HOLE TIGHT FIRST 726
4 00	4 30	1/2		REPAIR DRUM CHAIN
4 30	6 30	2		FINISH HOISTING - CHECK BLIND RAMS
6 30	8 00	1 1/2		PICK CORE BBL & BREAKING DOWN SAME & LAY DOWN

DRILLER: Ron Howells

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. ID 6 3/4 OD	48.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O 6 3/4	2.04	
45	STANDS DP	4324.09	FT.
1	SINGLES DP	31.32	FT.
	KELLY DOWN	30.71	FT.
	TOTAL	4850.00	FT.
	WT. OF STRING	98m	LBS.

BIT RECORD

BIT NO.	13
SIZE	8 3/4
MFG.	H.W.
TYPE	WDTJ
JET 1/32"	15 15
SER. NO.	11280
DEPTH OUT	
DEPTH IN	4833
TOTAL FTG.	17
TOTAL HRS. RUN	4
COND. 1/8's T/B/ GAGE	1N
GPM/ PD-PSI	300 /130

MUD RECORD

TIME	12 00	2 00
WEIGHT	9.3	9.3
PRESSURE GRADIENT	2328	
VISC.-SEC.	190	190
PV/YP	22 /46	/
GELS.	20 /54	/
WL -CC'S.	8.6	7/32
pH	11.0	
SOLIDS %	8.5%	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL			
BEN-EX			
SODA ASH	400 lbs.		
Cellex	50 lbs		

FOOTAGE FROM	FOOTAGE TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH. PAR'L P. COMPL.
4833	4850	17			55	10-	1100	6	40			

DEVIATION RECORD: DEPTH — DEV. — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 30	1/2	7	Rig Service B.O.P. ETC.
8 30	11 30	3	6	RUN IN
11 30	12 00	1/2	5	CIRC. CLEAN 5' TO BTM.
12 00	4 00	4	2	DRILL

DRILLER: Lundberg

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 9 3/4 OD	4.45	FT.
19	D.C. ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O 6 3/4	2.04	
46	STANDS DP	4374.70	FT.
	SINGLES DP		FT.
	KELLY DOWN	2.19	FT.
	TOTAL	4894	FT.
	WT. OF STRING	98a	LBS.

BIT RECORD

BIT NO.	13
SIZE	8 3/4
MFG.	H.W.
TYPE	WDTJ
JETS 1/32"	15 15
SER. NO.	11280
DEPTH OUT	IN
DEPTH IN	4833
TOTAL FTG.	53
TOTAL HRS. Run.	11 1/2
COND. 1/8's T/B/ GAGE	1N
GPM/ PD-PSI	300 /130

MUD RECORD

TIME	4 00	6 00	8 00
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2328	2328	2328
VISC.-SEC.	160	180	180
PV/YP	22 /46	22 /46	22 /46
GELS.	20 /54	20 /54	20 /54
WL -CC'S.	9.8	9.2	
pH	11.0	11.0	11.0
SOLIDS %	8.5%	8.5%	8.5%

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	900 lbs		
Barex	2 sk		
1/2" Strand of Water			

FOOTAGE FROM	FOOTAGE TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH. PAR'L P. COMPL.
4850	4894	46			55	30	1100	6	45			

DEVIATION RECORD: DEPTH 4859 — DEV. 1° — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	5 30	1 1/2	2	Drlg
5 30	6 00	1/2	7	Rig Service
6 00	12 00	6	2	Drlg

DRILLER

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR RIVER	A-1	AMOCO DECALTA A-1 POPLAR RIVER	MAR 3-70
OPERATOR		CONTRACTOR	RIG NO.
AMOCO PETE		C. P. DAIE LTD	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
D. Dunlop		J. Doug Hosson	

LOCATION 61°-01-37N 121°-21-10W1

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N. S. CO.	C-250	15
2	GARDNER DENVER	FXQ	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	NN	36 J55	17	733	1280	733

WIRE LINE RECORD REEL NO.

SIZE 1 1/4 NO. LINES 8 FT. SLIPPED 64

FT. CUT OFF 64 PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7772

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	7 3/4	7 1/2	7 3/4
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS			
7	LUBRICATE RIG	1/4	1/2	1/4
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING	9		
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TCG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		9	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HPS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	27
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

MORNING TOUR

NO.	DRILLING ASSEMBLY (At end of tour)		FT.
	BIT		
1	STB RMR 8 3/4 OD	11.45	FT.
19	D.C. ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
44	STANDS DP	4139.07	FT.
	SINGLES DP		FT.
	KELLY DOWN	30.05	FT.
	TOTAL	4724	FT.
	WT. OF STRING 92		LBS.

BIT RECORD	
BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC-5
JETS 1/32"	3/12 1/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	410
TOTAL HRS. RUN	63 3/4
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD			
TIME	12	4	6
WEIGHT	9.2	9.3	9.3
PRESSURE GRADIENT	2279.5		
VISC.-SEC.	165	180	170
PV/YP	22/26	/	/
GELS.	20/54	/	/
WL -CC'S.	8.6		
pH	11		
SOLIDS %	8.5		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	200#		
Ben-ex	1#		

NO.	DRILLING ASSEMBLY (At end of tour)		FT.
	BIT		
1	STB RMR 8 3/4 OD	4.45	FT.
	D.C. ID OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
44	STANDS DP	4140.07	FT.
2	SINGLES DP	62.69	FT.
	KELLY DOWN	33.36	FT.
	TOTAL	4790.00	FT.
	WT. OF STRING 92m.		LBS.

BIT RECORD	
BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC-55
JET 1/32"	3/12 1/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	476
TOTAL HRS. RUN	71 1/4
COND. 1/8's T/B/ GAGE	IN.
GPM/ PD-PSI	300. 130PPM

MUD RECORD			
TIME	8:00	12:00	2:00
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2279		2362.1
VISC.-SEC.	155	165	165
PV/YP	32/36	/	/
GELS.	20/54	/	/
WL -CC'S.	8.6	8 3/32	
pH	11.0		
SOLIDS %	8.5%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1100#		
BEN-EX	4#		
SODA ASH	400 lbs		
CELLEX	50 lbs		

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PAR-FL-P COM-D-C
4695	4724	D			48	30	1050	6	40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	3:30	3 1/2	2	DRILL
3:30	3:45	1/4	7	RIG SERV B.O.P.S
3:45	8:00	4 1/4	2	DRILL

DRILLER Jim Iannello

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PAR-FL-P COM-D-C
4724	4790	L6			48	30	1100	6	40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4609	1 1/2°							

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:30	1/2	2	DRILL
8:30	9:00	1/2	7	RIG SERVICE B.O.P.
9:00	4:00	7	2	DRILL

DRILLER Jim Iannello

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	METHOD RUN
4790	4831	D			48	30	1200	6	40	5½	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1 1/2	2	DRILL
5:30	5:45	1/4	7	RIG SERVICE
5:45	12:00	6 1/4	2	DRILL

MUD RECORD			
TIME	4:00	8:00	10:00
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2323.15		2337.7
VISC.-SEC.	155	170	175
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			7.8
pH			11
SOLIDS %			8.5

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1100#		
BENEX	5#		

FORM 3T5 APPROVED APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta A-1 Poplar River	MAR. 2-70

OPERATOR: Amoco Pete

CONTRACTOR: G. P. Dale Ltd — RIG NO. 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE:

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hansen

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4 1/2	16	E	6	FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	250	15
2	Gardner Denver	FXQ	14

LOCATION: 61°-01-37 N 121°-21-10 W.

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	MH	36 J55	17	733	1280	733

WIRE LINE RECORD — REEL NO.

SIZE 1 1/8 — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7772

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	7 3/4	6 3/4	
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE		1/4	
6. TRIPS			
7. LUBRICATE RIG	1/4	1/4	1/4
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY		1/4	
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.

HRS. W/OPR. D.P.

HRS. WO/D.P.

HRS. STANDBY

TOTAL DAY WORK

NO. OF DAYS FROM SPUD: 9b

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
1	STB RMR 8 3/4	OD	4.45	FT.
19	D.C. 2 7/8 ID 6 3/4	OD	548.39	FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
1	C/O		2.04	
42	STANDS DP		3950.28	FT.
2	SINGLES DP		63.05	FT.
	KELLY DOWN		40.79	FT.
	TOTAL		4609.00	FT.
WT. OF STRING			91 m.	LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	Reed
TYPE	FBC5
JETS 1/32"	12 13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	295
TOTAL HRS. RUN	42
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	4	6
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT	2160	2160	2231
VISC.-SEC.	155	160	150
PV/YP	22 26	/	/
GELS	20 54	/	/
WL-CC'S		8.0	
pH		10.5	
SOLIDS %	8.5%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Soda Ash	200#		
Cellex	50#		
Gel.	400#		
Benex	4#		

MORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.-P FL.-D COM.-C
4548	4609	D			48	30	800	6				

DEVIATION RECORD: DEPTH 4310 — DEV. 1 3/4

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	4:00	4	2	Drill
4:00	4:15	1/4	7	Rig Ser. B.O.P.
4:15	8:00	3 3/4	2	Drill

DRILLER: W. Wigle

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
1	STB RMR 8 3/4	OD	4.45	FT.
19	D.C. 2 7/8 ID 6 3/4	OD	548.39	FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
1	C/O		2.04	
43	STANDS DP		4044.73	FT.
1	SINGLES DP		31.60	FT.
	KELLY DOWN		27.79	FT.
	TOTAL		4659.00	FT.
WT. OF STRING			92	LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC-5J
JET 1/32"	12 13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	345
TOTAL HRS. RUN	48 1/4
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	8	10	02
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT	2160	2160	2231
VISC.-SEC.	170	155	165
PV/YP	27 26	/	/
GELS.	20 64	/	/
WL-CC'S.		8.4	
pH		10	
SOLIDS %	8.5%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	1200#		
Benex	4#		

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.-P FL.-D COM.-C
4609	4659	D			48	30	1600	6	40			

DEVIATION RECORD: DEPTH 4609 — DEV. 1 1/2°

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	1/4	7	Rig Serv BOPs
8:15	11:45	3 1/2	2	Drill
11:45	12:00	1/4	5	Circ
12:00	1:15	1 1/4	10	Survey @ 4609 1 1/2°
1:15	4:00	2 3/4	2	Drill

DRILLER: Wm Lowalko

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
1	STB RMR 8 3/4	OD	4.45	FT.
19	D.C. ID 6 3/4	OD	548.39	FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
1	STB RMR C/O	OD	2.04	FT.
43	STANDS DP		4044.73	FT.
2	SINGLES DP		63.01	FT.
	KELLY DOWN		32.38	FT.
	TOTAL		4695.00	FT.
WT. OF STRING			92 m.	LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC5-5
JETS 1/32"	2-12 1-13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	381
TOTAL HRS. RUN	56
COND. 1/8's T/B/ GAGE	1N.
GPM/ PD-PSI	300 130

MUD RECORD

TIME	4:00	8:00	10:00
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2231		
VISC.-SEC.	145	170	175
PV/YP	22 26	/	/
GELS.	20 54	/	/
WL-CC'S.	9.0		
pH	11.0		
SOLIDS %	8.5%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	16 SKS		
BEN-EX	3 lbs		
SODA ASH.	1 SK.		

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.-P FL.-D COM.-C
4659	4695	36			48-35	33	1100	6	40			

DEVIATION RECORD: DEPTH 4609 — DEV. 1 1/2°

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	1/4	7	Rig Service & B.O.P.s
4:15	12:00	7 3/4	2	Drill

DRILLER: L. Lundberg

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta A-1 Poplar River	MAR. 1-70

OPERATOR	CONTRACTOR	RIG NO.
Amoco Pete	G.P. Drlg Ltd.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D.F. Cumbie

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hamm

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C250	15"
2	Gardner Denver	FXQ	14"

LOCATION 61°-01-37 N 121°-21-10 W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	M.M.	36 55	17	733	1280	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1 1/8	8	64

FT. CUT OFF 64 — PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7772

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	7 3/4	7 3/4	7 3/4
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG	1/4	1/4	1/4
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	25
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. ID 2 1/2 OD 6 3/4	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O.	2.04	
41	STANDS DP	3855.91	FT.
	SINGLES DP		FT.
	KELLY DOWN	29.21	FT.
	TOTAL	4440.00	FT.
WT. OF STRING	90		LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	Reed
TYPE	FBC5
JETS 1/32"	3/12 1/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	126
TOTAL HRS. RUN	18 3/4
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

	12	4	6
TIME			
WEIGHT	9.2	9.2	9.2
PRESSURE GRADIENT	2064	2112	2112
VISC.-SEC.	148	150	160
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.		7.2	
pH			
SOLIDS %		7%	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Soda Ash	400#		
Benex.	2#		

FOOTAGE FROM	FOOTAGE TO	CR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI–S PARFL–P COMP'D–C
4388	4440	D			48	30	1000	6	39			

DEVIATION RECORD — DEPTH 4380 — DEV. — DIRECTION: Mis Run. — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	1/4	7	Rig Ser. + B.O.P.
12 15	8:00	7 3/4	2	Drill

DRILLER W Wigley

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. ID 2 1/2 OD 6 3/4	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
41	STANDS DP	3855.91	FT.
2	SINGLES DP	62.95	FT.
	KELLY DOWN	19.26	FT.
	TOTAL	4493	FT.
WT. OF STRING	91 M		LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC5 5
JET 1/32"	3/12 11/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	179
TOTAL HRS. RUN	26 1/2
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

	8	10	2
TIME			
WEIGHT	9.3	9.2	9.2
PRESSURE GRADIENT		2112	2112
VISC.-SEC.	175	170	160
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1000#		
Ben-Ex	2#		

FOOTAGE FROM	FOOTAGE TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SCI–S PARFL–P COMP'D–C
4440	4493	D			48	30	800	6	40			

DEVIATION RECORD — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 45	1 3/4	2	Drill
9 45	10 00	1/4	7	Rig Serv.
10 00	4 00	6	2	Drill

DRILLER Geo Gowell

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
1	STB RMR C/O OD	2.04	FT.
42	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING	91 M		LBS.

BIT RECORD

BIT NO.	12
SIZE	8 3/4
MFG.	REED
TYPE	FBC55
JETS 1/32"	3 12 1 13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	IN.
GPM/ PD-PSI	300

MUD RECORD

	4 00	8 00	10 00
TIME			
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2112	2112	2112
VISC.-SEC.	85	130	170
PV/YP	22 26	/	/
GELS.	20 54	/	/
WL -CC'S.	8.0		
pH	10.5		
SOLIDS %	8.5%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel.			
Soda Ash			
Ben-Ex			

FOOTAGE FROM	FOOTAGE TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI–S PARFL–P COMP'D–C
4493	4548	55			48-50	30	800	6	44			

DEVIATION RECORD — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	1/4	7	Rig Service & B.O.P.
4 15	12 00	7 3/4	2	Drill.

DRILLER L. Lundberg

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Decalta Poplar River	A-1	Amoco Decalta A-1 Poplar River	Feb 28-7[illegible]
OPERATOR		CONTRACTOR	RIG NO.
Amoco		G.P. Dale Ltd	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		SIGNATURE OF CONTRACTOR'S TOOL PUSHER	
[signature]		Doug Horner	

LOCATION 61°--37N 121°-21-10W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C250	15
2	GARDNER DENVER	FXQ	14

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36 J55	17	733	1280	733

WIRE LINE RECORD REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1⅛	8	64

FT. CUT OFF 64 PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7772

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	5	4	7
3. REAMING		½	
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS	2	3¼	¼
7. LUBRICATE RIG	¼	¼	
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY	¾		¾
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. REPAIR WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD 24

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8¾ OD	4.45	FT.
19	8⅜ D.C. 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
40	STANDS DP	3729.80	FT.
	SINGLES DP		FT.
	KELLY DOWN	29.32	FT.
	TOTAL	4314.00	FT.
	WT. OF STRING 90		LBS.

BIT RECORD

BIT NO.	11
SIZE	8¾
MFG.	Reed
TYPE	SMJ
JETS 1/32"	3/12 Yb
SER. NO.	657224
DEPTH OUT	4314
DEPTH IN	4170
TOTAL FTG.	144
TOTAL HRS. RUN	16½
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

TIME	12	2	4
WEIGHT	9.3	9.4	9.3
PRESSURE GRADIENT	2037	2037	2105
VISC.–SEC.	180	180	178
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL–S PAR'L–P COM'PL–C
4262	4314	D			80	25	800	6	40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4294			4310	1¾				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	1215	¼	7	Rig Ser. + B.O.P.
1215	245	2½	2	Drill.
245	330	3/4	10	Survey couldn't get to Btm. mud to Heavy.
330	600	2½	2	Drill
6:00				Drop Survey + Drain Rig
	800	2	6	Hoist Bit 11 @ 4314

DRILLER [illegible]

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8¾ OD	4.45	FT.
19	8⅜ D.C. 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
40	STANDS DP	3761.25	FT.
	SINGLES DP		FT.
	KELLY DOWN	21.	FT.
	TOTAL	4337	FT.
	WT. OF STRING 91 M		LBS.

BIT RECORD

BIT NO.	12
SIZE	8¾
MFG.	REED
TYPE	FBC-G-5
JET 1/32"	3/12 – 1/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	
TOTAL HRS. RUN	4
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

TIME	10	12	2
WEIGHT	9	9.4	9.3
PRESSURE GRADIENT		2037	2037
VISC.–SEC.		186	155
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL–S PAR'L–P COM'PL–C
4314	4337	D			30 44	4/24	800	6	40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8 45	3/4	6	HOIST B.T #11
8.45	9.00	1/4	7	RIG SERV B.O.P.S
9.00	11.30	2½	6	RUN IN W/ B.T #12
11 30	12 00	½	3	CLEAN TO BOTTOM (8' FILL)
12 00	H 00	H	2	Drill

DRILLER Jim Gowalko

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. ID 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
1	STB RMR C/O OD	2.04	FT.
40	STANDS DP	3761.25	FT.
1	SINGLES DP	31.63	FT.
	KELLY DOWN	40.24	FT.
	TOTAL	4388.00	FT.
	WT. OF STRING 91 M.		LBS.

BIT RECORD

BIT NO.	12
SIZE	8¾
MFG.	REED
TYPE	FBC5
JETS 1/32"	2/12 1/13
SER. NO.	378776
DEPTH OUT	
DEPTH IN	4314
TOTAL FTG.	74
TOTAL HRS. RUN	11
COND. 1/8's T/B/ GAGE	IN
GPM/ PD–PSI	300

MUD RECORD

TIME	400	800	1000
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	2136	"	"
VISC.–SEC.	105	145	160
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.	8.0		
pH	10.0		
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2200		
BEN-EX	4 lbs		
SODA ASH	600		

FOOTAGE

FROM	TO	DR–D RM–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL–S PAR'L–P COM'PL–C
4337	4388				48	30	1000	6	39			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4380								

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	7	Rig Service & B.O.P.
4 15	11 15	7	2.	Drill.
11 15	12 00	¾	10	Surveys

DRILLER L. Lundberg

FORM 3T5 APPROVED APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta A-1 Poplar River	Feb 27/7

OPERATOR: Amoco

CONTRACTOR: G P Dale — RIG NO. 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Lee F. Bordeau

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hamm

LOCATION: 61°-01-37 N 121°-21-10 W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	250	15
2	Gardner Denver	FXQ	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	MM	36 J55	17	733	12.80	733

WIRE LINE RECORD — REEL NO.

SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1478

TON MI. OR TRIPS SINCE LAST CUT 7564

CUMULATIVE TON MI. OR TRIPS 7702

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL		5½	6
3	REAMING		1¼	
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS	6		
7	LUBRICATE RIG	¼	¼	¼
8	REPAIR RIG		1	
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			1¾
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	Handle Packer	1¾		
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG. TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

NO. OF DAYS FROM SPUD: 93

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 6 3/4 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C O	2.04	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31.16	FT.
	KELLY DOWN	39.20	FT.
	TOTAL	4170.00	FT.
	WT. OF STRING	85m	LBS.

BIT RECORD

BIT NO.	11
SIZE	8 3/4
MFG.	Reed
TYPE	SMJ
JETS 1/32"	2/12 4/13
SER. NO.	657224
DEPTH OUT	
DEPTH IN	4170
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP	/	/	/
GELS	/	/	/
WL-CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 6 3/4 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31.16	FT.
	KELLY DOWN	39.20	FT.
	TOTAL	4199.90	FT.
	WT. OF STRING	98	LBS.

BIT RECORD

BIT NO.	11
SIZE	8 3/4
MFG.	REED
TYPE	SMJ
JET 1/32"	2/12 - 4/13
SER. NO.	657224
DEPTH OUT	
DEPTH IN	4170
TOTAL FTG.	
TOTAL HRS. RUN	5½
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	10	12	2
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT	1920	1920	1940
VISC.-SEC.	195	185	175
PV/YP	/	/	/
GELS	/	/	/
WL-CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 6 3/4 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
1	C/O 6 3/4 OD	2.04	FT.
	STB RMR OD		FT.
	STANDS DP	3712.66	FT.
	SINGLES DP	31.33	FT.
	KELLY DOWN	41.14	FT.
	TOTAL	4260.00	FT.
	WT. OF STRING	90m	LBS.

BIT RECORD

BIT NO.	11
SIZE	8 3/4
MFG.	REED
TYPE	SMG
JETS 1/32"	2/12 - 4/13
SER. NO.	657224
DEPTH OUT	4170
DEPTH IN	4170
TOTAL FTG.	
TOTAL HRS. RUN	11½
COND. 1/8's T/B/ GAGE	W
GPM/ PD-PSI	

MUD RECORD

TIME	4 00	8 00	10 00
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	19.40		
VISC.-SEC.	170	170	170
PV/YP	/	/	/
GELS	/	/	/
WL-CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1100#	CELLEX	100
BENEX	4#		
SODA ASH	300#		

EVENING TOUR

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHLUMBERGER/PARFEL-P/COMPUTED
4170												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4170	3°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00.	1 00	1	6	Pull Packer Loose (very tight) work same loose.
1 00	3 30	2½	6	Hoist Packer.
3 30	5:15	1¾	21	Wash Down & Break Packer & Lay Down.
5 15	5 30	¼	7	Rig Ser & B.O.P.
5 30	8:00	2½	6	Run & Picked up Stab & Break Circ.
				Run DST # 2 4017 – 4170 Test 5 min Pre flow)
60 – 60 – 60				G.T.S. decreasing To very poor 90 min.
Ins Hy 2018		Fin Hy 2049		ISIP / FSIP. DRILLER J. Wigle

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHLUMBERGER/PARFEL-P/COMPUTED
4170	4199	D		N FLO FORMATION F.F.	90	10M	800	6	48			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 15	1¼	3	CLEAN TO BOTTOM 88' FILL
9 15	9 30	¼	7	RIG SERV B.O.P.S
9 30	11 45	2¼	2	Drill
11 45	12 15	½		CHANGE PUMPS WORK ON FXQ
12 15	1 15	1	2	Drill
1 15	1 45	½		WORK ON FXQ
1 45	4 00	2¼	2	Drill

DRILLER Jim Gavelko

FOOTAGE / FORMATION (SHOW CORE RECOVERY)

FROM	TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHLUMBERGER/PARFEL-P/COMPUTED
4199	4262				70	10m	800	6	48			
					90	25m	1100		40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4200	1¾		4260					

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	7	Rig Service & B.O.Ps.
4 15	5 15	1	10	Survey
5 15	11 15	6	2	DRLG
11 15	12 00	¾	10	Survey

DRILLER Lew Lundberg

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

D.S.T #2 (4017-4170)

P.E. - 5 MIN., ISI.-60, FO-60, FSI-60 — GOOD INITIAL PUFF TO WEAK IN 60 MIN. NO GAS TO SURFACE. REC. 270' GCM 660' SALT WATER. IH-2018, ISI-981, IF-346, FF-491, FSI-722, FHI-2046

DAILY DRILLING REPORT — REPORT NO.

LEASE: Amoco Poplar River — WELL NO.: A-1
API WELL NUMBER: Amoco Decalta A-1 Poplar River — DATE: Feb 26-70
OPERATOR: Amoco
CONTRACTOR: G.P. Drilling Ltd — RIG NO.: 20
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Fred J Boucher
SIGNATURE OF CONTRACTOR'S TOOL PUSHER:

LOCATION: 61°-01-37 N 121°-21-10 W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4 1/2	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C250	15
2	G.D.	7 X Q	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9 5/8	MN	36 J55	17	733	1240	733

WIRE LINE RECORD — REEL NO.
SIZE 1/4 — NO. LINES 8 — FT. SLIPPED 64
FT. CUT OFF 64 — PRESENT LENGTH 1478
TON MI. OR TRIPS SINCE LAST CUT 140
CUMULATIVE TON MI. OR TRIPS 770H

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE	3 3/4		
6. TRIPS	4		3
7. LUBRICATE RIG	1/4		1/4
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			3 1/4
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. Handle Tools			1 1/2
22.			
23.			
COMPLETION: A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8		8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)
HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD: 22
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	9 5/8 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	CO	204	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31 16	FT.
	KELLY DOWN	1449	FT.
	TOTAL	4170	FT.
	WT. OF STRING	90	LBS.

BIT RECORD

BIT NO.	10
SIZE	8 3/4
MFG.	H.W.
TYPE	XDV
JETS 1/32"	3/12 1/13
SER. NO.	21604
DEPTH OUT	4170
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	3	5
WEIGHT	9.3	9.3	9.2
PRESSURE GRADIENT			
VISC.-SEC.	195	210	205
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
4170							900	6	40			

DEVIATION RECORD: DEPTH 4170 — DEV. 3° — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	1/4	7	Rig Serv + B.O.P.
12 15	12 30	1/4	5	Circ.
12 30	2 00	1 1/2	6	Make 15 std Dummy Trip 15' Fill
2 00	3 00	1	5	Circ
3 00	4 30	1 1/2	6	Make 15 std Dummy Trip 22' Fill
4 30	5 30	1	5	Circ
5 30	6 30	1	6	Make 10 std Dummy Trip 10' Fill
6 30	8 00	1 1/2	5	Circ.

DRILLER: Wigley

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	D.C. ID OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O.	2.04	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31.16	FT.
	KELLY DOWN	1449	FT.
	TOTAL	4170	FT.
	WT. OF STRING	90	LBS.

BIT RECORD

BIT NO.	10
SIZE	8 3/4
MFG.	Hug
TYPE	XDV
JET 1/32"	3/12 1/13
SER. NO.	21604
DEPTH OUT	
DEPTH IN	4170
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	10	12	2
WEIGHT	9.4	9.4	9.2
PRESSURE GRADIENT		1960	1720
VISC.-SEC.	210	245	260
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
4170												

DEVIATION RECORD: DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	1/4	7	Rig Serv B.O.P's
8 15	10 15	2	6	20 std. Dummy TRIP 12' Fill
10 15	1 00	2 3/4	5	Circ. (Raise Visc.)
1 00	4 00	3	6	Hoist for Test #2

DRILLER: Jim Howell

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	D.C. 9 5/8 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31.16	FT.
	KELLY DOWN	1449	FT.
	TOTAL	4170	FT.
	WT. OF STRING	90	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	Testing
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME			
WEIGHT	Testing		
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
4170								6	-	5 1/2	-	UNIT
									19	6	44	

DEVIATION RECORD: DEPTH 4170 — DEV. 3° — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	1/4	7	Rig Service + Blind Rams
4 15	5 15	1	21	Make up Packer
5 15	8 15	3	6	Run in W/ Packer (Slow)
8 15	8 45	1/2	21	Make up Testing Head
8 45	12 00	3 1/4	16	Testing

DRILLER: Tom Quinn

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta A-1 - Poplar River	Feb. 25-70
OPERATOR		**CONTRACTOR**	**RIG NO.**
Amoco Decalta A-1 Poplar River		E. P. Drilling Ltd.	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
Fred J Bordas		Doug Hamm	

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	FH	1

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCo	C250	15
2	Emsco Denver	FXQ	14

LOCATION 61°-01-37 N 121°-21-10 W.

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.		NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9⅝	MM	36	JSS	17	733	12.80	733

WIRE LINE RECORD REEL NO.

SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 15-4

FT. CUT OFF 15-4 — PRESENT LENGTH 1542

TON MI. OR TRIPS SINCE LAST CUT 35-

CUMULATIVE TON MI. OR TRIPS 7599

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL			
3. REAMING			2
4. CORING			
5. CONDITION MUD & CIRCULATE	2¾		1
6. TRIPS	4		2½
7. LUBRICATE RIG	¼		¼
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			1
10. DEVIATION SURVEY	¼		
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST	¾		
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. Handle Tools			1¼
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N L			
G.			
TOTALS	8		8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.

HRS. W/OPR. D.P.

HRS. WO/D.P.

HRS. STANDBY

TOTAL DAY WORK

NO. OF DAYS FROM SPUD 91

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8¾ OD	4.45	FT.
	D.C. ID OD		FT.
19	STB RMR OD	548.39	FT.
19	2 8¼ 6¾ OD		FT.
	STB RMR OD		FT.
4	C O	2.04	
		93	
38	STANDS DP	3574.66	FT.
	SINGLES DP		FT.
	KELLY DOWN	47.20	FT.
	TOTAL	4170.00	FT.
	WT. OF STRING	90	LBS.

BIT RECORD

BIT NO.	10
SIZE	8¾
MFG.	HW
TYPE	XDV
JETS 1/32"	3/12 1/13
SER. NO.	21604
DEPTH OUT	4170
DEPTH IN	~~4077~~
TOTAL FTG.	93
TOTAL HRS. RUN	10¾
COND. 1/8's T/B. GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	3	4
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT	1968	1968	1988
VISC.-SEC.	102	104	103
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.	8.2		
pH	9.0		
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.			
1	BIT		FT.
19	STB RMR 6¾ OD	548.39	FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
38	STANDS DP	3574.66	FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JET 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
19	STB RMR 2 8¼ 6¾ OD	548.39	FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
38	STANDS DP	3574.66	FT.
1	SINGLES DP	31.16	FT.
	KELLY DOWN	14.49	FT.
	TOTAL	4176.00	FT.
	WT. OF STRING	90	LBS.

BIT RECORD

BIT NO.	10
SIZE	8¾
MFG.	HW
TYPE	XDV
JETS 1/32"	3/12 1/13
SER. NO.	21604
DEPTH OUT	4170
DEPTH IN	4077
TOTAL FTG.	93
TOTAL HRS. RUN	10¾
COND. 1/8's T/B GAGE	8
GPM/ PD-PSI	117

MUD RECORD

TIME	10		3
WEIGHT	9.3		9.3
PRESSURE GRADIENT	2012		
VISC.-SEC.	145		
PV/YP	/	/	14
GELS.	/	/	
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	700#		
Benex	4#		

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. PAR'L-P COM'D-C
4170												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4170								

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾	5	Circ.
1245	230	1¾	6	Make 20 Std Dummy Trip. 20' Fill
230	430	2	5	Circ.
430	500	½	7-10	Survey + Ric Sea + B&L
500	715	2¼	6	Hoist.
715	800	¾	16	Make up Packer.

DRILLER Wigle

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. PAR'L-P COM'D-C
4170	4170											

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	945	1 3/4		MAKE UP PACKER
945	1200	2¼		RUN IN (3600') Pick up SINGLES (120' Fill)
1200	100	1		OPEN TOOL
100	345	2¾		HOLD PACKER
345	400	¼		BREAKING DOWN TESTING TOOL
				Run DST # 1 3997-4170 120' fill
				on bottom Packer Seat Failed Misrun
				In #2048

DRILLER Tho Donaldson

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. PAR'L-P COM'D-C
4170				ISIP 98 FSIP 722 I.F. 346 F.F. 491 rec. 930' Fluid 270' gas cut mud 660' Formation water G.I.P. V.G.T.S. decreasing throughout test				6	44			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	515	1¼	21	BREAK DOWN & HANDLE PACKER
515	530	¼	7	Rig Service & Check Blind Rams
530	630	1	9	Slip & Cut Line
630	900	2½	6	Run in
900	1100	2	3	Hit Bridge @ 4035 Clean 135' To Btm
1100	1200	1	5	Condition Mud

DRILLER Tom Quinn

Damaged 1 Packer Rubber,

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta Poplar River	Feb 24-70
OPERATOR		**CONTRACTOR**	RIG NO.
Amoco Decalta A-1 Poplar River		G P Drilling Ltd	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
Fred Rondon		Doug Honsa	

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N C Co	C250	15
2	Gardner Denver	FXQ	14

LOCATION 61°-01-37 N 121°-21-10 W.

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36 J55	17	733	12.80	733

WIRE LINE RECORD — REEL NO.
SIZE 1 1/8 — NO. LINES 8 — FT. SLIPPED 754
FT. CUT OFF 154 — PRESENT LENGTH 7542
TON MI. OR TRIPS SINCE LAST CUT 673
CUMULATIVE TON MI. OR TRIPS 7445

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL		5¾	5½
3	REAMING	1½	1¼	
4	CORING			
5	CONDITION MUD & CIRCULATE			1¼
6	TRIPS	4¼		
7	LUBRICATE RIG	¼	¼	¼
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY		1¼	1
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	Hauld Core #2			
22				
23				
	COMPLETION: A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
	TOTALS	6	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)
HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD 20
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 2 7/8 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	FT.
37	STANDS DP	3480.65	FT.
1	SINGLES DP	31.30	FT.
	KELLY DOWN	10.17	FT.
	TOTAL	4077.00	FT.
	WT. OF STRING	88 M.	LBS.

BIT RECORD

BIT NO.	CH1	10
SIZE	8 11/16	8 3/4
MFG.	Christ	HW
TYPE	O	XDV
JETS 1/32"		3/12 11/13
SER. NO.	EC9905	
DEPTH OUT	4077	
DEPTH IN	3957	4077
TOTAL FTG.	120	
TOTAL HRS. RUN	13½	
COND. 1/8's T/B/ GAGE		
GPM/ PD-PSI		

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
10	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 2 7/8 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	FT.
37	STANDS DP	3480.97	FT.
2	SINGLES DP	62.33	FT.
	KELLY DOWN	22.38	FT.
	TOTAL	4120	FT.
	WT. OF STRING	90 M	LBS.

BIT RECORD

BIT NO.	10	
SIZE	8 3/4	
MFG.	H W	
TYPE	XDV	
JET 1/32"	3/12	11/13
SER. NO.	21604	
DEPTH OUT		
DEPTH IN	4077	
TOTAL FTG.		
TOTAL HRS. RUN	5¼	
COND. 1/8's T/B/ GAGE		
GPM/ PD-PSI		

MUD RECORD

TIME	10	12	2
WEIGHT	9.3	9.3	9.4
PRESSURE GRADIENT	1940	1940	1960
VISC.-SEC.	110	102	110
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bunker Gel	2#		
	1400#		
Soda Ash	200#		

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
1	STB RMR 8 3/4 OD	4.45	FT.
19	D.C. 2 7/8 ID 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	FT.
38	STANDS DP	3574.66	FT.
	SINGLES DP		FT.
	KELLY DOWN	41.20	FT.
	TOTAL	4120.00	FT.
	WT. OF STRING	90M	LBS.

BIT RECORD

BIT NO.	10	
SIZE	8 3/4	
MFG.	H W	
TYPE	XDV	
JETS 1/32"	3/12	11/13
SER. NO.	21604	
DEPTH OUT		
DEPTH IN	4077	
TOTAL FTG.	93	
TOTAL HRS. RUN	10¾	
COND. 1/8's T/B/ GAGE	in	
GPM/ PD-PSI		

MUD RECORD

TIME	4	6	8
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT	1988	2004	2012
VISC.-SEC.	100	105	105
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.		8.0	
pH		9.0	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1500#		
Benex	6#		
Soda Ash	200#		
Cellex Reg	50#		

FOOTAGE / FORMATION — MORNING TOUR

FOOTAGE FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COMP'D-C
4077												

DEVIATION RECORD: DEPTH 3951 — DEV. 2¼ — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	200	2	6	Hoist Core #2.
200	400	2	21	Handle Core Std Bbl in Derrick ordens To Drill
400	415	1/4	7	Rig Serv + BOP.
415	630	2 1/4	6	Run in Pickup stab 60' Above B.T.
630	800	1½	3	Cleaning 120 To Btm.

DRILLER Ed Wigley

FOOTAGE / FORMATION — DAY TOUR

FOOTAGE FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COMP'D-C
4077	4120	D		#8	90	10/22	800	6	44			
				8								
				4120								

DEVIATION RECORD: DEPTH 4108 — DEV. 2¼ — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	1/4	7	RIG SERV + B.O.P'S
8 15	9 30	1 1/4	3	~~DRILL~~ READY TO BOTTOM.
9 30	1 30	4	2	DRILL 24
1 30	2 00	1/2	10	SURVEY MISS RUN
2 00	2 30	1/2	2	DRILL
2 30	3 15	3/4	10	SURVEY @ 4108 2¼
3 15	4 00	3/4	2	DRILL

DRILLER

FOOTAGE / FORMATION — EVENING TOUR

FOOTAGE FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL-S PAR'EL-P COMP'D-C
4120	4170	DR			85	22	800	6	44	5½	-	Uni

DEVIATION RECORD: DEPTH 4170 — DEV. MISS RUN — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	6 00	2	2	Drlg
6 00	6 15	1/4	7	Rig Service
6 15	9 45	3½	2	Drlg
9 45	10 00	1/4	5	Circ + Work pipe For Survey
10 00	11 00	1	10	Survey @ 4170 - Miss Run
11 00	12 00	1	5	Circ-Prior To Testing - Condition Hole

DRILLER Tom Quinn

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT

LEASE: AMOCO POLAR RIVER — WELL NO.: A1
API WELL NUMBER: AMOCO DECATUR A1 POLAR RIVER — DATE: Feb 23/70
OPERATOR: AMOCO DECATUR A1 POLAR RIVER — CONTRACTOR: GP DRILLING CO. — RIG NO.: 20
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Fred Bowden — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hopper
LOCATION: 61°-1-37 N 121-21-10 W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NS-40	C250	15
2	GARDNER DENVER	FXQ	14

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	mm	36# J55	17	733	12.80	733

WIRE LINE RECORD — REEL NO.
SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS 7310

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL			
3	REAMING			
4	CORING	5¾	1¼	6¼
5	CONDITION MUD & CIRCULATE			
6	TRIPS		4½	3¼
7	LUBRICATE RIG	¼	½	
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING Handle Core			1½
20	DIR. WORK			
21	CLEANING BTM	¾		
22	DROP BALL	½		½
23	UNJAM	¾		
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
	TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD: 19
CUMULATIVE ROTATING HRS.:
TOTAL MUD COST:

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		FT.
	STB RMR OD		FT.
19	DC 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	CORE BBL	71.75	
1	C/O	2.04	
35	STANDS DP	3292.67	FT.
2	SINGLES DP	62.93	FT.
	KELLY DOWN	23.22	FT.
	TOTAL	4001	FT.
WT. OF STRING		90m	LBS.

BIT RECORD

BIT NO.	9
SIZE	8 11/16
MFG.	
TYPE	◇
JETS 1/32"	
SER. NO.	EC9905
DEPTH OUT	3957
DEPTH IN	44
TOTAL FTG.	5¾
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	in
GPM/ PD-PSI	

MUD RECORD

TIME	12 AM	3 AM	7 AM
WEIGHT	96	9.6	9.4
PRESSURE GRADIENT	1980	1980	1956
VISC.-SEC.	110	99	93
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			8
pH			9
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3300#		
BENEX	12 #		
CELTEX	100 #		

MORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART'L-P COMP'D.-C
3957	4001	C	1		80	20	1150	6	48	5½	—	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	7	RIG SERVICE
12 15	1 00	¾	21	CLEAN TO BTM
1 00	1 30	½	22	DROP BALL + CIRC CORE BBLS
1 30	3 00	1½	4	CUT CORE #1
3 00	3 45	¾	23	UNJAM CORE BBLS
3 45	9 00	4¼	4	CUT CORE 1#

Morris Ewaniecki

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		FT.
	STB RMR OD		FT.
19	DC 6¾ OD		FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O.	2.04	
	C.B.	71.75	
35	STANDS DP	3292.67	FT.
2	SINGLES DP	62.93	FT.
	KELLY DOWN	39.22	FT.
	TOTAL	4017.00	FT.
WT. OF STRING		90m	LBS.

BIT RECORD

BIT NO.	GH 1
SIZE	8 11/16
MFG.	Christ
TYPE	O
JET 1/32"	
SER. NO.	EC9905
DEPTH OUT	4017
DEPTH IN	3957
TOTAL FTG.	60
TOTAL HRS. RUN	7¼
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	8.	80	
WEIGHT	9.2	9.2	
PRESSURE GRADIENT	1920	1920	
VISC.-SEC.	92	98	
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	400#		
Benex	1"		

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART'L-P COMP'D.-C
4001	4017	C	1		80	20	1150	6	48			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3951	2¼							

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 30	1½	4	Cut Core #1
9 30	12 00	2½	6	DRAIN RIG & Hoist CORE #1
12 00	1 30	1½		HANDLE CORE ~~BBL~~ BBL.
1 30	2 00	½		RIG SERV & CHECK Pipe Blind & Hydril
				Cut Core #1 3957 - 3917+4017 60' rec 60'
2 00	4 00	2	6	RUN in Shoes W/ CORE BBL

DRILLER W Wigley

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		FT.
	STB RMR OD		FT.
19	D.C. 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
1	C. BBL	71.75	
36	STANDS DP	3386.98	FT.
1	SINGLES DP	30.78	FT.
	KELLY DOWN	37.06	FT.
	TOTAL	4077.00	FT.
WT. OF STRING		91m	LBS.

BIT RECORD

BIT NO.	
SIZE	8 3/4
MFG.	CHRIST.
TYPE	O
JETS 1/32"	
SER. NO.	EC9905
DEPTH OUT	4077
DEPTH IN	3957
TOTAL FTG.	60
TOTAL HRS. RUN	6¼
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	6	8	10
WEIGHT	9.4	9.4	9.4
PRESSURE GRADIENT	(1960)		
VISC.-SEC.	105	110	112
PV/YP	/	/	/
GELS	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	900#		
BENEX	2#		

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART'L-P COMP'D.-C
4017	4077	C	2		80	20	1100	6	48			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	6	RUN IN W/ CORE BBL
4 15	5 15	1	21	CLEAN TO BOTTOM DROP BALL (20' FILL)
5 15	11 30	6¼	4	CUT CORE #2
11 30	12 00	½	6	HOIST CORE #2
				Cut Core #2 (4017 3917 - 4077) rec 60'

DRILLER Leo Howell

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

Core #2

4017- 4077 Cut 60', Rec'd 60'. Horn Plateau Reef, limestone
Generally tight with some areas of fractured porosity

DAILY DRILLING REPORT REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POLAR RIVER	A1	AMOCO DECATA A1 POLAR RIVER	FEB 22 70
OPERATOR		**CONTRACTOR**	RIG NO.
AMOCO DECATA A1 POLAR RIVER.		G.P. DRILLING CO	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
Fred Bondon		J Doug Hansen	

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16#	E	6	4½FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C-250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-1-37W 121°-21-10 W

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
LAST CASING TUBING OR LINER	9⅝	mm	36# J55	17	733	1280	733

WIRE LINE RECORD REEL NO.

SIZE 1/9 NO. LINES 8 FT. SLIPPED 154
FT. CUT OFF 154 PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 428
CUMULATIVE TON MI. OR TRIPS 7170

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL			
3	REAMING	8	3/4	
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS		3	
7	LUBRICATE RIG			
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	Circ Clean Hole	4¼		
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD / CUMULATIVE ROTATING HRS.	18
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.		FT.
	BIT	
1	STB RMR 8¾ OD	4.45 FT.
19	D.C. 8 6¾ ID OD	548.39 FT.
	STB RMR OD	FT.
	D.C. ID OD	FT.
	STB RMR OD	FT.
1	C/O	2.04
36	STANDS DP	3386.86 FT.
	SINGLES DP	FT.
	KELLY DOWN	15.26 FT.
	TOTAL	3957 FT.
	WT. OF STRING	95 LBS.

BIT RECORD

BIT NO.	9
SIZE	8¾
MFG.	REED
TYPE	SS1GJ
JETS 1/32"	3-12
SER. NO.	578203
DEPTH OUT	3957
DEPTH IN	3793
TOTAL FTG.	164
TOTAL HRS. RUN	17¾
COND. 1/8's T/B/ GAGE	1N
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	4000#		
CEITEX	100#		
BENEX	16#		

HORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-P CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARL.-P COMP.-C
3957							800	6	42	5½		4MIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	900	8	3	REAMING + CLEANING TO BTM

DRILLER

DRILLING ASSEMBLY (At end of tour)

NO.		FT.
	BIT	
1	STB RMR 8¾ OD	4.45 FT.
19	D.C. 8 6¾ ID OD	548.39 FT.
	STB RMR OD	FT.
	D.C. ID OD	FT.
	STB RMR OD	FT.
1	C/O	2.04
36	STANDS DP	3386.86 FT.
	SINGLES DP	FT.
	KELLY DOWN	15.26 FT.
	TOTAL	3957.00 FT.
	WT. OF STRING	95 LBS.

BIT RECORD

BIT NO.	9 R.R
SIZE	8¾
MFG.	Reed
TYPE	SS1GJ
JET 1/32"	3/12
SER. NO.	578203
DEPTH OUT	3957
DEPTH IN	3793
TOTAL FTG.	164
TOTAL HRS. RUN	17¾
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	8	12	2
WEIGHT	9.5	9.5	9.5
PRESSURE GRADIENT	1930	1930	1930
VISC.-SEC.	108	88	100
PV/YP	/	/	32/24
GELS.	/	/	5/20
WL -CC'S.			5
pH			9.5
SOLIDS %			8.5%

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bell	900#		

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARL.-P COMP.-C
3957							800	6	40			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3951	2¼							

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	1/4	3	Clean to Btm
815	1000	13/4	21	Circ to clean Hole
1000	1200	2	6	Make 20 std Dummy Trip First std Tight work same thru
1200	1230	1/2	3	Clean out 40' To Btm
1230	300	2½	21	Circ good Hole For Coring
300	400	1	6	Drain Rig + Hoist to core

DRILLER J. Wright

DRILLING ASSEMBLY (At end of tour)

NO.		FT.
	BIT	
	COREBB	71.75
19	STB RMR OD	548.59 FT.
	D.C. ID OD	FT.
	STB RMR OD	FT.
	D.C. ID OD	FT.
	STB RMR OD	FT.
1	C O	2.04
	STANDS DP	FT.
	SINGLES DP	FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	6	8	10
WEIGHT	9.5	9.5	9.5
PRESSURE GRADIENT	[illegible]	[illegible]	[illegible]
VISC.-SEC.	108	105	104
PV/YP	/	/	/
GELS.	/	/	X
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARL.-P COMP.-C
3957	3957											

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	630	2½		HOIST TO CORE (LAY DOWN 8¾ STAB)
630	700	½		RIG SERV (CHECK BLIND RAMS, PIPE RAMS HYDRIL CHOKE-O-MATIC)
700	1100	4		PICK UP SERV CORE BBL RUN IN
1100	1200	1		CLEANING TO BOTTOM (130' OF FILL)

DRILLER [illegible]

FORM 3T5 APPROVED APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POLAR RIVER	A1	AMOCO OECATA A1 POLAR RIVER	FE621/70

OPERATOR: AMOCO OECATA A1 POLAR RIVER
CONTRACTOR: GP DRILLING CO RIG NO. 20
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Fred Gordon
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hooten

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16#	E	6	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-1-37N -121°-21-10W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
9⅝	NM	36# J55	17	733	12.80	733

WIRE LINE RECORD REEL NO.
SIZE 1/8 NO. LINES 8 FT. SLIPPED 154
FT. CUT OFF 154 PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 428
CUMULATIVE TON MI. OR TRIPS 7170

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	6¾	3¾	
3. REAMING			7½
4. CORING			
5. CONDITION MUD & CIRCULATE		1	¼
6. TRIPS		1¼	¼
7. LUBRICATE RIG	¼	¼	
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY	¼	½	
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. Circ Sample.			1½
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
C.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	17
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. 2¼ ID 6¼ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
35	STANDS DP	3292.42	FT.
2	SINGLES DP	63.02	FT.
	KELLY DOWN	14.68	FT.
	TOTAL	3925	FT.
WT. OF STRING		85	LBS.

BIT RECORD

BIT NO.	9
SIZE	8 3/4
MFG.	REED
TYPE	SSIGJ
JETS 1/32"	
SER. NO.	578703 (RR)
DEPTH OUT	
DEPTH IN	3793
TOTAL FTG.	132
TOTAL HRS. RUN	14½
COND. 1/8's T/B/ GAGE	RUNNING
GPM/ PD–PSI	

MUD RECORD

	12 PM	3 AM	6 AM
TIME			
WEIGHT	95	95	9.4
PRESSURE GRADIENT	1924.56		1915.9
VISC.–SEC.	44	45	47
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			8
pH			9
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1200#		
CETTEX	100#		
BENEX	4#		

MORNING TOUR

FOOTAGE

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL–S PAR'EL–P COM'D–C
3866	3925	D			80	10	800	6	45	5½		UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3888	2½°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	3 00	3	2	DRILL — Charge to G.P. Drilling for 15 Gallons of Foaming
3 00	3 15	¼	7	Rig SERVICE
3 15	3 45	½	10	SURVEY — was taken By G.P. tool pusher
3 45	7 00	3¼	2	DRILL — From D.P. Rig No 1/2
7 00	7 30	½	10	SURVEY — J Doug Hooten
7 30	8 00	½	2	DRILL

T. McGlowatski

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. 2¼ ID 6¼ OD	546.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O	2.04	
36	STANDS DP	3386.86	FT.
	SINGLES DP		FT.
	KELLY DOWN	15.26	FT.
	TOTAL	3957.00	FT.
WT. OF STRING		85 m	LBS.

BIT RECORD

BIT NO.	9
SIZE	8¾
MFG.	Reed
TYPE	SSIGJ
JET 1/32"	3/12
SER. NO.	R. 578703
DEPTH OUT	3957
DEPTH IN	3793
TOTAL FTG.	164
TOTAL HRS. RUN	17
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

	6	12	2
TIME			
WEIGHT	9.4	9.9	9.4
PRESSURE GRADIENT	1902	1892	1911
VISC.–SEC.	45	44	45
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.	8.4		
pH		9.0	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bell	1200#		
Soda Ash	200#		
Benex	3 #		
Cellex	100#		

DAY TOUR

FOOTAGE

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SGL–S PAR'EL–P COM'D–C
3925	3957	D			80	10	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3951			3951	2¼				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 45	1 3/4	2	DRILL
9 45	10 30	3/4	21	CIRC Samples up (Geo Request)
10 30	11 30	1	2	DRILL
11 30	12 00	½	10	SURVEY 3951' 2¼
12 00	12 15	¼	7	RIG SERV. & BOP. Hydril & Pipe Rams
12 15	1 00	¾	2	DRILL
1 00	2 45	1¾	5	CIRC Sample cond ~~Mud~~ Hole to Core Work Pipe 15 min Slow.
2 45	4 00	1¼	6	MAKE DUMMY TRIP.

DRILLER L Wigley

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD	H.M.S	FT.
19	D.C. 2¼ ID 6¾ OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C O	2.04	
36	STANDS DP	3386.86	FT.
	SINGLES DP		FT.
	KELLY DOWN	15.26	FT.
	TOTAL	3957.06	FT.
WT. OF STRING		85	LBS.

BIT RECORD

BIT NO.	9
SIZE	8¾
MFG.	REED
TYPE	SSIGJ
JETS 1/32"	3+12
SER. NO.	578703
DEPTH OUT	
DEPTH IN	3793
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

	6	8	10
TIME			
WEIGHT	9.4	9.5	9.6
PRESSURE GRADIENT			
VISC.–SEC.	45	50	65
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Caustic	100#		
Bell	800#		
Cement	200#		

EVENING TOUR

FOOTAGE

FROM	TO	DR..D RM–R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL–S PAR'EL–P COM'D–C
3957	3957						800	6	42			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
H.00	H.15	¼	6	FINISH HOISTING 2 std TRIP
H.15	H.20	¼	5	CIRC
H.20	12 00	7½	3	RUN IN READ IN FROM (2193–2230 3227–3478

DRILLER Geo Glowatski

FORM 3T5 APPROVED APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POLAR RIVER	A1	AMOCO DECAITA A1 POLAR RIVER	FEB 20/70

OPERATOR: AMOCO DECAITA A1 POLAR RIVER
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Fred Fondren

CONTRACTOR: C.P. DRILLING CO — RIG NO. 20
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hansen

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
2½	16#	E	6	FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-1-37N 121°-21-10W

CAS. TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36# J55	17	733	1280	733

WIRE LINE RECORD — REEL NO.
SIZE 1-9 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 1388
CUMULATIVE TON MI. OR TRIPS 7130

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL		3¼	6¾
3	REAMING	2	7	
4	CORING			
5	CONDITION MUD & CIRCULATE			½
6	TRIPS	6		
7	LUBRICATE RIG	¼	¼	¼
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			½
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)
HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD: 16
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD				
	BIT	FT.	BIT NO.	9	TIME				
			SIZE	8¾	WEIGHT				
1	STB RMR 8¾ OD	4.45 FT.	MFG.	REED	PRESSURE GRADIENT	TRIP			
19	D.C. 2⅞ ID 6¾ OD	548.39 FT.	TYPE	SSIGJ	VISC.-SEC.				
	STB RMR OD	FT.	JETS 1/32"	3-12	PV/YP				
	D.C. ID OD	FT.	SER. NO.	578703 (RR)	GELS.				
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.				
1	C/O	20¼	DEPTH IN	3793	pH				
			TOTAL FTG.		SOLIDS %				
34	STANDS DP	3197.82 FT.	TOTAL HRS. RUN		MUD & CHEMICALS ADDED				
	SINGLES DP	FT.	COND. 1/8's T/B/ GAGE	RUN	TYPE	AMT.	TYPE	AMT.	
	KELLY DOWN	41.20 FT.	GPM/ PD-PSI						
	TOTAL	3793.82 FT.							
WT. OF STRING	80 LBS.								

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD				
	BIT	FT.	BIT NO.	9	TIME				
			SIZE	8¾	WEIGHT				
1	STB RMR 8¾ OD	4.45 FT.	MFG.	Reed	PRESSURE GRADIENT				
19	D.C. 2⅞ ID 6¾ OD	548.39 FT.	TYPE	SSIGJ	VISC.-SEC.				
	STB RMR OD	FT.	JET 1/32"	3/12	PV/YP				
	D.C. ID OD	FT.	SER. NO.	RR 578703	GELS.				
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.				
1	CO	20¼	DEPTH IN	3793	pH				
			TOTAL FTG.	6	SOLIDS %				
34	STANDS DP	3197.82 FT.	TOTAL HRS. RUN	3/4	MUD & CHEMICALS ADDED				
1	SINGLES DP	3160 FT.	COND. 1/8's T/B/ GAGE	Run	TYPE	AMT.	TYPE	AMT.	
	KELLY DOWN	1470 FT.	GPM/ PD-PSI		Bell	500#			
	TOTAL	3799.00 FT.			Benex	2#			
WT. OF STRING	84 LBS.								

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD			
	BIT	FT.	BIT NO.	9	TIME	6	8	10
			SIZE	8 3/4	WEIGHT	8.4	9.4	9.5
1	STB RMR 8¾ OD	4.45 FT.	MFG.	REED	PRESSURE GRADIENT			
19	D.C. 2⅞ ID 6¾ OD	548.39 FT.	TYPE	SSIGJ	VISC.-SEC.	45	48	46
	STB RMR OD	FT.	JETS 1/32"	3-12	PV/YP			
	D.C. ID OD	FT.	SER. NO.	(RR) 578703	GELS.			
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.		10.4	
1	CO	2.04	DEPTH IN	3793	pH		9.2	
			TOTAL FTG.		SOLIDS %			
35	STANDS DP	3292.42 FT.	TOTAL HRS. RUN	7½	MUD & CHEMICALS ADDED			
	SINGLES DP	FT.	COND. 1/8's T/B/ GAGE		TYPE	AMT.	TYPE	AMT.
	KELLY DOWN	18.70 FT.	GPM/ PD-PSI		Soda Ash	100#		
	TOTAL	FT.			Gel	1250#		
WT. OF STRING	94 LBS.				Benex	2#		

EVENING TOUR

FOOTAGE — FORMATION — DRILLING DATA

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMPL-C
3793												

DEVIATION RECORD: DEPTH 3793 — DEV. 1½ — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	4¹⁵	4¼	6	WORKING TIGHT SPOTS + CIRC HOIST + STAND
4¹⁵	6⁰⁰	1¾	6	RUN IN
6⁰⁰	8⁰⁰	2	3	BREAK CIRC + REAMING TIGHT SPOTS 3227 DOWN

Tom Klowatski

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMPL-C
3793	3799	D			80	20/30	800	6	45			

DEVIATION RECORD: DEPTH — DEV. — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼		Rig Ser + BOP
8:15	3:15	7		Cleaning To Btm 500'
3:15	4:00	¾		Drill

DRILLER W Wigle

FOOTAGE FROM	FOOTAGE TO	DR.-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCHL-S PARFL-P COMPL-C
3799	3866	D			80	25/30	800	6	45			

DEVIATION RECORD: DEPTH 3856 — DEV. 3 1/8 — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	6³⁰	2½	2	Drill
6³⁰	6⁴⁵	¼	7	Rig Serv
6⁴⁵	9⁴⁵	3	2	Drill
9⁴⁵	10¹⁵	½	5	Circ
10¹⁵	10⁴⁵	½	10	Survey 3856 - 3 1/8
10⁴⁵	12⁰⁰	1¼	2	Drill

DRILLER Geo Krawetko

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Polar River	A1	Amoco Decaita A1 Polar River	Feb 19 /70

OPERATOR: Amoco Decaita A1 Polar River
CONTRACTOR: G P Drilling Co — RIG NO. 20
SIGNATURE OF OPERATOR'S REPRESENTATIVE: Fred Broder
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: J Doug Hansen

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16#	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C 250	15
2	GARDNER DENVER	FXQ	14

LOCATION 61°-1-37 N 121°-21-10" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	mm	36# J55	17	733		733

WIRE LINE RECORD — REEL NO.
SIZE 1/4 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 298
CUMULATIVE TON MI. OR TRIPS 7020

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	6¼	6	4¾
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			¾
6	TRIPS			2
7	LUBRICATE RIG	¼	½	¼
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY	1½	1½	¾
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	15
CUMULATIVE ROTATING HRS.	184 ¾
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD		4.45 FT.
19	D.C. 18 ID 6¾ OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O		2.04
31	STANDS DP	2914.47	FT.
	SINGLES DP		FT.
	KELLY DOWN	34.65	FT.
	TOTAL	3504	FT.
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	HW
TYPE	OSC1GJ
JETS 1/32"	3 - 12
SER. NO.	16874
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	562
TOTAL HRS. RUN	24
COND. 1/8's T/B/ GAGE	RUN
GPM/ PD-PSI	

MUD RECORD

	12 AM	3 AM	6 AM
TIME			
WEIGHT	93	93	92
PRESSURE GRADIENT	1606.32		1658.4
VISC.-SEC.	37	43	45
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			9.2
pH			8
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3100#		
BENIX	12#		
CEMTEX	100#		

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD		4.45 FT.
19	D.C. 18 ID 6¾ OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
4	C.O		2.04
33	STANDS DP	3 10352	FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
	WT. OF STRING	80	LBS.

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	H.W.
TYPE	OSC1G
JET 1/32"	3/12
SER. NO.	16874
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	748
TOTAL HRS. RUN	30
COND. 1/8's T/B/ GAGE	Run
GPM/ PD-PSI	

MUD RECORD

	8	11	1
TIME			
WEIGHT	9.2	92	9.2
PRESSURE GRADIENT	1680	1680	1728
VISC.-SEC.	47	46	42
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.		9.6	
pH		8.6	
SOLIDS %		7%	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bell	700#		
Ben X	2#		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PARTL-P COMPL-C
3312	3504	D			80	25	800	6	45	5½	—	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3353	1¾		3414	1¾		3478	1¾	

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12¹⁵	¼	7	RIG SERVICE
12¹⁵	1¹⁵	1	2	DRILL
1¹⁵	1⁴⁵	½	10	SURVEY
1⁴⁵	4⁰⁰	2¼	2	DRILL
4⁰⁰	4³⁰	½	10	SURVEY
4³⁰	6⁴⁵	2¼	2	DRILL
6⁴⁵	7¹⁵	½	10	SURVEY
7¹⁵	8⁰⁰	¾	2	DRILL

DRILLER: [illegible]

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD		4.45 FT.
19	D.C. 18 ID 6¾ OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O		2.04
34	STANDS DP	3197.82	FT.
	SINGLES DP		FT.
	KELLY DOWN	41.20	FT.
	TOTAL	3793.92	FT.
	WT. OF STRING	84 A/1	LBS.

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	H.T.C
TYPE	OSC1CJ
JETS 1/32"	3/12
SER. NO.	16874
DEPTH OUT	3793
DEPTH IN	2942
TOTAL FTG.	851
TOTAL HRS. RUN	34¼
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

	6	8	10
TIME			
WEIGHT	9.2	9.2	9.2
PRESSURE GRADIENT			
VISC.-SEC.	49	48	47
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	700#		
BENX	1½#		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SCL-S PARTL-P COMPL-C
3504	3690	D			80	25	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3541	1¾°		3604	1½°		3668	1½	

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	830	½	7	Rig Ser. & B.O.P. Rig Bavers.
830	930	1	2	Drill
930	10⁰⁰	½	10	Survey 3542' 1¾
10⁰⁰	1200	2	2	Drill
1200	1230	½	10	Survey 3604 1½°
12:30	2 30	2	2	Drill
230	300	½	10	Survey 3668 1½
300	400	1	2	Drill

DRILLER: W Wigley

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
8	BIT		
1	STB RMR 8¾ OD		4.45 FT.
19	D.C. 18 ID 6¾ OD		548.39 FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O		2.04
34	STANDS DP	3197.82	FT.
	SINGLES DP		FT.
	KELLY DOWN	41.20	FT.
	TOTAL	3793.92	FT.
	WT. OF STRING	84 A/1	LBS.

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	H.T.C
TYPE	OSC1CJ
JETS 1/32"	3/12
SER. NO.	16874
DEPTH OUT	3793
DEPTH IN	2942
TOTAL FTG.	851
TOTAL HRS. RUN	34¼
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

	6	8	10
TIME			
WEIGHT	9.2	9.2	9.2
PRESSURE GRADIENT			
VISC.-SEC.	49	48	47
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	700#		
BENX	1½#		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RU. SCL-S PARTL-P COMPL-C
3690	3793	D			80	25	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3731	2°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.45	¼	7	RIG SERV.
4.15	5.45	1½	2	DRILL
5.45	6.15	½	10	SURVEY 3731 – 2°
6.15	9.00	2¾	2	DRILL
9.00	9.45	¾		CIRC SAMPLE
9.45	10.00	¼	10	SURVEY
10.00	12.00	2	6	HOIS B.T #8 & MEASURE OUT CIRC WORKING TIGHT HOLE

DRILLER: Red Ingram

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POLAR RIVER	A1	AMOCO DECATUR A1 POLAR RIVER	FEB 16 70

OPERATOR: AMOCO DECATUR A1 POLAR RIVER
CONTRACTOR: G P DRILLING CO — RIG NO. 20
SIGNATURE OF OPERATOR'S REPRESENTATIVE:
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Doug Homer

LOCATION 61°-1-37 N 121°-21-10" W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C250	15
2	GARDNER DENVER	FXQ	14

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GP.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36# J55	17	733		733

WIRE LINE RECORD — REEL NO.
SIZE 1/9 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 298
CUMULATIVE TON MI. OR TRIPS 7020

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	6½	5¾	5½
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS			
7	LUBRICATE RIG	¼	¼	
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY	½	2	2½
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	THAW KELLY	¼		
22	CLEAN TO BTM	½		
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
	TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. W/O D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	14
CUMULATIVE ROTATING HRS.	168¾
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. 2¼ ID 6¾ OD	541.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
		2331.91	
25	STANDS DP	2388.00	FT.
2	SINGLES DP	62.92	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	3040.91	FT.
	WT. OF STRING	75	LBS.

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	HW
TYPE	OSC1GJ
JETS 1/32"	3-12
SER. NO.	16874
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	98
TOTAL HRS. RUN	6½
COND. 1/8's T/B/ GAGE	Run
GPM/ PD-PSI	

MUD RECORD

	2 AM	4 AM	6 AM
TIME			
WEIGHT	9.3	9.3	9.2
PRESSURE GRADIENT	1330.75	1335.3	1344.8
VISC.-SEC.	43	45	47
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			10
pH			8
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CELL	3000#		
BENEX	12#		

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C
2942	3040	D			80	#4/0	800	6	45	5½	—	UNIT

DEVIATION RECORD: DEPTH 2977 — DEV. 4½° — DIRECTION — DEPTH 3009 — DEV. 4½ — DIRECTION — DEPTH — DEV. — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	21	THAW KELLY
12 15	12 45	½	22	BREAK CIRC CLEAN TO BTM 35' FILL
12 45	1 00	¼	7	RIG SERVICE
1 00	3 30	2½	2	DRILL
3 30	3 45	¼	10	SURVEY
3 45	6 00	2¼	2	DRILL
6 00	6 15	¼	10	SURVEY
6 15	8 00	1¾	2	DRILL

ENGINEER: M McSwain

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
8	BIT		
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. ID OD	542.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C-O	2.04	
		2537.57	
27	STANDS DP	3138	FT.
1	SINGLES DP	3217	FT.
	KELLY DOWN	315600	FT.
	TOTAL	78 m.	LBS.
	WT. OF STRING		

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	H.W.
TYPE	OSC1G
JET 1/32"	3/12
SER. NO.	16874
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	214
TOTAL HRS. RUN	12¼
COND. 1/8's T/B/ GAGE	Run
GPM/ PD-PSI	

MUD RECORD

	8	10	2
TIME			
WEIGHT	9.2	9.2	9.1
PRESSURE GRADIENT	1440	1440	1472
VISC.-SEC.	48	48	44
PV/YP	20/3	/	/
GELS.	2/1	/	/
WL -CC'S.		10.5	
pH		8	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bell	200#		

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C
3040	3156	D			80	15	800	6	45			

DEVIATION RECORD: DEPTH 3033 — DEV. 2¾° — DIRECTION — DEPTH 3040 — DEV. 3¾° — DIRECTION — DEPTH 3070 — DEV. 3½° — DIRECTION — DEPTH 3102 — DEV. 3° — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼	7	RIG SER. - BOP
8:15	8:45	½	10	SURVEY 3040' 3¾°
8:45	1030	1¾	2	DRILL
1030	11:00	½	10	SURVEY 3070' 3½°
11:00	1245	1¾	2	DRILL
1245	115	½	10	SURVEY 3102' 3°
115	230	1¼	2	DRILL
230	300	½	10	SURVEY 3133' 2¾
3:00	4:00	1	2	DRILL

DRILLER: W Wigley

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
8	BIT		
1	STB RMR 8¾ OD	4.45	FT.
19	D.C. ID OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C-O	2.04	
		3736.03	
29	STANDS DP		FT.
	SINGLES DP	31.09	FT.
	KELLY DOWN	3312	FT.
	TOTAL	80 LBS	LBS.
	WT. OF STRING		

BIT RECORD

BIT NO.	8
SIZE	8¾
MFG.	H.W.
TYPE	OSC1GJ
JETS 1/32"	3-12
SER. NO.	16874
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	370
TOTAL HRS. RUN	17¾
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

	6	8	10
TIME			
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT	~~40~~	~~38~~	~~37~~
VISC.-SEC.	40	38	37
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.		10.8	
pH		9	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C
3156	3312	D			80	25	800	6	45			

DEVIATION RECORD: DEPTH 3165 — DEV. 2¼° — DIRECTION — DEPTH 3196 — DEV. 2½ — DIRECTION — DEPTH 3229 — DEV. 2° — DIRECTION — DEPTH 3255 — DEV. 2⅓ — DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	2	DRILL
4 15	~~4 45~~	½	10	SURVEY 3165' - 2¼°
~~4 45~~	~~5 45~~	1	2	DRILL
~~5 45~~	6 ~~15~~	½	10	SURVEY 3196 - 2½°
6 ~~15~~	8 00	1¾	2	DRILL
8 00	8 30	½	10	SURVEY 3227 - 2⅓
8 30	9 30	1	2	DRILL
9 30	10 00	½	10	SURVEY 3259 - 2½

10:00 - 11:00 - 1 - DRILL
11:00 - 11:30 - ½ SURVEY 3290 - 2°
11:30 - 12:00 - ½ - DRILL

DRILLER: Ben Brooks

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POLAR RIVER	A1	AMOCO DECATTA A1 POLAR RIVER	FEB 17-70
OPERATOR		**CONTRACTOR**	RIG NO.
AMOCO DECATTA A1 POLAR RIVER		GP DRILLING CO	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
		J Doug Hansen.	

D.P. SIZE	WT. PER FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.6	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C250	15
2	GARDNER DENVER	FXO	14

LOCATION 61°-1-32" N 121°-21-10" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9⅝	MM	36# J55	17	733		733

WIRE LINE RECORD — REEL NO.
SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT 254
CUMULATIVE TON MI. OR TRIPS 6976

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN		2	
2. DRILL ACTUAL	7¼	2½	
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			5¾
7. LUBRICATE RIG	¼		
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY	½	2	
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			1¼
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21. THAW LINES			1
22. CIRC W ORDERS		1½	
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	4

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	13
CUMULATIVE ROTATING HRS.	150½
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	2 7/8 C 3 1/16 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	204	
25	STANDS DP	2350.46	FT.
	SINGLES DP		FT.
	KELLY DOWN	11.00	FT.
	TOTAL	2921	FT.
	WT. OF STRING	75M	LBS.

BIT RECORD

BIT NO.	7
SIZE	8 3/4
MFG.	REED
TYPE	SS1GJ
JETS 1/32"	3-12
SER. NO.	578703
DEPTH OUT	
DEPTH IN	2717
TOTAL FTG.	204
TOTAL HRS. RUN	13¼
COND. 1/8's T/B/ GAGE	Run
GPM/ PD-PSI	

MUD RECORD

	12 PM	3 AM	7 AM
TIME			
WEIGHT	9.2	9.1	9.1
PRESSURE GRADIENT	1346.4	1348.9	1369.58
VISC.-SEC.	43	44	40
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			10
pH			8.4
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	16 00#		
BENEX	6 #		

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PART-P COMP-C
2805	2921	D			70	35	800	6	45	5½	—	ROTARY
					130	5-8						

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2879	MISRUN		2910	4°				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼	7	Rig SERVICE
12:15	3:30	3¼	2	DRILL
3:30	3:45	¼	10	SURVEY 2879 MISRUN
3:45	5:30	1¾	2	DRILL
5:30	5:45	¼	10	SURVEY
5:45	8:00	2¼	2	DRILL

DRILLER W.M. Blowstack

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	2 7/8 C 3 1/16 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O.	204	
25	STANDS DP	2350.46	FT.
1	SINGLES DP	3145	FT.
	KELLY DOWN	966	FT.
	TOTAL	2942 DD	FT.
	WT. OF STRING	75M	LBS.

BIT RECORD

BIT NO.	7
SIZE	8¾
MFG.	Reed
TYPE	SS1GJ
JET 1/32"	3 12
SER. NO.	578703
DEPTH OUT	2942
DEPTH IN	2717
TOTAL FTG.	~~2225~~
TOTAL HRS. RUN	15¾
COND. 1/8's T/B/ GAGE	4 2 1
GPM/ PD-PSI	

MUD RECORD

	8	10	2
TIME			
WEIGHT	9.1	9.0	90
PRESSURE GRADIENT	1363	1348	1348
VISC.-SEC.	46	45	45
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.	11		11
pH	8.6		8.6
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GELL	800#		
Soda Ash	100#		

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI-S PART-P COMP-C
2921	2942	D.			150	8	800	6	45			ROTARY

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2940	5°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	10:30	2½	2	DRILL
10:30	11:00	½	10	Survey 2940' 5°
11:00	12:00	1	22	Circ. wait on orders.
12:00	1:30	1½	10	Recheck survey's 2830' 4° 2849' 3° 2879' 4° 2888'
1:30	2:00	½	6	Run 5 stds Back in To Btm. & Circ
2:00	2:30	½	22	Circ.
2:30	3:00	½	10-6	Survey & Drain Rig
3:00	4:00	1	6	Hoist

DRILLER W Wigley

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
19	D.C. 2 7/8 6 3/4 OD	548.39	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	CO	204	
1	REAMER	11.45	
25	STANDS DP	2350.46	FT.
1	SINGLES DP	31.45	FT.
	KELLY DOWN	5.21	FT.
	TOTAL	2942.00	FT.
	WT. OF STRING	75M	LBS.

BIT RECORD

BIT NO.	8
SIZE	8 3/4
MFG.	H.T.C
TYPE	OSC-1G
JETS 1/32"	3-12
SER. NO.	16974
DEPTH OUT	
DEPTH IN	2942
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS.	
WL -CC'S.	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCI-S PART-P COMP-C
2942	2942	/	/					6				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1½	6	FINISH HOISTING BIT #7
5:30	6:45	1¼	7-5	RIG SERV. BLIND RAMS BLOW OUT LINES
6:45	11:00	1½	6	PICK UP REAMER RUN IN BIT #8
11:00	12:00	1	21	THAW MUD LINES & KELLY HOSE

DRILLER Geo Gromoski

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO. POPLAR LAKE A-1	A.1	AMOCO. DECALTA A.1 POPLAR RIVER	FEB 14/70
OPERATOR		**CONTRACTOR**	RIG NO.
AMOCO DECALTA A.1 POPLAR RIVER		G. P. DRILLING CO	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
		LEN LUNDBERG	

D.P. SIZE	WT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4 1/2	16.6	E	6"	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C-250	15
2	G.D.	FXQ	14

LOCATION 61-1-37N 121-21-10-W

WIRE LINE RECORD — REEL NO.

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
LAST CASING TUBING OR LINER	9 5/8	MM	36 J55	17	733		733

SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1.	RIG UP AND TEAR DOWN			
2.	DRILL ACTUAL	6		6
3.	REAMING Clean to Btm			1/4
4.	CORING			
5.	CONDITION MUD & CIRCULATE			
6.	TRIPS	1/2	3 3/4	1
7.	LUBRICATE RIG		1/4	1/4
8.	REPAIR RIG		4	
9.	CUT OFF DRILLING LINE			
10.	DEVIATION SURVEY	1 1/2		1/2
11.	WIRE LINE LOGS			
12.	RUN CASING & CEMENT			
13.	WAIT ON CEMENT			
14.	NIPPLE UP B.O.P.			
15.	TEST B.O.P.			
16.	DRILL STEM TEST			
17.	PLUG BACK			
18.	SQUEEZE CEMENT			
19.	FISHING			
20.	DIR. WORK			
21.				
22.				
23.				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	12
CUMULATIVE ROTATING HRS.	140 3/4
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR OD		
	D.C. ID OD		
	STB RMR OD		
16	2 6/8 6 3/4 OD	464.64	
	STB RMR OD		
1	C/O	2.04	
23	STANDS DP	2177	
2	SINGLES DP	62.65	
	KELLY DOWN	25.88	
	TOTAL	2732	
WT. OF STRING		70 LBS.	

BIT RECORD

BIT NO.	6
SIZE	8 3/4
MFG.	REED
TYPE	STIAG
JETS 1/32"	A/12 /13
SER. NO.	575624
DEPTH OUT	2717
DEPTH IN	2216
TOTAL FTG.	501
TOTAL HRS. RUN	31 1/4
COND. 1/8's T/B/ GAGE	6 1 E
GPM/ PD–PSI	

MUD RECORD

TIME	12 00	H	6
WEIGHT	9.1	9.1	9.1
PRESSURE GRADIENT	1242.	1266	1269
VISC.–SEC.	46	45	45
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.		9.4	
pH		8.5	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1500#		
BENEX	6 #		

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PART'L–P COMP'D.–C
2634	2717	D			70	2/30	800	6"	45	5 1/2		1 Unit

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2638	3/4	–	2701	1°				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	1/4	2	Drlg
12 15	12 45	1/2	10	Survey
12 45	5 00	4 1/4	2	Drlg
5 00	5 30	1/2	10	Survey
5 30	7 00	1 1/2	2	Drlg
7 00	7 30	1/2	10	Survey 1 Dropped Blow mud lines
7 30	8 00	1/2	6	Hoist Bit #6 @ 2717

DRILLER Tom Quinn

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR OD		
18	2 6/8 6 3/4 OD	548.29	
	STB RMR OD		
	D.C. ID OD		
	STB RMR OD		
1	C/O	2.04	
		2067.97	
22	STANDS DP		
2	SINGLES DP	62.66	
	KELLY DOWN	36.94	
	TOTAL	2717	
WT. OF STRING		LBS.	

BIT RECORD

BIT NO.	7
SIZE	8 3/4
MFG.	REED
TYPE	SSIG
JET 1/32"	3 – 12
SER. NO.	578703
DEPTH OUT	
DEPTH IN	2717
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

TIME			
WEIGHT	TRIP		
PRESSURE GRADIENT			
VISC.–SEC.			
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PART'L–P COMP'D.–C
2717												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2717	1°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	1/4	7	Rig Ser. & BOP
8 15	9 30	1 1/4	6	Hoist
9 30	13 30	4	8	Change Bearing in Cathead
13 30	4 00	2 1/2	6	Pickup 3 Drill Collars + Run in

M. Gorwatski

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR OD		
19	2 6/8 6 3/4 OD	54839	
	STB RMR OD		
	D.C. ID OD		
	STB RMR OD		
1	C.O.	204	
23	STANDS DP	2161.89	
2	SINGLES DP	62.90	
	KELLY DOWN	29.68	
	TOTAL	2805	
WT. OF STRING		75m. LBS.	

BIT RECORD

BIT NO.	7
SIZE	8 3/4
MFG.	Reed
TYPE	SSIGJ
JETS 1/32"	3/12
SER. NO.	578703
DEPTH OUT	
DEPTH IN	2717
TOTAL FTG.	88
TOTAL HRS. RUN	6
COND. 1/8's T/B/ GAGE	Run.
GPM/ PD–PSI	

MUD RECORD

TIME	6		10
WEIGHT	9.3		9.1
PRESSURE GRADIENT	1309		1269
VISC.–SEC.	43		45
PV/YP	14/8	/	
GELS.	2/10	/	
WL –CC'S.	9		8.5
pH	8.5		8.5
SOLIDS %	7%		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bel	700#		
Sodaash	200#		

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PART'L–P COMP'D.–C
2717	2805	D			70	30/35	800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2585	1 1/8							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5 00	1	6	Finish Run In Hook up Kelly Hose & Bash Hose
5 00	5 15	1/4	7	Rig Ser. + B.O.P.
5 15	5 30	1/4	3	Clean to Btm 15'
5 30	10 30	5	2	Drill
10 30	11 00	1/2	10	Survey 2885' 1 1/8
11 00	12 00	1	2	Drill

DRILLER W Wrigley

DAILY DRILLING REPORT — REPORT NO.

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO - POPLAR LAKE A-1	A-1	AMOCO - DECALTA A-1 POPLAR RIVER	FEB 15/70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO - DECALTA-A-1 POPLAR RIVER	G.P DRILLING CO	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D.D. Quinn

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: KEN LUNDBERG

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C-250	13
2	GARDNER - DENVER	FXQ	14

LOCATION: 61°-1-37 N 121°-21-10"-W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	mm	36# J55	17	733		733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1⅛	8	154

FT. CUT OFF: 154 — PRESENT LENGTH: 1542

TON MI. OR TRIPS SINCE LAST CUT: 205

CUMULATIVE TON MI. OR TRIPS: 6927

TIME DISTRIBUTION — HOURS

CODE NO. — OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	6¾	7	7
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG	¼	¼	¼
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY	1	¾	¾
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION: A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	9	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK
NO. OF DAYS FROM SPUD: 16
CUMULATIVE ROTATING HRS.
TOTAL MUD COST

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
16	D.C. 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
19	STANDS DP	1795.94	FT.
2	SINGLES DP	62.68	FT.
	KELLY DOWN	30.95	FT.
	TOTAL	2356	FT.
WT. OF STRING		62	LBS.

BIT RECORD

BIT NO.	6
SIZE	8 3/4
MFG.	REED
TYPE	STIAG
JETS 1/32"	2/12/13
SER. NO.	575624
DEPTH OUT	
DEPTH IN	2216
TOTAL FTG.	130
TOTAL HRS. RUN	11¼
COND. 1/8's T/B/GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	12	2	6
WEIGHT	9.1	9.1	9.0
PRESSURE GRADIENT	1074	1074	1068
VISC.-SEC.	45	45	45
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			9.6
pH			8.4
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1200#		
BEN-EX	6#		

MORNING TOUR

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
16	2 1/8 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
21	STANDS DP	1973.89	FT.
1	SINGLES DP	31.93	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	2573.20	FT.
WT. OF STRING		64	LBS.

BIT RECORD

BIT NO.	6
SIZE	8 3/4
MFG.	REED
TYPE	STIAG
JET 1/32"	12/13
SER. NO.	575624
DEPTH OUT	
DEPTH IN	2216
TOTAL FTG.	297
TOTAL HRS. RUN	18¼
COND. 1/8's T/B/ GAGE	RR N
GPM/ PD-PSI	

MUD RECORD

TIME	8 AM	11 AM	3 PM
WEIGHT	9	9	9
PRESSURE GRADIENT	1090.89	1109.95	1153
VISC.-SEC.	43	45	45
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			9
pH	8.4	8.2	8.6
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1300#		
BENEX	86#		
CETEX	50#		
SODA ASH	100#		

DAY TOUR

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
16	2 1/8 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O.	2.04	
22	STANDS DP	2068.28	FT.
	SINGLES DP	62.74	FT.
	KELLY DOWN	36.30	FT.
	TOTAL	2634.00	FT.
WT. OF STRING		70	LBS.

BIT RECORD

BIT NO.	6
SIZE	8 3/4
MFG.	Reed
TYPE	STIAG-J
JETS 1/32"	2/12/13
SER. NO.	575624
DEPTH OUT	
DEPTH IN	2216
TOTAL FTG.	418
TOTAL HRS. RUN	25¼
COND. 1/8's T/B/ GAGE	RRN
GPM/ PD-PSI	

MUD RECORD

TIME	4	8	10
WEIGHT	9.0	9	9
PRESSURE GRADIENT	1130	1168	1196
VISC.-SEC.	45	45	44
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.	9.1	9.1	9.3
pH		8.6	
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SODA ASH	100#		
GEL BEN-X	600 2#		

EVENING TOUR

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'L-P COM'P-C
2258	2346	D			75	5	800	6"	45	5½	-	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2260	2°	229	2293	1 3/4		2324	1 3/4	

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 30	12 45	¼	10	SURVEY
12 45	3 00	2¼	2	DRLG
3 00	3 15	¼	7	RIG SERVICE
3 15	3 30	¼	10	SURVEY
3 30	5 30	2	2	DRLG
5 30	6 00	½	10	SURVEY
6 00	8 00	2	2	DRLG

DRILLER: Tom Quinn

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'L-P COM'P-C
2346	2513	D			70	5-30	800	6	45	5½		UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2356	1½		2387	1¼		2450	1°	

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	7	RIG SERVICE & BOP - KL - RS.
8 15	8 30	¼	10	SURVEY
8 30	11 00	2½	2	DRILL
11 00	11 15	¼	10	SURVEY
11 15	1 45	2½	2	DRILL
1 45	2 00	¼	10	SURVEY
2 00	4 00	2	2	DRILL

DRILLER: Jason Glowatski

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'L-P COM'P-C
2513	2634	D			70	30	800	6	44			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2513	½		2576	¾				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	2	DRILL
415	445	½	10	SURVEY 2513' ½°
445	500	¼	7	RIG SER. & B.O.P.
500	800	3	2	DRILL
800	815	¼	10	SURVEY 2576 ¾
815	1200	3¾	2	DRILL

DRILLER: W Wrigley

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 17

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR LAKE A-1	A-1	AMOCO DECALTA A-1 POPLAR RIVER	FEB 14/70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO DECALTA A-1 POPLAR RIVER	G.P. DRILLING CO.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6"	FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. CO	C-250	14
2	C.D	FXQ	15

LOCATION 61°-1'-37"N 121°-21-10"W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	MM	36# J55	17	733		733

WIRE LINE RECORD — REEL NO.
SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 154
FT. CUT OFF 154 — PRESENT LENGTH 1542
TON MI. OR TRIPS SINCE LAST CUT-OUT 6722 - 175
CUMULATIVE TON MI. OR TRIPS 6927

TIME DISTRIBUTION — HOURS

CODE NO. — OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	7	6	4¼
3. REAMING			½
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS		1½	2½
7. LUBRICATE RIG	¼	¼	¼
8. REPAIR RIG			½
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY	¾	¾	
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO. D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	16
CUMULATIVE ROTATING HRS.	102±
TOTAL MUD COST	

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR	OD	
	D.C. ID	OD	
	STB RMR	OD	
16	2¼	6¾ OD	464.64
	STB RMR	OD	
1	C/O.		2.04
17	STANDS DP		1596.71
1	SINGLES DP		3.60
	KELLY DOWN		41.20
	TOTAL		
	WT. OF STRING		LBS.

BIT RECORD

BIT NO.	5
SIZE	8¾
MFG.	REED
TYPE	STIAG J
JETS 1/32"	2/12 1/13
SER. NO.	575625
DEPTH OUT	
DEPTH IN	1539
TOTAL FTG.	507
TOTAL HRS. RUN	30¼
COND. 1/8"s T/B/ GAGE	1 in
GPM/ PD-PSI	

MUD RECORD

TIME	12	4	6
WEIGHT	9.2	9.2	92
PRESSURE GRADIENT	995	1008	1017
VISC.-SEC.	42	40	42
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1200#		
BENEX	4#		

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN
2062	2136	D					800	6"	15	5½	14	UNIT

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2062	1½	210S	1¼					

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	10	SURVEY
12 15	12 30	¼	7	Rig SERVICE
12 30	5 30	5	2	Drlg.
5 30	6 00	½	10	WORK PIPE & SURVEY
6 00	8 00	2	2	Drlg

DRILLER Tom Quinn

DAY TOUR

DRILLING/ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR	OD	2036.29
16	2¼	6¾ OD	946.64
	STB RMR	OD	
	D.C. ID	OD	1568
	STB RMR	OD	
1	C/O	13	6.20
18	STANDS DP		
1	SINGLES DP		
	KELLY DOWN		26.52
	TOTAL		2216
	WT. OF STRING		61 LBS.

BIT RECORD

BIT NO.	5
SIZE	8¾
MFG.	REED
TYPE	STIAG J
JET 1/32"	2/12 1/13
SER. NO.	675625
DEPTH OUT	2216
DEPTH IN	1539
TOTAL FTG.	677
TOTAL HRS. RUN	36¼
COND. 1/8"s T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	9 AM	11 AM	2 PM
WEIGHT	92	93	93
PRESSURE GRADIENT	1025.28	1062.15	1070
VISC.-SEC.	42	45	43
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.	8.8		
pH	9	9	9
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
		BENEX	3#
GEL	1400#		
SODA ASH	100#		
CELTEX	50#		

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
2136	2216	D			70	30	800	6	44	5½		UNIT
					100	5	800					

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2136	1¼		2199	2°		2216		

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	10	SURVEY
8 15	9 30	1¼	2	DRILL
9 30	9 45	¼	7	Rig SERVICE
9 45	11 00	1¼	2	DRILL
11 00	11 15	¼	10	SURVEY
11 15	2 30	3½	2	DRILL
2 30	3 00	¼	10	SURVEY
2 45	4 00	1 15	6	HOIST FOR BIT

DRILLER

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			FT.
	BIT		
	STB RMR	OD	
16	D.C. ID 2¼	6¾ OD	464.64
	STB RMR	OD	
	D.C. ID	OD	
	STB RMR	OD	
1	C.O.		2.04
18	STANDS DP		1621.33
2	SINGLES DP		62.92
	KELLY DOWN		37.07
	TOTAL		2258.00
	WT. OF STRING		60 LBS.

BIT RECORD

BIT NO.	5	6
SIZE	8¾	8¾
MFG.	Reed	Reed
TYPE	STIAG	STIAG
JETS 1/32"	2/12 1/13	3/12 1/13
SER. NO.	575625	575624
DEPTH OUT	2216	
DEPTH IN	1539	2216
TOTAL FTG.	677	
TOTAL HRS. RUN	36¼	
COND. 1/8"s T/B/ GAGE	6 5 1	
GPM/ PD-PSI		

MUD RECORD

TIME	Trip	8	10
WEIGHT		9.1	9.1
PRESSURE GRADIENT		1034	1034
VISC.-SEC.		45	45
PV/YP		13 16	
GELS.			
WL -CC'S.		7.0	
pH		8.5	
SOLIDS %		7½	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
	Water.		

FOOTAGE FROM	FOOTAGE TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
2216	2258	D			90	5	800	6	45			

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2216	2½							

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 45	¾	6	Hoist
4 45	5 00	¾	7-8	Rig Ser. B.O.P. change Tightener Bolt For Baakes.
5 00	7 15	1¾	6	Run in Bit 6 & Break Circ
7 15	7 45	½		Clean out 46' Fill to Btm.
7 45	12 00	4¼	2	Drill

DRILLER W Wigley

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 16

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar Lake A-1	A.1	Amoco Decalta A-1 Poplar River	Feb 13/70

OPERATOR	CONTRACTOR	RIG NO.
Amoco Decalta A-1 Poplar River	G.P Drilling Co Ltd	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg.

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6"	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. Co	C250	15
2	G.D	FXQ	14

LOCATION 61° - 1' - 37" N 121° 28' - 10" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT
	9 5/8	MM	36#	J-55	17	733	733

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED
1/8	8	154

FT. CUT OFF: 154 — PRESENT LENGTH: 1542

TON MI. OR TRIPS SINCE LAST CUT: 6722

CUMULATIVE TON MI. OR TRIPS: 6897

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN			
2. DRILL ACTUAL	7½	7½	7½
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG	¼	¼	¼
8. REPAIR RIG			
9. CUT OFF DRLG LINE			
10. DEVIATION SURVEY	¼	½	¼
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	9
CUMULATIVE ROTATING HRS.	91¼
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
16	12¼ 6¾ OD	464.64	FT.
	STB RMR OD		FT.
1	C/O	2.04	
15	STANDS DP	1426.17	FT.
1	SINGLES DP	31.42	FT.
	KELLY DOWN	22.73	FT.
	TOTAL	1947	FT.
	WT. OF STRING	55m	LBS.

BIT RECORD

BIT NO.	5
SIZE	8 3/4
MFG.	Reed
TYPE	STIAGJ
JETS 1/32"	2/12 1/13
SER. NO.	575625
DEPTH OUT	
DEPTH IN	1539
TOTAL FTG.	391
TOTAL HRS. RUN	8½
COND. 1/8's T/B/ GAGE	1/N
GPM/ PD–PSI	

MUD RECORD

TIME	12	4	6
WEIGHT	9.2	9.2	9.2
PRESSURE GRADIENT	768	816	864
VISC.–SEC.	40	40	35
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.			8.2
pH			9.0
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1900#		
Ren-Ex	8#		

MORNING TOUR

FOOTAGE

FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR.–P COM.–C
1557	1930	D			70	25/35	800	6"	45	5½	-	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1728	¼							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	4 30	4½	2	Drlg
4 30	4 45	¼	10	Survey
4 45	5 00	¼	7	Rig Service - Change Savor Sub (new)
5 00	8 00	3	2	Drlg

DRILLER Tom Quinn

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
16	12¼ 6¾ OD	444.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
	STANDS DP	1502.43	FT.
	SINGLES DP	31.58	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	2041.89	FT.
	WT. OF STRING	55m	LBS.

BIT RECORD

BIT NO.	5
SIZE	8 3/4
MFG.	REED.
TYPE	STIAGJ
JET 1/32"	2/12 1/13
SER. NO.	575625
DEPTH OUT	
DEPTH IN	1539
TOTAL FTG.	502
TOTAL HRS. RUN	15¾
COND. 1/8's T/B/ GAGE	RUN
GPM/ PD–PSI	

MUD RECORD

TIME	8 AM	12 AM	3 PM
WEIGHT	92	9.2	92
PRESSURE GRADIENT	926.11	960	9744
VISC.–SEC.	38	40	38
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	1900#		
Benex	5#		

DAY TOUR

FOOTAGE

FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S. P. M.	METHOD RUN SGL.–S PAR.–P COM.–C
1930	2041	D			100	5m	750	6	44	~~5½~~ 5½		UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1947	1¼°		2010	2°				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	7	Rig Service & BOP RS. + KC.
8 15	8 30	¼	10	Survey
8 30	12 00	3½	2	Drill
12 00	12 15	¼	10	Survey
12 15	4 00	3¾	2	Drill

DRILLER Wm Slowatsky

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
16	D.C. 12¼ 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C.O.	2.04	
16	STANDS DP	1502.43	FT.
2	SINGLES DP	63.03	FT.
	KELLY DOWN	29.86	FT.
	TOTAL	2062.00	FT.
	WT. OF STRING	55m	LBS.

BIT RECORD

BIT NO.	5
SIZE	8 3/4
MFG.	Reed.
TYPE	STIAGJ
JETS 1/32"	2/12 1/13
SER. NO.	575625
DEPTH OUT	
DEPTH IN	1539
TOTAL FTG.	523
TOTAL HRS. RUN	23¼
COND. 1/8's T/B/ GAGE	
GPM/ PD–PSI	

MUD RECORD

TIME	4	6	8
WEIGHT	9.3	9.2	9.2
PRESSURE GRADIENT	960	960	960
VISC.–SEC.	42	42	43
PV/YP	/	/	/
GELS.	/	/	/
WL –CC'S.	9.2	9.2	8.8
pH	9.4		9.4
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Soda Ash	100#		
Benex	1#		

EVENING TOUR

FOOTAGE

FROM	TO	DR..D RM..R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR.–P COM.–C
2041	2062	D					800	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2041	1½							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 30	½	10,7	Survey + Rig Ser.
4 30	12 00	7½	2	Drill

DRILLER W. Wigley

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 15

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar Lake A-1	A1	Amoco Decalta A-1 Poplar River	Feb 12/70

OPERATOR: Amoco Decalta A-1 Poplar River

CONTRACTOR: G.P — RIG NO. 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D Cunningham

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

LOCATION: C1-1-37-N 121-21-10W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6"	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. Co	C-250	15"
2	Gardner Denver	FXQ	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	NKD. TO CSG. NO.	SET AT
9⅝	SMM	36# J-55	17	733		733

WIRE LINE RECORD — REEL NO.

SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 154 — FT. CUT OFF 154 — PRESENT LENGTH 1542

TI M HL OR TRIPS W.REC. LAST CUT — 150

CUMULATIVE TON MI. OR TRIPS 6872

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	7¼	7½	4
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS			3½
7	LUBRICATE RIG		½	¼
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY	¾	¼	¼
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	OTHER WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.
HRS. W/OPR. D.P.
HRS. WO/D.P.
HRS. STANDBY
TOTAL DAY WORK

NO. OF DAYS FROM SPUD: 9 8
CUMULATIVE ROTATING HRS.: 68½
TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour)

NO.			
1	BIT		FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
16	D.C. 2¾ ID 6¾ OD	464.64	FT.
	STB RMR OD		FT.
1	C/O	2.04	
7	STANDS DP	663.88	FT.
-	SINGLES DP		FT.
	KELLY DOWN	35.32	FT.
	TOTAL	1165.88	FT.
WT. OF STRING		50m	LBS.

BIT RECORD

BIT NO.	4	
SIZE	8¾	
MFG.	HT	
TYPE	X3A	
JETS 1/32"	2-13	
SER. NO.	17159	
DEPTH OUT		
DEPTH IN	733	
TOTAL FTG.	427	
TOTAL HRS. RUN	10½	
COND. 1/8's T/B/ GAGE	1 N	
GPM/ PD-PSI		

MUD RECORD

TIME	12	12	6
WEIGHT	86	86	89
PRESSURE GRADIENT	[illegible]	460	
VISC.-SEC.	48	45	45
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	12 00		
Ben-Ex	6#		

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
860	1160	D			100	30/20	800	6	45-	5½	-	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
880	¼		1071	¼				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	1 00	1	2	Drlg
1 00	1 15	¼	10	Survey 880 ¼°
1 15	5 00	3¾	2	Drlg
5 00	5 30	½	10-7	Survey + Rig Service
5 30	8 00	2½	2	Drlg

DRILLER: Tom Cunningham

DRILLING ASSEMBLY (At end of tour)

NO.			
1	BIT	502	FT.
	STB RMR OD		FT.
16	D.C. 2¾ ID 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
10	STANDS DP	937.27	FT.
	SINGLES DP		FT.
	KELLY DOWN	26.05	FT.
	TOTAL	1430	FT.
WT. OF STRING		52	LBS.

BIT RECORD

BIT NO.	4	
SIZE	8¾	
MFG.	HW	
TYPE	X3A	
JETS 1/32"	2-12	1-13
SER. NO.	17159	
DEPTH OUT		
DEPTH IN	733	
TOTAL FTG.	697	
TOTAL HRS. RUN	18	
COND. 1/8's T/B/ GAGE	A-N	
GPM/ PD-PSI		

MUD RECORD

TIME	8 00	11 00	3 00
WEIGHT	9.3	9.2	9
PRESSURE GRADIENT	588	622	651
VISC.-SEC.	44	43	44
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2800#		
BENEX	12#		
CELTEX	50#		

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
1160	1430	D			80	30	800	6	44	5½	-	UNIT

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1288	⅛							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	7	Rig SERVICE — BOP + K.C. + Rig SAVERS
8 15	12 15	4	2	DRILL
12 15	12 30	¼	10	SURVEY
12 30	4 00	3½	2	DRILL

DRILLER: M M Ebworth

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR OD		FT.
16	D.C. 2¾ ID 6¾ OD	464.64	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	C/O	2.04	
11	STANDS DP	1031.61	FT.
1	SINGLES DP	31.45	FT.
	KELLY DOWN	28.26	FT.
	TOTAL	1557.00	FT.
WT. OF STRING		54	LBS.

BIT RECORD

BIT NO.	4	5
SIZE	8¾	8¾
MFG.	HW	Reed
TYPE	X3A	STIBGJ
JETS 1/32"	9/12/13	9/12/13
SER. NO.	17159	575625
DEPTH OUT	1539	
DEPTH IN	733	1539
TOTAL FTG.	806	
TOTAL HRS. RUN	21	
COND. 1/8's T/B/ GAGE	6 4 1	
GPM/ PD-PSI		

MUD RECORD

TIME	4:00	6 30	8 30
WEIGHT	9.14	9.1	9.0
PRESSURE GRADIENT	658	658	705
VISC.-SEC.	44	44	41
PV/YP	/	/	/
GELS.	/	/	/
WL -CC'S.		10	
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
1430	1557	D			80	30	700	6	45			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1470	¼		1539	¼				

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	7	Rig Sea + BOP. check.
4:15	545	1½	2	Drill
545	600	¼	10	~~Survey 1420 ¼~~
600	730	1½	2	Drill
730	800	½	6	Survey + Drain Rig
8:00	11:00	3	6	Hoist Bit 4 @ 1539' change Bits + Run in Bit 5 Circ
11:00	1200	1	2	Drill

DRILLER: D Wigley

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 14

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Decalta	A-1	Amoco Decalta Poplar River A-1	Feb 11/80

OPERATOR: Amoco — SIGNATURE OF OPERATOR'S REPRESENTATIVE: Pete

CONTRACTOR: G.P. Drilling Co Ltd — RIG NO. 20

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

LOCATION: 61° 1'37" N 121° 21'10" W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	4½FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. Co	C-250	15"
2	Gardner Denver	FXQ	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB TO CSG. HD.	SET AT
9⅝	m&m	36 J-55	17	733		733

WIRE LINE RECORD — REEL NO.

SIZE 1⅛ — NO. LINES 8 — FT. CLIMBED 154

FT. CUT OFF 154 — PRESENT LENGTH 1542 on spool

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6872

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL			4½
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			2½
6	TRIPS		1½	
7	LUBRICATE RIG			
8	REPAIR RIG		2	
9	CUT OFF DRILLING LINE	½	1½	
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.	7½		
15	TEST B.O.P.		2	1
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21	Hook up Kelly		¼	
22	THAW MANIFOLD		¾	
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.

HRS. W/OPR. D.P.

HRS. WO/D.P.

HRS. STANDBY

TOTAL DAY WORK

NO. OF DAYS FROM SPUD: 7

CUMULATIVE ROTATING HRS.: 49¾

TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	
15	D.C. 8¾ ID 6¾	OD 00	523.50 FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O		2.04
2	STANDS DP		177.43 FT.
1	SINGLES DP		31.60 FT.
	KELLY DOWN		41.20 FT.
	TOTAL		733 FT.
WT. OF STRING			41m LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1/32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T.B. GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS	
WL -CC'S	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.			
1	BIT		FT.
	STB RMR	OD	
16	D.C. 8¾ ID 6¾	OD 00	464.64 FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O		2.04
2	STANDS DP		188.25 FT.
	SINGLES DP		11.20 FT.
	KELLY DOWN		[illegible] FT.
	TOTAL		[illegible] FT.
WT. OF STRING			41 LBS.

BIT RECORD

BIT NO.	1
SIZE	8¾
MFG.	HW
TYPE	X3A
JETS 1/32"	2-12 1-13
SER. NO.	17159
DEPTH OUT	
DEPTH IN	733
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T.B. GAGE	Run #1
GPM/ PD-PSI	
	696.13

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS	
WL -CC'S	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.			
1	BIT		FT.
	STB RMR	OD	
16	D.C. 12¾ ID 6¾	OD 00	464.64 FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
1	C/O		2.04
4	STANDS DP		375.37 FT.
—	SINGLES DP		FT.
	KELLY DOWN		18.00 FT.
	TOTAL		860.95 FT.
WT. OF STRING			46m LBS.

BIT RECORD

BIT NO.	1
SIZE	8¾
MFG.	HW
TYPE	X3A
JETS 1/32"	2/12 1/13
SER. NO.	17159
DEPTH OUT	860
DEPTH IN	733
TOTAL FTG.	127
TOTAL HRS. RUN	3¼
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	8:30	9:30	11:00
WEIGHT	8.4	8.4	8.4
PRESSURE GRADIENT			
VISC.-SEC.	40	46	48
PV/YP	/	/	/
GELS	/	/	/
WL -CC'S.	8.4	8.4	8.4
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GELL	39 00 lbs	BICARBonate	
CELLEX	200 lbs		200 lbs
BENEX	6 lbs		
H2S			

MORNING TOUR

FOOTAGE FROM	FOOTAGE TO	DR'D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
733												

DEVIATION RECORD: DEPTH 733 — DEV. ¾° — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00				Build 2nd Kill Line To Cg Bowl Hook up Bleed off Lines + B.O.P wheels Repair 2" Cameron m
	7 30	7½	14	Mud Line Tight In Schaffer To Bowl
7 30	8 00	½	9	Slip + Cut Drlg Line

DRILLER Tom. Quinn

DAY TOUR

FOOTAGE FROM	FOOTAGE TO	DR'D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
733												

DEVIATION RECORD: DEPTH 733 — DEV. ¼° — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 30	½		PRESURE BLIND RAMS
8 30	10 30	2		WORK ON CATHEAD
10 30	12 00	1½		CUT + SLIP 154' LINE
12 00	1 30	1½		RUN in
1 30	1 45	¼		Hook up KELLY HOSE
1 45	3 15	1½		PRESURE up HYDRIL + PIPE RAMS
3 15	4 00	¾		THAW out MANIFOLD TO PRESURE CHECK VALVE (BLOWOUT DRILL w HIBE THAWING)

DRILLER [illegible]

EVENING TOUR

FOOTAGE FROM	FOOTAGE TO	DR'D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
733	860				95	15	700	6	44	5½		

DEVIATION RECORD: DEPTH 733 — DEV. ¼° — DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00			15	PRESSURE up on MANIFOLD Values 1100 OK DRAIN up Same.
	500	1		Check Pit Saucers OK.
500	615	1¼	2	Drill out Blue Float cement + shoe Bypass cement to Sump
615	845	2½	5	Mud up to Drill Ahead.
8 15	11 30	3¼	2	DRILL.

DRILLER (W) Wigley

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 13

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO DECALTA	A-1	AMOCO DECALTA POLAR RIVER A-1	FEB 10, 70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO LTD	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. [illegible]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16	E	6	EH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C 250	15
2	GARDNER DENVER	FXQ	14

LOCATION 69° 37" N 131° 31' 10" W

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. CLIPPED
4/9	8	64

FT. CUT OFF: 64 — PRESENT LENGTH: 1696

TON MI. OR TRIPS SINCE LAST CUT: 6772

CUMULATIVE TON MI. OR TRIPS: 6872

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	BRD. TO CSG. NO.	SET AT
9⅝			17	733		733

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1.	RIG UP AND TEAR DOWN			
2.	DRILL ACTUAL			
3.	REAMING			
4.	CORING			
5.	CONDITION MUD & CIRCULATE			
6.	TRIPS			
7.	LUBRICATE RIG			
8.	REPAIR RIG			
9.	SLIP DRILLING LINE			
10.	DEVIATION SURVEY			
11.	WIRE LINE LOGS			
12.	RUN CASING & CEMENT			
13.	WAIT ON CEMENT	3		
14.	NIPPLE UP B.O.P.	5	8	8
15.	TEST B.O.P.			
16.	DRILL STEM TEST			
17.	PLUG BACK			
18.	SQUEEZE CEMENT			
19.	FISHING			
20.	DIR. WORK			
21.				
22.				
23.				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

MRS. W/CONTR. D.P.	
MRS. W/OPR. D.P.	
MRS. WO/D.P.	
MRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	6
CUMULATIVE ROTATING HRS.	45½
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
	STB RMR OD		FT.
15	D.C. 10 6¾ OD	523.50	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	XO sub	2.04	FT.
2	STANDS DP	177.43	FT.
1	SINGLES DP	31.60	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	733	FT.
WT. OF STRING	41M		LBS.

BIT RECORD

BIT NO.	1
SIZE	
MFG.	
TYPE	
JETS 1 32nds	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T. B. GAGE	7
GPM/ PD-PSI	

MUD RECORD

TIME	4
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS	
WL -CC'S	
pH	
SOLIDS	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
	STB RMR OD		FT.
15	D.C. 10 6¾ OD	523.50	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	XO sub	2.04	FT.
2	STANDS DP	177.43	FT.
1	SINGLES DP	31.60	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	733	FT.
WT. OF STRING	41M.		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1 32nds	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS	
WL -CC'S	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

	BIT		FT.
	STB RMR OD		FT.
15	D.C. 10 6¾ OD	523.50	FT.
	STB RMR OD		FT.
	D.C. ID OD		FT.
	STB RMR OD		FT.
1	XO sub	2.04	FT.
2	STANDS DP	177.43	FT.
1	SINGLES DP	31.60	FT.
	KELLY DOWN	41.20	FT.
	TOTAL	733	FT.
WT. OF STRING	41M.		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1 32nds	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1/8's T/B/ GAGE	
GPM/ PD-PSI	

MUD RECORD

TIME	
WEIGHT	
PRESSURE GRADIENT	
VISC.-SEC.	
PV/YP	
GELS	
WL -CC'S	
pH	
SOLIDS %	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE

FROM	TO	DR'D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
733								6 X 15		5½		S

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
733	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12	3	3	13	W.O.C
3	3½	½		Back off Landing joint Crank Head & Lay Down
3½	6½	3	14	Cut off Conductor BOP, Clean Cellar
				Weld on Bowl
6½	8	1½	14	Pick up B.O.P. unbolt Spool from Schlatter
				Lay Flare line & make up same
				Drain & Clean pumps & Mud Tank

DRILLER Tom Cairns

FOOTAGE

FROM	TO	DR'D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN
733								6 X 15		5½ X 4		6 unit.

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
733	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8	4	8	14	Nipple up
				12 hrs WELDING TIME CHG. TO AMOCO
				CUTTING OFF SURFACE CSG & WELD ON
				CSG BOWL & TRAVEL TIME

DRILLER M GLOWATSKI

FOOTAGE

FROM	TO	DR'D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
							6			5½		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
733	¼°							

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4				Nipple up B.O.P's Hook up Values B.O.P. Lines
				Dril Nipple & Flow Line change Pipe & Blind
				Rams around Blind Rms, Pipe Top. Hook up
				Kill Line Hook up Flare Lines & Stake
				Pressure up BOPs Lines & work Pipe & Blind Rams
	12			Bleeding up 2nd Kill Line to Csg Bowl.

DRILLER W Wrigley

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

PAN AMERICAN PETROLEUM CORPORATION

PIPE TALLY AND CEMENTING RECORD

LEASE Ignacio Dacosta Federal Unit WELL NO A-1 DATE Feb. 9 19 70

PIPE RUN, SIZE 9 5/8 WEIGHT 36# GRADE J-55 TYPE JOINT 8RT STC MAKE Various NO. FT. 704.76 38.65

PIPE RUN, SIZE 7" WEIGHT 20# GRADE J-55 TYPE JOINT 8RT LTC MAKE Various NO. FT. 121.77 93.35

NO	LENGTH OF JOINT FEET	IN	NO	LENGTH OF JOINT FEET	IN	NO	LENGTH OF JOINT FEET	IN	NO	LENGTH OF JOINT FEET	IN	NO	LENGTH OF JOINT FEET	IN
1	42	65	51			101			151			201		
2	42	00	52			102			152			202	Cut Off.	
3	42	44	53			103			153	Franklin		203	40 45	
4	41	14	54			104			154	99788		204	✓	✓
5	43	50	55			105			155			205	✓	✓
6	43	12	56			106			156			206	✓	✓
7	43	36	57			107			157			207	✓	✓
8	43	40	58			108			158			208	✓	✓
9	43	17	59			109			159			209		
10	42	25	60			110			160			210		
11	42	19	61			111			161			211		
12	43	22	62			112			162			212		
13	42	47	63			113			163			213		
14	44	13	64			114			164			214		
15	39	70	65			115			165			215		
16	43	10	66			116			166			216		
17	42	07	67	Cut Off		117			167			217		
with 33	39	68	68	Was Run		118			168			218		
19	33	97	69	✓	✓	119			169			219		
20	44	35	70	✓	✓	120			170			220		
21	35	28	71	✓	✓	121			171			221		
22	30	73	72	✓	✓	122			172			222		
23	42	24	73	✓	✓	123			173			223		
24			74			124			174			224		
25			75			125			175			225		
26			76			126			176					
27			77			127			177					
28			78			128			178					
29			79			129			179					
30			80			130			180					
31			81			131			181					
32			82			132			182					
33			83			133			183					
34			84			134			184					
35			85			135			185					
36			86			136			186					
37			87			137			187					
38			88			138			188					
39			89			139			189					
40			90			140			190					
41			91			141			191					
42			92			142			192					
43			93			143			193					
44			94			144			194					
45			95			145			195					
46			96			146			196					
47			97			147			197					
48			98			148			198					
49			99			149			199					
50			100			150			200					

TALLY OF JOINTS NOT RUN

NO	LENGTH OF JOINT FEET	IN
1	3	40
2	40	45
3	32	97
4	43	33
5	33	28
6	26	73
7	37	24
8		
9		
10		
11		
12		
13		
14		
15		
16		
17		
18		
19		
20		
21		
22		
23		
24		
	213	85

NO JOINTS DELIVERED	(23)	935.41
NO JOINTS RUN	(17)	721.56
FLOAT & SHOE		3.05
TOTAL RUN – OVERALL		724.61
OFF FOR THREADS		5.51
TOTAL – THREADS OFF		719.10
TOP PIPE BELOW		
☑ ROTARY DRIVE BUSHING		13.90
☐ DERRICK FLOOR		
DEPTH LANDED	K.B	733.00

CEMENT – MAKE Dowell Neat

KIND USED Sacked

NO. SACKS 700 + 2% CaCl₂

METHOD 2 Plug Dowell.

REMARKS:

Used one Dowell T.P.
Cmtr. To Mix & Displace
Plug Cents on Shoe &
Float.
30 Sax Cmt. To Surf.
Float Held.
Plug Down 8:45 PM 2/9/70
Cmt. Stood At Sur. in 8 Hrs.

935.41

APPROVED _____

PAN AMERICAN REPRESENTATIVE

DAILY DRILLING REPORT — REPORT NO. 12

LEASE: Amoco Poplar River — WELL NO. A-1 — API WELL NUMBER: Amoco Decalta — DATE: Feb 9-70

OPERATOR: Amoco Pete — CONTRACTOR: G.P. Drilling Co Ltd. — RIG NO. 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lou Lundberg

LOCATION: 61° 1' 34" N 121° 21' 10" W

D.P. SIZE	WT.	GRADE	TOOL JT. I.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6 4½-FH		

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.SCO	C-250	13
2	G-D	FYQ	14

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	PER. TO CSG. PT.	SET AT

WIRE LINE RECORD — REEL NO.
SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 64
FT. CUT OFF 64 — PRESENT LENGTH 1696
FROM OR TO TRIPS WHERE LAST PUT: 6772
CUMULATIVE FROM OR TO PT.: 6872.

TIME DISTRIBUTION - HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL		1	
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE	3¾	1¾	1
6	TRIPS	3½	2¾	
7	LUBRICATE RIG	¾	¼	
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT	2¼	3¾	
13	WAIT ON CEMENT			3¼
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DOG WORK			
21				
22				
23				
COMPLETION	A. PERF'ING			
	B. TBG TRIPS			
	C. FRACING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'NL			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. NO D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	5
CUMULATIVE ROTATING HRS.	45¼
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT #	3		FT.
	STB RMR		OD	FT.
16	D.C. ID 6¾		OD 523.50	FT.
	STB RMR		OD	FT.
	D.C. ID		OD	FT.
	STB RMR		OD	FT.
				FT.
				FT.
				FT.
2	STANDS DP		136.70	FT.
1	SINGLES DP		31.30	FT.
	KELLY DOWN		9.60	FT.
	TOTAL		701.00	FT.
	WT. OF STRING		90M	LBS.

BIT RECORD

BIT NO.	3
SIZE	13¾
MFG.	HW
TYPE	OSC3
JETS 1 32"	OPEN
SER. NO.	20330
DEPTH OUT	
DEPTH IN	680
TOTAL FTG.	20
TOTAL HRS. RUN	¾
COND. 1 8's T B GAGE	IN
GPM PD-PSI	

MUD RECORD

TIME	12⁰⁰	3⁰⁰
WEIGHT	9.3	9.3
PRESSURE GRADIENT	250	130
VISC.-SEC.		
PV YP	/	/
GELS		
WL-CC'S		
pH		
SOLIDS %		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT #	3		FT.
	STB RMR		OD	FT.
16	D.C. ID 6¾ 2¼		OD 523.50	FT.
	STB RMR		OD	FT.
	D.C. ID		OD	FT.
	STB RMR		OD	FT.
				FT.
				FT.
				FT.
2	STANDS DP		136.70	FT.
1	SINGLES DP		31.20	FT.
	KELLY DOWN		41.20	FT.
	TOTAL		733.00	FT.
	WT. OF STRING		41M	LBS.

BIT RECORD

BIT NO.	3
SIZE	13¾
MFG.	HW
TYPE	OSC3
JETS 1 32"	20
SER. NO.	20330
DEPTH OUT	733
DEPTH IN	681
TOTAL FTG.	52
TOTAL HRS. RUN	1¾
COND. 1 8's T B GAGE	
GPM PD-PSI	

MUD RECORD

TIME	8⁰⁰	10⁰⁰
WEIGHT	9.3	9.3
PRESSURE GRADIENT		
VISC.-SEC.	88	88
PV YP	/	/
GELS		
WL-CC'S		
pH		
SOLIDS %		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
	STB RMR		OD	FT.
	D.C. ID		OD	FT.
	STB RMR		OD	FT.
	D.C. ID		OD	FT.
	STB RMR		OD	FT.
	STANDS DP			FT.
	SINGLES DP			FT.
	KELLY DOWN			FT.
	TOTAL			FT.
	WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
JETS 1 32"	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HRS. RUN	
COND. 1 8's T B GAGE	
GPM PD-PSI	

MUD RECORD

TIME		
WEIGHT		
PRESSURE GRADIENT		
VISC.-SEC.		
PV YP	/	/
GELS		
WL-CC'S		
pH		
SOLIDS %		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	UNDRILLED OR RE-RUN CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. LINER SIZE	METHOD RUN
701	701									

DEVIATION RECORD — DEPTH 647 — DEV. 0

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁸⁰	2½	5	PUMP OUT MUD RING & UNPLUG FLOW LINE
2⁸⁰	3⁰⁰	½	5	DRLG & ~~REAM~~ TO WORK BALLED UP BIT
3⁰⁰	3⁴⁵	¾	8	WORK ON "C" 2 PUMPS.
3⁴⁵	4³⁰	¾	5	WORK BALLED UP BIT
4³⁰	8⁰⁰	3½	6	HOIST & RUN IN

DRILLER G. GOWALKO

FOOTAGE / FORMATION

FROM	TO	UNDRILLED OR RE-RUN CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. LINER SIZE	METHOD RUN
701	733									

DEVIATION RECORD — DEPTH 733 — DEV. ¼°

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8¹⁵	¼	7	Rig Service
8¹⁵	9¹⁵	1	2	DRLG
9¹⁵	11⁰⁰	1¾	5	CIRC & WORK PIPE
11⁰⁰	1⁴⁵	2¾	6	HOIST & LAY DOWN 9" DC
1⁴⁵	2¹⁵	½	12	Rig To Run Csg.
2¹⁵	3³⁰	1¼	12	WELDING ON SURFACE Csg.
3³⁰	4⁰⁰	½	12	Run 9⅝ Csg.

DRILLER T. QUIMA

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	UNDRILLED OR RE-RUN CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. LINER SIZE	METHOD RUN
733										

DEVIATION RECORD — DEPTH 733 — DEV. ¼°

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	6³⁰	2½	12	Run 9⅝ Csg. RAN 17 JTS 36# J-55 New
6³⁰	7³⁰	1	5	CIRC. M.M. 9⅝ Csg LANDED @ 733 KB.
7³⁰	8³⁰	1	12	Run Cement CMTD. w/ 700 SKS NEAT OW.
8³⁰	8⁴⁵	¼	12	DISPLACE CEMENT CEMENT + 2% CAL CHL. 30 SKS
8⁴⁵	12⁰⁰	3¼	13	W.O.C EXCESS CMT TO SURFACE
				FLOAT HELD OK PLUG DOWN @ 8:45 PM.
4 hrs	WELDING CHG. TO AMOCO.			2/9/70.
WELDING ON SURFACE Csg & CUT OFF COND. PIPE.				

DRILLER M. GLOWATSKI

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 11

LEASE: AMOCO POLAR RIVER — WELL NO.: A-1 — API WELL NUMBER: AMOCO DECAITA POLAR RIVER A-1 — DATE: FEB 8 70

OPERATOR — SIGNATURE OF OPERATOR'S REPRESENTATIVE: D.J. [illegible]

CONTRACTOR: GP DRILLING CO LTD — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lou Lundberg — RIG NO.: 20

LOCATION: 61° 1' N 121° 21' 10" W

O.D. SIZE	WT. P.F.	GRADE	TOOL JT. O.D.	TYPE THREAD	STRING NO.
4½	16.6	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C 250	15
2	G.D.	F-10	14

WIRE LINE RECORD — REEL NO.

WIRE	MAKE	WT. & GR.	NO. RUNS	FEET	WHEN TO CHG. NO.	SET AT
LAST CASING TUBING OR LINER						

SIZE 1/4 — NO. LINES 8 — FT. CLIPPED 64 — FT. CUT OFF 64 — PRESENT LENGTH 1696 — TYPE OR. (IN TRIPS) SINCE LAST CUT 6772 — CUMULATIVE TYPE OR. (IN TRIPS) 6772

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MIDN	DAY	EVE
1	RIG UP AND TEAR DOWN			
2	DRILL, ACTUAL	6¼	5¼	5
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			½
6	TRIPS			2
7	LUBRICATE RIG	¼	¼	¼
8	REPAIR RIG			
9	CUT DRLG. LINE			
10	DEVIATION SURVEY	½	1	¼
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	MISC. & CLEAN FLOOR			
19	FISHING			
20	DIR. WORK			
21	Unplug Flowline	1	¼	
22				
A	PERFORATING			
B	FRAC TREATING			
C	TREATING			
D	SHOOTING			
E	TESTING			
F	ADDITIONAL			
G				
TOTALS		8	6	8

DAY WORK THIS SUMMARY (OFFICE USE ONLY)

HRS. W. CONTR. D.P.	
HRS. W. OPR. D.P.	
HRS. W.O. D.P.	
HRS. STANDBY	
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	4
CUMULATIVE ROTATING HRS.	45¼
TOTAL MUD COST	

DRILLING ASSEMBLY

	NO.	DRILLING ASSEMBLY	NO.	DRILLING ASSEMBLY	NO.	DRILLING ASSEMBLY
BIT		FT.		FT.		FT.
STB RIMM	OD	FT.		FT.		FT.
D.C. ID	OD	FT.		FT.		FT.
STB RIMM	OD	FT.		FT.		FT.
D.C. ID	OD	FT.		FT.		FT.
STB RIMM	OD	FT.		FT.		FT.
STANDS DP		FT.		FT.		FT.
SINGLES DP		FT.		FT.		FT.
KELLY DOWN		FT.		FT.		FT.
TOTAL		FT.		FT.		FT.
WT. OF STRING		360 LBS.		380 LBS.		380 LBS.

BIT RECORD

BIT NO.	2	2	3
SIZE	13¾	13¾	13¾
MFG.	Security	Security	HW
TYPE	VT3AR	VT3AR	OSC3J
JETS 1 32nds	CON	CON	0.45
SER. NO.	758509	758509	20330
DEPTH OUT	290	681	
DEPTH IN		290	681
TOTAL FTG.	264	391	20
TOTAL HRS. RUN	11¼	15¾	½
COND. T.B. GAGE	Run	8 4 1	Run
GPM PD-PSI			

MUD RECORD

TIME	12 AM	2 AM	4 AM
WEIGHT	9.2	9.2	9.3
PRESSURE GRADIENT			
VISC.-SEC.	95	100	100
PV YP			
GELS			
WL-CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	300#		

TIME	2 PM	12 MN	6 PM
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT			
VISC.-SEC.	95	95	90
PV YP			
GELS			
WL-CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gell	1200#		
Soda ash	200#		

TIME	4 AM	6 PM	12 MN
WEIGHT	9.3	9.3	9.3
PRESSURE GRADIENT			
VISC.-SEC.	100	90	80
PV YP			
GELS			
WL-CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Soda ash	500#		

DAY TOUR / EVENING TOUR

FOOTAGE — FORMATION — DEVIATION RECORD

FOOTAGE FROM 311 TO 406 — CORE NO. 1 — FORMATION: UNIT — BIT RECORD: 240 10 250 6 56 5½

DEVIATION RECORD: DEPTH 349 DEV 1° — DEPTH 370 DEV 2°

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 45	¾	21	Unplug Flow Line
12 45	1 00	¼	7	R.g Ser
1 00	2 15	1¼	2	Drill 13¾ Hole (5 3/8 @ 25 1/2 Drill)
2 15	2 30	¼	10	Survey
2 30	2 45	¼	2	Drill
2 45	3 00	¼	21	Unplug Flow Line
3 00	5 15	2¼	2	Drill
5 15	5 30	¼	10	Survey

DRILLER G Gowaiko

FOOTAGE FROM 406 TO 554 — CORE NO. 1 — FORMATION: UNIT — BIT RECORD: 240 10 350 6 56 5½

DEVIATION RECORD: DEPTH 406 DEV ¼° — DEPTH 435 DEV ½° — DEPTH 465 DEV ¼° — DEPTH 523 DEV ½°

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
6 00	8 30	½	7-10	Work Pipe Survey - R.g Service
8 30	9 30	1	2	Drilling (13¾ @ 1 1/2 Drill)
9 30	10 00	½	10	Survey
10 00	11 00	1	2	Drill
11 00	12 15	1¼	21	Unplug Flow Line
12 15	1 45	½	2	Drill
1 45	2 30	½	21	Work out Mudring
2 30	3 00	½	10	Survey

DRILLER T Quinn

FOOTAGE FROM 554 TO 701 — CORE NO. 0 — FORMATION: — BIT RECORD: 240 20 6 56 5½

DEVIATION RECORD: DEPTH 617 DEV 0°

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	7	R.g Service
4 15	6 15	2	2	Drill
6 15	6 30	¼	10	Survey
6 30	9 00	2½	2	~~Circ Cond Hole~~ Drill
9 00	9 30	½	5	~~Strap Trip for Bit~~ Circ. Cond Hole
9 30	11 30	2	6	~~Drill~~ Strap Trip for Bit
11 30	12 00	½	2	Drill

DRILLER [illegible]

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 10

LEASE: AMOCO POLAR RIVER — WELL NO.: A-1 — API WELL NUMBER: AMOCO DECAITA POLAR RIVER A-1 — DATE: Feb 8-70

OPERATOR: AMOCO PETE — SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

CONTRACTOR: GP DRILLING CO LTD — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: [signature] — RIG NO: 20

LOCATION: 61° 1' N - 121° 21' 10" W

D.P. SIZE	WT. PT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO
4½	16	E	6"	4½ FH	

PUMP NO	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C 250	15
2	G-D	F2Q	14

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. CLIPPED	PRESENT LENGTH
1/2	8	64	1646

BY CLIP OFF: 64

TRIP NO. FOR THIS WIRE'S LAST RUN: 6772

CUMULATIVE FROM NO. FOR THIS WIRE: 6772

LAST CASING FISHING OR LINER: —

TIME DISTRIBUTION — HOURS

CODE NO.	OPERATION	MIDN	DAY	EVE
1	RIG UP AND TEAR DOWN			
2	DRILL ACTUAL	7¾	6½	5
3	REAMING			
4	CORING			
5	CIRCULATION AND CONDITION MUD			
6	TRIPS			12¼
7	LUBRICATE RIG			¼
8	REPAIR RIG		1	
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY	¼	½	¼
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	MISCELLANEOUS			
19	SQUEEZE CEMENT			
20	PLUGGING			3¼
21	REAMING & CLEANING			
22	CORES & CORING	1 Day		
23				
24				
25				
26				
COMPLETION	A. PERFORATING			
	B. FRAC TANKS			
	C. TREATING			
	D. ENGINEERING			
	E. TESTING			
	F. ADDITIONAL			
	G.			
	TOTALS			

DAY WORK TIME (DRILLING & COMPLETION)

MISC. = CONTR. D.P.

MISC. = OPER. D.P.

MISC. WT. D.P.

MISC. STANDBY

TOTAL DAY WORK

NO. OF DAYS FROM SPUD: 3

CUMULATIVE ROTATING HRS.: 29¾

TOTAL MUD COST

DRILLING ASSEMBLY

NO.			
	BIT		FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
	STANDS DP		FT
	SINGLES DP		FT
	KELLY DOWN		FT
	TOTAL		FT
	WT. OF STRING	3m	LBS

NO.			
	BIT		FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
	STANDS DP		FT
	SINGLES DP		FT
	KELLY DOWN		FT
	TOTAL		FT
	WT. OF STRING	5m	LBS

NO.			
	BIT		FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
			FT
	STANDS DP		FT
	SINGLES DP		FT
	KELLY DOWN		FT
	TOTAL		FT
	WT. OF STRING	23m	LBS

BIT RECORD

BIT NO.	1	
SIZE	13 3/4	
MFG.	4W	
TYPE	OSC-3	
JETS 1/32"	CON	
SER. NO.	16518	
DEPTH OUT	0	
DEPTH IN	87	
TOTAL FTG.	18½	
TOTAL HRS. RUN	R4W	
COND. I-F-D / B GAGE		
GPM PD-PN		

BIT NO.	1	
SIZE	13 3/4	
MFG.	NW	
TYPE	OSC 3	
JETS 1/32"	CON	
SER. NO.	16518	
DEPTH OUT	0	
DEPTH IN	164	
TOTAL FTG.	25	
TOTAL HRS. RUN	RUN	
COND. I-F-D / B GAGE		
GPM PD-PN		

BIT NO.	1	2
SIZE	13 3/4	13 3/4
MFG.	HW	SECURITY
TYPE	OSC 3	YT3AJ
JETS 1/32"	CON	6 OPEN
SER. NO.	16518	JX8509
DEPTH OUT	290	
DEPTH IN	0	290
TOTAL FTG.	290	21
TOTAL HRS. RUN	29	3¾
COND. I-F-D / B GAGE	7B1	RUN
GPM PD-PN		

MUD RECORD

	12 PM	4 AM	6 AM
TIME			
WEIGHT	87	87	88
PRESSURE GRADIENT			
VISC. SEC.	43	41	41
PV YP			
GELS			
WL CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED TYPE	AMT
GEL	800#
LIME	100#

	8 AM	10 AM	2 PM
TIME			
WEIGHT	9	91	92
PRESSURE GRADIENT			
VISC. SEC.	52	75	80
PV YP			
GELS			
WL CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED TYPE	AMT
GEL	1900#

	8 PM	9 PM
TIME		
WEIGHT	92	92
PRESSURE GRADIENT		
VISC. SEC.	80	120
PV YP		
GELS		
WL CC'S		
pH		
SOLIDS %		

MUD & CHEMICALS ADDED TYPE	AMT
GEL	2000#

WARNING TOUR — DAY TOUR — EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	NO. OF CORES CUT	CORE NO.	FORMATION (NAME FIRST DRILLED)	BIT NO.	WT. ON BIT	ROTARY SPEED	PUMP NO.	LINER SIZE	STROKES	PUMP NO.	LINER SIZE	STROKES	METHOD DRILLED
57	87	0			1	2-4	6	2	8½	52				UNIT

DEVIATION RECORD: DEPTH 77 — DEV ¼°

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	2:15	2¼	2	DRILL 13¾ HOLE (GRAVEL)
2:15	2:30	¼	10	SURVEY
2:30	3:00	½	2	DRILL 13¾ HOLE

DRILLER: G. GOWAIKO

FROM	TO	NO. OF CORES CUT	CORE NO.	FORMATION (NAME FIRST DRILLED)	BIT NO.	WT. ON BIT	ROTARY SPEED	PUMP NO.	LINER SIZE	STROKES	PUMP NO.	LINER SIZE	STROKES	METHOD DRILLED
87	164	0			1	2-4	6	2	8½	52				UNIT

DEVIATION RECORD: 109 ½° — 164 0

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	11:30	3	2	DRILLING 13¾ HOLE GRAVEL
11:30	12:00	½	8	WORK ON AIR COMPRESSOR
12:00	12:30	½	2	DRILLING
12:30	12:45	¼	10	SURVEY
12:45	3:45	3	2	DRILLING
3:45	4:00	¼	10	SURVEY

DRILLER: T. QUINN

FROM	TO	NO. OF CORES CUT	CORE NO.	FORMATION (NAME FIRST DRILLED)	BIT NO.	WT. ON BIT	ROTARY SPEED	PUMP NO.	LINER SIZE	STROKES	PUMP NO.	LINER SIZE	STROKES	METHOD DRILLED
164	311	0			2	10	6	2	8½	52				UNIT

DEVIATION RECORD: 253 ¾°

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	¼	7	R.S. SERV
4:15	7:45	3½	2	DRILL
7:45	8:00	¼	10	SURVEY
8:00	8:30	½	2	DRILL
8:30	9:15	¾	21	UNPLUG FLOW LINE
9:15	9:30	¼	2	DRILL
9:30	11:15	1¾	6	TRIP FOR BIT
11:15	12:00	¾	2	DRILL (BOULDERS)

DRILLER: M. Shoutak

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 9

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Decalta Poplar River A-1	FEB 6-70

OPERATOR	CONTRACTOR	RIG NO.
Amoco Pete	G.P. Drilling Co Ltd	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. Hamilton

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.C.O	C-250	15
2	G-D	FXQ	14

LOCATION 61° 1' 37" N - 121° 21' 10" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 1⅛ — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6772

TIME DISTRIBUTION - HOURS

CODE NO. - OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	2¾		
2. DRILL ACTUAL	2		6½
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			½
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT	3¾	8	1
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT	½		
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
COMPLETION B. TBG TRIPS			
COMPLETION C. TREATING			
COMPLETION D. SWABBING			
COMPLETION E. TESTING			
COMPLETION F. ADDIT'N'L			
COMPLETION G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.

HRS. W/OPR. D.P.

HRS. WO. D.P.

HRS. STANDBY

Camp — 1 Day

Boiler — 1 Day

TOTAL DAY WORK

NO. OF DAYS FROM SPUD 2

CUMULATIVE ROTATING HRS. 10¾

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour) / BIT RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	
	BIT	FT.	BIT NO.	
			SIZE	
	STB RMR OD	FT.	MFG.	
	D.C. ID OD	FT.	TYPE	
	STB RMR OD	FT.	JETS 1 32"	
	D.C. ID OD	FT.	SER. NO.	
	STB RMR OD	FT.	DEPTH OUT	
			DEPTH IN	
			TOTAL FTG.	
			TOTAL HRS. RUN	
	STANDS DP	FT.	COND. 1 8's T 8 GAGE	
	SINGLES DP	FT.	GPM PD-PSI	
	KELLY DOWN	FT.		
	TOTAL	FT.		
	WT. OF STRING	LBS.		

MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

MORNING TOUR

DRILLING ASSEMBLY (At end of tour) / BIT RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	
	BIT	FT.	BIT NO.	
			SIZE	
	STB RMR OD	FT.	MFG.	
	D.C. ID OD	FT.	TYPE	
	STB RMR OD	FT.	JET 1 32"	
	D.C. ID OD	FT.	SER. NO.	
	STB RMR OD	FT.	DEPTH OUT	
			DEPTH IN	
			TOTAL FTG.	
			TOTAL HRS. RUN	
	STANDS DP	FT.	COND. 1 8's T 8 GAGE	
	SINGLES DP	FT.	GPM PD-PSI	
	KELLY DOWN	FT.		
	TOTAL	FT.		
	WT. OF STRING	LBS.		

MUD RECORD

TIME / WEIGHT / PRESSURE GRADIENT / VISC.-SEC. / PV YP / GELS. / WL -CC'S. / pH / SOLIDS %

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour) / BIT RECORD

NO.	DRILLING ASSEMBLY			BIT RECORD	
	BIT	1	FT.	BIT NO.	1
2	SUBS	8.28		SIZE	13¾
	STB RMR OD		FT.	MFG.	H.W.
1	D.C. ID 9 OD	28.72	FT.	TYPE	OSC3
	STB RMR OD		FT.	JETS 1 32"	OPEN
	D.C. ID OD		FT.	SER. NO.	16518
	STB RMR OD		FT.	DEPTH OUT	
				DEPTH IN	0
				TOTAL FTG.	57
				TOTAL HRS. RUN	10¾
	STANDS DP		FT.	COND. 1 8's T 8 GAGE	1N
	SINGLES DP		FT.	GPM PD-PSI	
	KELLY DOWN	20.00	FT.		
	TOTAL	57.00	FT.		
	WT. OF STRING		LBS.		

MUD RECORD

TIME	WEIGHT	PRESSURE GRADIENT	VISC.-SEC.	PV/YP	GELS.	WL -CC'S.	pH	SOLIDS %
10⁰⁰	8.9		45					

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAN-T-P COM-C
41	43											

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁰⁰	2	2	DRLG ON BOULDER COND. PIPE WASHED OUT BREAK BITS & SUBS BELOW KELLY
2⁰⁰			1	WELD PLATES ON COND BARREL
	4¹⁵	2¼	1	HOOK UP DOWELL
4¹⁵	4⁴⁵	½	18	RUN 150 SKS CEMENT w/ 2% CAL.
4⁴⁵	8⁰⁰	3¼	13	W.O.C

DRILLER G. GOWALKO

FOOTAGE / FORMATION

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAN-T-P COM-C

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	4⁰⁰	8	13	W.O.C
				3 hrs WELDING CHG TO AMOCO
				WELDING CAPS ON CONDUCTOR PIPE

DRILLER T. QUINN

FOOTAGE / FORMATION

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAN-T-P COM-C
43	57				70	1-3	100	6	50	5½		

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	5⁻⁰⁰	1	13	W.O.C
5⁻⁰⁰	9³⁰	4½	2	DRLG ON BOULDERS
9³⁰	10⁰⁰	½	6	PICK UP 9" DC
10⁰⁰	12⁰⁰	2	2	DRLG 13¾ HOLE

DRILLER M. GLOWATSKI

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 8

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Decalta	A-1	Amoco Decalta Poplar River A-1	Feb 5-70

OPERATOR	CONTRACTOR	RIG NO.
Amoco Pete	G.P. Drilling Co Ltd.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D.A. Gunderson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg.

D.P. SIZE	WT. PER FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S. Co	C-250	15
2	G.D.	FXQ	14

LOCATION 61° 1' 37" N. - 131° 21' 10" W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 7/8 — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6772

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	7½	2	
2. DRILL ACTUAL	½		1
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG		½	
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT		4½	
13. WAIT ON CEMENT		1	7
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	8½	8	8
HRS. W/OPR. D.P.			
HRS. W.O.D.P.			
HRS. STANDBY			
Rig Up	7½		
Camp		1 Day	
Boiler		✓	✓
TOTAL DAY WORK			
NO. OF DAYS FROM SPUD	1		
CUMULATIVE ROTATING HRS.			
TOTAL MUD COST			

DRILLING ASSEMBLY (At end of tour)

NO.			
BIT	1		FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
STANDS DP			FT.
SINGLES DP			FT.
KELLY DOWN	40		FT.
TOTAL	40		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	1
SIZE	13 3/4
MFG.	H.W
TYPE	OSC3 Rig
JETS 1 32"	
SER. NO.	16518
DEPTH OUT	IN
DEPTH IN	0
TOTAL FTG.	40
TOTAL HRS. RUN	½
COND. 1/8's T.B. GAGE	IN
GPM. PD–PSI	

MUD RECORD

TIME				
WEIGHT				
PRESSURE GRADIENT				
VISC.–SEC.				
PV YP	/	/	/	/
GELS.	/	/	/	/
WL –CC'S				
pH				
SOLIDS %				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
BIT	1		FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
STANDS DP			FT.
SINGLES DP			FT.
KELLY DOWN	41		FT.
TOTAL	41		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	1
SIZE	13 3/4
MFG.	H W
TYPE	OSC 3
JET 1 32"	
SER. NO.	16518
DEPTH OUT	41
DEPTH IN	0
TOTAL FTG.	41
TOTAL HRS. RUN	2½
COND. 1 8's T B GAGE	
GPM. PD–PSI	

MUD RECORD

TIME				
WEIGHT				
PRESSURE GRADIENT				
VISC.–SEC.				
PV YP	/	/	/	/
GELS.	/	/	/	/
WL –CC'S.				
pH				
SOLIDS %				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
BIT	1		FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
D.C. ID OD			FT.
STB RMR OD			FT.
STANDS DP			FT.
SINGLES DP			FT.
KELLY DOWN	41		FT.
TOTAL	41		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	1
SIZE	13 3/4
MFG.	H.W
TYPE	OSC3
JETS 1 32"	
SER. NO.	16518
DEPTH OUT	
DEPTH IN	0
TOTAL FTG.	41
TOTAL HRS. RUN	3¾
COND. 1 8's T B GAGE	IN
GPM. PD–PSI	

MUD RECORD

TIME	10⁰⁰			
WEIGHT	8.6			
PRESSURE GRADIENT				
VISC.–SEC.	45			
PV/YP	/	/	/	/
GELS.	/	/	/	/
WL –CC'S.				
pH				
SOLIDS %				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	5500		
Lime	50 ±		

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCI.–S PART.–P COM.–C
0	40				60	5-10	100	6	40	5½		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	7³⁰	7½	1	Work on Pumps Hook up Shock Hoses Thaw Kelly out
7³⁰	8⁰⁰	½	2	Spud in Drlg on Boulder Below Cond Pipe
				Spud 7:30 AM 2/5/70.
				K.B. To Rig Level 12.60

DRILLER G Gowalko

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCI.–S PART.–P COM.–C
40	41							6		5½		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	10⁰⁰	2	2	Drill on Boulder Washed out Cond. Pipe
10⁰⁰	10³⁰	½	7	Rig Service
10³⁰	2⁰⁰	3½	12	Wait on Cement Truck
2⁰⁰	2³⁰	½	12	Hook up Dowell To Cond. Pipe
2³⁰	3⁰⁰	½	12	Cement Cond Pipe (130 sks Cement)
3⁰⁰	4⁰⁰	1	13	W.O.C
				4 hrs welding Charged To Amoco
				Welding on Conductor Pipe

DRILLER T Quinn

FOOTAGE / FORMATION

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI.–S PART.–P COM.–C
41	41											

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	11⁰⁰	7	13	W.O.C
11⁰⁰	11¹⁵	¼	2	Drill out Cement.
11¹⁵	12⁰⁰	¾	2	Drill on Boulder

DRILLER M Glowatski

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 7

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO POPLAR RIVER	A-1	AMOCO DECALTA POPLAR RIVER A-1	FEB 4-70

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO LTD	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

O.D. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH.	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	C-250	15
2	G & D	FXQ	14

LOCATION 61° 1' 37" N -131° 21' 10" W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 1/8 — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6772

TIME DISTRIBUTION – HOURS

CODE NO. – OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	8	8	8
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
RIG UP	8	8	8
BOILER CAMP	1 DAY	—	—
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD: 0

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JETS 1 12"	PV YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. 1/8's T/B GAGE	MUD & CHEMICALS ADDED
SINGLES DP	FT.	GPM PD-PSI	TYPE / AMT. / TYPE / AMT.
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

MORNING TOUR

FOOTAGE FROM	TO	DR.D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8	1	COMPLETE HOOKING UP WATER & STEAM LINES B.O.P LINES ON WALKS GEN RIGGING UP

DRILLER G. GOWALKO

DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JET 1 32"	PV YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. 1/8's T/B GAGE	MUD & CHEMICALS ADDED
SINGLES DP	FT.	GPM PD-PSI	TYPE / AMT. / TYPE / AMT.
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

DAY TOUR

FOOTAGE FROM	TO	DR.D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	4:00	8	1	PICK UP FALSE FLOOR RAT HOLE MOUSE HOLE INSTALL CHAIN & GUARD (ROTARY) DRESS UP FLOOR

DRILLER T. QUINN

DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JETS 1 32"	PV/YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. 1/8's T/B GAGE	MUD & CHEMICALS ADDED
SINGLES DP	FT.	GPM/ PD-PSI	TYPE / AMT. / TYPE / AMT.
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

EVENING TOUR

FOOTAGE FROM	TO	DR.D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM-D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	12:00	8	1	STRING LIGHTS RIG UP KELLY BUSHINGS CHG OIL IN DRWKS GET WATER CIRC. HOOK UP FLOWLINE START PUMP MOTORS

DRILLER M. GOLOATSKI

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 6

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO DECALTA A-1	A-1	AMOCO DECALTA POPLAR RIVER A-1	FEB 3

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO LTD.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. Quinn

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

LOCATION: 68° 1' 37" N - 121° 21' 18" W

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.C.O	C-250	15
2	G E D	FXQ	14

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 1⅛ — NO. LINES 8 — FT. SLIPPED 64

FT. CUT OFF 64 — PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6772

TIME DISTRIBUTION - HOURS

CODE NO. - OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	8	8	8
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
RIG UP	8	8	8
CAMP	1 DAY		
BOILER	1 DAY		
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD: 0

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

MORNING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JETS 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1/8's T B GAGE			
GPM. PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE FROM	FOOTAGE TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART.-P COM.D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1800	800		1	DAYLITES - HOOK UP AIR LINES RIG UP LIGHT CORDS FUEL LINES GENERAL RIGGING UP
				WELDING CHG. TO AMOCO - WELD ON COND. PIPE & CUT OFF WATER WELL CSG. - 3 HRS.

DRILLER G. GOWALKO

DAY TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JET 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1 8's T B GAGE			
GPM. PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE FROM	FOOTAGE TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART.-P COM.D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	RAISE DERRICK & PIN
				PICK UP TABLE & SPOT
				CLEAN OUT MUD TANKS DRESS UP FLOOR
				PUT UP PREFABS

DRILLER T. QUINN

EVENING TOUR

DRILLING ASSEMBLY (At end of tour)

NO.			
	BIT		FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	D.C. ID	OD	FT.
	STB RMR	OD	FT.
	STANDS DP		FT.
	SINGLES DP		FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JETS 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1 8's T/B/ GAGE			
GPM/ PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV/YP			
GELS.			
WL -CC'S.			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE FROM	FOOTAGE TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PART.-P COM.D-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TIME LOG TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	SAME AS ABOVE.

DRILLER M. GLOWATSKI

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

KODAK SAFETY FILM

DAILY DRILLING REPORT — REPORT NO. 5

LEASE: AMOCO DECALTA A-1 | WELL NO.: A-1 | API WELL NUMBER: AMOCO DECALTA POPLAR RIVER | DATE: FEB 2

OPERATOR: AMOCO PETE | CONTRACTOR: G.P. DRILLING CO LTD. | RIG NO.: 10

SIGNATURE OF OPERATOR'S REPRESENTATIVE: [signature] | SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

D.P. SIZE	WT./FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N-SCO	C-250	15
2	B&D	FXQ	14

LOCATION: 61° 1' 37" N 131° 21' 10" W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 7/8 | NO. LINES 8 | FT. SLIPPED 64

FT. CUT OFF 64 | PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6771

TIME DISTRIBUTION — HOURS

CODE NO. — OPERATION	MORN.	DAY	EVE.
1. RIG UP AND TEAR DOWN	8	8	8
2. DRILL ACTUAL			
3. REAMING			
4. CORING			
5. CONDITION MUD & CIRCULATE			
6. TRIPS			
7. LUBRICATE RIG			
8. REPAIR RIG			
9. CUT OFF DRILLING LINE			
10. DEVIATION SURVEY			
11. WIRE LINE LOGS			
12. RUN CASING & CEMENT			
13. WAIT ON CEMENT			
14. NIPPLE UP B.O.P.			
15. TEST B.O.P.			
16. DRILL STEM TEST			
17. PLUG BACK			
18. SQUEEZE CEMENT			
19. FISHING			
20. DIR. WORK			
21.			
22.			
23.			
COMPLETION A. PERF'R'T'N			
B. TBG TRIPS			
C. TREATING			
D. SWABBING			
E. TESTING			
F. ADDIT'N'L			
G.			
TOTALS	8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
RIG UP	8	8	8
CAMP	1 DAY		
TOTAL DAY WORK			

NO. OF DAYS FROM SPUD: 0

CUMULATIVE ROTATING HRS.

TOTAL MUD COST

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JETS 1/32"	PV/YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. T B's T B GAGE	
SINGLES DP	FT.	GPM. PD-PSI	
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

MORNING TOUR

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JET 1 32"	PV/YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. T B's T B GAGE	
SINGLES DP	FT.	GPM. PD-PSI	
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DAY TOUR

DRILLING ASSEMBLY (At end of tour) — BIT RECORD — MUD RECORD

DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
BIT	FT.	BIT NO.	TIME
		SIZE	WEIGHT
STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
D.C. ID OD	FT.	TYPE	VISC.-SEC.
STB RMR OD	FT.	JETS 1/32"	PV/YP
D.C. ID OD	FT.	SER. NO.	GELS
STB RMR OD	FT.	DEPTH OUT	WL -CC'S
		DEPTH IN	pH
		TOTAL FTG.	SOLIDS %
		TOTAL HRS. RUN	
STANDS DP	FT.	COND. T B's T/B/ GAGE	
SINGLES DP	FT.	GPM/ PD-PSI	
KELLY DOWN	FT.		
TOTAL	FT.		
WT. OF STRING	LBS.		

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

EVENING TOUR

FOOTAGE — FORMATION (SHOW CORE RECOVERY)

FOOTAGE FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	DAYLITES. - STRING BRIDAL LINES DRESS DERRICK CLAMP DEAD LINE SPOT PIPE RACKS MOVE CSG & DRILL COLLARS

DRILLER G GOWALKO

FOOTAGE — FORMATION (SHOW CORE RECOVERY)

FOOTAGE FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	SPOTING BUILDINGS & WALKS START LIGHT PLANT & #1 FLOOR MOTOR

DRILLER T. QUINN.

FOOTAGE — FORMATION (SHOW CORE RECOVERY)

FOOTAGE FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	GENERAL RIGGING UP ON DAYLITES.

DRILLER M GLOWATSKI

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 4

LEASE	WELL NO.	API WELL NUMBER	DATE
AMOCO DECALTA A-1	A-1	AMOCO POPLAR RIVER A-1	82 81

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO LTD.	20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D Quinn

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

O.D. SIZE	WT. P.F.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	C-250	15
2	G.D	FXQ	14

LOCATION: 61° 31' 37" N 121° 21-37" W

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	MKR. TO CSG. HD.	SET AT

WIRE LINE RECORD — REEL NO.

SIZE 7/8 — NO. LINES 8 — FT. SLIPPED 64 — FT. CUT OFF 64 — PRESENT LENGTH 1696

TON MI. OR TRIPS SINCE LAST CUT 6772

CUMULATIVE TON MI. OR TRIPS 6772

TIME DISTRIBUTION - HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN	8	8	8
2	DRILL ACTUAL			
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS			
7	LUBRICATE RIG			
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO D.P.	
HRS. STANDBY	
CAMP	1 DAY
TOTAL DAY WORK	
NO. OF DAYS FROM SPUD	0.
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	STANDS DP			FT.
	SINGLES	DP		FT.
	KELLY DOWN			FT.
	TOTAL			FT.
	WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JETS 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1 8's T B GAGE			
GPM PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV YP	/	/	/
GELS			
WL -CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH-S PAR-P CON-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
				WELDING CHARGED TO AMOCO.
				WELD CONDUCTOR PIPE 4 hrs
				CUT 53' CSG FOR WATER WELL 2
				- 6hrs

DRILLER G. GOWALKO

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	STANDS DP			FT.
	SINGLES	DP		FT.
	KELLY DOWN			FT.
	TOTAL			FT.
	WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JETS 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1 8's T B GAGE			
GPM PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV YP	/	/	/
GELS			
WL -CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH-S PAR-P CON-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1600	8		PIN DERRICK DRWKS SPOT MUD TANKS
				1 & 2 PUMP TOOL HOUSE DOG HOUSE
				PIN MONKEY BOARD & BOLT DOWN
				DRWKS
				GENERAL RIGGING UP.

DRILLER M. GLOWATSKI

DRILLING ASSEMBLY (At end of tour)

NO.				
	BIT			FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	D.C. ID	OD		FT.
	STB RMR	OD		FT.
	STANDS DP			FT.
	SINGLES	DP		FT.
	KELLY DOWN			FT.
	TOTAL			FT.
	WT. OF STRING			LBS.

BIT RECORD

BIT NO.			
SIZE			
MFG.			
TYPE			
JETS 1 32"			
SER. NO.			
DEPTH OUT			
DEPTH IN			
TOTAL FTG.			
TOTAL HRS. RUN			
COND. 1 8's T B GAGE			
GPM PD-PSI			

MUD RECORD

TIME			
WEIGHT			
PRESSURE GRADIENT			
VISC.-SEC.			
PV YP	/	/	/
GELS			
WL -CC'S			
pH			
SOLIDS %			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR..D RM-R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCH-S PAR-P CON-C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DRILLER T. QUINN

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 3

LEASE	WELL NO.	API WELL NUMBER	DATE
Amoco Poplar River	A-1	Amoco Poplar River A-1	JAN 31-70

OPERATOR: Amoco Decatur Poplar River — CONTRACTOR: G.P. Drilling Co — RIG NO: 20

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. Quinn — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

LOCATION: 48° 1' 37" N 121° 21' 10" W

D.P. SIZE	WT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	4½ FH	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.C.O	C-250	15
2.	G & D	F X Q	14

WIRE LINE RECORD — SIZE | NO. LINES | FT. STRIPPED | FT. OUT AND BACK | PRESENT LENGTH

TIME DISTRIBUTION - HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1	RIG UP AND TEAR DOWN	8	8	8
2	DRILL ACTUAL			
3	REAMING			
4	CORING			
5	CONDITION MUD & CIRCULATE			
6	TRIPS			
7	LUBRICATE RIG			
8	REPAIR RIG			
9	CUT OFF DRILLING LINE			
10	DEVIATION SURVEY			
11	WIRE LINE LOGS			
12	RUN CASING & CEMENT			
13	WAIT ON CEMENT			
14	NIPPLE UP B.O.P.			
15	TEST B.O.P.			
16	DRILL STEM TEST			
17	PLUG BACK			
18	SQUEEZE CEMENT			
19	FISHING			
20	DIR. WORK			
21				
22				
23				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS		8	8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. W/O D.P.	
HRS. STANDBY	
Re VP Camp 1 Day	8
TOTAL DAY WORK	8 8 8
NO. OF DAYS FROM SPUD	0
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour)

BIT			FT.
STB RMR	OD		FT.
D.C. ID	OD		FT.
STB RMR	OD		FT.
D.C. ID	OD		FT.
STB RMR	OD		FT.
STANDS DP			FT.
SINGLES	DP		FT.
KELLY DOWN			FT.
TOTAL			FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
JETS 1 32"		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HRS. RUN		
COND. 1 B's T B GAGE		
GPM PD-PSI		

MUD RECORD

TIME		
WEIGHT		
PRESSURE GRADIENT		
VISC.-SEC.		
PV YP		
GELS		
WL -CC'S		
pH		
SOLIDS %		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

MORNING TOUR

FOOTAGE / FORMATION

FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	4 00	8	1	Cut Logs & Level up Bunk Houses
				DAYLITES

DRILLER M. Gowalko

DAY TOUR

FOOTAGE / FORMATION

FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	4 00	8	1	SAME AS BELOW

DRILLER E. Gowalko

EVENING TOUR

FOOTAGE / FORMATION

FROM	TO	DR. D RM. R CORE C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	4 00	8	1	SPOT SUB & LEVEL UP SAME
				GENERA Rigging up
				UNLOAD PIPE

DRILLER T. Quinn.

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 2

LEASE	WELL NO.	API WELL NUMBER	DATE
POPLAR RIVER A-1	A-1	AMOCO DECALTA POPLAR RIVER A-1	JAN 30-70
OPERATOR		**CONTRACTOR**	**RIG NO.**
AMOCO DECALTA.		G.P. DRILLING CO	20
SIGNATURE OF OPERATOR'S REPRESENTATIVE		**SIGNATURE OF CONTRACTOR'S TOOL PUSHER**	
D.F. Quinn		Lew Lundberg	

D.P. SIZE	WT. PER FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6"	F.H	

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	N.S.CO	C-250	15
2	G & D	FXQ	14

LOCATION 61° 1' 37" N 121° 21' 10" W

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

WIRE LINE RECORD REEL NO.

SIZE | NO. LINES | FT. SLIPPED

FT. CUT OFF | PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1.	RIG UP AND TEAR DOWN		24	24
2.	DRILL ACTUAL			
3.	REAMING			
4.	CORING			
5.	CONDITION MUD & CIRCULATE			
6.	TRIPS			
7.	LUBRICATE RIG			
8.	REPAIR RIG			
9.	CUT OFF DRILLING LINE			
10.	DEVIATION SURVEY			
11.	WIRE LINE LOGS			
12.	RUN CASING & CEMENT			
13.	WAIT ON CEMENT			
14.	NIPPLE UP B.O.P.			
15.	TEST B.O.P.			
16.	DRILL STEM TEST			
17.	PLUG BACK			
18.	SQUEEZE CEMENT			
19.	FISHING			
20.	DIR. WORK			
21.				
22.				
23.				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS			24	24

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.	
HRS. W/OPR. D.P.	
HRS. WO/D.P.	
HRS. STANDBY	
CAMP 1 DAY	
TOTAL DAY WORK	24 24
NO. OF DAYS FROM SPUD	0
CUMULATIVE ROTATING HRS.	
TOTAL MUD COST	

DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO.	TIME
			SIZE	WEIGHT
	STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
	D.C. ID OD	FT.	TYPE	VISC.-SEC.
	STB RMR OD	FT.	JETS 1 32"	PV YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL -CC'S.
			DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
			TOTAL HRS. RUN	
	STANDS DP	FT.	COND. 1 B's T B GAGE	MUD & CHEMICALS ADDED
	SINGLES DP	FT.	GPM. PD-PSI	TYPE / AMT. / TYPE / AMT.
	KELLY DOWN	FT.		
	TOTAL	FT.		
	WT. OF STRING	LBS.		

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO.	TIME
			SIZE	WEIGHT
	STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
	D.C. ID OD	FT.	TYPE	VISC.-SEC.
	STB RMR OD	FT.	JET 1 32"	PV YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL -CC'S.
			DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
			TOTAL HRS. RUN	
	STANDS DP	FT.	COND. 1 B's T B GAGE	MUD & CHEMICALS ADDED
	SINGLES DP	FT.	GPM. PD-PSI	TYPE / AMT. / TYPE / AMT.
	KELLY DOWN	FT.		
	TOTAL	FT.		
	WT. OF STRING	LBS.		

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD	MUD RECORD
	BIT	FT.	BIT NO.	TIME
			SIZE	WEIGHT
	STB RMR OD	FT.	MFG.	PRESSURE GRADIENT
	D.C. ID OD	FT.	TYPE	VISC.-SEC.
	STB RMR OD	FT.	JET 1 32"	PV YP
	D.C. ID OD	FT.	SER. NO.	GELS.
	STB RMR OD	FT.	DEPTH OUT	WL -CC'S.
			DEPTH IN	pH
			TOTAL FTG.	SOLIDS %
			TOTAL HRS. RUN	
	STANDS DP	FT.	COND. 1 B's T B GAGE	MUD & CHEMICALS ADDED
	SINGLES DP	FT.	GPM. PD-PSI	TYPE / AMT. / TYPE / AMT.
	KELLY DOWN	FT.		
	TOTAL	FT.		
	WT. OF STRING	LBS.		

EVENING TOUR

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. S PAR. T-P COM. C.

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	WORKING DAY LITES Rigging up CAMP
				CAMP ONLY Plus WAGES

DRILLER M. GLOWATSKI

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. S PAR. T-P COM. C.

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	Rigging up CAMP.
				CAMP ONLY Plus WAGES

DRILLER G. GOWALKO

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL. S PAR. T-P COM. C.

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			1	WORK DAYLITES Rigging up CAMP.
				CAMP ONLY Plus WAGES

DRILLER J. QUINN

Form 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM

DAILY DRILLING REPORT — REPORT NO. 1

LEASE	WELL NO.	API WELL NUMBER	DATE 19-
AMOCO DECALTA	A-1	AMOCO DECALTA POPLAR RIVER A-1	JAN 19-

OPERATOR	CONTRACTOR	RIG NO.
AMOCO PETE	G.P. DRILLING CO.	10

SIGNATURE OF OPERATOR'S REPRESENTATIVE: D. [illegible]

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: Lew Lundberg

LOCATION: 60°1'-37" N 121°21'-10" W

D.P. SIZE	WT. PER FT.	GRADE	TOOL JT O.D.	TYPE THREAD	STRING NO.
4½	16.60	E	6	F.H.	—

PUMP NO.	PUMP MANUFACTURER	TYPE	STROKE LENGTH
1	NSCO	C-250	15
2	G&D	FXQ	

WIRE LINE RECORD — REEL NO.

SIZE	NO. LINES	FT. SLIPPED

FT. CUT OFF — PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT

TIME DISTRIBUTION – HOURS

CODE NO.	OPERATION	MORN.	DAY	EVE.
1.	RIG UP AND TEAR DOWN		8	8
2.	DRILL ACTUAL			
3.	REAMING			
4.	CORING			
5.	CONDITION MUD & CIRCULATE			
6.	TRIPS			
7.	LUBRICATE RIG			
8.	REPAIR RIG			
9.	CUT OFF DRILLING LINE			
10.	DEVIATION SURVEY			
11.	WIRE LINE LOGS			
12.	RUN CASING & CEMENT			
13.	WAIT ON CEMENT			
14.	NIPPLE UP B.O.P.			
15.	TEST B.O.P.			
16.	DRILL STEM TEST			
17.	PLUG BACK			
18.	SQUEEZE CEMENT			
19.	FISHING			
20.	DIR. WORK			
21.	CAMP	8	8	8
22.				
23.				
COMPLETION	A. PERF'R'T'N			
	B. TBG TRIPS			
	C. TREATING			
	D. SWABBING			
	E. TESTING			
	F. ADDIT'N'L			
	G.			
TOTALS			8	8

DAY WORK TIME SUMMARY (OFFICE USE ONLY)

HRS. W/CONTR. D.P.			
HRS. W/OPR. D.P.			
HRS. WO/D.P.			
HRS. STANDBY			
CAMP	8	8	8
TOTAL DAY WORK		8	8
NO. OF DAYS FROM SPUD		0	
CUMULATIVE ROTATING HRS.			
TOTAL MUD COST			

DRILLING ASSEMBLY (At end of tour) / BIT RECORD / MUD RECORD

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD	
	BIT	FT.	BIT NO.		TIME	
			SIZE		WEIGHT	
	STB RMR OD	FT.	MFG.		PRESSURE GRADIENT	
	D.C. ID OD	FT.	TYPE		VISC.-SEC.	
	STB RMR OD	FT.	JETS 1 32"		PV/YP	
	D.C. ID OD	FT.	SER. NO.		GELS.	
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.	
			DEPTH IN		pH	
			TOTAL FTG.		SOLIDS %	
			TOTAL HRS. RUN			
	STANDS DP	FT.	COND. 1/8's T B GAGE		MUD & CHEMICALS ADDED	
	SINGLES DP	FT.	GPM. PD-PSI		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.				
	TOTAL	FT.				
WT. OF STRING		LBS.				

MORNING TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD	
	BIT	FT.	BIT NO.		TIME	
			SIZE		WEIGHT	
	STB RMR OD	FT.	MFG.		PRESSURE GRADIENT	
	D.C. ID OD	FT.	TYPE		VISC.-SEC.	
	STB RMR OD	FT.	JET 1 32"		PV/YP	
	D.C. ID OD	FT.	SER. NO.		GELS.	
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.	
			DEPTH IN		pH	
			TOTAL FTG.		SOLIDS %	
			TOTAL HRS. RUN			
	STANDS DP	FT.	COND. 1 8's T B GAGE		MUD & CHEMICALS ADDED	
	SINGLES DP	FT.	GPM/ PD-PSI		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.				
	TOTAL	FT.				
WT. OF STRING		LBS.				

DAY TOUR

NO.	DRILLING ASSEMBLY		BIT RECORD		MUD RECORD	
	BIT	FT.	BIT NO.		TIME	
			SIZE		WEIGHT	
	STB RMR OD	FT.	MFG.		PRESSURE GRADIENT	
	D.C. ID OD	FT.	TYPE		VISC.-SEC.	
	STB RMR OD	FT.	JETS 1 32"		PV/YP	
	D.C. ID OD	FT.	SER. NO.		GELS.	
	STB RMR OD	FT.	DEPTH OUT		WL -CC'S.	
			DEPTH IN		pH	
			TOTAL FTG.		SOLIDS %	
			TOTAL HRS. RUN			
	STANDS DP	FT.	COND. 1 8's T B GAGE		MUD & CHEMICALS ADDED	
	SINGLES DP	FT.	GPM/ PD-PSI		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.				
	TOTAL	FT.				
WT. OF STRING		LBS.				

EVENING TOUR

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR..D RM--R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.--S PAR'EL--P COM'D--C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	400	8		DAY LITES. RIGGING UP CAMP
				CAMP ONLY PLUS WASH'S

DRILLER M. GLOWATSKI

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR..D RM--R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.--S PAR'EL--P COM'D--C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	400			RIG UP CAMP.
				CAMP ONLY PLUS WORKS

DRILLER G. GOWALKO

FOOTAGE / FORMATION / PUMP RECORD

FOOTAGE FROM	FOOTAGE TO	DR..D RM--R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.--S PAR'EL--P COM'D--C

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	CODE NO.	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
				RIGGING UP CAMP.
				CAMP ONLY PLUS WORKS

DRILLER T. QUINN.

FORM 3T5 — APPROVED — APPROVED

A.A.O.D.C.--A.P.I. OFFICIAL DAILY DRILLING REPORT FORM