

Drilling Authority No. 407
Date Issued 21 January 1970

WELL NAME CPOG Chevron Kakisa G-31
FIELD Area:
LOCATION: Unit G Section 31 Grid 60-50-118-45
Latitude 60-40-20-26 Longitude 118-51-7.18
U.W.L.R. 60.67230 -- 118.85199
U.W.I. 300G316050118450

Rig Release Date:
Status:
Information Release Date 19-03-72

CHANGE OF NAME:

DATE RECEIVED	INDEX
21-1-70	Application for a Drilling Authority.
	Well Completion Data.
	Well History Report.
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
12-6-70	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
4/5/70	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.
	Well Card.
	New Service Well Report.
	Monthly Water Flood Operations Report
	Monthly Water Receipts and Disposal of Fluids Report
	Logs. Large scale..... Small scale.....



Drilling Authority No. 407
Date Issued Jan. 21st, 1970

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT 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 CPOG Chevron Kakisa G-31
Permit No. 3509 Lease No.
Chevron Standard Ltd. Exploratory Licence No. 1293
(Permittee, Licensee, Lessee)
Canadian Pacific Oil and Gas Ltd. Exploratory Licence No. 1221
(Operator)
Location: Unit G Section 31 Grid 60°50'N ; 118°45'W
Latitude 60°40'20.26"N Longitude 118°51'7.18"W
From Established Reference Marker 500' N of Intersection Line 5, Shot Point 125
Universal Well Location Reference Lat. 60.67230 N Long. 118.85199 W

	DATE	DEPTH	Pool(s)
Spudded	Mar. 4/70		Interval(s) open to production
Suspended			
Resumed Operations			
Finished Drilling	Mar. 14/70	3710	
Deepened			Elevation: Gr. 1137 K.B. 1150
Complete (gas/oil)			Rig No. 11
Abandoned	Mar. 19/70		Drilling Contractor Regent
Rig released	Mar. 19/70	3710	Contractor's Business Licence No. 501

CASING RECORD

Casing Size (Inches)	Grade	Weight	Amount	Set at -	Sacks of Cement and Additives
1. 8-5/8"	J-55	24#	13 fts.	378	240 + 3% CaCl ₂
2.					
3.					
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION		CORE RECORD					
	Depths	Sub-Sea	From	To	Rec.	From	To	Rec.
Trout River	130	+1050						
Kakisa	1100	- 50						
Red Knife	1295	- 145						
Jean Marie	1460	- 310						
Hay River	1485	- 335						
Horn River	3179	-2029						
Slave Point	3256	-2106						

LOG RECORD				From	To
Run No.	Type of Log				
1	DIL			3700	381
1	PCS-GRC			3694	379
1	FDL			3697	2200
1	SNP			3703	2200
1	Lithology			3703	2200
1	Velocity Survey			3694	379

CEMENTING RECORD (Plug, Squeeze, etc.)				PERFORATING RECORD (Bullet, Jet)				SERVICING RECORD (Acidizing, Fracing, etc.)			
Date	From	To	Remarks	Date	From	To	Remarks	Date	From	To	Remarks
March 19/70	703710'	3200'	210 sacks cement. Plug down at 2:30 A.M., March 19/70. No feel.								
rch 19/70	425'	325'	50 sacks cement + 3% CaCl ₂ . Plug down at 4:30 A.M., Mar. 19/70. Felt plug #2 at 350'. Cut off casing 3' below ground level, drop 5 sacks cement, plug and weld on plate.								

Errect well identifier.

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.	L.F.B.H.P.	F.F.B.H.P.	L.H.P.	F.H.P.	REMARKS
1	15/3/70	Slave Point	3280	3336	60	--	60	---	1388	---	---	1560	1545	Recovered 30' drilling mud (miss run)
2	16/3/70	Presqu'ile	3410	3512	60	--	45	---	1460	---	---	1639	1611	Recovered 45' drilling mud (miss run)
3	17/3/70	Precambrian	3608	3710	30	--	60	---	---	---	---	1699	1665	Miss run
4	17/3/70	Precambrian	3608	3710	60	--	--	---	---	---	---	1706	1701	30' drilling mud (miss run)
5	18/3/70	Chinchaga	3608	3710	120	--	120	---	1530	181	224	1702	1692	30' mud, 1370' salt water
6	19/3/70	Slave Point	3280	3336	60	--	120	---	1380	1082	1379	1558	1518	891' mud, 2059 salt water

ANALYSIS						PRESENT STATUS OF WELL				
Lab. No.	Sample	From	To	Source	Remarks	Oil		(Interval.)	Company	
						Gas		(Interval.)		
						Dry		D & A		
						Susp.				

Canadian Pacific Oil and Gas Limited

Company

Signed by

Title

Date

May 4th, 1970

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



File No.
Drilling Authority No. 407

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION
OIL AND MINERAL

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 CPOG Chevron Kakisa G-31
Location: Unit G Section 31 Grid 60°50'N ; 118°45'W
Latitude 60°40' 20.26" N Longitude 118°51'7.18"W
From Established Reference Marker 500' N of Intersection Line 5, Shot Point 125
Universal Well Location Reference Lat. 60.67230° N Long. 118.85199° W
Permit No. 3509 Lease No.

Chevron Standard Limited
(Permitter, Licensee, Lessee)

Date of commencement of proposed program March 19th, 1970

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at
Gas at
Water at 3608 - 3718' (DST #5)
Total Depth 3710 Date of last operations March 19th, 1970
Present condition of well D & A

CASING RECORD

Casing Size O.D. Inches	Weight	Amount	Set At—	Sacks of Cement and Additives	Amount Pulled
1. 2 5/8	24	15 lbs.	378	240 + 3% CaCl ₂	— — —
2.					
3.					
4.					
5.					

PROPOSED ABANDONMENT PROGRAM

Plug		Geological Formation	Number of Sacks of Cement	Remarks
No.	Position			
1	3710 - 3200	T.D. to top of Slave Point	210	No feel
2	425 - 325	Surface	50 + 3% CaCl ₂	Tagged at 350'
3	Surface Plug.	Weld a plate to the top with riser and identification marker.		

The following logs have been run DIL, BOS-GRC, FDI, SNR, Lithology, Velocity
Other operations proposed.

Operations to be carried out by Regent Drilling (11) Contractor Licence No. 501
Address 1200 Calgary House, Calgary 1, Alberta Address.
Responsible Agent in field Leo Navratil
Dated at Calgary, this 4th Day of May 1970
Signed by [Signature] Company Canadian Pacific Oil and Gas Limited
Title Drilling Operations Superintendent Operator's Exploratory Licence No. 1221

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. B.H.J. Thoms
on the 18th March 1970.

Dated 12th June, 1970 [Signature] Thoms
Oil Conservation Engineer

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

Drilling Authority No. 407

Project No.

File No.



DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT
RESOURCE MANAGEMENT DIVISION
OIL AND MINERAL DIVISION

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 CPOG Chevron Kakisa C-31
Location: Unit C Section 31 Grid 60°50'N 118°45'W
Latitude 60°40'20.26"N Longitude 118°51'7.13"W
From Established Reference Marker 500' N. of Intersection Line 5, Shot Pt. 125
Universal Well Location Reference Lat. 60.67230° N., Long. 118.85199° W.
Elevation: Ground 1137' K.B. 1149' feet above sea-level.
Well is expected to produce from Slave Point formation at a depth of about 2917' K.B. feet. Expected total final depth 3117'
Area assigned to well
(for Oil Conservation Engineer's use only)

Permit No. 3509 Lease No. Acreage 62,568
Permittee, licensee, or lessee Chevron Standard Ltd.
Exploratory Licence No. 1283
Surface owned by Crown or Crown
(If alienated 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	Backs of Cement
1. <u>8 5/8</u>	<u>24.5</u>	<u>J-55</u>	<u>New</u>	<u>350</u>	<u>To Surface</u>
2.					
3.					
4.					
5.					

Expected water, gas, and oil horizons and type of control equipment Hy-Drill Model CK 900 x 10"
Ran type B.O.P. Cameron SS 900 x 10". Closing unit Payne - 40 gals.
Shaffer drill pipe Safety valve. Shaffer Kelly Cock.

Well will be drilled with Rotary Rig No. 11-H by Regent Drilling Co. Ltd.
(Drilling Contractor or company)

Responsible agent of applicant:-- Contractor's business Licence No. 501
At well At registered office A.W. Groll
Address 205 Ninth Avenue S.E., Calgary 21, Alta.
It is understood that if changes become necessary, notice of the change of plan will be submitted.
Dated at Calgary this 19th day of January 19 70
Signed by H.E. Doughty Company Canadian Pacific Oil & Gas Ltd.
Title Drilling Superintendent Operator's Licence No. 1221

(For Resource Management Division use only)

APPROVED

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

- The Company will submit to this office, on Tuesday of each week, the latest reports received by radio on the progress of the well.
- During well drilling and testing operations, every effort shall be made to ensure

Dated 21st January 19 70 Please see over page

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

LAND 52-90-1 (3-67)

UNIQUE WELL IDENTIFIER - 300G636050118450

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.
4. Intermediate and production strings of casing are to receive the approval of the Oil Conservation Engineer.

B.H.J. Thomas

B.H.J. Thomas, Oil Conservation Engineer

DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4168, EDMONTON, ALBERTA

TEST NUMBER

1

Date MARCH 15, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation SLAVE POINT
 Est. Pay Thick. ---
 Ticket No. B-1715
 Purchase Order No. 32401

Interval 3280' TO 3336'
 Test Duration MIS-RUN
 Initial Hydrostatic 1560
 Final Hydrostatic 1545
 Initial Flowing ---
 Final Flowing --- after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1388 after 60 mins.
 Blow MIS-RUN
 Recovery 30'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>8.9</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>84</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>9-1/2</u> Hrs.	Tool Length <u>55.90'</u>
pH <u>11.5</u>	Where Circulated <u>BOTTOM</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>6.00</u> P.M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>SLAVE POINT</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT. BY-PASS EQUIP. 1EX PACKER.

Type of Test STRADDLE BY-PASS Wt. to Set Packer 40,000 45,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion ---
 Temp. 87° Gravity --- No. Drill Collars 13(4-1/2" 190) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 8.45 P.M. Recorder No. ---
 Tool Open 10.40 P.M. Depth Run ---
 " Closed 11.40 P.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 12.40 A.M. Final S.I.P. ---
 " Out 3.00 A.M. Difference ---

INSIDE	OUTSIDE
2658	2657
3270'	3316'
1538-1512	1560-1545
1372	1388

Mud 30'
 Oil ---
 Water ---
 Total 30'
 Sampled at ABOVE TOOL.

Description of Fluid 30' DRILLING MUD.

Witnessed By: LEO NAVRATIL, TOOLPUSHER AND CREW.
 REMARKS: GOOD BLOW WHEN TOOL OPENED FOR FLOW, DYING IN 5 MINUTES. TOOL WAS
PLUGGED WITH LOST CIRCULATION MATERIAL WHEN SERVICED.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

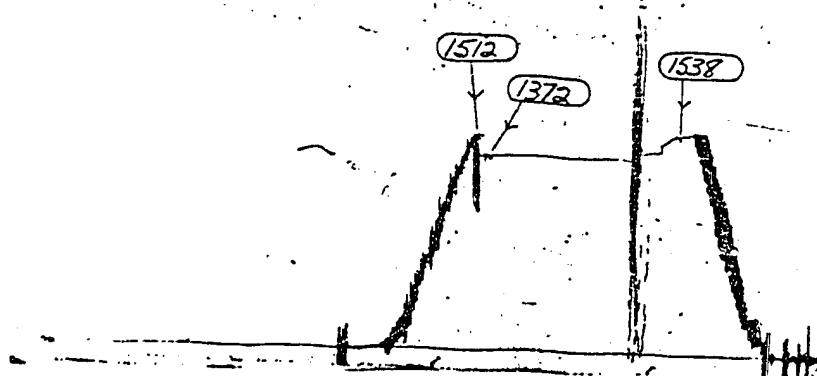
D.S.T. # 1 WELL NAME CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. #1 TICKET # B-1715

RECORDER # 2658

MIS-RUN

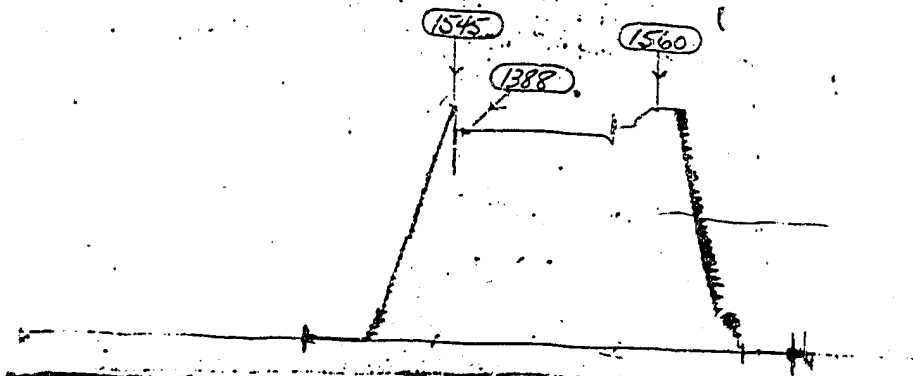


CPOG CHEVRON KAKISA G-31

DST. #1 TICKET # B-1715

RECORDER # 2657

MIS-RUN



DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

2

Date MARCH 16, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPCG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation PRESQURE
 Est. Pay Thick. --
 Ticket No. B-1716
 Purchase Order No. 32401

Interval 3410' TO 3512'
 Test Duration MIS-RUN
 Initial Hydrostatic 1639
 Final Hydrostatic 1611
 Initial Flowing --
 Final Flowing -- after 60 mins.
 Initial Shut-In -- after -- mins.
 Final Shut-In 1460 after 45 mins.
 Blow MIS-RUN
 Recovery 45'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>8.9</u>	Size Rat Hcle <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>84</u>	Size & Type Pipe <u>4-1/2 F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>--</u>	Tool Length <u>83.80'</u>
pH <u>11.5</u>	Where Circulated <u>--</u>	Rat Hole Length <u>--</u>
F. C. <u>2/32</u>	Bit off Bottom <u>--</u>	M. Difference <u>--</u>
Condition <u>GOOD</u>	Formation <u>PRESQURE</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT. BY-PASS EQUIP. 1EX PACKER. PUMP OUT SUB.

Type of Test STRADDLE BY-PASS Wt. to Set Packer 35,000 42,000 To Pull Loose
 Initial Puff -- Gas Flow -- Size Bean 1/2" Fluid Cushion --
 Temp. 78° Gravity -- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

		PRESSURES		FLUID RECOVERY	
Started In <u>5.00 A.M.</u>	Recorder No. <u>--</u>	INSIDE <u>2658</u>	OUTSIDE <u>2657</u>	Mud <u>45'</u>	
Tool Open <u>6.45 A.M.</u>	Depth Run <u>--</u>	<u>3399'</u>	<u>3440'</u>	Oil <u>--</u>	
" Closed <u>7.45 A.M.</u>	Hydrostatics <u>--</u>	<u>1615-1587</u>	<u>1639-1611</u>	Water <u>--</u>	
" Open <u>-- M.</u>	Flow <u>--</u>			Total <u>45'</u>	
" Closed <u>-- M.</u>	Initial S.I.P. <u>--</u>			Sampled at <u>TOP OF TOOL</u>	
" Loose <u>8.30 A.M.</u>	Final S.I.P. <u>--</u>	<u>1429</u>	<u>1460</u>		
" Out <u>10.30 A.M.</u>	Difference <u>--</u>				

Description of Fluid 45' DRILLING MUD.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.
 REMARKS: GOOD BLOW WHEN TOOL OPENED DYING IN 10 MINUTES. MUD WAS LOST ALL THROUGH
TEST. NO INITIAL SHUT IN TAKEN. TOOL WAS PLUGGED WITH LOST CIRCULATION
MATERIAL.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L. W. NAVRATIL.

Customer's Representative

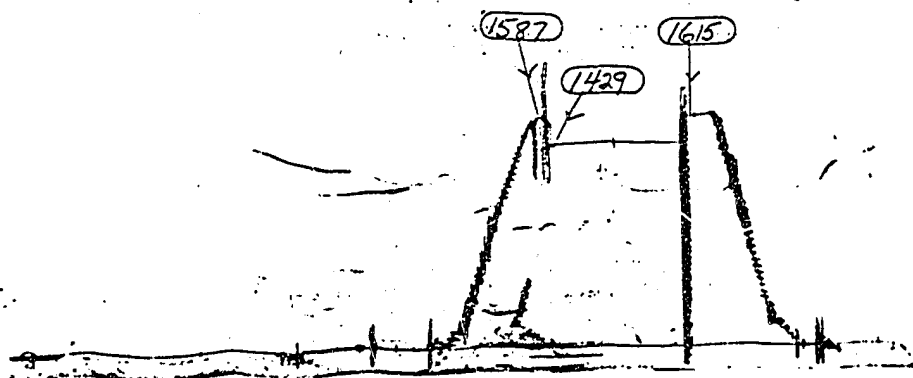
D.S.T. # 2 WELL NAME CPCG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 2 TICKET B-1716

RECORDER 2658

MIS-RUN

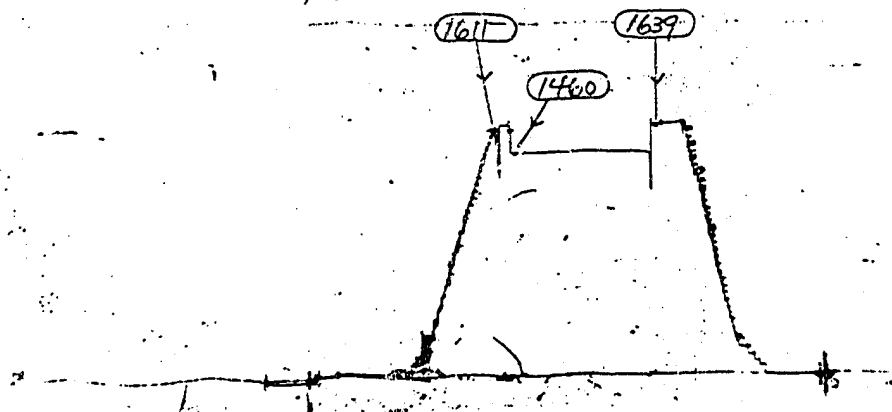


CPOG CHEVRON KAKISA G-31

DST. 2 TICKET B-1716

RECORDER 2657

MIS-RUN



DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 259-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

3

Date MARCH 17, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation PRECAMBRIAN
 Est. Pay Thick. --
 Ticket No. B-1717
 Purchase Order No. 32401

Interval 3608' TO 3710'
 Test Duration MIS-RUN
 Initial Hydrostatic 1699
 Final Hydrostatic 1665
 Initial Flowing --
 Final Flowing -- after 30 mins.
 Initial Shut-In -- after -- mins.
 Final Shut-In -- after 60 mins.
 Blow MIS-RUN
 Recovery ---

Mud Type <u>GEL</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>95</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>5-1/2</u> Hrs.	Tool Length <u>53.55'</u>
pH <u>11.5</u>	Where Circulated <u>BOTTOM</u>	Rat Hole Length <u>--</u>
F. C. <u>2/32</u>	Bit off Bottom <u>10.30</u> P.M.	Difference <u>--</u>
Condition <u>GOOD</u>	Formation <u>PRECAMBRIAN</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT.

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 20,000 To Pull Loose
 initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion 500' DIESEL
 Temp. --- Gravity --- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 1.00 A.M. Recorder No. 2658
 Tool Open 4.25 A.M. Depth Run 1705-1662
 " Closed 4.55 A.M. Hydrostatics 1699-1665
 " Open -- M. Flow --
 " Closed -- M. Initial S.I.P. --
 " Loose 5.55 A.M. Final S.I.P. --
 " Out 8.30 A.M. Difference --

Mud --
 Oil --
 Water --
 Total --
 Sampled at ---

Description of Fluid ---

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.
 REMARKS: NO BLOW WHEN TOOL OPENED FOR FLOW. FOUND TOOL PLUGGED WHEN OUT OF HOLE.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

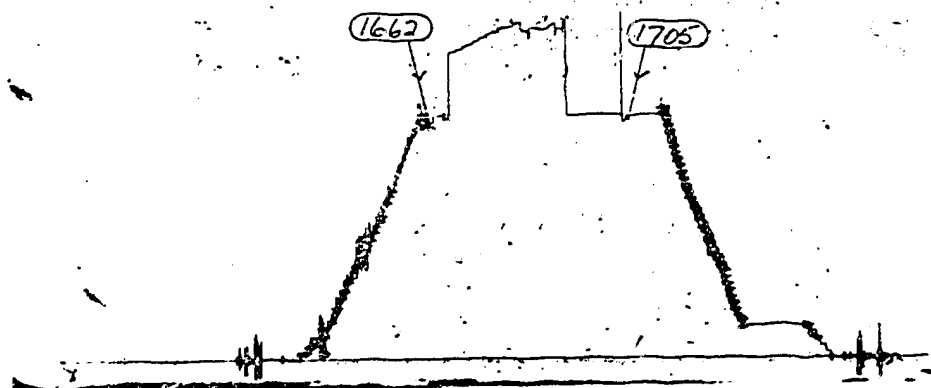
D.S.T. # 3 WELL NAME CPOG CHEVRON KAKISA G-31

CPDA CHEVRON KAKISA G-31

DST-3 TICKET-B-1717

RECORDER-2658

MIS-RUN

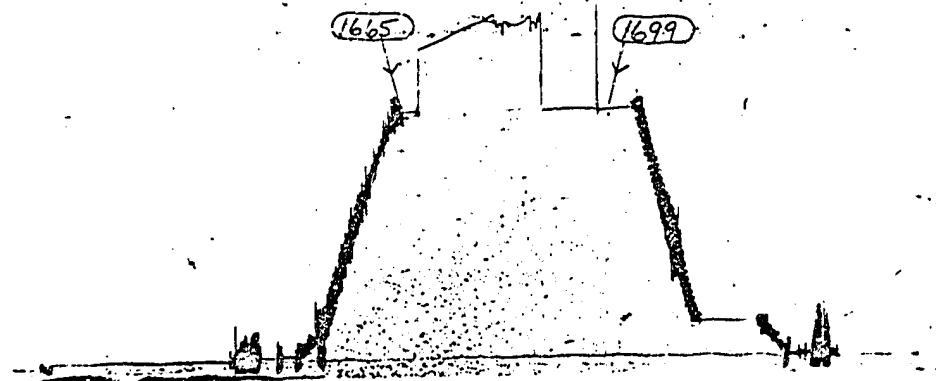


CPDG CHEVRON KAKISA G-31

DST-3 TICKET-B-1717

RECORDER-1536

MIS-RUN



DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

4

Date MARCH 17, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 113 51'07.18
 Area KAKISA RIVER N.W.-T.
 Formation PRECAMBRIAN
 Est. Pay Thick. ---
 Ticket No. B-1718
 Purchase Order No. 32401

Interval 3608' TO 3710'
 Test Duration MIS-RUN
 Initial Hydrostatic 1706
 Final Hydrostatic 1701
 Initial Flowing ---
 Final Flowing --- after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In --- after --- mins.
 Blow MIS-RUN
 Recovery 30'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>95</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>---</u> Hrs.	Tool Length <u>53.55'</u>
pH <u>11.5</u>	Where Circulated <u>---</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>---</u> M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>PRECAMBRIAN</u>	Total Depth <u>3710'</u>
TEST EXTRAS: <u>SAFETY JT.</u>		

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 20,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion ---
 Temp. 82° Gravity --- No. Drill Collars 13(4-H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 10.15 A.M. Recorder No. 2658
 Tool Open 11.45 A.M. Depth Run 3612'
 " Closed --- M. Hydrostatics 1707-1701
 " Open --- M. Flow 1706-1701
 " Closed --- M. Initial S.I.P. ---
 " Loose 12.45 P.M. Final S.I.P. ---
 " Out 3.00 P.M. Difference ---

Mud 30'
 Oil ---
 Water ---
 Total 30'
 Sampled at ABOVE TOOL.

Description of Fluid 30' DRILLING MUD.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.

REMARKS: GOOD AIR BLOW WHEN TOOL OPENED, DECREASING TO WEAK IN 10 MINUTES AND
DEAD AFTER 20 MINUTES. TOOL WAS LEFT OPEN FOR 1 HOUR. PICKED UP AND
RESET TO SEE IF TOOL WAS PLUGGED. NO AIR BLOW WHEN RESET. HOIST.
TOOL PLUGGED.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. # 4

WELL NAME

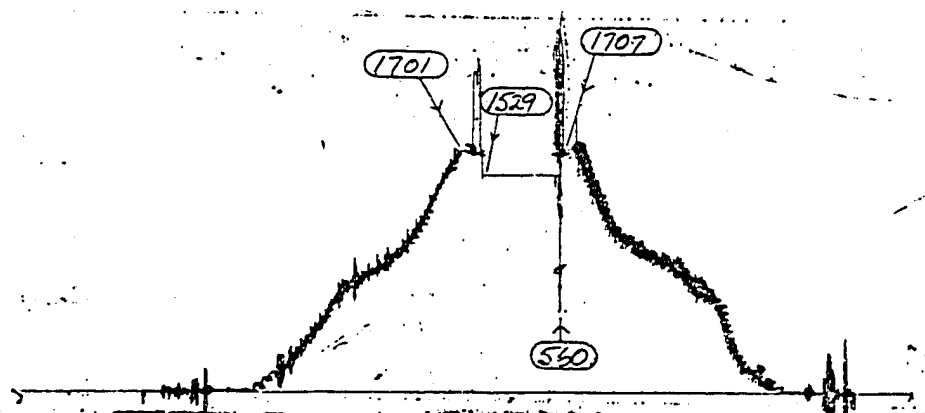
CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 4 TICKET B-1718

RECORDER 2658

MIS-RUN

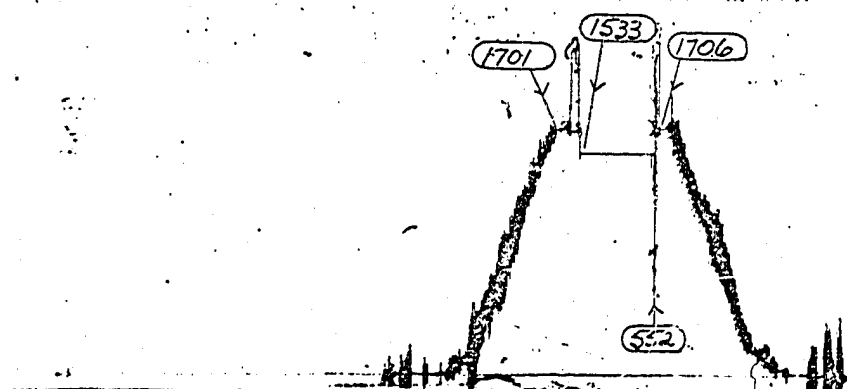


CPOG CHEVRON KAKISA G-31

DST. 4 TICKET B-1718

RECORDER 1536

MIS-RUN



DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

5

Date MARCH 18, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation CHINCHAGA
 Est. Pay Thick. ---
 Ticket No. B-1719
 Purchase Order No. 32401

Interval 3608' TO 3710'
 Test Duration 240 MINUTES
 Initial Hydrostatic 1702
 Final Hydrostatic 1692
 Initial Flowing 181
 Final Flowing 824 after 120 mins.
 Initial Shut-In ---- after --- mins.
 Final Shut-In 1530 after 120 mins.
 Blow GOOD-DECREASING
 Recovery 1400'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>85</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>6.0</u>	Time Circulated <u>--</u> Hrs.	Tool Length <u>69.15'</u>
pH <u>11.</u>	Where Circulated <u>--</u>	Rat Hole Length <u>--</u>
F. C. <u>2/32</u>	Bit off Bottom <u>--</u> M.	Difference <u>--</u>
Condition <u>GOOD</u>	Formation <u>CHINCHAGA</u>	Total Depth <u>3710'</u>
TEST EXTRAS: <u>SAFETY JT. PUMP OUT SUB.</u>		

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 25,000 To Pull Loose
 Initial Puff --- Gas Flow NIL Size Bean 1/2" Fluid Cushion ---
 Temp. 78° Gravity --- No. Drill Collars 13 (4 1/2" H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 11.45 P.M. Recorder No. ---
 Tool Open 1.30 A.M. Depth Run ---
 " Closed 3.30 A.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 5.30 A.M. Final S.I.P. ---
 " Out --- M. Difference ---

OUTSIDE	INSIDE
1536	2657
3615'	3619'
1702-1692	1709-1697
181-824	166-823
---	---
1530	1530

Mud 30'
 Oil ---
 Water 1370'
 Total 1400'
 Sampled at TOP, MIDDLE AND BOTTOM.

Description of Fluid 30' MUD. 1370' SALT WATER.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.

REMARKS: GOOD AIR BLOW WHEN TOOL OPENED FOR FLOW PERIOD, BLOW DECREASING
IN 15 MINUTES TO WEAK AND REMAINED ~~WEAK~~ WEAK FOR THE REMAINDER OF
FLOW PERIOD.
NO INITIAL SHUT IN TAKEN.

TEST SATISFACTORY.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. # 5

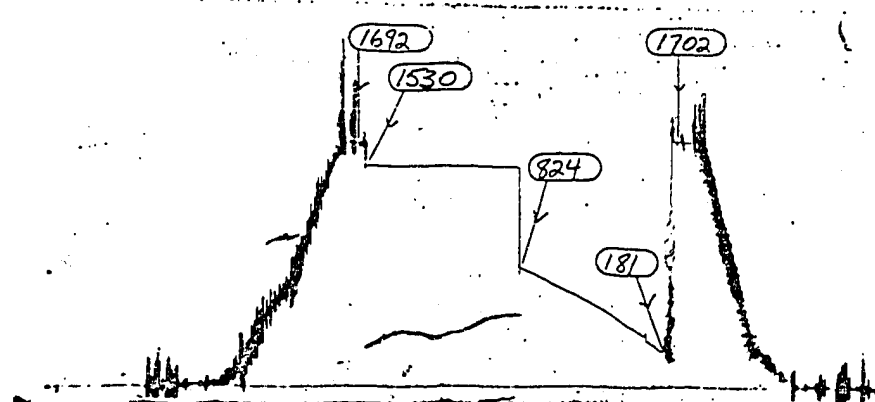
WELL NAME

CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. #5 TICKET #B-1719

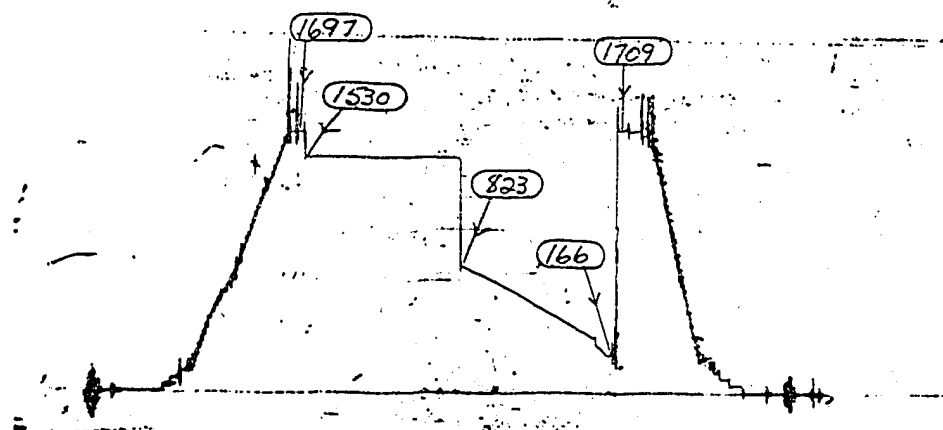
RECORDER #1536



CPOG CHEVRON KAKISA G-31

DST. #5 TICKET #B-1719

RECORDER #2657



DRILL STEM TESTING & CORING LTD.

EDMONTON: PHONE 433-7292

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

6

Date MARCH 19, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation SLAVE POINT
 Est. Pay Thick. ---
 Ticket No. B-1720
 Purchase Order No. 32401

Interval 3280' TO 3336'
 Test Duration 180 MINUTES
 Initial Hydrostatic 1558
 Final Hydrostatic 1518
 Initial Flowing 1082
 Final Flowing 1379 after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1380 after 120 mins.
 Blow STRONG-DECREASING
 Recovery 2950'

Mud Type GEL. Size Full Hole 7-7/8" Size Rubber 7"
 Mud Wt. 9.0 Size Rat Hole NIL O.D. Drill Collar 6-1/2"
 Vis. 85 Size & Type Pipe 4-1/2" F.H. O.D. Sub or T.J. 5-3/4"
 W. L. 6.0 Time Circulated --- Hrs. Tool Length 64.80'
 pH 11.0 Where Circulated --- Rat Hole Length ---
 F. C. 2/32 Bit off Bottom --- M. Difference ---
 Condition GOOD Formation SLAVE POINT Total Depth 3710'
 TEST EXTRAS: SAFETY JT. PUMP OUT SUB. LEX PACKER. BY-PASS EQUIP.

Type of Test STRADDLE BY-PASS Wt. to Set Packer 35,000 60,000 To Pull Loose
 Initial Puff --- Gas Flow NIL Size Bean 1/2" Fluid Cushion ---
 Temp. 92° Gravity --- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 10.30 A.M. Recorder No. ---
 Tool Open 11.50 A.M. Depth Run ---
 " Closed 12.50 P.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 2.50 P.M. Final S.I.P. ---
 " Out --- M. Difference ---

INSIDE	OUTSIDE
1536	2657
3268'	3306'
1534-1501	1558-1518
711-1361	1082-1379
---	---
1364	1380

Mud 891'
 Oil ---
 Water 2059'
 Total 2950'
 Sampled at TOP, MIDDLE
AND TOP OF TOOL.

Description of Fluid 891' DRILLING MUD. 2059' SALT WATER.

Witnessed By: LEO NAVRATIL.

REMARKS: STRONG AIR BLOW WHEN TOOL OPENED FOR FLOW PERIOD. DECREASING
IN 40 MINUTES AND THEN DEAD IN ONE HOUR. NO INITIAL SHUT IN TAKEN.

TEST SATISFACTORY.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. # 6

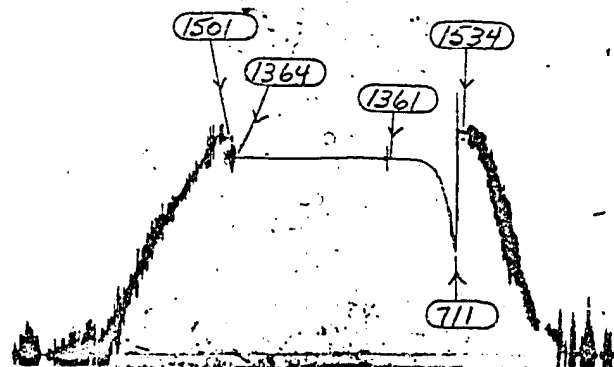
WELL NAME

CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST.*6 TICKET*B-1720

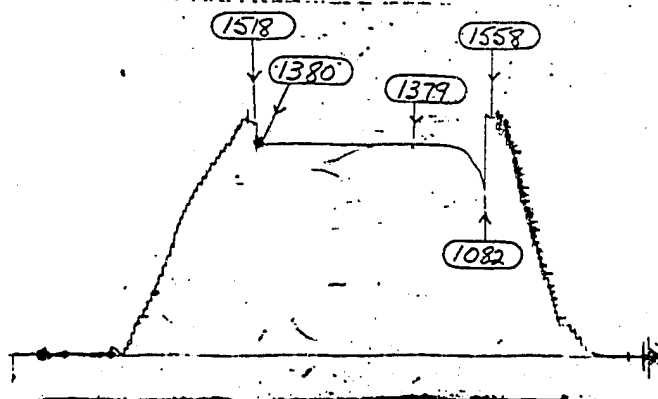
RECORDER*1536



CPOG CHEVRON KAKISA G-31

DST.*6 TICKET*B-1720

RECORDER*2657



651-11-4-7

CPOG CHEVRON KAKISA G-31
WELL HISTORY REPORT

CPOG Chevron Kakisa G-31

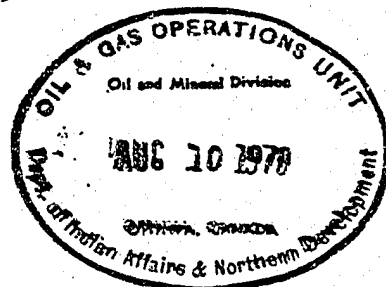
WELL HISTORY REPORT

on

CPOG Chevron Kakisa G-31

Unit G, Sec. 31, Grid. $60^{\circ}50'N$; $118^{\circ}45'W$

Northwest Territories



CPOG Chevron Kakisa G-31

INDEX

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SECTION V	12
SECTION VI	13

WELL HISTORY REPORTSECTION I(a) Well Name and Number:

CPOG Chevron Kakisa G-31
Unit G, Sec. 31, Grid. 60°50'N ; 118°45'W

(b) Permittee:

Chevron Standard Limited

(c) Operator:

Canadian Pacific Oil and Gas Limited
205 Ninth Avenue S.E., Calgary 21, Alberta

(d) Location:

Unit G, Sec. 31, Grid. 60°50'N ; 118°45'W
Latitude: 60°40'20.26"N Longitude: 118°51'7.18"W
Universal Well Reference:
Latitude: 60.67230°N Longitude: 118.85199°W
Unique Well Identifier: 300G316050118450

(e) Development Well:

Nil

(f) Permit Number:

3509

(g) Drilling Contractor:

Regent Drilling Co. Limited
Rig No. 11-H

(h) Drilling Authority Number:

Number: 407

(i) Classification:

Exploratory Wildcat

(j) Elevation:

Ground Level	1137 feet
Kelly Bush	1150 feet

(k) Spud Date:

March 4th, 1970 @ 1:00 P.M.

(con't.....)

(l) Completed Drilling:

March 14th, 1970

(m) Total Depth:

3710 feet

(n) Well Status:

Dry and Abandon

(o) Rig Release:

March 19th, 1970 @ 8:00 P.M.

(p) Hole Sizes:

12 1/4"	0	-	382'
7 7/8"	382'	-	3710'

(q) Casing:

8 5/8" Surface Casing, set at 378' with 240 sacks construction
cement plus 3% CaCl_2 .

Section II Geological Summary

(a)

<u>Formation Tops</u>	<u>Mechanical Logs</u>	<u>Samples</u>
Trout River	130	130
Kakisa	1100	1100
Redknife	1295	-
Jean Marie	1460	1465
Hay River	1485	1510
Horn River	3179	3210
Slave Point	3256	3250
Watt Mountain	3405	3405
Sulphur Point - Presqu'ile	3410	3410
Lower Keg River	3525	3530
Chinchaga	3625	3620
Precambrian	3675	3680
Total Depth	3710	

(b) Cored Intervals - NONE

(c) Core Description - NONE

(d)

SAMPLE DESCRIPTION

Sample quality poor from 390 to 760, and very poor from 760 to 1530. Samples were lagged from 1500 to T.D.

- | | |
|-------------|---|
| 0 - 30 | No samples |
| 30 - 50 | Glacial Till - clay, light grey to white, calcareous, slightly silty, plant fragments, with limestone and igneous rock fragments below. |
| 50 - 130 | Glacial Till - Limestone boulders, medium to light brown, microcrystalline, with a trace of fossil material; intermixed with igneous, quartzite, and chert boulders. |
| 130 - 760 | Limestone, light to medium brown, micro to very finely crystalline, micrite grading to biomicrite, trace of pyrite and bituminous matter, minor fractures with very fine crystalline sparry calcite, crinoids, Ostracods, Tentaculites, Brachiopods and Pelecypod fragments. |
| 760 - 1075 | Limestone as above? |
| 1075 - 1100 | Limestone, as above? interbedded with siltstone, white, with calcite cement, very fine quartz grains, |
| 1100 - 1330 | Limestone? light brown, micro to very finely crystalline, sparry calcite in minor vug and fractures, disseminated pyrite, slightly bituminous, Ostracods, Brachiopods, and Pelecypods. |
| 1330 - 1510 | Limestone? light brown, micrite with blebs very fine crystalline sparry calcite, trace of fossil material, few shale stringers, dark grey, thinly laminated, and slightly calcareous, with a white streak, shale becomes medium brown to light green below. |
| 1510 - 2060 | Siltstone, 60%, light grey-green to brown, calcareous, micaceous, thinly bedded, argillaceous, few very fine sandstone grains; interbedded with shale, 40%, light grey-green to brown and maroon, slightly calcareous, waxy streak, silty in part; and limestone stringers, light to medium grey, micrite, argillaceous, silty, fish fragments, Ostracods, and Crinoids |
| 2060 - 2290 | Siltstone, light to medium grey-green, calcareous, slightly argillaceous and glauconitic, interbedded with minor limestone shale, and sandstone stringers |

- 2290 - 2410 Siltstone, as above; interbedded with 50% shale, medium red-brown and grey-green, thinly laminated, micaceous, slightly calcareous and silty.
- 2410 - 2580 Shale, medium grey-green, thinly laminated, slightly calcareous and silty, few thin beds red-brown.
- 2580 - 2800 Limestone, medium brown, microcrystalline, argillaceous quartz silt, trace of pyrite; 40% interbedded. Siltstone, medium grey, very calcareous, thin bedded, argillaceous and micaceous.
- 2800 - 2910 Mudstone, medium grey, calcareous, silty, slightly micaceous.
- 2910 - 3210 Siltstone, medium grey-green, argillaceous, micaceous, slightly calcareous, becomes very calcareous with thin limestone stringers below, thinly laminated, glauconitic very fine sandstone grains; interbedded with 5% green thinly laminated shale and mudstone beds.
- 3210 - 3230 Mudstone, dark grey, soft, light streaks, calcareous, interbedded with 50% siltstone as above.
- 3230 - 3250 Shale, dark brown to black, carbonaceous, thinly laminated, brown waxy streak, micaceous, asphaltic.
- 3250 - 3360 Slave Point, Limestone, medium to dark brown, microcrystalline, bituminous stylolites, slightly argillaceous, pelsparite, pin point porosity, dead oil in fracture, abundant Amphipora.
- 3360 - 3405 Limestone, light brown, micro to very fine crystalline, pelsparite interbedded with pel micrite, fractures filled with sparry calcite.
- 3405 - 3410 Watt Mountain, Limestone, as above, with medium green-grey, argillaceous partings, minor intraformational breccia and disseminated pyrite.
- 3410 - 3530 Sulphur Point-Presqu'ile, Dolomite, medium brown, micro to very fine crystalline, dense, hard, fractures filled with calcite, becomes vuggy between 3445 and 3490, vugs lined with medium crystalline white dolomite rhombs, trace of pyrite.
- 3530 - 3550 Lower Keg River, Limestone, light to medium brown, microcrystalline, disseminated pyrite, dolomitic, earthy porosity.

- 3550 - 3620 Dolomite, medium to dark brown, micro to very finely crystalline, finely crystalline and sucrosic in part, trace of disseminated pyrite, fractures filled with dolomite rhombs above and sparry calcite below.
- 3620 - 3670 Upper Chinchaga, Dolomite, light brown, microcrystalline, slightly bituminous, trace of pyrite, fractures filled with medium crystalline calcite, earthy porosity, trace of oil staining and slight fluorescence.
- 3670 -- 3680 Granite Wash, Sandstone, white to light grey, dolomite, and calcite cement with disseminated pyrite in matrix, becomes quartzite below.
- 3680 - 3710 Precambrian, Metamorphic rocks, largely quartzite and basic igneous with abundant biotite becomes argillite then granite below.

SECTION IIIDrill Stem Tests:

✓ D.S.T. #1	3280'-3336'	Slave Point	Misrun	Rec. 30'	Drilling Mud	
	IHP - 1560	ISIP -	---	IFP -	---	
	FHP - 1545	FSIP -	1388	FFP -	---	
✓ D.S.T. #2	3410'-3512'	Presqu'ile	Misrun	Rec. 45'	Drilling Mud	
	IHP - 1639	ISIP -	---	IFP -	---	
	FHP - 1611	FSIP -	1460	FFP -	---	
D.S.T. #3	3608'-3710'	Precambrian	Misrun	Rec. -	Nil	
	IHP - 1699	ISIP -	---	IFP -	---	
	FHP - 1665	FSIP -	---	FFP -	---	
✓ D.S.T. #4	3608'-3710'	Precambrian	Misrun	Rec. 30'	Drilling Mud	
	IHP - 1706	ISIP -	---	IFP -	---	
	FHP - 1701	FSIP -	---	FFP -	---	
D.S.T. #5	3608'-3710'	Chinchaga	Rec. 30'	Mud, 1370'	Salt Water	
	IHP - 1702	ISIP -	---	IFP - 181	ISI - 120 mins.	
	FHP - 1692	FSIP -	1530	FFP - 824	FSI - 120 mins.	
✓ D.S.T. #6	3280'-3336'	Slave Point	Rec. 891'	Mud, 2059'	Salt Water	
	IHP - 1558	ISIP -	---	IFP - 1082	ISI - 60 mins.	
	FHP - 1518	FSIP -	1380	FFP - 1379	FSI - 120 mins.	

DRILL STEM TESTING & COPI'NG LTD.

EDMONTON, PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

WELL FILE

TEST NUMBER

1

Date MARCH 15, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation SLAVE POINT
 Est. Pay Thick. ---
 Ticket No. B-1715
 Purchase Order No. 32401

Interval 3280' TO 3336'
 Test Duration MIS-RUN
 Initial Hydrostatic 1560
 Final Hydrostatic 1545
 Initial Flowing ---
 Final Flowing --- after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1388 after 60 mins.
 Blow MIS-RUN
 Recovery 30'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>8.9</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>84</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>9-1/2</u> Hrs.	Tool Length <u>55.90'</u>
pH <u>11.5</u>	Where Circulated <u>BOTTOM</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>6.00</u> P. M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>SLAVE POINT</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT. BY-PASS EQUIP. LEX PACKER.

Type of Test STRADDLE BY-PASS Wt. to Set Packer 40,000 45,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion ---
 Temp. 87° Gravity --- No. Drill Collars 13 (4 1/2 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 8.45 P. M. Recorder No. ---
 Tool Open 10.40 P. M. Depth Run ---
 " Closed 11.40 P. M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 12.40 A. M. Final S.I.P. ---
 " Out 3.00 A. M. Difference ---

INSIDE	OUTSIDE
2658	2657
3270'	3316'
1538-1512	1560-1545
1372	1388

Mud 30'
 Oil ---
 Water ---
 Total 30'
 Sampled at ABOVE TOOL.

Description of Fluid 30' DRILLING MUD.

Witnessed By: LEO NAVRATIL, TOOLPUSHER AND CREW.
 REMARKS: GOOD BLOW WHEN TOOL OPENED FOR FLOW, DYING IN 5 MINUTES. TOOL WAS
PLUGGED WITH LOST CIRCULATION MATERIAL WHEN SERVICED.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

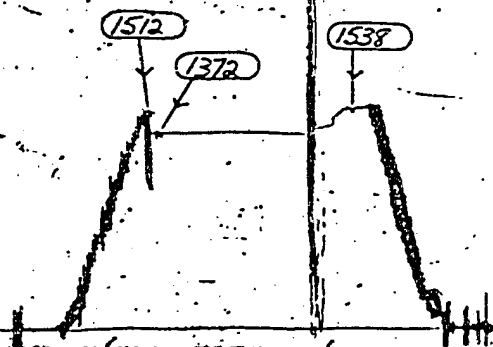
D.S.T. # 1 WELL NAME CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 1 TICKET B-1715

RECORDER 2658

MIS-RUN

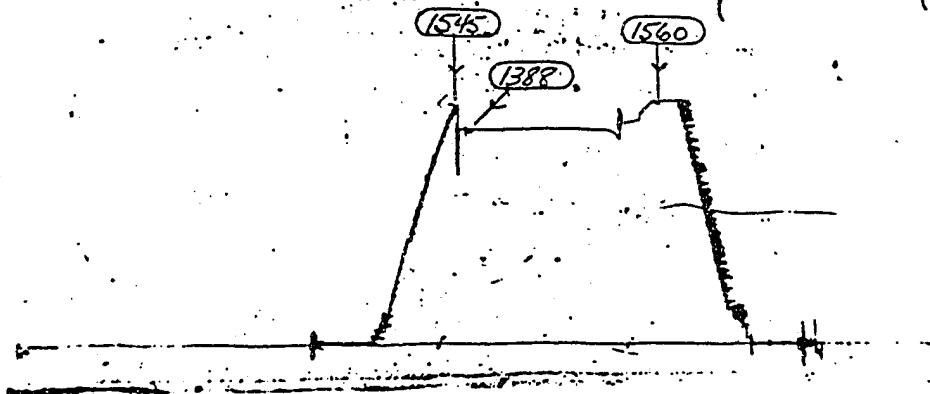


CPOG CHEVRON KAKISA G-31

DST. 1 TICKET B-1715

RECORDER 2657

MIS-RUN



DRILL STEM TESTING & COPI'NG LTD.

EDMONTON, PHONE 433-7292

CALGARY, PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

2

Date MARCH 16, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation PRESQURE
 Est. Pay Thick. ---
 Ticket No. B-1716
 Purchase Order No. 32401

WELL FILE

Interval 3410' to 3512'
 Test Duration MIS-RUN
 Initial Hydrostatic 1639
 Final Hydrostatic 1611
 Initial Flowing ---
 Final Flowing --- after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1460 after 45 mins.
 Blow MIS-RUN
 Recovery 45'

Mud Type GEL. Size Full Hole 7-7/8" Size Rubber 7"
 Mud Wt. 8.9 Size Rat Hole NIL O.D. Drill Collar 6-1/2"
 Vis. 84 Size & Type Pipe 4-1/2 F.H. O.D. Sub or T.J. 5-3/4"
 W. L. 5.6 Time Circulated --- Hrs. Tool Length 83.80'
 pH 11.5 Where Circulated --- Rat Hole Length ---
 F. C. 2/32 Bit off Bottom --- M. Difference ---
 Condition GOOD Formation PRESQURE Total Depth 3710'
 TEST EXTRAS: SAFETY JT. BY-PASS EQUIP. 1EX PACKER. PUMP OUT SUB.

Type of Test STRADDLE BY-PASS Wt. to Set Packer 35,000 42,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion ---
 Temp. 78° Gravity --- No. Drill Collars 13 (4 1/2 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 5.00 A.M. Recorder No. ---
 Tool Open 6.45 A.M. Depth Run ---
 " Closed 7.45 A.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 8.30 A.M. Final S.I.P. ---
 " Out 10.30 A.M. Difference ---

INSIDE	OUTSIDE
2658	2657
3399'	3440'
1615-1587	1639-1611
1429	1460

Mud 45'
 Oil ---
 Water ---
 Total 45'
 Sampled at TOP OF TOOL.

Description of Fluid 45' DRILLING MUD.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.

REMARKS: GOOD BLOW WHEN TOOL OPENED DYING IN 10 MINUTES. MUD WAS LOST ALL THROUGH
TEST. NO INITIAL SHUT IN TAKEN. TOOL WAS PLUGGED WITH LOST CIRCULATION
MATERIAL.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L. W. NAVRATIL.

Customer's Representative

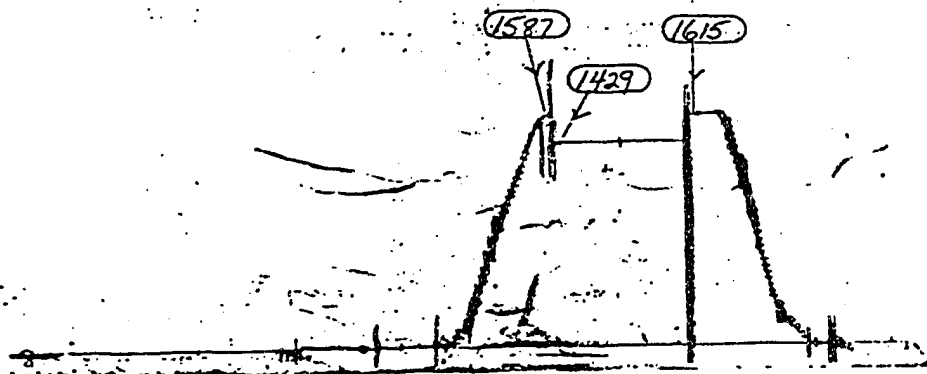
D.S.T. # 2 WELL NAME CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 2 TICKET B-1716

RECORDER 2658

MIS-RUN

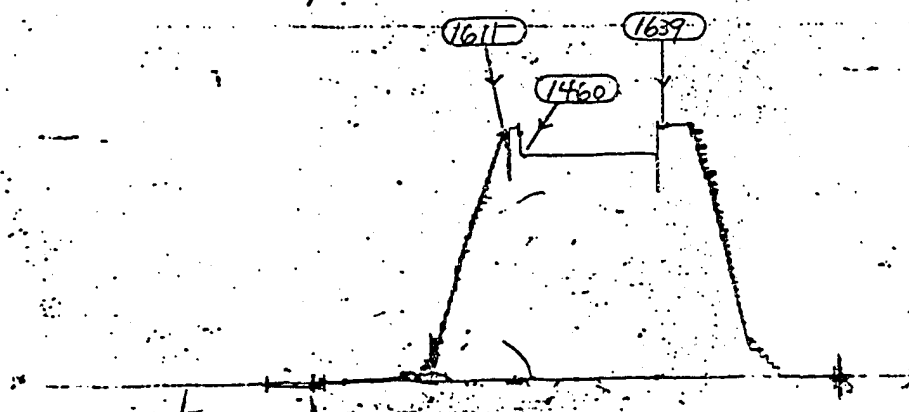


CPOG CHEVRON KAKISA G-31

DST. 2 TICKET B-1716

RECORDER 2659

MIS-RUN



DRILL STEM TESTING & CORKING LTD.

EDMONTON, ALBERTA 433-7292

CALGARY, ALBERTA 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

WELL FILE

TEST NUMBER

3

Date MARCH 17, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.
205 - 9th AVENUE S.E.
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation PRECAMBRIAN
 Est. Pay Thick. ---
 Ticket No. B-1717
 Purchase Order No. 32401

Interval 3608' TO 3710'
 Test Duration MIS-RUN
 Initial Hydrostatic 1699
 Final Hydrostatic 1665
 Initial Flowing ---
 Final Flowing --- after 30 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In --- after 60 mins.
 Blow MIS-RUN
 Recovery ---

Mud Type <u>GEL</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>95</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>5-1/2</u> Hrs.	Tool Length <u>53.55'</u>
pH <u>11.5</u>	Where Circulated <u>BOTTOM</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>10.30</u> P.M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>PRECAMBRIAN</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT.

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 20,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion 500' DIESEL
 Temp. --- Gravity --- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 1.00 A.M. Recorder No. ---
 Tool Open 4.25 A.M. Depth Run ---
 " Closed 4.55 A.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 5.55 A.M. Final S.I.P. ---
 " Out 8.30 A.M. Difference ---

2658	1536
1705-1662	1699-1665

Mud ---
 Oil ---
 Water ---
 Total ---
 Sampled at ---

Description of Fluid ---

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.
 REMARKS: NO BLOW WHEN TOOL OPENED FOR FLOW. FOUND TOOL PLUGGED WHEN OUT OF HOLE.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. # 3

WELL NAME

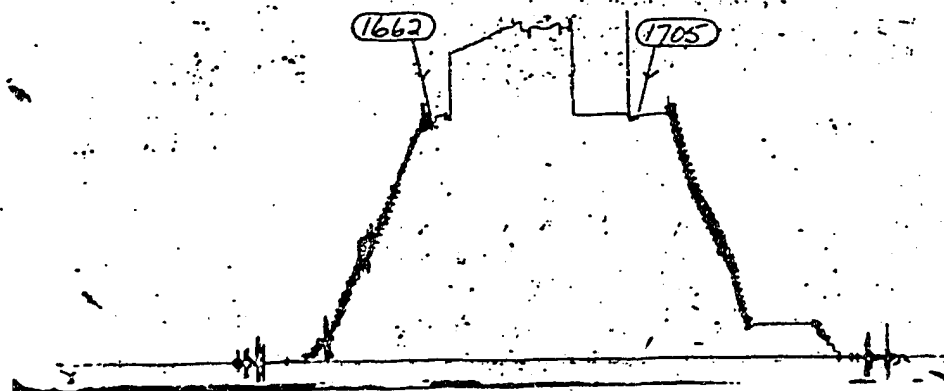
CPOG CHEVRON KAKISA G-31

CPDG CHEVRON KAKISA G-31

DST-3 TICKET-R-1717

RECORDER-2658

MIS-RUN

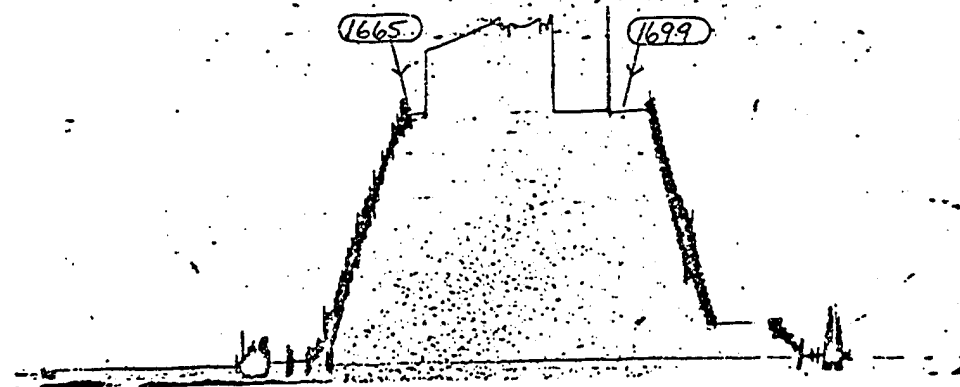


CPDG CHEVRON KAKISA G-31

DST-3 TICKET-B-1717

RECORDER-1536

MIS-RUN



DRILL STEM TESTING & COPI'NG LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

WELL FILE TEST NUMBER 4

Date MARCH 17, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation PRECAMBRIAN
 Est. Pay Thick. ---
 Ticket No. B-1718
 Purchase Order No. 32401

Interval 3608' TO 3710'
 Test Duration MIS-RUN
 Initial Hydrostatic 1706
 Final Hydrostatic 1701
 Initial Flowing ---
 Final Flowing --- after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In --- after --- mins.
 Blow MIS-RUN
 Recovery 30'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>95</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>5.6</u>	Time Circulated <u>---</u> Hrs.	Tool Length <u>53.55'</u>
pH <u>11.5</u>	Where Circulated <u>---</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>---</u> M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>PRECAMBRIAN</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT.

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 20,000 To Pull Loose
 Initial Puff --- Gas Flow --- Size Bean 1/2" Fluid Cushion ---
 Temp. 82° Gravity --- No. Drill Collars 13 (4-H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 10.15 A.M. Recorder No. 2658
 Tool Open 11.45 A.M. Depth Run 3612'
 " Closed --- M. Hydrostatics 1707-1701
 " Open --- M. Flow 1706-1701
 " Closed --- M. Initial S.I.P. ---
 " Loose 12.45 P.M. Final S.I.P. ---
 " Out 3.00 P.M. Difference ---

Mud 30'
 Oil ---
 Water ---
 Total 30'
 Sampled at ABOVE TOOL.

Description of Fluid 30' DRILLING MUD.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.

REMARKS: GOOD AIR BLOW WHEN TOOL OPENED, DECREASING TO WEAK IN 10 MINUTES AND
DEAD AFTER 20 MINUTES. TOOL WAS LEFT OPEN FOR 1 HOUR. PICKED UP AND
RESET TO SEE IF TOOL WAS PLUGGED. NO AIR BLOW WHEN RESET. HOIST.
TOOL PLUGGED.

TEST MIS-RUN.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. # 4

WELL NAME

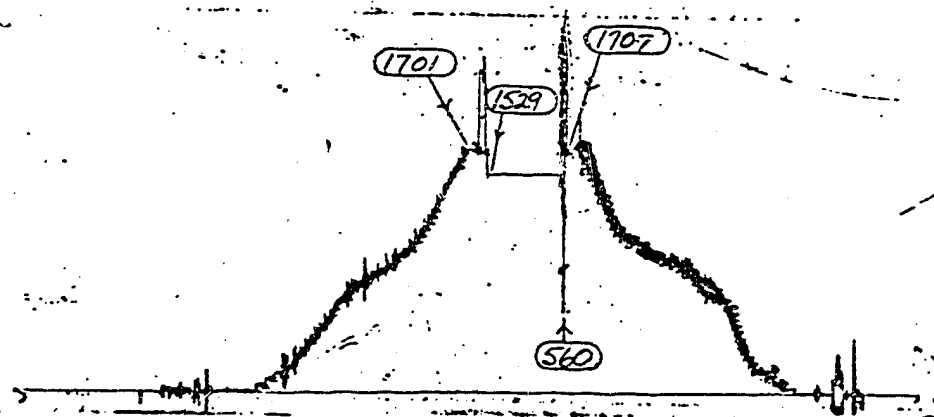
CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 4 TICKET-B-1718

RECORDER 2658

MIS-RUN

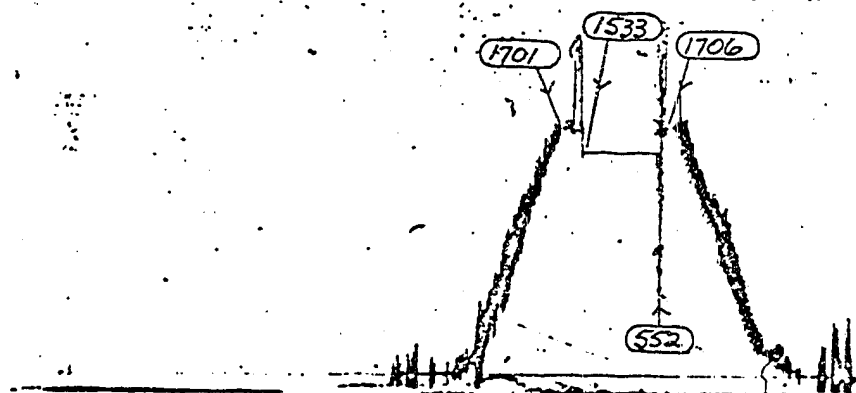


CPOG CHEVRON KAKISA G-31

DST. 4 TICKET-B-1718

RECORDER 1536

MIS-RUN



DRILL STEM TESTING & COPENING LTD.

EDMONTON: PHONE 433-7293

CALGARY: PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

TEST NUMBER

5

Date MARCH 18, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation CHINCHAGA
 Est. Pay Thick. ---
 Ticket No. B-1719
 Purchase Order No. 32401

Interval 1608' to 3710'
 Test Duration 240 MINUTES
 Initial Hydrostatic 1702
 Final Hydrostatic 1692
 Initial Flowing 181
 Final Flowing 824 after 120 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1530 after 120 mins.
 Blow GOOD-DECREASING
 Recovery 1400'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>85</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W.L. <u>6.0</u>	Time Circulated <u>---</u> Hrs.	Tool Length <u>69.15'</u>
pH <u>11.</u>	Where Circulated <u>---</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>---</u> M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>CHINCHAGA</u>	Total Depth <u>3710'</u>

TEST EXTRAS: SAFETY JT. PUMP OUT SUB.

Type of Test BOTTOM HOLE Wt. to Set Packer 35,000 25,000 To Pull Loose
 Initial Puff --- Gas Flow NIL Size Bean 1/2" Fluid Cushion ---
 Temp. 78° Gravity --- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 11.45 P.M. Recorder No. ---
 Tool Open 1.30 A.M. Depth Run ---
 " Closed 3.30 A.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 5.30 A.M. Final S.I.P. ---
 " Out --- M. Difference ---

OUTSIDE	INSIDE
1536	2657
3615'	3619'
1702-1692	1709-1697
181-824	166-823
---	---
1530	1530

Mud 30'
 Oil ---
 Water 1370'
 Total 1400'
 Sampled at TOP, MIDDLE AND BOTTOM.

Description of Fluid 30' MUD, 1370' SALT WATER.

Witnessed By: LEO NAVRATIL, DRILLER AND CREW.

REMARKS: GOOD AIR BLOW WHEN TOOL OPENED FOR FLOW PERIOD, BLOW DECREASING
IN 15 MINUTES TO WEAK AND REMAINED WEAK FOR THE REMAINDER OF
FLOW PERIOD.
NO INITIAL SHUT IN TAKEN.

TEST SATISFACTORY.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

Customer's Representative

D.S.T. #

5

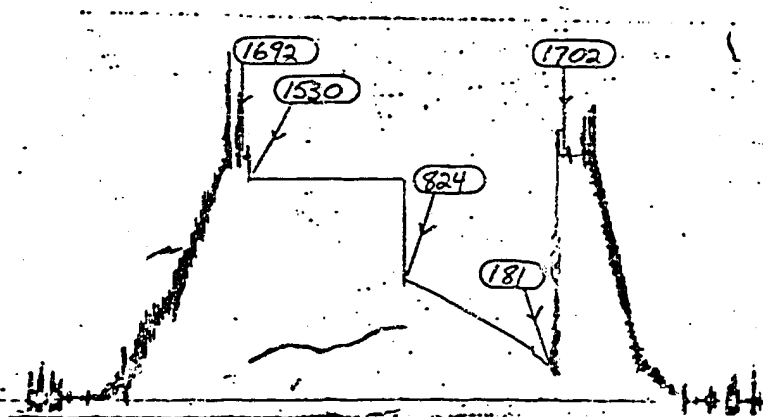
WELL NAME

CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 5 TICKET B-1719

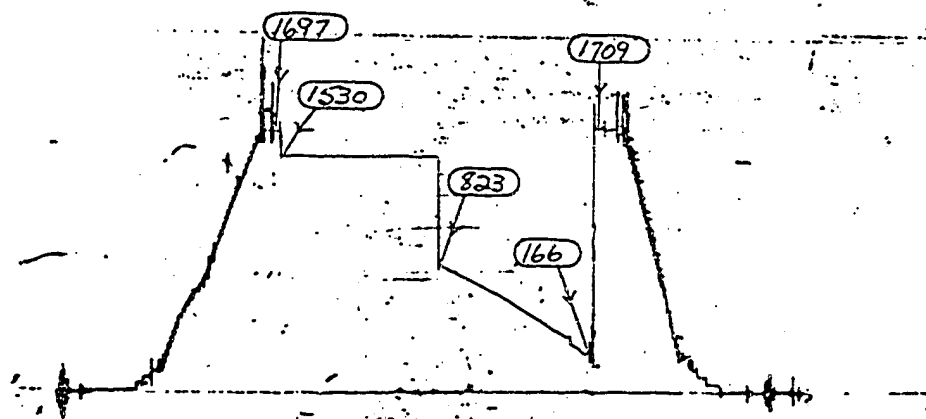
RECORDER 1536



CPOG CHEVRON KAKISA G-31

DST. 5 TICKET B-1719

RECORDER 2657



DRILL STEM TESTING & COPENG LTD.

EDMONTON, PHONE 433-7292

CALGARY, PHONE 269-2925

P.O. BOX 4188, EDMONTON, ALBERTA

WELL FILE

TEST NUMBER

6

Date MARCH 19, 1970.
 Customer CANADIAN PACIFIC OIL & GAS LTD.,
205 - 9th AVENUE S.E.,
CALGARY 21, ALBERTA.
 Well Name CPOG CHEVRON KAKISA G-31
 Location 60 40'20.26 118 51'07.18
 Area KAKISA RIVER N.W.T.
 Formation SLAVE POINT
 Est. Pay Thick. ---
 Ticket No. B-1720
 Purchase Order No. 32401

Interval 3280' TO 3336'
 Test Duration 180 MINUTES
 Initial Hydrostatic 1558
 Final Hydrostatic 1518
 Initial Flowing 1082
 Final Flowing 1379 after 60 mins.
 Initial Shut-In --- after --- mins.
 Final Shut-In 1380 after 120 mins.
 Blow STRONG-DECREASING
 Recovery 2950'

Mud Type <u>GEL.</u>	Size Full Hole <u>7-7/8"</u>	Size Rubber <u>7"</u>
Mud Wt. <u>9.0</u>	Size Rat Hole <u>NIL</u>	O.D. Drill Collar <u>6-1/2"</u>
Vis. <u>85</u>	Size & Type Pipe <u>4-1/2" F.H.</u>	O.D. Sub or T.J. <u>5-3/4"</u>
W. L. <u>6.0</u>	Time Circulated <u>---</u> Hrs.	Tool Length <u>64.20'</u>
pH <u>11.0</u>	Where Circulated <u>---</u>	Rat Hole Length <u>---</u>
F. C. <u>2/32</u>	Bit off Bottom <u>---</u> M.	Difference <u>---</u>
Condition <u>GOOD</u>	Formation <u>SLAVE POINT</u>	Total Depth <u>3710'</u>
TEST EXTRAS: <u>SAFETY JT. PUMP OUT SUB. 1EX PACKER. BY-PASS EQUIP.</u>		

Type of Test STRADDLE BY-PASS Wt. to Set Packer 35,000 60,000 To Pull Loose
 Initial Puff --- Gas Flow NIL Size Bean 1/2" Fluid Cushion ---
 Temp. 92° Gravity --- No. Drill Collars 13 (4 H90) Length 387' I.D.'s 2-7/8"

PRESSURES

FLUID RECOVERY

Started In 10.30 A.M. Recorder No. ---
 Tool Open 11.50 A.M. Depth Run ---
 " Closed 12.50 P.M. Hydrostatics ---
 " Open --- M. Flow ---
 " Closed --- M. Initial S.I.P. ---
 " Loose 2.50 P.M. Final S.I.P. ---
 " Out --- M. Difference ---

INSIDE	OUTSIDE
1536	2657
3268'	3306'
1534-1501	1558-1518
711-1361	1082-1379
---	---
1364	1380

Mud 891'
 Oil ---
 Water 2059'
 Total 2950'
 Sampled at TOP, MIDDLE
AND TOP OF TOOL.

Description of Fluid 891' DRILLING MUD. 2059' SALT WATER.

Witnessed By: LEO NAVRATIL.
 REMARKS: STRONG AIR BLOW WHEN TOOL OPENED FOR FLOW PERIOD, DECREASING
IN 40 MINUTES AND THEN DEAD IN ONE HOUR. NO INITIAL SHUT IN TAKEN.

TEST SATISFACTORY.

W.L. VERBAAN.

Testing Supervisor

L.W. NAVRATIL.

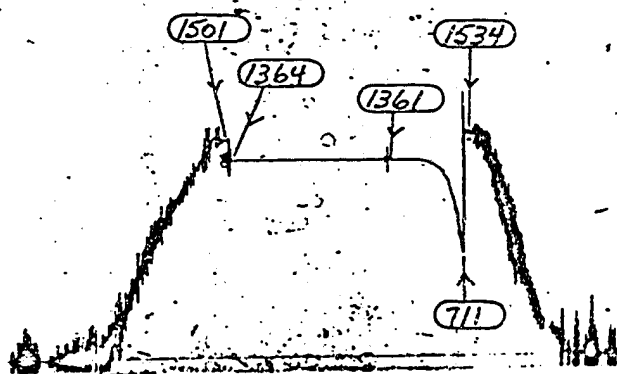
Customer's Representative

D.S.T. # 6 WELL NAME CPOG CHEVRON KAKISA G-31

CPOG CHEVRON KAKISA G-31

DST. 6 TICKET B-1720

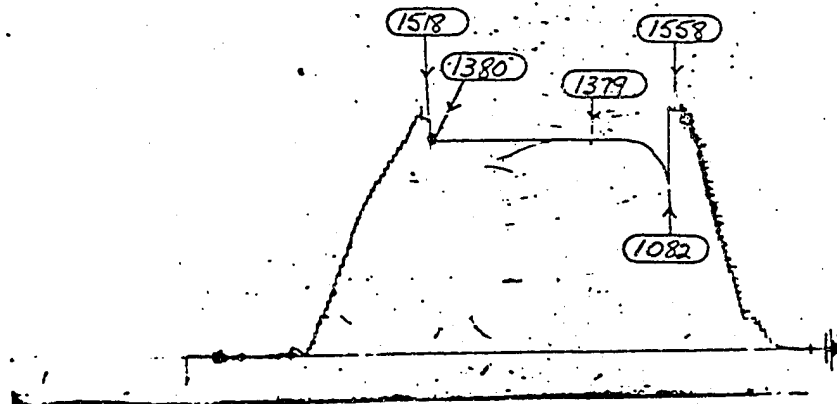
RECORDER 1536



CPOG CHEVRON KAKISA G-31

DST. 6 TICKET B-1720

RECORDER 2657



SURFACE CASING

13 joints, 8 5/8", J-55, 24#. Landed at 378' K.B.
with 240 sacks cement plus 3% CaCl_2 . Plug down at
10:30 A.M., March 6th, 1970. With good returns.

MUD RECORD

<u>TYPE</u>	<u>WEIGHT</u>	<u>VISCOSITY</u>			
Gel	9.1	32		Surface Hole	
Gel	9.1	55		Surface Hole	
Gel	9.1	48		Surface Hole	
Gel	9.1	48		Surface Hole	
Gel	8.3	28		Main Hole	
Gel	8.5	28		Main Hole	
Gel	8.8	28		Main Hole	
			<u>WATER LOSS</u>	<u>FILTER CAKE</u>	<u>P.H.</u>
Gel	9.2	34	--	--	--
Gel	9.1	44	7.2	2/32	11.5
Gel	9.0	52	6.2	2/32	12.0
Gel	9.1	58	7.6	2/32	11.5
Gel	8.9	48	6.8	2/32	11.5
Gel	9.0	95	--	--	--

BIT RECORD

	<u>NUMBER</u>	<u>SIZE</u>	<u>HOURS</u>	<u>FEET</u>	<u>INTERVAL</u>
	1	12 1/4	11 1/2	138	0 - 138
	2	12 1/4	22 1/2	244	138 - 382
	3	7 7/8	31 1/2	1225	382 - 1607
	4	7 7/8	23 3/4	1348	1607 - 2955
	5	7 7/8	12 1/2	327	2955 - 3282
Re-run	6	7 7/8	3 1/4	38	3282 - 3320
	7	7 7/8	Clean out bit at 3320' —		
Re-run	8	7 7/8	36 3/4	321	3320 - 3641
	9	7 7/8	69	69	3641 - 3710

DEVIATION RECORD

60° - $1/8^\circ$	1760° - $1\ 1/4^\circ$
120° - $1/8^\circ$	1940° - $3/4^\circ$
220° - $1/2^\circ$	2256° - $1\ 1/8^\circ$
312° - $1/3^\circ$	2410° - 1 °
382° - $1/2^\circ$	2700° - 1 °
700° - $1/2^\circ$	2819° - $1\ 1/4^\circ$
958° - $1\ 1/8^\circ$	2955° - $1\ 3/4^\circ$
1230° - $3/4^\circ$	3000° - $1\ 1/4^\circ$
1420° - $7/8^\circ$	3282° - 2 °
1607° - 2 °	3710° - $1\ 1/2^\circ$
1668° - $3/4^\circ$	

ABANDONMENT PLUGS

Plug #1

3710' - 3200' 210 sacks cement.

Plug down at 2:30 A.M., March 19th, 1970

No feel.

Plug #2

425' - 325' 50 sacks cement plus 3%
 CaCl_2 . Plug down at 4:30 A.M., March
19th, 1970. Felt plug #2 at 350'. Cut
off casing 3' below Ground Level, drop
5 sacks cement, plug and weld on plate.
Errect well Identifier.

LOST CIRCULATION ZONE

3320 feet - Slave Point

Mixed 279 sacks Sawdust and 23 sacks Fibre.

150 lbs. Gel Flake.

Lost circulation material, added periodically
to Total Depth.

LOST CIRCULATION ZONE

3320 feet - Slave Point

Mixed 279 sacks Sawdust and 23 sacks Fibre.

150 lbs. Gel Flake.

Lost circulation material, added periodically
to Total Depth.

SECTION IVLogs:

D.I.L.	3700' - 381'	March 14th, 1970
BCS-CR	3694' - 379'	March 14th, 1970
F.D.L.	3697' - 2200'	March 14th, 1970
S.N.P.	3703' - 2200'	March 14th, 1970
Lithology	3703' - 2200'	March 14th, 1970
Velocity	3694' - 379'	March 14th, 1970

SECTION V

Analysis:

(a), (b), (c) and (d): Available from the Geological
Department.

- | | |
|--------------------|-------|
| (a) Core Analysis | - Nil |
| (b) Water Analysis | - Nil |
| (c) Gas Analysis | - Nil |
| (d) Oil Analysis | - Nil |

SECTION VI

Completion Summary:

Nil

C. P. O G Chevron Fakisa

4-31

CP06 Churn Kakeia G-31

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS

MANUFACTURER	TYPE	STROKE LENGTH
NO. 1 <i>Quincy</i>	D-300	14"
NO. 2 <i>Quincy</i>	D-175	12"

LAST CASING SIZE	LAST CASING SET AT
<i>8 5/8</i>	<i>377'</i>

DATE *March 19/70*

WELL NAME *C.P.O.G. CHEVRON KAKISA G-31*
60° 40' - 26" N 118° 15' 7-18-W

DATE *March 19/70*

REPORT NO. *16*

RIG NO. *11-H*

LOCATION LSD. SEC. TWP. RGE.

PLEASE SHOW FOOTAGE MADE WHILE
 "CONTROL DRILLING" AS WELL AS HOURS
 AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.

TOUR NO. 1 MIDNIGHT TO 8 A.M. HOURS

DRILLER <i>L. J. Bay</i>	<i>8 1/2</i>
DERRICK <i>J. Bay</i>	<i>8 1/2</i>
FLOOR <i>R. Lang</i>	<i>8 1/2</i>
FLOOR <i>H. Hier</i>	<i>8 1/2</i>
FLOOR <i>E. Martin</i>	<i>8 1/2</i>
FIREMAN	
MECHANIC	
INJURIES <i>Stayed over to tonight</i>	

FROM		FOOTAGE		TOTAL DEPTH		HOURS ON BOTTOM		RIG NO. 511		DRILL PIPE WEIGHT		NO. AND SIZE OF D.C.'S		D.C. WEIGHT		TRIPS		NO OF LINES		TOTAL TON MILES		LINE CUT FEET		AT MILES		FEET LEFT ON SPOOL		DATE OF LAST CUT		AT SURVEYS		DEGRE					
																		8		4590		475		8410		415		made it									
NO.		DRILLING STRING				BITS RUN NO.		SIZE		NOZZLE SIZE		SERIAL NO.		TYPE		WEIGHT		RPM		FOOTAGE FROM		FOOTAGE TO		FOOTAGE		HOURS		CORED FROM		CORED TO		REAMED FROM		REAM-ED TO		CONDIT-ION	
		STANDS				FT.																															
		SINGLES				FT.																															
		D.C.'S				FT.																															
		SUB				FT.		MUD		12 MID.		2 A.M.		4 A.M.		6 P.M.		WATER LOSS		FILTER CAKE		PH		GENERAL REMARKS													
		SUB				FT.		WEIGHT																Plug #1 3710-3200 na / 100													
		BIT OR C.B.				FT.		VISCOSITY										ADDITIVES						Plug #2 425-325 3% cal m													
						FT.		PUMP PRESSURE																													
		KELLY IN				FT.		R.P.M. PUMP NO.1																													
								R.P.M. PUMP NO.2																													
TOTAL						FT.		PUMP NO. 1 LINER SIZE				PUMP NO. 2																									

REMARKS	START	STOP	INT VAL
<i>Mud lost</i>	<i>12</i>		
<i>Circulation Material</i>	<i>12 15 1/4</i>		
<i>Circulate</i>	<i>12 15 1/4</i>	<i>1 30</i>	<i>1 1/4</i>
<i>Run plug #2</i>	<i>1 30</i>	<i>2 30</i>	<i>1</i>
<i>Roll up Run Surface plug</i>	<i>2 30</i>	<i>4 30</i>	<i>2</i>
<i>W.O.C.</i>	<i>4 30</i>	<i>8</i>	<i>3 1/2</i>
<i>Plug #3 370-3200 no seal</i>			
<i>Plug #2 425-325 2 1/2 inch</i>			
<i>210 SK Cement C.P. 2.30</i>			
<i>50 SK Cement C.P. 4.30</i>			

TOUR NO. 2 8 A.M. TO 4 P.M. HOURS

DRILLER <i>L. JENKINS</i>	<i>10</i>
DERRICK <i>ED HOLLAND</i>	<i>10</i>
FLOOR <i>H. EWACH</i>	<i>10</i>
FLOOR <i>G. MCLEOD</i>	<i>10</i>
FLOOR <i>L. QUAST</i>	<i>10</i>
FIREMAN	
MECHANIC	
INJURIES	

FROM		FOOTAGE	TOTAL DEPTH	LINER SIZE		HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S		D.C. WEIGHT	LINER SIZE		TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT	SURVEYS	DEGREES
NO.	DRILLING STRING			BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE	HOURS	CORED FROM	CORED TO	REAMED FROM	REAMED TO	CONDITION			
	STANDS		FT.																			
	SINGLES		FT.																			
	D.C.'S		FT.																			
	SUB		FT.	MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS										
	SUB		FT.	WEIGHT									Felt top of Plug #2. at 350' at 6:00 PM. Mar 19									
	BIT OR C.B.		FT.	VISCOSITY					ADDITIVES													
			FT.	PUMP PRESSURE																		
	KELLY IN		FT.	R.P.M. PUMP NO.1																		
				R.P.M. PUMP NO.2																		
TOTAL				FT.	PUMP NO. 1 LINER SIZE	PUMP NO. 2																

REMARKS	START	STOP	INT VAL
<i>Lay down D.P. + collar</i>	<i>8 00</i>		
<i>+ W.O.C. feel plug</i>	<i>12 30</i>	<i>4 1/2</i>	
<i>Lay down B.O.P.S. Chan</i>	<i>12 30</i>		
<i>new tanks + cut off seg</i>			
<i>well on cap + well name</i>	<i>8 00</i>	<i>7 1/2</i>	
<i>Full top of Plug #2 at 350' at 6:00 PM. Mar 19.</i>			

TOUR NO. 3 4 P.M. TO MIDNIGHT HOURS

DRILLER <i>L. HANSEN</i>	<i>8</i>
DERRICK <i>J. EHRLICH</i>	<i>8</i>
FLOOR <i>C. DAY</i>	<i>8</i>
FLOOR <i>K. DASH</i>	<i>8</i>
FLOOR <i>R. DESCHENES</i>	<i>8</i>
FIREMAN	
MECHANIC	
INJURIES	

FROM		FOOTAGE	TOTAL DEPTH	LINER SIZE		HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S		D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS	DEGREE	
NO.	DRILLING STRING			BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.		TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE	HOURS	CORED FROM	CORED TO	REAMED FROM	REAMED TO	CONDITION
	STANDS		FT.																	
	SINGLES		FT.																	
	D.C.'S		FT.																	
	SUB		FT.	MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS								
	SUB		FT.	WEIGHT																
	BIT OR C.B.		FT.	VISCOSITY					ADDITIVES											
			FT.	PUMP PRESSURE																
	KELLY IN		FT.	R.P.M. PUMP NO. 1																
				R.P.M. PUMP NO. 2																
TOTAL			FT.	PUMP NO. 1	PUMP NO. 2															

REMARKS	START	STOP	INT VAL
<i>Lead out</i>			
<i>Big Release at 8:00 PM. Mar 19-70.</i>			
<i>L.W. Nawratil</i>			

DRILL PIPE SIZE	TYPE	TOTAL NO. OF JOINTS	DATE LAST SONOSCOPED	FOOTAGE DRILLED SINCE LAST SONOSCOPED	TOTAL FOOTAGE DRILLED	LAST CALIPER DATE	RESULTS	CODE LETTER OF STRING
B.O.P.'S TESTED		ELAPSED TIME		PRESSURE	RESULTS	TOTCO RING ON BIT NO.		

TOOLPUSHER *A. Carlett*
 APPROVED BY *L.W. Nawratil*

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS										DATE <u>March 18th 1970</u>										WELL NAME <u>C.P.O.G. CHEURON KARIKA L-31</u>										DATE <u>March 18/70</u> REPORT NO. <u>15</u>									
MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		RIG NO. <u>11-H</u>		LOCATION <u>60° 40' - 26' N 118° 15' 7-18 W</u>		SEC. <u>15</u>		TWP. <u>7-18 W</u>		RGE. <u>15</u>		PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.																					
TOUR NO. 1 MIDNIGHT TO 8 A.M. HOURS										TOUR NO. 2 8 A.M. TO 4 P.M. HOURS										TOUR NO. 3 4 P.M. TO MIDNIGHT HOURS																			
DRILLER <u>G. CZAPPA</u>										DRILLER <u>L. JENKINS</u>										DRILLER <u>L. HANSEN</u>																			
DERRICK <u>J. BOYKO</u>										DERRICK <u>ED. HOLLAND</u>										DERRICK <u>I. EHRICH</u>																			
FLOOR <u>R. LANE</u>										FLOOR <u>H. EWACH</u>										FLOOR <u>C. DAY</u>																			
FLOOR <u>G. HIEN</u>										FLOOR <u>G. McLEOD</u>										FLOOR <u>K. DASH</u>																			
FLOOR <u>E. MARTIN</u>										FLOOR <u>L. QUAST</u>										FLOOR <u>R. DESCHENES</u>																			
FIREMAN										FIREMAN										FIREMAN																			
MECHANIC										MECHANIC										MECHANIC																			
INJURIES										INJURIES										INJURIES																			
FROM <u>8:00</u> TO <u>3:00</u> TOTAL DEPTH <u>377'</u> HOURS ON BOTTOM <u>13 1/2</u> DRILL PIPE WEIGHT <u>8473</u> NO. AND SIZE OF D.C.'S <u>475</u> D.C. WEIGHT <u>475</u> TRIPS <u>8</u> NO. OF LINES <u>475</u> TOTAL TON MILES <u>8410</u> LINE CUT FEET <u>415</u> AT MILES <u>March 17</u> FEET LEFT ON SPOOL <u>March 17</u> DATE OF LAST CUT <u>March 17</u> AT SURVEYS DEGREES										FROM <u>8:00</u> TO <u>4:00</u> TOTAL DEPTH <u>64000</u> HOURS ON BOTTOM <u>13 1/2</u> DRILL PIPE WEIGHT <u>8533</u> NO. AND SIZE OF D.C.'S <u>475</u> D.C. WEIGHT <u>475</u> TRIPS <u>8</u> NO. OF LINES <u>475</u> TOTAL TON MILES <u>8410</u> LINE CUT FEET <u>415</u> AT MILES <u>March 17</u> FEET LEFT ON SPOOL <u>March 17</u> DATE OF LAST CUT <u>March 17</u> AT SURVEYS DEGREES										FROM <u>4:00</u> TO <u>12:00</u> TOTAL DEPTH <u>4516</u> HOURS ON BOTTOM <u>475</u> DRILL PIPE WEIGHT <u>8410</u> NO. AND SIZE OF D.C.'S <u>415</u> D.C. WEIGHT <u>March 17</u> TRIPS <u>March 17</u> NO. OF LINES <u>March 17</u> TOTAL TON MILES <u>March 17</u> LINE CUT FEET <u>March 17</u> AT MILES <u>March 17</u> FEET LEFT ON SPOOL <u>March 17</u> DATE OF LAST CUT <u>March 17</u> AT SURVEYS DEGREES																			
NO. <u>35</u> DRILLING STRING <u>STANDS</u> <u>325785</u> BITS RUN NO. <u>FT.</u> SIZE <u>FT.</u> NOZZLE SIZE <u>FT.</u> SERIAL NO. <u>FT.</u> TYPE <u>FT.</u> WEIGHT <u>FT.</u> RPM <u>FT.</u> FOOTAGE FROM <u>FT.</u> FOOTAGE TO <u>FT.</u> FOOTAGE <u>FT.</u> HOURS <u>FT.</u> CORED FROM <u>FT.</u> CORED TO <u>FT.</u> REAMED FROM <u>FT.</u> REAMED TO <u>FT.</u> CONDI- TION <u>FT.</u>										NO. <u>35</u> DRILLING STRING <u>STANDS</u> <u>325785</u> BITS RUN NO. <u>FT.</u> SIZE <u>FT.</u> NOZZLE SIZE <u>FT.</u> SERIAL NO. <u>FT.</u> TYPE <u>FT.</u> WEIGHT <u>FT.</u> RPM <u>FT.</u> FOOTAGE FROM <u>FT.</u> FOOTAGE TO <u>FT.</u> FOOTAGE <u>FT.</u> HOURS <u>FT.</u> CORED FROM <u>FT.</u> CORED TO <u>FT.</u> REAMED FROM <u>FT.</u> REAMED TO <u>FT.</u> CONDI- TION <u>FT.</u>										NO. <u>35</u> DRILLING STRING <u>STANDS</u> <u>325785</u> BITS RUN NO. <u>FT.</u> SIZE <u>FT.</u> NOZZLE SIZE <u>FT.</u> SERIAL NO. <u>FT.</u> TYPE <u>FT.</u> WEIGHT <u>FT.</u> RPM <u>FT.</u> FOOTAGE FROM <u>FT.</u> FOOTAGE TO <u>FT.</u> FOOTAGE <u>FT.</u> HOURS <u>FT.</u> CORED FROM <u>FT.</u> CORED TO <u>FT.</u> REAMED FROM <u>FT.</u> REAMED TO <u>FT.</u> CONDI- TION <u>FT.</u>																			
SUB <u>2</u> <u>7.04</u> FT. MUD <u>12 MID.</u> <u>2 A.M.</u> <u>4 A.M.</u> <u>6 P.M.</u> WATER LOSS <u>FT.</u> FILTER CAKE <u>FT.</u> PH <u>FT.</u> GENERAL REMARKS <u>Test #5 - 3608-3710</u> SUB <u>FT.</u> WEIGHT <u>FT.</u> ADDITIVES <u>TOOL OPENED = 2 HRS</u> BIT OR C.B. <u>FT.</u> VISCOSITY <u>FT.</u> PUMP PRESSURE <u>FT.</u> <u>TOOL SHUT IN = 2 HRS</u> KELL Y IN <u>FT.</u> R.P.M. PUMP NO. 1 <u>FT.</u> R.P.M. PUMP NO. 2 <u>FT.</u>										SUB <u>2</u> <u>7.04</u> FT. MUD <u>8 A.M.</u> <u>10 A.M.</u> <u>12 NOON</u> <u>2 P.M.</u> WATER LOSS <u>FT.</u> FILTER CAKE <u>FT.</u> PH <u>FT.</u> GENERAL REMARKS <u>TOOL OPENED - 1 HR.</u> SUB <u>FT.</u> WEIGHT <u>FT.</u> ADDITIVES <u>TOOL SHUT IN - 2 HRS</u> BIT OR C.B. <u>FT.</u> VISCOSITY <u>FT.</u> PUMP PRESSURE <u>FT.</u> KELL Y IN <u>FT.</u> R.P.M. PUMP NO. 1 <u>FT.</u> R.P.M. PUMP NO. 2 <u>FT.</u>										SUB <u>2</u> <u>7.04</u> FT. MUD <u>4 P.M.</u> <u>6 P.M.</u> <u>8 P.M.</u> <u>10 P.M.</u> WATER LOSS <u>FT.</u> FILTER CAKE <u>FT.</u> PH <u>FT.</u> GENERAL REMARKS <u>Rec. 829' of Drill mud</u> SUB <u>FT.</u> WEIGHT <u>FT.</u> ADDITIVES <u>2659' Salt water</u> BIT OR C.B. <u>FT.</u> VISCOSITY <u>FT.</u> PUMP PRESSURE <u>FT.</u> KELL Y IN <u>FT.</u> R.P.M. PUMP NO. 1 <u>FT.</u> R.P.M. PUMP NO. 2 <u>FT.</u>																			
TOTAL <u>FT.</u> PUMP NO. 1 LINER SIZE <u>5" X 14"</u> PUMP NO. 2 LINER SIZE <u>5 1/2" X 12"</u>										TOTAL <u>FT.</u> PUMP NO. 1 LINER SIZE <u>5" X 14"</u> PUMP NO. 2 LINER SIZE <u>5 1/2" X 12"</u>										TOTAL <u>FT.</u> PUMP NO. 1 LINER SIZE <u>5" X 14"</u> PUMP NO. 2 LINER SIZE <u>5 1/2" X 12"</u>																			
DRILL PIPE SIZE <u>1 1/2</u> TYPE <u>FT.</u> TOTAL NO. OF JOINTS <u>120</u> DATE LAST SONO SCOPED <u>FT.</u> FOOTAGE DRILLED SINCE LAST SONO SCOPED <u>FT.</u> TOTAL FOOTAGE DRILLED <u>FT.</u> LAST CALIPER DATE <u>FT.</u> RESULTS <u>FT.</u> CODE LETTER OF STRING <u>FT.</u>										DRILL PIPE SIZE <u>1 1/2</u> TYPE <u>FT.</u> TOTAL NO. OF JOINTS <u>120</u> DATE LAST SONO SCOPED <u>FT.</u> FOOTAGE DRILLED SINCE LAST SONO SCOPED <u>FT.</u> TOTAL FOOTAGE DRILLED <u>FT.</u> LAST CALIPER DATE <u>FT.</u> RESULTS <u>FT.</u> CODE LETTER OF STRING <u>FT.</u>										DRILL PIPE SIZE <u>1 1/2</u> TYPE <u>FT.</u> TOTAL NO. OF JOINTS <u>120</u> DATE LAST SONO SCOPED <u>FT.</u> FOOTAGE DRILLED SINCE LAST SONO SCOPED <u>FT.</u> TOTAL FOOTAGE DRILLED <u>FT.</u> LAST CALIPER DATE <u>FT.</u> RESULTS <u>FT.</u> CODE LETTER OF STRING <u>FT.</u>																			
B.O.P.'S TESTED <u>FT.</u> ELAPSED TIME <u>FT.</u> PRESSURE <u>FT.</u> RESULTS <u>FT.</u> TOTCO RING ON BIT NO. <u>FT.</u>										B.O.P.'S TESTED <u>FT.</u> ELAPSED TIME <u>FT.</u> PRESSURE <u>FT.</u> RESULTS <u>FT.</u> TOTCO RING ON BIT NO. <u>FT.</u>										B.O.P.'S TESTED <u>FT.</u> ELAPSED TIME <u>FT.</u> PRESSURE <u>FT.</u> RESULTS <u>FT.</u> TOTCO RING ON BIT NO. <u>FT.</u>																			

TOOLPUSHER A. Carholt.
 APPROVED BY L. W. Thwaites

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	LOCATION	SEC.	TWP.	RGE.	DATE	REPORT NO.	
TOUR NO. 1 MIDNIGHT TO 8 A.M.			D-300		D-175	14"	8 5/8"		377'		March 17 th / 70	C. P. O. C. CHEURON MARISA 6-31	60° 40' 26" N 118° 15' 7" W				March 17 th	14	
DRILLER			G. CZAPP		8														
DERRICK			J. BOYKO		8														
FLOOR			R. LANG		8														
FLOOR			C. HIEN		8														
FLOOR			E. MARTIN		8														
FIREMAN																			
MECHANIC																			
INJURIES																			
TOUR NO. 2 8 A.M. TO 4 P.M.			L. JENKINS		8														
DERRICK			F. R. HOLLAND		8														
FLOOR			H. EWACH		8														
FLOOR			G. MCLEOD		8														
FLOOR			L. QUAST		8														
FIREMAN																			
MECHANIC																			
INJURIES																			
TOUR NO. 3 4 P.M. TO MIDNIGHT			L. HANSEN		8														
DERRICK			J. EHRICH		8														
FLOOR			C. DAY		8														
FLOOR			E. HOLLAND		4														
FLOOR			R. DESCHENES		8														
FIREMAN			G. HIEN		4														
MECHANIC			K. DASH		4														
INJURIES																			

TOOLPUSHER *W. Corlett*
 APPROVED BY *W. Newatil*

DAY WORK RECORD

TOOLPUSHER Ch Corbett
APPROVED BY PW Maratil

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	DATE	REPORT NO.	
NO. 1			D-300		14"	89/8		377'		MARCH 14 TH / 70		C.P.O.C. CHEVRON HANISH #631	MAR 14 TH	11	
NO. 2			D-175		12"	89/8		377'		RIG NO. 11-H		60° 45'-26' N 118°-15' 7.18' W			
EACH EMPLOYEE MUST SIGN THIS BOOK															
TOUR NO. 1 MIDNIGHT TO 8 A.M. HOURS															
DRILLER	L. Lapp	8	3641	46	3687	6 1/4	80000	13668	28000	8	8028	34	7490	924	MAR 3
DERRICK	J. Boyko	8	36	STANDS	3257.80 FT.	6 1/4	7 1/8	378	885	7490	30	3641	3687	46	6 1/4
FLOOR	R. Sang	8		SINGLES	FT.										
FLOOR	H. Hiam	8	13	D.C.'S	387.82 FT.										
FLOOR	E. Martin	8	2	SUB X-0	7.04 FT.	MUD	12 MID.	2 A.M.	4 A.M.	5 A.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS	
FIREMAN				SUB	FT.	WEIGHT		9.1	8.9	8.9	6.8	4/32	11.5	Lost approx 50 BBLs Mud during trip	
MECHANIC				BIT OR C.B.	FT.	VISCOSITY		41	48	48	ADDITIVES WATER		Lost approx 20-25 BBLs from 145' to 3' AM.		
INJURIES					FT.	PUMP PRESSURE		300	300	300	CEL 5700#				
				KELLY IN	34.34 FT.	R.P.M. PUMP NO. 1		62	62	62	CAUSTIC 150#		fuel 4' 3"		
					FT.	R.P.M. PUMP NO. 2					SANDUST 30 SAX				
					FT.	R.P.M. PUMP NO. 2					SELF FLAME 50#				
					FT.	R.P.M. PUMP NO. 2					FIBER 160#				
				TOTAL	3687.00 FT.	PUMP NO. 1 LINER SIZE	5" X 14	PUMP NO. 2 LINER SIZE	5" X 12	CME REG #50					
TOUR NO. 2 8 A.M. TO 4 P.M. HOURS			3687		23	3710	2	80000	13668	28000	8	34	7490	924	MAR 3
DRILLER	L. JENKINS	12	36	STANDS	FT.	6	7 1/8	378	885	7490	30	3641	3710	69	8 1/4
DERRICK	ED HOLLAND	12	1	SINGLES	3289.42 FT.										
FLOOR	H. F. WASH	12	13	D.C.'S	387.82 FT.										
FLOOR	G. McLEOD	12	2	SUB	7.04 FT.	MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS	
FLOOR	L. QUAST	12		SUB	FT.	WEIGHT		9.0	9.0	T			LOST 100 BBLs MUD		
FIREMAN				BIT OR C.B.	FT.	VISCOSITY		56	54	R	ADDITIVES SANDUST - 110 SAX LOGS - DUAL INDUCTION				
MECHANIC					FT.	PUMP PRESSURE		300	300	1	TELEFLAME - 50#		SIDEWALL NEUTRON		
INJURIES				KELLY IN	25.72 FT.	R.P.M. PUMP NO. 1		64	64	P	FIBER - 560#		FORMATION DENSITY		
					FT.	R.P.M. PUMP NO. 2					GEL - 3200#		BORE HOLE SONIC		
				TOTAL	3710.00 FT.	PUMP NO. 1 LINER SIZE	5"	PUMP NO. 2 LINER SIZE	5"	CAUSTIC - 50#		LIME - 20#			
TOUR NO. 3 4 P.M. TO MIDNIGHT HOURS			3710					80000	13668	28000	8	34	7490	924	MAR 3
DRILLER	L. Lapp	4		STANDS	FT.										
DERRICK	J. Boyko	4		SINGLES	FT.										
FLOOR	R. Sang	4		D.C.'S	FT.										
FLOOR	H. Hiam	4		SUB	FT.	MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS	
FLOOR	E. Martin	4		SUB	FT.	WEIGHT							Total 3710.42		
FIREMAN				BIT OR C.B.	FT.	VISCOSITY					ADDITIVES		Total measured 3708.29		
MECHANIC					FT.	PUMP PRESSURE							1.13 Diff		
INJURIES				KELLY IN	FT.	R.P.M. PUMP NO. 1									
					FT.	R.P.M. PUMP NO. 2									
				TOTAL	FT.	PUMP NO. 1 LINER SIZE		PUMP NO. 2 LINER SIZE							
DRILL PIPE SIZE	4 1/2	TYPE	FT.	TOTAL NO. OF JOINTS	120	DATE LAST SONOSCOPED		FOOTAGE DRILLED SINCE LAST SONOSCOPED		TOTAL FOOTAGE DRILLED		LAST CALIPER DATE		RESULTS	CODE LETTER OF STRING
B.O.P.'S TESTED	March 14 TH	ELAPSED TIME	1 1/2 hrs	PRESSURE	developed	RESULTS		TOTCO RING ON BIT NO.							
TOOLPUSHER L. Corbett															
APPROVED BY L. W. Marshall															

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS										DAY WORK RECORD																											
MANUFACTURER		TYPE		STROKE LENGTH		DATE		WELL NAME		DATE		REPORT NO.																									
NO. 1 Emsco		D-300		14		MAR 13		C.P.O.G. CHEU KAKISA G-3		MAR 13		10																									
NO. 2 Emsco		D-175		12				60° 45' - 26' N 118° - 15' 7.18' W																													
LAST CASING SIZE		LAST CASING SET AT		RIG NO.		LOCATION		LSD.		SEC.		TWP.		RGE.																							
8 1/2		377		11-H																																	
TOUR NO. 1 MIDNIGHT TO 8 A.M.		HOURS		FROM		FOOTAGE		TOTAL DEPTH		HOURS ON BOTTOM		DRILL PIPE WEIGHT		NO. AND SIZE OF D.C.'S		D.C. WEIGHT		TRIPS		NO OF LINES		TOTAL TON MILES		LINE CUT FEET		AT MILES		FEET LEFT ON SPOOL		DATE OF LAST CUT		AT SURVEYS DEGREES		REMARKS		TIME	
8		3436		74		3510		7 3/4		80000		13-6 1/2		28000				8		7948		34		7490		924		MAR 3				Drill		12 12:30 1/2			
DERRICK J. Ehrlich		8		34 STANDS		FT.		45		7 3/8		3-18		859586		SCM		190		40-50		3365		3510		228						Rig Sw		12:30 12:45 1/4			
FLOOR C. Day		8		1 SINGLES		3101.30		FT.																										Running Drill		12:40 8 7/4	
FLOOR H. Dash		8		13 D.C.'S		387.82		FT.																													
FLOOR R. Deschênes		8		2 SUB		204		FT.		MUD		12 MID.		2 A.M.		4 A.M.		6 P.M.		WATER LOSS		FILTER CAKE		PH		GENERAL REMARKS											
FIREMAN				SUB		FT.		WEIGHT		9.1		9.0		9.0		9.1		6.8		2/32		12		Blow out Drill.													
MECHANIC				BIT OR C.B.		FT.		VISCOSITY		60		53		48		48		ADDITIVES		WATER																	
INJURIES				PUMP PRESSURE		300		300		300		300																									
				KELLY IN		1384		FT.		R.P.M. PUMP NO. 1		62		62		62		62																			
				R.P.M. PUMP NO. 2		MUD		ROLL																													
				TOTAL		3510		FT.		PUMP NO. 1 LINER SIZE		5"		PUMP NO. 2 LINER SIZE		5 1/2"																					
TOUR NO. 2 8 A.M. TO 4 P.M.		HOURS		FROM		FOOTAGE		TOTAL DEPTH		HOURS ON BOTTOM		DRILL PIPE WEIGHT		NO. AND SIZE OF D.C.'S		D.C. WEIGHT		TRIPS		NO OF LINES		TOTAL TON MILES		LINE CUT FEET		AT MILES		FEET LEFT ON SPOOL		DATE OF LAST CUT		AT SURVEYS DEGREES		REMARKS		TIME	
8		3510		80		3590		7 3/4		80000		13-6 1/2		28000				9		8		7948		34		7490		924		MAR 3				Drill		8 10:30 2 1/2	
DERRICK J. Boyko		8		35 STANDS		3163.04		FT.		45		7 7/8		3-18		859586		SCM		130		148		3282		3540		308		32				Run down checker head 4 1/2 pipe Pams		10:30 10:45 1/4	
FLOOR R. LANG		8		SINGLES		FT.																												Running Drill		10:45 4 5 1/4	
FLOOR G. HIEN		8		13 D.C.'S		387.82		FT.																													
FLOOR E. MARTIN		8		2 SUB		204		FT.		MUD		8 A.M.		10 A.M.		12 NOON		2 P.M.		WATER LOSS		FILTER CAKE		PH		GENERAL REMARKS											
FIREMAN				SUB		FT.		WEIGHT		9.1		9.1		9.1		9.1		7.6		3/32		11.5		Safety Meeting													
MECHANIC				BIT OR C.B.		FT.		VISCOSITY		44</																											

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS

MANUFACTURER			TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME		DATE		REPORT NO.	
NO. 1 Emsco			D-300	14	8 1/2		377		March 12	C.P.C.C. CHED MAKISA 631		March 12 1970		9	
NO. 2 Emsco			D-175	12	8 1/2		377			60° - 40° - 26' N 118° 15' - 7.18' W					
EACH EMPLOYEE MUST SIGN THIS BOOK															
TOUR NO. 1 MIDNIGHT TO 8 A.M.					HOURS										
DRILLER J. Horan					8										
DERRICK J. Ehrlich					8										
FLOOR C. Day					8										
FLOOR H. Dash					8										
FLOOR R. Deschamps					8										
FIREMAN															
MECHANIC															
INJURIES															
TOTAL 3320															
TOUR NO. 2 8 A.M. TO 4 P.M.					HOURS										
DRILLER G. Ezapp					8										
DERRICK J. Boyko					8										
FLOOR R. Lance					8										
FLOOR G. Hien					8										
FLOOR E. Martin					8										
FIREMAN															
MECHANIC															
INJURIES															
TOTAL 3365.00															
TOUR NO. 3 4 P.M. TO MIDNIGHT					HOURS										
DRILLER L. Jenkins					8										
DERRICK Ed Holland					8										
FLOOR H. Ewach					8										
FLOOR G. McLeod					8										
FLOOR L. Quast					8										
FIREMAN															
MECHANIC															
INJURIES															
TOTAL 3436.00															
DRILL PIPE SIZE 4 1/2					TYPE F.H.										
G.O.P.'S TESTED MAR 12					ELAPSED TIME 5 HUT - OPEN										
FOOTAGE DRILLED SINCE LAST SONOSCOPIED					RESULTS O.K.										
TOTAL FOOTAGE DRILLED					TOTCO RING ON BIT NO.										
LAST CALIPER DATE					RESULTS										
CODE LETTER OF STRING					TOOLPUSHER A. C. Smith										
					APPROVED BY L. W. Haworth										

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS

MANUFACTURER		TYPE	STROKE-LENGTH	LAST CASING SET		DATE		WELL NAME		DATE		REPORT NO.
NO. 1 FASCO		D-30	14	LAST CASING SET AT		DATE MARCH 11 1970		WELL NAME CPOG CHEU KAKISA G-31		DATE MARCH 11		REPORT NO. 8
NO. 2 FASCO		D-170	12	LAST CASING SET AT		RIG NO. 11-H		LOCATION LSD.		SEC.		TWP.
TOUR NO. 1 MIDNIGHT TO 8 A.M.		HOURS		FROM		FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS
DRILLER L. HANSEN		8		3282		NIL	3282	NIL	168000	8-6 1/2	28000	8
DERRICK J. EHRLICH		8		29		STANDS	2699.39 FT.	3	7 7/8	3-11	755063 ITIAC	2955
FLOOR R. DAY		8		SINGLES		FT.	4	7 7/8	3-11	859586 SCMS	3282	327
FLOOR K. DASH		8		D.C.'S		FT.	13	7 7/8	3-11	859586 SCMS	12 1/2	
FLOOR R. DESCHENES		8		SUB		FT.	2	MUD	12 MID.	2 A.M.	4 A.M.	6 P.M.
FIREMAN				SUB		FT.		WEIGHT	9.25			
MECHANIC				BIT OR C.B.		FT.		VISCOSITY	37	R		
INJURIES				KELLY IN		FT.	41	R.P.M.			P	
TOTAL				PUMP NO. 1		FT.		PUMP NO. 2				
				LINER SIZE				LINER SIZE	5"		5 1/2"	
TOUR NO. 2 8 A.M. TO 4 P.M.		HOURS		FROM		FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS
DRILLER C. CZAPP		8		3282		38	3320	3 1/4	76000	13-6 1/2	28000	8
DERRICK J. BOYKO		8		31		STANDS	2884.92 FT.	4	7 7/8	3-11	859586 SCMS	3282
FLOOR R. LANG		8		SINGLES		FT.	5	7 7/8	3-11	859586 SCMS	3320	38 3/4
FLOOR G. HIEN		8		D.C.'S		FT.	13	7 7/8	3-11	859586 SCMS		
FLOOR E. MARTIN		8		SUB		FT.	2	MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.
FIREMAN				SUB		FT.		WEIGHT	11	9.4	9.1	7.2
MECHANIC				BIT OR C.B.		FT.		VISCOSITY	48	44	44	ADDITIVES WATER
INJURIES				KELLY IN		FT.	41.00	R.P.M.	900	900	900	5000" EEL
TOTAL				PUMP NO. 1		FT.		PUMP NO. 2				
				LINER SIZE				LINER SIZE	5" X 14"		5 1/2"	
TOUR NO. 3 4 P.M. TO MIDNIGHT		HOURS		FROM		FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS
DRILLER L. JENKINS		8		3320			3320		76000	13-6 1/2	28000	8
DERRICK ED. HOLLAND		8		31		STANDS	2884.92 FT.	4	7 7/8	3-11	859586 SCMS	3282
FLOOR H. EWNICH		8		SINGLES		FT.	5	7 7/8	3-11	859586 SCMS	3320	38 3/4
FLOOR G. McLEOD		8		D.C.'S		FT.	13	7 7/8	3-11	859586 SCMS		
FLOOR L. QUAST		8		SUB		FT.	2	MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.
FIREMAN				SUB		FT.		WEIGHT				
MECHANIC				BIT OR C.B.		FT.		VISCOSITY				ADDITIVES 100% SANDWASH
INJURIES				KELLY IN		FT.	4100.00	R.P.M.	6700	IMD SEL		
TOTAL				PUMP NO. 1		FT.		PUMP NO. 2				
				LINER SIZE				LINER SIZE	50" CMC HI VIS		150" CAUSTIC	
									165X FIBRE.			
DRILL PIPE SIZE		TYPE	TOTAL NO. OF JOINTS	DATE LAST SONOSCOPED		FOOTAGE DRILLED SINCE LAST SONOSCOPED		TOTAL FOOTAGE DRILLED		LAST CALIPER DATE		RESULTS
S.O.P.'S TESTED		ELAPSED TIME		PRESSURE		RESULTS		TOTCO RING ON BIT NO.		CODE LETTER OF STRING		
TOOLPUSHER		APPROVED BY										

TOOLPUSHER A. GORRETT
APPROVED BY L. W. Nourati

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS										DAY WORK RECORD																																					
MANUFACTURER		TYPE		STROKE LENGTH		DATE		WELL NAME		C.P.O.G.		CHEV		MAKISA		G-31		DATE		10		1970		REPORT NO.		7																					
NO. 1		FASCO		D-300		14		LAST CASING SIZE		LAST CASING SET AT		8 3/8		377		RIG NO.		11-H		60° 45' - 26' N		118° - 15' W		-7.18' W		PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.																					
NO. 2		FASCO		D-175		12		8 3/8		377		RIG NO.		11-H		60° 45' - 26' N		118° - 15' W		-7.18' W		-7.18' W		-7.18' W		-7.18' W																					
TOUR NO. 1		MIDNIGHT TO 8 A.M.		HOURS		8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		REMARKS		TIME		START		STOP		INT. VAL.	
DRILLER		L. HANSEN		8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drill		12		45		7					
DERRICK		E. HOLLAND		8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Big Sur		12		45		7					
FLOOR		J. EHALICH		8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drill		12		45		7					
FLOOR		K. DASH		8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drop down mud pipe		12		45		7					
FLOOR				8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drill		12		45		7					
FIREMAN				8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drop down mud pipe		12		45		7					
MECHANIC				8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drop down mud pipe		12		45		7					
INJURIES				8		2830		125		2953		3 1/4		73000		18x6 3/8		38000		8		751		34		7580		924		MAR 3		2955		1 1/2		Drop down mud pipe		12		45		7					
TOUR NO. 2		8 A.M. TO 4 P.M.		HOURS		8		2955		128		3083		5		78000		18x6 3/8		38000		8		7751		34		7490		924		MAR 3		3000'		1 1/4		REMARKS		TIME		START		STOP		INT. VAL.	
DRILLER		G. CZAPP		8		2955		128		3083		5		78000		18x6 3/8		38000		8		7751		34		7490		924		MAR 3		3000'		1 1/4		Finish out		8		8		15		7/4			
DERRICK		J. Boyko		8		2955		128		3083		5		78000		18x6 3/8		38000		8		7751		34		7490		924		MAR 3		3000'		1 1/4		Big Sur shaded Blind Room		8		8		15		7/4			
FLOOR		R. LANE		8		2955		128		3083		5		78000		18x6 3/8		38000		8		7751		34		7490		924		MAR 3		3000'		1 1/4		Run in Reamed 270 to Bottom		8		8		15		7/4			
FLOOR		G. HIEN		8		2955		128		3083		5		78000		18x6 3/8		38000		8																											

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	DATE	REPORT NO.
NO. 1			EMSCO		D-30	14	8 3/8		377		MARCH 9 1970	EP06 CHEN KAKISA G-31	MARCH 9 1970	6
NO. 2			EMSCO		D-125	12	8 3/8		377			60° - 45° - 26° N		
							RIG NO. 11-H					118 - 15° - 7.18' W		
							LOCATION LSD.		SEC.		TWP.	RGE.		
PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.														
TOUR NO. 1 MIDNIGHT TO 8 A.M.			HOURS											
DRILLER			L. HANSEN											
DERRICK			L. ARABATT											
FLOOR			A. BANIN											
FLOOR			J. EHRICH											
FLOOR			K. DASH											
FIREMAN			A. COTE											
MECHANIC														
INJURIES														
TOTAL			18 85											
TOUR NO. 2 8 A.M. TO 4 P.M.			HOURS											
DRILLER			G. CZAPP											
DERRICK			J. BOYKO											
FLOOR			R. SPANIC											
FLOOR			G. HIEN											
FLOOR			E. MARTIN											
FIREMAN														
MECHANIC														
INJURIES														
TOTAL			2430.00											
TOUR NO. 3 4 P.M. TO MIDNIGHT			HOURS											
DRILLER			L. JENKINS											
DERRICK			ED. HOLLEND											
FLOOR			H. E. WILCH											
FLOOR			G. McLEOD											
FLOOR			L. QUAST											
FIREMAN														
MECHANIC														
INJURIES														
TOTAL			2830.00											
DRILL PIPE SIZE			4 1/2											
TYPE			F H											
B.O.P.'S TESTED			MAR 9											
ELAPSED TIME														
PRESSURE			open + shut											
RESULTS			O.K.											
TOTCO RING ON BIT NO.			2											
TOOLPUSHER			A. Conkitt											
APPROVED BY			L. W. Nawratil											

REGENT DRILLING LIMITED

DAY WORK RECORD

MANUFACTURER			TYPE			STROKE LENGTH						DATE MAR 8 1970			WELL NAME P.O.G. CHEU KAKISA G-31			DATE MARCH 8 1970			REPORT NO. 5																																																											
NO. 1 FMSCO			D-300			14			LAST CASING SIZE			LAST CASING SET AT			RIG NO. 11-H			LOCATION LSD.			SEC.			TWP.			RGE.																																																					
NO. 2 FMSCO			D-175			12			8 5/8			3 7/8																																																																				
EACH EMPLOYEE MUST SIGN THIS BOOK									PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.																																																																							
TOUR NO. 1 MIDNIGHT TO 8 A.M.									HOURS									REMARKS									TIME																																																					
DRILLER L. HANSEN									8									Drill									START STOP INT VAL																																																					
DERRICK S. LARRATT									8									Survey & no rig 1 1/2° at 958									12 1:15 1 1/2																																																					
FLOOR R. BANIN									8									Drill									1:30 4 2 1/2																																																					
FLOOR E. SMITH									8									Survey 1 1/2° at 1018									4 4:15 1/4																																																					
FLOOR A. COTE									8									Drill									4:15 6 1 1/4																																																					
FIREMAN																		Lost small amount of mud down hole.									6 6:30 1/4																																																					
MECHANIC																		Survey 1° at 1029									6:45 7:00 1/4																																																					
INJURIES																		Work on pump on jol									7:00 7:30 1/2																																																					
TOTAL 10 75'																		Drill									7:30 8 1/2																																																					
TOUR NO. 2 8 A.M. TO 4 P.M.									HOURS									REMARKS																																																														
DRILLER P. CZAPP									12									Run Survey checked Bops									8 8:15 1/4																																																					
DERRICK J. Bayko									12									Drill									8:15 1:15 5																																																					
FLOOR R. LANG									12									Running Run Survey									1:15 1:30 1/4																																																					
FLOOR P. HIEN									12									Drill									1:30 4 2 1/2																																																					
FLOOR E. MARTIN									12																																																																							
FIREMAN																		Safety Meeting																																																														
MECHANIC																		(P. Jones & Duff)																																																														
INJURIES																																																																																
TOTAL 1320.00'																																																																																
TOUR NO. 3 4 P.M. TO MIDNIGHT									HOURS									REMARKS																																																														
DRILLER L. HANSEN									4									Drill									4 6:30 2 1/2																																																					
DERRICK S. LARRATT									4									Run Survey checked Bops									6:30 6:45 1/4																																																					
FLOOR R. BANIN									4									Drill									6:45 10:15 3 1/2																																																					
FLOOR J. EHRLICH									4									Survey									10:15 10:30 1/4																																																					
FLOOR KEN DASH									4									Trip									10:30 12 1 1/2																																																					
FIREMAN R. COTE									4									Passed Shaker + 1st settling tanks																																																														
MECHANIC																																																																																
INJURIES																																																																																
TOTAL 1607.00'																																																																																
DRILL PIPE SIZE 4 1/2									TYPE F.H.									TOTAL NO. OF JOINTS 120									DATE LAST SONOSCOPED									FOOTAGE DRILLED SINCE LAST SONOSCOPED									TOTAL FOOTAGE DRILLED									LAST CALIPER DATE									RESULTS									CODE LETTER OF STRING								
B.O.P.'S TESTED March 8 / 70									ELAPSED TIME 1 1/4 hr									PRESSURE closed; opened									RESULTS OK									TOTCO RING ON BIT NO. 1									TOOLPUSHER O. Corbett																																			

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE		WELL NAME		C.H.E.D. KAKISA		DATE		REPORT NO.					
NO. 1			EMSCO		D300	14					MARCH 6 1970		60° - 40° - 26' N		115° 51' - 7.18' W		MARCH 6 1970		3					
NO. 2			EMSCO		D175	12					RIG NO. 11-H		LOCATION		LSD.		SEC.		TWP.		RGE.			
TOUR NO. 1			MIDNIGHT TO 8 A.M.		HOURS																			
DRILLER			L. HANSEN		8																			
DERRICK			S. LARATT		8																			
FLOOR			R. BANIN		8																			
FLOOR			E. SMITH		8																			
FLOOR			R. COTE		8																			
FIREMAN																								
MECHANIC																								
INJURIES																								
TOTAL																								
TOUR NO. 2			8 A.M. TO 4 P.M.		HOURS																			
DRILLER			G. CZAPP		12																			
DERRICK			J. BOYKO		12																			
FLOOR			R. LANG		12																			
FLOOR			G. HIEN		12																			
FLOOR			E. MARTIN		12																			
FIREMAN																								
MECHANIC																								
INJURIES																								
TOTAL																								
TOUR NO. 3			4 P.M. TO MIDNIGHT		HOURS																			
DRILLER			L. HANSEN		4																			
DERRICK			S. LARATT		4																			
FLOOR			R. BANIN		4																			
FLOOR			E. SMITH		4																			
FLOOR			R. COTE		4																			
FIREMAN																								
MECHANIC																								
INJURIES																								
TOTAL																								
DRILL PIPE SIZE			4 1/2		TYPE		F.H.		TOTAL NO. OF JOINTS		120		DATE LAST SONOSCOPED		FOOTAGE DRILLED SINCE LAST SONOSCOPED		TOTAL FOOTAGE DRILLED		LAST CALIPER DATE		RESULTS		CODE LETTER OF STRING	
B.O.P.'S TESTED					ELAPSED TIME				PRESSURE				RESULTS				TOTCO RING ON BIT NO.							

TOOLPUSHER

APPROVED BY

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	DATE	REPORT NO.											
NO. 1			EMSCO		D-300	14					MAR 5 1970	C.P.O.G. CITEU KAKISA 6-31	MAR 5	1970											
NO. 2			EMSCO		D-175	12						60° 40' 26" N 118° 51' 7.18" W		2											
EACH EMPLOYEE MUST SIGN THIS BOOK TOUR NO. 1 MIDNIGHT TO 8 A.M. HOURS																									
DRILLER	L. HANSEN	8	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS DEGREES	REMARKS	TIME						
DERRICK	S. LABATT	8	NO.	DRILLING STRING	BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE HOURS	CORED FROM	CORED TO	REAMED FROM	REAMED TO	CONDIT-ION	START	STOP	INT VAL			
FLOOR	R. BANIN	8	STANDS	FT.	1A	12 1/4	3 1/2	861149	WIDE	6000	80	0	138	138	11 1/2					DRILL 12 1/4" HOLE	12	12:45	3/4		
FLOOR	E. SMITH	8	SINGLES	FT.	2A	12 1/4	3-12	859502	T35	8500	50	138	524	190	5 3/4					PULL OUT TO CHANGE BITS	12:45				
FLOOR	R. COTE	8	D.C.'S	148.82	FT.														RIG SERVICE AND SHAFT	2:15		1 1/2			
FLOOR			SUB	72.8	FT.	MUD	12 MID.	2 A.M.	4 A.M.	6 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS							DRILL	2:15	8	5 3/4	
FIREMAN			SUB		FT.	WEIGHT	9.1																		
MECHANIC			BIT OR C.B.		FT.	VISCOSITY	55	54	54	54	ADDITIVES														
INJURIES			PUMP PRESSURE		FT.		350	500	500	500															
			KELLY IN	38.90	FT.	R.P.M. PUMP NO. 1	64	64	64	64															
			R.P.M. PUMP NO. 2																						
			TOTAL	190.00	FT.	PUMP NO. 1 LINER SIZE	5 1/4	PUMP NO. 2 LINER SIZE	5 1/2	12															
TOUR NO. 2 8 A.M. TO 4 P.M. HOURS																									
DRILLER	G. CZAPP	12	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS DEGREES	REMARKS	TIME						
DERRICK	J. BOYKO	12	NO.	DRILLING STRING	BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE HOURS	CORED FROM	CORED TO	REAMED FROM	REAMED TO	CONDIT-ION	START	STOP	INT VAL			
FLOOR	R. LANG	12	STANDS	FT.	2A	12 1/4	3-12	859502	T35	15	190	138	255	117	12					Drill	8	8:45	3/4		
FLOOR	G. HIEN	12	SINGLES	FT.																Run Survey	10:15	12:15	2		
FLOOR	E. MARTIN	12	D.C.'S	207.44	FT.															Drill	12:15	12:30	1/4		
FLOOR			SUB	7.28	FT.	MUD	8 A.M.	10 A.M.	12 NOON	2 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS							Drill	12:30	4	3 1/2	
FIREMAN			SUB		FT.	WEIGHT	9.4	9.2	9.2	9.1															
MECHANIC			BIT OR C.B.		FT.	VISCOSITY	50	36	36	48	ADDITIVES	WATER													
INJURIES			PUMP PRESSURE		FT.		500	500	500	550															
			KELLY IN	41.00	FT.	R.P.M. PUMP NO. 1	62	62	62	62															
			R.P.M. PUMP NO. 2																						
			TOTAL	255.00	FT.	PUMP NO. 1 LINER SIZE	5 1/4	PUMP NO. 2 LINER SIZE	5 1/2	12															
TOUR NO. 3 4 P.M. TO MIDNIGHT HOURS																									
DRILLER	L. HANSEN	4	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS DEGREES	REMARKS	TIME						
DERRICK	S. LABATT	4	NO.	DRILLING STRING	BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE HOURS	CORED FROM	CORED TO	REAMED FROM	REAMED TO	CONDIT-ION	START	STOP	INT VAL			
FLOOR	R. BANIN	4	STANDS	FT.	2A	12 1/4	3-12	859502	T35	15	175	138	343	205	19 1/2					Drill	4	9:30	5 1/2		
FLOOR	E. SMITH	4	SINGLES	FT.																Survey	9:30	9:45	1/4		
FLOOR	R. COTE	4	D.C.'S	294.92	FT.															Drill	9:45	11:45	2		
FLOOR			SUB	7.28	FT.	MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS							TRIP	11:45	12	1/4	
FIREMAN			SUB		FT.	WEIGHT	9.2	9.2	9.1	9.1															
MECHANIC			BIT OR C.B.		FT.	VISCOSITY	42	36	35	48	ADDITIVES	WATER													
INJURIES			PUMP PRESSURE		FT.		550	550	550	550															
			KELLY IN	40.80	FT.	R.P.M. PUMP NO. 1	62	62	62	62															
			R.P.M. PUMP NO. 2																						
			TOTAL	343.00	FT.	PUMP NO. 1 LINER SIZE	5 1/4	PUMP NO. 2 LINER SIZE	5 1/2	12															
DRILL PIPE SIZE	4 1/2	TYPE	F.H.	TOTAL NO. OF JOINTS	120	DATE LAST SONOSCOPED			FOOTAGE DRILLED SINCE LAST SONOSCOPED			TOTAL FOOTAGE DRILLED			LAST CALIPER DATE			RESULTS			CODE LETTER OF STRING				
B.O.P.'S TESTED				ELAPSED TIME				PRESSURE				RESULTS				TOT.CO RING ON BIT NO.									
TOOLPUSHER: J. Corbett APPROVED BY: J. Myer																									

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE		WELL NAME		DATE		REPORT NO.	
TOUR NO. 1 MIDNIGHT TO 8 A.M.			HOURS								RIG NO. 11		LOCATION LSD. SEC. TWP. RGE.		PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.			
DRILLER	R. Dunsolley	8																
DERRICK	B. Hardline	8																
FLOOR	E. Hamblin	8																
FLOOR	M. Clarke	8																
FLOOR	O. Macdonald	8																
FIREMAN																		
MECHANIC																		
INJURIES																		
TOUR NO. 2 8 A.M. TO 4 P.M.			HOURS															
DRILLER	T. Dack	8																
DERRICK	S. Lassett	8																
FLOOR	R. Barin	8																
FLOOR	J. Smith	8																
FLOOR	R. Late	8																
FIREMAN	D. L. HANSEN	8																
MECHANIC																		
INJURIES																		
TOUR NO. 3 4 P.M. TO MIDNIGHT			HOURS															
DRILLER	D. Lipp	8																
DERRICK	J. Boyko	8																
FLOOR	R. Sang	8																
FLOOR	H. High	8																
FLOOR	E. Martin	8																
FIREMAN																		
MECHANIC																		
INJURIES																		
TOUR NO. 4 8 A.M. TO 4 P.M.			HOURS															
DRILLER	T. Dack	8																
DERRICK	S. Lassett	8																
FLOOR	R. Barin	8																
FLOOR	J. Smith	8																
FLOOR	R. Late	8																
FIREMAN	D. L. HANSEN	8																
MECHANIC																		
INJURIES																		

TOOLPUSHER *A. Corbett*
 APPROVED BY *S. Myself*

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS			MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	LOCATION		SEC.	TWP.	RGE.	REPORT NO.
TOUR NO. 1			Emasco		D-300	14"					March 3/70	C.P.O.G. Chen Kabisa H. 31	60° 40' 26" N. 118° 51' 7.18" W.					
TOUR NO. 2			Emasco		D-175	12"					March 3/70							
TOUR NO. 3																		
TOUR NO. 4																		
TOUR NO. 5																		
TOUR NO. 6																		
TOUR NO. 7																		
TOUR NO. 8																		
TOUR NO. 9																		
TOUR NO. 10																		
TOUR NO. 11																		
TOUR NO. 12																		
TOUR NO. 13																		
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TOUR NO. 98																		
TOUR NO. 99																		
TOUR NO. 100																		

TOOLPUSHER *A. Conkett*
 APPROVED BY *S. Conkett*

REGENT DRILLING LIMITED

PUMPS

DAY WORK RECORD

MANUFACTURER		TYPE	STROKE LENGTH	LAST CASING SIZE		LAST CASING SET AT		DATE	WELL NAME	DATE	REPORT NO.											
Emisco		D-300	14"					March 2/70	C.P.O.G. Chen. Kokia H.31	March 2/70												
Emisco		D-175	12"						60° 40' 26' N. 118° 51' 7.18' W													
EACH EMPLOYEE MUST SIGN THIS BOOK				RIG NO. 11-H								LOCATION LSD. SEC. TWP. RGE.				PLEASE SHOW FOOTAGE MADE WHILE "CONTROL DRILLING" AS WELL AS HOURS AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.						
TOUR NO. 1 MIDNIGHT TO 8 A.M.		HOURS	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS	DEGREES	REMARKS	START	STOP	INT VAL
DRILLER R. Hunsley		10																	Moving Camp and Rig to new location	7:00		
DERRICK B. Hunsley		10																	Setting up same.	5:00	10	
FLOOR E. Hamblin		10																				
FLOOR M. Clarke		10																				
FLOOR G. MacDonald		10																				
FIREMAN																						
MECHANIC																						
INJURIES																						
TOTAL																						
TOUR NO. 2 8 A.M. TO 4 P.M.		HOURS	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS	DEGREES	REMARKS	START	STOP	INT VAL
DRILLER T. Daah		10																	Moving Camp and Rig to new location	7:00		
DERRICK J. Larratt		12																	Setting up same	5:00	10	
FLOOR R. Benin		10																				
FLOOR E. Smith		13																				
FLOOR R. Late		10																				
FIREMAN																						
MECHANIC																						
INJURIES																						
TOTAL																						
TOUR NO. 3 4 P.M. TO MIDNIGHT		HOURS	FROM	FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS	DEGREES	REMARKS	START	STOP	INT VAL
DRILLER H. Gyp		10																	Moving Camp and Rig to new location	7:00		
DERRICK G. Boyko		10																	Setting up same.	5:00	10	
FLOOR R. Lang		10																				
FLOOR H. Huin		10																				
FLOOR E. Martin		10																				
FIREMAN																						
MECHANIC																						
INJURIES																						
TOTAL																						
DRILL PIPE SIZE		TYPE	TOTAL NO. OF JOINTS		DATE LAST SONOSCOPED		FOOTAGE DRILLED SINCE LAST SONOSCOPED		TOTAL FOOTAGE DRILLED		LAST CALIPER DATE		RESULTS		CODE LETTER OF STRING							
B.O.P.'S TESTED		ELAPSED TIME		PRESSURE		RESULTS		TOTCO RING ON BIT NO.														

TOOLPUSHER

APPROVED BY

REGENT DRILLING LIMITED

DAY WORK RECORD

PUMPS

MANUFACTURER	TYPE	STROKE LENGTH
NO. 1 <i>Emeco</i>	<i>D-300</i>	<i>14"</i>
NO. 2 <i>Emeco</i>	<i>D-175</i>	<i>12"</i>

LAST CASING SIZE LAST CASING SET AT

DATE *March 15th 1970*

WELL NAME *CPOC, CHEU. KARISA. G. 31*

DATE *March 15/70* REPORT NO. _____

RIG NO. *11*

66° 40' 20.26' N. 188-51 7.18' W.

LOCATION LSD. _____ SEC. _____ TWP. _____ RGE. _____

PLEASE SHOW FOOTAGE MADE WHILE
"CONTROL DRILLING" AS WELL AS HOURS
AND ALSO RECORD CORE CUTTERS, CATCHERS, SWAB RUBBERS, ETC.

TOUR NO. 1 MIDNIGHT TO 8 A.M. HOURS

DRILLER <i>R. Munsally</i>	<i>8</i>
DERRICK <i>B. Hardipal</i>	<i>8</i>
FLOOR <i>E. Hamblin</i>	<i>8</i>
FLOOR <i>M. Clarke</i>	<i>12</i>
FLOOR <i>B. MacDonald</i>	<i>12</i>
FIREMAN	
MECHANIC	
INJURIES	

FROM		FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT	SURVEYS	DEGREE	
NO.	DRILLING STRING		BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE	HOURS	CORED FROM	CORED TO	REAMED FROM	REAM-ED TO	CONDIT ION
	STANDS	FT.																
	SINGLES	FT.																
	D.C.'S	FT.																
	SUB	FT.	MUD	12 MID.	2 A.M.	4 A.M.	6 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS							
	SUB	FT.	WEIGHT															
	BIT OR C.B.	FT.	VISCOSITY					ADDITIVES										
		FT.	PUMP PRESSURE															
	KELLY IN	FT.	R.P.M. PUMP NO.1															
			R.P.M. PUMP NO.2															
TOTAL			FT.	PUMP NO. 1 LINER SIZE		PUMP NO. 2 LINER SIZE												

REMARKS	START	STOP	INT. VAL.
<i>Leaving Out and Moving Rig to new location</i>	<i>8:00</i>		<i>4:00 8</i>

TOUR NO. 2 8 A.M. TO 4 P.M. HOURS

DRILLER <i>J. Dach</i>	<i>8</i>
DERRICK <i>S. Lorrath</i>	<i>8</i>
FLOOR <i>R. Barin</i>	<i>8</i>
FLOOR <i>E. Smith</i>	<i>8</i>
FLOOR <i>R. Lott</i>	<i>8</i>
FIREMAN	
MECHANIC	
INJURIES	

FROM		FOOTAGE		TOTAL DEPTH		HOURS ON BOTTOM		DRILL PIPE WEIGHT		NO. AND SIZE OF D.C.'S		D.C. WEIGHT		TRIPS		NO OF LINES		TOTAL TON MILES		LINE CUT FEET		AT MILES		FEET LEFT ON SPOOL		DATE OF LAST CUT		AT SURVEYS DEGREE							
NO.		DRILLING STRING		BITS RUN NO.		SIZE		NOZZLE SIZE		SERIAL NO.		TYPE		WEIGHT		RPM		FOOTAGE FROM		FOOTAGE TO		FOOTAGE		HOURS		CORED FROM		CORED TO		REAMED FROM		REAM-ED TO		CONDIT-ION	
		STANDS		FT.																															
		SINGLES		FT.																															
		D.C.'S		FT.																															
		SUB		FT.		MUD		8 A.M.		10 A.M.		12 NOON		2 P.M		WATER LOSS		FILTER CAKE		PH		GENERAL REMARKS													
		SUB		FT.		WEIGHT																													
		BIT OR C.B.		FT.		VISCOSITY										ADDITIVES																			
				FT.		PUMP PRESSURE																													
		KELLY IN		FT.		R.P.M. PUMP NO.1																													
						R.P.M. PUMP NO.2																													
TOTAL				FT.		PUMP NO. 1 LINER SIZE				PUMP NO. 2 LINER SIZE																									

REMARKS	START	STOP	INT. VAL.
<i>Leaving Out and moving Rig to new location</i>	<i>8:00</i>		<i>4:00 8</i>

TOUR NO. 3 4 P.M. TO MIDNIGHT HOURS

DRILLER <i>J. Gapp</i>	<i>12</i>
DERRICK <i>J. Bayker</i>	<i>12</i>
FLOOR <i>R. Lang</i>	<i>8</i>
FLOOR <i>S. Hien</i>	<i>8</i>
FLOOR <i>E. Martin</i>	<i>8</i>
FIREMAN	
MECHANIC	
INJURIES	

FROM		FOOTAGE	TOTAL DEPTH	HOURS ON BOTTOM	DRILL PIPE WEIGHT	NO. AND SIZE OF D.C.'S	D.C. WEIGHT	TRIPS	NO OF LINES	TOTAL TON MILES	LINE CUT FEET	AT MILES	FEET LEFT ON SPOOL	DATE OF LAST CUT	AT SURVEYS		DEGREES		
NO.		DRILLING STRING		BITS RUN NO.	SIZE	NOZZLE SIZE	SERIAL NO.	TYPE	WEIGHT	RPM	FOOTAGE FROM	FOOTAGE TO	FOOTAGE	HOURS	CORED FROM	CORED TO	REAMED FROM	REAM-ED TO	CONDIT-ION
		STANDS	FT.																
		SINGLES	FT.																
		D.C.'S	FT.																
		SUB	FT.	MUD	4 P.M.	6 P.M.	8 P.M.	10 P.M.	WATER LOSS	FILTER CAKE	PH	GENERAL REMARKS							
		SUB	FT.	WEIGHT															
		BIT OR C.B.	FT.	VISCOSITY					ADDITIVES										
			FT.	PUMP PRESSURE															
		KELLY IN	FT.	R.P.M. PUMP NO. 1															
				R.P.M. PUMP NO. 2															
TOTAL		FT.	PUMP NO. 1 LINER SIZE		PUMP NO. 2														

REMARKS	START	STOP	INT. VAL.
<i>Leaving Out and Moving Out to new location</i>	<i>8:00</i>		<i>4:00 8</i>

DRILL PIPE SIZE	TYPE	TOTAL NO. OF JOINTS	DATE LAST SONOSCOPED	FOOTAGE DRILLED SINCE LAST SONOSCOPED	TOTAL FOOTAGE DRILLED	LAST CALIPER DATE	RESULTS	CODE LETTER OF STRING
B.O.P.'S TESTED		ELAPSED TIME		PRESSURE	RESULTS	TOTCO RING ON BIT NO.		

TOOLPUSHER *A. Corbett*
APPROVED BY *[Signature]*

D.A. 407

Velocity Survey

CPOG CHEVRON KAKISA G-31

Lat: $60^{\circ}40'20.26''N$ Long: $118^{\circ}51'7/8''W$
N.W.T.

SONIC LOG
AND
WELL GEOPHONE SURVEY

CPOG CHEVRON KAKISA G-31
60° 40' 20.16" N. Lat., 118° 51' 07.18" W. Long.
NORTHWEST TERRITORIES, CANADA

FOR
CENTRAL-DEL RIO OILS LIMITED
CANADIAN PACIFIC OIL AND GAS LIMITED
CALGARY, ALBERTA

INTEGRATED VELOCITY SERVICES LTD.
CALGARY, ALBERTA



INDEX

OPERATIONAL STATISTICS

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BACK COVER:

Calibrated Sonic Log
Digital Velocity Data Analysis
Synthetic Seismogram

OPERATIONAL STATISTICS

Client: Central-Del Rio Oils Ltd.
Canadian Pacific Oil and Gas Limited

Well: CPOG Chevron Kakisa G-31

Location: $60^{\circ}40'20''^{26}$ N. Lat., $118^{\circ}51'07''^{18}$ W. Long., N.W.T.

Survey Contractors:
Sonic Log - Schlumberger of Canada
Abbreviated Well Geophone Survey:
Integrated Velocity Services Ltd.

Survey Date: March 14, 1970

K.B. Elevation: 1150 Ft.

Ground Level: 1137 Ft.

Total Depth: Driller - 3710 Ft.
S.O.C. - 3696 Ft.

Casing: 379 Ft.

Sonic Tool Dimensions:

Spacing: 3 Ft.

Span: 1 Ft.

Geophone Levels Surveyed: 9

Maximum Shot Hole Charge: $2\frac{1}{2}$ Lb. 60% Hi velocity

Minimum Shot Hole Charge: $5/8$ Lb. 60% Hi velocity

Maximum Shot Depth: 60 Ft.

Minimum Shot Depth: 50 Ft.

Total Explosives Used:
Well Geophone Survey: 15 Lb. 60% Hi velocity
13 Seismic Caps

Near Surface Velocity Survey:

12½ Lb. 60% Hi velocity
6 Seismic Caps

Reflection Spread:

Six stations (60 foot separation) recorded simultaneously
with velocity test shots. Three geophones per station.
(20 foot separation)

Operating Time:

Well Geophone Survey:

Well Available: 10:30 P.M., March 14, 1970

Well Released: 2:05 A.M., March 15, 1970

Near Surface Velocity Survey:

Well Available: 2:50 A.M., March 15, 1970

Well Released: 6:10 A.M., March 15, 1970

Velocity Records

Trace Arrangement

Trace #1	-	Time Break
Trace #2	-	Uphole Time
Trace #3	-	Well Geophone - Low Gain Setting
Trace #4	-	Well Geophone - Medium Gain Setting
Trace #5	-	Well Geophone - High Gain Setting
Traces #6 to #11 Incl.	-	Surface Reflection Profile

SONIC LOG - WELL GEOPHONE SURVEY COMPARISON

Datum Elevation: 1000 ft. A.S.L.

<u>D</u> <u>K.S.</u>	<u>T_c</u> (Geo.)	<u>T_c</u> (Log)	<u>Δt_c</u>
450	.0180	.0179	+.0001
950	.0490	.0488	+.0002
1450	.0820	.0816	+.0004
1950	.1320	.1331	-.0011
2450	.1820	.1818	+.0002
2850	.2140	.2138	+.0002
3251	.2440	.2437	+.0003
3410	.2510	.2516	-.0006
3674	.2665	.2655	+.0010

Interval transit times recorded by the sonic Log were transferred to digital cards in one foot increments. A digital computer was employed to reconcile the log data and the well geophone survey data. A copy of the digital analysis is contained in the back cover of the report folder.

The original log data recorded by the one foot span Sonic Log (B.H.C.) was resolved to an equivalent 3 foot span by summing and averaging the individual interval transit

times as follows:

Where d = depth below K.B. (1 ft. intervals)

t = interval transit time (1
foot span) at depth d_1

and t_r = resolved interval time

Then the equivalent three foot interval transit times
are derived as follows:

$$t_{r1} = t_1 \text{ at depth } d_1$$

$$t_{r2} = \frac{t_1 + t_2}{2} \text{ at depth } d_2$$

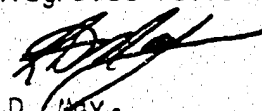
$$t_{r3} = \frac{t_1 + t_2 + t_3}{3} \text{ at depth } d_3$$

$$\text{and } t_{rn} = \frac{t_{(n-1)} + t_n + t_{(n+1)}}{3} \text{ at depth } d_n$$

The corrected and resolved interval transit times
were then plotted utilizing an automatic digital plotter on
appropriate log scale paper in a depth scale of 1 inch to 100
feet of well depth.

Respectfully submitted,

Integrated Velocity Services Ltd.


R.D. May,

Interpretation Supervisor

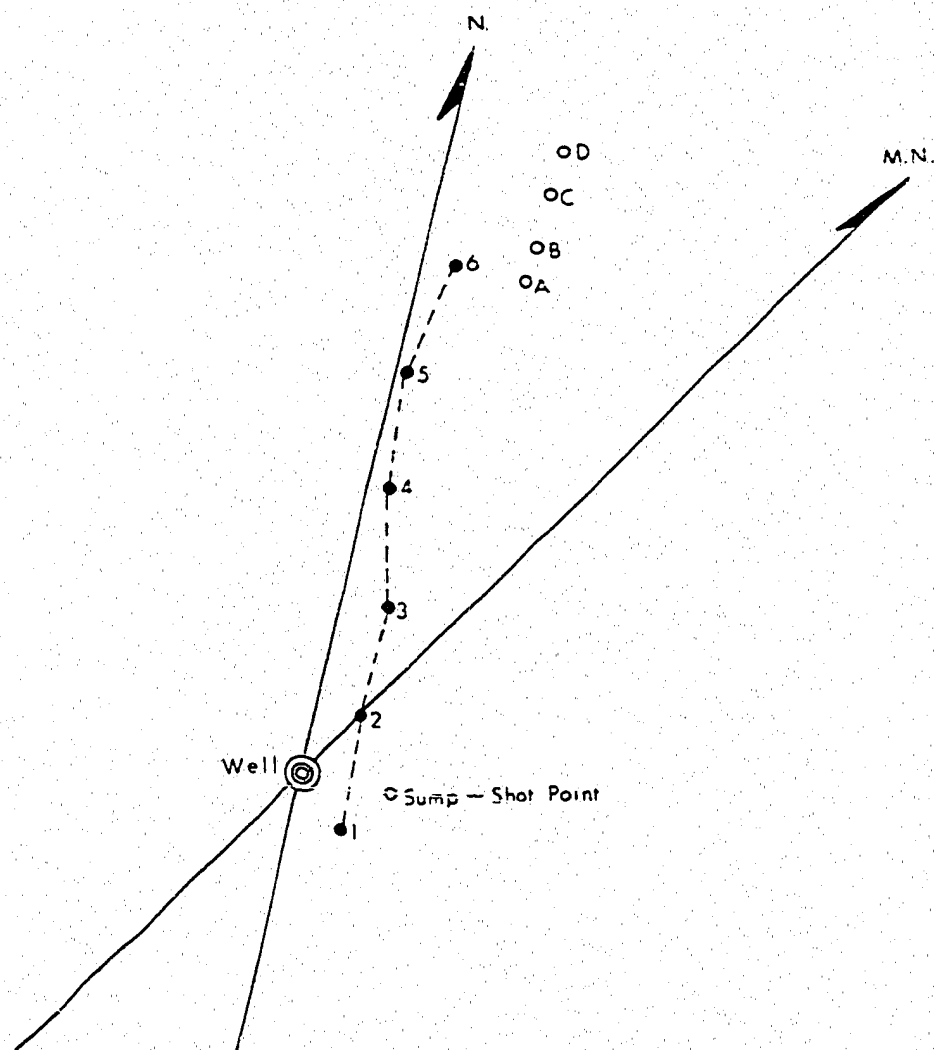
May 6, 1970

SHOOTING PLAN

Well CPOG CHEVRON KAKISA G-3:

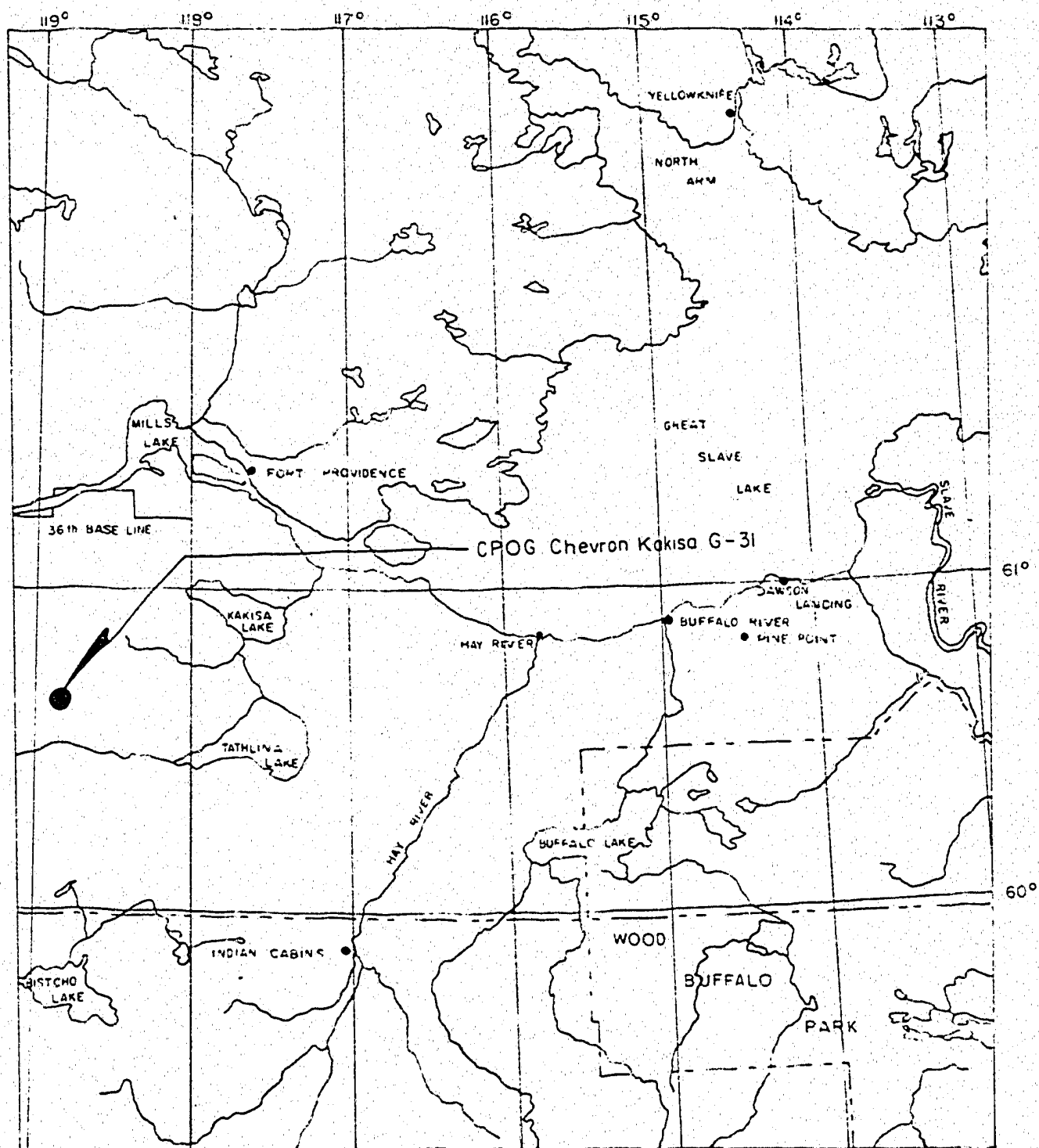
Location $60^{\circ}40'20''$ ²⁶ N. Lat., $118^{\circ}51'07''$ ¹⁸ W. Long., N.W.T..

Scale: 1" = 100'



LEGEND:

- Well ⊙
 Shot Point ○
 Geophone •



● WELL LOCATION

S.P.-ELEVATION-DISTANCE-DIRECTION

S.P.-ELEVATION-DISTANCE-DIRECTION

WELL

ELEVATION

K.B. 1150 feet

TOTAL DEPTH

3710 feet

CASING RECORD

Inches to 379 feet

WELL NAME:

CPOG Chevron Kakisa G - 31

LOCATION:

60°40'20²⁶" N. Lat., 118°51'07¹⁸" W. Long., N.W.T.

COMPANY:

Central-Dei Rio Oils Limited
Canadian Pacific Oil and Gas Limited

SURVEY CONTRACTOR:

Integrated velocity Services Ltd.

SURVEY DATE:

March 14, 1970

FORMATION

Record Number

Shot Hole Number

d

d_s

t_{uh}

Shot Hole Elevation

d_e

Δe

Δe+d_s

t_e

T

Z+d_e

X

Cos i

T̄

T_c

Z

V_a

ΔZ

ΔT_c

V_i

1000 feet above sea level

6400 feet/second

	3C	A	450	50	.028	1134	84	16	66	.013	.038	384	280	.8080	.031	.018	300	16667			
	4D		950		.028						.065	884		.9533	.062	.049	800	16327	500	.031	16129
	5E		1450		.028						.097	1384		.9801	.095	.082	1300	15854	500	.033	15152
	6F		1950		.028						.147	1884		.9891	.145	.132	1800	13636	500	.050	10000
	7G		2450		.024						.196	2384		.9932	.195	.182	2300	12637	500	.050	10000
	8H		2850		.028						.228	2784		.9950	.227	.214	2700	12617	400	.032	12500
	9I		3251		.027						.258	3185		.9962	.257	.244	3101	12702	401	.030	13367
	11K		3410		.028						.265	3344		.9965	.264	.251	3260	12988	159	.007	22714
	12L		3674		.028						.281	3608		.9970	.280	.267	3524				
	13M	A	3674	50	.030	1134	84	16	66	.013	.280	3608	280	.9970	.279	.266	3524	13223	264	.0155	17032

WELL ELEV.

SHOT HOLE ELEV.

SHOT ELEV.

ELEV DATUM

X

d

d_s

Δe

Z

Z+d_e

S

X = Horizontal distance from well to shot point.

d = Well geophone depth measured from well elevation.

d_s = Depth of shot.

Δe = Difference in elevation between shot and elevation datum.

Δe = Difference in elevation between well and shot point.

Z = Well geophone depth measured from elevation datum = d - (K.B. elevation - elevation datum).

Z+d_e = Well geophone depth measured from shot elevation = d - d_s - Δe

S = Straight line travel path from shot to well geophone.

T = Observed time from shot to well geophone.

t_{uh} = Uphole time of shot or other surface reference time.

t_e = Vertical time from shot to elevation datum = $\frac{d}{V_e}$

Cos i = $\frac{Z+d_e}{\sqrt{X^2 + (Z+d_e)^2}}$

T̄ = Vertical travel time from shot elevation to well geophone = Cos i T

T_c = Vertical travel time from elevation datum to well geophone = T̄ - t_e

V_e = Topmost velocity in consolidated layer

V_a = $\frac{Z}{T_c}$ = Average velocity.

V_i = $\frac{\Delta Z}{\Delta T_c}$ = Interval velocity.

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Velocity Services Ltd.

NEAR SURFACE VELOCITY DATA

Crystal Gerphone Cable

WELL CPOG Chevron Kakisa G-31

RECORD NO.: 18E

SHOT POINT Sump

S.P. ELEV. 1136 Ft.

SHOT DEPTH: 6 Ft.

K.B. ELEV. 1150 Ft.

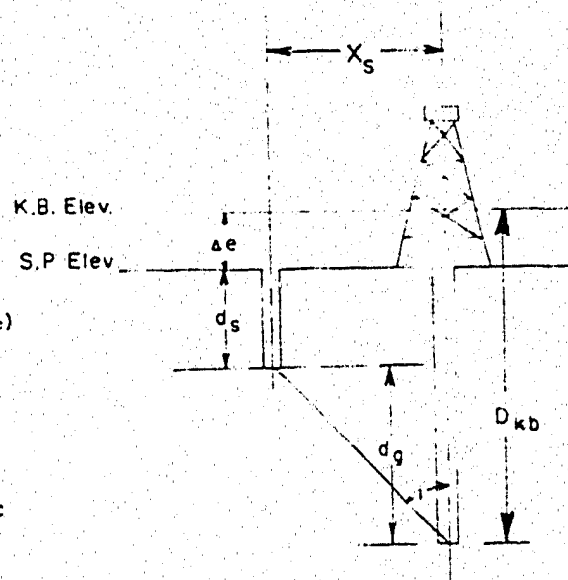
 T_{uh} .009 Sec. X_s : 49 Ft.

$$d_g = D_{kb} - (d_s + \Delta e)$$

$$X_s = \tan i \cdot d_g$$

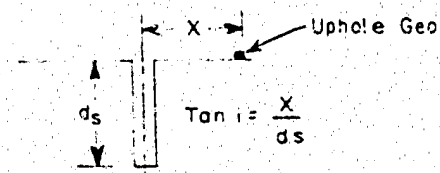
$$(\cos i)(T) = \bar{T}$$

$$\bar{T} + t_{uh}(\cos i) = T_c$$



D_{kb}	d_s	Δe	d_g	T	$\cos i$	$\bar{T}$	T_c
600	6	14	580	.047	N/A	.047	.052
550			530	.043		.043	.048
500			480	.040		.040	.045
450			430	.037		.037	.042
400			380	.034		.034	.039
350			330	.031		.031	.036
300			280	.028	N/A	.028	.033
250			230	.026	.9781	.025	.030
200			180	.023	.9649	.022	.027
150			130	.019	.9357	.018	.023
100			80	.013	.8528	.011	.016
50	6	14	30	.006	.5222	.003	.008

Uphole Time Correction:

Horizontal Offset: 10 Ft. (X)Shot Depth: 6 Ft. (d_s)Uphole Time: .009 Sec. (T_{uh}) $\tan i = 1.6667$ $\cos i = .5145$ $(T_{uh})(\cos i) = (.009 \text{ sec.})(.5145) = .005 \text{ sec.}$ 

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NEAR SURFACE VELOCITY DATA

Crystal Gerphone Cable

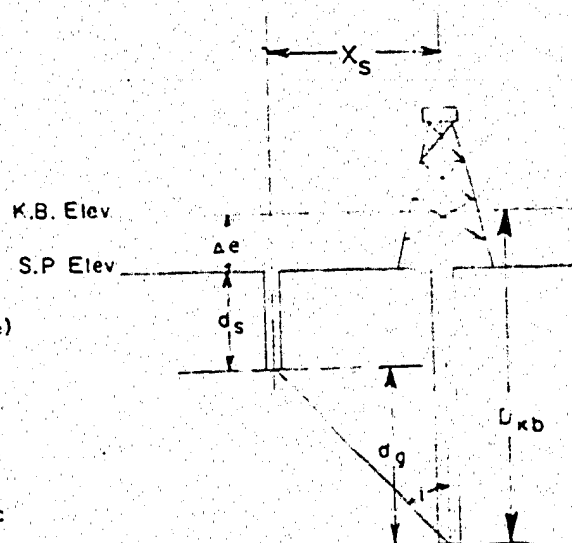
WELL CPOG Chevron Kakisa G - 31
 RECORD NO.: 19F
 SHOT POINT: Sump
 S.P. ELEV.: 1136 Ft.
 SHOT DEPTH: 6 Ft.
 K.B. ELEV.: 1150 Ft.
 T_{uh} : .011 Sec.
 X_s : 49 Ft.

$$d_g = D_{kb} - (d_s + \Delta e)$$

$$\frac{X_s}{d_g} = \tan i$$

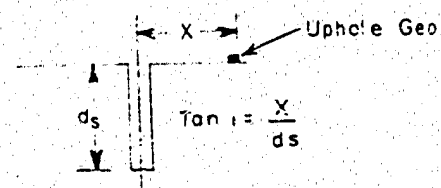
$$(\cos i)(T) = \bar{T}$$

$$\bar{T} + t_{uh}(\cos i) = T_c$$



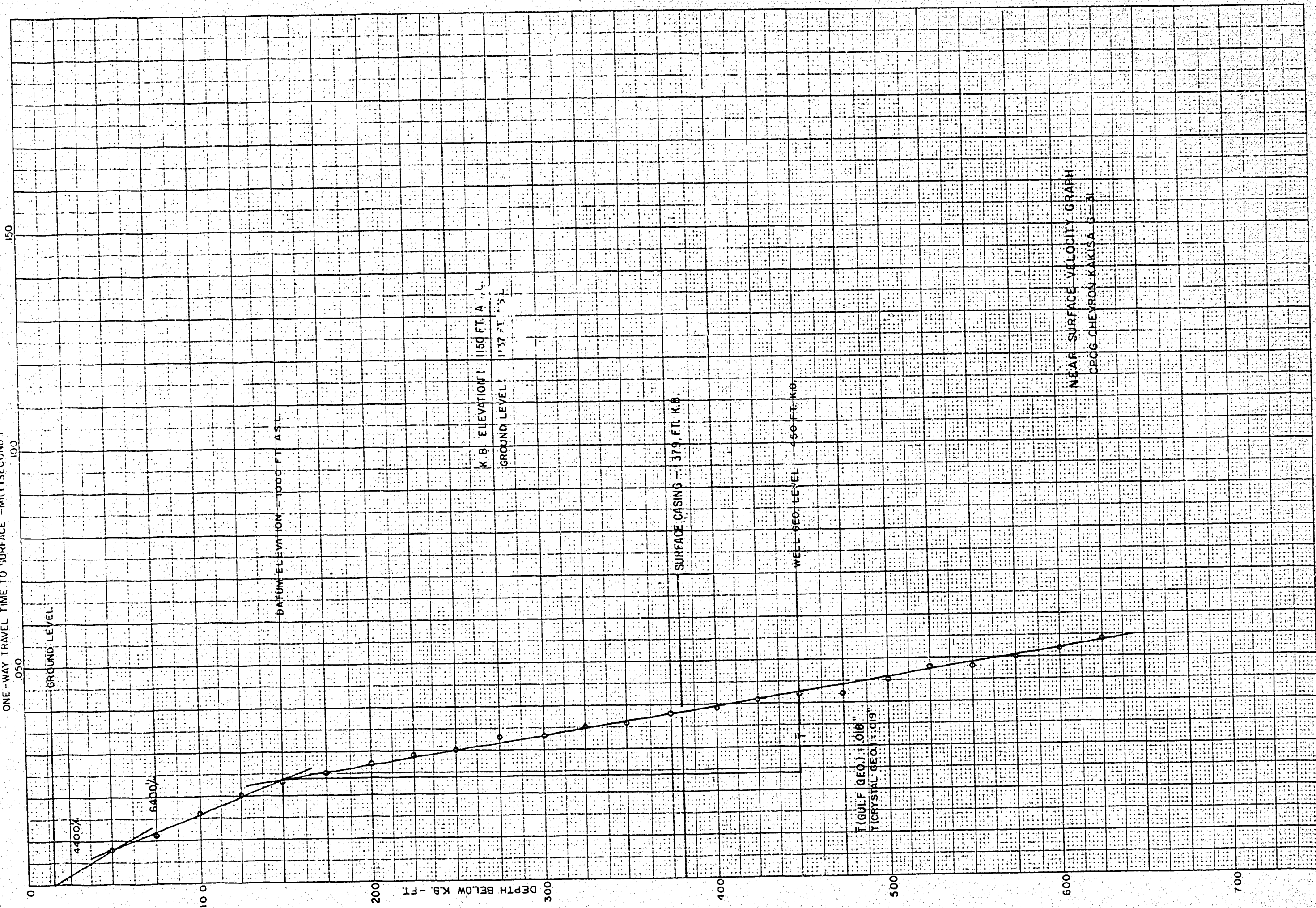
D_{kb}	d_s	Δe	d_g	T	$\cos i$	$\bar{T}$	T_c
625	6	14	605	.048	N/A	.048	.054
575			555	.044		.044	.050
525			505	.042		.042	.048
475			455	.038		.036	.042
425			405	.035		.035	.041
375			355	.032		.032	.038
325			305	.029		.029	.035
275			255	.027	N/A	.027	.033
225			205	.024	.9726	.023	.029
175			155	.020	.9535	.019	.025
125			105	.016	.9062	.014	.020
75	6	14	55	.007	.7467	.005	.011

Uphole Time Correction:

Horizontal Offset 10 Ft. (X)Shot Depth 6 Ft. (d_s)Uphole Time .011 Sec. (T_{uh}) $\tan i = 1.6667$ $\cos i = .5145$ $(T_{uh})(\cos i) = (.011 \text{ sec.})(.5145) = .006 \text{ sec.}$ 

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ONE-WAY TRAVEL TIME TO SURFACE - MILLISECOND



WELL VELOCITY CALCULATIONS (ACOUSTIC VELOCITY WELL LOG DATA)

WELL: CPOG Chevron Kakisa G-31
 LOCATION: $60^{\circ}40'20''$ N. Lat., $118^{\circ}51'07''$ W. Long., N.W.T.
 K.B. ELEV: 1150 FT. DATUM ELEV: 1000 FT.
 DATUM VELOCITY: 6400 FT./SEC.

$D_{k.b}$	T_{log}	Z	V_a	ΔZ	ΔT_{log}	V_i
388	.0140	238	17000			
476	.0200	326	16300	88	.0060	14667
661	.0320	511	15969	185	.0120	15417
1100	.0583	950	16295	439	.0263	16692
1293	.0694	1143	16470	193	.0111	17387
1484	.0844	1334	15806	191	.0150	12733
2044	.1424	1894	13301	560	.0580	9655
2117	.1485	1967	13246	73	.0061	11967
2577	.1947	2427	12465	460	.0462	9957
2914	.2186	2764	12644	337	.0239	14100
2970	.2232	2820	12634	56	.0046	12174
3115	.2339	2965	12676	145	.0107	13551
3219	.2422	3069	12671	104	.0083	12530
3422	.2522	3272	12974	203	.0100	20300
3500	.2567	3350	13050	78	.0045	17333
3671	.2654	3521	13267	171	.0087	19655

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14 5 10 X 10 TO 1 INCH 47 1323
K.B. ELEVATION 1150 FT
DATUM ELEVATION 1000 FT A.S.L.

ONE WAY TRAVEL TIME FROM DATUM - SECONDS

