ATLANTIC COLUMBIAN CARBON

ARCTIC CIRCLE ONTARATUE

K-4

Drilling Authority No. 142

Date Issued

WELL NAME Atlantic Columbian Carbon Arctic Circle Ontaratne K-4

FIELD Area:

LOCATION: Unit K Section 4 Grid 66 - 40; 130 -45

Latitude 66 - 33 - 37.5 Longitude 130 - 46 - 10.3125

From Established Reference Marker 1587.5' East - 2280' South of Seismic Shot Point No. 3039 on Line 37

Rig Release Date:

Status

Information Release Date

CHANGE OF NAME:

DATE RECEIVED	INDEX
	Application for a Drilling Authority.
	Well Completion Data.
	~~Well History Report.~~
	Application to Amend a Drilling Authority.
	Application to change a Well Name.
	Application to Abandon a Well or Suspend Drilling.
	Application to Alter Condition of a Well.
	Well History Supplement.
	Well Completion Data.
	Work-over Report No. .....
	Application to Commingle Production before Measurement.
	Data for Back Pressure Test on Natural Gas Wells — Monograph 7 Method.
	Data for Back Pressure Test on Natural Gas Wells — Vitter's Method.
	M.P.R. — Oil — Calculations.
	New Oil Well Report.
	New Gas Well Report.
	Well Inspection Report.
	Rig Inspection Report.
	Battery Inspection Report.
	Equipment Report.
	Well Card.
	Well Visit.
	Daily Drilling Reports.
	Logs. Large scale ..... Small scale .....

CANADA

Drilling Authority No. 142

Date Issued

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES 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 Atlantic Columbian Carbon Arctic Circle Ontaratue K-4

Permit No. 1479 Lease No.

Atlantic Refining-Columbian Carbon (Permittee, Licensee, Lessee) Exploratory Licence No. 893

THE ATLANTIC REFINING COMPANY (Operator) Exploratory Licence No. 893

Location: Unit K Section 4 Grid 66° 40' N Lat. 130° 45' W Long.

Latitude 66° 33' 37.5" Longitude 130° 46' 10.3125"

From Established Reference Marker 1687.5 East—2280' South of Seismic Shot Point No. 3039 on Line 37

	DATE	DEPTH
Spudded	11-14-64	
Suspended		
Resumed		
Finished Drilling	2-14-65	7950'
Deepened		
Complete (gas/oil)		
Abandoned	2-23-65	7950'
Rig released	2-23-65	

Pool (S)

Interval(s) open to production

Elevation: Gr. 325

K.B. 340.5

Drilling Contractor & Rig No. Cascade Rig 12

Contractor's Licence No. 11809

CASING RECORD

Casing Size (Inches)	Weight	Amount	Set at—	Sacks of Cement	Method
1. 16	55	46	60	160	Circulated
2. 11-3/4	42	415	430	440 +2% $CaCl_2$	Pump & Plug
3. 8-5/8	28	3450	3465	850+/2% Hydrolized Gel	Pump & Plug
4.					
5.					
6.					

GEOLOGICAL TOPS	ELEVATION Depths	ELEVATION Sub-Sea
Devonian Canol	870	- 445
Kee Scarp Equiv.	935	- 610
Hare Indian	1050	- 725
Hume	1635	- 1310
Bear Rock	1980	- 1655
Silurian-Ordovician	3350	- 3025
Cambrian	7950	- 7625

CORE RECORD

From	To	Rec.	From	To	Rec.
7956	8026	60'			
8090	8126	5.2'			
8761	8784	22.5'			

LOG RECORD

Run No.	Type of Log	From	To
1	Induction Electric	3455	431
	Sonic Gamma Ray	3456	431
	Microlog Caliper	3456	431
	Continuous Dipmeter	3455	431
	Velocity Survey	-	
2/	Laterolog	8946	3468
2 or 3	Sonic Gamma Ray	8938	3468
2	Microlog Caliper	8062	3468
2	Continuous Dipmeter	8077	3468
	Velocity Survey		

NANR 52-90(2) (1-61)

CEMENTING RECORD (Plug, Squeeze, etc.)

Date	From	To	Remarks
#1, 2-20-65	8950	8850	45 Sx OWC
#2, 2-20-65	7995	7895	45 Sx OWC. After 8 hrs felt plug @ 7875
#3, 2-21-65	4930	4620	150 Sx OWC. After 8 hrs felt plug @ 4610
#4, 2-21-65	3510	3410	55 Sx OWC + 2% $CaCl_2$
#5 2-23-65	Surface		After 11 hrs felt plug @ 3395 10 sack plug--Welded on plate

PERFORATING RECORD (Bullet, Jet)

Date	From	To	Remarks

SERVICING RECORD (Acidizing, Fracing, etc.)

Date	From	To	Remarks

DRILL STEM TESTS

No.	Date	Formation	From	To	V.O. Mins.	I.S.I. Mins.	F.S.I. Mins.	I.S.I.B.H.P.	F.S.I.B.H.P.	I.F.B.H.P.	F.F.S.H.P.	I.H.P.	F.H.P.	REMARKS
1	12-~~22~~-64	Sil-Ordovicn.	3774	3840	30	30	30	1696	1696	1696	1696	1694	1694	Recovered 1950' mud and water plus 1825' salt water. Test mis-run
2	12-~~23~~-64	Sil-Ordovicn.	3774	3840	30	30	30	1667	1667	1664	1667	1677	1675	Recovered 3685' salt water

Lab. No.	Sample	From	To	Source	Remarks
E-24720	Water	3774	3840	D.S.T.	All samples contain some salt contamination.
E-24721	Water	4377		Circulated Sample	
E-24722	Water	4869		Circulated Sample	
E-24904-1	Water	6330	6377	Circulated Sample	
E-24904-2	Water	7299		Circulated Sample	
E-24904-3	Water	7300		Circulated Sample	Detailed reports in Well History
E-24850	Water	8026		Circulated Sample	

PRESENT STATUS OF WELL

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

Company: THE ATLANTIC REFINING COMPANY

Title: (Original Signed) R. A. EVANS
Production & Drilling Superintendent

Date: April 30, 1965

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

File No.
Drilling Authority No. 142

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES DIVISION

Application to Abandon a Well or Suspend Drilling

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

Name and number of well: Atlantic Columbian Carbon Arctic Circle Outpatch K-4

Location: Unit K Section 4 Grid 66°40' N Lat. 130°45' W Long.

Latitude 66° 33' 37.5" Longitude 130° 46' 10.3125"

From Established Reference Marker 1687.5' East -- 2280' South of Seismic Shot Point No. 3039 on Line 37

Permit No. 1479 Lease No.

Atlantic Refining Columbian Carbon
(Permittee, Licensee, Lessee)

Date of commencement of proposed programme February 20, 1965.

OIL, GAS, AND WATER ENCOUNTERED
(Depths)

Oil at None

Gas at None

Water at D.S.T. # 2 3774 - 3840 recovered 3685 salt water

Total Depth Drilling Date of last operations In progress

Present condition of well Drilling ahead - preparing to log and abandon

CASING RECORD

	Casing Size O.D. Inches	Weight	Amount	Set At	Sack of Cement	Method	Amount Pulled
1.	16	55	46'	60'	160	Circulated	0
2.	11-3/4	42	415'	430'	440	Pump & Plug	0
3.	8-5/8	28	3450'	3465'	850	Pump & Plug	0
4.							
5.							

PROPOSED ABANDONMENT PROGRAMME

Plug No.	Plug Position	Geological Formation	Number of Sacks of Cement	Remarks
1	T.D. - 100' up	Cambrian	45	
2	7995 - 7895	Across Cambrian top	Caliper +20%	WOC 8 hrs and check top
3	4930 - 4620	Silure - Ordovician	Caliper +20%	WOC 8 hrs and check top
4	3510 - 3410	Across Casing Shoe	Caliper +20%	WOC 8 hrs and check top
5	Inside 8-5/8 casing at surface		10	When set, weld on plate

The following logs have been run IES, SG-R, Microlog Caliper, GRN, Velocity and Baroid Mud Log

Other operations proposed Final logging program to T.D.

Operations to be carried out by Cascade Drilling Co. Ltd. Contractor Licence No. 11809

Address 5112 - Third St. S.E. Calgary. Address

Responsible Agent in field J.W. Davidson

Dated at Edmonton, this 30 Day of April 19 65

Signed by (Original Signed) R. A. EVANS Company THE ATLANTIC REFINING COMPANY

Title Production & Drilling Superintendent. Exploratory Licence No. 893

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

(For RESOURCES 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 12th February 1965

Dated 3rd May, 19 65 B.H.J. Thoms

Forms to be submitted in triplicate to Oil Conservation Engineer, Calgary, Alberta

NANR 52-90 (5) (1-61)

File No.

Drilling Authority No. 142

DEPARTMENT OF NORTHERN AFFAIRS AND NATIONAL RESOURCES
RESOURCES 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 made hereby for approval to drill:—

Name and number of well **Atlantic Columbian Carbon Arctic Circle Ontaratue K-4**

Location: Unit **K** Section **4** Grid **66° 40'W Lat. 130° 45'W Long**

Latitude **66° 33' 37.5"** Longitude **130° 46' 10.3125"**

From Established Reference Marker **1687.5' East - 2280' South of Seismic Shot Point No. 3039 on Line 37**

Elevation: Ground **325** K.B. **340** feet above sea-level.

Well is expected to produce from **Cambrian** formation at a depth of about **13,000** feet.

Area assigned to well

(for Oil Conservation Engineer's use only)

Permit No. **1479** Lease No. Acreage

Permittee, licensee, or lessee **Atlantic Refining Columbian Carbon**

Exploratory Licence No. **893**

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	Brand	New or Used	Estimated Depth	Sacks of Cement
1. 16"	55#	F-25		New	50	150 (Circ.)
2. 11-3/4"	42#	H-40	Smls-ST&C	New	400	350 (Circ.)
3. 8-5/8"	28#	N-80	Smls-LT&C	New	3,500	850 + 12% Gel
4. 5-1/2"	To be designed as required					
5.						

Expected water, gas, and oil horizons and type of control equipment **All horizons to be controlled with drilling fluid of proper density. B.O.P., one 12" 3000# Hydril and one 12" 3000# Double Gate Shaffer with pipe and blank rams.**

Well will be drilled with (Rotary) Rig No. **12** by **Cascade Drilling Co. Ltd.**
(Cable) (Drilling Contractor or company)

5112 - Third Street S.E., Calgary, Alberta.

Responsible agent of applicant:— Contractor's Licence No. **11809**

At well **J. W. Davidson** At registered office **R. A. Evans**

Address **10025 - 108th St., Edmonton** Address **200 Blue Cross Bldg., 10025 - 108th St. Edmonton, Alta.**

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

Dated at **Edmonton, Alberta.**, this **28th** day of **October** 19 **64**

Signed by **(Original Signed) R. A. EVANS** Company **The Atlantic Refining Company**

Title **Production & Drilling Supt.** Licence No.

(For Resources Division use only)

APPROVED

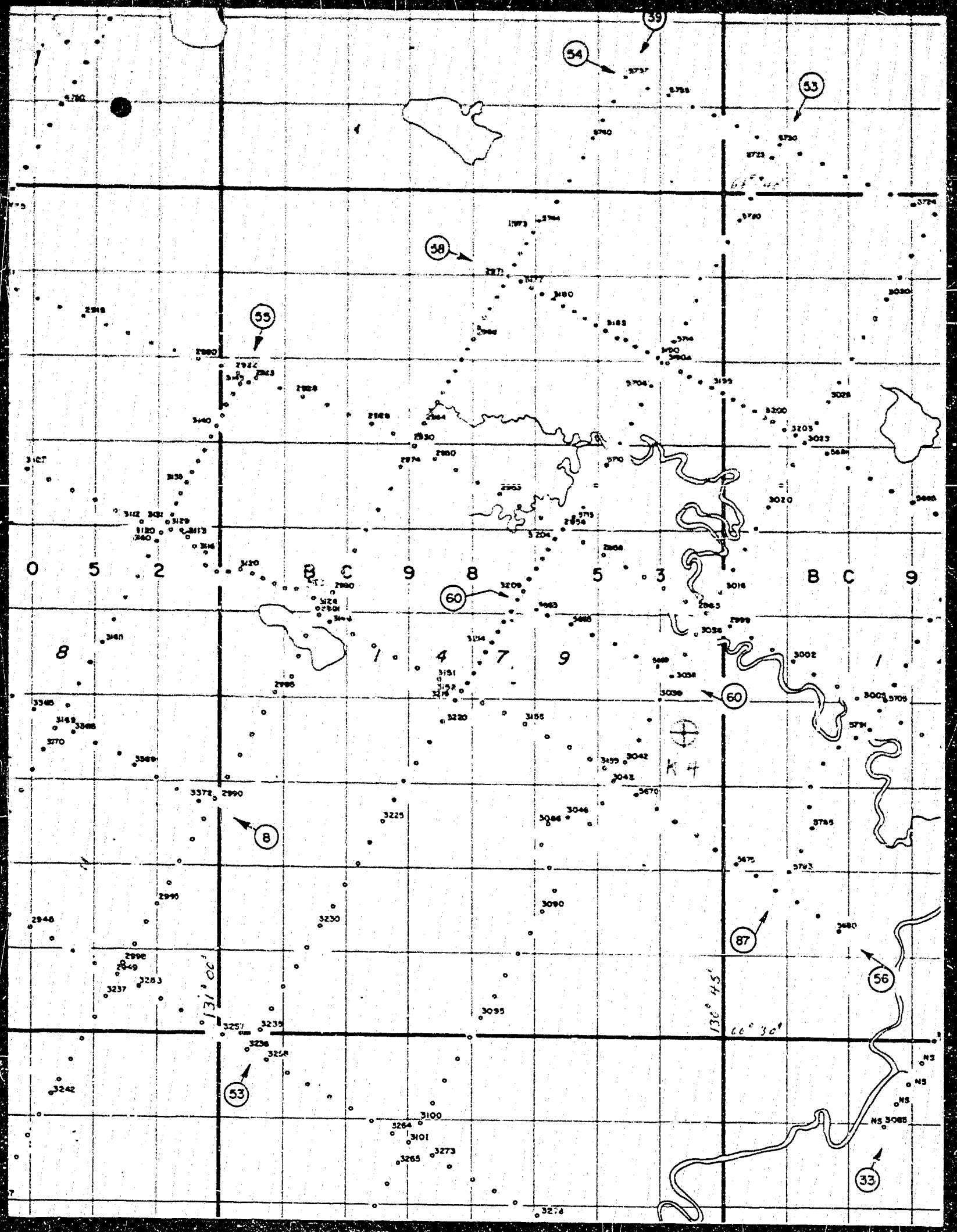
This application has been examined and approved subject to the following conditions:—

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

Dated **30th October** 19**64** (Original Signed) B. E. Norris

Forms to be submitted to Oil Conservation Engineer, Calgary, Alberta.

NANR 52-90(1) (1-61)


0 5 2 B C 9 8 5 3 B C 9
8 1 4 7 9 1
131° 00'
13° 45'
66° 30'

File No. .....
Drilling Authority No. 142

DEPARTMENT OF INDIAN AFFAIRS AND NORTHERN DEVELOPMENT

OIL AND MINERAL DIVISION

WELL-SITE INSPECTION REPORT

FROM: Field Office or Area: Norman Wells Date 11th July 1971

TO: The Oil Conservation Engineer:

RE: Atlantic Columbian Carbon Arctic Circle Ontaratue K-4

Location: 66° 33' 37.5"N., 130°46'10.3125"W Status D & A February 1965

This location was inspected by the undersigned on 11th July 1971

T.D. 8950'

The location is in ~~satisfactory~~ unsatisfactory condition.

The following items require attention:

1. Remove boards from cellar, clean out and backfill
2. Pile and brun all lumber.
3. Bury steel pails, scrap iron, plastic sheeting and other junk.
4.
5.
6.

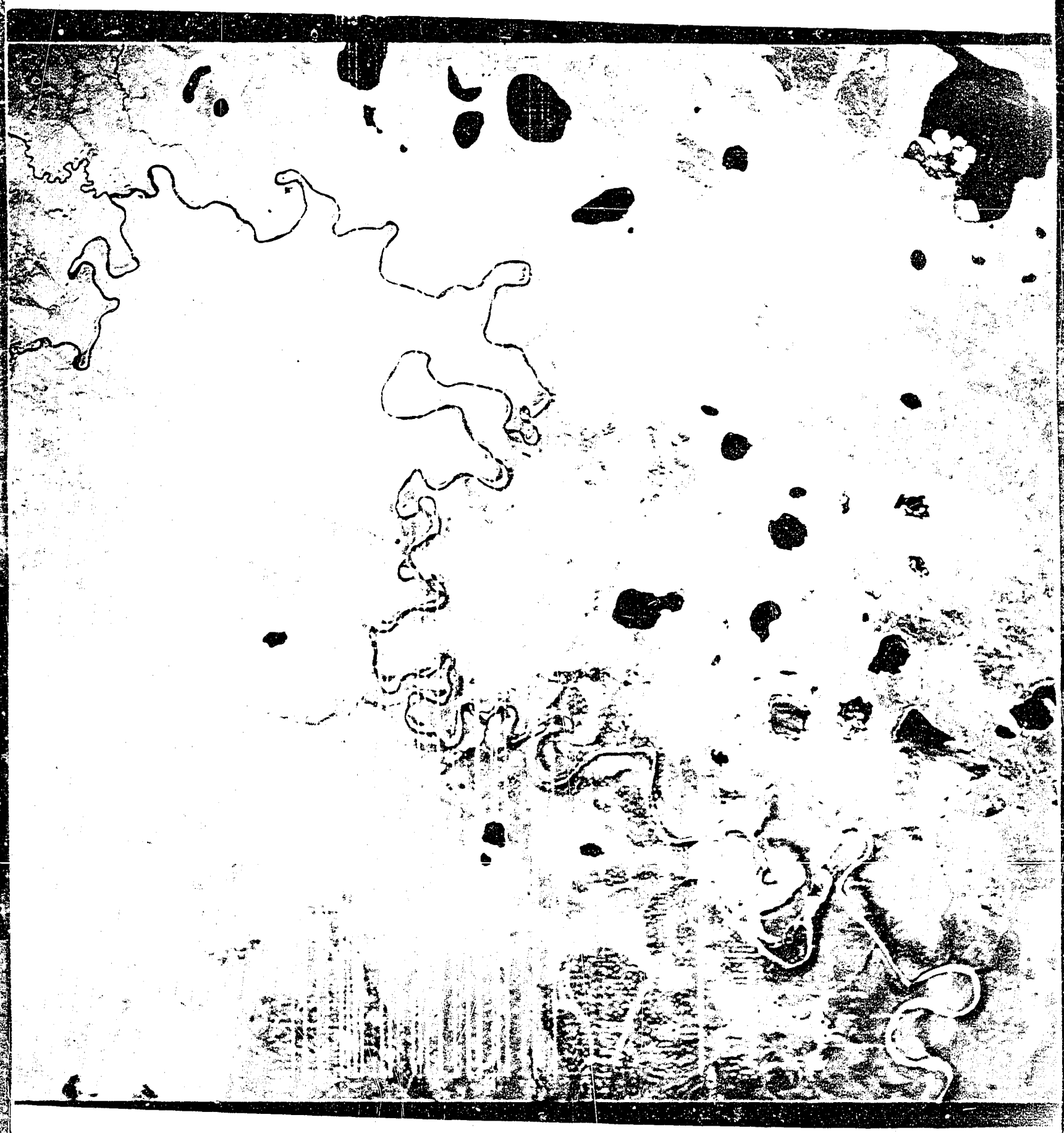
Other comments and recommendations: (include Map, if necessary for clarity)

Never cleaned up

Inspected by M. D. Thomas

M. D. Thomas
District 2

Original to Oil Conservation Engineer, Dept of IA & ND, Duplicate to Field Office or Inspecting Engineer.
IAND 52-90-14 (9-69)



WELL HISTORY REPORT

ATLANTIC COLUMBIAN CANBOR ARCTIC CIRCLE ONTARATUE K-4

The Atlantic Refining Company
320 - 7th Avenue S.W.
Calgary, Alberta.

WELL HISTORY REPORT

ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE ONTARATUE K-4

Section I - SUMMARY OF WELL DATA

a) Well Name
b) Permittee
c) Operator
d) Location
e) Co-ordinates
f) Permit No.
g) Drilling Contractor
h) Drilling Authority
i) Classification
j) Elevation
k) Spudded
l) Completed Drilling
m) Total Depth
n) Well Status
o) Rig Released
p) Hole Size
q) Casing

Section II - GEOLOGICAL SUMMARY

a) Formation Tops
b) Cored Intervals
c) Core Description
d) Sample Description

Section III - ENGINEERING SUMMARY

a) Report of Drill Stem Tests
b) Casing Record
c) Bit Record
d) Mud Report
e) Deviation Record
f) Abandonment Plugs
g) Lost Circulation Zones
h) Report of Blowouts

Section IV - LOGS

Section V - ANALYSIS

a) Core Analysis
b) Water Analysis
c) Gas Analysis
d) Oil Analysis

Section IV - COMPLETION SUMMARY

a) Tubing Record
b) Perforation Record
c) Cementation Record
d) Acidization and Fracturing Record
e) Back Pressure and Production Tests

Section I -- SUMMARY OF WELL DATA

a) Well Name: Atlantic Columbian Carbon Arctic Circle Ontaratue K-6

b) Permittee: Atlantic Refining - Columbian Carbon

c) Operator: The Atlantic Refining Company, 320 -- 7th Avenue S.W., Calgary, Alberta.

d) Location: Unit K, Section 4, Grid 66°40' N Lat. 130°45' W Long.

e) Co-ordinates: 66°33' 37.5" N Lat., 130°46' 10.3125" W Long. from established reference marker 1587.5 feet East 2280 feet South of Seismic Shot Point 3039 on Line 37.

f) Permit No: 1479

g) Drilling Contractor: Cascade Drilling Co. Ltd. Rig # 12 - Type National 80B.

h) Drilling Authority: No. 142, issued October 30, 1964.

i) Classification: Exploratory well.

j) Elevation: Ground - 325 feet
R.K.B. - 340.5 feet

k) Spudded: November 14, 1964 at 2:00 P.M.

l) Completed Drilling: February 14, 1965 at 12:30 A.M.

m) Total Depth: 8950 feet

n) Well Status: Plugged and abandoned.

o) Rig Released: February 23, 1965 at 12:00 Noon.

p) Hole Size: 0 - 60 feet 21 inch, 60 - 430 feet 15 inch
430 - 3465 feet 11 inch, 3465 - 8950 feet 7-7/8 inch.

q) Casing: Conductor Pipe - 16", 55#, F-25 from 0 - 60
Surface Casing - 11¾", 42#, H-40, ST&C from 0 - 430
Intermediate Casing - 8-5/8", 28#, N-80, LT&C from 0 - 3465.

Section II -- GEOLOGICAL SUMMARY

a) Formation Tops

	Samples	Logs
Devonian Canol	870	868
Kee Scarp Equivalent	935	940
Hare Indian	1050	1050
Kume	1635	1630
Bear Rock	1980	1981
Silurian-Ordovician	3350	3345
Cambrian	7950	7942
T.D.	8,950	

b) Cored Intervals:

Core No.	Formation	Interval	Recovery
1	Cambrian	7966-8026	60'
2	Cambrian	8090-8126	5.2'
3	Cambrian	8761-8784	22.5'

c) Core Description: See Appendix 1.

d) Sample Description: See Appendix 1.

Section XII — ENGINEERING SUMMARY

a) Report of Drill Stem Tests: See Appendix 2.

b) Casing Record:

11-15-64: Set 2 jts (46.35) 16", 55#, F-25 plain end conductor pipe at 60' in 21" hole. Cemented with 90 sax Ciment Fondu followed by 70 sax Oilwell cement.

11-17-64: Set 11 jts (435.90) of 11¾", 42#, H-40, ST&C new casing at 430 R.K.B. in 15" hole. Cemented with 440 sax Canada High Early Strength cement plus 2% calcium chloride.

12-17-64: Ran intermediate casing (bottom to top) as follows:

8-5/8" Baker Guide Shoe	1.20'
1 jt 8-5/8", 28#, N-80, LT&C casing	31.70'
8-5/8" Baker Differential Fill-up Collar	1.85'
108 jts 8-5/8", 28#, N-80, LT&C casing	3414.50'
RKB — GL	15.50'
Casing set at	3464.75'

Cemented in 11" hole with 650 sax Oilwell cement plus 12% hydrolized gel (slurry weight 12.2 ppg), followed by 200 sax neat Oilwell cement (15.4 ppg).

c) Bit Record: See Appendix 2.

d) Mud Report: See Appendix 2.

e) Deviation Record: See Appendix 2.

f) Abandonment Plugs:

2-20-65 - Plug 1: 8950-8850, cemented with 45 sax Oilwell cement. Plug down at 7:30 P.M.

2-20-65 - Plug 2: 7995-7895, cemented with 45 sax Oilwell cement. Plug down at 9:40 P.M. After 8 hrs. felt plug 2 at 7875 with 10,000 lbs.

2-21-65 - Plug 3: 4930-4620, cemented with 150 sax Oilwell cement. Plug down at 9:35 A.M. After 8 hours felt plug 3 at 4610 with 15,000 lbs.

2-21-65 - Plug 4: 3510-3410, cemented with 55 sax Oilwell cement plus 2% calcium chloride. Plug down at 8:25 P.M.

f) Abandonment Plugs: cont'd

2-22-65 After 11 hours felt plug 4 at 3395 with 5,000 lbs.

2-23-65 Cut casing 3' below ground level and placed 10 sax O.W.C. plug inside casing.
Welded on steel plate and erected required well monument.

g) Lost Circulation Zones:

Silurian-Ordovician at 3788-3900'
Estimate 700 bbls. fluid mixed with lost circulation material pumped away in formation. Regained partial returns and drilled ahead to 4160.
Attempted to plug thief zone with L.C.M. plugs.
Drilled ahead to 4360 with partial returns. Attempted to plug thief zone with L.C.M. plugs and cement plugs. Drilled ahead with slight loss of returns.

This condition existed till completion of well. There would be some fluid loss when tripping pipe but when drilling, there was little fluid loss to formation.

Severe lost circulation 3788-3900' with minor lost circulation zones 5430-5470' and 5890-6100'.

Materials used due to lost circulation:

Hydrogel		1200 sax
Attapulgus	(Plugs)	141 sax
Sawdust		525 sax
Mica		422 sax
Poly Flake		103 sax
Cedar Seal		40 sax
Cest-N-Seal	(Plugs)	70 sax
Cement	(Plugs)	370 sax

h) Report of Blowouts: None.

Section IV -- LOGS (Envelope)

a) Electric Logs:

DATE	TYPE LOGS	SCALE	INTERVALS (Driller's Depth)
12-13-64	Induction Electric	2" & 5"	3455-431
12-13-64	Sonic Gamma Ray	2" & 5"	3456-431
12-14-64	Microlog Caliper	5"	3456-431
12-14-64	Continuous Dipmeter	5" & 60"	3455-431
12-15-64	Velocity Survey		
2-14-65	*Laterolog	2" & 5"	8946-3468
2-16-65	Sonic Gamma Ray	2" & 5"	8938-3468
2-16-65	Microlog Caliper	5"	8062-3468
2-16-65	Velocity Survey		
2-17-65	Continuous Dipmeter	5" & 60"	8077-3468

* Interval 8208-8276 not logged due to hole conditions.

b) Baroid P.P.M. Log from 75' - 8890'

Section V -- ANALYSIS

a) Core Analysis: None

b) Water Analysis: See Appendix 3.

c) Gas Analysis: None

d) Oil Analysis: None

Section VI -- COMPLETION SUMMARY

a) Tubing Record: None.

b) Perforation Record: None.

c) Cementation Record:

Cementation of Casing see III (b)
Abandonment Plugs see III (f)

d) Acidization and Fracturing Record: None.

e) Back Pressure and Production Tests: None.

Atlantic Columbian Carbon Arctic Circle Ontaratue K-4

CORE DESCRIPTIONS

No. 1: 7966 - 8026' Rec. 60/60 Cambrian Shales, sandstones, dolomites and anhydrites.

No. 2: 8090 - 8126' Rec. 5.2/36 Cambrian shales and anhydrite.

No. 3: 8761 - 8784' Rec. 22.5/23 Cambrian quartzite and psuedo slate.

SAMPLE DESCRIPTIONS

70 - 868' Imperial formation - Predominantly shale, medium grey, sub-fissile, minor stringers of siltstone and sandstone.

868 - 940' Canol formation - Shale, dark gray, siliceous, blocky, bituminous in part.

940 - 1050? Kee Scarp Equivalent - Siltstone, light gray, slightly sandy, slightly calcareous.

1050?-1630' Hare Indian formation - Shale, medium gray to green, fissile to sub-fissile. Lower bituminous unit 1550 - 1630'.

1630 - 1981' Hume formation - Interbedded limestone and shale; limestone, buff, recrystallized part, skeletal, micritic; shale, medium gray, sub-fissile. Scattered skeletal detritus.

1981 - 3345' Bear Rock formation

1981 - 2640' Upper Bear Rock - Limestone, medium to dark brown, pellet to pellet micritic, scattered porous streaks.

2640 - 3250' Lower Bear Rock - Dolomite, medium to dark brown, micro-crystalline to fine crystalline, sucrosic in part, scattered intercrystalline and vuggy porosity.

3250 - 3345' Basal Bear Rock - Interbedded limestone, dolomite and shale; limestone, white, micritic, dolomitic; dolomite, white cryptocrystalline; shale, bright light green, fissile.

3345 - 7942' Siluro - Ordovician - Dolomite, white to dark brown, cryptocrystalline to coarsely crystalline, scattered chert, scattered poor to good intercrystalline and vuggy porosity.

7942 - 8080' Cambrian shales, sandstones, dolomites and anhydrites - Shale, reddish-brown and grayish-green, dolomitic, dolomite, dark gray and brownish-gray, microcrystalline, anhydritic; quartz sandstone, reddish-brown and brownish-gray, anhydritic; anhydrite, gray to black. Fractures filled with pink anhydrite.

8080 - 8223' Cambrian Salt Section - Salt with interbedded dark brown to black shale and dark gray anhydrite.

8223 - 8335' Cambrian Shales and Siltstone - Dark gray siliceous shale; dark brown calcareous shale; and buff siltstone.

8335 - 8950' Cambrian Metamorphics/Quartzites and Argillites - Vari-colored quartzites (predominantly reddish-brown and greenish-gray) and black argillites grading to black graphitic pseudo slate in lower 300'.

APPENDIX NO. 2

DRILL STEM TEST SUMMARY

DST	FORMATION	DEPTH INTERVAL	INITIAL DRAW DOWN (min)	INITIAL SHUT-IN (min)	FLOW PERIOD (min)	FINAL SHUT IN (min)	RECOVERY	PRESSURES	
* 1	Silurian Ordovician	3774-3840	3	30	30	30	1950' Mud and Water 1825' Salt Water 3775	I.H.P. I.F. I.S.I. F.P. F.F.P. F.S.I. F.H.P. B.H.T.	1694 # 1696 1696 1696 1696 1696 1694 110°
2	Silurian Ordovician	3774-3840	5	30	30	30	3685 Salt Water	I.H.P. I.F. I.S.I. F.P. F.F.P. F.S.I. F.H.P. B.H.T.	1677 1664 1667 1667 1667 1667 1675 110°

* Misrun

Security ENGINEERING CANADA LTD.

BIT RECORD

PAGE OF

Province: N. W. T.	Field: WILLIGHT	Canada	LSD	Section	Township	Range W	Operator: THE ATLANTIC REFG. Co	Elev: 340	Mud Type
Location: NO. LAT.: 68° 33' 37.5" W. LONG: 130° 46' 10.312"	Contractor: CANERIG DRILLING CO.	Rig No: 12	Rig Make & Type: NAT BCB		Tool Pusher: A. BAUMAN				To 4567 Ft. SEMI-GEL
									To 3465 Ft. GEL CHEM
									To TD Ft. " "
									Special Additives

Drill Collars	No.	OD	ID
1	9	8"	2 13/16
2	21	6 1/2	2 13/16

Test Issues	Make	Size	Type	O.D.
1	H.T.	6"	FH	
2				

Date	Month/Day/Year	Time
Spudded	11/15/64	2:00 AM PM
Set Surface	11/17/64	6:00 AM PM
Under Surf	11/19/64	9:45 AM PM
Under Inter	12/19/64	4:00 AM PM
Completion	2/14/65	12:30 AM PM
Release	2/22/65	12:00 AM PM

Pump No. 1	Type
NAT	C700
Pump No. 2	Type
NAT	C350

Approved (Toolpush)

Approved (Foreman)

DIESEL FUEL

SANDWEDGE, MILL

NULLS, RING FLA.

QUICK-USE,

Lost Circulation Depths	Key Seat Depths	Other Remarks - Reaming, Re-Drilling, Etc.
3190 - 3290	Leg trouble 8080 - 8250	Bit #6: Stuck in hole @ 2171 on 11/23/64 to 12/1/64
3445 - 3995		Salt section - 8080 - 8210

No.	Size	Make	Type	Jet Size	Serial	Depth Out	Feet	Hours	Accum. Hours	Dull Grad T	B	G	No. of DC	Wt 1000 Lbs.	RPM	Vert Dev	Pump Press	No. 1 Bore	No. 1 Liner	No. 2 Bore	No. 2 Liner	Mud Wt	Mud Vis	Mud pH	Mud WL	
1A	21	Sec	S3	-	KE Kun	60	60	5 1/2	5 1/2	2	1	0	1	5	180		350	6 2	7 1/2							
2A	15	HW	OSC3	-	68479	420	360	17 3/4	23 1/2	5	4	0	6	18	120	1/4	200	6 4	7 1/2							
3	11	Sec	S64J	3 3/4	773L52	1114	694	16 1/2	40 1/2	6	4	1	11	25/40	70	1	1000	6 0	6 1/2			9.0	35			
4	11	Reed	YTC-J	3 3/4	505448	1660	546	14	54 1/2	4	4	1	11	40	70	1	1350	7 0	6 1/2			9.1	35			
5	11	Sec	S64J	3 3/4	777403	2068	408	18	72 1/2	5	4	1	11	35	60	1	1350	7 1	6 1/2			9.0	34	8	11	
6	11	Sec	M44J	3/4	670953	2171	103	7 1/2	80	2	1	0	11	40	70	1/4	1400	7 1	7 1/2			9.0	34	8	11	
5	11	Sec.	M44J	3/4	777402	2291	120	23	103	4	4	1	9	35/40	70	1	1450			6 8	6	10.5	39	9	23	
6	11	Reed	YSI-J	3 3/4	642983	2476	185	33 1/2	136 1/2	6	6	1	9	35	70	1/4	1450	7 2	6 1/2			10.1	38	9.5	9.6	
7	11	HTC	DWYJ	3	91155	2653	207	34	170 1/2	6	4	1	9	35	70	1/2	1500	7 2	6 1/2			10.1	38	9.5	9.6	
8	11	Reed	YSI-J	3 3/4	642981	2858	175	34 1/2	205	6	4	1	9	35	70	1/2	1500	7 2	6 1/2			10.1	45	9.5	9.6	
9	11	Reed	YSI-J	3 3/4	642984	3054	196	25 1/2	230 1/2	6	4	1	9	35	70	3	1500	7 2	6 1/2			10.1	47	9.5	9.6	
10	11	Reed	YSI-J	3 3/4	642982	3133	79	24	260 1/2	4	4	1	9	25	70	3 1/4	1600	7 2	6 1/2			10.1	46	9.5	9.6	
11	11	Sec.	M44J	3 3/4	737715	3316	183	29 1/2	290	6	4	1	9	35	70	3 1/2	1500	7 2	6 1/2			10.1	47	9.5	9.6	
12	11	Sec	M44J	3	735174	3465	149	27 1/2	317 1/2	8	8	1	9	35	70	3 1/2	1500	7 2	6 1/2			10.1	47	9.5	9.6	
13	7 7/8	Sec	M7J	3-3/4	697214	3596	131	17 1/2	335	6	2	3	18	32	70	3 1/4	200	7 2	5 1/2			Make				
14	7 7/8	Reed	YMJ	"	EP3147	3702	106	8 1/2	343 1/2	3	2	0	21	40	70		850	7 2	5 1/4				"			
15	7 7/8	Reed	YHHG	3-3/4	ED20044	3842	140	8 1/4	30	6	2	0	21	45	68		1450	6 8	5 3/4				"			
16	7 7/8	Sec.	M7U6J	"	707290	4014	172	13 1/2	365 1/2	2	6	1	21	40	70	5 1/2	50/1400	7 0	5 3/4			8.7	Clear			
17	7 7/8	Reed	[illegible]	3-3/4	N23538	4166	146	11 3/4	377 1/4	5	4	1	21	35	70		500	5 5	5 3/4			Water	Based			
18	7 7/8	Sec	M7U6	3-3/4	705417	4361	201	16	393 1/4	6	4	1	21	40	60		200	5 6	5 3/4				"		"	

DIVISION

SASKATOON

LOCATION					CONTRACTOR							RIG No.	TOOL PUSHER								PAGE 2 OF				
No.	Size	Make	Type	Jet Size	Serial	Depth Out	Feet	Hours	Accum. Hours	Dull Cond T	B	G	No. of DC	Wt. 1000 Lbs.	R.P.M	Vert Dev	Pump Pres	No. 1 Spm	No. 1 Liner	No. 2 Spm	No. 2 Liner	Mud Wt	Vis	pH	WL	Date
19	7⅞	HTC	HTRJ	3-12/32	934444	4372	211	20¾	410	6	4	1	21	28	70		1200	38	5½			Water				1/5/65
20	7⅞	Sec	H7X61	"	707292	4869	297	25	439	6	4	1	21	28	65	13	450	38	5¼			"				1/6/65
21	7⅞	Reed	YHH6J	3-12/32	ED2002	5050	181	23¾	463¾	6	6	1	21	20	65	14½	1350	40	5½			8.5	30	LCM		1/7/65
22	7⅞	HTC	H7KJ	3-12/32	93468	5153	103	14	477¾	5	8	1	21	20	70	13½	850	71	5¼			8.4	32	LCM		1/8/65
23	7⅞	Reed	YHH6J	"	N23523	5174	21	3	480¾	8	4	1	21	20	70	14¾	850	70	5¼			8.5	29	LCM		1/9/65
24	7⅞	HTC	RG7J	3-12/32	47526	5253	109	18	497¾	2	6	0	21	20	36	14½	1350			57	5	8.4	28	LCM		"
25	7⅞	HTC	RG7J	"	47589	5443	190	30	527¾	2	6	0	21	20	36	16	1400			42	5	8.4	29	LCM		1/12/65
26	7⅞	HTC	RG7J	"	47585	5738	295	42½	570¼	2	8	0	21	30	36	17	1400	72	5¼			8.6	30	LCM		1/14/65
27	7⅞	Sec	H8J	"	706441	6016	278	35	605¾	8	5	T	21	30	40	13°	1000	65	5¼			8.5	32	LCM		1/16/65
28	7⅞		RG7J	3-12/32	47550	6313	297	20¾	626	8	8	5	21	40	40	17	1200	68	5¼			8.6	34	LCM		1/18/65
29	7⅞	H.T.C.	R.G.J	3/12	35460	6501	422	33½	665½	5	5	I	21	40	35	17	950	65	5¼			8.6	30	LCM		1/20/65
30	7⅞	H.T.C.	RG7J	3/12	36790	7290	489	34	699½	0/7	8	I	21	40	35	18°	1000	68	5¼			8.6	29	LCM		1/22/65
31	7⅞	Sec	H8J	3/12	706440	7494	204	16½	615¾	0/7	8	I	21	40	35	15½	1150	70	5¼			8.8	29	LCM		1/23/65
32	7⅞	HTC	RG7J	3/12	47551	7765	271	22½	638¼	6	5	I	21	40	40	19°	1100	72	5¼			8.7	29	LCM		1/25/65
33	7⅞	Sec	H8J	3/12	728555	7926	16	18¾	657	6	6	I	21	40	40	18°	1100	72	5¼			8.7	30	LCM		1/26/65
34	7⅞	HTC	RG7J	3/12	47527	7960	40	22	661¾	7	6	I	21	40	40	18	1000	68	5¼			8.7	29	LCM		1/27/65
35	7⅞	CHRISTN	3847	-	EC-10413	8026	66	7	672¾	8	-	-	21	13	48		1050	66	5¼			8.7	29			1/28/65
36	7⅞	HTC	H7K2	3/12	237	8090	64	6¾	679	4	6	I	21	40	40	17½	1000	68	5¼			8.7	29	LCM		1/29
35A	7⅞	CHRISTN	3847	-	EC-10413	8126	36	3¾	682½	8	-	-	21	13	48		1100	66	5¼			8.7	29	—		1/29/65
37	7⅞	REED	YHNJ	3/12	205600	8243	117	6¼	689	4	3	I	21	30	40		450	40	5¼			9.1	25	—		1/31/65
38	7⅞	Sec.	H7-T	KON	697182	8295	52	9½	698½	4	3	0	14	25	40	13½	700	72	5½			8.7	34	—		2/2/65
39	7⅞	N-W	RG7X	1-16 2-15	61730	8453	164	30¼	728¾	6	8	1	21	40	42	13½	750	72	5¼			9.3	31			2/4/65
40	7⅞	N W	RG7	1-16 2-15	47590	8608	149	20½	744¼	3	6	I	21	40	42		750	72	5¼			9.2	32			2/5/65
41	7⅞	Sec	H8J	-	785740	8700	92	30¼	774½				21	-0	42		550	72	5¼			9.2	31			2/7/65
42	7⅞	Sec	H-8J	3-15	764310	8761	61	11¾	791¼	1	6	I	21	40	36	4°	900	72	5¼			9.2	34			2/8/65
R 35A	7⅞	Christ	◇		EC-10413	8784	23	8	799¼	1		I	19	15	44		750	66	5¼			9.2	33			2/9/65
43	7⅞	Reed	YC40	3-12	E64527	8856	72	21½	820¾	8	8	0	21	40	40		800	72	5¼	Lost 3 Cones.						
44	7⅞	Sec	H7X6	11/16		8856	Mill ran																			
R 34	7⅞	N-W.	RG7	3-12	47587	8950	94	19¼	840	2	6	I	21	35	40	7	1000	72	5¼			9.2	33			2/14/65

BAROID OF CANADA, LTD.

DRILLING MUD RECORD

COMPANY The Atlantic Refining Co. PROVINCE N. W. T.

WELL NAME Atlantic Col. Carb Cuteratue K-4 DISTRICT Exploratory

CONTRACTOR Cascade Drilling Co. LOCATION 66° 33' N 130° 46' W

STOCKPOINT Location DATE 4-29-65 BAROID ENGINEER _____ Lsd ____ Sec ____ Twp ____ Rng ____ W ____

CASING PROGRAM 11¾ inch at 430 ft. 8-5/8 inch at 3465 ft. ____ inch at ____ ft.

Total Depth 8950 ft.

GENERAL MUD PROPERTIES

DATE	DEPTH feet	WEIGHT lb/gal	VISCOSITY Sec	FILTRATION API RWL	FILTRATION HPHT cm³	pH	VISCOSITY Vis	VISCOSITY Pv	VISCOSITY Yp	GELS 10 sec	GELS 10 Min	FILTRATE ANALYSIS Cl ppm	FILTRATE ANALYSIS Ca ppm	FILTRATE ANALYSIS SO4 ppm	FILTRATE ANALYSIS Alk Pf	REPORT ANALYSIS Oil %	REPORT ANALYSIS Water %	REPORT ANALYSIS Solids %
11/17/64	430	9.0	150															
11/22/64	2000	9.0	32	11.6		8.0												
11/24/64	2170	8.9	55															
12/2/64	2300	10.2	191	4.3		9.5	95	58	2	8					0.4	5	85	10
12/5/64	2600	10.1	143	4.0		10.0	90	52	2	8					0.5	4	86	10
12/13/64	3465	10.1	155	4.2		9.5												
12/20/64	3750	8.9	30															
1/6/65	4900	8.4	28															
1/15/65	5900	8.5	29															
1/25/65	7800	8.6	28															
2/4/65	8468	9.3	43	—		6.0	5	3	0	3		100,000					82	18
2/8/65	8750	9.2	34	—		6.5	8	2	2	7		15,000						
2/12/65	8870	9.3	31	—		6.5	5	2	1	3		15,000						
2/14/65	8950	9.2	34	—		6.5						30,000						

Recommendations for future holes in this area.

GENERAL INFORMATION

Spud Date 11/14/64 Total Days 93 Cost/Foot _____

Completed 2/14/65 No. of Bits 44 Cost/Day _____

HISTORY OF HOLE

DEPTH	Include Hole Conditions, Trouble, Contaminants
430	Set surface casing, no prob'm
2170	Rare Indian shale sloughed in sticking pipe. Increased weight to 10.0 P.P.G. to hold shale in place.
3465	Set intermediate casing
3788	Lost circulation, ___gs had to be spotted over selected intervals to overcome this problem. Hole was still taking minor amounts of fluid at T.D.
8080	140 Ft. Salt section drilled. Shale stringers were also found every 10 - 15 ft. while drilling this section.
8950	T.D. Hole completed and logged. Some logging difficulties through salt section as sondes would "hang up" on shale ledges and line would "key seat" into ledges.

MATERIAL	AMOUNT	COST
Aquagel	2600	sax
Baroid	500	sax
Bicarb	200	lbs
Carbonox		
Caustic Soda	5300	lbs
CC16		
Fibertex	20	sax
Impermex		
Imp. Pres.		
Lime	800	lbs
P of Paris		
Q-Broxin	163	sax
Tannex		
S.A.P.P.		
Sawdust	800	sax
Soda Ash		
Invermul		
Duratone		
Petrotone		
Geltone		
Driltreat		
Attapulgus	700	sax
Quick Vis	36	gals
Driscose	250	lbs
Poly Flake	133	sax
Mica	427	sax
Cert-N-Seal	70	sax
Walnut Shls	68	sax
Asstd LCM	200	sax

MAT. COST
TAX
DRAYAGE
TOTAL COST

SO's & CM's

ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE ONTARATUE K-4

e) Deviation Record: Slope Tests by Rig Wireline

DEPTH	DEGREE	DEPTH	DEGREE	DEPTH	DEGREE
90	1/2	2160	1	5283	14-1/2
150	1/2	2280	1-1/8	5440	16
280	3/4	2466	1-1/4	5738	17
340	1/4	2650	1/2	6064	13-1/2
402	1/2	3050	3	6308	17
743	1	3130	3-1/4	6780	18
1105	3/4	3175	2-7/8	7290	15-1/2
1258	1	3300	3-7/8	7490	19
1380	1-3/4	3460	3-1/2	7765	18
1450	1	3590	3-1/4	7925	18
1515	1	3975	5-1/2	8090	17-3/4
1640	1-1/8	4330	7-1/2	8215	13-1/2
1790	1-1/4	4550	Misrun	8295	13
1880	1	4860	13	8459	13-1/2
1975	1-1/4	5050	14-1/4	8761	9
2048	1-1/8	5150	13-1/4	8856	6
		5174	14-3/4		

CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Leb. No. E24720 Received: Jan. 12, 1965 Reported: Jan. 14, 1965

Well: Atlantic Columbian Carbon Arctic Circle Ontaratue K-4 Operator: The Atlantic Refining Company

Field or Area: Location: 66°33' 37.5" N.Lat. 130°46' 10.3125" W.Long Elev.: K.B. Grd.

Zone and Formation: Silurian Ordivician Sample Interval: 3774' - 3840'

Method of Production: D.S.T. Well Production or Recovery at Sampling Time:

Sampled from: Drill pipe Sampled by: W.K. Walters Date: December 22,1964

OTHER PERTINENT DATA D.S.T. #2. Recovered 3685' (52.4 bbls.) slightly sulfurous salt water. Bottom sample. Tool opened with strong blow-dead in 25 minutes. All pressures 1675 psi.. B.H.T.: 110°

(Signed) W.K. Walters

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
32311	3395	673	672	57100	74	220	

Milligram Equivalents

1405.54	169.41	55.32	13.98	1610.22	2.46	3.61	

Iron Trace Hydrogen Sulfide Present

Total Solids in Milligrams Per Liter:

By evaporation 112,140

After ignition 86,460

Calculated 94,333

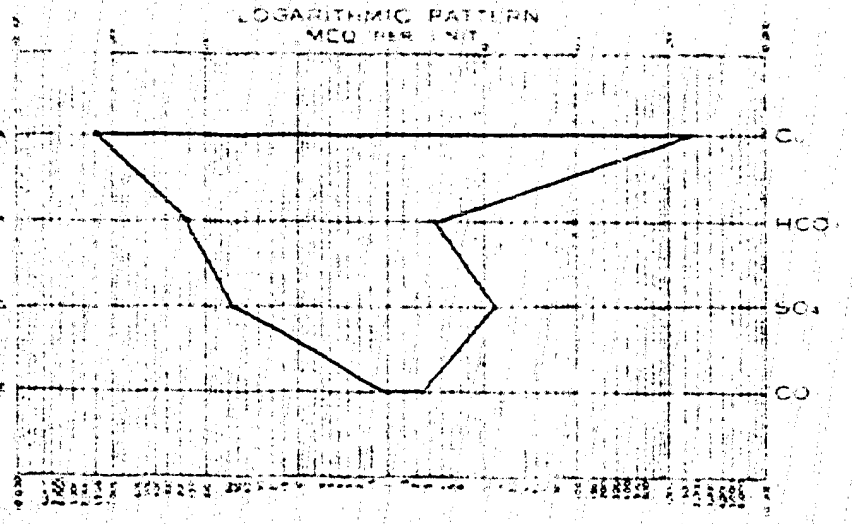
Physical Properties:

Resistivity 0.096 ohm meters @ 68° F.

Observed pH 9.0

Specific Gravity 1.062

Remarks and Conclusions: We have no analysis on file from this area with which to correlate the analysis.



CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. E24721 Received: Jan. 12, 1965 Reported: Jan. 14, 1965

Well: Atlantic Columbian Carson Arctic Circle Ontaratue K-4 Operator: The Atlantic Refining Company

Field or Area: Location: 66°33' 37.5" N.Lat. 130°46' 10.3125" W.Long Elev.: K.B. 340.5' Grd. 325.0'

Zone and Formation: Silurian Ordivician Sample Interval: 4377'

Method of Production: Well Production or Recovery or Sampling Time:

Circulated while drilling at 4377'.

Sampled from: Circulated when hole was displaced to mud Sampled by: W.K. Walters Date: Jan. 3, 1965

OTHER PERTINENT DATA Hole was displaced to mud containing lost circulation materials with this sample being a part of column of fluid ahead of mud.

(Signed) W.K. Walters

Milligrams Per Liter Parts Per Million

8478	863	15		122	14300	99	68

Milligram Equivalents

368.81	43.06	1.23		2.54	403.26	3.30	4.00

Iron Present

Total Solids in Milligrams Per Liter:

Before ignition 24,490

After ignition 23,220

Calculated 23,945

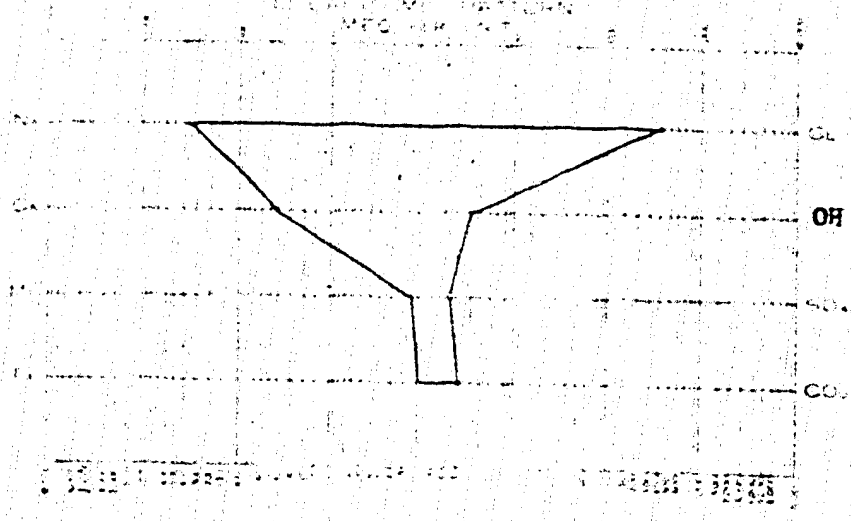
Physical Properties:

Resistivity 0.296 ohm meters @ 68 F

Observed pH 11.2

Specific Gravity 1.017

Remarks and Conclusions The total solids contained organic matter. We have no analysis on file from this area with which to correlate the sample. However, the sample appears to be filtrate contaminated.



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. E24722 Received: Jan. 12,1965 Reported: Jan. 14,1965

Well: Atlantic Columbian Carbon Arctic Circle Ontaratue K-4 Operator: The Atlantic Refining Company

Field or Area: Location: 66°33' 37.5" N.Lat. 130°46' 10.3125" W.Long Elev.: K.B. Grd.

Zone and Formation: Silurian Ordivician Sample Interval: 4880'

Method of Production: Well Production or Recovery at Sampling Time:

Circulation while drilling.

Sampled from: Sampled by: W.K. Walters Date: Jan. 6, 1965

OTHER PERTINENT DATA Obtained from fluid column circulated after trip made at depth 4869.

(Signed) W.K. Walters

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH
24557	2286	503	390	43000		180	

Milligram Equivalents

1068.24	114.07	41.35	8.11	1212.60		2.95	

Iron Present Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 90,180

After ignition 67,140

Calculated 70,825

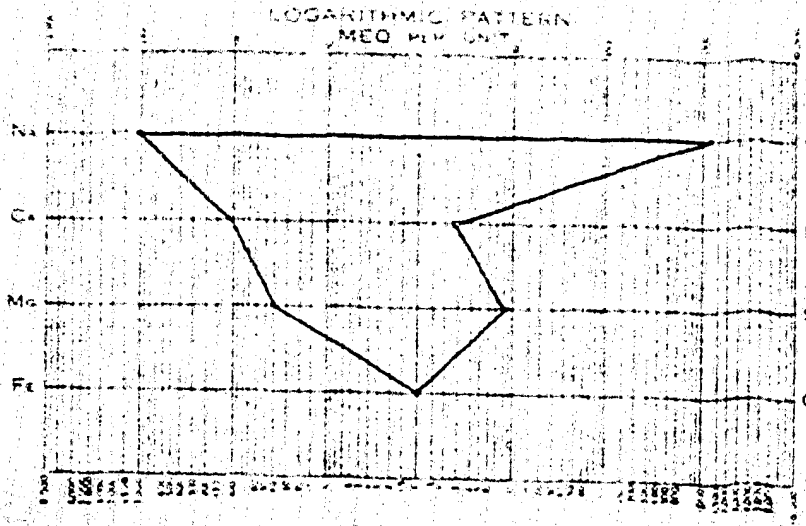
Physical Properties:

Resistivity 0.119 ohm meters @ 66° F.

Observed pH 7.6

Specific Gravity 1.047

Remarks and Conclusions The total solids contained a large amount of organic matter.



CGL-5

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. K24850 Received: Feb. 4, 1965 Reported: Feb. 17, 1965

Well: Atlantic Columbian Carbon Arctic Circle #2 (K-4) Operator: The Atlantic Refining Company

Field or Area: (Wildcat), N.W.T. Location: 66° 33' 37.5 No. Lat. 130° 46' 10.3125" W. Long Elev.: K.B. 340' Grd. 325'

Zone and Formation: Silurian Ordivician Sample Interval: 8026'

Method of Production: Well Production or Recovery at Sampling Time:

Sampled from: Sampled by: W. K. Walters Date: Jan. 28, 1965

OTHER PERTINENT DATA Sample #4. Circulated after trip with bit. Salt water.

(Signed) W. K. Walters
The Atlantic Refg. Co.

Milligrams Per Liter (Parts Per Million)

Na & K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
3114	8	4		1332	1572	241	3421		

Milligram Equivalents

135.44	0.40	0.33		27.71	44.33	8.03	56.10		

Iron Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 9,806

After ignition 7,344

Calculated 7,956

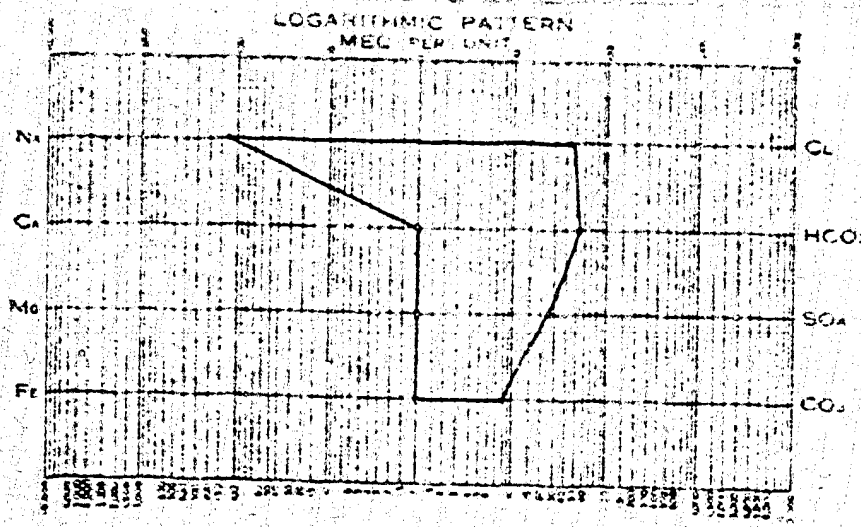
Physical Properties:

Resistivity 0.920 ohm meters @ 68° F

Observed pH 8.6

Specific Gravity 1.008

Remarks and Conclusions. The total solids contained organic matter.



CGL-4

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. E24904-1 Received: Feb. 5, 1965 Reported: Feb. 17, 1965

Well: Atlantic Columbian Carbon Artic Circle #2 Operator: The Atlantic Refining Company

Field or Area: (Wildcat), N.W.T. Location: Elev.: K.B. 340' Grd. 325'

Zone and Formation: Silurian Ordivician Sample Interval: 6330' - 6377'

Method of Production: Well Production or Recovery at Sampling Time:

Sampled from: Circulation Sampled by: W. K. Walters Date: Jan. 18, 1965

OTHER PERTINENT DATA Location: 66° 33' 37.5" N. Lat.; 130° 46' 10.3125 W. Long.

Sample #1. Circulated while drilling. H_2S salt water.

(Signed) W. K. Walters
The Atlantic Refg. Co.

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
67182	6246	1458		1126	118000		179		

Milligram Equivalents

2922.43	311.68	119.85		23.42	3327.60		2.94		

Iron Present Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 239,700

After ignition 180,880

Calculated 194,100

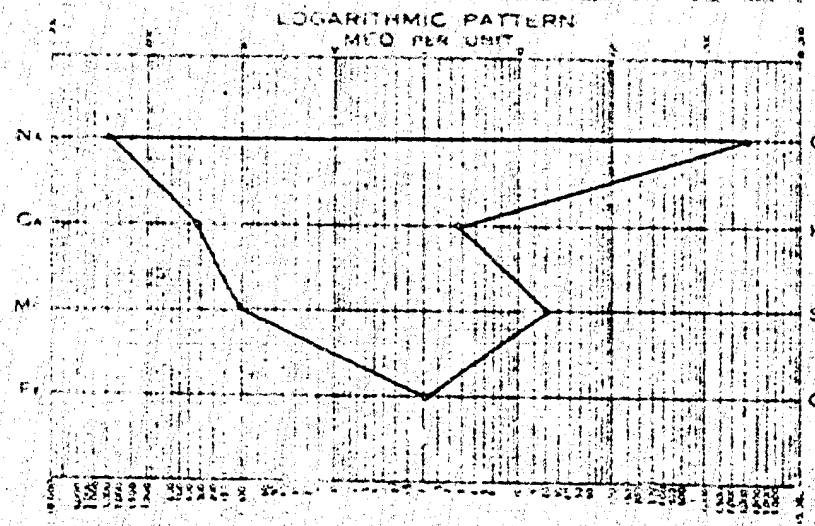
Physical Properties:

Resistivity 0.058 ohm meters @ 68°F.

Observed pH 6.5

Specific Gravity 1.126

Remarks and Conclusions



CGL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. E24904-2 Received: Feb. 5, 1965 Reported: Feb. 17, 1965

Well: Atlantic Columbian Carbon Artic Circle #2 Operator: The Atlantic Refining Company

Field or Area: (Wildcat), N.W.T. Location: Elev.: K.B. 340' Grd. 325'

Zone and Formation: Silurian Ordivician Sample Interval:

Method of Production: Well Production or Recovery at Sampling Time:

Sampled from: Circulated after trip Sampled by: W. K. Walters Date: Jan. 23, 1965

OTHER PERTINENT DATA Location: 66° 33' 37.3" N. Lat.; 130° 46' 10.3125 W. Long.

Circulated after trip at 7299 and drilling to 7395. Sample #2. H_2S Salt Water.

(Signed) W. K. Walters
The Atlantic Refg. Co.

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg	SO_4	Cl	CO_3	HCO_3	OH	
30846	2731	729	588	54000		180		

Milligram Equivalents

1341.78	136.28	59.92	12.23	1522.80		2.95		

Iron Trace Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 92,260

After ignition 81,760

Calculated 88,983

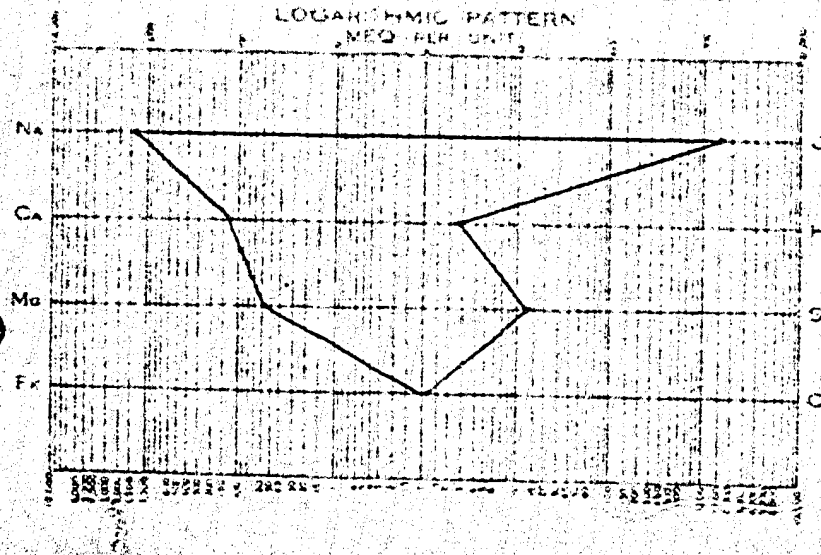
Physical Properties:

Resistivity 0.101 ohm meters @ 68 F

Observed pH 7.0

Specific Gravity 1.058

Remarks and Conclusions



COL-6

CHEMICAL & GEOLOGICAL LABORATORIES LTD.

Edmonton — Fort St. John — Calgary

WATER ANALYSIS REPORT: Lab. No. E24904-3 Received: Feb. 5, 1965 Reported: Feb. 17, 1965

Well: Atlantic Columbian Carbon Artic Circle #2 Operator: The Atlantic Refining Company

Field or Area: (Wildcat), N.W.T. Location: Elev.: K.B. 340' Grd. 325'

Zone and Formation: Silurian Ordivician Sample Interval:

Method of Production: Well Production or Recovery at Sampling Time:

Sampled from: Sampled by: W. K. Walters Date: Jan. 23, 1965

OTHER PERTINENT DATA Location: 66° 33' 37.5" N. Lat.; 130° 46' 10.3125 W. Long.

Sample #3. Sample of drilling fluid being used at end of test of first series of audits numbers 974-B, 991-B, 995-B. Drilling fluid caught at shaker.

(Signed) W. K. Walters
The Atlantic Refg. Co.

Milligrams Per Liter (Parts Per Million)

Na + K	Ca	Mg		SO_4	Cl	CO_3	HCO_3	OH	
12073	1129	384		288	21400		220		

Milligram Equivalents

525.18	56.34	31.56		5.99	603.48		3.61		

Iron Present Hydrogen Sulfide

Total Solids in Milligrams Per Liter:

By evaporation 37,360

After ignition 32,020

Calculated 35,382

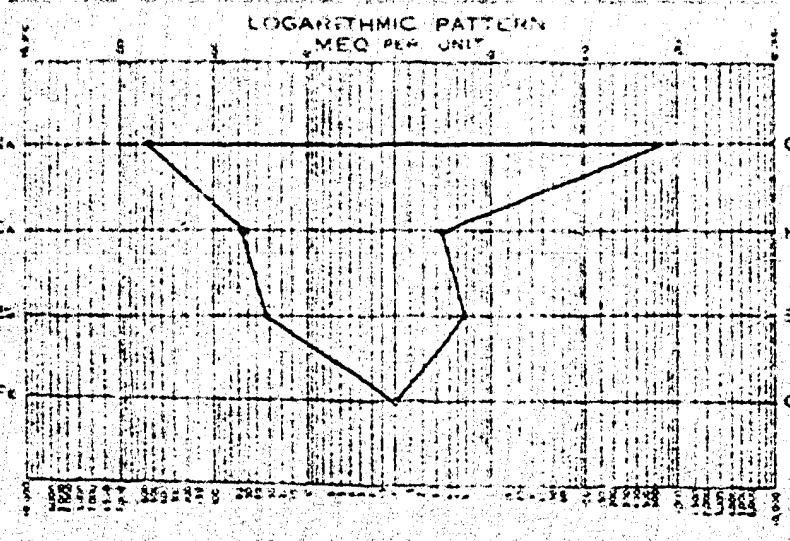
Physical Properties:

Resistivity 0.212 ohm meters @ 68°F.

Observed pH 7.4

Specific Gravity 1.025

Remarks and Conclusions:



JOHNSTON TESTERS

TECHNICAL REPORT

Atlantic Refining Company
Arctic Circle Ontaratue K-4
66°-33'-37.5"N-130°-46'-10.3"W
DST#1 3774-3840

JOHNSTON TESTERS

TEST DATA

Formation		Zone Thickness		Ft	
Interval	3774	To	3840	T.D	3840
Type of Test	Open Hole, Bottom Hole				
Time Started in Hole	1430	Hrs	Tool Open	1747	Hrs
First Flow	3	Min	Shut in	30	Min
Second Flow	30	Min	Final Shut in	30	Min
Pulled Loose @	1920	Hrs	Out of Hole	2130	Hrs
Wt. Set on Packer	60,000	#	Pulled Loose Wt	3,000	#

Remarks

Description of Blow During Test: Mis-Run

GAS BLOW MEASUREMENTS

Measured with I.D. Riser or Est.

Type of Instrument

Time	Size Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered Total: 3775' Ft

Description of Fluid Recovered: 1950' Mud and Water.
1825' Salt Water.

Remarks: Mis-Run

Co. Rep.: B. Walters

Tester: L. Reaugh

Elevation	325 GL
Bottom Hole Choke Size	1/2"
Fluid Cushion Type	
Amount	

TOOL SEQUENCE

Tool	Length	O.D
Sub.	.78	5 3/4"
P.O. Sub.	1.02	4 3/4"
Sub.	.80	5 3/4"
D.P. Sub.	.80	6 1/4"
Shut in Tool	6.08	4 5/8"
Hyd. Tool	8.42	4 5/8"
Jars	4.12	4 5/8"
Safety Jt.	1.76	4 5/8"
T.C. & Pkr.	7.16	6 5/8"
T.C. & Pkr.	5.00	6 5/8"
Total	35.93	
Stub	1.40	4 5/8"
Recorder	5.50	4 5/8"
Recorder	5.92	4 3/4"
Perf.	16.93	4 5/8"
Sub.	.78	6 1/4"
D.C.	29.38	6 1/4"
Sub.	.80	6 1/2"
Perf.	4.92	4 5/8"
B. Nose	.60	4 5/8"
Total Interval	66.23	
Total Length	102.16	

MUD AND HOLE DATA

Mud Type: Water and Gel W.L.

Filter Cake: 2/32 Visc. Wt. 8.5

Time Taken

Contractor: Cascade Drilling Rig No. 12

Drill Pipe Size: 4 1/2 FH

Drill Collar Size: 2 3/4 ID Length: 596.18'

Main Hole Size: 7 5/8"

Rat Hole Size

District: Artic Circle N. W. T. Ticket No. C 1773 Date: December 21/64

Company: The Atlantic Refining Company Address: 320 - 7th Avenue S. W., Calgary, Alberta

Well Name: Arctic Circle Ontaratue K-4 Test No. 1 J.T.L. Test No. 1

Number: 66°-33'-37.5"N-130°-46'-10.3"W Field: Wildcat Province: N. W. T.

Formation and Interval: DST#1 3774-3840 Consultant

Distribution of Reports: 14 Copies as per letter of distribution to J. D. Stafford and R. A. Evans

JOHNSTON TESTERS

Pressure Data

Test Ticket No. C 1773

Recorder No.	T-198	T-50			
Capacity P.S.I.	7000	7000			
Recorder Depth	3776	3782			
Pressure Gradient P.S.I. Ft.					
Well Temperature °F.	110°	110°			
A Initial Hydrostatic	1694#	1706#			
B First Initial Flow	1696#	1709#			
C Initial Shut-In Pres.	1696#	1709#			
D Flowing Pres.	1696#	1709#			
E Final Flow	1696#	1709#			
F Final Shut-In	1696#	1709#			
G Final Hydrostatic	1694#	1706#			

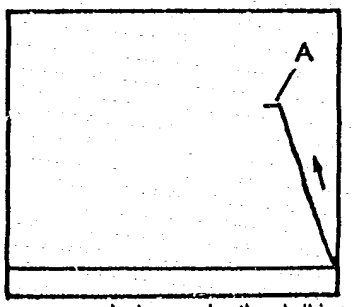
Remarks

T-198 - Inside Recorder

T-50 - Outside Recorder

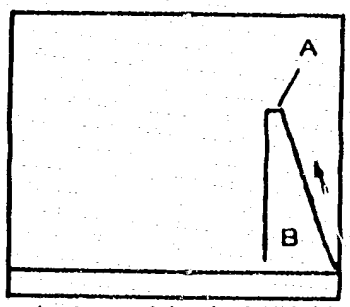
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



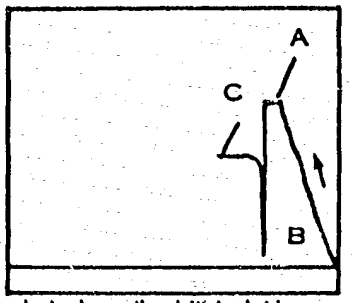
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



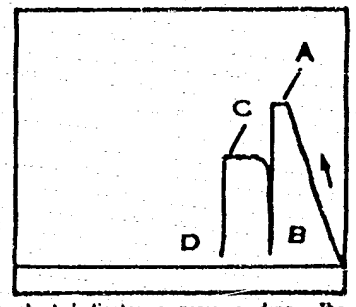
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



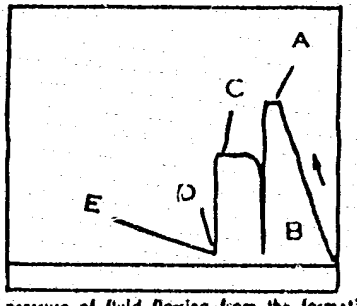
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

4



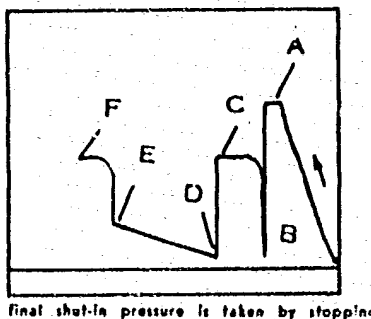
The chart indicates a pressure drop. The test tool has been opened to the surface by rotating the 4 stage shut-in tool into the open position. Permitting the open formation to produce.

5



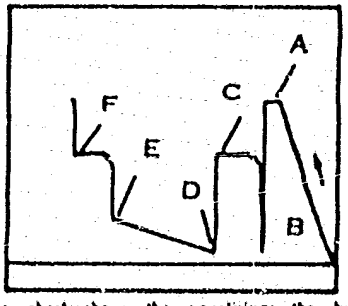
The pressure of fluid flowing from the formation into the well bore, through the perforated anchor, and into the drill pipe, is recorded on the chart.

6



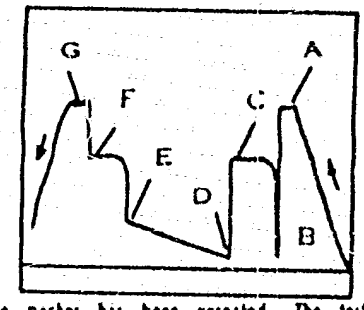
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

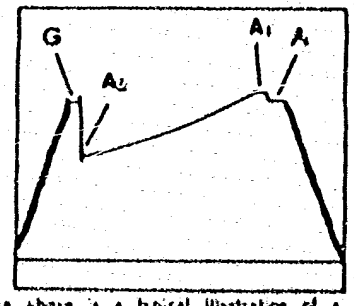
INDEX OF LABELED POINTS:

A—Initial Hyd. Mud
B—First Initial Flow
C—Initial Shut-in
D—Initial Flow
E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

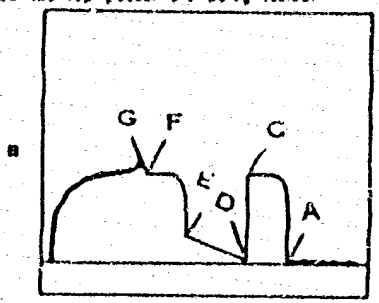
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



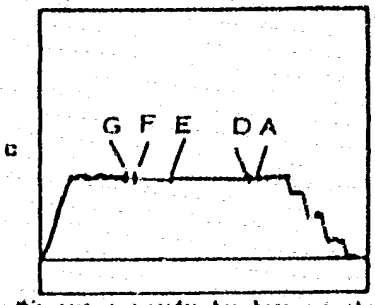
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

JOHNSTON TESTERS

TEST DATA

Formation		Zone Thickness	Ft.	Elevation	325 GL
Interval	3774 To 3840	T.D.	3840	Bottom Hole Choke Size	1/2"
Type of Test	Open Hole, Bottom Hole			Fluid Cushion Type	
Time Started in Hole	2300 Hrs.	Tool Open	0147 Hrs.	Amount	
First Flow	5 Min.	Shut In	30 Min.		
Second Flow	30 Min.	Final Shut In	30 Min.		
Pulled Loose @	0322 Hrs.	Out of Hole	0530 Hrs.		
Wt. Set on Packer	35,000	# Pulled Loose Wt.	2,000 #		

Remarks

Description of Blow During Test: Strong Blow, Dead in 25 Minutes.

GAS BLOW MEASUREMENTS

Measured with ☐ I.D. Riser or Est. ☐

Type of Instrument

Time	Size Choke	Reading Inches	Cubic Feet Day

FLUID RECOVERY

Was Test Reverse Circulated Yes ☐ No ☒

Fluid Recovered (Total) 3685' Ft.

Description of Fluid Recovered 3685' Salt Water.

Remarks: Test Satisfactory.

Co. Rep. B. Walters

Tester L. Reaugh

TOOL SEQUENCE

Tool	Length	O.D.
Sub.	.78	5 3/4"
P.O. Sub.	1.02	4 3/4"
Sub.	.80	5 3/4"
D.P. Sub.	.80	6 1/4"
Shut in Tool	6.08	4 5/8"
Hyd. Tool	8.41	4 5/8"
Jars	4.12	4 5/8"
Safety Jt.	1.76	4 5/8"
T.C. & Pkr.	7.16	6 5/8"
T.C. & Pkr.	5.00	6 5/8"
Total	35.93	
Stub	1.40	4 5/8"
Recorder	5.50	4 5/8"
Recorder	5.92	4 3/4"
Perf.	16.93	4 5/8"
Sub.	.78	6 1/4"
D.C.	29.38	6 1/4"
Sub.	.80	6 1/2"
Perf.	4.92	4 5/8"
B. Nose	.60	4 5/8"
Total Interval	66.23	
Total Length	102.16	

MUD AND HOLE DATA

Mud Type: Water and Gel Wt.

Filter Cake 2/32 Visc. Wt. 8.5

Time Taken

Contractor: Cascade Drilling Rig No. 12

Drill Pipe Size: 4 1/2 FH

Drill Collar Size: 2 3/4 ID Length: 596.18'

Main Hole Size: 7 7/8"

Rat Hole Size

District: Artic Circle N. W. T. Ticket No. C 1774 Date: December 21/64

Company: The Atlantic Refining Company Address: 320 - 7th Avenue S. W., Calgary, Alberta

Well Name: Arctic Circle Ontaratue K-4 Test No. 2 J.T.I. Test No. 2

Number: 66°-33'-37.5"N-130°-46'-10.3"W Field: Wildcat Province: N. W. T.

Formation and Interval: DST#2 3774-3840 Consultant

Distribution of Reports: 14 Copies as per letter of distribution to J. D. Stafford and R. A. Evans

JOHNSTON TESTERS

Pressure Data

Test Ticket No C 1774

Recorder No	T-198	T-50			
Capacity P.S.I.G.	7000	7000			
Recorder Depth	3776	3782			
Pressure Gradient P.S.I./Ft.					
Well Temperature °F	110°	110°			
A Initial Hydrostatic	1677#	1676#			
B First Initial Flow	1664#	1683#			
C Initial Shut-In Pres.	1667#	1683#			
D Flowing Pres.	1667#	1683#			
E Final Flow	1667#	1683#			
F Final Shut-In	1667#	1683#			
G Final Hydrostatic	1675#	1685#			

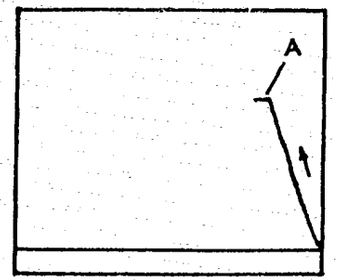
Remarks

T-198 - Inside Recorder

T-50 - Outside Recorder

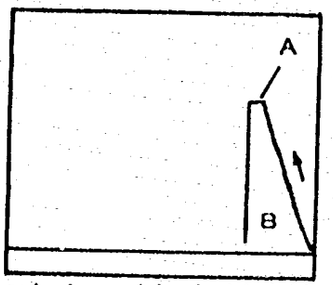
GUIDE TO INTERPRETATION AND IDENTIFICATION OF DRILL STEM TEST PRESSURE CHARTS

1



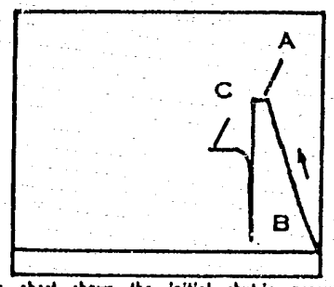
The pressure chart records the build-up in hydrostatic pressure as the testing assembly is lowered into the hole. Upon reaching the testing depth the hydrostatic head or pressure of mud column is recorded.

2



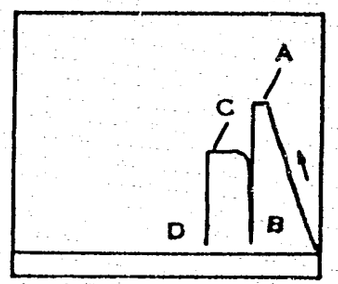
The packer is expanded and set to isolate the test zone. When the test valve is opened, a pressure drop is indicated on the pressure chart. This pressure drop is caused by removal of the hydrostatic mud pressure from the formation, allowing the formation to produce.

3



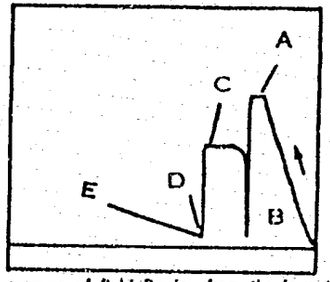
This chart shows the initial shut-in pressure. There is one mechanical method commonly used to obtain this pressure. A 4 stage shut-in tool, that is run-in in the open position and rotated closed when the desired amount of initial flow time is obtained. This initial shut-in pressure is the best method yet devised for recording the original undisturbed reservoir pressure of a formation.

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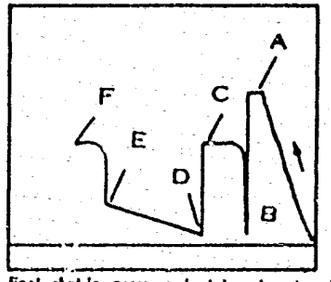
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5



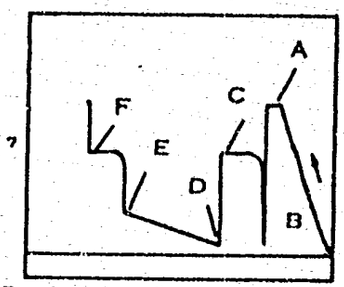
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6



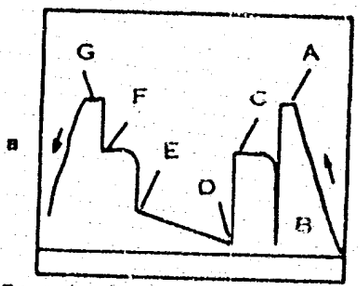
The final shut-in pressure is taken by stopping the flow of formation fluid into the drill pipe. Note the characteristic build-up curve. The well bore pressure is approaching equilibrium with the static reservoir pressure. When the shut-in curve levels-off the static reservoir pressure has been reached.

7



The chart shows the equalizing, the by pass ports have been opened permitting the drilling fluid to flow through the packer to the test zone. Thus, pressure is equalized above and below the packer. The equalization of the pressure facilitates easier removal of the packer from the packer seat.

8



The packer has been unseated. The testing assembly is being removed from the hole.

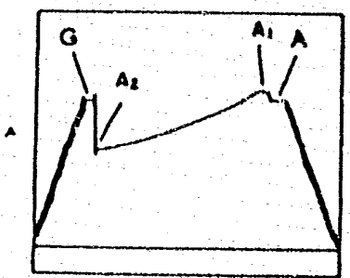
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E—Final Flow
F—Final Shut-in
G—Final Hyd. Mud

The following points are either fluctuating pressures or points indicating other packer settings, (testing different zones).

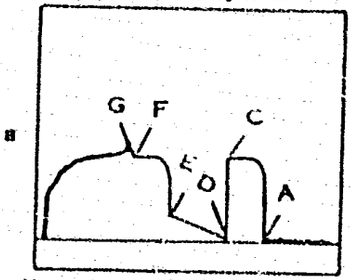
A-1, A-2, A-3, etc. Initial Hyd. Pressures.
B, B-1, B-2, B-3, First Initial Flow.
C-1, C-2, C-3, etc. The Initial Shut-in Pressures.
D-1, D-2, D-3, etc. Flowing Pressures.
E1, E-2, E-3, etc. The Final Flow Pressures or Final Shut-in Pressures.
F-1, F-2, F-3, etc. The Final Shut-in Pressures.
G-1, G-2, G-3, etc. Final Hyd. Mud Pressures.
Z — Special pressure points such as pumping pressure recorded for formation breakdown.

A



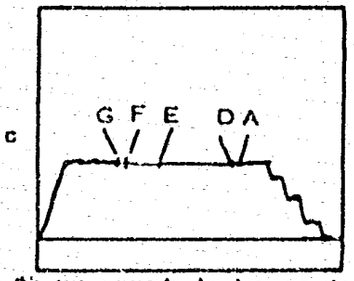
The above is a typical illustration of a chart from a recorder that is run below the bottom packer on a conventional straddle test. Only the hydrostatic mud pressures are recorded. When the tool is opened, there is a pressure differential across the bottom packer. This differential is lessened by the rubber flow of the packer element, which in turn causes a drawdown in pressure. If the below straddle chart reads the same as a chart that is run to record pressures of the test zone, then the bottom packer has failed. If this occurs, all zones below the top packer are being tested.

B



In this case a recorder has been run in an air chamber. The hydrostatic mud pressures are not influencing the recorder while going in or coming out of the hole due to the main tester valve being closed. The flow pressures and shut-in pressures are recorded while the main tester valve is opened.

C



In this case a recorder has been run above the main tester valve with a fluid cushion used in the drill pipe. No pressure is recorded as the testing tool is being lowered into the hole. Then the fluid cushion pressure is recorded as the drill pipe is filled with fluid. As more stands are run into the hole, the recorder registers the hydrostatic pressures of the cushion. When the main testing valve is opened the pressure of the cushion column or the flowing pressure of the formation, (which ever is greater), is recorded.

SONIC LOG

AND

WELL GEOPHONE SURVEY

ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE ONTARATUE K – 4

66° 33' 37.5" N 130° 46' 10.31" W

NORTHWEST TERRITORIES

FOR

THE ATLANTIC REFINING COMPANY

CALGARY, ALBERTA

INTEGRATED VELOCITY SERVICES LTD.

CALGARY, ALBERTA

INDEX

OPERATIONAL STATISTICS — Pages 1 to 3

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BACK COVER:

- Calibrated Sonic Log
- Digital Velocity Data Analysis
- Well Velocity Graphs

OPERATIONAL STATISTICS

Client:	The Atlantic Refining Company		
Well:	Atlantic Columbian Carbon Arctic Circle Ontaratue K - 4		
Location:	60° 33' 37.5" N 130° 48' 10.31" W, N.W.T., Canada		
Survey Contractors:	Sonic Log - Schlumberger of Canada Abbreviated Well Geophone Survey- Electronic Logging & Velocity Limited		
Survey Date:	December 2, 1964 February 16, 1965		
K.B. Elevation:	341 ft. A.S.L.		
Ground Level:	325 ft. A.S.L.		
Total Depth:	Driller - 8950 ft. S.O.C. - 8938 ft.		
Casing:	430 ft.		
Sonic Tool Dimensions:	Spacing - 3' Span - 3'		
Geophone Levels Surveyed:	14		
Maximum Shot Hole Charge:	10 lbs dynamite		
Minimum Shot Hole Charge:	1 lb dynamite		
Maximum Shot Depth:	60 ft.		
Minimum Shot Depth:	50 ft.		
Total Explosives Used:	Well Geophone Survey:	71 lbs dynamite 16 detonators	
	Near Surface Velocity Survey:	7 1/2 lbs dynamite 3 detonators	
Near Surface Velocity Survey:	Maximum Depth - Sampling Interval -	550 ft. 25 ft.	
Operating Time:	Well Geophone Survey - Well Available:	12:00 P.M., Dec. 16/64 1:00 P.M., Feb. 16/65	
	Well Released:	4:00 P.M., Dec. 16/64 6:45 P.M., Feb. 16/65	

Near Surface Velocity Survey –
Well Available: 4:00 P.M., December 16, 1964
Well Released: 6:00 P.M., December 16, 1964

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
Trace # 6	–	Not Used
Trace # 7	–	Sub reference Geophone
Trace # 8	–	Not Used
Traces # 9 – # 14 Incl.	–	Surface Reflection Profile

SONIC LOG – WELL GEOPHONE SURVEY COMPARISON

Datum Elevation: 125 Ft. A.S.L.

$D_{K.B.}$	T_c(Geo.)	T_c(Log)	Δtc
500	.0260	.0258	-.0002
1030	.0750	.0736	-.0014
1630	.1270	.1275	+.0005
1981	.1530	.1520	-.0010
2500	.1790	.1790	.0000
3000	.2050	.2033	-.0017
3345	.2210	.2212	+.0002
4250	.2650	.2646	-.0004
5000	.2980	.2985	+.0005
5750	.3330	.3329	-.0001
6500	.3670	.3670	.0000
7250	.4000	.4008	+.0008
7943	.4320	.4318	-.0002
8150	.4440	.4440	.0000

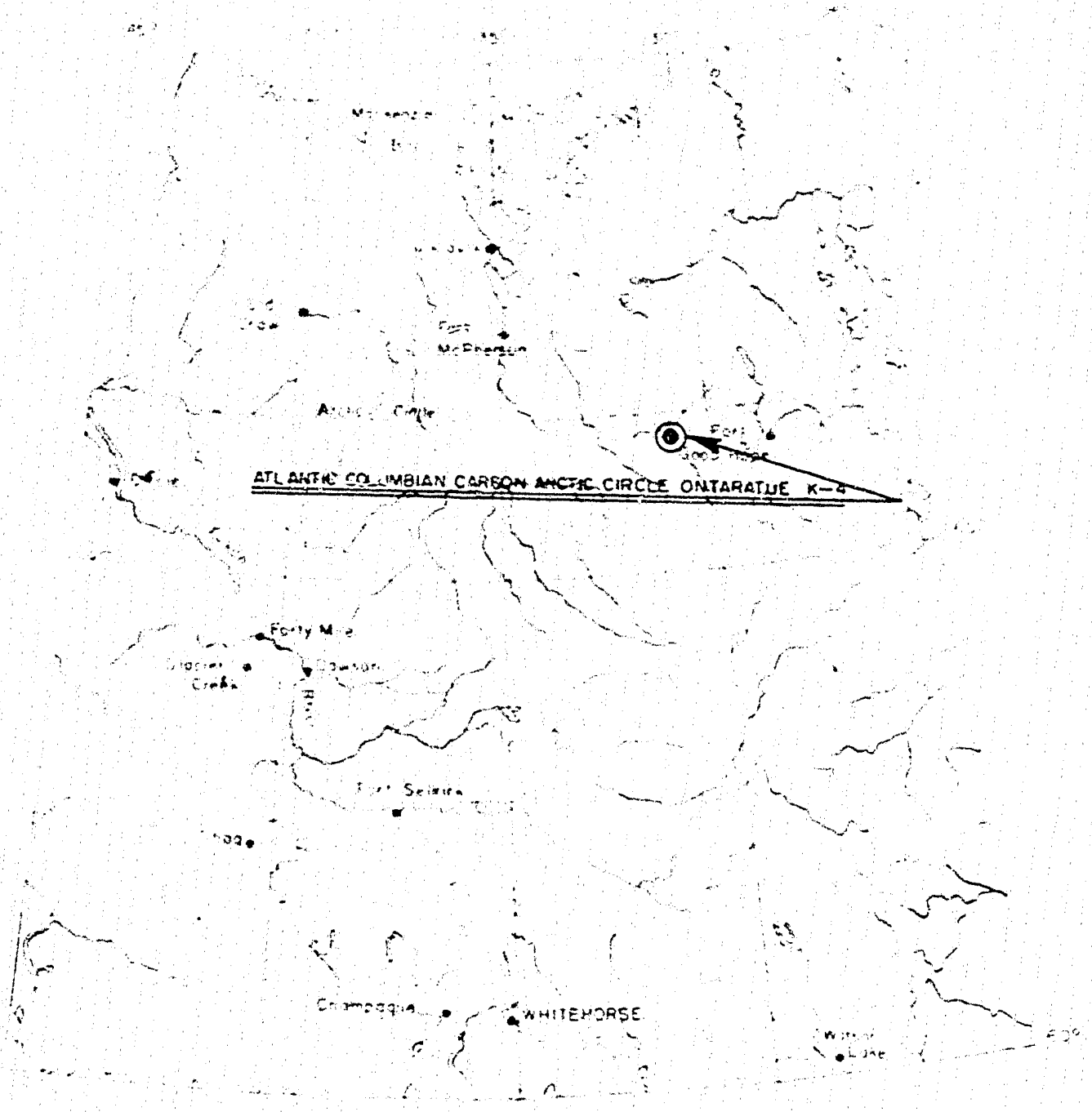
Reasonable agreement exists between the data at all levels recorded and the survey is considered to be reliable.

Respectfully submitted

INTEGRATED VELOCITY SERVICES LTD.

D.R.F. Hargrave
Manager

May 3, 1965


ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE ONTARATIUE K-4
Fort McPherson
Arctic Circle
Fort
Forty Mile
Dawson
Creek
Carmacks
WHITEHORSE
Watson Lake

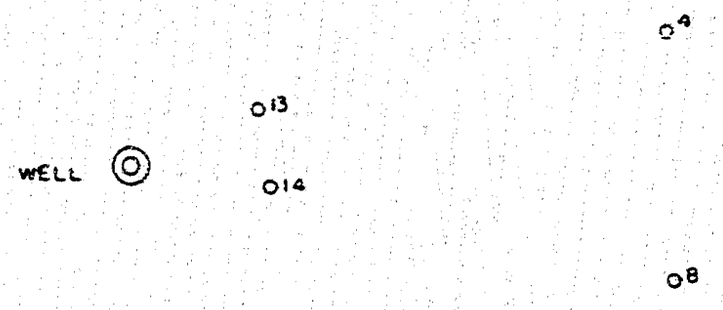
◎ WELL

SHOOTING PLAN

Well: Atlantic Columbian Carbon Arctic Circle Ontaratue K – 4

Location: 66° 33' 37.5" N, 130° 48' 10.31" W, N.W.T.

Scale: 1" = 100'



NOTE – SHOT HOLE DIRECTIONAL BEARINGS NOT AVAILABLE

LEGEND:

Well	◎
Shot Point	o
Geophone	•

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S.P.	ELEVATION	DISTANCE	DIRECTION
4	325'	200'	N/A
8	325'	200'	N/A
13	325'	15'	N/A
14	325'	15'	N/A

S.P.	ELEVATION	DISTANCE	DIRECTION

WELL ELEVATION: KB 341 feet

TOTAL DEPTH: 8950 feet

CASING RECORD: First Run 430 Ft. Second Run 3465 Ft. inches to feet

ELEVATION DATUM: 125 feet above sea level

DATUM VELOCITY: 8000 feet/second

WELL NAME: Atlantic Columbian Carbon Arctic Circle Ontaratue K-4

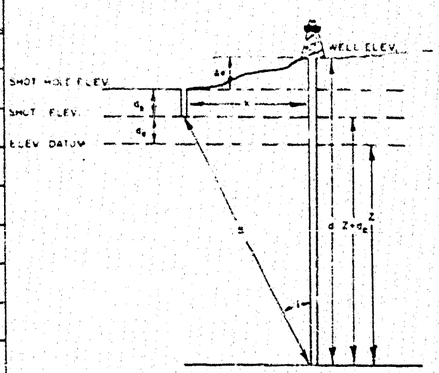
LOCATION: 66° 33' 37.5" N 130° 48' 10.31" W N.W.T.

COMPANY: The Atlantic Refining Company

SURVEY CONTRACTOR: Integrated Velocity Services Ltd.

SURVEY DATE: Run #1 December 16th, 1964. Run #2 February 16th, 1965.

FORMATION	Aperture Number	Shot Hole Number	d	d_s	t_{uh}	Shot Hole Elevation	d_e	Δe	$\Delta e + d_s$	t_e	T	$Z + d_e$	x	Cos i	$\overline{T}$	T_c	Z	V_a	ΔZ	ΔT_c	V_i
	1D	4	500	60	.007	325	140	16	76	.018	.049	424	200	.9044	.044	.026	284	10923			
	2D		1030	60	.007		140		76	.018	.095	954		.9787	.093	.075	814	10853	530	.049	10816
	3D		1630	50	.006		150		66	.019	.147	1564		.9919	.146	.127	1414	11134	600	.052	11538
	4D		1981		.006						.173	1915		.9946	.172	.153	1765	11536	351	.026	13500
	5D		2500		.006						.199	2436		.9966	.198	.179	2284	12760	519	.026	19962
	6D		3000		.006						.225	2936		.9977	.224	.205	2784	13580	500	.026	19231
	7D	4	3345	50	.005		150		66	.019	.240	3279		.9981	.240	.221	3129	14158	345	.016	21563
	I	8	4250	60	.007		140		76	.018	.283	4174		.9989	.283	.265	4034	15223	905	.044	20568
	H		5000		.007						.316	4924		.9992	.316	.298	4784	16054	750	.033	22727
	C		5750		.006						.351	5674		.9994	.351	.333	5534	16619	750	.035	21429
	D		6500		.006						.385	6424		.9995	.385	.367	6284	17123	750	.034	22059
	E		7250		.006						.418	7174		.9996	.418	.400	7034	17585	750	.033	22727
	F		7943		.006						.450	7867		.9997	.450	.432	7727	17887	693	.032	21656
	G	8	8150	60	.008	325	140	16	76	.018	.462	8074	200	.9997	.462	.444	7934	17869	207	.012	17250



x = Horizontal distance from well to shot point.

d = Well geophone depth measured from well elevation

d_s = Depth of shot.

d_e = 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. = $d - d_s - \Delta e$.

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

T = Observed time from shot to well geophone.

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

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

Cos i = $Z + d_e \Big/ \sqrt{x^2 + (Z + d_e)^2}$

$\overline{T}$ = Vertical travel time from shot elevation to well geophone. = Cos i T.

T_c = Vertical travel time from elevation datum to well geophone. = $\overline{T} - t_e$

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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NEAR SURFACE VELOCITY DATA

Crystal Geophone Cable

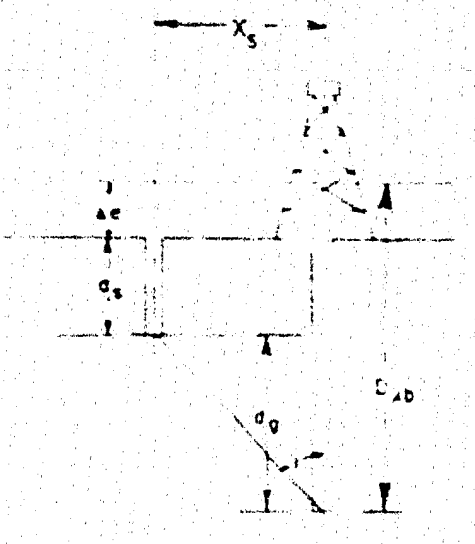
WELL	Atlantic Columbian Carbon Arctic Circle Ontarave K – 4
RECORD NO	1 M
SHOT POINT	14
S.P. ELEV.	325 ft.
SHOT DEPTH	60 ft.
K.B. ELEV.	341 ft.
T_{uh}	.007 Sec.
X_s	75 Ft.

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

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

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

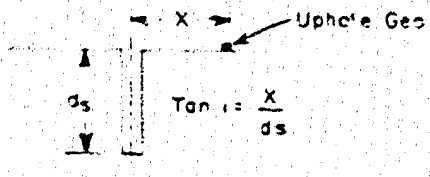
$\overline{T} + t_{uh}(\cos i) = T_c$



D_{KB}	d_s	Δe	d_g	T	Cos i	$\overline{T}$	T_c
550	60	16	474	.049	.9877	.048	.055
500			424	.044	.9847	.043	.050
450			374	.040	.9805	.039	.046
400			324	.035	.9742	.034	.041
350			274	.030	.9645	.029	.036
300			224	—	.9483	—	—
250			174	.020	.9183	.018	.025
200			124	.016	.8557	.014	.021
150			74	.012	.7024	.008	.015
100			24	.009	.3048	.003	.010
50	60	16	-36	.012	-.4327	-.005	.002

Uphole Time Correction.

Horizontal Offset	(X)
Shot Depth	(d_s)
Uphole Time	(T_{uh})
Tan i =	Cos i =
$(T_{uh})(\cos i)$ =	



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NEAR SURFACE VELOCITY DATA

Crystal Geophone Cable

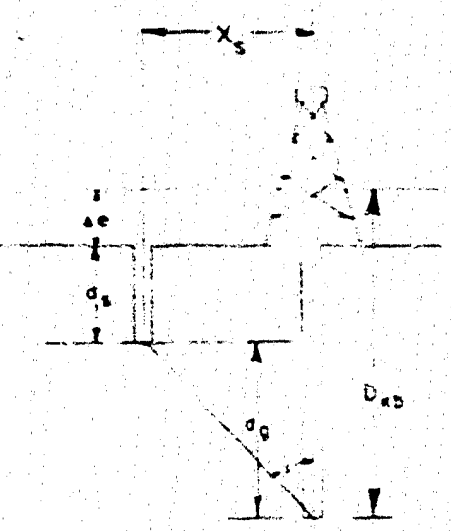
WELL	Atlantic Columbian Carbon Arctic Circle Ontaratue K – 4
RECORD NO.	2 M
SHOT POINT	14
S.P ELEV.	325 ft.
SHOT DEPTH	25 ft.
K.B. ELEV.	341 ft.
T_{uh}	.003 Secs.
X_s:	75 Ft.

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

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

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

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



D_{KB}	d_s	Δe	d_g	T	Cos i	$\overline{T}$	T_c
550	25	16	509	.054	.9893	.056	.056
500			459	.049	.9869	.048	.051
450			409	.045	.9836	.044	.047
400			359	.040	.9789	.039	.042
350			309	.035	.9718	.034	.037
300			259	.030	.9605	.029	.032
250			209	.025	.9412	.024	.027
200			159	.021	.9044	.019	.022
150			109	.017	.8238	.014	.017
100			59	.013	.6183	.008	.011
50	25	16	9	.012	.1192	.001	.004

Uphole Time Correction:

Horizontal Offset (X)

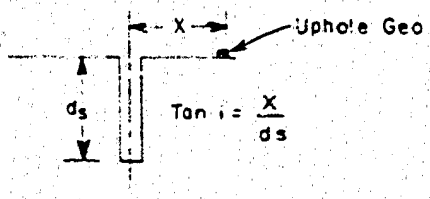
Shot Depth (d_s)

Uphole Time (T_{uh})

Tan i =

Cos i =

(T_{uh})(Cos i) =



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NEAR SURFACE VELOCITY DATA

Crystal Gerphone Cable

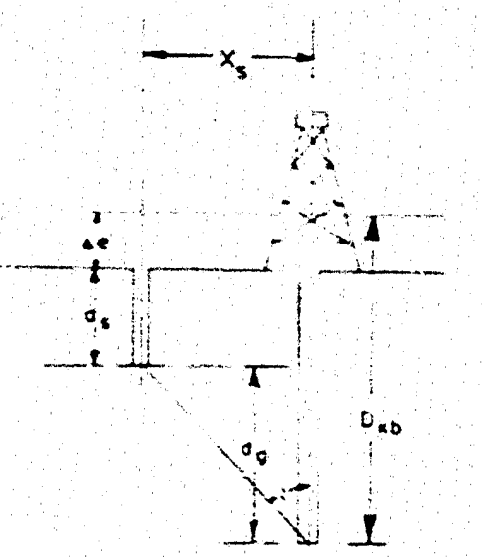
WELL: Atlantic Columbian Carbon
RECORD NO: Arctic Circle Ontaratue K - 4
SHOT POINT: 3 M
SP ELEV: 14
SHOT DEPTH: 325 Ft.
K B ELEV: 27 Ft.
T_{uh}: 341 Ft.
X_s: .003 Secs.
75 Ft.

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

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

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

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



D_{kb}	d_s	Δe	d_g	T	Cos i	$\bar{T}$	T_c
525	27	16	482	.051	.9881	.050	.053
475			432	.046	.9858	.045	.048
425			382	.041	.9813	.040	.043
375			332	.037	.9754	.036	.039
325			282	.032	.9664	.031	.034
275			232	.028	.9515	.027	.030
225			182	.023	.7246	.021	.024
175			132	.019	.8695	.017	.020
125			82	.014	.7379	.010	.013
75			32	.012	.3924	.005	.008
25	27	16	-18	.011	-.2334	-.003	.000

Uphole Time Correction:

Horizontal Offset (X)

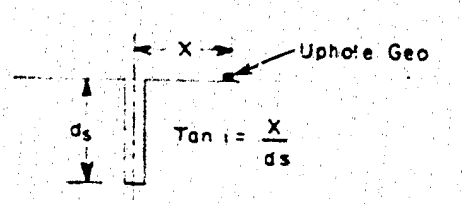
Shot Depth (d_s)

Uphole Time (T_{uh})

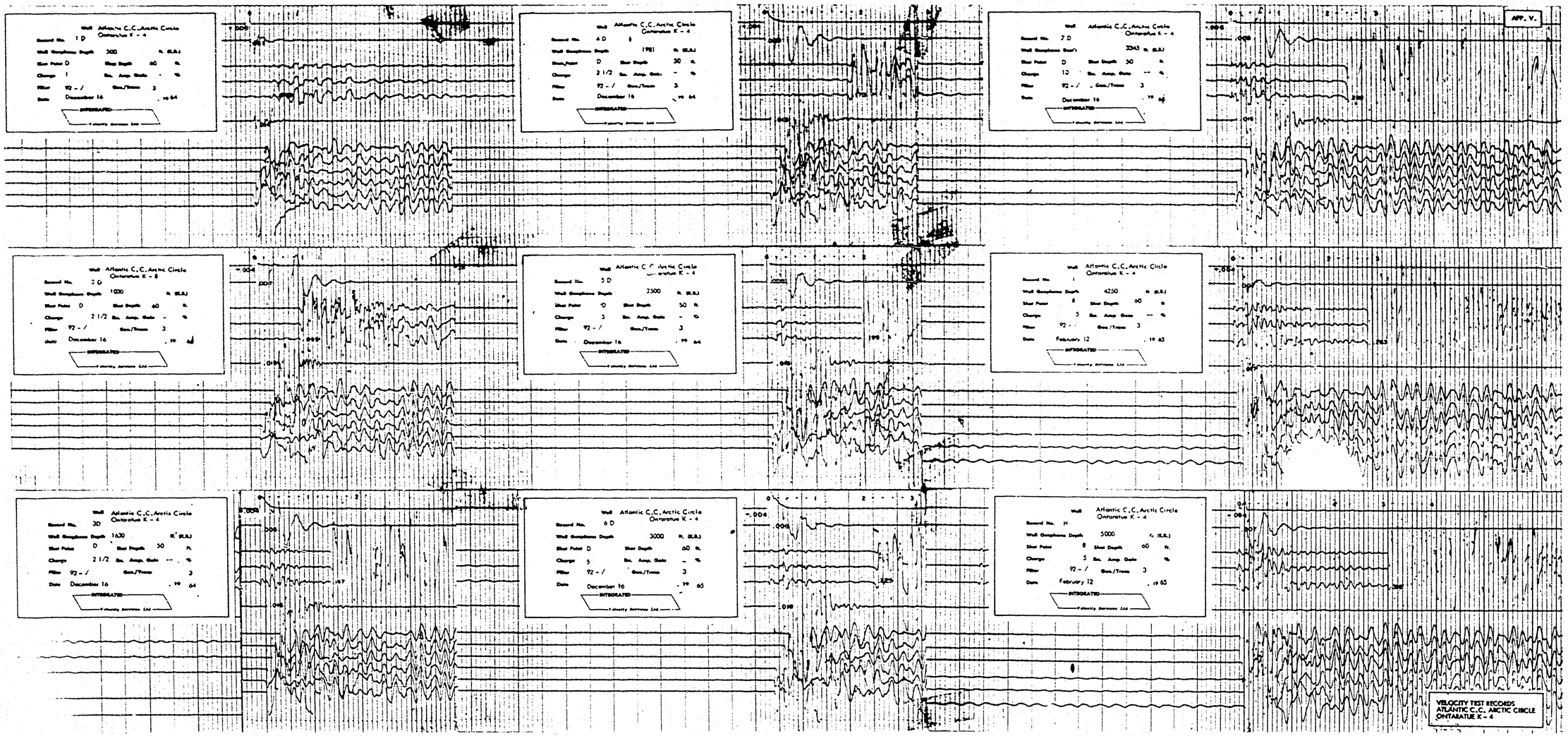
Tan i =

Cos i =

$(T_{uh})(\cos i)$ =



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APP. V.
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 1 D
Well Geophone Depth 5000 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 1 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 4 D
Well Geophone Depth 1981 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 2 1/2 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 7 D
Well Geophone Depth 3345 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 10 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 8
Record No. 2 D
Well Geophone Depth 1000 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 2 1/2 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 5 D
Well Geophone Depth 2500 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 5 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 1
Well Geophone Depth 4250 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain - %
Filter 92 - Gain/Trace 3
Date February 12 , 19 65
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 3D
Well Geophone Depth 1630 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 2 1/2 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 64
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. 6 D
Well Geophone Depth 3000 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date December 16 , 19 65
INTEGRATED
Well Atlantic C.C. Arctic Circle Ontaratue K - 4
Record No. H
Well Geophone Depth 5000 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain - %
Filter 92 - / Gain/Trace 3
Date February 12 , 19 65
INTEGRATED
VELOCITY TEST RECORDS
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K - 4

Well Atlantic C.C.Arctic Circle
Ontaratue K - 4

Record No. C
Well Geophone Depth 2750 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 Rec. Amp. Gain 100 %
Filter 92 - / Geos./Trace 3
Date February 12 , 19 65

INTEGRATED

Well Atlantic C.C.Arctic Circle
Ontaratue K - 4

Record No. D
Well Geophone Depth 6500 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 Rec. Amp. Gain 100 %
Filter 92 - / Geos./Trace 3
Date February 12 , 19 65

INTEGRATED

Well Atlantic C.C.Arctic Circle
Ontaratue K - 4

Record No. E
Well Geophone Depth 7250 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 Rec. Amp. Gain 100 %
Filter 92 - / Geos./Trace 3
Date February 12 , 19 65

INTEGRATED

Well Atlantic C.C.Arctic Circle
Ontaratue K - 4

Record No. F
Well Geophone Depth 7943 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 Rec. Amp. Gain 100 %
Filter 92 - / Geos./Trace 3
Date February 12 , 19 65

INTEGRATED

Well Atlantic C.C.Arctic Circle
Ontaratue K - 4

Record No. G
Well Geophone Depth 8150 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 Rec. Amp. Gain 100 %
Filter 92 - / Geos./Trace 3
Date February 12 , 19 65

INTEGRATED

VELOCITY TEST RECORDS
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K - 4

Well Atlantic C.C. Arctic Circle Ontaratue K - 4

Record No. 1 M

Well Geophone Depth 550 ft. (K.B.)

Shot Point M Shot Depth 60 ft.

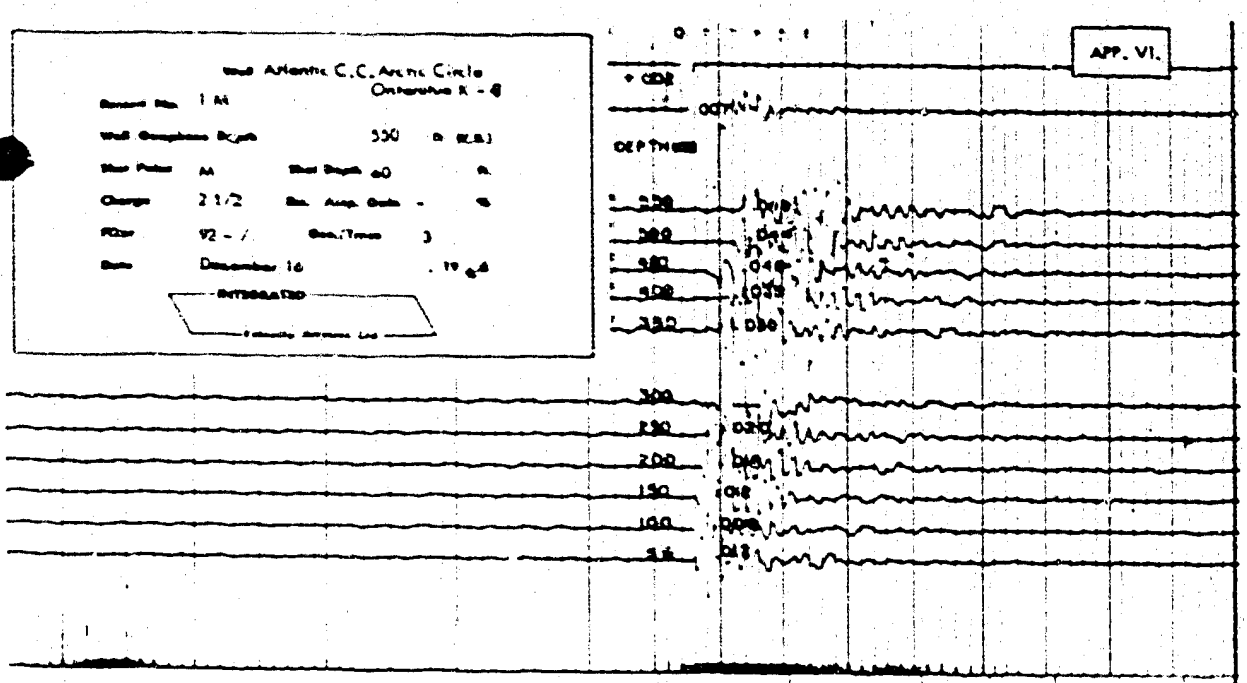
Charge 2 1/2 lbs. Amp. Gain - %

Filter 92 - / Geo./Trace 3

Date December 16 , 19 64

INTEGRATED

Atlantic Services Ltd.



Well Atlantic C.C. Arctic Circle Ontaratue K - 4

Record No. 2 M

Well Geophone Depth 550 ft. (K.B.)

Shot Point M Shot Depth 25 ft.

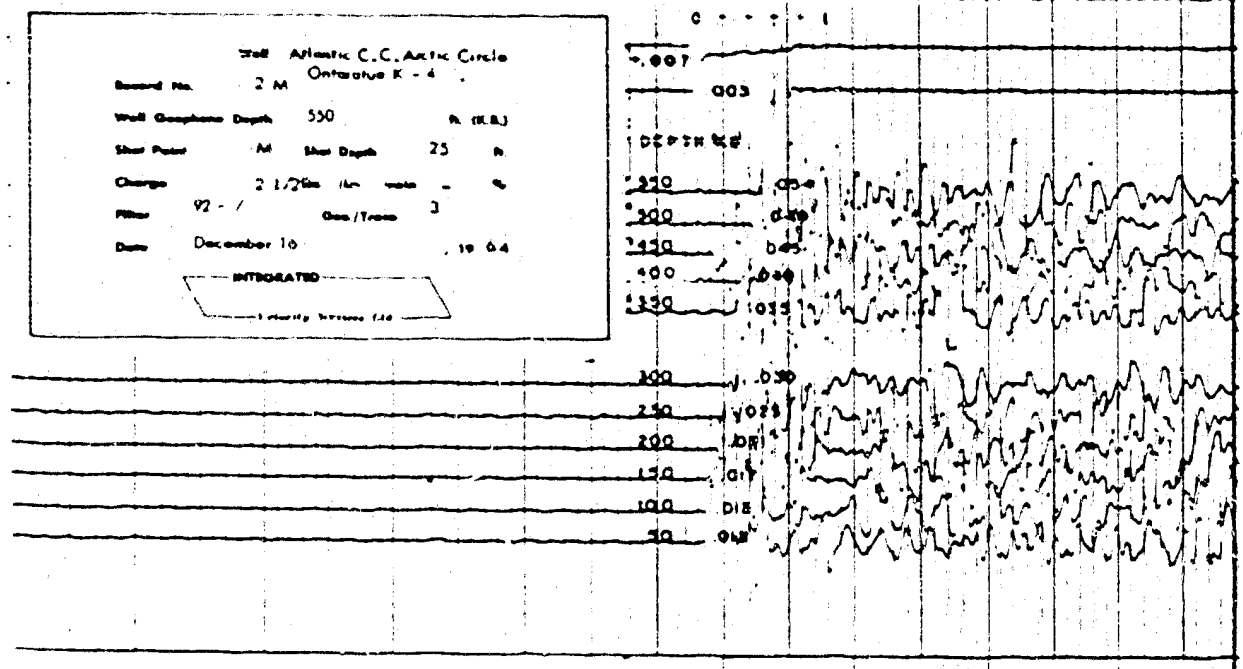
Charge 2 1/2 lbs. Amp. Gain - %

Filter 92 - / Geo./Trace 3

Date December 16 , 19 64

INTEGRATED

Atlantic Services Ltd.



Well Atlantic C.C. Arctic Circle Ontaratue K - 4

Record No. 3 M

Well Geophone Depth 525 ft. (K.B.)

Shot Point M Shot Depth 27 ft.

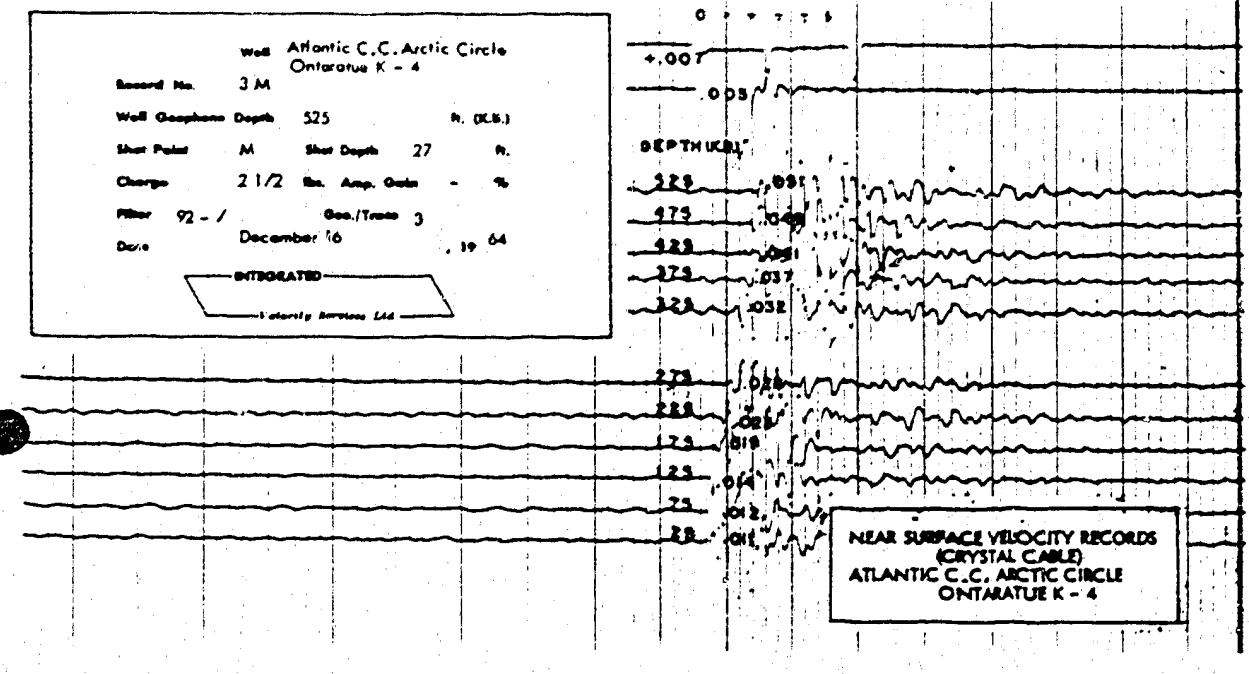
Charge 2 1/2 lbs. Amp. Gain - %

Filter 92 - / Geo./Trace 3

Date December 16 , 19 64

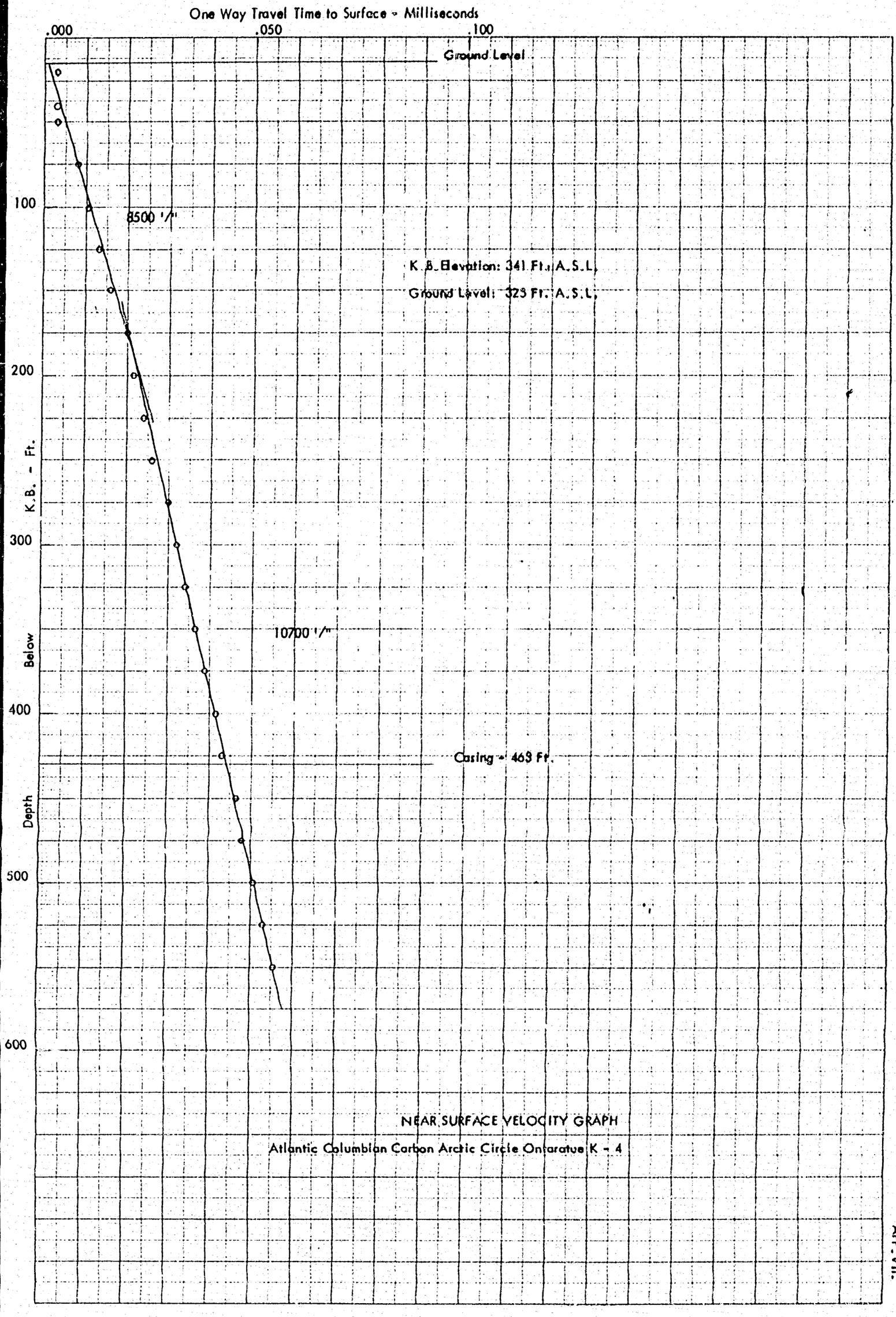
INTEGRATED

Atlantic Services Ltd.



NEAR SURFACE VELOCITY RECORDS
(CRYSTAL CABLE)
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K - 4

10 X 10 TO ½ INCH 47 1323

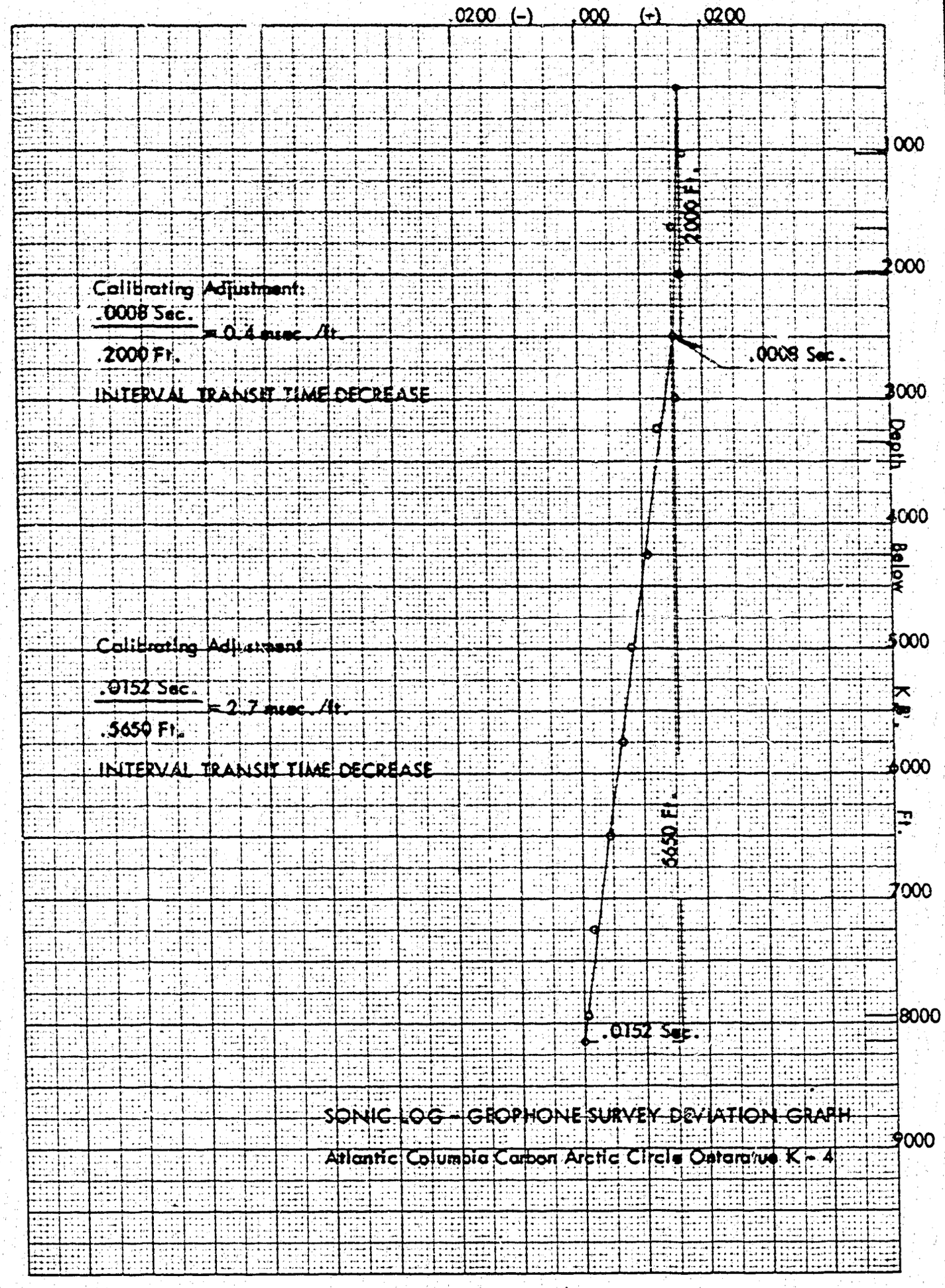


NEAR SURFACE VELOCITY GRAPH

Atlantic Columbian Carbon Arctic Circle Ontaratue K - 4

APP. VII.

$T_c - T_L$ - Milliseconds



SONIC LOG - GEOPHONE SURVEY DEVIATION GRAPH

Atlantic Columbia Carbon Arctic Circle Ostararue K - 4

K•E 10 X 10 TO ½ INCH 46 1323

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 105 — DATE FEB 28/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CARBON A.C.	K-4	GLACIER PROJECT	WILDCAT #2	N.W.T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D. TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14			

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
A Davidson	A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	STANDS D.P.	FT.	BIT NO.	
	SINGLES D.P.	FT.	SIZE	
	D.C. I.D. O.D.	FT.	MFG.	
			TYPE	
	D.C. I.D. O.D.	FT.	NOZZLE NO.	
			NOZZLE SIZE	
	STB. BODY O.D.	FT.	SER. NO.	
	STB. BODY O.D.	FT.	DEPTH OUT	
	RMR. BODY O.D.	FT.	DEPTH IN	
	SUBS O.D.	FT.	TOTAL FTG.	
	BIT OR C.B.	FT.	TOTAL HR. RUN	
		FT.	COND. OF BIT	
	KELLY DOWN	FT.	REAMER NO.	
	TOTAL	FT.	REAMER TYPE	
WT. OF STRING		LBS.	DRILLER	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		TEAR OUT MATTING BOARDS

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	STANDS D.P.	FT.	BIT NO.	
	SINGLES D.P.	FT.	SIZE	
	D.C. I.D. O.D.	FT.	MFG.	
			TYPE	
	D.C. I.D. O.D.	FT.	NOZZLE NO.	
			NOZZLE SIZE	
	STB. BODY O.D.	FT.	SER. NO.	
	STB. BODY O.D.	FT.	DEPTH OUT	
	RMR. BODY O.D.	FT.	DEPTH IN	
	SUBS O.D.	FT.	TOTAL FTG.	
	BIT OR C.B.	FT.	TOTAL HR. RUN	
		FT.	COND. OF BIT	
	KELLY DOWN	FT.	REAMER NO.	
	TOTAL	FT.	REAMER TYPE	
WT. OF STRING		LBS.	DRILLER	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		REMOVE WINGS & SPREADER FROM SUB BASE
			DRAIN & WASH #1 BOILER
			DRAIN LINES & TEAR OUT WALLS.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	STANDS D.P.	FT.	BIT NO.	
	SINGLES D.P.	FT.	SIZE	
	D.C. I.D. O.D.	FT.	MFG.	
			TYPE	
	D.C. I.D. O.D.	FT.	NOZZLE NO.	
			NOZZLE SIZE	
	STB. BODY O.D.	FT.	SER. NO.	
	STB. BODY O.D.	FT.	DEPTH OUT	
	RMR. BODY O.D.	FT.	DEPTH IN	
	SUBS O.D.	FT.	TOTAL FTG.	
	BIT OR C.B.	FT.	TOTAL HR. RUN	
		FT.	COND. OF BIT	
	KELLY DOWN	FT.	REAMER NO.	
	TOTAL	FT.	REAMER TYPE	
WT. OF STRING		LBS.	DRILLER	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DRILLING CREW PAYROLL DATA

DATE FEB 28/65 — Light

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR ____ P.M. ____ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE GIACOBBO	10
FIREMAN			
FLRMAN		DAVE McCLEAN	10
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		LLOYD REMUS	10
MTRMAN		GERALD NUFER	10
FIREMAN			
FLRMAN		RONALD GROSS	10
FLRMAN		HENRY BOYKO	12
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 104 — DATE FEB 27/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CARBON A.C	K-4	GLACIER PROJECT	WILDCAT #2	N.W.T.

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D. TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14			

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
J Davidson	A Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
			TYPE		W.L.-C.C.	
	D.C. I.D. O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.			PH	
	STB. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	RMR. BODY O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	SUBS O.D.	FT.	DEPTH IN			
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	6.00		TEAR OUT R.G
			TAKE OFF MOTORS & DRAWORKS
			SKID SUB OFF OF MAT.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
			TYPE		W.L.-C.C.	
	D.C. I.D. O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.			PH	
	STB. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	RMR. BODY O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	SUBS O.D.	FT.	DEPTH IN			
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	6.00		TEAR OUT R.G
			SKID PUMPS OUT
			TEAR DOWN PUMP HOUSES
			2 MEN THAWING ICE, MORNING & EVENING TOUR.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
			TYPE		W.L.-C.C.	
	D.C. I.D. O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK	
	STB. BODY O.D.	FT.			PH	
	STB. BODY O.D.	FT.	SER. NO.		SD. CONT. %	
	RMR. BODY O.D.	FT.	DEPTH OUT		PRESSURE GRADIENT	
	SUBS O.D.	FT.	DEPTH IN			
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

DRILLING CREW PAYROLL DATA

DATE FEB 27/65

WELL NAME & NO. A.CC.AC. K-4

COMPANY CASCADE DRLG. CO. Tight

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR ____ P.M. ____ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATWICHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE GINCOBBO	10
FIREMAN			
FLRMAN		DAVE McCLEAN	10
~~FLRMAN~~ H.		H. P. MOORE	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		LLOYD REMUS	10
MTRMAN		GERALD NUFER	12
FIREMAN			
FLRMAN		RONALD GROSS	10
FLRMAN		HENRY BOYKO	12
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 103 — DATE FEB 26/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CARBON A.C.	K-4	GLACIER PROJECT	WILDCAT #2	N.W.T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D. TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14			

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
J. Davidson	A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

DRILLING CREW PAYROLL DATA — PRIVATE

DATE FEB 26/65 — Light

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A BAUMAN — RIG NO. 12-14

MORNING TOUR — P.M. — A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE GIACOBBO	10
FIREMAN			
FLRMAN		DAVE McCLEAN	10
FLRMAN		H. P. MOORE	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR — A.M. — P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		LLOYD REMUS	10
MTRMAN		GERALD NUFER	12
FIREMAN			
FLRMAN		RONALD GROSS	10
FLRMAN		HENRY BOYKO	12
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR — P.M. — P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D.	O.D.	FT.
D.C. I.D.	O.D.	FT.
STB. BODY	O.D.	FT.
STB. BODY	O.D.	FT.
RMR. BODY	O.D.	FT.
SUBS	O.D.	FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE	NO.	
	SIZE	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		TEAR OUT RIG
			DISMANTLE WAREHOUSE
			1 BOILER SHUT DOWN

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D.	O.D.	FT.
D.C. I.D.	O.D.	FT.
STB. BODY	O.D.	FT.
STB. BODY	O.D.	FT.
RMR. BODY	O.D.	FT.
SUBS	O.D.	FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE	NO.	
	SIZE	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		TEAR OUT R.G
			DISMANTLE DERRICK
			2 MEN THAW ICE
			MORNING & EVENING TOUR.
			PUT 15 gal RUST BAN IN HYDROMATIC
			GIVE DRUM WATER JACKET INHIBITOR TREATMENT
			ALSO SANLINE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D.	O.D.	FT.
D.C. I.D.	O.D.	FT.
STB. BODY	O.D.	FT.
STB. BODY	O.D.	FT.
RMR. BODY	O.D.	FT.
SUBS	O.D.	FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE	NO.	
	SIZE	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 102 — DATE FEB 25/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CARBON A.C.	K-4	GLACIER PROJECT	WILDCAT #2	N.W.T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D. TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14			

SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
J. Dawson	A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING		5	
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
	WT. OF STRING	LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	4:00		TEAR OUT & THAW MATTING BOARDS
			2 MEN ON MORNING TOUR DEICING

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
	WT. OF STRING	LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		TEAR OUT — LOWER MAST
			UNSTRING BLOCKS
			DEICE
			ALL SUPERIOR SHUT DOWN
			WATER + OIL DRAINED

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED	
		FT.	TOTAL HR. RUN		TYPE / AMT. / TYPE / AMT.	
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
	WT. OF STRING	LBS.	REAMER TYPE		DRILLER	

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00		TEAR OUT — PUT PREFAB IN RACK
			1 MAN DEICING EVENING TOUR

DRILLING CREW PAYROLL DATA

PRIVATE

DATE FEB 25/65 — Tight

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR ____ P.M. ____ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		LEN PINCHUCK	8
FIREMAN			
FLRMAN		HENRY BOYKO	8
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATYCHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE GIACOBBO	10
FIREMAN			
FLRMAN		DAVE MCCLEAN	10
FLRMAN H.		H. P. MOORE	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		LLOYD REMUS	10
MTRMAN		GERALD NAFFER	12
FIREMAN			
FLRMAN		RONALD GROSS	10
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 101 — DATE FEB 24/64

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING Co.	ATLANTIC COLUMBIAN CARBON A.C.	K-4	GLACIER PROJECT	WILD CAT #2	N.W.T

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D. TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14			

SIGNATURE OF OPERATOR'S REPRESENTATIVE: I Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMP

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

PRIVATE
Tight

DRILLING CREW PAYROLL DATA

DATE FEB 24/64

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG Co.

TOOL PUSHER A BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
As Per Contract			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00	10	TEAR OUT R.G DISMANTLE PREFAB
			2 MEN THAW ICE MORNING TOUR

MORNING TOUR P.M. A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	10
DRKMAN		WALTER ZACHARUK	10
MTRMAN		LEN PINCHUCK	8
FIREMAN			
FLRMAN		HENRY BOYKO	8
FLRMAN			
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	6:00	10	TEAR OUT R.G
			THAW ICE

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATYCHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE G. ACOBBO	10
FIREMAN			
FLRMAN		DAVE McCLEAN	10
FLRMAN			
MTRMAN H.		H. P. MOORE	8

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
6:00	6:00	10	TEAR OUT R.G
			THAW OUT MUD TANKS & PULL OUT
			2 MEN THAW ICE EVENING TOUR

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		KLOYD REMUS	10
MTRMAN		GERALD NUFER	8
MIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 100 — DATE FEB 23/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC CARBON COLUMBIAN A.C.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. — SIZE — TYPE THD. | TOOL JOINT O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.			
2.			
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

DRILLING CREW PAYROLL DATA

DATE FEB 23/65 — PRIVATE — Tight

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN		4	8
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	8	4	
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP	8	4	8
HRS. STANDBY			
		4	0
TOTAL DAY WORK	8	~~8~~	~~8~~

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

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

Cut of 11 3/4" Csg. & 8 5/8" Csg. 3' below ground level. Filled hole with diesel and ran 10 sx cement plug at surface. Weld on plate and install marker 4' above ground level

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM — TO | ELAPSED TIME | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	DETAILS
12 00			FINISH LAY DOWN BOPS.
			FILL CASING 30 FT FROM TOP W/ 350 GAL. DIESEL FUEL
			CEMENT TOP 30' CSG W/ 10 SKS OIL WELL
			CEMENT RATHOLE W/ 6 SKS. OIL WELL
			CEMENT MOUSEHOLE W/ 6 SKS. OIL WELL
	8 00	8	CLEANING MUD TANKS. PICK OUT ICE + FROZEN SAND

NO. OF DAYS 4 SINCE LAST LOST-TIME ACCIDENT

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		LEN PINCHUCK	8
FIREMAN			
FLRMAN		HENRY BOYKO	8
FLRMAN			
FLRMAN			

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Peter Matvichuk

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

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM — TO | ELAPSED TIME | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	DETAILS
8 00			CUT OFF CSG. BOWL 3 FT. BELOW GROUND
	10 00	2	LEVEL + WELD ON PLATE
10 00	4 00	6	TEAR OUT RIG.
			Rig released 12:00 noon Feb. 23, 1965 from Atlantic Columbian Carbon Arctic Circle Enterprise K-4. J. J. Davidson Atlantic Refining Co.

NO. OF DAYS 4 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	10
DRKMAN		PETER STRAUB	10
MTRMAN		SALVATORE GIACOBBO	10
FIREMAN			
FLRMAN		DAVE McCLEAN	10
FLRMAN		H.P. MOORE	8
FLRMAN			

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robert White

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

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM — TO | ELAPSED TIME | DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	DETAILS
4 00	12 00	8	TEAR OUT RIG
			TREAT BOTH PUMPS TO INHIBITOR A&SO MUD LINES + KELLY 1 GAL INHIBITOR PER 1 BBL. WATER.

NO. OF DAYS 4 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	10
DRKMAN		LLOYD REMUS	10
MTRMAN		GERALD NUFER	8
PIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

NO. OF DAYS 4 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 99 — DATE FEB 22/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON A.C.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 22, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	G-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40 H 42	11		15.5	430	SURFACE
8⅝		28 N 80	109		15.5	3465	INTERMEDIATE

DRILLING CREW PAYROLL DATA — PRIVATE

DATE FEB 22/65

WELL NAME & NO. A.C.C. A.C. K-4 — Tight

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT	7¼		
DRILL STEM TEST			
OTHER	¾	8	8
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	4½	
HRS. WO/DP		3½	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
Felt Plug # 4 @ 3395 w/5,000 lbs OK												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1⁰⁰	1	HOIST 28 STDS OUT OF HOLE W.O.C. PLUG #4
1⁰⁰	5⁴⁵	4¾	RUN IN DRILL COLLARS INH.BIT SAME + LAY DOWN
5⁴⁵	7¹⁵	1½	RUN IN HOLE W DRILL PIPE
7¹⁵	7³⁰	¼	FELT PLUG # 4 @ 3395 W/ 5000# OK.
7³⁰	8⁰⁰	½	INH.BIT DRILL PIPE & LAYING DOWN SAME

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Peter Matvichuk

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	12³⁰	4½	LAY DOWN DRILL PIPE INH.BIT ID + OD.
12³⁰	1⁰⁰	½	BREAK KELLY
1⁰⁰	4⁰⁰	3	DEICE + DISMANTLE BOPS.
			INH.BITOR TREAT MENT PIPE + COLLARS.
			1 GAL INH.BITOR PER 1 BBL WATER

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt White

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	12⁰⁰	8	DISMANTLE BOPS + LAY DOWN
			TEAR OUT BOP MANIFOLD + FLARE LINES

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		LEN PINCHUCK	8
FIREMAN			
FLRMAN		HENRY BOYKO	8
FLRMAN			
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		SALVATORE GIACOBBO	8
FIREMAN			
FLRMAN		DAVE McCLEAN	8
MECH		H. P. MOORE	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		GERALD NUFFER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 98 — DATE FEB 21ST 1965

OPERATOR: ATLANTIC REFINING CO. | LEASE: ATLANTIC COLUMBIAN CARBON ARTIC CIRCLE | WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT 2ND | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14 | DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson | SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	G-700	14"
2.	NAT	C-350	18"
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-42	11		15.5	430	SURFACE
TUBING OR LINER	8⅝		28-N-80	109		15.5	3465	INTERMEDIATE

TIME DISTRIBUTION—HOURS

	MDNT	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	3/4	1/2	1/2
TRIPS	1/4		
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT	6	6½	6¾
DRILL STEM TEST			
OTHER Cement plugs		1	3/4
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. | NO. OF LINES | SIZE | FEET SLIPPED | FEET CUT OFF | PRESENT LENGTH | TON MI. OR TRIPS SINCE LAST CUT | CUMULATIVE TON MI. OR TRIPS | NO. OF DAYS FROM SPUD | CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT. | SINGLES D.P. FT. | D.C. I.D. O.D. FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS O.D. FT. | BIT OR C.B. FT. | FT. | KELLY DOWN FT. | TOTAL FT. | WT. OF STRING LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. / SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.-SEC | W.L.-C.C. | FLTR. CK. | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DRILLER: John Hammond

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

Felt Plug #2 @ 7875 w/10,000 lbs. O.K.

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	5.30	5½	W.O.C. CIRC. W/ [redacted] STDS PIPE IN HOLE
5.30	6.00	½	RUN IN. FELT PLUG #2 @ 7875 W/ 10000 # OK.
6.00	7.15	1¼	HOIST
7.15	8.00	¾	CIRC. BUILD UP VOLUME

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT. | SINGLES D.P. FT. | D.C. I.D. O.D. FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS O.D. FT. | BIT OR C.B. FT. | FT. | KELLY DOWN FT. | TOTAL FT. | WT. OF STRING LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. / SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.-SEC | W.L.-C.C. | FLTR. CK. | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DRILLER: Peter Matvichuk

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

Plug #3, 4930-4620, cemented w/150 SX oil well cement
Plug down @ 9:35 A.M.

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.30	½	CIRC. BUILD UP VOLUME
8.30	9.30	1	MIX + DISPLACE PLUG #3 4930 - 4620
9.30	4.00	6½	PULL 10 STD. W.O.C. INHIBIT PIPE + LAY DOWN 99 JTS.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT. | SINGLES D.P. FT. | D.C. I.D. O.D. FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS O.D. FT. | BIT OR C.B. FT. | FT. | KELLY DOWN FT. | TOTAL FT. | WT. OF STRING LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. / SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.-SEC | W.L.-C.C. | FLTR. CK | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DRILLER: Robt. White

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

Felt Plug #3 @ 4610 w/15,000 lbs. O.K.
Ran Plug #4 3510 - 3410 cemented w/55 SX oil well cement plus 2% CaCl. Plug down @ 8:25 P.M.

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.30	5.30	1½	CIRC. W.O.C. W/ 43 STDs PIPE IN HOLE
5.30	6.00	½	RUN IN FELT PLUG #3 @ 4610 W/ 15.000 # OK
6.00	6.30	½	HOIST
6.30	7.45	1¼	CIRC. HEATING WATER + MIXING CALCIUM FOR #4 PLUG
7.45	8.30	¾	MIX + DISPLACE PLUG #4 3510 - 3410
8.30	12.00	3½	PULL 9 STD. W.O.C. INHIBIT PIPE + LAY DOWN 48 JTS

DRILLING CREW PAYROLL DATA — PRIVATE

DATE FEB 21ST 1965. — Tight

WELL NAME & NO. A.C.C.A.C.

COMPANY CASCADE DRLG CO.

TOOL PUSHER A. BAUMAN — RIG NO.

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		WALTER ZACHARUK	12
MTRMAN		LEN PINCHUK	12
FIREMAN			
FLRMAN		HENRY BOYKO	12
FLRMAN			
FLRMAN			

WORKED TILL 12.00 NOON RUNING PLUG CLEAN UP CEMENT UNIT + HELP RUN. HELP LAY DOWN PIPE.

NO. OF DAYS 2. SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		SALVATORE GIACOBBO	8
FIREMAN			
FLRMAN		DAVE McCLEAN	8
~~FLRMAN~~		H.P. MOORE	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	16
DRKMAN		LLOYD REMUS	16
MTRMAN		GERALD NUFFER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

12.00 AM WORKED OVER TO HELP ON CEMENT UNIT + [redacted]. KEEP FROM FREEZING

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 97. DATE FEB 20TH 65.

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT 2ND | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-N-42	11		15.5	430	SURFACE
TUBING OR LINER	8 5/8		28-N80	109		15.5	3465	INTERMEDIATE

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	8	7	
TRIPS		1	1½
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			2½
DRILL STEM TEST			
OTHER Cement Plugs.			4
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO
8950	

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

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	8.00	8	CIRC. WAIT ON ORDERS (37 STANDS OPEN END PIPE IN HOLE)

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. GK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Peter Matvichuk

FOOTAGE

FROM	TO
8950	TD

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

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	1/4	SERV RIG + CHECK BOPS
8.15	3.00	6 3/4	WAIT ON ORDERS 37 STANDS OPEN END PIPE IN HOLE
3.00	4.00	1	RUNNING IN HOLE W/OPEN END PIPE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
95	STANDS D.P.	8930.00
2	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	20
	TOTAL	8950.00
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6.00
WEIGHT	9.4
VISC.-SEC	36
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robert White

FOOTAGE

FROM	TO
8950	TD

DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
		Plug #1, 8950-8850, cemented w/45 sx oilwell cement. Plug down @ 7:30 PM. - Plug #2, 7995-7895, cemented with 45 sx oilwell cement. Plug down @ 9:40 P.M.								

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	RUNNING IN HOLE W/OPEN END PIPE
5.00	5.30	½	PICK UP 20 SINGLES
5.30	6.30	1	CIRC + COND HOLE 95 STDS 2 SINGLES
6.30	7.30	1	MIX + DISPLACE PLUG #1 8950 - 8850
7.30	8.00	½	HOIST 9 STD + 2 SINGLES
8.00	8.30	½	CIRC.
8.30	9.30	1	MIX + DISPLACE PLUG #2 7995 - 7885
9.30	12.00	2½	PULL 10 STDS LAY DOWN 29 SINGLES W.O.C.

INHIBIT PIPE

DRILLING CREW PAYROLL DATA

DATE FEB 20TH 1965. PRIVATE!

WELL NAME & NO. A.C.C.&C. K-4 Tight

COMPANY CASCADE DRILLING CO.

TOOL PUSHER A. BAUMAN. RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZECHARIUK	8
MTRMAN		LEN PINCHUCK	8
FIREMAN			
FLRMAN		HENRY BAYKO	8
FLRMAN			
FLRMAN			

NO. OF DAYS 1 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		SALVATORE GIACOBBO	8
FIREMAN			
FLRMAN		DAVE MCCLEAN	8
~~FLRMAN~~		H. P MOORE	8
FLRMAN			

MOTOR HRS 1 68
2 912
3 945
4 356

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LOYD REMUS	8
MTRMAN		GERALD NUTTER	8
PIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

NO. OF DAYS 1 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 96. DATE FEB 19TH 65.

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIA CARBON ARTIC CIRCLE	K-4	GLACIER PROJECT	WILDCAT 2#	N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	G-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.5	430	SURFACE
8⅝		28-N80	109		15.5	3465	INTERMEDIATE

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	17¼	8	8
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	4¾		
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	3¼	8	8
HRS. W/O DP	4¾		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD: BIT NO. / SIZE / MFG. / TYPE / NOZZLE NO. / NOZZLE SIZE / SER. NO. / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HR. RUN / COND. OF BIT / REAMER NO. / REAMER TYPE

MUD RECORD: TIME / WEIGHT / VISC.-SEC / W.L.-C.C. / FL.TR. CK. / PH / SD. CONT. % / PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER: John Hammond

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8960												

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.15	4 1/4	LOGGING Finish running S.G.R. 8935-8100 @ 12:00 - 4:15
4.15	4.45	½	LAY DOWN LOGGING EQUIPMENT.
4.45	5.45	1	RUN IN 37 STANDS OPEN END-LAY DOWN K.S.W.
5.45	6.30	¾	MOVE OVER COLLARS TO PICK UP KELLY
6.30	8.00	1½	CIRC.-WAIT ON ORDERS
			(WORKED FROM 4.00 PM. TO 8:00 PM FOR RELIEF CREW) (PLANE DELAYED)

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
37	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD: BIT NO. / SIZE / MFG. / TYPE / NOZZLE NO. / NOZZLE SIZE / SER. NO. / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HR. RUN / COND. OF BIT / REAMER NO. / REAMER TYPE

MUD RECORD: TIME / WEIGHT / VISC.-SEC / W.L.-C.C. / FL.TR. CK. / PH / SD. CONT. % / PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER: Peter Matvichuk

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	SERV RIG + CHECK BOPS + MOTOR SHUT OFF
815	400	7¾	WAIT ON ORDERS & CIRC HOLE W/37 STANDS OPEN END
			CHECKED BOPS, MOTOR SHUT OFFS, BRAKES, DRLG LINE, ESCAPE BUGGY, GAS MASKS, & FIRE EXT. O.K. A. Bauman

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD: BIT NO. / SIZE / MFG. / TYPE / NOZZLE NO. / NOZZLE SIZE / SER. NO. / DEPTH OUT / DEPTH IN / TOTAL FTG. / TOTAL HR. RUN / COND. OF BIT / REAMER NO. / REAMER TYPE

MUD RECORD: TIME / WEIGHT / VISC.-SEC / W.L.-C.C. / FL.TR. CK. / PH / SD. CONT. % / PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER: Robert White

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

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	1200		CIRC.-WAIT ON ORDERS

DRILLING CREW PAYROLL DATA

DATE FEB 19TH 1965. PRIVATE

WELL NAME & NO. A.C.C.A.C. Tight

COMPANY CASCADE DRLG CO.

TOOL PUSHER A. BAUMAN RIG NO.

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		WALTER ZACHARUK	12
MTRMAN		LEN PINCHUCK	12
FIREMAN			
FLRMAN		HENRY BOYKO.	12
FLRMAN			
FLRMAN			

NO. OF DAYS 22 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 4.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		MAURICE MACGINNIS	8
FIREMAN			
FLRMAN		SALVATORE IACOBBO	8
FLRMAN		DAVE MCCLEAN	8
FLRMAN		H.P. Moore	8

MAURICE MACGINNIS INJURY TO LEFT EYE. INJURED PUT ALCOHOL INTO AIR LINE BETWEEN AIR TANKS. THEN OPENED VALVE BLOWING SAME INTO LEFT EYE.

NO. OF DAYS — SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		GERALD NUTTER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN			
FLRMAN			

NO. OF DAYS 32 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 95 — DATE FEB 18TH 65.

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIRCLE

WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT 2ND — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Baumon

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		H-40-K-42	11		15.5	430	SURFACE PRIVATE
8 5/8		38-N-80	109		15.5	3465	INTERMEDIATE

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING		2½	
TRIPS		5	¼
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE		¼	
REPAIR RIG			
CORING			
WIRE LINE LOGGING	8		7¾
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP		7½	¼
HRS. WO/DP	8	½	7¾
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	7.30	7½	LOGGING
7.30	8.00	½	LAY DOWN LOGGING EQUIPMENT
			S.G.R.C. 12:00 - 3:30 AM.
			M.C.B. 8060 - Csg. 5" scale 3:30 - 6:00 AM
			USED FROM WARE HOUSE 1 QUAD MASTER LINK (RACK COMPOUND CHAIN)

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
99	STANDS D.P.	8301-60 FT.
	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596-18 FT.
	D.C. I.D. O.D.	FT.
1	STB. A.S.O. BODY O.D.	9-21 FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D.	5-99 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	37-02 FT.
	TOTAL	89-50 FT.
WT. OF STRING	173 000	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Matvichuk

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	SERV-RIG CHECK BOPS & CLOSE BLIND RAM
815	830	¼	SLIP D/LINE 441
830	11 00	2½	RUN IN TO CLEAN OUT
11 00	1 30	2½	CIRC HOLE TO LOG
1 30	4 00	2½	HOISTING TO LOG

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Peter Matvichuk

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	FINNISH HOISTING
415	1200	7¾	RIG UP LOGGING EQUIP. & LOG
			Ran dummy sonde, some trouble through salt section and light bridges below
			Running S.G. Ray over interval 8935 - 8100
			with 3' span, 2" & 5" spacing
			USED 76 QUAD LINK ROLLER CHAIN
			COMPOUND PUMP DRIVE

DRILLING CREW PAYROLL DATA

DATE FEB 17TH 1965.

WELL NAME & NO. A.C.C.A.R. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN. RIG NO. 12-14.

Tight

MORNING TOUR 19 00 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYLIS	8
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	16
DRKMAN		PETER STRAUB	16
MTRMAN		MAURICE MACGINNIS	16
FIREMAN			
FLRMAN		SALVATORE GIACOBBO	10
FLRMAN		DAVE MCLEAN	10
FLRMAN		H.P. Drone	8

DAY TANK FULL 4 FT

RIG TANK 6 FT

NO. OF DAYS 21 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 94. — DATE FEB 17TH 1965.

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIA CARBON ARTIC CIRCLE	K-4	GLACIER PROJECT	WILDCAT 2nd	N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO.

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT: TYPE THD. FH, 6" O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: C Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11		15.5	430	SURFACE
8 5/8		28-N-80	109		15.5	3465	INTERMEDIATE.

DRILLING CREW PAYROLL DATA

DATE FEB 17TH 1965 — PRIVATE — Tight

WELL NAME & NO. ACCAC.

COMPANY CASCADE DRLG CO.

TOOL PUSHER A. BAUMAN — RIG NO.

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		WALTER ZACHARIUK	12
MTRMAN		HAROLD QUENS	12
FIREMAN			
FLRMAN		GLEN PINCHUCK	12
FLRMAN		HENRY BAYKA	12
FLRMAN			

NO. OF DAYS 20 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN		PETER MATVICHUK	
MTRMAN		PETER STRAUB	
FIREMAN		MAURICE MACINNES	
FLRMAN		SALVATORE CIACCOBBO	
FLRMAN		DAVE MCCLEAN	
FLRMAN			
MOTORHAS	1	8	
	2	848	
	3	785	
	4	296	
mick		H.P. Moore	8

NO. OF DAYS 22 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	12
DRKMAN		PETER STRAUB	12
MTRMAN		MAURICE MACINNES	12
FIREMAN			
FLRMAN		SALVATORE CIACCOBBO	12
FLRMAN		DAVE MCCLEAN	12
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	8	8	8
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK		
HRS. W/DP		
HRS. WO/DP		
HRS. STANDBY		
TOTAL DAY WORK	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	8.00		LOGGING
			Running C.D.M. 8075 - Csg. Shoe
			12:00 PM - 3:00 AM.
			Ran M.C.C. Tool unoperatable.
			3:00 - 8:00 AM

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	3.00	7	Waiting On Logging Equipment
3.00	4.00	1	LOGGING
			Ran S.G.R.C. 7800 - Csg. Shoe
			12:00 - 4:00 PM

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	RMR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.30
WEIGHT	
VISC.-SEC	38
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	200#		
ATTAPULGUS	14 ~~50#~~		

DRILLER P. Matvichuk

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	1200	8	USED 3 NEW TONGDIES
			LOGGING
			Running S.G.R.C 4:00 - 12:00 PM.
			Had to run Gamma Ray as seperate run
			due to well bore noise
			CHANGE OIL ON MOTOR.

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 93 DATE FEB 16TH 1965

OPERATOR: Atlantic Refining Co.
LEASE: Atlantic Columbia Pearson Arctic Circle
WELL NO.: K-4
FIELD OR DIST.: Glacier Project
COUNTY: Wisconsin
STATE: N.W.T.
CONTRACTOR: CASCADE DRILLING COMPANY LIMITED
RIG NO.: 12-14
DRILL PIPE STRING: NO. 2, SIZE 4½
TOOL JOINT: 6" O.D., TYPE THD. F.H.
SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-700	14"
2.	Nat	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40.N.80	11		15.5	430	Surface
8 5/8		28.N.80	149		15.5	3465	Inter-

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	8	8	8
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP	8	8	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT.; SINGLES D.P. FT.; D.C. I.D. O.D. FT.; D.C. I.D. O.D. FT.; STB. BODY O.D. FT.; STB. BODY O.D. FT.; RMR. BODY O.D. FT.; SUBS O.D. FT.; BIT OR C.B. FT.; FT.; KELLY DOWN FT.; TOTAL FT.; WT. OF STRING LBS.

BIT RECORD: BIT NO.; SIZE; MFG.; TYPE; NOZZLE NO.; NOZZLE SIZE; SER. NO.; DEPTH OUT; DEPTH IN; TOTAL FTG.; TOTAL HR. RUN; COND. OF BIT; REAMER NO.; REAMER TYPE

MUD RECORD: TIME; WEIGHT; VISC.-SEC; W.L.-C.C.; FLTR. CK.; PH; SD. CONT. %; PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT.

DRILLER: John Hammond

FOOTAGE: FROM 8950 TO; DR.-D RM.-R CORE.-C; CORE NO.

FORMATION (SHOW CORE RECOVERY); ROTARY RPM; WT. ON BIT 1000#; PUMP PRESS; PUMP NO. LINER SIZE S.P.M.; PUMP NO. LINER SIZE S.P.M.; METHOD RUN SCL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION

TIME LOG: FROM 12.00 TO 8.00; ELAPSED TIME

DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS:
Logging
Repair Schl. Line 12:00 – 2:00 AM.
Ran S.G.R.C. 8210 – 7800 (3' span 2"&5" spacing)
Tool not working properly
2:00 – 8:00 AM.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT.; SINGLES D.P. FT.; D.C. I.D. O.D. FT.; D.C. I.D. O.D. FT.; STB. BODY O.D. FT.; STB. BODY O.D. FT.; RMR. BODY O.D. FT.; SUBS O.D. FT.; BIT OR C.B. FT.; FT.; KELLY DOWN FT.; TOTAL FT.; WT. OF STRING LBS.

BIT RECORD: BIT NO.; SIZE; MFG.; TYPE; NOZZLE NO.; NOZZLE SIZE; SER. NO.; DEPTH OUT; DEPTH IN; TOTAL FTG.; TOTAL HR. RUN; COND. OF BIT; REAMER NO.; REAMER TYPE

MUD RECORD: TIME; WEIGHT; VISC.-SEC; W.L.-C.C.; FLTR. CK.; PH; SD. CONT. %; PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT.

DRILLER

FOOTAGE: FROM 8950 TO; DR.-D RM.-R CORE.-C; CORE NO.

FORMATION (SHOW CORE RECOVERY); ROTARY RPM; WT. ON BIT 1000#; PUMP PRESS; PUMP NO. LINER SIZE S.P.M.; PUMP NO. LINER SIZE S.P.M.; METHOD RUN SCL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION

TIME LOG: FROM 8.00 TO 4.00; ELAPSED TIME 8

DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS:
Logging
S.G.R.C. 8:00 AM – 2:00 PM.
Ran Velocity Survey 2:00 – 4:00 PM

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR: STANDS D.P. FT.; SINGLES D.P. FT.; D.C. I.D. O.D. FT.; D.C. I.D. O.D. FT.; STB. BODY O.D. FT.; STB. BODY O.D. FT.; RMR. BODY O.D. FT.; SUBS O.D. FT.; BIT OR C.B. FT.; FT.; KELLY DOWN FT.; TOTAL FT.; WT. OF STRING LBS.

BIT RECORD: BIT NO.; SIZE; MFG.; TYPE; NOZZLE NO.; NOZZLE SIZE; SER. NO.; DEPTH OUT; DEPTH IN; TOTAL FTG.; TOTAL HR. RUN; COND. OF BIT; REAMER NO.; REAMER TYPE

MUD RECORD: TIME; WEIGHT; VISC.-SEC; W.L.-C.C.; FLTR. CK; PH; SD. CONT. %; PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT.

DRILLER: Pete Matwichuk

FOOTAGE: FROM 8950 TO; DR.-D RM.-R CORE.-C; CORE NO.

FORMATION (SHOW CORE RECOVERY); ROTARY RPM; WT. ON BIT 1000#; PUMP PRESS; PUMP NO. LINER SIZE S.P.M.; PUMP NO. LINER SIZE S.P.M.; METHOD RUN SCL.-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION; DEPTH DEV. DIRECTION

TIME LOG: FROM 4.00 TO 12.00; ELAPSED TIME 8

DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS:
Logging
Velocity Survey 4:10 – 7:30 PM
Ran C.D.M. 8070 – Csg. Shoe
7:30 – 12:00 PM.

DRILLING CREW PAYROLL DATA

DATE FEB 16TH 1965
WELL NAME & NO. ACCAC-K-4
COMPANY Cascade Dril. Co.
TOOL PUSHER A. Bauman
RIG NO.

PRIVATE
Tight

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		John Hammond	12
DRKMAN		Walter Zachariuk	12
MTRMAN		Harold Owens	12
FIREMAN			
FLRMAN		Len Pinchich	12
FLRMAN		Henry Bayda	12
FLRMAN			

NO. OF DAYS 28 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			
Fresh		H. P. Moore	8

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		Peter Matwichuk	12
DRKMAN		Peter Straub	12
MTRMAN		Maurice MacInnes	12
FIREMAN			
FLRMAN		Salvatore Ciacobbo	12
FLRMAN		Dave McLean	12
FLRMAN			

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 99. DATE FEB 16TH 65.

OPERATOR: Atlantic Refining Co.

LEASE: A- Atlantic Columbia Carbon Artic Circle

WELL NO. K-4 | FIELD OR DIST. Glacier Project | COUNTY Wildcat 2nd | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4 1/2 | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: L. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	P-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11		15.5	430	SURFACE
8 5/8		28-N-80	109		15.5	3465	INTERMEDIATE

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING		2 3/4	
TRIPS	1 1/2	~~5 1/4~~	1
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	6 1/2		7
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	1 1/2	8	1
HRS. WO/DP	6 1/2		9
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
89	STANDS D.P.	8301.60 FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
21	D.C. 2 3/4 - 6 1/4 I.D. O.D.	596.18 FT.
	STB. BODY O.D.	FT.
1	STB. K5W BODY O.D.	9.21 FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D.	5.99 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	37.07 FT.
	TOTAL	8950 FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Attapulgus	1500#		

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR'D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	6.30	6 1/2	Logging. Hole Bridged @ 8210-
6.30	8.00	1 1/2	Run In To Clean Up Hole (Thaw Ice Plugs In Collars)
~~10.15~~			~~Circ & Ream Bridge 7 Stands Off Bottom Mix Attapulgus~~
		8 HRS	Ran C.L. Log 2" x 5" scale 8942-8276. Sonde stuck, pulled loose and attempted to rerun, hole bridged @ 8210

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	R.R. 36
SIZE	7 7/8
MFG.	H-W
TYPE	4J20-2
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	237
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			1.30
WEIGHT			
VISC.-SEC			40
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Attapulgus	1000#		

DRILLER

FOOTAGE

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

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.15	2 1/4	Run To Clean Hole
10.15	11.30	1 1/4	Ream Bridge 7 Stands Off Btm. - Mix Attapulgus
11.30	12.00	1/2	Run In Last 7 Stands Slowly
12.00	1.30	1 1/2	Break Circ & work pipe circ to log cond mud (No fill
1.30	1.45	1/4	Slip Line
1.45	4.00	2 1/4	Pulling out to log

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Peter Matwichuk

FOOTAGE

FROM	TO	DR'D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	Finnish out of hole
5.00	12.00	7	Rig up logging equip. & logging. Made dummy sonde to check lower hole. Dummy stuck @ 8555'. Pulled loose, had trouble coming up to 8100, hole free above this. Ran C.L. log 8208 - Csg. Shoe (2" + 5" scale) Csg. Shoe Driller 3465' - Schl. 3468

DRILLING CREW PAYROLL DATA

DATE FEB 15TH 1965. PRIVATE. Tight

WELL NAME & NO. A.C.C. A.C. - K-4

COMPANY Cascade Drilling Co.

TOOL PUSHER Arnold Bauman RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		John Hammond	12
DRKMAN		Walter Zacharuk	12
MTRMAN		Harold Owens	12
FIREMAN			
FLRMAN		Len Pinchuck	12
FLRMAN		Henry Boyko	12
FLRMAN			

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			
Mech		H.P. Moore	8

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		Peter Matwichuk	12
DRKMAN		Peter Straub	12
MTRMAN		Maurice MacGinnes	12
PIREMAN			
FLRMAN		Salvatore Ciacobbo	12
FLRMAN		Dave McClean	12
PERMAN			

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 91 — DATE FEB. 14/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBAN ARCTIC CIRCLE - ONTARATUE. — WELL NO. IT-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J Dawson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-40	11		15.5	430.	SURF
8⅝		28-N-30	109		15.5	3465.	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	1½		
REAMING			
CONDITIONING MUD & CIRCULATING	4		
TRIPS	3		
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING		8	8
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	1½		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½		
HRS. WO/DP	1½	8	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
89	STANDS D.P.	5301.60	FT.
	SINGLES D.P.		FT.
21	D.C. 7⅜ - 6⅝ I.D.	O.D. 596.18	FT.
1	D.C. K.S.W. I.D.	O.D. 9.21	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
2	SUBS O.D.	5.99	FT.
	BIT OR C.B.		FT.
1	JANK'S	2.15	FT.
	KELLY DOWN	38.89	FT.
	TOTAL	5950.00	FT.
WT. OF STRING		173.000	LBS.

BIT RECORD

BIT NO.	R.R.	34
SIZE		7⅞
MFG.		H.W
TYPE		R-67
NOZZLE NO.		3
NOZZLE SIZE		12
SER. NO.		47281
DEPTH OUT		8950
DEPTH IN		8891
TOTAL FTG.		59
TOTAL HR. RUN		6¾
COND. OF BIT		2-6-1
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	2.00	6.00
WEIGHT	9.2	9.2
VISC.-SEC	34	33
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
QUICK VIS	1 GAL		
GEL	5.000#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8944	8950	6			40	35	1000	5¾	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8891	7°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.30	½	DR.G. 7⅞" HOLE.
12.30	2.30	2	CIRC. TO LOG.
2.30	4.30	2	HOIST 60 STDS. (UP TO INTER. CASING.)
4.30	6.30	2	B. CIRC. & BUILD VOLUME TO FILL HOLE.
6.30	7.30	1	HOIST TO LOG.
7.30	8.00	½	UNLOAD D.C.'S. (LOGGING TOOLS)

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D.	O.D.	FT.
D.C. I.D.	O.D.	FT.
STB. BODY O.D.		FT.
STB. BODY O.D.		FT.
RMR. BODY O.D.		FT.
SUBS O.D.		FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	11.00	2.00
WEIGHT	9.2	9.2
VISC.-SEC	32	33
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	500		

DRILLER

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	CHECK B.O.P.'S
8.15	10.00	1¾	LOAD UP DC 3
10.00	3.00	5	RIGING UP LOGGING EQUIPMENT & TOOLS
3.00	4.00	1	LOGGING.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

STANDS D.P.		FT.
SINGLES D.P.		FT.
D.C. I.D.	O.D.	FT.
D.C. I.D.	O.D.	FT.
STB. BODY O.D.		FT.
STB. BODY O.D.		FT.
RMR. BODY O.D.		FT.
SUBS O.D.		FT.
BIT OR C.B.		FT.
		FT.
KELLY DOWN		FT.
TOTAL		FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		11.00
WEIGHT		90
VISC.-SEC		40
W.L.-C.C.		
FL.TR. CK		
PH	Chlorides	
SD. CONT. %	#1 50,000	
PRESSURE GRADIENT	#2 72,000	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTAPULGUS	3500 #		
POLYFLARE	5 SX		

DRILLER Peter Matvichuk

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8950												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	12.00		LOGGING
			STUCK IN HOLE WITH LOG
			Ran Conductivity Later log 8942 - 8276
			2" and 5" scale.
			Driller T.D. 8950
			Schlumberger T.D. First Run 8946
			USED 2 BOXES GLANDPACKING WAREHOUSE

DRILLING CREW PAYROLL DATA

DATE FEB. 14/65

WELL NAME & NO. A.C.C.A.C. K-4. — Tight

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN. — RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 2.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEN PINCHUK	8
FLRMAN		HENRY BOYKO.	8
FLRMAN			

NO. OF DAYS 22 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		MAURICE MACGINNES	8
FIREMAN			
FLRMAN		SALVATORE CIACOBBO	10
FLRMAN		DAVE MCCLEAN	8
FLRMAN			
		1 MAN WENT TO RIVER FOR GEL	

NO. OF DAYS 27 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 90 — DATE FEB. 13/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBAN

WELL NO.: A-4

FIELD OR DIST.: GLACIER PROJECT.

COUNTY: WILDCAT #2

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, O.D. 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Dawson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Baaman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-40	11		15.5	430.	SURF.
8⅝		28 N 30	109		15.5	3465.	INTER.

Tight
PRIVATE

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			6¼
REAMING			
CONDITIONING MUD & CIRCULATING	5		½
TRIPS	3	3½	1
LUBRICATE RIG		¼	
DEVIATION SURVEY			
TEST B.O.P.			¼
CUT OFF DRILLING LINE		¼	
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		4	
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	4	8
HRS. WO/DP		4	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
88	STANDS D.P.	8263.33 FT.
	SINGLES D.P.	FT.
21	D.C. 7⅞ - 6¼ I.D. O.D.	596.18 FT.
1	D.C. 6⅛ 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.35 FT.
1	STAB. K.S.W. BODY O.D.	9.21 FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK.	10.38 FT.
	KELLY DOWN	23.87 FT.
	TOTAL	8891.00 FT.
	WT. OF STRING	175,000 LBS.

BIT RECORD

BIT NO.	R.R. #34
SIZE	7⅞
MFG.	H.W.
TYPE	RG7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	8891
DEPTH IN	8856
TOTAL FTG.	74
TOTAL HR. RUN	12½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

	1:00	4:00
TIME		
WEIGHT	9.2	9.2
VISC.-SEC	33	33
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	500#		

DRILLER: A. Leippi.

FOOTAGE

FROM	TO
8891	

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

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8891	7°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1⁰⁰	1	CIRC. HOLE TO LOG.
1⁰⁰	2⁰⁰	1	8 STAND DUMMY TRIP. (NO FILL.)
2⁰⁰	5⁰⁰	3	CIRC. & WORK PIPE. TO LOG.
5⁰⁰	5³⁰	½	DROP SURV. @ 8891
5³⁰	8⁰⁰	2½	HOIST TO LOG. DOUBLE MEASURE PIPE.
			4.53 CORR IN PIPE TALLY
			DEEPER.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ - 6¼ I.D. O.D.	596.18 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
1	STAB. K.S.W. BODY O.D.	9.21 FT.
	RMR. BODY O.D.	FT.
1	SUBS JUNK O.D.	2.15 FT.
	BIT OR C.B.	FT.
2	SUBS	5.99 FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	RR #34
SIZE	7⅞
MFG.	H-W
TYPE	RC-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	500		

DRILLER: John Hammond.

FOOTAGE

FROM	TO
8891	

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

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8891	7°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.00	2	DOUBLE MEASURE OUT (INHIBITOR COLLARS)
10.00	11.30	1½	LAY DOWN K.S.W. - 5 SUBS - 2 STABS. - 1 REAMER - 1 - id COLLAR
			& 1 SHOCK SUB.
11.30	11.45	¼	CHECK BOP'S
11.45	12.45	1	RAISE VOLUME IN MUD TANKS TO FILL HOLE
12.45	2.15	1½	PICK UP & INHIBITOR TREAT INNER & OUTER CORE BAL & LAY DOWN
2.15	2.30	¼	SLIP 22' LINE
2.30	4.00	1½	PICK UP J. SUB BIT SUB & RUN IN RR. 34 - PICK UP K.SW.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
89	STANDS D.P.	8302-60 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞/6¼ I.D. O.D.	596-18 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
1	STAB. K.S.W. BODY O.D.	9-21 FT.
	RMR. BODY O.D.	FT.
1	SUBS JUNK O.D.	2-15 FT.
	BIT OR C.B.	FT.
2	SUBS	5.99 FT.
	KELLY DOWN	28.00 FT.
	TOTAL	8944.13 FT.
	WT. OF STRING	173,000 LBS.

BIT RECORD

BIT NO.	RR 34
SIZE	7⅞
MFG.	HW
TYPE	RC-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	8856
TOTAL FTG.	127
TOTAL HR. RUN	18¾
COND. OF BIT	RWH
REAMER NO.	
REAMER TYPE	

MUD RECORD

	6.30	8.00	10.00
TIME			
WEIGHT	9.2	9.2	9.2
VISC.-SEC	34	34	33
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

¼" STREAM WATER

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	350 00#	PLASTIC	10 SX
DRILLING CLAY	1000#	SAWDUST	5 SX

DRILLER: Peter Matvichuk

FOOTAGE

FROM	TO
8891	8944

DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO.1 LINER SIZE | PUMP NO.1 S.P.M. | PUMP NO.2 LINER SIZE | PUMP NO.2 S.P.M. | METHOD RUN SGL.-S PAR'EL-P COM'D-C

53		40	35	1000	5¼	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	5⁰⁰	1	FINNISH RUNNING IN HOLE W/ BIT
5⁰⁰	5¹⁵	¼	SERV RIG & CHECK BOPS OK
5¹⁵	5⁴⁵	½	BREAK CIRC CLEAN TO BTM & WORK JUNK SUB
5⁴⁵	12⁰⁰	6¼	DRLG

DRILLING CREW PAYROLL DATA

DATE FEB. 13/65

WELL NAME & NO. A.C.C. A.C.-K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAAMAN — RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		MEL. SAUNDERS	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			
		SAFETY MEETING HELD.	
		SUB. HANDLING P.P.E BY HAND	
		CHECKED ALL RIG.	
		FIRE EXTINGUISHERS. O.K.	

NO. OF DAYS 26 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		DAN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN		H.P. MOORE	8

NO. OF DAYS 26 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		MAURICE McGINNES	8
FIREMAN			
FLRMAN		SALVATORE CIACCOBO	8
FLRMAN		DAVE McCLEAN	8
FLRMAN			

NO. OF DAYS 26 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 89 — DATE FEB. 12/65

OPERATOR: ATLANTIC REFINING CO. — LEASE: ATLANTIC COLUMBIA CARBAN ARCTIC CIRCLE. ON TARATUE — WELL NO. 1-4 — FIELD OR DIST.: GLACIER PROJECT — COUNTY: WILDCAT #2 — STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14 — DRILL PIPE STRING NO. 2 SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Baumen

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.5	430	SURF.
8⅝		28 N 80	109		15.5	3465	WATER.

DRILLING CREW PAYROLL DATA — DATE FEB. 12/65 — PRIVATE — WELL NAME & NO. A.C.C.A.C. A-4 — COMPANY CASCADE DRLG CO. LTD. — TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	1/2	7 1/2	1/4
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	2 1/4		
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.		1/4	1/4
CUT OFF DRILLING LINE			
REPAIR RIG	1/2		1/4
CORING			
WIRE LINE LOGGING			3/4
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	1/4	1/4	
FISHING	4 1/2		
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7 1/4	8	8
HRS. WO/DP	1/2		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.		31
NO. OF LINES	SIZE	
FEET SLIPPED		
FEET CUT OFF		
PRESENT LENGTH		
TON MI. OR TRIPS SINCE LAST CUT		
CUMULATIVE TON MI. OR TRIPS		
NO. OF DAYS FROM SPUD		
CUMULATIVE ROTATING HRS.		

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
87	STANDS D.P.	8174.98 FT.
2	SINGLES D.P.	FT.
21	D.C. 5½-6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¼-7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.35 FT.
1	STB. RSW. BODY O.D.	9.21 FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.17 FT.
	BIT OR C.B.	FT.
1	Shock	10.33 FT.
	KELLY DOWN	31.22 FT.
	TOTAL	8858 FT.
	WT. OF STRING	178000 LBS.

BIT RECORD

BIT NO.	R.R. #35
SIZE	7⅞
MFG.	H.W
TYPE	R.G7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	8856
TOTAL FTG.	2
TOTAL HR. RUN	½
COND. OF BIT	1H
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1600#		

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SOL-S PAR'EL-P COM'D-C
8856	8858	2			40	10	1100	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8856	8°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	1/4	R.G SERV. (6.45-7.15-½ REMOVE WOOD FROM G700
12.15	1.00	3/4	WORK JUNK SUB. (7.15-7.30-1/4-W/JUNK SUB.
1.00	3.45	2 3/4	HOIST. (7.30 8.00 ½ DRLG 7⅞" HOLE.
3.45	4.00	1/4	CLEAN JUNK SUB.
4.00	4.30	1/2	LAYED DOWN. BOT. HOLE COLLAR → PICK UP STIFF HOOK UP
4.30	4.45	1/4	SLIP 22' DRLG.
4.45	6.30	1 3/4	RUN IN W/R.R. BIT #34.
6.30	6.45	1/4	B. CIRC. & CLEAN TO BOTTOM (NO FILL)

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
88	STANDS D.P.	8203.33 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅜-4¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅜-7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.35 FT.
1	STB. RSW. BODY O.D.	9.21 FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	Shock	10.38 FT.
	KELLY DOWN	32.87 FT.
	TOTAL	8890.00 FT.
	WT. OF STRING	175,000# LBS.

BIT RECORD

BIT NO.	RR #34
SIZE	7⅞
MFG.	H-W
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	8856
TOTAL FTG.	34-04
TOTAL HR. RUN	8-6¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	12:60	2:00
WEIGHT	9.2	9.3	9.3
VISC.-SEC	31	31	31
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	4000	Polyvolene	10 bags
Peltex	100#	Mica	5 bags
Caustic	100#	Water	Ducky

DRILLER John Hammond

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
8858	8890	32			40	35	1250	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8856	8°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.45	2 3/4	DRILL 7⅞" HOLE
10.45	11.00	1/4	WORK J. SUB
11.00	11.15	1/4	CHECK B.O.P.'S
11.15	4.00	4 3/4	DRILL

(PUT 2 GALS MISTRY OIL IN ALCOHOL TANK ON COMP. MECHANICS ~~GLOVES~~)

DRILLING CREW PAYROLL DATA — MORNING TOUR 12 M. P.M. 3 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PDAL LANGE	8
MTRMAN		PDAL HENDERSON	8
FIREMAN			
FLRMAN		MEL. SAUNDERS	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			

NO. OF DAYS 25 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			
Mech.		H.P. Moore	8

NO. OF DAYS 25 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
88	STANDS D.P.	8203.33 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅜-6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅜-7⅛ I.D. O.D.	10-33 FT.
2	STB. BODY O.D.	9-35 FT.
1	STB. RSW. BODY O.D.	9-21 FT.
1	RMR. BODY O.D.	6-35 FT.
6	SUBS O.D.	11-79 FT.
	BIT OR C.B.	FT.
1	SHOCK	10-38 FT.
	KELLY DOWN	33-87 FT.
	TOTAL	88-91.00 FT.
	WT. OF STRING	175,000 LBS.

BIT RECORD

BIT NO.	34
SIZE	7⅞
MFG.	HW
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	8856
TOTAL FTG.	35-74
TOTAL HR. RUN	12¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.30	7.00	11.00
WEIGHT	9.2	9.2	9.2
VISC.-SEC	30	33	33
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

½" STREAM WATER

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	~~3700~~ 3700#		

DRILLER Peter Matvichuk

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SOL-S PAR'EL-P COM'D-C
8890	8891	1			40	35	1250	5¼	72	5		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8856	8.0							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	1/4	DRLG 7⅞ HOLE
4.15	4.30	1/4	SERV RIG. CHECK B.O.P.S OK.
4.30	4.45	1/4	CHANGE KLAND PACKING H-700
4.45	8.00	3 1/4	CIRC HOLE TO LOG & CONDITION MUD
8.00	9.30	1 1/2	DUMMY TRIP 15 STAND NO FILL
9.30	12.00	2 1/2	CIRC HOLE TO LOG

DRILLING CREW PAYROLL DATA — EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		MAURICE McGINNES	8
PIREMAN			
FLRMAN		SALVTORE GIACOBBO	8
FLRMAN		DAVE McCLEAN	8
FLRMAN			

NO. OF DAYS 25 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 88 DATE FEB 11/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBAN — ARCTIC CIRCLE ONTARATUE

WELL NO. 7-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE A-2 | TOOL JOINT 6" O.D. | TYPE IND. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
	11 3/4		40+HA2	11		15.5	430	SURF.
	8 5/8		28-N-80	109		15.5	3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	2 3/4		
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	3/4	7/4	
LUBRICATE RIG			
DEVIATION SURVEY	1/2		
TEST B.O.P.		1/4	
CUT OFF DRILLING LINE	1 1/2		
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING		7	8
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6 1/2	8	8 3
HRS. WO/DP	1 1/2		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
37	STANDS D.P.	5129.98 FT.
2	SINGLES D.P.	FT.
21	D.C. 2 3/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.35 FT.
1	STB. SLW BODY O.D.	9.21 FT.
1	RMR. BODY O.D.	6.33 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK.	10.38 FT.
	KELLY DOWN	29. FT.
	TOTAL	8856 FT.

WT. OF STRING 175.000 LBS.

BIT RECORD

BIT NO.	43
SIZE	7 7/8
MFG.	REED
TYPE	YC46
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	E64527
DEPTH OUT	—
DEPTH IN	8784
TOTAL FTG.	72
TOTAL HR. RUN	21 1/2
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2PM
WEIGHT	9.2
VISC.-SEC	32
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8850	8856	6			40	40	800	5 1/4	72	5"		

DEVIATION RECORD: DEPTH 8856 | DEV. 8° | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	2 45	2 3/4	DRLG. 7 7/8" HOLE.
2 45	3 15	1/2	DROP SURV. @ 8856
3 15	4 30	1 1/4	HOIST FOR BIT #43. STRAP PIPE.
4 30	6 00	1 1/2	SLIP 264' DRLG LINE; CUT 400'.
6 00	8 00	2	HOIST STRAP PIPE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	7.00
WEIGHT	9.2
VISC.-SEC	32
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8856												

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.30	1/2	HOIST - STRAP PIPE
8.30	8.45	1/4	REC SURVEY & STAND BACK STIFF HOOK UP.
8.45	9.00	1/4	SER RIG - CHECK B.O.P.'s
9.00	16.00	7	ROLL OVER & PICK UP 8 3/4 DRILL COLLAR - MAKE UP JT SUB & MAGNET
16.00	12.45	2 3/4	RUN IN
12.45	1.15	1/2	CLEAN OUT & WORK MAGNET 60' TO BTM.
1.15	2.15	1	WORK JUNK SUB & MAGNET
2.15	3.15	1	HOIST
3.15	3.30		INSTALL NEW CABLE ON LINE SPOOLER
3.30	4.00		HOIST

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	44
SIZE	8 7/8
MFG.	SEC
TYPE	H7UG
NOZZLE NO.	3
NOZZLE SIZE	11/16
SER. NO.	
DEPTH OUT	
DEPTH IN	8856
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		11.30
WEIGHT	TRIP	9.3
VISC.-SEC		30
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

½" STREAM WATER

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1400#		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8856												

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
H00	5 30	1 1/2	FINNISH OUT OF HOLE W/ JUNK SUB & MAGNET
5 30	5 45	1/4	SERV RIG
5 45	6 45	1	CLEAN JUNK SUB & MAGNET & LAY DOWN SAME
			MAKE UP JUNK SUB & MAKE UP BIT
6 45	7 00	1/4	SLIP 22' D/LINE
7 00	9 30	2 1/2	RUN IN W/ BIT
9 30	12 00	2 1/2	BREAK CIRC CLEAN T BTM & MILL ON IRON & WORK JUNK SUB

DRILLING CREW PAYROLL DATA

DATE FEB. 11/65

WELL NAME & NO. A.C.C.A.C. - K-4 PRIVATE Light

COMPANY CASCADE DRLG. CO LTD

TOOL PUSHER A. BAUMAN RIG NO. 12-14.

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	
DRKMAN		PAUL LANGE	
MTRMAN		PAUL HENDERSON	
FIREMAN			
FLRMAN		MEL. SAUNDERS	
FLRMAN		DOUG. HAGEN.	
FLRMAN			

NO. OF DAYS 24 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN		H.B. Mooch	

Checked Shut off Camp Rig off Dly Bic Broken Fire Ext. & gas masks. OK A Bauman

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		PETER MATVICHUK	8
DRKMAN		PETER STRAUB	8
MTRMAN		MAURICE McGINNES	8
PIREMAN			
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN		DAVE McCLEAN	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 87 — DATE FEB. 10/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA. CARBAN

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F. H.

WELL NO. K-4 — FIELD OR DIST. GLACIR PROJECT — COUNTY WILDCAT #2 — STATE N. W. T.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-42	11		15.1	430	SURF.
TUBING OR LINER	8⅝		28 N80	109		15.1	3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7	5¼	6½
REAMING	½		
CONDITIONING MUD & CIRCULATING			
TRIPS	¼		
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		2½	1¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	5½	6¾
HRS. WO/DP		2½	1¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
87	STANDS D.P.	8143.53	FT.
1	SINGLES D.P.		FT.
21	D.C. 2⅞-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅞-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.35	FT.
1	STB. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK	10.38	FT.
	KELLY DOWN	19.67	FT.
	TOTAL	8812.00	FT.

WT. OF STRING 175,000 LBS.

BIT RECORD

BIT NO.	43
SIZE	7⅞
MFG.	REED
TYPE	YC46
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	E-64527
DEPTH OUT	
DEPTH IN	8784
TOTAL FTG.	33
TOTAL HR. RUN	7
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2:00	5:00	7:00
WEIGHT	9.2	9.3	9.3
VISC.-SEC	32	31	33
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1500#	SAWDUST	5 SAX
PELTEX	100#	H2O	
CAUSTIC	50#	QUIK-VIS	1 GAL

DRILLER A. Laippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS PARELLEL COMP'D-C
8784	8817	33			40	10/40	300	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8761	9°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	FINISH IN WIBIT #43.
1215	1245	½	B.I.CIRC. & REAM RAT HOLE.
1245	100	¼	SERV. RIG.
100	800	7	DRLG. 7⅞" HOLE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
87	STANDS D.P.	8172.53	FT.
1	SINGLES D.P.	1	FT.
21	D.C. 2⅞-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅞-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.35	FT.
1	STB. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK.	10.38	FT.
	KELLY DOWN	36.67	FT.
	TOTAL	8833.00	FT.

WT. OF STRING 178,000# LBS.

BIT RECORD

BIT NO.	43
SIZE	7⅞
MFG.	REER
TYPE	YC46.
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	E64527
DEPTH OUT	
DEPTH IN	8784
TOTAL FTG.	49
TOTAL HR. RUN	12¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	12:30
WEIGHT	9.2	9.2
VISC.-SEC	33	33
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS PARELLEL COMP'D-C
8817	8833	16			40	40	800	5½	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8761	9°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	TEST B.O.P.S.
815	915	1	DRLG 7⅞" HOLE.
915	945	½	REPAIR ROTARY CHAIN.
945	1045	1	REMOVE WOOD & SAWDUST FROM VALVES. -G.700
1045	2.45	4	DRLG. 7⅞" HOLE.
2.45	3.45	1	SPLICE UP OLD HIGH CHAIN & INSTALL FOR ROTARY CHAIN
3.45	4.00	¼	DRILL

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
87	STANDS D.P.	8172.98	FT.
2	SINGLES D.P.	1	FT.
21	D.C. 2⅞-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅞-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.35	FT.
1	STB. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK	10.38	FT.
	KELLY DOWN	23.22	FT.
	TOTAL	8860.00	FT.

WT. OF STRING 178,000# LBS.

BIT RECORD

BIT NO.	43
SIZE	7⅞
MFG.	REED
TYPE	YC46
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	E-64527
DEPTH OUT	
DEPTH IN	8784
TOTAL FTG.	66
TOTAL HR. RUN	18¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	7:00	9:00	11:00
WEIGHT	9.2	9.1	9.2
VISC.-SEC	31	30	32
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	3600#	Water	
Peltex	100#	Polyolene	6 bags
Caustic	50#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS PARELLEL COMP'D-C
8833	8850	17			40	40	850	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8761	9°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	DRILL 7⅞" HOLE
5.00	5.15	¼	SER RIG
5.15	5.45	½	CHECK ROTARY CHAIN & WORK ON TORQUE GADGE - CHAIN JUMPING.
5.45	6.30	¾	REMOVE BITCH LINK FROM ROTARY CHAIN & SET TORQUE GADGE
6.30	12.00	5½	DRILL
		8 HRS.	

HELD SAFETY MEETING "THINK."
CLEANED OUT ICE & CHANGED OIL IN DWKS.

DRILLING CREW PAYROLL DATA

DATE FEB. 10/65

WELL NAME & NO. A. C. C. A. C. - PRIVATE #4

COMPANY CASCADE. DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12/14.

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALI LEIPPI	12
DRKMAN		PAUL LANGE.	12
MTRMAN		PAUL HENDERSON	12
FIREMAN			
FLRMAN		MEL SAUNDERS.	8
FLRMAN		DOUG. HAGEN	12
FLRMAN			

NO. OF DAYS 23. SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN		SALVATORE GIACOBBO	8
Toolpusher		H. P. Moore	8
FLRMAN			

NO. OF DAYS 23 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		WALTER ZACHARUK	12
MTRMAN		HAROLD OUENS	12
FIREMAN			
FLRMAN		LEN PINCHUCK	12
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 23 SINCE LAST LOST TIME ACCIDENT

PRIVATE

Tight

DRILLING—COMPLETION—WORKOVER LOG

UNIT OR LEASE Atlantic Columbian Carbon A-Circle WELL NUMBER K-4 DATE 2/9/65

FIELD Explorotery DISTRICT N.W.T.

COUNTY OR PARISH PROVINCE OR STATE

CONTRACTOR Cascade Drilling Co. Rig #12.

I 8761-8765 (4'). Coring #3

II 8765-8784 (19'). Coring #3

III 8784 (0') Recover core #3

Stand back Core Barrel, pick up key seat wiper and run in hole with bit #43 to resume drilling.

Core #3, 8761-8784 Cored 23' Recovered 22.5'

Quartzite, greenish-gray to gray with inter beds and parting of soft ~~shale~~ black graphite? pseudo slate. Vertical fractures filled with unidentified mineral.

TIME DISTRIBUTION—HOURS	MORN	DAY	EVE
RIG UP AND TEAR DOWN			
DRILLING NORMAL			
DIRECTIONAL DRILLING			
REAMING			
TRIPS TO CHANGE BIT	3½	1	5¾
DRILLING WITH PARTIAL RETURNS			
COMBATING LOST CIRCULATION			
CONDITIONING MUD AND CIRCULATING	¾		
FISHING			
DEVIATION SURVEY			
LUBRICATE RIG	¼		¼
CUT OFF DRILLING LINE	¼		¼
REPAIR RIG			
TEST CASING OR B.O.P			
CORING: SIDE WALL			
CORING: CONVENTIONAL			
CORING: DIAMOND	1	14	7
CORING: WIRE LINE			
DRILL STEM TEST OPEN HOLE			
WIRE LINE LOGGING OPEN HOLE			
PLUGGING BACK			
RUNNING CASING AND CEMENTING			
WAITING ON CEMENT			
LOGGING CASED HOLE			
PERFORATING			
WIRE LINE FORMATION TEST CASED HOLE			
DRILL STEM TEST CASED HOLE			
TESTING			
SWABBING			
ACIDIZING			
FRACTURING			
TUBING TRIPS			
OTHER	2		1¾
TOTALS	8	8	

TIME SUMMARY			
DAY WORK			
HOURS W/DP	6	8	6¼
HOURS WO/DP	2		1¾
HOURS STANDBY			
TOTAL DAY WORK	8	8	8

JOINTS	FEET		WEIGHT	GRADE	THREAD	CLASS	SIZE O.D. CASING	
							SHOE	
							SET JOINT	
							COLLAR	
							JOINTS PIPE	
							TOTAL	
							RKB TO	
							DEPTH SET	

U.S. DEPT. OF THE INTERIOR
GEOLOGICAL SURVEY
FEB 23 1965
RESTON, VIRGINIA

PRINTED IN CAN. 18—228 5/63

SIGNED J. Davidson

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 86 DATE FEB 9/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. | FIELD OR DIST.: GLACIER PROJECT | COUNTY: WILDCAT = 2 | STATE: N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT: 6" O.D. TYPE THD F. H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: L Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE.
8 5/8		28-N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	3/4		
TRIPS	3½	1	5¾
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE	¼		¼
REPAIR RIG			
CORING	1¼	7	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	2		13¾
FISHING			

COMPLETION WORK: A. PERFORATING; B. TUBING TRIPS; C. SWABBING; D. TESTING; E. ADDITIONAL

TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6	8 6/4	
HRS. WO/DP	2	17/4	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
87	STANDS D.P.	8137.12 FT.
1	SINGLES D.P.	FT.
19	D.C. 2¼ I.D. 6¼ O.D.	538.92 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D. 3.25	FT.
	BIT OR C.B.	FT.
1	KELLY DOWN 15.00	FT.
	TOTAL 8765.	FT.

WT. OF STRING 172,000 LBS.

BIT RECORD

BIT NO.	35 A.
SIZE	7 13/16
MFG.	CHRS.
TYPE	J
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC-10413
DEPTH OUT	
DEPTH IN	8761
TOTAL FTG.	4
TOTAL HR. RUN	1
COND. OF BIT	1-N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			7.30
WEIGHT			9.4
VISC.-SEC			34
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: Robert White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COM'D-C
8761	8765.	4.			44	V5.	750	5½	66.			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	1/4	SER. R.C.
1215	1230	1/4	SLIP 44' DRLG LINE.
1230	230	2	PICK UP CORE BBL. STEAM OUT - SERVICE & MAKE UP BIT.
230	530	3	RUN IN W/ CORE BIT 1 STD LEFT IN DRK
530	600	1/2	PICK UP 5 SINGLES
600	615	1/4	DRK CIR-TAG BTM. 2' FILL.
615.	645.	1/2	CIRC 7:00 - 8:00 CORE = 3.
645.	700	1/4	DRK KELLY & DROP BALL.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
87	STANDS D.P.	8137.46 FT.
1	SINGLES D.P.	FT.
19	D.C. 2⅜ I.D. 6¼ O.D.	538.92 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D. 3.23	FT.
1	BIT OR C.B. 11.37	FT.
		FT.
	KELLY DOWN 33.00	FT.
	TOTAL 8784.00	FT.

WT. OF STRING 172,000 LBS.

BIT RECORD

BIT NO.	35-A-
SIZE	7 13/16
MFG.	CHRS
TYPE	J
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC-10413
DEPTH OUT	8784.
DEPTH IN	8761
TOTAL FTG.	23
TOTAL HR. RUN	8
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:00	11:30	2:00
WEIGHT	9.4	9.4	9.8
VISC.-SEC	33	33	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
PELTEX	100#		
CAUSTIC	50#		

DRILLER A. Lisippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COM'D-C
8765	8784	19			48	15	750	5¼	66	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8761	9°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	300	7	CUT CORE #3.
300	315	1/4	BREAK OFF CORE.
315	400	3/4	HOIST CORE (LAYED DOWN TOP 5 SINGLES)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
21	D.C. 2⅜ - 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅜ - 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
1	STB. BODY O.D.	9.21 FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHACK	10.38 FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	43.
SIZE	7 7/8
MFG.	REED
TYPE	HC4G
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	E64527
DEPTH OUT	
DEPTH IN	8784
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COM'D-C
8784												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	700	3	HOIST - CHAIN PIPE OUT IN CASING.
700	745	3/4	BBR. CORE 3# (23' RECOVERY)
745	815	1/2	TREAT CORE BBL. & STAND BACK.
815	830	1/4	SER RIG
830	845	1/4	PICK UP STIFF HOOL UP & BIT.
845	915	1/2	CHANGE TOP REAMER CUTTERS & BOTTOM STAB. RUBBER. SER-13453
915	930	1/4	SLIP 88' DRILLING LINE
930	1200	2½	RUN IN BIT #3. PICK UP K SW. CHANGE CORDSION RING 1 SGLE ABOVE COLLARS - NOT ABLE TO LOCATE OTHER RING.

DRILLING CREW PAYROLL DATA

DATE FEB. 9 1965. PRIVATE

WELL NAME & NO. ACL AC K-4

COMPANY CASCADE DRLG Light

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD NUTER.	8
FLRMAN		SALVATORE CINCOBRO	8
FLRMAN			
		-62°	
		FUEL-	
		DAY TANK. - 5' 4"	
		BIG TANK - 6' 2"	

NO. OF DAYS 22. SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		HL. ZEPPI	8
DRKMAN		PAUL HANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		MEL. SAUNDERS	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			
Mech		H. P. Moore	8

NO. OF DAYS 22. SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		KEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 22. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 85 DATE FEB. 8/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2. | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40 H-42	11			430	SURFACE
8 5/8		28 N-80	109			3465	INTER.

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	7¼	2¼
REAMING			
CONDITIONING MUD & CIRCULATING	¼		1½
TRIPS	2		¾
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		¼	¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	5½	7½	8
HRS. WO/DP	2½	½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
86	STANDS D.P.	8019.46	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅜ 6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅜ 7½ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. R.S.W. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB.	10.38	FT.
	KELLY DOWN	40.00	FT.
	TOTAL	8713.	FT.

WT. OF STRING 172,000 LBS.

BIT RECORD

BIT NO.		42
SIZE		7⅞
MFG.		SEC
TYPE		H-8-J
NOZZLE	NO.	3
	SIZE	15
SER. NO.		764310
DEPTH OUT		
DEPTH IN		8700
TOTAL FTG.		13
TOTAL HR. RUN		2¼
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			700
WEIGHT			9.3
VISC.–SEC			35
W.L.–C.C.			
FL TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1508#		
SAWDUST	10 SKS		
WATER	1" STRM 2 IRC		

DRILLER Robt White

FOOTAGE

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
8700	8713				42	20	700	5½	72			
	8713	13										

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	SER RIG.
1215	100	¾	WORK ON #1 MOTOR THAW AIR LINE TO CLUTCH.
100	115	¼	SLIP 44' DRLG LINE.
115			HANG BLOCKS. - REMOVE GUARDS AND TIGHTEN AND.
			REPLACE BOLTS IN BRK BLOCKS. CHECK LINKAGE.
	300	1¾	REPLACE GUARDS. 5:30-545. BRK CIRC
300	330	½	CUT DRLG LINE. 30' 545-800 DRLG.
330	530	2	RUN PIPE IN HOLE. 10' LIGHT FILL.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
86	STANDS D.P.	8081.69	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅜–6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅜–7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. R.S.W. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.32	FT.
6	SUBS O.D.	11.77	FT.
	BIT OR C.B.		FT.
1	SHOCK.	10.38	FT.
	KELLY DOWN	12.51	FT.
	TOTAL	8748.00	FT.

WT. OF STRING 175,000 LBS.

BIT RECORD

BIT NO.		42
SIZE		7⅞
MFG.		SEC.
TYPE		H-8
NOZZLE	NO.	3
	SIZE	15
SER. NO.		764310
DEPTH OUT		✓
DEPTH IN		8700
TOTAL FTG.		48
TOTAL HR. RUN		9½
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9:00	11:30	3:00
WEIGHT	9.2	9.2	9.2
VISC.–SEC	33	34	34
W.L.–C.C.			
FL TR. CK.	—		
PH	7		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2000#	F-PLUG	200#
CAUSTIC	100#		
PELTEX	200#		

DRILLER A. Laffi.

FOOTAGE

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
8713	8748	35			36	40	700	5¼	72			
								2½				

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	TEST. B.O.P.
815	300	6¾	DRLG. 7⅞" HOLE.
300	330	½	W.O. # 1 PUMP.
330	400	½	DRLG. 7⅞" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
86	STANDS D.P.	8081.69	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅜–6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅜ 7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. R.S.W. BODY O.D.	9.21	FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK	10.38	FT.
	KELLY DOWN	25.51	FT.
	TOTAL	8761.	FT.

WT. OF STRING 175,000# LBS.

BIT RECORD

BIT NO.		42
SIZE		7⅞
MFG.		SEC
TYPE		H-8-J
NOZZLE	NO.	3
	SIZE	15
SER. NO.		764310
DEPTH OUT		8761
DEPTH IN		8700
TOTAL FTG.		61
TOTAL HR. RUN		11 3/4
COND. OF BIT		1-6-1
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	6:00		
WEIGHT	9.2		
VISC.–SEC	34		
W.L.–C.C.			
FL TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Aquaness	3 gal		
Gel	900		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
8748	8761	13			40	40	760	5¼	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8761	9°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	4.30	¼	INHIBITOR TREETMENT (3 GALLONS)
4.30	6.45	2¼	DRILL 7⅞" HOLE
6.45	7.00	¼	INSTALL 1 NEW VALVE G-700 (PLUGGED WITH SAWDUST)
7.00	8.30	1½	CIRC. BOTTOM HOLE SAMPLE - ATLANTIC ORDERS
8.30	8.45	¼	SURVEY @ 8761 - (NO IRON IN J. SUB)
8.45	11.45	3	HOIST TO CORE (INHIBITOR O.D. OF PIPE)
11.45	12.00	¼	REC. SURVEY BBL. & STAND BACK STIFF HOOK UP.

DRILLING CREW PAYROLL DATA

PRIVATE. Light

DATE FEB. 8 1965.

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD NUFFER.	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

-54°

FUEL

DAY TANK 5' 1"

RIG TANK 7'

NO. OF DAYS 21 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		MEH. SAUNDERS.	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			
Mech.		H. P. Moore	8

NO. OF DAYS 21 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HARRY OWENS	8
FIREMAN			
FLRMAN		LEON PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 84 DATE FEB 7/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT P2. | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: L Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40 H-42	11			430	SURFACE
8 5/8		32 N-80	105			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	3½	
REAMING			
CONDITIONING MUD & CIRCULATING		1½	
TRIPS		1½	4
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.			¼
CUT OFF DRILLING LINE			
REPAIR RIG		1½	3½
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	6½	4½
HRS. WO/DP		1½	3½
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
86	STANDS D.P.	8019.41	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾ 7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	33.00	FT.
	TOTAL	8687	FT.

WT. OF STRING 174,000 LBS.

BIT RECORD	
BIT NO.	41
SIZE	7⅞
MFG.	SEC
TYPE	H-8-J
NOZZLE NO.	NO
NOZZLE SIZE	JETS
SER. NO.	755740
DEPTH OUT	
DEPTH IN	8608
TOTAL FTG.	79
TOTAL HR. RUN	26¾
COND. OF BIT	1N.
REAMER NO.	
REAMER TYPE	

MUD RECORD			
TIME	2:00	4:30	6:30
WEIGHT	9.2	9.1	9.2
VISC.-SEC	32	31	31
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUAGEL	3 gal		
WATER	1" STM 2 CIRC		

DRILLER Robt White

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8662	8687	25			42	40	550	5½	72			

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 30	½	DRLG.
12 30	12 45	¼	SER RIG
12 45	8 00	7¼	DRLG

INHIBITOR TREATMENT IN SUCTION @ 12:30

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
86	STANDS D.P.	8014.41	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾ 7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK	10.38	FT.
	KELLY DOWN	35.95	FT.
	TOTAL	8700.00	FT.

WT. OF STRING 174 000 LBS.

BIT RECORD	
BIT NO.	41
SIZE	7⅞
MFG.	SEC.
TYPE	H-8
NOZZLE NO.	NO
NOZZLE SIZE	JETS
SER. NO.	755740
DEPTH OUT	8700
DEPTH IN	8608
TOTAL FTG.	92
TOTAL HR. RUN	30¼
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD			
TIME	9:30	11:45	
WEIGHT	9.2	9.2	
VISC.-SEC	32	33	
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2000#	POLYFLAKE	5 SAK
STAPHLGAS	1000#		
SAWDUST	20 SAK		

DRILLER A. Laiffi.

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8687	8700	13			40	40	500	5¼	72	5"		

DEVIATION RECORD: DEPTH 8439 | DEV. 13½° | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	11.30	3½	DRLG. 7⅞" HOLE
11.30	1 00	1½	CIRC. BOTTOM HOLE SAMPLE. (FOR ATLANTIC)
1 00	2 00	1	HOIST BIT #41 STRAP PIPE. (INHIBITOR TREATMENT O.D. PIPE)
2 00	3 30	1½	REPAIR COMP. CHAIN #1 & 2 MOTORS (NEW CHAIN)
3 30	4 00	½	HOIST BIT.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.	↑	FT.
	D.C. I.D. O.D.	SAME	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
	KEE WIPER	9.21	FT.
	KELLY DOWN	26.74	FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD	
BIT NO.	42
SIZE	7⅞
MFG.	SEC
TYPE	H-8-J
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	764310
DEPTH OUT	
DEPTH IN	8700
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD			
TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8700												

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.45	¾	HOIST - STRAP PIPE
4.45	5.00	¼	SER RIG
5.00	8.15	3¼	REPAIR HIGH DRUM CHAIN
8.15	10.30	2¼	HOIST-STRAP PIPE-RABBIT PIPE & REC. SURVEY BALL & PIECE OF 1" UNION.
10.30	10.45	¼	CHANGE BITS & CHK RAMS.
10.45	11.30	¾	RUN IN COLLARS
11.30	11.45	¼	PICK UP KEE SEAT WIPER
11.45	12.00	¼	W/O Nol. MOTOR.

DRILLING CREW PAYROLL DATA

DATE FEB 7 1965 PRIVATE Tight

WELL NAME & NO. ACCAC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE CIACCARRO	8
FLRMAN			
		-58°	
		FUEL-	
		DAY TANK- 5' 2"	
		RIG TANK- 7' 8"	

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		MEL SAUNDERS	8
FLRMAN		DOUGLAS HAGEN	8
[illegible]		H.P. Moore	8

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8
FLRMAN			

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 83 DATE FEB 6/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLASER PROJECT. | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. M. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL.	C-700	14
2.	NATIONAL	C-350	18
3.			

CASING / TUBING OR LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40·H·42	11			430	SURFACE
TUBING OR LINER	8 5/8		28·N·80	105			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5	7¾	6¼
REAMING			
CONDITIONING MUD & CIRCULATING	¾		1½
TRIPS	1¾		
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¼		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
86	STANDS D.P.	7953.98 FT.
	SINGLES D.P.	FT.
21	D.C. 2¾ 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¾ 7⅛ I.D. O.D.	10.33 FT.
	STB. BODY O.D.	9.56 FT.
	STB. RODY O.D.	FT.
	RMR. BODY O.D.	6.35. FT.
	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB.	FT.
	KELLY DOWN	25.00 FT.
	TOTAL	8623. FT.
WT. OF STRING		172,000 LBS.

BIT RECORD

BIT NO.	41
SIZE	7⅞
MFG.	SEC
TYPE	H88
NOZZLE NO.	NO
NOZZLE SIZE	JETS.
SER. NO.	755740
DEPTH OUT	
DEPTH IN	8608
TOTAL FTG.	15
TOTAL HR. RUN	5
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	330	530	700
WEIGHT	9.2	9.2.	9.2
VISC.-SEC	32	32.	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUAGEL	3 GAL		
WATER			

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8608	8623	15.			42	25	550	5¼	72.			
						40						

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15.	¼	SER RIG.
12 15	2 00	1¾	RUNNING IN - RABBIT ALL DRILL PIPE TO CHECK FOR SURVEY BBL. 3 FT OF FILL ON BTM.
2 00	2 45.	¾	BRK. CIRC & WORKING JUNK SUB. ON BTM.
2 45	7 15	4½	DRLG.
7 15	7 30	¼	PUT 3 GALS INHIBITOR IN PUMP SUCTION.
7 30	8 00	½	DRLG.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
86	STANDS D.P.	7974.08 FT.
5	SINGLES D.P.	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅞ - 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB.	10.38 FT.
	KELLY DOWN	13.67 FT.
	TOTAL	8646.00 FT.
WT. OF STRING		174,000 LBS.

BIT RECORD

BIT NO.	41
SIZE	7⅞
MFG.	SEC
TYPE	H-8
NOZZLE NO.	NO
NOZZLE SIZE	JETS.
SER. NO.	755740
DEPTH OUT	
DEPTH IN	8608
TOTAL FTG.	38
TOTAL HR. RUN	12¾
COND. OF BIT	NV.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:00	1:00	3:00
WEIGHT	9.4	9.2	9.2
VISC.-SEC	31	33	33
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
STAPLGUS	5500#		
POLYFLAKE	55 SAX		
WATER			

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8623.	8646	23			38	40	450	5¼	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	TEST B.O.P.
8 15	4 00	7¾	DRLG. 7⅞" HOLE.

CLEANED FIRST SETTLING TANK COMPLETELY

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
86	STANDS D.P.	7974.08 FT.
1	SINGLES D.P.	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅞ - 7⅛ I.D. O.D.	10.32 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	29.67 FT.
	TOTAL	8662.00 FT.
WT. OF STRING		174,000 LBS.

BIT RECORD

BIT NO.	41
SIZE	7⅞
MFG.	SEC
TYPE	H-8
NOZZLE NO.	NO
NOZZLE SIZE	JETS
SER. NO.	755740
DEPTH OUT	
DEPTH IN	8608
TOTAL FTG.	54
TOTAL HR. RUN	19
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4:00	8:00	10:00
WEIGHT	9:0	9:0	9:0
VISC.-SEC	34	34	34
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Quick Vic	1 gal		
Attapulgus	500		
H20			

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
86 46	8662	16.			44	40	550	5¼	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	9.45	5½	DRILL 7⅞" HOLE.
9.45	11.15	1½	CIRC. BOTTOM HOLE SAMPLE ATLANTIC ORDERS
11.15	12.00	¾	
		8 HRS.	

DRILLING CREW PAYROLL DATA

PRIVATE

DATE FEB. 6 1965.

WELL NAME & NO. A.C.C. AC K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD NUFER.	8
FLRMAN		SALVATORE GIACOBAO	8
FLRMAN			

FUEL-

DAY TANK- 4'6"

RIG TANK- 9'

NO. OF DAYS 19 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		DAUG. HENDERSON	8
FIREMAN			
FLRMAN		MCH. SAUNDERS.	8
FLRMAN		DOUG. HAGEN	8
FLRMAN		H.P. MOORE	8

SAFETY MEETING HELD. SUBJECT. LET THERE BE LIGHT. (BULB.)

NO. OF DAYS 19 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		LEN PINCHUK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 19. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 82 DATE FEB 5/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4 1/2 | TOOL JOINT 6" O.D. TYPE THD F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. M. Rowdon

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7 1/4	7 1/2	1/2
REAMING			
CONDITIONING MUD & CIRCULATING		1/4	3 1/2
TRIPS			3 3/4
LUBRICATE RIG	1/4		
DEVIATION SURVEY			1/4
TEST B.O.P.		1/4	1/4
CUT OFF DRILLING LINE			1/4
REPAIR RIG			1/4
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			1/4
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
35	STANDS D.P.	7865.04	FT.
	SINGLES D.P.		FT.
21	D.C. I.D. O.D.	596.18	FT.
1	D.C. I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STR. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	Shock Sub	10.38	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	8550	FT.

WT. OF STRING 170,000 LBS.

BIT RECORD

BIT NO.	40
SIZE	7 7/8
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	1-2
NOZZLE SIZE	16-15
SER. NO.	47590
DEPTH OUT	
DEPTH IN	8459
TOTAL FTG.	91
TOTAL HR. RUN	12 1/2
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12:30	3:30	6:30
WEIGHT	9.3	9.2	9.2
VISC.-SEC	33	32	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTApulgus	2000#	Aquaness	3 gal.
Q-K-vis	1 gal		
Water	1" STM		

DRILLER Robert White.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
8490	8550	60	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
42	40	750	5 1/4	72	5"		
		750		72			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	2 15	2 1/4	DRLG.
2 15	2 30	1/4	SER RIG
2 30	8 00	5 1/2	DRLG BIT PLUGGED MAKING CONN.
			PUT INHIBITOR IN SUCTION @ 2:30

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
35	STANDS D.P.	7951.73	FT.
2	SINGLES D.P.		FT.
21	D.C. 8 1/8 - 6 1/4 I.D. O.D.	596.18	FT.
1	D.C. 8 1/8 - 7 1/4 I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	Shock Sub	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING 170,000# LBS.

BIT RECORD

BIT NO.	40	41
SIZE	7 7/8	7 7/8
MFG.	H-W	SEC
TYPE	RG-7	H-8-J
NOZZLE NO.	1-2	No
NOZZLE SIZE	16-15	JETS
SER. NO.	47590	255740
DEPTH OUT	8668	
DEPTH IN	8459	8608
TOTAL FTG.	149	
TOTAL HR. RUN	20 1/2	
COND. OF BIT	3-6-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	6:15		
WEIGHT	9.2		
VISC.-SEC	34		
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTApulgus	1300		

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
8605	8608	3'	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
42	40	800	5 1/4	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8608	—							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.30	1/2	DRILL 7 7/8" HOLE 10.30 12.00 RUN IN CHECK FOR
4.30	6.00	1 1/2	CIRC. HOLE CLEAN & LAY DOWN PIPE) SURVEY BAL. EVERY 20 STANDS.
6.00	6.15	1/4	SURVEY @ 8608
6.15	7.00	3/4	HOIST - INHIBITOR O.D. OF PIPE
7.00	7.15	1/4	REPAIR BROKEN STEAM LINE
7.15	9.30	2 1/4	HOIST
9.30	9.45	1/4	CHANGE BITS & CHK. BLIND RAMS
9.45	10.00	1/4	SLIP 32' LINE

10.00 L.D. 5" LOOKING FOR SURVEY BAL.

DRILLING CREW PAYROLL DATA

DATE FEB 5 1965 — PRIVATE — Tight

WELL NAME & NO. A.C.A.C. K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

FUEL-
DAY TANK- 5' 6"
RIG TANK- 9' 6"

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			
Mech		H. P. Moore	8

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		[illegible]	
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 81 DATE FEB. 4/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA CARBON ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT R 2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. RH

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL.	C-700	14
2.	NATIONAL.	P-350	12
3.			

CASING / TUBING / LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-40	11			430	SURFACE
TUBING OR LINER	8⅝		28-N-40	109			8465	INTED

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	½	11¼	4½
REAMING		4½	
CONDITIONING MUD & CIRCULATING			
TRIPS	4½	2¼	
LUBRICATE RIG	1¼		¼
DEVIATION SURVEY	¼		
TEST B.O.P.		1¼	
CUT OFF DRILLING LINE		1¼	
REPAIR RIG	1	½	1¾
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	1½		1½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			FT.
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING 170,000 LBS.

BIT RECORD

BIT NO.	39	40
SIZE	7⅞	7⅞
MFG.	H.W.	H.W.
TYPE	RG7X	RG7
NOZZLE NO.	1 2 1 2	
NOZZLE SIZE	15 15	16 15
SER. NO.	61730	47590
DEPTH OUT	8459	
DEPTH IN	8295	8459
TOTAL FTG.	164	
TOTAL HR. RUN	30¼	
COND. OF BIT	6-8-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.—SEC			
W.L.—C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt White

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8456	8459	3										

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1230	½	DRLG.
1230	1245.	¼	SURVEY
1245.	100	¼	SERVICE R.G.
100	200	1	PULL OUT FOR BIT. 2ND. STAND PULL TIGHT.
200	230	½	CHANGE SLIP DIES.
230	415.	1¾	PULL OUT - LAY DOWN 10 SINGLES
415.	445.	½	WORK ON SLIPS.
445.	600	1¼	PULL OUT. - 600: 630. RECOVER SURVEY STUCK IN SHOCK SUB.

6:30-8:00 CHANGE BOOTS ON STAB

MODEL D-7¾" - RTM ROR CUTTERS

MAKE UP BIT & JUNK SUB.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			FT.
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING 170,000 LBS.

BIT RECORD

BIT NO.	40
SIZE	7⅞
MFG.	H.W
TYPE	RG7
NOZZLE NO.	1-2
NOZZLE SIZE	16-15
SER. NO.	47890
DEPTH OUT	
DEPTH IN	8459
TOTAL FTG.	1
TOTAL HR. RUN	¾
COND. OF BIT	1/4.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.—SEC			
W.L.—C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTAPULGUS	230#	WATER	
SAWDUST	20 SAX		
QUICK-VIS	1 GAL.		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8459	8460				40	15	250	5¼	36	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8459	13½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	TEST B.O.P.
815	830	¼	SLIPPED 22' DRLG. LINE.
830	1030	2	RUN IN W/B.T #40
1030	300	4½	B.CIRC. & CLEAN 217' TO BOTTOM.
300	315	¼	W/JUNK SUB.
315	330	¼	DRLG. 7⅞" HOLE.
330	400	½	W.O. #1 MOTOR. (OIL LINE)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			FT.
84	STANDS D.P.	7833.59	FT.
9	SINGLES D.P.	9	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	11.82	FT.
	TOTAL	8490.00	FT.

WT. OF STRING 168,000# LBS.

BIT RECORD

BIT NO.	40
SIZE	7⅞
MFG.	H.W
TYPE	RG-7
NOZZLE NO.	1-2
NOZZLE SIZE	16-15
SER. NO.	47890
DEPTH OUT	
DEPTH IN	8459
TOTAL FTG.	31
TOTAL HR. RUN	4¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	7.00	9.00	11.00
WEIGHT	#		
VISC.—SEC	45	42	35
W.L.—C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8460	8490	30			42	35	700	5¼	66			
							950		72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8459	13½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	SER RIG
415	545	1½	THAW AIR LINES TO NO 1-2-3 MOTOR CLUTCHES - PUT ALCOHOL IN MAIN AIR LINE - REPAIR BAD LEAK ON NO 1 PUMP CLUTCH LINE
545	730	1¾	DRILL 7⅞" HOLE
730	745	¼	WORK ON G-700 PUMP
745	800	¼	CHANGE PUMPS
800	1045	2¾	DRILL
1045	1145	1	CONN. TIGHT HOLE & PLUGGED BIT.

11.45 12.0° DRILL

DRILLING CREW PAYROLL DATA

PRIVATE

DATE FEB. 4 1965

WELL NAME & NO. ATLAS K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL HANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG-HAGEN	8
FLRMAN		MEL-SAUNDERS	8
FLRMAN			
Mech.		H.P. Moore	8

NO. OF DAYS 17 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 17 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 80 — DATE FEB 3/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBUS CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT = 2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT O.D. 6" | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-42	11			430	SURFACE.
TUBING OR LINER	8 5/8		28-N-80	105			3465	INTER.

DRILLING CREW PAYROLL DATA — PRIVATE

DATE FEB. 3 1965.

WELL NAME & NO. ATLANTIC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7½	7¼	7¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¼		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
83	STANDS D.P.	7708.87	FT.
	SINGLES D.P.		FT.
1	DC 2⅞ - 7¼ I.D. O.D.	10.33	FT.
21	DC 2⅞ 6¼ I.D. O.D.	596.18	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB.	10.38	FT.
	KELLY DOWN	12.00	FT.
	TOTAL	8363.	FT.

WT. OF STRING 166,000 LBS.

BIT RECORD

BIT NO.		39
SIZE		7⅞
MFG.		H.W.
TYPE		R67X3
NOZZLE	NO.	1-2
	SIZE	16-15
SER. NO.		61730
DEPTH OUT		
DEPTH IN		8295.
TOTAL FTG.		70
TOTAL HR. RUN		14
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	100	330	630
WEIGHT	9.3	9.3	9.2
VISC.-SEC	32	32	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Attaplugus	3600#	WATER	1"
Caustic	200#	AQUANESS	3 GAL.
PelTex	400#		

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
8318	8365	47	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL.—S PAR.-EL-P CONT.-C
44	40	750	5¼	68	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	145	1¾	DRLG.
145	200	¼	SER RIG.
200	730	5½	DRLG.
730	745	¼	PUT INHIBITOR IN PUMP SUCTION.
745	800	¼	DRLG.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
84	STANDS D.P.	7802.76	FT.
	SINGLES D.P.		FT.
21	DC 2⅞ - 6¼ I.D. O.D.	596.18	FT.
1	DC 2⅞ - 7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.		39
SIZE		7⅞
MFG.		H-W
TYPE		R67X
NOZZLE	NO.	1-2
	SIZE	16-15
SER. NO.		61730
DEPTH OUT		
DEPTH IN		8295
TOTAL FTG.		161
TOTAL HR. RUN		29¾
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	830	1130	300
WEIGHT	9.4	9.4	9.4
VISC.-SEC	32	32	31
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTAPULGUS	1000"		
SAWDUST	10 BAGS		
AQUANESS	3 GALS		

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
8365	8414	49	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL.—S PAR.-EL-P CONT.-C
40	40	750	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8295	13°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
300	315	¼	TEST B.O.P. + SHUT OFFS.
315	400	7¾	DRLG. 7⅞" HOLE.

Checked Fire Ext. Repairs to Camp Exit, numbers
Checked Brakes + Wire line, gas masks + Emerg. Buggy.
Also motor shut offs OK. H. Bauman

MORNING TOUR

DRILLER: ROBERT WHITE — 8 HRS.

DRKMAN: LLOYD REMUS. — 8 HRS.

MTRMAN: JOE KRAMER — 8 HRS.

FIREMAN:

FLRMAN: GERALD NUFER. — 8 HRS.

FLRMAN: SALVATORE GIACOBBO — 8 HRS.

FLRMAN:

FUEL—
DAY TANK 5' 4"
BIG TANK 2' 10"

NO. OF DAYS 16 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DAY TOUR 800 A.M. 400 P.M.

DRILLER: Ab. LEIPPI — 8 HRS.

DRKMAN: PAUL. LANGE. — 8 HRS.

MTRMAN: PAUL HENDERSON — 8 HRS.

FIREMAN:

FLRMAN: DOUG. HAGEN — 8 HRS.

FLRMAN: MCL. SAUNDERS. — 8 HRS.

FLRMAN:

Mech: H. P. Moore — 8 HRS.

NO. OF DAYS 16 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

EVENING TOUR 400 P.M. 12.00 P.M.

DRILLER: JOHN HAMMOND — 8 HRS.

DRKMAN: WALTER ZACHARIUK — 8 HRS.

MTRMAN: HAROLD QUENS — 8 HRS.

FIREMAN:

FLRMAN: LEN PINCHUCK — 8 HRS.

FLRMAN: HENRY BOYKO. — 8 HRS.

FLRMAN:

HELD DEMONSTRATION OF REMOX GAS MASKS (SAFETY MEETING)

NO. OF DAYS 16 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 79 — DATE FEB 2/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. @CARBON ARCTIC CIRCLE

WELL NO. A-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. W. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-80	109			8465.	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	0¼		6½
REAMING			1¼
CONDITIONING MUD & CIRCULATING		1	
TRIPS		6¼	
LUBRICATE RIG	¼		¼
DEVIATION SURVEY	½		
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		½	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
84	STANDS D.P.	7861.33 FT.
1	SINGLES D.P.	FT.
14	DC 2⅞ 6¼ I.D. O.D.	402.34 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D. 6.58	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN 25.00	FT.
	TOTAL 8295.	FT.

WT. OF STRING 156,000 LBS.

BIT RECORD

BIT NO.	38
SIZE	7⅞
MFG.	SEC
TYPE	H77
NOZZLE NO.	CUT
NOZZLE SIZE	OUT.
SER. NO.	697182
DEPTH OUT	8295.
DEPTH IN	8243
TOTAL FTG.	52
TOTAL HR. RUN	9½
COND. OF BIT	4-3-0/8
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1.30	3.30	6.30
WEIGHT	9.4	9.2	9.2
VISC.-SEC	33	32	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	200#	WATER	1" Flm
PELTEX	400#		
ATAPULGUS	5600#		

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8252	8295.	43.			47	25	500	5¼	69	5"		

DEVIATION RECORD: DEPTH 8295.

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.15	4¼	DRLG.
4.15	4.30	¼	SER RIG.
4.30	7.30	3	DRLG.
7.30	8.00	½	DROP SURVEY.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
21	DC 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	DC 2⅞ 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING 166,000 LBS.

BIT RECORD

BIT NO.	39
SIZE	7⅞
MFG.	H.W.
TYPE	RG7X
NOZZLE NO.	1-2
NOZZLE SIZE	16-15
SER. NO.	61730
DEPTH OUT	4
DEPTH IN	8295
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
8295				1st Single Top of Collars			Corrosion Ring		#825B			
				1st Rubber pipe @ 5100'					#961B			

DEVIATION RECORD: DEPTH 8295 — DEV. 13°

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	TEST B.O.P.
8.15	11.00	2¾	HOIST BIT #38
11.00	11.15	¼	SLIPPED 22' DRLG. LINE (B.I RAMS CLOSED.)
11.15	11.45	½	CHANGE BITS & PICK UP REAMER ASSEMBLY.
11.45	12.30	¾	RUN IN COLLAR & CHECK SER. NOS.
12.30	3.00	2½	RUN IN SLOW.
3.00	4.00	1	B.I CIRC. & CLEAN TO BOTTOM. (130' FILL.)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
82	STANDS D.P.	7646.30 FT.
1	SINGLES D.P.	FT.
21	DC 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	DC 2⅞ 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	27.11 FT.
	TOTAL	8318.00 FT.

WT. OF STRING 166,000# LBS.

BIT RECORD

BIT NO.	39
SIZE	7⅞
MFG.	H.W.
TYPE	RG-7X
NOZZLE NO.	1-2
NOZZLE SIZE	16-15
SER. NO.	61730
DEPTH OUT	
DEPTH IN	8295
TOTAL FTG.	23
TOTAL HR. RUN	6½
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6.00	8.00	10:00
WEIGHT	9.2	9.8	9.3
VISC.-SEC	35	34	33
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Quick Vis	2 gals	Gaustis	200#
Attapulgus	2000#	Aquaness	3 gals
Peltex	400#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN
8295	8318	23			44	35	700	5¼	66			
						40	900		72			

DEVIATION RECORD: DEPTH 8295 — DEV. 13°

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	5.30	1¼	CLEAN OUT & REAM UNDER GAGE HOLE 55' TO BTM.
5.30	12.00	6½	DRILL 7⅞" HOLE (INHIBITOR TREETMENT @ 7.22 P.M.)
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE FEB 2 1965. — PRIVATE

WELL NAME & NO. ACC. AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER.	16
FIREMAN			
FLRMAN		GERALD NUFER.	16
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

2 MEN WENT TO RIVER VIA KAP TO TRANSFER MUD & CLEAN UP ATLANTIC MUD

FUEL

DAY TANK 4' 6"

RIG TANK 4' 4"

NO. OF DAYS 15 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			
MECH		H-P Moore	8

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 15. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 78 DATE FEB 1/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.R. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		H-40 H-42	11			430	SURFACE
8 5/8		28 N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			9½
REAMING			
CONDITIONING MUD & CIRCULATING	7½	7¼	3½
TRIPS		1½	
LUBRICATE RIG	½		
DEVIATION SURVEY			
TEST B.O.P.		½	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Pumps			½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
83	STANDS D.P.	7798.55 FT.
2	SINGLES D.P.	FT.
14	D.C. 2 7/8 6 1/4 I.D. O.D.	402.34 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D.	6.58 FT.
	BIT OR C.B.	2.14 FT.
		2.33 FT.
	KELLY DOWN	36.00 FT.
	TOTAL	8243' FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		38
SIZE		7 7/8
MFG.		SEC
TYPE		H-7-J
NOZZLE	NO.	BUT
	SIZE	OUT
SER. NO.		697182
DEPTH OUT		
DEPTH IN		8243
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	12'15	4 00	6 00
WEIGHT	9.1	8.8	8.6
VISC.-SEC	29	30	32
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Pelter Loo#		AT plugs	5000
Caustic 300#			
Driscose 250#			

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS PAR'EL-P CON'D-C
8243.	8243											

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	1/4	SER RIG.
1215	800	7 3/4	CIRC @ 4125' & MIXING MUD
			14 DC'S & 40 STANDS IN HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.		38
SIZE		7 7/8
MFG.		SEC.
TYPE		H-7-J
NOZZLE	NO.	CUT
	SIZE	OUT
SER. NO.		697182
DEPTH OUT		
DEPTH IN		8243
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9:00		3:00
WEIGHT	8.7		8.7
VISC.-SEC	32		33
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
ATTapulgus	2500		
Caustic	100#		
Pelter	200#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGLS PAR'EL-P CON'D-C
8243	8243							5¼	36	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8215	13½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	1/4	TEST B.O.P.
815	945	1½	CIRC. @ 4125' & CONN. MUD
945	1000	1/4	RUN IN 10 STDS. - 5055.
1000	100	3	BREAK CIRC. & MIXING. ATTAPUGUS.
100	115	1/4	RUN IN 5 STDS. - 5320.
115	400	2¾	CIRC. CONN. MUD. & MIX ATTAPUGUS.
			RAISE Vsh.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
84	STANDS D.P.	7829.55 FT.
	SINGLES D.P.	FT.
14	D.C. 2 7/8 6 1/4 I.D. O.D.	402.34 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
2	SUBS O.D.	6.58 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	13.73 FT.
	TOTAL	8252.00 FT.
WT. OF STRING	153,000#	LBS.

BIT RECORD

BIT NO.		38
SIZE		7 7/8
MFG.		SEC
TYPE		H-7-J
NOZZLE	NO.	BUT
	SIZE	OUT
SER. NO.		697182
DEPTH OUT		
DEPTH IN		8243
TOTAL FTG.		9
TOTAL HR. RUN		2¼
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	6:00	9:00	10:30
WEIGHT	8.7	8.7	8.7
VISC.-SEC	34	34	34
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Henry Boyko

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS PAR'EL-P CON'D-C
8243	8252	9			47	35	700	5¼	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8215	13½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.30	1½	BUILD VOLUME & RAISE VISCOSITY - CIRC HOLE @ 5400
5.30	5.45	1/4	RUN IN 10 STANDS
5.45	7.45	2	CIRC. HOLE & CONDITION MUD
7.45	8.45	1	RUN IN 15 STDS. & PICK UP 8 SINGLES TO BTM.
8.45	9.15	½	CLEAN 16' TO BTM.
9.15	10.45	1½	DRILL 7 7/8" HOLE
10.45	11.00	1/4	REMOVE WOOD FROM UNDER VALVES ON G700
11.00	11.15	1/4	WORK KELLY BUSHINGS IN. 10' FILL
11.15	12.00		DRILL

DRILLING CREW PAYROLL DATA

DATE FEB. 1 1965.

WELL NAME & NO. A.C.C.A.C K-4

COMPANY CASCADE DRLG. CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

FUEL -
DAY TANK - 5'
RIG TANK - 4'8"

NO. OF DAYS 14 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL. LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			
Mech.		H.P. Moore	8

NO. OF DAYS 14 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		KEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 14 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 77 — DATE JAN 31/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON. ARCTIC CIRCLE.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. 6¼" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40.H-42	11			430	SURFACE
8 5/8		28.N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	1¾	1½	7
TRIPS	3¾	1	D
LUBRICATE RIG			
DEVIATION SURVEY	½		
TEST B.O.P.		¼	
CUT OFF DRILLING LINE		¼	
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Work Hole	2		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7	1½	8
HRS. WO/DP	1	½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
#1	STANDS D.P.	7557.94	FT.
	SINGLES D.P.		FT.
	D.C. 2¼ I.D. 6¼ O.D.	296.18	FT.
#1	D.C. 2¾ I.D. 7½ O.D.	10.33	FT.
1	STB. BODY O.D.	9.56	FT.
2	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	8243	FT.

WT. OF STRING 166,000 LBS.

BIT RECORD

BIT NO.	37
SIZE	7⅞
MFG.	REED
TYPE	HWJ
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	205600
DEPTH OUT	8243
DEPTH IN	8126
TOTAL FTG.	117
TOTAL HR. RUN	6¼
COND. OF BIT	4-3-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	100	230
WEIGHT	8.8	9.4
VISC.-SEC	28	28.
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
BARANNESS		CALATTAPAL	1300#
CAUSTIC	100#		
PELTEX	200#		

DRILLER Ralph Caudill

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.
8243	8243	0	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO./ LINER SIZE	PUMP NO./ S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
		500	5½	38			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾	MIXING MUD IN TANKS.
1245	100	¼	RUN IN 4 STDS OF PIPE.
100	300	2	BRK. CIRC CLEAN HOLE FROM 8213' TO 8243'
			TO MAKE CONN. UNABLE TO CLEAN UP
			LOST ALL MUD LOW RETURNS WHILE CIRC.
300	330	½	DROP SURVEY
330	700	3½	TRIP OUT W/ BIT #37 - RETRIEVE CORROSION RINGS
700	800	1	MIXING MUD IN TANKS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
14	D.C. 2⅞-6¼ I.D. O.D.	430.22	FT.
#2	D.C. 2¾-7½ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	41.00	FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	38
SIZE	7⅞
MFG.	SEC.
TYPE	H-7-T
NOZZLE NO.	CUT
NOZZLE SIZE	OUT D.W.C.
SER. NO.	697182
DEPTH OUT	
DEPTH IN	8243.
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	5300#		
CAUSTIC	100#		
PELTEX	400#		

DRILLER O. Leippi.

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.
8243	8243	0	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO./ LINER SIZE	PUMP NO./ S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8¹⁵	¼	TEST B.O.P.
8¹⁵	2¹⁵	6	CONN. MUD WAIT ON GEL.
2¹⁵	3³⁰	¼	CHAINGE B.T.
3³⁰	3¹⁵	¾	RUN IN 14 D.COLLARS & 30 STDS. OFF PIPE.
3¹⁵	3³⁰	¼	SLIP 22' DRLG. LINE.
3³⁰	4⁰⁰	½	MIXING GEL.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	33
SIZE	7⅞
MFG.	SEC
TYPE	H-7-T
NOZZLE NO.	CUT
NOZZLE SIZE	OUT
SER. NO.	697182
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FL.TR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	2700	Shavings	24 sacs
Caustic	100	Sawdust	8 sacs
Drisilve	400	Polyflake	10 sacs

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.
8243	8243	0	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO./ LINER SIZE	PUMP NO./ S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	10.00	6	MIXING GEL & LOST CIRC. MATERIAL
10.00	10.30	½	CIRC. HOLE @ 3200' & PUMP DOWN LOST CIRC MATERIAL
10.30	11.00	½	STAND BACK KELLY & MOVE DRILL COLLARS FROM IN FRONT OF RAT HOLE
11.00	11.30	½	RUN IN 10 STANDS PIPE
11.30	12.00	½	CIRC HOLE & MIXING MUD.

DRILLING CREW PAYROLL DATA

DATE JAN 31 1965.

WELL NAME & NO. A.C.C.A.C K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

Lights

MORNING TOUR 2⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD NUFER.	8
FLRMAN		SALVATARE GIACOBBO	8
FLRMAN			
		FUEL-	
		DAY TANK- 4'-11"	
		RIG TANK- 6'-2"	

NO. OF DAYS 13 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		HG. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEK. SAUNDERS	8
FLRMAN			
mech.		H. P. Moore	8

NO. OF DAYS 8 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
PIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 13 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 76 — DATE JAN 30/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT # 2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walkers

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

CASING / TUBING OR LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-42	11			430	SURFACE
	8 5/8		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 30 1965 — PRIVATE

WELL NAME & NO. ARCTIC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4½	1¾	
Circulation Reaming	¼		
CONDITIONING MUD & CIRCULATING			1½
TRIPS	¼	3¼	
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING Hard Hole		½	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Waiter	2¾	4¾	½
FISHING		1	
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
81	STANDS D.P.	7557.94 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	24.00 FT.
	TOTAL	8226 FT.
WT. OF STRING	166,000	LBS.

BIT RECORD

BIT NO.		37
SIZE		7 7/8
MFG.		REED
TYPE		V11HWJ
NOZZLE	NO.	3
	SIZE	12
SER. NO.		205600
DEPTH OUT		
DEPTH IN		8126
TOTAL FTG.		100
TOTAL HR. RUN		4½
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	1⁰⁰	4⁰⁰
WEIGHT	9.8	9.1
VISC.-SEC	29	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	1500		
Water			
Aquaness 390L			

DRILLER Robt Whitehead

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
8126	8226	100			40	30	450	5 1/4	40	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12¹⁵	¼	SER RIG.
12¹⁵	3¹⁵	3	DRLG LOSING DRLG FLUID. PUMP @ SLOW SPEED.
3¹⁵	3³⁰	¼	PUT 3 GALS INHIBITOR IN PUMP SUCTION.
3³⁰	4³⁰	1	DRLG
4³⁰	4⁴⁵	¼	WAIT ON WATER.
4⁴⁵	5¹⁵	½	DRLG.
5¹⁵	5³⁰	¼	PULL 4 STDS.
5³⁰	8⁰⁰	2½	WAIT ON WATER.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
81	STANDS D.P.	7557.94 FT.
	SINGLES D.P.	1 FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.32 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	9243 FT.
WT. OF STRING	166.000	LBS.

BIT RECORD

BIT NO.		37
SIZE		7 7/8
MFG.		REED
TYPE		Y.H.W
NOZZLE	NO.	3-J
	SIZE	12
SER. NO.		20560
DEPTH OUT		
DEPTH IN		8126
TOTAL FTG.		117
TOTAL HR. RUN		6¼
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	300#		
PELTEX	300#		
ATTAPULGUS	800#		

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
8226	8243.	17										

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8¹⁵	¼	TEST B.O.P.
8¹⁵	9⁴⁵	1½	WAIT ON WATER. (PIPE PULLED TO 7966.)
9⁴⁵	10⁰⁰	¼	RUN IN 4 STDS.
10⁰⁰	10¹⁵	¼	B. RIG. & CLEAN TO BOTTOM. (NO FILL.)
10¹⁵	12⁰⁰	1¾	DRLG. 7⅞" HOLE.
12⁰⁰	12³⁰	½	CONN. WORK. TIGHT SPOT. (LOST 30')
12³⁰	12⁴⁵	¼	HOIST 4 STDS. -7966.
12⁴⁵	4⁰⁰	3¼	W.O. WATER.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
81	STANDS D.P.	7557.94 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	8243 FT.
WT. OF STRING	166,000#	LBS.

BIT RECORD

BIT NO.		1120
SIZE		Same
MFG.		
TYPE		
NOZZLE	NO.	
	SIZE	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		
WEIGHT		8.8
VISC.-SEC		
W.L.-C.C.		
FLTR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Attapulgus	400#	Gel	1800# = 18.00#
Peltex	600#	Mica	10 SAK.
Caustic	300#	Polyethelene	15 Sax

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
8243	8243											

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.30	½	WAIT ON WATER
4.30	12.00	7½	MIXING MUD & LOST CIRC. MATERIAL (ATTAPULGUS SETTALING OUT OF MUD NOT YIELDING (Pumped into system as Hydrogel added)
		8 HRS	

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD HUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			
		FUEL-	
		DAY TANK- 4' 7"	
		RIG TANK- 7' 2"	

NO. OF DAYS 12 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		HL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HIGGEN	8
FLRMAN		MEL SAUNDERS.	8
FLRMAN		H.P. Moore	8
	CHECK.	MOTOR SHUT OFF O.K.	

NO. OF DAYS 12 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		BEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 12. SINCE LAST LOST TIME ACCIDENT

PRIVATE
Tight

DRILLING—COMPLETION—WORKOVER LOG

UNIT OR LEASE Atlantic Columbia Carbon Hoke Circle WELL NUMBER 2 (K-4) DATE 1-29-65

FIELD Wildcat DISTRICT BC-NWT

COUNTY OR PARISH PROVINCE OR STATE Northwest Ty.

CONTRACTOR Cascade Drilling Co., Ltd., Rig #12

I. 8090-8090(0') Pulled out of hole with Bit #36, picked up and ran in hole with 5¾" x 3½" Core Barrel with 7 13/16 Core Head.

II. 8090-8126(36') Cut Core No. 2 in Cambrian @ 8090-8126 (36'). Recovered 5.2'.
8090-8126': Shale, dark-brown to black, dolomitic, silty in part, with interbedded brown clay shale and dark gray anhydrite. Minor halite.

III. 8126-8126(0') Serviced Core Barrel, stood same back in derrick, picked up Bit #37 and ran in hole to resume drilling.

TIME DISTRIBUTION—HOURS	WORN	DAY	EVE
RIG UP AND TEAR DOWN			
DRILLING NORMAL			
DIRECTIONAL DRILLING			
REAMING			
TRIPS TO CHANGE BIT			
DRILLING WITH PARTIAL RETURNS			
COMBATING LOST CIRCULATION			
[redacted] AND CIRCULATING Samples	1		
FISHING			
DEVIATION SURVEY	1/4		
LUBRICATE RIG			1/4
CUT OFF DRILLING LINE			1/4
REPAIR RIG		1	1/4
TEST CASING OR B.O.P		1/4	
CORING: SIDE WALL			
CORING: CONVENTIONAL			
CORING: DIAMOND	6¾	6¾	7¼
CORING: WIRE LINE			
DRILL STEM TEST OPEN HOLE			
WIRE LINE LOGGING OPEN HOLE			
PLUGGING BACK			
RUNNING CASING AND CEMENTING			
WAITING ON CEMENT			
LOGGING CASED HOLE			
PERFORATING			
WIRE LINE FORMATION TEST CASED HOLE			
DRILL STEM TEST CASED HOLE			
TESTING			
SWABBING			
ACIDIZING			
FRACTURING			
TUBING TRIPS			
OTHER			
TOTALS	8	8	8

TIME SUMMARY			
DAY WORK			
HOURS W/DP	13/4	7	6
HOURS WO/DP	1¼	1	2
HOURS STANDBY			
TOTAL DAY WORK	8	8	8

JOINTS	FEET	WEIGHT	GRADE	THREAD	CLASS

SIZE O.D. CASING	
SHOE	
SET JOINT	
COLLAR	
JOINTS PIPE	
TOTAL	
RKB TO	
DEPTH SET	

DEPT. OF NORTHERN AFFAIRS & NATIONAL RESOURCES
CALGARY, ALBERTA
FEB 8 1965
OIL CONSERVATION ENGINEER
Northwest Territories & Yukon Territory

PRINTED IN CAN. 38-228 5/63

SIGNED W. S. Walters

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 75 DATE JAN 29/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 7" | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walker

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

CASING / TUBING / LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-42	11			430	SURFACE
TUBING OR LINER	8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING Trips	1		
TRIPS			
LUBRICATE RIG			1/4
DEVIATION SURVEY	1/4		
TEST B.O.P.		1/4	
CUT OFF DRILLING LINE			1/4
REPAIR RIG		1	1/4
CORING	13/4	13/4	7 1/4
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	13/4 7 6
HRS. WO/DP	1/4 1 2
HRS. STANDBY	
TOTAL DAY WORK	8 8 8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
79	STANDS D.P.	7404.75	FT.
1	SINGLES D.P.		FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	8090	FT.

WT. OF STRING 165,000 LBS.

BIT RECORD

BIT NO.	36	35A
SIZE	7 7/8	7 13/16
MFG.	H.W	CHRIS.
TYPE	WTR-2	4
NOZZLE NO.	3	
NOZZLE SIZE	12	
SER. NO.	237 EC/10413	
DEPTH OUT	8090	
DEPTH IN	8026	
TOTAL FTG.	64	
TOTAL HR. RUN	6 3/4	
COND. OF BIT	4-6-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FLTR. CK., PH, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE, AMT., TYPE, AMT.

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-PARTEL-P COM'D-C
8090	8090	∞										

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
8090	17 3/4							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	100	1	CIRC HOLE SAMP. FOR ATLANTIC
100	115	1/4	SURVEY
115	430	4 1/4	TRIP OUT TO CORE. STRAP PIPE.
~~430~~			JUGGLE STDS WITHOUT RUBBERS TO RUN IN BELOW RUBBERED PIPE
430	500	1/2	STAND BACK STAB SHOCK SUB & RMR IN DRK
500	545	3/4	PICK UP CORE BBL & SERVICE
545	700	1 1/4	RUN IN W/ CORE BBL. 700-715. TRANS AIRLINES, 715-800 RUN IN

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
80	STANDS D.P.	7437.48	FT.
	SINGLES D.P.		FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
—	SUBS O.D.	?	FT.
	~~BIT~~ OR C.B.	22.70	FT.
			FT.
	KELLY DOWN	20.+	FT.
	TOTAL	8126.00	FT.

WT. OF STRING 161,000 LBS.

BIT RECORD

BIT NO.	35A
SIZE	7 13/16
MFG.	CHRS
TYPE	4
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC 10413
DEPTH OUT	8126
DEPTH IN	8090
TOTAL FTG.	36
TOTAL HR. RUN	3 3/4
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FLTR. CK., PH, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: SAWDUST 2SAX; WATER

DRILLER A. Leibel

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-PARTEL-P COM'D-C
8090	8126	36	2	Cambrian	48	15	1100	5 1/4	66			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	845	3/4	FINISH IN W/CORE BBL (#2.)
845	900	1/4	TEST. B.O.P.
900	915	1/4	B.I.CIRC.
915	1015	1	WORK ON AIR LINES
1015	1100	3/4	DROP BALL & CLEAN TO BOTTOM.
1100	245	3 3/4	CUT CORE #2.
245	300	1/4	BRAKE OFF CORE & PULL OUT OF RAT HOLE.
300	400	1	HOIST CORE BBL. (#2)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
80	STANDS D.P.	7437.48	FT.
	SINGLES D.P.		FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	37
SIZE	7 7/8
MFG.	REED
TYPE	YHW-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	265600
DEPTH OUT	
DEPTH IN	8126
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FLTR. CK, PH, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE, AMT., TYPE, AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8126	8126	0	2	Cambrian (Rec. 5.2') See Tour Report								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	1/4	SER RIG
415	430	1/4	HOIST 2 MOTORS
430	445	1/4	REPLACE GUARDS & COMPOUND NO 3. MOTOR.
445	715	2 3/4	HOIST INHIBITOR O.D. OF PIPE—CHAIN PIPE OUT IN CASING
715	800	3/4	RECOVER CORE NO 2.
800	830	1/2	COAT INNER & OUTER CORE BBL. WITH INHIBITOR
830	845	1/4	STAB BACK CORE BBL & PICK UP PACK OFF ASSEMBLY & BIT
845	900	1/4	SLIP 22' DRILLING LINE

900-1113 RUN IN BIT 37 — 1115-1200 CLEAN 36' TO BTM.

DRILLING CREW PAYROLL DATA

DATE JAN 29 1965.

WELL NAME & NO. A.C.C.AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

MORNING TOUR 1200 P.M. 600 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			
		FUEL-	
		DAY TANK 4' 11"	
		RIG TANK 7' 1"	

NO. OF DAYS 11 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DAVE HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			
Mech		H. P. Moore	8

NO. OF DAYS 11 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 11 SINCE LAST LOST TIME ACCIDENT

PRIVATE

1

Tight

DRILLING—COMPLETION—WORKOVER LOG

UNIT OR LEASE Atlantic Columbian Carbon Arctic Circle WELL NUMBER No. 2 (K-4) DATE 1-28-65

FIELD Northwest Territory DISTRICT BC-NWT

COUNTY OR PARISH ____ PROVINCE OR STATE Alberta

CONTRACTOR Cascade Drilling Co. Ltd. Rig #12

I. 7996-8026 (30') Finished cutting Core No. 1 of Cambrian @ 7966-8026 (60') and started POH.

II. 8026-8028 (2') Layed down and recovered Core No. 1. Recovered 60'.

7966-69: Quartzite, reddish brown, and dark gray, dolomite with interbedded gray anhydrite, reddish brown and grayish green siliceous shale and dark gray dolomite shale. Fractures filled with pink anhydrite.

7969-84.8: Shale, reddish-brown, grayish green, siliceous, and dark gray, dolomite, with interbedded reddish-brown and dark gray dolomite quartzite and gray to dark gray anhydrite. Fractures filled with pink anhydrite.

7984.8-87.8: Shale, dark gray, dolomite, with interbedded brownish-gray dolomite quartzite. Fractures filled with pink anhydrite.

7987.8-90: Anhydrite, dark gray to black, with stringers of brownish-gray dolomite quartzite. Minor pyrite.

7990-8008: Shale-reddish brown and grayish green, siliceous, with thin beds interbeds of brownish-gray dolomite quartzite and gray anhydrite. Fractures filled with pink anhydrite.

Continued Page 2

TIME DISTRIBUTION—HOURS	MORN	DAY	EVE
RIG UP AND TEAR DOWN			
DRILLING NORMAL		1/2	6 1/4
DIRECTIONAL DRILLING			
REAMING			
TRIPS TO CHANGE BIT			
DRILLING WITH PARTIAL RETURNS			
COMBATING LOST CIRCULATION			
CONDITIONING AND CIRCULATING Sample			1 1/2
FISHING			
DEVIATION SURVEY			
LUBRICATE RIG			1/4
CUT OFF DRILLING LINE		1/4	
REPAIR RIG			
TEST CASING OR B.O.P		1/4	
CORING: SIDE WALL			
CORING: CONVENTIONAL			
CORING: DIAMOND	8	7	
CORING: WIRE LINE			
DRILL STEM TEST OPEN HOLE			
WIRE LINE LOGGING OPEN HOLE			
PLUGGING BACK			
RUNNING CASING AND CEMENTING			
WAITING ON CEMENT			
LOGGING CASED HOLE			
PERFORATING			
WIRE LINE FORMATION TEST CASED HOLE			
DRILL STEM TEST CASED HOLE			
TESTING			
SWABBING			
ACIDIZING			
FRACTURING			
TUBING TRIPS			
OTHER			
TOTALS	8	8	8

TIME SUMMARY			
DAY WORK			
HOURS W/DP	8	5	8
HOURS WO/DP		3	
HOURS STANDBY			
TOTAL DAY WORK	8	8	8

JOINTS	FEET	WEIGHT	GRADE	THREAD	CLASS

SIZE O.D. CASING	
SHOE	
SET JOINT	
COLLAR	
JOINTS PIPE	
TOTAL	
RKB TO	
DEPTH SET	

PRINTED IN CAN.

DEPT. OF NORTHERN AFFAIRS & NATIONAL RESOURCES CALGARY, ALBERTA FEB 8 1965 OIL CONSERVATION ENGINEER Northwest Territories & Yukon Territory

38-228 5/63

SIGNED W.K. Walters

PRIVATE

Tight

DRILLING—COMPLETION—WORKOVER LOG

UNIT OR LEASE Atlantic Columbia Carbon Artic Circle WELL NUMBER 2 (K-4) DATE 1-28-64

FIELD _____ DISTRICT _____

COUNTY OR PARISH _____ PROVINCE OR STATE _____

CONTRACTOR _____

8000-26: Quartzite, brownish-gray, dolomitic, with interbedded gray to black anhydrite, dark gray dolomitic shale, and grayish-green siliceous shale. Fractures filled with pink anhydrite. Minor interbeds of reddish brown siliceous shale. Fractures filled with pink anhydrite. Minor interbeds of reddish-brown siliceous shale @8604'.

III. 8028-8090 (62') Drilling

TIME DISTRIBUTION—HOURS	MORN	DAY	EVE
RIG UP AND TEAR DOWN			
DRILLING NORMAL			
DIRECTIONAL DRILLING			
REAMING			
TRIPS TO CHANGE BIT			
DRILLING WITH PARTIAL RETURNS			
COMBATING LOST CIRCULATION			
CONDITIONING MUD AND CIRCULATING			
FISHING			
DEVIATION SURVEY			
LUBRICATE RIG			
CUT OFF DRILLING LINE			
REPAIR RIG			
TEST CASING OR B.O.P			
CORING: SIDE WALL			
CORING: CONVENTIONAL			
CORING: DIAMOND			
CORING: WIRE LINE			
DRILL STEM TEST OPEN HOLE			
WIRE LINE LOGGING OPEN HOLE			
PLUGGING BACK			
RUNNING CASING AND CEMENTING			
WAITING ON CEMENT			
LOGGING CASED HOLE			
PERFORATING			
WIRE LINE FORMATION TEST CASED HOLE			
DRILL STEM TEST CASED HOLE			
TESTING			
SWABBING			
ACIDIZING			
FRACTURING			
TUBING TRIPS			
OTHER			
TOTALS			

TIME SUMMARY			
DAY WORK			
HOURS W/DP			
HOURS WO/DP			
HOURS STANDBY			
TOTAL DAY WORK			

JOINTS	FEET	WEIGHT	GRADE	THREAD	CLASS

SIZE O.D. CASING	
SHOE	
SET JOINT	
COLLAR	
JOINTS PIPE	
TOTAL	
RKB TO	
DEPTH SET	

DEPT. OF NORTHERN AFFAIRS & NATIONAL RESOURCES
CALGARY, ALBERTA
FEB 3 1965
OIL CONSERVATION ENGINEER
Northwest Territories & Yukon Territory

38-228 5/63

PRINTED IN CAN.

SIGNED W.K. Walters

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 74 DATE JAN 28, 65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILD CAT = 2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 7 1/2 | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1/2	7 1/4
REAMING			
CONDITIONING MUD & CIRCULATING Sample			1 1/2
TRIPS			
LUBRICATE RIG			1/4
DEVIATION SURVEY			
TEST B.O.P.		1/4	
CUT OFF DRILLING LINE		1/4	
REPAIR RIG			
CORING	8	7	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	5	8
HRS. WO/DP		3	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
79	STANDS D.P.	7384.28 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
1	CA-BBL	72.70 FT.
	KELLY DOWN	14.00 FT.
	TOTAL	8026 FT.
WT. OF STRING	163.000	LBS.

BIT RECORD

BIT NO.	35
SIZE	7 7/16
MFG.	CHRIS.
TYPE	D
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC 10413.
DEPTH OUT	8026
DEPTH IN	7966
TOTAL FTG.	60
TOTAL HR. RUN	11
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	4:00
WEIGHT	9.7	9.7
VISC.-SEC	29	29
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
AQUANESS	1 gal		

DRILLER Robert White

FOOTAGE

FROM	TO	DRILL RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7996	8026	30	1	Cambrian - Cut 60'	48	15	1050	5 1/4	66	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	5:45	5 3/4	CORING. #1
5:45	8:00	2 1/4	TRIP OUT W/ CORE BBL. CHAIN TONG PIPE OUT IN CSG.
			PUT INHIBITOR ON O.D. PIPE

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
78	STANDS D.P.	7332.4 FT.
2	SINGLES D.P.	FT.
21	D.C. 2 3/4 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
1	STB. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB.	10.38 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	8025. FT.
WT. OF STRING	163,000	LBS.

BIT RECORD

BIT NO.	36
SIZE	7 7/8
MFG.	H. W.
TYPE	W7R2
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	237
DEPTH OUT	
DEPTH IN	8026
TOTAL FTG.	2
TOTAL HR. RUN	1/2
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUANESS	1 GAL		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8026	8028	2	1	Cambrian - Rec'd 60'	50	10.	3.50	5 1/4	36	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	9:00	1	FINISH. OUT W/ CORE BBL. CHAIN OUT. INHIB. FOR TREATMENT
9:00	9:15	1/4	TEST. B.O.P.
9:15	10:15	1	RECOVER CORE #1-60' | 330-400 - DRLG. 7 7/8" HOLE
10:15	11:30	1 1/4	SERV. CORE BBL. INHIB. FOR TREATMENT & SET IN DRK.
11:30	11:45	1/4	SLIP 22' DRLG. LINE.
11:45	12:00	1/4	CHANGE BIT & PICK UP JUNK SUB.
12:00	2:30	2 1/2	RUN IN W/ BIT #36
2:30	3:00	3/4	B. I. CIRC. & REAM RATHOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
79	STANDS D.P.	7404.75 FT.
1	SINGLES D.P.	FT.
21	D.C. 2 3/4 I.D. 7 1/16 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
1	STB. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	8090 FT.
WT. OF STRING	164,000	LBS.

BIT RECORD

BIT NO.	36
SIZE	7 7/8
MFG.	H-W
TYPE	W7R2
NOZZLE NO.	3
NOZZLE SIZE	12.
SER. NO.	237
DEPTH OUT	
DEPTH IN	8026
TOTAL FTG.	64
TOTAL HR. RUN	6 3/4
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6:00	8:06	10:00
WEIGHT	8.6	8.7	8.7
VISC.-SEC	28	29	29
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Aquaness	3 gals		
Bar.	5300		
Water			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
8028	8090	62			44	35	400	5 1/4	40			
							700		54			

DEVIATION RECORD DEPTH 7965 DEV. 1/8° DIRECTION

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	1/4	SER RIG
4:15	10:30	6 1/4	DRILL 7 7/8" HOLE
10:30	12:00	1 1/2	CIRC. BTM. HOLE SAMPLE

DISCUSED SAFETY ON "SWAMPING FOR TRUCKS"

DRILLING CREW PAYROLL DATA

DATE JAN 28 1965.

WELL NAME & NO. A.CC.AC K-4

COMPANY CASCADE DRLG-CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

MORNING TOUR 12:00 P.M. 8:00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUTER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

FUEL

DAY TANK - 5'

RIG TANK - 7'11

NO. OF DAYS 10 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			
Mech		H.P. Moore	8

NO. OF DAYS 10 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4:00 P.M. 12:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 73 — DATE JAN 27/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON' ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½, TYPE THD. F.H. | TOOL JOINT 6" O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINE

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
13 3/4		40-H-42	11			430	SURFACE
8 5/8		24-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 27 1965 PRIVATE

WELL NAME & NO. A.C.C. AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4¼		
REAMING			
CONDITIONING MUD & CIRCULATING	1¼		
TRIPS	¾		
LUBRICATE RIG	¼		
DEVIATION SURVEY	½		
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING	¾	8	8
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Inhibitor	¼		
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	3¾	8
HRS. WO/DP		4¼	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
78	STANDS D.P.	7312.18	FT.
1	SINGLES D.P.		FT.
21	D.C. 2 2/8 I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB.	10.38	FT.
	KELLY DOWN	10.00	FT.
	TOTAL	7966	FT.

WT. OF STRING 165,000 LBS.

BIT RECORD

BIT NO.	34
SIZE	7 7/8"
MFG.	H.W.
TYPE	RC 33
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	7966
DEPTH IN	7926
TOTAL FTG.	40
TOTAL HR. RUN	4 1/4
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2 00	4 00	6 00
WEIGHT	8.8	8.8	8.7
VISC.-SEC	29	29	29
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
AQUANESS	3 gal		

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7926	7966	40			40-40		1000	5½	68	5"		
				MOH: SLM 7966.06 = DM 7966								
				No Correction								

DEVIATION RECORD: DEPTH 7925, DEV. 18°

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	
12 00	12 15	¼	SER RIG
12 15	12 45	½	FINISH TRIP IN W/ BIT #34
12 45	1 00	¼	BRK CIRC
1 00	3 15	2¼	DRLG. CHECK FIRE EXTING. ON R.G
3 15	3 30	¼	PUT INHIBITOR IN PUMP SUCTION 3 GAL
3 30	5 30	2	DRLG.
5 30	6 45	1 1/4	CIRC BTM HOLE SAMP. FOR ATLANTIC
6 45	7 15	½	DROP SURVEY & 7:15-8:00 TRIP OUT TO CORE STRAP PIPE

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
28	STANDS D.P.	73.12	FT.
1	SINGLES D.P.		FT.
21	D.C. 2 2/8 I.D. 6¼ O.D.	596.18	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	2MR. BODY O.D.		FT.
	SUBS O.D.		FT.
1	BIT OR C.B.	65.24	FT.
1	JAR & SUB	7.46	FT.
	KELLY DOWN	15.+	FT.
	TOTAL	7766	FT.

WT. OF STRING 164,000 LBS.

BIT RECORD

BIT NO.	35
SIZE	7 3/16
MFG.	CHRIS.
TYPE	◇
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC-10413
DEPTH OUT	↓
DEPTH IN	7966
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Zippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7966												

DEVIATION RECORD: DEPTH —, DEV. —

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	
8 00	10 30	2½	FINISH HOISTING TO CORE #1 STRAP PIPE & INHIBITOR TREATMENT. O.D.
10 30	11 00	½	BRAKE OFF B.I.T & JUNK SUB. SET. REAMER + STB. IN DRK.
11 00	2 45	3¾	PICKED UP CORE BBL. THAW OUT & SERV. SAME.
2 45	4 00	1¼	RUN IN W/ CORE BBL. SLOW.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
28	STANDS D.P.	7353.23	FT.
2	SINGLES D.P.	79	FT.
21	D.C. 2 2/8 - 6¼ I.D. O.D.	596.18	FT.
1	D.C. CORE BBL. I.D. O.D.	72.20	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	14.89	FT.
	TOTAL	7996.	FT.

WT. OF STRING 163,000 # LBS.

BIT RECORD

BIT NO.	35
SIZE	7 13/16
MFG.	CHRIS
TYPE	◇
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	EC-10413
DEPTH OUT	
DEPTH IN	7966
TOTAL FTG.	30
TOTAL HR. RUN	5¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	7:00	9:00	10:45
WEIGHT	8:16	8:7	9:7
VISC.-SEC	28	29	29
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	6000		
Aquaness	3 gal		
Water			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7966	7996	30			48	13	1200	5½	66			

DEVIATION RECORD: DEPTH 7965, DEV. 18°

TIME LOG / DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	
4 00	4 45	¾	FINISH IN W/ CORE BBL.
4 45	5 00	¼	SER RIG + CHK BOPS
5 00	5 30	¼	PUMP INHIBITOR TREATMENT
5 15	5 30	¼	BLEED OFF C-700 PUMP.
5 30	6 45	1¼	CIRC. HOLE CLEAN-DROP BALL + SET PUMP STROKES & RPM.
6 45	12 00	5¼	◇ CORING
		8 HRS	

CREW

MORNING TOUR 12 00 P.M. & 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD HUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

FUEL —

DAY TANK — 4'11"

R.G. TANK — 9'10"

NO. OF DAYS 9 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		A.L. ZEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			
Mech.		H. P. Moore	8

NO. OF DAYS 9 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		L. PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 9 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 72 — DATE JAN 26/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT. | COUNTY WILDCAT # 2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ TYPE THD. F.H. — TOOL JOINT 6" O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walker

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	6-700	14
2.	NATIONAL	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-42	11			430	SURFACE
TUBING OR LINER	8⅝		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 26 1965 — PRIVATE — Light

WELL NAME & NO. ATLANTIC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUEER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

Fuel — Day Tank 5' — Rig Tank 9' 10"

NO. OF DAYS 8 SINCE LAST LOST-TIME ACCIDENT

.. DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	9
DRKMAN		PAUL LANGE	9
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	9
FLRMAN		MEL SANDERS	8
FLRMAN			
Mech.		H.P Moore	8

CHECKED BRAKES, DRLG LINE, BRAKE LINKAGE, ESCAPE BUGGY, FIRE EXT. + GAS MASKS. + MOTOR SHUT OFFS O.K. A. Bauman

NO. OF DAYS 8 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARIUK	8
MTRMAN		HAROLD OUTNS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	7¼	
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			4¼
LUBRICATE RIG	¼		
DEVIATION SURVEY			¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			1
REPAIR RIG			1¼
~~Core~~ Sample	¼		1¼
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
~~Survey~~ OTHER Inhibitor	¼		¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	6¼
HRS. WO/DP			1¾
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
77	STANDS D.P.	7189.07 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¾ 7¼ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	Shock Sub	10.38 FT.
	KELLY DOWN	26.00 FT.
	TOTAL	7859 FT.
WT. OF STRING		164,000 LBS.

BIT RECORD

BIT NO.	33
SIZE	7⅞
MFG.	SEC
TYPE	H-8-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	728555
DEPTH OUT	
DEPTH IN	7765
TOTAL FTG.	94
TOTAL HR. RUN	11
COND. OF BIT	1 N.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12³⁰	3³⁰	6³⁰
WEIGHT	9.6	9.6	9.6
VISC.-SEC	29	29	29
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Water		Sawdust	5 sks
Aquagel	3 gal	Dik-vis	
Gel	4000#		

DRILLER Robt Allston

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
7791	7859	68			40	40	800	5¼	60			
					40	40	1000		68			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7765	18°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1¹⁵	1¼	DRLG.
1¹⁵	1³⁰	¼	SIDE SAMP. BY ORDER.
1³⁰	2¹⁵	¾	DRLG.
2¹⁵	2³⁰	¼	SER RIG.
2³⁰	5³⁰	3	DRLG.
5³⁰	5⁴⁵	¼	PUT INHIBITOR IN PUMP SUCTION 3 GAL.
5⁴⁵	8⁰⁰	2¼	DRLG.
			CLEAN #1 TANK COMPLETE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
77	STANDS D.P.	7221.07 FT.
2	SINGLES D.P.	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.13 FT.
1	D.C. 2¾ 7¼ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	Shock Sub	10.38 FT.
	KELLY DOWN	31.69 FT.
	TOTAL	7926 FT.
WT. OF STRING		164,000 LBS.

BIT RECORD

BIT NO.	33
SIZE	7⅞
MFG.	SEC.
TYPE	H-8-J
NOZZLE NO.	3-J
NOZZLE SIZE	12
SER. NO.	728555
DEPTH OUT	7926
DEPTH IN	7765
TOTAL FTG.	161
TOTAL HR. RUN	18¾
COND. OF BIT	6-6-I
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	11:45	3:00
WEIGHT	9.7	9.7	9.7
VISC.-SEC	29	29	30
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	4800#	Tuf-Plug	5 SK.
Quik-vis	1 GAL	Aquagel	4 GAL
Sawdust	5 SK	H2O	

DRILLER O. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
7859	7926	67			40	40	1100	5½	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7765	18°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
9⁰⁰	9⁴⁵	1¾	DRLG. 7⅞" HOLE.
9⁴⁵	10⁰⁰	¼	TEST. B.O.P. + SHUT OFFS
10⁰⁰	6⁰⁰	6	DRLG. 7⅞" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
77	STANDS D.P.	7189.07 FT.
42	SINGLES D.P.	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅞ 7¼ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	Shock Sub	10.38 FT.
	KELLY DOWN	31.69 FT.
	TOTAL	7926 FT.
WT. OF STRING		164,000 LBS.

BIT RECORD

BIT NO.	34
SIZE	7⅞
MFG.	H-W
TYPE	RG-7S
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47587
DEPTH OUT	
DEPTH IN	7926
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
7926	7926											

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7925	18°		1					

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.15	1¼	CIRC. BTM HOLE SAMPLE (ATLANTIC ORDERS)
5.15	5.30	¼	SURVEY @ 7925 - 18°
5.30	6.00	½	HOIST
6.00	6.30	½	WORK ON AIR LINES
6.30	6.45	¼	HOIST
6.45	7.30	¾	INSTALL NEW TRANSMISSION CHAIN.
7.30	9.15	1¾	HOIST
9.15	9.30	¼	CHANGE BITS & CHK RAMS
9.30	9.45		SLIP 22' LINE
9.45	10.15		RUN IN COLLARS
10.15	11.00		CUT 132' DRILL LINE
11.00	12.00		RUN IN.

CONSERVATION BOARD

DAILY DRILLING REPORT # REPORT NO. 71 DATE JAN 25/65

OPERATOR: ATLANTIC REFINING CO
LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE
WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT - 2 | STATE N. WIT.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14 | DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40.H42	11			430	SURFACE
8 5/8		28.N80	109			5465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	13/4	3¼	3¼
REAMING			
CIRCULATING & CIRCULATING	1/4	1½	
TRIPS		3¼	3½
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		¼	¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			¼
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	7
HRS. WO/DP			1
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
75	STANDS D.P.	7065.48 FT.
2	SINGLES D.P.	FT.
21	D.C. 2 2/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	20.00 FT.
	TOTAL	7730 FT.
WT. OF STRING	160,000	LBS.

BIT RECORD

BIT NO.	32
SIZE	7 7/8
MFG.	H.W.
TYPE	RG7J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47588
DEPTH OUT	
DEPTH IN	7482
TOTAL FTG.	236
TOTAL HR. RUN	19 1/4
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1230	300	600
WEIGHT	8.7	8.7	8.7
VISC.-SEC	29	24	29
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUANOX	3 gal	Gel	1400#
WATER			
Sawdust	5 SKS		

DRILLER: Robt Walters

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7647	7730	83			40	40	1150	5¼	72			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾	DRLG.
1245	100	¼	SER RIG
100	430	3½	DRLG. - JET PLUGGED PSI 1600 X 64 SPM
430	530	1	CIRC SAMPLE BY ORDER
530	800	2½	DRLG.
			PUT INHIBITOR IN PUMP SUCTION @ 1:15 AM. 3 GAL.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
76	STANDS D.P.	7103.47 FT.
	SINGLES D.P.	FT.
21	D.C. 2 2/8 - 6 4/4 I.D. O.D.	596.18 FT.
1	D.C. 2 2/8 7 1/16 I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	24.06 FT.
	TOTAL	7765 FT.
WT. OF STRING	160,000	LBS.

BIT RECORD

BIT NO.	32
SIZE	7 7/8"
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3-J
NOZZLE SIZE	12
SER. NO.	42588
DEPTH OUT	7765
DEPTH IN	7484
TOTAL FTG.	271
TOTAL HR. RUN	22½
COND. OF BIT	6-8-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10.00	12:00	
WEIGHT	8.7	8.7	
VISC.-SEC	29	29	
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	5000#	Quik-Vis	2 GAL
SAWDUST	10 SAX	WATER	
MICA	5 SAX		

DRILLER: Al Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7730	7765	35			40	40	900	5¼	55	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7490	19°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	945	1¾	DRLG. 7⅞" HOLE.
945	1000	¼	TEST B.O.P.
1000	1130	1½	DRLG. 7⅞" HOLE
1130	100	1½	CIRC. BOTTOM HOLE - SAMPLE FOR ATLANTIC.
100	115	¼	DROPPED SURV. @ 7765'.
115	400	2¾	HOIST FOR BIT #32. (INHIBITOR TREATMENT C.D.)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
76	STANDS D.P.	7127.57 FT.
1	SINGLES D.P.	FT.
21	D.C. 2 2/8 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2 2/8 7 1/16 I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	18.84 FT.
	TOTAL	7791.00 FT.
WT. OF STRING	164,000#	LBS.

BIT RECORD

BIT NO.	33
SIZE	7 7/8
MFG.	REED
TYPE	HS7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	328555
DEPTH OUT	
DEPTH IN	7765
TOTAL FTG.	26
TOTAL HR. RUN	3 3/4
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	11:00		
WEIGHT	8.8		
VISC.-SEC	28		
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Aquaness	3 gal	Water	1 Stream
Gel	3000		
Quick Vis	2 gal		

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7765	7791	26			40	40	400	5¼	38			
							800	–				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7765	18°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	CHANGE BITS & CHK BLIND RAMS
415	430	¼	SER RIG
430	445	¼	SLIP 22' DRILLING LINE
445	500	¼	RECOVER TOTCO SURVEY FROM SHOCK SUB
500	800	3	RUN IN BIT 33#
800	815	¼	CLEAN 18' TO BTM.
815	1200	3 3/4	DRILL 7⅞" HOLE (INHIBITOR TREATMENT @ 8:30)
		8 HRS.	

DRILLING CREW PAYROLL DATA

DATE JAN 25 1965
WELL NAME & NO. ACC AC K-4
COMPANY CASCADE DRLG CO
TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE
Light

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		GERALD NUFER.	8
FLRMAN		SALVATORE CINCOBBO	8
FLRMAN			

-30°F
FUEL -
DAY TANK 5'
RIG TANK 11'

NO. OF DAYS 7 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		DUB LANGE.	8
MTRMAN		DUB. HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			
mech.		H. P. Moore	8

-36°F

NO. OF DAYS 76 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
PIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8
FLRMAN			

-40°F

NO. OF DAYS 7 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 70 — DATE JAN 24/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT # 2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14 | DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT O.D. 6" TYPE THD. I.F.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40 H 40	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 24 1965 — PRIVATE — light

WELL NAME & NO. ARC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		7¼	5¼
REAMING			
CONDITIONING MUD & CIRCULATING	Samples		2¼
TRIPS	2½	½	
LUBRICATE RIG			¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE	½		
REPAIR RIG			
~~WASH OUT PUMP~~ CORING			½
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
FISHING Jarring / Reaming	¾		
	1½		
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6½	8	8
HRS. WO/DP	1½		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
73	STANDS D.P.	2830.83	FT.
	SINGLES D.P.		FT.
21	D.C. I.D. O.D.	596.18	FT.
1	D.C. I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING	156.000		LBS.

BIT RECORD

BIT NO.	32
SIZE	7⅞
MFG.	H.W.
TYPE	RG7F
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47588
DEPTH OUT	
DEPTH IN	7483
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	T
WEIGHT	
VISC.-SEC	R
W.L.-C.C.	
FL.TR. CK.	1
PH	
SD. CONT. %	P
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	2500#		
AQUANESS	1½ gal		
WATER			

DRILLER Robert White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS PAR'EL-P COM'D-C
7483.	7494	11		MOH-Bit #31; SLM 7494.05 = DM 7483' Diff. 11.05'								
				DMOH w/ Magnet SLM 7493.30 = DM 7483.00 Diff. 10.30'								
				Drilling Depth Corrected to 7494.0'.								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12⁴⁵	3/4	RIG UP WORK MAGNET & JUNK SUB ON FISH.
12⁴⁵	4⁰⁰	3¼	TRIP OUT STRAP OUT WIPE PIPE W/INHIBITOR
4⁰⁰	4³⁰	½	LAY DOWN MAGNET - CLEAN J/SUB. LAY RMR DOWN.
4³⁰	4⁴⁵	¼	SLIP 22' DRLG.
4⁴⁵	5¹³	½	CHANGE CUTTERS ON RMR SMOOTH CUTTER ON TOP - CHERT CUTTER ON BTM. = SRSB-420 - 420 105B.
5¹³	5³⁰	¼	PICK UP RMR - J/SUB & MAKE UP BIT # 32
5³⁰	8⁰⁰	2½	TRIP IN W/ BIT. TREAT BIT W/ INHIBITOR FOR 4 HRS.

NO. OF DAYS 6 SINCE LAST LOST-TIME ACCIDENT

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JAE KRAMER	8
FIREMAN			
FLRMAN		GERALD NIFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

-28°F

FUEL
DAY TANK - 4'10"
RIG TANK - 10'10"

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
94	STANDS D.P.	6919.53	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅞-7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB.	10.35	FT.
	KELLY DOWN	25.12	FT.
	TOTAL	7580.00	FT.
WT. OF STRING	159.000		LBS.

BIT RECORD

BIT NO.	32
SIZE	7⅞
MFG.	H.W.
TYPE	RG7-
NOZZLE NO.	3 J
NOZZLE SIZE	12
SER. NO.	47588
DEPTH OUT	
DEPTH IN	7494
TOTAL FTG.	86.
TOTAL HR. RUN	7¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:30	11:30	3:00
WEIGHT	8.6	8.6	8.6
VISC.-SEC	29	28	28
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUANESS	3 GAL		

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGLS PAR'EL-P COM'D-C
7494	7580	86		Time: 8⁵⁵-12¹⁵	35	20	3⁰⁰	5¼	36	5"		
				12¹⁵	35	1100	5¼	72				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7490	19°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	9¹⁵	¼	TEST B.O.P.
9¹⁵	8⁴⁵	½	B.I. CIRC. & WORK JUNK SUB.
8⁴⁵	4⁰⁰	7¼	DRLG. 7⅞" HOLE.

CLEANED SAND TRAP @ 3:00 P.M.
INHIBITOR TREATMENT AT SUCTION @ 1.15 P.M. (3 GALS)

NO. OF DAYS 6 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		A. LEIPPI.	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			
Mech.		H. P. Moore	8

-26°F

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
74	STANDS D.P.	6972.01	FT.
2	SINGLES D.P.	77	FT.
21	D.C. 2⅞ 6¼ I.D. O.D.	596.18	FT.
1	D.C. 2⅞ 7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	30.40	FT.
	TOTAL	7647.00	FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	32
SIZE	7⅞
MFG.	H-W
TYPE	RG-7J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47588
DEPTH OUT	
DEPTH IN	7494
TOTAL FTG.	153
TOTAL HR. RUN	12½
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6:00	8:00	10:00
WEIGHT	8.5	8.6	8.6
VISC.-SEC	28	28	27
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Sawdust	10 bags	Water	As Reqd
Gel	3000		
Quick Vis. Gel			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS PAR'EL-P COM'D-C
7580	7647	67			40	40	1100	72	5"			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7490	19°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	5.30	1¼	DRILL 7⅞" HOLE
5.30	7.00	1½	CIRC. BOTTOM HOLE SAMPLE (FOR ATLANTIC)
7.00	7.45	¾	WAIT ON ORDERS (CIRC. HOLE)
7.45	8.00	¼	REMOVE WOOD FROM UNDER PUMP VALVE
8.00	12.00	4	DRILL
		8 HRS.	

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-24°F

NO. OF DAYS 6 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 69 DATE JAN 23/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO.

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walker

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	7¼	
REAMING			
CONDITIONING MUD & CIRCULATING	Sample	½	1¼
TRIPS			3
LUBRICATE RIG	¼		
DEVIATION SURVEY			1¼
TEST B.O.P.		1¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			3½
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	7¼
HRS. WO/DP			¾
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
72	STANDS D.P.	6712.34 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/16 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	36.00 FT.
	TOTAL	7395 FT.
	WT. OF STRING 158,000	LBS.

BIT RECORD

BIT NO.	31
SIZE	7 7/8
MFG.	SEC.
TYPE	H-8-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	~~36750~~ 706440
DEPTH OUT	
DEPTH IN	7290
TOTAL FTG.	105
TOTAL HR. RUN	9
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	8.6	8.8	8.5
VISC.-SEC	29	29	29
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SUPER-COL	1800		
WATER		AQUANESS	3 GAL
SAWDUST	4 SACKS		

DRILLER: Robt Gilchrist

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7299	7395	96			35	40	1100	5¼	70			
							1225		72			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	DRLG W/ SLOW PUMP
12 15	12 30	¼	SER RIG
12 30	8 00	7½	DRLG
			USED 2 NEW 5¼" LINERS - 2 SETS HEAD RUBBERS 5¼"
			1 VALVE INSERT C-700
			PUT 3 GALS INHIBITOR @ 3:45 IN SUCTION

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
23	STANDS D.P.	6830.83 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	33.42 FT.
	TOTAL	7483 FT.
	WT. OF STRING 156,000	LBS.

BIT RECORD

BIT NO.	31
SIZE	7 7/8
MFG.	SEC.
TYPE	H-8
NOZZLE NO.	3-J
NOZZLE SIZE	12
SER. NO.	706440
DEPTH OUT	9494
DEPTH IN	7290
TOTAL FTG.	2204
TOTAL HR. RUN	16¼
COND. OF BIT	88-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	12:00	3:00
WEIGHT	8.8	8.8	8.8
VISC.-SEC	29	29	29+
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SUPERCOL	1150#	MICA	5 SAX
GEL	1000#	AQUANESS	3 SAX
SAWDUST	8 SAX	H_2O	

DRILLER: A. Leippi

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7395	7483	88			35	40	1125	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7290	15½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	¼	TEST B.O.P.
8 15	3 30	7¼	DRLG 7⅞" HOLE
3 30	4 00	½	CIRC. BOTTOM HOLE SAMPLE (FOR ATLANTIC)
			INHIBITOR TREATMENT @ 11.45 AT SUCTION (3 GALS)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
73	STANDS D.P.	6830.83 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅞ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	33.42 FT.
	TOTAL	7483 FT.
	WT. OF STRING 156,000	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4:45
WEIGHT	8.6
VISC.-SEC	28
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
7483												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7470	19°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.15	1¼	CIRC. BOTTOM HOLE SAMPLE (FOR ATLANTIC)
5.15	5.30	¼	SURVEY @ 7470 - 19°
5.30	8.15	2¾	HOIST - STRAP PIPE
8.15	8.30	¼	BREAK OFF BIT & CLEAN J. SUB (PIECE OF 1 CONE & BEARINGS GONE)
8.30	9.00	½	PICK UP JUNK SUB & MAGNET
9.00	11.15	2¼	RUN IN
11.15	11.30	¼	CLEAN SHAKER BOX
11 30	12 00	½	WORK MAGNET & J. SUB.

DRILLING CREW PAYROLL DATA

DATE JAN 23 1965

WELL NAME & NO. A.C.C AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO 2-14

PRIVATE

Light

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			
		-28°F	
		FUEL -	
		DAY TANK 4'5"	
		RIG TANK 10'	

NO. OF DAYS 5 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN		H P Moore	8
		SAFETY MEETING HELD	
		SUBJECT WRENCHES.	
		-26°F	

NO. OF DAYS 64 SINCE LAST LOST TIME ACCIDENT (3?)

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZARHARUK	8
MTRMAN		HAROLD BUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			
		-24°F	

NO. OF DAYS 64 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 68 — DATE JAN 22/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE

WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT "2" — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A.K. Walker

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14.
2.	NATIONAL	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-11-42	11			430	SURFACE
TUBING OR LINER	9⅝		28-N-80	105			3465	INTER

DRILLING CREW PAYROLL DATA

DATE JAN 22 1965

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

PRIVATE

Light

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	6	1¼
REAMING			
CONDITIONING MUD & CIRCULATING Samples			1¼
TRIPS		¼	5½
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	¼
CUT OFF DRILLING LINE			¼
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Lessons Tabs			½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	6¾
HRS. WO/DP			1¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
20	STANDS D.P.	6529.70	FT.
	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	Shock Sub	10.38	FT.
	KELLY DOWN	26.00	FT.
	TOTAL	7200	FT.

WT. OF STRING 150,000 LBS.

BIT RECORD

BIT NO.	30
SIZE	7⅞
MFG.	H.W.
TYPE	RG7XJ
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	36790
DEPTH OUT	
DEPTH IN	6801
TOTAL FTG.	399
TOTAL HR. RUN	28
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

	1ST	3RD	6TH
TIME	1ST	3RD	6TH
WEIGHT	8.6	8.6	8.6
VISC.-SEC	24	29	29
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER	1" STREAM		
Aquagel	1¾ gal		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOL.-S PAR'EL-P COM'D-C
7089	7200	111			35	40	1300	5¼	62	5"		
							1000		68			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	SER R.C
12 15	8 00	7¾	DRLG
			PUT INHIBITOR IN SUCTION @ 7 00 A.M.
			Dump + clean Shake Comp. #3 TANK COMPLETE

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
21	STANDS D.P.	6628.86	FT.
	SINGLES D.P.		FT.
21	D.C. 2¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	Shock Sub	10.38	FT.
	KELLY DOWN	24.45	FT.
	TOTAL	7290	FT.

WT. OF STRING 154 000 LBS.

BIT RECORD

BIT NO.	30
SIZE	7⅞
MFG.	H.W.
TYPE	RG7X
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	36790
DEPTH OUT	7290
DEPTH IN	6801
TOTAL FTG.	489.
TOTAL HR. RUN	34
COND. OF BIT	BT 8-8-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

	1ST	3RD	6TH
TIME	9:30	11.30	3:00
WEIGHT	8.8	8.7	8.7
VISC.-SEC	28	28	28
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL.-S PAR'EL-P COM'D-C
7200	7290	90			35	40	1050	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6780	13°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	9 15	1¼	DRLG. 7⅞" HOLE.
9 15	9 30	¼	TEST. B.O.P.
9 30	2 15	4¾	DRLG. 7⅞" HOLE.
2 15	3 30	1¼	CIRC. BOTTOM HOLE SAMPLE. (FOR ATLANTIC)
3 30	3 45	¼	DROPPED SURV. @ 7290
3 45	4 00	¼	HOIST FOR BIT #30

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
21	STANDS D.P.	6628.86	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	Shock Sub	10.38	FT.
	KELLY DOWN	32.45	FT.
	TOTAL	7299.00	FT.

WT. OF STRING 156,000 LBS.

BIT RECORD

BIT NO.	31
SIZE	7⅞
MFG.	SEC
TYPE	H-3-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	36790
DEPTH OUT	
DEPTH IN	7290
TOTAL FTG.	9
TOTAL HR. RUN	1¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOL.-S PAR'EL-P COM'D-C
7290	7299	9			35	40	450			5"	40	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
7290	15½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	7.00	2¾	HOIST
7.00	7.15	¼	CHANGE BITS. CHK. BLIND RAMS - PICK UP TUNK SUB.
7.15	7.45	½	CHANGE TOP & BTM. STAB. RUBBERS - SER. NO. 13482 & 12450
7.45	8.00	¼	SLIP 22' LINE
8.00	10.30	2½	RUN IN BIT 31#
10.30	10.45	¼	CLEAN OUT TO BTM.
10.45	12.00	1¼	DRILL 7⅞" HOLE

8 HRS.

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUEFER	8.
FLRMAN		SALVATORE GIACOBBO	8
FLRMAN			

-10°F

FUEL-

DAY TANK 6'

RIG TANK 6' 6"

NO. OF DAYS 4 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL SAUNDERS.	8
FLRMAN			

-6°F

NO. OF DAYS 63 SINCE LAST LOST TIME ACCIDENT (4)

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEE PINHOOK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-10°F

NO. OF DAYS 63 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 67 DATE JAN 21/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 FIELD OR DIST. GLACIER PROJECT COUNTY WILDCAT STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-11.42	11			430	SURFACE
8⅝		28-N-60	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	6	6½	7¼
REAMING			
CONDITIONING MUD & CIRCULATING	Tough	1¼	
TRIPS	¾		
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	8 8 8
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	8 8 8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
66	STANDS D.P.	6187.91 FT.
1	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅜ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHACK SUB	10.38 FT.
	KELLY DOWN	41.50 FT.
	TOTAL	6873 FT.

WT. OF STRING 148,000 LBS.

BIT RECORD

BIT NO.	30	
SIZE	7⅞	
MFG.	H.W.	
TYPE	R6 7HT	
NOZZLE NO.	3	
NOZZLE SIZE	12	
SER. NO.	36790	
DEPTH OUT		
DEPTH IN	6801	
TOTAL FTG.	72	
TOTAL HR. RUN	6	
COND. OF BIT	IN.	
REAMER NO.		
REAMER TYPE		

MUD RECORD

	2:00	5:00	
TIME			
WEIGHT	8.6	8.6	
VISC.-SEC	30	30	
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel & Soda	500#	Q.K.-Vis	1 gal
Water	1st m	Inhibitor	1 3/4 gal
Sawdust	1 Sack		

DRILLER: Robt. Quilty

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.-EL.-P COMP.-C
6801	6873	72			35	40	500	5¼	58	5"		
							900		66			

DEVIATION RECORD: DEPTH 6780 DEV. 7° DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	1/4	SER R.G.
12 15	2 00	1 3/4	RUN IN SLOW REAM 20' FOR SLIGHTLY UNDER GAGE HOLE
2 00	8 00	6	DRLG. - SER SWIVEL
			PUT 1½ GAL INHIBITOR IN PUMP SUCTION @ 2:30
			MIX 1 QT INHIBITOR & PUT ON SAND LINE REEL

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
67	STANDS D.P.	6322.01 FT.
2	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅜ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHACK SUB	10.38 FT.
	KELLY DOWN	25.80 FT.
	TOTAL	6985.00 FT.

WT. OF STRING 148,000 LBS.

BIT RECORD

BIT NO.	30	
SIZE	7⅞	
MFG.	H.W.	
TYPE	R67-X	
NOZZLE NO.	3	
NOZZLE SIZE	12	
SER. NO.	36790	
DEPTH OUT	—	
DEPTH IN	6801	
TOTAL FTG.	184	
TOTAL HR. RUN	12½	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

	10:00	11:30	3:30
TIME			
WEIGHT	8.6	8.6	8.7
VISC.-SEC	29	29	29
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2000#	AQUAVESS	1½ GAL
QUIK-VIS	1 GAL		
SAWDUST	5 SKS		

DRILLER: A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.-EL.-P COMP.-C
6873	6985	112			35	40	900	5¼	68	5"		
							950			6"	60	

DEVIATION RECORD: DEPTH 6780 DEV. 18° DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 15	1/4	TEST B.O.P.
8 15	1 00	4¾	DRLG. 7⅞" HOLE.
1 00	2 15	1¼	CIRC. - SAMPLE. FOR ATHANTIC.
2 15	4 00	1¾	DRLG. 7⅞" HOLE.
			CLEANED MIDDLE TANK (BOTH COMPARTMENTS)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
68	STANDS D.P.	6466.15 FT.
2	SINGLES D.P.	7 FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅜ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHACK SUB	10.38 FT.
	KELLY DOWN	38.26 FT.
	TOTAL	7089.09 FT.

WT. OF STRING 149,000# LBS.

BIT RECORD

BIT NO.	30	
SIZE	7⅞	
MFG.	H.W.	
TYPE	RG-7XJ	
NOZZLE NO.	3	
NOZZLE SIZE	12	
SER. NO.	36990	
DEPTH OUT		
DEPTH IN	6801	
TOTAL FTG.	288	
TOTAL HR. RUN	20¼	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

	6:00	8:00	10:00
TIME			
WEIGHT	8.6	8.6	8.5
VISC.-SEC	29	29	28
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUAVESS	1½ GAL.		

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.-EL.-P COMP.-C
6985	7089	104			35	40	1000	5½		5		

DEVIATION RECORD: DEPTH 6780 DEV. 18° DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	1/4	SER RIG
4.15	12.00	7¾	DRILL 7⅞" HOLE
		8 HRS.	
			CLEANED SHAKER SETTALING TANK
			PUMPED INHIBITOR @ 11:30
			HELD SAFETY MEATING: "GOGGLES & FACE SHIELDS"

PRIVATE

DRILLING CREW PAYROLL DATA

DATE JAN 21 1965

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

Light

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUEFER	8
FLRMAN		HENRY BOYKO	8.
FLRMAN			

10^{0}F

FUEL -

DAY TANK - 5'

R.G. TANK - 7'10"

NO. OF DAYS 3 SINCE LAST LOST TIME ACCIDENT.

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		A. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		BUD. HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

-10°F

NO. OF DAYS 62 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-10°F

NO. OF DAYS 62. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 66 DATE JAN 20/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARCTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		24-N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5½	6¾	7¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			3½
LUBRICATE RIG	½		¼
DEVIATION SURVEY			¼
TEST B.O.P.		½	¼
CUT OFF DRILLING LINE			
REPAIR RIG	½		½
~~CONDITIONING~~ Reverse Circulate	1½	½	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON ~~CEMENT~~ Sand Set			½
DRILL STEM TEST			
OTHER Mix & Circulate		½	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	13¼
HRS. WO/DP			1¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES | SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

DAY TOUR — DRILLING ASSEMBLY AT END OF TOUR

NO.		
64	STANDS D.P.	6030.77 FT.
2	SINGLES D.P.	FT.
21	D.C. 7¾ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	6.00 FT.
	TOTAL	6681 FT.
WT. OF STRING	146,000	LBS.

DAY TOUR — BIT RECORD

BIT NO.	29
SIZE	7⅞
MFG.	H.W
TYPE	RG7-X
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	35960
DEPTH OUT	
DEPTH IN	6377
TOTAL FTG.	304
TOTAL HR. RUN	24
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

DAY TOUR — MUD RECORD

TIME	12³⁰	4⁰⁰
WEIGHT	9.5	8.3
VISC.-SEC	30	30
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Super-Col	750 #	Aquagel	25 sacks
Quick-Vis	1 gal	Cogts	
WATER	1" STREAM		

DRILLER: Robt Allsopp

DAY TOUR — FOOTAGE

FROM	TO	DR'D RM. R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6624	6681	57			35	40	300	5¼	36	5"	48	
							650			"	"	

DAY TOUR — DEVIATION RECORD

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

DAY TOUR — TIME LOG

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	12¹⁵	¼	SER RIG.
12¹⁵	2⁴⁵	2½	DRLG.
2⁴⁵	4³⁰	1¾	CIRC SAMP BY ORDER
4³⁰	7³⁰	3	DRLG.
7³⁰	8⁰⁰	½	REPAIRING POP VALVE ON #1 PUMP.
			USED TWO SETS HEAD 5¼" 1 VALVE RUBBER
			1 STEM & RUBBER FOR POP VALVE.

EVENING TOUR — DRILLING ASSEMBLY AT END OF TOUR

NO.		
65	STANDS D.P.	6097.62 FT.
1	SINGLES D.P.	FT.
21	D.C. 7⅞-6¼ I.D. O.D.	596.18 FT.
1	D.C. 2⅞-7¼ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	22.24 FT.
	TOTAL	6761.00 FT.
WT. OF STRING	146,000	LBS.

EVENING TOUR — BIT RECORD

BIT NO.	29	30
SIZE	7⅞	7⅞
MFG.	H.W.	H.W.
TYPE	RG7-X	RG7-X
NOZZLE NO.	3	3
NOZZLE SIZE	12	12
SER. NO.	35960	36790
DEPTH OUT	6377	6801
DEPTH IN	6377	6801
TOTAL FTG.	384	
TOTAL HR. RUN	30¾	33½
COND. OF BIT	1-4	8-8-1
REAMER NO.		
REAMER TYPE		

EVENING TOUR — MUD RECORD

TIME	10:30	3:00
WEIGHT	8.6	8.6
VISC.-SEC	29	30
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	5000 #		
QUIK-VIS	1 GAL		
WATER			

DRILLER: A. Zaitzeff

EVENING TOUR — FOOTAGE

FROM	TO	DR'D RM. R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6681	6761	80			35	40	950	5¼	65	5"		

EVENING TOUR — DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6308	17°							

EVENING TOUR — TIME LOG

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8¹⁵	¼	TEST B.O.P.
8¹⁵	8⁴⁵	½	INHIBITOR TREATMENT & BLEED OFF PUMP.
8⁴⁵	1³⁰	4¾	DRLG. 7⅞" HOLE.
1³⁰	2⁰⁰	½	CIRC. SAMPLES, ORERS BY ATLANTIC.
2⁰⁰	4⁰⁰	2	DRLG 7⅞" HOLE.
			CLEANED #2 COMP. OF NO. ONE TANK

EVENING TOUR — FOOTAGE

FROM	TO	DR'D RM. R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6761	6801	40			35	40	950	5¼	65	5"		

EVENING TOUR — DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6780	18°							

EVENING TOUR — TIME LOG

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	DRILL 7.2⅞" HOLE
5.00	5.15	¼	SER RIG
5.15	7.00	1¾	DRILL
7.00	7.15	¼	SURVEY @ 6780 - 18°
7.15	7.45	½	ADJUST MUD SAVER LINE SOES MUD CAN FITS ON PIPE
7.45	9.45	2	HOIST
9.45	10.00	¼	CHANGE BITS & CHK. BLIND RAMS
10.00	10.30	½	CHECK RUBBER IN SHOCK SUB & STAB RUBBERS
10.30	11.00		RUN IN COLLARS
11.00	11.15		CHANGE ELEVATORS
11.15	12.00		RUN IN BIT 30#

DRILLING CREW PAYROLL DATA

PRIVATE

DATE JAN 20 1965

WELL NAME & NO. A.C.C AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

Light

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8.
DRKMAN		LLOYD REMUS	16
MTRMAN		JOE KRAMER	16
FIREMAN			
FLRMAN		GERALD NUFER	16
FLRMAN		HARALD QUENS.	8
FLRMAN			

-16°F

3 MEN WENT TO RIVER TO LOAD MUD ON TRUCKS

FUEL-

DAY TANK 5'

RIG TANK 8' 8"

NO. OF DAYS 61 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		[illegible]	8
DRKMAN		[illegible]	8
MTRMAN		[illegible]	8
FIREMAN			
FLRMAN		[illegible]	8
FLRMAN		[illegible]	8
FLRMAN			

-10°F

NO. OF DAYS 61 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-20°F

NO. OF DAYS 61 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 65 DATE JAN 19/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT # 2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walkers

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40H-42	11			130	SURFACE
8 5/8		28-N-80	109			3465	INTER.

PRIVATE

Night

TIME DISTRIBUTION–HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	3	7¾	7¾
REAMING			
CONDITIONING MUD & CIRCULATING	1¾		
TRIPS	1½		
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE	½		
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½	8	8
HRS. WO/DP	½		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. | NO. OF LINES | SIZE | FEET SLIPPED | FEET CUT OFF | PRESENT LENGTH | TON MI. OR TRIPS SINCE LAST CUT | CUMULATIVE TON MI. OR TRIPS | NO. OF DAYS FROM SPUD | CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
61	STANDS D.P.	5725.29	FT.
5	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	31.00	FT.
	TOTAL	6405	FT.

WT. OF STRING 140,000 LBS.

BIT RECORD

BIT NO.	29
SIZE	7⅞
MFG.	H.W.
TYPE	RG7XJ
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	35960
DEPTH OUT	
DEPTH IN	6377
TOTAL FTG.	28
TOTAL HR. RUN	3
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9		700
WEIGHT			9.7
VISC.-SEC			29
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	4000#	Aquagel	1½ gals
MICA	10 SKS	Fine Mud	5 SKS
Bik-Vis	X gal	WATER / STREAM	
DRILLER	Robt White		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6377	6405	28			35	30	500	5¼	50			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	SER RIG
1215	100	¾	FINISH TRIP OUT CLOSE BLIND RAMS LAY JUNK SUB DOWN.
100	130	½	SLIP 22' DRLG LINE
130	315	1¾	TRIP IN W/ BIT #29
315	500	1¾	MIX MUD PUT INHIBITOR IN SUCTION
500	800	3	DRLG. PUMP SLOW SPEED.
			TOTCO RING ON BIT #29

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
62	STANDS D.P.	5858.47	FT.
2	SINGLES D.P.		FT.
21	D.C. 2¾-6¼ I.D. O.D.	596.19	FT.
1	D.C. 2¾-7 1/16 I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK-SUB	10.38	FT.
	KELLY DOWN	13.06	FT.
	TOTAL	6505	FT.

WT. OF STRING 142,000 LBS.

BIT RECORD

BIT NO.	29
SIZE	7⅞
MFG.	H.W.
TYPE	RG7X
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	35960
DEPTH OUT	
DEPTH IN	6377
TOTAL FTG.	128
TOTAL HR. RUN	10¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			300
WEIGHT			9.6
VISC.-SEC			29
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
INHIBITOR	6 gals.		
DRILLER	A. Laippi		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6405	6505	100			35	40	1000	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6308	17°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	TEST B.O.P.
815	400	7¾	DRLG. 7⅞" HOLE.
			CLEANED #1 SAND TRAP

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
64	STANDS D.P.	5962.70	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	11.71	FT.
	TOTAL	6624.60	FT.

WT. OF STRING 142,000 LBS.

BIT RECORD

BIT NO.	29
SIZE	7⅞
MFG.	H-W
TYPE	RG-7XJ
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	35960
DEPTH OUT	
DEPTH IN	6377
TOTAL FTG.	247
TOTAL HR. RUN	18½
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4:30		
WEIGHT	9.4		
VISC.-SEC	28		
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	200#	Quinness	½ gals
Fine Mud	20 bags	Sawdust	20 bags
Mica	½ bags		
DRILLER	John Hammond		

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6505	6624	119			35	40	300	5¼	36	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6308	17°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	530	1½	DRILL 7⅞" HOLE
530	545	¼	SER RIG
545	1200	6¼	
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE JAN 19 1965

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		GERALD NUFER	8
FLRMAN		HERALD OWENS	8
FLRMAN			

-10°F

FUEL

DAY TANK 3'6"

RIG TANK 10'

NO. OF DAYS 60 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LAIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

-7°F

NO. OF DAYS 60 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		[redacted]	
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8

-8°F

NO. OF DAYS 60 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 64 — DATE JAN 18/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT - 2 | STATE N. W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walker

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	B-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-M-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1/4	5 3/4
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	2 1/2	3 3/4	2
LUBRICATE RIG	1/4		1/4
DEVIATION SURVEY			
TEST B.O.P.		1/4	
CUT OFF DRILLING LINE	1/2		
REPAIR RIG		3 3/4	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING	4 3/4	4	
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADD'N			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6 1/2	7	8
HRS. WO/DP	1 1/2	1	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. | NO. OF LINES | SIZE | FEET SLIPPED | FEET CUT OFF | PRESENT LENGTH | TON MI. OR TRIPS SINCE LAST CUT | CUMULATIVE TON MI. OR TRIPS | NO. OF DAYS FROM SPUD | CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
60	STANDS D.P.	5661.82	FT.
D	SINGLES D.P.		FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
1	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	21.59	FT.
	TOTAL	6328	FT.

WT. OF STRING 140,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED: TYPE Aquaness — AMT. 1 gal

DRILLER Robt White.

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6328	6328											

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	1/4	SER RIG.
12:15	2:45	2 1/2	TRIP OUT - WIPE PIPE W/ INHIBITOR ON WAY OUT.
2:45	3:15	1/2	SLIP 22' DRLG LINE
3:15	4:15	1	LAY DOWN SHOCK SUB - STAND PACK OFF ASSEM IN DRK.
4:15	6:45	2 1/2	TRIP IN W/ MAGNET. TO PICK UP BEARING & PIECE OF ONE CONE.
6:45	8:00		CIRC TO BTM. WORK MAGNET OVER JUNK. HOOKING UP MUD CAN LINE TO TANK

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
60	STANDS D.P.	5661.82	FT.
2	SINGLES D.P.		FT.
21	D.C. 2 7/8 - 1 1/4 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.26	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
1	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	21.59	FT.
	TOTAL	6330.	FT.

WT. OF STRING 140,000 LBS.

BIT RECORD

BIT NO.	RR# 24
SIZE	7 7/8
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47586
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

DRILLER A. Lepp

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6328	6330	2			40	20	350	5 1/4		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6309	17°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	8:15	1/4	TEST B.O.P.S
8:15	9:00	3/4	HOOKED UP MUD CAN LINE TO MUD TANK
9:00	12:00	3	HOIST FISH SLOWLY
12:00	12:30	1/2	BREAK OFF MAGNET AND RECOVER FISH
12:30	1:00	1/2	CHANGE BIT PICK UP JUNK SUB + BUMPER SUB CH. TOD CUTTER
1:00	3:15	2 1/4	RUN IN WITH RERUN BIT #24
3:15	3:45	1/2	BREAK CIRC. + CLEAN TO BOTTOM - WORK JUNK SUB
3:45	4:00	1/4	DRILL 7 7/8" HOLE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
61	STANDS D.P.	5693.59	FT.
	SINGLES D.P.		FT.
21	D.C. 2 7/8 - 1 1/4 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	38.82	FT.
	TOTAL	6377	FT.

WT. OF STRING 140,000 LBS.

BIT RECORD

BIT NO.	RR# 24
SIZE	7 7/8
MFG.	H-W
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	47586
DEPTH OUT	6377
DEPTH IN	6328
TOTAL FTG. (DRLD)	49
TOTAL HR. RUN (DRLD)	6
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6:30
WEIGHT	9.4
VISC.-SEC	28
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED: Aquaness 1½ Gals; Mica 10 Bags; Gel 3000#

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6330	6377	47			40	30	650	5 1/4				
							1000	V	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6308	17°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	6.30	2 1/2	DRILL 7 7/8" HOLE. DISPLACE SALT WATER TO SUMP. H2S Water 9.4#/gal @ 198,000 ppm Na Cl
6.30	6.45	1/4	SER RIG
6.45	10.00	3 1/4	DRILL
10.00	12.00	2	HOIST
		8 HRS.	

DRILLING CREW PAYROLL DATA — PRIVATE

DATE JAN 18 1965 — Light

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG. CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 12:00 P.M. 8:00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN	-20F	GERALD NUEFER	8
FLRMAN		HERALD OUENS	8
RONALD GROSS WENT		TO CAMP LEG SORE.	
PREVIOUS INJURY		FUEL -	
FROM SCALD.		DAY TANK 4'2"	
JAN 11/65.		RIG TANK 11'1"	

NO. OF DAYS 59 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL SAUNDERSON	8
FLRMAN			
		-14°F	

CHECKED MOTOR SHUTOFFS. BRAKES DRLG LINE BREATHING APPARATUS FIRE EXT. ESCAPE BUGGY ALSO DERRICK BOLTS, PINS, CAGES BRACES, CROWN + BLOCKS O.K. TONG SUSP. LINES. A.B.

NO. OF DAYS 59 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4:00 P.M. 12:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCIC	8
FLRMAN		HENRY BOYKO	8
FLRMAN			
		-8°F	

NO. OF DAYS 59 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 63 DATE JAN 17/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 3, SIZE 4½ | TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN.	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7 3/4	7 3/4	3 1/2
REAMING			
CONDITIONING MUD & CIRCULATING			5
TRIPS 102			1/4
LUBRICATE RIG	1/4		
DEVIATION SURVEY			
TEST B.O.P.			1/4
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	8 8 8
HRS. WO/DP	
HRS. STANDBY	
TOTAL DAY WORK	

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
21	D.C. 7 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	1400	FT.
	TOTAL	6195	FT.

WT. OF STRING 138,000 LBS.

BIT RECORD

BIT NO.	28
SIZE	7 7/8
MFG.	HW.
TYPE	RG-7
NOZZLE NO.	2 - 1
NOZZLE SIZE	9 - 10
SER. NO.	47584
DEPTH OUT	
DEPTH IN	6064
TOTAL FTG.	134
TOTAL HR. RUN	10 1/2
COND. OF BIT	1N.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1[illegible]	7[illegible]
WEIGHT	9.5	9.5
VISC.-SEC	28	27
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AquaNess	2 gal		

WATER 1" STEAM

DRILLER Robt White

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
6089	6195	106			40	40	1750	5 1/4	68	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1230	1/2	DRLG
1230	1245	1/4	SER RIG
1245	8[illegible]	7 1/4	DRLG
			Circulated and bypassed H2S Water of 9.2#/gal @ 165,000 ppm Na Cl

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
60	STANDS D.P.	5619.41	FT.
1	SINGLES D.P.		FT.
21	D.C. 7 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	28.79	FT.
	TOTAL	6305.	FT.

WT. OF STRING 138,000 LBS.

BIT RECORD

BIT NO.	2B
SIZE	7 7/8
MFG.	HW.
TYPE	RG-7
NOZZLE NO.	2-1
NOZZLE SIZE	9-10
SER. NO.	47584
DEPTH OUT	✓
DEPTH IN	6064
TOTAL FTG.	241
TOTAL HR. RUN	18 1/4
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		2:00
WEIGHT		9.1
VISC.-SEC		29
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	8500#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
6195.	6305.	110			40	40	1300	5 4	68	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6064	13 1/2							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	930	1 1/2	DRLG. 7 7/8" HOLE.
930	945	1/4	TEST B.O.P.
945	400	6 1/4	DRLG. 7 7/8" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
60	STANDS D.P.	5661.82	FT.
2	SINGLES D.P.	↑	FT.
21	D.C. 7 7/8 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 1/2 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	21.59	FT.
	TOTAL	6328.	FT.

WT. OF STRING 140,000 LBS.

BIT RECORD

BIT NO.	2B
SIZE	7 7/8
MFG.	H-W
TYPE	RG-7
NOZZLE NO.	2-1
NOZZLE SIZE	9-8
SER. NO.	47584
DEPTH OUT	6328
DEPTH IN	6064
TOTAL FTG.	264
TOTAL HR. RUN	26 3/4
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	[illegible]00	
WEIGHT	[illegible]6	
VISC.-SEC	34	
W.L.-C.C.		
FL.TR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	4000	Pert-plug	2 bags
Mica	50 bags		
Quick Vis	2 gals		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
6305	6328	23			40	40	1800	5 1/4	38	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6064	13 1/2							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	8.45	4 3/4	WAIT ON WATER + MIXING LOST CIRC. MATERIAL
8.45	11.00	2 1/4	DRILL 7 7/8" HOLE (DISPLACE SALT WATER INTO SUMP)
11.00	11.15	1/4	WAIT ON WATER (9.2#/gal @ 165,000 ppm Na Cl)
11.15	11.30	1/4	DRILLING
11.30	11.45	1/4	SURVEY @ 6308
11.45	12.00	1/4	HOIST.

DRILLING CREW PAYROLL DATA

DATE JAN 17 1965 — PRIVATE; Tight

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

-12°F

FUEL-

DAY TANK - 5'6"

R.G. TANK - 7'8"

NO. OF DAYS 58 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

-16°F

NO. OF DAYS 53 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 800 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8
FLRMAN			

-16°F

NO. OF DAYS 58 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 62 DATE JAN 16/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 3, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	9-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-50	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	4½	5¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		1½	4¼
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		1¾	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER (Service Reamer)			3¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	6¼	3¾
HRS. WO/DP		1¾	¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
57	STANDS D.P.	5352.50	FT.
1	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	22.00	FT.
	TOTAL	6019	FT.
WT. OF STRING	134,000		LBS.

BIT RECORD

BIT NO.	27
SIZE	7⅞
MFG.	SEC
TYPE	H-85
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	
DEPTH IN	5738
TOTAL FTG.	281
TOTAL HR. RUN	30¾
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12³⁰	6⁰⁰
WEIGHT	9.6	8.4
VISC.-SEC	29	27
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER 1" STREAM			

DRILLER Robt Gilbert

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5945	6019	74			40	30	850	5¼	55	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	315	3¼	DRLG.
315	330	¼	SER RIG
330	800	4½	DRLG.
			CLEAN #2 COMP. = 1 TANK
			USED NEW 4" HALF UNION ON #2 PUMP.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
57	STANDS D.P.	5382.07	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	36.48	FT.
	TOTAL	6064.00	FT.
WT. OF STRING	135,000		LBS.

BIT RECORD

BIT NO.	27
SIZE	7⅞
MFG.	SEC.
TYPE	H85
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	6064
DEPTH IN	5738
TOTAL FTG.	326
TOTAL HR. RUN	35.
COND. OF BIT	8-6-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	11:45
WEIGHT	9.5	8.5
VISC.-SEC	28	28
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
AQUANESS	1½ GALS		

DRILLER A. Leitzi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6019	6064	45			40	30	1000	5¼	55	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6064								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	945	1¾	DRLG. 7⅞" HOLE.
945	1000	¼	TEST B.O.P.
1000	1230	2½	DRLG. 7⅞" HOLE.
1230	1245	¼	SURV. @ 6064
1245	200	¼	HOIST BIT #27 (CLEANED SUCTION TANK)
200	345	1¾	CHANGE ROTARY SPROCKET & SYC AIR COMP.
345	400	¼	HOIST PIPE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
58	STANDS D.P.	5414.68	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
6	SUBS O.D.	11.79	FT.
	BIT OR C.B.		FT.
1	SHOCK SUB	10.38	FT.
	KELLY DOWN	29.73	FT.
	TOTAL	6089.00	FT.
WT. OF STRING	138,000 #		LBS.

BIT RECORD

BIT NO.	28
SIZE	7⅞
MFG.	H-W
TYPE	RG-7J
NOZZLE NO.	2-1
NOZZLE SIZE	9-10
SER. NO.	47584
DEPTH OUT	
DEPTH IN	6064
TOTAL FTG.	25
TOTAL HR. RUN	2¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FL.TR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
AQUANESS	1½ GALS		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
6064	6089	25			44	30	600	5¼	36	5"		
						40	800					

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
6064.	13½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	500	1	HOIST
500	515	¼	CHANGE BITS & CHK. BLIND RAMS
515	530	¼	SER RIG
530	615	¾	CHANGE REAMER CUTTERS & BOTTOM STAB RUBBER NO. 154
615	900	2¾	RUN IN BIT 28 * PUT 10 BBLS WATER & 1½ GALS AQUANESS IN DRILL PIPE 5 STANDS IN - COUNT RUBBERS - 61 RUBBERS OVER 29 STANDS
900	915	¼	BREAK CIRC. & CLEAN TO BTM. 4'
915	1200	2¾	DRILL 7⅞ HOLE
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE JAN 16 1965 — PRIVATE.

WELL NAME & NO. A.C.C. AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD BRUCE	8
FLRMAN		GERALD NUFFER	8
FLRMAN			
		-31°F	
		FUEL-	
		DAY TANK- 5'10"	
		RIG TANK- 8'	

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEITZI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			
		-26°F	

NO. OF DAYS 57 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN 625-79		LEN PINCHUCK	8
FLRMAN 314-62		HENRY BOYKO	8
FLRMAN			
		-13°F	

NO. OF DAYS 57 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 61 — DATE JAN 15/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

SIGNATURE OF OPERATOR'S REPRESENTATIVE: L.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING TUBING OR LINER	11 3/4		40-H-42	11			430	SURFACE
	8 5/8		24-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE.
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	9¼	5¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG	½		2
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½	8	6
HRS. WO/DP	½		2
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
55	STANDS D.P.	5135.08 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	38.00 FT.
	TOTAL	5817 FT.

WT. OF STRING 132,000 LBS.

BIT RECORD

BIT NO.	27
SIZE	7⅞
MFG.	SEC
TYPE	H&J
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	
DEPTH IN	5738
TOTAL FTG.	79
TOTAL HR. RUN	9½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	200	600
WEIGHT	9.6	9.6
VISC.-SEC	29	28
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	100#		
WATER 1" STREAM			

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'L-P COM'D-C
5755	5817	62			40	30	1550	5¼	72	5"	62	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	SER RIG
1215	300	2¾	DRLG W/ #2 PUMP.
300	330	½	OUT NEW HALF UNION ON SHOCK HOSE
330	500	1½	DRLG
500	515	¼	CHAN - CHANGE PUMPS
515	800	2¾	DRLG

USED TWO HEAD RUBBERS COMAL 5¼ SERIES B

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
56	STANDS D.P.	5786.93 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.13 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	27.48 FT.
	TOTAL	5900.00 FT.

WT. OF STRING 134,000 LBS.

BIT RECORD

BIT NO.	27
SIZE	7⅞
MFG.	SEC.
TYPE	H-B
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	~
DEPTH IN	5738
TOTAL FTG.	162
TOTAL HR. RUN	17¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:00	12:00	2:00
WEIGHT	8.6	8.6	8.6
VISC.-SEC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER A. Lefft

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'L-P COM'D-C
5817	5900	83			40	30	1550	5¼	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	TEST B.O.P.
815	400	7¾	DRLG. 7⅞" HOLE.

CLEANED SAND TRAP

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	11.34 FT.
	TOTAL	5945 FT.

WT. OF STRING 134,000# LBS.

BIT RECORD

BIT NO.	27
SIZE	7⅞
MFG.	Sec
TYPE	H-8-J
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	
DEPTH IN	5738
TOTAL FTG.	207
TOTAL HR. RUN	23
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6.00	10.30	
WEIGHT	8.5	8.5	
VISC.-SEC	27	28	
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	3000	Quick Vis	2 Gals
Aquagel	3 Gals		
Mica	3 bags		

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'L-P COM'D-C
5900	5945	45			40	30	1550	5¼	74	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5738	17							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.45	¾	Drill 7⅞" Hole
4.45	5.00	¼	Ser Rig
5.00	5.45	¾	Repair Leaks In Air Lines
5.45	6.30	¾	Drill
6.30	7.45	1¼	Shut Down All Motors & Repair Air Line Leaks.
7.45	12.00	4¼	Drill Bypassed H2S Water 9.1#/gal @ 171,500 ppm Na Cl to Temp
		8 HRS.	

DRILLING CREW PAYROLL DATA

DATE JAN 15 1965 — PRIVATE — Light

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

-28°F

FUEL-

DAY TANK-

RIG TANK-

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		A. LEFFT.	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HARPER	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

-26°F

NO. OF DAYS 56 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-20°F

NO. OF DAYS 56 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 60 DATE JAN 14/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT. | COUNTY WILDCAT = 2 | STATE N.W.T

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11			430	SURFACE
8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7½	7½	2½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		2½	2½
LUBRICATE RIG	½		¼
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	¼
CUT OFF DRILLING LINE			1¼
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Service Reamer			1¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SNABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	7½	5
HRS. WO/DP		½	3
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
54	STANDS D.P.	5044.22 FT.
	SINGLES D.P.	FT.
21	D.C. 2 13/16 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	20.50 FT.
	TOTAL	5693 FT.

WT. OF STRING 131,000 LBS.

BIT RECORD

BIT NO.	26
SIZE	7 7/8
MFG.	HW
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47585
DEPTH OUT	[illegible]
DEPTH IN	5443
TOTAL FTG.	250
TOTAL HR. RUN	37¾
COND. OF BIT	1N.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12 30	4 00	7 00
WEIGHT	8.6	8.5	8.5
VISC.-SEC	29	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER	1" STREAM		

DRILLER Robt. Whites

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
5628	5693	65			36	30	1400	5½	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	300	3	DRLG. (O.K.
300	330	½	CONN.-RIG SERVICE STOPPED MOTORS W/ SHUT OFF VALVE
330	800	4½	DRLG.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
54	STANDS D.P.	5063.77 FT.
#1	SINGLES D.P.	FT.
21	D.C. 2 7/8-6¼ I.D. O.D.	596.18 FT.
1	D.C. 2 7/8-7 1/16 I.D. O.D.	10.32 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	34.84 FT.
	TOTAL	5738.77 FT.

WT. OF STRING 133,000 LBS.

BIT RECORD

BIT NO.	26
SIZE	7 7/8
MFG.	HW
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47585
DEPTH OUT	5738
DEPTH IN	5443
TOTAL FTG.	295
TOTAL HR. RUN	42½
COND. OF BIT	2-B-D
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9:30	12:00
WEIGHT	8.5	8.6
VISC.-SEC	28	30
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	500#	WATER	
QUIK-UIS	1 GAL		
AQUANESS	3 GAL		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
5693	5738	45			36	30	1400	5½	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5738	17							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1045	2¾	DRLG. 7⅞" HOLE.
1045	1100	¼	TEST B.O.P.
1100	1115	¼	DRLG. 7⅞" HOLE.
1115	1145	½	WORK ON AIR LINES & COMP.
1145	130	1¾	DRLG. 7⅞" HOLE.
130	145	¼	DROPPED SURV. @ 5738
145	400	2¼	HOIST FOR BIT #26

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
54	STANDS D.P.	5103.41 FT.
2	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
6	SUBS O.D.	11.79 FT.
	BIT OR C.B.	FT.
1	SHOCK SUB	10.38 FT.
	KELLY DOWN	7.00 FT.
	TOTAL	5755 FT.

WT. OF STRING 132,000# LBS.

BIT RECORD

BIT NO.	27
SIZE	7 7/8
MFG.	SEC
TYPE	48-J
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	706441
DEPTH OUT	
DEPTH IN	5738
TOTAL FTG.	17
TOTAL HR. RUN	2½
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	11:30	
WEIGHT	8.5	
VISC.-SEC	28	
W.L.-C.C.		
FLTR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUANESS	3 GAL		
GEL	1500		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
5738	5755	17			36	25	1400	5½	45	5"		
					Ho		1250		72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5738	17							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	4.15	¼	HOIST
4.15	4.30	¼	CHANGE BITS & CHK BLIND RAMS.
4.30	5.15	¾	CHANGE REAMER PINS & TOP STAB RUBBER
5.15	5.30	½	SER RIG
5.30	6.00	½	PICK UP SHOCK SUB & CHK JOINTS
6.00	7.00	1 ¼	SLIP 22' & CUT 136' DRILLING LINE
7.15	9.00	2	RUN IN BIT 27"
9.15	9.30	¼	THAW FLOW LINE & BREAK CIRC.

(By Pass Salt Water Into Sump)
Stab Rubber No. 12462
#25 Water: 9.2 Gel @
181,000 gm Nacl

DRILLING CREW PAYROLL DATA

DATE JAN 14 1965 — PRIVATE

WELL NAME & NO. A.C.C. AC K-4

COMPANY CASCADE DRLG CO — Light

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFFER	8
FLRMAN			

-13°F
FUEL-
DAY TANK- 4'6"
RIG TANK- 7'6"

NO. OF DAYS 52 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEITZ.	8
DRKMAN		PAUL LANGE	8
MTRMAN		BILL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN.	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

-26°F

NO. OF DAYS 53 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARIUK	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BOYKO.	8
FLRMAN			

-20°F

NO. OF DAYS 53 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 59 DATE JAN 13/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT. | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-80	109			3465	INTER

DRILLING CREW PAYROLL DATA

DATE JAN 13 1965

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

Light

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	9¾	7¾	7¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM MUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
52	STANDS D.P.	4857.18	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	24.00	FT.
	TOTAL	5510	FT.
	WT. OF STRING	125,000	LBS.

BIT RECORD

BIT NO.	26
SIZE	7⅞
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47585
DEPTH OUT	
DEPTH IN	5443
TOTAL FTG.	67
TOTAL HR. RUN	14¾
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12:30	6:00
WEIGHT	9.5	8.5
VISC.-SEC	29	29
W.L.-C.C.		
FLTR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER Robt Wilhite.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'P-C
5476	5510	34			36	20	1200	5¼	66	5"		

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	SER RIG.
1215	800		DRLG.-PUMP SLOW UNTIL DISPLACED SALT WATER
			GOOD RETURNS BY-PASS SALT WATER TO SUMP.
			CLEAN #1 COMP. #2 MUD TANK
			USED TWO NEW ROLLER & BOLTS IN LINE SPOOLER

NO. OF DAYS 54 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS.	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER.	8.
FLRMAN			
		FUEL -	
		DAY TANK - 6'	
		RIG TANK - 8'	

NO. OF DAYS 54 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
52	STANDS D.P.	4918.48	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	569.18	FT.
1	D.C. 2⅞ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	26.15	FT.
	TOTAL	5574.00	FT.
	WT. OF STRING	125,000	LBS.

BIT RECORD

BIT NO.	26
SIZE	7⅞
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47585
DEPTH OUT	
DEPTH IN	5743
TOTAL FTG.	131
TOTAL HR. RUN	22½
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9.00	11:30	3:00
WEIGHT	8.5	8.5	8.6
VISC.-SEC	28	28	28
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Ol. Leippi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'P-C
5510	5574	64			36	30	1400	5¼	72	5"		

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1045	2¾	DRLG. 7⅞" HOLE.
1045	1100	¼	TEST. B.O.P.
1100	400	5	DRLG. 7⅞" HOLE.

NO. OF DAYS 54 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

NO. OF DAYS 54 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
53	STANDS D.P.	5081.96	FT.
1	SINGLES D.P.	31	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	569.18	FT.
1	D.C. 2⅞ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	16.67	FT.
	TOTAL	5628.00	FT.
	WT. OF STRING	130,000	LBS.

BIT RECORD

BIT NO.	26
SIZE	7⅞
MFG.	H-W
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47585
DEPTH OUT	
DEPTH IN	5443
TOTAL FTG.	185
TOTAL HR. RUN	30¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4:30	11:30	
WEIGHT	8.5	8.6	
VISC.-SEC	27	28	
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Hydrogel	2500	Mica	10 bags
Mica	7 bags	Quick Vis	2 gals
Hydrogel	5000	Aquaness	3 qts

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'P-C
5574	5628	54			36	30	1400	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5440	16°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	12.00	7¾	DRILL 7⅞" HOLE
		8 HRS	
			CLEANED SHAKER SETTALING TANK
			(HELD SAFETY MEETING: DOS & DONT'S ON FIRST AID & INJURY'S)

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEIF PINCHUCK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

NO. OF DAYS 54 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 58 DATE JAN 12/65.

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA. CARBON ARTIC CIRCLE.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT. | COUNTY WILDCAT - 2. | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 3, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-35.	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-11-42	11			430	SURFACE
8 5/8		28-N80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 12 1965 — PRIVATE

WELL NAME & NO. A.C.C. AC K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

Light

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRK.		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD CROSS	8
FLRMAN		GERALD NIXER	8
FLRMAN			

-34°F

FUEL -

DAY TANK 4'7"

RIG TANK 9'

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG HAGEN	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

-20°F

NO. OF DAYS 53 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	11
DRKMAN		WALTER ZACHARUK	11
MTRMAN		HAROLD OWENS	11
FIREMAN			
FLRMAN		IRENE PINCHUK	11
FLRMAN		HENRY BAYKO	8
FLRMAN		L-20°F	

Since Casing Repairs Should be Completed Within Between Eighteen & Forty Hours, this is Work That Was Supposed to Have been Done Last Summer, but the Parties Were Prepared Fishing Tools

NO. OF DAYS 53 SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	2	7	
REAMING			
CONDITIONING MUD & CIRCULATING			¾
TRIPS	4½	½	
LUBRICATE RIG	½		½
DEVIATION SURVEY			
TEST B.O.P.		½	
CUT OFF DRILLING LINE	½		
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Clean Tanks		½	5½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½	8	8
HRS. WO/DP	½		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
51	STANDS D.P.	4795.85	FT.
1	SINGLES D.P.	→	FT.
21	D.C. 2 7/16 I.D. 6 1/4 O.D.	596.18	FT.
1	D.C. 2 7/16 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	1800	FT.
	TOTAL	5443	FT.
WT. OF STRING		122,000	LBS.

BIT RECORD

BIT NO.	25	26
SIZE	7 7/8	7 7/8
MFG.	H.W	H.W
TYPE	RG-7	RG7
NOZZLE NO.	3	3
NOZZLE SIZE	10	10
SER. NO.	47589	47585
DEPTH OUT	5443	
DEPTH IN	5283	5443
TOTAL FTG.	160	
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	7:00		
WEIGHT	8.4		
VISC.-SEC	29.		
W.L.-C.C.			
FL.TR. CK.			
PH	/		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUAGESS	2 gal		
WATER			

DRILLER Robt White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
5430	5443	13			36	20	1400			5"	42	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5440	16°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1.00	1	DRLG Using Aquaness Grond 235 cu
1.00	1.15	¼	SER R.S. Inhibitor against Corrosion -
1.15	2.15	1	DRLG
2.15	2.45	½	SURVEY
2.45	5.15	2½	TRIP OUT W/ BIT.
5.15	5.45	½	SLIP 44' DRLG LINE
5.45	8.00	2¼	TRIP IN. PIT 1 GAL INHIBITOR RUN CIRC

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
51	STANDS D.P.	4826.85	FT.
2	SINGLES D.P.		FT.
21	D.C. 5¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2 7/16 I.D. 7 1/16 O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	19.77	FT.
	TOTAL	5476.	FT.
WT. OF STRING		125,000	LBS.

BIT RECORD

BIT NO.	26	
SIZE	7 7/8	
MFG.	H.W.	
TYPE	RG7	
NOZZLE NO.	3	
NOZZLE SIZE	10	
SER. NO.	47585	
DEPTH OUT		
DEPTH IN	5443	
TOTAL FTG.	33	
TOTAL HR. RUN	7	
COND. OF BIT	IN.	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	10:00	12:00	9:00
WEIGHT	8.5	8.5	8.5
VISC.-SEC	28	28	28
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
AQUAGESS - 2 GALLONS			

DRILLER A. Leppi.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
5443	5476	33			36	20	1200	5¼		5"	54.	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	SERV. R.S.
8.15	8.45	½	B/C IRC. & THAW OUT FLOW LINE.
8.45	3.45	7	DRLG 7⅞" HOLE (Losing Mud)
3.45	4.00	¼	WAIT ON WATER. (Started to clean ice out of tanks)
			By passed H2S Water (9.4 #/gal @ 181,500 ppm NaCl) to pump.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.	↑	FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.	SAME	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	26	
SIZE	7⅞	
MFG.	H-W	
TYPE	RG-7	
NOZZLE NO.	3	
NOZZLE SIZE	10	
SER. NO.	47585	
DEPTH OUT		
DEPTH IN	5443	
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Quick Vis	1gal	Aquaness	2gal
Mica	3 bags		
Hydrocal	500#		

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
5476	5476			Formation was taking water at ½ bbl/min. When 75% of volume had been lost, it was decided to de-iceulation and No 2 Tanks while temps were up. There was ± 3' ice in all tanks								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1.00	4.00		LAY LENGTH IN WASH HOUSE (ATLANTIC'S ORDERS)
4.00	4.15	¼	SER RIG
4.15	4.45	½	BLOW KELLY - STANDPIPE - MUD LINE & MUD ROLLS ON MUD TANKS.
4.45	9.30	4¾	SHOVEL 3' OF SAND SHALE & ICE FROM SUCTION TANK & 3' SAND SHALE & ICE FROM LAST COMP. OF SECOND TANK
9.30	12.00	2½	MIXING BEL & LOST CIRC. MATERIAL IN SUCTION TANK

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 57 DATE JAN 11/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO	ATLANTIC COLUMBIA CARBON ARTIC CIRCLE	K-4	GLACIER PROJECT	WILDCAT #2	N. W. T.

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT	SIGNATURE OF OPERATOR'S REPRESENTATIVE	SIGNATURE OF CONTRACTOR'S TOOL PUSHER
CASCADE DRILLING COMPANY LIMITED	12-14	2	4½	6" O.D. TYPE THD. F.H.	W. K. Walters	A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		48-H-42	11			430	SURFACE.
8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7½	7¾	7¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG	¼		
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7¾	8	8
HRS. WO/DP	¼		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
50	STANDS D.P.	4672.50 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 3/4 I.D. 7 1/16 O.D.	10.32 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	40.00 FT.
	TOTAL	5341 FT.
	WT. OF STRING	114,000 LBS.

BIT RECORD

BIT NO.	25
SIZE	7 7/8
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47584
DEPTH OUT	
DEPTH IN	5283
TOTAL FTG.	58
TOTAL HR. RUN	12½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	100	500
WEIGHT	9.4	9.5
VISC.-SEC	29	29
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5302	5341	39			36	30	1150			5"	54	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5283	14½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	130	1½	DRLG. — DUMP SHALE COMPARTMENT.
130	145	¼	SER RIG
145	330	1¾	DRLG.
330	345	¼	BLEED OFF PUMP
345	800	4¼	DRLG. — 1 JET PLUGGED OFF IN B.T.
			P.S.I 1650 SPM 48
			RONALD GROSS - STEPPED IN CELLAR WHILE DE-ICING
			MATTING SCALDING LOWER LEFT LEG. 2 BLISTERS

FIRST AID ATTENTION

NO. OF DAYS 52 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
50	STANDS D.P.	4733.78 FT.
42	SINGLES D.P.	FT.
21	D.C. 2 7/8 - 6 1/4 I.D. O.D.	596.18 FT.
1	D.C. 2 7/8 - 7 1/16 I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	17.85 FT.
	TOTAL	5381.00 FT.
	WT. OF STRING	124,000 LBS.

BIT RECORD

BIT NO.	25
SIZE	7 7/8
MFG.	H.W.
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	47589
DEPTH OUT	✓
DEPTH IN	5283.
TOTAL FTG.	98
TOTAL HR. RUN	20¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.-SEC		
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5341	5381	40			34	20	1600	5¼		5"	45"	
						30						

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	915	1¼	DRLG. 7⅞" HOLE.
915	930	¼	SERV B.O.P.
930	400	6½	DRLG. 7⅞" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
51	STANDS D.P.	4765.13 FT.
	SINGLES D.P.	FT.
21	D.C. 2 7/8 I.D. 6 1/4 O.D.	596.18 FT.
1	D.C. 2 7/8 I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	35.50 FT.
	TOTAL	5430. FT.
	WT. OF STRING	124,000 LBS.

BIT RECORD

BIT NO.	25
SIZE	7 7/8
MFG.	H-W
TYPE	RG-7
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	#7589
DEPTH OUT	
DEPTH IN	5283
TOTAL FTG.	147
TOTAL HR. RUN	28
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	8:00	11:00
WEIGHT	9.4	9.4
VISC.-SEC	27	27
W.L.-C.C.		
FL.TR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5381	5430	49			36	30	1450	5¼"		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5283	14½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	SER RIG
415	1200	7¾	DRILL 7⅞" HOLE
		8HRS	

DRILLING CREW PAYROLL DATA

PRIVATE

DATE JAN 11 1965

WELL NAME & NO. ACC AC K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

Light

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

-60°

FUEL -

DAY TANK- 4'6"

BIG TANK- 9'1"

NO. OF DAYS 52 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		A. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

SAFETY MEETING HELD.

SUBJECT:- WORK GLOVES.

-58°F (12:30)

NO. OF DAYS 52 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		LEN PINCHUK	8
FLRMAN		HENRY BOYKO	8
FLRMAN			

-58°F (12:30)

-50°F (19:00)

-34°F (23:30)

NO. OF DAYS 52 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 56 DATE JAN 10/65

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIA CARBON ARTIC CIRCLE.	K-4	GLACIER PROJECT	WILDCAT #2	N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
	11¾		40-H-42	11			430	SURFACE
	8⅝		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN 10 1965

WELL NAME & NO. A.C.C. A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

Light

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	5¼	5
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		4¾	¼
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			¾
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON Cement Water			1¾
DRILL STEM TEST			
OTHER Reamer			½
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	7¼	8
HRS. WO/DP		¾	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		
49	STANDS D.P.	4607.84 FT.
1	SINGLES D.P.	→ FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	2600 FT.
	TOTAL	5265. FT.

WT. OF STRING 114,000 LBS.

BIT RECORD

BIT NO.		24
SIZE		7⅞
MFG.		H.W.
TYPE		RG-7
NOZZLE NO.		3
NOZZLE SIZE		10
SER. NO.		47586
DEPTH OUT		
DEPTH IN		5174
TOTAL FTG.		91
TOTAL HR. RUN		15¾
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	2:00	6:00
WEIGHT	8.4	8.4
VISC.-SEC	28	28
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

Water 1" STREAM

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Dump & clean			
Shaker Comp.			
of M Tanks			

DRILLER Robt White.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5217	5265.	48			36	20	1350			5"	57	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.00	~~4~~	DRLG.
4.00	4.15	¼	SER RIG. PUT GLAND PACKING IN C-350
4.15	8.00	3¾	DRLG.
			Checked Brakes + pins Drlg line Scrape Buggy Instruments. fire Ext. + motor Shut off Ok. A. Bauman
			USED TWO NEW GLAND PACKINGS

NO. OF DAYS 51 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		
49	STANDS D.P.	4640.54 FT.
2	SINGLES D.P.	FT.
21	D.C. 2⅞ - 6¾ I.D. O.D.	596.18 FT.
1	D.C. 2⅞ - 7 1/16 I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	13.09 FT.
	TOTAL	5283.00 FT.

WT. OF STRING 114,000 LBS.

BIT RECORD

BIT NO.	24	25
SIZE	7⅞	7⅞
MFG.	H.W.	H.W.
TYPE	RG7	RG-7
NOZZLE NO.	3	3
NOZZLE SIZE	10	10
SER. NO.	47586	47589
DEPTH OUT	5283	
DEPTH IN	5174	5283.
TOTAL FTG.	109	
TOTAL HR. RUN	18.	
COND. OF BIT	2-6-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.-SEC			
W.L.-C.C.			
FLTR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Laffoi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5265	5283	18			34	20	1350	5¼		5"	57	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5283	14½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.15	2¼	DRLG. 7⅞" HOLE.
10.15	10.30	¼	SURV. @ 5283
10.30	10.45	¼	CHK. BOPE.
10.45	1.30	2¾	HOIST FOR BIT #24. (STRAP PIPE.)
1.30	1.45	¼	CHANGE BITS.
1.45	2.15	½	CHANGE REAMER CUTTER. (ROLLERS ON TOP. BUTTONS ON BOT.)
2.15	4.00	1¾	RUN IN W/ BIT # 25.

DRILLING CREW PAYROLL DATA

DATE JAN 10 1965

WELL NAME & NO. A.C.C. A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

-52°F

FUEL -

DAY TANK - 5'4"

RIG TANK - 8'

NO. OF DAYS 51 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPA'.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

-54°F

MEASURED - 5312.74

TALLY - 5311.91

DIFF. 0.83

No CORRECTION.

NO. OF DAYS 51 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY (AT END OF TOUR)

NO.		
49	STANDS D.P.	4640.54 FT.
2	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅞ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	31.09 FT.
	TOTAL	5302 FT.

WT. OF STRING 114,000 # LBS.

BIT RECORD

BIT NO.		25
SIZE		7⅞
MFG.		H-W
TYPE		RG-7
NOZZLE NO.		3
NOZZLE SIZE		10
SER. NO.		47589
DEPTH OUT		
DEPTH IN		5283
TOTAL FTG.		19
TOTAL HR. RUN		5
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	7:00	9:00	11:00
WEIGHT	8.5	8.5	9.5
VISC.-SEC	27	27	27
W.L.-C.C.			
FLTR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Aquagress	4 gals		

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5283	5302	19			36	20	1400	5¼		5"	48	
						30	1600				51	
							1100				55	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5283	14½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	4.30	¼	THAW FLOW LINE & BREAK CIRC.
4.30	5.15	¾	WORK ON PUMPS
5.15	6.00	¾	DRILL 7⅞" HOLE - HOLE LOOSING WATER QUITE FAST
6.00	7.45	1¾	WAIT ON WATER
7.45	12.00	4¼	DRILL
		8 HRS	

NOTE: 1.00 P.M. TO 4.00 P.M. TEAR OUT LENOLIUM + MOVE RINSING SINK IN WASH HOUSE - PULL NAILS FROM FLOOR - ATLANTICS ORDERS

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	11
DRKMAN		WALTER ZACHARUK	11
MTRMAN		HAROLD OUENS	11
FIREMAN			
FLRMAN		LEN. PINCHUCK	11
FLRMAN		HENRY BOYKO	11
FLRMAN			

-58°F

This camp repair is a matter between Cascade and Fortier in which Cascade should be reimbursed for work that should have been done last summer. Camp was in bad shape.

NO. OF DAYS 51 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 55 DATE JAN 9/65

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIAN CARBON ARTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT ~2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. F. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	G-700	14
2.	NATIONAL	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-80	109			3463	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	13¼	2	7¼
REAMING	5		
CONDITIONING MUD & CIRCULATING			
TRIPS	1	5	
LUBRICATE RIG	¼	¼	¼
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	
CUT OFF DRILLING LINE		¼	
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Thaw			½
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING & TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	7½	8
HRS. WO/DP		½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
48	STANDS D.P.	4516.49 FT.
1	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	396.18 FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	21.00 FT.
	TOTAL	5166. FT.

WT. OF STRING 117,000 LBS.

BIT RECORD

BIT NO.	23
SIZE	7⅞
MFG.	REED
TYPE	YHWG5
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	N23533
DEPTH OUT	
DEPTH IN	5153
TOTAL FTG.	13
TOTAL HR. RUN	1¾
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2.00	7.00
WEIGHT	9.5	8.5
VISC.-SEC	29	29
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5153	5166	13			70	20	850	5¼	70	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	SER RIG.
12.15	1.15	1	TRIP IN-LAY 3 SINGLES DOWN.
1.15			REAM FROM 5000' UNDER GAUGE HOLE.
	6.15	5	REAM W/ 1,000 TO 3,000 WT 50 RPM.
6.15	8.00	1¾	DRLG.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
48	STANDS D.P.	4516.49 FT.
1	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	33.14 FT.
	TOTAL	5179.00 FT.

WT. OF STRING 117,000 LBS.

BIT RECORD

BIT NO.	23	24
SIZE	7⅞	7⅞
MFG.	REED	H.W.
TYPE	YHWG	RG7
NOZZLE NO.	3	3
NOZZLE SIZE	12	10
SER. NO.	E23533	47586
DEPTH OUT	5174	
DEPTH IN	5153	5174
TOTAL FTG.	21	5
TOTAL HR. RUN	3	¾
COND. OF BIT	8-4-1	1X
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	8.30	
WEIGHT	8.5	
VISC.-SEC	29	
W.L.-C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5166	5179	13			70	20	850	5¼	70	5"		
				B.T. 23	34	15						

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5174	14¾							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	9.15	1¼	DRLG 7⅞" HOLE.
9.15	9.30	¼	SURV. @ 5174.
9.30	9.45	¼	R.G SERV & CHK BOPS.
9.45	12.15	2½	HOIST FOR BIT # 23.
12.15	12.30	¼	CHANGE BITS. & CLOSE B.I RAMS.
12.30	12.45	¼	SLIP 44' DRLG. LINE.
12.45	2.45	2	RUN IN W/ BIT # 24
2.45	3.15	½	B.I C.R.C. & THAW OUT FLOW LINE.

3.15-4.00-¾-DRLG 7⅞" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
49	STANDS D.P.	4578.09 FT.
	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	9.54 FT.
	TOTAL	5217.00 FT.

WT. OF STRING 112,000# LBS.

BIT RECORD

BIT NO.	24	
SIZE	7⅞	
MFG.	H-W	
TYPE	RG-7	
NOZZLE NO.	3	
NOZZLE SIZE	10	
SER. NO.	47586	
DEPTH OUT		
DEPTH IN	5174	
TOTAL FTG.	43	
TOTAL HR. RUN	8	
COND. OF BIT	IN	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	7:00	9:00	11:00
WEIGHT	8.5	8.5	8.5
VISC.-SEC	28	28	28
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
5179	5217	38			36	20	1350			5"	57	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG.
4.15	6.30	2¼	DRILL 7⅞" HOLE
6.30	7.00	½	CHANGE OVER PUMPS—PUT BIGGER NAILS IN POP.
7.00	12.00	5	DRILL
		8 HRS.	

DRILLING CREW PAYROLL DATA

PRIVATE

DATE JAN 9 1965

WELL NAME & NO. A.C.C. A.C. K-4

COMPANY CASCADE DRLG CO

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14.

Light

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER.	8
FLRMAN			

FUEL—
DAY TANK. 5'
RIG TANK. 8'10"
-50°F

NO. OF DAYS 50 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

-48°F

NO. OF DAYS 50 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	
DRKMAN		WALTER ZACHARUK	
MTRMAN		HAROLD OUENS	
FIREMAN			
FLRMAN		LEN PINCHUCK	
FLRMAN		HENRY BOYKO	
FLRMAN			

-50°F

NO. OF DAYS 50 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 54 — DATE JAN 8/1965

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC-COLUMBIA CARBON-ARTIC-CIRCLE — WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14 — DRILL PIPE STRING NO. 3 SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NATIONAL	C 700	14
2.	NATIONAL	C 350	18
3.			

LAST CASING TUBING OR LINER:	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
	11 3/4		H-40-42	11			430	SURFACE
	8 5/8		J-55-N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4¾	7¾	1½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	3		5¼
LUBRICATE RIG	1¼		¼
DEVIATION SURVEY			¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			1¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Dress Reamer			1/2
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	7
HRS. WO/DP			1
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
47	STANDS D.P.	4421.41 FT.
1	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	31.00 FT.
	TOTAL	5081 FT.

WT. OF STRING 117,000 LBS.

BIT RECORD

BIT NO.		22
SIZE		7⅞
MFG.		H.W.
TYPE		J7R3
NOZZLE	NO.	3
	SIZE	12
SER. NO.		93468
DEPTH OUT		
DEPTH IN		5050
TOTAL FTG.		31
TOTAL HR. RUN		4¾
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4:00	6:00
WEIGHT	8.7	8.8
VISC.—SEC	29	29
W.L.—C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER Robt Walters

FOOTAGE

FROM	TO	DR.—D RM.—R CORE.—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL—P COM'D—C
5050	5081	31			65	20	275	5¼	40	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5050	1 1/4							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	12:15	¼	SER RIG & B.O.P.'s BLIND RAMS
12:15	2:00	1¾	TRIP IN W/ BIT #22
2:00	2:15	¼	BRK CIRC. W/ MOTORS TOKING PSI 275
2:15	6:00	3¾	DRLG. 80 % RETURNS

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
48	STANDS D.P.	4514.49 FT.
1	SINGLES D.P.	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2⅞ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	7.14 FT.
	TOTAL	5153.00 FT.

WT. OF STRING 117,000 LBS.

BIT RECORD

BIT NO.	22	23	
SIZE	7⅞	7⅞	
MFG.	H.W.	REED	
TYPE	J7R-2	YOUNG-S	
NOZZLE NO.	3	3	
NOZZLE SIZE	12	12	
SER. NO.	93468	N23535	
DEPTH OUT	5153		
DEPTH IN	5050	5153	
TOTAL FTG.	103		
TOTAL HR. RUN	14		
COND. OF BIT	2B-0		
REAMER NO.			
REAMER TYPE			

MUD RECORD

TIME	4:00	
WEIGHT	8.6	
VISC.—SEC	32	
W.L.—C.C.		
FL.TR. CK		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
1" STREAM WATER			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.—D RM.—R CORE.—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL—P COM'D—C
5081	5144	63			70	20	850	5½	71	5"		
5144	5153	9			70	20	850	5½	71	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5150	13 1/4°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1½	DRILL 7⅞" HOLE
5:30	5:45	¼	SER RIG
5:45	6:00	¼	SURVEY @ 5150 - 13¼°
6:00	6:30	½	THAWS FILL LINE - RAT HOLE & TABLE BUSHINGS
6:30	8:45	2¼	HOIST - SLOWLY
8:45	9:00	¼	CHANGE BITS - CHK BLIND RAMS
9:00	9:30	½	CHANGE REAMER CUTTERS
9:30	9:45	¼	REPAIR PET COCK IN HYDROMATIC
9:45	12:00		RUN IN SLOWLY

DRILLING CREW PAYROLL DATA

DATE JAN. 8 - 1965 — PRIVATE

WELL NAME & NO. ACC A.C. - K-4

COMPANY CASCADE DRILLING CO — Light

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

MORNING TOUR 12:00 P.M. 8:00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		FLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

-48°

NO. OF DAYS 45 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

SAFETY MEETING HELD. SUBJECT. SLIPS & FALLS.

NO. OF DAYS 49 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4:00 P.M. 12:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		WALTER ZACHARUK	8
MTRMAN		HAROLD QUEENS	8
FIREMAN			
FLRMAN		LEN PINCHUCK	8
FLRMAN		HENRY BAYKO	8
FLRMAN			

NO. OF DAYS 49 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 53 DATE JAN. 7/56

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIR. WELL NO. K-4 FIELD OR DIST. GLACIER PROJECT COUNTY WILDCAT #2. STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Baumann

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	NORM	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		7¾	5½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			2
LUBRICATE RIG	¼		¾
DEVIATION SURVEY			¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	7½	8
HRS. WO/DP		½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
46	STANDS D.P.	4294.81 FT.
	SINGLES D.P.	— FT.
21	D.C. 2¾ - 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¾ - 7¼ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	24.82 FT.
	TOTAL	4949 FT.

WT. OF STRING 115 000 LBS.

BIT RECORD

BIT NO.	21
SIZE	7⅞
MFG.	REED
TYPE	YHWGJ
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	ED2002
DEPTH OUT	
DEPTH IN	4869
TOTAL FTG.	80
TOTAL HR. RUN	11
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME		
WEIGHT		
VISC.—SEC		
W.L.—C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2000		
S. DUST	20 SKS		
MICA	10 SKS		

DRILLER C. Markunas.

FOOTAGE

FROM	TO	DR.D RM.R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P COM'D—C
4898	4949	51			65	20	1350	5½	40	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4860	13°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	R.G. SERVICE
1215	800	7¾	DRLG 7⅞" HOLE

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
46	STANDS D.P.	4358.01 FT.
2	SINGLES D.P.	FT.
21	D.C. 2¾ - 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¾ - 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	14.00 FT.
	TOTAL	5001.38 FT.

WT. OF STRING 116.000 LBS.

BIT RECORD

BIT NO.	21
SIZE	7⅞
MFG.	REED.
TYPE	YHWGJ
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	ED2602
DEPTH OUT	
DEPTH IN	4869
TOTAL FTG.	132
TOTAL HR. RUN	18¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1000	2⁰⁰
WEIGHT	8.5	8.5
VISC.—SEC	32	30
W.L.—C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt White

FOOTAGE

FROM	TO	DR.D RM.R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P COM'D—C
4949	5001	52			65	20	1800	5½	37	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1000	2	DRLG.
1000	1015	¼	SER B.O.P.'S ✓ O.K.
1015	100	2¾	DRLG.
100	130	½	CHECK VALVES IN G.700
130	400	2½	DRLG. W/2600 ASI 2 JETS PLUGGED THEN BACK TO 850 PSI WHEN JETS CLEANED.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
47	STANDS D.P.	4887.77 FT.
	SINGLES D.P.	FT.
21	D.C. 2¾ - 6¼ I.D. O.D.	596.18 FT.
1	D.C. 2¾ - 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	30.86 FT.
	TOTAL	5050.00 FT.

WT. OF STRING 116.000 LBS.

BIT RECORD

BIT NO.	21
SIZE	7⅞
MFG.	REED
TYPE	YHWGJ
NOZZLE NO.	3
NOZZLE SIZE	10
SER. NO.	ED8002
DEPTH OUT	5050
DEPTH IN	4869
TOTAL FTG.	181
TOTAL HR. RUN	23¾
COND. OF BIT	6-6
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6:30	8:00
WEIGHT	8.7	8.7
VISC.—SEC	29	29
W.L.—C.C.		
FL.TR. CK.		
PH		
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1500#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.D RM.R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P COM'D—C
5001	5050	49			65	20	1400	5¼	40	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
5020	12¼							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400			DRLG. 7⅞" HOLE. P.P. 1400. S.P.M. 40 — R.P.M. 65
	930	5½	CONN DRLG. P.P. 1200 S.P.M. 37 — R.P.M. 60
930	945	¼	SURV. @ 5020
945	1000	¼	R.G SERV.
1000	1200	2	HOIST FOR BIT #21

PRIVATE

Tight

DRILLING CREW PAYROLL DATA

DATE JAN 7, 1965

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS.	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 48 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGÉ.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		DOUG. HAGEN.	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 48 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 53 — DATE JAN 6/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CO.

WELL NO.: K-4

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILDCAT #2.

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½, TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Watters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-700	14
2.	NAT.	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-42	11			430	SURFACE
TUBING OR LINER	8⅝		29-N-80	109			3465	INTER.

TIME DISTRIBUTION — HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	11	3¼
REAMING			
CONDITIONING MUD & CIRCULATING			3¼
TRIPS	4½		3¼
LUBRICATE RIG	¼		¼
DEVIATION SURVEY		½	
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
Drawworks & Eng		7¼	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	5½	8
HRS. WO/DP		½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
45	STANDS D.P.	4199.60	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	34.00	FT.
	TOTAL	4962.00	FT.
	WT. OF STRING	112,000	LBS.

BIT RECORD

BIT NO.	20	
SIZE	7⅞	
MFG.	SEC	
TYPE	47467	
NOZZLE NO.	3	
NOZZLE SIZE	12	
SER. NO.	707292	
DEPTH OUT		
DEPTH IN	4572	
TOTAL FTG.	290	
TOTAL HR. RUN	24½	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	3 AM
WEIGHT	9.3
VISC.-SEC	28
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER: C. Markunas.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P CONT'G-C
4759	4962	103			65	28	450	5½		5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	100	1	DRLG 7⅞" HOLE
100	115	¼	RIG SERVICE
115	800	6¾	DRLG 7⅞" HOLE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
45	STANDS D.P.	4199.60	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	41.00	FT.
	TOTAL	4869.	FT.
	WT. OF STRING	112,000	LBS.

BIT RECORD

BIT NO.	20	21
SIZE	7⅞	7⅞
MFG.	SEC	REED
TYPE	47467	HWHJ
NOZZLE NO.	3	3
NOZZLE SIZE	12	10
SER. NO.	707292	ED2002
DEPTH OUT	4869	
DEPTH IN	4572	
TOTAL FTG.	297	
TOTAL HR. RUN	25	
COND. OF BIT	6-4-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P CONT'G-C
4862	4869	7			65	28	450	5½	39	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4860	13°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
600	830	½	DALE.
830	900	½	DROP SURVEY 4860'
900	1200	3	TRIP OUT
1200	230	2½	CHANGE 3 PNT RMRS CUTTER NEW IN RUN SEC #460-658. PUT GOOD CUTTERS & PINS IN TOP SECTION. CHANGE STAB. BOOTS 2 BOOTS #5 MODEL D. - 13460
230	400		TRIP IN HOLE W/BIT #21
			NOTE: SER B.O.P.'S WHEN OUT OF HOLE. ✓ OK

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
45	STANDS D.P.	4231.32	FT.
41	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
1	KELLY DOWN	37.31	FT.
	TOTAL	4898.	FT.
	WT. OF STRING	115,000	LBS.

BIT RECORD

BIT NO.	21
SIZE	7⅞
MFG.	REED
TYPE	YHWJG
NOZZLE NO.	3S
NOZZLE SIZE	10
SER. NO.	ED2002
DEPTH OUT	
DEPTH IN	4869
TOTAL FTG.	29
TOTAL HR. RUN	3¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	4000#	QUIK-VIS	1GAL.
SAWDUST	20 SAX		
MICA	1150#		

DRILLER: A. Rippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P CONT'G-C
4869	4898	29			50/60	20.	350/2500	5½	30/40	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	430	½	FINISH IN W/BIT #21
430	445	¼	B. KIRS. + CLEAN TO BOTTOM. (NO FILL)
445	500	¼	RIG SERV.
500	630	1½	DRLG 7⅞" HOLE (LOSING CIRC. 4000 P.P.
630	1015	3¾	MIXING MUD. + BUILD VOL.
1015	1200	1¾	DRLG. 7⅞" HOLE.

DRILLING CREW PAYROLL DATA

PRIVATE

DATE JAN 6, 1965

WELL NAME & NO. A.C.C.M.C. K-4

COMPANY CASCADE DRLG. Co. LTD.

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

Tight

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			
		DP	

NO. OF DAYS 47 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFFER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	
DRKMAN		PAUL LANGE	
MTRMAN		PAUL HENDERSON	
FIREMAN			
FLRMAN		AL BRISENKOFF	
FLRMAN		DOUG SHAGEN	
FLRMAN			

NO. OF DAYS 47 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 52 — DATE JAN. 5 1965

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC. K-4

WELL NO.: K-4

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILDCAT #2

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 4 SIZE 4½

TOOL JOINT: 6" O.D. TYPE THD. EH.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-700	14
2.	NAT.	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		42#-H-40	11			430	SURFACE
TUBING OR LINER	8 5/8		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE JAN. 5 1965

WELL NAME & NO. ACS. AC. K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER ARNOLD BAUMAN — RIG NO. 12-14

PRIVATE

Light

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	1¼	7¾	7¾
REAMING	1¼		
CONDITIONING MUD & CIRCULATING			
TRIPS	4½		
LUBRICATE RIG	½		¼
DEVIATION SURVEY			
TEST B.O.P.	¼	¼	
CUT OFF DRILLING LINE	½		
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7	8	8
HRS. WO/DP	-½		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
42	STANDS D.P.	39 M 29	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	33.35	FT.
	TOTAL	4582.00	FT.

WT. OF STRING 110,000 LBS.

BIT RECORD

BIT NO.	20
SIZE	7⅞
MFG.	SEC
TYPE	H7U6-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	707291
DEPTH OUT	
DEPTH IN	4572
TOTAL FTG.	10
TOTAL HR. RUN	1¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000	MICA	150#
QUICKVIS	½ BBL		
SAWDUST	200#		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4572	4582				70	28	600	5½	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4550		MISRUN.						

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	200	2	HOISTING. FOR BIT (HOIST SLOW)
200	215	¼	CHANGE BITS & CHECK BLIND RAMS.
215	230	¼	RIG. SERVICE
230	300	½	SLIP 22' DRLG. LINE.
300	515	2¼	RUN IN W/BIT #20 (RUN IN SLOW)
515	530	¼	BREAK CIR.
530	645	1¼	REAM 20' TO BOTTOM.
645	800	1¼	DRLG 7⅞" HOLE.

NO. OF DAYS 45 SINCE LAST LOST-TIME ACCIDENT

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			
		-62° BELOW.	

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
43	STANDS D.P.	4012.89	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	20.00	FT.
	TOTAL	4662	FT.

WT. OF STRING 112,000 LBS.

BIT RECORD

BIT NO.	20
SIZE	7⅞
MFG.	SEC
TYPE	H7U6-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	707292
DEPTH OUT	
DEPTH IN	4572
TOTAL FTG.	90
TOTAL HR. RUN	9
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000#	QUICKVIS	½ gal
MICA	150#		
SAWDUST	200#		

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4582	4662	80			70	28	450	5½	375	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	900	1	DRLG.
900	915	¼	SER B.OPS ✓ O.K.
915	400	6¾	DRLG.

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			
		-65°F	

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
44	STANDS D.P.	4105.07	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅞ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	24.56	FT.
	TOTAL	4757.10	FT.

WT. OF STRING 112,000 LBS.

BIT RECORD

BIT NO.	20
SIZE	7⅞
MFG.	SEC.
TYPE	H7U6
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	707292
DEPTH OUT	
DEPTH IN	4572
TOTAL FTG.	187
TOTAL HR. RUN	16¾
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4662	4759	97			70	28	450	5½	38	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	500	1	DRLG. 7⅞" HOLE.
500	515	¼	RIG SERV.
515	1200	6¾	DRLG. 7⅞" HOLE.

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
PIREMAN			
FLRMAN		AL. BARISENKOFF.	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			
		-60°F	

NO. OF DAYS 46 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 51 DATE JAN 4/65

OPERATOR: ATLANTIC REFINING Co.

LEASE: ATLANTIC COLUMBIA CARBONARIS CIR.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2. | STATE N.W.T

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.
2	4½	6" TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Baumann

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-42	11			430	SURFACE
TUBING OR LINER	8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG U.P.& TEAR-DOWN			
DRILLING ACTUAL	5½	6	13¼
REAMING			
CONDITIONING MUD & CIRCULATING	2¼		
TRIPS			3¼
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			¼
TEST B.O.P.'s		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Waiting on Water			1¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. ABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
41	STANDS D.P.	3734.31	FT.
1	SINGLES D.P.	30.25	FT.
21	D.C. 2¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.33	FT.
3	SUBS O.D. 6.95	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	41.10	FT.
	TOTAL	4434.66	FT.

WT. OF STRING 104 000 LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	H.W
TYPE	W7R2T
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	73
TOTAL HR. RUN	8
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	2300	QUICK VIS	1 BAG
Sawdust	20 SKS		
POLYPLAK	5 SKS		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4389	4434	45			70	29	1200	5½	38	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	RIG. SERVICE
12 15	2 30	2¼	MIXING MUD + LOST CIR. MATERIAL IN TANKS.
2 30	8 00	5½	DRLG 7⅞" HOLE (GOOD CIRCULATION RETURNS) 100% AT 8 AM

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
41	STANDS D.P.	3836.25	FT.
1	SINGLES D.P.		FT.
21	D.C. 2¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	12 60	FT.
	TOTAL	4495.	FT.

WT. OF STRING 110,000 LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	H.W
TYPE	W7R2J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	134
TOTAL HR. RUN	14
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
[redacted]			
[redacted]			
[redacted]			

DRILLER Robert White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4434	4495	61			70	28	1100	5¼	36	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
5 00	8 15	¼	SER B.O.P.'s O.K.
8 15	9 15	1	DRLG.
9 15	10 30	1¼	WAIT ON WATER. - THAW PUMP SUCTIONS.
10 30	3 30	5	DRLG.
3 30	4 00	½	CONN - AND TIGHTEN FLYWHEEL ON AIR COMP.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
42	STANDS D.P.	3919.28	FT.
	SINGLES D.P.		FT.
21	D.C. 2¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 2¾-7¼ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D. 6.95	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	23.35	FT.
	TOTAL	4572	FT.

WT. OF STRING 110,000 LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	H.W.
TYPE	W7R2
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93494
DEPTH OUT	4572
DEPTH IN	4361
TOTAL FTG.	211
TOTAL HR. RUN	20¾
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000#		
MICA	150#		
SAWDUST	240#		

DRILLER Al Leppi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
4495	4572	77			70	28	1200	5¼	38	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	6 45	2¾	DRLG. 7⅞" HOLE.
6 45	7 00	¼	R.G SERV.
7 00	11 00	4	DRLG. 7⅞" HOLE.
11 00	11 15	¼	DROPPED SURV. @ 4550.
11 15	12 00	¾	HOIST FOR BIT # 19 (SLOW.)

DRILLING CREW PAYROLL DATA

DATE JAN. 4, 1965

PRIVATE

WELL NAME & NO. ACC, BC, K-4

COMPANY CASCADE DRLG. CO. LTD.

Light

TOOL PUSHER ARNOLD BAUMANN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

NO. OF DAYS 45 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON.	8
PIREMAN			
FLRMAN		AL. BARISENKOFF.	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			

NO. OF DAYS 45 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 50 DATE JAN 3/65

OPERATOR: ATLANTIC REFINING Co.

LEASE: ATLANTIC COLUMBIA CARBON ARTH. CLA.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2. | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W K Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	P-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-42	11			430	SURFACE
TUBING OR LINER	9⅝		29-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1	11½
REAMING			¼
CONDITIONING MUD & CIRCULATING		5¼	6¼
TRIPS			
LUBRICATE RIG	½		
DEVIATION SURVEY			
TEST B.O.P.		½	
CUT OFF DRILLING LINE			
REPAIR RIG	½		
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Circulate	7¼		
FISHING Std. Water		1½	
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½	8	8
HRS. WO/DP	½		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
79	STANDS D.P.	3702.26	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	29.37	FT.
	TOTAL	4361.60	FT.
WT. OF STRING		104 000	LBS.

BIT RECORD

BIT NO.	R RUN #19
SIZE	7⅞
MFG.	H.W.
TYPE	W7-R2-J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Martinus

FOOTAGE

FROM	TO	DR.–D RM.–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
4361	4361			Drilled Cmt. 3827 to Top of Plug. Cmt from that point To 4361.	60	10	600	5¼	52			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	RIG SERVICE
1215	200	1¾	RUN IN W/BIT TOP OF PLUG @ —
200	215	¼	BREAK CIR.
215	245	½	WORK ON PUMP.
245	900	5¼	DRILL OUT CEMENT PLUGS 17 SINGLES TO 4361 LOSING CIRCULATION. WHEN STARTED TO DRILL OUT TOP PLUG.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
79	STANDS D.P.	3702.26	FT.
2	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	41.00	FT.
	TOTAL	4373.00	FT.
WT. OF STRING		104 000	LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	H.W.
TYPE	W3R-2J
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	12
TOTAL HR. RUN	1
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	300	QUICK VIS	1 Bag
SAWDUST	20 SK.		
POLYFLAKE	9 SK.		

DRILLER A. White

FOOTAGE

FROM	TO	DR.–D RM.–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
4361	4373	12			50	25	400	5¼	48			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	CHECK B.O.P.'S O.K.
815	915	1	DRLG.
915	1045	1½	WAITING ON WATER
1045	400	5¼	MIXING MUD IN TANKS.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
40	STANDS D.P.	3733.63	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	26.00	FT.
	TOTAL	4389	FT.
WT. OF STRING		104 000	LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	H.W.
TYPE	W3R-2
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	28
TOTAL HR. RUN	2½
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2700 LBS.		
SAW DUST	46 SK.		
POLY FLAKE	11 SK.		

DRILLER A. Leppi

FOOTAGE

FROM	TO	DR.–D RM.–R CORE–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.–S PAR'EL–P COM'D–C
4373	4389	16			70	28	500	5¼	48	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	730	3½	MIXING MUD IN TANKS.
730	745	¼	B.I.C.IRC. & CLEAN TO BOTTOM.
745	915	1½	DRLL. 7⅞" HOLE. LOSING CIRC.
915	1200	2¾	MIXING MUD IN TANKS.

Flushed Lodge of Cement, formation cuttings, and left Water. (Lost 33 bbls approx Mud).

DRILLING CREW PATROL DATA

DATE JAN. 3 1965

WELL NAME & NO. ACCAC K-4

COMPANY CASCADE DRLG CO LTD.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12-14

PRIVATE

Tight

MORNING TOUR 1200 P.M. 400 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATIUCHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZECHARUK	8
FLRMAN		MEL SAUNDER	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS.	8
FLRMAN		GERALD NUFER	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL BARISENKOFF	8
FLRMAN		DOUG. HAGEN	8
FLRMAN			

MOTOR		HRS
*	1	856
*	2	536
*	3	562
*	4	256

NO. OF DAYS 44. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 49 DATE JAN 2nd/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIR.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE NWT.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-700	14"
2.	NAT.	C-350	18"
3.			

CASING / TUBING / LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-40	11			430	SURFACE
	8 5/8		28-N-80	109			3465	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Rig Count	8	8	8
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6½	8	5½
HRS. WO/DP	1½		2½
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
39	STANDS D.P.	3702.26 FT.
2.	SINGLES D.P.	→ FT.
21	D.C. 2¾ L.D. – 6¼ O.D.	596.19 FT.
1	D.C. 2¾ L.D. – 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
1	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	28.37 FT.
	TOTAL	4366.30 FT.

WT. OF STRING 102,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
100 lbs High Early Cement (Special Lean)			

DRILLER C. Markunas

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
39	STANDS D.P.	3702.26 FT.
2	SINGLES D.P.	FT.
21	D.C. 2¾ L.D. – 6¼ O.D.	596.18 FT.
1	D.C. 2¾ L.D. – 7⅛ O.D.	10.33 FT.
2	STB. BODY O.D.	9.36 FT.
1	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	28.37 FT.
	TOTAL	43.61 FT.

WT. OF STRING 102,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Certain Seal	70 lbs		
Poly Flake	3 lbs		
Sawdust	4 lbs		

DRILLER Robert White

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
39	STANDS D.P.	3702.26 FT.
12	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING 58000 LBS.

BIT RECORD

BIT NO.	RR#A
SIZE	7⅞
MFG.	H.W.
TYPE	W7-RJ
NOZZLE NO.	3
NOZZLE SIZE	12
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Lippi

MORNING TOUR

FOOTAGE: FROM 4361 TO 4361

DR–D RM–R CORE–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN SGL–S PAR'EL–P CON'D–C

Formt Squeeze #3. 100 Sx High Early Cement (Special Lean) @ 14.5# gal Slurry at 1500. at 3775. Pulled 5 stds and displaced Slurry to 3765. Max pressure 1K @ 1:00 A.M.

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1230	½	MIX CEMENT + PUMP DOWN SAME.
1230	100	½	DISPLACE CEMENT IN PIPE W/ WATER.
100	115	¼	HOIST 5 STANDS + 1 SINGLE.
115	415	3	WAIT ON CEMENT. W/ PIPE IN HOLE VALVE CLOSED
415	430	¼	BLEED OFF WATER IN PIPE.
430	530	1	HOIST PIPE. 730–800 RUNING IN TO FEEL PLUG.
530	700	1½	W.O.C.
700	730	½	FILL HOLE LOSING MUD.

DAY TOUR

FOOTAGE: FROM 4361 TO 4361

CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | PUMP NO. LINER SIZE | PUMP NO. S.P.M. | METHOD RUN

Felt Casement from Squeeze No 3 @ 3827'.

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	CHECK BOPS O.K.
815	1000	1¾	RUN IN W/ DRILL PIPE 38 STDS. PICK UP 10 SINGLES FELT PLUG @ 3827.
1000	100		LAY DOWN 5 SINGLE GET READY TO RUN PLUG.
100	245		RUN CEMT-N-SEAL PLUG. BY DOWELL UNIT RUN PLUG @ 3705'.
245	400		HOLD PLUG. HYDRIL CLOSED. VALVE ON HEAD CLOSED.

FOOTAGE: FROM 4361 TO 4361

DR–D RM–R CORE–C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000# | PUMP PRESS | PUMP NO. 1 LINER SIZE | PUMP NO. 1 S.P.M. | PUMP NO. 2 LINER SIZE | PUMP NO. 2 S.P.M. | METHOD RUN SGL–S PAR'EL–P CON'D–C

Certain Seal. Squeeze No 1 @ 3775'. Ran 5¼ 5" 70 lbs Certain Seal (3500), 150 lbs Poly Flake, 132 lbs Sawdust at 11½ gal. Squeezed 10 bbls into Perfs @ 3760' Pressure Increased to 1000 psi. Waiting 30 Hrs. *

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400			HOLD PLUG HYDRIL CLOSED VALVE ON HEAD CLOSED.
	930	5½	CHECKED FOR PRESSURE. NONE. OPEN ON Drill Pipe
930	1130	2	HOIST. (LAYED DOWN 17 SINGLES)
1130	1200	½	CHANGED BITS. & THAWED OUT COLLARS.

* Waited 30 mins – squeezed 3 bbls wt max press 350 psi dropping to 0 psi. Waited 30 mins – squeezed 3 bbls wt Max press 350 psi dropping to 150 psi & shut in. Drill Pipe.

DRILLING CREW PAYROLL DATA

DATE JAN. 2ND 1965

WELL NAME & NO. ACC. AC. K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14

PRIVATE Light

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 43 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

MOTOR	HRS
# 1	632
# 2	512
# 3	338
# 4	232

NO. OF DAYS 43 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 430 P.M. 1230 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		DOUG HAGEN	8
FLRMAN			

SAFETY MEETING HELD. SUBJECT. – FROST BITES.

NO. OF DAYS 43 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 48 DATE JAN 1ST/65

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIT.

WELL NO. A24 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2. | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO.

DRILL PIPE STRING: NO. 7 SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11			430	SURFACE
8⅝		28-N-24	109			3445	INTER.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Cement Squeeze	8	8	8
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR	
39	STANDS D.P.	3702.26 FT.
2	SINGLES D.P.	37 FT.
21	D.C. 2⅞ I.D. 6-6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7-7½ O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	28.37 FT.
	TOTAL	4361.00 FT.
WT. OF STRING	102.000.	LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. | NOZZLE SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.—SEC | W.L.—C.C. | FL.TR. CK. | PH | SD.—CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT. — 110 High Early Cement

DRILLER C. Markunas

FOOTAGE FROM	FOOTAGE TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
4361	4361			Formation Tops: Kanguk 3746; Nikle 3750; Kanguk 4360; Kanguk 4360; Kanguk 4360

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 117 DATE DEC 31/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTC CIA.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W K Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
13¾		40-H-42	11			430	SURFACE
9⅝		28-N-80	109			3465	INTER.

DRILLING CREW PAYROLL DATA

DATE DEC. 31 1964

WELL NAME & NO. ACE.AC K-4

COMPANY CASCADE DRLG CO LTD.

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14

PRIVATE

Tight

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Equipment	8	8	8
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6½	2	8
HRS. WO/DP	1½	6	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. | NO. OF LINES | SIZE | FEET SLIPPED | FEET CUT OFF | PRESENT LENGTH | TON MI. OR TRIPS SINCE LAST CUT | CUMULATIVE TON MI. OR TRIPS | NO. OF DAYS FROM SPUD | CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
39	STANDS D.P.	3703.26	FT.
2	SINGLES D.P.	↗	FT.
21	D.C. 7¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 7¾-7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	29.37	FT.
	TOTAL	4361.00	FT.
WT. OF STRING	102,000.		LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. | NOZZLE SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.—SEC | W.L.—C.C. | FL.TR. CK. | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

160 Dilwell Cement

DRILLER C. Markunas.

FOOTAGE: FROM 4361 TO 4361

DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P COM'D—C
		Rig Release at Noon Dec 31/64 Drilled 11" Hole to 4361' Ran 109 Jts 9⅝" 28# N-80 Casing Set @ 3465' Cemented with 160 sks Diwell Cement Slurry Put Interval 3775'-4310'. Max. Pump Pressure 1200 psi Drop to 0 psi at end of pumping. Staged Equipment 3-10 Min Intervals Job Complete at end of pumping. Staged equipment 3-10 Min intervals and shut in final stage for 15 mins.								

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	RIGISH HOISTING
1215	1230	¼	RIG SERVICE
1230	200	1½	RUN IN OPEN END TO RUN CEMENT PLUG.
200	245	¾	RIG UP DOWELL + EQUIPMENT TO RUN PLUG
245	415	1½	MIXED 160 SKS. OF CEMENT & PUMPED DOWN
415	500	¾	DISPLACED + PUMPED IN TO FORMATION
500	530	½	TEAR OUT DOWELL + DRAIN LINES.
530	630	1	HOIST PIPE 630-800 W.O.C.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
39	STANDS D.P.	3703.26	FT.
2	SINGLES D.P.	↗	FT.
21	D.C. I.D. O.D.	596.18	FT.
1	D.C. I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	28.37	FT.
	TOTAL	4361.00	FT.
WT. OF STRING	102,000		LBS.

BIT RECORD: BIT NO. 19 | SIZE 7⅞ | MFG. H.W. | TYPE W7R2-J | NOZZLE NO. 3 | NOZZLE SIZE 1" | SER. NO. 93444. | DEPTH OUT | DEPTH IN 4361 | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.—SEC | W.L.—C.C. | FL.TR. CK. | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DRILLER Robert White.

FOOTAGE: FROM 4361 TO 4361

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

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	200	6	W.O.C. DE-ICING B.O.P's & CELLAR
200	400	2	TRIP IN W/ BIT TO FEEL PLUG
			NOTE: JETS ARE LEFT OUT OF BIT. TOTCO RING ON.

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			
		-54°F	

NO. OF DAYS 41 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER.	8
FIREMAN			
FLRMAN		RONALD GROSS.	8
FLRMAN		GERALD NUFER.	8
FLRMAN			

Checked Brakes, Breathing Apparatus Mete Shutoffs, Fire Extinguishers Dry Line + Escape Buggy. Dec 31/64 O.K. A Bauman

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
39	STANDS D.P.	3702.26	FT.
2	SINGLES D.P.		FT.
21	D.C. 7¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 7¾-7⅛ I.D. O.D.	10.33	FT.
3	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FY.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	28.37	FT.
	TOTAL	4361.00	FT.
WT. OF STRING	102 000		LBS.

BIT RECORD: BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. | NOZZLE SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD: TIME | WEIGHT | VISC.—SEC | W.L.—C.C. | FL.TR. CK | PH | SD. CONT. % | PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE | AMT. | TYPE | AMT.

DRILLER A. Leippi

FOOTAGE: FROM 4361 TO 4361

DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P COM'D—C
			60	4⁰⁰	2⁰⁰	5¼	60	5"		

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	445	¾	RUN IN (TOP OF PLUG @ 4005')
445	500	¼	B/CIRC. (+ RIG SERV.)
500	630	1½	DRLG. OUT PLUG. (LOSING CIRC.)
630	800	1½	HOIST (TO RUN CEMENT PLUG #2)
800	900	1	RUN IN OPEN END 4½" PIPE (29 STS)
900	1200	3⁰⁰	W.O. WATER TO WARM UP. (FOR CEMENTING.)

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENHOFF	8
FLRMAN		DOUGLAS HAGEN	8
FLRMAN			
		HAPPY NEW YEAR 1965 -68°F	

NO. OF DAYS 41 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 46 DATE DEC. 30TH 64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIR

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	C-700	14
2.	NAT.	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4	[redacted]	40-H-40	11			430	SURFACE
TUBING OR LINER	8 5/8		28-N-80	109			3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG		1	6
CONTRACT Bit Trip			2
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Attapulgite Plug	8	7	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7½	7	2
HRS. WO/DP	½	1	6
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
39	STANDS D.P.	3702.26	FT.
2	SINGLES D.P.	↗	FT.
21	D.C. 7¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 7¾-7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	28.37	FT.
	TOTAL	4361.00	FT.

WT. OF STRING 102,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	Water
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Attapulgite	30 Sx	Cedar Leaf	5 Sx
Lime	4 Sx	Mica	2 Sx
Uplant Driller	6 Sx	Bentonite	40 Sx

DRILLER

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOL-S PAR'EL-P CON'D-C
4361	4361			Ran Attapulgus Plug No 2 ck 50 BBLS Water, 900# Lime, 3000# Attapulgus, 500# Tail Plug (Aluminum Wiper), 200# Caddo Lead, 100# Mica, 2000# Bentonite. Started Mixing								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3975	5½°	Time @ 1145 AM with Plug Squeezed with Max pump press.						

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	130	1½	RIGGING UP TO RUN PLUG #2 W/ DOWELL.
130	430	3	MIX ATTAPULGUS #2. 53 BBLS.
430	515	¾	PUMP DOWN PLUG W/ DOWELL.
515	600	¾	DISPACLE PLUG + PUMP PLUG INTO FORMATION W/ 30 BBLS OF WATER.
600	630	½	TEAR OUT DOWELL & DRAIN ALL LINES.
630	730	1	HOISTING PIPE.
730	800	½	W.O. PLUG.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
39	STANDS D.P.	3702.26	FT.
2	SINGLES D.P.	↗	FT.
21	D.C. 7¾-6¼ I.D. O.D.	596.18	FT.
1	D.C. 7¾-7⅛ I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	28.37	FT.
	TOTAL	4361.00	FT.

WT. OF STRING 102,000 LBS.

BIT RECORD

BIT NO.	19
SIZE	7⅞
MFG.	HW.
TYPE	W7DGJ
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	93444
DEPTH OUT	
DEPTH IN	4361
TOTAL FTG.	—
TOTAL HR. RUN	—
COND. OF BIT	1D
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	Water
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt White

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOL-S PAR'EL-P CON'D-C
	4361											

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1100	3	WAIT ON PLUG
1100	200	3	TRIP IN HOLE VERY SLOW.
200	300	1	STEAM KELLY OUT OF RATHOLE & CHANGE PUMPS. FLOW WASHDOWN #1
300	400	1	BRK CIRC. MAKE CONN. LOSING CIRC. @ 2 bpm (Water dropped 50' in annulus). INSTALL STEAM COIL IN DRUM

EVENING TOUR

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	Water
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SOL-S PAR'EL-P CON'D-C
4361												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
4330	7½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400			WORK PIPE (CIRC. RAT HOLE) + W/O #1
	1000	6	PUMP THAW OUT SAME.
1000	1200	2	HOIST. TO RUN CEMENT PLUG. SURV. @ 4330

DRILLING CREW PAYROLL DATA

DATE DEC 30TH 1964

WELL NAME & NO. A.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER ARNOLD BAUMAN. RIG NO. 12-14

PRIVATE

Tight

MORNING TOUR P.M. A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 40 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8 00 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		DOUGLAS HAGEN	8
FLRMAN			

MOTOR	HRS.
#1	560
2	438
3	272
4	160

NO. OF DAYS 40 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 45 DATE Dec 29TH 64.

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARCH CR.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT 2ND | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W K Walton

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bairnson

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

CASING, TUBING OR LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		40-H-42	11			430	SURFACE
	8 5/8		28-H-20	109			2465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	6¼	1	
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.		½	
CUT OFF DRILLING LINE			
REPAIR RIG	1½	2	
Repair plug		3	8
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Wait on Water		13½	
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6½	6	8
HRS. WO/DP	1½	2	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
39	STANDS D.P.	3743.26 FT.	BIT NO.	18
2	SINGLES D.P.	→ FT.	SIZE	7 7/8
21	D.C. 2¾ I.D. 6¼ O.D.	596.18 FT.	MFG.	SEC
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.	TYPE	H-70G
2	STB. BODY O.D.	9.56 FT.	NOZZLE NO.	3
	STB. BODY O.D.	FT.	NOZZLE SIZE	11/16
1	RMR. BODY O.D.	6.35 FT.	SER. NO.	70547
3	SUBS O.D.	6.95 FT.	DEPTH OUT	
	BIT OR C.B.	FT.	DEPTH IN	4160
		FT.	TOTAL FTG.	189
	KELLY DOWN	15.37 FT.	TOTAL HR. RUN	15
	TOTAL	4349.00 FT.	COND. OF BIT	1N
WT. OF STRING	102,000 # LBS.		REAMER NO.	
			REAMER TYPE	

MUD RECORD: TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FL.TR. CK., PH, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT. — MICA 10 SX

DRILLER John Hammond

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COM.D-C
4290	4349	59			60	40	200	5½	56	5"		

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	SER RIG
12 15	1 45	1½	DRILL 7⅞" HOLE
1 45	2 15	½	WORK ON SWIVAL
2 15	4 15	2	DRILL
4 15	6 15	2	WAIT ON WATER
6 15	7 15	1	CHANGE WASH PIPE & SWIVAL PACKING-BADSS RINGS CORADED IN.
7 15	8 00	¾	DRILL
		8 HRS.	

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
39	STANDS D.P.	3743.26 FT.	BIT NO.	19
2	SINGLES D.P.	→ FT.	SIZE	7 7/8
21	D.C. 2¾ - 6¼ I.D. O.D.	596.18 FT.	MFG.	SEC
1	D.C. 2¾ - 7 1/16 I.D. O.D.	10.33 FT.	TYPE	H-70G
2	STB. BODY O.D.	9.56 FT.	NOZZLE NO.	3
	STB. BODY O.D.	FT.	NOZZLE SIZE	11/16
1	RMR. BODY O.D.	6.35 FT.	SER. NO.	70547
3	SUBS O.D.	6.95 FT.	DEPTH OUT	4361
	BIT OR C.B.	FT.	DEPTH IN	4160
		FT.	TOTAL FTG.	201
	KELLY DOWN	28.37 FT.	TOTAL HR. RUN	16
	TOTAL	4361.00 FT.	COND. OF BIT	4-4-1
WT. OF STRING	102,000 LBS.		REAMER NO.	
			REAMER TYPE	

MUD RECORD: TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FL.TR. CK., PH — WATER, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT.

DRILLER C. Markunas

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COM.D-C
4349	4361	12			60	40	200	5½	56	5½		

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 45	¾	DRLG 7⅞" HOLE
8 45	9 00	¼	CHECK BOPS ① 300-400 WAIT ON WATER
9 00	9 45	¾	WAIT ON WATER — WATER TRUCK BROKE DOWN
9 45	10 00	¼	DRLG 7⅞" HOLE — RIGGING UP TO RUN PLUG
10 00	11 00	1	CHANGE LUBRICATOR IN DRAWWORKS
11 00	12 45	1¾	HOISTING
12 45	1 45	1	WORK ON FLOOR MOTORS
1 45	3 00	1¼	RUN IN OPEN END TO RUN PLUG.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
	STANDS D.P.	FT.	BIT NO.	
	SINGLES D.P.	FT.	SIZE	
	D.C. I.D. O.D.	FT.	MFG.	
	D.C. I.D. O.D.	FT.	TYPE	
	STB. BODY O.D.	FT.	NOZZLE NO.	
	STB. BODY O.D.	FT.	NOZZLE SIZE	
	RMR. BODY O.D.	FT.	SER. NO.	
	SUBS O.D.	FT.	DEPTH OUT	
	BIT OR C.B.	FT.	DEPTH IN	
		FT.	TOTAL FTG.	
	KELLY DOWN	FT.	TOTAL HR. RUN	
	TOTAL	FT.	COND. OF BIT	
WT. OF STRING		LBS.	REAMER NO.	
			REAMER TYPE	

MUD RECORD: TIME, WEIGHT, VISC.-SEC, W.L.-C.C., FL.TR. CK., PH, SD. CONT. %, PRESSURE GRADIENT

MUD & CHEMICALS ADDED: TYPE AMT. TYPE AMT.

DRILLER Robt White

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COM.D-C
	4361											

DEVIATION RECORD: DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	12 00		RIG UP EQUIPMENT & MATERIALS TO RUN ATTAPULGUS PLUG #2. HEATING 50 BBL WATER
			3763 FT OF DRILL PIPE IN HOLE.

DRILLING CREW PAYROLL DATA

DATE Dec 29TH 1964 — PRIVATE

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG CO. — Tight

TOOL PUSHER A. BRIERE — RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUEMS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 39 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	11
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUERR	8
FLRMAN	[illegible] WORKED OVER-		CAMP

MOTOR	HRS		
#1	536	[redacted]	PROPANE
#2	414	[redacted]	FROZE
#3	248	[redacted]	UP
#4	136		—56

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 45 DATE Dec 28TH 64.

OPERATOR: Atlantic Refining Co.

LEASE: Atlantic Columbia Cogban Artic Cir.

WELL NO. K-4 | FIELD OR DIST. Glacier Protect | COUNTY Wildcat 2nd | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 3 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W K Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Bell

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-300	14"
2.	Nat	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-40	11			430	Sur
8 5/8		28-H-40	109			3465	Inter

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4	3½	2½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG	3½	3½	
CORING Heavy			¼
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Waiting on Water	1½	2	5
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICER USE ONLY)

DAY WORK			
HRS. W/DP	5¼	3¼	8
HRS. WO/DP	2¾	4¾	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
38	STANDS D.P.	3577.87	FT.
1	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	8.76	FT.
	TOTAL	4211.00	FT.
WT. OF STRING		108,000#	LBS.

BIT RECORD

BIT NO.		18
SIZE		7⅞
MFG.		Sec
TYPE		H70G
NOZZLE	NO.	3
	SIZE	11/16
SER. NO.		705417
DEPTH OUT		
DEPTH IN		4160
TOTAL FTG.		56
TOTAL HR. RUN		4½
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONV.-C
4168	4216	48			70	40t 30	300	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3975	5½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	Sear Rig
12.15	2.00	1¾	Drill 7⅞" Hole
2.00	2.30	½	Work On No1 Pump
2.30	4.15	1¾	Drill
4.15	4.30	¼	Wait On Water
4.30	5.00	½	Drill
5.00	6.15	1¼	Wait On Water
6.15	8.00	1¾	Working On Air Compr. Building Up Air Press.-Pump Up Wt. Indicator

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
38	STANDS D.P.	3546.44	FT.
2	SINGLES D.P.	63.49	FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	11.01	FT.
	TOTAL	4250.00	FT.
WT. OF STRING		108,000	LBS.

BIT RECORD

BIT NO.		18
SIZE		7⅞
MFG.		SEC
TYPE		H70G
NOZZLE	NO.	3
	SIZE	4/16
SER. NO.		705417
DEPTH OUT		
DEPTH IN		4160
TOTAL FTG.		90
TOTAL HR. RUN		8
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	WATER.
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MICA	10 SKS		

DRILLER C. Marsunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONV.-C
4216	4250	34			70	38	300	5¼				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	Check BOPS. (Big Piston Broke on old SYC. Compressor
8.15	10.30	2⅓	Tear out SYC Air Compressor + Install New One
10.30	12.30	2	Drlg 7⅞" Hole w/38000 on Bit 70 RPM
12.30	2.30	2	Wait on Water (Install New Rad Core in #3 Floor Motor.
2.30	4.00	1½	Drlg.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
39	STANDS D.P.	3610.55	FT.
	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	21.00	FT.
	TOTAL	4250.	FT.
WT. OF STRING		108,000	LBS.

BIT RECORD

BIT NO.		18
SIZE		7⅞
MFG.		SEC
TYPE		H70G
NOZZLE	NO.	3
	SIZE	11/16
SER. NO.		705417
DEPTH OUT		
DEPTH IN		4160
TOTAL FTG.		130
TOTAL HR. RUN		10¾
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	W 9.2
VISC.-SEC	49
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MICA	10 SKS.		

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONV.-C
4250	4290	40			70	39	350	5¼	55			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
		1						

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	6.00	2	Wait on Water
6.00	7.30	1½	Drlg. Not Full Circ. Returns
7.30	10.30	3	Wait in Water
10.30	10.45	¼	Set Kelly in Sock, Blow w/Steam to Heat Swivel.
10.45	12.00	1¼	Drlg.
			NOTE: No Survey Ring on Bit #18

DRILLING CREW PAYROLL DATA

DATE Dec 28TH 1964. **PRIVATE**

WELL NAME & NO. ACCAC K-4

COMPANY Cascade Drlg Co.

TOOL PUSHER A. Boisse RIG NO. 12-14

MORNING TOUR 12.00 P.M. 2.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		John Hammond	8
DRKMAN		Pete Straub	8
MTRMAN		Harold Ouzas	8
FIREMAN			
FLRMAN		Walter Zacharuk	8
FLRMAN		Ed Brady	8
FLRMAN			

(50# Below)

NO. OF DAYS 38 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATIACHOCK	8
MTRMAN		WILMER KILLAY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GASS.	8
FLRMAN		GERALD NUFER	8
FLRMAN			

	MOTOR	HRS
#1		512
#2		390
#3		224
#4		104

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 44 DATE Dec 27th 64

OPERATOR: Atlantic Refining Co

LEASE: Atlantic Columbia Carbon Artic Cir

WELL NO. K-4 FIELD OR DIST. Glacier Project COUNTY Wildcat 9# STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Beire

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		42 H-40	11		15'	430	SURFACE
8 5/8		28 N-80	109		15'	3465	WATER

DRILLING CREW PAYROLL DATA

DATE Dec 27th 1964. PRIVATE

WELL NAME & NO. ARCAC K-4

COMPANY Cascade Drlg Co.

TOOL PUSHER A. Beire RIG NO.

Light

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		John Hammond	8
DRKMAN		Pete Straub	8
MTRMAN		Harold Owens	8
FIREMAN			
FLRMAN		Walter Zacharuk	8
FLRMAN		Ed Brady	8
FLRMAN			

(54° Below)

NO. OF DAYS 38 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. Markunas	8
DRKMAN		Pete Matiuchook	8
MTRMAN		Wramer Killaly	8
FIREMAN			
FLRMAN		Victor Zacharuk	8
FLRMAN		Mel. Saunders	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST-TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER			
DRKMAN			
MTRMAN			
FIREMAN			
FLRMAN			
FLRMAN			
FLRMAN			

NO. OF DAYS SINCE LAST LOST-TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1/2	
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG	1/2		
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Attapulgus Plug	1/2	8	7 1/2
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7 3/4	8	8
HRS. WO/DP	1/4		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	1/4	Work On No 2. Motor
12.15	1.15	1	Run In W/ Open End & Pick Up 1 Single
1.15	2.30	1 1/4	Strip Material To Run Attapulgus Plug
2.30	8.00	5 1/2	Thaw Out Suction & Valves On Stand By Pump & Mud Roll On Suction Tank - Thaw Ice In Suction Tank
	8 HRS		Blow Stand Pipe & Kelly & Mud Line To Big Pump Circ G-700 Through Rig When Mixing Plug In Suction Tank

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
37	STANDS D.P.	3515.72	FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
21	D.C. I.D.	O.D. 596.18	FT.
1	STB. BODY	O.D. 10.33	FT.
2	STB. BODY	O.D. 9.56	FT.
1	RMR. BODY	O.D. 6.35	FT.
3	SUBS	O.D. 6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	15.00	FT.
	TOTAL	4160.09	FT.
WT. OF STRING		100,000	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	8.4
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
LIME	3 SKS	Diacel	6 SKS
Attapulgus	30	Barytes	40 SKS
S. Dust	10 SKS	MICA	5 SKS

DRILLER

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
4160	4160			Ran 50 bbls Attapulgus Plug @ 3775-4160								C/O
				3000# Attapulgus 4000# Barytes 300# Lime, 400# Sawdust								
				750# Mica 200# Celocoal.								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1/4								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	1/4	Check Bops
8.15	12.15	4	Mixing Attapulgus. Pluging up Pumps.
12.15	4.00	3 3/4	Pumping Down Plug & Cleaning out Valves in Pumps Lost Est. Material Pluging up Pumps Pump Down 50 Bbls of Attapulgus.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
37	STANDS D.P.	3515.72	FT.
2	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
21	D.C. I.D.	O.D. 596.18	FT.
1	STB. BODY	O.D. 10.33	FT.
2	STB. BODY	O.D. 9.56	FT.
1	RMR. BODY	O.D. 6.35	FT.
3	SUBS	O.D. 6.95	FT.
	BIT OR C.B.		FT.
		23.50	FT.
	KELLY DOWN	15.00	FT.
	TOTAL	4168.09	FT.
WT. OF STRING		100,000	LBS.

BIT RECORD

BIT NO.	18
SIZE	7 7/8
MFG.	Sec
TYPE	HP4UG-A
NOZZLE NO.	3
NOZZLE SIZE	11/16
SER. NO.	705417
DEPTH OUT	
DEPTH IN	4160
TOTAL FTG.	8
TOTAL HR. RUN	1/2
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robert White

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
4160	4168	C			70	30	400	5 1/4				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.45	3/4	Pump Plug Down W/ Water & Pull 8 Stds
4.45			Close Hydrily Pump into Formation. For 3 mins. Losing some Fluid - Pump 4 bbls into Formation
	7.30	2 3/4	Very little loss in Annulus.
7.30	9.00	1 1/2	Pull out To Run Bit.
9.00	11.30	7 1/2	Run W/ Bit very slow.
11.30	12.00	1/2	Drill W/ Good Returns — Losing some

1/4 Roll

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 43 — DATE DEC 26TH 64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CIR.

WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT 2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Briere

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-40	11		15.5	430	SURFACE
8⅝		J&M-80	109		16.5	3465	INTER

DRILLING CREW PAYROLL DATA — PRIVATE

DATE DEC 26TH 1964. — Tight

WELL NAME & NO. A.C.C. A.C. K-4

COMPANY CASCADE DRLG CO.

TOOL PUSHER A. BRIERE — RIG NO.

MORNING TOUR — P.M. — A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	9
DRKMAN		PETE STRAVA	9
MTRMAN		HAROLD SVENS	9
FIREMAN			
FLRMAN		WALTER ZACHARUK	9
FLRMAN		ED BRADY	9.
FLRMAN			

NO. OF DAYS 37. SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE METUICHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 P.M. 12 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		3/4	1½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		3½	
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.	✓	¼	
CUT OFF DRILLING LINE			
REPAIR RIG	2	¼	
~~Repair~~ Plugging			4½
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Diesel Gel Plug	5¼	3¼	
FISHING Wm. Walker			2
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	3¼	7½	8
HRS. WO/DP	2¼	½	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
40	STANDS D.P.	3726.96 FT.
1	SINGLES D.P.	31.69 FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	16.35 FT.
	TOTAL	3775. FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
4126												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	SER RIG
12.15	1.45	1½	WELDING & FITTING NIPPLE INTO STAND PIPE
1.45	2.15	¼	WORK ON LIGHT PLANT
2.15	3.15	1	RUN IN OPEN END
3.15	5.45	2½	RIGING UP DOWELL UNIT & TRANSFER FUEL TO PUMP DIESEL & GEL
5.45	8.00	2¼	MIXING GEL PLUG & PUMPING DOWN PLUG
			CREW CAME OUT @ 11.00 P.M. TO BRING FUEL FROM OLD LOCATION

Plug Down

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
37	STANDS D.P.	3455.56 FT.
1	SINGLES D.P.	31.69 FT.
21	D.C. 28 - 6¾ I.D. O.D.	596.18 FT.
1	D.C. 2¾ - 7⅛ I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
1	STB. BODY O.D.	6.35 FT.
3	RMR. BODY O.D.	6.95 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	19.38 FT.
	TOTAL	4134.06 FT.
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	17
SIZE	7⅞
MFG.	REED
TYPE	YHUG-T
NOZZLE NO.	1-2
NOZZLE SIZE	10-9
SER. NO.	N23538
DEPTH OUT	
DEPTH IN	4014
TOTAL FTG.	120
TOTAL HR. RUN	10¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
50	Gel	Diesel	
120	Sx	Hydrogel	

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
4126	4134	8'		Rusty Mixture Rec. Mostly Mud - Not Enough Fuel and 150 Sax Hydrogel.	70	38	350	5½	55	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼	CHECK BOPS. (1) 345-400 REPAIR LEAK ON 4" UNION
8:15	9:30	1¼	PUMP PLUG IN TO FORMATION W/50 BBLS.
9:30	9:45	¼	HOIST 6 STANDS.
9:45	10:15	½	RIG KELLY TO CIR. & DRAIN ALL MUD LINES.
10:15	11:30	1¼	FINISH HOISTING PIPE
11:30	11:45	¼	PICK UP REAMER & STAB IT - MAKE UP BIT -
11:45	1:15	1½	RUN IN W/BIT (2) 130-300 CLEAN 80' TO BOTTOM.
1:15	1:30	¼	BREAK CIR. GOOD RETURNS (3) 300-345 DRILL - 25% RETURNS

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
37	STANDS D.P.	3515.72 FT.
2	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6" O.D.	596.18 FT.
1	D.C. I.D. O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	15.00 FT.
	TOTAL	4160.09 FT.
WT. OF STRING	100,000	LBS.

BIT RECORD

BIT NO.	17
SIZE	7⅞
MFG.	REED
TYPE	YHUG-T
NOZZLE NO.	1-2
NOZZLE SIZE	10-9
SER. NO.	N23538
DEPTH OUT	4160
DEPTH IN	4014
TOTAL FTG.	146
TOTAL HR. RUN	11¾
COND. OF BIT	5-4-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robt. White

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
4134	4160	26			70	38	425	5¼				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	5:30	1½	DRILL - APPROX. 75% RETURNS.
5:30	7:30	2	WAIT ON WATER.
7:30	10:00	2½	TRIP OUT - USE MUD CAN ALL THE WAY.
10:00	11:00	1	THAW #3 MOTOR ALSO AIR LINES.
11:00	12:00	1	TRIP IN W/OPEN END. PIPE. LEFT 4 STDS. 4 DOUBLE DC'S IN DERRICK. TRIP TO RUN ATTAPULGUS PLUG.

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 42 DATE DEC 25TH 64

OPERATOR: Atlantic Refining Co.

LEASE: Atlantic Columbia Carbon Artic Co

WELL NO. K-4 | FIELD OR DIST. Glacier Project | COUNTY Wildcat ? | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT TYPE THD. F.H. | O.D. 6"

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Briere

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-700	14"
2.	Nat	C-350	18"
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾"		42#H40	11		15.5	430	Surface
TUBING OR LINER	8⅝		28#N80	109		15.5	3965	Intermediate

DRILLING CREW PAYROLL DATA

DATE DEC 25TH 1964 — PRIVATE

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG Co. — Tight

TOOL PUSHER A. BRIERE — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5¾	6	¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		¼	2½
Diesel Gel Plug			2½
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER Waiting on Water	5	1½	2¾
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS			

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	7¾	5½
HRS. WO/DP		¼	2½
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
36	STANDS D.P.	3391.75	FT.
1	SINGLES D.P.	7	FT.
21	D.C. 2⅞ LD. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ LD. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	6"o SUBS	6.95	FT.
	KELLY DOWN	33.88	FT.
	TOTAL	4055.00	FT.
WT. OF STRING	104,000 #		LBS.

BIT RECORD

BIT NO.	17
SIZE	7⅞
MFG.	REED
TYPE	YHUG-J
NOZZLE NO.	3
NOZZLE SIZE	1/10 2/9
SER. NO.	N23538
DEPTH OUT	
DEPTH IN	4014
TOTAL FTG.	41
TOTAL HR. RUN	3¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MICA 7 SAX			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P CON'D—C
4021	4055				70	35+	500+	5¼	55	5"		
						40	1550		72			

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	3975	5⅓							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	SER RIG
12.15	12.30	¼	WAIT ON WATER
12.30	1.00	½	DRILL 7⅞" HOLE 6'
1.00	1.45	¾	WAIT ON WATER
1.45	2.15	½	DRILL 4'
2.15	3.00	¾	WAIT ON WATER
3.00	3.30	½	DRILL 7'
3.30	4.15	¾	WAIT ON WATER

(½) 4.15 4.45 DRILL 5'
(1) 4.45 5.45 WAIT ON WATER
(½) 5.45 6.00 DRILL 5'
(1) 6.00 7.00 WAIT ON WATER
(½) 7.00 7.30 DRILL
(½) 7.30 8.00 WAIT ON WATER

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 36 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
37	STANDS D.P.	3453.56	FT.
1	SINGLES D.P.	31.69	FT.
21	D.C. 2¾ LD. 6½ O.D.	596.18	FT.
1	D.C. 2¾ LD. 7¼ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	6"o SUBS	6.95	FT.
	KELLY DOWN	10.38	FT.
	TOTAL	4125.00	FT.
WT. OF STRING	104,000		LBS.

BIT RECORD

BIT NO.	17
SIZE	7⅞
MFG.	REED
TYPE	YHUG-J
NOZZLE NO.	1-2
NOZZLE SIZE	10-9
SER. NO.	N23538
DEPTH OUT	
DEPTH IN	4014
TOTAL FTG.	111
TOTAL HR. RUN	9¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	WATER.
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER.			

DRILLER C. Markunas.

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P CON'D—C
4055	4125	70			70	38	500	5¼	55	5"		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	3975	5⅓							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	CHECK BOPS.
8.15	9.45	1½	WAIT ON WATER
9.45	2.30	4¾	DRLG 7⅞" HOLE W/38000 ON BIT 70 RPM. 500 PSI
2.30	2.45	¼	CENTER BOPS
2.45	4.00	1¼	DRLG 7⅞" HOLE W/38000 ON BIT 70 RPM. 500 PSI.

INSTALL NEW HYDRIL RUBBER IN ACCUMULATOR.

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATIUCHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
37	STANDS D.P.	3453.56	FT.
1	SINGLES D.P.	31.69	FT.
21	D.C. 2¾ LD. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ LD. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	6"o SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	11.38	FT.
	TOTAL	4126.	FT.
WT. OF STRING	104,000		LBS.

BIT RECORD

BIT NO.	17
SIZE	7⅞
MFG.	REED
TYPE	YHUG-J
NOZZLE NO.	1-2
NOZZLE SIZE	10-9
SER. NO.	N23538
DEPTH OUT	4126
DEPTH IN	4014
TOTAL FTG.	112
TOTAL HR. RUN	9½
COND. OF BIT	5-4-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Robert White

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P CON'D—C
4125	4126	1										

NOTE 5 MEN STAYED OVER REPAIRING ST. PIPE & MOVE 120 5 X 5 GEL.

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	DRILL
4.15	7.00	2¾	WAIT ON WATER
7.00	9.00	2	STAND PIPE BROKE. TAKING APART FOR REPAIR
9.00	10.00	1	PULL OUT TO RUN GEL PLUG
10.00	10.30	½	REPAIRING STAND PIPE.
10.30	11.00	½	FINISH TRIP OUT
11.30	12.00	½	START TRIP IN. W/ OPEN END FOR GEL PLUG
			USED NEW OILER CHAIN IN DRWKS — CHANGE OIL

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	16
DRKMAN		LLOYD REMUS	16
MTRMAN		JOE KRAMER	16
FIREMAN			
FLRMAN		RONALD GROSS	16
FLRMAN		GERALD NUFER	16
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 41 — DATE DEC 24TH 14

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON BLACK CO. — WELL NO. K-4 — FIELD OR DIST.: GLACIER PROJECT — COUNTY: WILDCAT 2ND — STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Brière

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-200	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		42#H40	11		15.5	430	Surface
8 5/8		38#N80	109		15.5	3445	Intermediate

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4	5¼	3¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			3½
LUBRICATE RIG	¼		
DEVIATION SURVEY		½	
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER W.O. Water	3¼	2	2¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT.

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
35	STANDS D.P.	3298.72 FT.
1	SINGLES D.P.	FT.
20	D.C. 2¾ I.D. 6¼ O.D.	567.52 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
1	BIT SUB	2.98 FT.
1	6¼ SUB	2.62 FT.
	KELLY DOWN	32.72 FT.
	TOTAL	3948. FT.
WT. OF STRING	98,000#	LBS.

BIT RECORD

BIT NO.	16	
SIZE	7⅞	
MFG.	SEC	
TYPE	H7UG-J	
NOZZLE NO.	3	
NOZZLE SIZE	1"	
SER. NO.	707290	
DEPTH OUT		
DEPTH IN	3841	
TOTAL FTG.	99	
TOTAL HR. RUN	8½	
COND. OF BIT	1N1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.—D RM.—R CORE.—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS. PAR'L—P CON'D—C
3898	3940	42			60	40	50	5¼				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.30	½	DRILL 7⅞" HOLE 5' (ABOUT 40% RETURNS)
12.30	12.45	¼	SER RIG (1¾) 6:15 DRILL
12.45	1.30	¾	WAIT ON WATER
1.30	2.00	½	DRILL 7⅞" HOLE 5' (ABOUT 40% RETURNS)
2.00	3.00	1	WAIT ON WATER
3.00	3.30	½	DRILL 40000# WT. 60 RPM. (40% RETURNS) 5'
3.30	4.30	1	WAIT ON WATER
4.30	5.15	¾	DRILL 8' 60% RETURNS

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
36	STANDS D.P.	3360.93 FT.
2	SINGLES D.P.	61.30 FT.
20	D.C. 2¾ I.D. 6¼ O.D.	567.52 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
1	BIT SUB	2.98 FT.
1	C/O SUB	2.62 FT.
	KELLY DOWN	14.62 FT.
	TOTAL	4010.00 FT.
WT. OF STRING	102000.	LBS.

BIT RECORD

BIT NO.	16	
SIZE	7¾	
MFG.	SEC.	
TYPE	H7UG-J	
NOZZLE NO.	3	
NOZZLE SIZE	1"	
SER. NO.	707290	4
DEPTH OUT		
DEPTH IN	3841	
TOTAL FTG.	169	
TOTAL HR. RUN	23¾	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	WATER.
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MICA	12 SK	WATER	

DRILLER: C. Markunas.

FOOTAGE

FROM	TO	DR.—D RM.—R CORE.—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS. PAR'L—P CON'D—C
3940	4010	70			70	40	50	5¼		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
			N.E.					

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	CHECK BOPS.
8.15	11.45	3½	DRILL 7⅞" HOLE W/40000 ON BIT (ABOUT 75% RETURNS
11.45	12.45	1	WAIT ON WATER.
12.45	2.00	1¼	DRILLING 7⅞" HOLE ABOUT 75% RETURNS.
2.00	3.00	1	WAIT ON WATER (CHANGED OIL & FILTERS MAIN LIGHT PLANT
3.00	3.30	½	DRILL
3.30	4.00	½	RAN SANDLINE SURVEY (COULDN'T RECOVER.) RAN SURVEY @ 3975 - 40' OFF BOTTOM.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
36	STANDS D.P.	3360.73 FT.
	SINGLES D.P.	FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18 FT.
1	D.C. 2¾ I.D. 7 1/16 O.D.	10.33 FT.
2	STB. BODY O.D.	9.56 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY O.D.	6.35 FT.
3	SUBS O.D.	6.95 FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	31.00 FT.
	TOTAL	4021 FT.
WT. OF STRING	109,000	LBS.

BIT RECORD

BIT NO.	16	17
SIZE	7¾	7 7/8
MFG.	SEC	REED
TYPE	H7UG-J	HWG-J
NOZZLE NO.	3	3
NOZZLE SIZE	1"	1/10 7/8
SER. NO.	707290	
DEPTH OUT	4014	
DEPTH IN		4014
TOTAL FTG.	172	7
TOTAL HR. RUN	23½	½
COND. OF BIT	2-6-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	WATER
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
Mica	5 SKS		

DRILLER: Robert White

FOOTAGE

FROM	TO	DR.—D RM.—R CORE.—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGLS. PAR'L—P CON'D—C
4010	4021	11			70	40	50	5¼				
					70	30	1800	5¼				

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3975	5½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	6.15	2¼	WAIT ON WATER & RECOVER SURVEY
6.15	6.30	¼	DRILL 8'
6.30	7.00	½	WAIT ON WATER
7.00	10.30	3½	TRIP FOR BIT. PICK STAB'S + RMR. 42 DC'S
10.30	11.00	½	DRILL W/ 30,000 WT. 70 RPM. 1800 P.S.I.
11.00	12.00	1	WAIT ON WATER.

NOTE: APPROX. 75% RETURNS WHILE DRLG.

DRILLING CREW PAYROLL DATA

DATE DEC 24TH 1914 — PRIVATE

WELL NAME & NO. A.C.C.A.C. - K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BRIERE — RIG NO.

Tight

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STROUD	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED. BRADY.	8
FLRMAN			

NO. OF DAYS 35 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		WILMER KILLALY	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REDDIS	8
MTRMAN		JOE KRAMER	8
FIREMAN			
FLRMAN		RONALD GROSS	8
FLRMAN		GERALD NUFFER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 40. — DATE Dec 23rd 64

OPERATOR: Atlantic Refining Co. — LEASE: Atlantic Columbian Carbon Artic Pr. — WELL NO. K-4 — FIELD OR DIST. Artic Project — COUNTY Wildcat 3rd — STATE N.W.T.

CONTRACTOR: Cascade Drilling Company Limited — RIG NO. 12-14 — DRILL PIPE STRING NO. 2 SIZE 4½ TYPE THD. F.H. — TOOL JOINT 4" O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W K Walters — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A Briere

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42#H40	11		15.5	456	Surface
8⅝		28#N80	109		15.5	3465	Intermediate

DRILLING CREW PAYROLL DATA — PRIVATE

DATE Dec 23rd 1964. — WELL NAME & NO. ACCAP K-4 — COMPANY Cascade Drilling Co — TOOL PUSHER A. Briere — RIG NO. 12-14 — Tight

MORNING TOUR — 12:00 P.M. — 8:00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		John Hammond	8
DRKMAN		Pete Straub	8
MTRMAN		Harold Quens	8
FIREMAN			
FLRMAN		Walter Zacharuk	8
FLRMAN		Ed Brady	8
FLRMAN			

NO. OF DAYS 34 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR — 8:00 A.M. — 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. Markunas	8
DRKMAN		Pete Matiuchuck	8
MTRMAN		Victor Zacharuk	8
FIREMAN			
FLRMAN		Mel Saunders	8
FLRMAN		Ed. Brady	4
FLRMAN		Ronald Gross	4

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		Robert White	8
DRKMAN		Lloyd Remus	8
MTRMAN		Joe Kramer	8
FIREMAN			
FLRMAN		Ronald Gross	8
FLRMAN		Gerald Noger	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		2	1½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		2	1½
LUBRICATE RIG	½		
DEVIATION SURVEY			
TEST B.O.P.			½
CUT OFF DRILLING LINE			
REPAIR RIG	½	1	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
2037 Circ	7½	3½	5½
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP.	8	7	8
HRS. WO/DP.		1	
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. ____ NO. OF LINES ____ SIZE ____

FEET SLIPPED ____ FEET CUT OFF ____ PRESENT LENGTH ____

TON MI. OR TRIPS SINCE LAST CUT ____

CUMULATIVE TON MI. OR TRIPS ____

NO. OF DAYS FROM SPUD ____

CUMULATIVE ROTATING HRS. ____

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
3	SINGLES D.P.	30.93	FT.
	D.C.		
21	2¾ I.D. 6¼ O.D.	596.18	FT.
	D.C.		
1	2¾ I.D. 2⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	17.98	FT.
	TOTAL	3853.00	FT.

WT. OF STRING 102,000# LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	SEC
TYPE	H-706-J
NOZZLE NO.	3
NOZZLE SIZE	1"
SER. NO.	707290
DEPTH OUT	
DEPTH IN	3841
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

CEDAR SEAL 10 SX

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	7000#	SAWDOST	455X
PELTEX	300#	POLYFLAKES	55X
CAUSTIC	150#	MICA	705X

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.-EL.-P COM.-D-C
3853												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	Ser Rig
12.15	12.30	¼	Filling Up Mud Tank
12.30	3.45	3¼	Mixing Lost Circ. Material & Gel
3.45	4.30	¾	Pump Down Mud Dieling
4.30	5.30	1	Blow Kelly & Mud lines Fill Mud Tank
5.30	6.00	½	Check Valves In Both Pumps
6.00	8.00	2	Mix Gel & Lost Circ Material

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
2	SINGLES D.P.	61.85	FT.
	D.C.		
21	2¾ I.D. 6¼ O.D.	596.18	FT.
	D.C.		
1	2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	11.06	FT.
	TOTAL	3877.00	FT.

WT. OF STRING 102,000# LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	SEC
TYPE	M-706-J
NOZZLE NO.	3
NOZZLE SIZE	1"
SER. NO.	707290
DEPTH OUT	
DEPTH IN	3841
TOTAL FTG.	36
TOTAL HR. RUN	3
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SAWDOST	20 SKS		
CEDAR SEAL	25 SKS		
CAUSTIC	100 LBS		

DRILLER C. Markunas.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.-EL.-P COM.-D-C
3853	3877	24			60	34	50	5¼				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	CHECK BOPS.
8.15	10.00	1¾	MIXING LOST CIR. MATERIAL
10.00	10.30	½	CHECK VALVES IN C-700 PUMP
10.30	11.15	¾	PUMP DOWN 160 BBLS OF MUD DOWN HOLE NO RETURNS
11.15	11.30	¼	FILL MUD TANK FULL OF WATER.
11.30	1.30	2	DRILLING W/ PUMP T DELING W/ WATER NO CIR. RETURNS.
1.30 2.30	2.30 3.30	1	CHECK VALVES IN C-700 PUMP HOIST & STAND BACK REAMER & STAB. IN DERRICK
3.30	4.00	½	RUNING IN W/ BIT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	3352.32	FT.
2	SINGLES D.P.	〃	FT.
	D.C.		
20	2¾ I.D. 6¼ O.D.	567.52	FT.
	D.C.		
	I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS BIT SUB	2.98	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING ____ LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	SEC
TYPE	H-706-J
NOZZLE NO.	3
NOZZLE SIZE	1"
SER. NO.	707290
DEPTH OUT	
DEPTH IN	3877
TOTAL FTG.	
TOTAL HR. RUN	4½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	W/ PICK
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			
MICA	5 SKS		

DRILLER Robt White.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.-EL.-P COM.-D-C
3877	3898	21			60	40	50	5¼				

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.15	1¼	TRIP IN TO DRILL AHEAD 20' OF FILL.
5.15	5.45	½	DRILL 5' W/ 40,000 PUMP AT IDLE SPEED.
5.45	7.00	1¼	WAIT ON WATER
7.00	7.30	½	DRILL 10' NO MUD RETURNS
7.30	8.15	¾	WAIT ON WATER
8.15	8.30	¼	DRILL 4 FT. W/ 50% MUD RETURN
8.30	9.45	1¼	WAIT ON WATER 10 BBL - 1200
9.45	10.00	¼	DRILL 3' SOME RETURNS WAIT ON WATER

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 39 DATE DEC 12ND 64.

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARTIC CR. K-2

WELL NO.

FIELD OR DIST.: GLACIER PROJECT.

COUN: WILDCAT 2#

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO. 12-14

DRILL PIPE STRING: NO. 3, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: N. F. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Briere

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT	C-700	14"
2.	NAT	C-350	13"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		11# & 42#H40			15.5	430	Surface.
8⅝		28# N80	109		15.5	3465	Intermediate

DRILLING CREW PAYROLL DATA

DATE DEC 12ND 1964

WELL NAME & NO. A.C.C.A.C. K-2

COMPANY CASCADE DRLG CO.

TOOL PUSHER A. BRIERE

RIG NO.

PRIVATE

Tight

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1	
REAMING			
CONDITIONING MUD & CIRCULATING		6¼	
TRIPS	4½	3½	8
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST	(8)	(24)	
OTHER	2	5½	
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING	1½	13	
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/OP	16	8	7
HRS. WO/D	13		1
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅜ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅜ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	37.00	FT.
	TOTAL	3841.90	FT.
WT. OF STRING		102,000	LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	SEC
TYPE	H-J 4706-J
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	702290
DEPTH OUT	
DEPTH IN	3841
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
500# MICA			

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
3841				DST #2 - Silurian Ordovician 3774-3840'; Took 5 min. ISI (1:47-1:52 AM); 30 min IST (1:53); 30 min Open Flow (2:52) and 30 min FSI (3:22) Recovered 3685' (50 bbls) slightly cut salt water; Bottom hole pressure 1675 psi. BHT: 110°F.								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	SER RIG
12.15	1.30	1¼	RUN IN PACKER NO 2. DST #2.
1.30	1.45	¼	MAKE UP TESTING HEAD
1.45	3.15	1½	TESTING - INITAL SHUT IN ½ HR. TOOL OPEN ½ HR. FINAL SHUT IN ½ HR
3.15	5.15	2	HOIST - ALL BUT 2 STANDS FULL OF SALT WATER
5.15	7.00	1¾	BREAK DOWN & SERVICE PACKER
7.00	8.00	1	RUN IN BIT 16#

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	8
DRKMAN		PETE STRUNA	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 32. SINCE LAST LOST TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
1	SINGLES D.P.	30.93	FT.
20	D.C. 2⅜ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2⅜ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	17.98	FT.
	TOTAL	3853.07	FT.
WT. OF STRING		102,000	LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	SEC.
TYPE	H-J 4706-J
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	702290
DEPTH OUT	3853
DEPTH IN	3841
TOTAL FTG.	12
TOTAL HR. RUN	1
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2.45
WEIGHT	
VISC.-SEC	45
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	4200	CAUSTIC	100
S'DUST	22	MICA	24
PELTER	160		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COMP'D-C
3841	3853	12'			60	25	680	5¼	50	5		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	FINISH RUN IN W/BIT
8.15	8.45	½	CLEAN 20' TO BOTTOM (NO CIR RETURNS)
8.45	9.45	1	DRILLING TRYING TO REGAIN CIR.
9.45	10.45	1	MIXING MUD + WAITING ON WATER
10.45	12.00	1¼	WORK PIPE TRYING TO REGAIN CIR
12.00	2.45	2¾	MIXING MUD + SAWDUST
2.45	3.30	¾	WORK PIPE + TRY TO REGAIN CIR
3.30	4.00	½	HOIST TO RUN CONVENTIONAL BIT

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATICHUK	8
MTRMAN		VICTOR ZACHARUK	8
FIREMAN			
FLRMAN		MEL SAUNDERS	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
1	SINGLES D.P.	30.93	FT.
21	D.C. I.D. O.D.	596.18	FT.
1	D.C. I.D. O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
1	STB. BODY O.D.	6.35	FT.
1	RMR. BODY O.D.		FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	17.98	FT.
	TOTAL	3853.	FT.
WT. OF STRING		102,000	LBS.

BIT RECORD

BIT NO.	16
SIZE	7⅞
MFG.	REPUT. SEC
TYPE	H-J 4706-J
NOZZLE NO.	3
NOZZLE SIZE	1"
SER. NO.	702290
DEPTH OUT	
DEPTH IN	3853.
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	Sawdust 4 SSK
PRESSURE GRADIENT	Poly-Lake 15"
	Mica 30#

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	3600#		
Pellet	300#		
Caustic	150#		

DRILLER Robt White.

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	TRIP OUT
5.00	6.00	1	BRK BIT TAKE JETS OUT & MAKE UP UC SAME
6.00	7.30	1½	TRIP IN WITH BIT TO MIX MUD & LOSS CIRC. MATERIAL.
7.30	11.00	3½	MIX MUD & LOSS CIRC MATERIAL
11.00	12.00	1	PUMP MUD DOWN. NO RETURNS
			NOTE: ROBERT WHITE GOT MUD IN EYES WHILE MIXING IN TANKS

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE	8
DRKMAN		LLOYD REMUS	8
MTRMAN		VICTOR ZACHARUK	4
FIREMAN MTRMAN		HAROLD QUENS	4
FLRMAN		RONALD GROSS	8
FLRMAN		CLARENCE OSTRANDER	4
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 38 — DATE Dec 21st/64

OPERATOR: Atlantic Refining Co. — LEASE: Atlantic Columbia Corson Area Co — WELL NO. K-4 — FIELD OR DIST.: Glacier Project — COUNTY: Wibaux — STATE: Mont.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14 — DRILL PIPE STRING NO. 3, SIZE 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Briere

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	Nat	C-700	14"
2.	Nat	C-350	18"
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42-H40	11		15.5	430	Surface
8⅝		28-N80	109		15.5	3445	Intermediate

DRILLING CREW PAYROLL DATA — PRIVATE

DATE Dec 21st 64 — WELL NAME & NO. ARCAC — K-4 — COMPANY Cascade Drlg Co — TOOL PUSHER A. Briere — RIG NO.

Tight

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR-DOWN			
DRILLING ACTUAL	4	1¼	
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		3	4½
LUBRICATE RIG	¼		
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST		3½	1½
OTHER	3¾	[illegible]	2¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	4½	7
HRS. WO/DP		3½	1
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.
NO. OF LINES — SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. OR TRIPS SINCE LAST SLIP
CUMULATIVE TON MI. OR TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	C/S SUBS	6.95	FT.
	KELLY DOWN	22.93	FT.
	TOTAL	3832.00	FT.

WT. OF STRING 102,000# LBS.

BIT RECORD

BIT NO.	15
SIZE	7⅞
MFG.	REED
TYPE	YHWIG-J
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	ED-2004-J
DEPTH OUT	3762
DEPTH IN	3590
TOTAL FTG.	130
TOTAL HR. RUN	7
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6:00
WEIGHT	8.5
VISC.-SEC	33
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3748	3832	84			68	45	1950	5¼	68	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3590	3¼°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	Ser Rig
12.15	2.45	2½	Drill 7⅞" Hole
2.45	3.45	1	Wt. Completely Dropped Off Bit & Mud Dropped In Hole Regaining Circulation
3.45	5.15	1½	Drilling
5.15	8.00	2¾	Trying To Regain Circulation — Mud Dropped In Hole

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3174.70	FT.
	SINGLES D.P.		FT.
21	D.C. 2⅞ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	C/S SUBS	6.95	FT.
	KELLY DOWN	37.00	FT.
	TOTAL	3841.60	FT.

WT. OF STRING 102,000 LBS.

BIT RECORD

BIT NO.	15
SIZE	7⅞
MFG.	REED
TYPE	YHWIG-J
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	ED-2004-J
DEPTH OUT	3842
DEPTH IN	3702
TOTAL FTG.	140
TOTAL HR. RUN	9¼
COND. OF BIT	T-4-B-3-G-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12:00
WEIGHT	8.5
VISC.-SEC	33
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Mel	22.00		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3832	3841	9										

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	Check BOPS
8.15	9.30	1¼	Trying To Regain Circ. While Drilling.
9.30	11.00	1½	Hoist
11.00	2.30	3½	Unload Testing Tools & Make up Packer.
2.30	4.00	1½	Running In W/ Packer To Test,

NO. OF DAYS 32 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8:00 A.M. 4:00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. Markunas	8
DRKMAN		Pete Matwichuk	8
MTRMAN		Victor Zacharuk	8
FIREMAN			
FLRMAN		Mel Saunders	8
FLRMAN		Clarence Ostrander	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		Robert White	8
DRKMAN		Lloyd Remus	8
MTRMAN		Harold Owens	8
FIREMAN			
FLRMAN		Ronald Gross	8
FLRMAN		Mel Saunders	4
FLRMAN		Ed Brady	4

NO. OF DAYS 32 SINCE LAST LOST TIME ACCIDENT

DST #1 of Silurian Ordovician @ 3774'-3840', Miscud due to tool opening while heading up. Took 3 min IFP, 30 min ISI, 30 min Valve Open, 30 min. ESI. Recovered Total 3775' (53.7 bbls) Fluid consisting of 1950' (27.7 bbls) Drilling Fluid (muddy Water @ 8.5 #/gal) and 1825' (25.9 bbls) slightly Sulfurous Salt Water @ 8.8 #/gal & 18,150 ppm N.a.Cl. All Pressures 1695 psi. BHT: 110°F

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 37 — DATE Dec 20th 64

OPERATOR: ATLANTIC REFINING Co — LEASE: ATLANTIC COLUMBIA CARBON ARCTIC Co. K4 — WELL NO. — FIELD OR DIST.: GLACIER PROJECT — COUNTY: WILDCAT #2 — STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT: TYPE THD. F H, 6" O.D.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G 700	14
2.	NAT.	C 350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-40	11		15.5	430	SUR
8 5/8		28-N-80	109.		15.5	3465	INTER

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR-DOWN			
DRILLING ACTUAL	3	5¾	3
REAMING	4		1
CONDITIONING MUD & CIRCULATING			
TRIPS	1	3¾	2¾
LUBRICATE RIG			¼
DEVIATION SURVEY		¼	
TEST B.O.P.			
CUT-OFF DRILLING LINE			
REPAIR RIG			D
CORING	ND		
WIRE-LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	1	1½	
FISHING			
COMPLETION WORK A. PERFORATING		7	7
B. TUBING TRIPS	6.15		
C. SCABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	7	8	7
HRS. WO/DP	1		1
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	2988.59	FT.
	SINGLES D.P.		FT.
21	D.C. 2¼ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¼ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
3	SUBS O.D.	6.95	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	11.04	FT.
	TOTAL	3629.00	FT.
	WT. OF STRING	98.000 #	LBS.

BIT RECORD

BIT NO.	14
SIZE	7 7/8
MFG.	REED
TYPE	YMJ
NOZZLE NO.	3
NOZZLE SIZE	11
SER. NO.	F73H7
DEPTH OUT	3702
DEPTH IN	3596
TOTAL FTG.	106
TOTAL HR. RUN	8¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6.00
WEIGHT	8.5
VISC.-SEC	33
W.L.-C.C.	
FLTR. CK.	
PH	WATER
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3596	3629	33			70	30t	800	5¼	72	5		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3590	3¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	1.00	1	LAY DOWN 3 STANDS OUT OF DERRICK & 5 SINGLES OUT OF STRING
1.00	5.00	4	REAMING 3 POINT REAMER & STABILIZERS 130' TO BTM.
5.00	8.00	3	DRILL
		8HRS	

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	3052.00	FT.
2	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
2	STB. BODY O.D.	9.56	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	CLOSUB	6.95	FT.
	KELLY DOWN	20.00	FT.
	TOTAL	3702.	FT.
	WT. OF STRING	99.000	LBS.

BIT RECORD

BIT NO.	14
SIZE	7 7/8
MFG.	REED
TYPE	YMJ
NOZZLE NO.	3
NOZZLE SIZE	11
SER. NO.	F73H7
DEPTH OUT	3702
DEPTH IN	3596
TOTAL FTG.	106
TOTAL HR. RUN	8¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	12
WEIGHT	88
VISC.-SEC	32
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
BICARB	100 #		

DRILLER C. Markhnas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3629	3702	73			70	40	880	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3590	3¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.00	2	DRLG 7⅞" HOLE W/ 40000 ON BIT 70 RPM.
10.00	10.15	¼	CHECK RAPS.
10.15	1.00	2¾	DRLG 7⅞" HOLE W/ 40000 ON BIT 70 RPM.
1.00	1.15	¼	CHANGE SAVER SUB ON KELLY
1.15	2.15	1	DRILL
2.15	4.00	1¾	HOISTING.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
33	STANDS D.P.	3082.65	FT.
	SINGLES D.P.		FT.
21	D.C. 2¾ I.D. 6¼ O.D.	596.18	FT.
1	D.C. 2¾ I.D. 7⅛ O.D.	10.33	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
1	RMR. BODY O.D.	6.35	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
3	CLOSUB	6.95	FT.
	KELLY DOWN	36.00	FT.
	TOTAL	3748	FT.
	WT. OF STRING	100.000	LBS.

BIT RECORD

BIT NO.	15
SIZE	7 7/8
MFG.	REED
TYPE	YHWG-J
NOZZLE NO.	3
NOZZLE SIZE	9
SER. NO.	ED2004J
DEPTH OUT	
DEPTH IN	3702
TOTAL FTG.	46
TOTAL HR. RUN	3
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1100
WEIGHT	8.4
VISC.-SEC	30
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Bicarb	100#		
Pump shaker Tank			
Water			

DRILLER Robert White.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3702	3748	46			70	20, 40	1900	5¼	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3590	3¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG.
4.15	5.00	¾	TRIP OUT. BRK BIT + 3 PNT RMR
5.00	6.00	1	CHANGE RMR CUTTERS, MAKE UP RMR + BIT.
6.00	8.00	2	TRIP IN W/ BIT #15
8.00	9.00	1	REAM 50 FT TO BTM W/ 40000 TO 50.000 WT
9.00	12.00	3.	DRILL

DRILLING CREW PAYROLL DATA

PRIVATE — Tight

DATE Dec 20/64

WELL NAME & NO. A.C.C.AC. K4

COMPANY CASCADE DRLG. Co

TOOL PUSHER AL BRIERE

PRIVATE RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STAVE	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 31 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKHNAS	8
DRKMAN		PETR MATUSHUK	8
MTRMAN		VICTOR ZACHARUK	8
FIREMAN			
FLRMAN		MEL SAUNDERS	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS 31. SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ROBERT WHITE.	8
DRKMAN		LLOYD REMPEL	8
MTRMAN		VICTOR ZACHARUK	8
FIREMAN			
FLRMAN		RONALD CROSS	8
FLRMAN		CLARENCE OSTRANDER.	8.
FLRMAN			

NO. OF DAYS 31. SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 36 — DATE DEC. 19/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CASCADE ARCTIC CANADA — WELL NO. K-4 — FIELD OR DEST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Brieré

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-550	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-40	11		15.5	430.	SURF.
8 5/8		28 N 80	109		15.5	3465.	INTER.

DRILLING CREW PAYROLL DATA

DATE DEC 19/64 — PRIVATE / PRIVATE — Light

WELL NAME & NO. A.C.C.A.C.-K-4 — COMPANY CASCADE DRLG. CO. LTD. — TOOL PUSHER AL. BRIERÉ. — RIG NO. 12-14

MORNING TOUR — 12⁰⁰ P.M. — 5⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIDI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL BARISEAU-KEE	8
FLRMAN		CLARENCE ASTRANDER	8
FLRMAN			

SAFETY MEETING HELD HANDLING TRAVELING BLOCKS PRIOR TO CUTTING LINE.

NO. OF DAYS 30 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR — 8⁰⁰ A.M. — 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATIUSHUK	8
MTRMAN		HECTOR ZACHARUK	8
FIREMAN			
FLRMAN		MEL SAUNDERS	8
FLRMAN			
FLRMAN		Check Banks Motor Oil & Oil Filters, Drain Oil from Engines & Transmissions, Grease Rotary, Fire Extinguishers & Breathing Apparatus Ck. V.T.R.	

NO. OF DAYS 30 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR — 4⁰⁰ P.M. — 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED. BRADY	8
FLRMAN			

NO. OF DAYS 30 SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	6¼	7¾	3¼
REAMING			
CONDITIONING MUD & CIRCULATING	¾		
TRIPS			2¾
LUBRICATE RIG			¼
DEVIATION SURVEY			¼
TEST B.O.P.	½	¼	¼
CUT OFF DRILLING LINE			
REPAIR RIG	½		
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			1¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	7½	8	1½
HRS. W/DP			1½
HRS. WO/DP			
HRS. STANDBY	Repairs	½	
TOTAL DAY WORK	7½	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
31	STANDS D.P.	3950.10	FT.
2	SINGLES D.P.	17	FT.
18	D.C. 2⅞ 6¼ I.D. O.D.	509.42	FT.
	D.C. I.D. O.D.	1.33	FT.
	STB. BODY O.D.	1	FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
1	BIT SUB	3.00	FT.
1	6¾ SUB	2.69	FT.
	KELLY DOWN	36.86	FT.
	TOTAL	3510.	FT.
WT. OF STRING		70.000	LBS.

BIT RECORD

BIT NO.	13	
SIZE	7⅞	
MFG.	SEC.	
TYPE	H-7	
NOZZLE NO.	3	
NOZZLE SIZE	11/16 IN	
SER. NO.	697214	
DEPTH OUT		
DEPTH IN	3465	
TOTAL FTG.	45	
TOTAL HR. RUN	6¼	
COND. OF BIT	IN	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	WATER
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER R. Leidi

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR'EL-P CONT'D-C
3465	3510	45			70	32	200	5½	72	5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1245	¾	RIGIR. & DISPACE GEL MUD TO WATER
1245	115	½	REPAIR 2ND. CHAIN IN HOIST.
115	300	1¾	DRILR OUT FLOAT.
300	315	¼	PRES. TEST 4½" PIPE RAMS. 1200 P.S.I. -O-K-
315	330	¼	PRES. TEST HYDRIL 1200 P.S.I. -O-K-
330	400	½	DRILL OUT SHOE.
400	800	4	DRLG. 7⅞" HOLE. WT. 32. R.P.M. 70.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	3049.99	FT.
2	SINGLES D.P.	7	FT.
18	D.C. 2⅞ 6¼ I.D. O.D.	509.42	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
1	BIT SUB	3.00	FT.
1	6¾ SUB	2.62	FT.
	KELLY DOWN	11.00	FT.
	TOTAL	3575.00	FT.
WT. OF STRING		50.000	LBS.

BIT RECORD

BIT NO.	13	
SIZE	7⅞	
MFG.	SEC.	
TYPE	H-7	
NOZZLE NO.	3	
NOZZLE SIZE	11/16	
SER. NO.	697214	
DEPTH OUT		
DEPTH IN	3465	
TOTAL FTG.	110	
TOTAL HR. RUN	14	
COND. OF BIT	IN	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	WATER
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR'EL-P CONT'D-C
3510	3575	65			70	32	200	5½	72	5½	5"	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	CHECK BOPS
815	400	7¾	DRLG 7⅞" HOLE W/32000 ON BIT 70 RAM.
			CHANGED OIL & OIL FILTERS IN #3 FLOOR MOTOR.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	3049.99	FT.
2	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
18	D.C. 2⅞ 6¼ I.D. O.D.	509.42	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
1	BIT SUB	3.00	FT.
1	6¾ SUB	2.62	FT.
	KELLY DOWN	31.17	FT.
	TOTAL	3596.00	FT.
WT. OF STRING		90,000	LBS.

BIT RECORD

BIT NO.	13	14
SIZE	7⅞	7⅞
MFG.	SEC	REED
TYPE	H-7	YM-J
NOZZLE NO.	3	3
NOZZLE SIZE	11/16	11/16
SER. NO.	697214	E73147
DEPTH OUT		
DEPTH IN	3465	
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME		8.00
WEIGHT		8.5
VISC.-SEC		33
W.L.-C.C.		
FL.TR. CK		
PH	WATER	
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P CONT'D-C
3575	3596	21			70	32	200	5½	72	5"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	SER RIG
415	730	3¼	DRILL 7⅞" HOLE
730	745	¼	SURVEY @ 3590 - 3¼°
745	900	1¼	HOIST. - LAY DOWN 3 SINGLES & BIT SUB
900	915	¼	CHANGE BITS & CHK BLIND RAMS
915	1030	1¼	PICK UP 1-3 POINT REAMER-2STARILIZERS-2 6¼ SUBS 1-10' COLLAR.
1030	1105	¾	RUN IN COLLARS & PICK UP 3 DRILL COLLARS
1115	1200	¾	RUN IN RIT #14.

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 35 DATE DEC. 13/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: MONTH COLUMBIA ARBAN ARCTIC CO. LTD K-4-

WELL NO.

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILDCAT #2

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½

TOOL JOINT: O.D. 6" TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	MAT	C-700	14
2.	MAT	C-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11¾		40-H-40	11		15.5	430.	SURF.
TUBING OR LINER	8⅝		32#N80	109		15.5	3465.	INTERMEDIATE

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		5¼	
LUBRICATE RIG		¼	
DEVIATION SURVEY			¼
TEST B.O.P.			¼
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENT			
WAITING ON CEMENT	8	2½	
DRILL STEM TEST			
OTHER		5½	1¾
FISHING			
A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

COMPLETION WORK

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK		
HRS. W/DP	3	8
HRS. WO/DP	8	5
HRS. STANDBY		
TOTAL DAY WORK	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD	
BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SOL.S PAR'EL-P COM'D-C
3465								5½	45			

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	3460	3½°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	8⁰⁰	8	CUT OFF CASING CHANGE SPOOLS + BALT DOWN B.O.P. Manually cut off casing Instld Csd 13"x12" Serv 900 3000# Test McEvoy Csg on Intermediate Casing Bowl

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D.	O.D.	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD	
BIT NO.	1
SIZE	7⅞
MFG.	SEC
TYPE	H7T
NOZZLE NO.	3
NOZZLE SIZE	11/16
SER. NO.	692214
DEPTH OUT	
DEPTH IN	3465
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	10⁰⁰	5	HAMMER UP BOLTS ON BOP SPOOL MAKE UP VALVES+ FLOW LINE / CLEAN MUD TANKS.
10⁰⁰	13⁰⁰	½	REPAIR [redacted] COMPOUND ON 350 PUMP DRIVE
13⁰⁰	24⁵	1¼	MAKE UP BIT & BIT SUB + PICKING UP 6⅝" DRILL COLLARS
24⁵	4⁰⁰	1¼	WORK ON ACCUMULATOR.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
80	STANDS D.P.	2233.63	FT.
1	SINGLES D.P.		FT.
18	D.C. 6⅛ I.D.	O.D. 509.42	FT.
	D.C. I.D.	O.D.	FT.
	STB. BODY	O.D.	FT.
	STB. BODY	O.D.	FT.
	RMR. BODY	O.D.	FT.
	SUBS	O.D.	FT.
1	BIT SUB	3.00	FT.
1	¾ SUB	2.62	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	3390.11	FT.
WT. OF STRING	98.000		LBS.

BIT RECORD	
BIT NO.	1
SIZE	7⅞
MFG.	SEC
TYPE	H7-T
NOZZLE NO.	3
NOZZLE SIZE	11/16
SER. NO.	692214
DEPTH OUT	
DEPTH IN	3465
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD	
TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER J. Hammond

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

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	4.30	¼	PRESS BLIND RAMS TO 1000# HELD OK. - 15 mins)
4.30	8.00	3½	MEASURE-CALIPER-CHK SERIAL No.'s & PICK UP 6-6¼" COLLARS
8.00	10.15	2¼	RUN INT STRAP PIPE - THAW ICE PLUGS - HEAVY MUD FLOWING OVER PIPE - FREEZING UP SLIPS-TONGS & ELEVATORS - TOP OF PLUG @ 3356.
10.15	11.45	1½	BLOW MUD LINES & STAND PIPE - THAW ICE PLUG IN KELLY HOSE & STAND PIPE
11.45	12.00	¼	BREAK CIRC. 1200# PRESS W/ PUMP IDLING
		8465.	

DRILLING CREW PAYROLL DATA

DATE DEC 13/64 — PRIVATE Tight

WELL NAME & NO. A.C.C.A.C. - K - 4 -

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	X
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE KTRANCHE	9
FLRMAN			

NO. OF DAYS 29 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUCK	8
MTRMAN		HAROLD OUENS	4
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 29 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAVA	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 29 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 34 DATE DEC. 17/64

OPERATOR: Atlantic Refining Co.

LEASE: Atlantic Richfield et al Cascade Arctic Circle

WELL NO. H-4 FIELD OR DIST. Glacier Project COUNTY Wildcat #2 STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
	11¾		42-47	11		15.5	430	SURF.
	8⅝		28# N80	109		15.5	3465	Intermediate

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING	8	2½	
WAITING ON CEMENT		5½	8
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP	8	8	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	PWR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR. D RM. R CORE C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3465				Ran 109 Jts (3446.30') 8⅝" 28# N80 St & C Csg	89	28	N85	7½	5"			
				1 Jt C-8Rd Csg) Closing In Set Depth 3461.75'								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
			Casing Run & Inserted Bottom
12⁰⁰	2⁰⁰	2	RUN IN 85/8" CASING OKB-GL 15.50'
2⁰⁰	3⁰⁰	1	B. CIRC. & CLEAN TO BOTTOM. 108 Stds 3414.50
3⁰⁰	8⁰⁰	5	CIRC. & WORK PIPE. 8⅝ Baker Model "D" Shoe 1.85
			1 Jt Csg 31.70
			STAYED OVER TO RUN Differential Fill Up Shoe 1.20
			& CEMENT Set Depth 3461.75

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	PWR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR. D RM. R CORE C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3465	T.D.		11"	HOLE:								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8³⁰	½	CIR. & WORK CASING.
8³⁰	8⁴⁵	¼	RIG TO CEMENT
8⁴⁵	10.60	1¼	MIX CEMENT
10⁰⁰	10.30	½	PUMP PLUG DOWN W/RIG PUMP.
10³⁰	4⁰⁰	5½	W.O.C.
			RIG UP TO CIR. PUMPS, CLEAN UP CEMENT BAGS & PALLETS, REPAIRING MUD ROLL, CLEAN UP BOPS
			BAILING OUT CELLAR & TEARING OUT BOPS

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	
	SINGLES D.P.	
	D.C. I.D. O.D.	
	D.C. I.D. O.D.	
	STB. BODY O.D.	
	STB. BODY O.D.	
	PWR. BODY O.D.	
	SUBS O.D.	
	BIT OR C.B.	
	KELLY DOWN	
	TOTAL	
WT. OF STRING		LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR. D RM. R CORE C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3465	T.D. 11" Hole			Cemented w/650 Sx Oilwell Cmt. Plus 12% Hydrafined Gel (1560 ft³) at 12.3 #/Gal (Water 70°F Slurry 90°F)								
				Followed By 200 Sks neat Oilwell Cmt @ 15.6 #/Gal (Water 28 ft³ Slurry 1 ft³).								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
Started Operations at 8:25 AM with Plug Down at 10:29 AM (Test*)								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	12.00		W.O.C. FINISH BAILING CELLAR
			TEAR OUT B.O.P.'s - RAISE B.O.P.'s & HANG IN TURN BUCKLES
			SET CASING SLIPS. Casing in Normal Tension 80,000 ±
			#. 1250 psi. Displaced Plug w/Rig Pumps and 214 bbls mud in 29 mins for Rate of 7.4 spm. Plug is
			@ 3432'. Had Returns to Surface @ 90°F for 4 mins
			(695 = 165.76 ft³). Raised BOPs and Set McEvoy
			Type SB-2 Casing Hangers.

DRILLING CREW PAYROLL DATA

PRIVATE Light

DATE DEC. 17/64

WELL NAME & NO. A.C.C.B.C.—K-4

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	14
DRKMAN		PAUL LANGE	14
MTRMAN		PAUL HENDERSON	14
FIREMAN			
FLRMAN		AL BARISENTIE	14
FLRMAN		CLARENCE OSTRANDER	14
FLRMAN			

NO. OF DAYS 28 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	10
DRKMAN		PETE MATUSCHUCK	10
MTRMAN			
FIREMAN			
FLRMAN		VICTOR ZACHARUK	10
FLRMAN		MEL SAUNDERS	10
FLRMAN			

CAME OUT @ 6:00 AM TO HELP CEMENT CASING.

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 28 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 33 DATE DEC. 16/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC CHUMBIAN CARIBAN ARCTIC CIRCLE

WELL NO. A-K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N. W. T

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11		15.5	430	SURF.
8 5/8		28# N80	109		15.5	3465	Intermediate

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	3/4	3½	
TRIPS	1½	3½	
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.		¾	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	5¾		
RUNNING CASING & CEMENTING		2¾	8
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	24	23½	
HRS. WO/DP	0	0½	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	30	273.56 FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6" SUBS	5.49	FT.
	KELLY DOWN	14.48	FT.
	TOTAL	3465	FT.
WT. OF STRING		92.000	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3465								5¼		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	545	5¾	VELOCITY SURVEY
545	715	1½	RUN IN. (COLLARS & DRIL. PIPE) THAW OUT ICE PLUGS
715	800	¾	CIRCULATE TO RUN CASING

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	307 3.56	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6" SUBS	5.49	FT.
	KELLY DOWN	14.48	FT.
	TOTAL	3465.0	FT.
WT. OF STRING		92.000	LBS.

BIT RECORD

BIT NO.	RERUN #4
SIZE	11
MFG.	SEC
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	3465
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9.15 AM
WEIGHT	10.1
VISC.-SEC	190
W.L.-C.C.	4.5
FLTR. CK.	2/32
PH	9.5
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markinas

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	930	1½	CIR. TO RUN CASING.
930	1030	1	HOIST PIPE TO RUN CASING
1030	100	2½	~~HOIST~~ COLLARS & LAY DOWN SAME BREAK ALL SUBS
100	115	¼	CHECK BOPS
115	200	¾	RIG TO RUN CASING
200	400	2	MAKE UP SHOE, FLOAT, CENTRALIZERS SCRATCHERS & RUNNING CASING.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FLTR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3465												

DEVIATION RECORD

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	1200	8	RUNNING 8 5/8" CASING
			STAYED OVER TO RUN CASING

DRILLING CREW PAYROLL DATA

DATE DEC. 16/64 PRIVATE

WELL NAME & NO. A.R.C. A.C. - K - 4 - Light

COMPANY CASCADE DRLG. CO LTD

TOOL PUSHER A. BRUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL BARISENKOFF	8
FLRMAN		CLARENCE BITRAUSER	8
FLRMAN			

NO. OF DAYS 27 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKINAS	12
DRKMAN		PETE MATVICHUCK	12
MTRMAN			
FIREMAN			
FLRMAN		VICTOR ZACHARUK	12
FLRMAN		MEL. SAUNDERS	12
FLRMAN		AL. BARISENKOFF	4
		STAYED OVER TO RUN CASING	

NO. OF DAYS 27 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	14
DRKMAN		PETE STRAUB	14
MTRMAN		HAROLD OUENS	14
FIREMAN			
FLRMAN		WALTER ZACHARUK	14
FLRMAN		ED BRADY	14
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 33. DATE DEC. 15/64

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIA CARBON ARCTIC CIRCLE	K-4	GLACIER PROJECT	WILDCAT D 2	N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: M.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		60-H42	11		15	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			3
TRIPS			3½
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			1¾
CORING			
WIRE LINE LOGGING	(9)	(8)	8
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	8	8	¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8		8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			7¾
HRS. WO/DP	8	8	¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3073.56	FT.
	SINGLES D.P.		FT.
9	D.C. 9⅞ I.D. 3" O.D. 8⅛	269	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STR. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/o SUBS	5.49	FT.
	KELLY DOWN	14.49	FT.
	TOTAL	3465.00	FT.

WT. OF STRING 92,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL-S PAR'EL-P CON'D-C
3465								5¼		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	8⁰⁰	8	W/O. VELOCITY SURV. MEN & EQUIPMENT.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3073.56	FT.
	SINGLES D.P.		FT.
9	D.C. 9⅞ I.D. 3" O.D. 8⅛	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/o SUBS	5.49	FT.
	KELLY DOWN	14.49	FT.
	TOTAL	3465.00	FT.

WT. OF STRING 92.000. LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P CON'D-C
3465												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	4⁰⁰	8	W.O. VELOCITY SURVEY MEN & EQUIPMENT.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.	SAME	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P CON'D-C
3465												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	6⁰⁰	2	THAW ICE PLUGS & RUN IN
6⁰⁰	9.00	3	CIRC. & HEAT UP MUD TANKS
9.00	9.45	¾	HOIST
9.45	11.00	1¼	END OUT OF MOUSE HOLE - CHANGE OVER MUD LINES
11.00	11.45	¾	HOIST
11.45	12⁰⁰	¼	RIG UP FOR VELOCITY SURVEY

DRILLING CREW PAYROLL DATA

PRIVATE

DATE DEC. 15/64

WELL NAME & NO. A.C.C.A.C.-K-4- Light

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL BORISENKOFF	8
FLRMAN		CLARENCE STRINGER	8
FLRMAN			

NO. OF DAYS 26 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 4⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATHUCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 26 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 26 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 31 DATE DEC. 14/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CORBAN ARCTIC C.A. -K-4-

WELL NO.

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILD CAT #2

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A.K. Walter

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430.	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING	LOG	8	
CIRCULATING & WAIT		1¾	2¼
TRIPS		1¼	1¾
LUBRICATE RIG			¼
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	(8)	(8)	(8)
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		3¾	4¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP		3	3¾
HRS. W/O DP	8	5	4¼
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
34	STANDS D.P.	3170.56 FT.
	SINGLES D.P.	FT.
9	D.C. I.D. 7⅜ O.D. 8⅛	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7⅜ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	6¾ SUBS	5.47 FT.
	KELLY DOWN	14.48 FT.
	TOTAL	3465.09 FT.

WT. OF STRING 92.000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR'D RM. R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
3465								6"		5"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460.	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	8⁰⁰	8	LOGGING WITH SCHLUMBERGER
			Ran Microlog - Caliper - 2"&5" Scale @ 3449-431
			Start at 08:30; Finish at 03:30 BHT: 114°F
			Ran Continuous Dipmeter 5" & 60" @ 3455-431
			Start 03:30; Finish 09:00 BHT: 115°F
			CHANGED HEADS & LINERS IN G-700-6"

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
34	STANDS D.P.	3170.56 FT.
	SINGLES D.P.	FT.
9	D.C. I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7⅜ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	6¾ SUBS	5.47 FT.
	KELLY DOWN	14.48 FT.
	TOTAL	3465.00 FT.

WT. OF STRING 92.000, LBS.

BIT RECORD

BIT NO.	RERUN #4
SIZE	11"
MFG.	SEC
TYPE	M4N-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670853
DEPTH OUT	
DEPTH IN	3465
TOTAL FTG.	CLEAN TO BOTTOM
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR'D RM. R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
~~0~~	~~0~~						125	5¼	72	5"		
3465												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	9.45	1¾	LOGGING W/ SCHLUMBERGER
9.45	10⁰⁰	¼	TEAR OUT SCHLUMBERGER
10⁰⁰	1:00	3	W.O. VELOCITY SURVEY HANDS.
1⁰⁰	2.15	1¼	RUN IN W/ BIT
2.15	2.30	¼	BREAK CIR. & CLEAN 10' TO BOTTOM.
2.30	4⁰⁰	1½	CIR. & W.O. SURVEY HANDS.
			CHANGED HEADS & LINERS TO 5¼" IN G-700 PUMP.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D. SAME	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	RERUN 4th
SIZE	11"
MFG.	SEC
TYPE	M4N-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670853
DEPTH OUT	
DEPTH IN	3465
TOTAL FTG.	CONDITION HOLE
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.—SEC	
W.L.—C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR'D RM. R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL—S PAR'EL—P COM'D—C
3465												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	6.30	2¼	CONDITION HOLE FOR VALOSITY SURVEY
6.30	7.45	1¼	HOIST
7.45	12.00	4¼	WAIT ON VALOSITY SURVEY MEN & EQUIPMENT
			(SLIPPED 22' & CUT 160' OF DRILLING LINE)

DRILLING CREW PAYROLL DATA

DATE DEC. 14.64 PRIVATE

WELL NAME & NO. A.C.C. A.C.-K-4- Tight

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		BUD HENDERSON	8
FIREMAN			
FLRMAN		AL. BARSEN KOFF	8
FLRMAN		CLARENCE ASTRANDER	8
FLRMAN			

NO. OF DAYS 25 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUCHUCK	8
MTRMAN		ROY MACH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SPRUDDERS	8
FLRMAN			

NO. OF DAYS 25 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 25 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 30 — DATE DEC 13/64

OPERATOR: ATLANTIC REFINING CO. — LEASE: ATLANTIC COLUMBIA OCEAN ARCTIC CRUZ — WELL NO. K-4- — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters — SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42-H-42	11		15.	430.	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	1½		
REAMING			
CONDITIONING MUD & CIRCULATING	¼	3¼	2¼
TRIPS	¾	1¾	
LUBRICATE RIG	¼		
DEVIATION SURVEY		¼	
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING	(1½)	(8)	8
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			4
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	4	
HRS. WO/DP		4	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. —
NO. OF LINES — SIZE —
FEET SLIPPED —
FEET CUT OFF —
PRESENT LENGTH —
TON MI. OR TRIPS SINCE LAST CUT —
CUMULATIVE TON MI. OR TRIPS —
NO. OF DAYS FROM SPUD —
CUMULATIVE ROTATING HRS. —

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3170.56	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C&S Subs	5.47	FT.
	KELLY DOWN	14.48	FT.
	TOTAL	3465.00	FT.
WT. OF STRING	92 000	LBS.	

BIT RECORD

BIT NO.	12	
SIZE	11"	
MFG.	SEC	
TYPE	M-4-J	
NOZZLE NO.	3-T	
NOZZLE SIZE	15	
SER. NO.	735174	
DEPTH OUT	—	
DEPTH IN	3316	
TOTAL FTG.	149	
TOTAL HR. RUN	27½	
COND. OF BIT	1-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	1:00	3:30	6 00
WEIGHT	10.1	10.1	10.1
VISC.—SEC	161	154	158
W.L.—C.C.	4.2	4.2	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
Gel	20.000 lbs		
	WATER		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.—S PAR'EL—P COMP.—C
3436	3465	29		DRLG.	70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3300	3¾°	N.E.W.						

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	415	4¼	DRLG. 11" HOLE.
415	430	¼	COOL + RIG SERV.
430	630	2	DRLG. 11" HOLE.
630	700	½	CIRC. TO LOG.
700	745	¾	DUMMY TRIP (10 STD)
745	800	¼	CIRC. TO LOG

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
34	STANDS D.P.	3170.56	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C&S Subs	5.47	FT.
	KELLY DOWN	14.48	FT.
	TOTAL	3465.00	FT.
WT. OF STRING	92 000	LBS.	

BIT RECORD

BIT NO.	12	
SIZE	11"	
MFG.	SEC	
TYPE	M-4-J	
NOZZLE NO.	3	
NOZZLE SIZE	15	
SER. NO.	735174	
DEPTH OUT	3465	
DEPTH IN	3316	
TOTAL FTG.	149	
TOTAL HR. RUN	27½	
COND. OF BIT	2-2-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9 AM	10 PM	
WEIGHT	10.1	10.1	
VISC.—SEC	210	210	
W.L.—C.C.	4.2	4.2	
FL.TR. CK.	2/32	2/32	
PH	10	10	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.—S PAR'EL—P COMP.—C
3465	T.D.			11" HOLE.			1500	K 3½	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1015	2¼	CIC. TO LOG. STRAP OUT 3465.62
1015	1030	¼	SURVEY @ 3460 — 3½° S.L.M 3467.00
1030	1200	1½	HOIST TO LOG + DOUBLE STRAP PIPE CORRECTION 3.62
1200	245	2¾	W.O. SCHLUMBERGER HANDS
245	400	1¼	RIGGING SCHLUMBERGER TO LOG.
			Helicopter Longer Arrived Edm. @ 3:00 PM via Connally Dawson 54-3.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.	↑ SAME	FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING		LBS.	

BIT RECORD

BIT NO.		
SIZE		
MFG.		
TYPE		
NOZZLE NO.		
NOZZLE SIZE		
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME			
WEIGHT			
VISC.—SEC			
W.L.—C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR—D RM—R CORE—C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL—P COMP.—C
3465	T.D.			11" HOLE								

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3460	3½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	RIG TO LOG
415	1200	7¾	LOGGING — CONDUCTOR LOG — SONIC GAMMA RAY
			RAN I-ES — 2" & 5" Scale = 100' @ 3455 — 341'
			Start 16:30; Finish 20:00 BHT 109°F
			CHANGED HEADS & LINERS IN C-350 TO 5"
			Ran: Sonic, Gamma Ray Log 2" & 5" Scale on 3" Spread @ 3449 — 431'
			Start: 20:00; Finish 00:30 Dec 14; BHT 112°F
			Gamma Ray Only: 2" & 5" Scale @ 431' — 40'

PRIVATE

DRILLING CREW PAYROLL DATA

DATE DEC. 13/64
WELL NAME & NO. A.C.A.D. - K-4-
COMPANY CASCADE DRLG. CO. LTD
TOOL PUSHER A. BAUMAN — RIG NO. 12-14

Tight

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF.	8
FLRMAN		CLARENCE GOTRANGER	8
FLRMAN			

NO. OF DAYS 24 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 24 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
PIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		F.D. BRADY	8
FLRMAN			

NO. OF DAYS 24 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 29 — DATE DEC. 12/64

OPERATOR: ATLANTIC RICHFIELD CO.

LEASE: ATLANTIC-Glomar-Cabot Arctic Circle #4

WELL NO. | FIELD OR DIST. | COUNTY | STATE
- | GLACIER PROJECT | WILDCAT #2 | N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: Hugh Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	WGT.	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42-H-40	11		15	430	

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING-ACTUAL	5¾	9	9¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	1½		
LUBRICATE RIG			¼
DEVIATION SURVEY			
TEST B.O.P.	½	¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¾		
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	9¼	8	8
HRS. WO/DP	¾		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO. | NO. OF LINES | SIZE | FEET SLIPPED | NET CUT OFF | PRESENT LENGTH | TON MI. OR TRIPS SINCE LAST CUT | CUMULATIVE TON MI. OR TRIPS | NO. OF DAYS FROM SPUD | CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
33	STANDS D.P.	3045.40	FT.
12	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7⅝ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	35.56	FT.
	TOTAL	3358.00	FT.
WT. OF STRING		89.000	LBS.

BIT RECORD

BIT NO.	12
SIZE	11"
MFG.	SEC.
TYPE	M-4-J
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	235174
DEPTH OUT	—
DEPTH IN	3316
TOTAL FTG.	42
TOTAL HR. RUN	5¾
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	3:30	7:00	
WEIGHT	10.1	10.1	
VISC.-SEC	168	177	
W.L.-C.C.	4.0	4.2	
FL.TR. CK.	2/32	2/32	
PH	9.5	9.5	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: A. Bauman

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3316	3358	42			60	25-35		6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3300	3⅞							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1215	¼	CHANGE B.I.'S & CLOSE B.I.RAMS.
1215	1245	½	THAW OUT HYDRAMATIC & R.G. SERV.
1245	300	1¼	RUN IN WITH BIT #12
300	315	¼	R.I.C.R.C. & CLEAN TO BOTTOM (NO FILL)
315	800	5¾	DRLG. 11" HOLE. (60 R.P.M. 25 WT.) (2 HRS.)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
33	STANDS D.P.	3077.41	FT.
1	SINGLES D.P.	30.80	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7⅝ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	13.20	FT.
	TOTAL	3398.00	FT.
WT. OF STRING		90.000	LBS.

BIT RECORD

BIT NO.	12
SIZE	11"
MFG.	SEC.
TYPE	M4J
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	235174
DEPTH OUT	
DEPTH IN	3316
TOTAL FTG.	82
TOTAL HR. RUN	13½
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9 AM	1 PM	3 PM
WEIGHT	10.1	10.1	10.1
VISC.-SEC	180	168	172
W.L.-C.C.	[illegible]	4.2	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER			

DRILLER: [illegible]

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO.1 LINER SIZE	PUMP NO.1 S.P.M.	PUMP NO.2 LINER SIZE	PUMP NO.2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3358	3398	40			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3300	3⅞							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
600	845	¾	DRLG 11" HOLE W/35000 ON BIT-70 RPM.
845	900	¼	CHECK BOPS
900	400	7	DRLG 11" HOLE W/35000 ON BIT-70 RPM.
			GREASED CROWN + BLOCKS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
33	STANDS D.P.	3137.78	FT.
2	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7⅝ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	20.26	FT.
	TOTAL	3436.00	FT.
WT. OF STRING		92.000	LBS.

BIT RECORD

BIT NO.	12
SIZE	11"
MFG.	SEC
TYPE	M4J
NOZZLE NO.	3
NOZZLE SIZE	15
SER. NO.	235174
DEPTH OUT	
DEPTH IN	3316
TOTAL FTG.	120
TOTAL HR. RUN	21¼
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.30	8.00	11.00
WEIGHT	10.1	10.1	10.1
VISC.-SEC	185	163	165
W.L.-C.C.	4.3	4.2	4.0
FLTR. CK	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	100 #		
PELTEX	100 #		

½" STREAM WATER

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE..C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3398	3436	38			70	35	1500	¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3300	3⅞							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	415	¼	SER RIG
415	1200	7¾	DRILL 11" HOLE
		8 HRS	
			HELD SAFETY MEETING ON "SAFETY AT THE V DOOR"

DRILLING CREW PAYROLL DATA

DATE DEC 12/64

WELL NAME & NO. A.C.C.A.C.-12-14 — PRIVATE

COMPANY CASCADE DRLG CO LTD

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEPPI	8
DRKMAN		PAUL LAROCHE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL PARISEAU-KEE	8
FLRMAN		CLARENCE [illegible]	8
FLRMAN			

NO. OF DAYS 23 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 800 A.M. 400 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 23 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 400 P.M. 1200 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 23 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 28 — DATE DEC. 11/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE — WELL NO. K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-A

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	N.A.T.	G-700	14
2.	N.A.T.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15	430	SERF.

DRILLING CREW PAYROLL DATA

DATE DEC. 11/64

WELL NAME & NO. A.C.C. A.C.-K-4 — PRIVATE

COMPANY CASCADE, DRLG. Co. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-A

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISEAK, JR.	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

SAFETY MEETING HELD
SUBJECT:- SPINNING CHAIN

NO. OF DAYS 22 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 22 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

NO. OF DAYS 22 SINCE LAST LOST TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	7¾	5¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			1¼
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			½
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING-TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	8 8 8
HRS. WO/DP	
HRS. STANDBY	
-42°F Low	
-28°F High	
TOTAL DAY WORK	8 8 8

WIRE LINE RECORD

REEL NO.	
NO. OF LINES — SIZE	
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
31	STANDS D.P.	2855.31	FT.
2	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	3.47	FT.
	BIT OR C.B.		FT.
2	C/o SUBS	5.49	FT.
	KELLY DOWN	12.73	FT.
	TOTAL	3145	FT.
WT. OF STRING	88,000		LBS.

BIT RECORD

BIT NO.	11
SIZE	11"
MFG.	SEC.
TYPE	M-41
NOZZLE NO.	2-1
NOZZLE SIZE	15-14
SER. NO.	737715
DEPTH OUT	
DEPTH IN	3133
TOTAL FTG.	112
TOTAL HR. RUN	16
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	9:30	7:00
WEIGHT	10.1	10.1	10.1
VISC.-SEC	184	191	177
W.L.-C.C.	4.4	4.2	4.2
FL.TK. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
H_2O			

DRILLER Alvin Leppi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3192	3245	53			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3175	2⅞							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁴⁵	2¾	DRLG. 11" HOLE.
2⁴⁵	3⁰⁰	¼	CONN. & RIG SERV.
3⁰⁰	8⁰⁰	5	DRLG. 11" HOLE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	2984.85	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/o SUBS	5.49	FT.
	KELLY DOWN	27.19	FT.
	TOTAL	3289.00	FT.
WT. OF STRING	88,000		LBS.

BIT RECORD

BIT NO.	11
SIZE	11"
MFG.	SEC.
TYPE	M4L-J
NOZZLE NO.	2-1
NOZZLE SIZE	15-14
SER. NO.	737715
DEPTH OUT	
DEPTH IN	3133
TOTAL FTG.	156
TOTAL HR. RUN	23¾
COND. OF BIT	RUNNING
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9 AM	1 PM	3 PM
WEIGHT	10.1	10.1	10.1
VISC.-SEC	168	170	174
W.L.-C.C.	4.2	4.2	4.4
FL.TR. GK.	2/32	2/32	2/32
PH	10.	10.	10.
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER.			

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3245	3289	44			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3175	2⅞°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	1⁰⁰	5	DRLG 11" HOLE W/35000 ON BIT 70 RPM.
1⁰⁰	1¹⁵	¼	CHECK B.O.P.S
1¹⁵	4⁰⁰	2¾	DRLG 11" HOLE W/35000 ON BIT 70 RPM.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
32	STANDS D.P.	3014.25	FT.
1	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.42	FT.
	BIT OR C.B.		FT.
2	C/o SUBS	5.49	FT.
	KELLY DOWN	24.79	FT.
	TOTAL	3316.00	FT.
WT. OF STRING	89,000#		LBS.

BIT RECORD

BIT NO.	11	12
SIZE	11"	11"
MFG.	SEC	SEC
TYPE	M4L-J	M4L-J
NOZZLE NO.	2-1	3
NOZZLE SIZE	15-14	15
SER. NO.	737715	735174
DEPTH OUT	3316	
DEPTH IN	3133	
TOTAL FTG.	183	
TOTAL HR. RUN	29½	
COND. OF BIT	4-4-1	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4.30	8.00	
WEIGHT	10.1	10.1	
VISC.-SEC	156	150	
W.L.-C.C.	4.2	4.2	
FL.TR. CK	2/32	2/32	
PH	9.5	9.5	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	100#		
PELTEX	100#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CON'D-C
3289					60	35	1500	6¾	70	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3300	3⅜							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	5.00	¾	DRILL 11" HOLE
5.00	5.15	¼	CHANGE TO C-350 PUMP
5.15	7.00	1¾	DRILL
7.00	7.15	¼	CHANGE TO G-700 PUMP.
7.15	10.30	3¼	DRILL
10.30	10.45	¼	SURVEY @ 3300-3⅜
10.45	12.00	1¼	HOIST

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 27 — DATE DEC. 10/64

OPERATOR: ATLANTIC REFINING Co. — LEASE: ATLANTIC COLUMBIA CARBON ARCTIC CIRCLE — WELL NO. K-4 — FIELD OR DIST. WILDCAT #2 — COUNTY N.W.T. — STATE

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. 6" — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: H. Hatters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	9-7 00	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430.	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	4¾	7¼
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		7½	
LUBRICATE RIG			¼
DEVIATION SURVEY	¼	½	¼
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			¼
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
-35°F Low			
-21°F High			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.	
NO. OF LINES	SIZE
FEET SLIPPED	
FEET CUT OFF	
PRESENT LENGTH	
TON MI. OR TRIPS SINCE LAST CUT	
CUMULATIVE TON MI. OR TRIPS	
NO. OF DAYS FROM SPUD	
CUMULATIVE ROTATING HRS.	

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
30	STANDS D.P.	2831.92 FT.
1	SINGLES D.P.	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	13.12 FT.
	TOTAL	3122. FT.
WT. OF STRING	86.000	LBS.

BIT RECORD

BIT NO.		10
SIZE		11"
MFG.		REED
TYPE		S-1
NOZZLE	NO.	2-1
	SIZE	15-14
SER. NO.		6A7982
DEPTH OUT		—
DEPTH IN		3054
TOTAL FTG.		68
TOTAL HR. RUN		22½
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	10.1	10+	10.1
VISC.-SEC	147	134	169
W.L.-C.C.	4.2	4.0	4.2
FL.TR. CK.	3/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	100#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3094	3122	DR			70	25	1600	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3110								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	6 30	6½	DRLG. 11" HOLE. R.P.M. 70 - WT. - 25. (TRIED R.P.M. 60-120 - WT. 12.000 - 25.000 (NO GOOD)
6 30	6 45	¼	SURV. @ 3110
6 45	8 00	1¼	DRLG. 11" HOLE. R.P.M. 70 - WT. 25

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
30	STANDS D.P.	2801.46 FT.
1	SINGLES D.P.	30.46 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	28.12 FT.
	TOTAL	3137 FT.
WT. OF STRING	86.000	LBS.

BIT RECORD

BIT NO.		10	11
SIZE		11"	11"
MFG.		REED	SEC
TYPE		VS1-J	M4-J-3
NOZZLE	NO.	2-1	2-1
	SIZE	15-14	15-14
SER. NO.		442993	737176
DEPTH OUT		3135	
DEPTH IN		3054	3133
TOTAL FTG.		79	4
TOTAL HR. RUN		26	1
COND. OF BIT		4-4-1	
REAMER NO.			
REAMER TYPE			

MUD RECORD

TIME	9. AM	T	
WEIGHT	10.	R	
VISC.-SEC	172	I	
W.L.-C.C.	4.4		P
FL.TR. CK.	2/32		
PH	10.		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3122	3137	15			60-70	25	1500	6¾	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3130	3 3/4 0							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	11 45	3¾	DRLG 11" HOLE W/25000 ON BIT - 70 RPM.
11 45	12 00	¼	BOTTOM HOLE SURVEY @ 3130 - 3¾ 0
12 00	1 15	1¼	HOIST FOR BIT
1 15	1 30	¼	CHANGE BITS + CHECK BLIND RAMS
1 30	2 45	1¼	RUN IN W/ BIT # 11
2 45	3 00	¼	BREAK CIR. + CLEAN TO BOTTOM (NO FILL)
3 00	4 00	1	DRLG 11" HOLE W/25000 ON BIT 70 RPM.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
31	STANDS D.P.	2892.18 FT.
	SINGLES D.P.	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	21.86 FT.
	TOTAL	3192.00 FT.
WT. OF STRING	88.000#	LBS.

BIT RECORD

BIT NO.		11
SIZE		11"
MFG.		SEC
TYPE		M-4J-3
NOZZLE	NO.	2-1
	SIZE	15-14
SER. NO.		737715
DEPTH OUT		
DEPTH IN		3133
TOTAL FTG.		59
TOTAL HR. RUN		8¼
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4.30	8.00	11.00
WEIGHT	10.	10.	10.
VISC.-SEC	180	178	175
W.L.-C.C.	4.0	3.8	4.2
FL.TR. CK	2/32	3/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

½" STREAM WATER

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	100#		
DELTEX	100#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
3137	3192	55			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
3175	2⅞							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	4 15	¼	SER RIG
4 15	9 30	5¼	DRILL 11" HOLE
9 30	9 45	¼	SURVEY @ 3175 - 2⅞
9 45	11 15	1½	DRILL
11 15	11 30	¼	WORK ON NO 2. PUMP CLUTCH
11 30	12 00	½	DRILL
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE DEC. 10/64 — PRIVATE

WELL NAME & NO. A.C.C.A.C. - K - 4 —

COMPANY CASCADE DRLG Co. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE [illegible]	8
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN			
FLRMAN			

NO. OF DAYS 21 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 26 DATE DEC. 9/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	12
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4½	7½	7½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	2¼		
LUBRICATE RIG			½
DEVIATION SURVEY	¼	½	½
TEST B.O.P.	¼	½	
CUT OFF SLIP DRILLING LINE	¼		
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	½		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. STABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			

-28°F Low
-16°F High

TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
29	STANDS D.P.	2740.58 FT.
#1	SINGLES D.P.	FT.
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	36.46 FT.
	TOTAL	3054.00 FT.
WT. OF STRING	95.000	LBS.

BIT RECORD

BIT NO.		9	10
SIZE		11"	11"
MFG.		REED	REED
TYPE		Y-S-1	S-1-
NOZZLE	NO.	1-2	1-2
	SIZE	14-15	14-15
SER. NO.		642984	642986
DEPTH OUT		3054	—
DEPTH IN		2858	3054
TOTAL FTG.		196	—
TOTAL HR. RUN		29¾	—
COND. OF BIT		6-4-1	
REAMER NO.			
REAMER TYPE			

MUD RECORD

TIME	1:00	3:30
WEIGHT	10.1	10.1
VISC.-SEC	171	174
W.L.-C.C.	4.6	4.2
FL.TR. CK.	2/32	2/32
PH	9.5	9.5
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
29	STANDS D.P.	2703.82 FT.
2	SINGLES D.P.	61.35 FT.
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	27.87 FT.
	TOTAL	3075.00 FT.
WT. OF STRING	85.000	LBS.

BIT RECORD

BIT NO.		10
SIZE		11"
MFG.		REED
TYPE		YSI-J
NOZZLE	NO.	1-2
	SIZE	14-15
SER. NO.		642982
DEPTH OUT		
DEPTH IN		3054
TOTAL FTG.		21
TOTAL HR. RUN		7¼
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

	9 AM	1 PM	3 PM
TIME			
WEIGHT	10.1	10.1	10.1
VISC.-SEC	167	148	166
W.L.-C.C.	4.2	4.2	4.
FL.TR. CK.	2/32	3/32	3/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1400	# WATER	
CAUSTIC	100		
PELTEX	100		

DRILLER C. Markuniak

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
30	STANDS D.P.	2801.46 FT.
	SINGLES D.P.	FT.
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	15.58 FT.
	TOTAL	3094.00 FT.
WT. OF STRING	86.000	LBS.

BIT RECORD

BIT NO.		10
SIZE		11"
MFG.		YSI-J
TYPE		REED
NOZZLE	NO.	1-2
	SIZE	14-15
SER. NO.		642982
DEPTH OUT		
DEPTH IN		3054
TOTAL FTG.		40
TOTAL HR. RUN		14½
COND. OF BIT		1N
REAMER NO.		
REAMER TYPE		

MUD RECORD

	4.30	8.00	11.00
TIME			
WEIGHT	10.1	10.1	10.1
VISC.-SEC	178	158	150
W.L.-C.C.	3.8	4.4	4.3
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
1" STREAM	WATER 50 MIN		

DRILLER John Hammond

FOOTAGE — MORNING TOUR

FROM	TO	DR'D RM'R CORE'C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT'D-C
3027	3054	27			70	35	1500	6¾	72	6"		

DEVIATION RECORD: DEPTH 2650 | DEV. ½° | DIRECTION | DEPTH 3026 | DEV. 3° | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.30	4½	DRLG 11" HOLE.
4.30	4.45	¼	SURV. @ 3026 - 3°
4.45	6.00	1¼	HOIST FOR BIT #9
6.00	6.15	¼	CHANGE BITS & CLOSE B.J. RAMS.
6.15	6.45	½	RUN IN COLLARS.
6.45	7.00	¼	SLIP 22' D/LINE.
7.00	7.30	½	RUN IN W/BIT #10
7.30	8.00	½	B.J. CIRC. & CLEAN TO BOTTOM (10' FILL).

FOOTAGE — DAY TOUR

FROM	TO	DR'D RM'R CORE'C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT'D-C
3054	3075	21			60-70	15	1500	6¾	72	6"		

DEVIATION RECORD: DEPTH 3054 | DEV. 3° | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	9.45	1¾	DRLG. W/15000 ON BIT 60 RPM.
9.45	10.00	¼	CHECK B.O.P.S
10.00	10.30	½	SANDLINE SURVEY @ 3050 - 3°
10.30	4.00	5½	DRLG 11" HOLE W/15000 ON BIT 60 RPM.
			GREASED CROWN & BLOCKS.

FOOTAGE — EVENING TOUR

FROM	TO	DR'D RM'R CORE'C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT'D-C
3075	3094	19			60	15	1500	6¾	72	6"		

DEVIATION RECORD: DEPTH 3090 | DEV. 3¼° | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.00		MOOVED AIR STRIP LIGHTS FROM OLD AIR STRIP TO NEW AIR STRIP - SPLICED & REPAIRED LIGHTS - ATLANTICS ORDERS
4.00	4.15	¼	SER RIG
4.15	10.30	6¼	CONTROL DRILL 11" HOLE - 15000# WT.
10.30	11.00	½	SAND LINE SURVEY @ 3090 - 3¼°
11.00	12.00	1	DRILL
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE DEC. 9/64

WELL NAME & NO. A.C.C. A.C. K-4.

COMPANY CASCADE DRLG. CO. LTD.

PRIVATE

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

DAY TOUR 8.00 A.M. 4.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNIAS	8
DRKMAN		PETE MATINCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4.00 P.M. 12.00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	12
DRKMAN		PETE STRAUB	12
MTRMAN		HAROLD OWENS	12
FIREMAN			
FLRMAN		WALTER ZACHARUK	12
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

NO. OF DAYS 20 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 25 DATE DEC. 8/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN GREAN ARCTIC CIRCLE K-4

WELL NO.

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILDCAT #2

STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½

TOOL JOINT: 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42 H-40	11		15.	430.	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG-UP & TEAR DOWN			
DRILLING—ACTUAL	7⅞	7½	7¾
REAMING			¼
CONDITIONING MUD & CIRCULATING			1
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		¼	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
28	STANDS D.P.	2613.04	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/6 SUBS	5.49	FT.
	KELLY DOWN	40.10	FT.
	TOTAL	2931.00	FT.

WT. OF STRING 84,000 LBS.

BIT RECORD

BIT NO.	9
SIZE	11"
MFG.	REED
TYPE	Y-S-1
NOZZLE NO.	1-2
NOZZLE SIZE	14-15
SER. NO.	642884
DEPTH OUT	
DEPTH IN	2858
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	10.1	10.1	10.1
VISC.-SEC	173	184	150
W.L.-C.C.	4.0cc	4.0cc	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2500#	H_2O	
CAUSTIC	100#		
PELTEX	100#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
2869	2931	62	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COMP.-C
70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	3.30	3½	DRLG. 11" HOLE.
3.30	3.45	¼	CONN. & R.G SERV.
3.45	8⁰⁰	4¼	DRLG. 11" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
28	STANDS D.P.	2613.04	FT.
2	SINGLES D.P.	63.05	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/6 SUBS	5.49	FT.
	KELLY DOWN	29.05	FT.
	TOTAL	2983.00	FT.

WT. OF STRING 84,000 LBS.

BIT RECORD

BIT NO.	9
SIZE	11"
MFG.	REED.
TYPE	YS1J
NOZZLE NO.	1-2
NOZZLE SIZE	14-15
SER. NO.	642984
DEPTH OUT	
DEPTH IN	2858
TOTAL FTG.	125
TOTAL HR. RUN	17½
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9.Am	1.PM	3PM.
WEIGHT	10.	10.	10.1
VISC.-SEC	162	155	162.
W.L.-C.C.	4.4	4.2	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
2931	2983	52	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COMP.-C
70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	11⁰⁵	3¼	DRLG 11" HOLE (CHANGED OIL + ALL FILTERS
11⁰⁵	11.30	¼	CHECK BOPS (IN STANDBY LIGHT PLANT.
11.30	12.45	1¼	DRLG 11" HOLE
12.45	1⁰⁰	¼	CHANGE WASHED OUT 4" [redacted] UNION ON SHOCKHOSE
1⁰⁰	4⁰⁰	3	DRLG. 11" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
29	STANDS D.P.	2740.58	FT.
1	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/6 SUBS	5.49	FT.
	KELLY DOWN	9.46	FT.
	TOTAL	3027.00	FT.

WT. OF STRING 86,000 LBS.

BIT RECORD

BIT NO.	9
SIZE	11"
MFG.	REED
TYPE	YS1J
NOZZLE NO.	1-2
NOZZLE SIZE	14-15
SER. NO.	642984
DEPTH OUT	
DEPTH IN	2858
TOTAL FTG.	169
TOTAL HR. RUN	25¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.30	8.00	11.30
WEIGHT	10.1	10.1	10.1
VISC.-SEC	158	164	168
W.L.-C.C.	4.3	4.3	4.0
FL.TR. CK	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	100#		
PELTEX	100#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.
2983	3027	44	

FORMATION (SHOW CORE RECOVERY)

ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR.EL.-P COMP.-C
70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG
4.15	12.00	7¾	DRILL 11" HOLE
		8 HRS.	

DRILLING CREW PAYROLL DATA

DATE DEC. 8/64

WELL NAME & NO. A.C.C. A.C.-K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARISENKOFF	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

SAFETY MEETING HELD
SUBJECT:-
WORKING ON SLUSH PUMPS.

NO. OF DAYS 19 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 19 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HARALD OUZNS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		VICTOR ZACHARUK	4
FLRMAN		ALAN BARISENKOFF	4

SAFETY MEETING WAS HELD ON "STICKEY HOLE PRECAUTIONS"

NO. OF DAYS 19 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 24 — DATE DEC. 7/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC CHUMBARGA CARBON ARTIC CORE — WELL NO. R-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430	SERF.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. R. Watters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	6¾	4¾
REAMING			
CONDITIONING MUD & CIRCULATING	¼		
TRIPS			2¾
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG		1¼	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		¼	¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
27	STANDS D.P.	2519.12	FT.
	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	23.08	FT.
	TOTAL	2820.00	FT.
WT. OF STRING	85,000		LBS.

BIT RECORD

BIT NO.	8	
SIZE	11	
MFG.	REED	
TYPE	Y-S-1	
NOZZLE NO.	2-1	
NOZZLE SIZE	14-15	
SER. NO.	642981	
DEPTH OUT	✓	
DEPTH IN	2683	
TOTAL FTG.	137	
TOTAL HR. RUN	26	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	1:30	2.30	730
WEIGHT	10.1	10.1	10.1
VISC.-SEC	149	134	155
W.L.-C.C.	4.0 cc	4.2	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3000#	H₂O	
CAUSTIC	100#		
PELTEX	100#		

DRILLER A. Leippi.

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL—S PAR'EL—P CONT'D—C
2773	2820	47			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1245	¾	DRLG 11" HOLE
1245	100	¼	R.G SERV.
100	700	6	DRLG. 11" HOLE.
700	730	½	CIRC. SAMPLE (FOR ATLANTIC)
730	800	½	DRLG. 11" HOLE.
			CLEANED SAND TRAP.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
27	STANDS D.P.	2519.12	FT.
1	SINGLES D.P.	31.56	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	21.36	FT.
	TOTAL	2849.00	FT.
WT. OF STRING	85,000		LBS.

BIT RECORD

BIT NO.	8	
SIZE	11"	
MFG.	REED	
TYPE	YS1-J	
NOZZLE NO.	2-1	
NOZZLE SIZE	14-15	
SER. NO.	642981	
DEPTH OUT		
DEPTH IN	2683	
TOTAL FTG.	166	
TOTAL HR. RUN	32¼	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9 AM	1 PM	3 PM
WEIGHT	10.1	10.	10.
VISC.-SEC	160	135	168
W.L.-C.C.	4.2	4.2	4.
FL.TR. CK.	3/32	2/32	3/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1200#	WATER	
CAUSTIC	100		
PELTEX	100		

DRILLER C. Markunas.

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL—S PAR'EL—P CONT'D—C
2820	2849	29			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	930	1½	DRLG. 11" HOLE
930	945	¼	INSTALL VALVE IN AIR COMPRESSOR
945	1015	½	WORK ON MOTOR SHUT OFFS.
1015	1200	1¾	DRLG. 11" HOLE
1200	1215	¼	CHECK BOPS & KELLY COCK.
1215	1230	¼	CHECK MOTOR SHUT OFFS.
1230	100	½	WORK ON MOTOR CLUTCH AIR LINES (FLOOR MOTOR)
100	400	3	DRLG. 11" HOLE. (CHANGED OIL & OIL FILTERS IN #1)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
27	STANDS D.P.	2583.46	FT.
2	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	9.58	FT.
	TOTAL	2868.00	FT.
WT. OF STRING	84,000		LBS.

BIT RECORD

BIT NO.	8	9.
SIZE	11"	11"
MFG.	REED	REED
TYPE	YS1-J	YS1-J
NOZZLE NO.	2-1	2-1
NOZZLE SIZE	14-15	15-14
SER. NO.	642981	642984
DEPTH OUT	2358	
DEPTH IN	2683	2858
TOTAL FTG.	175	11
TOTAL HR. RUN	3¾¾	2¼
COND. OF BIT	6-4-1	1N.
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4.30	?	11.00
WEIGHT	10.1	?	10.1
VISC.-SEC	170	?	176
W.L.-C.C.	3.8	?	4.0
FL.TR. CK	3/32		4/32
PH	9.5		9.5
SD. CONT. %			
PRESSURE GRADIENT	½" STREAM WATER		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL—S PAR'EL—P CONT'D—C
2849	2869	20			70	35	1500	6¾	71	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.00		REPILE GEL-WT MATERIAL & LOST CIRC. ON PALLETS STRAIGHTEN PALLETS-CLEAN UP OLD LOCATION FOR ATLANTIC REFINING CO. 9.4#, 12.00-2¾-DRILL
4.00	4.15	¼	SER RIG (TRYED 90+100 RPM. TO ROUGH)
4.15	6.45	2½	DRILL 11" HOLE
6.45	8.15	1½	HOIST
8.15	8.30	¼	CHANGE BITS & CHK BLIND RAMS
8.30	9.45	1¼	RUN IN BIT 9"

DRILLING CREW PATROL DATA

DATE DEC. 7/64

WELL NAME & NO. A.C.C.A.C.-K-4-

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI.	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON.	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS 18 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATHICHUCK	9
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

Checked Drlg. Line Brakes, fire Ext. Gas-meter, & motor Shut Offs. Also Derrick ground. Shut offs. Steering, Repaired same OK. A. Bauman

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		PETE STRAUB	12
MTRMAN		HAROLD OUENS	12
FIREMAN			
FLPMAN		WALTER ZACHARUK	12
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO: 23 DATE DEC. 6/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: Atlantic Columbian Caribou Arctic Circle

WELL NO. A-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Barman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	5	7 3/4	7 1/4
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS	2		
LUBRICATE RIG	1/2		1/4
DEVIATION SURVEY	1/4		
TEST B.O.P.	1/4	1/4	
CUT OFF DRILLING LINE			
REPAIR RIG			1/4
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	1/4		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES | SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
25	STANDS D.P.	2396.38 FT.
2	SINGLES D.P.	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D. RMR. BODY O.D.	FT.
1	SUBS 7⅝ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
1	KELLY DOWN	27.66 FT.
	TOTAL	2701.00 FT.
WT. OF STRING	82.000	LBS.

BIT RECORD

BIT NO.	7	8
SIZE	11"	11"
MFG.	H.W.	REED
TYPE	O.W.V	YS1-J
NOZZLE NO.	3-5	2-1
NOZZLE SIZE	14	14-15
SER. NO.	91155	642981
DEPTH OUT	2683	
DEPTH IN	2476	2683
TOTAL FTG.	207	18
TOTAL HR. RUN	34	3 3/4
COND. OF BIT	6-4-1	IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	5:00	7:30	
WEIGHT	10.1	10.1	
VISC.-SEC	181	159	
W.L.-C.C.	3.6		
FL.TR. CK.	9/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
H_2O	3/4" STREAM	- 45 min	

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2674	2701	27			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1.15	1¼	DRLG. 11" HOLE. (4.15-8⁰⁰ 3¾ DRLG. 11" HOLE.)
1.15	1.30	¼	SURV. @ 2650 - ½°
1.30	2.30	1	HOIST BIT #7
2.30	2.45	¼	CHANGE BITS + CLOSE B/I RAMS.
2.45	3.15	½	RUN IN COLLARS.
3.15	3.30	¼	R.I.G SERV. + SLIP 22' D. LINE.
3.30	4.00	½	RUN IN W. BIT #8
4.00	4.15	¼	B.I.CIRC. + CLEAN TO BOTTOM (NO FILL)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
26	STANDS D.P.	2426.81 FT.
	SINGLES D.P.	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D. RMR. BODY O.D.	FT.
1	SUBS 7⅝ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	38.23 FT.
	TOTAL	2742.00 FT.
WT. OF STRING	83,000	LBS.

BIT RECORD

BIT NO.	8	
SIZE	11"	
MFG.	REED	
TYPE	YS1-J	
NOZZLE NO.	2-1	
NOZZLE SIZE	14-15	
SER. NO.	642981	
DEPTH OUT		
DEPTH IN	2683	
TOTAL FTG.	59	
TOTAL HR. RUN	11½	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9.	1 PM	3. PM	
WEIGHT	10.1	10.1	10.1	
VISC.-SEC	170	144	168	
W.L.-C.C.	3.6	3.6	3.8	
FL.TR. CK.	2/32	3/32	2/32	
PH	9.5	9.5	9.5	
SD. CONT. %				
PRESSURE GRADIENT				

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1400	WATER.	
CAUSTIC	100		
PELTEX	100		

DRILLER C. Markunas.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2701	2742	41			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2650	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	10.15	2¼	DRILLING. 11" HOLE
10.15	10.30	¼	CHECK B.O.P.S
10.30	4.00	5½	DRLG. 11" HOLE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
26	STANDS D.P.	2458.81 FT.
1	SINGLES D.P.	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D. RMR. BODY O.D.	FT.
1	SUBS 7⅝ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	38.03 FT.
	TOTAL	2773.00 FT.
WT. OF STRING	83,000	LBS.

BIT RECORD

BIT NO.	8	
SIZE	11"	
MFG.	REED	
TYPE	YS1-J	
NOZZLE NO.	2-1	
NOZZLE SIZE	14-15	
SER. NO.	642981	
DEPTH CUT		
DEPTH IN	2683	
TOTAL FTG.	90	
TOTAL HR. RUN	18¾	
COND. OF BIT	1N	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4.30	8.00	11.00	
WEIGHT	10.1	10.1	10.1	
VISC.-SEC	170	173	140	
W.L.-C.C.	3.7	3.8	3.8	
FL.TR. CK	3/32	3/32	2/32	
PH	9.5	9.5	9.5	
SD. CONT. %				
PRESSURE GRADIENT				

⅓" STREAM WATER 50 MIN

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2742	2773	31			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
26								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG - CHECK DRILLING LINE & BRAKE BLOCKS
4.15	4.45	½	CHECK MOTOR SHUT OFFS & BUILD UP AIR PRESSURE.
4.45	12.00	7¼	DRILL 11" HOLE
		8HRS	

DRILLING CREW PAYROLL DATA

DATE DEC. 6/64

WELL NAME & NO. A.C.C. A.C. -K-4-

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BARMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

SAFETY MEETING HELD - SUBJECT CARE + HANDLING OF STEAM HOSE.

NO. OF DAYS 17 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUCHUCK	8
MTRMAN		ROY MOSH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUCK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 17 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		VICTOR ZACHARUK	4
FLRMAN		AL BARISENKOFF	4

NO. OF DAYS 18 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 22 — DATE DEC. 5/64

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC-COLUMBIAN CARBON ARCTIC CREEK	K-4	GLACIER PROJECT		

CONTRACTOR	RIG NO.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT O.D.	TYPE THD.
CASCADE DRILLING COMPANY LIMITED	12-14	2	4½	6"	F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	6-70S	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430	CSERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	7¾	7¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	¼		¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
24	STANDS D.P.	2202.6 FT.
2	SINGLES D.P.	FT.
9	D.C. 2¾ 8¼ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	G.O. SUBS	5.49 FT.
	KELLY DOWN	18.41 FT.
	TOTAL	2598 FT.

WT. OF STRING 92,000 LBS.

BIT RECORD

BIT NO.	7
SIZE	11"
MFG.	H.W.
TYPE	O.W.V.
NOZZLE NO.	3-J
NOZZLE SIZE	14
SER. NO.	91135
DEPTH OUT	
DEPTH IN	2476
TOTAL FTG.	122
TOTAL HR. RUN	17¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2:00	4:00	6:30
WEIGHT	10.1	10.1	10.1
VISC.-SEC	143	149	133
W.L.-C.C.	4.2	4.0	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
40-3/4"		STREAM-2 CIRC'S.	

DRILLER A. Laippi

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2547	2598	51			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2466	1½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	1³⁰	1½	DRLG. 11" HOLE.
1³⁰	1⁴⁵	¼	RIG SERV.
1⁴⁵	8⁰⁰	6¼	DRLG. 11" HOLE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
25	STANDS D.P.	2333.98 FT.
	SINGLES D.P.	FT.
9	D.C. 2¾ 8¼ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
1	SUBS 7¾ O.D.	2.47 FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.47 FT.
	KELLY DOWN	30.00 FT.
	TOTAL	2640 FT.

WT. OF STRING 82,000 LBS.

BIT RECORD

BIT NO.	7
SIZE	11"
MFG.	H.W.
TYPE	DWV-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	91155
DEPTH OUT	
DEPTH IN	2476
TOTAL FTG.	164
TOTAL HR. RUN	25
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9 AM	1 PM	3 PM
WEIGHT	10.1	10.1	10.1
VISC.-SEC	132	152	134
W.L.-C.C.	4.	4.	4.2
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1100	WATER	½" STR.
CAUSTIC	100		
PELTEX	100		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2598	2640	42.			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2466								

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
6⁰⁰	11⁴⁵	3¾	DRLG 11" HOLE
11⁴⁵	12⁰⁰	¼	CHECK BOPS
12⁰⁰	4⁰⁰	4	DRLG 11" HOLE

SAFETY MEETING WAS HELD, HOW TO HANDLE SNAGGED STAND WAS DISCUSSED

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
25	STANDS D.P.	2365.36 FT.
1	SINGLES D.P.	FT.
9	D.C. 2¾ 8¼ I.D. O.D.	269.00 FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
1	BIT SUB 7¾	2.47 FT.
2	C/O SUBS	5.47 FT.
	KELLY DOWN	31.78 FT.
	TOTAL	2674 FT.

WT. OF STRING 89,000 LBS.

BIT RECORD

BIT NO.	7
SIZE	11"
MFG.	H-W
TYPE	DWV-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	91155
DEPTH OUT	
DEPTH IN	2476
TOTAL FTG.	198
TOTAL HR. RUN	32¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.30	8.00	10.00
WEIGHT	10.1	10.1	10.1
VISC.-SEC	133	140	148
W.L.-C.C.	2.8	3.8	3.7
FL.TR. CK	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	800#		
½" STREAM WATER			
		45 MIN	

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.D RM.R CORE.C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2640	2674	34			70	35	1500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2466	1¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	4¹⁵	¼	SER RIG
4¹⁵	12⁰⁰	7¾	DRILL 11" HOLE

SAFETY MEETING HELD—TOPIC—"MOVING AROUND THE RIG SAFELY"

DRILLING CREW PAYROLL DATA

DATE DEC. 5/64

WELL NAME & NO. A.C.C. A.C.-K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LAIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
F.RMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

NO. OF DAYS 16 SINCE LAST LOST TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 16 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4⁰⁰ P.M. 12⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
PIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

NO. OF DAYS 16 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 21 — DATE DEC. 4/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARIBOU PRC. ORCE — WELL NO. A-C-A-C K-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1	NAT.	G-700	14
2	NAT.	C-350	18
3			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15	430	CEMENTED

DRILLING CREW PAYROLL DATA

DATE DEC. 4/64

WELL NAME & NO. A.C.C.A.C. K-4-

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	4½	7¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS		2½	
LUBRICATE RIG	¼		
DEVIATION SURVEY		¼	
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			¼
CORING			
WIR. LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		½	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	
HRS. W/DP	8 8 8
HRS. PO/DP	
HRS. STANDBY	
TOTAL DAY WORK	8 8 8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD			
23	STANDS D.P.	2148.00 FT.	BIT NO.	6	TIME	2:00	4:00	6:00
	SINGLES D.P.	FT.	SIZE	11"	WEIGHT	10.1	10.1	10.1
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	MFG.	REED	VISC.-SEC	174	181	173
	D.C. I.D. O.D.	FT.	TYPE	YS1	W.L.-C.C.	4.4	4.4	4.6
	STB. BODY O.D.	FT.	NOZZLE NO.	2-1	FL.TR. CK.	2/32	2/32	2/32
	STB. BODY O.D.	FT.	NOZZLE SIZE	14-15	PH	9.5	9.5	9.5
	RMR. BODY O.D.	FT.	SER. NO.	642983	SD. CONT. %			
1	SUBS 7¾ O.D.	2.47 FT.	DEPTH OUT	—	PRESSURE GRADIENT			
	BIT OR C.B.	FT.	DEPTH IN	2291				
2	C/O SUBS	5.49 FT.	TOTAL FTG.	171	MUD & CHEMICALS ADDED			
	KELLY DOWN	37.04 FT.	TOTAL HR. RUN	30½	TYPE	AMT.	TYPE	AMT.
	TOTAL	2462.00 FT.	COND. OF BIT	IN	H_2O - 1½" STREAM - 44 MIN			
WT. OF STRING	78,000	LBS.	REAMER NO.					
			REAMER TYPE		DRILLER A. Leippi			

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2291	2462	41			70	35	1450	6¾	72	6		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2280	1½°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁰⁰	2	DRLG 11" HOLE.
2⁰⁰	2¹⁵	¼	RIG SERV. (STRAIGHTEN KELLY HOSE)
2¹⁵	8⁰⁰	5¾	DRLG 11" HOLE.

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE STRAUSER	8
FLRMAN			

NO. OF DAYS 15 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD			MUD RECORD			
23	STANDS D.P.	2148.00 FT.	BIT NO.	6	7	TIME	9 AM		3 PM
1	SINGLES D.P.	31.25 FT.	SIZE	11"	11"	WEIGHT	10.1	T	10.1
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	MFG.	REED	HTC.	VISC.-SEC	190	R	168
	D.C. I.D. O.D.	FT.	TYPE	YSI-J	OWV-J	W.L.-C.C.	4.2	I	4.4
	STB. BODY O.D.	FT.	NOZZLE NO.	2-1	3	FL.TR. CK.	2/32	P	2/32
	STB. BODY O.D.	FT.	NOZZLE SIZE	14-15	14	PH	9.5		9.5
	RMR. BODY O.D.	FT.	SER. NO.	642983	91155	SD. CONT. %			
1	SUBS 7¾ O.D.	2.47 FT.	DEPTH OUT	2476		PRESSURE GRADIENT			
	BIT OR C.B.	FT.	DEPTH IN	2291	2476				
2	C/O SUBS	5.49 FT.	TOTAL FTG.	185	15	MUD & CHEMICALS ADDED			
	KELLY DOWN	36.00 FT.	TOTAL HR. RUN	33¼	1¾	TYPE	AMT.	TYPE	AMT.
	TOTAL	2491.00 FT.	COND. OF BIT	66-1	IN	½" STM WATER 2 HRS			
WT. OF STRING	78,000	LBS.	REAMER NO.						
			REAMER TYPE			DRILLER C. Markunas			

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2462	2491	29			70	45	1500	6¾	72	6½		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2466	1¼°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8³⁰	½	DRILL 11" HOLE
8³⁰	8⁴⁵	¼	CHECK BOPS.
8⁴⁵	11⁰⁰	2¼	DRILL
11⁰⁰	11¹⁵	¼	SURVEY @ 2466 - 1¼°
11¹⁵	12³⁰	1¼	HOIST FOR BIT
12³⁰	12⁴⁵	¼	CHANGE BITS & CHECK BLIND RAMS
12⁴⁵	2⁰⁰	1¼	RUN IN W/BIT #7 (215-400 DRLG. 11" HOLE.
2⁰⁰	2¹⁵	¼	BREAK CIR. & CLEAN TO BOTTOM. (NO FILL)

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUCK	8
MTRMAN		ROY MOCH.	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 15 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD			
24	STANDS D.P.	2240.56 FT.	BIT NO.	7	TIME	4.30	8.00	11.30
	SINGLES D.P.	FT.	SIZE	11"	WEIGHT	9/10.1	10.1	10.1
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	MFG.	H.T.C.	VISC.-SEC	140	130	135
	D.C. I.D. O.D.	FT.	TYPE	OWV-J	W.L.-C.C.	4.3	4.2	4.2
	STB. BODY O.D.	FT.	NOZZLE NO.	3	FLTR. CK	2/32	2/32	2/32
	STB. BODY O.D.	FT.	NOZZLE SIZE	14	PH	9.5	9.5	9.5
	RMR. BODY O.D.	FT.	SER. NO.	91155	SD. CONT. %			
1	SUBS 7¾ O.D.	2.47 FT.	DEPTH OUT		PRESSURE GRADIENT			
	BIT OR C.B.	FT.	DEPTH IN	2476				
2	C/O SUBS	5.49 FT.	TOTAL FTG.	71	MUD & CHEMICALS ADDED			
	KELLY DOWN	29.48 FT.	TOTAL HR. RUN	9½	TYPE	AMT.	TYPE	AMT.
	TOTAL	2547.00 FT.	COND. OF BIT	IN	PELTEX	100#		
WT. OF STRING	80,000 #	LBS.	REAMER NO.		CAUSTIC	100#		
			REAMER TYPE					
					DRILLER John Hammond			

FOOTAGE FROM	FOOTAGE TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2491	2547	56			70	37	1500	6¾	72	6"		

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2466	1¼°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	4.00	4.	REPILE BROKEN PALLETS OF MUD & CLEAN UP OLD LOCATION FOR ATLANTIC REFINING CO.
4.00	4.15	¼	SER RIG
4.15	12.00	7¾	DRILL 11" HOLE
		8 HRS	

EVENING TOUR 8 P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		PETE STRAUB	12
MTRMAN		HAROLD OVENS	12
FIREMAN			
FLRMAN		WALTER ZACHARUK	12
FLRMAN		VICTOR ZACHARUK	4
FLRMAN		AL BARISENKOFF	4

NO. OF DAYS 15 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 20 DATE DEC. 3/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARTIC GAS K-4

WELL NO. | FIELD OR DIST.: GLACIER PROJECT | COUNTY: WILD CAT #2 | STATE: N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430.	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¾	7½	7½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			¼
DEVIATION SURVEY			
TEST B.O.P.		¼	
CUT OFF DRILLING LINE			
REPAIR RIG			¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	¼	¼	
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK

HRS. W/DP

HRS. WO/DP

HRS. STANDBY

TOTAL DAY WORK

WIRE LINE RECORD

REEL NO.

NO. OF LINES | SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TONMI. OR TRIPS SINCE LAST CUT

CUMULATIVE TONMI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
21	STANDS D.P.	2023.04	FT.
2	SINGLES D.P.		FT.
9	D.C. 2¼ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	2341.00	FT.

WT. OF STRING 76 000 LBS.

BIT RECORD

BIT NO.		6
SIZE		11"
MFG.		REED
TYPE		YS-1
NOZZLE	NO.	2-1
	SIZE	14-15
SER. NO.		642983
DEPTH OUT		—
DEPTH IN		2291
TOTAL FTG.		50
TOTAL HR. RUN		7¾
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	2:00	4:00	7:00
WEIGHT	10.1	10.1	10.1
VISC.-SEC	221	181	196
W.L.-C.C.	3.8	3.7	3.6
FL.TR. CK.	3/32	3/32	3/32
PH	9.5	9.0	9.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
H₂O-1½	STREAM-2	CIRCS.	

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
2291	2341	50			70	35	1500	6¾	72	6"		

DEVIATION RECORD: DEPTH 2280, DEV. 1⅛°

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 15	¼	B./CIRC. NO FILL ([redacted])
12 15	8 00	7¾	DRLG. 11" HOLE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
22	STANDS D.P.	2055.54	FT.
1	SINGLES D.P.	31.35	FT.
9	D.C. 2¼ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	24.15	FT.
	TOTAL	2368	FT.

WT. OF STRING 77 000 LBS.

BIT RECORD

BIT NO.		6
SIZE		11"
MFG.		REED
TYPE		YSIJ
NOZZLE	NO.	2-1
	SIZE	14-15
SER. NO.		642983
DEPTH OUT		
DEPTH IN		2291
TOTAL FTG.		97
TOTAL HR. RUN		15¼
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9. AM	1 PM	3. PM
WEIGHT	10.1	10.1	10.1
VISC.-SEC	205	210	172
W.L.-C.C.	3.6	3.4	3.4
FL.TR. CK.	3/32	3/32	3/32
PH	9.	9.	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000	WATER	125
CAUSTIC	100		
DELTA	50		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
2341	3388	47			70	35	1500	6¾	72			
							1550			6"	68	
							1500	6¾	72			

DEVIATION RECORD: DEPTH 2280, DEV. 1⅞°

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	8 30	½	DRILL 11" HOLE
8 30	8 45	¼	CHECK BOPs
8 45	11 30	2¾	DRLG 11" HOLE W/ 35 000 ON BIT 70 R.P.M.
11 30	11 45	¼	CHANGE OVER TO C-350 PUMP.
11 45	4 00	4¼	DRLG W/ 35 000 ON BIT - 70 RPM.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
22	STANDS D.P.	2116.79	FT.
2	SINGLES D.P.	71	FT.
9	D.C. 2¼ I.D. 8⅛ O.D.	269.08	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	3.47	FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	27.25	FT.
	TOTAL	2421.00	FT.

WT. OF STRING 78.000 LBS.

BIT RECORD

BIT NO.		6
SIZE		11"
MFG.		REED
TYPE		YSIJ
NOZZLE	NO.	2-1
	SIZE	14-15
SER. NO.		642983
DEPTH OUT		
DEPTH IN		2291
TOTAL FTG.		130
TOTAL HR. RUN		22¾
COND. OF BIT		IN
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	4.30	8 00	11.30
WEIGHT	10.1	10.1	10.1
VISC.-SEC	158	190	163
W.L.-C.C.	3.7	3.7	8.8
FL.TR. CK	3/32	3/32	3/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000		
½" STR	2 CIRCS.		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P COM'D-C
2288	2421	DR			70	37	1475	6¾	72			

DEVIATION RECORD: DEPTH 2280, DEV. 1⅛°

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
11 00	4. 15	¼	SER RIG
4. 15	6.45	2½	DRILL 11" HOLE
6.45	7.00	¼	WORK ON No 2. SUPERIOR THROTTLE
7.00	12.00	5	DRILL
		8. HRS	

DRILLING CREW PAYROLL DATA

DATE DEC. 3/64

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAM LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENHOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

SAFETY MEETING - SUBJECT: FROST PLUGS, IN DRIAL PIPE.

NO. OF DAYS 14 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8 00 A.M. 4 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUICHUCK	8
MTRMAN		ROY MOCH.	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

SERVISE R.G & GREASE CROWN BLOCKS

NO. OF DAYS 14 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR 4 00 P.M. 12 00 P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

NO. OF DAYS 14 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 19 DATE DEC. 2/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CARBON ARCTIC CIRCEL

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A.K. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-7 ᵂᴼ	14
2.	NAT.	C-3-30	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-N-42	11		15	430	SURF.

TIME DISTRIBUTION—HOURS

	MORN.	DAY	EVE.
RIG UP & TEAR DOWN			
DRILLING ACTUAL	8	7¾	3½
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			2
LUBRICATE RIG		¼	
DEVIATION SURVEY			¼
TEST B.O.P.			¼
CUT OFF DRILLING LINE SLIP			¼
REPAIR RIG			1¾
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK

MISS. W/DP

MRS. WO/DP

MRS. STANDBY

TOTAL DAY WORK

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
20	STANDS D.P.	1930.57 FT.	BIT NO.	5
2	SINGLES D.P.	FT.	SIZE	11"
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	MFG.	SEC.
	D.C. I.D. O.D.	FT.	TYPE	M-4N
	STB. BODY O.D.	FT.	NOZZLE NO.	3-J
	STB. BODY O.D.	FT.	NOZZLE SIZE	14
	RMR. BODY O.D.	FT.	SER. NO.	777414
	SUBS O.D.	FT.	DEPTH OUT	
	7¾ SUB BIT OR C.B.	2.47 FT.	DEPTH IN	2171
2	6⅝ SUBS	5.49 FT.	TOTAL FTG.	62
	KELLY DOWN	25.47 FT.	TOTAL HR. RUN	11¾
	TOTAL	2233. FT.	COND. OF BIT	IN
WT. OF STRING	76000	LBS.	REAMER NO.	
			REAMER TYPE	

MUD RECORD

TIME	1:30	4:00	7:00
WEIGHT	10.2	10.2	10.2
VISC.-SEC	207	201	210
W.L.-C.C.	3.8	3.6	3.2
FL.TR. CK.	1/32	1/32	1/32
PH	9.0	9.0	9.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1600		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCI.-S PAR'EL-P COM'D-C
2190	2233	43			70	30/35	1350 1450	6¾	71	6"	69	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	8⁰⁰	8⁰⁰	DRLG 11" HOLE.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD	
21	STANDS D.P.	1900.06 FT.	BIT NO.	5
2	SINGLES D.P.	62.45 FT.	SIZE	11"
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	MFG.	SEC.
	D.C. I.D. O.D.	FT.	TYPE	M4N-J
	STB. BODY O.D.	FT.	NOZZLE NO.	3
	STB. BODY O.D.	FT.	NOZZLE SIZE	14
	RMR. BODY O.D.	FT.	SER. NO.	777414
1	SUBS 7¾ O.D.	2.47 FT.	DEPTH OUT	1 IN
	BIT OR C.B.	FT.	DEPTH IN	2171
2	6⅝ SUBS	5.49 FT.	TOTAL FTG.	103
	KELLY DOWN	34.53 FT.	TOTAL HR. RUN	19½
	TOTAL	2274.00 FT.	COND. OF BIT	
WT. OF STRING	76000.	LBS.	REAMER NO.	
			REAMER TYPE	

MUD RECORD

TIME	10 AM	1 PM	3 PM
WEIGHT	10.1	10.1	10.
VISC.-SEC	200	220	187
W.L.-C.C.	3.4	3.4	3.4
FL.TR. CK.	2/32	2/32	2/32
PH	9.	9.	9.
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	100	WATER	
DELTEX	100		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI.-S PAR'EL-P COM'D-C
2233	2274	41			70	35 38	1450	6¾	71	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	11⁰⁰	3	DRLG 11" HOLE W/ 35-38000 on BIT- 70 RPM.
11⁰⁰	11¹⁵	¼	RIG SERVICE CHECK BOPS + CHANGE PUMPS = CHK BOPS.
11¹⁵	4⁰⁰	4¾	DRLG 11" HOLE W/ 35 000 ON BIT 70 RPM.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		
21	STANDS D.P.	1992.98 FT.	BIT NO.	5	6.
1	SINGLES D.P.	FT.	SIZE	11"	11"
	D.C. I.D. O.D.	FT.	MFG.	SEC	REED
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00 FT.	TYPE	M4N-J	HBJ-J
	STB. BODY O.D.	FT.	NOZZLE NO.	3	2 1
	STB. BODY O.D.	FT.	NOZZLE SIZE	14	14 15
	RMR. BODY O.D.	FT.	SER. NO.	777414	642783
1	SUBS 7¾ O.D.	2.47 FT.	DEPTH OUT	2291	
	BIT OR C.B.	FT.	DEPTH IN	2171	2291
2	6⅝ SUBS	5.49 FT.	TOTAL FTG.	120	
	KELLY DOWN	FT.	TOTAL HR. RUN	23	
	TOTAL	FT.	COND. OF BIT	4-4-1	
WT. OF STRING		LBS.	REAMER NO.		
			REAMER TYPE		

MUD RECORD

TIME	4.30	8.30
WEIGHT	10.2	10.2
VISC.-SEC	210	210
W.L.-C.C.		
FL.TR. CK.		
PH	9.5	
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCI.-S PAR'EL-P COM'D-C
2274	2291				70	37	1500	6¾	71	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2280	1⅛°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	5.00	1	DRILL 11" HOLE
5.00	5.45	¾	WORK ON FROZEN AIR LINES
5.45	6.15	½	DRILL
6.15	7.15	1	BLEED OFF AIR TANKS - THAW MAIN AIR LINE TO DUKS + BUILD UP AIR SUPPLY
7.15	9.15	2	DRILL
9.15	9.30	¼	SURVEY @ 2280 - 1⅛°
9.30	10.45	1¼	HOIST
10.45	11.00	¼	CHANGE BITS & CHK. BLIND RAMS.
11.00	11.15	¼	SLIP 22" DRILLING LINE
11.15	12.00		RUN IN BIT 6.

DRILLING CREW PAYROLL DATA

DATE DEC 2/64

WELL NAME & NO. A.C.I. A.C. - K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARSENKOFF	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

NO. OF DAYS 13 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOCH.	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		VICTOR ZACHARUK	4
FLRMAN		ALAN BARISENKOFF	4

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONFIDENTIAL

DAILY DRILLING REPORT

REPORT NO. 18 DATE DEC 1/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARCTIC CIRC

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N.W.T

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-H

DRILL PIPE STRING NO. 2 SIZE 4½ | TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: A. F. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	G-350	18
3.			

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING TUBING OR LINER	11 3/4	[illegible]	40-H-40	11		15	430	SURF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			3¾
REAMING			3
CIRCULATING & CIRCULATING	1½		
TRIPS	3¼	2	1
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG		½	
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		5¼	¼
FISHING BUMP	3¼		
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	17496	FT.
12	SINGLES D.P.		FT.
8	D.C. 2¾ I.D. 8⅛ O.D.	239.45	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
2	SUBS C/O O.D.	5.49	FT.
	BIT OR C.B.		FT.
	FISHING TOOL W/ SKELLY DOWN REMOVED	18.34 / 7.76	FT.
	TOTAL	2018.00	FT.
WT. OF STRING		62000	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Lappi

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #
2171						

PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
1000	6¾	72	6		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	3¹⁵	3¼	BUMPED DOWN ON FISH 34'
3¹⁵	4⁴⁵	1½	WORK & CIRC FISH
4⁴⁵	8⁰⁰	3¼	HOIST FISH PUMPED OUT 4 STANDS. (CHAIN TONGED OUT)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	I.D. O.D.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
1	SUBS 7¾ O.D.	2.47	FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	5
SIZE	11"
MFG.	SEC
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	777414
DEPTH OUT	
DEPTH IN	2171
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #
2171						

PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
5⁰⁰	8¹⁵	¼	SERVICE RIG + CHECK BOPS
8¹⁵	11⁰⁰	2¾	LAY DOWN 9" COLLARS. STABILIZERS BODY RMR. BIT + SUB.
11⁰⁰	12⁰⁰	1	BREAK + LAY DOWN FISHING TOOLS. JARS + BUMPER SUB.
12⁰⁰	12¹⁵	¼	PICKUP 8" BIT SUB 1-8⅛ COLLAR + MAKEUP 11" BIT
12¹⁵	1³⁰	1¼	DRESS TOP OF 8" COLLAR + MAGNAFLUX THE TOP + BTM OF COLLARS WHERE BACKED OFF W/ STRING SHOT
1³⁰	2⁰⁰	½	RUN IN W/ BIT
2⁰⁰	2³⁰	½	WORK ON MOTORS.
2³⁰	4⁰⁰	1½	RUNNING IN + LAY DOWN BENT SINGLES AFTER FISHING

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
20	STANDS D.P.	1900.06	FT.
1	SINGLES D.P.		FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT SUB	2.47	FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	12.98	FT.
	TOTAL	2190.00	FT.
WT. OF STRING		74000	LBS.

BIT RECORD

BIT NO.	5
SIZE	11"
MFG.	SEC
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	777414
DEPTH OUT	
DEPTH IN	2171
TOTAL FTG.	19
TOTAL HR. RUN	3¾
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	8³⁰	11⁰⁰	11⁴⁵
WEIGHT	10.3	10.3	10.3
VISC.-SEC	289	180	160
W.L.-C.C.	3	4.3	
FL.TR. CK	2/32	2/32	
PH	9.5	9.5	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
½" STREAM WATER			
GEL	300#		

DRILLER A. Hammond

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #
2171	2190	DR			70	30-35

PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
1450	6¾	72			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4⁰⁰	4⁴⁵	¾	LAY DOWN BENT SINGLES + FINISH IN BIT #5
4⁴⁵	5⁰⁰	¼	CLEAR WALK + MEASURE BENT SINGLES
5⁰⁰	5¹⁵	¼	PICK UP 5 SINGLES
5¹⁵	8¹⁵	3	REAM HOLE FROM 1920 — 2171
8¹⁵	12⁰⁰	3¾	DRILL 11" HOLE

DRILLING CREW PAYROLL DATA

DATE DEC 1/64
WELL NAME & NO. A.C.C. A.C. K-4
COMPANY CASCADE DRLG. CO. LTD
TOOL PUSHER A. BAUMAN RIG NO. 12-H

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATVICHUK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		MEL SAUNDERS	4
FLRMAN		CLARENCE OSTRANDER	4

MOTOR HRS.

NO.	1	438
	2	363
	3	202
L.R.	4	588

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 17 — DATE Nov. 30/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE K-4

WELL NO. | FIELD OR DIST.: GLACIER PROJECT | COUNTY: N.W.T. | STATE

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: W. S. Walters

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING	8	2¾	
TRIPS		5¼	
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		3	
FISHING			8
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	16	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK

HRS. W/DP

HRS. WO/DP

HRS. STANDBY

TOTAL DAY WORK

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.90	FT.
1S	SINGLES D.P.		FT.
1	DC 8" 7¾ Reed I.D. 2¼ O.D.	30.12	FT.
8	DC 2¾ I.D. 8⅛ O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6¼ SUBS	5.49	FT.
	KELLY DOWN	26.98	FT.
	TOTAL	2018.00	FT.

WT. OF STRING 74.000 LBS.

BIT RECORD

BIT NO.	R.R.
SIZE	11"
MFG.	REED
TYPE	
NOZZLE NO.	3
NOZZLE SIZE	3/4"
SER. NO.	
DEPTH OUT	—
DEPTH IN	
TOTAL FTG.	—
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME			4.00
WEIGHT			10.3
VISC.-SEC			191
W.L.-C.C.			4.6
FLTR. CK.			2/32
PH			9.
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leppi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COMP'D-C
2171							650	6¾	72	6		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	8⁰⁰	8	WORK PIPE & COND. MUD + HOLE
			WORKING ON 350

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1746.96	FT.
2	SINGLES D.P.		FT.
8	DC 2¾ I.D. 8⅛ O.D.	239.45	FT.
	DC I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
Fishing Tools		18.34	FT.
	BIT OR C.B.		FT.
2	6½ SUBS	5.49	FT.
	KELLY DOWN	7.16	FT.
	TOTAL	2018.00	FT.

WT. OF STRING 62,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	Bumper Sub Closed
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	T	
WEIGHT	10.3	R	
VISC.-SEC	280	I	
W.L.-C.C.	36	P	
FLTR. CK.	3/32		
PH	9.		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MEL	3500 #		
CAUSTIC	100 #		
PELTEX	100 #		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COMP'D-C
2171							650	6¾	72.			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1045	2¾	CIR, WORK PIPE & CONDITION MUD.
1045	1200	1¼	HOISTING SLOW
1200	1215	¼	BREAK OFF BIT & LAY DOWN RIBBED COLLAR.
1215	130	1¼	PICK UP & MAKE UP FISHING TOOLS JARS, BUMPER SUB & SUBS.
130	230	1	RUN IN W/FISHING TOOLS.
230	300	½	BREAK CIR. & SCREW ON TO TOP OF FISH.
300	400	1	TRYING TO WORK FISH LOOSE (BUMPING DOWN)

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1746.96	FT.
2	SINGLES D.P.		FT.
8	DC 2¾ I.D. 8⅛ O.D.	239.45	FT.
	DC I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
Fishing Tools		18.34	FT.
	BIT OR C.B.		FT.
2	6½ SUBS	5.49	FT.
	KELLY DOWN	7.16	FT.
	TOTAL	2018.00	FT.

WT. OF STRING 62,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:00	T	
WEIGHT	10.3	R	
VISC.-SEC	280	I	
W.L.-C.C.	36	P	
FLTR. CK.	3/32		
PH	9.		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MEL	3500 #		
CAUSTIC	100 #		
PELTEX	100 #		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COMP'D-C
2171							650	6¾	72.			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	1045	2¾	CIR, WORK PIPE & CONDITION MUD.
1045	1200	1¼	HOISTING SLOW
1200	1215	¼	BREAK OFF BIT & LAY DOWN RIBBED COLLAR.
1215	130	1¼	PICK UP & MAKE UP FISHING TOOLS JARS, BUMPER SUB & SUBS.
130	230	1	RUN IN W/FISHING TOOLS.
230	300	½	BREAK CIR. & SCREW ON TO TOP OF FISH.
300	400	1	TRYING TO WORK FISH LOOSE (BUMPING DOWN)

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1746.96	FT.
2	SINGLES D.P.		FT.
8	DC 2¾ I.D. 8⅛ O.D.	239.45	FT.
	DC I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
Fishing Tools		18.34	FT.
	BIT OR C.B.		FT.
2	6½ SUBS	5.49	FT.
	KELLY DOWN	7.16	FT.
	TOTAL	2018.00	FT.

WT. OF STRING 62,000 LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	Bumper Sub Closed
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.10	8.30	11.30
WEIGHT	10.3	10.3	10.3
VISC.-SEC	285	285	285
W.L.-C.C.	3.6		
FLTR. CK	2/32		
PH	9.0	9.0	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGLS-S PAR'EL-P COMP'D-C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	7.45	3¾	WORKING JARS & BUMPER SUB ON FISH
7.45	8.00	¼	BLOW KELLY & RAT HOLE
8.00	10.45	2¾	WORKING JARS & BUMPER SUB
10.45	11.00	¼	BLOW KELLY & RAT HOLE
11.00	12.00	1	WORKING JARS & BUMPER SUB

DRILLING CREW PAYROLL DATA

DATE Nov. 30/64

WELL NAME & NO. A.C.C. A.C.-K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS 11 — SINCE LAST LOST-TIME ACCIDENT

DAY TOUR 8⁰⁰ A.M. 4⁰⁰ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOSH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS 11 — SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMAND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 11 — SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 16 — DATE NOV. 29/64

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIA CARBON ARC Co. A.C.C. A.C. R-4

WELL NO. R-4 — FIELD OR DIST. GLACIER PROJECT — COUNTY WILDCAT #2 — STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: R A Evans

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42-H-40	11		15.	430	SERF.

DRILLING CREW PAYROLL DATA

DATE NOV. 29/64

WELL NAME & NO. A.C.C. A.C. R-4.

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL		1¼	
REAMING			
CONDITIONING MUD & CIRCULATING	8	1¼	5½
TRIPS		4¾	1¾
LUBRICATE RIG		¼	
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			¾
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRIL. STEM TEST			
OTHER		½	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK

HRS. W/DP

HRS. WO/DP

HRS. STANDBY

TOTAL DAY WORK

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OF TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.76	FT.
1	SINGLES D.P.		FT.
1	D.C. 8" RIBBED 2¾ I.D. 9½ O.D.	30.12	FT.
8	D.C. 8½ 2¾ I.D. O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	9½ SUBS	5.49	FT.
	KELLY DOWN	27.13	FT.
	TOTAL	2018.00	FT.
WT. OF STRING	74.000		LBS.

BIT RECORD

BIT NO.	R.R
SIZE	11"
MFG.	
TYPE	
NOZZLE NO.	9
NOZZLE SIZE	1/32 JETS
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	2:00	4:00	9:00
WEIGHT	9.3	9.8	10.3
VISC.-SEC	118	123	131
W.L.-C.C.			6.4
FL.TR. CK.			11/32
PH			9
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
BARYTES	37100#		

DRILLER W. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D-C
2171							500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200			WORK PIPE. C.IRC. & CONDI. MUD.
	800	8	TOP OF FISH. 2018

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.76	FT.
1	SINGLES D.P.		FT.
1	D.C. 8" RIBBED 2¾ I.D. 9½ O.D.	30.12	FT.
8	D.C. 8⅛ 2¾ I.D. O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	26.98	FT.
	TOTAL	2019.00	FT.
WT. OF STRING	74000		LBS.

BIT RECORD

BIT NO.	R.R.
SIZE	11"
MFG.	REED
TYPE	
NOZZLE NO.	3
NOZZLE SIZE	3/4"
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	F		2:30 PM
WEIGHT	R		10.3
VISC.-SEC	1	D	135
W.L.-C.C.			4.6
FL.TR. CK.			5/32
PH			9.
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1200#		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D-C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	RIG SERVICE & CHECK BOPS.
815	1200	3¾	HOIST & WORK TIGHT HOLE FIRST 5 STANDS (HOISTING SLOW)
1200	1230	½	CHANGE BITS & UNPLUG. BOTTOM HOLE COLLAR.
1230	130	½	RUN IN W/ 11" BIT
130	245	1¼	REAM. TIGHT SPOT 115' OFF BOTTOM. & CLEAN 35' TO TOP OF FISH.
245	400	1¼	CIR. & CONDITION MUD.

NO. OF DAYS 10 SINCE LAST LOST TIME ACCIDENT

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARISKOFF	8
FLRMAN		CLARENCE ASTRADER	8
FLRMAN			

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUICHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL. SAUNDERS	8
FLRMAN			

NO. OF DAYS 10 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.76	FT.
1	SINGLES D.P.	9	FT.
1	D.C. 8" RIBBED 2¾ I.D. 9½ O.D.	30.12	FT.
8	D.C. 8⅛ 2¾ I.D. O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	C/O SUBS	5.49	FT.
	KELLY DOWN	26.98	FT.
	TOTAL	2018.00	FT.
WT. OF STRING	76000#		LBS.

BIT RECORD

BIT NO.	RR
SIZE	11"
MFG.	REED
TYPE	
NOZZLE NO.	3
NOZZLE SIZE	3/4"
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.10	800	
WEIGHT	10.3	10.3	
VISC.-SEC	200	200	
W.L.-C.C.	2.6		
FL.TR. CK	3/32		
PH	9.0		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D-C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	8.30	4½	CIRC. & CONDITION MUD
8.30	9.30	1	HOIST SLOWLY 15 STD. TRIP.
9.30	10.00	½	CHANGE BROKEN TONG JAW.
10.00	10.15	¼	HOIST
10.15	10.30	¼	RUN IN
10.30	10.45	¼	WORK ON MUD LINE
10.45	11.00	¼	RUN IN - 12' FILL ON BTM.
11.00	12.00	1	CLEAN TO BTM. & CIRC. & CONDITION MUD.

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED [illegible]	8
FLRMAN			

DEC 8 1964

NO. OF DAYS 10 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 15 DATE Nov. 28/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC-Richfield-Cabot-ARCTIC CIRCLE

WELL NO. K-4

FIELD OR DIST.: GLACIER PROJECT

COUNTY: WILDCAT #2

STATE: N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT: 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: K.A. Evans

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	
2.	NAT.	C-350	
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		42-H-40	11		15.	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING (FILL)	6		14
CONDITIONING MUD & CIRCULATING	1½		2½
TRIPS	½		
LUBRICATE RIG			½
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER (Cond. Mud)		3/4	1½
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1785.76	FT.
+1	SINGLES D.P.		FT.
1	D.C. 2¼ I.D. 8" O.D. (R.B. Collar)	30.12	FT.
8	D.C. 2¼ I.D. 8" O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6 Subs	5.49	FT.
	KELLY DOWN	27.18	FT.
	TOTAL	2018.	FT.

WT. OF STRING 74,000 LBS.

BIT RECORD

BIT NO.	R.R.	
SIZE	11"	
MFG.		
TYPE		
NOZZLE NO.	OPEN	
NOZZLE SIZE	JETS	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	1.00	3:30	7:30
WEIGHT	9.0	9.0	9.1
VISC.-SEC	47	55	77
W.L.-C.C.		6.8	
FLTR. CK.		1/32	
PH		9.0	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3500#		
DIESEL	1000 GALLOONS		

DRILLER Alvin Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2171							500	6¾	72	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.30	½	RUN IN W/ RERUN B.T.
12.30	6.30	6	CLEANED OUT 390' TO TOP OF FISH. 1628 – 2018
6.30	8.00	1½	CIRC & COND. MUD.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.76	FT.
+1	SINGLES D.P.		FT.
1	D.C. (Used to 9⅞) 7¾ I.D. 8" O.D.	30.12	FT.
8	D.C. 7¾ I.D. 8" O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6 Subs	5.49	FT.
	KELLY DOWN	27.18	FT.
	TOTAL	2018.00	FT.

WT. OF STRING 74,000 LBS.

BIT RECORD

BIT NO.	R.R.	
SIZE	11"	
MFG.		
TYPE		
NOZZLE NO.	3	
NOZZLE SIZE	OPEN JETS	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	9 A.M.	1. pm	5 pm
WEIGHT	9.	9.	9.
VISC.-SEC	72	60	82
W.L.-C.C.	6.5	5.8	4.4
FLTR. CK.	2/32	1/32	3/32
PH	9.	9.	9.
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	7000 LBS	WATER	
PELTEX	1000 #		
CAUSTIC	300 #		

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2171							500	6¾	72	6"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	RIG. SERVICE & CHECK B.O.P.S.
8.15	4.00	7¾	CIR. & CONDITION MUD @ 2018' TOP OF FISH

BUILD VOLUME IN MUD TANKS 2 PT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1715.76	FT.
+1	SINGLES D.P.		FT.
1	D.C. 2¾ I.D. 8" O.D. (RIBBED)	30.12	FT.
8	D.C. 2¾ I.D. 8" O.D.	239.45	FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6 Subs	5.49	FT.
	KELLY DOWN		FT.
	TOTAL		FT.

WT. OF STRING 74,000 LBS.

BIT RECORD

BIT NO.	RR	
SIZE	11"	
MFG.		
TYPE		
NOZZLE NO.	3	
NOZZLE SIZE	OPEN JETS	
SER. NO.		
DEPTH OUT		
DEPTH IN		
TOTAL FTG.		
TOTAL HR. RUN		
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	5 PM	9 PM	11 PM
WEIGHT	9.0	9.0	9.0
VISC.-SEC	80	85	110
W.L.-C.C.	6.7		6.7
FLTR. CK	1/32		2/32
PH	9.0		9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	200#	BARYTES	3300 #
PELTEX	200#		
GEL	2000#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P COM'D-C
2171							500	6¾	72	6"		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	6.30	2½	CIRCULATE & CONDITION MUD
6.30	8.00	1½	WHILE STANDING KELLY BACK HOLE SLUFFED IN – PICK UP KELLY & WORK PIPE FREE & REGAIN CIRCULATION.
8.00	12.00	4.	WORKING PIPE & CLEANING OUT TO TOP OF FISH & CONDITIONING MUD
		8HRS	

DRILLING CREW PAYROLL DATA

DATE Nov. 28/64

WELL NAME & NO. A.C.C.A.C. K-4.

COMPANY CASCADE DRG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12 P.M. 8 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	9
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISEAKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS 9 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATTUCHOCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		EARL SAUNDERS	8
FLRMAN			

NO. OF DAYS 9 SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OVENS	8
FIREMAN			
FLRMAN		WALTER ZACHARIK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 9 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 14 DATE NOV. 27/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE

WELL NO. K-4

FIELD OR DIST. GLACIER PROJECT

COUNTY WILDCAT #2

STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT: 6" O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: R.A. Evans

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Barman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11		16.	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG		¼	
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING STUCK	8	8	
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			8
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK		1
HRS. W/DP		1
HRS. WO/DP		
HRS. STANDBY		
TOTAL DAY WORK		

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
5	SINGLES D.P.	FT.
2	D.C. 2 3/4 I.D. 9 1/2 O.D.	39.79 FT.
9	D.C. 2 3/4 I.D. 8 1/2 O.D.	369.00 FT.
2	STB. BODY 8 1/2 O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7 3/4 O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C.O. SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.
	WT. OF STRING 80.000	LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M4NJ
NOZZLE NO.	3-J
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	—
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	90	90	90
VISC.–SEC	58	56	56
W.L.–C.C.			6.2
FL.TR. CK.			2/32
PH			9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Lepi

FOOTAGE

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.–S PAR'EL–P CON'D–C
2171												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00	8	WAITI ON EQUIPMENT.
			RIG UP SCHLUMBERGER

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
1	SINGLES D.P.	FT.
2	D.C. 2 3/4 I.D. 9 1/2 O.D.	39.79 FT.
9	D.C. 2 3/4 I.D. 8 1/2 O.D.	269.00 FT.
2	STB. BODY 8 1/2 O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7 3/4 O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C.O. SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.
	WT. OF STRING 80.000	LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10 AM	1 PM	3 PM
WEIGHT	9	9	9
VISC.–SEC	57	57	56
W.L.–C.C.	6.2		7
FL.TR. CK.	2/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.–D RM.–R CORE.–C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.–S PAR'EL–P CON'D–C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8:00	8:15	¼	RIG SERVICE. & CHECK B.O.P.S
8:15	12:15	4	RIGGING UP SCHLUMBERGER + TOOLS.
12:15	2:00	1 ¾	LOCATE FREE POINT. (FREE TO TOP OF 9" COLLARS)
2:00	4:00	2	RAN 2 STRING SHOTS. TRYING TO BACK OFF 8" COLLARS.
			Checked Brakes + pins
			Checked Escape Buggy System
			Checked Daily. Line + Ton mile
			Checked Motor Shut Off. A. Barman

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.10	7.00
WEIGHT	9.0	9.0
VISC.–SEC	58	57
W.L.–C.C.	6.2	
FL.TR. CK	3/32	
PH	9.5	
SD. CONT. %		
PRESSURE GRADIENT		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	7.30	3½	SHOOTING OFF STRING @ TOP OF 9" COLLARS + WORKING FIRST 8" COLLARS FREE – SHOT OFF @ 2018.
7.30	9.30	2½	HOIST PIPE # 8" COLLARS – PUMP OUT PLUGGED COLLARS
9.30	10.00	½	LAY DOWN WIRELINE EQUIPMENT
10.00	10.30	½	PICK UP BTM. HOLE RIBBED COLLAR # 11 – 2" RERUN BIT.
10.30	12.00	1½	RUN IN THAW ICE PLUGS – TWO STDS DIDENT DRAIN DRY – LAY
		8 HRS.	DOWN FROZEN SINGLES.

DRILLING CREW PAYROLL DATA

DATE NOV. 27

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BARMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ARAN BARISEN KEFI	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

Safety meeting with crew – Fire extinguisher placement – surveying + operation + stopping + starting electric motors. Use switches. Safety while changing light bulbs. K Brooks

NO. OF DAYS 8 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOCK.	8
FIREMAN			
FLRMAN		VICTOR ZACHARUCK	8
FLRMAN		MEL. SAUNDERS.	8
FLRMAN			

Safety meeting with crew – Operation of remote master. General Safety features of rig – Repairs necessary – Common eyes also the saw. K Brooks

NO. OF DAYS 8 SINCE LAST LOST TIME ACCIDENT Safety Supervisor

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HARALD QUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 13 DATE Nov. 26/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CORBAN ARCTIC LIAC.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY WILDCAT #2 | STATE N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT O.D. | TYPE THD.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: K A Evans

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4		40-H-42	11		15	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG		½	
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING Stuck	8	9	8
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	9½	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK			

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
19	STANDS D.P.	1801.14	FT.
S.	SINGLES D.P.		FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY 7¾ O.D.	4.60	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6⅝ Subs	5.49	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	2171.44	FT.
WT. OF STRING	80.000		LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M-4-N
NOZZLE NO.	3-J
NOZZLE SIZE	14
SER. NO.	670653
DEPTH OUT	—
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	9.0	9.0	9.0
VISC.-SEC	54	53	60
W.L.-C.C.	6.8		
FL.TR. CK.	2/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	1000#		

DRILLER A. Leippi

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
2171												

DEVIATION RECORD	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
	2160	1°							

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8	WORK STUCK PIPE & W/O EQUIPMENT.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
19	STANDS D.P.	1801.14	FT.
1	SINGLES D.P.	↑	FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY 7¾ O.D.	4.60	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	C/O	5.49	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	2171.44	FT.
WT. OF STRING	80.000		LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M-4-N
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9 AM	1 PM	3 PM
WEIGHT	9.	9.	9.
VISC.-SEC	70	68	65
W.L.-C.C.	6.6		
FL.TR. CK.	2/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas.

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
2171												

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	RIG-SERVICE & CHECK BOPS
815	400	7¾	WORK STUCK PIPE & W/O EQUIPMENT.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.	↑	FT.
	D.C. I.D. O.D.	SAME	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	↑
SIZE	↑
MFG.	↑
TYPE	SAME
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4:00	8:30	11:30
WEIGHT	9.0	9.0	9.0
VISC.-SEC	60	60	60
W.L.-C.C.	6.2		
FL.TR. CK.	3/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER J. Hammond

FOOTAGE FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.—S PAR'EL-P COM'D-C
2171												

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

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	1200	8	WAITING ON EQUIPMENT - MEASURE # CALLIPER 10 DRILL COLLARS # CATCH SERGE No. 3 LEVEL UP PIPE RACKS TO CATWALK - MEASURE UP 20 SINGLES

Safety meeting with crew - Discussed - Placement - operation & recovery of fire extinguishers Stopping & starting electric motors use precautions -

R Brooks
Safety Supervisor

DRILLING CREW PAYROLL DATA

DATE Nov. 26/64

WELL NAME & NO. A.C.C. A.C. K-4-

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 8⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARRISENKOFF	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

NO. OF DAYS 7 SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATWICHUCK	8
MTRMAN		ROY MACH	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

Safety meeting held with crew - All fire extinguishers checked. Placement of fire extinguishers discussed. Elimination of booby traps discussed more walkways planned Starting & stopping motors discussed

NO. OF DAYS 7 SINCE LASY LOST TIME ACCIDENT

EVENING TOUR: ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS 7 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 12 — DATE Nov. 25/64

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CANADIAN ARCTIC CIRC	K-4	GLACIER PROJECT		N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT 6" O.D., TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Denton

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Barman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

CASING / TUBING / LINER

	SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
LAST CASING	11 3/4		42 H-40	11		15.	430	SERF.
TUBING OR LINER								

DRILLING CREW PAYROLL DATA

DATE Nov. 25/64

WELL NAME & NO. A.C.C.A.C. K-4.

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BARMAN — RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

SAFETY MEETINGS HELD - SUBJECTS DISCUSSED + COSTS OF ACCIDENTS PRACTICAL WISDOM OF SAFETY - FILM - "MIRACLE IN PARADISE VALLEY" SHOWN TO ALL CREWS - R Brooks

NO. OF DAYS 6 SINCE LAST LOST-TIME ACCIDENT

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG		¼	
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			¼
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
PUNNING STOCK.	8	8	8
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
19	STANDS D.P.	1801.14	FT.
8.	SINGLES D.P.		FT.
2	D.C. 2¼ 9⅛ I.D. O.D.	39.79	FT.
9	D.C. 2¾ 8⅛ I.D. O.D.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
1	STB. BODY O.D. RMR. BODY 7¾ O.D.	4.60	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6 SUBS.	5.49	FT.
	KELLY DOWN	41.00	FT.
	TOTAL	2171.44	FT.
WT. OF STRING	80.000		LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M-4-N
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	3:30	7:00
WEIGHT	9.0	9.0	9.0
VISC.-SEC	56	55	56
W.L.-C.C.	6.8		
FL.TR. CK.	2/32		
PH	9.5		
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER Alvin Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2171												

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2160	1°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	8 00	8	WORK STUCK PIPE

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
19	STANDS D.P.	1801.14	FT.
1	SINGLES D.P.	39.79	FT.
2	D.C. 2¾ 9⅛ I.D. O.D.	269.00	FT.
9	D.C. 2¾ 8⅛ I.D. O.D.	10.42	FT.
2	STB. BODY O.D.	4.60	FT.
1	RMR. BODY 7¾ O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.	5.49	FT.
2	6 SUBS.	41.00	FT.
	KELLY DOWN	2171.45	FT.
	TOTAL	80.000	LBS.
WT. OF STRING			

BIT RECORD

BIT NO.	4
SIZE	11
MFG.	SEC.
TYPE	M4N-T
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9 AM	1 PM	3:30 PM
WEIGHT	9.	9.	9.
VISC.-SEC	55	55	54
W.L.-C.C.			6.8
FL.TR. CK.			2/32
PH			9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	RIG SERVICE + CHECK BOPS.
815	~~430~~	7¾	WORK STUCK PIPE.

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUK	8
MTRMAN		ROY MOCH.	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		MEL SAUNDERS.	8
FLRMAN			

SAFETY MEETINGS HELD - SUBJECTS DISCUSSED HAZARDS OF FROZEN MUD LINES, OPERATION AND HANDLING OF STEAM HOSES. COSTS OF ACCIDENTS - PRACTICAL WISDOM OF SAFETY R Brooks

NO. OF DAYS 6 SINCE LAST LOST TIME ACCIDENT Safety Supervisor

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	↑
SIZE	
MFG.	SAME
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.10	8.30	11.30
WEIGHT	9.0	9.0	9.0
VISC.-SEC	55	54	54
W.L.-C.C.		6.7	
FL.TR. CK		2/32	
PH		9.5	
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C.	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
2171												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SLIPIS DRILLING LINE
4.15	12 00	7¾	WORK PIPE + WAIT ON EQUIPMENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
PIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

SAFETY MEETINGS HELD. SUBJECTS DISCUSSED. HAZARDS OF FROZEN MUD LINES. COSTS OF ACCIDENTS - PRACTICAL WISDOM OF SAFETY R Brooks Safety Supervisor

NO. OF DAYS 6 SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 11 — DATE Nov. 24/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CORRA ARC CIRC.

WELL NO.: K4

FIELD OR DIST.: GLACIER PROJECT

COUNTY:

STATE: N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT O.D.: TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	6-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING STUCK	8	8	8
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES — SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
8	SINGLES D.P.	FT.
2	D.C. 7¾ I.D. 9⅛ O.D.	35.77 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 8⅜ O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.
WT. OF STRING	80,000	LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M-4-N-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	✓
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1.00	3:30	7:00
WEIGHT	9.0	9.0	9.0
VISC.-SEC	55	55	54
W.L.-C.C.	7.2		6.8
FL.TR. CK.	2/32	"	"
PH	9.5		9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
PELTEX	50#		

DRILLER: A. Baird

FOOTAGE

FROM	TO
2171	

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8	WORK STUCK PIPE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
1	SINGLES D.P.	FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	35.79 FT.
9	D.C. 2¾ I.D. O.D.	269.00 FT.
2	STB. BODY 8⅜ O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.
WT. OF STRING	90,000	LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC
TYPE	M4N-T
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	9.AM	1 PM	3 PM
WEIGHT	9.0	9.	9.
VISC.-SEC	55	55	55
W.L.-C.C.	6.6	6.8	6.8
FL.TR. CK.	2/32	2/32	2/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C. Markunas.

FOOTAGE

FROM	TO
2171	

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	R.G. SERVICE + CHECK BOPS.
815	400	7¾	WORK STUCK PIPE.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
WT. OF STRING		LBS.

SAME

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

SAME

MUD RECORD

TIME	4.10	8.00	11.30
WEIGHT	9.0	9.0	9.0
VISC.-SEC	55	60	60
W.L.-C.C.	6.9	7.0	7.0
FL.TR. CK	2/32	9/32	3/32
PH	9.5	9.5	9.5
SD. CONT. %			
PRESSURE GRADIENT		BUILDING VOLUME	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
CAUSTIC	50#		
PELTEX	50#		
GEL	100 #		

DRILLER: John Hammond

FOOTAGE

FROM	TO
2171	

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	10.15		WORK STUCK PIPE
10.15	10.30		SLIP 20' DRILLING LINE
10.30	12.00		WORK STUCK PIPE

DRILLING CREW PAYROLL DATA

DATE Nov. 24/64

WELL NAME & NO. A.C.C.A.C. K-4.

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BORISENKOFF	8
FLRMAN		CLARENCE STRANGER	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

DAY TOUR _____ A.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATIUCHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZATCHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HARALD OVENS	8
FIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 10 — DATE Nov. 23/64

OPERATOR: ATLANTIC REFINING CO — LEASE: ATLANTIC COLUMBIAN CORBAN AREA — WELL NO. K-4 — FIELD OR DIST.: GLACIER PROJECT — COUNTY — STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. — TYPE THD. E.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	6-708	14
2.	NAT.	C350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42 & 47	11		15.	430	SURF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	2		
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG		¼	
DEVIATION SURVEY	¼		
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING STUCK	5¾	7¾	8

COMPLETION WORK: A. PERFORATING; B. TUBING TRIPS; C. SWABBING; D. TESTING; E. ADDITIONAL

TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES / SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
8	SINGLES D.P.	→ FT.
2	D.C. 9⅛ 2¾ I.D. O.D.	39.79 FT.
9	D.C. 8⅛ 2¾ I.D. O.D.	269.00 FT.
2	STB. BODY O.D.	10.42 FT.
1	RMR. BODY O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.

WT. OF STRING 80,000 LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	67053
DEPTH OUT	—
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00
WEIGHT	9.0
VISC.-SEC	34
W.L.-C.C.	11.2
FL.TR. CK.	2/32
PH	8.0
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Hipfner

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
2142	2171	29			70	40	1400	6¾	71	6		

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
10.00	2.00	2	DRLG. 11" HOLE. WT 40
2.00	2.15	¼	SURV.
2.15	8.00	5¾	WORK STUCK P.P.E.
			Worked pipe out 30'. No circulation. Formation will start taking fluid @ 600 lbs.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
1	SINGLES D.P.	→ FT.
2	D.C. 9⅛ 2¾ I.D. O.D.	39.79 FT.
9	D.C. 8⅛ 2¾ I.D. O.D.	269.00 FT.
2	STB. BODY O.D.	10.42 FT.
1	RMR. BODY O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.

WT. OF STRING 80,000 LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	67053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	IN.
REAMER NO.	
REAMER TYPE	

MUD RECORD

	10 AM	1 PM	3 PM
TIME			
WEIGHT	9.0	9.2	8.9
VISC.-SEC	34	55	40
W.L.-C.C.			
FL.TR.CK.		DRILLING VOLUME	
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
MEL	80,000	LOS	
CAUSTIC	100	" WATER	
PELTEX	50	"	

DRILLER

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
2170												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.15	¼	R.G. SERVICE + CHECK BOPS
8.15	4.00	7¾	WORK STUCK PIPE @ 2140'
			Worked pipe out 30' Bit at 2100, Top of collars @ 1780'
			BUILD UP VOLUME

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
19	STANDS D.P.	1801.14 FT.
1	SINGLES D.P.	→ FT.
2	D.C. 9⅛ 2¾ I.D. O.D.	39.79 FT.
9	D.C. 8⅛ 2¾ I.D. O.D.	269.00 FT.
2	STB. BODY O.D.	10.42 FT.
1	RMR. BODY O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	2171.44 FT.

WT. OF STRING 80,000 LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC.
TYPE	M4NJ
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	67053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	103
TOTAL HR. RUN	7¾
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

	4.10	6.00	11.30
TIME			
WEIGHT	8.9	8.9	8.9
VISC.-SEC	45	60	66
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	12000		

DRILLER

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL-S PAR'EL-P COM'D-C
2170												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	12.00		WORK STUCK PIPE

DRILLING CREW PAYROLL DATA

DATE Nov. 23/64

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO. LTD

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		RUB. HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR _____ A.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUICHUCK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZATCHARUK	8
FLRMAN		MEL SAUNDERS	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 9 DATE Nov 27/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIAN CORBAN ARC. CIRC.

WELL NO. K-47 | FIELD OR DIST. GLACIER PROJECT | COUNTY | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15'	430	SURF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7½	4½	3¾
REAMING			¼
CONDITIONING MUD & CIRCULATING			
TRIPS		3¼	1
LUBRICATE RIG		¼	
DEVIATION SURVEY	½	¼	¼
TEST B.O.P.			½
CUT OFF DRILLING LINE			¼
REPAIR RIG		2¼	½
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
17	STANDS D.P.	1646.70	FT.
2	SINGLES D.P.		FT.
2	D.C. 2¾ I.D. 9½ O.D. LD. 0.00	39.79	FT.
9	D.C. 2¾ I.D. 8⅛ O.D. LD.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY 7¾ O.D.	4.60	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	8⅛ SUBS	5.49	FT.
	KELLY DOWN	29.56	FT.
	TOTAL	2006.56	FT.

WT. OF STRING 78 000 LBS.

BIT RECORD

BIT NO.	3
SIZE	11"
MFG.	SEC.
TYPE	S6-J
NOZZLE NO.	2-1
NOZZLE SIZE	13-14
SER. NO.	77463
DEPTH OUT	1660
DEPTH IN	1660
TOTAL FTG.	945
TOTAL HR. RUN	13½
COND. OF BIT	1-4
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1.00	3:00	7:00
WEIGHT	9.0	9.0	9.0
VISC.-SEC	32	32	34
W.L.-C.C.		11.6	11.6cc
FL.TR. CK.		2/32	3/32
PH		8.0	8.0
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3500#	WATER	8 HRS.
CAUSTIC	50#		
PELTEX	100#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
1845	2005		160	CLEANED SAND TRAP	60	35	1350	6¾	71	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1880	1°		1975	1½				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	1.45	1¾	DRLG. 11" HOLE. WT. 35 - R.P.M. 60
1.45	2.00	¼	SURV. @ 1880 1°
2.00	6.00	4	DRLG. 11" HOLE. WT. 35 - R.P.M. 60
6.00	6.15	¼	SURV @ 1975 - 1½°
6.15	8.00	1¾	DRLG. 11" HOLE WT. 30 - R.P.M. 70

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
18	STANDS D.P.	1651.23	FT.
1	SINGLES D.P.	30.99	FT.
2	D.C. 2¾ I.D. 9½ O.D.	39.79	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
1	RMR. BODY 7¾ O.D.	4.60	FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
2	6⅝ SUBS	5.49	FT.
	KELLY DOWN	29.48	FT.
	TOTAL	2068	FT.

WT. OF STRING 80,000 LBS.

BIT RECORD

BIT NO.	3
SIZE	11"
MFG.	SEC.
TYPE	S6-J
NOZZLE NO.	2 1
NOZZLE SIZE	14 13
SER. NO.	77463
DEPTH OUT	2068
DEPTH IN	1660
TOTAL FTG.	408
TOTAL HR. RUN	18
COND. OF BIT	5-4-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10:AM	1 pm	
WEIGHT	9.	9.	R
VISC.-SEC	33	31	I
W.L.-C.C.			P
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER.			

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
2005	2068	63			70	30-40	1375	6¾	70	6"		

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2048	1⅛°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	8.30	½	DRLG. 11" HOLE WT. 30 000 70 RPM
8.30	8.45	¼	RIG SERVICE + CHECK BOPS
8.45	12.45	4	DRLG 11" HOLE WT. 40 000 - 70 R.P.M.
12.45	3.00	2¼	INSTALL NEW PUMP DRIVE CHAIN + REPAIR BROKEN OIL LINES
3.00	3.15	¼	SURVEY @ 2048 - 1⅛°
3.15	4.00	¾	HOIST FOR BIT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
19	STANDS D.P.	1801.14	FT.
1	SINGLES D.P.		FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79	FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00	FT.
2	STB. BODY 8⅛ O.D.	10.42	FT.
	STB. BODY O.D.		FT.
1	RMR. BODY 7¾ O.D.	4.60	FT.
2	SUBS O.D.	5.49	FT.
	BIT OR C.B.		FT.
	KELLY DOWN	29.44	FT.
	TOTAL	2143.00	FT.

WT. OF STRING 83,000 LBS.

BIT RECORD

BIT NO.	4
SIZE	11"
MFG.	SEC
TYPE	M4N-J
NOZZLE NO.	3
NOZZLE SIZE	14
SER. NO.	670053
DEPTH OUT	
DEPTH IN	2068
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	6.00	9.50	11.15
WEIGHT	9.0	9.0	9.0
VISC.-SEC	30	33	38
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT	DUMPED SAND TRAP		

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
1" STABAMWATER			
GEL	2000#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
2068	2142	DR			70	30-40	1400	6¾	70	6"		
					100	40						

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
2048	1⅛°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	CHANGE BITS & CHK BLIND RAMS
4.15	4.30	¼	SLIP 20' DRILLING LINE
4.30	5.30	1	RUN IN BIT 4.
5.30	5.45	¼	CLEAN 30' BRIDGES TO BTM.
6.45	8.30	2¾	DRILL 11" HOLE
8.30	9.00	½	WELD HOLE IN BTM OF COMPOUND GUARD + CHANGE GREASE FITTING
9.00	12.00	3	DRILL
		8 HRS	

DRILLING CREW PAYROLL DATA

DATE Nov. 22/64

WELL NAME & NO. A.C.C.A.C. K-47

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN. RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 6⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARISENKATE	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		RAY MACH	8
FIREMAN			
FLRMAN		VICTOR ZATCHARUK	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN		MEL. SAUNDERS	8

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
PIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ED. BRODY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 8 DATE NOV. 21/64

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC COLUMBIA CORBAA ARC CIRC

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11		15.	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7	5 3/4	6
REAMING			¼
CONDITIONING MUD & CIRCULATING			
TRIPS		¼	1
LUBRICATE RIG		¼	
DEVIATION SURVEY	½	¾	¼
TEST B.O.P.			¼
CUT OFF DRILLING LINE			
REPAIR RIG	½		
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
11	STANDS D.P.	1082.70 FT.
2	SINGLES D.P.	7 FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 8⅛ O.D.	10.42 FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	% SUBS	5.49 FT.
	KELLY DOWN	34.74 FT.
	TOTAL	1450.74 FT.

WT. OF STRING 70,000 LBS.

BIT RECORD

BIT NO.	2
SIZE	11"
MFG.	REED
TYPE	YTLJ
NOZZLE NO.	2-1
NOZZLE SIZE	13-14
SER. NO.	505368
DEPTH OUT	—
DEPTH IN	1114
TOTAL FTG.	336
TOTAL HR. RUN	8¼
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	1:00	330	7:00
WEIGHT	9.0	9.0	9.1
VISC.-SEC	31	34	35
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	3000#	WATER	11" STR. 8 HRS
CAUSTIC	100#		
PELTEX	100#		

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PARTEL.-P COMPD.-C
1170	1450	280		CLEANED SAND TRAP TWICE	70	40	1550	6¾	70			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1258	1°		1380	1¾				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12⁰⁰	2⁰⁰	2	DRLG. 11" HOLE.
2⁰⁰	2¹⁵	¼	SURV. @ 1258 1°
2¹⁵	4⁰⁰	1¾	DRLG 11" HOLE.
4⁰⁰	4³⁰	½	W/O. ROTARY CHAIN.
4³⁰	5⁴⁵	1¼	DRLG 11" HOLE.
5⁴⁵	6⁰⁰	¼	SURV. @ 1380 — 1¾°
6⁰⁰	8⁰⁰	2	DRLG 11" HOLE. (15⁰⁰⁰ ON BIT R.P.M. 70 — 100

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
14	STANDS D.P.	1305.07 FT.
	SINGLES D.P.	FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 8⅛ O.D.	10.42 FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	% SUBS	5.49 FT.
	KELLY DOWN	25.63 FT.
	TOTAL	1660.00 FT.

WT. OF STRING 74,000 LBS.

BIT RECORD

BIT NO.	2
SIZE	11"
MFG.	REED
TYPE	YTLJ
NOZZLE NO.	2-1
NOZZLE SIZE	13-14
SER. NO.	505468
DEPTH OUT	1660
DEPTH IN	1114
TOTAL FTG.	546
TOTAL HR. RUN	14
COND. OF BIT	FAIR 4-4-1
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	10 AM	1 PM	
WEIGHT	9.1	9.0	
VISC.-SEC	35	33	
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	800#	WATER	
CAUSTIC	60	"	
PELTEX	50	"	

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARTEL.-P COMPD.-C
1450	1660	210			70	15-20	1600	6¾	70	6"		
						35	1600					

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1450	1°		1515.	1°		1640	1⅛°	

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8⁰⁰	8¹⁵	¼	SURVEY @ 1450 — 1°
8¹⁵	8³⁰	¼	RIG SERVICE & CHECK BOPS
8³⁰	10³⁰	2	DRLG 11" HOLE W/15⁰⁰⁰ 20000 ON BIT 70 RPM
10³⁰	10⁴⁵	¼	SURVEY @ 1515 — 1°
10⁴⁵	1⁴⁵	3	DRLG 11" HOLE W/35⁰⁰⁰ ON BIT
1⁴⁵	2⁰⁰	¼	SURVEY @ 1640 — 1⅛°
2⁰⁰	2⁴⁵	¾	DRLG 11" HOLE W/30⁰⁰⁰ ON BIT
2⁴⁵	4⁰⁰	1¼	CLEAN SHAKER TANK 2⁴⁵ — 4⁰⁰ — HOIST FOR BIT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
16	STANDS D.P.	1491.78 FT.
	SINGLES D.P.	FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 8⅛ O.D.	10.42 FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	% SUBS	5.49 FT.
	KELLY DOWN	23.92 FT.
	TOTAL	1845.00 FT.

WT. OF STRING 78,000 LBS.

BIT RECORD

BIT NO.	3
SIZE	11"
MFG.	SEC
TYPE	S6-J
NOZZLE NO.	2-1
NOZZLE SIZE	13-14
SER. NO.	505468
DEPTH OUT	
DEPTH IN	1660
TOTAL FTG.	185
TOTAL HR. RUN	6
COND. OF BIT	1N
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	4.10	8.30	11.30
WEIGHT	9.0	9.0	9.0
VISC.-SEC	30	30	32
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
1" STREAM		WATER	
GEL	1500#		

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PARTEL.-P COMPD.-C
1660	1845	DR			70	40	1350	6¾	70			
					60							

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1790	1¼°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	CHANGE BITS CHK BLIND RAMS
4.15	5.15	1	RUN IN BIT 3#
5.15	5.30	¼	CLEAN 8' TO BTM.
5.30	10.00	4½	DRILL 11" HOLE
10.00	10.30	½	SURVEY @ 1790 — 1¼°
10.30	12.00	1½	DRILL
		8 HRS.	

DRILLING CREW PAYROLL DATA

DATE NOV. 21/64

WELL NAME & NO. A.C.C. AC. K-4.

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12⁰⁰ P.M. 12⁰⁰ A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		ALVIN LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ALAN BARISENKOFF	9
FLRMAN		CLARENCE OSTRANDER	9
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR _____ A.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	9
DRKMAN		PETE MATVICHUCK	9
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ALAN BARISENKOFF	4
FLRMAN		HAROLD OUENS	4

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR _____ P.M. _____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
PIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS _____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 7 DATE Nov. 2014

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIAN CARBON ARC. CR. K-4

WELL NO.

FIELD OR DIST.: GLACIER PROJECT

COUNTY

STATE: N. W. T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED

RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½

TOOL JOINT O.D.: TYPE THD. F. H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: L. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14.
2.	NAT.	C-35	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		42-H-40	11		15.	430	SEAF

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	4	7½	4¾
REAMING	¾		
CONDITIONING MUD & CIRCULATING			
TRIPS	1		2
LUBRICATE RIG		¼	¼
DEVIATION SURVEY	¼	½	¾
TEST B.O.P.			¼
CUT OFF DRILLING LINE			
REPAIR RIG			¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	2		¼
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	6	8	8
HRS. WO/DP	2		
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
4	STANDS D.P.	373.07 FT.
	SINGLES D.P.	FT.
2	D.C. 2¾ I.D. 8¼ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅓ O.D.	269.00 FT.
2	STB. BODY 8⅛ O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	% SUBS	5.49 FT.
	KELLY DOWN	41.00 FT.
	TOTAL	743.37 FT.
WT. OF STRING		58 000 LBS.

BIT RECORD

BIT NO.	1
SIZE	11"
MFG.	SEC
TYPE	S6-J
NOZZLE NO.	2-1
NOZZLE SIZE	19-15
SER. NO.	773652
DEPTH OUT	
DEPTH IN	430
TOTAL FTG.	323
TOTAL HR. RUN	5¾
COND. OF BIT	IN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	8.00
WEIGHT	
VISC.-SEC	33
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
SODA ASH	300#		
GEL	4000#		

DRILLER: A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT.-C
516	743	227			70	25/35	1050	6¾	60			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	1230	½	FINISH OUT W/ COLLARS
1230	230	2.	PICKED UP 1-9" COL. 4-8" COL. 1-3-POINT REAMER 2-11" STB. W/ RUBBERS. & ASSEM. SAME.
230	300	½	RAN IN W/ RERUN BIT #1
300	345	¾	B/CIRC. + CLEAN 60' TO BTM.
345	645	3	DRLG 11" HOLE.
645	700	¼	SURV. @ 670 Mistrun
700	800	1	DRLG 11" HOLE.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
7	STANDS D.P.	650.31 FT.
	SINGLES D.P.	— FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 8⅛ O.D.	10.42 FT.
	STB. BODY O.D.	FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	C/O SUBS	5.49 FT.
	KELLY DOWN	20.39 FT.
	TOTAL	1000.80 FT.
WT. OF STRING		64000 LBS.

BIT RECORD

BIT NO.	1
SIZE	11"
MFG.	SEC
TYPE	S6-J
NOZZLE NO.	2 1
NOZZLE SIZE	14 15
SER. NO.	773652
DEPTH OUT	IN
DEPTH IN	430
TOTAL FTG.	570
TOTAL HR. RUN	13
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

	10 A.M.	1. PM	3. PM
TIME			
WEIGHT			
VISC.-SEC	34	36	33
W.L.-C.C.			
FL.TR. CK.			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2400 LBS		
CAUSTIC	100 "	WATER	
PELTEX	100 "		

DRILLER: C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT.-C
743	1000	257			70	25/40	1000	6¾	58	6¾	ON MUD GUNS	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
730	1°	920	1°					

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
600	815	¼	SURVEY @ 730 - 1°
815	830	¼	RIG SERVICE & CHECK BOP'S
830	115	4¾	DRILLING 11" HOLE W/ 25000 ON BIT 70 R.P.M.
115	130	¼	SURVEY @ 920 - 1°
130	400	2½	DRILLING 11" HOLE W/ 30000 ON BIT - 70 RPM
			CLEAN SHAKER TANK + SETTLING TANK

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		
8	STANDS D.P.	807.64 FT.
2	SINGLES D.P.	FT.
2	D.C. 2¾ I.D. 9⅛ O.D.	39.79 FT.
9	D.C. 2¾ I.D. 8⅛ O.D.	269.00 FT.
2	STB. BODY 7⅞ O.D.	10.42 ST.
	STB. BODY O.D.	FT.
1	RMR. BODY 7¾ O.D.	4.60 FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
2	% SUBS	5.49 FT.
	KELLY DOWN	33.66 FT.
	TOTAL	1170.00 FT.
WT. OF STRING		65,000 LBS.

BIT RECORD

BIT NO.	1	2
SIZE	11"	11"
MFG.	SEC	REED
TYPE	S-6-J	Y7C-J
NOZZLE NO.	2-1	2-1
NOZZLE SIZE	14-15	13-14
SER. NO.	773652	505468
DEPTH OUT	1114	
DEPTH IN	430	1114
TOTAL FTG.	684	
TOTAL HR. RUN	16½	
COND. OF BIT	6-4-1	2-4-1
REAMER NO.		
REAMER TYPE		

MUD RECORD

	4.10	7.30	11.00
TIME			
WEIGHT	9.0	9.0	9.0
VISC.-SEC	30	35	35
W.L.-C.C.			
FL.TR. CK			
PH			
SD. CONT. %			
PRESSURE GRADIENT			

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
WATER	STREAM		
GEL	1500#		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR'EL-P CONT.-C
1000	1170	DR.		CLEANED SHAKER SETTLING TANK 11.00 P.M.	70	40	1150 1550	6¾	58	6¾	ON MUD GUNS WITH BIT 2.	

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
1105	3/4°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	445	¾	DRILL 11" HOLE (1) 10.30 10.45 CLEAN 15' TO BTM.
445	500	¼	BLAST OFF NO 3. SUPERIOR - SER RIG & CHK BOP'S (1¼) 10.45 12.00 DRILL
500	745	2¾	DRILL
745	800	¼	SURVEY @ 1105 - ¾°
800	815	¼	SET UP & CHECK CROWN STOPPER
815	900	¾	HOIST
900	915	¼	CHANGE BITS & CHK. BLIND RAMS
915	1030	1¼	RUN IN BIT 2.

DRILLING CREW PAYROLL DATA

DATE Nov. 2014

WELL NAME & NO. A.C.C. AC. K-4

COMPANY CASCADE DRLG. CO LTD

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		BOB HENDERSON	8
FIREMAN			
FLRMAN		AL. BARGENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST-TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	8
DRKMAN		PETE MATUSCHUK	8
MTRMAN		ROY MOCH	8
FIREMAN			
FLRMAN		VICTOR ZATCHARUK	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD QUENS	8
FIREMAN			
FLRMAN		WALTER ZATCHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT — REPORT NO. 6 — DATE NOV. 19. 64

OPERATOR: ATLANTIC REFINING CO. — LEASE: ATLANTIC COLUMBIAN CORBAN ARC. CIR. — WELL NO. K-4. — FIELD OR DIST.: GLACIER PROJECT — COUNTY — STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED — RIG NO.: 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ — TOOL JOINT O.D. — TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. Donahue

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	SIZE	STROKE LENGTH
1.	NAT.	9-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11¾		40-H-42	11	439	15.	430	8 RF.

DRILLING CREW PAYROLL DATA

DATE NOV. 19/64

WELL NAME & NO. A.C.C. A.C.-K-4

COMPANY CASCADE DRLG. CO. LTD.

TOOL PUSHER A. BAUMAN — RIG NO. 12-14

TIME DISTRIBUTION—HOURS

	MORN.	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			1¾
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			½
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			¾
CUT OFF DRILLING LINE			
REPAIR RIG			1½
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER	8	8	8½
FISHING			
COMPLETION WORK: A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK		
HRS. W/DP	3	8
HRS. WO/DP	8	5
HRS. STANDBY		
TOTAL DAY WORK	8	8

WIRE LINE RECORD

REEL NO. — NO. OF LINES — SIZE — FEET SLIPPED — FEET CUT OFF — PRESENT LENGTH — TON MI. OR TRIPS SINCE LAST CUT — CUMULATIVE TON MI. OR TRIPS — NO. OF DAYS FROM SPUD — CUMULATIVE ROTATING HRS.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
	STANDS D.P.	FT.
	SINGLES D.P.	FT.
	D.C. I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	1
SIZE	11
MFG.	SEC
TYPE	S6-J
NOZZLE NO.	3
NOZZLE SIZE	2-14-1-15
SER. NO.	773652
DEPTH OUT	430
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER A. Leippi

FOOTAGE: FROM 430 — TO

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

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

TIME LOG: FROM 12⁰⁰ — TO 8⁰⁰ — ELAPSED TIME — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

NIPPLING UP.
CHANGE RAMS 4½ FROM TOP TO BTM.
W/O ACCUMALATOR LINES.

MORNING TOUR

CREW	SOC. SEC. NO.	NAME	HRS.	
DRILLER		AL. LEIPPI.	S	12
DRKMAN		PAUL LANGE	S	12
MTRMAN		PAUL HENDERSON	S	12
FIREMAN				
FLRMAN		AL. BARISENKOFF	S	12
FLRMAN		CLARENCE OSTRANDER	S	
FLRMAN				

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
3	STANDS D.P.	FT.
1	SINGLES D.P.	FT.
5	D.C. 8 1/16 I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D. 10.10	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN	FT.
	TOTAL	FT.
	WT. OF STRING	LBS.

BIT RECORD

BIT NO.	1
SIZE	11"
MFG.	SEC.
TYPE	S6-J
NOZZLE NO.	3
NOZZLE SIZE	2-14-1-15
SER. NO.	773652
DEPTH OUT	430
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	W/ TOR
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER

FOOTAGE: FROM — TO

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

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

TIME LOG: FROM — TO — ELAPSED TIME — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

FROM	TO	ELAPSED TIME	DETAILS
8⁰⁰	11⁰⁰	3	NIPPLING UP BOPS & ACCUMALATOR LINES.
11⁰⁰	12³⁰	1½	WORK ON ACCUMALATOR.
12³⁰	1⁰⁰	½	[redacted] PRESSURE BLIND RAMS TO 1200 PSI FOR 15 MIN OK
1⁰⁰	2⁰⁰	1	PICK UP 10' BIT SUB, MAKE UP 11" BIT & RUN IN
2⁰⁰	2³⁰	½	PRESSURE PIPE. RAMS TO 1500 PSI FOR 15 MIN OK
2³⁰	3⁰⁰	½	PRESSURE HYDRILL TO 1500 PSI LEAKED BETWEEN
3⁰⁰	4⁰⁰	1	TIGHTENING BOLTS ON BOPS (SPOOL & SHAFFER.

DAY TOUR

CREW	SOC. SEC. NO.	NAME	HRS.	
DRILLER		C. MARKUNAS	8	
DRKMAN		PETE MATIUCHUCK	9	
MTRMAN		ROY MOCH	8	
FIREMAN				
FLRMAN		VICTOR ZATCHARUK	8	
FLRMAN		JIM BRADY	8	
FLRMAN				

10 — 9½ — 8

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.		FT.
3	STANDS D.P.	FT.
	SINGLES D.P.	FT.
5	D.C. 8 1/16 I.D. O.D.	FT.
	D.C. I.D. O.D.	FT.
	STB. BODY O.D.	FT.
	STB. BODY O.D.	FT.
	RMR. BODY O.D.	FT.
	SUBS O.D.	FT.
	BIT OR C.B.	FT.
		FT.
	KELLY DOWN DOWN	FT.
	TOTAL 516.06	FT.
	WT. OF STRING 38,000#	LBS.

BIT RECORD

BIT NO.	1
SIZE	11"
MFG.	SEC
TYPE	S6-J
NOZZLE NO.	3
NOZZLE SIZE	3-14 1-15
SER. NO.	773652
DEPTH OUT	516
DEPTH IN	430
TOTAL FTG.	86
TOTAL HR. RUN	1¾
COND. OF BIT	GOOD
REAMER NO.	
REAMER TYPE	SEC

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.

DRILLER John Hammond

FOOTAGE: FROM 430 — TO 516

DR.-D RM.-R CORE.-C — CORE NO. — FORMATION (SHOW CORE RECOVERY) — ROTARY RPM 70 — WT. ON BIT 4 TO 20,000# — PUMP PRESS 850 — PUMP NO. LINER SIZE 6¾ / S.P.M. 56 — PUMP NO. LINER SIZE / S.P.M. — METHOD RUN SCL-S PAR'EL-P COM'D-C

DEVIATION RECORD: DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION / DEPTH / DEV. / DIRECTION

TIME LOG: FROM — TO — ELAPSED TIME — DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS

1130 12.00 HOIST LAY DOWN 5 SINGLES

FROM	TO	ELAPSED TIME	DETAILS
4.00	4.45		REPAIR LEAKS ON BOPS & CHECK MOTOR SHUT OFFS OK.
4.45	5.00		PRESS HYDRIL TO 1500# HELD O.K. 15 MINS.
5.00	6.30		TOP OF PLUG @ 360 DRILL OUT CEMENT & RUBBER PLUG & FLOAT
6.30	7.00		REMOVE Y FROM MUD LINE & HOOK SHOCK HOSE DIRECT TO MUD LINE
7.00	8.45		DRILL ON PLUG & FLOAT
8.45	9.00		PRESS UP TO 1000# ON FLOAT & BTM OF TOP JOINT OF CASING O.K.
9.00	9.45		DRILL CEMENT & SHOE
9.45	11.30		DRILL 11" HOLE

EVENING TOUR

CREW	SOC. SEC. NO.	NAME	HRS.	
DRILLER		JOHN HAMMOND	8	
DRKMAN		PETE STRAUB	8	
MTRMAN		HAROLD QUENS	8	
FIREMAN				
FLRMAN		WALTER ZATCHARUK	8	
FLRMAN		ED BRADY	8	
FLRMAN				

USED 3 SECURITY REAMER CUTTERS LSB No. 660#

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 5 DATE NOV. 18/64

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIAN CARBON ARC. CR.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2, SIZE 4½ | TOOL JOINT O.D. | TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. W. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	N.O.T.	G-700	14
2.	N.A.T.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS
11 3/4					15'	430	SERF.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL			
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CCRING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT	8	8	
DRILL STEM TEST			
OTHER Nipple up		8	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP			
HRS. WO/DP	8	8	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.	
		FT.	TOTAL HR. RUN			
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER A. Leippi	

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK.	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.	
		FT.	TOTAL HR. RUN			
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER	

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		BIT RECORD		MUD RECORD	
	STANDS D.P.	FT.	BIT NO.		TIME	
	SINGLES D.P.	FT.	SIZE		WEIGHT	
	D.C. I.D. O.D.	FT.	MFG.		VISC.-SEC	
	D.C. I.D. O.D.	FT.	TYPE		W.L.-C.C.	
	STB. BODY O.D.	FT.	NOZZLE NO. / SIZE		FL.TR. CK	
	STB. BODY O.D.	FT.	SER. NO.		PH	
	RMR. BODY O.D.	FT.	DEPTH OUT		SD. CONT. %	
	SUBS O.D.	FT.	DEPTH IN		PRESSURE GRADIENT	
	BIT OR C.B.	FT.	TOTAL FTG.		MUD & CHEMICALS ADDED: TYPE / AMT. / TYPE / AMT.	
		FT.	TOTAL HR. RUN			
	KELLY DOWN	FT.	COND. OF BIT			
	TOTAL	FT.	REAMER NO.			
WT. OF STRING		LBS.	REAMER TYPE		DRILLER	

MORNING TOUR

FOOTAGE FROM 430 TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL.-S PAR'EL-P CONT'D-C

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	800	8	W.O.C.

DAY TOUR

FOOTAGE FROM 430 TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL.-S PAR'EL-P CONT'D-C

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
900	400	8	W.O.C. CLEAN OUT CELLAR, CUT OFF LANDING JT, WELD ON CASING BOWL. PICK UP SAFFER, SPOOLS & HYDRILL + BOLTING DOWN SAME. FINISH CHANGING HEADS + LINERS TO 6¾" IN C-700 PUMP. USED 2 NEW 6¾" LINERS IN C-700 PUMP.

EVENING TOUR

FOOTAGE FROM 430 TO | DR.-D RM.-R CORE.-C | CORE NO. | FORMATION (SHOW CORE RECOVERY) | ROTARY RPM | WT. ON BIT 1000 # | PUMP PRESS | PUMP NO. LINER SIZE / S.P.M. | PUMP NO. LINER SIZE / S.P.M. | METHOD RUN SGL.-S PAR'EL-P CONT'D-C

DEVIATION RECORD | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION | DEPTH | DEV. | DIRECTION

TIME LOG FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	400		CLEAN UP LEASE - CLEAN OLD BITS OUT OF BIT HOUSE - SORT OUT SUBS, RAMS ECT. - PUT UP RAMP RAILING + EXTRA FLOOD LIGHTS - PUT SUPPLIES IN STORE HOUSE - MOVE ACCUMULATOR OIL INTO OIL HOUSE
400	1200		W.O.C. NIPPLING UP.

DRILLING CREW PAYROLL DATA

DATE NOV. 18/64

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN. RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISENKOFF	8
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST-TIME ACCIDENT

DAY TOUR ____ A.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	12
DRKMAN		PETE MATWICHUCK	12
MTRMAN		ROY MOSH	12
FIREMAN			
FLRMAN		VICTOR ZACHARUK	10
FLRMAN		JIM BRADY	8
FLRMAN			
		STAYED OVER TO LAY FLARE LINE	
		WORK ON BOPS	

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

EVENING TOUR ____ P.M. ____ P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	12
DRKMAN		PETE STRAVA	12
MTRMAN		HAROLD OUENS	12
FIREMAN			
FLRMAN		WALTER ZACHARUK	12
FLRMAN		ED BRADY	12
FLRMAN			

NO. OF DAYS ____ SINCE LAST LOST TIME ACCIDENT

DRILLING—COMPLETION—WORKOVER LOG

UNIT OR LEASE: Atlantic Columbian Carbon. Arctic Circle Onterative K-4 | WELL NUMBER: K-4 | DATE: 11/17/64

FIELD: Glacier Project | DISTRICT: N.W.T.

COUNTY OR PARISH: | PROVINCE OR STATE: N.W.T.

CONTRACTOR: Cascade Drilling Co. Ltd. Rig #12

I 400-430(30) Devonian, hard shale & silt.
Csg. point reached @ 4.45 A.M. Pulled out to run csg. hard time to bring bit through mud ring in conductor pipe.

II Finish out, lay down ribbed collars & rig to run casing. Made up shoe on first joint and egged casing. Layed down first joint and repaired tongs. Start running casing @ 2:30 P.M.

III Finish run surface casing @ 6:00 P.M.
Casing as follows.

11 3/4" Baker Guide Shoe	1.30
1 " 42# H-40, ST+C Csg.	39.28
Baker Float Collar	1.65
4 " 42# H-40, ST+C Csg.	393.67
	435.90
K.B — Csg. Head.	5.90
Landed.	430.00

M Centralizers @ 415' and 370'
through 40' strokes while circulating
w/ 420 sx C.H.E.C + 2% $CaCl_2$
55 PM 11/17/64
and top of cement 6' below cellar
w/ 12 sx Oilwell cement.

120°F
mins.
1000 lbs, float held O.K.

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP AND TEAR DOWN			
DRILLING NORMAL	1 3/4		
DIRECTIONAL DRILLING			
REAMING			
TRIPS TO CHANGE BIT	5		
DRILLING WITH PARTIAL RETURNS			
COMBATING LOST CIRCULATION			
CONDITIONING MUD AND CIRCULATING	1		
FISHING			
DEVIATION SURVEY	1/4		
LUBRICATE RIG			1/4
CUT OFF DRILLING LINE			
REPAIR RIG			
TEST CASING OR B.O.P.			
CORING: SIDE WALL			
CORING: CONVENTIONAL			
CORING: DIAMOND			
CORING: WIRE LINE			
DRILL STEM TEST OPEN HOLE			
WIRE LINE LOGGING OPEN HOLE			
PLUGGING BACK			
RUNNING CASING AND CEMENTING		1 1/2	6
WAITING ON CEMENT			
LOGGING CASED HOLE			
PERFORATING			
WIRE LINE FORMATION TEST CASED HOLE			
DRILL-STEM TEST CASED HOLE			
TESTING			
SWABBING			
ACIDIZING			
FRACTURING			
TUBING TRIPS			
OTHER		6 1/4	2
TOTALS	8	8	8

TIME SUMMARY

DAY WORK	
HOURS W/DP	
HOURS WO/DP	
HOURS STANDBY	
TOTAL DAY WORK	

JOINTS	FEET	WEIGHT	GRADE	THREAD	CLASS

SIZE O.D. CASING 11 3/4
SHOE
SET JOINT
COLLAR
JOINTS PIPE
TOTAL
RKB TO
DEPTH SET

DEPT. OF NORTHERN AFFAIRS & NATIONAL RESOURCES CALGARY, ALBERTA
NOV 30 1964
OIL CONSERVATION ENGINEER Northwest Territories & Yukon Territory

PRINTED IN CAN. 18-228 5/65

SIGNED J. W. Davidson

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 4 DATE NOV. 17/64

OPERATOR: ATLANTIC REFINING CO

LEASE: ATLANTIC COLUMBIAN CARBON ARC. CR.

WELL NO. K-4 | FIELD OR DIST. GLACIER PROJECT | COUNTY | STATE N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING: NO. 2 SIZE 4½ | TOOL JOINT O.D. TYPE THD. F.H.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. W. Dunlap

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT.	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	13¼		
REAMING			
CONDITIONING MUD & CIRCULATING	1		
TRIPS	5		
LUBRICATE RIG	½	¼	
DEVIATION SURVEY	½		
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING		15	6
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		6¼	2
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUSING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	2¼	
HRS. WO/DP		5¾	8
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES | SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
2	STANDS D.P.	189.38	FT.
1	SINGLES D.P.	30.33	FT.
	D.C.		
6	8⅛ I.D. O.D.	179.97	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.	3.14	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	29.00	FT.
	TOTAL	430.00	FT.
WT. OF STRING		48,000	LBS.

BIT RECORD

BIT NO.	1-A	1-B
SIZE	12"	
MFG.	H.W.	
TYPE	OSC-3	
NOZZLE NO.	1	
NOZZLE SIZE	1"	
SER. NO.	6847	
DEPTH OUT	430	
DEPTH IN	60	
TOTAL FTG.	370	
TOTAL HR. RUN	17¾	
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
400	430	30			120	18	200	7¾	64	6"		ON CELLER JET.

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
1200	100	1	HOIST TIGHT HOLE. + STRAP PIPE.
100	300	2	RUN IN (REAM & CIRC. TIGHT SPOTS.
300	445	1¾	DRLG 15" HOLE
445	515	½	CIRC. TO RUN CASING
515	600	¾	HOIST (DUMMY TRIP)
600	630	½	CIRC. TO RUN CASING
630	645	¼	SURV. @ 402-½°
645	800	1¼	HOIST TO RUN CASING (COULDN'T GET B.T. TH. CON. 88L.

EVENING TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
2	STANDS D.P.	189.38	FT.
1	SINGLES D.P.	30.33	FT.
	D.C.		
6	8⅛ I.D. O.D.	179.97	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.	3.14	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	29.40	FT.
	TOTAL	430.00	FT.
WT. OF STRING		48,000	LBS.

BIT RECORD

BIT NO.	1-B
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: C. Markunas

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
430	T.D. 15"			SURFACE HOLE								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
800	815	¼	R.G. SERVICE
815	1030	2¼	WORK BIT THROUGH CONDUCTOR RAISE & LAY BOTTOM HOLE COLLAR DOWN
1030	1100	½	RIG TO RUN 11¾" CASING.
1100	100	2	WORK ON TONGS.
100	230	1½	MAKE UP SHOE FLOAT + CENTRALIZERS & WELD SAME
230	400	1½	RUNNING 11¾" CASING.

DAY TOUR

NO.	DRILLING ASSEMBLY AT END OF TOUR		
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN		FT.
	TOTAL		FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER: John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR-EL-P COM'D-C
430	T.D. 15"			SURFACE HOLE								

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
400	600		RUN 11¾" CASING
600	745		CIRCULATE + WORK PIPE
745	815		REPAIR CELLAR JET LINE
815	900		CIRCULATE CASING - PLUG DOWN @ 955 PM
900	1000		CEMENTING 11¾" CASING
1000	1200		W.O.C.

Ran 11 Jts (435.90') of 11¾" 42#, H-40, ST & Csg. Landed at 430, cemented w/440 sx C.H.F.C. + 2% CaCl2. Plug down @ 9.55 P.M.

DRILLING CREW PAYROLL DATA

DATE NOV. 17/64

WELL NAME & NO. A.C.C. A.C. K-4

COMPANY CASCADE DRLG. CO.

TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 1200 P.M. 800 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISEN KOFF	8
FLRMAN		CLARENCE STRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST-TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		C. MARKUNAS	14
DRKMAN		PETE MATUICHUK	14
MTRMAN		RAY MOCK	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	12
FLRMAN		JIM. BRADY	8
FLRMAN			

STAYED OVER TO RUN CASING + CEMENT SAME

JIM BRADY INJURED BACK PICKING P CONDUCTOR PIPE. GOT PINED BETWEEN P. PE

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT + SUB BASE NOV 15/64

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	10
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OWENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	10
FLRMAN		ED BRADY	10
FLRMAN			

HAMMOND-ZACHARUK & BRADY CAME OUT @ 200 P.M. TO RUN CASING

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 3 DATE NOV. 16/64

OPERATOR: ATLANTIC REFINING CO
LEASE: A.T.H. COLUMBIAN CARBON A.C.C. A.C. K-4
WELL NO. K-14 FIELD OR DIST. GLACIER PROJECT COUNTY STATE N.W.T.
CONTRACTOR: CASCADE DRILLING COMPANY LIMITED
RIG NO. 12-14
DRILL PIPE STRING NO. SIZE TOOL JOINT O.D. TYPE THD.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J. W. Sinclair
SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT	C350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN			
DRILLING ACTUAL	7¼	5¼	3½
REAMING			
CONDITIONING MUD & CIRCULATING			½
TRIPS			1¼
LUBRICATE RIG	¼	¼	¼
DEVIATION SURVEY	½	½	¼
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			1¼
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER		2	
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK			
HRS. W/DP	8	8	8
HRS. WO/DP			
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.
NO. OF LINES SIZE
FEET SLIPPED
FEET CUT OFF
PRESENT LENGTH
TON MI. OR TRIPS SINCE LAST CUT
CUMULATIVE TON MI. OR TRIPS
NO. OF DAYS FROM SPUD
CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
5	D.C. 8¼ I.D. O.D.	199.62	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
1	90 Sub.	2.25	FT.
	KELLY DOWN	40.35	FT.
	TOTAL	192.60	FT.
WT. OF STRING	46,000		LBS.

BIT RECORD

BIT NO.	~~3~~	1-B
SIZE	15"	
MFG.	H.W.	
TYPE	OSC-3	
NOZZLE NO.	1	
NOZZLE SIZE	1"	
SER. NO.	6847	9
DEPTH OUT		
DEPTH IN	60	
TOTAL FTG.	132	
TOTAL HR. RUN	10	
COND. OF BIT	BR.	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
72	192	120			70	30	450	6"	53			

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
90	½		150'	½°	-			

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12.00	12.15	¼	R.G.SERV.
12.15	3.15	3	DRLG 15" HOLE W/6,000 R.P.M. 70
3.15	3.30	¼	SURV. @ 90' ½
3.30	6.45	3¼	DRLG 15" HOLE W/10,000 R.P.M 70
6.45	7.00	¼	SURV. @ 150' ½°
7.00	8.00	1	DRLG. 15" HOLE W/20,000 R.P.M. 70

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
1	STANDS D.P.	94.32	FT.
	SINGLES D.P.	—	FT.
6	D.C. 8⅛ I.D. O.D.	179.97	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.	3.14	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	30.32	FT.
	TOTAL	310.00	FT.
WT. OF STRING	48,000		LBS.

BIT RECORD

BIT NO.	~~2~~	1-B
SIZE	15"	
MFG.	H-W	
TYPE	OSC-3	
NOZZLE NO.	3	
NOZZLE SIZE	1"	
SER. NO.	68479	
DEPTH OUT		
DEPTH IN	60	
TOTAL FTG.	250	
TOTAL HR. RUN	12½	
COND. OF BIT	RUN	
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	HEAVY
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. 1 LINER SIZE	PUMP NO. 1 S.P.M.	PUMP NO. 2 LINER SIZE	PUMP NO. 2 S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
192	310	1:8			70	20	450	7¾	60	6"	64	
					180	22	200	6"	64	7¾		ON CELLAR JET

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
220	½°		280	¾°				

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8.00	10.15	2¼	DRILL 15" HOLE W/20,000 ON BIT 70 R.P.M.
10.15	10.30	¼	SURVEY @ 220 - ½°
10.30	10.45	¼	RIG. SERVICE
10.45	12.15	1½	DRLG. 15" HOLE W/22,000 ON BIT 120 R.P.M.
12.15	2.00	1¾	RIG UP CELLAR JET (CONDUCTOR PIPE WASHED OUT
2.00	2.30	½	DRILL
2.30	3.00	½	WORK ON PUMPS (SURVEY @ 280 - ¾°
3.00	4.00	1	DRILL 15" HOLE W/22,000 ON BIT 180 R.P.M.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
2	STANDS D.P.	189.38	FT.
	SINGLES D.P.		FT.
6	D.C. I.D. 8" O.D.	179.97	FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.	3.14	FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	28.35	FT.
	TOTAL	400.	FT.
WT. OF STRING			LBS.

BIT RECORD

BIT NO.	~~2~~	1-B
SIZE	15"	
MFG.	H.T.C.	
TYPE	OSC-3	
NOZZLE NO.	3	
NOZZLE SIZE	1"	
SER. NO.	68479	
DEPTH OUT		
DEPTH IN	60	
TOTAL FTG.	340	
TOTAL HR. RUN	16	
COND. OF BIT		
REAMER NO.		
REAMER TYPE		

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	HEAVY
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond.

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SGL.-S PAR.EL.-P COM'D.-C
310	400	D			180	22	200	6"	64	7¾		ON CELLAR JET

DEVIATION RECORD

DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION	DEPTH	DEV.	DIRECTION
340	½°							

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4.00	4.15	¼	SER RIG 10.15 11.15 CHANGE OVER PUMPS & BUILD
4.15	5.45	1½	DRILL 15" HOLE NEW MUD LINES TO CELLAR JET.
5.45	6.00	¼	SURVEY @ 340 - ¼° 11.15 12.00 HOIST - WORK THROUGH TIGHT HOLE
6.00	8.00	2	DRILL
8.00	9.00	1	HOIST - WORK THROUGH TIGHT HOLE
9.00	9.30	½	PICK UP KELLY & WORK THROUGH TIGHT HOLE
9.30	10.00	½	CLEAN SETTLING TANK & RAISE VOLUME
10.00	10.15	¼	CHECK PUMP VALVES

DRILLING CREW PAYROLL DATA

DATE NOV. 16/64
WELL NAME & NO. A.C.C. A.C. K-4
COMPANY CASCADE DRLG. CO
TOOL PUSHER A. BAUMAN RIG NO. 12-14

MORNING TOUR 12.00 P.M. 8.00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. KEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		AL. BARISEN KOFF	8
FLRMAN		CLARENCE STRANDETT	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		CHARLES MARKUNAS	8
DRKMAN		PETE MATVICHUCK	8
MTRMAN		ROY MOCK	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		JIM BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 2 DATE Nov. 12

OPERATOR: ATLANTIC REFINING CO.

LEASE: ATLANTIC CALUM BLOCK CARBON AREA T.C.C.A.

WELL NO. K-4 | FIELD OR DIST. | COUNTY | STATE: N.W.T.

CONTRACTOR: CASCADE DRILLING COMPANY LIMITED | RIG NO. 12-14

DRILL PIPE STRING NO. | SIZE | TOOL JOINT O.D. | TYPE THD.

SIGNATURE OF OPERATOR'S REPRESENTATIVE: C. W. Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER: A. Bauman

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	NAT.	G-700	14
2.	NAT	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN.			
DRILLING ACTUAL		-	2 3/4
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG	1/4		
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING	A		
WAITING ON CEMENT	3 1/2	Q	5 1/4
DRILL STEM TEST			
OTHER	1/4		
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK	8	8	8
HRS. W/DP			2 3/4
HRS. WO/DP	8	8	5 1/4
HRS. STANDBY			
TOTAL DAY WORK	8	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES | SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO. | STANDS D.P. FT. | SINGLES D.P. FT. | D.C. I.D. O.D. FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS O.D. FT. | BIT OR C.B. FT. | FT. | KELLY DOWN FT. | TOTAL FT. | WT. OF STRING LBS.

BIT RECORD

BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. | NOZZLE SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	25-00		

DRILLER: Al. Leippi

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P CON'D-C
60												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12 00	12 05	1/4	R.I.G SERV.
12 05	12 30	1/4	R.I.G UP DOWELL
12 30	4 30	4	CEMENT CONDUCTOR P.P.E.
4 30	8 00	3 1/2	W.O.C.

Ran 2 Jts. (46.35') 16"-55#-F-25 conductor pipe to 60' K.B.M. Cemented w/160 sx cement Cement consisted of 90 sx Fondu and 70 sx O.W.C.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO. | STANDS D.P. FT. | SINGLES D.P. FT. | D.C. I.D. O.D. FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS O.D. FT. | BIT OR C.B. FT. | FT. | KELLY DOWN FT. | TOTAL FT. | WT. OF STRING LBS.

BIT RECORD

BIT NO. | SIZE | MFG. | TYPE | NOZZLE NO. | NOZZLE SIZE | SER. NO. | DEPTH OUT | DEPTH IN | TOTAL FTG. | TOTAL HR. RUN | COND. OF BIT | REAMER NO. | REAMER TYPE

MUD RECORD

TIME	4 00
WEIGHT	
VISC.-SEC	45.
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.
GEL	2800 LBS		
CAUSTIC	50 LBS		
45 SKS CEMENT	AROUND OUTSIDE OF CONDUCTOR PIPE AND CELLAR		

DRILLER

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P CON'D-C
60' T.D CONDUCTOR HOLE												

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
8 00	4 00	8	W.O.C. DIG CELLAR
			RIG UP TO CIC. RAT HOLE
			PICK UP & MAKING UP FLOWLINE.
			MIXING MUD. STRING SANDLINE & BAILT
			OVERSHOT ON SAME.

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO. | STANDS D.P. FT. | SINGLES D.P. FT. | D.C. 1 8 1/16 I.D. O.D. 30.12 FT. | D.C. I.D. O.D. FT. | STB. BODY O.D. FT. | STB. BODY O.D. FT. | RMR. BODY O.D. FT. | SUBS 1 6 5/8 O.D. 2.25 FT. | BIT OR C.B. FT. | FT. | KELLY DOWN 39.35 FT. | TOTAL 72.00 FT. | WT. OF STRING 20,000 LBS.

BIT RECORD

BIT NO. 2-A 1-B | SIZE 15" | MFG. H.T.C. | TYPE 855-3 | NOZZLE NO. 1 | NOZZLE SIZE 1" | SER. NO. 18479 | DEPTH OUT | DEPTH IN 60 | TOTAL FTG. 12 | TOTAL HR. RUN 2 3/4 | COND. OF BIT 1N | REAMER NO. | REAMER TYPE

MUD RECORD

TIME	10 P.M.
WEIGHT	
VISC.-SEC	50
W.L.-C.C.	
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER John Hammond

FOOTAGE

FROM	TO	DR.-D RM.-R CORE.-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000#	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL.-S PAR'EL-P CON'D-C
60	72				70	4,000	450	7 3/4	55			

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4 00	9 15		W.O.C. LINE UP & WELD ON TOP OF CONDUCTOR. HOOK UP FLOWLINE & TURN BUCKLES - FIRE UP No 2 SUPERIOR
			REPAIR LUBRICATOR ON No 2. PUMP. - PICK UP REAMER
9 15	12 00		COLLAR C/O SUB & BIT.
			CONTROL DRILL WITH RIBBED COLLAR 4,000# WT & 70 RPM.
			15" HOLE.

DRILLING CREW PAYROLL DATA

DATE Nov. 12/64

WELL NAME & NO. AC.C.A.C. K-4

COMPANY CASCADE DRLG CO LTD.

TOOL PUSHER A. BAUMAN. RIG NO. 12-14

MORNING TOUR 12 00 P.M. 8 00 A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL LEIPPI	8
DRKMAN		PAUL LANGE.	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		ABAN. BARISENKOFF	8
FLRMAN		CLARENCE. OSTRANDER	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		CHARLIE MARKINKS	8
DRKMAN		PETE MATUICHUK	8
MTRMAN		ROY MOCK	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		JIM BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE SYRAUK	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

CONSERVATION BOARD

DAILY DRILLING REPORT

REPORT NO. 1 DATE NOV 14/64

OPERATOR	LEASE	WELL NO.	FIELD OR DIST.	COUNTY	STATE
ATLANTIC REFINING CO.	ATLANTIC COLUMBIAN CARBON ARCTIC CIRC	K-4			N.W.T

CONTRACTOR	RIG No.	DRILL PIPE STRING NO.	DRILL PIPE STRING SIZE	TOOL JOINT TYPE THD.	TOOL JOINT O.D.
CASCADE DRILLING COMPANY LIMITED	12				

SIGNATURE OF OPERATOR'S REPRESENTATIVE: J W Davidson

SIGNATURE OF CONTRACTOR'S TOOL PUSHER:

PUMPS

NO.	MANUFACTURER	TYPE	STROKE LENGTH
1.	N-SCO	G-700	16
2.	✓	C-350	18
3.			

LAST CASING TUBING OR LINER

SIZE	MAKE	WT. & GR.	NO. JOINTS	FEET	RKB. TO CSG. HD.	SET AT	REMARKS

TIME DISTRIBUTION—HOURS

	MORN	DAY	EVE
RIG UP & TEAR DOWN	8	6	
DRILLING ACTUAL		2	1 3/2
REAMING			
CONDITIONING MUD & CIRCULATING			
TRIPS			
LUBRICATE RIG			1/4
DEVIATION SURVEY			
TEST B.O.P.			
CUT OFF DRILLING LINE			
REPAIR RIG			1 1/2
CORING			
WIRE LINE LOGGING			
RUNNING CASING & CEMENTING			14 1/2
WAITING ON CEMENT			
DRILL STEM TEST			
OTHER			3/4
FISHING			
COMPLETION WORK A. PERFORATING			
B. TUBING TRIPS			
C. SWABBING			
D. TESTING			
E. ADDITIONAL			
TOTALS	8	8	8

TIME SUMMARY (OFFICE USE ONLY)

DAY WORK		
HRS. W/DP	2	1/2
HRS. WO/DP	6	1/2
HRS. STANDBY		
TOTAL DAY WORK	8	8

WIRE LINE RECORD

REEL NO.

NO. OF LINES SIZE

FEET SLIPPED

FEET CUT OFF

PRESENT LENGTH

TON MI. OR TRIPS SINCE LAST CUT

CUMULATIVE TON MI. OR TRIPS

NO. OF DAYS FROM SPUD

CUMULATIVE ROTATING HRS.

MORNING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.	—	FT.
	SINGLES D.P.	—	FT.
	D.C. I.D. O.D.	—	FT.
	D.C. I.D. O.D.	—	FT.
	STB. BODY O.D.	—	FT.
	STR. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	44	FT.
	TOTAL	40	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	
SIZE	
MFG.	
TYPE	
NOZZLE NO.	
NOZZLE SIZE	
SER. NO.	
DEPTH OUT	
DEPTH IN	
TOTAL FTG.	
TOTAL HR. RUN	
COND. OF BIT	
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER A. Leippi

FOOTAGE

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

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
12:00	8:00		R.G up FALSE FLOOR INSTALL CHAIN IN COMPOUND R.C TO DR.LL RATHOLE WORK ON ROTARY GUARD.

DAY TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
	D.C. I.D. O.D.		FT.
	D.C. I.D. O.D.		FT.
	STB. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
	SUBS O.D.		FT.
	BIT OR C.B.		FT.
			FT.
	KELLY DOWN	40'	FT.
	TOTAL	40'	FT.

WT. OF STRING LBS.

BIT RECORD

BIT NO.	1A
SIZE	21"
MFG.	SEC.
TYPE	S-3
NOZZLE NO.	3
NOZZLE SIZE	3/4"
SER. NO.	R. RUN
DEPTH OUT	
DEPTH IN	0
TOTAL FTG.	40
TOTAL HR. RUN	2
COND. OF BIT	RUN
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	WATER GEL
FL.TR. CK.	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER C. Markunas

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
0	40				180	5M	350	7 3/4	62	6"	60	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
9:00	10:00	1	RIG TO SPUD PRIME PUMPS.
10:00	10:30	1/2	MAKE UP DRAG BIT + SUBS
10:30	2:00	3 1/2	DIG RATHOLE + MOUSE HOLE
2:00	4:00	2	DRILL 21" CONDUCTOR HOLE
			Spudded @ 2:00 P.M.
			R.K.B - GL 15.50
			Estimated GL 325'. Will furnish GL when available

EVENING TOUR

DRILLING ASSEMBLY AT END OF TOUR

NO.			
	STANDS D.P.		FT.
	SINGLES D.P.		FT.
1	D.C. I.D. O.D.	28.68	FT.
	D.C. I.D. O.D.		FT.
	STR. BODY O.D.		FT.
	STB. BODY O.D.		FT.
	RMR. BODY O.D.		FT.
2	SUBS O.D.	5.20	FT.
	BIT OR C.B.	1.25	FT.
			FT.
	KELLY DOWN	26.92	FT.
	TOTAL	60.00	FT.

WT. OF STRING 15,000 # LBS.

BIT RECORD

BIT NO.	1
SIZE	21"
MFG.	SEC
TYPE	S-3
NOZZLE NO.	3
NOZZLE SIZE	3/4"
SER. NO.	R. Run
DEPTH OUT	
DEPTH IN	0
TOTAL FTG.	60
TOTAL HR. RUN	
COND. OF BIT	Good
REAMER NO.	
REAMER TYPE	

MUD RECORD

TIME	
WEIGHT	
VISC.-SEC	
W.L.-C.C.	WATER
FL.TR. CK	
PH	
SD. CONT. %	
PRESSURE GRADIENT	

MUD & CHEMICALS ADDED

TYPE	AMT.	TYPE	AMT.

DRILLER J. Hammond

FOOTAGE

FROM	TO	DR-D RM-R CORE-C	CORE NO.	FORMATION (SHOW CORE RECOVERY)	ROTARY RPM	WT. ON BIT 1000 #	PUMP PRESS	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	PUMP NO. LINER SIZE	PUMP NO. S.P.M.	METHOD RUN SCL-S PAR'EL-P COM'D-C
40	60				180	5M	350	7 3/4	62	6"	60	

DEVIATION RECORD

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

TIME LOG

FROM	TO	ELAPSED TIME	DETAILS OF OPERATIONS IN SEQUENCE AND REMARKS
4:00	4:15	1/4	SER RIG
4:15	5:45	1 1/2	REPAIR KOCK ON SWIVAL
5:45	6:00	1/4	PICK UP DRILL COLLAR
6:00	7:30	1 1/2	DRL. 21 CONDUCTOR HOLE
7:30	12:00	4 1/2	DROP DRILL COLLAR IN MOUSE HOLE - PICK UP CONDUCTOR & WORKING CONDUCTOR TO BTM.

DRILLING CREW PAYROLL DATA

DATE NOV 14/64

WELL NAME & NO. A.C.C.A.C. K-4

COMPANY ATLANTIC REFINING CO.

TOOL PUSHER ARNOLD BAUMAN RIG NO. 12

MORNING TOUR P.M. A.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		AL. LEIPPI	8
DRKMAN		PAUL LANGE	8
MTRMAN		PAUL HENDERSON	8
FIREMAN			
FLRMAN		CLARENCE OSTRANDER	8
FLRMAN		ALLEN BARSENKOFF	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST-TIME ACCIDENT

DAY TOUR A.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		CHARLIE MARKUNAS	8
DRKMAN		PETE MATUSCHUCK	8
MTRMAN		ROY MOCK	8
FIREMAN			
FLRMAN		VICTOR ZACHARUK	8
FLRMAN		JIM BRADY	8
FLRMAN		[redacted]	

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

EVENING TOUR P.M. P.M.

CREW	SOC. SEC. NO.	NAME	HRS.
DRILLER		JOHN HAMMOND	8
DRKMAN		PETE STRAUB	8
MTRMAN		HAROLD OUENS	8
FIREMAN			
FLRMAN		WALTER ZACHARUK	8
FLRMAN		ED. BRADY	8
FLRMAN			

NO. OF DAYS SINCE LAST LOST TIME ACCIDENT

SONIC LOG

AND

WELL GEOPHONE SURVEY

ATLANTIC COLUMBIAN CARBON ARCTIC CIRCLE ONTARATUE K - 4

66° 33' 37.5" N 130° 46' 10.31" W

NORTHWEST TERRITORIES

FOR

THE ATLANTIC REFINING COMPANY

CALGARY, ALBERTA

INTEGRATED VELOCITY SERVICES LTD.

CALGARY, ALBERTA

INDEX

OPERATIONAL STATISTICS — Pages 1 to 3

APPENDICES:

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Near Surface Velocity Records	VI
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BACK COVER:

- Calibrated Sonic Log
- Digital Velocity Data Analysis
- Well Velocity Graphs

OPERATIONAL STATISTICS

Client:	The Atlantic Refining Company
Well:	Atlantic Columbian Carbon Arctic Circle Ontaratue K - 4
Location:	60° 33' 37.5" N 130° 48' 10.31" W, N.W.T., Canada
Survey Contractors:	Sonic Log - Schlumberger of Canada Abbreviated Well Geophone Survey- Electronic Logging & Velocity Limited
Survey Date:	December 2, 1964 February 16, 1965
K.B.Elevation:	341 ft. A.S.L.
Ground Level:	325 ft. A.S.L.
Total Depth:	Driller - 8950 ft. S.O.C. - 8938 ft.
Casing:	430 ft.
Sonic Tool Dimensions:	Spacing - 3' Span - 3'
Geophone Levels Surveyed:	14
Maximum Shot Hole Charge:	10 lbs dynamite
Minimum Shot Hole Charge:	1 lb dynamite
Maximum Shot Depth:	60 ft.
Minimum Shot Depth:	50 ft.
Total Explosives Used:	Well Geophone Survey: 71 lbs dynamite, 16 detonators Near Surface Velocity Survey: 7 1/2 lbs dynamite, 3 detonators
Near Surface Velocity Survey:	Maximum Depth - 550 ft. Sampling Interval - 25 ft.
Operating Time:	Well Geophone Survey - Well Available: 12:00 P.M., Dec.16/64 1:00 P.M., Feb.16/65
	Well Released: 4:00 P.M., Dec.16/64 6:45 P.M., Feb.16/65

Near Surface Velocity Survey -
Well Available: 4:00 P.M., December 16, 1964
Well Released: 6:00 P.M., December 16, 1964

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
Trace # 6	-	Not Used
Trace # 7	-	Sub reference Geophone
Trace # 8	-	Not Used
Traces # 9 - # 14 incl.	-	Surface Reflection Profile

SONIC LOG - WELL GEOPHONE SURVEY COMPARISON

Datum Elevation: 125 Ft. A.S.L.

$D_{K.B.}$	T_c(Geo.)	T_c(Log)	Δtc
500	.0260	.0258	-.0002
1030	.0750	.0736	-.0014
1630	.1270	.1275	+.0005
1981	.1530	.1520	-.0010
2500	.1790	.1790	.0000
3000	.2050	.2033	-.0017
3345	.2210	.2212	+.0002
4250	.2650	.2646	-.0004
5000	.2980	.2985	+.0005
5750	.3330	.3329	-.0001
6500	.3670	.3670	.0000
7250	.4000	.4008	+.0008
7943	.4320	.4318	-.0002
8150	.4440	.4440	.0000

Reasonable agreement exists between the data at all levels recorded and the survey is considered to be reliable.

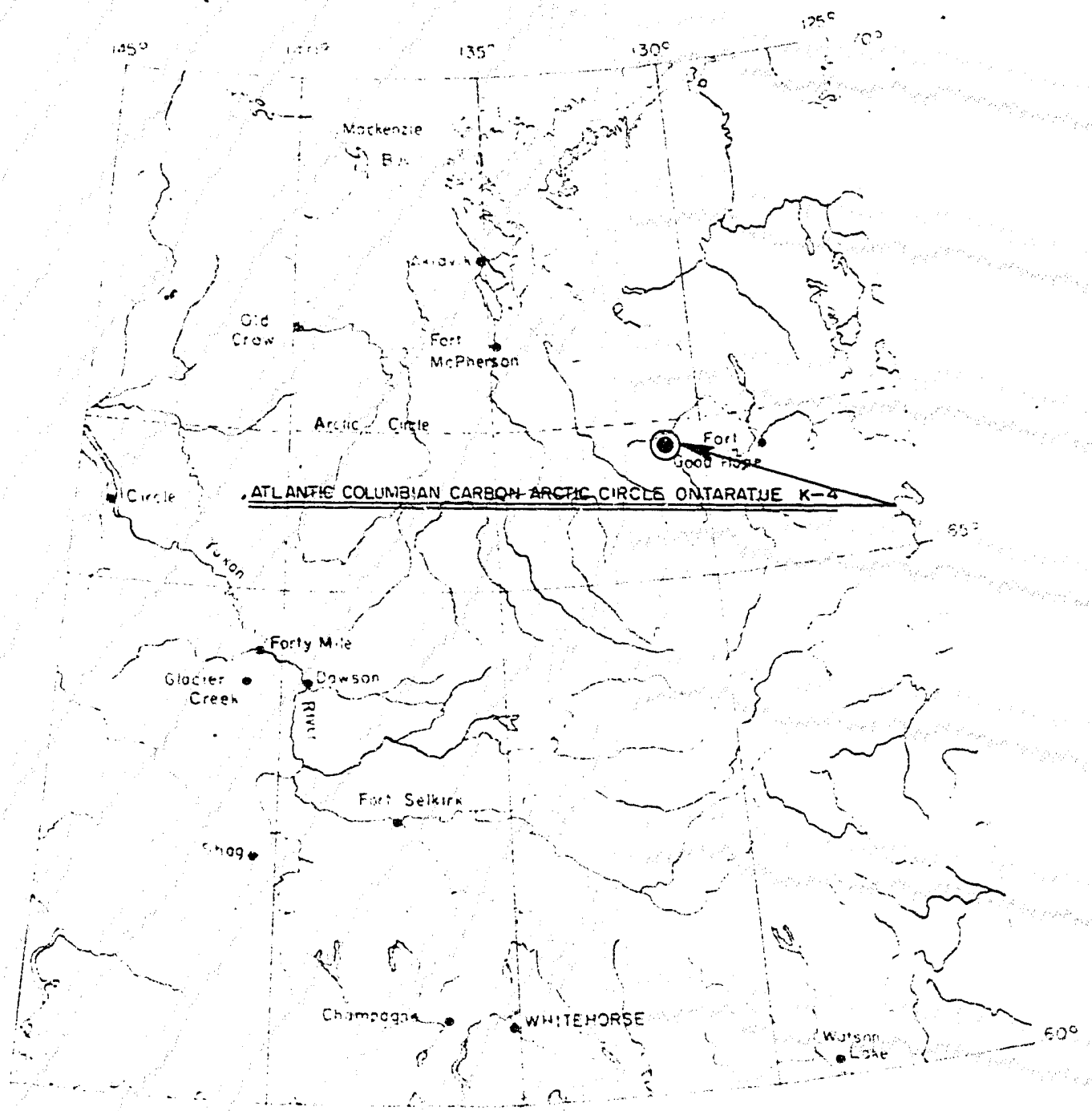
Respectfully submitted

INTEGRATED VELOCITY SERVICES LTD.

D.R.F. Hargrave
Manager

May 3, 1965

LOCATION MAP



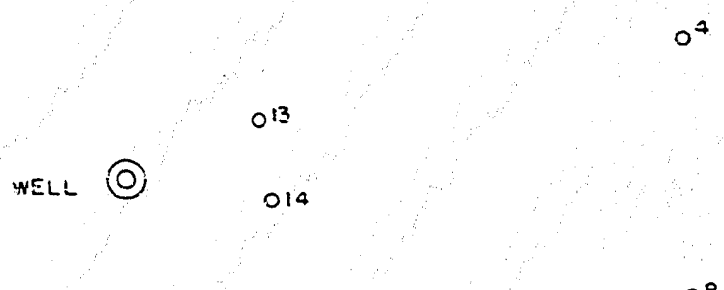
◎ WELL

SHOOTING PLAN

Well: Atlantic Columbian Carbon Arctic Circle Ontaratue K - 4

Location: 66° 33' 37.5" N, 130° 48' 10.31" W, N.W.T.

Scale: 1" = 100'



NOTE - SHOT HOLE DIRECTIONAL BEARINGS NOT AVAILABLE

LEGEND:

Well ◎

Shot Point o

Geophone •

INTEGRATED
Velocity Services Ltd

S.P.-ELEVATION-DISTANCE-DIRECTION				S.P.-ELEVATION-DISTANCE-DIRECTION
4	325'	200'	N/A	
8	325'	200'	N/A	
13	325'	15'	N/A	
14	325'	15'	N/A	

WELL ELEVATION	TOTAL DEPTH	CASING RECORD
K.B. 341 feet	8950 feet	First Run 430 Ft. Second Run 3465 Ft. inches to feet

ELEVATION DATUM: 125 feet above sea level

DATUM VELOCITY: 8000 feet/second

WELL NAME: Atlantic Columbian Carbon Arctic Circle Ontaratue

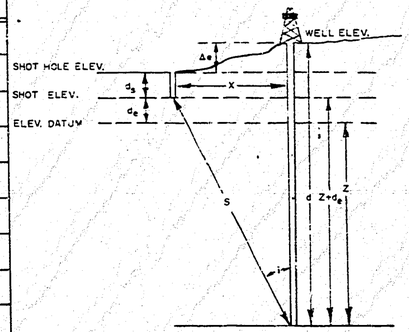
LOCATION: 66° 33' 37.5" N 130° 48' 10.31" W N.W.T.

COMPANY: The Atlantic Refining Company

SURVEY CONTRACTOR: Integrated Velocity Services Ltd.

SURVEY DATE: Run #1 December 16th, 1964.
Run #2 February 16th, 1965.

FORMATION	Record Number	Shot Hole Number	d	d_s	t_{uh}	Shot Hole Elevation	d_e	Δe	$\Delta e+d_s$	t_e	T	$Z+d_e$	X	Cos i	$\overline{T}$	T_c	Z	V_a	ΔZ	ΔT_c	V_i
	1D	4	500	60	.007	325	140	16	76	.018	.049	424	200	.9044	.044	.026	284	10923			
	2D		1030	60	.007		140		76	.018	.095	954		.9787	.093	.075	814	10853	530	.049	10816
	3D		1630	50	.006		150		66	.019	.147	1564		.9919	.146	.127	1414	11134	600	.052	11538
	4D		1981		.006						.173	1915		.9946	.172	.153	1765	11536	351	.026	13500
	5D		2500		.006						.199	2434		.9966	.198	.179	2284	12760	519	.026	19962
	6D		3000		.006						.225	2934		.9977	.224	.205	2784	13580	500	.026	19231
	7D	4	3345	50	.005		150		66	.019	.240	3279		.9981	.240	.221	3129	14158	345	.016	21563
	I	8	4250	60	.007		140		76	.018	.283	4174		.9989	.283	.265	4034	15223	905	.044	20568
	H		5000		.007						.316	4924		.9992	.316	.298	4784	16054	750	.033	22727
	C		5750		.006						.351	5674		.9994	.351	.333	5534	16619	750	.035	21429
	D		6500		.006						.385	6424		.9995	.385	.367	6284	17123	750	.034	22059
	E		7250		.006						.418	7174		.9996	.418	.400	7034	17585	750	.033	22727
	F		7943		.006						.450	7867		.9997	.450	.432	7727	17887	693	.032	21656
	G	8	8150	60	.008	325	140	16	76	.018	.462	8074	200	.9997	.462	.444	7934	17869	207	.012	17250



X = Horizontal distance from well to shot point.

d = Well geophone depth measured from well elevation.

d_s = Depth of shot.

d_e = 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.
= $d - d_s - \Delta e$.

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

T = Observed time from shot to well geophone.

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

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

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

$\overline{T}$ = Vertical travel time from shot elevation to well geophone.
= Cos i T.

T_c = Vertical travel time from elevation datum to well geophone.
= $\overline{T} - t_u$

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.

INTEGRATED
Velocity Services Ltd.

NEAR SURFACE VELOCITY DATA

Crystal Geophone Cable

WELL: Atlantic Columbian Carbon
Arctic Circle Ontardue K - 4

RECORD NO.: 1 M

SHOT POINT: 14

S.P. ELEV.: 325 ft.

SHOT DEPTH: 60 ft.

K.B. ELEV.: 341 ft.

T_{uh}: .007 Sec.

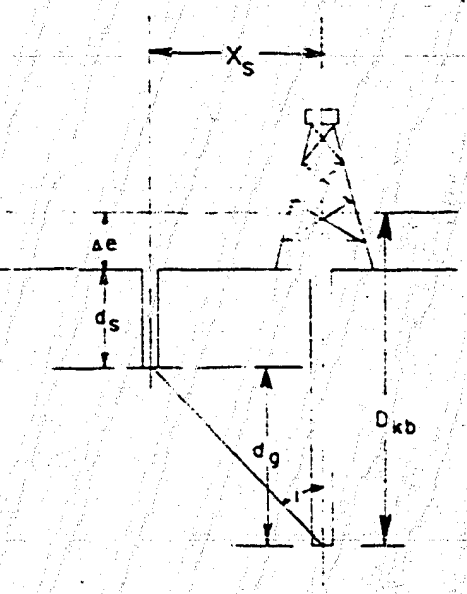
X_S: 75 Ft.

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

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

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

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



D_{kb}	d_s	Δe	d_g	T	Cos i	$\overline{T}$	T_c
550	60	16	474	.049	.9877	.048	.055
500			424	.044	.9847	.043	.050
450			374	.040	.9805	.039	.046
400			324	.035	.9742	.034	.041
350			274	.030	.9645	.029	.036
300			224	—	.9483	—	—
250			174	.020	.9183	.018	.025
200			124	.016	.8557	.014	.021
150			74	.012	.7024	.008	.015
100			24	.009	.3048	.003	.010
50	60	16	-36	.012	-.4327	-.005	.002

Uphole Time Correction:

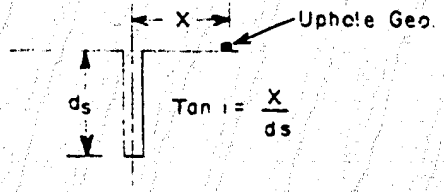
Horizontal Offset (X)

Shot Depth (d_s)

Uphole Time: (T_{uh})

Tan i = Cos i =

$(T_{uh})(\cos i)$ =



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NEAR SURFACE VELOCITY DATA

Crystal Geophone Cable

WELL: Atlantic Columbian Carbon
Arctic Circle Ontaratue K - 4

RECORD NO.: 2 M

SHOT POINT: 14

S.P. ELEV.: 325 ft.

SHOT DEPTH: 25 ft.

K.B. ELEV.: 341 ft.

T_{uh}: .003 Secs.

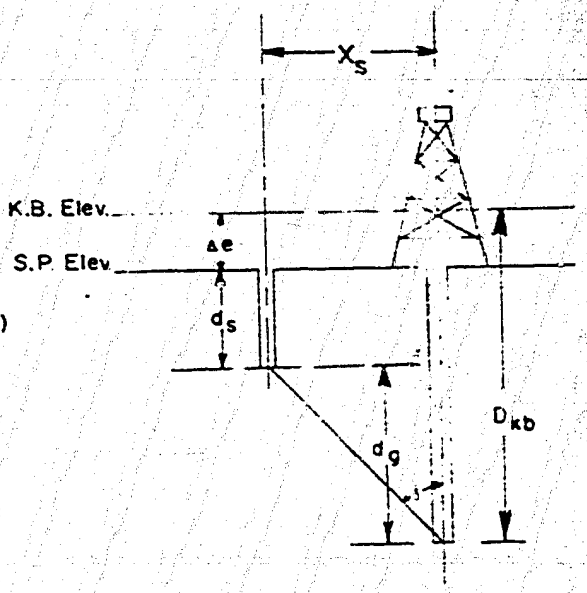
X_S: 75 Ft.

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

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

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

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



D_{kb}	d_s	Δe	d_g	T	Cos i	$\overline{T}$	T_c
550	25	16	509	.054	.9893	.056	.056
500			459	.049	.9869	.048	.051
450			409	.045	.9836	.044	.047
400			359	.040	.9789	.039	.042
350			309	.035	.9718	.034	.037
300			259	.030	.9605	.029	.032
250			209	.025	.9412	.024	.027
200			159	.021	.9044	.019	.022
150			109	.017	.8238	.014	.017
100			59	.013	.6183	.008	.011
50	25	16	9	.012	.1192	.001	.004

Uphole Time Correction:

Horizontal Offset: (X)

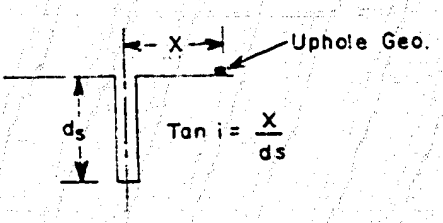
Shot Depth (d_s)

Uphole Time: (T_{uh})

Tan i =

Cos i =

$(T_{uh})(\cos i)$ =



INTEGRATED
Velocity Services Ltd.

NEAR SURFACE VELOCITY DATA

Crystal Geophone Cable

WELL: Atlantic Columbian Carbon Arctic Circle Ontaratue K - 4

RECORD NO.: 3 M

SHOT POINT: 14

S.P. ELEV.: 325 Ft.

SHOT DEPTH: 27 Ft.

K.B. ELEV.: 341 Ft.

T_{uh}: .003 Secs.

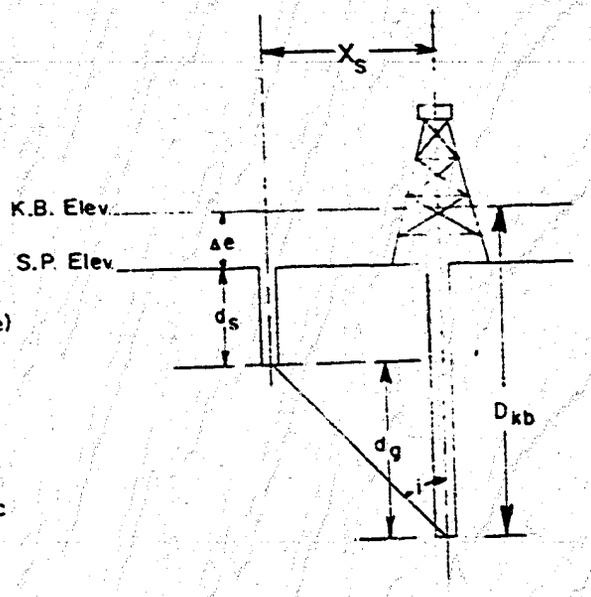
X_S: 75 Ft.

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

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

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

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



D_{kb}	d_s	Δe	d_g	T	Cos i	$\overline{T}$	T_c
525	27	16	482	.051	.9881	.050	.053
475			432	.046	.9858	.045	.048
425			382	.041	.9813	.040	.043
375			332	.037	.9754	.036	.039
325			282	.032	.9664	.031	.034
275			232	.028	.9515	.027	.030
225			182	.023	.9246	.021	.024
175			132	.019	.8695	.017	.020
125			82	.014	.7379	.010	.013
75			32	.012	.3924	.005	.008
25	27	16	-18	.011	-.2334	-.003	.000

Uphole Time Correction:

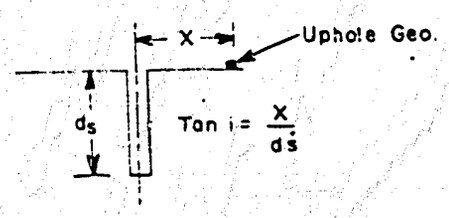
Horizontal Offset: (X)

Shot Depth (ds)

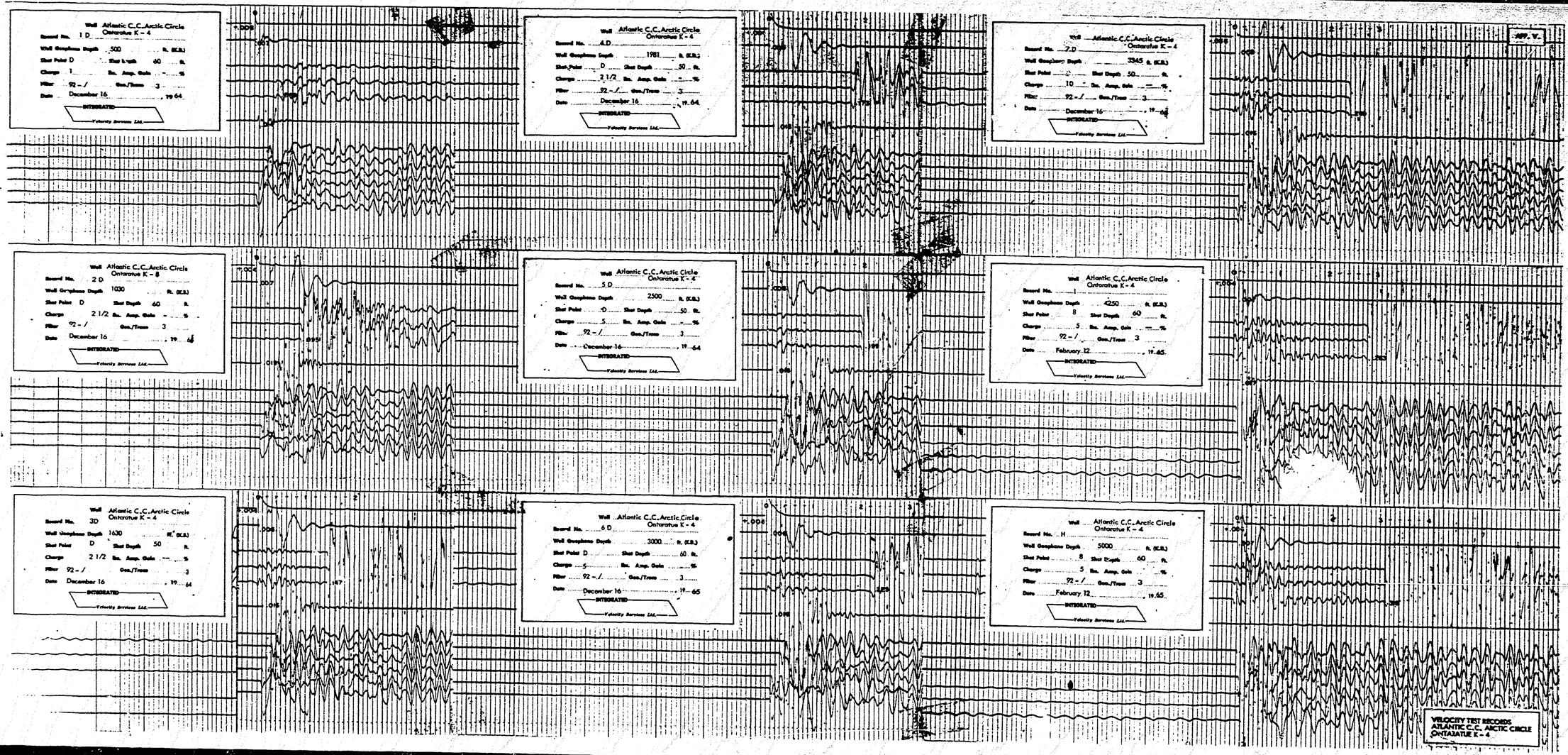
Uphole Time: (T_{uh})

Tan i = Cos i =

(T_{uh})(Cos i) =



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Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 1D
Well Geophone Depth 500 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 1 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 4D
Well Geophone Depth 1981 ft. (K.B.)
Shot Point D Shot Depth 30 ft.
Charge 2 1/2 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 7D
Well Geophone Depth 3345 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 10 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
APP. V.
Well Atlantic C.C. Arctic Circle Ontaratue K – 8
Record No. 2D
Well Geophone Depth 1030 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 2 1/2 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 5D
Well Geophone Depth 2500 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 5 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 1
Well Geophone Depth 4250 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date February 12 , 19 65
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 3D
Well Geophone Depth 1630 ft. (K.B.)
Shot Point D Shot Depth 50 ft.
Charge 2 1/2 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 64
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. 6D
Well Geophone Depth 3000 ft. (K.B.)
Shot Point D Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date December 16 , 19 65
INTEGRATED
Velocity Services Ltd.
Well Atlantic C.C. Arctic Circle Ontaratue K – 4
Record No. H
Well Geophone Depth 5000 ft. (K.B.)
Shot Point 8 Shot Depth 60 ft.
Charge 5 lbs. Amp. Gain — %
Filter 92 – / Geo./Trace 3
Date February 12 , 19 65
INTEGRATED
Velocity Services Ltd.
VELOCITY TEST RECORDS
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K – 4

Well Atlantic C.C.Arctic Circle Ontaratue K – 4

Record No. C

Well Geophone Depth 5750 ft. (K.B.)

Shot Point 8 Shot Depth 60 ft.

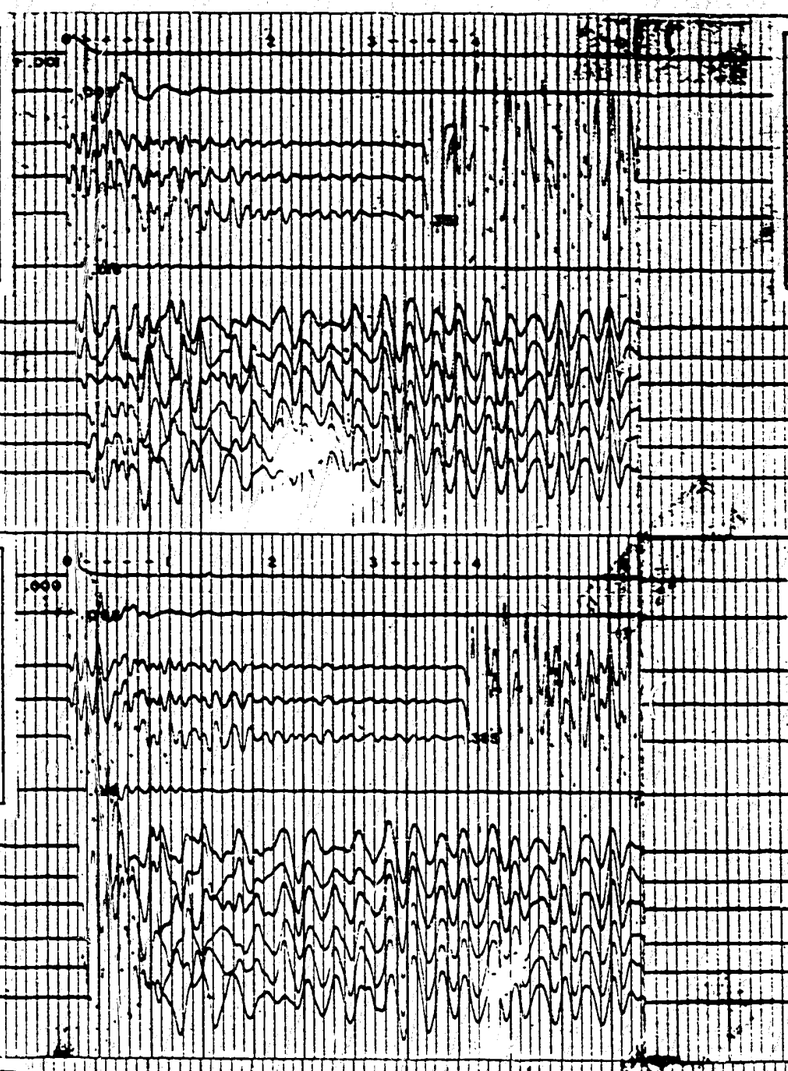
Charge 5 lbs. Amp. Gain 100 %

Filter 92 – / Geo./Trace 3

Date February 12, 19 65

INTEGRATED

Velocity Services Ltd.



Well Atlantic C.C.Arctic Circle Ontaratue K – 4

Record No. E

Well Geophone Depth 7943 ft. (K.B.)

Shot Point 8 Shot Depth 60 ft.

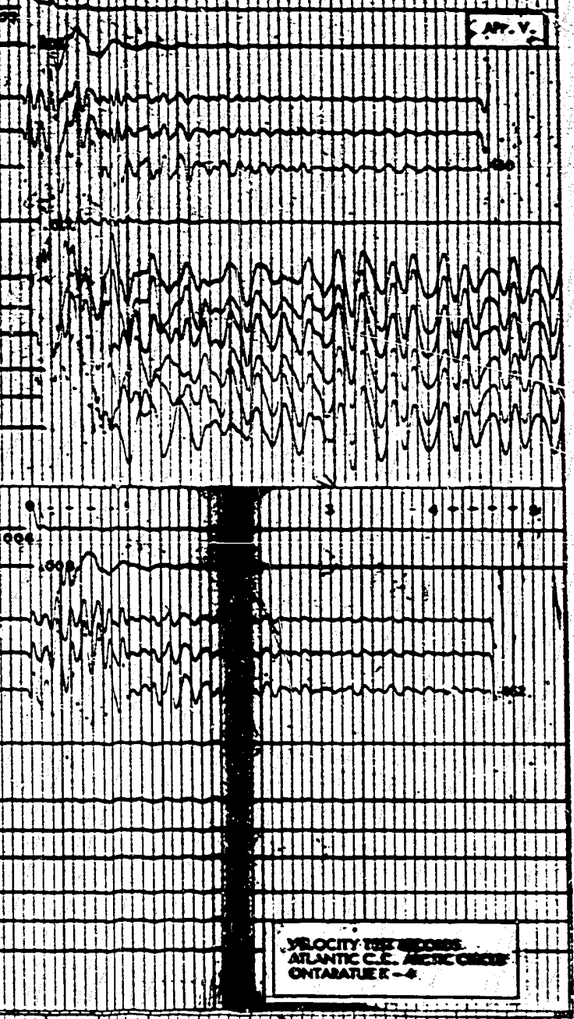
Charge 5 lbs. Amp. Gain 100 %

Filter 92 – / Geo./Trace 3

Date February 12, 19 65

INTEGRATED

Velocity Services Ltd.



Well Atlantic C.C.Arctic Circle Ontaratue K – 4

Record No. D

Well Geophone Depth 6500 ft. (K.B.)

Shot Point 8 Shot Depth 60 ft.

Charge 5 lbs. Amp. Gain 100 %

Filter 92 – / Geo./Trace 3

Date February 12, 19 65

INTEGRATED

Velocity Services Ltd.

Well Atlantic C.C.Arctic Circle Ontaratue K – 4

Record No. G

Well Geophone Depth 8150 ft. (K.B.)

Shot Point 8 Shot Depth 60 ft.

Charge 5 lbs. Amp. Gain 100 %

Filter 92 – / Geo./Trace 3

Date February 12, 19 65

INTEGRATED

Velocity Services Ltd.

VELOCITY TIME RECORDS
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K – 4

Well Atlantic C.C.Arctic Circle Ontaratue K – 4

Record No. E

Well Geophone Depth 7250 ft. (K.B.)

Shot Point 8 Shot Depth 60 ft.

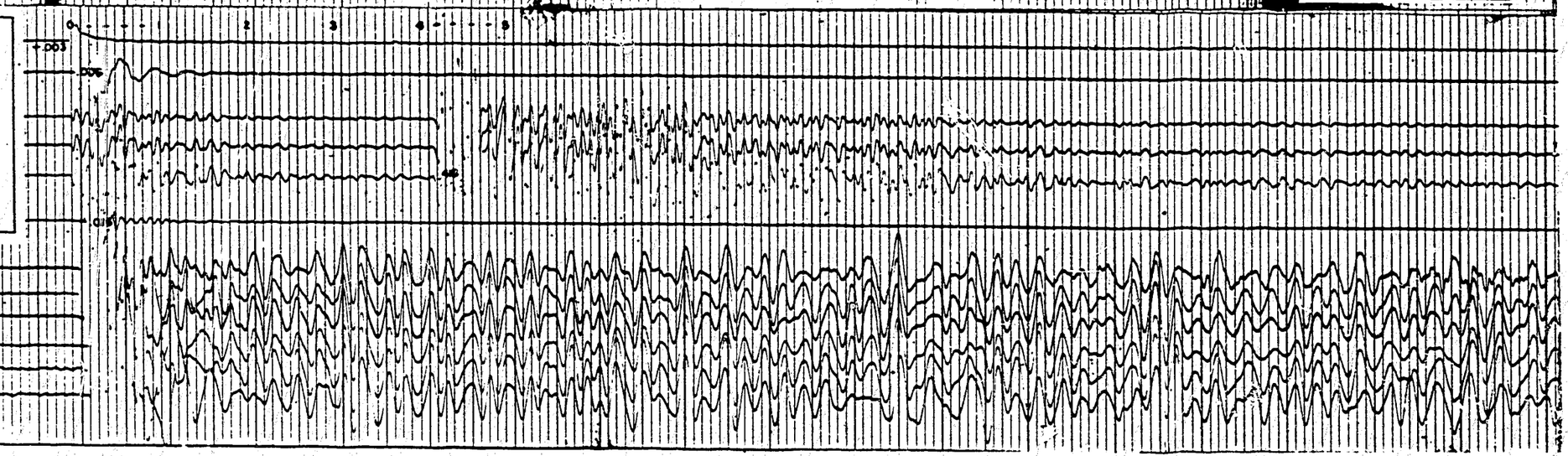
Charge 5 lbs. Amp. Gain 100 %

Filter 92 – / Geo./Trace 3

Date February 12, 19 65

INTEGRATED

Velocity Services Ltd.



Well Atlantic C.C. Arctic Circle Ontaratue K – 4

Record No. 1 M

Well Geophone Depth 550 ft. (K.B.)

Shot Point M Shot Depth 60 ft.

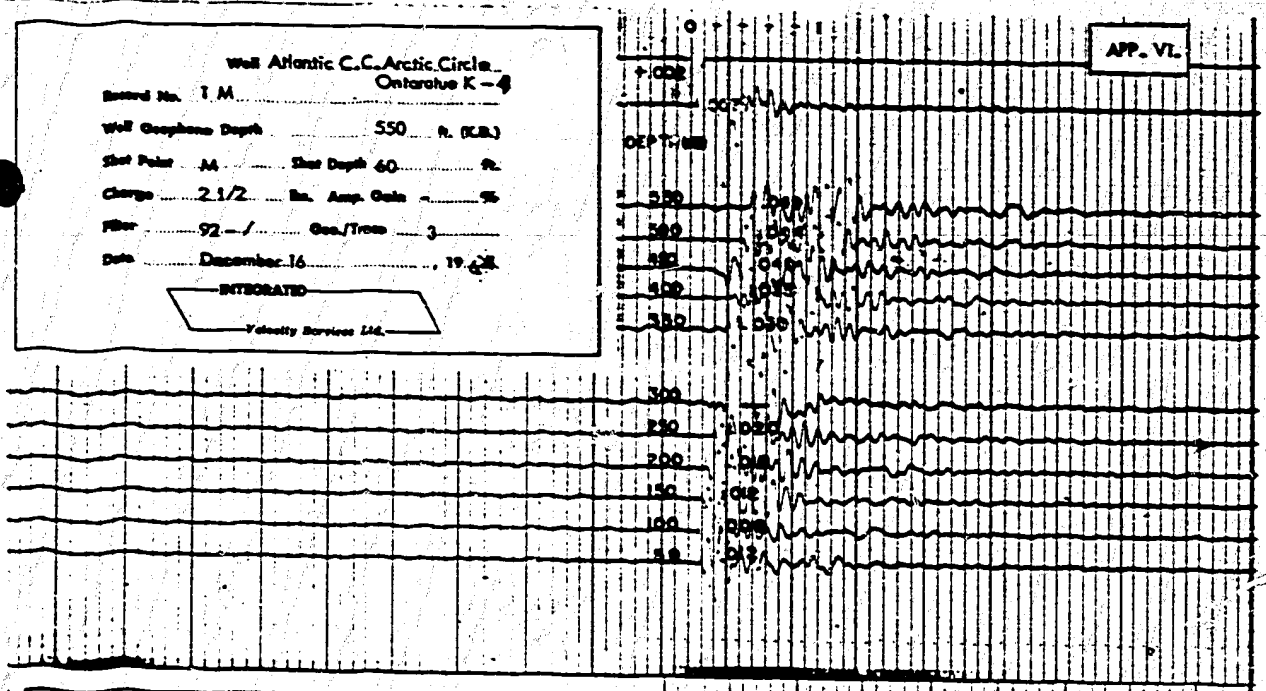
Charge 2 1/2 lbs. Amp. Gain – %

Filter 92 – / Geo./Trace 3

Date December 16, 19 64

INTEGRATED

Velocity Services Ltd.



Well Atlantic C.C. Arctic Circle Ontaratue K – 4

Record No. 2 M

Well Geophone Depth 550 ft. (K.B.)

Shot Point M Shot Depth 25 ft.

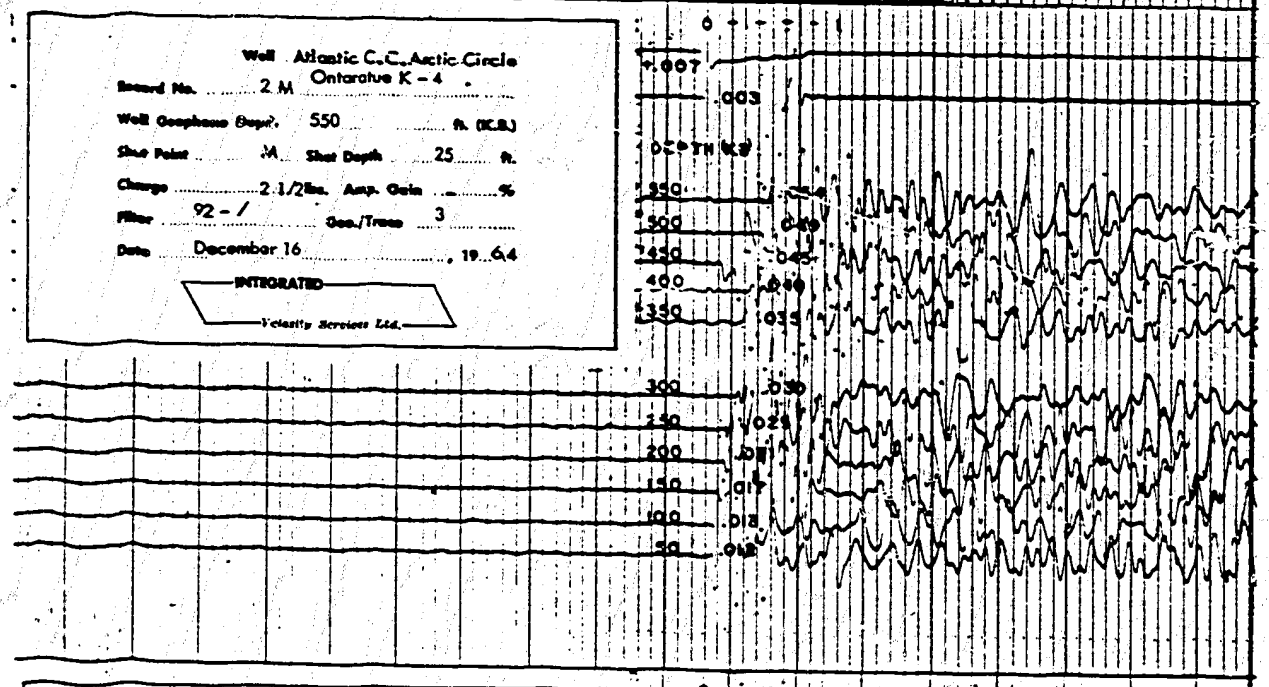
Charge 2 1/2 lbs. Amp. Gain – %

Filter 92 – / Geo./Trace 3

Date December 16, 19 64

INTEGRATED

Velocity Services Ltd.



Well Atlantic C.C. Arctic Circle Ontaratue K – 4

Record No. 3 M

Well Geophone Depth 525 ft. (K.B.)

Shot Point M Shot Depth 27 ft.

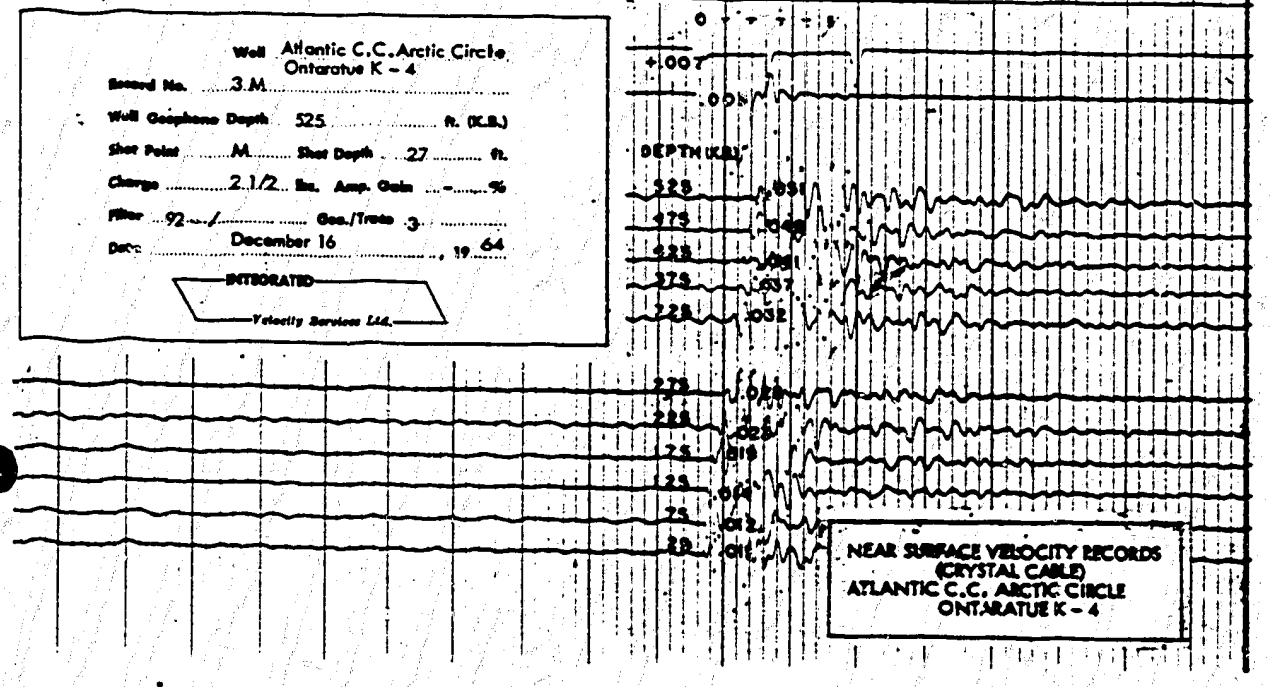
Charge 2 1/2 lbs. Amp. Gain – %

Filter 92 – / Geo./Trace 3

Date December 16, 19 64

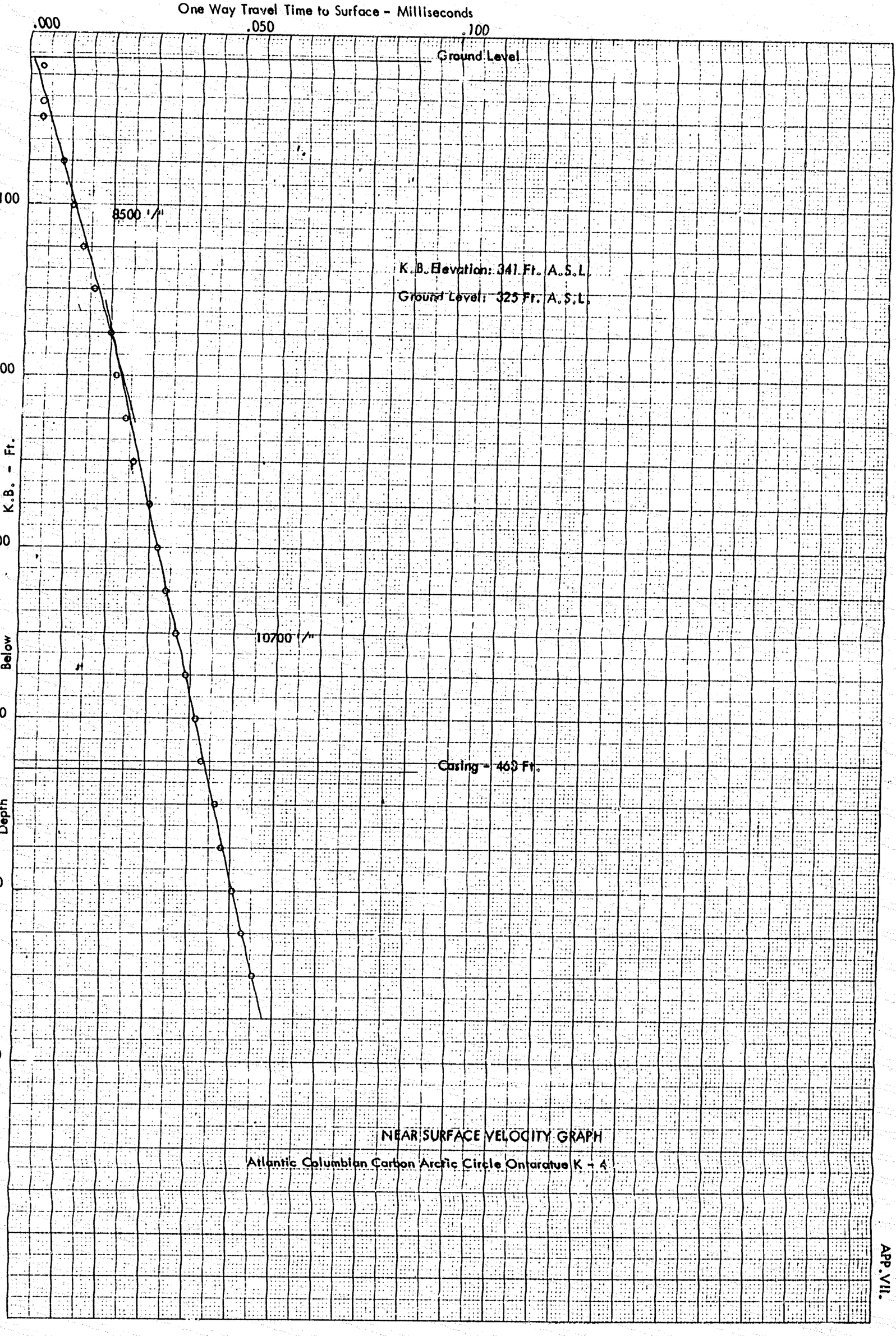
INTEGRATED

Velocity Services Ltd.



NEAR SURFACE VELOCITY RECORDS
(CRYSTAL CABLE)
ATLANTIC C.C. ARCTIC CIRCLE
ONTARATUE K – 4

KEUFFEL & ESSER CO. 10 X 10 TO 1/10 INCH 47 1323

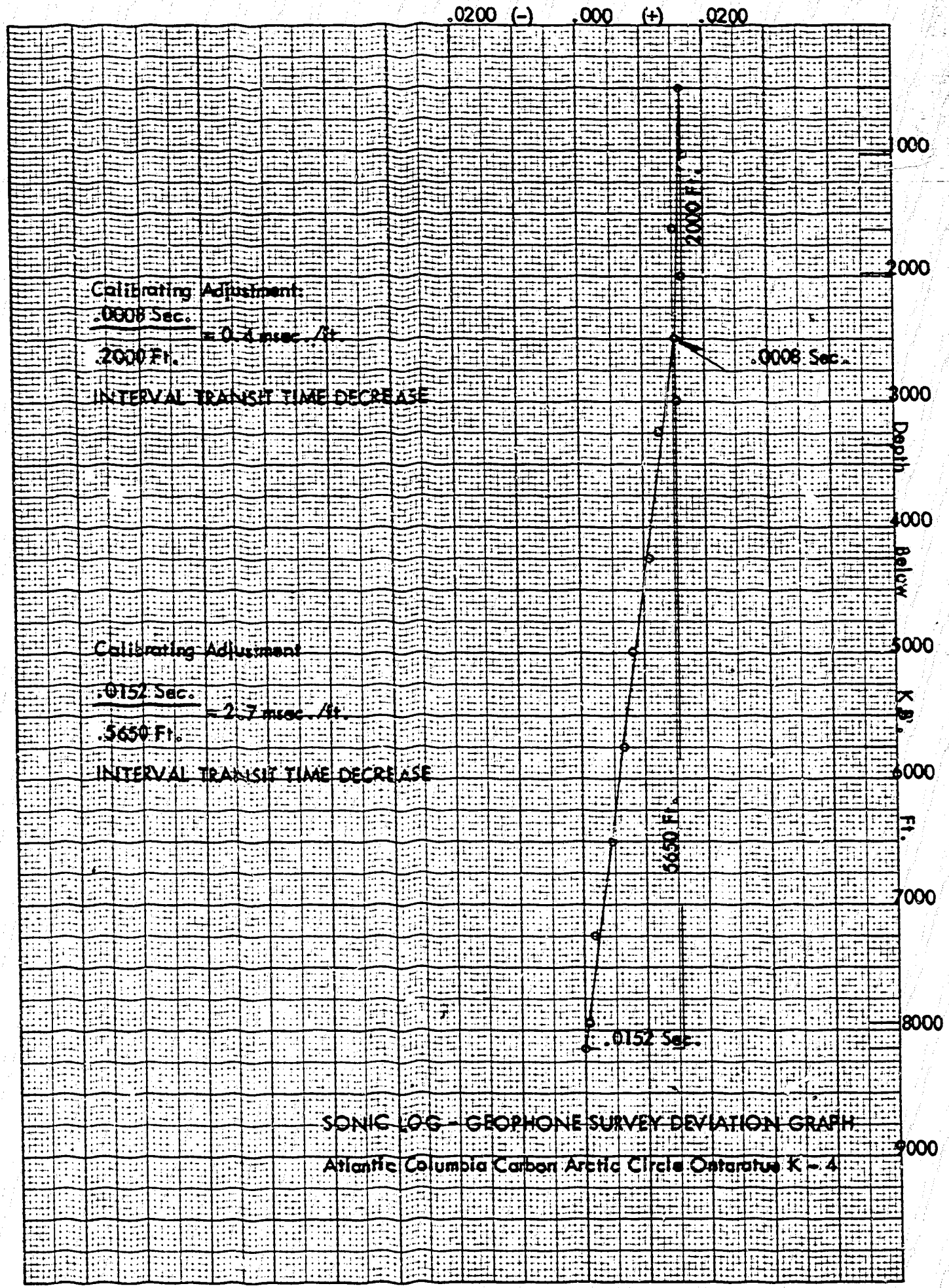


NEAR SURFACE VELOCITY GRAPH

Atlantic Columbian Carbon Arctic Circle Ontaratue K - 6

APP. VII.

$T_c - T_L$ - Milliseconds



SONIC LOG - GEOPHONE SURVEY DEVIATION GRAPH

Atlantic Columbia Carbon Arctic Circle Ontario K - 4

K&E 10 X 10 TO ½ INCH 46 1323
7 X 10 INCHES
KEUFFEL & ESSER CO.